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Water-Supply Paper 1044

SURFACE WATER SUPPLY *of the* UNITED STATES

1945

PART 14

PACIFIC SLOPE BASINS IN OREGON AND LOWER COLUMBIA RIVER BASIN

Prepared by
WATER RESOURCES BRANCH
DIVISION OF SURFACE WATER

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SURFACE WATER SUPPLY OF PACIFIC SLOPE BASINS IN OREGON AND LOWER COLUMBIA RIVER BASIN, 1945

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, 1945. The work was begun in 1888 in connection with special studies relating to irrigation. Measurements of the flow of streams and of the stage and contents of lakes and reservoirs have been made at about 10,300 gaging stations in the 48 States and also at many in the Territories of Alaska and Hawaii. In July 1945, 5,600 gaging stations, including those in Hawaii, were being maintained by the Geological Survey and cooperating organizations. Miscellaneous discharge measurements were made during the water year at many other points.

In the execution of the work many State and private organizations have cooperated, either by furnishing data or by assisting in collecting data. Cooperation of the first kind is acknowledged in connection with the description of each station affected; cooperation of the second kind is acknowledged, under the heading "Cooperation," in the introductory matter that precedes the gaging-station records in each volume. In the present volume, the section on cooperation of the second kind appears on page 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. It is computed on the basis of a level pool and does not include bank storage unless otherwise indicated.

EXPLANATION OF DATA

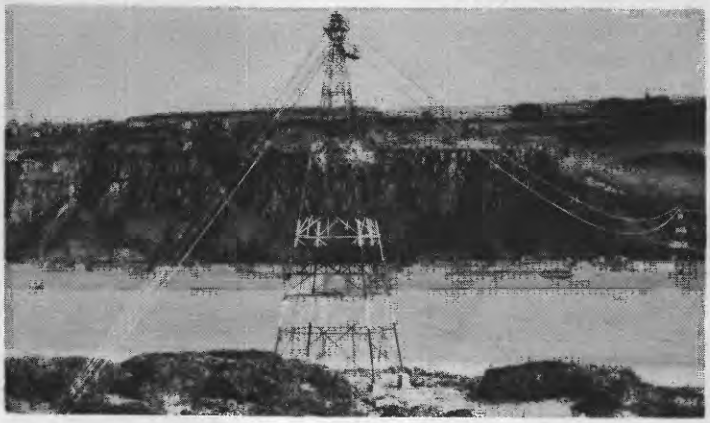
The base data collected at gaging stations consist of records of stage, measurements of discharge, and general information used to supplement the records of stage and discharge measurements in determining the daily flow. The records of stage are obtained either from direct readings on a nonrecording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

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

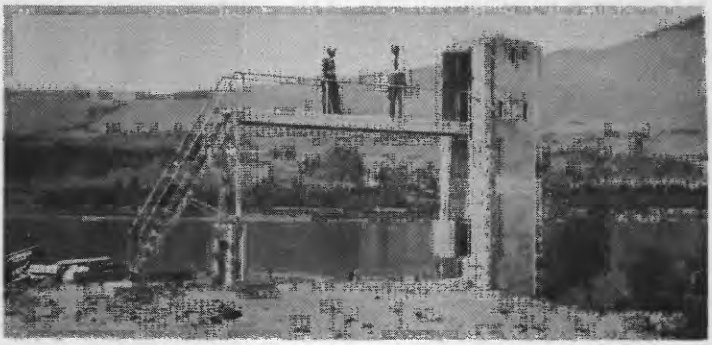
At some gaging stations the stage-discharge relation is affected by backwater from reservoirs, tributary streams, or other sources, which necessitates the use of the "slope method," in which the slope or fall in a reach of the stream is a factor in the determination of discharge. Information requisite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

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

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



A. COLUMBIA RIVER NEAR THE DALLES, OREG.
Measuring cable.



B. COLUMBIA RIVER NEAR THE DALLES, OREG.
Gage shelter and stilling well.

C. WILLAMETTE RIVER AT ALBANY, OREG.

FIGURE 1.—GAGING-STATION STRUCTURES.

tables are published for all stations except those at which the daily discharge for the greater part of the year was determined by the shifting-control method, the slope method, or other special methods.

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

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

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

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

TIME BASIS

At 2 a.m. on February 9, 1942, as an emergency measure, the Nation shifted from standard time to "war time," and clock time in the several zones of the country was moved ahead 1 hour, or to 3 a.m. At 2 a.m., war time, on September 30, 1945, a change was made

back to standard time and clock time was moved back 1 hour, or to 1 a.m. This made September 30 a 25-hour day. Time given herein for the water year 1945 prior to the change on September 30 refers to war time; time after the change refers to standard time. To convert war time to standard time, subtract 1 hour. Records of daily discharge prior to February 9, 1942, were computed, and those subsequent to September 30, 1945, will be computed on the basis of standard time; records between those dates were computed on the basis of war time. The discharge given for September 30, 1945, is the mean for 25 hours. The mean discharge and runoff for the month of September have been computed from the total second-foot days for the month without adjustment for the fact that September 30 was a 25-hour day. The small error resulting from this procedure has been disregarded.

ACCURACY OF FIELD DATA AND COMPUTED RESULTS

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

The station description gives a statement in regard to the general accuracy of the records. "Excellent" indicates that, in general, the error in the daily records is believed to be less than 5 percent; "good," less than 10 percent; "fair," less than 15 percent; and "poor," probably more than 15 percent. The records of monthly and yearly mean discharge and runoff are, in general, more accurate than the daily records.

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

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

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

PUBLICATIONS

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

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

Part 6. Missouri River Basin.
7. Lower Mississippi River Basin.
8. Western Gulf of Mexico basins.
9. Colorado River Basin.
10. The Great Basin.
11. Pacific slope basins in California.
12. Pacific slope basins in Washington and upper Columbia River Basin.
13. Snake River Basin.
14. Pacific slope basins in Oregon and lower Columbia River Basin.

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

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

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

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

East of the Mississippi River:
Albany, N. Y., 528 Federal Building.
Asheville, N. C., 220 Post Office Building.
Atlanta, Ga., 410 Grand Theater Building.
Augusta, Maine, Statehouse.
Baton Rouge, La., 124 Geology Building, Louisiana State University.
Boston, Mass., 939 Post Office Building.
Charleston, W. Va., 408 Union Building.
Charlottesville, Va., House G, Dawson Row, University of Virginia.
Chattanooga, Tenn., 442 Post Office Building.
College Park, Md., 105 Engineering Building, University of Maryland.
Columbia, S. C., 207 Creason Building.
Columbus, Ohio, 404 Engineering Experiment Station, Ohio State University.
Harrisburg, Pa., 490 Education Building.
Hartford, Conn., 203 Federal Building.
Indianapolis, Ind., 205 Underwriters Building.
Jackson, Miss., 208 Millsaps Building.
Knoxville, Tenn., 337 Post Office Building.
Louisville, Ky., 531 Federal Building.
Madison, Wis., 666 State Office Building.
Montgomery, Ala., 507 Post Office Building.
Morgantown, W. Va., 406 Mineral Industries Building.
New Philadelphia, Ohio, Muskingum Watershed Conservancy District Building.
Ocala, Fla, 504 Post Office Building.
Pittsburgh, Pa., 515 Plaza Building.
Raleigh, N. C., 242 Education Building.
St. Paul, Minn., 1427 New Post Office Building.
Trenton, N. J., 228 Federal Building.
Urbana, Ill., 14 Post Office Annex, Elm Street.
Washington, D. C., Federal Works Agency Building.
Williamsburg, Ky., Kentucky Highway Building.

West of the Mississippi River:
Albuquerque, N. Mex., 723 North Second Street.
Austin, Tex., 302 West Fifteenth Street.
Bismarck, N. Dak., 7 Eltinge Building.
Boise, Idaho, 429 Federal Building.
Denver, Colo., 310 Denham Building.
Fort Smith, Ark., 6 Post Office Building.
Helena, Mont., 408 Federal Building.
Honolulu, Hawaii, 225 Federal Building.
Idaho Falls, Idaho, 204 Federal Building.
Iowa City, Iowa, 508 Hydraulic Laboratory, University of Iowa.
Lincoln, Nebr., 619 Rudge-Guenzel Building.
Los Angeles, Calif. 429-F United States Post Office and Courthouse.
Oklahoma City, Okla., 535 State Capitol.
Pierre, S. Dak., City Hall.
Portland, Oreg., 606 Post Office Building.
Rolla, Mo., Ramsey Building.
St. Louis, Mo., 1004 New Federal Building.
Salt Lake City, Utah, 303 Federal Building.
San Francisco, Calif., 625 Market Street Building.
Santa Fe, N. Mex., 204 United States Courthouse.
Tacoma, Wash., 207 Federal Building.
Topeka, Kans., 305 Federal Building.
Tucson, Ariz., 210 Post Office Building.

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

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 streams west of the Mississippi River, except Missouri River and tributaries above Kansas River.	1897.
19th A, pt. 4	Descriptions, measurements, ratings, and monthly discharge.	1897.
W 27	Measurements, ratings, and gage heights of streams east of the Mississippi River, and Missouri River and tributaries.	1898.
W 28	Measurements, ratings, and gage heights of streams west of the Mississippi River, except Missouri River and tributaries.	1898.
20th A, pt. 4	Monthly discharge	1898.
W 35 to 39	Descriptions, measurements, gage heights, and ratings	1899.
21st A, pt. 4	Monthly discharge	1899.
W 47 to 52	Descriptions, measurements, gage heights, and ratings	1900.
22d A, pt. 4.	Monthly discharge	1900.
W 65, 66	Descriptions, measurements, gage heights, and ratings	1901.
W 75	Monthly discharge	1901.

Papers on surface water supply containing records from 1899 to date, grouped by years and drainage basins, are listed by number on page 8. The data for any particular gaging station will, in general, be found in the reports covering the years during which the station was maintained. For example, the data for 1910 to 1920 for any station in the area covered by part 3 are published in Water-Supply Papers 283, 303, 323, 353, 403, 433, 453, 473, and 503, which contain records for the Ohio River Basin for those years.

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

Each of the reports on surface water supply for the year 1939, issued as Water-Supply Papers 871 to 884 (see table on p. 8), contains, for the area covered by that report, a summary of yearly discharge at gaging stations at which 10 or more complete years of record have been collected. These summaries are available also as separate reprints.

Numbers of water-supply papers containing results of stream measurements, 1899-1945

(For basins included see pp. 5-6).

Year	1	2	3	4	5	6	7	8	9	10	11	12	13	14
1899 a...	35	b35, 36	36	36	36	o36, 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

a Rating tables and index to Water-Supply Papers 35-39 contained in Water-Supply Paper 59. Tables of monthly discharge for 1899 in 21st Annual Report, part 4.
b James River only.
c Gallatin River.
d Green and Gunnison Rivers and Colorado River above Gunnison River.
e Mojave River only.
f Kings and Kern Rivers and south Pacific slope basins.
g Rating tables and index to Water-Supply Papers 47-52 contained in Water-Supply Paper 52. Monthly discharge for 1900 in 22d Annual Report, part 4.
h Wissahickon and Schuylkill Rivers to James River.
i Scioto River.
j Loup, Platte, and Elkhorn Rivers and tributaries below Platte River.
k Tributaries of Mississippi River from east.
m Lake Ontario and tributaries to St. Lawrence River proper.
n Hudson Bay only.
o New England rivers only.
p Hudson River to Delaware River, inclusive.
q Susquehanna River to Yadkin River, inclusive.
r Platte and Kansas Rivers.
s The Great Basin in California, except Truckee and Carson River Basins.
t Below mouth of Gila River.
u Rogue, Umpqua, and Siletz Rivers only.

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

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

Report	Period	Water-Supply Paper
STATE		
Alabama, Water powers of, with an appendix on stream measurements in Mississippi.	1895-1903	107
California, Water resources of, part 1, Stream measurements in Sacramento River Basin.	1887-1912	298
California, Water resources of, part 2, Stream measurements in San Joaquin River Basin.	1878-1912	299
California, Water resources of, part 3, Stream measurements in the Great Basin and Pacific Coast river basins.	1891-1912	300
California, southern, Surface water supply of Pacific slope of	1890-1918	447
California, Surface water supply of Sacramento River Basin	1895-1927	597-E
California, Surface water supply of San Joaquin River Basin	1895-1927	636-D
California, southern, Surface water supply of Pacific slope basins in	1894-1927	636-E
California, Surface water supply of minor San Francisco Bay, northern Pacific, and Great basins in.	1895-1927	637-A
Colorado, Water resources of	1884-1900	74
Georgia, Water resources of	1895-1903	197
Massachusetts, Surface waters of	1845-1915	415
Nebraska, Surface water supply of	1894-1903	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	1895-1903	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.	1891-1933	918
Columbia River Basin, upper (Mont., Idaho), Surface waters of	1898-1933	916
Great Salt Lake Basin, Water powers of	1889-1923	517
Green River (Colo., Utah, Wyo.) and its utilization	1894-1923	618
Kennebec River Basin (Maine), Water resources of	1890-1903	198
Milk River. See St. Mary and Milk Rivers		
Missouri and St. Mary River Basins (Mont.), Surface waters of	1881-1933	917
New-Kanawha River Basin (N. C., Va., W. Va.), Surface water supply of	1895-1923	536
Penobscot River Basin (Maine), Water resources of	1904-9	279
Potomac River Basin (D. C., Md., W. Va.)	1895-1903	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.		
Susquehanna River Basin (Pa., Md.), Hydrography of	1890-1904	109

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

State reports containing compilations of records of discharge

State	Period	Report	Issued by
Alabama	1895-1915	Bull. 17, Water powers of Alabama	Geological Survey of Alabama.
Arkansas	1857-1923	Stream-gaging Rept. 1	Arkansas Geological Survey.
Colorado	1881-1935	Water resources of Colorado, Appendix 2, Data on stream-gaging stations of Colorado.[1]	State Planning Commission, Water Conservation Board, State engineer.
Do	1881-1938	Water resources of Colorado, Appendix 3, vols. 1 and 2, Stream-flow data of Colorado.	Do.
Connecticut	1900-1927	Bull. 44, Water resources of Connecticut	State Geological and Natural History Survey.
Do	1912-33	5th biennial report[2]	State Water Commission.
Georgia	1895-1906	Bull. 16, Water powers of Georgia	Geological Survey of Georgia.
Do	1907-19	Bull. 38, Water powers of Georgia	Do.
Illinois	1908-11	Water resources of Illinois	Rivers and Lakes Commission.
Do	1900-1934	Stream-flow data of Illinois	Division of Waterways.
Indiana	1923-27	Pub. 72, Surface water supply of Indiana	Department of Conservation.
Do	1927-30	Pub. 112, Surface water supply of Indiana	Do.
Iowa	1873-1932	Stream-flow records of Iowa	State Planning Board.
Do	1873-1940	Water-Supply Bull. 1, Summaries of yearly and flood flow relating to Iowa streams.	Iowa Geological Survey.
Do	1941-42	Water-Supply Bull. 2, Surface water resources of Iowa.	Do.

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

State reports containing compilations of records of discharge--Continued

State	Period	Report	Issued by
Kansas.....	1895-1919	Surface waters of Kansas.....	Kansas Water Commission.
Do.....	1919-24	....do.....	Do.
Do.....	1924-28	Report of Division of Water Resources.....	State Board of Agriculture.
Do.....	1928-35	Stream-flow data of Kansas.....	Do.
Do.....	1935-39	....do.....	Do.
Kentucky.....	1910-20	Surface waters of Kentucky.....	Kentucky Geological Survey.
Louisiana....	1903-38	Geol. Bull. 16, Surface water supply of Louisiana.	Department of Conservation.
Maine.....	1887-1920	1st annual report[2].....	Maine Water Power Commission.
Maryland.....	1929-37	Flow data and draft storage curves for major streams in Maryland.	State Planning Commission and Water Resources Commission.
Do.....	1892-1943	Bull. 1, Summary of records of surface waters of Maryland and the Potomac River Basin.	Department of Geology, Mines, and Water Resources.
Minnesota....	1909-12	Water-resources investigation of Minnesota.	State Drainage Commission.
Missouri.....	1857-1926	Vol. 20, 2d series, Water resources of Missouri.	Missouri Bureau of Geology and Mines.
Do.....	1927-39	Vol. 26, 2d series, Surface waters of Missouri.	Missouri Geological Survey and Water Resources.
Montana.....	1889-1911	5th biennial report.....	Office of the State Engineer.
De.....	1881-1938	Special Rept. 10, vols. 1-4, Water resources of Montana.	Montana Agricultural Experiment Station.
Nebraska.....	1894-1914	1st hydrographic report.....	Bureau of Water Power, Irrigation, and Drainage.
Do.....	1914-28	2d hydrographic report.....	Do.
New Hampshire	1889-1922	Annual and statistical report, vol. 12[2]...	Public Service Commission.
New Jersey...	1892-1928	Bull. 33, Surface water supply of New Jersey.	Department of Conservation and Development.
Do.....	1928-34	Special Rept. 5, Surface water supply of New Jersey.	State Water Policy Commission.
Do.....	1934-40	Special Rept. 9, Surface water supply of New Jersey.	Do.
New Mexico...	1888-1925	Surface water supply of New Mexico.....	Office of the State Engineer.
North Carolina.	1889-1923	Bull. 34, Discharge records of North Carolina streams.[3]	Department of Conservation and Development.
Do.....	1889-1936	Bull. 39, Discharge records of North Carolina streams.[4]	Do.
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.....	Engineering Experiment Station, Ohio State University.
Do.....	1902-39	Bull. 200, Compilation of stream-flow records of Ohio.	Department of Agriculture, Division of Conservation and Natural Resources.
Do.....	1898-1939	Bull. 111, Ohio stream-drainage areas and flow-duration tables.	Engineering Experiment Station, Ohio State University.
Oregon.....	1878-1914	Bull. 4, Water resources of the State of Oregon.	Office of the State Engineer.
Do.....	1914-24	Bull. 7, Water resources of the State of Oregon.	Do.
Do.....	1924-30	Bull. 8, Water resources of the State of Oregon.	Do.
Do.....	1930-36	Bull. 9, Water resources of the State of Oregon.	Do.
Pennsylvania.	1890-1911	Report of the Water Supply Commission of Pennsylvania.	Water Supply Commission of Pennsylvania.
Do.....	1928-32	Stream-flow records of Pennsylvania.....	Department of Forests and Waters.
Rhode Island.	1929-41	7th annual report.....	Department of Public Works.
Tennessee....	1874-1924	Bull. 34, Water resources of Tennessee....	Department of Education.
Do.....	1920-30	Bull. 40, Surface waters of Tennessee[5]....	Do.
Utah.....	1889-1905	5th biennial report.....	Office of the State Engineer.
Do.....	1906-10	7th biennial report.....	Do.
Do.....	1911-16	10th biennial report.....	Do.
Virginia.....	1895-1927	Bull. 31, Water resources of Virginia.....	Virginia Geological Survey.
Do.....	1927-42	Bull. 4, Surface water supply of Virginia (Potomac, Rappahannock, and York River Basins).	Virginia Conservation Commission.
Do.....	1927-42	Bull. 5, Surface water supply of Virginia (James River Basin).	Do.
Do.....	1927-42	Bull. 6, Surface water supply of Virginia (Roanoke and Chowan River Basins).	Do.
Do.....	1927-42	Bull. 7, Surface water supply of Virginia (New, Tennessee, and Big Sandy River Basins).	Do.
Washington...	1878-1933	Bull. 5, Monthly and yearly summaries of hydrometric data.	Department of Conservation and Development.
Wisconsin....	1888-1914	1st report of Railroad Commission of Wisconsin to Legislature on water powers.	Railroad Commission of Wisconsin.
Do.....	1914-23	2d report of Railroad Commission of Wisconsin to Legislature on water powers.	Do.

2 Contains records of monthly discharge in second-feet per square mile.
3 Contains records of weekly discharge.
4 Contains records of maximum and minimum daily, weekly, and monthly discharge and yearly mean discharge.

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

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

Water-Supply Paper	Title
88	The Passaic flood of 1902.
92	The Passaic flood of 1903.
96	Destructive floods in the United States in 1903.
147	Destructive floods in the United States in 1904.
162	Destructuve 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.
967-A	Floods of September 1939 in Colorado River Basin below Boulder Dam.
967-B	Flood of July 5, 1939, in eastern Kentucky.
967-C	Flood of August 21, 1939, in town of Baldwin, Maine.

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 1944 to September 1945 by agencies other than the Geological Survey. The records for these stations are not contained in the publications of the Geological Survey. Records on many canals, not here listed, have been collected by the Oregon State engineer and the Bureau of Reclamation in connection with the water supply for irrigation projects.

Records of discharge collected by agencies other than the Geological Survey

Stream	Location	Period	Collected by
Althouse Creek	SW¼ sec. 15, T. 40 S., R. 7 W., above No. 7 Gulch, below No. 8 Gulch, at Browntown, Oreg.	1945	Oregon State engineer.
Do	Sec. 9, T. 40 S., R. 7 W., above Carter Gulch, near Holland, Oreg.	1943-45	Do.
Do	NW¼NW¼ sec. 18, T. 40 S., R. 7 W., at Dick George Bridge, Oreg.	1945	Do.
Beaver Creek	NE¼ sec. 26 T., 16 S., R. 23 E., ⅜ mile above Congleton Ranch and 3 miles northeast of Paulina, Oreg.	1942-45	Bureau of Reclamation.
Beaver Creek, North Fork	SE¼ sec. 21, T. 16 S., R. 25 E., 1½ miles south of Powell Ranch and 13 miles northeast of Paulina, Oreg.	1942-45	Do.
Big Butte Creek, North Fork	SW¼ sec. 2, T. 35 S., R. 2 E., 1 mile north of Butte Falls, Oreg.	1928-45	Oregon State engineer.
Big Butte Springs	Sec. 17, T. 35 S., R. 3 E., 6 miles east of Butte Falls, Oreg.	1930-45	Do.
Big Marsh Creek	NE¼ sec. 20, T. 24 S., R. 7 E., at Hoey Ranch, near Crescent, Oreg.	1924, 1928-45*	Do.

* Records for some earlier years contained in water-supply papers published by the Geological Survey.

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

Stream	Location	Period	Collected by
Brown Creek	SW¼SW¼ sec. 29, T. 21 S., R. 8 E., near Lapine, Oreg.	1938-45*	Oregon State engineer.
Butter Creek	SE¼ sec. 22, T. 2 N., R. 27 E., at Foley Bridge, 15 miles southwest of Hermiston, Oreg.		
Do	SE¼ sec. 22, T. 1 N., R. 28 E., 1 mile above Vey Ranch, Oreg.	1921-45	Do.
Camas Creek	SE¼ sec. 4, T. 5 S., R. 32 E., 200 feet above Cable Creek, near Ukiah, Oreg.	1932-45*	Do.
Charlton Creek	Sec. 1, T. 21 S., R. 7 E., near Lapine, Oreg.	1934, 1938-45	Do.
Clear Creek	SE¼SE¼ sec. 32, T. 4 S., R. 9 E., at outlet of Clear Lake.	1942-45	Bureau of Reclamation.
Crooked River, North Fork	SW¼ sec. 21, T. 14 S., R. 22 E., 3/4 mile above Deep Creek and 15 miles north of Paulina.	1941-45	Do.
Cultus Creek	Sec. 19, T. 20 S., R. 8 E., above Crane Prairie, near Lapine, Oreg.	1938-45*	Oregon State engineer.
Deer Creek	Sec. 36, T. 20 S., R. 7 E., near Lapine, Oreg.	1938-45*	Do.
Do	SW¼NE¼ sec. 18, T. 38 S., R. 6 W., below confluence of North and South Forks.	1941-45	Do.
Deschutes River	NW¼NW¼ sec. 28, T. 21 S., R. 8 E., below Sheep Springs, near Lapine, Oreg.	1938-45	Do.
Do	N½ sec. 7, T. 20 S., R. 11 E., ½ mile below Little Deschutes River, at Peters Ranch, near Camp Abbot, Oreg.	1945	Do.
Do	On line between sec. 31, T. 19 S., R. 11 E. and sec. 6, T. 20 S., R. 11 E., ½ mile below Spring River, at Camp Abbot, Oreg.	1945*	Do.
Do	SW¼ sec. 9, T. 19 S., R. 11 E., below Benham Falls, near Bend, Oreg.	1943-45	Do.
Do	SW¼ sec. 27, T. 18 S., R. 11 E., above Lava Island, near Bend, Oreg.	1943-45*	Do.
Do	SW¼ sec. 4, T. 19 S., R. 11 E., ½ mile above Dillon Falls, at Ryan Ranch, near Bend, Oreg.	1943-45	Do.
Do	Near center sec. 7, T. 18 S., R. 12 E., ¼ mile above head of mill pond, near Bend, Oreg.	1943-45	Do.
Do	NE¼ sec. 14, T. 15 S., R. 12 E., 1,500 feet dam above dam at Cline Falls, Oreg.	1928-45*	Do.
Emigrant Creek	NE¼SW¼ sec. 12, T. 39 S., R. 1 E., below Walker Creek, near Ashland, Oreg.	1943-45	Do.
Evans Creek	Sec. 20, T. 34 S., R. 2 W., 3 miles above West Fork, 12 miles northeast of Wimer, Oreg.	1941-45	Do.
Do	NE¼ sec. 34, T. 34 S., R. 3 W., at Bybee Springs, near Wimer, Oreg.	1940-45*	Do.
Fish Lake Dam, tunnel at	SW¼ sec. 3, T. 37 S., R. 4 E., 16 miles east of Lake Creek, Oreg.	1929-45	Do.
Grave Creek	NW¼SW¼ sec. 5, T. 34 S., R. 4 W., at Pease Bridge, near Grants Pass, Oreg.	1940-45	Do.
Do	NW¼SW¼ sec. 7, T. 34 S., R. 5 W., 1½ miles west of Placer, Oreg.	1929-30, 1932-45	Do.
Illinois River, East Fork	NW¼NE¼ sec. 15, T. 41 S., R. 8 W., 3 miles south of Takilma, Oreg.	1926-32, 1940-45	Do.
Illinois River, West Fork	NE¼SW¼ sec. 26, T. 40 S., R. 9 W., 3 miles south of O'Brien, Oreg.	1930, 1943-45	Do.
Jumpoff Joe Creek	SW¼ sec. 32, T. 34 S., R. 5 W., 7 miles northwest of Merlin, Oreg.	1929-45*	Do.
Little Sutte Creek	SE¼ sec. 19, T. 36 S., R. 2 E., at Lake Creek, Oreg.	1922-24, 1927-45	Do.
Little Butte Creek, North Fork.	Sec. 21, T. 36 S., R. 2 E., above Rogue River Valley Canal intake, near Lake Creek, Oreg.	1931-45*	Do.
Little Butte Creek, South Fork.	NW¼ sec. 21, T. 37 S., R. 4 E., 1 mile south of Big Elk ranger station, near Lake Creek, Oreg.	1931-45*	Do.
Little Deschutes River	SE¼ sec. 30, T. 20 S., R. 11 E., 4 miles above mouth, at Johnson Ranch, near Bend, Oreg.	1943-45*	Do.
Little Walla Walla River	George St., in Milton, Oreg.	1916, 1932-45	Do.
Ochoco Creek	NE¼ sec. 6, T. 15 S., R. 17 E., below Ochoco Reservoir, 6 miles east of Prineville, Oreg.	1919-45	Do.
Ochoco Reservoir	SW¼ sec. 5, T. 15 S., R. 17 E., 6 miles east of Prineville, Oreg.	1918-45	Do.
Ochoco Springs	NE¼ sec. 6, T. 15 S., R. 17 E., 6 miles east of Prineville, Oreg.	1920-45	Do.
Rancheria Creek	SE¼ sec. 17, T. 35 S., R. 3 E., 10 miles northeast of Lake Creek, Oreg.	1935-45	Do.
Slate Creek	SW¼SW¼ sec. 10, T. 37 S., R. 7 W., above diversion dam, near Wonder, Oreg.	1943-45*	Do.

* Records for some earlier years contained in water-supply papers published by the Geological Survey.

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

Stream	Location	Period	Collected by
Sucker Creek	SW¼ sec. 30, T. 39 S., R. 6 W., below Grayback Creek, 10 miles southeast of Kerby, Oreg.	1940-45	Oregon State engineer.
White River	NE¼ sec. 11, T. 5 S., R. 10 E., 500 feet below Crane Creek and about 1 mile east of abandoned Keep sawmill site.	1941-45	Bureau of Reclamation.

Note.- Records through 1936 collected by the Oregon State engineer (some of them in cooperation with the Bureau of Reclamation of the U. S. Department of Interior) are contained in the bulletins published by that officer. (See p. 10 "State reports containing compilation of records of discharge.") The other records listed in this table have not been published.

COOPERATION

In Oregon the work was done under cooperative agreements with the State of Oregon, Charles E. Stricklin, State engineer; Umatilla County Court; and the cities of Corvallis, McMinnville, and Portland. In Washington the work was done under cooperative agreements with the State Department of Conservation and Development, Ed Davis, director, succeeded by Art Garton, and Charles J. Bartholet, consultant engineer for the department; Columbia County; and Walla Walla County.

Financial assistance was furnished by the Corps of Engineers, U. S. Army, for the operation of 35 gaging stations in Oregon and 15 in Washington.

Assistance in collecting records was rendered by the following counties, municipality, and corporations:

Oregon: Counties of Crook, Deschutes, Jackson, Jefferson, Josephine, Klamath, and Umatilla; city of Grants Pass; The California Oregon Power Co., California Public Utilities, Pacific Power & Light Co., and Portland General Electric Co.

Washington: Northwestern Electric Co. and Pacific Power & Light Co.

DIVISION OF WORK

The stream-gaging work was conducted by the water resources branch of the Geological Survey--Glenn L. Parker, chief hydraulic engineer, Carl G. Paulsen, assistant chief hydraulic engineer, and Rudolph G. Kasel, chief of the division of surface water (until June 14, 1945). The data for the gaging stations were collected and prepared for publication under supervision of district engineers as follows: In Oregon, G. H. Canfield, the work being done in collaboration with Charles E. Stricklin, State engineer; in Washington, F. M. Veatch.

The records were reviewed and the manuscript prepared for publication under the direction of B. J. Peterson, hydraulic engineer in charge, and F. J. Flynn, associate engineer, section of reports.

COLUMBIA RIVER MAIN STEM

Columbia River near The Dalles, Oreg.

Location.- Water-stage recorder, lat. 45°39', long. 120°58', in NE¼ sec. 20, T. 2 N., R. 15 E., just upstream from Celilo Falls, 3 miles downstream from Deschutes River, and 11 miles east of The Dalles. Datum of gage is at mean sea level, datum of 1929.

Drainage area.- 237,000 square miles.

Records available.- June 1878 to September 1945. Prior to October 1931, records based on staff gage at The Dalles, supplemented for a few short periods by gage-height records at Umatilla and Cascade Locks. Maximum stages for each year in period 1858 to 1877 from readings of gage at Lower Cascades Landing.

Average discharge.- 67 years, 193,900 second-feet.

Extremes.- Maximum discharge during year, 508,000 second-feet June 8 (elevation, 142.03 feet); minimum, 67,800 second-feet Dec. 17, 18 (elevation, 128.59 feet).
1858-1945: Maximum discharge, 1,170,000 second-feet June 6, 1894 (elevation, 106.5 feet on gage at The Dalles, 160.1 feet at present site); minimum observed, 35,000 second-feet Jan. 12, 1937 (elevation, 126.0 feet).

Remarks.- Records excellent. Storage and diversions for irrigation are only a small part of total runoff. Some regulation by Franklin D. Roosevelt Lake above Grand Coulee Dam during year, the total decrease in contents during the year ending Sept. 30, 1945, being 289,200 acre-feet.

Cooperation.- Recorder inspected and gages read by Corps of Engineers, U. S. Army.

Rating table, water year 1944-45 (gage height, in feet, and discharge, in second-feet)

128	57,000	132	151,000	136	283,000
129	76,500	133	181,000	138	357,000
130	99,000	134	213,000	140	431,000
131	124,000	135	247,000	142	507,000

Discharge, in second-feet, water year October 1944 to September 1945

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	90,400	86,300	75,200	76,500	70,400	79,500	104,000	136,000	424,000	340,000	163,000	104,000
2	89,700	85,900	75,700	76,900	70,200	78,200	104,000	144,000	445,000	329,000	163,000	104,000
3	92,000	85,900	75,900	75,900	70,000	76,700	106,000	164,000	455,000	322,000	161,000	104,000
4	92,900	87,000	76,100	75,700	70,800	76,300	104,000	178,000	454,000	316,000	160,000	97,100
5	95,700	91,500	74,000	75,200	71,700	74,800	101,000	199,000	455,000	306,000	155,000	86,300
6	95,200	97,100	72,100	75,700	76,100	73,600	98,300	225,000	464,000	304,000	148,000	90,600
7	92,200	105,000	71,200	76,700	80,100	72,300	95,900	243,000	484,000	302,000	143,000	90,600
8	39,700	92,000	71,200	78,800	84,300	71,500	94,300	260,000	505,000	296,000	141,000	92,500
9	90,800	88,600	71,700	79,900	88,800	72,700	96,800	270,000	502,000	289,000	139,000	97,800
10	92,700	88,100	74,800	88,300	101,000	74,200	106,000	274,000	496,000	279,000	137,000	99,000
11	90,800	84,500	73,800	94,300	120,000	76,700	112,000	279,000	488,000	272,000	134,000	97,800
12	89,700	83,200	72,300	91,300	121,000	77,300	111,000	289,000	483,000	268,000	129,000	95,000
13	89,200	82,800	71,700	85,200	112,000	78,600	110,000	299,000	478,000	260,000	128,000	98,800
14	89,000	81,700	71,000	85,200	111,000	80,600	109,000	300,000	472,000	253,000	128,000	98,300
15	88,300	79,500	70,400	91,800	113,000	86,300	106,000	304,000	459,000	247,000	128,000	95,000
16	86,700	79,700	69,800	107,000	107,000	90,600	106,000	311,000	447,000	241,000	130,000	95,700
17	85,000	79,700	68,400	104,000	105,000	89,500	103,000	323,000	424,000	238,000	128,000	95,400
18	83,900	77,800	68,200	93,800	102,000	88,600	102,000	328,000	401,000	236,000	124,000	91,300
19	82,100	76,700	69,400	89,900	96,800	87,600	106,000	331,000	385,000	235,000	123,000	88,300
20	81,700	75,900	69,800	85,900	94,100	85,600	110,000	331,000	374,000	229,000	120,000	95,000
21	82,300	74,400	71,700	82,300	91,300	87,900	114,000	328,000	373,000	225,000	116,000	109,000
22	80,400	73,400	72,500	80,400	88,100	92,900	124,000	319,000	376,000	218,000	114,000	93,200
23	78,200	74,400	75,900	78,800	86,100	102,000	137,000	319,000	380,000	209,000	116,000	87,200
24	78,200	75,400	77,800	78,200	85,200	117,000	148,000	322,000	380,000	201,000	117,000	88,300
25	83,400	73,800	77,100	75,900	82,300	120,000	150,000	321,000	372,000	192,000	115,000	90,800
26	88,800	73,800	75,700	73,600	80,100	120,000	153,000	326,000	365,000	188,000	112,000	92,700
27	88,600	74,800	72,900	72,500	80,100	116,000	147,000	351,000	369,000	182,000	108,000	93,200
28	85,000	75,400	73,100	72,300	79,700	112,000	140,000	366,000	365,000	177,000	103,000	92,200
29	84,800	75,000	73,800	71,700	-	110,000	137,000	380,000	357,000	175,000	98,500	90,200
30	85,400	73,400	74,800	70,600	-	107,000	137,000	392,000	350,000	174,000	101,000	86,300
31	86,300	-	76,300	70,600	-	103,000	-	403,000	-	169,000	105,000	-

Month	Second-feet-days	Maximum	Minimum	Mean	Per square mile	Runoff Inches	Runoff Acre-feet
October	2,709,100	95,700	78,200	87,390	0.369	0.43	5,373,000
November	2,452,700	105,000	73,400	81,760	.345	.38	4,865,000
December	2,264,300	97,800	68,200	73,040	.308	.36	4,491,000
Calendar year 1944	43,420,500	326,000	62,700	118,600	.500	6.82	86,130,000
January	2,534,900	107,000	70,600	81,770	.345	.40	5,028,000
February	2,538,200	121,000	70,000	90,650	.382	.40	5,034,000
March	2,779,000	120,000	71,500	89,650	.378	.44	5,512,000
April	3,472,300	153,000	94,300	115,700	.488	.54	6,887,000
May	9,015,000	403,000	136,000	290,800	1.23	1.41	17,880,000
June	12,782,000	505,000	350,000	426,100	1.80	2.01	25,350,000
July	7,672,000	340,000	169,000	247,500	1.04	1.20	15,220,000
August	3,987,500	163,000	98,500	128,600	.543	.63	7,909,000
September	2,839,600	109,000	86,300	94,650	.399	.45	5,632,000
Water year 1944-45	55,046,600	505,000	68,200	150,800	.636	8.65	109,200,000

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

WALLA WALLA RIVER BASIN

South Fork Walla Walla River near Milton, Oreg.

Location.- Water-stage recorder, lat. 45°50', long. 118°10', in NE¼ sec. 15, T. 4 N., R. 37 E., 1 mile upstream from Pacific Power & Light Co.'s penstock intake and 13 miles southeast of Milton. Altitude of gage, about 2,050 feet (from river-profile map).

Drainage area.- 63 square miles.

Records available.- February to October 1903 (gage heights only), August 1906 to November 1917 (incomplete), May 1931 to September 1945.

Average discharge.- 21 years (1908-15, 1931-45), 163 second-feet.

Extremes.- Maximum discharge during year, 660 second-feet May 4 (gage height, 2.49 feet); minimum not recorded; minimum daily, 84 second-feet Oct. 25.
1906-17, 1931-45: Maximum discharge observed, 1,500 second-feet Dec. 22, 1933 (gage height, 5.25 feet, site and datum then in use); minimum, 72 second-feet Feb. 14, 1932. Maximum stage known, about 6 feet Mar. 31, 1931, present site and datum.

Remarks.- Records good except those for Mar. 20 to May 5, which are fair. No diversion or regulation above station.

Rating tables, water year 1944-45 (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Mar. 20 to Apr. 7)

Oct. 1 to May 4				May 5 to Sept. 30			
1.2	91	1.5	149	1.2	94	1.8	244
1.3	106	1.6	175	1.3	110	2.0	334
1.4	126	1.8	244	1.4	130	2.2	447
				1.5	152	2.4	586
Note. Same as following table above 1.8 feet.				1.6	178		

Discharge, in second-feet, water year October 1944 to September 1945

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	a95	98	96	89	103	116	225	416	301	130	99	93
2	a94	98	94	87	114	116	184	a470	270	124	99	93
3	a93	98	92	87	131	118	154	542	253	122	99	94
4	a92	103	96	87	138	116	144	564	257	120	97	94
5	92	96	103	90	135	110	178	527	292	118	97	99
6	a90	92	100	103	126	110	187	473	376	116	97	96
7	a88	92	103	274	142	106	200	435	381	114	99	94
8	a87	89	103	214	292	110	a250	410	339	112	99	94
9	a87	89	98	157	370	122	a260	386	315	110	97	93
10	a87	91	97	144	274	221	a240	398	283	110	97	93
11	a87	94	96	144	221	210	a230	360	253	108	99	93
12	a87	92	94	206	203	236	a220	350	230	107	100	93
13	a87	90	92	398	278	257	a210	435	237	110	100	93
14	a88	89	91	315	265	229	a220	410	215	108	99	93
15	a89	89	91	229	197	200	a240	370	202	107	99	100
16	a89	89	91	190	167	175	240	386	190	107	96	104
17	a89	89	90	170	152	167	225	376	181	107	96	97
18	a89	89	90	159	142	157	229	344	175	104	96	97
19	h89	87	90	147	133	172	278	315	173	104	94	96
20	a90	87	91	135	128	542	a330	301	173	102	94	107
21	h90	87	91	124	124	473	a340	287	170	102	94	102
22	a90	87	91	120	122	350	a300	287	165	100	94	105
23	a91	89	90	116	122	339	a300	292	155	100	94	110
24	a92	92	90	114	120	283	a310	278	143	102	94	104
25	a84	90	90	110	118	229	a300	315	139	100	96	102
26	a85	92	90	106	118	203	a280	344	128	100	100	100
27	90	91	89	103	118	178	a260	441	124	100	97	99
28	90	90	87	102	116	181	a250	410	134	100	96	97
29	90	90	87	102	-	187	a270	386	114	100	94	97
30	91	90	87	102	-	164	a340	365	132	100	94	94
31	96	-	87	100	-	236	-	329	-	99	94	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff: Inches	Runoff: Acre-feet
October	2,777	96	84	89.6	1.42	1.64	5,510
November	2,733	103	87	91.1	1.45	1.61	5,420
December	2,877	103	87	92.8	1.47	1.70	5,710
Calendar year 1944	48,995	392	84	134	2.13	28.98	97,190
January	4,624	398	87	149	2.37	2.73	9,170
February	4,659	370	103	166	2.63	2.75	9,240
March	6,433	542	106	208	3.30	3.80	12,760
April	7,394	340	144	246	3.90	4.36	14,670
May	12,002	564	278	387	6.14	7.09	23,810
June	6,530	381	114	218	3.46	3.85	12,950
July	3,343	130	99	108	1.71	1.97	6,630
August	3,000	100	94	96.8	1.54	1.77	5,950
September	2,926	110	93	97.5	1.55	1.73	5,800
Water year 1944-45	59,298	564	84	162	2.57	35.00	117,600

a No gage-height record; discharge computed on basis of records for station below Pacific Power & Light Co.'s plant, near Milton.
h Computed from staff-gage reading.
Time basis: Pacific war time up to 2 a.m., Sept. 30, 1945; Pacific standard time thereafter.
To convert war time to standard time, subtract 1 hour.

South Fork Walla Walla River below Pacific Power & Light Co.'s plant, near Milton, Oreg.

Location.- Water-stage recorder, lat. 45°53', long. 118°17', in SE¼NW¼ sec. 26, T. 5 N., R. 36 E., 250 yards downstream from Pacific Power & Light Co.'s power plant, 1½ miles upstream from intake of Milton city power plant, 2 miles upstream from North Fork, and 5.8 miles southeast of Milton. Datum of gage is 1,490.30 feet above mean sea level, datum of 1929 (Pacific Power & Light Co. bench mark).

Drainage area.- 80 square miles.

Records available.- October 1940 to September 1945 (discontinued), in reports of Geological Survey. Records for stations at other sites within a distance of 2 miles downstream having same annual runoff, as follows: November 1903 to May 1906 in reports of Geological Survey; December 1929 to March 1931 and July 1931 to September 1936 in reports of State engineer; October 1936 to September 1940 in files of State engineer.

Average discharge.- 15 years (1904-5, 1930-31, 1932-45), 163 second-feet.

Extremes.- Maximum discharge during year, 824 second-feet Mar. 20 (gage height, 3.45 feet), from rating curve extended above 460 second-feet; minimum, 39 second-feet (regulated) Oct. 25; minimum daily, 78 second-feet Sept. 3.

1903-6, 1929-45: Maximum discharge not determined, probably occurred during floods of May 30, 31, 1906, or Mar. 31, 1931; maximum daily discharge, 3,000 second-feet Mar. 31, 1931, estimated by Oregon State engineer; minimum, 1 second-foot (regulated) June 23, 1940; minimum daily, 64 second-feet Oct. 14, 1930.

Remarks.- Records good except those for periods of shifting control or no gage-height record, which are fair. Small diversions above station for irrigation. Water diverted for power-plant operation is returned to river 100 yards upstream. Some diurnal fluctuation caused by power plant above station.

Rating tables, water year 1944-45 (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Nov. 30 to Dec. 4, Mar. 20 to May 2, May 6-25)

Oct. 1 to Dec. 4		Dec. 5 to Mar. 19				Mar. 20 to Sept. 30					
1.1	73	1.2	100	1.6	193	1.0	87	1.7	194	2.6	440
1.2	91	1.3	120	1.8	250	1.2	112	2.0	261	3.0	580
1.3	110	1.4	143	2.1	348	1.4	140	2.3	345		

Discharge, in second-feet, water year October 1944 to September 1945

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	89	100	106	108	118	134	233	396	a320	118	85	80
2	91	95	106	108	129	134	213	433	a290	116	85	80
3	89	106	106	106	153	136	200	482	a300	112	84	78
4	91	108	112	106	163	138	190	472	a280	102	84	79
5	93	100	120	108	163	132	190	492	a300	113	85	91
6	91	97	118	125	153	134	194	436	387	108	84	92
7	89	95	118	282	166	134	211	419	390	109	85	91
8	87	95	120	250	302	136	279	402	a370	107	84	89
9	87	95	114	193	369	150	287	390	a330	104	82	88
10	87	95	110	173	289	260	266	375	a300	103	83	85
11	87	102	108	178	247	260	256	342	a270	103	84	84
12	87	97	108	231	229	286	244	339	249	a102	86	83
13	87	97	106	380	325	318	235	390	254	a100	87	82
14	89	95	106	315	295	292	249	366	a230	99	87	82
15	91	95	106	253	241	256	277	339	204	97	87	89
16	91	95	106	223	206	229	284	354	194	97	85	97
17	91	95	106	204	186	212	264	345	184	97	83	89
18	91	95	104	201	170	204	266	315	172	95	80	89
19	91	95	104	188	158	203	298	295	165	94	79	88
20	91	95	104	173	153	635	354	282	165	94	80	98
21	91	95	104	158	146	632	363	269	161	94	80	94
22	93	93	104	146	143	524	318	266	158	93	83	97
23	93	99	104	138	143	538	315	269	151	93	82	100
24	95	100	104	134	136	422	333	266	143	93	82	95
25	84	97	104	129	134	339	324	307	a140	92	83	92
26	87	100	102	127	136	282	295	a360	a130	89	86	92
27	91	100	104	122	136	255	277	a460	125	91	87	88
28	91	97	106	118	134	217	264	a440	124	91	85	87
29	91	97	106	118	-	204	295	412	124	91	84	87
30	93	99	106	118	-	200	366	393	121	89	83	86
31	95	-	106	116	-	239	-	360	-	88	83	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	2,794	95	84	90.1	5,540
November	2,924	108	93	97.5	5,800
December	3,338	120	102	108	6,620
Calendar year 1944	51,525	526	82	141	102,200
January	5,329	380	106	172	10,570
February	5,323	369	118	190	10,560
March	8,214	635	132	265	16,290
April	8,140	366	190	271	16,150
May	11,466	492	266	370	22,740
June	6,731	390	121	224	13,350
July	3,074	118	88	99.2	6,100
August	2,597	87	79	83.8	5,150
September	2,652	100	78	88.4	5,260
Water year 1944-45	62,582	635	78	171	124,100

a No gage-height record; discharge computed on basis of records for South Fork Walla Walla River near Milton and Walla Walla River below Freewater.

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

Walla Walla River below Freewater, Oreg.

Location.- Water-stage recorder, lat. 45°59', long. 118°23', in NW¼NE¼ sec. 25, T. 6 N., R. 35 E., at McCoy Bridge, 2 miles upstream from Birch Creek and Oregon-Washington State line, and 2.5 miles north of Freewater. Datum of gage is 845.28 feet above mean sea level, datum of 1929.

Records available.- April 1941 to September 1945.

Extremes.- Maximum discharge during year, 622 second-feet Mar. 21 (gage height, 5.86 feet); practically no flow Oct. 1 to Jan. 6, July 5 to Sept. 30.
1941-45: Maximum discharge, 1,340 second-feet June 26, 1942 (gage height, 5.02 feet), from rating curve extended above 500 second-feet; no flow at times each year.

Remarks.- Records poor. Many diversions above station for irrigation. Little Walla Walla River, a natural distributary, diverts 3 miles above station. No regulation.

Discharge, in second-feet, water year October 1944 to September 1945

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1				0	12	36	256	349	202	1		
2				0	17	34	234	364	170	1		
3				0	45	45	219	390	161	1		
4				0	59	60	204	426	146	1		
5				0	59	46	200	361	157	0		
6				0	41	46	204	326	228	0		
7				108	41	46	214	288	254	0		
8				118	108	49	277	246	248	0		
9				90	179	62	288	216	219	0		
10				76	159	164	272	207	188	0		
11				a85	130	195	264	209	130	0		
12				a135	118	221	254	202	99	0		
13				a305	181	277	244	238	92	0		
14				251	166	280	269	236	77	0		
15				179	149	238	293	226	52	0		
16				170	114	216	288	248	29	0		
17				166	97	207	272	267	17	0		
18				132	84	202	256	241	9	0		
19				120	74	190	269	219	6	0		
20				101	70	429	310	209	5	0		
21				76	57	547	364	207	4	0		
22				60	56	484	341	207	3	0		
23				48	56	535	326	209	2	0		
24				41	46	468	338	219	2	0		
25				38	38	423	321	248	2	0		
26				22	32	341	280	267	2	0		
27				22	29	301	256	315	2	0		
28				17	31	280	234	310	2	0		
29				15	-	261	238	293	1	0		
30				14	-	248	304	277	1	0		
31				14	-	264	-	251	-	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 1944	13,504.0	420	0	36.9	26,780
January	2,403	305	0	77.5	4,770
February	2,268	186	12	81.0	4,500
March	7,195	547	34	232	14,270
April	8,089	364	200	270	16,040
May	8,273	426	202	267	16,410
June	2,510	254	1	83.7	4,980
July	4	1	0	0.1	7.9
August	0	0	0	0	0
September	0	0	0	0	0
Water year 1944-45	30,742	547	0	84.2	60,980

a No gage-height record; discharge computed on basis of records for stations upstream.
Time basis: Pacific war time up to 2 a.m., Sept. 30, 1945; Pacific standard time thereafter.
To convert war time to standard time, subtract 1 hour.

North Fork Walla Walla River near Milton, Oreg.

Location.- Water-stage recorder, lat. 45°54', long. 118°18', in NW¼NE¼ sec. 22, T. 5 N., R. 36 E., at bridge half a mile upstream from confluence with South Fork Walla Walla River and 4.5 miles southeast of Milton. Datum of gage is 1,405.69 feet above mean sea level, datum of 1929.

Drainage area.- 47 square miles.

Records available.- October 1940 to September 1945 in reports of Geological Survey; December 1929 to September 1936 in reports of State engineer; October 1936 to September 1940 (unpublished) in files of State engineer.

Average discharge.- 15 years, 42.5 second-feet.

Extremes.- Maximum discharge during year, 338 second-feet Mar. 23 (gage height, 4.17 feet), from rating curve extended above 150 second-feet; minimum, 2.2 second-feet Aug. 21, 25, 26.

1929-45: Maximum daily discharge observed, 970 second-feet Feb. 28, 1940, probably exceeded by flood of Mar. 31, 1931, when gage was washed out; minimum, 1 second-foot Aug. 8-19, 1936, Aug. 7-11, 1940.

Remarks.- Records fair except those for Oct. 1 to Nov. 25, Aug. 1 to Sept. 30, which are poor. Diversions above station for irrigation of about 220 acres; no regulation.

Rating tables, water year 1944-45 (gage height, in feet, and discharge, in second-feet) (Shifting-control method used Oct. 1 to Jan. 7, Jan. 14 to Feb. 13, Apr. 21 to June 6)

Oct. 1 to Jan. 13

2.8	7.3	3.2	49
2.9	16	3.4	88
3.0	25	3.7	170

Jan. 14 to Sept. 30

2.7	4.0	3.2	55
2.8	9.6	3.4	95
2.9	18	3.6	144
3.0	28	3.8	201
3.1	40	4.0	270

Discharge, in second-feet, water year October 1944 to September 1945

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	5.2	9.8	11	6.8	29	35	102	189	109	16	3.4	3.4
2	5.2	11	11	6.2	39	36	84	195	93	14	2.8	3.4
3	5.2	9.8	13	6.2	73	38	73	215	91	13	3.1	2.8
4	5.2	11	13	6.2	82	38	68	221	80	9.8	2.8	2.5
5	5.2	11	16	7.3	77	35	66	225	93	9.8	2.8	3.7
6	5.2	9.8	18	8.9	69	36	68	198	183	9.8	2.8	5.7
7	5.2	9.8	15	103	64	34	75	168	235	9.2	2.5	6.9
8	5.2	9.8	16	93	126	35	112	144	215	8.6	2.8	6.9
9	5.2	9.8	15	56	249	40	117	129	180	6.9	2.8	6.3
10	5.2	8.9	13	44	177	64	105	132	144	6.3	3.1	5.7
11	5.2	11	11	48	136	86	97	134	117	5.7	4.6	5.7
12	4.6	11	9.8	77	122	124	93	134	95	5.7	5.2	5.2
13	5.2	11	8.9	191	201	192	95	160	91	5.7	4.6	4.0
14	5.2	11	8.1	192	183	168	117	183	77	6.3	3.4	3.7
15	5.2	9.8	7.3	136	119	122	139	155	68	5.7	5.7	5.2
16	5.2	8.1	6.8	114	88	102	144	166	59	6.3	4.6	8.1
17	5.2	8.1	6.8	100	73	88	117	189	50	6.9	4.0	7.5
18	5.2	8.1	6.8	97	62	75	109	171	44	6.9	3.4	6.9
19	5.2	8.1	6.8	82	52	68	122	144	43	6.3	3.7	6.9
20	4.6	8.1	6.8	68	49	93	163	126	35	5.7	2.8	8.6
21	5.2	8.1	6.8	57	44	204	195	112	34	5.2	2.2	9.8
22	5.2	8.1	6.8	50	40	238	160	105	33	4.6	2.5	9.8
23	5.2	8.9	6.8	44	39	286	144	107	27	3.7	2.5	11
24	5.2	9.8	6.2	42	36	211	174	105	25	3.7	2.5	12
25	5.2	11	6.2	39	36	158	174	132	21	4.0	2.5	11
26	5.2	11	6.2	38	36	a125	160	142	19	4.0	2.2	9.2
27	5.2	12	5.7	35	36	a100	142	163	16	4.0	2.8	8.1
28	5.7	11	5.7	33	35	86	129	160	16	4.0	3.1	7.5
29	5.7	11	5.2	32	-	82	134	152	16	4.6	3.4	6.9
30	6.8	11	5.7	30	-	80	171	142	19	3.7	3.4	6.9
31	7.3	-	6.2	29	-	105	-	126	-	3.7	3.4	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	164.7	7.3	4.6	5.31	327
November	296.9	12	8.1	9.90	589
December	287.6	18	5.2	9.28	570
Calendar year 1944	12,246.9	465	1.8	33.5	24,290
January	1,871.6	192	6.2	60.4	3,710
February	2,372	249	29	84.7	4,700
March	3,184	286	34	103	6,320
April	3,649	195	66	122	7,240
May	4,804	225	105	155	9,530
June	2,328	235	16	77.6	4,620
July	209.8	16	3.7	6.77	416
August	101.4	5.7	2.2	3.27	201
September	201.3	12	2.5	6.71	399
Water year 1944-45	19,470.3	286	2.2	53.3	38,620

a No gage-height record; discharge computed on basis of records for South Fork Walla Walla River near Milton and below Pacific Power & Light Co.'s plant, near Milton.

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

Mill Creek near Walla Walla, Wash.

Location.- Water-stage recorder, lat. 46°00', long. 118°07', in SE¼SE¼ sec. 12, T. 6 N., R. 37 E., 4 miles downstream from city of Walla Walla diversion dam, 4½ miles upstream from Blue Creek, and 11½ miles southeast of Walla Walla. Datum of gage is 2,000 feet above mean sea level, unadjusted.

Drainage area.- 54 square miles.

Records available.- August 1913 to September 1917, April to September 1938, October 1939 to September 1945.

Extremes.- Maximum discharge during year, 659 second-feet (regulated) Feb. 8 (gage height, 16.05 feet); minimum, 25 second-feet Oct. 19, 21, 26-30, Dec. 31.
1913-17, 1938, 1939-45: Maximum discharge observed, 1,120 second-feet May 13, 1917 (gage height, 4.09 feet, site and datum then in use); minimum observed, 16 second-feet Oct. 11-15, 1939.

Remarks.- Records excellent except those for periods of shifting control, which are good. City of Walla Walla diverts about 22 second-feet 4 miles above gage for municipal use.

Discharge, in second-feet, water year October 1944 to September 1945

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	29	46	46	27	40	45	161	240	111	40	28	27
2	28	34	50	26	60	45	136	253	100	39	28	27
3	27	36	45	26	92	48	117	278	98	38	28	28
4	27	45	42	26	106	46	102	282	92	38	27	29
5	30	36	50	29	106	42	102	250	106	38	27	35
6	28	33	50	49	100	43	109	218	136	36	28	31
7	28	31	53	280	183	40	120	191	153	35	28	29
8	27	29	51	188	494	43	191	169	148	34	28	29
9	27	29	46	120	482	46	211	156	141	33	28	28
10	27	31	42	98	276	75	188	156	124	33	28	28
11	26	42	38	94	188	96	182	146	111	33	28	28
12	26	35	35	216	153	150	166	138	100	31	30	28
13	26	31	33	361	282	260	164	156	100	33	30	28
14	26	30	30	265	230	221	188	153	87	31	28	27
15	26	29	29	180	158	171	233	151	79	30	28	35
16	26	33	29	153	122	136	260	161	75	31	27	38
17	26	27	29	a144	102	122	214	180	70	36	27	30
18	26	26	28	134	89	113	202	166	68	30	27	29
19	26	26	28	111	75	113	233	148	64	30	27	27
20	26	26	28	92	68	218	274	138	60	29	27	44
21	26	26	27	75	60	316	293	126	60	31	27	34
22	26	26	27	66	55	308	230	122	57	31	27	39
23	26	30	26	58	53	340	221	120	55	33	27	48
24	26	38	26	55	50	247	240	122	51	31	27	40
25	26	34	26	51	48	194	221	124	50	31	27	35
26	26	40	25	48	48	164	188	126	48	30	31	34
27	25	43	25	46	48	131	166	134	46	30	29	31
28	25	40	26	43	45	124	153	134	43	30	28	30
29	26	39	26	40	-	117	166	131	43	30	28	30
30	27	38	26	39	-	117	218	131	40	29	28	29
31	33	-	25	39	-	153	-	124	-	29	27	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	830	33	25	26.8	1,650
November	1,009	46	26	33.6	2,000
December	1,067	53	25	34.4	2,120
Calendar year 1944	21,236	468	23	58.0	42,130
January	3,179	361	26	103	6,310
February	3,813	494	40	136	7,560
March	4,286	316	40	138	8,500
April	5,649	295	102	138	11,200
May	5,124	282	120	165	10,160
June	2,516	153	40	83.9	4,990
July	1,013	40	29	32.7	2,010
August	863	31	27	27.8	1,710
September	955	48	27	31.8	1,890
Water year 1944-45	30,304	494	25	83.0	60,100

a No gage-height record; discharge interpolated.
Note.- Shifting-control method used Oct. 21 to May 21, July 1 to Sept. 30.
Time basis: Pacific war time up to 2 a.m., Sept. 30, 1945; Pacific standard time thereafter. To convert war time to standard time, subtract 1 hour.

Mill Creek at Walla Walla, Wash.

Location.- Water-stage recorder, lat. 46°04'40", long. 118°17'00", in NE¼ sec. 22, T. 7 N., R. 36 E., at bridge, 0.9 mile downstream from diversion dam and 1.0 mile east of Walla Walla.
Drainage area.- 90 square miles.
Records available.- April 1941 to September 1945.
Extremes (regulated).- Maximum discharge during year, 681 second-feet Feb. 8 (gage height, 2.77 feet); minimum, 0.9 second-foot Aug. 19 (gage height, 0.87 foot).
1941-45: Maximum discharge, 766 second-feet Mar. 9, 1944; maximum gage height, 2.86 feet Jan. 1, 1943; minimum discharge, 0.6 second-foot Sept. 16, 1944.
Remarks.- Records good except those for period of no gage-height record, which are fair. Some regulation at diversion dam, 0.9 mile above station where water is diverted into Yellowhawk Creek and Garrison Creek for stock and irrigation. City of Walla Walla diverts water for municipal supply. Other small diversions above station for irrigation. Monthly discharge adjusted for Yellowhawk Creek and Garrison Creek diversions.

Rating tables water year 1944-45, except period of ice effect
(gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Dec. 8 to Apr. 27)

Oct. 1 to Feb. 7				Feb. 8 to Sept. 30			
1.0	1.5	1.8	105	1.0	3.3	1.8	105
1.2	7.1	2.0	192	1.2	10	2.0	192
1.4	21	2.3	354	1.4	25	2.3	354
1.6	49			1.6	50		

Discharge, in second-feet, water year October 1944 to September 1945

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	9.5	5.9	a7.8	4.1	9.0	29	129	177	52	4.8	1.8	1.8
2	8.0	5.1	a9.0	4.1	9.5	21	105	177	46	4.8	1.8	1.6
3	7.1	5.5	9.0	4.1	37	39	84	258	45	4.3	1.6	1.8
4	10	6.7	*6.3	4.1	94	42	81	235	42	4.0	1.6	2.4
5	8.0	6.3	6.3	3.8	101	26	46	247	48	4.3	1.8	4.5
6	8.0	5.9	6.7	4.1	91	16	24	197	97	4.0	1.6	3.8
7	8.5	5.5	7.1	7.1	153	7.1	27	150	129	4.0	1.8	2.8
8	6.4	5.1	6.7	7.6	517	6.3	86	125	125	4.0	2.4	2.6
9	8.5	4.8	5.9	35	565	6.7	177	103	113	3.0	1.6	2.6
10	8.0	5.1	5.9	53	360	11	187	48	85	1.6	2.0	2.8
11	8.5	6.3	5.5	51	331	29	237	35	59	1.8	2.8	2.6
12	8.0	6.3	5.1	122	269	105	232	29	48	3.0	3.3	2.6
13	9.0	5.9	4.8	274	494	264	232	40	46	3.8	3.3	2.6
14	10	5.5	3.8	308	422	253	274	48	36	3.3	2.8	2.2
15	5.5	5.1	3.6	212	302	222	319	84	23	3.5	5.7	3.0
16	10	5.1	3.3	108	222	192	325	109	16	4.3	2.0	5.4
17	4.4	5.5	b3.3	34	172	158	247	168	13	4.5	1.2	3.5
18	8.0	5.1	b3.3	172	137	158	202	156	12	4.0	1.1	3.5
19	6.7	5.1	b3.3	*163	97	146	227	137	10	3.8	1.4	4.8
20	3.8	5.5	b3.3	109	78	250	280	121	7.9	2.8	1.4	7.9
21	4.1	5.5	b3.3	75	61	415	360	109	6.3	2.4	1.4	5.7
22	4.4	5.9	3.3	57	54	391	280	91	6.3	2.4	1.6	7.1
23	4.4	5.9	3.6	49	52	415	247	25	6.3	2.6	2.6	8.7
24	4.1	6.3	4.1	42	42	325	280	69	6.3	2.4	2.1	7.9
25	4.1	6.3	4.4	20	35	258	248	72	5.7	2.0	2.6	6.7
26	3.1	6.7	4.4	9.5	34	212	217	72	6.0	2.0	2.2	6.3
27	2.8	7.1	4.1	9.5	33	150	192	81	6.0	1.8	2.8	6.0
28	2.8	a6.9	3.8	9.5	30	129	130	78	6.3	1.6	2.6	6.0
29	2.8	a6.7	4.1	9.5	-	101	69	75	5.7	2.0	2.4	5.7
30	2.6	a6.5	4.1	9.0	-	87	120	69	5.4	2.4	1.6	5.7
31	3.6	-	4.1	9.0	-	109	-	63	-	2.2	2.0	-

Month	Observed				Yellowhawk Creek and Garrison Creek diversions (acre-feet)	Adjusted for diversion	
	Discharge in second-feet			Runoff in acre-feet		Runoff in acre-feet	Mean discharge in (second-feet)
	Maximum	Minimum	Mean				
October	10	2.8	6.29	387	1,430	1,820	29.6
November	7.1	4.8	5.84	347	2,300	2,650	44.5
December	9.0	3.3	4.95	304	2,340	2,640	42.9
Calendar year 1944	618	.8	37.0	26,840	25,710	52,550	72.4
January	308	3.8	63.8	3,930	2,200	6,130	99.7
February	565	9.0	171	9,520	2,310	11,830	213
March	415	6.3	148	9,070	2,680	11,750	191
April	360	24	189	11,250	2,600	13,850	233
May	265	25	113	6,940	3,180	10,120	165
June	129	5.4	37.1	2,210	3,030	5,240	88.1
July	4.8	1.6	3.14	193	1,410	1,600	26.0
August	5.7	1.1	2.16	133	1,020	1,150	18.7
September	8.7	1.6	4.39	261	1,340	1,600	26.9
Water year 1944-45	565	1.1	61.5	44,540	25,840	70,380	97.2

* Winter discharge measurement made on this day.
a No gage-height record; discharge computed on basis of records for station near Walla Walla.
b Stage-discharge relation affected by ice.
Time basis: Pacific war time up to 2 a.m., Sept. 30, 1945; Pacific standard time thereafter.
To convert war time to standard time, subtract 1 hour.

Blue Creek near Walla Walla, Wash.

Location.- Water-stage recorder, lat. 46°03'40", long. 118°07'50", in SE¼NW¼ sec. 25, T. 7 N., R. 37 E., 1 mile upstream from mouth and 10 miles east of Walla Walla. Datum of gage is at mean sea level, unadjusted.

Drainage area.- 17.0 square miles.

Records available.- October 1939 to September 1945.

Extremes.- Maximum discharge during year, 197 second-feet Feb. 8 (elevation, 1,742.05 feet); minimum, 0.3 second-foot Aug. 11, 14-21.
1939-45: Maximum discharge, 579 second-feet Mar. 9, 1944 (elevation, 1,742.90 feet, from high-water mark in gage well), from rating curve extended above 200 second-feet; minimum discharge observed, 0.1 second-foot Oct. 14, 1939, but may have been less during period of no gage-height record Oct. 1-11, 1939.

Remarks.- Records fair except those for periods of faulty gage-height record, which are poor. No known diversion or regulation.

Discharge, in second-feet, water year October 1944 to September 1945

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1.1	2.9	2.7	2.1	4.3	2.9	13	29	6.1	1.8	2.2	0.4
2	1.1	2.4	2.7	2.1	14	2.9	13	27	5.1	1.5	2.2	.4
3	1.0	2.5	2.5	1.9	20	3.0	13	26	5.4	1.4	2.1	.4
4	1.1	2.5	2.7	2.1	19	3.0	14	23	4.6	1.2	1.9	.5
5	1.4	2.1	2.9	2.5	19	4.8	15	18	7.3	1.1	1.8	1.0
6	1.1	1.8	2.9	5.4	17	3.2	15	15	30	1.0	1.6	.7
7	1.0	1.5	3.2	34	e30	3.2	15	12	43	1.0	1.6	.6
8	1.0	1.5	3.4	21	e140	3.6	16	9.8	40	.9	1.2	.5
9	.9	1.4	3.2	15	83	4.8	20	8.3	32	.9	.7	.5
10	.8	1.6	2.9	12	47	4.6	20	8.3	27	.8	.5	.5
11	.8	2.9	2.9	11	33	8.3	25	7.3	20	.7	.3	.5
12	.9	2.1	2.5	30	31	16	27	7.8	16	.7	.5	.5
13	.9	1.8	2.2	e120	43	29	28	8.8	15	.7	.4	.4
14	.9	1.6	2.1	e100	19	41	33	8.3	12	.6	.3	.4
15	.9	1.5	2.1	e90	14	50	39	8.3	9.8	.6	.3	.8
16	1.0	1.4	1.9	e80	12	42	39	13	7.8	.6	.3	1.1
17	1.0	1.4	1.8	e60	10	39	33	16	6.5	.5	.3	.8
18	1.0	1.2	1.6	36	9.8	38	31	15	5.8	.6	.3	.7
19	1.0	1.1	1.6	29	8.3	40	31	14	4.8	.5	.3	.6
20	1.0	1.1	1.8	22	6.9	48	33	15	4.6	.5	.3	2.1
21	1.0	1.1	1.8	19	5.1	14	32	14	3.6	.5	.3	1.4
22	1.1	1.1	1.8	14	4.3	14	28	13	3.4	.5	.4	1.8
23	1.1	1.5	1.8	10	4.3	16	38	12	2.9	.5	.4	1.6
24	1.1	2.4	1.8	7.3	3.6	15	28	11	2.7	.5	.5	1.4
25	1.1	2.1	1.5	7.3	3.2	15	27	12	2.9	.5	.6	1.2
26	1.1	2.5	1.5	6.1	3.2	14	25	12	2.5	.5	.9	1.0
27	1.1	3.0	1.4	5.1	3.2	13	25	12	2.4	.5	.8	.8
28	1.1	2.9	1.6	4.6	2.9	12	25	12	2.2	.5	.7	.7
29	1.1	2.5	2.1	3.8	-	13	26	10	2.1	.8	.6	.6
30	1.4	2.5	2.1	3.6	-	12	29	8.8	1.9	1.1	.5	.6
31	2.4	-	1.9	3.6	-	13	-	7.3	-	1.8	.5	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff Inches	Runoff Acre-feet
October	33.5	2.4	0.8	1.08	0.064	0.07	66
November	57.9	3.0	1.1	1.93	.114	.13	115
December	68.9	3.4	1.4	2.22	.131	.15	137
Calendar year 1944	3,090.2	354	.4	8.44	.496	6.76	6,120
January	760.5	120	1.9	24.5	1.44	1.66	1,510
February	610.1	140	2.9	21.8	1.28	1.33	1,210
March	538.3	50	2.9	17.4	1.02	1.18	1,070
April	758	39	13	25.3	1.49	1.66	1,500
May	414.0	29	7.3	13.4	.788	.91	821
June	329.4	43	1.9	11.0	.647	.72	653
July	25.3	1.8	.5	.82	.048	.06	50
August	25.3	2.2	.3	.82	.048	.06	50
September	24.5	2.1	.4	.82	.048	.05	49
Water year 1944-45	3,645.7	140	.3	9.99	.588	7.98	7,230

e Recorded gage height not representative of average for day; discharge computed on basis of records for stations on nearby streams.
Time basis: Pacific war time up to 2 a.m., Sept. 30, 1945; Pacific standard time thereafter. To convert war time to standard time, subtract 1 hour.

Yellowhawk Creek at Walla Walla, Wash.

Location.- Water-stage recorder, lat. 46°04'20", long. 118°16'55", in NW¼SW¼ sec. 23, T. 7 N., R. 36 E., 1 mile downstream from point of diversion from Mill Creek and 1 mile east of Walla Walla.

Records available.- April 1941 to September 1945.

Extremes (regulated).- Maximum discharge during year, 73 second-feet June 29 (gage height, 1.55 feet); minimum, 7.2 second-feet Jan. 16 (gage height, 0.73 foot).
1941-45: Maximum discharge not determined, occurred June 7, 1941 (gage height, 4.00 feet); minimum, 2.4 second-feet Sept. 16, 1941 (gage height, 0.50 foot), but may have been less during period of ice effect Jan. 1-24, 1942.

Remarks.- Records good. Regulation at Mill Creek diversion dam 1 mile upstream. Yellowhawk and Garrison Creeks divert water from Mill Creek for stock and irrigation. Many small diversions above station for irrigation.

Discharge, in second-feet, water year October 1944 to September 1945

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	14	38	42	25	26	35	44	42	50	32	16	10
2	20	34	46	25	31	37	40	43	46	30	15	11
3	18	33	44	26	40	31	35	46	47	28	14	11
4	18	38	41	25	33	26	30	48	42	28	15	12
5	20	35	45	27	31	34	33	44	46	28	15	16
6	20	32	47	28	30	32	37	40	49	27	15	15
7	21	30	49	38	39	22	40	36	48	24	15	14
8	18	29	49	36	53	24	56	37	48	24	16	14
9	18	29	45	40	52	32	52	38	47	24	14	14
10	16	29	42	35	38	46	47	47	51	23	16	15
11	18	38	38	34	35	42	44	43	53	22	16	14
12	17	36	37	38	28	42	37	41	49	20	20	14
13	19	33	35	45	46	48	36	50	48	20	17	14
14	18	32	34	38	44	48	40	52	48	18	16	14
15	17	32	33	28	37	48	46	56	55	18	15	16
16	19	31	32	27	34	38	46	57	57	21	12	24
17	15	32	27	32	30	35	36	51	52	22	12	19
18	19	31	20	28	28	35	30	49	49	21	13	18
19	22	32	20	22	32	32	33	47	46	20	13	13
20	26	31	20	24	33	44	41	44	45	21	12	20
21	25	30	21	26	31	53	49	40	47	22	12	16
22	26	30	24	24	31	51	38	46	49	20	12	19
23	25	32	25	24	32	52	35	52	49	20	13	21
24	24	38	24	24	33	45	39	52	49	19	11	21
25	24	36	24	24	37	38	37	53	45	18	13	16
26	27	40	24	20	37	34	31	53	46	18	14	17
27	27	43	23	24	38	33	27	53	47	16	16	16
28	28	41	24	26	34	38	27	53	39	15	14	15
29	28	39	24	24	-	35	44	54	33	17	11	14
30	28	39	24	24	-	34	44	54	33	17	11	14
31	30	-	24	24	-	41	-	52	-	17	10	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	667	30	14	21.5	1,320
November	1,023	43	29	34.1	2,030
December	1,005	49	20	32.4	1,990
Calendar year 1944	11,570.9	72	9.3	31.6	22,930
January	885	45	20	28.5	1,760
February	993	53	26	35.5	1,970
March	1,185	53	22	38.2	2,350
April	1,174	56	27	39.1	2,330
May	1,473	57	36	47.5	2,920
June	1,413	57	33	47.1	2,800
July	670	32	16	21.6	1,330
August	436	20	10	14.1	865
September	473	24	10	15.8	938
Water year 1944-45	11,397	57	10	31.2	22,600

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

Garrison Creek at Walla Walla, Wash.

Location.- Water-stage recorder, lat. 46°04'25", long. 118°17'10", in NE¼ sec. 22, T. 7 N., R. 36 E., 30 feet downstream from county bridge, 1 mile downstream from point of diversion from Mill Creek, and 0.9 mile east of Walla Walla.

Records available.- April 1941 to September 1945.

Extremes (regulated).- Maximum discharge during year, 15 second-feet Jan. 9 (gage height, 2.16 feet); minimum, 0.6 second-foot July 3, 4, 5.
1941-45: Maximum discharge, 32 second-feet Jan. 15, 1943; no flow May 10, 1941.

Remarks.- Records good. Regulation at Mill Creek diversion dam, 1 mile upstream. Yellowhawk and Garrison Creeks divert water from Mill Creek for stock and irrigation.

Discharge, in second-feet, water year October 1944 to September 1945

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	6.6	3.0	4.9	6.6	5.2	5.4	5.4	5.2	4.6	1.0	1.3	3.9
2	1.8	4.1	5.2	7.0	6.0	6.3	5.2	4.9	4.9	1.0	1.3	4.1
3	2.4	4.6	5.2	7.0	8.6	5.2	4.6	4.6	4.6	.8	1.3	4.1
4	2.6	4.9	5.2	7.0	7.0	4.6	4.1	4.6	4.4	.6	1.3	4.9
5	2.6	4.6	5.4	6.6	6.6	5.7	4.6	4.4	4.6	.9	1.4	6.0
6	2.6	4.6	5.4	7.0	6.3	5.4	4.6	3.9	4.9	1.3	1.4	5.7
7	2.6	4.6	5.7	10	7.1	3.4	5.2	3.0	4.4	1.4	1.4	5.2
8	2.4	4.6	5.7	9.0	9.8	3.6	6.6	3.0	4.4	1.4	1.3	4.6
9	2.4	4.6	5.7	10	9.0	4.4	6.0	2.4	4.1	1.3	1.2	4.4
10	2.4	4.6	5.7	9.4	7.0	6.0	5.2	2.8	4.6	1.3	1.3	2.8
11	2.4	5.2	5.4	9.0	6.0	5.7	5.2	2.6	4.6	1.3	1.4	3.2
12	2.4	5.2	5.4	9.0	5.2	5.7	4.4	2.2	4.4	1.2	1.4	3.0
13	2.2	4.6	5.2	9.8	8.0	6.6	4.1	3.0	4.9	1.1	2.6	2.8
14	2.4	3.9	5.2	9.0	7.6	6.6	4.4	3.0	4.9	1.1	3.4	2.8
15	1.9	3.9	5.2	6.3	6.0	6.0	4.9	3.4	6.0	1.1	3.4	3.2
16	1.5	3.9	5.2	6.3	5.7	5.2	5.2	4.1	5.7	1.3	3.2	3.6
17	1.5	4.1	5.4	8.3	4.9	4.9	4.1	4.6	4.6	1.4	3.2	3.6
18	1.1	4.1	5.7	7.3	4.6	4.9	3.6	4.6	3.6	1.5	3.2	4.4
19	.8	4.1	5.7	6.3	5.2	4.6	3.6	4.4	3.0	1.4	3.2	7.6
20	.6	4.1	5.7	7.0	5.2	6.0	4.4	4.1	2.6	1.3	3.2	11
21	.8	4.1	6.0	7.6	4.9	7.0	4.9	3.9	3.0	1.4	3.0	11
22	.8	4.1	6.3	7.3	4.9	6.6	4.4	4.6	2.8	1.5	3.2	11
23	.6	4.4	7.0	7.0	4.9	6.6	3.9	5.2	2.8	1.5	3.2	13
24	1.0	4.9	6.6	6.0	5.2	5.7	4.4	5.4	2.6	1.5	3.2	13
25	1.0	4.9	6.6	4.8	5.7	4.9	3.9	5.4	2.6	1.6	3.4	11
26	1.0	5.2	6.3	4.1	5.7	4.1	3.2	5.7	2.6	1.5	3.4	11
27	.9	5.2	6.3	4.9	5.7	4.1	3.0	5.7	2.6	1.4	3.4	10
28	.9	4.9	6.3	5.2	5.4	4.6	3.2	5.7	2.6	1.4	3.0	10
29	.9	4.6	6.6	4.9	-	4.4	5.2	5.4	2.4	1.3	3.2	9.8
30	.9	4.9	6.6	4.9	-	4.4	4.9	5.4	2.4	1.3	3.6	9.4
31	1.6	-	6.3	4.9	-	5.2	-	4.9	-	1.2	3.4	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	56.0	6.6	0.8	1.81	111
November	134.5	5.2	3.0	4.48	267
December	179.1	7.0	4.9	5.78	355
Calendar year 1944	1,399.2	9.5	.8	3.82	2,770
January	219.3	10	4.1	7.07	435
February	173.4	9.8	4.6	6.19	344
March	163.8	7.0	3.4	5.28	325
April	136.4	6.6	3.0	4.55	271
May	132.1	5.7	2.2	4.26	262
June	116.2	6.0	2.4	3.87	230
July	39.3	1.6	.6	1.27	78
August	77.4	3.6	1.2	2.50	154
September	200.1	13	2.8	6.67	397
Water year 1944-45	1,627.6	13	.6	4.46	3,230

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

East Fork Touchet River near Dayton, Wash.

Location.- Water-stage recorder, lat. 46°16'45", long. 117°54'05", in NW¼NW¼ sec. 11, T. 9 N., R. 39 E., 250 feet upstream from city of Dayton's water-supply headworks, 1,000 feet upstream from Hatley Creek, three-quarters of a mile downstream from Wolf Creek, 3 miles upstream from confluence with South Fork, and 4 miles southeast of Dayton. Datum of gage is 1,768.3 feet above mean sea level (river-profile survey).

Records available.- April 1941 to September 1945.

Extremes.- Maximum discharge during year, 376 second-feet Feb. 8 (gage height, 3.48 feet); minimum, 30 second-feet Aug. 6, 23, 29, Sept. 1 (gage height, 2.08 feet).
1941-45: Maximum discharge not determined, probably occurred during period of faulty gage-height record Apr. 1-4, 1943; minimum, 29 second-feet Sept. 9, 12, 13, 14, 1944 (gage height, 2.06 feet).

Remarks.- Records good. No regulation. Small diversions above station for irrigation during summer months.

Rating table, water year 1944-45, except period of ice effect
(gage height, in feet, and discharge, in second-feet)

2.1	32	2.9	188
2.3	59	3.1	248
2.5	94	3.3	314
2.7	136		

Discharge, in second-feet, water year October 1944 to September 1945

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	37	49	43	43	54	67	166	221	112	50	36	32
2	36	42	44	42	59	67	156	233	106	49	35	32
3	36	42	43	42	67	67	141	254	106	47	35	32
4	36	47	43	42	72	67	125	290	100	46	34	34
5	38	43	44	49	81	69	123	283	118	44	34	37
6	37	41	*46	64	83	67	123	254	127	43	32	36
7	36	39	56	151	104	64	123	227	125	43	32	35
8	36	39	54	104	287	66	172	203	116	42	34	34
9	35	38	49	80	307	66	169	188	114	41	34	35
10	35	39	44	72	224	87	166	188	108	41	34	35
11	35	43	43	71	163	90	169	180	100	41	35	35
12	35	39	42	110	156	127	161	177	96	41	37	35
13	36	38	42	166	172	164	164	191	98	41	37	34
14	36	38	42	156	166	172	160	188	89	41	37	34
15	36	38	41	129	146	161	168	180	83	38	35	37
16	36	38	41	114	129	151	197	183	78	37	35	42
17	36	38	39	102	121	146	a180	174	74	37	34	36
18	36	38	39	98	108	144	a170	161	72	37	34	34
19	35	38	41	92	96	138	a165	151	71	36	34	32
20	35	38	41	85	90	174	a200	144	69	36	34	41
21	35	38	41	78	83	227	a220	141	69	36	32	41
22	35	39	41	71	80	236	227	134	67	36	34	49
23	35	42	b40	67	78	239	215	136	64	37	32	49
24	36	44	b38	64	74	206	206	129	62	37	32	49
25	35	42	b38	*64	71	180	188	134	61	36	32	50
26	35	46	b39	61	69	158	172	129	58	36	36	44
27	35	49	b40	58	69	141	166	129	58	36	36	42
28	35	43	42	54	67	136	161	125	56	36	34	39
29	35	43	42	54	-	132	a155	123	54	36	32	38
30	35	42	42	53	-	127	h200	121	53	36	32	37
31	37	-	42	53	-	156	-	118	-	36	34	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	1,106	38	35	35.7	2,190
November	1,232	49	38	41.1	2,440
December	1,322	56	38	42.6	2,620
Calendar year 1944	23,162	275	30	63.3	45,930
January	2,489	166	42	80.3	4,940
February	3,296	307	54	117	6,540
March	4,092	239	64	132	8,120
April	5,168	227	123	172	10,250
May	5,489	290	118	177	10,690
June	2,564	127	53	85.5	5,090
July	1,229	50	36	39.6	2,440
August	1,058	37	32	34.1	2,100
September	1,140	50	32	38.0	2,260
Water year 1944-45	30,165	307	32	82.7	59,880

* Winter discharge measurement made on this day.
a No gage-height record; discharge computed on basis of records for Mill Creek near Walla Walla.
b Stage-discharge relation affected by ice.
h Computed from staff-gage reading.
Time basis: Pacific war time up to 2 a.m., Sept. 30, 1945; Pacific standard time thereafter. To convert war time to standard time, subtract 1 hour.

Touchet River near Touchet, Wash.

Location.- Water-stage recorder, lat. 46°05'25", long. 118°39'40", in NE¼ sec. 15, T. 7 N., R. 33 E., 100 feet downstream from county road bridge, 3½ miles north of Touchet, and 4½ miles upstream from mouth.
Drainage area.- 726 square miles.
Records available.- April 1941 to September 1945.
Extremes.- Maximum discharge during year not determined, occurred sometime during period of faulty gage-height record; minimum, 12 second-feet Aug. 9, 10, 19, 20, 25, 26.
1941-45: Maximum discharge observed, 2,260 second-feet May 23, 1942 (gage height, 7.92 feet), from rating curve extended above 1,300 second-feet; minimum discharge, 6.4 second-feet Sept. 13, 14, 1944 (gage height, 1.45 feet).
Remarks.- Records good except those for periods of ice effect or faulty gage-height record, which are poor. Many large diversions above station for irrigation. No regulation.

Rating tables, water year 1944-45, except period of ice effect
(gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Oct. 11 to Jan. 7)

Oct. 1 to Jan. 7				Jan. 8 to Sept. 30			
1.8	21	2.6	96	1.7	19	3.0	169
2.0	34	2.9	143	1.9	31	3.5	289
2.2	50	3.2	204	2.1	47	4.0	451
2.4	71			2.4	77	4.5	660
				2.7	116	5.0	896

Discharge, in second-feet, water year October 1944 to September 1945

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	29	34	54	50	88	135	350	355	169	48	20	15
2	31	43	52	54	153	135	h375	375	153	44	19	15
3	30	47	53	50	222	135	320	398	148	41	18	15
4	30	48	*54	46	192	h136	295	440	150	36	16	14
5	30	50	52	47	175	140	270	459	141	34	15	16
6	32	50	51	52	182	135	270	408	213	33	15	22
7	32	46	58	181	177	130	270	375	239	33	15	22
8	31	45	73	374	h337	130	350	343	224	32	14	20
9	31	43	75	212	600	135	h444	312	201	31	13	19
10	29	42	67	161	1,000	150	400	298	192	31	13	18
11	28	41	60	141	600	200	360	298	171	31	17	18
12	28	42	56	139	360	334	340	251	156	29	17	18
13	28	44	50	312	400	660	320	301	145	29	19	18
14	28	42	43	415	330	700	380	306	145	29	20	18
15	29	40	b43	334	350	580	450	298	130	29	20	29
16	29	40	b43	292	h330	h470	h529	304	115	29	20	23
17	30	42	b43	249	270	436	470	343	105	28	16	28
18	30	42	b43	293	235	415	400	306	96	29	15	31
19	30	41	b45	*252	210	400	350	278	87	29	13	27
20	30	40	b50	210	195	490	420	265	76	29	13	30
21	29	40	b50	184	180	600	500	244	70	29	14	34
22	29	40	b50	160	170	740	600	231	65	27	14	43
23	30	42	45	139	h158	h706	500	222	64	26	14	46
24	29	44	31	127	155	560	h415	219	61	26	13	53
25	28	49	24	122	150	440	370	217	58	24	13	52
26	29	51	38	115	145	350	340	222	55	24	13	52
27	29	51	44	106	140	325	318	212	53	22	17	49
28	30	61	44	99	140	310	301	203	52	22	22	44
29	31	56	68	93	-	305	286	194	49	22	20	42
30	32	52	53	89	-	300	301	188	49	21	18	39
31	33	-	54	88	-	315	-	182	-	20	16	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	924	33	28	29.8	1,830
November	1,348	61	34	44.9	2,670
December	1,566	75	24	50.5	3,110
Calendar year 1944	37,014.5	1,510	7.0	101	73,420
January	5,186	415	46	167	10,290
February	7,894	1,000	88	282	15,660
March	10,986	740	130	354	21,790
April	11,294	600	270	376	22,400
May	9,077	459	182	293	18,000
June	3,657	239	49	121	7,210
July	918	48	20	29.6	1,820
August	502	22	13	16.2	996
September	870	53	14	29.0	1,730
Water year 1944-45	54,202	1,000	13	148	107,500

e Winter discharge measurement made on this day.
b Stage-discharge relation affected by ice.
h Computed from staff-gage readings.
Note.- Recorded gage heights not representative of average for day Feb. 9-15, 17-28. Feb. 24 to Mar. 3, Mar. 5-15, 17-22, Mar. 24 to Apr. 1, Apr. 3-8, 10-15, 17-23, 25, 26; discharge computed on basis of records for stations on nearby streams.
Time basis: Pacific war time up to 2 a.m., Sept. 30, 1945; Pacific standard time thereafter. To convert war time to standard time, subtract 1 hour.

Umatilla River above Meacham Creek, near Gibbon, Oreg.

Location.- Water-stage recorder, lat. 45°43', long. 118°20', in SW¼ sec. 21, T. 3 N., R. 36 E., 0.8 mile downstream from Ryan Creek, 2¼ miles upstream from Meacham Creek, and 2½ miles northeast of Gibbon. Datum of gage is 1,855.25 feet above mean sea level, datum of 1929.

Drainage area.- 125 square miles.

Records available.- June 1939 to September 1945. April 1933 to June 1939 at site 1 mile downstream.

Average discharge.- 12 years, 195 second-feet.

Extremes.- Maximum discharge during year, 1,570 second-feet Feb. 8 (gage height, 5.23 feet); minimum, 42 second-feet Aug. 31 to Sept. 4, Sept. 8, 9, 30.
1933-45: Maximum discharge, 2,120 second-feet Apr. 12, 1936 (gage height, 2.95 feet, site and datum then in use); minimum, 28 second-feet Sept. 27, 1936, Jan. 9, 1937.

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

Rating tables, water year 1944-45, except period of ice effect
(gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Oct. 1 to Feb. 8, Sept. 15-30)

Oct. 1 to Feb. 8				Feb. 9 to Sept. 30			
1.9	45	2.9	255	2.0	48	3.1	280
2.0	56	3.2	370	2.2	70	3.4	400
2.2	83	3.5	505	2.4	100	3.7	540
2.4	120	4.0	745	2.6	137	4.1	750
2.6	167	4.5	1,060	2.8	185	4.5	1,010

Discharge, in second-feet, water year October 1944 to September 1945

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	46	52	55	47	100	131	427	961	376	86	48	43
2	44	49	60	45	213	129	360	968	332	81	48	42
3	43	55	60	45	290	135	320	975	336	78	47	42
4	44	57	60	45	276	133	284	996	300	74	47	42
5	47	52	62	47	249	118	276	919	320	80	46	47
6	46	48	66	79	222	126	284	816	384	69	45	48
7	45	48	69	464	342	122	308	720	388	66	46	44
8	45	46	69	388	1,180	139	486	655	360	65	47	44
9	45	45	68	231	1,190	180	510	595	344	64	46	43
10	46	46	65	184	680	360	440	580	316	62	46	44
11	46	55	60	178	515	384	414	535	280	62	48	44
12	47	49	56	268	463	454	372	510	252	62	49	44
13	47	47	53	665	1,180	525	368	680	239	60	49	44
14	48	48	50	564	846	472	481	640	215	60	47	44
15	47	45	49	370	575	384	575	595	197	59	47	47
16	46	45	48	326	376	316	585	645	182	58	45	50
17	46	44	47	294	308	276	505	726	172	57	45	47
18	46	44	46	283	248	239	505	660	164	58	45	46
19	46	43	46	231	206	239	645	595	162	57	44	46
20	45	43	46	187	191	736	828	550	155	56	44	52
21	44	43	47	162	169	1,090	968	510	150	55	44	49
22	44	43	47	140	157	968	798	481	144	56	44	49
23	44	46	46	129	152	1,080	744	468	133	56	44	49
24	45	55	45	124	144	738	834	445	124	55	44	48
25	43	52	45	116	135	575	756	476	116	54	44	46
26	43	56	44	108	135	454	665	490	111	54	46	45
27	43	59	44	102	137	368	615	550	105	52	47	44
28	44	55	44	b97	131	328	570	535	100	52	44	43
29	44	52	46	92	-	304	675	510	98	50	44	43
30	43	50	45	88	-	304	905	472	92	50	43	42
31	48	-	45	88	-	427	-	422	-	50	43	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff Inches	Runoff Acre-feet
October	1,400	48	43	45.2	0.362	0.42	2,780
November	1,470	59	43	49.0	.392	.44	2,920
December	1,533	69	44	52.7	.422	.49	3,240
Calendar year 1944	53,280	1,260	37	146	1.17	15.85	105,700
January	6,187	665	45	200	1.60	1.84	12,270
February	10,760	1,190	100	384	3.07	3.20	21,340
March	12,234	1,090	118	395	3.16	3.64	24,270
April	16,503	968	276	550	4.40	4.91	32,730
May	19,680	996	422	635	5.08	5.86	39,030
June	5,647	388	92	222	1.78	1.98	13,180
July	1,898	86	50	61.2	.490	.56	3,760
August	1,416	49	43	45.7	.366	.42	2,810
September	1,359	52	42	45.3	.362	.40	2,700
Water year 1944-45	81,187	1,190	42	222	1.78	24.16	161,000

Peak discharge.- Feb. 8 (1:30 p.m.) 1,570 sec.-ft.; Feb. 9 (4 a.m.) 1,450 sec.-ft.; Feb. 13 (12:30 p.m.) 1,440 sec.-ft.; Mar. 21 (5:30 a.m.) 1,230 sec.-ft.; Mar. 23 (3:30 a.m.) 1,180 sec.-ft.
b Stage-discharge relation affected by ice.
Time basis: Pacific war time up to 2 a.m., Sept. 30, 1945; Pacific standard time thereafter.
To convert war time to standard time, subtract 1 hour.

Umatilla River at Pendleton, Oreg.

Location.- Water-stage recorder, lat. 45°40', long. 118°48', in NE¼ sec. 10, T. 2 N., R. 32 E., at Pendleton, 2½ miles upstream from McKay Creek. Datum of gage is 1,062.54 feet above mean sea level, datum of 1929. Temporary water-stage recorder 600 feet upstream at different datum used in low-water periods.

Drainage area.- 637 square miles.

Records available.- February 1891 to July 1892, May 1903 to June 1905, October 1934 to September 1945. May 1921 to September 1934 at site about 2½ miles downstream.

Average discharge.- 22 years (1923-45), 442 second-feet.

Extremes.- Maximum discharge during year, 4,470 second-feet Feb. 13 (gage height, 4.70 feet); minimum, 25 second-feet Aug. 22-24.

1891-92, 1903-5, 1921-45: Maximum discharge, 13,500 second-feet Apr. 1, 1931 (gage height, 8.8 feet, site and datum then in use), computed on basis of records for Umatilla River at Umatilla and near Yoakum, and Birch Creek at Rieth; minimum, 7 second-feet Aug. 14, 1924.

Flood of May 30-31, 1906, reached a stage of 11.0 feet, present site and datum (discharge not determined but somewhat greater than that of Apr. 1, 1931).

Remarks.- Records good except those for periods of shifting control, which are fair, and those for Sept. 20-30, which are poor. Records based on auxiliary water-stage recorder 600 feet upstream for periods Oct. 1 to Jan. 12, Jan. 21 to Feb. 7, June 16 to Sept. 30. Small diversions above station for irrigation; no regulation.

Discharge, in second-feet, water year October 1944 to September 1945

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	48	53	72	63	188	390	1,240	2,030	750	106	31	28
2	46	54	74	64	362	381	1,040	1,930	631	101	30	27
3	44	55	75	64	603	405	902	1,960	580	94	29	26
4	44	60	76	64	643	425	766	1,900	550	85	29	29
5	45	61	78	64	619	368	708	1,850	508	78	28	39
6	46	59	78	72	560	376	715	1,620	631	75	26	40
7	45	58	81	347	643	372	782	1,440	666	70	26	37
8	44	56	86	765	2,320	405	1,100	1,280	631	66	29	36
9	44	55	87	532	3,630	514	1,270	1,140	574	65	29	35
10	44	56	87	410	2,510	1,020	1,130	1,060	538	60	29	34
11	44	62	87	380	1,800	1,270	1,150	998	475	57	29	a34
12	44	66	84	415	1,500	1,460	1,080	910	425	57	30	33
13	46	64	81	998	2,900	2,020	1,030	1,120	390	57	32	32
14	49	63	78	1,430	3,540	1,910	1,240	1,110	358	57	32	31
15	46	62	75	998	2,300	1,590	1,470	1,050	313	53	29	33
16	45	61	74	830	1,550	1,280	1,590	1,060	286	51	28	36
17	45	60	72	774	1,190	1,070	1,520	1,300	263	52	28	37
18	45	59	71	838	974	918	1,430	1,240	248	50	28	37
19	44	60	69	680	766	814	1,650	1,130	239	46	28	37
20	44	60	69	538	673	1,480	2,070	1,060	225	43	a28	a45
21	44	60	69	440	604	2,600	2,410	1,010	209	39	a27	a49
22	45	59	68	375	544	2,410	2,340	966	189	35	25	a49
23	45	59	67	333	514	2,810	2,060	950	170	37	25	a49
24	44	63	66	304	485	2,150	2,090	942	163	39	26	a49
25	44	68	64	284	450	1,610	1,920	958	150	37	26	a49
26	44	75	62	266	425	1,310	1,670	998	146	36	28	50
27	45	75	62	248	420	1,060	1,520	1,140	138	36	32	a48
28	45	75	62	222	400	910	1,340	1,110	132	34	30	a48
29	46	72	61	210	-	838	1,380	1,050	125	32	29	a49
30	45	72	62	200	-	798	1,780	974	119	32	29	a47
31	48	-	62	190	-	1,090	-	854	-	31	29	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	1,398	49	44	45.1	2,770
November	1,862	75	53	62.1	3,690
December	2,259	87	61	72.9	4,480
Calendar year 1944	107,816	4,470	22	295	213,800
January	13,398	1,430	63	432	26,570
February	33,113	3,630	188	1,183	65,680
March	36,054	2,810	368	1,163	71,510
April	42,393	2,410	708	1,413	84,090
May	38,140	2,030	854	1,230	75,650
June	10,822	750	119	361	21,470
July	1,711	106	31	55.2	3,390
August	886	32	26	28.6	1,760
September	1,173	50	26	39.1	2,330
Water year 1944-45	183,209	3,630	26	502	363,400

a No gage-height record; discharge computed on basis of records for stations above Meacham Creek, near Gibbon, and at Pendleton.

Note.- Shifting-control method used Jan. 13-20, Mar. 20 to May 7, July 30 to Sept. 19.

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

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Umatilla River at Yoakum, Oreg.

Location.- Water-stage recorder, lat. 45°41', long. 119°02', in SW¼ sec. 2, T. 2 N., R. 30 E., at highway bridge, half a mile northeast of Yoakum station and 2⅝ miles downstream from abandoned Furnish Reservoir. Datum of gage is 770.41 feet above mean sea level, datum of 1929.

Drainage area.- 1,280 square miles.

Records available.- May 1903 to August 1916 (flow slightly regulated by storage in Furnish Reservoir, 1910-16), October 1934 to September 1945. June 1915 to September 1934 at site 5 miles upstream above Furnish Reservoir.

Average discharge.- 42 years, 656 second-feet.

Extremes.- Maximum discharge during year, 3,970 second-feet Feb. 14 (gage height, 5.80 feet); minimum, 49 second-feet Oct. 11.

1903-45: Maximum discharge, 20,000 second-feet May 30, 1906 (gage height, about 15.0 feet, datum then in use, from floodmarks), from rating curve extended above 6,600 second-feet on basis of records for station near Umatilla; minimum, 12 second-feet Aug. 10-12, 1908.

Remarks.- Records good except those for period of shifting control and those for Feb. 1 to June 10, which are fair. Diversions above station for irrigation. Flow regulated to some extent by mills at Pendleton, and since 1927 by McKay Reservoir.

Rating table water year 1944-45, except period of shifting control
(gage height, in feet, and discharge, in second-feet)

0.8	56	1.4	200	2.9	975
.9	72	1.7	310	3.4	1,340
1.0	91	2.0	440	4.0	1,870
1.2	138	2.4	660	5.0	2,970

Discharge, in second-feet, water year October 1944 to September 1945

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	54	57	101	82	218	460	1,400	a2,350	a1,050	390	368	338
2	54	60	99	85	299	460	1,260	2,340	a850	390	368	342
3	54	62	99	85	636	470	1,090	2,350	a780	386	359	342
4	52	66	100	85	684	485	1,000	2,390	a730	390	310	342
5	54	70	100	87	666	455	916	2,130	a690	382	232	364
6	56	70	100	91	612	422	897	1,830	h786	386	228	359
7	56	70	104	241	624	431	923	1,580	a830	400	261	359
8	56	70	109	720	1,940	450	1,130	1,410	a790	418	314	342
9	52	73	109	589	3,610	518	1,390	1,280	a720	364	326	326
10	51	73	109	445	2,460	786	1,380	1,240	a680	268	330	318
11	51	79	109	408	1,670	1,150	1,380	1,150	584	250	334	310
12	51	83	106	418	1,420	1,250	1,430	1,060	512	250	334	310
13	52	83	104	904	2,260	a1,900	1,380	1,070	465	291	338	314
14	56	83	104	1,500	3,580	1,820	1,470	1,180	436	382	342	318
15	54	81	104	1,060	2,240	1,620	1,820	1,190	395	395	350	322
16	52	81	102	858	1,510	1,370	2,020	1,160	354	395	346	110
17	52	81	98	800	1,200	1,180	2,050	1,290	306	390	342	67
18	52	81	95	871	1,000	982	2,080	1,420	299	400	342	59
19	52	81	91	744	826	871	2,190	1,450	364	400	338	56
20	51	79	91	600	720	1,130	2,600	1,380	404	390	326	61
21	54	79	91	496	660	2,220	2,980	1,330	400	386	318	61
22	52	81	91	426	606	2,370	2,970	1,250	386	382	322	62
23	52	83	91	377	572	2,770	2,530	a1,250	395	404	322	62
24	51	83	89	350	550	2,090	2,420	h1,280	431	408	299	62
25	52	90	89	338	540	2,100	2,400	a1,300	431	408	268	61
26	54	94	87	302	480	1,870	a2,100	a1,350	422	404	265	59
27	52	94	b84	287	470	1,360	a1,900	a1,650	426	408	287	62
28	54	94	b84	261	460	1,180	a1,650	a1,750	418	404	330	61
29	56	94	83	239	-	1,090	a1,700	a1,700	408	390	334	61
30	56	94	83	228	-	1,030	h2,100	1,440	408	382	330	53
31	56	-	82	218	-	1,140	-	a1,100	-	382	326	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	1,651	56	51	53.3	3,270
November	2,369	94	57	79.0	4,700
December	2,988	109	82	96.4	5,930
Calendar year 1944	155,807	4,280	48	426	309,000
January	14,195	1,500	82	458	28,160
February	32,513	3,610	218	1,161	64,490
March	37,230	2,770	422	1,201	73,840
April	42,556	2,980	897	1,752	104,200
May	46,650	2,390	1,060	1,505	92,530
June	16,150	1,050	299	538	32,030
July	11,647	418	250	376	23,100
August	9,889	368	228	319	19,610
September	5,963	364	53	199	11,830
Water year 1944-45	233,801	3,610	51	641	463,700

a No gage-height record; discharge computed on basis of records for station at Perdleton, McKay Creek near Pendleton, and Birch Creek near Rieth.

b Stage-discharge relation affected by ice.

h Computed from staff-gage reading.

Note.- Shifting-control method used Oct. 1 to Dec. 3.

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

Umatilla River near Umatilla, Oreg.

Location.- Water-stage recorder, lat. 45°54', long. 119°20', in NW¼ sec. 21, T. 5 N., R. 28 E., 1½ miles downstream from West Division main canal of Umatilla project and 2 miles upstream from Umatilla and mouth of river. Datum of gage is 330.57 feet above mean sea level, datum of 1929.

Drainage area.- 2,290 square miles.

Records available.- October 1903 to September 1945.

Average discharge.- 42 years, 491 second-feet.

Extremes.- Maximum discharge during year, 3,520 second-feet Feb. 14 (gage height, 5.37 feet); minimum, 0.8 second-foot (regulated) June 18.
1903-45: Maximum discharge observed, 19,600 second-feet May 31, 1906 (gage height, 11.0 feet); no flow at times.

Remarks.- Records good except those for June 16 to Sept. 30, which are fair. Many diversions above station for irrigation; Brownell Canal diverts below station. Flow regulated by McKay and Cold Springs Reservoirs.

Rating table, water year 1944-45 (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used June 21 to Sept. 30)

1.8	2	2.4	40	3.7	830
1.9	4	2.6	76	4.0	1,180
2.0	7	2.8	138	4.3	1,600
2.1	11	3.0	230	4.7	2,260
2.2	18	3.2	360	5.2	3,180
2.3	28	3.4	525		

Discharge, in second-feet, water year October 1944 to September 1945

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	16	146	146	120	124	346	1,140	1,570	670	32	28	38
2	16	131	146	120	124	346	1,100	1,560	491	30	30	40
3	15	124	146	124	313	332	874	1,570	311	34	27	38
4	15	120	142	128	500	360	742	1,680	205	33	32	46
5	15	128	142	128	525	353	610	1,480	81	31	38	56
6	15	131	142	131	500	297	508	1,210	92	53	40	62
7	15	128	138	142	466	311	466	929	146	36	39	74
8	15	128	142	313	876	304	620	680	167	29	36	60
9	15	128	151	572	2,690	346	1,000	508	95	29	33	70
10	15	124	142	424	2,620	491	1,010	384	68	30	30	53
11	15	131	146	332	1,710	1,010	952	318	51	45	43	45
12	15	131	142	297	1,350	1,100	1,110	278	14	32	38	51
13	15	131	142	417	1,450	1,560	1,020	353	19	27	36	46
14	15	131	142	1,310	3,140	1,650	1,060	554	13	24	34	53
15	15	131	134	1,140	2,390	1,410	1,280	516	15	20	29	56
16	21	124	138	830	1,620	1,130	1,500	554	11	25	22	56
17	87	120	131	731	1,230	907	1,480	775	6	22	17	48
18	205	120	131	742	1,020	775	1,420	885	1	25	20	38
19	195	128	131	720	819	640	1,450	830	2	19	24	33
20	190	124	131	572	680	720	1,840	753	8	21	40	56
21	185	124	134	457	620	1,880	2,180	710	12	19	21	68
22	180	131	131	360	554	2,240	2,310	660	14	21	24	68
23	176	142	134	290	508	2,510	1,990	525	23	21	25	66
24	172	128	128	254	482	2,580	1,860	601	28	22	26	64
25	172	131	128	225	432	1,970	1,890	753	33	22	36	48
26	167	138	128	205	392	1,560	1,660	775	35	22	40	43
27	167	134	124	185	392	1,240	1,410	852	40	22	48	27
28	167	138	120	167	368	1,020	1,180	1,160	40	25	48	23
29	167	142	117	146	-	885	1,080	1,160	39	24	46	27
30	167	142	120	131	-	775	1,270	1,060	35	27	39	35
31	163	-	120	128	-	797	-	852	-	28	42	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	2,808	205	15	90.6	5,570
November	3,909	146	120	130	7,750
December	4,189	151	117	135	8,310
Calendar year 1944	84,403	2,910	13	231	167,400
January	11,841	1,310	120	382	23,490
February	27,895	3,140	124	996	55,330
March	31,845	2,580	297	1,027	63,160
April	38,012	2,310	466	1,267	75,400
May	26,495	1,680	278	855	52,550
June	2,765	670	1	92.2	5,480
July	850	53	19	27.4	1,690
August	1,031	48	17	33.3	2,040
September	1,488	74	23	49.6	2,950
Water year 1944-45	153,128	3,140	1	420	303,700

Peak discharge.- Feb. 10 (3 a.m.) 2,970 sec.-ft.; Feb. 14 (2 p.m.) 3,520 sec.-ft.
Time basis: Pacific war time up to 2 a.m., Sept. 30, 1945; Pacific standard time thereafter.
To convert war time to standard time, subtract 1 hour.

McKay Creek near Pilot Rock, Oreg.

Location.- Water-stage recorder, lat. 45°33', long. 118°46', in NE¼ sec. 23, T. 1 N., R. 32 E., 400 feet downstream from county road bridge, three-quarters of a mile upstream from maximum flow line (altitude, 1,322 feet) of McKay Reservoir, and 6 miles northeast of Pilot Rock. Datum of gage is 1,335.85 feet above mean sea level, datum of 1929 (Pacific Power & Light Co. bench mark).

Drainage area.- 178 square miles.

Records available.- May to August 1921, October 1926 to September 1945 (1927-29 incomplete).

Average discharge.- 17 years (1926-27, 1929-45), 88.1 second-feet.

Extremes.- Maximum discharge during year, 1,450 second-feet Feb. 13 (gage height, 4.68 feet), from rating curve extended above 590 second-feet; minimum, 0.2 second-foot Aug. 23, 24.
1921, 1926-45: Maximum discharge, 6,000 second-feet Apr. 1, 1931 (gage height, 10.4 feet, site and datum then in use); no flow at times.

Remarks.- Records good except those below 5 second-feet or above 1,000 second-feet, which are fair, and those for period of no gage-height record, which are poor. Many small diversions above station for irrigation; none between station and McKay Reservoir.

Rating tables, water year 1944-45 (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Apr. 24 to June 12)

Oct. 1 to Nov. 27				Nov. 28 to Sept. 30					
1.1	4.0	0.8	0.1	1.3	9.2	1.9	56	3.0	375
1.2	6.9	.9	.6	1.4	14	2.1	83	3.3	530
1.3	11	1.0	1.8	1.5	19	2.3	116	3.6	700
1.4	16	1.1	3.6	1.6	26	2.5	166	4.0	955
		1.2	5.9	1.7	35	2.7	236		

Discharge, in second-feet, water year October 1944 to September 1945

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	3.6	4.6	12	12	54	155	355	245	139	7.2	a1.5	0.4
2	3.6	4.6	12	12	114	152	302	217	112	5.9	a1.4	.4
3	3.8	4.9	12	13	267	182	271	202	96	5.0	a1.3	.3
4	3.8	5.2	12	14	254	192	240	182	88	4.5	a1.2	.6
5	4.3	6.9	12	14	221	161	228	166	79	4.3	a1.2	.8
6	4.0	9.5	13	16	192	166	240	142	94	4.1	a1.1	.6
7	3.8	9.5	13	144	402	147	267	121	84	4.3	1.0	.4
8	3.6	9.1	14	137	780	163	330	105	79	4.1	1.0	.4
9	3.2	9.1	15	98	629	198	312	92	75	3.6	.6	.6
10	3.0	9.9	16	82	410	385	280	83	72	3.1	.6	.8
11	3.0	13	16	77	340	502	271	76	85	2.5	.6	1.0
12	3.4	13	16	83	302	692	267	75	61	2.3	.7	.8
13	3.6	13	16	150	975	884	267	102	59	2.3	.8	.7
14	4.0	13	14	161	884	706	325	90	55	2.7	.8	.6
15	4.3	12	13	134	618	536	420	88	48	2.5	.6	.7
16	4.3	12	14	139	445	430	445	118	42	2.7	.7	.6
17	4.3	12	13	161	360	365	405	188	37	3.1	.6	.5
18	4.3	11	12	249	289	298	395	179	31	3.1	.6	.6
19	4.3	11	12	176	225	267	440	182	29	3.1	.5	.7
20	4.3	11	12	152	217	415	480	225	26	2.5	.4	1.0
21	4.8	11	12	128	188	640	460	221	23	2.3	.3	1.1
22	4.6	11	12	109	179	742	395	213	22	2.2	.3	1.3
23	4.9	11	11	96	185	838	370	298	20	2.2	.2	1.7
24	4.3	12	11	89	188	624	385	294	15	a2.1	.5	1.8
25	3.8	13	10	82	195	486	335	307	13	a2.0	.6	1.6
26	3.6	13	10	75	185	425	280	307	11	a2.0	.6	1.8
27	3.2	14	10	69	172	375	240	425	9.2	a1.9	.7	2.2
28	3.2	13	11	64	152	345	213	385	9.7	a1.8	.6	1.8
29	3.2	11	12	60	-	325	217	312	11	a1.7	.5	1.7
30	3.0	11	11	56	-	312	245	236	11	a1.6	.4	1.7
31	4.0	-	11	54	-	380	-	182	-	a1.6	.4	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	118.9	4.9	3.0	3.84	236
November	314.3	14	4.6	10.5	623
December	390	16	10	12.6	774
Calendar year 1944	26,481.4	1,140	.3	72.4	52,520
January	2,906	249	12	93.7	5,760
February	9,422	975	54	336	18,690
March	12,478	884	147	403	24,750
April	9,680	480	213	323	19,200
May	6,058	425	75	195	12,020
June	1,517.9	139	9.2	50.6	3,010
July	94.3	7.2	1.6	3.04	187
August	22.3	1.5	.2	.72	44
September	29.4	2.2	.3	.98	58
Water year 1944-45	43,031.1	975	.2	118	85,350

a No gage-height record; discharge interpolated.
Time basis: Pacific war time up to 2 a.m., Sept. 30, 1945; Pacific standard time thereafter.
To convert war time to standard time, subtract 1 hour.

McKay Reservoir near Pendleton, Oreg.

Location.- Staff gage, lat. 45°36', long. 118°48', at dam on McKay Creek in SE¼ sec. 34, T. 2 N., R. 32 E., 4 miles south of Pendleton. Datum of gage is at mean sea level (surveys by Bureau of Reclamation).

Records available.- October 1930 to September 1945.

Extremes.- Maximum contents observed during year, 71,300 acre-feet Apr. 30, May 31 (elevation, 1,320.0 feet); minimum observed, 13,600 acre-feet Oct. 31 (elevation, 1,245.8 feet).

1930-45: Maximum contents observed, 71,890 acre-feet July 1, 1942 (elevation, 1,320.5 feet); minimum observed, 3,051 acre-feet Oct. 1, Nov. 1, Dec. 1, 1935 (elevation, 1,217.6 feet).

Remarks.- Reservoir is formed by gravel-fill dam with concrete facing completed in 1926; storage began in 1927. Capacity, 73,660 acre-feet between elevations 1,182 feet (floor of trash-rack structure) and 1,322 feet (top of spillway gates). Dead storage not known. Water is used for irrigation of lands along Umatilla River near Echo, Stanfield, and Hermiston. Gage read to nearest foot or half-foot on last day of each month, occasionally at other times.

Cooperation.- Gage readings and capacity table furnished by Bureau of Reclamation.

Monthly elevation and contents, water year October 1944 to September 1945

Date	Gage height elevation (feet)	Contents (acre-feet)	Change in contents during month (acre-feet)
Sept.30	1,246.0	13,700	-
Oct. 31	1,245.8	13,600	-100
Nov. 30	1,247.5	14,390	+790
Dec. 31	1,248.5	14,870	+480
Calendar year 1944	-	-	-20,830
Jan. 31	1,261.0	21,440	+6,570
Feb. 28	1,288.0	39,530	+18,090
Mar. 31	1,312.0	62,050	+22,520
Apr. 30	1,320.0	71,300	+9,250
May 31	1,320.0	71,300	0
June 30	1,314.7	65,050	-6,250
July 31	1,293.0	43,620	-21,430
Aug. 31	1,268.5	25,900	-17,720
Sept.30	1,253.0	17,110	-8,790
Water year 1944-45	-	-	+3,410

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

McKay Creek near Pendleton, Oreg.

Location.- Water-stage recorder, lat. 45°37', long. 118°48', in sec. 34, T. 2 N., R. 32 E., just upstream from irrigation diversion dam, a quarter of a mile downstream from McKay Dam, and 4 miles south of Pendleton.

Records available.- November 1918 to September 1923, October 1924 to September 1945 (diversions by irrigation canal at gage not included since 1932).

Average discharge.- 22 years (1919-23, 1924-27, 1928-43), 91.0 second-feet (unadjusted).

Extremes.- Maximum discharge during year, 434 second-feet (regulated) Apr. 17, 18 (gage height, 1.49 feet); no flow during most of period Oct. 1 to Apr. 6, Sept. 17-30.
1918-45: Maximum discharge observed, 3,250 second-feet Feb. 10, 1921 (gage height, 4.4 feet, site and datum then in use), from rating curve extended above 1,110 second-feet; no flow at times.

Remarks.- Records good except those for Apr. 20 to May 27, which are fair. Diversions above station for irrigation. Flow completely regulated since 1927 by McKay Reservoir.

Rating table, water year 1944-45 (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used May 4-28, July 13 to Aug. 4)

0.1	2.6	0.6	73
.2	10	.8	127
.3	21	1.0	194
.4	35	1.2	277
.5	52	1.4	380

Discharge, in second-feet, water year October 1944 to September 1945

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1							-	54	170	287	347	336
2							-	175	86	282	347	336
3							-	305	86	277	347	336
4							-	275	86	273	248	330
5							-	146	66	273	210	325
6							-	114	86	293	210	325
7							f10	86	86	306	268	320
8							10	86	83	330	301	f315
9							10	86	83	234	306	f306
10							46	86	77	194	315	a308
11							101	83	11	194	320	a310
12							172	83	16	190	320	a311
13							233	83	14	284	320	a313
14							163	83	13	347	320	f315
15							325	83	12	358	325	254
16							325	83	11	358	325	f3.3
17							371	111	9.3	358	325	-
18							416	233	71	358	f325	-
19							386	233	161	358	g315	-
20							276	233	202	358	h306	-
21							202	233	206	358	g311	-
22							194	134	214	364	g320	-
23							194	113	261	374	g320	-
24							219	146	287	380	g277	-
25							268	146	287	380	f255	-
26							268	165	287	380	255	-
27							203	260	287	380	291	-
28							153	380	287	580	325	-
29							149	422	287	358	325	-
30							105	253	287	347	325	-
31							-	91	-	347	325	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October					
November					
December					
Calendar year					
January	-	-	-	-	-
February	-	-	-	-	-
March	-	-	-	-	-
April 7-30	4,799	416	10	200	9,520
May	5,064	422	54	163	10,040
June	4,139.3	287	9.3	138	8,210
July	9,960	380	190	321	19,760
August	9,429	347	210	304	18,700
September 1-16	4,743.3	336	3.3	296	9,410
The period	38,134.6	-	-	-	75,640

a No gage-height record; discharge interpolated.
f Computed from partly estimated gage-height record.
g Computed from graph based on gage readings.
h Computed from staff-gage reading.
Note.- Probably little or no flow Oct. 1 to Apr. 6, Sept. 17-30
Time basis: Pacific war time up to 2 a.m., Sept. 30, 1945; Pacific standard time thereafter.
To convert war time to standard time, subtract 1 hour.

Birch Creek at Rieth, Oreg.

Location.- Water-stage recorder, lat. 45°39', long. 118°53', in SE¼ sec. 13, T. 2 N., R. 31 E., a quarter of a mile upstream from mouth and half a mile southwest of Rieth.

Drainage area.- 291 square miles.

Records available.- May 1921 to September 1923 and April 1927 to September 1945 (incomplete prior to October 1929).

Average discharge.- 16 years (1929-45), 37.3 second-feet.

Extremes.- Maximum discharge during year, 340 second-feet Apr. 21 (gage height, 3.10 feet); minimum, 0.1 second-foot at times in October, June to August.
1921-23, 1927-45: Maximum discharge, 1,640 second-feet Jan. 29, 1928 (gage height, 6.00 feet, site and datum then in use), from rating curve extended above 300 second-feet; no flow at times.

Remarks.- Records good except those for Feb. 9 to Apr. 24, which are fair, and those below 5 second-feet, which are poor. Several small diversions above station for irrigation.

Rating table, water year 1944-45 (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Feb. 8 to Mar. 22, June 20 to July 20, July 28 to Aug. 29, Sept. 10-30)

0.4	0.1	1.0	11	1.9	94
.5	.3	1.1	16	2.1	124
.6	1.3	1.2	22	2.4	177
.7	3.0	1.3	28	2.7	240
.8	5.3	1.5	46	3.0	314
.9	8.0	1.7	68		

Discharge, in second-feet, water year October 1944 to September 1945

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.1	1.8	14	17	24	53	149	257	132	0.2	0.1	0.2
2	.1	1.3	14	16	26	53	145	222	115	.2	.1	.2
3	.1	1.0	14	15	34	54	132	205	100	.1	.1	.2
4	.1	1.3	14	15	39	55	121	183	84	.2	.1	.3
5	.8	1.2	13	15	44	42	120	156	78	.2	.2	.3
6	2.2	.8	12	16	47	52	120	130	80	.5	.2	.3
7	2.2	.9	12	24	49	48	118	108	74	.4	.2	.3
8	2.2	2.7	13	24	64	48	142	78	66	.3	.2	.3
9	a.5	8.9	12	24	100	47	154	58	55	.2	.2	.2
10	a.2	8.9	13	24	98	62	147	49	53	.2	.2	.4
11	.1	12	13	23	91	83	137	41	46	.2	.2	.4
12	.1	11	13	23	80	102	132	37	40	.2	.2	.3
13	.1	11	13	23	86	166	126	60	30	.1	.2	.3
14	a.1	12	13	26	132	164	116	93	30	.1	.2	1.1
15	a.2	11	13	29	122	147	112	a100	30	.1	.2	1.2
16	a.2	11	13	31	104	127	114	121	21	.1	.2	.7
17	a.2	12	12	34	93	114	124	149	12	.1	.2	.8
18	.1	12	12	45	84	104	137	151	11	.1	.2	1.6
19	.2	12	12	45	62	96	189	145	4.2	.1	.2	1.8
20	.3	12	11	43	66	90	262	144	.4	.1	.2	3.0
21	a.5	12	10	40	65	109	306	140	.3	.1	.2	2.5
22	a1.0	12	10	36	62	142	279	a140	1.3	.1	.2	2.7
23	a2.5	12	10	32	60	222	a230	144	.1	.1	.2	2.8
24	a.5	12	10	31	59	216	a230	169	.1	.1	.2	3.0
25	h.1	13	9.5	30	54	193	185	162	.1	.1	.2	3.0
26	a.1	14	a9.6	30	54	173	158	a165	.3	.1	.2	3.7
27	a.1	14	9.8	29	54	168	158	a230	.3	.1	.2	6.4
28	a.1	14	11	26	53	154	147	a220	.3	.1	.2	6.4
29	a.1	14	12	25	-	154	166	a200	.3	.1	.2	4.2
30	a.1	14	12	24	-	147	227	175	.2	.1	.2	.2
31	a.5	-	12	24	-	140	-	153	-	.1	.2	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	15.7	2.5	0.1	0.51	31
November	275.8	14	.8	9.19	547
December	371.9	14	9.5	12.0	738
Calendar year 1944	12,185.0	453	.1	33.3	24,170
January	839	45	15	27.1	1,660
February	1,906	132	24	63.1	3,780
March	3,525	222	42	114	6,990
April	4,883	306	112	163	9,690
May	4,385	257	37	141	8,700
June	1,064.9	132	.1	35.5	2,110
July	4.8	.5	.1	.15	9.5
August	5.8	.2	.1	.19	12
September	48.8	6.4	.2	1.63	97
Water year 1944-45	17,325.7	306	.1	47.5	34,360

a No gage-height record; discharge computed on basis of range in stage and records for McKay Creek near Pilot Rock.
h Computed from staff-gage reading.
Time basis: Pacific war time up to 2 a.m., Sept. 30, 1945; Pacific standard time thereafter. To convert war time to standard time, subtract 1 hour.

.Principal diversions from Umatilla River between Pendleton and Umatilla, Oreg.

The following canals divert water from Umatilla River between Pendleton and Umatilla: Furnish Canal, from right bank of Umatilla River in sec. 36, T. 3 N., R. 29 E. Umatilla project feed canal, from right bank of Umatilla River in SW¼ sec. 22, T. 3 N., R. 29 E., to feed Cold Springs Reservoir of Bureau of Reclamation. Western Land Canal, from left bank of Umatilla River in NW¼ sec. 21, T. 3 N., R. 29 E.; gage is 1 mile downstream from intake. Allen Canal, from right bank of Western Land canal, half a mile downstream from head gate of that canal. Maxwell Canal, from right bank of Umatilla River in SW¼ sec. 28, T. 4 N., R. 28 E.; at times it receives water from Cold Springs Reservoir. West Division main canal, from left bank of Umatilla River in SW¼ sec. 28, T. 5 N., R. 28 E. Brownell Canal, from right bank of Umatilla River 2 miles below West Division main canal diversion and 1½ miles above mouth of Umatilla River.

Water diverted by all these canals is used for irrigation of lands on both sides of Umatilla River near and below Echo, except that diverted by West Division main canal, which is applied to lands along Columbia River in vicinity of Irrigon.

Several smaller canals also divert water between Pendleton and Umatilla, but no records for them were obtained.

Records of monthly discharge of the canals, published as a group, are available from March 1926 to September 1945; records for some of the canals published separately prior to 1926.

Diversions, in acre-feet, water year October 1944 to September 1945

Month	Furnish Canal	Umatilla project feed canal	Western Land Canal	Allen Canal	Maxwell Canal	West Division main canal	Brownell Canal
October	0	254	-	563	a918	4,230	b133
November	0	3,240	-	13	-	0	-
December	0	3,760	-	61	-	0	-
January	0	10,690	-	61	-	0	-
February	0	12,270	-	55	-	0	-
March	0	13,680	c2,230	69	d230	3,580	-
April	3,660	13,340	5,920	1,020	3,740	9,340	725
May	7,330	13,620	12,340	522	4,750	12,720	896
June	7,780	5,410	11,780	1,390	4,400	10,270	935
July	9,240	0	10,790	1,280	2,930	10,460	1,260
August	7,840	0	9,460	1,030	2,290	10,870	1,330
September	3,770	0	e5,480	989	2,810	10,920	1,120
Water year 1944-45	39,620	76,260	-	7,053	-	72,390	-

a Oct. 1-18.
b Oct. 1-4.
c Mar. 7-30.
d Mar. 28-30.
e Sept. 1-19.

Note.- No gage-height record for months of little or no flow and for a few days and short periods at other times. Discharge for some periods interpolated or computed on basis of information furnished by watermaster.

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

John Day River at Prairie City, Oreg.

Location.- Water-stage recorder, lat. 44°27', long. 118°43', in NE¼ sec. 10, T. 13 S., R. 33 E., 600 feet upstream from power plant and outlet of Prairie power canal, a third of a mile below Dixie Creek, and three-quarters of a mile southwest of Prairie City. Datum of gage is 3,496.99 feet above mean sea level, datum of 1929.
Drainage area.- 231 square miles.
Records available.- October 1926 to September 1945. October 1916 to September 1917 (gage heights only) and March 1925 to September 1926 at site below outlet of Prairie power canal.
Average discharge.- 20 years, 105 second-feet, including flow of Prairie power canal.
Extremes.- Maximum discharge during year, 336 second-feet May 14 (gage height, 3.01 feet); minimum, 5.5 second-feet Oct. 12 (gage height, 1.30 feet).
1926-45: Maximum discharge observed, 1,550 second-feet Mar. 19, 1932 (gage height, 4.7 feet), from rating curve extended above 500 second-feet; minimum, 2 second-feet Dec. 8, 21, 22, 1932, Aug. 10, 1934.
Remarks.- Records good except those for period of no gage-height record, which are poor. Diversions above station for irrigation and for power. (See p. 39 for records for Prairie power canal at Prairie City.)

Rating table, water year 1944-45 (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Oct. 1-28)

1.3	6	1.7	33	2.4	160
1.4	9	1.8	45	2.7	238
1.5	15	2.0	76	3.0	333
1.6	23	2.2	115		

Discharge, in second-feet, water year October 1944 to September 1945

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	9.5		8.5	7.5	21	14	51	224	192	38	12	7.5
2	9.5		8.5	7.5	43	14	45	247	189	33	10	7.0
3	9.0		8.5	7.5	31	14	45	278	207	28	16	7.5
4	9.0		8.5	7.5	19	13	39	307	216	25	17	7.5
5	8.5		8.5	7.5	17	13	39	297	218	24	11	8.5
6	8.5		8.5	8.0	14	14	37	278	210	23	9.5	8.5
7	8.5		8.5	28	26	14	38	247	192	21	11	8.5
8	8.0		8.5	19.	115	16	56	218	160	21	13	8.0
9	8.0		7.5	13	55	15	51	197	135	21	11	8.0
10	6.5		8.0	26	35	16	46	202	137	18	17	8.0
11	6.5		9.0	31	62	17	46	210	124	19	23	7.5
12	6.0		7.0	33	45	18	48	230	107	17	17	8.0
13	6.5		7.0	38	146	21	39	281	111	22	15	8.0
14	7.0		9.0	34	95	19	40	300	97	24	14	8.0
15	7.5		7.0	29	51	13	41	259	86	21	13	9.5
16	8.5	10	7.5	22	35	13	44	281	73	23	12	11
17	9.0		7.0	17	39	12	48	274	58	22	8.5	13
18	8.5		6.5	15	34	11	61	250	53	18	8.0	13
19	8.5		6.5	13	24	11	93	244	49	16	8.0	13
20	8.5		15	10	24	21	137	230	56	15	7.0	14
21	9.0		13	9.5	21	48	177	202	59	14	11	14
22	9.0		10	8.0	22	55	172	184	64	13	12	15
23	9.0		9.0	8.5	22	89	160	177	66	13	14	15
24	9.5		9.0	9.0	20	59	179	205	61	12	13	15
25	10		8.0	9.0	15	53	155	205	68	13	12	15
26	11		7.0	8.5	17	55	133	200	68	12	11	15
27	10		8.0	9.0	18	56	128	205	55	11	9.5	15
28	10		8.0	8.0	13	58	128	177	46	12	8.5	15
29	10		8.0	8.5	-	48	146	172	46	12	8.0	14
30	10		8.0	15	-	44	182	192	40	11	8.0	14
31	11	-	7.5	21	-	48	-	210	-	13	8.0	-

Month	River only				River and Prairie power canal			
	Maximum	Minimum	Mean	Runoff in acre-feet	Maximum	Minimum	Mean	Runoff in acre-feet
October	11	6.0	8.71	536	65	48	58.0	3,560
November	-	-	10	595	-	-	72.7	4,330
December	15	6.5	8.37	515	84	47	65.2	4,010
Calendar year 1944	236	6.0	23.2	16,830	-	-	76.9	55,830
January	38	7.5	15.7	967	109	33	75.6	4,650
February	146	13	38.5	2,140	218	81	108	5,990
March	89	11	29.4	1,810	153	67	94.1	5,790
April	162	37	86.8	5,160	254	103	155	9,210
May	307	172	232	14,250	375	247	306	18,810
June	218	40	108	6,430	296	111	185	11,030
July	38	11	18.9	1,160	103	30	55.1	3,390
August	23	7.0	11.9	730	67	18	34.1	2,090
September	16	7.0	11.0	657	54	18	35.6	2,120
Water year 1944-45	307	6.0	48.3	34,950	375	-	104	74,980

Note.- No gage-height record Oct. 29 to Nov. 30; discharge computed on basis of range in stage and records for John Day River at Picture Gorge, near Dayville, Prairie power canal at Prairie City, and Strawberry Creek near Prairie City.
Time basis: Pacific war time up to 2 a.m., Sept. 30, 1945; Pacific standard time thereafter. To convert war time to standard time, subtract 1 hour.

John Day River at Picture Gorge, near Dayville, Oreg.

Location.- Water-stage recorder and concrete control, lat. 44°31'20", long. 119°37'30", in sec. 20, T. 12 S., R. 26 E., on John Day Highway, 0.7 mile upstream from Rock Creek bridge and 7 miles northwest of Dayville. Datum of gage is 2,232.10 feet above mean sea level, datum of 1929.

Drainage area.- 1,640 square miles.

Records available.- April 1926 to September 1945.

Average discharge.- 19 years, 382 second-feet.

Extremes.- Maximum discharge during year, 2,040 second-feet May 3 (gage height, 8.32 feet); minimum, 25 second-feet Sept. 21, 22 (gage height, 1.44 feet).

1926-45: Maximum discharge, 6,000 second-feet Mar. 19, 1932 (gage height, 14.0 feet), from rating curve extended above 2,300 second-feet; minimum, 1 second-foot several days in August and September 1930, Aug. 8, 9, 1936.

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

Rating table, water year 1944-45, except periods of ice effect
(gage height, in feet, and discharge, in second-feet)

1.5	30	2.8	178	5.0	675
1.7	49	3.2	246	6.0	1,000
1.9	69	3.6	328	7.0	1,395
2.1	91	4.0	418	8.3	2,030
2.4	125	4.5	538		

Discharge, in second-feet, water year October 1944 to September 1945

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	44	112	172	164	228	307	711	1,580	1,430	284	46	34
2	50	111	*177	167	274	307	681	1,720	1,320	268	41	34
3	48	137	177	163	386	299	648	1,840	1,270	241	37	34
4	47	151	174	160	381	292	609	2,000	1,270	210	38	34
5	50	157	172	161	339	244	595	1,960	1,230	188	38	36
6	52	157	171	171	328	252	604	1,810	1,180	154	39	39
7	54	153	168	192	303	272	639	1,610	1,090	138	39	40
8	55	153	165	393	718	274	678	1,420	1,010	121	36	41
9	57	153	157	286	853	270	678	1,290	895	118	34	41
10	58	151	147	258	564	264	798	1,220	836	110	36	39
11	60	154	133	286	582	284	768	1,180	771	100	35	37
12	61	156	b110	280	601	332	759	1,120	705	100	31	36
13	64	157	b110	335	859	390	705	1,270	654	100	35	35
14	71	156	b80	423	1,250	388	675	1,400	637	100	39	34
15	93	153	b90	370	783	363	687	1,370	590	98	37	34
16	114	147	b110	352	612	346	774	1,340	523	104	42	32
17	117	149	b120	318	559	341	853	1,510	483	98	43	31
18	a118	150	b140	292	530	328	965	1,490	459	90	42	30
19	a120	150	b150	276	452	324	1,200	1,450	434	83	39	28
20	a122	144	181	260	430	350	1,520	1,410	418	84	34	28
21	a120	141	207	233	411	493	1,840	1,310	404	80	31	27
22	a115	147	202	b188	390	633	1,880	1,220	397	73	29	27
23	a111	150	200	b164	379	990	1,720	1,210	390	65	28	34
24	114	153	184	b178	365	853	1,710	1,150	377	61	28	36
25	115	153	177	b200	332	741	1,660	1,360	365	53	27	45
26	114	156	168	207	311	702	1,470	1,310	377	55	27	61
27	111	154	164	b194	326	708	1,330	1,470	357	53	31	68
28	113	153	168	175	320	726	1,270	1,310	346	50	32	74
29	112	151	175	175	-	663	1,260	1,330	311	51	34	78
30	110	157	171	207	-	637	1,380	1,340	299	50	34	79
31	111	-	163	*214	-	696	-	1,470	-	50	34	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	2,701	122	44	87.1	5,360
November	4,466	157	111	149	8,860
December	4,883	207	80	158	9,690
Calendar year 1944	80,575	860	16	220	159,800
January	7,442	423	160	240	14,760
February	13,866	1,250	228	495	27,500
March	14,069	990	244	454	27,910
April	31,467	1,880	595	1,049	62,410
May	44,470	2,000	1,120	1,435	88,200
June	20,328	1,430	299	694	41,310
July	3,454	284	50	111	6,850
August	1,096	46	27	35.4	2,170
September	1,226	79	27	40.9	2,430
Water year 1944-45	149,968	2,000	27	411	297,400

* Winter discharge measurement made on this day.

a No gage-height record; discharge computed on basis of range in stage and records for station at Prairie City.

b Stage-discharge relation affected by ice.

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

John Day River at Service Creek, Oreg.

Location.- Water-stage recorder, lat. 44°48', long. 120°00', in NE¼ sec. 18, T. 9 S., R. 23 E., a quarter of a mile downstream from Service Creek and three-quarters of a mile southwest of Service Creek post office. Datum of gage is 1,635.83 feet above mean sea level, datum of 1929.

Drainage area.- 5,090 square miles.

Records available.- October 1929 to September 1945 in reports of Geological Survey. March 1925 to September 1926 and October 1929 to September 1936 in reports of State engineer.

Average discharge.- 17 years (1925-26, 1929-45), 1,459 second-feet.

Extremes.- Maximum discharge during year, 8,710 second-feet May 5 (gage height, 9.74 feet); minimum, 92 second-feet Dec. 14 (gage height, 0.51 foot), caused by ice conditions upstream.
1929-45: Maximum discharge, 28,900 second-feet Mar. 19, 1932 (gage height, 16.75 feet), from rating curve extended above 11,000 second-feet; minimum, 20 second-feet Sept. 6, 1931.

Remarks.- Records good except those below 150 second-feet, which are fair. Many diversions above station for irrigation.

Rating table, water year 1944-45 (gage height, in feet, and discharge in second-feet)
(Shifting-control method used July 25 to Sept. 30)

0.6	102	2.7	690	6.8	4,090
1.0	150	3.2	950	8.0	5,720
1.4	227	3.8	1,300	9.6	8,440
1.8	335	4.6	1,870		
2.2	475	5.6	2,760		

Discharge, in second-feet, water year October 1944 to September 1945

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	106	211	329	341	511	1,000	3,460	6,880	5,560	1,040	187	118
2	111	225	379	347	596	1,000	3,150	7,340	4,970	950	176	115
3	118	252	404	344	1,020	972	2,790	7,700	4,600	890	169	115
4	124	305	393	338	1,200	966	2,550	8,290	4,540	815	164	111
5	120	326	390	335	1,160	895	2,340	8,400	4,240	750	145	111
6	118	382	382	356	1,170	740	2,380	7,830	4,110	686	138	120
7	119	382	368	566	1,090	790	2,700	7,100	3,930	622	138	125
8	119	341	368	1,510	2,000	830	4,220	6,560	3,560	560	141	129
9	120	323	353	1,050	5,010	846	4,930	6,100	3,290	523	136	130
10	120	323	281	745	2,400	825	3,960	5,760	3,160	499	138	126
11	123	329	211	705	2,000	900	3,420	5,750	2,960	455	147	123
12	125	335	202	765	2,530	1,260	3,370	5,280	2,700	432	144	117
13	135	338	178	760	3,070	2,140	3,060	5,750	2,550	428	136	114
14	164	329	141	1,070	6,260	2,170	2,810	6,310	2,410	418	159	113
15	181	311	173	1,080	3,570	1,920	2,770	6,240	2,240	400	150	111
16	198	281	230	1,030	2,560	1,600	3,270	6,290	2,050	404	170	111
17	218	247	198	950	2,090	1,470	3,710	8,060	1,870	390	154	110
18	220	220	250	835	2,020	1,390	4,040	7,610	1,770	356	146	109
19	220	227	275	740	1,720	1,280	4,870	7,070	1,720	335	135	111
20	211	232	344	700	1,400	1,320	6,020	6,420	1,700	320	127	114
21	209	255	376	650	1,430	3,150	7,080	5,780	1,690	302	124	115
22	206	257	432	479	1,340	3,950	7,450	5,360	1,740	292	119	123
23	206	292	382	386	1,290	5,750	6,730	5,280	1,700	275	113	132
24	208	294	414	344	1,260	4,850	6,640	4,970	1,560	255	109	158
25	206	308	376	347	1,140	3,710	6,560	5,080	1,450	240	105	167
26	206	302	362	404	1,030	3,270	5,680	4,970	1,380	232	108	169
27	206	317	350	455	1,000	3,070	5,060	6,130	1,330	225	109	178
28	206	317	344	447	1,040	3,000	4,900	6,150	1,220	213	111	179
29	213	294	341	393	-	3,050	4,920	5,500	1,130	196	114	183
30	209	283	338	407	-	2,790	5,660	5,460	1,070	196	123	185
31	209	-	344	455	-	3,020	-	5,680	-	191	124	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	5,252	220	106	169	10,420
November	8,838	382	211	295	17,530
December	9,908	432	141	320	19,650
Calendar year 1944	264,189	4,630	68	776	563,700
January	19,334	1,510	335	624	38,350
February	52,907	6,260	511	1,890	104,900
March	63,924	5,750	740	2,062	126,800
April	130,560	7,450	2,340	4,352	259,000
May	197,100	8,400	4,970	6,358	390,900
June	78,220	5,560	1,070	2,607	155,100
July	13,890	1,040	191	448	27,550
August	4,261	187	105	137	8,450
September	3,922	185	109	131	7,780
Water year 1944-45	588,116	8,400	105	1,613	1,166,000

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

John Day River at McDonald Ferry, Oreg.

Location.- Water-stage recorder, lat. 45°35', long. 120°25', in NW¼ sec. 11, T. 1 N., R. 19 E., at McDonald Ferry, half a mile downstream from Rock Creek and 10 miles east of Klondike. Datum of gage is 392.27 feet above mean sea level, datum of 1929.

Drainage area.- 7,580 square miles.

Records available.- December 1904 to September 1945.

Average discharge.- 40 years, 1,900 second-feet.

Extremes.- Maximum discharge during year, 8,710 second-feet May 18 (gage height, 6.21 feet); minimum, 85 second-feet Sept. 1 (gage height, 1.16 feet).
1904-45: Maximum discharge, 24,900 second-feet Mar. 20, 1932 (gage height, 10.6 feet), from rating curve extended above 14,000 second-feet; minimum, 4 second-feet Aug. 31, 1931 (gage height, 0.68 foot).
Maximum stage known, 12.8 feet, probably occurred in 1894 (discharge, 33,000 second-feet, estimated).

Remarks.- Records good except those for periods of ice effect and those below 150 second-feet, which are fair. Diversions above station for irrigation.

Rating tables, water year 1944-45, except periods of ice effect
(gage height, in feet, and discharge, in second-feet)

Oct. 1 to Feb. 14		Feb. 15 to Sept. 30			
1.2	93	1.2	100	2.7	4,160
1.4	165	1.4	171	3.0	1,530
1.6	260	1.6	262	3.5	2,260
1.8	375	1.8	375	4.0	3,130
Note.- Same as following table above 1.8 feet.		2.1	585	4.6	4,360
		2.4	840	5.5	6,610

Discharge, in second-feet, water year October 1944 to September 1945

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	123	230	357	388	496	1,120	3,130	5,730	5,990	1,080	192	94
2	119	225	327	339	525	1,130	3,660	6,920	5,840	1,040	180	100
3	116	250	327	369	570	1,080	3,420	7,350	5,200	962	180	107
4	119	255	363	357	690	1,080	3,020	7,830	4,770	890	180	120
5	119	271	408	357	1,160	1,060	2,760	8,400	4,700	822	171	116
6	126	282	420	363	1,260	1,020	2,520	8,430	4,430	777	163	116
7	138	327	414	363	1,230	940	2,520	7,920	4,290	716	163	113
8	142	357	394	375	1,320	822	2,890	7,180	4,140	657	152	113
9	134	401	388	533	1,820	870	4,300	6,610	3,780	609	144	113
10	134	382	388	1,440	4,320	890	5,350	6,150	3,460	572	148	107
11	138	345	369	900	2,810	900	4,270	5,810	3,260	525	141	116
12	138	339	351	733	2,280	910	3,720	5,860	3,110	475	141	126
13	149	339	298	708	2,620	1,150	3,560	5,550	2,830	454	137	137
14	153	333	b245	759	3,580	1,840	3,320	5,910	2,660	427	141	130
15	153	333	b210	822	6,530	2,440	3,000	6,610	2,490	414	144	130
16	157	339	b180	1,140	3,990	2,210	2,960	6,500	2,360	414	144	123
17	161	333	b170	1,050	2,920	1,890	3,360	6,750	2,150	408	144	118
18	188	321	b220	1,020	2,320	1,690	3,870	8,430	1,960	394	148	107
19	201	298	b275	951	2,210	1,580	4,180	7,950	1,820	394	141	110
20	230	276	401	840	1,960	1,490	5,040	7,350	1,740	375	148	113
21	230	255	388	759	1,650	1,720	6,290	6,640	1,720	346	141	116
22	240	255	b351	724	1,520	2,810	7,270	6,020	1,670	322	133	113
23	230	260	b450	682	1,530	4,340	7,500	5,650	1,690	300	123	116
24	235	282	b440	548	1,460	6,020	6,780	5,600	1,700	294	116	130
25	230	282	b460	461	1,400	5,230	6,750	5,280	1,600	278	116	126
26	225	315	b430	401	1,320	4,080	6,560	5,300	1,450	267	110	133
27	220	327	b410	394	1,210	3,600	5,730	5,500	1,360	248	113	144
28	220	327	b400	434	1,120	3,400	5,110	7,020	1,350	233	113	167
29	220	327	b390	496	-	3,280	4,960	6,690	1,260	224	116	171
30	225	339	b390	496	-	3,320	4,940	5,940	1,150	210	107	175
31	230	-	388	496	-	3,050	-	5,860	-	205	100	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	5,443	240	116	176	10,800
November	9,205	401	225	307	18,260
December	11,002	460	170	355	21,820
Calendar year 1944	294,392	4,100	58	804	584,000
January	19,698	1,440	339	635	39,070
February	55,891	6,530	496	1,996	110,900
March	66,962	6,020	822	2,160	132,800
April	132,740	7,500	2,520	4,425	263,300
May	204,740	8,430	5,280	6,605	406,100
June	85,930	5,990	1,150	2,864	170,400
July	15,338	1,080	205	495	30,420
August	4,390	192	100	142	8,710
September	3,698	175	94	123	7,330
Water year 1944-45	615,037	8,430	94	1,685	1,220,000

b Stage-discharge relation affected by ice.
Time basis: Pacific war time up to 2 a.m., Sept. 30, 1945; Pacific standard time thereafter.
To convert war time to standard time, subtract 1 hour.

Prairie power canal at Prairie City, Oreg.

Location.- Staff gage, lat. 44°27', long. 118°42', in sec. 11, T. 13 S., R. 33 E., upstream from county road bridge over canal and 1 mile south of Prairie City.

Records available.- May 1925 to September 1945.

Average discharge.- 20 years, 47.3 second-feet.

Extremes.- Maximum discharge observed during year, 83 second-feet June 26 (gage height, 2.86 feet); no flow during part of Mar. 5.
1925-45: Maximum discharge, 93 second-feet Jan. 21, 1943 (gage height, 2.90 feet); no flow at times.

Remarks.- Records good. Staff gage read twice daily. Canal diverts from John Day River in SE¼ sec. 7, T. 13 S., R. 34 E. Water is used by power plant at Prairie City and is returned to river below station on John Day River at Prairie City.

Cooperation.- Gage read by employee of West Coast Power Co.

Discharge, in second-feet, water year October 1944 to September 1945

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	42	57	65	63	70	68	65	72	78	65	25	16
2	45	57	64	62	71	68	65	72	76	65	20	13
3	55	63	65	62	69	67	65	73	78	62	13	12
4	49	69	64	66	68	66	65	67	78	52	24	10
5	48	70	64	68	68	54	66	73	76	52	37	14
6	48	63	64	68	68	64	66	72	78	52	37	20
7	47	63	63	71	71	64	66	73	78	46	37	23
8	44	63	63	67	68	64	68	73	78	40	37	23
9	42	63	46	68	71	65	68	73	78	30	37	20
10	42	63	45	71	72	64	67	73	76	25	39	20
11	43	66	46	71	71	64	67	76	78	25	44	19
12	43	65	44	71	72	66	66	78	78	25	44	19
13	43	64	40	71	72	64	66	77	76	25	40	19
14	51	63	40	71	70	64	66	75	78	30	25	19
15	52	60	42	71	69	66	66	75	75	40	20	18
16	51	60	42	71	69	64	69	73	78	25	20	16
17	51	59	48	71	69	64	69	75	77	25	17	20
18	51	56	59	71	69	64	70	76	78	25	16	20
19	51	58	71	70	69	65	69	76	76	30	16	20
20	51	59	69	69	69	65	69	73	77	40	13	25
21	51	61	67	63	69	65	69	73	78	40	8	28
22	51	63	68	25	69	65	68	73	79	40	6	34
23	51	63	45	43	70	64	66	70	79	40	7	39
24	51	65	48	44	68	65	71	76	78	40	6	39
25	53	64	60	44	68	65	71	73	79	34	6	39
26	53	64	47	38	68	65	71	75	83	32	16	39
27	53	64	63	32	68	66	71	73	74	30	16	39
28	53	64	66	25	68	65	71	78	74	31	16	38
29	53	65	64	42	-	65	71	78	72	19	15	38
30	53	65	65	68	-	65	72	78	71	19	16	38
31	54	-	64	68	-	65	-	79	-	20	15	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	1,525	55	42	49.2	3,020
November	1,881	70	57	62.7	3,730
December	1,760	71	40	56.8	3,490
Calendar year 1944	19,660	77	1	53.7	38,990
January	1,865	71	25	60.2	3,700
February	1,943	72	68	69.4	3,850
March	2,005	68	54	64.7	3,980
April	2,041	72	65	68.0	4,050
May	2,301	79	67	74.2	4,560
June	2,316	83	71	77.2	4,590
July	1,124	65	19	36.3	2,230
August	688	44	6	22.2	1,360
September	737	39	10	24.6	1,460
Water year 1944-45	20,186	83	6	55.3	40,020

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

Strawberry Creek above Slide Creek, near Prairie City, Oreg.
(Formerly published as Strawberry Creek above South Fork, near Prairie City, Oreg.)

Location.- Water-stage recorder, lat. 44°20', long. 118°39', in SW¼ sec. 20, T. 14 S., R. 34 E., 100 feet upstream from Slide Creek and 8½ miles south of Prairie City.

Records available.- October 1930 to September 1945.

Average discharge.- 15 years, 11.3 second-feet.

Extremes.- Maximum discharge during year, 71 second-feet May 13, June 22 (gage height, 1.98 feet); minimum, 1.8 second-feet Nov. 14 (gage height, 0.99 foot).
1930-45: Maximum discharge, 150 second-feet June 9, 1933 (gage height, 2.44 feet), from rating curve extended above 85 second-feet; minimum, 1.4 second-feet several days in 1931, 1934, 1935, 1937, and Nov. 19, 1939.

Remarks.- Records good except those for Jan. 27 to Apr. 20, Aug. 1-19, which are fair. No diversion above station; some natural regulation by Strawberry Lake.

Rating table, water year 1944-45, except periods of ice effect
(gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Jan. 28 to Apr. 20)

1.0	2.0	1.4	18
1.1	4.5	1.6	31
1.2	8.4	1.8	50
1.3	13	2.0	73

Discharge, in second-feet, water year October 1944 to September 1945

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	3.0	2.4	*2.4	2.2	2.8	2.6	2.4	15	45	42	9.8	5.5
2	3.0	2.4	2.4	2.2	2.8	2.6	2.4	19	52	41	9.8	5.1
3	3.0	3.9	2.4	2.2	2.8	2.6	2.4	25	56	39	9.3	5.1
4	2.8	3.0	2.4	2.2	2.8	2.6	2.4	31	56	38	9.3	5.1
5	2.8	2.6	2.4	2.2	2.8	2.6	2.4	33	54	36	9.8	5.1
6	2.6	2.4	2.4	2.2	2.8	a2.6	2.4	32	52	36	9.3	4.8
7	2.6	2.4	2.4	2.4	2.8	a2.6	2.6	34	49	34	9.8	4.5
8	2.6	2.4	2.4	2.4	3.3	a2.6	2.8	40	48	33	8.9	4.5
9	2.6	2.4	b2.4	2.4	3.3	a2.6	2.6	48	48	30	8.9	4.2
10	2.6	2.4	b2.4	2.6	3.0	a2.6	2.4	54	46	27	8.9	4.2
11	2.6	2.2	2.4	2.8	3.0	a2.6	2.4	59	50	25	8.9	4.2
12	2.6	2.2	2.4	2.8	3.0	2.6	2.4	59	51	23	8.4	4.2
13	2.6	2.2	2.2	3.3	3.3	2.6	2.4	65	52	23	8.4	4.2
14	2.6	2.0	2.2	3.9	3.0	2.6	2.4	66	50	20	8.4	3.9
15	2.6	2.0	2.0	4.2	3.0	2.6	2.4	59	48	19	8.4	3.9
16	2.6	2.0	2.4	3.9	3.0	2.6	2.4	54	46	19	8.4	3.9
17	2.6	2.2	2.2	3.9	3.0	2.6	2.4	52	46	18	8.4	3.9
18	2.6	2.2	2.2	3.9	2.8	2.6	2.8	49	48	17	8.4	3.6
19	2.6	2.2	2.2	3.9	b2.8	2.6	3.3	45	53	16	8.4	3.6
20	2.6	b2.2	2.2	3.6	2.8	3.0	4.8	42	60	16	7.9	3.6
21	2.6	b2.2	2.2	3.6	2.8	2.8	6.7	39	65	14	7.5	3.6
22	2.6	2.2	2.2	3.3	2.8	2.8	7.1	36	68	14	7.1	3.6
23	2.6	2.4	b2.2	3.3	2.8	2.8	7.1	34	68	13	7.1	3.6
24	2.6	2.4	b2.2	3.0	2.8	2.6	7.1	33	65	13	6.7	3.6
25	2.4	2.2	b2.2	3.0	b2.6	2.4	6.7	31	65	12	6.7	3.6
26	2.4	2.2	b2.2	*3.0	b2.8	2.4	6.3	30	62	12	6.7	3.3
27	2.4	2.2	b2.2	b2.8	2.8	2.4	6.3	30	57	11	6.3	3.3
28	2.4	2.2	2.2	2.8	2.6	2.4	6.7	30	52	11	6.3	3.3
29	2.4	2.2	2.2	2.8	-	2.4	7.1	31	48	11	5.9	3.3
30	2.4	2.2	2.2	2.8	-	2.4	12	35	45	10	5.9	3.3
31	2.8	-	2.2	2.8	-	2.4	-	39	-	9.8	5.5	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	81.2	3.0	2.4	2.62	161
November	70.1	3.9	2.0	2.34	139
December	70.6	2.4	2.0	2.28	140
Calendar year 1944	3,034.3	46	2.0	8.29	6,020
January	92.2	4.2	2.2	2.97	183
February	80.9	3.3	2.6	2.89	160
March	80.2	3.0	2.4	2.59	159
April	125.6	12	2.4	4.19	249
May	1,249	66	15	40.3	2,480
June	1,607	68	45	53.6	3,190
July	682.8	42	9.8	22.0	1,350
August	249.5	9.8	5.5	8.05	495
September	121.6	5.5	3.3	4.05	241
Water year 1944-45	4,510.7	68	2.0	12.4	8,950

* Winter discharge measurement made on this day.
a No gage-height record, discharge computed on basis of recorded minimum gage height and records for John Day River at Prairie City.
b Stage-discharge relation affected by ice.
Time basis: Pacific war time up to 2 a.m., Sept. 30, 1945; Pacific standard time thereafter. To convert war time to standard time, subtract 1 hour.

North Fork John Day River near Dale, Oreg.

Location.- Water-stage recorder, lat. 45°00', long. 118°57', in SE¼ sec. 35, T. 6 S., R. 31 E., three-eighths of a mile downstream from Desolation Creek and 1⅛ miles northeast of Dale. Datum of gage is 2,775.85 feet above mean sea level, datum of 1929.

Drainage area.- 525 square miles.

Records available.- October 1929 to September 1945.

Average discharge.- 16 years, 334 second-feet.

Extremes.- Maximum discharge during year, 3,050 second-feet May 5 (gage height, 7.12 feet); minimum not determined (occurred during period of ice effect).
1929-45: Maximum discharge, 4,990 second-feet May 14, 1932 (gage height, 8.4 feet); minimum, 6 second-feet Nov. 3, 1936 (gage height, 1.40 feet).

Remarks.- Records good except those for periods of ice effect, which are poor. Several small diversions above station for irrigation and mining cause diurnal fluctuation at low flow.

Rating table, water year 1944-45 except periods of ice effect
(gage height, in feet, and discharge, in second-feet)

2.0	39	3.2	290	5.6	1,580
2.2	62	3.6	445	6.2	2,090
2.4	94	4.0	625	6.8	2,690
2.6	131	4.5	875		
2.9	200	5.0	1,160		

Discharge, in second-feet, water year October 1944 to September 1945

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	52	61	60	50	130	89	231	a1,700	1,490	365	74	47
2	49	62	64	50	170	91	200	a2,100	1,360	357	71	45
3	47	66	*59	50	280	89	190	2,200	1,350	314	70	43
4	47	108	59	50	290	82	168	2,510	1,260	290	68	43
5	46	122	61	55	280	70	168	2,620	1,260	277	66	52
6	45	84	66	80	311	80	173	2,480	1,260	253	64	62
7	44	68	62	210	297	65	190	2,360	1,120	240	62	59
8	43	61	50	270	413	87	271	2,290	1,050	217	70	53
9	40	57	13	210	381	87	255	2,170	1,030	207	71	48
10	41	58	15	200	304	92	231	2,250	1,010	193	66	45
11	41	65	12	220	206	103	217	2,120	941	190	66	45
12	43	59	20	210	133	123	198	1,930	697	185	77	44
13	45	48	20	250	231	*142	180	2,110	836	178	71	44
14	50	47	18	300	192	135	168	2,120	765	185	74	43
15	53	40	25	270	175	127	180	1,970	695	175	71	43
16	49	27	35	250	133	123	222	2,090	656	154	76	50
17	47	27	40	220	127	118	280	2,100	648	146	62	52
18	46	35	42	190	114	110	333	1,850	661	137	58	48
19	45	32	45	160	112	103	463	1,630	690	129	54	48
20	44	30	58	150	108	135	645	1,470	710	123	50	54
21	42	40	70	120	122	175	858	1,350	770	114	50	68
22	42	50	66	85	105	237	902	1,250	765	108	49	77
23	41	45	64	70	96	290	853	1,240	680	107	47	74
24	42	50	58	65	92	228	842	1,270	638	105	47	70
25	43	45	60	*80	86	206	735	1,320	616	99	45	65
26	43	52	53	90	92	188	648	1,300	584	94	49	64
27	43	50	48	110	94	173	656	1,410	508	89	56	61
28	42	35	45	100	94	173	666	1,320	463	87	58	58
29	41	30	44	80	-	168	760	1,420	441	82	52	56
30	40	45	47	90	-	170	a1,300	1,520	405	79	49	53
31	46	-	48	110	-	211	-	1,630	-	77	49	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	1,382	53	40	44.6	2,740
November	1,599	122	27	53.3	3,170
December	1,427	70	12	46.0	2,830
Calendar year 1944	64,089	1,140	-	175	127,100
January	4,445	300	50	143	8,820
February	5,168	413	86	185	10,250
March	4,270	290	65	138	8,470
April	13,181	1,300	168	439	26,140
May	57,080	2,620	1,240	1,841	113,200
June	25,559	1,490	405	852	50,700
July	5,325	365	77	172	10,560
August	1,892	77	45	61.0	3,750
September	1,614	77	43	53.8	3,200
Water year 1944-45	122,942	2,620	12	337	243,800

* Winter discharge measurement made on this day.
a No gage-height record; discharge computed on basis of range in stage and record for station at Monument.
Note.- Stage-discharge relation affected by ice Nov. 15 to Dec. 3, Dec. 8 to Feb. 5, Mar. 5-7.
Time basis: Pacific war time up to 2 a.m., Sept. 30, 1945; Pacific standard time thereafter. To convert war time to standard time, subtract 1 hour.

North Fork John Day River at Monument, Oreg.

Location.- Water-stage recorder, lat. 44°49', long. 119°26', in E½ sec. 1, T. 9 S., R. 27 E., just downstream from entrance to canyon, three-quarters of a mile west of Monument.

Drainage area.- 2,520 square miles.

Records available.- March 1925 to September 1945.

Average discharge.- 19 years (1925-27, 1928-45), 1,001 second-feet.

Extremes.- Maximum discharge during year, 6,610 second-feet May 17 (gage height, 7.93 feet); minimum, 23 second-feet Dec. 10 (gage height, 1.12 feet).
1925-45: Maximum discharge, 22,000 second-feet Mar. 18, 1932 (gage height, 14.8 feet), from rating curve extended above 9,000 second-feet; minimum, 6 second-feet sometime during Nov. 2-13, 1936, when recorder was not operating.

Remarks.- Records good except those for Dec. 11-15, Jan. 25-28, and those for period of no gage-height record, which are fair. Many small diversions above station for irrigation.

Rating table, water year 1944-45 (gage height, in feet, and discharge, in second-feet)

1.3	39	2.0	181	3.2	780	5.4	3,020
1.4	52	2.2	241	3.7	1,160	6.0	3,800
1.6	86	2.5	356	4.2	1,630	6.8	4,910
1.8	129	2.8	520	4.8	2,290	7.7	6,250

Discharge, in second-feet, water year October 1944 to September 1945

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	86	102	170	142	283	556	2,400	5,360	3,600	626	115	79
2	92	113	193	142	422	544	1,990	5,460	3,180	562	113	77
3	94	142	187	142	759	538	1,510	5,830	2,920	520	108	73
4	90	149	173	139	759	514	1,580	6,140	2,850	466	104	70
5	88	204	173	146	752	390	1,500	6,130	2,690	427	102	80
6	86	213	159	176	773	376	1,660	5,650	2,650	390	100	90
7	86	168	162	777	678	438	2,020	5,160	2,450	366	100	85
8	84	144	149	1,060	2,820	449	4,290	4,830	2,250	343	100	85
9	82	136	100	438	2,100	427	3,410	4,500	2,070	317	106	80
10	82	132	52	376	1,340	460	2,580	4,390	2,060	294	108	75
11	81	139	36	416	1,460	690	2,270	4,280	1,920	279	104	75
12	84	144	49	405	1,500	1,190	2,210	3,810	1,750	279	102	75
13	102	142	55	544	3,730	1,720	1,960	4,520	1,630	272	118	70
14	111	124	54	658	3,680	1,560	1,800	4,740	1,510	268	106	70
15	113	100	68	593	1,900	1,220	1,900	4,590	1,370	275	124	70
16	108	77	90	562	1,370	1,060	2,420	5,100	1,270	255	106	75
17	106	63	98	490	1,260	992	2,660	6,180	1,190	232	106	75
18	98	62	104	400	1,120	892	2,980	5,700	1,160	222	96	75
19	98	68	108	366	978	843	3,840	5,020	1,160	207	88	75
20	96	100	134	356	822	1,320	4,710	4,460	1,180	201	84	80
21	92	98	176	298	829	3,200	5,420	3,900	1,200	187	79	90
22	92	122	170	216	780	3,510	5,100	3,680	1,250	176	77	100
23	92	122	165	159	752	5,080	4,530	3,670	1,140	168	75	115
24	90	139	152	144	690	3,120	4,800	3,370	1,050	159	73	120
25	90	124	154	178	600	2,490	4,290	3,530	976	157	70	115
26	90	146	149	216	544	2,180	3,500	3,310	936	149	70	110
27	92	139	139	265	568	2,020	3,280	4,600	850	142	72	105
28	90	113	132	244	568	2,070	3,200	4,070	759	136	75	100
29	90	102	129	201	-	2,040	3,460	3,700	710	132	82	100
30	90	127	136	216	-	1,870	4,520	3,700	690	124	86	95
31	94	-	139	255	-	2,360	-	4,060	-	120	82	-

Month	Second-feet-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	2,869	113	81	92.5	5,690
November	3,754	213	62	125	7,450
December	3,955	193	36	128	7,840
Calendar year 1944	183,842	3,380	36	503	364,700
January	10,722	1,060	139	346	21,270
February	33,737	3,730	283	1,205	66,920
March	48,119	5,080	376	1,481	91,480
April	92,080	5,420	1,500	3,069	182,600
May	143,440	6,180	3,310	4,627	284,500
June	50,401	3,600	690	1,681	99,970
July	8,451	626	120	273	16,760
August	2,931	124	70	94.5	5,810
September	2,584	120	70	86.1	5,130
Water year 1944-45	401,043	6,180	36	1,099	795,400

Note.- No gage-height record Sept. 5-30; discharge computed on basis of records for John Day River at Picture Gorge, near Dayville, and at Service Creek.
Time basis: Pacific war time up to 2 a.m., Sept. 30, 1945; Pacific standard time thereafter. To convert war time to standard time, subtract 1 hour.

Middle Fork John Day River at Ritter, Oreg.

Location.- Water-stage recorder, lat. 44°53', long. 119°08', in NW¼ sec. 6, T. 8 S., R. 30 E., at bridge half a mile south of Ritter.

Drainage area.- 526 square miles.

Records available.- October 1929 to September 1945.

Average discharge.- 16 years, 200 second-feet.

Extremes.- Maximum discharge during year, 1,270 second-feet Feb. 13 (gage height, 5.06 feet); minimum, 8 second-feet Dec. 11 (gage height, 1.39 feet).
1929-45: Maximum discharge, 4,000 second-feet Mar. 19, 1932 (gage height, 7.78 feet), from rating curve extended above 1,600 second-feet; minimum, 1.0 second-foot Dec. 10, 1932.

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.

Rating table, water year 1944-45, except period of ice effect
(gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Aug. 2 to Sept. 30)

1.5	10	2.3	68	3.5	340
1.7	15	2.5	97	3.9	500
1.9	27	2.8	153	4.4	760
2.1	44	3.1	225	4.9	1,130

Discharge, in second-feet, water year October 1944 to September 1945

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	24	31	53	40	b80	120	504	1,020	724	141	31	20
2	25	33	52	40	b130	114	423	1,050	662	129	31	18
3	24	39	*53	40	b140	116	375	1,100	630	118	30	18
4	23	54	48	40	b130	111	331	1,140	610	109	29	18
5	23	64	48	39	135	76	328	1,110	590	99	28	20
6	23	50	42	46	122	94	379	1,000	580	92	28	21
7	21	41	38	184	129	91	460	932	527	85	28	21
8	21	39	31	125	343	100	684	895	486	78	31	21
9	21	36	14	97	280	91	625	839	468	75	33	18
10	21	36	11	94	220	106	500	839	460	68	31	18
11	21	39	9	94	280	147	455	806	423	68	32	18
12	25	40	14	91	263	192	443	712	411	69	34	18
13	26	38	29	118	886	255	415	742	383	72	32	18
14	29	35	33	129	577	233	a390	766	347	71	32	19
15	28	22	34	133	328	197	a410	736	319	71	29	19
16	27	20	33	118	241	185	h504	806	301	64	26	19
17	27	24	33	92	225	180	a600	881	292	60	26	18
18	26	29	40	85	204	164	a700	799	289	56	24	20
19	26	26	45	86	145	157	a800	748	289	55	22	20
20	25	25	52	71	160	173	a950	700	286	54	20	23
21	24	33	56	64	155	415	1,080	645	286	51	21	26
22	24	39	58	b50	143	555	986	605	289	48	20	32
23	25	35	56	b40	141	742	902	585	258	47	18	35
24	25	36	53	b31	127	500	1,130	565	233	45	18	38
25	25	35	50	*b35	111	415	1,070	605	220	43	17	36
26	26	40	45	b45	109	411	832	595	207	40	18	33
27	25	40	40	b55	122	375	742	662	185	38	21	31
28	24	22	39	b50	104	387	706	610	171	37	25	31
29	24	25	40	b40	-	387	724	620	166	35	24	30
30	24	40	42	b45	-	383	874	662	157	33	21	29
31	27	-	41	b60	-	496	-	806	-	32	21	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	759	29	21	24.5	1,510
November	1,066	64	20	35.5	2,110
December	1,232	58	9	39.7	2,440
Calendar year 1944	40,810	585	9	112	80,940
January	2,277	184	31	73.5	4,520
February	6,030	886	80	215	11,960
March	7,968	742	76	257	15,800
April	19,322	1,130	328	644	38,320
May	24,581	1,140	565	793	48,760
June	11,249	724	157	375	22,310
July	2,084	141	32	67.2	4,130
August	801	34	17	25.8	1,590
September	706	38	18	23.5	1,400
Water year 1944-45	78,075	1,140	9	214	154,800

* Winter discharge measurement made on this day.
a No gage-height record; discharge computed on basis of records for North Fork John Day River near Dale and at Monument.
b Stage-discharge relation affected by ice.
h Computed from staff-gage reading.
Time basis: Pacific war time up to 2 a.m., Sept. 30, 1945; Pacific standard time thereafter. To convert war time to standard time, subtract 1 hour.

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Fox Creek at gorge, near Fox, Oreg.
(The lower part of this stream is named Cottonwood Creek)

Location.- Water-stage recorder, lat. 44°37', long. 119°16', in NW¼ sec. 17, T. 11 S., R. 29 E., at head of gorge, 6 miles southwest of Fox.

Records available.- October 1930 to September 1945.

Average discharge.- 15 years, 20.2 second-feet.

Extremes.- Maximum discharge during year, 164 second-feet May 4 (gage height, 2.36 feet); practically no flow Oct. 1 to Nov. 2, Nov. 7-30, Dec. 8-19.
1930-45: Maximum discharge, 800 second-feet Mar. 18, 1932, from rating curve extended above 250 second-feet; maximum gage height observed, 5.37 feet Feb. 21, 1943 (affected by ice); no flow at times.

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

Rating table, water year 1944-45, except periods of ice effect
(gage height, in feet, and discharge, in second-feet)

0.4	0	0.9	5.1	1.6	51
.5	.1	1.0	8.0	1.8	72
.6	.6	1.1	11.9	2.0	99
.7	1.6	1.2	17.2	2.2	132
.8	3.0	1.4	32	2.4	172

Discharge, in second-feet, water year October 1944 to September 1945

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1		0	0.1		b2.0	7.7	46	142	54	2.6	0.2	0.1
2		0	.1	a3.0	b15	7.1	43	151	45	2.2	.2	.1
3		.1	.1		a20	7.1	46	145	43	1.6	.2	.1
4		.2	.1		a15	6.3	39	153	41	1.3	.2	.1
5		.1	.1	4.9	18	6.6	33	132	42	1.0	.2	.2
6		.1	.1	4.7	12	7.1	32	110	39	.9	.2	.1
7		0	.1	b20	15	8.0	36	91	36	.6	.2	.1
8		0	0		74	6.6	76	85	30	.5	.2	.1
9		0	0		53	5.4	63	68	26	.4	.2	.1
10		0	0	a8.0	17	9.6	51	64	23	.3	.2	.1
11		0	0		22	24	54	59	20	.3	.3	.1
12		0	0		28	66	59	57	17	.2	.3	.1
13		0	0		102	82	56	66	15	.3	.3	.1
14		0	0	5.1	62	70	46	75	13	.5	.3	.1
15		0	0		26	31	44	78	12	.6	.3	.1
16		0	0		24	21	49	91	12	.4	.3	.1
17		0	0		14	19	50	101	10	.3	.2	.1
18		0	0		11	13	59	96	8.4	.2	.2	.1
19		0	0		12	15	70	99	7.7	.2	.2	.1
20		0		a1.5	16	26	85	95	6.8	.2	.2	.2
21		0			16	82	110	88	6.3	.2	.2	.1
22		0			9.6	95	112	104	5.7	.2	.2	.1
23		0			8.8	125	113	99	4.9	.2	.2	.1
24		0			7.4	85	132	75	4.3	.2	.1	.1
25		0	a5.0	*b.3	6.3	72	120	73	3.4	.2	.1	.1
26		0		b.3	6.5	61	88	81	3.0	.2	.2	.1
27		0		b.3	8.0	61	78	105	2.9	.2	.2	.1
28		0		b.3	6.6	95	76	80	2.9	.2	.1	.1
29		0		b.3	-	61	84	66	3.4	.2	.1	.1
30		0		b.4	-	46	104	70	3.0	.2	.1	.1
31		-		b.6	-	54	-	69	-	.2	.1	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	0	0	0	0	0
November	.5	.2	0	.02	1.0
December	60.7	-	0	1.96	120
Calendar year 1944	3,256.4	247	0	8.90	6,470
January	112.2	-	-	3.62	223
February	627.2	102	2.0	22.4	1,240
March	1,275.5	125	5.4	41.1	2,530
April	2,054	132	32	68.5	4,070
May	2,868	153	57	92.5	5,690
June	540.7	54	2.9	18.0	1,070
July	16.8	2.6	.2	.54	33
August	6.2	.3	.1	.20	12
September	3.2	.2	.1	.11	6.3
Water year 1944-45	7,565.0	153	0	20.7	15,000

* Winter discharge measurement made on this day.
a No gage-height record; discharge computed on basis of weather records and records for John Day River at Prairie City and North Fork John Day River at Monument.
b Stage-discharge relation affected by ice.
Time basis: Pacific war time up to 2 a.m., Sept. 30, 1945; Pacific standard time thereafter. To convert war time to standard time, subtract 1 hour.

Deschutes River below Snow Creek, near Lapine, Oreg.

Location.- Water-stage recorder, lat. 43°49', long. 121°46', in NW¼ sec. 28, T. 20 S., R. 8 E., 50 feet downstream from Snow Creek, upstream from flowline of Crane Prairie Reservoir, and 17 miles northwest of Lapine. Altitude of gage, about 4,445 feet.

Records available.- November 1937 to September 1945.

Extremes.- Maximum discharge during year, 148 second-feet Aug. 25 (gage height, 1.62 feet); minimum, 68 second-feet Mar. 16-22 (gage height, 1.23 feet).
1937-45: Maximum discharge, 362 second-feet Aug. 31, Sept. 1, 1943 (gage height, 2.42 feet); minimum, 43 second-feet Dec. 27, 1941 (gage height, 1.12 feet).

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

Rating tables, water year 1944-45 (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Oct. 8-28, July 11 to Aug. 23)

Oct. 1-28		Oct. 29 to Sept. 30	
1.3	73	1.2	63
1.4	94	1.4	100
1.5	117	1.6	143

Discharge, in second-feet, water year October 1944 to September 1945

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	94	89	83	77	74	72	70	79	89	92	121	145
2	84	89	83	77	74	72	70	81	89	90	125	143
3	84	90	83	77	74	72	72	83	89	90	125	141
4	84	89	81	76	74	70	72	83	89	89	125	141
5	84	89	81	76	74	70	72	83	87	89	125	141
6	84	87	81	77	74	70	72	83	87	89	128	139
7	84	87	81	79	74	70	72	83	87	89	130	139
8	84	87	81	77	79	70	72	83	87	90	134	139
9	84	85	81	77	76	70	72	85	87	90	134	139
10	84	85	79	77	76	70	72	85	87	90	132	136
11	84	85	79	*76	77	70	70	85	87	90	134	136
12	84	85	79	77	77	70	70	87	87	92	134	136
13	84	85	b81	81	83	70	72	92	87	94	136	136
14	86	85	b81	79	76	70	72	90	87	94	136	136
15	86	a85	81	81	76	70	72	90	87	96	136	136
16	86	a85	79	81	76	70	72	89	87	96	136	134
17	86	a85	79	81	74	68	74	89	87	98	139	134
18	86	a85	79	81	74	68	76	89	87	102	139	134
19	86	a84	79	81	74	68	76	87	89	104	139	132
20	88	a84	81	81	74	68	76	87	89	106	141	134
21	88	a84	81	b79	74	68	76	87	90	106	141	134
22	88	a84	81	79	72	68	76	89	90	108	141	134
23	88	a84	81	b77	72	70	77	92	90	110	143	132
24	88	a84	81	77	72	70	83	90	90	115	145	132
25	88	a83	79	77	72	70	81	89	92	115	145	132
26	88	a83	77	77	72	70	77	85	92	115	145	132
27	88	a83	77	76	72	70	77	94	92	115	145	130
28	88	83	77	76	72	70	77	94	90	117	145	130
29	87	83	77	76	-	70	77	94	92	119	145	130
30	87	83	77	76	-	70	77	90	92	121	145	130
31	90	-	77	76	-	70	-	90	-	121	145	-

Month	Second-feet-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	2,664	90	84	85.9	5,280
November	2,559	90	83	85.3	5,080
December	2,477	83	77	79.9	4,910
Calendar year 1944	35,161	-	77	96.1	69,770
January	2,415	81	76	77.9	4,790
February	2,088	83	72	74.6	4,140
March	2,164	72	68	69.8	4,290
April	2,224	83	70	74.1	4,410
May	2,707	94	79	87.3	5,370
June	2,662	92	87	88.7	5,280
July	3,132	121	89	101	6,210
August	4,234	145	121	137	8,400
September	4,067	145	130	136	8,070
Water year 1944-45	33,393	145	68	91.5	66,230

* Winter discharge measurement made on this day.
a No gage-height record; discharge interpolated.
b Stage-discharge relation affected by ice.
Time basis: Pacific war time up to 2 a.m., Sept. 30, 1945; Pacific standard time thereafter. To convert war time to standard time, subtract 1 hour.

Deschutes River at Crane Prairie, near Lapine, Oreg.

Location.- Water-stage recorder, lat. 43°45', long. 121°47', in NW¼ sec. 16, T. 21 S., R. 8 E., 200 yards downstream from Crane Prairie Dam and 15 miles northwest of Lapine.

Records available.- January 1914 to June 1917, February 1922 to September 1945.

Average discharge.- 24 years (1914-15, 1922-45), 183 second-feet.

Extremes (regulated).- Maximum discharge during year, 484 second-feet Aug. 5 (gage height, 2.12 feet); minimum, 7.1 second-feet Oct. 30, 31 (gage height, 0.31 foot).
1914-17, 1922-45: Maximum discharge, 850 second-feet Nov. 10, 1943 (gage height, 2.85 feet); minimum, 2 second-feet Dec. 21, 1940, Nov. 1, 1942.

Remarks.- Records excellent except those below 70 second-feet, which are fair. No diversion above station; flow partly regulated since Nov. 4, 1922, by Crane Prairie Reservoir (see p. 54).

Rating table, water year 1944-45 (gage height, in feet, and discharge, in second-feet)

0.3	6.3	1.0	110
.4	14	1.2	157
.5	24	1.5	245
.6	37	1.8	355
.8	71	2.1	475

Discharge, in second-feet, water year October 1944 to September 1945

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	163	7.8	8.6	8.6	9.4	10	10	9.4	10	351	403	287
2	163	7.8	8.6	8.6	9.4	10	10	9.4	10	351	403	290
3	163	7.8	8.6	8.6	9.4	10	10	9.4	70	351	403	287
4	142	7.8	8.6	8.6	9.4	10	10	9.4	112	351	403	290
5	a117	7.8	8.6	8.6	9.4	10	10	9.4	112	351	411	304
6	117	a8.2	8.6	8.6	9.4	10	10	61	112	355	447	304
7	117	8.6	8.6	8.6	9.4	10	10	92	112	355	439	304
8	112	9.4	8.6	8.6	10	10	10	90	112	355	439	304
9	112	9.4	8.6	8.6	10	10	10	90	112	355	439	304
10	112	9.4	8.6	8.6	10	10	10	90	112	351	427	304
11	114	9.4	8.6	8.6	10	10	10	90	147	351	395	308
12	114	9.4	e.6	8.6	10	10	10	88	215	347	395	308
13	112	a9.4	8.6	9.4	10	10	10	88	256	347	391	315
14	110	a9.4	8.6	9.4	10	10	10	90	256	351	387	343
15	a110	a9.4	8.6	9.4	10	10	10	79	252	351	379	335
16	a110	a9.4	8.6	9.4	10	10	10	50	259	355	363	327
17	a110	9.4	8.6	9.4	10	10	10	51	262	355	363	339
18	a110	9.4	8.6	9.4	10	10	10	51	262	375	363	339
19	a110	9.4	8.6	9.4	10	10	9.4	22	276	395	359	351
20	a110	9.4	8.6	9.4	10	10	9.4	12	290	395	339	351
21	a110	9.4	8.6	9.4	10	10	9.4	11	323	395	339	351
22	a110	9.4	e.6	9.4	10	10	9.4	11	359	403	339	339
23	h107	9.4	8.6	9.4	10	10	9.4	11	355	403	335	319
24	a89	9.4	8.6	9.4	10	10	8.6	11	355	403	331	315
25	a89	9.4	8.6	9.4	10	10	8.6	11	351	407	308	244
26	a88	9.4	8.6	9.4	10	10	8.6	11	355	407	294	177
27	a88	8.6	8.6	9.4	10	10	9.4	11	351	407	287	177
28	a87	8.6	8.6	9.4	10	10	9.4	11	351	403	287	177
29	a87	8.6	8.6	9.4	-	10	9.4	11	351	399	287	177
30	h48	8.6	8.6	9.4	-	10	9.4	10	351	399	287	177
31	7.8	-	8.6	9.4	-	10	-	10	-	403	287	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	3,338.8	163	7.8	108	6,620
November	268.8	9.4	7.8	8.96	533
December	266.6	8.6	8.6	8.60	529
Calendar year 1944	58,075.2	443	6	159	115,200
January	281.8	9.4	8.6	9.09	559
February	275.8	10	9.4	9.85	547
March	310	10	10	10.0	616
April	290.4	10	8.6	9.68	578
May	1,210.0	92	9.4	39.0	2,400
June	6,851	359	10	228	13,590
July	11,577	407	347	373	22,960
August	11,329	447	287	365	22,470
September	8,747	351	177	292	17,350
Water year 1944-45	44,746.2	447	7.8	123	88,750

a No gage-height record; discharge interpolated.
h Computed from staff-gage readings made before and after regulating flow.
Time basis: Pacific war time up to 2 a.m., Sept. 30, 1945; Pacific standard time thereafter. To convert war time to standard time, subtract 1 hour.

Deschutes River below Wickiup Reservoir, near Lapine, Oreg.

Location.- Water-stage recorder, lat. 43°41', long. 121°41', in NE¼ sec. 7, T. 22 S., R. 9 E., about 2,000 feet downstream from Wickiup Dam (under construction, 1938-45), and 9 miles west of Lapine.

Records available.- June 1938 to September 1945.

Extremes (regulated).- Maximum discharge during year, 1,150 second-feet July 18-25 (gage height, 5.83 feet); minimum, 189 second-feet Feb. 14 (gage height, 2.49 feet).
1938-45: Maximum discharge, 1,600 second-feet Nov. 11, 1943 (gage height, 6.42 feet); minimum, 109 second-feet Dec. 7, 1943 (gage height, 1.78 feet); minimum daily, 189 second-feet Feb. 14, 1945.

Remarks.- Records excellent except those for Oct. 1 to Nov. 1, June 11 to Sept. 30, which are good. Flow regulated by Crane Prairie Reservoir and since Dec. 24, 1942, by Wickiup Reservoir (see p. 54).

Rating table, water year 1944-45 (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Oct. 1-30, June 11 to Sept. 30)

2.5	191	4.0	600
2.8	248	4.5	790
3.1	315	5.0	990
3.5	430	5.5	1,200

Discharge, in second-feet, water year October 1944 to September 1945

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	670	a305	310	313	242	195	498	495	346	910	1,140	966
2	670	305	305	313	242	195	498	495	421	934	1,140	966
3	670	308	308	315	244	196	442	495	537	934	1,140	958
4	628	308	308	315	244	196	373	495	604	934	1,140	958
5	600	308	308	315	244	196	373	495	607	934	1,140	954
6	600	310	308	315	244	196	373	534	607	934	1,140	954
7	600	310	305	315	246	198	373	582	607	934	1,140	954
8	600	310	303	315	246	200	373	579	607	934	1,140	950
9	600	310	303	310	246	200	373	579	607	934	1,140	946
10	600	310	303	308	246	198	373	579	607	934	1,120	946
11	600	308	303	296	246	198	382	582	662	962	1,070	942
12	600	308	303	284	246	198	382	586	722	986	1,070	942
13	600	310	305	284	222	198	379	586	758	986	1,060	954
14	600	310	305	284	189	198	442	582	758	1,010	1,060	982
15	600	310	306	284	191	198	495	572	754	1,030	1,040	982
16	600	313	305	284	191	198	495	537	758	1,040	1,000	982
17	600	308	305	287	191	198	495	537	766	1,040	998	990
18	600	303	308	256	191	198	495	540	770	1,080	998	1,010
19	600	303	308	240	191	198	495	516	760	1,150	998	1,010
20	600	303	308	240	191	198	495	495	798	1,150	994	1,010
21	600	305	308	240	193	198	495	495	862	1,150	994	1,000
22	600	305	310	240	193	198	495	478	910	1,150	990	976
23	593	308	310	240	193	200	495	445	914	1,150	990	930
24	586	308	310	240	195	200	495	415	914	1,150	990	930
25	586	308	310	240	195	200	495	388	914	1,140	986	886
26	586	308	310	240	195	200	495	370	914	1,140	986	818
27	586	310	310	240	195	200	492	297	914	1,140	986	814
28	586	310	310	242	195	200	492	240	910	1,140	978	810
29	586	310	313	242	-	200	495	244	910	1,140	978	810
30	425	308	313	242	-	335	495	240	914	1,140	978	814
31	a297	-	313	242	-	495	-	284	-	1,140	966	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	18,269	670	297	589	36,240
November	9,240	313	303	308	18,330
December	9,533	313	303	308	18,910
Calendar year 1944	243,336	1,000	297	665	482,600
January	8,521	315	240	275	16,900
February	6,047	246	189	216	11,990
March	6,576	495	195	212	13,040
April	13,548	498	373	452	26,870
May	14,757	586	240	476	29,270
June	22,152	914	346	738	45,940
July	32,330	1,150	910	1,043	64,130
August	32,490	1,140	966	1,048	64,440
September	28,146	1,010	810	938	55,830
Water year 1944-45	201,609	1,150	189	552	399,900

a No gage-height record; discharge computed on basis of field note that gates at Wickiup Reservoir were raised Oct. 31 (time not reported).
Time basis: Pacific war time up to 2 a.m., Sept. 30, 1945; Pacific standard time thereafter. To convert war time to standard time, subtract 1 hour.

Deschutes River at Pringle Falls, near Lapine, Oreg.

Location.- Water-stage recorder, lat. 43°44', long. 121°37', in SW¼ sec. 23, T. 21 S., R. 9 E., half a mile upstream from bridge at Pringle Falls and 7 miles northwest of Lapine.

Records available.- December 1915 to June 1917, June 1922 to September 1945.

Average discharge.- 22 years (1923-45), 699 second-feet.

Extremes (regulated).- Maximum discharge during year, 1,150 second-feet July 19, 20 (gage height, 2.45 feet); minimum, 196 second-feet Feb. 15-23 (gage height, 0.38 foot).
1915-17, 1922-45: Maximum discharge, 1,450 second-feet Sept. 10, 11, 1943 (gage height, 2.91 feet); minimum, that of Feb. 15-23, 1945.

Remarks.- Records excellent. No diversion above station. Flow regulated since 1922 by Crane Prairie Reservoir, and since Dec. 24, 1942, by Wickiup Reservoir (see p. 54).

Rating table, water year 1944-45 (gage height, in feet, and discharge, in second-feet)

0.4	201
.7	283
1.0	372
1.3	490
1.6	640
2.0	865
2.5	1,180

Discharge, in second-feet, water year October 1944 to September 1945

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	678	303	315	315	a244	199	505	495	348	919	1,120	992
2	678	306	309	315	246	199	505	495	396	955	1,120	985
3	678	306	309	315	246	199	468	495	510	949	1,120	985
4	651	309	312	318	246	199	379	495	595	949	1,120	985
5	605	306	312	318	249	199	379	495	595	949	1,120	979
6	605	309	312	321	249	199	379	525	595	949	1,110	979
7	605	309	309	a320	251	199	379	585	595	949	1,110	973
8	605	309	306	a315	260	201	379	580	595	943	1,110	973
9	605	309	306	a310	251	201	379	580	595	943	1,110	973
10	605	309	306	a310	251	201	382	580	595	943	1,100	973
11	605	306	306	a300	254	201	386	580	625	967	1,060	973
12	605	306	303	a285	257	201	389	580	695	1,000	1,060	967
13	610	306	306	a285	249	201	382	580	744	1,000	1,060	973
14	610	309	303	a285	199	201	422	580	744	1,020	1,060	998
15	610	309	303	a285	196	201	505	570	739	1,060	1,050	998
16	610	312	303	a285	196	201	505	535	744	1,060	1,020	992
17	610	306	306	a290	196	201	505	535	761	1,060	1,020	992
18	610	303	306	a255	196	201	500	535	761	1,080	1,020	998
19	610	306	312	a240	196	201	500	520	788	1,150	1,020	998
20	610	306	312	a240	196	204	500	490	805	1,150	1,020	998
21	610	306	312	a240	196	206	495	490	847	1,140	1,020	992
22	610	306	312	a240	196	206	495	476	925	1,140	1,020	985
23	610	309	312	240	196	204	495	437	925	1,130	1,010	943
24	595	309	312	240	199	204	495	414	925	1,130	1,010	943
25	595	309	312	240	199	204	495	389	925	1,130	1,000	925
26	595	309	312	240	199	204	490	382	925	1,130	1,000	853
27	595	309	315	240	199	204	490	318	925	1,130	1,000	853
28	595	309	318	240	199	204	490	246	925	1,130	998	853
29	590	309	316	240	-	204	495	243	925	1,120	998	853
30	484	306	318	240	-	272	495	240	919	1,120	998	853
31	292	-	318	a242	-	500	-	271	-	1,120	992	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	18,576	678	292	599	36,840
November	9,225	312	303	308	18,300
December	9,615	318	303	310	19,070
Calendar year 1944	241,577	985	292	660	479,200
January	8,549	321	240	276	16,960
February	6,211	260	196	222	12,320
March	6,821	500	199	214	13,130
April	13,663	505	379	455	27,100
May	14,736	585	240	475	29,230
June	21,991	925	348	733	43,620
July	32,415	1,150	919	1,046	64,290
August	32,576	1,120	992	1,051	64,610
September	28,737	998	853	958	57,000
Water year 1944-45	202,915	1,150	196	556	402,500

a No gage-height record; discharge computed on basis of records for station below Wickiup Reservoir, near Lapine.

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

Deschutes River at Benham Falls, near Bend, Oreg.

Location.- Water-stage recorder, lat. 43°56', long. 121°25', in SE¼ sec. 9, T. 19 S., R. 11 E., 50 yards upstream from head of Benham Falls, 1⅛ miles downstream from dam site for proposed Benham Falls Reservoir, and 10 miles southwest of Bend. Altitude of gage, 4,144 feet (from river-profile map).

Records available.- March 1909 to September 1913, August 1920 to September 1921, February 1924 to September 1945. July 1906 to February 1909 and April to September 1914 at West Ranch, 7 miles upstream.

Average discharge.- 28 years (1906-13, 1924-45), 1,306 second-feet.

Extremes.- Maximum discharge during year, 1,640 second-feet July 21 (gage height, 1.95 feet); minimum not determined (occurred during period of no gage-height record Dec. 11-21); minimum daily, 623 second-feet Mar. 6.

1906-13, 1920-21, 1924-45: Maximum discharge, 5,000 second-feet (estimated) Nov. 27, 1909 (gage height not determined); minimum not determined (occurred during period Dec. 11-21, 1944); minimum daily, that of Mar. 6, 1945.

Remarks.- Records excellent except those for periods of no gage-height record, which are fair. Small diversions above station for irrigation. Some regulation since 1922 by Crane Prairie and Crescent Lake Reservoirs, and since December 1942 by Wickiup Reservoir (see p. 54).

Rating table, water year 1944-45 (gage height, in feet, and discharge, in second-feet)

-0.2	630
0.0	705
.3	825
.6	950
1.0	1,130
1.5	1,370
2.0	1,670

Discharge, in second-feet, water year October 1944 to September 1945

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,070	720	713	690	655	651	928	1,080	980	1,400	1,600	1,390
2	1,070	710	709	690	665	651	964	1,080	1,020	1,410	1,600	1,380
3	1,070	715	701	690	675	651	977	1,080	1,020	1,440	1,590	1,380
4	1,060	725	693	685	675	640	936	1,080	1,150	1,440	1,590	1,370
5	1,040	730	693	685	705	630	841	1,090	1,220	1,450	1,580	1,360
6	1,020	735	689	710	720	623	833	1,100	1,210	1,450	1,580	1,360
7	1,000	745	689	755	720	640	829	1,140	1,210	1,460	1,570	1,340
8	1,000	745	681	750	760	637	841	1,210	1,200	1,460	1,570	1,340
9	995	730	673	745	755	637	857	1,220	1,190	1,450	1,580	1,320
10	995	725	658	h757	760	634	869	1,240	1,180	1,450	1,580	1,310
11	1,000	720	655	770	825	634	869	1,250	1,180	1,450	1,570	1,300
12	1,000	720	665	795	840	634	865	1,280	1,210	1,450	1,530	1,300
13	1,000	709	655	800	830	640	853	1,300	1,260	1,480	1,510	1,300
14	1,000	709	630	785	850	658	845	1,310	1,280	1,500	1,510	1,290
15	1,000	700	630	795	810	669	889	1,320	1,280	1,510	1,510	1,300
16	995	695	670	830	h813	658	950	1,320	1,260	1,560	1,600	1,300
17	990	685	695	840	820	651	959	1,310	1,270	1,560	1,470	1,300
18	990	675	705	825	830	637	975	1,320	1,270	1,560	1,470	1,300
19	990	665	685	770	770	634	982	1,330	1,270	1,570	1,450	1,300
20	990	665	690	720	735	626	990	1,310	1,280	1,620	1,450	1,310
21	985	654	690	680	710	630	1,000	1,280	1,310	1,630	1,440	1,310
22	985	662	701	670	709	640	1,010	1,280	1,360	1,630	1,440	1,310
23	985	677	701	685	721	640	1,020	1,260	1,420	1,630	1,430	1,300
24	980	681	701	680	701	644	1,030	1,220	1,430	1,630	1,420	1,280
25	970	677	705	680	693	648	1,040	1,180	1,430	1,630	1,420	1,270
26	970	673	709	670	673	640	1,050	1,150	1,420	1,630	1,410	1,260
27	970	681	705	655	658	637	1,070	1,170	1,410	1,630	1,410	1,210
28	970	673	697	655	656	634	1,080	1,130	1,410	1,620	1,410	1,190
29	970	673	705	650	-	626	1,090	1,080	1,400	1,620	1,400	1,190
30	960	693	705	655	-	626	1,080	1,040	1,400	1,610	1,390	1,190
31	850	-	695	655	-	715	-	1,000	-	1,610	1,390	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	30,870	1,070	850	996	61,230
November	20,967	745	654	699	41,590
December	21,293	713	630	687	42,230
Calendar year 1944	421,615	1,540	630	1,152	836,300
January	22,422	840	650	723	44,470
February	20,786	880	655	742	41,230
March	19,915	715	623	642	39,500
April	28,519	1,090	829	951	56,570
May	37,160	1,330	1,000	1,199	73,710
June	37,930	1,430	980	1,264	75,230
July	47,540	1,630	1,400	1,534	94,290
August	46,370	1,600	1,390	1,496	91,970
September	39,060	1,390	1,190	1,302	77,470
Water year 1944-45	372,832	1,630	623	1,021	739,500

h Computed from staff-gage reading.

Note.- No gage-height record Oct. 3 to Nov. 12, Nov. 15-20, Dec. 11-21, Dec. 30 to Jan. 9, Jan. 11 to Feb. 15, Feb. 17-21, Apr. 23-20, May 13 to June 1; discharge computed on basis of unpublished records for stations at Camp Abbot Bridge and below Benham Falls.

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

Deschutes River below Lava Island, near Bend, Oreg.

Location.- Water-stage recorder, lat. 44°00', long. 121°22', in SW¼ sec. 23, T. 18 S., R. 11 E., three-quarters of a mile downstream from Lava Island, 1 mile downstream from intake of Arnold Canal, and 6 miles southwest of Bend.
Records available.- March 1926 to September 1945.
Average discharge.- 19 years, 1,047 second-feet.
Extremes.- Maximum discharge during year, 1,500 second-feet Aug. 4 (gage height, 1.34 feet); minimum, 582 second-feet Dec. 14, Mar. 10 (gage height, 0.08 foot).
1926-45: Maximum discharge, 1,880 second-feet Nov. 12, 13, 1943 (maximum gage height, 1.75 feet Nov. 12); minimum, 568 second-feet sometime during period Dec. 25, 1941, to Jan. 11, 1942, caused by ice jam upstream.
Remarks.- Records excellent June to September, good October to May, except those for periods of no gage-height record, which are fair. Arnold Canal diverts water above station for irrigation (see p. 61). Flow regulated by Crescent Lake, Crane Prairie, and Wickiup Reservoirs (see p. 54).

Rating table, water year 1944-45 (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Oct. 1 to Jan. 2)

0.1	590
.3	685
.5	800
.7	940
1.0	1,190
1.3	1,460

Discharge, in second-feet, water year October 1944 to September 1945

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	919	a665	665	660	630	622	807	870	788	1,220	1,410	1,240
2	919	a650	675	660	640	622	842	863	821	1,230	1,400	1,240
3	919	a655	665	660	640	626	835	863	849	1,250	1,400	1,240
4		a665	660	660	645	608	807	877	940	1,260	1,480	1,230
5		a665	665	660	660	612	724	877	1,000	1,260	1,490	1,220
6		a675	660	660	660	604	729	884	1,000	1,270	1,490	1,200
7		a680	660	680	655	608	740	919	996	1,280	1,460	1,190
8		a680	655	675	670	594	746	960	988	1,270	1,410	1,210
9		a680	655	680	665	586	758	1,000	980	1,270	1,410	1,240
0		h680	640	702	675	586	770	1,010	972	1,270	1,400	1,160
.1		a670	635	718	740	590	770	1,030	956	1,270	1,390	1,150
.2		a660	645	729	764	617	770	1,040	972	1,270	1,360	1,140
.3		a660	635	746	800	617	764	1,080	1,030	1,300	1,340	1,140
14		h655	617	724	776	626	758	1,080	1,060	1,310	1,350	1,140
15		a655	612	729	734	635	782	1,080	1,080	1,320	1,340	1,150
16		a650	635	752	734	630	828	1,080	1,070	1,360	1,340	1,150
17	a840	645	660	764	740	626	842	1,070	1,070	1,390	1,320	1,150
18		645	675	752	752	622	856	1,070	1,080	1,370	1,310	1,150
19		640	665	712	712	617	849	1,090	1,070	1,380	1,300	1,160
20		640	670	675	685	612	835	1,080	1,080	1,420	1,300	1,170
21		640	650	650	670	617	835	1,040	1,110	1,410	1,290	1,160
22		645	645	630	660	622	849	1,040	1,150	1,410	1,290	1,170
23		626	645	640	665	622	842	1,040	1,220	1,420	1,280	1,160
24		622	655	640	655	617	849	980	1,240	1,420	1,280	1,140
25		617	685	640	655	622	856	948	1,240	1,420	1,270	1,130
26		645	685	630	635	617	870	919	1,240	1,420	1,260	1,140
27		650	675	630	626	617	877	956	1,230	1,420	1,260	1,090
28		650	665	626	626	612	891	933	1,230	1,420	1,260	1,070
29		650	665	626	-	608	884	870	1,220	1,410	1,260	1,060
30		655	660	626	-	608	877	835	1,220	1,410	1,260	1,060
31		-	660	630	-	635	-	807	-	1,410	1,240	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	26,277	-	-	848	52,120
November	19,615	680	617	654	38,910
December	20,339	685	612	656	40,340
Calendar year 1944	380,360	1,380	612	1,039	754,400
January	20,966	764	626	676	41,590
February	19,169	800	626	685	38,020
March	19,057	635	586	615	37,600
April	24,442	891	724	815	48,480
May	30,211	1,090	807	975	59,920
June	31,902	1,240	788	1,063	63,280
July	41,540	1,420	1,220	1,340	82,390
August	41,650	1,490	1,240	1,344	82,610
September	34,850	1,240	1,060	1,162	69,120
Water year 1944-45	330,018	1,490	586	904	654,600

a No gage-height record; discharge computed on basis of unpublished records for Deschutes River above Lava Island and Arnold Canal near Bend.
h Computed on basis of staff-gage readings.
Time basis: Pacific war time up to 2 a.m., Sept. 30, 1945; Pacific standard time thereafter. To convert war time to standard time, subtract 1 hour.

Deschutes River below Bend, Oreg.

Location.- Water-stage recorder, lat. 44°05', long. 121°18', in SE¼ sec. 20, T. 17 S., R. 12 E., half a mile downstream from North Canal Dam and 2 miles north of Bend.

Records available.- October 1914 to September 1945.

Average discharge.- 31 years, 630 second-feet.

Extremes.- Maximum discharge during year, 812 second-feet Feb. 12 (gage height, 2.79 feet); minimum, 2 second-feet June 18 (gage height, 0.86 foot).
1914-45: Maximum discharge, 2,500 second-feet Dec. 7, 1921 (gage height, 3.9 feet); minimum, 1 second-foot Aug. 25, 1930.
Maximum discharge known near this site since 1905, 4,820 second-feet Nov. 27, 1909.

Remarks.- Records good except those below 20 second-feet, which are poor. Five large canals divert water above station for irrigation; beginning June 5, 1945, some water diverted by North Unit Canal, under construction by Bureau of Reclamation (see p. 61). Flow regulated by hydroelectric plant at Bend, since 1922 by Crescent Lake and Crane Prairie Reservoirs, and since December 1942 by Wickiup Reservoir (see p. 54).

Rating table, water year 1944-45 (gage height, in feet, and discharge, in second-feet)

1.1	16	1.7	157
1.2	27	1.9	235
1.3	45	2.1	330
1.4	67	2.4	510
1.5	93	2.7	735

Discharge, in second-feet, water year October 1944 to September 1945

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	143	330	374	632	573	566	504	96	85	63	123	137
2	150	380	524	632	573	559	409	88	63	63	123	140
3	180	403	655	632	504	559	397	88	56	75	120	147
4	187	397	648	640	458	427	385	93	99	77	111	150
5	195	397	655	610	458	368	295	96	130	72	195	66
6	150	409	640	545	427	346	266	96	133	80	207	99
7	143	421	648	517	374	346	276	117	126	75	191	55
8	143	439	632	545	421	271	276	123	83	77	147	97
9	143	445	640	a545	421	271	276	114	43	63	102	155
10	137	445	632	545	464	320	240	60	54	56	154	79
11	150	452	618	504	727	341	227	34	10	70	157	26
12	157	433	618	497	752	524	199	29	14	66	140	51
13	191	439	610	517	803	504	172	43	11	85	117	57
14	191	439	566	497	778	531	137	27	15	105	120	34
15	187	445	559	618	603	545	147	38	27	102	154	100
16	203	452	595	744	711	559	180	49	27	105	150	184
17	203	439	680	760	735	566	168	32	55	147	137	154
18	215	439	655	744	744	552	168	40	13	123	120	108
19	231	433	490	703	711	545	165	83	14	99	114	190
20	240	433	341	640	655	545	143	99	24	130	108	231
21	262	439	358	610	610	545	120	77	20	165	58	244
22	258	452	385	573	573	552	117	99	47	161	83	374
23	258	445	484	588	595	552	126	133	75	157	126	374
24	253	433	478	588	618	559	130	117	88	126	94	358
25	227	445	610	595	618	559	117	114	88	165	87	341
26	207	458	671	580	595	552	117	93	88	157	130	336
27	215	439	663	573	580	545	126	137	77	84	96	203
28	235	352	655	580	573	524	117	223	75	110	73	168
29	235	363	655	573	-	504	108	195	67	147	36	165
30	240	363	648	573	-	504	108	147	96	130	24	172
31	211	-	640	573	-	524	-	123	-	130	30	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	6,140	262	137	198	12,180
November	12,659	458	330	422	25,110
December	17,927	671	341	578	35,560
Calendar year 1944	162,095	1,300	8	443	321,500
January	18,473	760	497	596	36,640
February	16,854	803	374	602	33,430
March	15,165	566	271	489	30,080
April	6,216	504	108	207	12,330
May	2,953	223	27	95.3	5,860
June	1,803	133	10	60.1	3,580
July	3,264	165	56	105	6,470
August	3,627	207	24	117	7,190
September	5,004	374	26	167	9,930
Water year 1944-45	110,085	803	10	302	218,400

a No gage-height record; discharge interpolated.
Time basis: Pacific war time up to 2 a.m., Sept. 30, 1945; Pacific standard time thereafter. To convert war time to standard time, subtract 1 hour.

Deschutes River near Madras, Oreg.

Location.- Water-stage recorder, lat. 44°43', long. 121°14', in NE¼ sec. 13, T. 10 S., R. 12 E., 1 mile downstream from Pelton dam site, 4 miles upstream from Shitike Creek, and 9 miles northwest of Madras. Altitude of gage, 1,404 feet (from river-profile map).

Records available.- October 1923 to September 1945.

Average discharge.- 22 years, 4,144 second-feet.

Extremes.- Maximum discharge during year, 6,050 second-feet Apr. 22 (gage height, 3.41 feet); minimum, 3,100 second-feet Sept. 2 (gage height, 1.53 feet).
1923-45: Maximum discharge, 13,300 second-feet Jan. 1, 1943 (gage height, 6.89 feet); minimum, 2,940 second-feet Sept. 20, 1942 (gage height, 1.41 feet).

Remarks.- Records excellent except those for periods of no gage-height record, which are good. Large diversions in upper river basin for irrigation. Some winter and spring runoff stored in Crane Prairie, Wickiup, Crescent Lake, and Ochoco Reservoirs. Occasional slight fluctuations caused by power plants on Deschutes River near Redmond and Crooked River near Culver.

Rating table, water year 1944-45 (gage height, in feet, and discharge, in second-feet)

1.5	3,080	2.7	4,850
1.8	3,470	3.0	5,350
2.1	3,910	3.4	6,030
2.4	4,370		

Discharge, in second-feet, water year October 1944 to September 1945

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	3,320	3,430	3,640	3,880	3,940	4,090	4,850	4,770	4,960	3,360	3,270	3,180
2	3,330	3,530	3,640	3,880	3,960	4,040	4,930	4,900	4,590	3,340	3,270	3,220
3	3,330	3,730	3,840	3,860	3,980	4,060	4,670	4,900	4,320	3,330	3,260	3,260
4	3,360	3,740	3,860	3,860	4,340	4,040	4,500	4,950	4,160	3,340	3,260	3,290
5	3,370	3,660	3,880	3,880	4,290	3,880	4,390	4,880	4,090	3,330	3,250	3,360
6	3,370	3,660	3,880	3,900	4,100	3,820	4,290	4,770	4,060	3,320	3,300	3,290
7	3,330	3,670	3,880	4,030	4,240	3,820	4,470	4,580	3,960	3,320	3,330	3,190
8	3,300	3,670	3,860	4,100	4,640	3,850	4,790	4,400	3,940	3,320	3,330	3,230
9	3,290	3,660	3,860	5,230	5,210	3,740	5,040	4,260	3,840	3,300	3,330	3,160
10	3,300	3,660	3,860	4,340	5,780	3,760	4,960	4,200	3,730	3,300	3,330	3,300
11	3,300	3,680	3,840	4,150	5,350	3,790	4,560	4,030	3.660	3,290	3,290	3,220
12	3,300	3,700	3,800	4,140	5,440	3,880	4,320	4,030	3,620	3,270	3,290	3,200
13	3,370	3,660	3,800	4,530	5,740	4,080	4,180	4,080	3,540	3,270	3,270	3,180
14	3,360	3,660	3,760	4,590	5,640	4,260	4,060	4,100	3,500	3,290	3,290	3,190
15	3,360	3,660	3,730	4,670	5,740	4,320	3,970	4,340	3,460	3,290	3,270	3,190
16	3,360	3,680	3,730	4,720	5,520	4,270	4,210	4,260	3,430	3,290	3,290	3,160
17	3,370	3,680	3,820	4,640	5,110	4,230	4,980	4,230	3,410	3,290	3,300	3,300
18	3,390	3,670	3,800	4,480	4,880	4,120	5,130	4,290	3,440	3,320	3,260	3,300
19	3,410	3,660	3,910	4,320	4,750	4,090	5,260	4,240	3,460	3,290	a3,270	3,230
20	3,430	3,640	3,760	4,180	4,610	4,100	5,660	4,270	3,430	3,300	a3,270	3,330
21	3,430	3,660	3,670	4,060	4,450	4,040	5,840	4,240	3,440	3,330	a3,260	3,390
22	3,440	3,660	3,860	3,960	4,340	4,100	5,940	4,100	3,440	3,370	a3,260	3,370
23	3,440	3,720	3,900	3,880	4,270	4,420	5,720	4,100	3,400	3,370	a3,260	3,500
24	3,430	3,680	a3,840	3,910	4,270	4,820	5,380	4,200	3,400	3,360	a3,260	3,500
25	3,430	3,680	a3,760	3,940	4,230	4,820	5,230	4,230	3,410	3,330	3,270	3,480
26	3,400	3,720	a3,800	3,940	4,200	4,580	5,040	4,180	3,430	3,300	3,260	3,470
27	3,370	3,720	a3,840	3,910	4,160	4,420	4,670	4,290	3,370	3,320	3,230	3,470
28	3,370	3,670	a3,860	3,860	4,100	4,320	4,510	4,900	3,360	3,300	3,250	3,360
29	3,390	3,680	a3,880	3,880	-	4,290	4,530	5,040	3,360	3,230	3,220	3,300
30	3,400	3,600	a3,880	3,900	-	4,320	4,560	5,040	3,360	3,300	3,190	3,290
31	3,440	-	3,900	3,940	-	4,400	-	5,100	-	3,270	3,180	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	104,490	3,440	3,290	3,371	207,300
November	109,810	3,740	3,430	3,660	217,800
December	118,360	3,910	3,640	3,818	234,800
Calendar year 1944	1,401,670	6,280	3,160	3,830	2,780,000
January	128,560	5,230	3,860	4,147	255,000
February	131,280	5,780	3,940	4,689	260,400
March	128,770	4,820	3,740	4,154	255,400
April	144,640	5,940	3,970	4,821	286,900
May	137,900	5,100	4,030	4,448	273,500
June	110,570	4,960	3,360	3,686	219,300
July	102,610	3,370	3,230	3,310	203,500
August	101,370	3,330	3,180	3,270	201,100
September	98,910	3,500	3,160	3,297	196,200
Water year 1944-45	1,417,270	5,940	3,160	3,883	2,811,000

a No gage-height record; discharge computed on basis of range in stage and records for station at Moody, near Biggs.

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

Deschutes River at Moody, near Biggs, Oreg.

Location.- Water-stage recorder, lat. 45°37', long. 120°54', in SE¼ sec. 26, T. 2 N., R. 15 E., at Moody, 1½ miles upstream from mouth and 5 miles southwest of Biggs. Datum of gage is 167.43 feet above mean sea level, datum of 1929.

Drainage area.- 10,500 square miles.

Records available.- July 1906 to September 1945. October 1897 to December 1899 at site near Moro, 10 miles above mouth.

Average discharge.- 40 years (1898-99, 1906-45), 5,701 second-feet.

Extremes.- Maximum discharge during year, 8,760 second-feet Feb. 14 (gage height, 3.74 feet); minimum, 3,580 second-feet Oct. 10, 11 (gage height, 2.24 feet).
1897-99, 1906-45: Maximum discharge, 43,600 second-feet Jan. 7, 1923 (gage height, 10.2 feet), from rating curve extended above 15,000 second-feet; minimum, 3,380 second-feet Sept. 16-19, 1931 (gage height, 2.06 feet).

Remarks.- Records good. Many diversions in upper river basin for irrigation. Some winter and spring runoff stored in Crane Prairie, Wickiup, Crescent Lake, and Ochoco Reservoirs.

Cooperation.- Water-stage recorder inspected by agent of Eastern Oregon Land Co.

Rating table, water year 1944-45 (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Oct. 1 to Dec. 15)

2.1	3,490	3.0	6,030
2.4	4,210	3.4	7,450
2.7	5,080	3.7	8,600

Discharge, in second-feet, water year October 1944 to September 1945

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	3,620	3,730	4,130	4,410	4,550	4,930	5,320	6,270	6,620	3,960	3,810	3,670
2	3,620	3,730	4,130	4,410	4,550	4,900	5,860	6,650	6,230	3,980	3,810	3,670
3	3,620	4,000	4,110	4,380	4,550	4,840	5,670	6,860	5,730	3,950	3,780	3,710
4	3,640	4,240	4,350	4,380	4,610	4,840	5,410	7,040	5,440	3,950	3,780	3,760
5	3,670	4,160	4,350	4,350	5,050	4,750	5,260	7,010	5,290	3,950	3,760	3,810
6	3,690	4,050	4,430	4,410	5,080	4,490	5,170	6,830	5,200	3,930	3,760	3,880
7	3,640	4,050	4,430	4,640	4,870	4,520	5,080	6,620	5,080	3,900	3,810	3,780
8	3,620	4,050	4,410	5,200	5,700	4,520	5,410	6,340	4,960	3,900	3,830	3,690
9	3,620	4,030	4,380	5,200	7,010	4,520	5,670	6,130	4,870	3,900	3,630	3,710
10	3,600	4,030	4,350	5,700	7,340	4,430	6,000	5,960	4,720	3,900	3,850	3,670
11	3,600	4,050	4,360	4,990	7,190	4,460	5,640	5,830	4,610	3,880	3,810	3,760
12	3,600	4,050	4,350	4,810	7,010	4,490	5,320	5,730	4,550	3,880	3,810	3,690
13	3,640	4,030	4,320	5,200	7,560	4,640	5,110	6,000	4,490	3,850	3,810	3,670
14	3,690	4,000	4,290	6,000	8,400	4,760	4,960	6,030	4,410	3,850	3,780	3,640
15	3,670	4,000	4,240	5,700	7,680	5,020	4,840	6,130	4,350	3,850	3,760	3,670
16	3,670	4,030	4,240	5,670	7,380	4,990	4,840	6,440	4,270	3,850	3,780	7,670
17	3,670	4,050	4,270	5,600	6,830	4,930	5,320	6,300	4,210	3,850	3,780	3,670
18	3,690	4,050	4,350	5,410	6,340	4,870	6,000	6,100	4,210	3,850	3,780	3,780
19	3,690	4,030	4,380	5,200	6,030	4,810	6,170	5,930	4,240	3,880	3,760	3,760
20	3,710	4,030	4,490	5,020	5,800	4,810	6,510	5,770	4,210	3,850	3,730	3,730
21	3,710	4,030	4,270	4,870	5,600	4,900	7,010	5,730	4,180	3,830	3,730	3,850
22	3,710	4,050	4,290	4,690	5,480	4,870	7,230	5,640	4,180	3,850	3,730	3,880
23	3,710	4,080	4,430	4,610	5,380	5,020	7,260	5,540	4,160	3,930	3,730	3,880
24	3,710	4,130	4,410	4,490	5,260	5,380	7,120	5,540	4,110	3,900	3,730	3,980
25	3,710	4,080	4,320	4,550	5,200	5,640	7,010	5,570	4,080	3,880	3,730	3,950
26	3,690	4,130	4,290	4,550	5,110	5,600	6,830	5,510	4,080	3,850	3,760	3,950
27	3,670	4,160	4,380	4,550	5,080	5,410	6,300	5,770	4,080	3,850	3,760	3,930
28	3,670	4,180	4,410	4,490	4,990	5,260	5,960	6,540	4,030	3,830	3,730	3,930
29	3,670	4,050	4,460	4,460	-	5,170	5,930	6,970	4,000	3,810	3,760	3,810
30	3,670	4,030	4,460	4,490	-	5,140	6,030	6,790	4,000	3,780	3,710	3,780
31	3,710	-	4,430	4,550	-	5,170	-	6,650	-	3,810	3,690	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	113,600	3,710	3,600	3,665	225,300
November	121,310	4,240	3,730	4,044	240,600
December	134,530	4,490	4,110	4,340	266,800
Calendar year 1944	1,607,840	7,400	3,510	4,393	3,189,000
January	150,980	6,000	4,350	4,870	299,500
February	165,630	8,400	4,550	5,915	328,500
March	152,100	5,640	4,430	4,906	301,700
April	176,240	7,260	4,840	5,875	349,600
May	192,220	7,040	5,510	6,201	381,300
June	138,590	6,620	4,000	4,620	274,900
July	120,250	3,980	3,760	3,879	238,500
August	116,880	3,850	3,690	3,770	231,800
September	113,330	3,980	3,640	3,778	224,800
Water year 1944-45	1,695,660	8,400	3,600	4,646	3,363,000

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

Reservoirs in Deschutes River Basin above Bend, Oreg.

Crane Prairie Reservoir.- Staff gage, lat. 43°45', long. 121°47', at dam on Deschutes River in NW¼ sec. 16, T. 21 S., R. 8 E., 15 miles northwest of Lapine. Datum of gage is 4,400.0 feet above mean sea level (Bureau of Reclamation bench mark). Records available, November 1922 to September 1945. Maximum contents observed during year, 42,860 acre-feet June 3, 4 (elevation, 4,442.36 feet); minimum, 13 acre-feet Oct. 1-4 (elevation, 4,427.19 feet). Maximum contents observed during period 1922-45, 60,500 acre-feet June 5-7, 1943 (elevation, 4,446.0 feet); no usable contents at times.

Reservoir is formed by earth dam completed by North Canal Co. in 1922; gates were first closed Nov. 22, 1922; reconstructed as rock-faced earth dam with concrete control works by Bureau of Reclamation in 1939-40. Capacity, 55,340 acre-feet between elevations 4,424 feet (lip of fish screen structure) and 4,445 feet (crest of spillway). Natural flow passing through reservoir when outlet gates are open prevents withdrawal of storage to elevation of sill of gates. Water used for irrigation near Bend and Redmond. Gage read once daily.

Wickiup Reservoir.- Staff gage, lat. 43°41', long. 121°41', at dam on Deschutes River in NE¼ sec. 7, T. 22 S., R. 9 E., 9 miles west of Lapine. Temporary gage established for use during construction of dam reads elevation above mean sea level (levels by Bureau of Reclamation). Records available, December 1942, when storage began, to September 1945. Maximum contents observed during year, 66,990 acre-feet Mar. 30 (elevation, 4,316.73 feet); minimum observed, 15,960 acre-feet Oct. 30 (elevation, 4,291.41 feet). Maximum contents observed during period 1942-45, that of Mar. 30, 1945; no storage during most of period November 1942 to March 1943.

Reservoir is formed by rock-faced earthfill dam completed by Bureau of Reclamation prior to 1943 except for outlet works, reservoir dike, spillway, and timber removal, on which work is continuing. Ultimate capacity, about 180,000 acre-feet (final capacity table not yet available). Water stored is intended for irrigation near Madras (diversion canal not completed in 1945). Gage read twice daily.

Crescent Lake Reservoir.- Staff gage, lat. 43°30', long. 121°58', at head of spillway on dam at lake outlet in sec. 11, T. 24 S., R. 6 E., and auxiliary staff gage at boat dock 100 yards south, 14 miles west of Crescent. Datum of gage is 4,826.0 feet above mean sea level (levels of Deschutes County Municipal Improvement District). Records available, August 1922 to September 1945. Maximum contents observed during year, 38,730 acre-feet May 15, 19 (elevation, 4,836.75 feet); minimum observed, 18,660 acre-feet Sept. 5 (elevation, 4,831.28 feet). Maximum contents observed during period 1922-45, 72,460 acre-feet July 15, 1923 (elevation, 4,845.55 feet); minimum observed, 9,640 acre-feet Oct. 21, 1931 (elevation, 4,828.75 feet).

Reservoir is formed by dam of earth and logs, completed and storage begun in 1922. Capacity, 86,050 acre-feet between elevations 4,826 feet (sill of outlet gate), and 4,849 feet (crest of spillway). Dead storage not known; records given herein represent usable contents. Water is diverted from Deschutes River at Bend and used by Deschutes County Municipal Improvement District for irrigation near Tumalo. Gage read about twice a week.

Elevation and contents, water year October 1944 to September 1945

Date	Crane Prairie Reservoir			Wickiup Reservoir		
	Elevation (feet)†	Contents (acre-feet)	Change in contents during month (acre-feet)	Elevation (feet)	Contents (acre-feet)	Change in contents during month (acre-feet)
Sept. 30	4,427.19	13	-	4,291.46	16,030	-
Oct. 31	4,430.42	2,087	+2,074	4,291.80	16,470	+440
Nov. 30	4,433.74	10,160	+8,073	4,298.78	26,690	+10,220
Dec. 31	-	a17,250	+7,090	4,303.70	35,660	+8,970
Calendar year 1944	-	-	-26,470	-	-	+35,660
Jan. 31	-	a23,880	+6,630	4,308.10	45,140	+9,480
Feb. 28	-	a29,130	+5,250	4,312.67	56,060	+10,920
Mar. 31	-	a32,340	+3,210	4,316.69	66,880	+10,820
Apr. 30	4,440.64	35,340	+3,000	4,315.68	63,880	-3,000
May 31	4,442.31	42,630	+7,290	4,315.53	63,460	-420
June 30	4,440.23	33,620	-9,010	4,314.31	60,160	-3,300
July 31	4,436.44	19,010	-14,610	4,309.55	48,260	-11,900
Aug. 31	4,433.40	9,170	-9,840	4,304.32	36,900	-11,360
Sept. 30	4,431.58	4,450	-4,720	4,299.00	27,060	-9,840
Water year 1944-45	-	-	+4,437	-	-	+11,030

Date	Crescent Lake Reservoir		
Sept. 30	4,833.20	25,600	-
Oct. 31	-	a26,820	+1,220
Nov. 30	-	a28,020	+1,200
Dec. 31	-	a28,830	+810
Calendar year 1944	-	-	-21,350
Jan. 31	-	a31,030	+2,200
Feb. 28	-	33,300	+2,270
Mar. 31	-	a34,240	+940
Apr. 30	4,836.04	36,100	+1,860
May 31	-	a38,420	+2,320
June 30	4,836.24	36,840	-1,580
July 31	-	a25,830	-11,010
Aug. 31	-	a18,790	-7,040
Sept. 30	-	a19,040	+250
Water year 1944-45	-	-	-6,560

† Time of day variable.
a No gage-height record; contents interpolated.
Time basis: Pacific war time up to 2 a.m., Sept. 30, 1945; Pacific standard time thereafter. To convert war time to standard time, subtract 1 hour.

Cultus River above Cultus Creek, near Lapine, Oreg.

Location.- Water-stage recorder, lat. 43°49', long. 121°48', at road crossing in sec. 20 or 29, T. 20 S., R. 8 E., upstream from flow line of Crane Prairie Reservoir, 2 miles upstream from Cultus Creek, and 18 miles northwest of Lapine. Altitude of gage, 4,450 feet (from reservoir surveys by Bureau of Reclamation).

Records available.- June 1923 to September 1925, November 1937 to September 1945.

Extremes.- Maximum discharge during year, 70 second-feet June 20, July 1-3 (gage height, 0.89 foot); minimum, 36 second-feet Jan. 31 to Feb. 3, Feb. 6, 8, 11, 12, Mar. 2, 4, 6. 1923-25, 1937-45: Maximum discharge, 118 second-feet May 16, 1938, June 1, 1943; maximum gage height, 1.01 feet June 1, 1943; minimum discharge, 28 second-feet Mar. 22, Apr. 5-10, 1941.

Remarks.- Records good except those for July and September, which are fair. No diversion or regulation above station.

Discharge, in second-feet, water year October 1944 to September 1945

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	48	48	43	40	36	37	37	46	58	70	62	66
2	48	48	40	40	36	36	37	51	58	70	62	64
3	48	48	40	40	36	37	37	58	58	70	62	64
4	48	48	41	40	37	36	37	60	56	68	62	64
5	48	48	41	40	37	37	38	58	58	68	62	62
6	48	50	41	41	36	36	38	58	58	68	62	62
7	48	50	41	41	37	37	38	66	58	66	62	62
8	48	50	41	41	36	37	38	64	60	68	62	62
9	48	50	41	41	37	37	38	62	60	66	62	60
10	48	48	41	41	37	37	38	62	60	66	62	60
11	48	48	40	41	36	37	38	62	60	66	62	60
12	46	48	40	41	36	37	38	64	62	64	62	58
13	48	48	40	40	37	38	38	62	64	66	64	60
14	48	48	41	40	37	38	38	60	62	64	64	60
15	46	a48	41	38	37	38	40	60	64	66	64	58
16	46	a47	41	37	37	38	41	60	66	66	64	56
17	46	a47	41	37	37	38	41	58	66	64	64	58
18	46	a47	41	37	37	38	41	56	68	64	64	58
19	46	a47	41	37	37	38	43	56	68	64	64	56
20	46	a46	41	37	37	38	41	55	70	64	64	58
21	46	a46	41	37	38	38	43	55	68	64	64	58
22	46	a46	43	37	37	38	43	55	68	64	64	58
23	46	a45	43	37	38	38	44	56	68	64	66	56
24	46	a45	43	37	37	38	44	56	68	62	66	56
25	46	a45	41	38	38	38	44	56	68	62	66	58
26	46	a45	41	38	37	38	44	56	68	64	64	55
27	46	a44	41	38	38	37	46	60	68	62	64	55
28	46	44	41	37	37	37	46	60	68	62	66	55
29	46	44	41	37	-	37	46	60	68	62	66	55
30	46	44	41	37	-	37	46	60	68	60	66	53
31	48	-	41	37	-	37	-	58	-	62	66	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	1,454	48	46	46.9	2,880
November	1,410	50	44	47.0	2,800
December	1,274	43	40	41.1	2,530
Calendar year 1944	18,714	66	40	51.1	37,130
January	1,200	41	37	38.7	2,380
February	1,033	38	36	36.9	2,050
March	1,158	38	36	37.4	2,300
April	1,221	46	37	40.7	2,420
May	1,810	66	46	58.4	3,590
June	1,916	70	58	63.9	3,800
July	2,016	70	60	65.0	4,000
August	1,974	66	62	63.7	3,920
September	1,767	66	53	58.9	3,500
Water year 1944-45	18,233	70	36	50.0	36,170

a No gage-height record; discharge interpolated.
Time basis: Pacific war time up to 2 a.m., Sept. 30, 1945; Pacific standard time thereafter. To convert war time to standard time, subtract 1 hour.

Quinn River near Lapine, Oreg.

Location.- Water-stage recorder and wooden control, lat. 43°47', long. 121°50', in NW¼ sec. 1, T. 21 S., R. 7 E., just upstream from flow line of Crane Prairie Reservoir, 150 feet downstream from springs at head of river and 19 miles northwest of Lapine. Datum of gage is 4,142.1 feet above mean sea level, based on elevation of Crane Prairie Reservoir (Bureau of Reclamation bench mark) in period May to September 1943, when slack water reached station.

Records available.- June 1922 to September 1925, November 1937 to September 1945.

Extremes.- Maximum discharge during year, 28 second-feet June 10-19 (maximum gage height, 1.83 feet June 10-16); minimum discharge not determined.
1922-25, 1937-45: Maximum discharge observed, 47 second-feet July 14-16, 1938, Sept. 10, 1943; practically no flow Nov. 14, 1941.

Remarks.- Records good except those below 10 second-feet, which are fair. No diversion or regulation above station.

Discharge, in second-feet, water year October 1944 to September 1945

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	9.0	7.0	7.0				7.5	12	20	27	24	19
2	9.0	7.0	6.5				7.5	12	22	27	24	19
3	8.5	7.5	6.5				7.5	13	22	27	24	20
4	8.5	7.5	6.5				7.5	13	23	27	24	20
5	8.5	7.5	6.5				7.5	14	24	27	24	20
6	9.0	7.5	6.5				8.0	14	25	27	24	20
7	10	a7.5	6.5			a7.0	8.0	16	25	27	24	20
8	10	a7.5	6.5				8.0	17	26	27	24	22
9	10	a7.5	6.5				8.0	17	27	27	24	22
10	10	a7.5	6.5				8.5	18	27	26	24	22
11	11	a7.5	6.5				8.5	18	27	26	24	23
12	11	7.5	a6.5				8.5	18	28	25	24	23
13	11	7.5	a6.5				8.5	18	28	25	24	24
14	11	8.0	a6.5			8.0	9.0	18	28	25	24	24
15	11	8.0	a6.5	a6.5	a6.5	8.5	10	18	28	25	24	24
16	11	8.0	a6.5			8.5	10	18	28	25	24	24
17	11	8.0	6.5			8.5	10	17	28	26	24	24
18	11	8.0	6.5			8.5	11	17	28	26	24	24
19	11	7.5				8.5	11	16	28	26	24	23
20	11	8.0				9.0	11	16	27	26	24	22
21	11	8.0				9.0	11	15	26	26	24	22
22	11	8.0				9.0	11	16	26	26	24	20
23	11	8.0				8.5	11	15	25	25	23	19
24	10	7.5				8.5	11	15	25	25	22	19
25	9.0	7.5	a6.5			8.5	11	16	26	25	20	19
26	9.0	7.5				8.5	11	16	25	25	20	18
27	8.5	7.5				8.0	11	16	25	25	19	17
28	8.5	7.5				8.0	11	16	26	26	19	16
29	7.5	7.5			-	8.0	11	17	26	25	19	16
30	7.5	7.0			-	8.0	11	18	26	25	19	16
31	7.5	-			-	8.0	-	19	-	24	19	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	303.0	11	7.5	9.77	601
November	228.0	8.0	7.0	7.60	452
December	202.0	-	-	6.52	401
Calendar year 1944	6,100.5	27	-	16.7	12,100
January	201.5	-	-	6.50	400
February	182.0	-	-	6.50	361
March	242.5	9.0	-	7.82	481
April	285.5	11	7.5	9.52	566
May	499	19	12	16.1	990
June	775	28	20	25.8	1,540
July	801	27	24	25.8	1,590
August	708	24	19	22.8	1,400
September	621	24	16	20.7	1,230
Water year 1944-45	5,048.5	28	-	13.8	10,010

a No gage-height record; discharge interpolated or computed on basis of records for Deschutes River below Snow Creek, near Lapine, and Cultus River above Cultus Creek, near Lapine.
Time basis: Pacific war time up to 2 a.m., Sept. 30, 1945; Pacific standard time thereafter. To convert war time to standard time, subtract 1 hour.

Odell Creek near Crescent, Oreg.

Location.- Water-stage recorder, lat. 43°33', long. 121°58', in SW¼ sec. 25, T. 23 S., R. 6 E., at outlet of Odell Lake, 3½ miles north of Crescent Lake and 14 miles northwest of Crescent. Datum of gage is 4,778.83 feet above mean sea level, datum of 1929.

Drainage area.- 39 square miles.

Records available.- August 1911 to August 1914 (incomplete), December 1923 to June 1924, May 1933 to September 1945.

Average discharge.- 12 years (1933-45), 65.5 second-feet.

Extremes.- Maximum discharge during year, 155 second-feet May 13, 14 (gage height, 0.84 foot); minimum, 21 second-feet Sept. 19 (gage height, 0.24 foot).
1911-14, 1923-24, 1933-45: Maximum discharge, 390 second-feet June 14, 1912, Jan. 4, 1936; minimum, 12 second-feet sometime during period Sept. 7-30, 1934.

Remarks.- Records good. Flow regulated at times by debris which collects on fish racks or by boards used at outlet of Odell Lake to change lake levels; slightly affected at times by seiches on Odell Lake. No diversion above station.

Rating table, water year 1944-45 (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used July 11 to Sept. 16)

0.2	18	0.6	78
.3	25	.7	108
.4	37	.8	141
.5	54		

Discharge, in second-feet, water year October 1944 to September 1945

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	27	36	51	a56	68	64	59	96	108	68	31	26
2	26	37	51	a56	68	61	59	99	108	68	31	26
3	26	47	51	a54	68	64	59	105	108	66	30	25
4	27	47	51	a52	66	49	59	116	108	64	30	25
5	27	47	51	a50	76	59	59	118	108	64	29	26
6	26	47	49	59	76	54	56	121	105	61	29	25
7	27	49	46	59	81	59	59	124	105	61	30	25
8	27	47	42	56	96	59	66	128	102	61	30	25
9	26	51	40	54	99	56	71	128	112	61	31	24
10	25	51	40	54	96	56	68	131	128	59	31	24
11	25	51	37	56	102	56	73	131	121	59	29	25
12	27	51	36	68	99	56	76	134	115	54	29	25
13	27	47	36	78	111	56	71	148	115	54	27	25
14	26	44	35	90	115	61	68	148	108	52	27	25
15	26	42	33	93	108	61	66	145	105	49	27	27
16	26	40	33	96	102	61	66	148	99	47	29	24
17	26	39	32	99	105	64	61	148	96	46	27	25
18	26	39	33	99	108	66	61	145	96	42	29	22
19	26	37	42	96	102	64	61	141	96	42	26	22
20	26	37	42	87	99	66	59	134	93	40	26	24
21	26	36	42	84	90	66	59	128	96	40	26	26
22	27	36	40	78	87	68	59	128	90	40	26	29
23	27	44	40	73	84	71	66	128	87	39	26	29
24	27	52	40	71	81	68	87	124	87	39	26	29
25	27	46	39	66	73	66	90	121	87	37	25	29
26	27	51	39	61	73	64	90	121	87	37	27	25
27	29	49	40	59	73	61	90	121	81	37	26	24
28	29	47	46	59	71	64	93	121	76	37	27	24
29	27	46	49	59	-	59	93	121	73	35	27	24
30	29	47	a52	59	-	56	93	118	68	32	26	24
31	35	-	a54	61	-	61	-	111	-	32	26	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff	
						Inches	Acre-feet
October	835	35	25	26.9	0.690	0.80	1,660
November	1,340	52	36	44.7	1.15	1.28	2,660
December	1,312	54	32	42.3	1.08	1.25	2,600
Calendar year 1944	20,101	102	21	54.9	1.41	19.18	39,850
January	2,142	99	50	69.1	1.77	2.04	4,250
February	2,477	115	66	88.5	2.27	2.36	4,910
March	1,896	71	49	61.2	1.57	1.81	3,760
April	2,097	93	56	69.9	1.79	2.00	4,160
May	3,932	148	96	127	3.26	3.75	7,800
June	2,968	128	68	98.9	2.54	2.83	5,890
July	1,523	68	32	49.1	1.26	1.45	3,020
August	867	31	25	28.0	.718	.83	1,720
September	758	29	22	25.3	.649	.72	1,500
Water year 1944-45	22,147	148	22	60.7	1.56	21.12	43,930

a No gage-height record; discharge computed on basis of weather records.
Time basis: Pacific war time up to 2 a.m., Sept. 30, 1945; Pacific standard time thereafter.
To convert war time to standard time, subtract 1 hour.

Fall River near Lapine, Oreg.

Location.- Water-stage recorder, lat. 43°48', long. 121°34', in SE¼ sec. 31, T. 20 S., R. 10 E., downstream from spillway from ponds at State fish hatchery 10 miles northwest of Lapine.

Records available.- May to September 1912 (fragmentary) and June 1938 to September 1945 in reports of Geological Survey. October 1923 to September 1924 (at site 3 miles downstream) in reports of State engineer.

Extremes.- Maximum discharge during year, 169 second-feet Oct. 20 (gage height, 1.54 feet); minimum, 101 second-feet (regulated) Sept. 10; minimum daily, 110 second-feet Sept. 11, 12.
1938-45: Maximum discharge, 194 second-feet sometime during period Jan. 8 to Apr. 21, 1943, and on Sept. 15, 1943, probably caused by release of water from fish hatchery; minimum, 68 second-feet (regulated) Apr. 6, 1942.

Remarks.- Records good. Water diverted above station only to ponds at fish hatcheries, from which water returns to river above station.

Cooperation.- Recorder inspected by employees of Oregon State Game Commission.

Discharge, in second-feet, water year October 1944 to September 1945

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	137	142	134	127	119	114	114	119	114	113	124	116
2	137	142	132	126	121	113	113	118	116	113	122	116
3	137	142	132	126	121	113	113	119	118	113	122	114
4	135	140	132	126	121	113	113	118	118	a113	121	114
5	135	140	132	126	121	113	113	118	118	a114	121	113
6	135	140	132	127	119	114	113	118	119	a114	121	113
7	135	139	132	127	121	116	114	116	119	a114	119	113
8	135	140	132	124	124	116	114	a116	119	a115	116	112
9	135	140	132	124	121	116	114	a116	119	a115	116	112
10	135	140	132	124	121	116	114	a116	119	a115	116	112
11	135	139	130	124	119	116	114	a116	119	a116	116	110
12	135	139	130	126	121	118	113	a116	119	a116	116	110
13	134	139	130	126	122	118	113	a116	119	a117	116	112
14	134	140	130	124	118	116	113	a116	119	a117	116	112
15	134	139	129	126	116	116	114	a116	119	a117	116	112
16	135	139	129	126	114	116	114	a116	119	a118	116	112
17	135	139	129	124	114	118	114	a116	121	118	116	112
18	134	137	129	124	114	116	114	a116	119	118	116	113
19	134	137	129	124	113	116	116	a116	119	119	116	113
20	135	135	127	a124	113	116	116	a116	118	121	116	114
21	135	134	127	a123	113	116	116	116	118	121	116	116
22	135	134	127	a122	113	118	114	116	116	122	116	116
23	137	134	126	a122	113	116	118	114	116	122	116	116
24	137	135	126	a122	113	114	118	114	114	124	116	116
25	137	134	128	a121	113	114	119	113	114	124	116	116
26	139	135	126	a120	113	114	118	114	113	124	116	114
27	139	135	126	a120	113	114	118	114	113	124	116	116
28	139	135	127	a120	113	114	118	114	113	124	116	116
29	139	135	127	119	-	113	118	113	113	124	116	116
30	140	135	126	119	-	114	118	114	114	124	116	114
31	142	-	127	119	-	114	-	114	-	124	116	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	4,220	142	134	136	8,370
November	4,134	142	134	138	8,200
December	4,005	134	126	129	7,940
Calendar year 1944	55,070	171	126	150	109,200
January	3,832	127	119	124	7,600
February	3,277	124	113	117	6,500
March	3,671	118	113	115	7,080
April	3,451	119	113	115	6,840
May	3,590	119	113	116	7,120
June	3,514	121	113	117	6,970
July	3,673	124	113	118	7,290
August	3,634	124	116	117	7,210
September	3,411	116	110	114	6,770
Water year 1944-45	44,312	142	110	121	87,890

a No gage-height record; discharge interpolated.
Time basis: Pacific war time up to 2 a.m., Sept. 30, 1945; Pacific standard time thereafter. To convert war time to standard time, subtract 1 hour.

Little Deschutes River near Lapine, Oreg.

Location.- Water-stage recorder, lat. 43°41', long. 121°30', in SW¼ sec. 2, T. 22 S., R. 10 E., at bridge at former town of Rosland, 1¼ miles north of Lapine. Datum of gage is 4,192.81 feet above mean sea level, datum of 1929.

Records available.- September 1910 to October 1913 (incomplete), June to November 1918, August to October 1920, May 1924 to September 1945.

Average discharge.- 21 years (1924-45), 148 second-feet.

Extremes.- Maximum discharge during year, 423 second-feet May 16, 19, 20 (gage height, 4.83 feet); minimum, 20 second-feet Sept. 20, 21 (gage height, 1.17 feet).
1910-13, 1918, 1920, 1924-45: Maximum discharge, 985 second-feet Apr. 22, 1943 (gage height, 7.00 feet); minimum, 8 second-feet Sept. 2, 3, 1931 (gage height, 0.71 foot).

Remarks.- Records good June to September; fair October to May, except those for periods of ice effect, which are poor. Small diversions above station for irrigation. Flow regulated since August 1922 by Crescent Lake Reservoir (see p. 54).

Discharge, in second-feet, water year October 1944 to September 1945

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	40	35	54	35	77	126	124	211	283	175	183	100
2	40	44	54	36	86	117	129	221	269	180	179	97
3	40	59	50	*38	96	109	118	231	272	177	174	95
4	38	71	46	40	104	104	109	240	265	193	173	89
5	a37	85	*52	42	108	107	105	254	261	203	166	80
6	a36	89	53	46	100	114	102	270	256	200	164	66
7	a34	79	49	56	104	105	112	291	250	200	165	58
8	a31	66	47	68	119	*102	132	303	243	199	170	48
9	a29	63	43	90	158	102	149	322	233	195	166	42
10	a28	63	41	120	221	100	136	344	221	192	161	38
11	a28	64	39	160	227	104	121	347	217	188	151	34
12	a28	62	38	153	212	118	117	360	210	183	150	33
13	a29	54	37	146	215	133	112	375	194	200	150	32
14	a29	49	36	153	235	136	106	388	183	211	149	31
15	a29	38	36	180	257	128	104	410	177	211	145	29
18	a29	34	34	197	272	112	112	422	173	207	143	28
17	a30	37	36	192	277	106	123	418	167	201	149	27
18	a30	41	39	164	228	101	130	414	166	198	141	24
19	a29	44	40	140	188	93	141	423	155	198	134	22
20	a29	41	48	118	177	107	152	416	182	206	131	20
21	a28	39	58	113	176	106	162	390	189	209	128	22
22	a28	41	52	110	173	109	170	369	189	206	124	27
23	28	43	46	108	162	118	174	365	189	209	120	31
24	28	43	40	110	145	118	177	358	187	207	116	36
25	28	46	36	98	133	109	198	360	181	204	113	38
26	28	40	34	86	129	107	211	369	174	199	111	36
27	28	46	36	76	128	104	228	386	170	194	111	34
28	27	43	38	72	116	104	227	389	166	192	109	34
29	27	44	36	73	-	101	222	385	165	193	107	34
30	27	50	35	74	-	104	215	344	162	191	104	32
31	31	-	35	74	-	108	-	306	-	186	101	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	951	40	27	30.7	1,890
November	1,553	89	34	51.8	3,080
December	1,318	58	34	42.5	2,610
Calendar year 1944	46,744	295	27	128	92,710
January	3,168	197	35	102	6,280
February	4,623	277	77	165	9,170
March	3,412	136	93	110	6,770
April	4,418	228	102	147	8,760
May	10,681	423	211	345	21,190
June	6,149	283	155	205	12,200
July	6,107	211	175	197	12,110
August	4,388	183	101	142	8,700
September	1,317	100	20	43.9	2,610
Water year 1944-45	48,085	423	20	132	95,370

* Winter discharge measurement made on this day.
a No gage-height record; discharge computed on basis of unpublished record for station at Johnson Ranch, near Bend.
Note.- Stage-discharge relation affected by ice Dec. 9 to Jan. 12, Jan. 19 to Feb. 6.
Time basis: Pacific war time up to 2 a.m., Sept. 30, 1945; Pacific standard time thereafter. To convert war time to standard time, subtract 1 hour.

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Crescent Creek at Crescent Lake, near Crescent, Oreg.

Location.- Water-stage recorder and Parshall flume, lat. 43°30', long. 121°58', in sec. 11, T. 24 S., R. 6 E., 100 yards downstream from dam at outlet of Crescent Lake and 14 miles west of Crescent.

Records available.- January 1911 to July 1915, July 1927 to September 1928 (incomplete), October 1928 to September 1945.

Average discharge.- 20 years (1911-14, 1928-45), 35.8 second-feet.

Extremes (regulated).- Maximum discharge during year, 186 second-feet July 21 (gage height, 2.37 feet); minimum observed, 0.2 second-foot Sept. 25 (field estimate by watermaster). 1911-15, 1927-45: Maximum discharge, 313 second-feet July 9, 1929, Aug. 9, 1936; no flow at times.

Remarks.- Records good except those for Oct. 1 to May 6, Sept. 6-30, which are poor. Flow regulated since 1922 by Crescent Lake Reservoir (p. 54), storage being released Apr. 30 to Sept. 5 for diversion below station through Deschutes County Municipal Improvement District Canal at Bend. No diversion above station.

Discharge, in second-feet, water year October 1944 to September 1945

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	a1.7							a26	58	131	158	69
2	a1.5							a27	59	142	157	63
3	a1.3							a27	59	160	153	47
4	a1.2	a0.4						a27	59	153	150	23
5	h1.0							a28	59	153	145	11
6								a28	58	153	143	
7								49	58	154	139	
8		a.6						80	58	154	135	
9								81	58	151	133	
10								81	58	150	129	
11								81	48	161	128	
12								81	38	158	128	
13								81	37	180	123	
14								85	37	177	121	
15			a0.8	a0.7	a0.7	a0.9	a0.8	92	37	175	117	a1.4
16								91	37	173	112	
17								91	37	170	111	
18								91	64	173	109	
19	a.7							91	92	182	106	
20		a.7						91	92	187	103	
21								91	92	180	101	
22								91	92	182	97	
23								91	92	180	95	
24								91	92	173	91	
25								91	92	173	87	a.7
26								91	91	171	84	a1.2
27								91	91	172	81	a1.0
28								74	91	173	77	a.9
29					-			58	103	169	76	a.8
30					-		h13	58	131	164	76	a.6
31		-			-		-	58	-	160	72	-

Month	Second-feet-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	24.9	-	-	0.80	49
November	18.8	-	-	.63	37
December	24.8	-	-	.80	49
Calendar year 1944	20,546.1	202	-	56.1	40,750
January	21.7	-	-	.70	43
February	19.6	-	-	.70	39
March	27.9	-	-	.90	55
April	36.2	13	-	1.21	72
May	2,214	92	26	71.4	4,390
June	2,070	131	37	69.0	4,110
July	5,170	182	131	167	10,250
August	3,537	158	72	114	7,020
September	244.8	69	-	8.16	486
Water year 1944-45	13,409.7	182	-	36.7	26,600

a No gage-height record; discharge interpolated or computed on basis of occasional field estimates of discharge.
h Computed from staff-gage reading.
Time basis: Pacific war time up to 2 a.m., Sept. 30, 1945; Pacific standard time thereafter. To convert war time to standard time, subtract 1 hour.

Diversions from Deschutes River near Bend, Oreg.

The following six canals, all of which are equipped with water-stage recorders except North Unit Canal, are the only diversions from Deschutes River between gaging stations at Benham Falls and below Bend.

Arnold Canal diverts from right bank at head of Lava Island, in SW¼ sec. 27, T. 18 S., R. 11 E.; water used for irrigation southeast of Bend.

Central Oregon Canal diverts from right bank in NE¼ sec. 13, T. 18 S., R. 11 E.; water used for irrigation east of Bend. (Beginning Oct. 1, 1932, record obtained upstream from intake of Pilot Butte Canal.)

Deschutes County Municipal Improvement District Canal diverts from left bank in NE¼ sec. 32, T. 17 S., R. 12 E., at Bend; water used to supplement flow of Tumalo project feed canal for irrigation near Tumalo; water stored at Crescent Lake Reservoir is diverted by this canal.

North and Swalley Canals divert from right bank in NE¼ sec. 29, T. 17 S., R. 12 E.; water used for irrigation north of Bend, mostly near Redmond.

Records of monthly discharge of these canals, published as a group, are available from October 1926 to September 1945; records for each canal published separately prior to 1926.

Beginning June 5, 1945, North Unit Canal diverted water occasionally for short periods from right bank in or near NE¼ sec. 29, T. 17 S., R. 12 E., for irrigation near Madras (canal under construction by Bureau of Reclamation); no record of amount of such diversion in water year 1945.

Diversions, in acre-feet, water year October 1944 to September 1945

Month	Arnold Canal	Central Oregon Canal	Deschutes County Municipal Improvement District Canal	North Canal	Swalley Canal	Total
October	3,810	20,100	353	15,670	4,290	44,223
November	246	1,530	430	9,830	1,740	13,776
December	198	1,920	0	1,230	206	3,554
January	182	1,700	0	1,410	182	3,474
February	192	1,480	0	1,170	359	3,201
March	248	1,430	0	1,430	508	3,616
April	1,490	16,330	0	16,450	2,860	37,130
May	4,920	25,000	0	24,550	5,700	60,170
June	4,440	27,620	1,090	25,320	6,460	64,930
July	4,590	31,970	6,910	29,690	7,180	80,540
August	3,980	30,850	6,020	28,830	7,010	76,490
September	4,350	24,980	855	22,670	5,130	57,985
Water year 1944-45	28,646	184,910	15,658	178,250	41,625	449,089

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

Tumalo Creek near Bend, Oreg.

Location.- Water-stage recorder, lat. 44°05', long. 121°22', in SE¼ sec. 23, T. 17 S., R. 11 E., a quarter of a mile upstream from diversion dam of feed canal of Tumalo project, 4 miles upstream from mouth, and 4 miles northwest of Bend.
Drainage area.- 57 square miles.
Records available.- October 1906 to April 1908 and October 1910 to April 1913 (winters only), November 1913 to September 1945.
Average discharge.- 30 years (1913-21, 1923-45), 77.4 second-feet, excluding Columbia Southern Canal.
Extremes.- Maximum discharge during year, 297 second-feet Jan. 13; maximum gage height, 4.28 feet sometime during period Jan. 27 to Feb. 6 (ice jam); minimum discharge, 7.2 second-feet (regulated) Apr. 17; minimum daily, 10 second-feet Apr. 17.
1906-8, 1911-45: Maximum discharge, 1,420 second-feet about Jan. 6, 1923, from rating curve extended above 200 second-feet; maximum gage height, 5.3 feet Jan. 16, 1930 (affected by ice); minimum discharge, 1 second-foot June 28 to July 3, 1940.
Remarks.- Records good except those for Aug. 10 to Sept. 30, and those for periods of ice effect or no gage-height record, which are poor. Crater Creek Canal diverts flow of tributaries of Soda Creek into head of Tumalo Creek. Columbia Southern Canal diverts from creek above station; canal records fair. Records of daily discharge do not include diversion by Columbia Southern Canal.

Rating table, water year 1944-45, except periods of ice effect
(gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Apr. 6-12, Aug. 8 to Sept. 30)

1.1	8.5	1.3	21	1.7	67	2.1	145
1.2	14	1.5	40	1.9	102	2.3	197

Discharge, in second-feet, water year October 1944 to September 1945

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	50	54	55	50	a54	58	50	138	165	82	28	37
2	48	52	55	*48	a55	56	50	168	155	95	29	40
3	48	81	a53	b48	a57	58	50	186	150	88	38	38
4	50	69	*52	48	a58	58	50	162	150	69	58	41
5	52	58	55	48	a65	b54	51	162	138	64	58	54
6	51	56	55	52	50	b56	50	165	118	62	60	46
7	50	56	54	108	67	58	52	170	116	66	58	42
8	51	55	51	86	118	*56	55	175	127	69	60	41
9	51	56	48	64	84	54	54	170	127	64	39	41
10	52	56	b45	60	72	55	54	178	116	69	58	42
11	52	55	b43	56	86	55	50	150	129	72	58	37
12	54	55	b42	82	77	56	22	152	127	62	55	40
13	56	52	b41	203	93	55	20	165	106	56	51	a42
14	55	b56	b40	145	84	54	20	145	97	56	48	a45
15	55	b52	b41	110	76	54	20	138	93	52	52	a48
16	55	54	b42	86	70	52	12	143	102	45	55	50
17	54	b56	b44	76	70	52	10	122	116	45	54	50
18	52	b55	b47	67	66	51	12	112	136	38	51	54
19	52	b58	b54	61	b63	52	70	100	155	42	47	55
20	52	b55	b60	58	b58	52	84	98	165	72	46	64
21	52	b55	55	b56	62	51	95	95	192	64	45	64
22	52	58	51	b56	61	52	93	97	162	77	44	64
23	51	56	56	b58	60	50	95	93	118	54	45	61
24	50	55	47	b70	60	48	100	106	118	46	42	56
25	48	55	44	b56	62	48	93	122	118	40	47	58
26	50	56	b46	b54	60	48	88	145	124	37	51	55
27	48	55	b54	a50	60	46	89	178	98	35	42	56
28	48	52	50	a51	58	46	88	148	84	34	40	54
29	48	55	50	a52	-	46	100	170	82	34	36	54
30	48	55	b50	a52	-	47	120	197	84	32	37	52
31	56	-	51	a53	-	50	-	192	-	29	37	-

Month	Tumalo Creek					Columbia Southern Canal (runoff in acre-feet)	Combined runoff in acre-feet
	Second-foot days	Discharge in second-feet			Runoff in acre-feet		
		Maximum	Minimum	Mean			
October	1,591	56	48	51.3	3,160	0	3,160
November	1,693	81	52	56.4	3,360	0	3,360
December	1,551	60	40	49.4	3,040	0	3,040
Calendar year 1944	23,268	151	21	63.6	46,150	6,370	52,520
January	2,166	203	48	69.9	4,300	0	4,300
February	1,906	118	50	68.1	3,780	0	3,780
March	1,627	58	45	52.5	3,230	0	3,230
April	1,797	120	10	59.9	3,560	516	4,080
May	4,542	197	93	147	9,010	2,200	11,210
June	3,768	192	82	126	7,470	3,340	10,810
July	1,750	95	29	56.5	3,470	2,860	6,330
August	1,469	60	28	47.4	2,910	198	3,100
September	1,481	64	37	49.4	2,940	0	2,940
Water year 1944-45	25,321	203	10	69.4	50,230	9,110	59,340

* Winter discharge measurement made on this day.
a No gage-height record; discharge computed on basis of records for Squaw Creek near Sisters and Little Deschutes River near Lapine.
b Stage-discharge relation affected by ice.
Time basis: Pacific war time up to 2 a.m., Sept. 30, 1945; Pacific standard time thereafter. To convert war time to standard time, subtract 1 hour.

Squaw Creek near Sisters, Oreg.

Location.- Water-stage recorder, lat. 44°14', long. 121°34', in NW¼ sec. 32, T. 15 S., R. 10 E., just upstream from intake of McCallister ditch and 4 miles south of Sisters.

Drainage area.- 63 square miles.

Records available.- 1913-25 (irrigation seasons only), October 1925 to September 1945. July 1906 to May 1913 at site 700 feet downstream, below intake of McCallister ditch.

Average discharge.- 33 years (1906-18, 1919-20, 1925-45), 101 second-feet.

Extremes.- Maximum discharge during year, 426 second-feet Jan. 13 (gage height, 3.09 feet, probably higher during period of ice effect); minimum not determined.
1906-45: Maximum gage height, about 8.75 feet (over top of gage) Nov. 22, 1909, site and datum then in use (discharge not determined); maximum discharge recorded since that time, 1,130 second-feet Dec. 2, 1941 (gage height, 3.33 feet); minimum, 19 second-feet Dec. 6, 1922.

Remarks.- Records good except those for periods of ice effect or no gage-height record, which are poor. A canal near mouth of Pole Creek, a tributary above station, diverts entire flow of that creek for irrigation of lands near Sisters.

Rating tables, water year 1944-45, except periods of ice effect
(gage height, in feet, and discharge, in second-feet)
(Shifting-control method used June 22 to Sept. 30)

1.6	36	2.1	133
1.7	50	2.3	185
1.8	67	2.5	241
1.9	87	2.7	300

Discharge, in second-feet, water year October 1944 to September 1945

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	a43	42	a45		a65	46	34	111	140	156	98	69
2	42	44	a45		a70	46	36	128	138	174	102	69
3	46	123	a43		a75	46	39	161	140	182	96	69
4	52	65	*42		a80	44	36	182	143	169	94	67
5	47	49	42	a45	a90	36	36	166	133	166	94	85
6	44	46	40		a80	32	36	169	128	166	94	69
7	43	42	39		*b120	46	36	174	128	169	96	65
8	43	42	36		219	42	37	177	136	169	98	62
9	43	40	36	(*)	131	42	37	185	136	180	94	62
10	42	40		52	100	43	35	202	126	188	91	65
11	42			46	143	43	36	156	148	188	87	65
12	43			128	128	43	35	180	146	174	83	67
13	44			291	205	42	35	185	126	169	83	67
14	42			166	150	40	35	150	107	163	85	65
15	40			121	131	43	39	156	109	148	91	62
16	40			91	121	42	40	153	123	140	87	57
17	40			85	116	39	40	128	140	128	87	64
18	39			75	109	37	47	109	163	114	85	65
19	39			71	b102	39	53	96	199	105	83	58
20	39		a37	64	b95	46	58	91	207	119	81	69
		a40										
21	39			55	91	43	65	91	244	133	81	57
22	40			55	87	42	57	89	233	158	83	53
23	40			62	a75	47	67	85	196	156	83	50
24	40			89	a65	39	83	75	185	136	79	49
25	40			a70	a55	40	62	73	193	128	75	47
26	42			a66	*b52	39	58	105	199	119	69	44
27	42			a64	50	39	60	131	169	116	64	a44
28	40			a62	49	39	64	105	158	121	65	a43
29	42			a64	-	36	79	116	161	114	67	a43
30	44			a64	-	34	100	150	153	102	67	a44
31	47	-		a64	-	36	-	161	-	98	69	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	1,309	52	39	42.2	2,600
November	1,333	123	-	44.4	2,640
December	1,182	-	-	38.1	2,340
Calendar year 1944	23,897	191	-	65.3	47,380
January	2,310	291	-	74.5	4,580
February	2,854	219	49	102	5,660
March	1,271	47	32	41.0	2,520
April	1,475	100	34	49.2	2,930
May	4,240	202	73	137	8,410
June	4,707	244	107	157	9,340
July	4,548	188	98	147	9,020
August	2,611	102	64	84.2	5,180
September	1,795	85	43	59.8	3,560
Water year 1944-45	29,635	291	-	81.2	58,780

* Winter discharge measurement made on this day.
a No gage-height record; discharge computed on basis of records for Tumalo Creek near Bend and Little Deschutes River near Lapine.
b Stage-discharge relation affected by ice.
Time basis: Pacific war time up to 2 a.m., Sept. 30, 1945; Pacific standard time thereafter. To convert war time to standard time, subtract 1 hour.

Crooked River near Post, Oreg.

Location.- Water-stage recorder, lat. 44°07', long. 120°16', in NE¼ sec. 12, T. 17 S., R. 20 E., 1 mile downstream from North Fork and 11½ miles southeast of Post. Datum of gage is 3,461.72 feet above mean sea level, datum of 1929.

Drainage area.- 2,160 square miles, of which 500 square miles is probably noncontributing.

Records available.- November 1908 to August 1911, December 1939 to September 1945.

Extremes.- Maximum discharge during year, 2,640 second-feet Apr. 21 (gage height, 4.68 feet); minimum, 10 second-feet Aug. 23-25 (gage height, 1.08 feet).
1908-11, 1939-45: Maximum discharge recorded, 5,700 second-feet Mar. 27, 1943 (gage height, 6.43 feet), from rating curve extended above 2,800 second-feet; minimum, 4.4 second-feet July 12, 1940.

Remarks.- Records fair except those for periods of ice effect or no gage-height record, which are poor. Several small diversions above station; one small canal diverts on right bank 800 feet above station for irrigation downstream; no regulation.

Rating tables, water year 1944-45, except periods of ice effect
(gage height, in feet, and discharge, in second-feet)

Oct. 1 to Jan. 7				Jan. 8 to Sept. 30			
1.3	25	2.4	267	1.0	7	2.0	156
1.4	37	2.7	385	1.1	11	2.3	241
1.5	51	3.0	545	1.2	16	2.6	362
1.7	88	3.3	755	1.4	37	2.9	520
1.9	132	3.6	1,060	1.6	66	3.2	760
2.1	181			1.8	109	3.5	1,060

Discharge, in second-feet, water year October 1944 to September 1945

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	a21	47	72	b76	144	166	1,120	1,420	706	41	14	11
2	a22	48	74	b68	b508	161	779	1,400	527	36	14	11
3	a23	76	70	b60	640	158	646	1,360	466	36	14	11
4	a24	105	70	b70	381	149	583	1,370	440	35	14	11
5	a24	88	70	b90	381	132	679	1,150	386	35	14	11
6	a25	74	*70	116	376	142	1,060	925	349	32	14	11
7	a28	66	63	895	362	144	1,290	742	310	30	13	11
8	a30	63	58	987	*1,460	139	1,590	622	271	29	16	12
9	a32	63	b50	396	1,480	134	1,130	508	228	24	14	12
10	a30	70	b41	282	986	144	855	490	186	23	13	14
11	a30	82	b37	386	1,090	197	724	415	168	20	12	20
12	a33	84	b39	314	1,040	376	622	400	144	23	12	19
13	a36	74	b40	502	1,060	478	514	670	130	21	12	17
14	a40	63	b45	688	1,350	460	583	697	120	21	12	17
15	a44	60	b60	614	986	353	1,250	598	111	19	13	17
16	a48	63	b56	450	606	286	1,660	630	105	19	13	19
17	a41	63	b58	278	496	252	1,680	724	98	18	13	20
18	a38	65	b70	197	420	218	1,890	697	92	18	12	20
19	37	63	b90	171	306	205	2,150	742	84	19	12	21
20	37	b58	b204	151	263	252	2,300	622	68	20	12	21
21	38	b55	355	137	260	450	2,270	534	65	17	12	21
22	38	63	189	b110	231	885	1,890	541	60	16	11	21
23	35	63	134	b100	224	1,130	1,670	630	58	16	10	22
24	35	63	120	b100	200	875	1,630	630	53	16	10	23
25	35	60	98	b120	184	654	1,310	534	48	15	10	24
26	36	65	b94	b140	178	520	1,030	514	50	14	11	24
27	36	63	b92	b140	174	450	1,010	905	47	14	11	25
28	36	58	b88	b120	168	508	1,030	885	44	14	11	26
29	38	61	84	b125	-	520	1,090	808	43	14	12	26
30	37	68	b66	b130	-	742	1,360	1,070	43	13	12	27
31	41	-	b66	b142	-	1,210	-	966	-	13	11	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	1,048	48	21	33.8	2,080
November	1,994	105	47	66.5	3,960
December	2,723	355	37	87.8	5,400
Calendar year 1944	46,894	1,220	6	128	93,010
January	8,155	987	60	263	16,180
February	15,954	1,480	144	570	31,640
March	12,490	1,210	132	403	24,770
April	37,375	2,300	514	1,246	74,130
May	24,199	1,420	400	780	48,000
June	5,500	706	43	183	10,910
July	681	41	13	22.0	1,350
August	384	16	10	12.4	762
September	545	27	11	18.2	1,080
Water year 1944-45	111,048	2,300	10	304	220,300

* Winter discharge measurement made on this day.
a No gage-height record; discharge computed on basis of records for station above Hoffman Dam, near Prineville.
b Stage-discharge relation affected by ice.
Time basis: Pacific war time up to 2 a.m., Sept. 30, 1945; Pacific standard time thereafter. To convert war time to standard time, subtract 1 hour.

Crooked River above Hoffman Dam, near Prineville, Oreg.

Location.- Water-stage recorder, lat. 44°09', long. 120°50', in NE¼ sec. 32, T. 16 S., R. 16 E., 0.9 mile upstream from Hoffman diversion dam and 11 miles south of Prineville. Datum of gage is 2,981.23 feet above mean sea level, datum of 1929.

Drainage area.- 2,810 square miles, of which 500 square miles is probably noncontributing.

Records available.- January 1940 to February 1941 (discharge measurements only), March 1941 to September 1945. October 1908 to December 1912 at Stearns Ranch, 5½ miles south of Prineville, below Hoffman and Stearns diversions. January 1913 to September 1914 at Hoffman Ranch, 10 miles south of Prineville, below Hoffman diversion. Records practically equivalent to those at present site except for diversions.

Extremes.- Maximum discharge during year, 3,040 second-feet Apr. 21 (gage height, 5.21 feet); minimum, 4.3 second-feet Aug. 23-25.
1908-12, 1913-14, 1940-45: Maximum discharge observed, 9,080 second-feet Mar. 1, 2, 1910 (gage height, 9.4 feet, former site and datum), from rating curve extended above 1,000 second-feet; no flow at times in 1940. Maximum discharge in recent years, 6,300 second-feet Mar. 28, 1943 (gage height, 7.07 feet).

Remarks.- Records good except those for periods of ice effect, which are poor. Diversions above station for irrigation; no regulation.

Rating table, water year 1944-45, except periods of ice effect
(gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Oct. 1 to Nov. 4, Aug. 10 to Sept. 30)

1.1	4	1.8	65	2.9	500	4.4	1,980
1.2	7	2.0	100	3.2	715	5.0	2,760
1.4	19	2.3	181	3.5	970		
1.6	39	2.6	313	3.9	1,390		

Discharge, in second-feet, water year October 1944 to September 1945

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	16	41	76	92	b200	181	1,260	1,470	1,020	36	7.0	6.7
2	17	45	81	76	487	178	943	1,480	755	37	7.0	7.0
3	18	52	78	64	898	171	715	1,430	633	34	6.4	7.0
4	18	61	75	75	521	165	633	1,420	591	30	6.4	6.4
5	19	107	76	87	370	155	636	1,320	521	28	6.1	6.4
6	21	98	*73	96	446	144	829	1,040	466	26	5.8	7.5
7	22	87	75	188	353	146	1,260	829	427	25	5.5	7.5
8	22	78	73	1,910	*989	149	1,580	700	376	24	4.9	7.5
9	24	75	b65	577	1,990	144	1,500	591	336	22	4.9	8.0
10	23	73	b52	370	1,260	144	980	521	288	21	6.1	9.0
11	23	75	39	376	1,040	152	795	507	240	20	6.7	9.0
12	24	79	b42	364	1,260	253	708	440	214	17	6.7	8.0
13	30	85	b43	370	1,030	473	619	500	188	18	6.1	8.0
14	30	78	45	685	1,380	514	570	755	165	18	6.1	11
15	36	68	65	678	1,270	446	842	662	146	18	5.8	9.0
16	39	62	59	584	771	347	1,780	648	133	18	5.5	7.5
17	34	58	61	414	564	288	2,010	747	120	18	4.9	8.5
18	31	62	61	272	507	253	2,020	708	112	18	4.9	8.5
19	30	67	75	222	408	227	2,460	771	98	16	4.9	9.5
20	29	b62	121	188	319	222	2,660	731	85	14	4.6	14
21	30	b60	b362	b170	293	298	2,790	619	76	10	4.6	15
22	31	59	364	b150	282	591	2,410	584	65	8.5	4.6	16
23	34	67	181	b130	253	1,050	1,990	633	61	12	4.6	16
24	34	68	155	b120	240	1,020	1,850	692	55	12	4.6	16
25	29	62	144	b135	214	739	1,690	633	54	8.5	4.6	18
26	28	62	133	b150	200	605	1,260	591	47	8.5	4.6	18
27	28	68	128	b170	192	514	1,050	782	44	8.0	4.9	18
28	30	68	112	b150	188	487	1,040	1,050	41	8.0	4.9	18
29	30	64	96	b150	-	542	1,050	1,190	38	7.5	4.9	20
30	30	68	71	b170	-	598	1,260	1,390	36	8.0	5.5	20
31	37	-	76	b190	-	990	-	1,380	-	7.0	6.1	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	847	39	16	27.3	1,680
November	2,059	107	41	68.6	4,080
December	3,157	364	39	102	6,260
Calendar year 1944	50,257.3	1,840	4.3	137	99,670
January	9,373	1,910	64	302	18,590
February	17,945	1,990	188	641	35,590
March	12,186	1,050	144	393	24,170
April	41,180	2,790	570	1,373	81,680
May	26,814	1,480	440	865	53,180
June	7,439	1,020	36	248	14,760
July	556.0	37	7.0	17.9	1,100
August	170.2	7.0	4.6	5.49	338
September	341.0	20	6.4	11.4	676
Water year 1944-45	122,067.2	2,790	4.6	334	242,100

* Winter discharge measurement made on this day.
b Stage-discharge relation affected by ice.
Time basis: Pacific war time up to 2 a.m., Sept. 30, 1945; Pacific standard time thereafter.
To convert war time to standard time, subtract 1 hour.

Crooked River near Culver, Oreg.

Location.- Water-stage recorder, lat. 44°33'36", long. 121°16'12", in sec. 3 (50 feet west of ¼-corner on line between secs. 2 and 3), T. 12 S., R. 12 E., 1 mile upstream from mouth, 1 mile downstream from Cove power plant, and 4 miles northwest of Culver. Prior to Aug. 27, 1945, staff gages used as follows: at site just below Cove power plant to Jan. 6, 1945 (datum of gage, 1,721.33 feet above mean sea level, datum of 1929, by Pacific Power & Light Co. bench mark); at site 800 feet downstream from power plant, Jan. 7 to Aug. 1; at site of recorder, Aug. 2-26.

Drainage area.- 4,330 square miles, of which 500 square miles is probably noncontributing.

Records available.- October 1917 to September 1945.

Average discharge.- 28 years, 1,437 second-feet.

Extremes.- Maximum discharge observed during year, 3,820 second-feet Apr. 22 (gage height, 10.24 feet, temporary gage); minimum recorded, 958 second-feet (regulated) Sept. 2 (gage height, 1.78 feet).
1919-45: Maximum discharge observed, 8,260 second-feet Mar. 30, 31, 1943 (gage height, 6.70 feet, site and datum then in use); minimum recorded, that of Sept. 2, 1945.

Remarks.- Records good. Staff gages read twice daily Jan. 7 to Feb. 24, once daily Oct. 1 to Jan. 6, Feb. 25 to Aug. 26. Flow slightly regulated by Ochoco Reservoir; occasional diurnal fluctuation caused by power plant 1 mile above station. Summer flow above Prineville diverted for irrigation. Springs increase flow about 1,000 second-feet within an area extending 17 miles above station.

Discharge, in second-feet, water year October 1944 to September 1945

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,260	1,270	1,310	1,300	1,390	1,480	2,320	2,510	2,640	1,250	1,230	1,250
2	1,260	1,280	1,330	1,280	1,390	1,480	2,510	2,740	2,360	1,250	1,220	1,250
3	1,270	1,280	1,330	1,320	1,440	1,450	2,300	2,680	2,140	1,250	1,220	1,260
4	1,270	1,280	1,330	1,310	2,080	1,470	2,060	2,590	2,010	1,250	1,220	1,260
5	1,270	1,300	1,330	1,310	1,860	1,450	1,950	2,540	1,950	1,250	a1,220	1,260
6	1,270	1,320	1,300	1,310	1,790	1,440	1,930	2,420	1,820	1,250	1,210	1,260
7	1,270	1,320	1,300	1,350	1,760	1,440	2,060	2,250	1,790	1,250	1,210	1,270
8	1,270	1,320	1,300	1,400	1,690	1,440	2,510	2,060	1,720	1,250	1,250	1,270
9	1,270	1,300	1,280	2,530	2,550	1,450	2,680	1,900	1,670	1,250	1,210	1,270
10	1,270	1,320	1,280	1,920	3,120	1,440	2,700	1,820	1,580	1,250	1,220	1,280
11	1,270	1,320	1,280	1,690	2,530	1,440	2,300	1,680	1,560	1,250	1,210	1,280
12	1,270	1,320	1,260	1,620	2,450	1,440	2,030	1,710	1,520	1,250	a1,210	1,280
13	1,270	1,320	1,260	1,610	2,530	1,480	1,960	1,640	1,450	1,250	1,210	1,280
14	1,270	1,320	1,260	1,620	2,320	1,780	1,870	1,640	1,440	1,250	1,210	1,280
15	1,270	1,320	1,260	2,020	2,640	1,760	1,750	1,960	1,430	1,250	1,210	1,280
16	1,270	1,320	1,260	1,940	2,560	1,720	1,930	1,900	1,420	1,250	1,210	1,280
17	1,280	1,310	1,260	1,920	2,090	1,640	2,920	1,920	1,380	1,240	1,210	1,280
18	1,280	1,320	1,260	1,680	1,930	1,570	3,000	2,030	1,380	1,240	1,210	1,280
19	1,280	1,310	1,260	1,530	1,820	1,540	3,100	1,960	1,350	1,240	a1,210	1,280
20	1,280	1,310	1,270	1,490	1,710	1,520	3,480	2,060	1,340	1,240	1,210	1,280
21	1,280	1,310	1,300	1,480	1,640	1,510	3,580	2,010	1,290	1,240	1,210	1,280
22	1,280	1,320	1,740	1,420	1,610	1,540	3,820	1,850	1,290	1,240	1,220	1,280
23	1,260	1,320	1,490	1,380	1,580	1,790	3,580	1,820	1,290	1,240	1,220	1,280
24	1,280	1,320	1,410	1,380	1,570	2,300	3,130	1,950	1,290	1,240	1,210	1,280
25	1,280	1,320	1,360	1,380	1,540	2,360	2,920	1,960	1,290	1,230	1,220	1,280
26	1,280	1,320	1,320	1,400	1,510	2,060	2,920	1,960	1,290	1,230	1,220	1,280
27	1,260	1,320	1,320	1,400	1,480	1,900	2,530	1,930	1,280	1,230	1,230	1,290
28	1,270	1,320	1,320	1,390	1,480	1,790	2,360	2,550	1,270	1,230	1,240	1,290
29	1,270	1,320	1,320	1,390	-	1,720	2,340	2,610	1,270	1,230	1,240	1,290
30	1,270	1,310	1,320	1,390	-	1,780	2,300	2,610	1,270	1,230	1,240	1,300
31	1,270	-	1,320	1,390	-	1,820	-	2,620	-	1,230	1,240	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	39,460	1,280	1,260	1,273	78,270
November	39,340	1,320	1,270	1,311	78,030
December	40,940	1,740	1,260	1,321	81,200
Calendar year 1944	496,530	3,060	1,190	1,357	984,900
January	47,350	2,530	1,280	1,527	93,920
February	54,060	3,120	1,390	1,931	107,200
March	51,000	2,360	1,440	1,645	101,200
April	76,840	3,820	1,750	2,561	152,400
May	65,780	2,740	1,640	2,122	130,500
June	46,780	2,640	1,270	1,559	92,790
July	38,530	1,250	1,230	1,243	76,420
August	37,830	1,280	1,210	1,220	75,030
September	38,280	1,300	1,250	1,276	75,930
Water year 1944-45	576,190	3,820	1,210	1,579	1,143,000

a No gage-height record; discharge interpolated.
Time basis: Pacific war time up to 2 a.m., Sept. 30, 1945; Pacific standard time thereafter.
To convert war time to standard time, subtract 1 hour.

Metolius River near Grandview, Oreg.

Location.- Staff gage, lat. 44°37', long. 121°27', in NE¼ sec. 19, T. 11 S., R. 11 E., at Montgomery Ranch, 8 miles northeast of Grandview.

Records available.- October 1921 to September 1945.

Average discharge.- 24 years, 1,400 second-feet.

Extremes.- Maximum discharge observed during year, 1,920 second-feet Feb. 8 (gage height, 0.90 foot); minimum observed, 1,100 second-feet Dec. 13-27, Dec. 30 to Jan. 4 (gage height, 0.20 foot).

1921-45: Maximum discharge, 5,780 second-feet Jan. 7, 1923 (gage height, 3.32 feet), from rating curve extended above 2,200 second-feet; minimum, 1,080 second-feet Feb. 17, 1932, Oct. 2-31, Nov. 6, 7, 10-14, 1942.

Remarks.- Records good. Gage read once daily. No diversion or regulation above station.

Rating table, water year 1944-45 (gage height, in feet, and discharge, in second-feet)

0.2	1,100
.4	1,310
.6	1,540
.9	1,920

Discharge, in second-feet, water year October 1944 to September 1945

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,180	1,140	1,120	1,100	1,140	1,220	1,200	1,380	1,420	1,290	1,220	1,180
2	1,180	1,140	1,120	1,100	1,140	1,220	1,200	1,400	1,420	1,310	1,200	1,180
3	1,180	1,310	1,120	1,100	1,160	1,220	1,180	1,440	1,420	1,310	1,200	1,180
4	1,180	1,200	1,120	1,100	1,140	1,220	1,180	1,440	1,400	1,310	1,200	1,180
5	1,160	1,180	1,120	1,140	1,200	1,200	1,180	1,470	1,400	1,290	1,200	1,310
6	1,160	1,180	1,120	1,180	1,200	1,200	1,180	1,470	1,400	1,290	1,200	1,240
7	1,160	1,160	1,120	1,520	1,290	1,200	1,180	1,470	1,380	1,290	1,200	1,180
8	1,160	1,140	1,120	1,240	1,920	1,200	1,180	1,470	1,380	1,290	1,200	1,160
9	1,160	1,140	1,120	1,180	1,420	1,200	1,180	1,470	1,380	1,290	1,200	1,160
10	1,160	1,140	1,120	1,180	1,330	1,200	1,180	1,520	1,380	1,290	1,200	1,160
11	1,160	1,140	1,120	1,180	1,420	1,200	1,180	1,520	1,350	1,290	1,200	1,160
12	1,160	1,140	1,120	1,270	1,350	1,200	1,180	1,610	1,330	1,270	1,200	1,160
13	1,160	1,140	1,100	1,540	1,690	1,200	1,180	1,590	1,330	1,270	1,200	1,160
14	1,160	1,140	1,100	1,290	1,540	1,200	1,180	1,590	1,330	1,270	1,200	1,160
15	1,160	1,140	1,100	1,270	1,440	1,180	1,180	1,590	1,310	1,270	1,200	1,160
16	1,160	1,140	1,100	1,200	1,420	1,180	1,180	1,590	1,310	1,270	1,200	1,160
17	1,160	1,140	1,100	1,200	1,400	1,180	1,180	1,560	1,310	1,240	1,200	1,160
18	1,160	1,140	1,100	1,180	1,380	1,180	1,200	1,520	1,310	1,240	1,200	1,160
19	1,160	1,140	1,100	1,180	1,330	1,180	1,220	1,490	1,330	1,240	1,200	1,160
20	1,160	1,140	1,100	1,180	1,310	1,180	1,220	1,420	1,380	1,240	1,200	1,160
21	1,140	1,140	1,100	1,160	1,290	1,200	1,220	1,420	1,400	1,240	1,200	1,160
22	1,140	1,140	1,100	1,140	1,290	1,200	1,220	1,420	1,380	1,240	1,200	1,160
23	1,140	1,140	1,100	1,140	1,290	1,200	1,240	1,420	1,350	1,240	1,200	1,160
24	1,140	1,140	1,100	1,140	1,290	1,200	1,240	1,400	1,350	1,240	1,200	1,160
25	1,140	1,140	1,100	1,140	1,290	1,180	1,270	1,380	1,350	1,240	1,180	1,160
26	1,140	1,140	1,100	1,140	1,270	1,180	1,290	1,380	1,330	1,240	1,180	1,140
27	1,140	1,140	1,100	1,140	1,240	1,180	1,290	1,380	1,310	1,240	1,180	1,140
28	1,140	1,140	1,140	1,140	1,240	1,180	1,290	1,400	1,290	1,240	1,180	1,140
29	1,140	1,140	1,120	1,140	-	1,180	1,310	1,420	1,290	1,240	1,180	1,140
30	1,140	1,140	1,100	1,140	-	1,180	1,350	1,420	1,290	1,220	1,180	1,140
31	1,140	-	1,100	1,140	-	1,180	-	1,420	-	1,220	1,180	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	35,820	1,180	1,140	1,155	71,050
November	34,530	1,310	1,140	1,151	68,490
December	34,400	1,140	1,100	1,110	68,250
Calendar year 1944	438,890	1,350	1,100	1,199	870,500
January	36,890	1,540	1,100	1,190	73,170
February	37,420	1,920	1,140	1,336	74,220
March	37,020	1,220	1,180	1,194	73,430
April	36,460	1,350	1,180	1,215	72,320
May	45,470	1,610	1,380	1,467	90,190
June	40,610	1,420	1,290	1,354	80,550
July	39,160	1,310	1,220	1,263	77,670
August	37,080	1,220	1,180	1,196	73,550
September	35,030	1,310	1,140	1,168	69,480
Water year 1944-45	449,890	1,920	1,100	1,233	892,400

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

Lake Creek near Sisters, Oreg.

Location.- Water-stage recorder, lat. 44°26', long. 121°44', in SW¼ sec. 24, T. 13 S., R. 8 E., a quarter of a mile downstream from Suttle Lake, 6 miles upstream from mouth, and 13 miles northwest of Sisters. Altitude of gage, about 3,430 feet (from topographic map).
Drainage area.- 20.5 square miles.
Records available.- 1911-13 (occasional readings during summers), April 1915 to September 1945.
Average discharge.- 29 years (1915-18, 1919-45), 47.9 second-feet.
Extremes.- Maximum discharge during year, 142 second-feet (regulated) May 16 (gage height, 2.30 feet); minimum, 12 second-feet (regulated) Sept. 19-21; minimum daily, 13 second-feet Sept. 19, 20.
1911-13, 1915-45: Maximum discharge, 302 second-feet Jan. 10, 1923 (gage height, 2.58 feet), from rating curve extended above 150 second-feet; minimum, 1.0 second-foot (regulated) Nov. 4, 5, 1940; minimum daily, 8 second-feet Nov. 5, 1940, Oct. 6, 1942.
Remarks.- Records good except those for periods of no gage-height record, which are poor. No diversion above station; occasional regulation by storage in Suttle Lake.

Rating tables, water year 1944-45 (gage height, in feet, and discharge, in second-feet)

Oct. 1 to May 16		May 17 to Sept. 30	
0.8	20	0.6	13
1.0	30	.8	20
1.2	43	1.0	30
1.4	58	1.2	41
1.6	74	1.5	63
1.8	92	1.8	89
2.1	121	2.1	118

Discharge, in second-feet, water year October 1944 to September 1945

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	24	26		24		48	39	69	54	30	26	
2	24	26	a23	24	a30	46	39	71	53	30	23	
3	22	28		24		45	39	73	53	30	22	
4	23	24	20	24	30	44	37	76	52	30	23	
5	24	24	21	24	34	42	41	80	50	28	23	
6	25	24	22	25	34	41	54	84	49	28	23	
7	25	24	22	28	37	40	58	86	48	28	24	
8	24	24	22	27	47	40	55	87	46	28	24	a22
9	24	24	26	26	46	38	49	89	47	28	24	
10	24	24	33	26	46	41	47	92	47	28	25	
11	24	24	28	26	59	40	48	93	47	28	24	
12	24	24	26	27	61	40	46	96	47	28	24	
13	24	24	24	31	78	40	45	99	53	28	24	
14	24	27	23	30	78	44	46	102	55	28	24	
15	24	31	22	31	84	45	46	107	36	26	24	
16	24	28	21		92	44	44	124	34	26	24	26
17	24	26	20		99	45	42	122	34	26	24	20
18	35	25	19		99	44	42	117	34	26		15
19	42		20		89	43	42	112	34	26		13
20	39		22		81	43	42	104	34	26		13
21	34		22		75	42	42	95	34	26		23
22	28		22		74	41	43	89	34	26		30
23	26		23	a30	74	42	49	82	34	26		28
24	25	a23	23		73	42	56	76	33	26	a22	28
25	24		a23		60	42	57	71	33	29		26
26	24		a23		56	42	60	69	32	34		24
27	24		a23		53	41	63	70	31	32		24
28	23		a23		51	40	66	69	30	30		23
29	25		a24		-	39	70	66	30	30		25
30	26		a24		-	39	68	70	30	28		24
31	26	-	a24		-	39	-	56	-	28		-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	808	42	22	26.1	1,600
November	733	-	-	24.4	1,450
December	714	33	19	23.0	1,420
Calendar year 1944	11,643.2	56	9.2	31.8	23,100
January	877	-	24	28.3	1,740
February	1,700	99	-	60.7	3,370
March	1,302	48	36	42.0	2,580
April	1,475	70	37	49.2	2,930
May	2,695	124	56	86.9	5,350
June	1,228	55	30	40.9	2,440
July	871	34	26	28.1	1,730
August	713	-	-	23.0	1,410
September	670	30	13	22.3	1,330
Water year 1944-45	13,786	124	13	37.8	27,350

a No gage-height record; discharge computed on basis of records for Squaw Creek near Sisters.
Time basis: Pacific war time up to 2 a.m., Sept. 30, 1945; Pacific standard time thereafter.
To convert war time to standard time, subtract 1 hour.

White River below Tygh Valley, Oreg.

Location.- Water-stage recorder, lat. 45°14', long. 121°06', in NW¼ sec. 8 T. 4 S., R. 14 E., just below Pacific Power & Light Co.'s plant at White River Falls and 4½ miles east of Tygh Valley.

Drainage area.- 393 square miles.

Records available.- October 1917 to September 1945.

Average discharge.- 28 years, 399 second-feet.

Extremes.- Maximum discharge during year, 1,360 second-feet May 4 (gage height, 4.08 feet); minimum, 30 second-feet (regulated) Nov. 2 (gage height, -0.18 foot); minimum daily, 88 second-feet Oct. 26, 27, 29, 30.
1917-45: Maximum discharge, 13,300 second-feet Jan. 6, 1923 (gage height, about 13.3 feet), from rating curve extended above 5,000 second-feet; minimum, 10 second-feet (regulated) Dec. 11-14, 1919, Aug. 9, 1931; minimum daily, 71 second-feet Aug. 31, 1941.

Remarks.- Records good. Diversions above station for irrigation. Low-water flow partly regulated by power plant.

Cooperation.- Water-stage recorder inspected by employees of Pacific Power & Light Co.

Rating table, water year 1944-45 (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Oct. 1 to Nov. 3, July 27 to Sept. 30)

0.7	82	2.2	400
1.0	110	2.6	560
1.3	149	3.0	740
1.6	210	3.5	1,000
1.9	297	4.0	1,300

Discharge, in second-feet, water year October 1944 to September 1945

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	98	97	141	127	176	266	354	967	560	166	108	97
2	94	100	135	135	174	257	330	1,060	520	163	107	97
3	93	134	127	126	174	249	317	1,200	496	159	107	97
4	98	174	126	126	176	240	300	1,270	468	154	109	99
5	107	135	176	126	186	221	297	1,180	448	151	107	123
6	108	123	158	145	218	232	304	1,130	424	148	107	107
7	100	130	176	527	285	224	300	1,090	404	148	107	98
8	96	125	170	444	740	215	320	1,020	379	145	107	94
9	96	123	154	285	646	210	310	956	362	143	106	93
10	94	121	145	254	500	229	300	906	351	142	107	92
11	94	115	138	246	556	226	307	830	334	139	106	92
12	94	112	130	325	532	224	300	855	323	136	106	94
13	100	111	125	556	1,070	226	288	1,000	317	134	103	93
14	99	107	116	536	880	224	285	984	310	132	106	94
15	97	107	115	420	686	221	304	1,010	291	131	103	94
16	98	107	112	365	587	215	340	1,090	275	130	104	109
17	99	104	114	320	524	215	340	1,010	266	128	103	97
18	102	104	114	304	460	215	368	880	260	127	102	97
19	101	106	120	269	386	218	472	780	257	125	102	97
20	100	103	141	246	a370	263	556	695	243	122	101	109
21	100	103	141	226	a360	297	690	641	229	122	99	128
22	97	104	135	215	a340	304	636	623	218	121	99	114
23	90	109	123	205	a320	314	636	618	210	123	99	112
24	90	122	117	203	304	297	875	574	205	120	99	112
25	89	115	111	196	294	297	810	536	196	120	100	102
26	88	123	108	191	285	317	722	524	191	117	112	103
27	88	149	104	180	282	323	677	623	184	114	107	102
28	89	135	116	178	272	317	677	650	176	111	100	98
29	88	126	134	176	-	320	716	623	170	110	100	98
30	88	126	127	172	-	317	855	636	168	110	98	95
31	95	-	125	176	-	351	-	623	-	108	97	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	2,970	108	88	95.8	5,890
November	3,550	174	97	118	7,040
December	4,076	176	104	131	8,080
Calendar year 1944	78,925	569	84	216	156,500
January	8,000	556	126	258	15,870
February	11,783	1,070	174	421	23,370
March	8,044	351	210	259	15,960
April	13,988	875	265	466	27,740
May	26,584	1,270	524	858	52,730
June	9,235	560	168	308	18,320
July	4,100	166	108	132	8,130
August	3,218	112	97	104	6,380
September	3,037	128	92	101	6,020
Water year 1944-45	98,585	1,270	88	270	195,500

a No gage-height record; discharge computed on basis of records for West Fork Hood River near Dee.
Time basis: Pacific war time up to 2 a.m., Sept. 30, 1945; Pacific standard time thereafter. To convert war time to standard time, subtract 1 hour.

Klickitat River above West Fork, near Glenwood, Wash.

Location.- Water-stage recorder, lat. 46°15'40", long. 121°14'30", in S½ sec. 18, T. 9 N., R. 13 E., 1½ miles upstream from West Fork and 17 miles north of Glenwood.

Drainage area.- 151 square miles.

Records available.- November 1944 to September 1945.

Extremes.- Maximum discharge during period, 1,300 second-feet May 4 (gage height, 2.93 feet); minimum, 48 second-feet Nov. 14, 15 (gage height, 0.98 foot), but may have been less during period of ice effect.

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. No diversion or regulation above station.

Rating table, Nov. 7, 1944, to Sept. 30, 1945, except periods of ice effect
(gage height, in feet, and discharge, in second-feet)

1.1	71	1.8	329
1.2	95	2.0	446
1.4	155	2.3	563
1.6	232	2.6	940

Discharge, in second-feet, water year October 1944 to September 1945

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1		a75	70	60	90	120	159	747	812	232	101	71
2		a75	73	60	90	112	145	900	713	241	98	69
3		a85	81	60	90	112	145	1,100	671	246	98	69
4		a100	85	60	90	106	142	1,220	640	232	98	88
5		a85	149	67	100	106	142	1,170	616	228	98	106
6		a85	207	71	106	105	142	1,170	585	220	95	85
7		85	*184	250	192	105	142	a1,130	549	216	95	81
8		95	162	237	910	109	142	a1,080	520	207	95	76
9		93	135	166	616	106	136	a980	506	203	90	73
10		81	115	152	416	129	133	a870	480	199	88	71
11		73	105	159	335	117	136	870	446	187	88	71
12		76	95	255	278	109	129	850	416	177	95	69
13		65	90	549	246	106	123	803	391	169	95	69
14		65	85	379	216	106	129	803	374	159	93	69
15		73	80	283	195	101	159	747	351	152	90	71
16		76	80	232	180	101	191	766	329	149	85	78
17		65	80	203	177	101	195	713	329	145	81	78
18		61	85	180	166	101	220	680	357	139	78	76
19		63	90	162	152	109	288	655	379	133	78	71
20		63	100	149	152	169	374	632	409	133	78	90
21		69	90	140	142	152	473	624	428	129	76	90
22		98	80	130	139	142	422	624	403	136	76	85
23		112	55	125	133	139	446	688	340	133	76	81
24		101	50	120	123	129	453	688	319	133	76	78
25		90	55	115	120	133	428	680	324	126	78	78
26		90	60	*110	103	136	416	655	346	120	83	78
27		90	60	105	120	136	422	775	293	117	81	76
28		76	60	100	115	136	416	831	255	109	81	73
29		70	60	100	-	133	459	840	241	103	78	73
30		70	60	95	-	142	593	910	232	103	76	71
31		-	60	95	-	177	-	960	-	106	73	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff Inches	Runoff Acre-feet
October	-	-	-	-	-	-	-
November	2,405	112	61	80.2	0.531	0.59	4,770
December	2,841	207	50	91.6	.607	.70	5,640
Calendar year	-	-	-	-	-	-	-
January	4,969	549	60	160	1.06	1.22	9,860
February	5,812	910	90	208	1.38	1.43	11,530
March	3,785	177	101	122	.808	.93	7,510
April	7,900	593	123	263	1.74	1.95	15,670
May	26,141	1,220	624	843	5.58	6.44	51,850
June	13,054	812	232	435	2.88	3.22	25,890
July	5,082	246	103	164	1.09	1.25	10,080
August	2,671	101	73	86.2	.571	.66	5,300
September	2,314	106	69	77.1	.511	.57	4,590
The period	-	-	-	-	-	-	152,700

* Winter discharge measurement made on this day.
a No gage-height record; discharge computed on basis of records for stations on nearby streams.
Note.- Stage-discharge relation affected by ice Nov. 29 to Dec. 1, Dec. 9 to Jan. 4, Jan. 21 to Feb. 5 (no gage-height record Jan. 22-25), Feb. 25, Mar. 6, 7.
Time basis: Pacific war time up to 2 a.m., Sept. 30, 1945; Pacific standard time thereafter. To convert war time to standard time, subtract 1 hour.

Klickitat River near Glenwood, Wash.

Location.- Water-stage recorder, lat. 46°05'30", long. 121°15'30", in SE¼ sec. 14, T. 7 N., R. 12 E., half a mile downstream from Dairy Creek, 5 miles north of Glenwood and 7 miles upstream from Trout Creek. Datum of gage is about 1,703 feet above mean sea level, datum of 1929.

Drainage area.- 300 square miles.

Records available.- December 1910 to September 1945 (1920-28 incomplete). October 1909 to December 1910 at site 1 mile upstream.

Average discharge.- 28 years (1909-20, 1928-45), 799 second-feet.

Extremes.- Maximum discharge during year, 2,380 second-feet sometime May 4-6 (gage height, 5.41 feet, from recorded range of stage); minimum, 223 second-feet Dec. 24.
1909-45: Maximum discharge, 9,870 second-feet Dec. 22, 1933 (gage height, 7.9 feet, present datum), from rating curve extended above 2,000 second-feet; minimum, 204 second-feet Nov. 28, 1931.

Remarks.- Records good except those for periods of shifting control or no gage-height record, which are fair. All low-water flow of Hellroaring Creek, a tributary of Big Muddy River, is diverted for irrigation. No regulation.

Rating table, water year 1944-45, except period of shifting control
(gage height, in feet, and discharge, in second-feet)

Oct. 1 to May 3				May 4 to Sept. 30			
2.8	268	3.7	775	3.0	274	4.0	935
3.0	354	4.0	1,010	3.2	382	4.5	1,370
3.2	465	4.5	1,490	3.4	503	5.0	1,890
3.4	570			3.7	707		

Discharge, in second-feet, water year October 1944 to September 1945

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	280	272	297	276	318	383	490	1,500	1,690	686	423	332
2	284	268	284	272	318	369	470	1,800	1,540	707	417	326
3	297	314	284	268	318	374	460	2,100	1,450	707	417	326
4	293	345	305	272	309	364	450	2,300	1,380	679	491	746
5	297	314	378	272	327	345	455	2,300	1,330	650	497	484
6	284	301	445	297	318	359	460	2,300	1,270	650	503	382
7	280	305	439	540	677	354	470	2,250	1,200	657	491	365
8	276	318	388	570	1,440	359	460	2,150	1,180	657	478	360
9	276	322	332	455	1,270	378	440	2,100	1,170	672	478	343
10	268	309	314	424	970	445	440	2,000	1,140	657	460	345
11	264	297	293	429	812	403	435	1,860	1,090	636	441	348
12	264	297	272	558	705	398	420	1,850	1,040	616	453	348
13	264	276	264	1,040	628	393	415	1,840	991	595	453	348
14	264	257	264	914	570	398	425	1,850	951	562	453	354
15	268	260	260	705	528	388	490	1,710	895	529	453	354
16	272	276	260	590	504	374	520	1,740	871	522	441	354
17	264	276	268	528	488	378	540	1,650	887	497	382	360
18	260	272	284	494	460	364	600	1,560	927	484	376	354
19	253	257	309	455	434	419	700	1,490	935	484	371	337
20	253	272	327	398	445	576	850	1,450	983	484	360	412
21	249	280	314	393	429	534	1,050	1,420	1,020	510	360	354
22	253	314	301	388	419	494	950	1,380	967	522	365	348
23	257	336	257	354	403	472	980	1,480	879	497	354	332
24	249	322	241	359	393	439	1,000	1,470	855	491	345	326
25	245	314	280	359	383	440	995	1,460	871	497	337	321
26	245	318	280	354	398	470	980	1,440	855	484	337	310
27	245	314	280	336	388	450	975	1,610	773	484	343	305
28	241	314	293	332	378	450	970	1,690	729	484	360	300
29	238	314	280	318	-	440	1,100	1,680	700	516	354	300
30	253	301	280	318	-	470	1,300	1,800	679	441	332	305
31	276	-	276	318	-	540	-	1,870	-	423	332	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff Inches	Runoff Acre-feet
October	8,212	297	238	265	0.736	0.85	16,290
November	8,935	345	257	298	.828	.92	17,720
December	9,349	445	241	302	.839	.97	18,540
Calendar year 1944	163,015	1,180	238	445	1.24	16.85	323,300
January	13,586	1,040	268	438	1.22	1.40	26,950
February	15,030	1,440	309	537	1.49	1.55	29,810
March	13,020	576	345	420	1.17	1.35	25,820
April	20,290	1,300	415	676	1.88	2.10	40,240
May	55,100	2,300	1,380	1,777	4.94	5.69	109,300
June	31,248	1,690	679	1,042	2.89	3.23	61,980
July	17,480	707	423	564	1.57	1.81	34,670
August	12,655	503	332	408	1.13	1.31	25,100
September	10,777	746	300	359	.997	1.11	21,380
Water year 1944-45	215,682	2,300	238	591	1.64	22.29	427,800

Note.- No gage-height record Mar. 25 to May 10; discharge computed on basis of recorded range in stage and records for stations on nearby streams. Shifting-control method used Oct. 1 to Jan. 12.
Time basis: Pacific war time up to 2 a.m., Sept. 30, 1945; Pacific standard time thereafter. To convert war time to standard time, subtract 1 hour.

Klickitat River near Pitt, Wash.

Location.- Water-stage recorder, lat. 45°45', long. 120°12', in SW¼ sec. 8, T. 3 N., R. 13 E., 3⅛ miles south of Pitt, 5 miles upstream from Silvias Creek, and 7 miles upstream from mouth at Lyle. Altitude of gage is 285 feet (from river-profile map).

Drainage area.- 1,170 square miles.

Records available.- October 1935 to September 1945. July 1909 to January 1912, at site 7 miles upstream, published as Klickitat River at Klickitat. October 1928 to September 1935, 3⅛ miles upstream, published as Klickitat River at Pitt.

Average discharge.- 19 years (1909-11, 1928-45), 1,408 second-feet.

Extremes.- Maximum discharge during year, 2,940 second-feet Feb. 8 (gage height, 5.93 feet); minimum, 470 second-feet Dec. 25 (gage height, 3.31 feet).
1909-12, 1928-45: Maximum discharge observed, 21,000 second-feet Dec. 22, 1933 (gage height, 12.5 feet, site and datum then in use), from rating curve extended above 3,000 second-feet; minimum discharge, 466 second-feet Feb. 4, 1937.

Remarks.- Records excellent except those for period of shifting control, which are good. Small diversions above station for irrigation.

Rating table, water year 1944-45, except periods of shifting control
(gage height, in feet, and discharge, in second-feet)

3.5	560	4.8	1,530
3.7	690	5.0	2,020
4.0	920	5.5	2,710
4.3	1,200		

Discharge, in second-feet, water year October 1944 to September 1945

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	510	496	560	525	627	725	1,210	1,890	2,150	880	627	545
2	510	488	555	520	627	704	1,130	2,080	1,960	896	608	550
3	520	535	545	515	627	697	1,080	2,420	1,830	896	602	550
4	515	578	550	515	641	683	1,050	2,780	1,770	880	641	735
5	510	555	602	520	927	634	1,030	2,780	1,710	856	662	948
6	515	525	697	540	856	641	1,030	2,780	1,650	832	669	648
7	510	535	746	690	1,390	648	1,070	2,710	1,530	832	656	608
8	506	530	711	956	2,710	648	1,220	2,640	1,480	840	662	596
9	506	550	641	768	2,350	641	1,160	2,560	1,480	832	655	578
10	501	525	608	704	1,830	760	1,110	2,420	1,420	840	641	578
11	496	510	584	704	1,590	768	1,110	2,350	1,360	832	634	584
12	496	506	545	792	1,530	768	1,090	2,350	1,310	800	634	590
13	492	501	530	1,310	1,590	760	1,040	2,350	1,270	800	634	584
14	492	492	520	1,490	1,360	808	1,020	2,350	1,200	753	641	590
15	492	483	515	1,190	1,200	832	1,030	2,150	1,150	752	614	596
16	492	488	510	1,100	1,110	808	1,100	2,150	1,120	725	634	584
17	492	492	515	938	1,060	856	1,110	2,150	1,110	690	590	590
18	496	488	520	896	1,030	672	1,130	1,960	1,140	683	566	596
19	496	483	550	816	938	904	1,230	1,890	1,160	690	555	578
20	492	488	584	748	929	1,560	1,420	1,830	1,180	683	540	634
21	492	483	578	676	929	1,710	1,590	1,770	1,260	690	535	620
22	492	506	560	669	904	1,590	1,650	1,770	1,210	718	550	590
23	501	545	515	648	840	1,480	1,590	1,830	1,160	704	560	566
24	496	555	483	627	808	1,310	1,650	1,830	1,100	683	540	560
25	496	535	506	614	776	1,310	1,590	1,830	1,090	697	545	555
26	496	566	530	614	768	1,420	1,530	1,770	1,100	683	535	560
27	496	555	520	608	753	1,360	1,480	1,960	1,040	676	540	560
28	501	550	530	590	732	1,290	1,480	2,150	956	683	555	560
29	506	535	550	584	-	1,230	1,480	2,150	920	676	560	560
30	506	545	530	590	-	1,200	1,650	2,220	896	655	555	566
31	506	-	530	608	-	1,210	-	2,280	-	641	545	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff Inches	Runoff Acre-feet
October	15,527	520	492	501	0.428	0.49	30,800
November	15,623	578	483	521	.445	.50	30,990
December	17,420	746	483	562	.480	.55	34,550
Calendar year 1944	279,838	1,830	483	765	.654	8.88	555,000
January	23,053	1,480	515	744	.636	.73	45,720
February	31,432	2,710	627	1,123	.960	1.00	62,340
March	30,827	1,710	634	994	.850	.98	61,140
April	38,080	1,650	1,020	1,269	1.08	1.21	75,490
May	68,150	2,780	1,770	2,198	1.88	2.17	135,200
June	39,712	2,150	896	1,324	1.13	1.26	78,770
July	23,478	896	641	757	.647	.75	46,570
August	18,505	676	535	597	.510	.59	36,700
September	17,959	948	545	599	.512	.57	35,620
Water year 1944-45	339,746	2,780	483	931	.796	10.80	673,900

Note.- Shifting-control method used Oct. 1 to Dec. 9, Feb. 5 to Mar. 20.
Time basis: Pacific war time up to 2 a.m., Sept. 30, 1945; Pacific standard time thereafter.
To convert war time to standard time, subtract 1 hour.

West Fork Klickitat River near Glenwood, Wash.

Location.- Water-stage recorder, lat. 46°15'30", long. 121°16'30", in SW¼ sec. 14, T. 9 N., R. 12 E., at road bridge 2 miles upstream from mouth and 17 miles north of Glenwood.

Drainage area.- 87 square miles.

Records available.- November 1944 to September 1945. June to November 1910 at site just below confluence of Little Muddy Creek and Fish Lake Stream; August to November 1916 at site 1 mile above mouth.

Extremes.- Maximum discharge during period, 800 second-feet May 5, 6 (gage height, 2.82 feet); minimum not determined, occurred sometime during period Dec. 11-25, when stage-discharge relation was affected by ice.
1910, 1916, 1944-45: Maximum discharge, that of May 5, 6, 1945; minimum not determined, occurred sometime during period Dec. 11-25, 1944, when stage-discharge relation was affected by ice.

Remarks.- Records good except those for period of ice effect, which are poor. No diversion or regulation.

Rating table, November 1944 to September 1945 except period of ice effect
(gage height, in feet, and discharge, in second-feet)

1.2	109	2.0	395
1.4	160	2.3	545
1.6	225	2.6	695
1.8	305		

Discharge, in second-feet, water year October 1944 to September 1945

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1		127	130	120	138	160	176	460	620	236	185	169
2		127	125	120	138	157	172	535	570	236	188	166
3		140	125	120	138	160	169	640	530	229	185	169
4		157	132	118	140	157	166	745	495	222	188	309
5		138	152	120	146	154	166	800	475	222	191	229
6		138	172	125	140	152	169	800	460	218	194	194
7		138	*182	194	259	149	172	772	460	218	198	182
8		152	166	188	545	152	176	772	425	211	198	179
9		146	154	176	580	152	166	745	420	215	188	172
10		*135	146	166	470	166	166	695	415	218	185	169
11		132	b140	169	400	157	166	670	400	222	188	166
12		132	b130	208	336	157	160	670	377	218	185	166
13		125	b120	336	292	157	157	670	367	215	182	166
14		123	b115	349	255	152	160	695	358	211	188	166
15		123	b110	284	240	149	176	670	340	208	182	166
16		120	b110	236	225	146	176	645	323	208	182	157
17		123	b110	208	215	152	179	640	323	201	179	160
18		118	b115	191	205	146	198	610	327	198	176	163
19		120	b120	176	194	157	218	575	327	198	172	157
20		120	b130	163	194	188	252	565	336	198	166	191
21		120	b120	163	188	179	288	555	327	208	166	176
22		125	b115	152	182	176	288	550	314	215	169	166
23		135	b110	149	179	169	323	580	301	208	169	166
24		135	b100	146	172	166	336	585	288	208	169	163
25		135	b115	146	169	166	314	565	280	201	166	160
26		135	120	*140	166	172	305	560	267	194	169	160
27		135	118	138	163	166	309	605	255	194	176	154
28		130	120	132	163	163	314	625	248	194	176	152
29		130	120	132	-	160	336	625	248	191	172	149
30		130	120	132	-	163	405	645	240	182	169	149
31		-	120	132	-	182	-	670	-	185	169	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff Inches	Runoff Acre-feet
October	-	-	-	-	-	-	-
November	3,942	157	118	131	1.51	1.69	7,820
December	3,962	182	100	128	1.47	1.69	7,860
Calendar year	-	-	-	-	-	-	-
January	5,329	349	118	172	1.98	2.28	10,570
February	6,632	580	138	237	2.72	2.83	13,150
March	4,982	188	146	161	1.85	2.13	9,880
April	6,758	405	157	225	2.59	2.89	13,400
May	19,939	800	460	643	7.39	8.52	39,550
June	11,116	620	240	371	4.26	4.75	22,050
July	6,482	236	182	209	2.40	2.77	12,860
August	5,570	198	166	180	2.07	2.38	11,050
September	5,191	309	149	173	1.99	2.22	10,300
The period	-	-	-	-	-	-	158,500

* Winter discharge measurement made on this day.
b Stage-discharge relation affected by ice.
Time basis: Pacific war time up to 2 a.m., Sept. 30, 1945; Pacific standard time thereafter.
To convert war time to standard time, subtract 1 hour.

Big Muddy Creek near Glenwood, Wash.

Location.- Water-stage recorder, lat. 46°09'00", long. 121°17'30", in W½ sec. 27, T. 8 N., R. 12 E., 200 feet downstream from road bridge, 1 1/3 miles upstream from Cougar Creek, 1¾ miles upstream from mouth, and 9⅜ miles north of Glenwood.

Drainage area.- 22.5 square miles.

Records available.- November 1944 to September 1945. August to November 1916 at site 3 miles above mouth; November 1916 to September 1918 at site just above mouth of Cougar Creek.

Extremes.- Maximum discharge during period, 796 second-feet Feb. 7, discharge may have been higher sometime during same day when logs were on control; minimum discharge, 26 second-feet Nov. 24.
1916-18, 1944-45: Maximum discharge not determined, occurred during flood of December 1917; minimum, that of Nov. 24, 1944.

Remarks.- Records fair Feb. 8 to June 20, poor for remainder of period. Possibly as much as 120 second-feet diverted during period April to September for irrigation and stock water. No regulation.

Discharge, in second-feet, water year October 1944 to September 1945

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1		38	36	32	b43	47	52	161	232	85	55	45
2		37	34	32	b43	45	49	177	220	85	55	45
3		46	35	32	42	44	49	220	208	80	55	90
4		50	43	33	41	44	50	223	194	80	60	80
5		40	54	32	44	41	52	214	191	75	60	70
6		39	52	41	40	42	50	235	183	75	65	60
7		38	44	163	402	42	52	232	177	70	65	50
8		41	*39	72	232	42	50	232	188	70	65	50
9		39	36	59	145	44	47	226	191	75	60	50
10		38	b35	48	114	56	47	214	191	75	60	45
11		36	b34	47	103	50	47	197	203	80	60	45
12		36	b33	64	92	49	45	200	194	80	60	45
13		33	b33	291	83	48	45	203	166	75	55	45
14		33	b33	135	74	48	46	186	138	75	55	45
15		33	b33	83	69	48	52	172	140	75	55	45
16		33	b33	66	69	47	54	186	156	70	50	45
17		34	b34	59	68	48	54	163	180	70	50	45
18		33	b35	54	64	46	58	148	191	65	50	45
19		34	38	49	62	54	68	138	188	65	50	45
20		34	36	47	60	64	81	133	220	65	50	65
21		37	36	44	58	55	86	128	241	70	45	60
22		42	34	b44	56	54	84	130	210	70	45	50
23		40	30	b43	55	50	96	143	190	70	45	50
24		31	b30	b44	54	48	98	138	150	65	45	45
25		36	b32	b45	52	52	94	135	130	65	45	46
26		36	b32	b45	52	52	101	136	110	60	50	46
27		36	b32	*b45	50	50	103	183	100	60	50	47
28		34	33	b44	48	50	103	186	110	60	50	47
29		36	33	b43	-	49	121	203	100	55	45	52
30		36	32	b43	-	52	145	229	90	55	45	56
31		-	33	b43	-	55	-	232	-	h50	45	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	-	-	-	-	-
November	1,109	50	31	37.0	2,200
December	1,107	54	30	35.7	2,200
Calendar year	-	-	-	-	-
January	1,922	291	32	62.0	3,810
February	2,315	402	40	82.7	4,590
March	1,516	64	41	48.9	3,010
April	2,079	145	45	69.3	4,120
May	5,705	235	128	184	11,320
June	5,182	241	90	173	10,280
July	2,170	85	50	70.0	4,300
August	1,645	65	45	53.1	3,260
September	1,554	90	45	51.8	3,080
The period	-	-	-	-	52,170

* Winter discharge measurement made on this day.
b Stage-discharge relation affected by ice.
h Computed from staff-gage reading.
Note.- No gage-height record Nov. 1, June 22 to July 30, Aug. 1 to Sept. 24; discharge computed on basis of records for stations on nearby streams.
Time basis: Pacific war time up to 2 a.m., Sept. 30, 1945; Pacific standard time thereafter. To convert war time to standard time, subtract 1 hour.

Little Klickitat River near Wahkiacus, Wash.

Location.- Staff gage, lat. 45°50'30", long. 121°03'30", in SE¼ sec. 9, T. 4 N., R. 14 E., half a mile downstream from Bowman Creek, three-quarters of a mile upstream from mouth, and 2 miles northeast of Wahkiacus.

Records available.- November 1944 to September 1945.

Extremes.- Maximum discharge observed during period, 784 second-feet Feb. 8 (gage height, 4.20 feet); minimum observed, 17 second-feet Aug. 3-6, 11, 16-27, Aug. 29 to Sept. 3.

Remarks.- Records good. Gage read once or twice daily. Some small diversions above station for irrigation. No regulation.

Rating table, Nov. 22, 1944, to Sept. 30, 1945, except periods of ice effect (gage height, in feet, and discharge, in second-feet)

1.4	24	2.0	87	3.0	326
1.6	39	2.3	141	3.5	497
1.8	60	2.6	212	4.0	697

Discharge, in second-feet, water year October 1944 to September 1945

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1		-	39	26	43	81	152	163	101	23	18	17
2		-	34	26	43	73	141	175	93	23	18	17
3		-	29	26	44	76	137	175	87	23	17	17
4		-	30	27	46	73	125	175	86	23	17	21
5		-	29	34	252	63	125	163	84	23	17	20
6		-	35	41	163	63	125	163	81	23	17	20
7		-	41	57	408	66	125	133	76	23	18	20
8		-	36	70	697	65	187	129	70	22	18	20
9		-	31	47	391	60	135	a124	65	22	18	20
10		-	*29	42	280	70	129	119	76	22	18	18
11		-	29	39	295	68	131	114	73	22	17	18
12		-	26	63	252	87	121	117	58	23	18	18
13		-	26	139	310	100	117	131	56	23	18	18
14		-	25	121	225	108	117	125	56	23	18	18
15		-	25	107	187	117	116	114	51	23	18	18
16		-	b24	141	175	90	116	119	49	23	17	18
17		-	b23	87	163	121	123	117	48	20	17	18
18		-	b23	83	141	125	121	105	43	23	17	18
19		-	b23	68	117	163	139	101	41	23	17	18
20		-	b24	58	141	280	152	92	39	20	17	19
21		-	27	47	129	266	175	90	39	13	17	18
22		24	28	51	117	280	163	92	36	13	17	18
23		25	b22	45	110	a240	163	101	35	13	17	18
24		26	b21	47	93	200	152	92	34	23	17	18
25		25	b20	40	93	212	141	86	34	13	17	18
26		a27	b20	43	90	187	135	84	31	18	17	19
27		29	b20	39	87	163	129	121	30	13	17	19
28		28	b21	37	79	152	123	139	31	18	18	20
29		27	b22	36	-	152	141	117	30	18	17	18
30		27	b23	35	-	141	152	114	29	13	17	18
31		-	b25	*39	-	152	-	105	-	13	17	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	-	-	-	-	-
November 22-30	238	29	24	26.4	472
December	830	41	20	26.8	1,650
Calendar year	-	-	-	-	-
January	1,761	141	26	56.8	3,490
February	5,171	697	43	185	10,260
March	4,094	280	60	132	8,120
April	4,108	187	116	137	8,150
May	3,795	175	84	122	7,530
June	1,662	101	29	55.4	3,300
July	652	29	18	21.0	1,290
August	538	18	17	17.4	1,070
September	555	21	17	18.5	1,100
The period	-	-	-	-	46,430

* Winter discharge measurement made on this day.
a No gage-height record; discharge interpolated.
b Stage-discharge relation affected by ice.
Time basis: Pacific war time up to 2 a.m., Sept. 30, 1945; Pacific standard time thereafter. To convert war time to standard time, subtract 1 hour.

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Hood River near Hood River, Oreg.

Location.- Water-stage recorder, lat. 45°42', long. 121°31', in SE¼ sec. 36, T. 3 N., R. 10 E., at Powerdale, a quarter of a mile upstream from Pacific Power & Light Co.'s plant and three-quarters of a mile south of town of Hood River. Datum of gage is 106.23 feet above mean sea level, datum of 1929.
Drainage area.- 329 square miles.
Records available.- March 1913 to September 1945.
Average discharge.- 32 years, 1,029 second-feet (including flow of Pacific Power & Light Co.'s conduit).
Extremes.- Maximum discharge during year (river only), 5,970 second-feet Feb. 8 (gage height, 5.84 feet); minimum, 21 second-feet (regulated) Dec. 18 (gage height, 0.99 foot); minimum daily (including discharge of Pacific Power & Light Co.'s conduit), 226 second-feet Aug. 31.
1913-45: Maximum discharge, 34,000 second-feet Jan. 6, 1923 (gage height, 11.1 feet), no diversion by power conduit; minimum, 3 second-feet Aug. 9, 1926 (gage height, 1.45 feet); minimum daily (including discharge of Pacific Power & Light Co.'s conduit), 165 second-feet Aug. 5, 1941.
Remarks.- Records good. Diversions above station for irrigation. Daily discharge regulated by pondage at sawmill at Dee and by Pacific Power & Light Co.'s conduit, which diverts water around gage.
Cooperation.- Water-stage recorder inspected by employees of Pacific Power & Light Co.

Rating table, water year 1944-45 (gage height, in feet, and discharge, in second-feet)

1.0	22	1.6	81	2.4	290	3.4	990	4.8	3,430
1.2	37	1.8	115	2.7	425	3.8	1,530	5.4	4,840
1.4	56	2.1	190	3.0	610	4.3	2,380		

Discharge, in second-feet, water year October 1944 to September 1945

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	42	34	101	48	87	251	582	1,150	658	42	63	60
2	42	33	71	31	83	234	486	1,280	610	44	64	61
3	43	425	60	25	138	247	425	1,520	540	45	58	80
4	51	303	145	25	208	216	366	1,480	492	41	53	145
5	103	117	650	156	308	182	522	1,250	425	41	53	378
6	45	78	498	580	362	a168	610	1,230	380	42	53	48
7	31	101	522	3,170	2,690	154	666	1,110	326	41	53	51
8	54	64	334	1,520	4,820	168	699	1,050	294	47	51	54
9	48	53	221	780	2,620	162	561	913	276	47	49	104
10	34	42	172	642	1,560	694	540	979	276	44	49	46
11	30	35	102	528	1,500	498	626	990	251	38	51	45
12	30	33	68	1,500	1,340	486	547	1,300	228	38	52	47
13	31	31	55	2,740	2,700	447	474	1,560	196	40	52	49
14	34	29	48	1,650	1,600	528	452	1,740	157	38	51	49
15	31	28	46	1,100	1,140	464	510	1,910	115	40	50	47
16	31	29	46	1,040	880	410	554	2,150	93	60	51	150
17	31	27	54	924	762	385	504	2,190	94	43	50	58
18	31	27	27	990	666	420	540	1,590	106	42	52	55
19	35	29	28	717	540	577	666	1,200	112	47	49	52
20	32	28	28	561	486	1,310	780	979	130	47	49	80
21	31	29	83	447	436	957	946	840	170	49	48	50
22	56	31	28	352	405	860	780	780	121	110	50	48
23	31	52	35	290	380	790	771	762	68	44	49	46
24	28	95	46	247	334	634	1,210	690	96	45	52	45
25	26	54	28	202	306	637	946	626	75	45	53	45
26	28	421	26	165	302	640	780	575	96	46	61	42
27	34	446	30	140	302	589	717	896	40	47	83	39
28	27	206	34	190	258	589	726	840	34	46	54	42
29	26	128	29	111	-	547	871	810	41	102	54	41
30	27	108	27	248	-	492	1,090	860	40	63	56	41
31	26	-	26	386	-	642	-	820	-	61	58	-

Month	Observed				Pacific Power & Light Co.'s conduit near Hood River (acre-feet)	River and conduit combined			
	Discharge in second-feet			Runoff in acre-feet		Runoff in acre-feet	Discharge in second-feet		Runoff in inches
	Maximum	Minimum	Mean				Mean	Per square mile	
October	103	26	37.1	2,280	22,680	24,960	406		
November	446	27	104	6,180	25,360	31,540	530		
December	650	26	118	7,280	26,490	33,770	549		
Calendar year 1944	2,250	26	210	152,650	277,690	430,340	593		
January	3,170	25	694	42,650	27,530	70,180	1,142		
February	4,820	83	972	53,980	26,520	80,500	1,449		
March	1,310	154	496	30,500	30,190	60,690	987		
April	1,210	366	665	39,560	28,930	68,490	1,151		
May	2,190	575	1,164	71,540	28,970	100,510	1,635		
June	658	34	218	12,970	27,800	40,770	688		
July	110	38	49.2	3,020	21,020	24,040	391		
August	64	48	52.9	3,250	12,910	16,160	263		
September	378	39	69.9	4,160	17,860	22,020	370		
Water year 1944-45	4,820	25	383	277,370	296,260	573,630	793		

Peak discharge.- Jan. 7 (1 p.m.) 4,820 sec.-ft.; Jan. 13 (12 m.) 4,340 sec.-ft.; Feb. 8 (7 a.m.) 5,970 sec.-ft.; Feb. 13 (4 a.m.) 3,360 sec.-ft.
a No gage-height record; discharge interpolated.
Time basis: Pacific war time up to 2 a.m., Sept. 30, 1945; Pacific standard time thereafter. To convert war time to standard time, subtract 1 hour.

West Fork Hood River near Dee, Oreg.

Location.- Water-stage recorder, lat. 45°36', long. 121°38', in SE¼ sec. 1, T. 1 N., R. 9 E., a quarter of a mile upstream from Dead Point Creek, half a mile upstream from mouth, and 1 mile northwest of Dee. Datum of gage is 802.1 feet above mean sea level, datum of 1929.

Drainage area.- 96 square miles.

Records available.- September 1913 to February 1916 (incomplete), June 1932 to September 1945.

Average discharge.- 13 years (1932-45), 493 second-feet.

Extremes.- Maximum discharge during year, 5,040 second-feet Feb. 8 (gage height, 7.90 feet); minimum, 120 second-feet Oct. 27-30, Aug. 30, Sept. 2.
1913-14, 1932-45: Maximum discharge, 12,900 second-feet Dec. 22, 1933 (gage height, 12.4 feet), from rating curve extended above 5,000 second-feet; minimum, 93 second-feet Aug. 22, 1941 (gage height, 1.37 feet).

Remarks.- Records good. Diversions above station for irrigation.

Rating tables, water year 1944-45 (gage height, in feet, and discharge, in second-feet)

Oct. 1 to Feb. 7				Feb. 8 to Sept. 30			
1.7	120	3.6	850	1.7	123	3.6	855
2.0	173	4.2	1,240	2.0	185	4.2	1,240
2.3	255	5.0	1,830	2.3	270	5.0	1,830
2.7	390	6.0	2,720	2.7	420	6.0	2,720
3.1	565			3.1	595	7.0	3,820

Discharge, in second-feet, water year October 1944 to September 1945

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	139	169	274	222	225	333	605	1,000	564	220	154	123
2	131	153	252	200	222	322	546	1,080	523	228	154	125
3	151	368	234	187	294	340	505	1,210	496	226	149	125
4	178	317	361	192	297	316	478	1,130	456	214	147	246
5	249	252	688	386	402	302	630	987	432	211	147	270
6	180	234	610	859	438	291	705	969	404	211	152	160
7	157	274	620	2,680	2,520	284	725	897	384	217	154	143
8	148	234	470	1,290	3,770	291	685	855	372	217	154	137
9	141	225	383	826	2,020	333	610	789	372	223	147	130
10	139	203	330	718	1,280	772	605	855	360	217	147	128
11	141	185	294	575	1,270	572	655	915	352	206	141	130
12	139	173	261	1,360	1,250	582	586	1,070	340	203	139	128
13	134	163	240	2,260	2,100	554	536	1,190	333	198	139	127
14	133	157	219	1,340	1,300	582	528	1,330	322	193	137	127
15	131	150	205	990	975	532	586	1,800	302	190	137	141
16	128	148	195	990	784	496	595	1,850	294	188	136	139
17	126	144	190	983	680	492	564	1,720	294	180	141	136
18	125	141	178	990	582	505	605	1,260	302	174	136	132
19	123	138	178	742	514	675	685	993	298	169	130	127
20	123	134	178	585	474	1,230	789	822	312	176	127	185
21	123	133	175	484	440	933	897	740	316	183	125	168
22	123	141	169	418	428	867	745	690	284	206	130	147
23	123	203	161	372	412	772	789	665	264	190	130	167
24	122	281	157	344	384	660	1,120	690	264	176	128	158
25	122	246	153	313	360	620	927	572	270	176	134	147
26	122	499	150	290	360	635	772	559	261	169	152	147
27	120	535	148	271	356	600	730	745	234	164	132	139
28	120	369	150	255	333	620	710	700	231	167	134	136
29	120	310	151	243	-	586	806	690	228	162	130	132
30	125	290	150	231	-	554	987	705	220	158	125	132
31	138	-	148	231	-	690	-	635	-	154	123	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	4,274	249	120	138	8,480
November	6,989	535	133	233	13,860
December	8,072	688	148	260	16,010
Calendar year 1944	111,596	1,930	114	305	221,400
January	21,827	2,680	187	704	43,290
February	24,470	3,770	222	874	48,540
March	17,341	1,230	284	559	34,400
April	20,706	1,120	478	690	41,070
May	30,043	1,850	559	969	59,590
June	10,084	564	220	336	20,000
July	5,966	228	154	192	11,830
August	4,311	154	123	139	8,550
September	4,422	270	123	147	8,770
Water year 1944-45	158,505	3,770	120	434	314,400

Peak discharge.- Jan. 7 (9:30 a.m.) 4,280 sec.-ft.; Feb. 7 (9 p.m.) 4,900 sec.-ft.; Feb. 8 (5:30 a.m.) 5,040 sec.-ft.
Time basis: Pacific war time up to 2 a.m., Sept. 30, 1945; Pacific standard time thereafter. To convert war time to standard time, subtract 1 hour.

Pacific Power & Light Co.'s conduit near Hood River, Oreg.

Location.- Venturi meter and electrical-output meter, lat. 45°42', long. 121°30', in NE¼ sec. 36, T. 3 N., R. 10 E., at Pacific Power & Light Co.'s plant on Hood River, half a mile southeast of town of Hood River.

Records available.- October 1922 to September 1945. October 1913 to September 1914 and January 1916 to July 1922 at site in tailrace of former plant.

Average discharge.- 23 years (1922-45), 360 second-feet.

Extremes.- Maximum daily discharge during year, 496 second-feet Apr. 14, 15; no flow at times when power plant was occasionally shut down. Minimum daily discharge, 163 second-feet Sept. 3.
1913-14, 1916-45: Maximum discharge observed, 510 second-feet Dec. 30, 1932; no flow at times.

Remarks.- Records good. Discharge computed from relation between flow in conduit and output of power plant, based on discharge measurements. Pacific Power & Light Co.'s conduit diverts from Hood River in SE¼ sec. 11, T. 2 N., R. 10 E., just below Neal Creek. Water is diverted around station on Hood River near town of Hood River and returned to river in NE¼ sec. 36, T. 3 N., R. 10 E.

Cooperation.- Hourly readings of venturi meter and record of daily electrical output furnished by Pacific Power & Light Co.

Discharge, in second-feet, water year October 1944 to September 1945

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June.	July	Aug.	Sept.
1	377	423	476	450	492	494	492	478	478	406	221	169
2	353	399	472	449	492	494	488	475	478	415	223	178
3	387	428	459	429	494	492	491	466	477	431	222	163
4	461	466	457	432	461	494	493	467	477	406	216	388
5	476	465	479	478	495	492	491	463	478	394	214	476
6	448	467	481	475	493	492	490	457	476	387	220	381
7	412	475	481	362	466	491	483	469	475	401	244	315
8	370	470	481	447	410	493	493	452	473	396	258	292
9	371	467	482	466	460	492	490	485	474	405	251	204
10	374	451	463	482	467	492	490	481	474	417	239	260
11	383	428	480	481	464	494	482	480	474	400	217	279
12	388	416	476	471	461	494	494	478	474	382	219	275
13	380	398	468	446	451	495	494	461	473	376	209	280
14	367	388	454	456	475	494	496	466	472	360	213	258
15	370	384	434	476	482	495	496	457	472	329	210	286
16	364	386	418	473	482	495	493	460	471	313	213	193
17	359	383	418	475	479	494	493	474	473	318	217	260
18	352	369	413	474	436	495	492	472	472	293	206	286
19	345	363	425	474	488	492	490	471	477	272	201	266
20	345	361	440	473	486	488	488	469	474	285	187	397
21	344	348	369	474	482	487	481	481	476	324	181	370
22	318	366	417	487	493	488	482	480	472	335	187	334
23	347	418	382	486	491	486	486	475	468	380	199	362
24	343	472	378	481	492	488	477	470	434	313	191	353
25	333	472	382	481	495	458	474	478	471	314	197	338
26	337	421	373	481	494	486	472	479	457	294	225	341
27	331	474	372	480	494	493	480	441	456	279	199	327
28	337	476	381	402	494	494	485	481	442	290	194	318
29	341	475	386	483	-	493	444	484	429	216	196	326
30	341	476	379	284	-	494	484	480	417	244	174	331
31	383	-	378	173	-	490	-	478	-	224	163	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	11,437	476	318	369	22,680
Movember	12,735	476	348	426	25,360
December	13,354	482	369	431	26,490
Calendar year 1944	140,002	489	0	383	277,700
January	13,831	487	173	448	27,530
February	13,369	495	410	477	26,520
March	15,219	495	458	491	30,190
April	14,564	496	444	486	28,930
May	14,608	485	441	471	28,970
June	14,016	478	417	467	27,800
July	10,599	431	216	342	21,020
August	6,511	258	168	210	12,910
September	9,006	476	163	300	17,860
Water year 1944-45	149,369	496	163	409	296,300

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

White Salmon River near Underwood, Wash.

Location.- Water-stage recorder, lat. 45°45'00", long. 121°31'30", in NW¼ sec. 14, T. 3 N., R. 10 E., 1,000 feet downstream from Northwestern Electric Co.'s Condit power plant and 2 miles north of Underwood and mouth.
Drainage area.- 384 square miles.
Records available.- March 1915 to September 1930, September 1935 to September 1945. October 1912 to February 1913 at site at Condit Dam, 1 mile upstream.
Average discharge.- 25 years (1915-30, 1935-45), 1,008 second-feet.
Extremes.- Maximum discharge during year, 3,440 second-feet (regulated) Feb. 8 (gage height, 6.49 feet); minimum, 112 second-feet (regulated) Nov. 1, 2 (gage height, 2.07 feet); minimum daily, 321 second-feet (regulated) Dec. 3.
1915-30, 1935-45: Maximum discharge, 9,700 second-feet Dec. 29, 1917 (gage height, 9.5 feet, datum then in use, relation to present datum unknown); practically no flow at times when power plant is shut down.
Remarks.- Records excellent. Many diversions near Trout Lake for irrigation. Flow regulated by power plant.

Rating tables, water year 1944-45 (gage height, in feet, and discharge, in second-feet)

Oct. 1 to Jan. 31		Feb. 1 to Sept. 30	
2.3	152	3.0	356
2.6	224	3.5	573
3.0	356	4.0	665
3.5	565	4.5	1,230
4.0	855	5.0	1,660
4.5	1,210	5.5	2,200
5.0	1,630	6.0	2,800

Discharge, in second-feet, water year October 1944 to September 1945

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	†508	505	404	451	534	601	†1,100	1,230	1,460	†825	660	557
2	418	402	470	430	512	744	1,130	1,290	1,410	836	708	†386
3	480	554	†321	456	552	722	1,050	1,480	†1,310	829	660	544
4	478	436	557	401	†561	†624	1,040	1,610	1,280	777	647	684
5	472	†554	461	431	787	804	1,040	1,660	1,280	782	†524	679
6	488	498	500	446	793	719	1,030	†1,670	1,080	779	742	584
7	456	512	616	†702	1,430	710	1,120	1,630	1,110	840	653	602
8	†479	552	578	851	2,690	716	†1,280	1,600	1,070	†788	610	610
9	474	590	527	768	2,500	775	1,280	1,530	1,050	763	630	†434
10	412	611	†486	776	1,860	1,080	1,250	1,500	†1,020	738	620	700
11	476	509	508	698	†1,630	†994	1,230	1,620	1,000	760	652	576
12	432	†464	514	918	1,570	849	1,050	1,730	984	760	†462	569
13	436	536	478	1,220	1,510	984	1,100	†1,970	919	725	736	572
14	454	458	436	†1,520	1,376	965	988	2,140	909	726	640	518
15	†428	468	439	1,290	1,340	998	†1,110	2,020	906	†655	454	570
16	436	425	444	1,160	1,290	963	1,070	1,960	916	733	606	†372
17	440	443	†374	930	1,120	1,010	1,060	1,960	†909	732	746	682
18	402	457	416	912	†1,090	†1,030	1,040	1,730	878	692	576	569
19	399	†476	410	812	982	1,070	1,050	1,670	880	732	†450	530
20	441	412	514	795	984	1,630	1,100	†1,560	901	712	704	568
21	434	442	448	†602	907	1,630	1,150	1,480	918	668	560	580
22	†415	431	400	754	887	1,450	†1,260	1,440	904	†664	566	596
23	400	476	390	575	836	1,470	1,130	1,490	885	690	560	†418
24	410	490	†382	617	834	1,150	1,210	1,500	†703	686	560	690
25	400	486	442	596	†724	†1,220	1,240	1,440	1,080	699	540	565
26	454	†522	448	569	641	1,300	1,220	1,390	898	690	†405	573
27	418	527	412	586	706	1,220	1,210	†1,470	843	634	676	515
28	398	563	435	†486	797	1,170	1,160	1,510	860	650	562	550
29	†374	475	420	608	-	1,180	†1,140	1,460	834	†663	526	530
30	414	592	422	560	-	1,120	1,180	1,490	830	663	550	†462
31	423	-	†354	539	-	1,130	-	1,520	-	660	556	-

Month	Second-feet-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	13,549	508	374	437	26,870
November	14,866	611	402	496	29,490
December	14,006	616	321	452	27,780
Calendar year 1944	221,319	1,270	270	605	439,000
January	22,459	1,520	401	724	44,550
February	31,637	2,690	512	1,130	62,750
March	32,228	1,630	624	1,040	63,920
April	34,018	1,280	988	1,134	67,470
May	49,850	2,140	1,230	1,608	98,880
June	30,027	1,460	703	1,001	59,560
July	22,621	840	634	730	44,870
August	18,541	746	405	598	36,780
September	16,785	700	372	560	33,290
Water year 1944-45	300,587	2,690	321	824	596,200

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

Little White Salmon River near Willard, Wash.

Location.- Staff gage, lat. 45°48'00", long. 121°38'30", in SW¼ sec. 26, T. 4 N., R. 9 E., 300 feet upstream from Moss Creek and 1¼ miles north of Willard.

Drainage area.- 40.6 square miles.

Records available.- November 1944 to September 1945.

Extremes.- Maximum discharge observed during period, 1,900 second-feet Feb. 8 (gage height, 6.30 feet); minimum observed, 12 second-feet Aug. 23, 24, 25.

Remarks.- Records good. Gage read once daily, oftener during periods of high water. No diversion or regulation above station.

Rating tables, Nov. 17, 1944, to Sept. 30, 1945 (gage height, in feet, and discharge, in second-feet)

Nov. 17 to Feb. 7						Feb. 8 to Sept. 30					
0.8	12	1.6	81	3.0	361	1.3	26	2.5	195	4.0	710
1.0	23	2.0	135	3.5	520	1.6	55	3.0	330	5.0	1,190
1.3	49	2.5	234	4.0	720	2.0	102	3.5	500	6.0	1,730

Discharge, in second-feet, water year October 1944 to September 1945

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1		-	42	21	61	102	195	132	96	45	21	13
2		-	40	21	59	96	172	142	96	43	21	13
3		-	38	19	70	96	151	151	89	41	20	13
4		-	49	21	70	89	162	142	96	41	18	28
5		-	93	28	120	89	162	132	96	39	18	31
6		-	81	46	151	89	172	124	96	37	18	21
7		-	76	151	640	83	195	116	77	37	18	18
8		-	63	151	1,730	89	233	102	75	37	18	16
9		-	55	106	940	96	220	102	73	35	18	15
10		-	51	100	580	246	208	102	70	33	18	15
11		-	45	93	409	220	220	102	68	33	18	15
12		-	42	160	376	208	208	132	68	33	16	15
13		-	38	307	392	195	184	132	68	31	16	15
14		-	35	307	360	220	184	208	66	31	16	15
15		-	31	234	316	208	184	220	64	30	16	15
16		-	29	189	273	195	184	220	64	31	15	15
17		17	28	179	246	195	172	208	62	30	15	15
18		17	26	211	208	233	162	172	59	30	15	15
19		16	25	189	184	301	184	172	55	28	13	13
20		15	25	151	172	620	184	132	55	28	13	23
21		15	25	135	151	481	184	132	53	28	13	20
22		16	25	120	142	392	195	124	53	28	13	18
23		31	22	106	132	316	172	116	53	26	12	18
24		40	21	100	124	273	151	116	53	26	12	18
25		35	a20	87	116	246	151	109	49	24	12	16
26		45	18	81	116	246	132	102	49	23	16	16
27		66	18	76	109	220	132	116	49	23	16	15
28		45	19	70	102	220	116	116	49	24	15	15
29		45	18	70	-	208	116	109	47	21	15	15
30		44	18	61	-	184	124	109	47	23	13	15
31		-	18	61	-	195	-	102	-	23	13	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff Inches	Runoff Acre-feet
October	-	-	-	-	-	-	-
November 17-30	447	66	15	31.9	0.786	0.41	887
December	1,134	93	18	36.6	.901	1.04	2,250
Calendar year	-	-	-	-	-	-	-
January	3,651	307	19	118	2.91	3.34	7,240
February	8,349	1,730	59	298	7.34	7.65	16,560
March	6,651	620	83	215	5.30	6.09	13,190
April	5,209	233	116	174	4.29	4.77	10,330
May	4,194	220	102	135	3.33	3.84	8,320
June	1,995	96	47	66.5	1.64	1.83	3,960
July	962	45	21	31.0	.764	.88	1,910
August	491	21	12	15.8	.389	.45	974
September	505	31	13	16.8	.414	.46	1,000
The period	-	-	-	-	-	-	66,620

a No gage-height record; discharge interpolated.
Time basis: Pacific war time up to 2 a.m., Sept. 30, 1945; Pacific standard time thereafter.
To convert war time to standard time, subtract 1 hour.

Little White Salmon River at Willard, Wash.
(Formerly published as Little White Salmon River below Lava Creek, near Cooks, Wash.)

Location.- Water-stage recorder, lat. 45°47'00", long. 121°37'30", in NW¼ sec. 1, T. 3 N., R. 9 E., a quarter of a mile downstream from Lava Creek, at Willard.

Drainage area.- 117 square miles (revised).

Records available.- December 1944 to September 1945. November 1903 to August 1906 (fragmentary).

Extremes.- Maximum discharge during period, 2,010 second-feet Feb. 8 (gage height, 9.46 feet, from doubtful high-water mark on gage), from rating curve extended above 1,000 second-feet; minimum, 15 second-feet Sept. 30 (gage height, 1.35 feet).
1903-6, 1944-45: Maximum discharge recorded, that of Feb. 8, 1945; minimum recorded, that of Sept. 30, 1945.

Remarks.- Records excellent except those for period of ice effect or no gage-height record, which are poor. Small diversion for water supply. Other diversions for irrigation and for industrial and hatchery purposes. No regulation.

Rating table, Dec. 1, 1944, to Sept. 30, 1945, except period of ice effect (gage height, in feet, and discharge, in second-feet)

1.4	17	2.6	112	5.0	578
1.6	26	3.0	170	6.0	815
1.8	37	3.3	220	7.0	1,100
2.0	50	3.6	276	8.0	1,440
2.3	77	4.0	358		

Discharge, in second-feet, water year October 1944 to September 1945

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1			85	b65	257	370	532	411	578	348	173	52
2			82	67	248	360	499	422	578	348	167	49
3			80	64	257	360	477	444	555	337	167	49
4			100	64	257	330	466	444	544	337	160	62
5			150	73	326	330	488	433	544	326	151	64
6			140	94	400	330	521	422	532	316	146	55
7			130	268	900	310	555	411	510	316	142	49
8			115	316	1,850	330	601	400	499	306	138	46
9			99	238	1,300	360	578	400	488	296	135	42
10			94	213	1,000	580	578	400	488	296	129	40
11			88	196	800	520	578	411	477	286	126	37
12			*84	292	750	490	578	433	466	286	118	35
13			81	550	800	460	555	488	455	276	116	33
14			79	544	750	520	532	578	455	266	112	32
15			b70	444	700	490	532	578	444	266	107	35
16			b65	400	650	460	532	601	444	257	102	32
17			b65	411	630	500	521	601	433	257	99	31
18			b65	455	600	540	499	578	422	248	95	30
19			b65	433	560	601	510	555	422	248	90	30
20		†17	b65	411	530	950	521	544	411	238	87	32
21			b65	390	520	890	510	532	411	234	82	27
22			b65	368	500	790	488	532	400	229	80	24
23			b60	348	480	601	466	544	390	224	76	24
24			b60	337	460	647	455	532	390	218	73	23
25			b60	326	430	624	433	544	379	210	71	21
26			b60	316	420	624	422	544	379	203	70	20
27			b60	296	400	601	411	578	379	200	66	19
28			b60	286	370	578	400	578	368	194	63	17
29			b60	276	-	555	400	578	368	189	59	16
30			b60	*266	-	544	400	578	358	184	56	15
31			b60	257	-	544	-	578	-	178	53	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	-	-	-	-	-
November	-	-	-	-	-
December	2,472	150	60	79.7	4,900
Calendar year	-	-	-	-	-
January	9,064	550	64	292	17,980
February	17,145	1,850	248	613	34,010
March	16,199	950	310	522	32,110
April	15,038	601	400	501	29,830
May	15,672	601	400	506	31,080
June	13,567	578	358	452	26,910
July	8,117	348	178	262	16,100
August	3,309	173	53	107	6,560
September	1,041	64	15	34.7	2,060
The period	-	-	-	-	201,500

† Result of discharge measurement.
* Winter discharge measurement made on this day.
b Stage-discharge relation affected by ice.
Note.- No gage-height record Dec. 1-8, Feb. 7 to Mar. 18; discharge computed on basis of records for station near Willard.
Time basis: Pacific war time up to 2 a.m., Sept. 30, 1945; Pacific standard time thereafter. To convert war time to standard time, subtract 1 hour.

Wind River above Trout Creek, near Carson, Wash.

Location.- Staff gage, lat. 45°48'30", long. 121°54'30", in NE¼ sec. 26, T. 4 N., R. 7 E., three-quarters of a mile upstream from mouth of Trout Creek and 7 miles northwest of Carson.

Drainage area.- 108 square miles.

Records available.- October 1944 to September 1945.

Extremes.- Maximum discharge during year, 8,880 second-feet Feb. 8 (gage height, 15.5 feet, from high-water mark), from rating curve extended above 5,000 second-feet; minimum observed, 52 second-feet Oct. 27-30.

Remarks.- Records good except those for periods of no gage-height record or shifting control, which are fair. Gage read twice daily. Very small regulation by fish hatchery dam above station. No diversion above station which is not returned to stream.

Rating table, water year 1944-45 (gage height, in feet, and discharge, in second-feet)

1.0	52	2.5	174	5.0	700	9.0	2,550
1.3	69	3.0	240	6.0	1,020	10.0	3,290
1.6	88	3.5	330	7.0	1,440	12.0	4,960
2.0	119	4.0	440	8.0	1,920	14.0	6,940

Discharge, in second-feet, water year October 1944 to September 1945

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	a65	72	390	174	350	415	700	955	540	187	102	84
2	a60	119	390	174	350	415	640	1,060	515	187	102	84
3	a65	150	350	174	440	390	590	1,060	490	174	102	84
4	a70	213	440	174	440	370	565	955	465	174	102	200
5	a85	213	670	240	640	350	615	955	440	162	98	200
6	a80	213	670	350	790	350	670	920	415	156	98	129
7	a75	255	640	1,580	3,210	330	700	885	390	150	98	114
8	a70	370	540	1,350	5,050	350	760	850	370	150	98	106
9	a65	415	465	920	2,760	390	700	790	390	150	95	102
10	a62	390	415	955	1,770	920	670	790	370	144	95	98
11	60	310	390	885	1,530	760	700	955	350	139	95	95
12	a58	272	350	1,720	1,440	730	670	1,020	350	134	95	92
13	57	240	330	2,690	1,480	700	640	1,260	330	134	95	92
14	57	200	310	1,870	1,260	760	615	1,480	310	129	95	88
15	57	200	272	1,400	1,060	700	615	1,260	310	129	95	88
16	57	187	272	1,140	955	700	670	1,350	291	129	95	92
17	57	174	240	1,220	850	730	615	1,350	291	129	92	88
18	57	162	240	1,260	760	730	590	1,140	291	124	92	88
19	57	150	240	1,020	700	955	670	990	291	124	92	88
20	57	144	226	885	640	1,580	760	885	291	119	88	95
21	54	144	226	790	590	1,350	820	790	291	124	88	106
22	54	150	213	700	540	1,180	760	760	255	134	88	102
23	54	187	200	640	540	1,020	760	790	255	124	84	102
24	54	272	200	590	490	885	820	730	240	119	88	98
25	54	272	187	540	465	850	790	670	240	119	88	98
26	54	440	187	490	465	820	730	640	226	114	95	98
27	52	540	174	440	440	760	670	670	213	110	92	95
28	52	465	187	415	415	730	640	640	213	110	88	95
29	52	390	187	390	-	700	640	615	200	110	84	92
30	52	390	174	370	-	760	790	615	200	106	84	92
31	54	-	174	370	-	730	-	590	-	106	84	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff	
						Inches	Acre-feet
October	1,857	85	52	59.9	0.555	0.64	3,680
November	7,699	540	72	257	2.38	2.65	15,270
December	9,949	670	174	321	2.97	3.43	19,730
Calendar year	-	-	-	-	-	-	-
January	25,916	2,690	174	836	7.74	8.92	51,400
February	30,420	5,050	350	1,086	10.1	10.48	60,340
March	26,410	1,580	330	723	6.69	7.72	44,450
April	20,575	820	565	686	6.35	7.09	40,810
May	28,420	1,480	590	917	8.49	9.79	56,370
June	9,823	540	200	327	3.03	3.38	19,480
July	4,200	187	106	135	1.25	1.45	8,330
August	2,887	102	84	93.1	.862	.99	5,730
September	3,085	200	84	103	.954	1.06	6,120
Water year 1944-45	167,241	5,050	52	458	4.24	57.60	331,700

a No gage-height record; discharge interpolated or computed on basis of records for station near Carson.

Note.- Shifting-control method used Oct. 11 to Nov. 9.

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

Wind River near Carson, Wash.

Location.- Water-stage recorder, lat. 45°44'10", long. 121°48'10", in SW¼NE¼ sec. 21, T. 3 N., R. 8 E., three-quarters of a mile upstream from Little Wind River, 1 mile northeast of Carson, and 2½ miles upstream from mouth. Discharge measurements made just downstream from mouth of Little Wind River.

Drainage area.- 225 square miles, including that of Little Wind River.

Records available.- December 1934 to September 1945 (includes flow of Little Wind River).

Average discharge.- 10 years, 963 second-feet.

Extremes.- Maximum discharge during year, 15,300 second-feet Feb. 8 (gage height, 16.62 feet), from rating curve extended above 5,000 second-feet on basis of velocity-area studies; minimum, 145 second-feet Oct. 30 (gage height, 2.65 feet).
1934-45: Maximum discharge, 16,700 second-feet Dec. 29, 1937 (gage height, 17.30 feet), from rating curve extended above 5,000 second-feet on basis of velocity-area studies; minimum, 136 second-feet Nov. 29, Dec. 1, 1936 (gage height, 2.21 feet).

Remarks.- Records good except those below 500 second-feet, which are fair. Flow occasionally affected by pondage at Forest Service power plant on Trout Creek. No diversion above station.

Rating table, water year 1944-45 (gage height, in feet, and discharge, in second-feet)

2.7	151	3.6	304	5.5	910	9.0	3,460
2.9	178	4.0	402	6.0	1,110	10.0	4,650
3.1	209	4.5	550	7.0	1,670	12.0	7,450
3.3	244	5.0	725	8.0	2,440	14.0	10,600

Discharge, in second-feet, water year October 1944 to September 1945

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	174	269	990	339	672	795	1,460	1,670	990	376	235	190
2	165	294	930	339	672	778	1,310	1,920	930	364	235	186
3	171	607	830	339	850	795	1,810	2,110	890	364	226	193
4	195	870	930	351	970	760	1,110	2,110	650	351	226	431
5	235	742	1,550	572	1,630	708	1,340	1,880	812	351	226	475
6	226	708	1,520	962	1,990	690	1,610	1,910	778	339	226	294
7	203	930	1,340	4,250	8,720	672	1,780	1,670	742	327	226	254
8	188	1,090	1,140	3,430	11,000	708	2,190	1,610	708	327	218	235
9	181	1,240	1,010	2,030	6,000	855	1,840	1,460	708	316	218	226
10	175	950	890	1,740	3,920	2,690	1,610	1,370	690	316	218	218
11	170	760	795	1,780	3,240	2,030	1,740	1,610	655	304	218	209
12	170	638	725	3,310	3,240	1,780	1,610	2,030	638	304	218	209
13	168	536	655	5,510	3,570	1,670	1,430	2,620	620	294	218	206
14	165	475	602	4,280	2,920	1,950	1,310	3,240	620	294	218	201
15	163	416	550	3,240	2,270	1,840	1,310	2,920	585	283	209	204
16	161	376	520	2,820	1,920	1,670	1,400	3,130	568	263	209	209
17	160	351	475	3,020	1,670	1,670	1,310	3,020	550	283	209	206
18	159	327	460	3,240	1,460	1,810	1,260	2,530	550	283	206	203
19	158	316	445	2,440	1,280	2,460	1,400	2,110	535	273	206	199
20	155	294	430	1,950	1,180	4,400	1,610	1,780	520	273	201	235
21	154	283	402	1,610	1,090	3,460	1,810	1,550	520	273	199	244
22	152	294	389	1,370	1,030	2,720	1,640	1,460	490	304	196	235
23	152	397	376	1,210	990	2,350	1,550	1,460	475	283	195	226
24	152	638	351	1,090	930	1,990	1,700	1,310	460	273	195	235
25	150	585	339	990	890	1,810	1,640	1,240	445	263	198	226
26	149	1,040	327	910	870	1,700	1,550	1,160	430	263	209	226
27	147	1,280	327	850	850	1,610	1,370	1,180	416	254	206	218
28	146	1,010	327	795	812	1,550	1,280	1,160	402	254	198	218
29	146	850	327	742	-	1,490	1,280	1,110	389	244	195	209
30	147	930	316	708	-	1,400	1,490	1,110	389	244	193	209
31	163	-	316	690	-	1,520	-	1,050	-	235	192	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff Inches	Runoff Acre-feet
October	5,200	235	146	168	0.747	0.86	10,310
November	19,495	1,280	269	650	2.89	3.22	38,670
December	20,584	1,550	316	664	2.95	3.40	40,830
Calendar year 1944	204,743	3,600	146	559	2.48	33.84	406,100
January	56,907	5,510	339	1,836	8.16	9.41	112,900
February	86,636	11,000	672	2,380	10.6	11.01	132,200
March	52,331	4,400	672	1,688	7.50	8.65	103,800
April	45,150	2,190	1,110	1,505	6.69	7.46	89,550
May	56,390	3,240	1,050	1,819	8.08	9.32	111,800
June	18,355	990	389	612	2.72	3.03	36,410
July	9,195	376	235	297	1.32	1.52	18,240
August	6,542	235	192	211	.938	1.08	12,980
September	7,029	475	186	234	1.04	1.16	13,940
Water year 1944-45	363,814	11,000	146	997	4.43	60.12	721,600

Peak discharge.- Jan. 7 (4:30 p.m.) 5,580 sec.-ft.; Jan. 13 (1:30 p.m.) 6,700 sec.-ft.; Feb. 8 (5:45 p.m.) 15,300 sec.-ft.; Mar. 20 (10:30 a.m.) 4,910 sec.-ft.
Time basis: Pacific war time up to 2 a.m., Sept. 30, 1945; Pacific standard time thereafter. To convert war time to standard time, subtract 1 hour.

Falls Creek near Carson, Wash.

Location.- Water-stage recorder, lat. 45°54'30", long. 121°56'30", in SW¼ sec. 21, T. 5 N., R. 7 E., a third of a mile upstream from mouth and 14 miles northwest of Carson.

Drainage area.- 24.3 square miles.

Records available.- December 1944 to September 1945.

Extremes.- Maximum discharge recorded during period, 560 second-feet Feb. 8 (gage height, 4.05 feet), from rating curve extended above 200 second-feet; minimum, 15 second-feet Sept. 29, 30 (gage height, 1.73 feet). Discharge of 8.7 second-feet was measured Oct. 29, 1944.

Remarks.- Records good except those above 300 second-feet, and those for periods of ice effect or shifting control, which are fair. No diversion or regulation above station.

Rating table, Oct. 29, Dec. 1, 1944, to Sept. 30, 1945, except periods of ice effect or shifting control (gage height, in feet, and discharge, in second-feet)

1.7	13	2.7	136
1.9	26	3.0	208
2.1	44	3.3	295
2.3	68	3.6	394
2.5	98	4.0	540

Discharge, in second-feet, water year October 1944 to September 1945

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1			a65	23	47	69	72	122	138	46	24	17
2			63	23	55	67	67	140	130	45	24	16
3			58	28	79	64	63	168	126	43	24	18
4			74	29	75	62	62	172	120	42	24	48
5			92	43	105	58	75	170	116	40	23	33
6			90	53	105	55	78	170	111	39	22	23
7			85	156	326	53	82	168	107	38	22	20
8			76	136	465	54	102	165	105	37	22	19
9			68	109	301	63	85	158	103	36	22	18
10			63	114	228	107	81	168	100	36	22	17
11			58	120	216	85	82	208	95	35	21	17
12			53	220	195	68	76	228	90	34	20	16
13			*43	311	195	87	69	253	87	33	21	16
14			38	236	170	82	65	289	85	32	20	16
15			35	190	149	78	68	262	81	31	20	16
16			32	165	136	75	68	289	78	31	20	17
17			30	172	128	76	67	268	76	31	19	16
18			28	151	118	74	66	239	76	30	19	16
19			27	138	109	105	71	219	75	29	18	16
20			26	122	103	182	79	200	74	29	18	23
21			26	107	98	151	92	190	72	30	17	22
22			25	96	92	134	95	185	68	34	17	20
23			25	87	88	118	103	192	64	30	17	21
24			25	80	82	102	109	175	62	29	17	20
25			25	73	78	98	105	165	59	28	18	19
26			24	67	76	93	100	158	56	27	20	18
27			24	60	75	85	100	160	54	26	18	17
28			23	56	71	81	96	158	53	26	17	16
29	†8.7		23	*53	-	78	100	151	50	26	17	15
30			23	50	-	75	114	154	48	26	17	15
31			23	48	-	75	-	147	-	25	17	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff: Inches	Runoff: Acre-feet
October	-	-	-	-	-	-	-
November	-	-	-	-	-	-	-
December	1,370	92	23	44.2	1.82	2.10	2,720
Calendar year	-	-	-	-	-	-	-
January	3,316	311	23	107	4.40	5.07	6,580
February	3,965	465	47	142	5.84	6.07	7,860
March	2,674	182	53	86.3	3.55	4.09	5,300
April	2,494	114	62	83.1	3.42	3.82	4,950
May	5,891	289	122	190	7.82	9.02	11,680
June	2,559	138	48	85.3	3.51	3.92	5,080
July	1,024	46	25	33.0	1.36	1.57	2,030
August	617	24	17	19.9	.819	.94	1,220
September	581	48	15	19.4	.798	.89	1,150
The period	-	-	-	-	-	-	49,570

* Winter discharge measurement made on this day.
† Result of discharge measurement.
a No gage-height record; discharge computed on basis of records for nearby streams.
Note.- Stage-discharge relation affected by ice Dec. 13 to Jan. 2, Jan. 23 to Feb. 1; shifting-control method used Mar. 21 to May 7.
Time basis: Pacific war time up to 2 a.m., Sept. 30, 1945; Pacific standard time thereafter. To convert war time to standard time, subtract 1 hour.

Trout Creek near Carson, Wash.

Location.- Water-stage recorder, lat. 45°48'00", long. 121°55'00", in SW¼ sec. 26, T. 4 N., R. 7 E., a quarter of a mile upstream from Martha Creek, half a mile upstream from mouth, and 7 miles northwest of Carson.

Drainage area.- 30.3 square miles.

Records available.- December 1944 to September 1945.

Extremes.- Maximum discharge during period, 3,040 second-feet Feb. 7 (gage height, 9.10 feet), from rating curve extended above 800 second-feet; minimum, 3.4 second-feet (regulated) June 19 (gage height, 1.34 feet).

Remarks.- Records good except those for periods of ice effect or no gage-height record, and those above 1,000 second-feet, which are fair. Some regulation at Forest Service power plant. No diversion above station.

Rating table, Dec. 1, 1944, to Sept. 30, 1945, except periods of ice effect (gage height, in feet, and discharge, in second-feet)

1.4	4.0	2.3	46	3.6	250	5.5	870
1.6	8.5	2.6	78	4.0	343	6.0	1,120
1.8	16	3.0	133	4.5	484	7.0	1,670
2.0	26	3.3	187	5.0	655	8.0	2,270

Discharge, in second-feet, water year October 1944 to September 1945

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1			a150	48	b87	96	279	395	157	34	12	5.2
2			a150	46	*b85	95	246	438	145	34	12	5.0
3			a140	44	157	102	215	468	133	32	11	5.6
4			a175	47	176	94	199	453	123	30	10	116
5			a450	118	350	85	309	395	113	29	10	87
6			a440	308	382	82	356	382	106	28	10	36
7			368	1,160	1,850	80	356	368	99	27	9.3	26
8			300	703	1,900	94	343	343	93	26	8.9	21
9			248	423	949	149	293	314	90	25	8.5	18
10			209	395	594	484	279	297	85	25	8.2	16
11			179	409	549	343	302	343	83	23	8.2	16
12			154	802	549	309	268	423	79	22	8.0	15
13			133	1,120	636	274	232	532	78	22	8.0	14
14			*117	778	484	307	211	674	78	21	7.8	14
15			106	566	368	270	222	583	71	20	7.5	15
16			94	466	312	243	250	600	67	20	7.0	18
17			b88	562	265	243	232	583	65	20	6.8	16
18			b92	566	222	261	237	500	67	19	6.8	15
19			b76	423	191	330	279	395	38	18	6.5	13
20			b72	331	170	718	331	331	56	17	6.0	a30
21			b66	272	152	500	368	293	56	19	5.8	a24
22			62	224	140	395	343	263	53	27	6.0	a22
23			55	193	130	343	343	252	50	20	5.6	a24
24			52	166	117	288	409	226	47	19	5.6	a23
25			b50	147	110	270	395	206	44	17	6.0	a22
26			b49	128	109	259	343	193	43	16	10	a21
27			b48	116	107	241	317	193	42	15	8.0	a20
28			b48	104	99	252	297	131	41	14	6.8	a19
29	†9.5		b48	b98	-	257	312	179	38	14	6.2	a19
30			b48	b94	-	246	368	181	36	13	5.6	a19
31			b48	b90	-	295	-	172	-	12	5.2	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff	
						Inches	Acre-feet
October	-	-	-	-	-	-	-
November	-	-	-	-	-	-	-
December	4,305	450	48	139	4.59	5.28	8,540
Calendar year	-	-	-	-	-	-	-
January	10,949	1,160	44	353	11.7	13.44	21,720
February	11,240	1,900	85	401	13.2	13.80	22,290
March	8,005	718	80	258	8.51	9.83	15,880
April	8,934	409	199	298	9.83	10.97	17,720
May	11,155	674	172	360	11.9	13.69	22,130
June	2,276	157	36	75.9	2.50	2.79	4,510
July	678	34	12	21.9	.723	.83	1,340
August	243.3	12	5.2	7.85	.259	.30	483
September	714.8	116	5.0	23.8	.785	.88	1,420
The period	-	-	-	-	-	-	116,000

† Result of discharge measurement.
* Winter discharge measurement made on this day.
a No gage-height record; discharge computed on basis of recorded range in stage and records for stations on nearby streams.
b Stage-discharge relation affected by ice.
Time basis: Pacific war time up to 2 a.m., Sept. 30, 1945; Pacific standard time thereafter. To convert war time to standard time, subtract 1 hour.

Panther Creek near Carson, Wash.

Location.- Water-stage recorder, lat. 45°48'00", long. 121°52'00", in SW¼ sec. 25, T. 4 N., R. 7½ E., a third of a mile upstream from Cedar Creek and 6 miles north of Carson.

Drainage area.- 30.1 square miles.

Records available.- December 1944 to September 1945.

Extremes.- Maximum discharge during period, 2,150 second-feet Feb. 7 (gage height, 5.0 feet); minimum, 47 second-feet Aug. 31 to Sept. 2 (gage height, 0.90 foot).

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

Rating tables, Dec. 1, 1944, to Sept. 30, 1945 (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used May 14-17)

Dec. 1 to May 17						May 18 to Sept. 30			
1.0	51	1.8	229	3.0	730	0.9	47	1.6	192
1.2	79	2.0	290	3.5	1,050	1.0	62	1.8	255
1.4	123	2.3	392	4.0	1,400	1.2	100	2.0	302
1.6	174	2.6	510	4.5	1,750	1.4	143	2.3	398

Discharge, in second-feet, water year October 1944 to September 1945

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1			a95	55	a85	92	188	204	139	82	58	47
2			a95	53	85	90	171	226	134	82	58	47
3			a86	55	109	87	153	241	130	80	56	48
4			a110	59	130	85	138	223	128	78	56	69
5			a165	87	244	81	161	196	123	78	58	59
6			a165	156	300	79	201	182	121	78	56	53
7			156	562	1,220	79	235	171	119	76	56	52
8			140	392	1,560	85	290	156	117	76	54	50
9			125	256	754	121	268	143	113	75	54	50
10			107	212	434	356	258	136	110	75	53	52
11			98	201	342	274	238	143	108	75	53	50
12			87	336	329	247	229	179	106	73	53	50
13			79	608	388	241	201	256	106	73	53	52
14			73	446	339	244	182	378	104	73	52	52
15			69	336	274	235	188	336	102	71	52	53
16			66	322	229	a235	193	363	100	71	50	52
17			63	385	196	a250	182	367	96	71	50	52
18			62	403	171	a250	174	314	94	69	48	52
19			61	316	151	a300	196	267	94	69	48	50
20			59	253	138	a500	229	232	92	67	48	58
21			58	215	128	438	250	205	90	71	50	54
22			57	182	118	342	226	195	90	71	50	53
23			56	161	114	303	201	187	92	67	48	54
24			55	140	107	259	198	177	92	67	48	53
25			53	a130	102	235	190	170	90	66	52	53
26			52	a120	100	223	171	162	90	66	52	53
27			53	a110	96	212	158	162	88	62	50	52
28			53	a105	92	201	148	155	86	60	50	52
29			52	a96	-	196	151	150	86	59	48	50
30	†40		51	a92	-	188	177	148	84	58	48	50
31			51	a88	-	196	-	143	-	58	47	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff Inches	Runoff Acre-feet
October	-	-	-	-	-	-	-
November	-	-	-	-	-	-	-
December	2,550	165	51	82.3	2.73	3.15	5,080
Calendar year	-	-	-	-	-	-	-
January	6,952	608	53	224	7.44	8.59	13,790
February	8,335	1,560	85	298	9.90	10.30	16,530
March	6,724	500	79	217	7.21	8.31	13,340
April	5,925	290	138	198	6.58	7.32	11,750
May	6,567	378	136	212	7.04	8.11	13,030
June	3,124	139	84	104	3.46	3.86	6,200
July	2,197	82	58	70.9	2.36	2.71	4,360
August	1,609	58	47	51.9	1.72	1.99	3,190
September	1,572	69	47	52.4	1.74	1.94	3,120
The period	-	-	-	-	-	-	90,370

† Discharge measurement.
a No gage-height record; discharge computed on basis of recorded range in stage and records for Wind River above Trout Creek, near Carson.
Time basis: Pacific war time up to 2 a.m., Sept. 30, 1945; Pacific standard time thereafter. To convert war time to standard time, subtract 1 hour.

Sandy River near Marmot, Oreg.

Location.- Water-stage recorder, lat. 45°23', long. 122°08', in NE¼ sec. 24, T. 2 S., R. 5 E., 1 mile southwest of Marmot, 1½ miles upstream from Sandy River Dam of Portland General Electric Co., and 5 miles downstream from Salmon River.

Drainage area.- 282 square miles.

Records available.- August 1911 to December 1915, July 1919 to September 1945. Equivalent records for period January 1916 to June 1919 obtained by combining records for Sandy River below dam near Marmot with records for Sandy River Canal near Marmot.

Average discharge.- 34 years, 1,294 second-feet.

Extremes.- Maximum discharge during year, 10,200 second-feet Feb. 13 (gage height, 9.78 feet); minimum, 270 second-feet Oct. 28, 29 (gage height, 2.25 feet).
1911-45: Maximum discharge, 29,200 second-feet Jan. 6, 1923 (gage height, 17.5 feet, site and datum then in use), by computation of flow over dam; minimum, 205 second-feet Sept. 21-24, 1940.

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

Cooperation.- Water-stage recorder inspected by employee of Portland General Electric Co.

Rating tables, water year 1944-45 (gage height, in feet, and discharge, in second-feet)

Oct. 1 to Jan. 8						Jan. 9 to Sept. 30					
2.3	285	3.6	920	5.6	2,800	2.3	290	3.6	960	6.5	4,140
2.7	435	4.2	1,360	6.5	4,140	2.5	370	4.2	1,410	7.6	6,050
3.1	625	4.8	1,880	7.6	6,050	2.8	500	4.8	1,950	8.8	8,290
						3.2	710	5.6	2,820		

Discharge, in second-feet, water year October 1944 to September 1945

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	352	415	713	625	710	974	1,580	3,680	1,590	600	402	318
2	324	391	658	636	734	947	1,390	4,170	1,460	616	398	322
3	359	773	595	575	824	1,010	1,260	4,030	1,360	511	394	318
4	453	741	889	580	830	947	1,160	3,850	1,270	585	386	582
5	590	555	1,400	920	1,100	882	1,450	3,290	1,180	580	386	925
6	471	535	1,230	2,880	1,200	850	1,770	3,070	1,130	585	382	464
7	399	691	1,350	5,960	3,130	818	2,030	2,820	1,090	595	398	382
8	367	580	1,160	3,270	5,560	806	2,340	2,620	1,040	595	402	358
9	344	555	969	2,040	4,220	895	1,930	2,400	1,040	585	386	322
10	344	498	819	1,700	2,860	1,610	1,790	2,440	1,000	585	378	318
11	338	458	718	1,430	3,210	1,420	1,960	2,350	960	565	374	314
12	330	427	658	3,070	3,650	1,570	1,800	2,630	928	535	366	310
13	324	399	590	4,450	8,210	1,620	1,560	2,950	988	525	366	310
14	324	379	555	3,280	4,400	1,610	1,490	3,120	1,000	525	362	306
15	316	363	516	2,680	2,910	1,460	1,630	4,270	895	496	354	370
16	310	352	494	2,880	2,260	1,310	1,830	4,840	843	491	354	414
17	302	341	480	2,710	1,940	1,240	1,640	4,560	824	473	350	382
18	292	334	466	2,660	1,640	1,190	1,730	3,770	830	460	342	366
19	288	324	466	2,110	1,440	1,350	2,110	2,980	812	450	326	326
20	285	320	502	1,730	1,330	1,810	2,520	2,500	812	464	318	651
21	282	316	516	1,470	1,210	1,800	2,990	2,350	830	486	314	580
22	285	320	471	1,270	1,160	1,860	2,430	2,150	770	530	330	515
23	282	415	435	1,130	1,150	1,900	2,760	2,000	740	510	330	655
24	279	560	427	1,040	1,060	1,630	5,290	1,820	722	473	326	540
25	273	520	407	960	1,030	1,570	3,870	1,670	728	468	382	491
26	276	976	395	895	1,040	1,540	2,850	1,620	710	450	486	505
27	276	1,140	395	824	1,050	1,430	2,510	2,560	666	442	370	446
28	273	813	415	770	981	1,430	2,520	2,380	650	446	342	402
29	270	674	423	752	-	1,440	2,960	2,140	638	437	334	378
30	282	664	403	722	-	1,380	3,840	1,980	611	414	318	362
31	320	-	395	722	-	1,690	-	1,810	-	402	314	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff	
						Inches	Acre-feet
October	10,210	590	270	329	1.26	1.45	20,250
November	15,829	1,140	316	528	2.02	2.25	31,400
December	19,910	1,400	395	642	2.45	2.83	39,490
Calendar year 1944	308,333	4,980	270	842	3.21	43.77	611,600
January	56,741	5,960	575	1,830	6.98	8.05	112,500
February	60,839	8,210	710	2,173	8.29	8.64	120,700
March	41,989	1,900	806	1,354	5.17	5.96	83,280
April	66,990	5,290	1,160	2,233	8.52	9.51	132,900
May	89,020	4,840	1,620	2,872	11.0	12.64	176,600
June	28,117	1,590	611	937	3.58	3.99	55,770
July	15,979	616	402	515	1.97	2.27	31,690
August	11,270	486	314	364	1.39	1.60	22,350
September	12,912	925	306	430	1.64	1.83	25,610
Water year 1944-45	429,806	8,210	270	1,178	4.50	61.02	852,500

Peak discharge.- Jan. 7 (12 m.) 7,930 sec.-ft.; Jan. 13 (12:30 p.m.) 5,760 sec.-ft.; Feb. 8 (8 a.m.) 6,660 sec.-ft.; Feb. 13 (4:30 a.m.) 10,200 sec.-ft.; Apr. 24 (11 a.m.) 5,870 sec.-ft.
Time basis: Pacific war time up to 2 a.m., Sept. 30, 1945; Pacific standard time thereafter. To convert war time to standard time, subtract 1 hour.

Sandy River below Bull Run River, near Bull Run, Oreg.

Location.- Water-stage recorder, lat. 45°27', long. 122°15', in NW¼ sec. 30, T. 1 S., R. 5 E., 1 mile downstream from Bull Run River and 2 miles northwest of Bull Run. Altitude of gage, 202 feet (from river-profile map).

Drainage area.- 440 square miles.

Records available.- October 1929 to September 1945. April 1910 to September 1914 at site three-quarters of a mile upstream.

Average discharge.- 19 years (1910-11, 1912-14, 1929-45), 2,152 second-feet.

Extremes.- Maximum discharge during year, 21,400 second-feet Feb. 13 (gage height, 11.90 feet); minimum, 60 second-feet (regulated) Aug. 23 (gage height, 0.70 foot); minimum daily, 104 second-feet Aug. 19.
1910-14, 1929-45: Maximum discharge, 58,000 second-feet Mar. 31, 1931 (gage height, 20.6 feet), from rating curve extended above 15,000 second-feet; minimum, 53 second-feet (regulated) Oct. 4, 1931 (gage height, 0.53 foot); minimum daily, that of Aug. 19, 1945.

Remarks.- Records good except those for period of no gage-height record, which are fair. No diversion above station for irrigation; about 60,000 acre-feet annually diverted from Bull River River by Portland Water Bureau. Flow slightly regulated by Bull Run Lake and Lake Ben Morrow Reservoir of Portland Water Bureau; considerable diurnal fluctuation by Bull Run power plant of Portland General Electric Co.

Discharge, in second-feet, water year October 1944 to September 1945

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	441	566		858	1,070	1,540	2,640	6,220	2,550	678	484	470
2	466	565		1,140	1,200	1,550	2,590	6,450	2,360	764	490	174
3	540	1,050		1,010	1,370	1,730	2,140	6,890	1,750	715	548	393
4	744	1,300		966	1,190	1,240	1,920	6,160	2,030	633	580	744
5	910	951	a2,350	1,820	1,940	1,600	2,590	5,290	1,800	728	-244	1,250
6	871	1,040		6,150	2,190	1,260	3,550	4,420	1,640	657	472	668
7	732	1,690		13,800	6,930	1,380	4,280	4,640	1,590	714	438	616
8	314	1,420		7,660	12,000	1,300	5,440	4,080	1,530	687	478	555
9	494	1,410	1,970	4,100	8,380	1,400	4,450	3,480	1,540	672	502	130
10	488	1,270	1,450	3,170	5,210	3,300	3,640	3,840	1,210	684	497	476
11	435	1,110	1,470	2,690	5,700	2,840	4,120	3,780	1,490	660	538	374
12	450		1,140	6,240	6,050	3,240	3,730	4,740	1,320	646	298	386
13	522		1,150	10,100	16,900	3,330	3,080	5,460	1,350	618	512	412
14	574		1,010	7,140	8,120	3,290	2,760	6,580	1,380	634	424	428
15	192		740	5,900	5,040	2,930	2,820	8,120	1,270	482	394	540
16	442		982	6,710	3,840	2,570	3,360	10,000	1,190	698	434	330
17	419		666	5,900	3,240	2,370	2,830	10,700	909	559	552	510
18	400		701	6,300	2,710	2,210	2,800	7,830	1,240	588	478	480
19	452		768	4,660	2,330	2,740	3,250	5,700	1,010	522	104	446
20	491		795	3,490	2,120	3,830	3,940	4,480	986	546	446	822
21	376	a1,060	874	2,560	1,900	3,890	4,700	3,980	1,030	638	354	842
22	158		835	2,410	1,840	3,670	3,680	3,490	990	462	366	728
23	415		820	1,930	1,890	3,850	4,410	3,290	1,030	714	375	783
24	343		329	1,770	1,710	3,160	8,900	3,090	716	564	462	798
25	331		620	1,680	1,340	2,980	6,600	2,650	917	556	658	677
26	311		598	1,490	1,740	3,000	4,840	2,580	829	532	438	714
27	360		586	1,300	1,730	2,650	4,100	4,280	812	527	530	617
28	548		647	1,000	1,530	2,620	4,200	4,310	826	624	386	624
29	152		808	1,240	-	2,520	4,590	3,630	769	414	384	512
30	332		704	1,110	-	2,540	6,240	3,160	795	512	454	340
31	446	-	496	1,110	-	2,950	-	2,930	-	492	439	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff	
						Inches	Acre-feet
October	14,149	910	152	456	1.04	1.20	28,060
November	32,512	-	-	1,084	2.46	2.75	64,490
December	38,959	-	329	1,257	2.86	3.29	77,270
Calendar year 1944	510,210	10,400	152	1,394	3.17	43.13	1,012,000
January	117,404	13,800	858	3,787	8.61	9.92	232,900
February	111,210	16,900	1,070	3,972	9.03	9.40	220,600
March	79,480	3,890	1,240	2,564	5.83	6.72	157,600
April	118,190	8,900	1,920	3,940	8.95	9.99	234,400
May	156,250	10,700	2,580	5,040	11.5	13.21	309,900
June	38,859	2,550	716	1,295	2.94	3.28	77,080
July	18,920	764	414	610	1.39	1.60	37,530
August	13,759	658	104	444	1.01	1.16	27,290
September	16,839	1,250	130	561	1.28	1.42	33,400
Water year 1944-45	756,531	16,900	104	2,073	4.71	63.94	1,501,000

Peak discharge.- Jan. 7 (2 p.m.) 18,700 sec.-ft.; Feb. 8 (10 a.m.) 14,700 sec.-ft.; Feb. 13 (7 a.m.) 21,400 sec.-ft.

a No gage-height record; discharge computed on basis of records for Sandy River near Marmot, Bull Run River near Bull Run, and Little Sandy River near Bull Run.

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

Salmon River near Government Camp, Oreg.

Location.- Water-stage recorder, lat. 45°16', long. 121°43', in sec. 31, T. 3 S., R. 9 E., near lower end of Red Top Meadows, 4 miles southeast of Government Camp. Datum of gage is 3,446.45 feet above mean sea level, datum of 1929.

Drainage area.- 8.7 square miles.

Records available.- May 1910 to May 1912, April 1926 to September 1945.

Average discharge.- 20 years (1910-11, 1926-45), 39.8 second-feet.

Extremes.- Maximum discharge during year, 312 second-feet Jan. 7 (gage height, 2.55 feet); minimum, 16 second-feet Oct. 25-30.
1910-12, 1926-45: Maximum discharge, 650 second-feet Dec. 22, 1933 (gage height, 3.61 feet); minimum, 12 second-feet Nov. 21, 1929, Oct. 19, 1930, Nov. 2, 10-12, Nov. 28 to Dec. 4, 1936.

Remarks.- Records good except those above 100 second-feet, which are fair. No diversion or regulation above station.

Discharge, in second-feet, water year October 1944 to September 1945

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	19	24	25	28	22	27	28	104	80	41	26	20
2	18	20	22	23	22	26	26	122	74	41	25	20
3	20	47	22	23	24	26	24	135	71	40	25	20
4	22	28	39	23	23	25	24	130	67	39	24	30
5	27	23	38	32	28	25	25	116	64	38	24	30
6	20	26	33	86	24	24	26	110	63	38	23	23
7	19	27	36	153	78	24	27	107	63	37	23	21
8	18	23	28	51	105	24	29	102	60	36	23	21
9	18	22	25	37	59	24	25	95	62	35	23	20
10	17	21	24	41	50	29	24	96	59	35	23	20
11	17	21	22	35	71	26	24	96	58	35	23	20
12	18	20	22	89	59	29	23	118	56	34	22	19
13	18	19	22	115	126	28	23	118	67	33	22	19
14	18	19	22	65	61	26	26	112	64	32	22	19
15	18	19	21	54	50	24	36	139	56	32	22	27
16	18	19	21	46	44	24	36	144	53	32	21	22
17	17	19	21	41	41	24	34	119	52	31	21	23
18	17	19	21	37	37	23	43	103	52	30	21	21
19	17	18	22	34	35	24	51	92	51	30	21	19
20	17	18	26	31	34	32	59	83	52	30	20	36
21	17	18	24	28	32	31	68	82	52	30	20	26
22	17	19	23	27	32	30	62	78	50	30	20	28
23	17	24	21	26	31	29	77	77	48	30	20	31
24	17	21	21	24	30	26	105	72	47	28	21	25
25	17	22	20	24	28	27	70	69	47	28	28	23
26	16	41	20	23	28	28	59	70	46	27	28	22
27	16	29	20	23	28	27	57	110	45	26	22	20
28	16	23	21	22	28	28	62	92	44	26	22	20
29	16	22	21	22	-	28	74	91	44	26	21	19
30	17	25	20	22	-	30	105	93	42	26	21	18
31	20	-	20	22	-	37	-	87	-	25	20	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff	
						Inches	Acre-feet
October	559	27	16	18.0	2.07	2.39	1,110
November	696	47	18	23.2	2.67	2.98	1,380
December	743	39	20	24.0	2.76	3.18	1,470
Calendar year 1944	11,923	102	16	32.6	3.75	50.97	23,650
January	1,306	153	22	42.1	4.84	5.58	2,590
February	1,230	126	22	43.9	5.06	5.26	2,440
March	835	37	23	26.9	3.09	3.57	1,660
April	1,352	105	23	45.1	5.18	5.78	2,680
May	3,162	144	69	102	11.7	13.52	6,270
June	1,689	80	42	56.3	6.47	7.22	3,350
July	1,001	41	25	32.3	3.71	4.28	1,990
August	697	28	20	22.5	2.59	2.98	1,380
September	680	31	18	22.7	2.61	2.91	1,350
Water year 1944-45	13,950	153	16	38.2	4.39	58.65	27,670

Peak discharge.- Jan. 6 (4:30 p.m.) 177 sec.-ft.; Jan. 7 (8 a.m.) 312 sec.-ft.; Jan. 13 (9 a.m.) 227 sec.-ft.; Feb. 8 (5 a.m.) 150 sec.-ft.; Feb. 13 (3 a.m.) 189 sec.-ft.
Time basis: Pacific war time up to 2 a.m., Sept. 30, 1945; Pacific standard time thereafter. To convert war time to standard time, subtract 1 hour.

Salmon River below Linney Creek, Oreg.

Location.- Water-stage recorder, lat. 45°13', long. 121°52', 200 feet downstream from Linney Creek, 9 miles southeast of Welches, and 11 miles downstream from station near Government Camp.

Drainage area.- 54 square miles.

Records available.- October 1927 to September 1945.

Average discharge.- 18 years, 194 second-feet.

Extremes.- Maximum discharge during year, 1,030 second-feet Feb. 13 (gage height, 3.11 feet); minimum, 50 second-feet Oct. 29, 30 (gage height, 0.41 foot).
1927-45: Maximum discharge, 4,070 second-feet Mar. 31, 1931 (gage height, 5.81 feet), from rating curve extended above 1,500 second-feet; minimum, 37 second-feet Nov. 2, 1936 (gage height, 0.22 foot).

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

Rating table, water year 1944-45 (gage height, in feet, and discharge, in second-feet)

0.4	49	1.6	302
.6	73	1.9	413
.8	102	2.2	536
1.0	136	2.5	680
1.3	206	2.9	900

Discharge, in second-feet, water year October 1944 to September 1945

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	58	81	98	87	110	142	212	746	235	118	74	58
2	56	76	84	79	108	136	188	818	268	116	73	58
3	58	136	77	73	115	134	175	884	255	112	73	58
4	65	100	102	74	115	129	168	872	242	110	72	72
5	84	73	123	98	151	125	178	784	230	107	69	88
6	65	74	110	223	138	122	190	724	224	105	68	68
7	58	86	123	597	294	118	201	665	218	104	68	61
8	56	76	105	324	610	116	235	620	206	102	66	59
9	54	76	93	227	476	118	201	571	203	100	66	57
10	52	68	86	215	368	144	185	554	196	98	65	54
11	51	65	80	185	457	136	180	523	185	96	65	54
12	52	61	73	362	416	153	168	590	180	94	65	56
13	53	59	70	502	845	153	168	620	201	93	65	53
14	57	57	69	383	549	144	185	605	206	92	64	52
15	56	56	63	331	425	134	236	708	175	90	65	65
16	53	56	66	309	356	129	271	708	166	90	65	72
17	52	54	69	271	313	127	258	670	162	88	63	66
18	52	54	69	242	271	123	292	590	155	88	63	59
19	51	54	77	212	242	132	353	523	153	86	61	54
20	51	53	84	186	221	180	425	486	149	84	60	94
21	51	54	80	171	201	183	523	453	146	84	59	81
22	51	56	73	157	188	195	474	429	142	87	59	70
23	52	73	61	146	178	193	549	394	138	86	59	90
24	51	74	65	136	166	164	645	364	132	81	59	72
25	52	69	61	132	159	173	665	338	132	80	68	66
26	52	125	58	123	159	180	562	324	131	79	81	69
27	52	123	63	115	153	175	523	394	129	79	65	61
28	51	87	65	110	144	180	523	364	127	77	61	57
29	50	77	64	113	-	185	558	331	125	76	60	54
30	52	88	61	112	-	190	702	320	122	76	59	53
31	63	-	61	110	-	242	-	306	-	74	58	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff	
						Inches	Acre-feet
October	1,711	84	50	55.2	1.02	1.18	3,390
November	2,241	136	53	74.7	1.38	1.54	4,440
December	2,433	123	58	78.5	1.45	1.68	4,830
Calendar year 1944	50,266	457	50	137	2.54	34.62	99,700
January	6,407	597	73	207	3.83	4.41	12,710
February	7,930	845	108	283	5.24	5.46	15,730
March	4,735	242	116	153	2.83	3.26	9,390
April	10,391	845	168	346	6.41	7.16	20,610
May	17,278	884	306	557	10.3	11.90	34,270
June	5,383	285	122	179	3.31	3.71	10,680
July	2,852	118	74	92.0	1.70	1.96	5,660
August	2,018	81	58	65.1	1.21	1.39	4,000
September	1,931	94	52	64.4	1.19	1.33	3,830
Water year 1944-45	65,310	884	50	179	3.31	44.98	129,500

Peak discharge.- Jan. 7 (11 a.m.) 694 sec.-ft.; Jan. 13 (1 p.m.) 686 sec.-ft.; Feb. 8 (8 a.m.) 713 sec.-ft.; Feb. 13 (6 a.m.) 1,030 sec.-ft.
Time basis: Pacific war time up to 2 a.m., Sept. 30, 1945; Pacific standard time thereafter. To convert war time to standard time, subtract 1 hour.

Salmon River above Boulder Creek, near Brightwood, Oreg.

Location.- Water-stage recorder, lat. 45°22', long. 122°01', in SW¼SE¼ sec. 25, T. 2 S., R. 6 E., 1 mile upstream from Boulder Creek, 1¼ miles south of Brightwood, and 2¼ miles upstream from mouth. Datum of gage is 1,089.2 feet above mean sea level, datum of 1929 (levels by Corps of Engineers, U. S. Army).

Drainage area.- 106 square miles.

Records available.- August 1936 to September 1945. October 1912 to March 1917 (gage heights only), at site at fish hatchery below Boulder Creek. August 1913 to September 1914, July 1920 to September 1921, April 1925 to September 1936 at sites at or near Welches, about 5 miles above present site.

Extremes.- Maximum discharge during year, 4,630 second-feet Feb. 13 (gage height, 4.88 feet); minimum, 68 second-feet Oct. 27-30 (gage height, 0.59 foot).
1913-14, 1920-21, 1925-45: Maximum discharge, 13,000 second-feet Mar. 31, 1931 (gage height, 9.80 feet at Welches), from rating curve extended above 4,800 second-feet; minimum, 59 second-feet Nov. 30, Dec. 1, 1936, Sept. 25, 26, 1940.

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

Rating tables, water year 1944-45 (gage height, in feet, and discharge, in second-feet)

Oct. 1 to Jan. 6				Jan. 7 to Sept. 30			
0.6	70	1.6	410	0.6	81	1.9	599
.8	116	1.9	565	.8	127	2.2	810
1.0	171	2.2	770	1.0	181	2.6	1,160
1.3	276	2.6	1,120	1.3	286	3.0	1,620
				1.6	425	3.5	2,310

Discharge, in second-feet, water year October 1944 to September 1945

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	97	134	210	224	212	311	580	1,490	508	187	113	92
2	88	124	187	220	212	307	491	1,610	468	181	110	90
3	90	231	165	190	240	320	436	1,670	441	175	110	92
4	116	228	239	193	247	303	400	1,490	415	173	108	169
5	181	159	358	305	375	278	514	1,290	395	170	105	245
6	134	148	310	952	420	270	645	1,200	380	167	103	137
7	106	203	345	2,280	1,070	255	700	1,100	366	161	103	115
8	97	162	310	1,120	2,100	251	795	1,010	342	159	101	105
9	90	156	249	645	1,500	278	652	932	337	156	101	99
10	85	137	214	520	958	502	599	916	324	153	101	94
11	81	124	193	222	1,140	436	672	866	311	150	101	92
12	81	114	168	1,220	1,420	491	606	984	299	148	101	90
13	83	106	156	1,710	3,390	502	520	1,140	328	145	101	88
14	83	99	151	1,160	1,520	508	508	1,200	342	143	99	88
15	81	94	137	924	993	447	567	1,650	299	140	99	103
16	79	92	134	975	758	395	672	1,780	278	140	99	127
17	77	88	134	858	639	385	593	1,620	263	140	96	108
18	74	85	129	850	543	385	658	1,320	255	137	94	103
19	74	83	134	652	468	441	842	1,050	244	135	92	94
20	74	81	145	525	436	612	1,030	898	236	132	90	198
21	74	81	151	436	395	612	1,220	826	233	132	90	175
22	74	83	137	380	375	619	950	758	228	137	88	153
23	72	126	121	333	366	639	1,120	700	219	137	88	203
24	72	197	124	307	342	525	2,150	632	212	132	90	164
25	70	171	116	286	320	520	1,510	580	209	127	115	143
26	70	350	111	263	324	520	1,100	562	203	125	153	148
27	70	410	116	240	337	479	984	758	203	120	115	132
28	68	253	124	226	311	502	1,010	721	200	117	101	120
29	68	197	124	226	-	525	1,160	632	196	115	96	110
30	70	181	116	219	-	491	1,440	599	193	115	94	105
31	85	-	116	216	-	632	-	556	-	113	92	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff	
						Inches	Acre-feet
October	2,664	181	68	85.9	0.810	0.93	5,280
November	4,697	410	81	157	1.48	1.65	9,320
December	5,424	358	111	175	1.65	1.90	10,760
Calendar year 1944	100,769	1,790	65	275	2.59	35.35	199,900
January	18,877	2,280	190	609	5.75	6.62	37,440
February	21,411	3,390	212	765	7.22	7.51	42,470
March	13,741	639	251	443	4.18	4.82	27,250
April	25,144	2,150	400	838	7.91	8.82	49,870
May	32,540	1,780	556	1,050	9.91	11.42	64,540
June	8,925	508	193	298	2.81	3.13	17,700
July	4,462	187	113	144	1.36	1.57	8,850
August	3,149	153	88	102	.962	1.10	6,250
September	3,782	245	88	126	1.19	1.33	7,500
Water year 1944-45	144,816	3,390	68	397	3.75	50.80	287,200

Peak discharge.- Jan. 6 (6 p.m.) 2,100 sec.-ft.; Jan. 7 (12 m.) 3,270 sec.-ft.; Jan. 13 (1:30 p.m.) 2,250 sec.-ft.; Feb. 8 (9 a.m.) 2,610 sec.-ft.; Feb. 13 (4 a.m.) 4,630 sec.-ft.
Time basis: Pacific war time up to 2 a.m., Sept. 30, 1945; Pacific standard time thereafter. To convert war time to standard time, subtract 1 hour.

Lake Ben Morrow Reservoir near Bull Run, Oreg.

Location.- Water-stage recorder, lat. 45°29', long. 122°05', in SW¼ sec. 16, T. 1 S., R. 6 E., at Bear Creek Dam of city of Portland, 8½ miles northeast of Bull Run. Datum of gage is at mean sea level (levels by Portland Water Bureau).

Records available.- October 1928 to September 1945.

Extremes.- Maximum contents during year, 29,300 acre-feet Jan. 7 (elevation, 1,041.98 feet); minimum, 19,460 acre-feet Sept. 3, 4 (elevation, 1,014.79 feet).
1928-45: Maximum contents, 31,600 acre-feet Mar. 31, 1931 (elevation, 1,047.40 feet); minimum after first filling in May 1929, 17,270 acre-feet Sept. 23, 1940 (elevation, 1,007.78 feet).

Remarks.- Records good. Lake Ben Morrow Reservoir is formed by concrete dam known as Bear Creek Dam on Bull Run River, completed in March 1929, for water supply of city of Portland. Capacity of reservoir, 26,930 acre-feet at crest of spillway (elevation, 1,036 feet); dead storage, 213 acre-feet at elevation 890 feet (center of outlet valves).

Cooperation.- Water-stage recorder inspected and capacity table furnished by Portland Water Bureau.

Monthly elevation and contents, water year October 1944 to September 1945

Date	Elevation (feet)†	Contents (acre-feet)	Change in contents during month (acre-feet)
Sept.30	1,015.23	19,600	-
Oct. 31	1,025.11	22,940	+3,340
Nov. 30	1,037.53	27,530	+4,590
Dec. 31	1,036.56	27,160	-370
Calendar year 1944	-	-	-40
Jan. 31	1,037.68	27,590	+430
Feb. 28	1,036.96	27,300	-290
Mar. 31	1,037.65	27,570	+270
Apr. 30	1,038.56	27,930	+360
May 31	1,037.42	27,480	-450
June 30	1,036.61	27,170	-310
July 31	1,028.67	24,200	-2,970
Aug. 31	1,016.03	19,860	-4,340
Sept.30	1,026.34	23,370	+3,510
Water year 1944-45	-	-	+3,770

† Elevation at 12 p.m.
Time basis: Pacific war time up to 2 a.m., Sept. 30, 1945; Pacific standard time thereafter. To convert war time to standard time, subtract 1 hour.

Bull Run River below Lake Ben Morrow Reservoir, Oreg.

Location.- Water-stage recorder above crest of spillway and scales indicating number of turns outlet needle valves are open, lat. 45°29', long. 122°05', in SW¼ sec. 16, T. 1 S., R. 6 E., at Bear Creek Dam on Bull Run River, 500 feet downstream from Bear Creek, 1,000 feet upstream from Fivemile Creek, and 8½ miles northeast of Bull Run. Datum of gage is at mean sea level (levels by Portland Water Bureau).

Drainage area.- 74 square miles.

Records available.- October 1934 to September 1945. October 1929 to September 1934 at site half a mile downstream.

Average discharge.- 16 years, 538 second-feet (adjusted).

Extremes.- Maximum discharge during year, 5,810 second-feet Jan. 7 (elevation, 1,041.98 feet); minimum, 55 second-feet Sept. 5.
1929-45: Maximum discharge at dam, 16,100 second-feet Mar. 31, 1931 (elevation, 1,047.40 feet with one valve open 30 turns); no flow part of Oct. 27, 1929.

Remarks.- Records good. Daily discharge determined by combining discharge through valves near base of dam and that over crest of spillway (elevation, 1,036 feet). No diversion above station. Flow regulated by Bull Run Lake and Lake Ben Morrow Reservoir; adjustment applied for storage in Lake Ben Morrow only; flow from Bull Run Lake is not artificially regulated but reaches river through surface and underground channels.

Cooperation.- Water-stage recorder inspected and record of valve openings furnished by Portland Water Bureau.

Discharge, in second-feet, water year October 1944 to September 1945

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	75	86	690	272	205	338	732	1,490	594	184	159	136
2	75	78	568	343	220	326	607	1,590	522	175	154	136
3	75	79	470	297	326	360	522	1,670	477	161	154	136
4	76	66	791	299	365	343	454	1,450	432	165	154	104
5	76	57	1,640	704	555	310	697	1,210	401	156	154	75
6	77	313	1,200	2,210	690	288	1,130	1,140	374	155	153	109
7	77	690	1,110	4,510	2,860	269	1,280	1,060	360	168	153	100
8	77	565	857	2,190	3,570	260	1,590	976	338	173	156	100
9	78	555	634	1,200	2,160	326	1,110	894	332	e178	153	100
10	78	458	496	911	1,290	1,170	934	934	332	e180	153	100
11	81	383	395	792	1,350	908	1,030	1,040	316	e185	153	105
12	78	326	326	2,170	1,540	857	866	1,420	299	185	136	115
13	78	282	294	3,450	3,640	824	697	1,650	302	176	125	112
14	78	245	258	2,040	1,740	763	641	2,130	294	171	130	112
15	78	218	235	1,660	1,090	683	655	2,330	277	165	142	112
16	78	187	225	1,850	776	581	718	2,670	260	157	139	112
17	78	178	210	1,570	641	536	641	2,900	245	157	139	112
18	88	169	187	1,730	536	581	623	1,920	240	160	139	112
19	90	156	182	1,210	470	725	718	1,360	230	157	139	115
20	90	148	190	857	419	1,310	874	1,050	223	157	139	112
21	90	144	192	641	374	1,140	1,070	848	215	157	e152	104
22	90	143	178	503	365	950	900	746	210	140	e158	101
23	90	230	160	425	371	942	976	721	200	129	e177	101
24	90	562	152	392	371	760	2,150	704	192	129	e167	101
25	93	562	144	338	354	690	1,630	627	182	132	157	102
26	90	1,030	136	286	348	690	1,160	574	178	144	115	105
27	90	1,140	131	250	365	648	1,000	934	172	156	100	102
28	90	732	144	245	357	665	1,040	968	164	156	106	102
29	90	545	160	225	-	711	1,180	816	164	156	120	102
30	90	614	160	205	-	627	1,520	732	160	156	123	102
31	90	-	152	203	-	732	-	662	-	156	128	-

Month	Observed: Discharge in second-feet: Maximum	Observed: Discharge in second-feet: Minimum	Observed: Discharge in second-feet: Mean	Observed: Runoff in acre-feet	Change in contents of Lake Ben Morrow Reservoir (acre-feet)	Adjusted for change in reservoir contents: Runoff in acre-feet	Adjusted for change in reservoir contents: Discharge in second-feet: Mean	Adjusted for change in reservoir contents: Discharge in second-feet: Per square mile	Adjusted for change in reservoir contents: Runoff in inches
October	93	75	83.0	5,110	+3,340	8,450	137	1.85	2.13
November	1,140	57	365	21,700	+4,590	26,290	442	5.97	6.66
December	1,640	131	409	25,120	-370	24,750	403	5.45	6.28
Calendar year 1944	3,330	57	359	260,270	-40	260,230	358	4.84	65.91
January	4,510	203	1,096	67,400	+430	67,830	1,103	14.9	17.18
February	3,640	205	977	54,240	-290	53,950	971	13.1	13.64
March	1,310	260	655	40,290	+270	40,560	660	8.92	10.28
April	2,150	454	972	57,810	+360	58,170	978	13.2	14.73
May	2,900	574	1,265	77,780	-450	77,330	1,258	17.0	19.60
June	594	160	290	17,230	-310	16,920	284	3.84	4.28
July	185	129	161	9,870	-2,970	6,900	112	1.51	1.74
August	177	100	143	8,780	-4,340	4,440	72.2	.976	1.13
September	136	75	108	6,420	+3,510	9,930	167	2.26	2.52
Water year 1944-45	4,510	57	541	391,750	+3,770	395,520	546	7.38	100.17

e Record of valve opening doubtful; discharge computed on basis of records for station near Bull Run.

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

Bull Run River near Bull Run, Oreg.

Location.- Water-stage recorder, lat. 45°27', long. 122°07', in SE¼ sec. 25. T. 1 S., R. 5 E., 1¾ miles upstream from intake of pipe line for water supply of city of Portland and 5 miles east of Bull Run.
Drainage area.- 102 square miles.
Records available.- January 1895 to September 1945.
Average discharge.- 38 years (1907-45), 725 second-feet (adjusted, 1929-45).
Extremes.- Maximum discharge during year, 7,080 second-feet Jan. 7 (gage height, 7.52 feet); minimum, 106 second-feet Aug. 22 (gage height, 0.66 foot).
1895-1945: Maximum discharge, 20,600 second-feet Mar. 31, 1931 (gage height, 13.8 feet), by computation of flow over dam; minimum, 63 second-feet Aug. 13-16, 1926.
Remarks.- Records good. No diversion above station. Flow regulated by Bull Run Lake and Lake Ben Morrow Reservoir; adjustment applied only for storage in Lake Ben Morrow Reservoir; flow from Bull Run Lake is not artificially regulated but reaches river through surface and underground channels.
Cooperation.- Water-stage recorder inspected by Portland Water Bureau.

Rating table, water year 1944-45 (gage height, in feet, and discharge, in second-feet)

0.7	112	1.9	460	4.0	1,860
1.0	172	2.3	650	4.8	2,700
1.3	250	2.7	875	5.7	3,920
1.6	345	3.3	1,280	6.7	5,570

Discharge, in second-feet, water year October 1944 to September 1945

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	152	144	845	340	283	412	881	1,720	666	189	163	146
2	140	126	694	408	307	404	732	1,820	585	179	163	146
3	157	247	575	356	432	469	630	1,850	523	172	161	148
4	186	274	900	356	478	436	555	1,590	474	168	161	183
5	214	225	1,870	827	718	400	911	1,340	428	163	161	179
6	184	408	1,410	2,780	857	370	1,400	1,260	400	165	161	148
7	165	881	1,340	5,440	3,360	348	1,620	1,170	373	174	161	130
8	154	732	1,050	2,650	4,250	359	2,030	1,090	348	179	161	126
9	144	710	815	1,450	2,600	444	1,410	1,010	348	184	157	125
10	138	570	645	1,150	1,590	1,390	1,230	1,060	348	166	157	123
11	132	474	528	987	1,6eo	1,120	1,370	1,140	324	191	159	125
12	123	396	440	2,510	2,010	1,160	1,180	1,560	307	191	150	130
13	121	342	380	4,120	4,640	1,110	929	1,860	314	184	144	126
14	119	298	338	2,500	2,140	1,060	845	2,470	307	177	146	125
15	117	268	298	2,080	1,370	942	863	2,760	286	174	152	136
16	116	244	268	2,400	1,010	798	929	3,340	268	165	146	134
17	112	222	265	2,100	845	744	810	3,710	256	165	146	134
18	117	206	239	2,250	694	793	782	2,360	247	168	144	130
19	121	194	222	1,570	575	1,000	887	1,830	236	165	146	128
20	119	182	236	1,150	523	1,590	1,060	1,240	233	165	146	182
21	117	172	236	887	474	1,410	1,230	1,020	225	168	159	161
22	117	172	219	722	460	1,260	1,040	887	217	159	165	154
23	116	263	199	605	474	1,250	1,180	875	212	146	184	170
24	116	650	184	514	444	1,010	2,500	621	201	144	174	163
25	117	661	174	456	416	929	1,870	722	194	146	170	161
26	112	1,130	174	408	428	893	1,330	650	186	150	152	159
27	112	1,290	168	362	460	815	1,200	1,150	184	161	130	152
28	112	893	169	331	432	845	1,200	1,150	179	161	132	146
29	112	661	186	317	-	863	1,400	968	174	161	140	140
30	114	754	196	295	-	754	1,770	857	172	161	140	136
31	123	-	182	289	-	935	-	766	-	161	140	-

Month	Observed: Discharge in second-feet: Maximum	Minimum	Mean	Observed: Runoff in acre-feet	Change in contents of Lake Ben Morrow Reservoir (acre-feet)	Adjusted for change in reservoir contents: Runoff in acre-feet	Discharge in second-feet: Mean	Per square mile	Runoff in inches
October	214	112	132	8,130	+3,340	11,470	187	1.83	2.11
November	1,290	126	460	27,350	+4,590	31,940	537	5.26	5.87
December	1,870	168	499	30,670	-370	30,300	493	4.83	5.57
Calendar year 1944	3,900	112	435	315,850	-40	315,810	435	4.26	58.09
January	5,440	289	1,375	84,520	+430	84,950	1,382	13.5	15.56
February	4,640	283	1,212	67,340	-290	67,050	1,207	11.8	12.29
March	1,590	348	849	52,190	+270	52,460	853	8.36	9.64
April	2,500	555	1,192	70,960	+360	71,320	1,199	11.8	13.17
May	3,710	650	1,479	90,930	-450	90,480	1,472	14.4	16.60
June	666	172	307	18,280	-310	17,970	302	2.96	3.30
July	191	144	168	10,360	-2,970	7,390	120	1.18	1.36
August	184	130	154	9,460	-4,340	5,120	83.3	.817	.94
September	183	123	145	8,620	+3,510	12,130	204	2.00	2.23
Water year 1944-45	5,440	112	661	476,810	+3,770	482,580	667	6.54	88.64

Peak discharge.- Jan. 7 (12 m.) 7,080 sec.-ft.; Jan. 13 (12 m.) 5,480 sec.-ft.; Feb. 7 (10:30 a.m.) 5,340 sec.-ft.; Feb. 13 (3:30 a.m.) 6,150 sec.-ft.; May 17 (2:30 a.m.) 4,360 sec.-ft.
Time basis: Pacific war time up to 2 a.m., Sept. 30, 1945; Pacific standard time thereafter.
To convert war time to standard time, subtract 1 hour.

Little Sandy River near Bull Run, Oreg.

Location.- Water-stage recorder, lat. 45°25', long. 122°10', in NE¼ sec. 10, T. 2 S., R. 5 E., three-eighths of a mile upstream from Portland General Electric Co.'s dam and tunnel from Sandy River and 3 miles east of Bull Run. Datum of gage is 710.51 feet above mean sea level, adjustment of 1924 (levels by Portland General Electric Co.).
Drainage area.- 23 square miles.
Records available.- May 1911 to April 1913 (fragmentary), July 1919 to September 1945.
Average discharge.- 26 years (1919-45), 134 second-feet.
Extremes.- Maximum discharge during year, 1,720 second-feet Feb. 13 (gage height, 6.54 feet), from rating curve extended above 600 second-feet; minimum, 12 second-feet Aug. 19.
1911-13, 1919-45: Maximum discharge, 3,950 second-feet Nov. 20, 1921 (gage height, 9.18 feet), from rating curve extended above 2,000 second-feet; minimum, 8 second-feet Aug. 20, Sept. 16, 17, 1940.
Remarks.- Records fair. No diversion or regulation above station.
Cooperation.- Water-stage recorder graph furnished by Portland General Electric Co.

Rating tables, water year 1944-45 (gage height, in feet, and discharge, in second-feet)

Oct. 1 to Feb. 13				Feb. 14 to Sept. 30			
2.0	19	3.5	188	1.8	12	3.2	153
2.2	30	3.9	285	2.0	21	3.5	215
2.4	43	4.3	410	2.2	32	3.9	335
2.6	60	4.9	645	2.4	46	4.3	485
2.9	91	5.5	970	2.6	63	4.8	725
3.2	131			2.9	99	5.3	1,040

Discharge, in second-feet, water year October 1944 to September 1945

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	60	56	128	84	64	95	185	370	149	31	16	13
2	50	45	101	75	69	91	151	394	126	30	15	13
3	63	164	87	65	88	96	133	398	109	28	15	14
4	106	148	214	68	82	91	117	338	96	27	15	68
5	134	124	272	183	126	84	177	282	86	26	15	97
6	93	124	213	652	124	81	230	276	80	26	14	40
7	71	184	235	780	502	78	318	246	75	25	15	28
8	58	130	171	369	552	75	445	232	69	24	15	22
9	50	124	128	216	369	88	304	211	71	23	14	20
10	43	97	103	173	248	215	255	225	70	22	15	19
11	38	81	88	141	357	193	276	230	66	22	15	18
12	35	69	75	369	372	230	258	324	60	22	14	17
13	35	61	65	456	943	235	225	360	67	22	14	16
14	35	54	58	324	437	215	215	437	71	22	14	16
15	34	49	53	312	279	191	a220	590	60	22	14	28
16	30	45	49	392	208	167	243	742	55	22	14	38
17	28	42	45	386	183	149	200	792	52	21	13	43
18	26	39	43	369	149	129	195	534	48	20	13	38
19	25	37	43	260	128	167	213	356	46	20	13	28
20	25	35	49	193	117	232	243	267	44	19	13	107
21	23	34	49	152	105	228	276	238	43	20	13	36
22	22	33	43	131	107	252	211	213	42	26	13	67
23	23	49	40	113	109	249	392	220	41	22	13	91
24	22	96	37	101	99	208	769	195	39	20	13	69
25	21	88	35	89	93	206	425	171	36	18	a25	69
26	20	190	35	80	99	193	285	157	36	18	a30	70
27	20	152	34	73	101	169	264	425	36	18	21	54
28	20	106	37	68	93	187	261	328	35	17	16	45
29	20	87	40	64	-	179	328	246	34	16	15	40
30	21	117	37	61	-	155	425	204	33	16	14	36
31	32	-	35	62	-	235	-	177	-	16	13	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff: Inches	Runoff: Acre-feet
October	1,283	134	20	41.4	1.80	2.07	2,540
November	2,660	190	33	88.7	3.86	4.30	5,280
December	2,641	272	34	85.2	3.70	4.27	5,240
Calandar year 1944	29,706	636	10	81.2	3.53	48.03	58,920
January	6,861	780	61	221	9.61	11.09	13,610
February	6,203	943	64	222	9.65	10.03	12,300
March	5,163	252	75	167	7.26	8.35	10,240
April	8,239	769	117	275	12.0	13.32	16,340
May	10,178	792	157	328	14.3	15.46	20,190
June	1,877	149	33	62.6	2.72	3.04	3,720
July	681	31	16	22.0	.957	1.10	1,350
August	472	30	13	15.2	.661	.76	936
September	1,260	107	13	42.0	1.83	2.04	2,500
Water year 1944-45	47,518	943	13	130	5.65	73.83	94,250

Peak discharge.- Jan. 6 (5 p.m.) 1,280 sec.-ft.; Jan. 7 (12 m.) 1,140 sec.-ft.; Feb. 13 (2 a.m.) 1,720 sec.-ft.; Apr. 24 (1 a.m.) 970 sec.-ft.
a No gage-height record; discharge computed on basis of range in stage and records for Sandy River near Marmot.
Time basis: Pacific war time up to 2 a.m., Sept. 30, 1945; Pacific standard time thereafter. To convert war time to standard time, subtract 1 hour.

Washougal River near Washougal, Wash.

Location.- Staff gage, lat. 45°37'20", long. 122°18'00", in SE¼ sec. 27, T. 2 N., R. 4 E., half a mile above Cougar Creek and 5¼ miles northeast of Washougal.
Drainage area.- 108 square miles.
Records available.- September 1944 to September 1945.
Extremes.- Maximum discharge observed during period, 22,100 second-feet Feb. 7 (gage height, 14.40 feet), from rating curve extended above 4,400 second-feet; minimum observed, 57 second-feet Aug. 22 (gage height, 1.51 feet).
Remarks.- Records good except those above 7,500 second-feet and those for period of shifting control, which are fair. Gage read twice daily. No diversion or regulation above station.

Discharge, in second-feet, 1944-45

1944

Day	Discharge	Day	Discharge	Day	Discharge
Sept. 22	123	Sept. 25	69	Sept. 28	63
23	91	26	66	29	164
24	76	27	65	30	176

1944-45

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	120	1,100	1,030	306	392	668	1,030	1,170	414	138	77	59
2	102	724	840	306	438	641	901	1,380	369	130	74	60
3	140	2,190	696	306	696	840	781	1,100	369	125	74	65
4	348	1,520	1,380	326	901	901	724	964	348	123	74	840
5	614	1,340	2,290	461	2,100	781	1,600	781	326	120	71	588
6	369	1,760	1,520	2,710	1,920	696	1,920	781	326	118	67	326
7	249	1,840	1,240	6,800	7,970	614	1,920	668	306	116	67	232
8	190	1,240	1,030	2,490	5,680	641	2,290	614	286	106	67	170
9	159	1,170	840	1,450	2,710	840	1,920	588	286	106	67	146
10	138	840	696	1,340	1,760	3,030	1,760	536	268	104	67	125
11	123	696	588	1,520	1,760	1,600	2,600	614	249	102	71	116
12	118	536	510	4,030	2,710	1,680	2,010	964	249	99	71	99
13	113	461	438	6,040	3,740	1,600	1,580	1,240	249	97	71	93
14	108	392	392	2,950	2,190	1,920	1,240	1,760	268	93	71	93
15	97	348	369	2,830	1,520	1,600	1,340	1,840	249	93	66	111
16	91	306	348	2,950	1,170	1,340	1,380	2,710	212	98	65	135
17	66	286	326	2,950	1,030	1,600	1,100	2,710	196	97	63	146
18	81	268	306	2,950	840	1,680	1,030	2,190	187	93	62	120
19	77	249	306	2,190	724	2,190	1,170	1,520	187	93	60	104
20	76	232	306	1,600	696	3,660	1,240	1,170	184	93	60	392
21	76	215	268	1,170	668	2,290	1,240	964	178	108	58	369
22	77	306	249	964	641	1,920	1,030	840	173	146	58	306
23	77	438	249	840	641	1,760	1,170	964	167	130	60	306
24	74	964	232	724	614	1,380	1,520	781	162	91	58	286
25	71	781	215	668	588	1,240	1,340	696	153	86	65	268
26	69	1,920	215	588	668	1,340	1,100	641	151	84	89	232
27	66	1,450	209	536	724	1,240	1,030	641	156	82	76	209
28	66	901	249	461	668	1,380	964	561	151	79	65	176
29	66	724	286	438	-	1,380	1,030	510	146	81	63	156
30	71	1,030	249	392	-	1,170	1,340	486	140	79	63	146
31	135	-	232	414	-	1,340	-	461	-	77	59	-

Monthly discharge, in second-feet, 1944-45

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff	
						Inches	Acre-feet
September 22-30, 1944	893	176	63	99.2	0.919	0.31	1,770
October 1944	4,247	614	66	137	1.27	1.46	8,420
November	26,227	2,190	215	874	8.09	9.03	52,020
December	18,104	2,290	209	584	5.41	6.23	35,910
Calendar year	-	-	-	-	-	-	-
January 1946	53,700	6,800	306	1,732	16.0	18.49	106,600
February	46,059	7,970	392	1,645	15.2	15.86	91,360
March	44,982	3,680	614	1,451	13.4	15.49	89,220
April	41,100	2,600	724	1,370	12.7	14.15	81,520
May	32,845	2,710	461	1,060	9.81	11.31	65,150
June	7,105	414	140	237	2.19	2.45	14,090
July	3,184	146	77	103	.954	1.10	6,320
August	2,079	89	58	67.1	.621	.72	4,120
September	6,474	840	59	216	2.00	2.23	12,840
Water year 1944-45	286,106	7,970	58	784	7.26	98.52	567,500

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

Middle Fork Willamette River above Salt Creek, near Oakridge, Oreg.

Location.- Water-stage recorder, lat. 43°44', long. 122°26', in SW¼ sec. 22, T. 21 S., R. 3 E., 400 feet upstream from Salt Creek and 2 miles southwest of Oakridge. Datum of gage is 1,202.8 feet above mean sea level (from river-profile survey).

Drainage area.- 392 square miles.

Records available.- October 1913 to September 1914, September 1935 to September 1945.

Average discharge.- 11 years, 987 second-feet.

Extremes.- Maximum discharge during year, 7,890 second-feet Feb. 13 (gage height, 6.78 feet); minimum, 232 second-feet Oct. 25-30 (gage height, 2.04 feet).
1913-14, 1935-45: Maximum discharge, 25,900 second-feet Dec. 30, 1942 (gage height, 10.70 feet), from rating curve extended above 13,000 second-feet; minimum, 201 second-feet Nov. 27 to Dec. 2, 1936 (gage height, 1.53 feet).

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

Cooperation.- Water-stage recorder inspected by employees of U. S. Forest Service.

Rating tables, water year 1944-45 (gage height, in feet, and discharge, in *second-feet*)

Oct. 1 to Feb. 7				Feb. 8 to Sept. 30					
2.0	218	3.3	868	2.0	205	3.3	868	5.2	3,650
2.2	288	3.7	1,230	2.2	284	3.7	1,230	5.7	4,800
2.5	408	4.2	1,820	2.5	408	4.2	1,840	6.3	6,410
2.9	605	4.7	2,600	2.9	605	4.7	2,640		

Discharge, in second-feet, water year October 1944 to September 1945.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	263	387	605	408	1,100	700	986	2,340	1,670	476	313	260
2	256	334	535	457	1,270	669	884	2,770	1,490	466	309	256
3	249	617	457	421	1,170	657	815	3,170	1,440	457	309	256
4	252	476	421	395	1,060	634	752	2,770	1,310	448	304	252
5	277	370	439	448	1,960	611	765	2,380	1,300	434	304	280
6	263	350	430	1,050	2,000	600	1,070	2,180	1,250	421	300	276
7	252	461	408	2,100	2,100	578	1,370	1,980	1,180	417	304	260
8	245	374	387	1,820	5,640	583	2,870	1,840	1,100	408	341	256
9	245	480	366	1,280	3,960	594	2,100	1,700	1,040	404	304	252
10	245	430	346	1,100	2,550	798	1,730	1,740	977	400	300	244
11	242	412	330	986	2,430	1,090	1,700	1,530	808	387	296	244
12	242	358	318	1,120	2,270	1,320	1,730	1,560	876	383	292	244
13	245	330	307	2,220	6,370	1,560	1,500	1,920	845	379	292	240
14	245	299	299	2,290	5,470	1,490	1,350	1,920	800	370	288	240
15	245	288	299	2,110	3,230	1,420	1,330	1,880	752	366	284	240
16	242	281	292	1,860	2,320	1,210	1,340	2,640	713	362	284	240
17	242	274	288	1,560	2,020	1,170	1,270	2,890	706	358	280	240
18	242	270	284	1,550	1,940	1,160	1,330	2,600	706	354	276	236
19	238	263	318	1,310	1,600	1,220	1,580	2,340	713	350	272	240
20	238	263	490	1,070	1,370	1,810	2,000	2,080	706	350	272	254
21	235	259	480	893	1,190	1,940	2,230	1,910	700	346	268	346
22	235	259	461	765	1,070	2,020	1,850	1,740	675	350	268	430
23	235	315	490	688	977	2,180	1,710	1,910	634	350	264	346
24	235	400	461	640	893	1,700	3,290	1,900	605	346	264	300
25	232	366	430	600	822	1,450	3,230	1,710	578	337	288	284
26	232	515	400	556	779	1,300	2,740	1,650	567	333	300	276
27	232	551	393	530	758	1,150	2,240	2,070	541	329	280	268
28	232	439	387	504	719	1,040	2,080	2,210	520	325	272	260
29	232	391	421	494	-	986	2,020	2,210	504	321	268	256
30	238	400	426	583	-	925	2,130	2,410	490	317	264	252
31	315	-	391	917	-	995	-	1,970	-	317	260	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff Inches	Runoff Acre-feet
October	7,621	315	232	246	0.628	0.72	15,120
November	11,212	617	259	374	.954	1.06	22,240
December	12,359	605	284	399	1.02	1.17	24,510
Calendar year 1944	215,027	2,250	232	588	1.50	20.40	426,500
January	32,725	2,290	395	1,056	2.69	3.10	64,910
February	59,038	6,370	719	2,108	5.38	5.60	117,100
March	35,580	2,180	578	1,148	2.93	3.38	70,570
April	51,992	3,290	752	1,733	4.42	4.93	103,100
May	65,920	3,170	1,530	2,126	5.42	6.25	130,800
June	26,297	1,670	490	877	2.24	2.49	52,160
July	11,661	476	317	376	.959	1.11	23,130
August	8,920	313	260	288	.735	.85	17,690
September	8,038	430	240	268	.684	.76	15,940
Water year 1944-45	331,363	6,370	232	908	2.32	31.42	657,300

Peak discharge.- Feb. 8 (10 a.m.) 7,500 sec.-ft.; Feb. 13 (10 p.m.) 7,890 sec.-ft.
Time basis: Pacific war time up to 2 a.m., Sept. 30, 1945; Pacific standard time thereafter.
To convert war time to standard time, subtract 1 hour.

Middle Fork Willamette River at Eula, Oreg.

Location.- Water-stage recorder, lat. 43°50', long. 122°37', in sec. 18, T. 20 S., R. 2 E., a quarter of a mile southwest of Eula and 8 miles downstream from North Fork. Datum of gage is 861.65 feet above mean sea level, datum of 1929.

Drainage area.- 941 square miles.

Records available.- July 1923 to September 1945.

Average discharge.- 21 years (1923-26, 1927-45), 2,373 second-feet.

Extremes.- Maximum discharge during year, 21,300 second-feet Feb. 13 (gage height, 10.36 feet); minimum, 498 second-feet Oct. 29, 30 (gage height, 1.25 feet).
1923-45: Maximum discharge, 55,100 second-feet Feb. 21, 1927 (gage height, 17.0 feet), from rating curve extended above 39,000 second-feet; minimum observed, 450 second-feet Nov. 24, 25, Dec. 5, 6, 1929, Sept. 4-6, 16, 17, 1931.

Remarks.- Records excellent except those above 5,000 second-feet, which are good. No large diversions above station. Occasional diurnal fluctuation during periods of low water caused by logging operations upstream.

Cooperation.- Gage-height record collected in cooperation with U. S. Weather Bureau.

Rating tables, water year 1944-45 (gage height, in feet, and discharge, in second-feet)

Oct. 1 to Feb. 7				Feb. 8 to Sept. 30			
1.2	470	4.0	3,010	1.3	620	4.7	4,220
1.6	695	4.7	4,130	1.7	830	5.7	6,220
2.1	1,030	5.4	5,370	2.2	1,180	7.0	9,380
2.7	1,520	6.1	6,660	3.0	1,870	8.5	14,200
3.3	2,120			3.8	2,800	9.7	18,700

Discharge, in second-feet, water year October 1944 to September 1945

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	586	925	1,350	1,010	2,760	2,040	2,880	6,400	4,270	1,210	748	638
2	558	877	1,340	1,190	3,100	1,930	2,660	7,180	3,750	1,160	737	634
3	547	1,330	1,180	1,080	2,900	1,910	2,480	7,940	3,560	1,150	732	624
4	547	1,190	1,120	988	2,690	1,830	2,290	7,360	3,260	1,120	720	624
5	613	897	1,190	1,100	4,470	1,750	2,310	6,400	3,160	1,100	715	685
6	602	818	1,140	2,850	4,990	1,700	2,940	5,900	3,070	1,060	715	685
7	564	1,160	1,090	6,600	5,100	1,640	4,460	5,360	2,860	1,050	715	647
8	552	960	1,020	5,930	11,900	1,640	6,180	4,980	2,680	1,030	759	634
9	547	1,090	953	3,800	10,200	1,640	5,340	4,570	2,540	1,000	720	624
10	542	1,020	904	3,310	7,060	1,990	4,530	4,670	2,420	972	737	616
11	530	988	844	2,930	7,390	2,530	4,800	4,170	2,280	958	680	616
12	530	877	806	3,300	7,110	3,000	4,960	3,990	2,190	937	705	611
13	530	799	773	5,890	18,500	3,800	4,260	4,720	2,140	902	705	606
14	536	734	740	6,410	15,600	3,730	3,770	4,820	2,010	895	690	611
15	542	695	721	5,750	9,550	3,650	3,640	5,000	1,900	888	690	611
16	536	671	702	5,350	7,090	3,260	3,620	6,570	1,820	876	680	620
17	530	653	689	4,540	6,010	3,170	3,480	7,440	1,770	862	660	611
18	525	641	677	4,520	5,510	3,220	3,540	6,750	1,750	850	665	606
19	520	630	721	3,820	4,590	3,290	4,090	6,030	1,730	843	652	602
20	520	613	1,040	3,180	3,900	4,440	4,980	5,360	1,700	836	652	660
21	514	602	1,100	2,680	3,400	4,940	5,780	4,860	1,690	818	647	836
22	514	602	1,020	2,340	3,050	5,120	5,080	4,500	1,650	836	642	1,040
23	514	721	1,160	2,100	2,830	5,720	4,700	4,700	1,560	843	638	830
24	514	1,100	1,080	1,930	2,600	4,650	8,950	4,670	1,490	824	634	726
25	514	946	1,000	1,760	2,380	4,010	9,110	4,270	1,440	812	715	680
26	508	1,200	939	1,660	2,270	3,620	7,840	4,110	1,400	800	764	660
27	508	1,460	904	1,560	2,220	3,240	6,590	5,220	1,360	788	695	647
28	508	1,170	904	1,480	2,090	3,000	6,090	5,840	1,310	770	670	634
29	503	1,010	1,000	1,430	-	2,880	5,860	5,610	1,280	764	660	624
30	525	974	1,040	1,750	-	2,720	6,030	5,670	1,240	759	652	616
31	683	-	946	2,590	-	2,870	-	4,940	-	754	642	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff: Inches	Runoff: Acre-feet
October	16,762	683	503	541	0.575	0.66	33,250
November	27,353	1,460	602	912	.969	1.08	54,250
December	30,093	1,350	677	971	1.03	1.19	59,690
Calendar year 1944	564,298	5,910	503	1,542	1.64	22.29	1,119,000
January	94,828	6,600	988	3,059	3.25	3.75	188,100
February	161,260	18,500	2,090	5,759	6.12	6.37	319,900
March	94,930	5,720	1,640	3,062	3.25	3.75	188,300
April	143,240	9,110	2,290	4,775	5.07	5.66	284,100
May	170,000	7,940	3,990	5,484	5.83	6.72	337,200
June	65,280	4,270	1,240	2,176	2.31	2.58	129,500
July	28,487	1,210	754	919	.977	1.13	56,500
August	21,436	764	634	691	.734	.85	42,520
September	19,858	1,040	602	662	.704	.78	39,390
Water year 1944-45	873,527	18,500	503	2,393	2.54	34.52	1,733,000

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

Willamette River at Springfield, Oreg.

Location.- Water-stage recorder, lat. 44°02'45", long. 123°01'40", in SE¼ sec. 34, T. 17 S., R. 3 W., at highway bridge at Springfield. Datum of gage is 423.47 feet above mean sea level, datum of 1929.
Drainage area.- 2,030 square miles.
Records available.- November 1911 to December 1913, October 1928 to September 1945. June 1919 to September 1928 at site 4 miles downstream, published as Willamette River at Eugene; 1894 to 1945 (records of stage by U. S. Weather Bureau) at site at Eugene.
Average discharge.- 27 years (1912-13, 1919-45), 4,890 second-feet.
Extremes.- Maximum discharge during year, 48,700 second-feet Feb. 14 (gage height, 13.25 feet); minimum, 614 second-feet (regulated) Oct. 29 (gage height, 1.92 feet); minimum daily, 686 second-feet Oct. 27, 28.
1911-13, 1919-45: Maximum discharge, 100,000 second-feet Jan. 1, 1943 (gage height, 19.4 feet), from rating curve extended above 61,000 second-feet; minimum, 500 second-feet Aug. 11, 1926.
Maximum stage recorded by U. S. Weather Bureau, 22.0 feet Jan. 25, 1903 at Eugene. Floods in December 1861 and February 1890 reached about the same stage.
Remarks.- Records good. Slight diurnal fluctuation at low water caused by logging operations in basin of Middle Fork Willamette River. Small diversions above station.

Rating tables, water year 1944-45 (gage height, in feet, and discharge, in second-feet)

Oct. 1 to Feb. 12				Feb. 13 to Sept. 30					
1.9	590	4.0	3,850	1.9	865	4.0	3,990	8.6	20,000
2.1	830	4.6	5,240	2.1	1,060	4.6	5,350	9.8	26,000
2.4	1,220	5.4	7,410	2.4	1,380	5.4	7,600	11.0	32,900
2.8	1,790	6.4	10,700	2.8	1,860	6.4	10,600		
3.3	2,570	7.4	14,800	3.3	2,640	7.4	14,700		

Discharge, in second-feet, water year October 1944 to September 1945

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,020	1,210	2,090	2,140	5,720	4,050	6,470	9,900	6,530	1,570	941	793
2	1,160	1,570	2,860	2,760	6,920	3,950	5,730	10,400	5,760	1,530	922	811
3	843	1,880	2,520	2,440	6,360	3,910	5,130	11,100	5,280	1,480	922	950
4	630	2,740	2,230	2,080	5,800	3,910	4,700	10,500	4,860	1,440	912	1,080
5	856	1,740	2,250	2,080	10,500	3,760	4,810	9,110	4,670	1,460	922	1,260
6	921	1,350	2,140	3,920	10,800	3,600	6,470	8,230	4,720	1,440	932	1,360
7	656	1,780	1,910	12,300	12,200	3,420	8,320	7,450	4,540	1,310	903	1,250
8	830	1,960	1,740	12,000	18,800	3,400	14,600	6,820	4,180	1,190	903	1,170
9	806	1,850	1,570	7,800	22,100	3,400	14,600	6,300	3,860	1,250	912	1,150
10	794	2,190	1,460	6,230	14,300	4,700	11,600	6,270	3,660	1,230	874	1,140
11	782	1,760	1,360	5,780	12,900	7,120	12,600	5,830	3,400	1,200	894	1,130
12	782	1,510	1,250	5,540	13,000	7,300	14,000	5,600	3,180	1,150	865	1,120
13	806	1,320	1,180	9,350	29,100	9,530	11,600	6,910	3,030	1,110	874	1,100
14	1,250	1,170	1,120	12,900	40,600	10,500	9,600	7,600	2,880	1,130	856	1,110
15	1,820	1,080	1,090	11,800	20,700	11,400	8,600	7,660	2,710	1,130	856	1,110
16	1,680	1,010	1,040	14,200	13,900	10,700	8,230	11,000	2,570	1,120	856	1,120
17	1,260	960	1,020	11,800	11,300	10,000	7,690	15,300	2,420	1,100	820	1,110
18	1,090	921	986	11,400	12,100	12,400	7,330	13,800	2,360	1,090	838	1,080
19	869	895	1,010	9,760	10,000	10,900	7,810	11,700	2,290	1,090	838	1,070
20	806	869	1,220	7,650	8,320	14,800	6,690	10,100	2,250	1,060	811	1,150
21	782	843	1,640	6,010	6,940	18,000	9,660	8,820	2,180	1,050	802	1,500
22	782	818	1,540	4,920	6,080	15,300	8,790	7,900	2,170	1,100	793	1,970
23	770	643	1,790	4,210	5,480	16,900	7,810	7,750	2,060	1,110	793	1,770
24	770	1,780	1,860	3,730	4,960	13,300	14,100	7,810	1,960	1,070	793	1,460
25	734	1,960	1,640	3,380	4,510	10,700	19,100	7,160	1,830	1,030	847	1,280
26	710	1,900	1,490	3,110	4,160	9,430	16,000	6,560	1,820	1,010	980	1,220
27	686	2,820	1,370	2,860	4,290	7,900	12,600	7,360	1,770	990	941	960
28	686	2,330	1,390	2,690	4,240	7,150	11,100	9,270	1,690	980	865	912
29	710	1,840	1,780	2,600	-	6,970	10,300	9,170	1,670	990	838	894
30	722	1,600	2,570	2,960	-	6,190	9,900	8,790	1,660	980	829	865
31	856	-	2,250	5,020	-	6,160	-	7,720	-	960	811	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff Inches	Runoff Acre-feet
October	28,269	1,820	686	912	0.449	0.52	56,070
November	46,499	2,820	818	1,550	.764	.85	92,230
December	51,366	2,860	986	1,657	.816	.94	101,900
Calendar year 1944	1,038,223	14,100	674	2,837	1.40	19.08	2,059,000
January	195,420	14,200	2,080	6,304	3.11	3.58	387,600
February	326,070	40,600	4,160	11,650	5.74	5.97	646,800
March	260,750	18,000	3,400	8,411	4.14	4.77	517,200
April	297,790	19,100	4,700	9,926	4.89	5.46	590,700
May	269,880	15,300	5,600	8,706	4.29	4.94	535,300
June	93,960	6,530	1,660	3,132	1.54	1.72	186,400
July	36,350	1,570	960	1,173	.578	.67	72,100
August	26,943	980	793	869	.428	.49	53,440
September	34,895	1,970	793	1,163	.573	.64	69,210
Water year 1944-45	1,668,192	40,600	686	4,570	2.25	30.56	3,309,000

Peak discharge.- Feb. 8 (11 p.m.) 28,100 sec.-ft.; Feb. 14 (2 a.m.) 48,700 sec.-ft.
Time basis: Pacific war time up to 2 a.m., Sept. 30, 1945; Pacific standard time thereafter.
To convert war time to standard time, subtract 1 hour.

Willamette River at Harrisburg, Oreg.

Location.- Water-stage recorder, lat. 44°16'03", long. 123°10'24", in SW¼SE¼ sec. 16, T. 15 S., R. 4 W., at east end of State highway bridge at Harrisburg. Datum of gage is 290.07 feet above mean sea level, datum of 1929. Prior to Nov. 14, 1944, wire-weight gage at same site and datum.

Drainage area.- 3,420 square miles.

Records available.- October 1944 to September 1945.

Extremes.- Maximum discharge during year, 82,600 second-feet Feb. 14 (gage height, 15.60 feet); minimum observed, 1,990 second-feet Oct. 30 (gage height, 1.18 feet).
Flood of 1861 reached a stage of about 21 feet (present site and datum), from information by local residents. Flood of Jan. 1, 1943, reached a stage of 19.1 feet (present datum), from U. S. Weather Bureau records.

Remarks.- Records good. Many small diversions above station for irrigation; about 15 second-feet diverted from McKenzie River for city of Eugene water supply. Flow regulated at times by Cottage Grove and Fern Ridge Reservoirs (see pp. 110,122).

Cooperation.- Gage-height record collected in cooperation with U. S. Weather Bureau.

Rating table, water year 1944-45 (gage height, in feet, and discharge, in second-feet)

1.2	2,010	5.3	10,000	12.5	45,600
2.0	3,050	6.8	14,800	14.5	65,600
3.0	4,700	8.5	22,300	15.2	75,900
4.1	6,980	10.5	32,400		

Discharge, in second-feet, water year October 1944 to September 1945

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	a2,450	2,700	4,450	4,480	11,600	9,100	13,200	19,000	13,000	4,140	2,760	2,300
2	2,580	3,570	5,870	5,300	13,100	8,810	12,300	19,900	11,600	4,020	2,700	2,260
3	2,410	3,690	5,640	5,400	12,900	8,660	11,100	21,400	10,600	3,900	2,670	2,360
4	2,240	6,120	5,080	4,800	12,600	8,680	10,300	21,400	9,950	3,810	2,660	2,560
5	2,330	a4,900	5,220	4,650	15,400	8,380	10,300	19,100	9,460	3,780	2,640	2,870
6	2,300	3,640	5,120	6,200	28,500	8,080	12,700	16,900	9,300	3,770	2,640	3,200
7	2,290	a4,400	4,740	15,800	24,700	7,760	16,000	15,500	8,990	3,620	2,620	3,020
8	a2,250	4,680	4,430	26,300	32,400	7,620	23,000	14,300	8,430	3,480	2,590	2,840
9	2,240	4,100	4,120	18,100	50,600	7,500	29,300	13,300	7,960	3,400	2,630	2,760
10	2,240	4,700	3,850	13,100	35,200	8,600	23,200	13,000	7,690	3,380	2,580	2,710
11	2,210	3,930	3,650	12,000	27,700	13,000	22,500	12,600	7,210	3,350	2,580	2,660
12	2,190	3,670	3,490	10,900	28,800	13,200	26,100	11,900	6,860	3,300	2,550	2,630
13	2,190	3,350	3,320	16,400	37,000	16,600	22,800	14,000	6,570	3,230	2,560	2,620
14	2,210	3,110	3,180	26,000	75,100	18,800	19,000	15,400	6,380	3,200	2,540	2,620
15	a3,300	2,920	3,080	23,200	51,100	21,900	16,700	16,000	6,120	3,240	2,510	2,630
16	3,160	2,810	2,980	26,200	33,800	21,400	15,800	18,900	5,680	3,100	2,460	2,640
17	2,920	2,700	2,920	26,000	26,400	19,400	14,800	28,800	5,600	3,110	2,460	2,640
18	2,540	2,620	2,880	23,000	25,500	23,100	14,000	28,500	5,480	3,100	2,380	2,600
19	2,370	2,550	2,870	21,200	22,200	21,200	14,400	24,200	5,300	3,110	2,380	2,590
20	2,210	2,510	3,060	16,800	18,600	23,900	15,900	20,700	5,280	3,060	2,370	2,660
21	a2,180	2,460	3,650	13,600	15,800	33,300	17,900	17,900	5,180	3,050	2,310	3,110
22	a2,140	2,420	3,690	11,300	13,800	29,600	17,400	16,100	5,140	3,120	2,290	3,780
23	2,110	2,440	3,800	9,920	12,400	31,900	15,200	15,100	5,000	3,180	2,270	3,860
24	2,120	3,260	4,020	8,910	11,400	28,400	20,200	14,800	4,890	3,100	2,250	3,370
25	2,090	4,380	3,800	8,100	10,400	23,000	32,500	13,900	4,590	2,990	2,380	3,080
26	2,090	4,240	3,560	7,470	9,680	20,300	29,400	12,800	4,540	2,940	2,640	2,910
27	2,030	6,000	3,430	6,910	9,680	17,400	24,300	13,300	4,470	2,870	2,690	2,710
28	2,020	5,540	3,380	6,400	9,510	15,300	20,900	17,100	4,320	2,810	2,510	2,530
29	2,090	4,570	3,800	6,160	-	14,600	19,500	16,900	4,260	2,810	2,410	2,470
30	2,020	4,120	5,040	6,600	-	13,500	18,900	16,300	4,270	2,840	2,360	2,380
31	2,240	-	4,890	9,410	-	12,700	-	14,800	-	2,780	2,320	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff	
						Inches	Acre-feet
October	71,760	3,300	2,020	2,315	0.677	0.78	142,300
November	112,100	6,120	2,420	3,737	1.09	1.22	222,300
December	123,010	5,870	2,870	3,968	1.16	1.34	244,000
Calendar year 1944	-	-	-	-	-	-	-
January	400,610	26,300	4,480	12,920	3.78	4.36	794,600
February	675,870	75,100	9,510	24,140	7.06	7.35	1,341,000
March	515,690	33,300	7,500	16,640	4.87	5.61	1,023,000
April	559,600	32,500	10,300	18,650	5.45	6.09	1,110,000
May	533,800	28,800	11,900	17,220	5.04	5.80	1,059,000
June	204,120	13,000	4,260	6,804	1.99	2.22	404,900
July	101,590	4,140	2,780	3,277	.958	1.10	201,500
August	77,690	2,760	2,250	2,506	.733	.84	154,100
September	83,370	3,860	2,260	2,779	.813	.91	165,400
Water year 1944-45	3,459,210	75,100	2,020	9,477	2.77	37.62	6,862,000

a No gage-height record; computed on basis of records for Willamette River at Springfield and McKenzie River near Coburg.
Time basis: Pacific war time up to 2 a.m., Sept. 30, 1945; Pacific standard time thereafter. To convert war time to standard time, subtract 1 hour.

Willamette River at Albany, Oreg.

Location.- Water-stage recorder, lat. 44°38'20", long. 123°06'20", in SW¼ sec. 6, T. 11 S., R. 3 W., at Albany, just downstream from Calapooya River. Datum of gage is 171.70 feet above mean sea level, datum of 1929.
Drainage area.- 4,840 square miles.
Records available.- November 1878 to April 1882, 1883 to 1888 (fragmentary), January 1892 to September 1945.
Average discharge.- 50 years (1895-1945), 13,530 second-feet.
Extremes.- Maximum discharge during year, 77,100 second-feet Feb. 15 (gage height, 18.96 feet); minimum, 2,360 second-feet Oct. 24 (gage height, -0.58 foot).
1878-82, 1892-1945: Maximum discharge, 266,000 second-feet Jan. 14, 1881 (gage height, 32.8 feet); minimum, 1,840 second-feet Sept. 1, 2, 1940.
Maximum stage known, 36.0 feet Dec. 4, 1861 (discharge, 340,000 second-feet, from rating curve extended above 220,000 second-feet). Flood of Feb. 4, 1890, reached a stage of 33.9 feet (discharge, 291,000 second-feet).
Remarks.- Records good. Flow regulated at times by Cottage Grove and Fern Ridge Reservoir (see pp. 110,122). Albany power canal diverts water from South Santiam River into Willamette River above station; small diversions for irrigation.
Cooperation.- Gage-height record collected in cooperation with U. S. Weather Bureau.

Rating tables, water year 1944-45 (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Sept. 13, 14)

Oct. 1 to Feb. 15						Feb. 16 to Sept. 30					
-0.4	2,570	3.0	9,420	10.0	33,400	-0.6	2,560	3.0	10,200	10.0	34,900
0.0	3,140	4.0	12,500	12.0	41,900	0.0	3,370	4.0	13,300	12.0	43,300
1.0	4,810	6.0	18,900	15.0	55,900	1.0	5,210	6.0	19,900	15.0	57,200
2.0	6,800	8.0	25,900	18.0	71,500	2.0	7,550	8.0	27,200		

Discharge, in second-feet, water year October 1944 to September 1945

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2,570	4,450	5,040	6,820	16,100	12,200	17,200	22,200	16,800	5,000	3,180	2,610
2	2,740	4,940	5,920	6,610	18,900	11,800	16,900	22,300	15,200	4,880	3,080	2,580
3	2,860	6,000	6,650	7,130	19,900	11,400	15,700	23,400	13,800	4,780	3,030	2,560
4	2,640	6,800	6,440	6,510	18,700	11,500	14,100	24,400	12,900	4,660	3,000	2,690
5	2,560	7,670	6,240	6,040	20,300	11,300	13,400	23,500	12,000	4,540	2,970	2,900
6	2,650	6,440	6,360	6,740	28,300	10,800	14,700	20,900	11,800	4,500	2,960	3,340
7	2,760	5,680	6,200	12,200	36,100	10,600	18,700	19,200	11,400	4,430	2,940	3,530
8	2,670	5,480	5,760	24,400	40,400	10,200	24,500	17,800	10,800	4,300	2,930	3,320
9	2,580	5,380	5,320	26,400	50,300	10,200	34,700	16,600	10,100	4,090	2,920	3,180
10	2,550	5,170	4,940	19,500	58,800	11,700	35,600	15,700	9,600	4,040	2,930	3,070
11	2,470	5,280	4,590	16,300	46,900	16,200	30,700	15,600	9,110	4,000	2,890	3,030
12	2,450	4,650	4,310	14,700	38,200	18,900	32,000	14,800	8,680	3,930	2,900	2,970
13	2,450	4,230	4,060	15,500	39,200	21,400	33,000	14,900	8,280	3,880	2,880	2,940
14	2,490	3,890	3,870	22,800	50,900	22,500	28,300	18,700	8,020	3,790	2,840	2,940
15	2,700	3,580	3,750	29,000	71,200	30,300	23,900	20,300	7,700	3,630	2,840	2,930
16	3,180	3,320	3,660	31,100	68,700	32,500	21,700	21,800	7,380	3,690	2,800	2,890
17	3,280	3,170	3,640	35,300	45,800	32,200	20,300	28,100	7,080	3,660	2,760	2,930
18	3,040	3,100	3,560	33,000	36,700	35,800	18,800	34,200	6,840	3,640	2,740	2,930
19	2,810	2,940	3,510	30,700	34,300	37,900	18,000	32,700	6,680	3,630	2,660	2,860
20	2,610	2,860	3,590	27,000	28,600	36,500	18,800	28,100	6,510	3,630	2,630	2,890
21	2,490	2,800	3,940	22,300	23,800	42,900	20,400	24,200	6,360	3,580	2,620	3,100
22	2,440	2,730	4,470	17,900	20,400	48,800	21,600	21,400	6,250	3,560	2,580	3,670
23	2,420	2,710	4,630	14,800	18,000	44,700	19,900	19,600	6,180	3,660	2,560	4,280
24	2,370	2,760	5,000	12,900	16,300	43,800	19,300	18,800	5,970	3,660	2,550	4,200
25	2,450	4,010	5,000	11,500	14,800	38,000	28,300	18,300	5,740	3,550	2,560	3,860
26	2,860	4,590	4,740	10,300	13,600	31,900	34,800	16,900	5,560	3,450	2,680	3,660
27	3,110	5,130	4,380	9,300	12,600	27,400	31,400	16,000	5,520	3,400	2,940	3,740
28	3,500	6,480	4,540	8,520	12,800	22,700	26,600	18,300	5,360	3,320	2,940	3,510
29	3,910	5,880	5,190	7,960	-	20,500	23,900	20,300	5,210	3,260	2,830	3,320
30	4,160	5,230	6,320	7,910	-	19,100	22,600	19,500	5,080	3,240	2,720	3,240
31	4,260	-	7,290	10,600	-	17,400	-	18,600	-	3,200	2,670	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff Inches	Runoff Acre-feet
October	88,030	4,260	2,370	2,840	0.587	0.68	174,600
November	137,350	7,670	2,710	4,578	.946	1.06	272,400
December	152,910	7,290	3,510	4,933	1.02	1.17	303,300
Calendar year 1944	2,689,640	30,800	2,130	7,349	1.52	20.66	5,335,000
January	511,740	35,300	6,040	16,510	3.41	3.93	1,015,000
February	900,800	71,200	12,800	32,170	6.65	6.92	1,787,000
March	753,100	48,800	10,200	24,290	5.02	5.79	1,494,000
April	699,800	35,600	13,400	23,330	4.82	5.38	1,388,000
May	647,100	34,200	14,800	20,870	4.31	4.97	1,284,000
June	257,910	16,800	5,080	8,597	1.78	1.98	511,600
July	120,580	5,000	3,200	3,890	.804	.93	239,200
August	87,530	3,180	2,550	2,824	.583	.67	173,600
September	95,670	4,280	2,560	3,189	.659	.74	189,800
Water year 1944-45	4,452,520	71,200	2,370	12,200	2.52	34.22	8,832,000

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

Willamette River at Salem, Oreg.

Location.- Water-stage recorder, lat. 44°56'40", long. 123°02'30", in SW¼ sec. 22, T. 7 S., R. 3 W., 300 feet upstream from highway bridge at Salem. Datum of gage is 113.61 feet above mean sea level, datum of 1929.
Drainage area.- 7,280 square miles.
Records available.- October 1909 to December 1916, October 1927 to September 1945.
Average discharge.- 25 years, 21,490 second-feet.
Extremes.- Maximum discharge during year, 104,000 second-feet Feb. 9 (gage height, 15.56 feet); minimum, 2,980 second-feet Oct. 25 (gage height, -4.06 feet).
1909-16, 1927-45: Maximum discharge observed, 315,000 second-feet Nov. 25, 1909 (gage height, 30.5 feet); minimum, 2,470 second-feet Aug. 27, 1940 (gage height, -4.45 feet).
Maximum discharge known, 500,000 second-feet Dec. 4, 1861 (gage height, about 39 feet), from rating curve extended above 250,000 second-feet in 1916.
Flood of Feb. 5, 1890, reached a stage of 37.1 feet.
Remarks.- Records good. Many small diversions for irrigation above station; part of flow of Salem Canal, which diverts water from North Santiam River, returns to Willamette River below station, through Mill Creek at Salem. Flow regulated at times by Cottage Grove and Fern Ridge Reservoirs (see pp. 110,122).
Cooperation.- Gage-height record collected in cooperation with U. S. Weather Bureau.

Rating table, water year 1944-45 (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Oct. 1 to Nov. 3, July 28 to Sept. 30)

-4.0	3,550	0.0	14,200	7.0	46,800
-3.4	4,645	+1.0	17,800	9.0	58,900
-2.8	5,830	2.2	22,400	12.0	77,900
-2.0	7,800	3.5	28,200	15.0	99,500
-1.0	10,900	5.0	35,700		

Discharge, in second-feet, water year October 1944 to September 1945

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar	Apr.	May	June	July	Aug.	Sept.
1	3,600	5,320	10,700	11,200	21,500	19,100	29,000	37,300	25,000	6,320	3,930	3,240
2	3,840	6,710	12,000	11,300	27,600	18,100	28,000	37,800	22,400	6,380	3,870	3,210
3	3,740	9,060	12,700	12,200	30,300	17,700	25,500	39,500	20,300	6,200	3,690	3,210
4	3,700	14,500	12,200	11,700	31,600	18,100	23,100	40,700	18,800	6,030	3,640	3,280
5	3,500	15,200	12,600	11,000	35,400	17,700	22,000	38,500	17,600	5,900	3,660	3,770
6	3,760	12,500	13,000	13,200	48,100	17,000	24,900	34,200	16,800	5,680	3,590	4,910
7	4,070	11,000	12,600	29,200	58,500	16,300	30,600	31,200	16,500	5,680	3,550	5,000
8	3,890	11,400	12,100	52,600	79,900	15,800	44,400	28,600	15,600	5,570	3,550	4,570
9	3,640	11,100	11,100	50,600	101,000	15,700	57,200	26,400	14,700	5,430	3,550	4,150
10	3,470	10,600	9,970	38,800	97,200	19,500	58,400	24,800	14,100	5,210	3,520	3,910
11	3,370	10,200	9,150	31,100	85,300	31,600	52,000	24,300	13,400	5,170	3,520	3,840
12	3,300	8,820	8,370	27,900	72,800	33,500	51,200	24,100	12,600	5,040	3,480	3,770
13	3,300	7,800	7,740	35,500	75,600	38,400	51,400	28,100	12,000	4,960	3,500	3,690
14	3,340	6,950	7,210	51,600	99,200	43,300	45,500	35,300	11,600	4,890	3,480	3,660
15	3,360	6,270	6,820	55,800	100,000	49,300	38,600	40,000	11,300	4,770	3,480	3,620
16	3,640	6,010	6,550	59,300	100,000	52,000	34,600	46,900	10,600	4,700	3,430	3,600
17	3,970	5,760	6,340	62,600	80,800	51,200	32,400	56,800	10,100	4,700	3,380	3,660
18	3,840	5,470	6,140	61,900	61,500	55,800	29,800	62,800	9,780	4,640	3,410	3,690
19	3,570	5,290	5,960	56,300	53,300	57,700	28,900	56,600	9,430	4,630	3,350	3,680
20	3,400	5,120	5,940	48,900	45,600	60,600	30,600	47,500	9,090	4,610	3,280	3,680
21	3,240	5,000	6,430	40,100	38,000	74,000	33,700	40,000	8,820	4,570	3,210	3,760
22	3,130	4,850	7,290	32,700	32,400	77,200	35,700	35,000	8,640	4,640	3,160	4,550
23	3,080	4,770	7,690	27,000	28,200	75,200	32,800	31,800	8,490	4,680	3,140	5,490
24	3,040	4,960	7,950	g23,000	25,500	69,300	32,600	29,600	8,070	4,770	3,090	5,830
25	3,010	6,320	7,920	g20,500	23,100	62,000	44,000	28,000	7,830	4,640	3,110	5,390
26	3,160	8,220	7,580	g18,500	21,100	53,000	51,300	25,700	7,420	4,480	3,190	4,910
27	3,520	12,000	7,130	g16,800	20,300	45,700	47,500	24,500	7,230	4,330	3,500	4,830
28	3,790	13,800	7,230	g15,400	20,100	38,400	41,200	28,800	7,080	4,150	3,770	4,810
29	4,200	12,200	8,490	g14,300	-	34,400	38,200	31,000	6,870	4,070	3,660	4,500
30	4,560	10,600	10,000	g13,900	-	31,900	37,200	29,400	6,720	4,000	3,460	4,330
31	4,820	-	11,500	15,500	-	29,100	-	27,600	-	3,960	3,310	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff Inches	Runoff Acre-feet
October	111,870	4,820	3,010	3,609	0.496	0.57	221,900
November	257,800	15,200	4,770	8,593	1.18	1.32	511,300
December	278,400	13,000	5,940	8,981	1.23	1.42	552,200
Calendar year 1944	4,481,130	55,500	2,730	12,240	1.68	22.89	8,889,000
January	970,400	62,600	11,000	31,300	4.30	4.96	1,925,000
February	1,513,900	101,000	20,100	54,070	7.43	7.73	3,003,000
March	1,228,600	77,200	15,700	39,950	5.49	6.33	2,457,000
April	1,132,300	58,400	22,000	37,740	5.18	5.76	2,246,000
May	1,092,800	62,800	24,100	35,250	4.84	5.58	2,166,000
June	368,870	25,000	6,720	12,300	1.69	1.88	731,600
July	155,100	6,620	3,960	5,003	.687	.79	307,600
August	107,460	3,930	3,090	3,466	.476	.55	213,100
September	124,560	5,830	3,210	4,152	.570	.64	247,100
Water year 1944-45	7,352,060	101,000	3,010	20,140	2.77	37.55	14,580,000

g Computed from graph based on gage readings.
Time basis: Pacific war time up to 2 a.m., Sept. 30, 1945; Pacific standard time thereafter. To convert war time to standard time, subtract 1 hour.

Salt Creek near Oakridge, Oreg.

Location.- Water-stage recorder, lat. 43°44', long. 122°25', in SW¼ sec. 23, T. 21 S., R. 3 E., 0.7 mile upstream from mouth and 2 miles scutheast of Oakridge. Datum of gage is 1,245.67 feet above mean sea level, datum of 1929.

Drainage area.- 113 square miles.

Records available.- July 1913 to September 1914, October 1933 to September 1945.

Average discharge.- 13 years, 265 second-feet.

Extremes.- Maximum discharge during year, 1,650 second-feet Feb. 13 (gage height, 4.69 feet); minimum, 72 second-feet Oct. 28 (gage height, 1.69 feet).
1913-14, 1933-45: Maximum discharge, 3,800 second-feet Dec. 31, 1942 (gage height, 7.15 feet), from rating curve extended above 1,700 second-feet; minimum, 55 second-feet Jan. 8, 1937 (computed on basis of record for Salmon Creek near Oakridge).

Remarks.- Records good. No diversion above station; slight diurnal fluctuation at times.

Cooperation.- Water-stage recorder inspected by employee of U. S. Forest Service.

Rating table, water year 1944-45 (gage height, in feet, and discharge, in second-feet)

1.7	74	2.3	220	3.3	620
1.9	120	2.6	310	3.7	885
2.1	170	2.9	420	4.1	1,180

Discharge, in second-feet, water year Octcber 1944 to September 1945

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	89	125	145	122	247	220	274	787	587	180	115	106
2	85	113	135	125	262	215	253	900	535	178	115	106
3	83	158	122	115	250	210	241	1,050	540	172	113	106
4	87	142	125	115	232	202	229	1,000	500	168	113	103
5	103	115	132	128	373	195	226	878	485	162	113	122
6	89	120	130	356	408	192	268	829	460	160	113	113
7	85	140	125	668	442	185	301	766	434	155	115	108
8	85	118	120	555	1,020	190	470	719	412	152	118	106
9	85	135	115	400	871	185	434	680	404	150	115	106
10	83	125	110	359	632	210	416	726	380	148	113	103
11	83	120	106	320	668	238	465	632	362	145	113	103
12	83	110	101	338	674	320	465	626	352	142	113	101
13	83	103	101	604	1,290	359	412	732	352	140	110	101
14	83	101	98	644	1,250	356	392	700	328	138	110	101
15	83	98	101	582	843	348	392	680	310	135	110	103
16	83	96	98	505	644	331	392	843	298	132	110	103
17	81	94	96	447	560	320	392	864	295	132	110	103
18	78	92	96	434	500	317	400	780	301	130	108	101
19	78	89	106	388	434	314	438	700	304	130	106	101
20	78	69	128	334	392	356	505	626	298	128	103	120
21	76	89	125	286	356	380	570	582	298	125	103	135
22	74	89	122	244	328	396	535	550	280	128	103	150
23	76	110	125	223	310	420	530	560	247	128	103	132
24	76	125	120	210	286	376	1,120	545	229	125	103	120
25	76	115	115	198	259	356	1,060	520	223	122	122	115
26	76	135	110	188	250	331	915	530	215	122	125	113
27	74	142	110	178	244	304	752	693	208	120	115	108
28	74	122	113	170	226	289	712	712	200	118	110	106
29	74	115	118	168	-	271	686	719	192	118	108	103
30	83	118	120	195	-	253	712	686	185	118	108	101
31	106	-	113	223	-	277	-	650	-	115	108	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff Inches	Runoff Acre-feet
October	2,554	106	74	82.4	0.729	0.84	5,070
November	3,443	158	89	115	1.02	1.13	6,830
December	3,581	145	96	116	1.03	1.18	7,100
Calendar year 1944	73,712	620	74	201	1.78	24.27	146,200
Jannary	9,822	668	115	317	2.81	3.23	19,480
February	14,251	1,290	226	509	4.50	4.69	23,270
Maroh	8,916	420	185	288	2.55	2.93	17,680
April	14,957	1,120	226	499	4.42	4.92	29,670
May	22,265	1,050	520	718	6.35	7.33	44,160
June	10,214	587	185	340	3.01	3.36	20,260
July	4,316	180	115	139	1.23	1.42	8,560
Augnst	3,444	125	103	111	.982	1.13	6,830
September	3,299	150	101	110	.973	1.09	6,540
Water year 1944-45	101,062	1,290	74	277	2.45	33.25	200,400

Peak discharge.- Jan. 6 (9:30 p.m.) 719 sec.-ft.; Jan. 13 (7 p.m.) 836 sec.-ft.; Feb. 8 (12 m.) 1,220 sec.-ft.; Feb. 13 (9:30 p.m.) 1,650 sec.-ft.
Time basis: Pacific war time up to 2 a.m., Sept. 30, 1945; Pacific standard time thereafter. To convert war time to standard time, subtract 1 hour.

Salmon Creek near Oakridge, Oreg.

Location.- Water-stage recorder, lat. 43°45', long. 122°23', in SW¼ sec. 7, T. 21 S., R. 4 E., a quarter of a mile upstream from Slide Creek and 4 miles east of Oakridge.
Drainage area.- 117 square miles at cable a quarter of a mile above gage, where all discharge measurements are made.
Records available.- October 1933 to September 1945. February 1913 to September 1914 at site 2 miles downstream, below Flat Creek; October 1914 to October 1919 at site 1 mile downstream.
Average discharge.- 12 years (1933-45), 349 second-feet.
Extremes.- Maximum discharge during year, 3,760 second-feet Feb. 13 (gage height, 5.88 feet); minimum, 99 second-feet Oct. 30 (gage height, 1.09 feet).
1913-19, 1933-45: Maximum discharge, 6,400 second-feet Jan. 12, 1918, from rating curve extended above 1,600 second-feet; minimum, 63 second-feet Jan. 8, 1937 (gage height, 0.87 foot).
Remarks.- Records good. No regulation above station. Since 1936 village of Oakridge has diverted water around station in an 8-inch pipe. Tunnel and control gates that were built to divert part of outflow from Waldo Lake into Salmon Creek Basin were not used during year, but leakage under gates is now about 8 second-feet.
Cooperation.- Water-stage recorder inspected by employee of U. S. Forest Service.

Rating tables, water year 1944-45 (gage height, in feet, and discharge in second-feet)

Oct. 1 to Feb. 12				Feb. 13 to Sept. 30			
1.1	100	2.3	450	1.3	120	3.1	830
1.3	133	2.7	640	1.6	187	3.6	1,180
1.6	205	3.1	860	1.9	272	4.2	1,670
1.9	300	3.6	1,190	2.3	420	4.8	2,300
				2.7	600	5.5	3,200

Discharge, in second-feet, water year October 1944 to September 1945

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	112	152	169	164	398	296	396	940	590	208	150	130
2	110	139	183	173	410	282	372	1,160	536	205	148	128
3	109	189	171	164	398	279	353	1,250	514	200	146	128
4	112	152	171	156	370	266	335	1,120	474	197	145	128
5	126	131	176	189	513	260	338	960	469	195	143	150
6	115	141	171	530	545	253	369	876	448	195	143	137
7	110	131	166	1,080	595	247	404	800	424	190	143	133
8	109	146	156	884	1,170	244	590	728	400	187	145	128
9	109	166	150	665	1,110	247	546	682	380	182	141	128
10	108	146	144	522	848	275	510	694	365	180	141	126
11	109	144	137	450	1,140	306	550	611	350	177	141	124
12	108	131	133	545	1,160	392	541	606	335	173	139	124
13	109	124	128	908	3,260	469	478	666	328	173	139	122
14	109	120	126	914	2,350	456	452	672	313	170	137	122
15	109	117	124	812	1,450	436	446	782	296	166	137	122
16	108	115	120	734	1,050	408	452	1,050	286	168	135	124
17	106	115	120	645	856	392	452	1,090	279	165	135	122
18	104	115	119	610	722	376	464	967	272	163	135	120
19	104	114	131	522	600	404	536	862	272	163	133	118
20	103	112	168	450	536	522	672	752	266	161	133	141
21	102	110	156	390	469	541	806	682	266	159	130	159
22	102	110	159	349	432	570	716	622	260	161	130	173
23	100	146	173	318	404	600	699	606	250	161	128	145
24	100	161	159	296	372	532	1,420	585	241	159	130	135
25	100	146	152	279	346	492	1,350	560	235	156	163	130
26	100	189	148	262	335	456	1,140	570	233	154	150	128
27	100	194	144	247	320	424	967	758	230	154	141	124
28	100	166	144	235	303	404	940	794	221	152	135	122
29	100	154	154	232	-	392	914	782	219	150	133	120
30	104	154	150	290	-	376	947	722	210	150	133	118
31	133	-	144	374	-	396	-	660	-	150	130	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff Inches	Runoff Acre-feet
October	3,330	133	100	107	0.915	1.06	6,600
November	4,230	194	110	143	1.22	1.36	8,490
December	4,666	189	119	151	1.29	1.48	9,250
Calendar year 1944	87,146	794	100	238	2.03	27.71	172,800
January	14,329	1,080	156	462	3.95	4.55	28,420
February	22,462	3,260	303	802	6.85	7.14	44,550
March	11,993	600	244	387	3.31	3.81	23,790
April	19,157	1,420	335	639	5.46	6.09	38,000
May	24,609	1,250	560	794	6.79	7.82	48,810
June	9,962	590	210	332	2.84	3.17	19,760
July	5,326	208	150	172	1.47	1.69	10,560
August	4,311	163	128	139	1.19	1.37	8,550
September	3,909	173	118	130	1.11	1.24	7,750
Water year 1944-45	128,334	3,260	100	352	3.01	40.78	254,500

Peak discharge.- Jan. 7 (4 p.m.) 1,270 sec.-ft.; Jan. 13 (6 p.m.) 1,100 sec.-ft.; Feb. 8 (11 a.m.) 1,370 sec.-ft.; Feb. 13 (12 m.) 3,760 sec.-ft.
Time basis: Pacific war time up to 2 a.m., Sept. 30, 1945; Pacific standard time thereafter. To convert war time to standard time, subtract 1 hour.

Waldo Lake Outlet near Oakridge, Oreg.

Location.- Water-stage recorder and artificial control on lake outlet, lat. 43°46', long. 122°03', in NW¼ sec. 7, T. 21 S., R. 6 E., on artificial outlet channel of Waldo Lake, 20 miles east of Oakridge. Altitude of water surface of lake and gage, 5,410 feet (from topographic map).
Drainage area.- 30 square miles.
Records available.- October 1936 to September 1945.
Extremes.- Maximum discharge during year, 66 second-feet May 29 (gage height, 1.76 feet); practically no flow Oct. 1 to Jan. 13, Sept. 4-30 (lake level below weir crest).
1936-45: Maximum discharge, 144 second-feet Jan. 2, 1943 (gage height, 2.98 feet), from rating curve extended above 80 second-feet; no flow at times.
Remarks.- Records good. At times seiches on Waldo Lake cause rapid changes in stage at gage several times per hour. Lake not artificially regulated. Diversion tunnel into head of Black Creek, near south end of lake, built about 1914, is not used, but there is leakage past control gates. Figures of discharge in second-feet per square mile and of runoff in inches, published in previous water-supply papers, are not indicative of natural yield as records do not include this leakage. Measurements of leakage have been made as listed below:

Date	Discharge (second-feet)	Date	Discharge (second-feet)
Aug. 19, 1936	1.5 (estimated)	Oct. 23, 1942	4.3
Oct. 7, 1936	1.7	July 12, 1945	8.2
Aug. 7, 1940	3.2	Sept. 18, 1945	8.0

Rating table, water year 1944-45 (gage height, in feet, and discharge, in second-feet)

0.0	0	0.4	8.5	1.2	39
.1	1.1	.6	15	1.5	54
.2	3.2	.8	22	1.8	68
.3	5.7	1.0	30		

Discharge, in second-feet, water year October 1944 to September 1945

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1				0	2.8	25	32	44	64	40	12	0.3
2				0	3.0	25	32	43	64	38	11	.2
3				0	3.4	25	32	43	65	37	10	.1
4				0	3.7	25	31	44	64	36	9.4	0
5				0	6.0	25	33	44	65	35	8.8	0
6				0	7.1	24	33	44	65	34	8.2	0
7				0	7.4	24	34	44	65	33	7.9	0
8				0	11	24	36	44	64	33	7.9	0
9				0	12	24	37	44	62	32	7.4	0
10				0	12	24	38	45	61	31	6.8	0
11				0	14	25	41	46	60	30	6.3	0
12				0	16	25	42	48	59	29	6.0	0
13				0	24	26	42	51	59	26	5.2	0
14				.2	26	29	41	53	57	27	4.7	0
15				.8	26	29	40	56	57	26	4.2	0
16				1.7	26	30	39	58	55	25	4.0	0
17				2.4	27	31	38	60	54	24	3.7	0
18				3.4	29	32	37	60	54	23	3.2	0
19				3.4	28	33	37	60	53	22	2.8	0
20				3.4	27	33	36	60	52	21	2.6	0
21				3.2	27	33	36	60	51	20	2.2	0
22				3.0	27	34	35	59	50	19	1.7	0
23				2.8	26	35	36	60	49	18	1.3	0
24				2.6	26	35	43	60	48	17	1.0	0
25				2.4	25	34	44	60	47	17	1.3	0
26				2.2	25	33	44	61	45	16	1.3	0
27				1.9	26	33	44	63	44	16	1.0	0
28				1.7	26	33	45	64	43	15	.9	0
29				1.7	-	33	44	66	42	14	.8	0
30				2.4	-	32	44	65	41	13	.7	0
31				2.6	-	32	-	65	-	13	.6	-

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 1944	4,512.6	32	0	12.	8,950
January	41.8	3.4	0	1.35	83
February	519.4	29	2.8	18.6	1,030
March	905	35	24	29.2	1,800
April	1,146	45	31	38.2	2,270
May	1,674	66	43	54.0	3,320
June	1,659	65	41	55.3	3,290
July	782	40	13	25.2	1,550
August	144.9	12	.6	4.67	287
September	.6	.3	0	.02	1.2
Water year 1944-45	6,872.7	66	0	18.8	13,630

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

North Fork of Middle Fork Willamette River near Oakridge, Oreg.

Location.- Water-etage recorder, lat. 43°45', long. 122°30', in SW¼ sec. 7, T. 21 S., R. 3 E., 1 mile upstream from mouth and 2½ miles northeast of Oakridge. Datum of gage is 1,029.6 feet above mean sea level (from river-profile survey).
Drainage area.- 246 square miles.
Records available.- October 1909 to September 1921 (fragmentary), September 1935 to September 1945. October 1913 to February 1916 at site half a mile upstream, above a small tributary.
Average discharge.- 10 years (1935-45), 671 second-feet.
Extremes.- Maximum discharge during year, 8,150 second-feet Feb. 13 (gage height, 9.53 feet); minimum, 40 second-feet (regulated) Aug. 19 (gage height, 0.25 foot); minimum daily, 101 second-feet Oct. 27-29.
1909-16, 1935-45: Maximum discharge determined, 15,900 second-feet (regulated) Dec. 31, 1942 (gage height, 14.24 feet), from rating curve extended above 5,800 second-feet by logarithmic plotting. Flood of Nov. 22, 1909, reached a stage of 12.4 feet, site and datum then in use (discharge not determined). Minimum discharge, 26 second-feet (regulated) Oct. 14, 1939.
Remarks.- Records good except those for periods of no gage-height record and those below 100 second-feet, which are poor. Tunnel and control gates that were built to divert part of outflow from Waldo Lake into Salmon Creek Basin were not used during year, but leakage under gates is now about 8 second-feet. Occasional diurnal fluctuation during low-water periods by log pond upstream.
Cooperation.- Gage-height record collected in cooperation with U. S. Weather Bureau.

Rating tables, water year 1944-45 (gage height, in feet, and discharge, in second-feet)

Oct. 1 to Feb. 7						Feb. 8 to Sept. 30							
0.7	103	1.6	340	3.0	1,070	0.8	130	1.7	410	3.0	1,110	5.7	3,380
.9	146	2.0	500	3.6	1,480	1.0	178	2.1	590	3.6	1,540	7.0	4,800
1.2	220	2.5	765	4.6	2,270	1.3	265	2.5	800	4.5	2,250	8.6	6,830

Discharge, in second-feet, water year October 1944 to September 1945

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	128	205	350	272	685	645	950	1,930	1,040	300	170	130
2	122	218	344	322	927	605	878	2,170	950	296	166	130
3	118	312	308	281	885	605	824	2,340	878	286	160	128
4	120	238	322	263	825	590	772	2,130	806	276	158	126
5	137	206	340	305	1,200	550	806	1,830	778	272	153	148
6	131	202	319	990	1,300	536	902	1,670	745	265	153	156
7	120	312	299	2,210	1,550	513	1,080	1,510	701	262	153	a140
8	118	222	278	1,970	3,380	504	1,560	1,380	660	256	160	h126
9	118	251	257	1,400	2,980	500	1,400	1,260	635	250	153	a125
10	116	228	240	1,070	2,140	600	1,280	1,300	610	241	175	a120
11	114	210	230	945	2,520	670	1,390	1,150	580	241	120	a120
12	114	200	215	1,200	2,480	789	1,350	1,120	545	235	146	117
13	114	182	208	1,930	8,150	938	1,170	1,230	518	232	146	117
14	116	170	200	2,060	4,820	944	1,060	1,260	500	228	142	115
15	114	163	195	1,760	3,140	932	a1,020	1,420	482	226	151	117
16	111	156	190	1,640	2,300	866	1,010	1,950	464	226	141	122
17	109	148	182	1,410	1,930	866	966	2,130	442	220	130	122
18	109	148	178	1,390	1,640	872	1,040	1,850	430	214	130	120
19	109	144	192	1,160	1,370	884	1,190	1,610	414	211	117	117
20	107	142	242	975	1,180	1,120	1,460	1,400	398	205	130	148
21	109	137	245	837	1,040	1,250	1,710	1,260	398	197	a128	205
22	107	137	240	732	938	1,240	1,520	1,200	394	211	a125	229
23	105	185	275	660	878	1,540	1,470	1,210	374	211	a125	176
24	105	266	251	606	812	1,280	3,080	1,190	360	200	a125	151
25	105	228	240	550	750	1,140	2,860	1,090	360	197	173	137
26	103	353	228	510	712	1,080	2,330	1,060	342	186	163	132
27	101	391	220	473	706	1,010	1,940	1,380	332	185	156	130
28	101	305	225	451	670	974	1,780	1,520	328	181	148	126
29	101	260	248	435	-	944	1,750	1,430	324	178	146	124
30	105	254	245	560	-	908	1,810	1,300	310	173	137	122
31	153	-	228	861	-	944	-	1,170	-	173	132	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff Inches	Runoff Acre-feet
October	3,540	153	101	114	0.463	0.54	7,020
November	6,575	391	137	219	.890	.99	13,040
December	7,734	350	176	249	1.01	1.17	15,340
Calendar year 1944	148,569	1,770	101	406	1.65	22.47	294,700
January	30,228	2,210	263	975	3.96	4.57	59,960
February	50,808	6,850	670	1,815	7.38	7.68	100,800
March	26,839	1,540	500	866	3.52	4.06	53,230
April	42,378	3,080	772	1,413	5.74	6.41	84,060
May	46,450	2,340	1,060	1,498	6.09	7.02	92,130
June	16,098	1,040	310	537	2.18	2.43	31,930
July	7,036	300	173	227	0.923	1.06	13,960
August	4,532	183	117	146	.593	.69	8,990
September	4,076	229	115	136	.553	.62	8,080
Water year 1944-45	246,294	6,850	101	675	2.74	37.24	488,500

a No gage-height record; discharge computed on basis of records for Middle Fork Willamette River at Eula.
h Computed on basis of staff-gage reading.
Time basis: Pacific war time up to 2 a.m., Sept. 30, 1945; Pacific standard time thereafter. To convert war time to standard time, subtract 1 hour.

Fall Creek below Winberry Creek, near Fall Creek, Oreg.

Location.- Staff gage, lat. 43°57', long. 122°47', near center of sec. 2, T. 19 S., R. 1 W., 1⅛ miles downstream from Winberry Creek and 2½ miles southeast of Fall Creek. Datum of gage is 637.80 feet above mean sea level, datum of 1929.

Drainage area.- 190 square miles.

Records available.- October to December 1911 (gage heights only), September 1935 to September 1945.

Average discharge.- 10 years, 491 second-feet.

Extremes.- Maximum discharge observed during year, 7,520 second-feet Feb. 13 (gage height, 10.8 feet, from graph based on gage readings), from rating curve extended above 4,000 second-feet by logarithmic plotting; minimum observed, 26 second-feet Oct. 28, 29 (gage height, 0.91 foot).

1935-45: Maximum discharge, 16,000 second-feet Dec. 31, 1942 (gage height, 15.5 feet, from graph based on gage readings), from rating curve extended above 4,000 second-feet by logarithmic plotting; minimum observed, 19 second-feet Dec. 1, 1936.

Remarks.- Records good except those for periods of doubtful gage-height record and period in which shifting-control method was used, which are fair. Gage read once daily, oftener during periods of high water. No diversion above station.

Rating table, water year 1944-45, except during period of shifting control
(gage height, in feet, and discharge, in second-feet)

0.9	33	1.9	161	3.5	640	6.6	2,640
1.1	50	2.2	222	4.0	880	7.6	3,600
1.3	70	2.6	320	4.8	1,330	8.8	4,910
1.6	110	3.0	450	5.6	1,870	10.0	6,400

Discharge, in second-feet, water year October 1944 to September 1945

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	41	108	290	310	840	450	716	830	482	100	50	38
2	35	d234	341	302	815	429	616	780	380	95	50	37
3	31	332	240	282	730	464	576	680	338	90	49	37
4	37	222	234	260	580	d450	492	608	332	87	48	36
5	74	126	218	282	1,480	429	640	499	315	85	46	55
6	46	d290	190	1,200	1,840	384	940	485	302	85	46	63
7	37	204	165	2,350	1,450	359	1,130	422	285	83	46	41
8	33	154	128	1,370	2,550	350	2,290	390	270	77	45	38
9	33	245	116	765	2,230	326	1,730	356	240	75	43	35
10	32	147	98	632	1,390	572	1,330	380	227	75	42	32
11	31	123	91	580	1,730	820	2,220	347	215	72	41	31
12	33	90	82	1,080	1,880	895	2,020	326	204	70	41	30
13	33	77	80	1,660	6,640	1,260	1,460	556	198	68	43	29
14	33	62	74	1,430	4,200	1,230	1,170	548	184	68	42	28
15	33	58	67	1,340	2,010	1,390	1,100	770	176	64	41	28
16	32	52	d64	2,370	1,380	1,110	1,030	2,000	165	63	39	38
17	31	50	59	1,600	1,160	1,070	915	2,270	157	61	39	31
18	31	49	57	1,710	1,140	1,050	880	1,720	150	61	38	29
19	31	46	64	1,280	925	1,320	970	1,210	147	63	36	28
20	28	43	101	950	810	2,010	1,000	970	138	61	35	39
21	27	40	131	624	632	2,030	940	860	136	59	35	82
22	27	36	107	506	560	2,100	703	850	133	70	35	172
23	27	54	200	429	502	2,410	721	830	129	77	34	90
24	27	308	120	362	485	1,650	2,600	690	126	63	34	63
25	27	222	115	323	436	1,290	2,410	532	123	59	45	48
26	27	157	102	280	422	1,000	1,850	552	116	57	92	44
27	27	318	98	260	492	870	1,300	930	113	55	59	41
28	26	250	92	240	468	790	1,200	1,030	107	55	48	39
29	26	165	169	227	-	810	1,020	820	104	54	42	36
30	27	138	236	350	-	694	890	694	101	53	41	35
31	85	-	180	890	-	755	-	552	-	52	39	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff	
						Inches	Acre-feet
October	1,068	85	26	34.5	0.182	0.21	2,120
November	4,400	332	36	147	.774	.86	8,730
December	4,309	341	57	139	.732	.84	8,550
Calendar year 1944	102,383	2,010	24	280	1.47	20.04	203,100
January	26,244	2,370	227	847	4.46	5.14	52,050
February	39,777	6,640	422	1,421	7.48	7.79	78,900
March	30,767	2,410	326	992	5.22	6.02	61,030
April	36,859	2,600	492	1,229	6.47	7.21	73,110
May	24,487	2,270	326	790	4.16	4.79	48,570
June	6,093	482	101	203	1.07	1.19	12,090
July	2,157	100	52	69.6	.366	.42	4,280
August	1,364	92	34	44.0	.232	.27	2,710
September	1,373	172	28	45.8	.241	.27	2,720
Water year 1944-45	178,898	6,640	26	490	2.58	35.01	354,900

d Doubtful gage-height record; discharge computed on basis of records for Middle Fork Willamette River at Eula and Little Fall Creek near Fall Creek.

Note.- Shifting-control method used Oct. 5 to Nov. 1.

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

Little Fall Creek near Fall Creek, Oreg.

Location.- Staff gage, lat. 43°59', long. 122°45', in sec. 25, T. 18 S., R. 1 W., 4 miles northeast of Fall Creek.

Drainage area.- 48 square miles.

Records available.- September 1935 to September 1945.

Average discharge.- 10 years, 166 second-feet.

Extremes.- Maximum discharge during year, 2,780 second-feet Feb. 13 (gage height, 6.2 feet, from floodmark); minimum observed, 14 second-feet Oct. 19-30.
1935-45: Maximum discharge, 5,000 second-feet Dec. 31, 1942 (gage height, 7.60 feet, from floodmark), from rating curve extended above 1,800 second-feet by velocity-area studies; minimum observed, 10 second-feet Dec. 1, 1936, Aug. 26, 27, Aug. 30 to Sept. 1, 1940.

Remarks.- Records fair. Gage read twice daily Oct. 1 to June 30, once daily thereafter. No regulation or diversion above station.

Rating tables, water year 1944-45 (gage height, in feet, and discharge, in second-feet)

Oct. 1 to Jan. 15				Jan. 16 to Sept. 30					
1.3	19	2.3	115	1.3	18	2.3	115	4.1	745
1.5	28	2.6	170	1.5	28	2.6	175	4.6	1,060
1.7	41	2.9	245	1.7	41	2.9	255	5.1	1,500
1.9	60	3.3	375	1.9	60	3.3	390	5.7	2,150
2.1	84	3.7	520	2.1	84	3.7	555		

Discharge, in second-feet, water year October 1944 to September 1945

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	19	59	84	125	218	180	261	252	136	49	26	18
2	17	58	90	136	212	161	237	234	129	47	25	17
3	16	129	72	105	218	180	215	215	122	46	24	17
4	19	67	83	93	202	175	195	195	117	45	24	17
5	28	41	79	112	426	164	306	180	115	43	24	45
6	21	45	70	296	514	157	398	161	109	43	24	23
7	18	78	62	512	434	148	414	148	102	41	23	20
8	17	52	54	400	836	148	665	138	99	40	22	18
9	17	78	50	257	645	144	550	142	99	39	22	18
10	17	54	45	228	486	218	498	142	93	38	22	17
11	16	42	41	188	586	225	725	125	90	37	22	16
12	16	35	38	269	528	252	636	166	86	36	22	16
13	16	30	35	512	2,210	306	502	195	81	35	22	16
14	16	28	34	473	1,360	383	430	243	79	34	22	16
15	16	26	33	452	818	414	386	246	76	33	20	17
16	15	25	31	902	600	369	355	506	74	33	20	17
17	15	24	30	636	537	355	320	552	71	33	20	16
18	15	23	29	568	466	355	299	446	69	33	19	15
19	14	22	33	474	380	454	302	358	67	32	18	15
20	14	21	52	376	327	660	302	299	66	31	18	54
21	14	21	45	292	276	640	282	258	64	31	18	79
22	14	21	43	243	243	695	249	225	61	31	17	50
23	14	36	58	205	228	720	276	220	60	32	17	38
24	14	84	46	180	205	578	600	195	58	30	17	27
25	14	58	41	157	185	486	555	180	57	29	50	24
26	14	113	38	140	190	414	454	166	56	29	34	22
27	14	96	37	129	200	344	383	158	54	28	23	20
28	14	70	40	120	185	327	334	185	52	28	20	19
29	14	58	80	118	-	306	299	173	51	26	20	18
30	16	54	78	150	-	276	273	159	50	26	18	17
31	41	-	64	228	-	273	-	148	-	26	18	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff	
						Inches	Acre-feet
October	525	41	14	16.9	0.352	0.41	1,040
November	1,548	129	21	51.6	1.08	1.20	3,070
December	1,615	90	29	52.1	1.09	1.25	3,200
Calendar year 1944	34,533	600	14	94.4	1.97	26.76	68,480
January	9,076	902	93	293	6.17	7.03	18,000
February	13,715	2,210	185	490	10.2	10.63	27,200
March	10,507	720	144	339	7.06	8.14	20,840
April	11,701	725	195	390	8.12	9.07	23,210
May	7,020	532	125	226	4.71	5.44	13,920
June	2,441	136	50	81.4	1.70	1.89	4,840
July	1,094	49	26	35.0	.729	.84	2,150
August	691	50	17	22.3	.465	.54	1,370
September	722	79	15	24.1	.502	.56	1,430
Water year 1944-45	60,645	2,210	14	166	3.46	47.00	120,300

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

Coast Fork Willamette River at London, Oreg.

Location.- Water-stage recorder, lat. 43°39', long. 123°05', in SW¼ sec. 20, T. 22 S., R. 3 W., 0.6 mile north of London and 11 miles south of Cottage Grove. Datum of gage is 852.65 feet above mean sea level, datum of 1929 (levels by Corps of Engineers, U. S. Army).

Drainage area.- 69 square miles.

Records available.- September 1935 to September 1945.

Average discharge.- 10 years, 176 second-feet.

Extremes.- Maximum discharge during year, 1,750 second-feet Feb. 13 (gage height, 5.52 feet); minimum, 14 second-feet Oct. 21-23, 26-28, Sept. 13-15, 18-20.
1935-45: Maximum discharge, 6,650 second-feet Dec. 30, 1942 (gage height, 11.11 feet), from rating curve extended above 3,400 second-feet; minimum, 10 second-feet on several days in 1936, 1938, 1939, and 1940.

Remarks.- Records good. No diversion above station; millpond 3 miles above station may cause slight regulation at times.

Rating table, water year 1944-45 (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Oct. 1 to Nov. 3)

1.1	14	2.0	127	3.7	765
1.2	18	2.3	205	4.1	965
1.4	32	2.6	305	4.5	1,160
1.6	55	2.9	420	5.0	1,440
1.8	87	3.3	585		

Discharge, in second-feet, water year October 1944 to September 1945

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	21	68	137	78	159	169	263	220	123	41	22	15
2	18	40	104	78	194	161	226	208	114	36	22	15
3	16	97	78	66	199	172	199	185	104	37	22	15
4	17	64	64	58	191	172	180	164	102	36	22	15
5	26	51	56	68	630	164	205	146	106	35	21	35
6	20	55	50	149	572	161	388	134	110	35	21	22
7	17	87	45	284	432	159	464	123	104	34	20	18
8	17	58	40	235	995	202	915	114	98	33	19	17
9	17	139	37	156	662	199	630	114	95	32	19	16
10	16	87	33	172	436	418	532	116	87	31	19	16
11	16	72	31	159	404	440	675	104	84	30	19	16
12	16	51	30	149	214	384	670	151	77	30	19	15
13	17	39	28	289	1,360	424	508	185	75	29	19	15
14	17	33	26	344	1,080	612	408	197	72	29	18	14
15	16	29	26	484	603	657	356	194	67	29	18	15
16	16	36	25	603	424	508	322	561	66	29	17	16
17	15	25	25	440	432	736	284	567	61	29	17	15
18	15	23	24	504	508	756	263	516	60	29	17	14
19	15	22	29	368	388	775	266	396	58	30	16	14
20	15	20	41	260	308	1,400	274	305	55	27	16	22
21	14	20	37	194	246	1,060	249	249	55	27	16	72
22	14	19	42	154	208	975	205	214	54	33	15	84
23	14	63	47	127	188	920	202	194	51	32	15	37
24	15	132	41	110	161	662	400	174	50	27	15	26
25	15	75	38	96	146	536	488	159	48	26	23	23
26	14	102	35	87	144	448	420	151	47	26	22	22
27	14	85	34	78	167	368	330	156	46	25	18	20
28	14	62	66	73	177	330	298	167	45	24	17	19
29	15	51	123	70	-	305	266	169	43	23	16	18
30	22	59	139	80	-	274	242	154	42	23	16	17
31	50	-	93	106	-	277	-	137	-	23	15	-

Month	Second-feet-days	Maximum	Minimum	Mean	Per square mile	Runoff Inches	Runoff Acre-feet
October	544	50	14	17.5	0.254	0.29	1,080
November	1,754	139	19	58.5	.848	.95	3,480
December	1,624	139	24	52.4	.759	.88	3,220
Calendar year 1944	36,091	582	12	98.6	1.43	19.46	71,580
January	6,119	603	58	197	2.86	3.30	12,140
February	11,628	1,360	144	415	6.01	6.27	23,060
March	14,824	1,400	159	478	6.93	7.99	29,400
April	11,128	915	180	371	5.38	6.00	22,070
May	6,624	567	104	214	3.10	3.57	13,140
June	2,199	123	42	73.3	1.06	1.19	4,360
July	933	41	23	30.1	.436	.50	1,860
August	571	23	15	18.4	.267	.31	1,130
September	678	84	14	22.6	.328	.37	1,340
Water year 1944-45	58,626	1,400	14	161	2.33	31.62	116,300

Peak discharge.- Feb. 13 (7 p.m.) 1,750 sec.-ft.; Mar. 20 (2:30 p.m.) 1,580 sec.-ft.
Time basis: Pacific war time up to 2 a.m., Sept. 30, 1945; Pacific standard time thereafter.
To convert war time to standard time, subtract 1 hour.

Cottage Grove Reservoir near Cottage Grove, Oreg.

Location.- Water-stage recorder, lat. 43°43', long. 123°03', in NE¼ sec. 28, T. 21 S., R. 3 W., in east abutment of dam on Coast Fork Willamette River, 5½ miles south of Cottage Grove. Gage readings are elevations above mean sea level (surveys by Corps of Engineers, U. S. Army).

Drainage area.- 104 square miles.

Records available.- October 1942 to September 1945.

Extremes.- Maximum contents during year, 34,120 acre-feet May 17, 18 (elevation, 791.89 feet); minimum, 2,669 acre-feet Nov. 23 (elevation, 748.69 feet).
1942-45: Maximum contents observed 34,200 acre-feet June 2, 1943 (elevation, 791.95 feet); minimum observed since first filling, 646 acre-feet Jan. 26, 1944 (elevation, 738.74 feet).

Remarks.- Reservoir is formed by earth-fill dam with concrete spillway completed by Corps of Engineers, U. S. Army, in 1942; storage began Oct. 31, 1942 (slight pondage at times in water year 1941-42, when inflow temporarily exceeded 2,600 second-feet, capacity of outlets). Capacity, 33,090 acre-feet between elevation 719.0 feet (outlet conduit) and 791.0 feet (crest of spillway). Dead storage negligible. Reservoir used for flood control and improvement of navigation below Albany. Daily contents computed from reservoir elevation at midnight.

Cooperation.- Gage readings furnished and recorder inspected by Corps of Engineers, U. S. Army.

Contents, in acre-feet, water year October 1944 to September 1945

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	16,190	3,893	3,678	2,987	3,401	13,290	23,390	31,640	33,410	33,190	32,490	31,020
2	15,750	3,869	3,576	2,903	3,560	13,690	23,670	31,850	33,400	33,190	32,450	30,600
3	15,560	3,483	3,416	2,892	3,791	14,090	23,950	31,940	33,380	33,180	32,420	29,870
4	15,400	3,238	3,229	2,906	4,105	14,420	24,300	32,100	33,370	33,100	32,340	29,000
5	15,240	3,178	3,027	2,935	5,119	14,670	24,700	32,280	33,390	32,860	32,300	28,110
6	15,060	3,166	2,943	3,178	5,363	14,930	25,030	32,500	33,390	32,930	32,280	27,170
7	14,880	3,148	2,917	3,080	5,253	15,190	25,430	32,720	33,390	32,980	32,250	26,230
8	14,690	3,124	2,884	3,296	5,957	15,520	25,950	32,910	33,370	33,000	32,210	25,290
9	14,510	3,059	2,845	3,121	5,981	15,870	26,040	33,190	33,340	33,000	32,180	24,380
10	14,320	3,039	2,791	3,062	6,373	16,360	26,350	32,220	33,320	32,980	32,130	23,460
11	14,140	3,051	2,766	3,036	6,782	16,710	26,880	33,410	33,310	32,980	32,050	22,580
12	13,950	3,042	2,755	3,166	7,035	16,950	27,000	33,560	33,300	32,980	32,010	21,600
13	13,220	2,996	2,749	3,348	8,987	17,400	27,090	33,610	33,290	32,970	31,960	20,730
14	11,400	2,940	2,758	3,420	9,517	18,070	27,520	33,600	33,270	32,960	31,940	19,850
15	9,034	2,884	2,763	3,658	9,205	18,140	28,060	33,580	33,250	32,950	31,940	18,980
16	7,405	2,828	2,766	3,538	9,135	18,160	28,460	34,090	33,270	32,940	31,770	18,090
17	6,518	2,791	2,766	3,193	9,307	19,140	28,760	34,110	33,270	32,930	31,830	17,200
18	5,962	2,763	2,775	3,223	9,409	19,570	28,970	34,070	33,260	32,930	31,690	16,480
19	5,708	2,735	2,791	3,082	9,535	19,640	29,260	33,910	33,250	32,930	31,660	15,540
20	5,452	2,705	2,833	3,127	9,883	20,800	29,530	33,780	33,240	32,910	31,610	14,660
21	5,205	2,688	2,864	3,241	10,230	20,330	29,700	33,690	33,240	32,870	31,550	14,000
22	4,954	2,672	2,917	3,289	10,550	20,300	29,840	33,620	33,230	32,880	31,510	13,330
23	4,698	2,747	2,978	3,283	11,000	20,530	30,080	33,590	33,230	32,890	31,450	12,580
24	4,466	2,987	3,027	3,226	11,410	20,870	30,300	33,550	33,220	32,870	31,430	11,790
25	4,318	3,112	3,062	3,136	11,750	21,210	30,410	33,520	33,200	32,860	31,360	11,050
26	4,221	3,250	3,091	3,103	12,120	21,850	30,600	33,510	33,190	32,820	31,340	10,640
27	4,116	3,376	3,127	3,077	12,500	22,420	30,900	33,510	33,190	32,790	31,310	10,440
28	4,019	3,454	3,208	3,033	12,920	22,570	31,040	33,530	33,200	32,670	31,260	10,230
29	3,924	3,515	3,277	3,056	-	22,560	31,220	33,510	33,190	32,590	31,220	10,020
30	3,866	3,592	3,256	3,118	-	22,850	31,440	33,480	33,190	32,560	31,180	9,797
31	3,873	-	3,136	3,217	-	23,160	-	33,450	-	32,510	31,130	-

Monthly elevation and contents, water year October 1944 to September 1945

Date	Elevation (feet)†	Contents (acre-feet)	Change in contents during month (acre-feet)
Sept. 30	774.87	17,040	-
Oct. 31	752.64	3,873	-13,167
Nov. 30	751.80	3,592	-281
Dec. 31	750.33	3,136	-456
Calendar year 1944	-	-	+2,269
Jan. 31	750.60	3,217	+81
Feb. 28	769.50	12,920	+9,703
Mar. 31	781.69	23,160	+10,240
Apr. 30	789.56	31,440	+8,280
May 31	791.31	33,450	+2,010
June 30	791.09	33,190	-260
July 31	790.50	32,510	-680
Aug. 31	789.28	31,130	-1,380
Sept. 30	764.74	9,797	-21,333
Water year 1944-45	-	-	-7,243

† Elevation at 12 p.m.
Time basis: Pacific war time up to 2 a.m., Sept. 30, 1945; Pacific standard time thereafter. To convert war time to standard time, subtract 1 hour.

Coast Fork Willamette River below Cottage Grove Dam, Oreg.

Location.- Water-stage recorder, lat. 43°43', long. 123°03', in NE¼ sec. 28, T. 21 S., R. 3 W., at bridge a quarter of a mile downstream from Cottage Grove Reservoir dam and 5¼ miles south of Cottage Grove. Datum of gage is 711.00 feet above mean sea level (Corps of Engineers, U. S. Army, bench mark).

Drainage area.- 104 square miles.

Records available.- October 1944 to September 1945. January 1939 to September 1944 at site 0.8 mile downstream, published as Coast Fork Willamette River near Cottage Grove.

Extremes.- Maximum discharge during year, 1,850 second-feet (regulated) Oct. 15 (gage height, 7.06 feet); practically no flow July 5-7.

Remarks.- Records excellent. No diversion above station. Flow regulated by Cottage Grove Reservoir.

Rating table, water year 1944-45 (gage height, in feet, and discharge, in second-feet)

1.9	0.9	2.6	27	4.0	290
2.0	2.1	2.8	40	4.5	470
2.1	3.8	3.0	60	5.0	690
2.2	6.3	3.2	94	5.6	990
2.3	10	3.4	135	6.2	1,320
2.4	15	3.7	205	7.0	1,810

Discharge, in second-feet, water year October 1944 to September 1945

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	418	56	112	180	120	35	215	175	171	42	31	64
2	237	91	188	142	182	34	160	175	157	40	31	204
3	102	295	188	85	146	35	127	175	146	37	31	369
4	102	223	185	63	102	69	78	142	135	74	51	466
5	102	92	182	63	370	90	95	100	142	155	31	494
6	102	66	106	63	700	90	319	60	148	0	31	490
7	104	102	66	179	681	90	394	42	139	3	31	486
8	104	87	66	334	962	92	916	42	129	24	31	482
9	104	181	66	290	872	92	780	27	124	24	31	478
10	104	118	65	245	419	268	560	54	114	25	31	474
11	104	65	50	203	341	358	746	108	106	25	48	470
12	106	65	42	122	414	362	910	150	96	24	32	466
13	380	65	36	240	952	362	665	239	90	24	32	462
14	915	65	29	380	1,300	534	329	269	85	24	32	458
15	1,230	65	29	485	1,000	915	230	257	96	24	32	450
16	830	59	29	840	645	765	228	497	66	24	31	446
17	438	46	29	748	542	681	228	780	70	24	31	442
18	252	42	30	591	695	960	228	760	68	24	49	438
19	139	41	30	525	490	1,030	210	627	66	24	31	434
20	137	41	30	308	273	1,420	198	482	63	24	31	430
21	137	36	30	185	190	1,760	218	390	60	51	31	422
22	135	32	31	182	155	1,340	188	324	56	31	31	418
23	135	32	31	180	63	1,120	182	287	53	31	31	414
24	135	32	31	180	35	747	380	263	53	31	31	406
25	88	32	31	180	35	555	586	236	52	31	51	402
26	58	32	31	137	35	327	446	220	48	31	31	213
27	58	32	31	118	35	220	293	222	46	31	31	116
28	58	32	31	118	35	389	314	230	44	62	31	116
29	56	32	106	79	-	391	260	233	42	60	31	116
30	56	32	185	83	-	218	200	220	42	31	31	116
31	56	-	182	96	-	215	-	195	-	31	31	-

Month	Observed				Change in contents in Cottage Grove Reservoir (acre-feet)	Adjusted for change in contents			
	Discharge in second-feet			Runoff in acre-feet		Runoff in acre-feet	Discharge in second-feet		Runoff in inches
	Maximum	Minimum	Mean				Mean	Per square mile	
October	1,230	56	225	13,850	-13,167	683	11.1	0.107	0.12
November	295	32	73.0	4,340	-281	4,059	68.2	.656	.73
December	188	29	73.5	4,520	-456	4,064	66.1	.636	.73
Calendar year	-	-	-	-	-	-	-	-	-
January	840	63	246	15,120	+81	15,200	247	2.38	2.74
February	1,300	35	421	23,380	+9,703	33,080	596	5.73	5.97
March	1,760	34	502	30,870	+10,240	41,110	669	6.43	7.41
April	916	78	356	21,190	+8,280	29,470	495	4.76	5.31
May	780	27	257	15,830	+2,010	17,840	290	2.79	3.22
June	171	42	90.2	5,370	-260	5,110	85.9	.826	.92
July	155	0	35.0	2,150	-680	1,470	23.9	.230	.27
August	51	31	33.5	2,060	-1,380	680	11.1	.107	.12
September	494	64	375	22,300	-21,333	967	16.3	.157	.18
Water year 1944-45	1,760	0	222	161,000	-7,243	153,700	212	2.04	27.72

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

Coast Fork Willamette River at Saginaw, Oreg.

Location.- Water-stage recorder, lat. 43°59'05", long. 123°02'30", in NW¼ sec. 15, T. 20 S., R. 3 W., at Saginaw, 1 mile downstream from Row River. Datum of gage is 595.47 feet above mean sea level, datum of 1929.

Drainage area.- 529 square miles.

Records available.- October 1923 to September 1945.

Average discharge.- 19 years (1925-26, 1927-45), 1,121 second-feet.

Extremes.- Maximum discharge during year, 12,100 second-feet Feb. 13 (gage height, 7.43 feet); minimum, 62 second-feet Aug. 24.
1923-45: Maximum discharge, 30,600 second-feet Dec. 30, 1942 (gage height, 11.92 feet); minimum observed, 7 second-feet July 31, 1928.

Remarks.- Records good except those for October to December, which are poor. Small diversions and regulation by log ponds above station; regulation by Cottage Grove Reservoir (see p. 110).

Cooperation.- Gage-height record collected in cooperation with U. S. Weather Bureau.

Discharge, in second-feet, water year October 1944 to September 1945

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug	Sept.
1	467	363	649	594	1,380	972	1,770	2,000	1,150	190	89	82
2	318	396	804	768	1,770	933	1,450	2,000	985	175	89	218
3	158	720	660	550	1,580	946	1,230	1,830	884	160	85	400
4	158	732	561	396	1,420	933	1,050	1,500	776	170	89	515
5	173	352	572	440	4,300	920	1,060	1,230	896	297	102	559
6	202	280	440	1,450	4,690	884	1,940	1,060	985	131	85	581
7	182	539	352	3,290	3,620	836	2,650	908	959	112	80	570
8	168	429	310	2,530	6,810	872	6,090	824	836	115	80	548
9	163	684	270	1,610	5,380	884	4,590	776	764	123	80	537
10	158	583	250	1,390	3,210	1,840	3,470	776	680	123	77	525
11	158	462	216	1,340	2,840	2,510	4,240	752	603	119	82	515
12	158	310	188	1,200	2,820	2,490	4,710	848	537	115	95	515
13	405	250	174	2,420	8,800	3,130	3,640	1,220	493	115	82	504
14	1,000	230	160	2,800	8,120	3,490	2,670	1,420	440	112	82	504
15	1,270	195	151	2,990	4,830	4,200	2,350	1,390	450	108	82	493
16	926	174	142	4,040	3,090	3,640	2,220	3,200	380	105	80	493
17	517	156	142	3,150	2,620	3,720	2,020	4,000	360	108	74	482
18	374	138	146	3,330	3,720	4,520	1,900	3,530	333	108	85	471
19	209	133	151	2,580	2,630	4,180	2,170	3,050	306	112	85	471
20	202	128	230	1,750	1,950	7,300	2,350	2,440	297	105	74	493
21	202	120	310	1,330	1,510	7,200	2,290	1,990	270	115	67	603
22	195	138	290	1,080	1,320	5,920	1,780	1,690	270	127	67	812
23	195	167	451	946	1,150	5,820	1,590	1,640	250	127	64	636
24	202	550	418	860	972	4,340	4,740	1,640	244	115	64	548
25	156	451	330	776	884	3,270	5,340	1,450	224	108	89	493
26	112	517	260	716	824	2,690	4,150	1,270	224	105	115	315
27	112	660	230	614	933	2,070	2,800	1,450	212	98	98	180
28	108	418	260	592	972	1,970	2,540	1,950	200	102	82	175
29	108	310	561	515	-	1,970	2,400	2,000	195	147	77	170
30	112	260	804	636	-	1,610	2,170	1,690	190	92	74	165
31	151	-	616	1,090	-	1,740	-	1,380	-	92	74	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff	
						Inches	Acre-feet
October	9,019	1,270	108	291	0.550	0.63	17,890
November	10,845	732	120	362	.684	.76	21,510
December	11,098	804	142	358	.677	.78	22,010
Calendar year 1944	230,476	4,040	51	630	1.19	13.21	457,200
January	47,773	4,040	396	1,541	2.91	3.36	94,760
February	84,145	8,800	824	3,005	5.68	5.92	166,900
March	87,800	7,300	836	2,832	5.35	6.17	174,100
April	83,370	6,090	1,050	2,779	5.25	5.86	165,400
May	52,904	4,000	752	1,707	3.23	3.72	104,900
June	15,393	1,150	190	513	.970	1.08	30,530
July	3,931	297	92	127	.240	.28	7,800
August	2,548	115	64	82.2	.155	.18	5,050
September	13,574	812	82	452	.854	.95	26,920
Water year 1944-45	422,400	8,800	64	1,157	2.19	29.69	837,800

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

Row River at Star, Oreg.

Location.- Water-stage recorder, lat. 43°44', long. 122°53', in NW¼ sec. 24, T. 21 S., R. 2 W., half a mile west of Star and 3 miles upstream from Teeter Creek. Datum of gage is 856.16 feet above mean sea level, datum of 1929.

Drainage area.- 211 square miles.

Records available.- September 1935 to September 1945.

Average discharge.- 10 years, 522 second-feet.

Extremes.- Maximum discharge during year, 5,400 second-feet Feb. 13 (gage height, 8.92 feet); minimum, 16 second-feet Oct. 28 (gage height, 1.52 feet).
1935-45: Maximum discharge, 18,500 second-feet Dec. 30, 1942 (gage height, 14.00 feet), from rating curve extended above 9,300 second-feet; minimum, 12 second-feet Sept. 2, 1940.

Remarks.- Records excellent except those below 50 second-feet, which are good. No diversion above station; possibly slight regulation at times by log ponds.

Cooperation.- Gage-height record collected in cooperation with U. S. Weather Bureau.

Rating table, water year 1944-45 (gage height, in feet, and discharge, in second-feet)

1.5	15	2.9	162	5.0	1,000
1.7	26	3.2	225	5.7	1,500
2.0	47	3.6	333	6.5	2,200
2.3	76	4.0	477	7.5	3,290
2.6	112	4.5	710	8.5	4,660

Discharge, in second-feet, water year October 1944 to September 1945

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	45	142	336	221	726	453	886	1,280	577	85	33	23
2	33	108	306	339	850	437	685	1,330	481	82	33	22
3	28	347	225	242	710	433	577	1,200	404	79	31	21
4	29	272	201	195	630	426	498	910	359	77	30	21
5	43	127	237	252	2,020	390	502	732	485	74	29	30
6	47	100	197	319	1,830	355	1,020	645	528	71	28	39
7	35	295	157	1,930	1,550	324	1,470	559	502	67	27	28
8	31	170	130	1,210	3,490	346	3,090	485	415	63	25	24
9	28	315	109	660	2,280	376	1,810	433	355	65	24	22
10	25	223	94	586	1,410	955	1,380	422	309	63	24	21
11	25	227	83	550	1,430	1,190	1,640	355	272	61	23	19
12	25	144	75	591	1,390	1,260	1,730	396	247	57	24	18
13	25	102	68	1,310	4,570	1,530	1,360	519	227	55	24	18
14	25	79	63	1,320	3,420	1,400	1,160	620	207	53	23	18
15	25	69	58	1,200	1,780	1,380	1,200	615	190	52	22	18
16	24	60	54	1,440	1,190	1,060	1,160	1,460	178	52	22	21
17	23	55	59	1,150	1,070	1,110	1,030	1,830	160	51	22	21
18	22	50	60	1,390	1,380	1,150	1,070	1,460	155	50	22	19
19	21	47	57	966	992	1,300	1,350	1,410	142	50	22	18
20	18	44	94	675	782	3,090	1,600	1,150	136	46	21	31
21	18	41	106	502	640	2,480	1,440	960	129	45	21	139
22	20	40	100	390	559	2,330	1,020	814	127	53	20	239
23	18	70	166	333	515	2,270	916	868	116	53	21	104
24	19	336	139	286	473	1,560	3,160	898	109	51	21	62
25	18	232	112	252	422	1,290	2,840	760	104	45	30	45
26	19	357	94	227	404	1,160	2,110	665	100	43	48	38
27	18	368	86	210	437	916	1,510	868	95	41	35	34
28	17	227	106	199	441	798	1,400	1,280	92	39	30	31
29	18	166	210	197	-	792	1,350	1,240	89	53	27	29
30	21	148	242	283	-	732	1,290	953	87	37	26	28
31	51	-	172	615	-	922	-	732	-	36	24	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff Inches	Runoff Acre-feet
October	814	51	17	26.3	0.125	0.14	1,610
November	4,961	368	40	165	.782	.87	9,840
December	4,196	336	54	135	.640	.74	8,320
Calendar year 1944	104,494	2,380	16	286	1.36	18.40	207,300
January	20,040	1,930	195	646	3.06	3.53	39,750
February	37,391	4,570	404	1,335	6.33	6.59	74,160
March	34,215	3,090	324	1,104	5.23	6.03	67,860
April	42,254	3,160	498	1,408	6.67	7.45	83,810
May	27,849	1,830	355	898	4.26	4.91	55,240
June	7,377	577	87	246	1.17	1.30	14,630
July	1,745	85	36	56.3	.267	.31	3,460
August	812	48	20	26.2	.124	.14	1,610
September	1,201	239	18	40.0	.190	.21	2,380
Water year 1944-45	182,855	4,570	17	501	2.37	32.22	362,700

Peak discharge.- Feb. 8 (9 a.m.) 4,930 sec.-ft.; Feb. 13 (12 m.) 5,400 sec.-ft.
Time basis: Pacific war time up to 2 a.m., Sept. 30, 1945; Pacific standard time thereafter.
To convert war time to standard time, subtract 1 hour.

Row River near Dorena, Oreg.

Location.- Water-stage recorder, lat. 43°48', long. 122°57', in NE¼ sec. 36, T. 20 S., R. 3 W., 1⅛ miles upstream from Mosby Creek and 3⅛ miles northwest of Dorena. Datum of gage is 685.24 feet above mean sea level, datum of 1929 (levels by Corps of Engineers, U. S. Army).

Drainage area.- 270 square miles.

Records available.- January 1939 to September 1945.

Extremes.- Maximum discharge during year, 6,510 second-feet Feb. 13 (gage height, 9.84 feet); minimum, 20 second-feet Sept. 19 (gage height, 1.48 feet).
1939-45: Maximum discharge, 20,000 second-feet Dec. 30, 1942 (gage height, 17.45 feet); minimum, 14 second-feet Aug. 29 to Sept. 2, 1940 (gage height, 1.23 feet).

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

Rating tables, water year 1944-45 (gage height, in feet, and discharge, in second-feet)

Oct. 1 to Feb. 7

1.5	29	2.3	214	3.8	980
1.7	56	2.6	325	4.5	1,460
1.9	98	2.9	460	5.2	1,990
2.1	152	3.3	670	6.0	2,650

Feb. 8 to Sept. 30

1.5	23	2.3	205	4.5	1,380
1.6	38	2.6	320	5.2	1,880
1.7	54	2.9	450	6.0	2,520
1.9	92	3.3	650	7.2	3,530
2.1	140	3.8	940	9.0	5,420

Discharge, in second-feet, water year October 1944 to September 1945

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	64	170	397	263	902	600	1,070	1,460	675	108	44	30
2	46	156	388	428	1,110	580	862	1,510	570	101	43	29
3	37	372	278	305	922	585	712	1,340	480	97	41	30
4	39	343	238	241	832	570	620	1,060	415	94	40	29
5	52	161	278	281	2,630	530	620	862	a530	90	38	52
6	64	121	234	1,360	2,640	485	1,190	754	a580	88	36	61
7	48	334	196	2,560	2,060	440	1,700	640	a550	86	36	48
8	41	214	164	1,620	4,000	460	3,580	570	a490	84	35	36
9	39	389	141	896	2,820	485	2,310	520	a430	82	35	34
10	34	270	124	772	1,760	1,120	1,830	515	376	78	35	30
11	33	266	108	724	1,740	1,450	2,250	425	348	76	34	29
12	33	182	93	766	1,720	a1,600	2,340	490	312	72	35	26
13	34	132	86	1,690	5,310	a1,900	1,790	650	288	72	36	24
14	34	101	80	1,780	4,270	a1,700	1,520	772	260	72	36	22
15	33	86	75	1,610	2,300	a1,600	1,500	766	236	67	34	22
16	31	73	73	2,090	1,520	a1,300	1,420	1,860	226	67	32	29
17	31	67	75	1,620	1,340	a1,330	1,270	2,370	208	65	32	28
18	30	64	80	1,960	1,840	a1,400	1,240	1,900	191	65	30	23
19	29	60	75	1,400	1,310	a1,800	1,520	1,700	180	67	29	22
20	28	56	124	974	1,030	a3,500	1,760	1,410	170	63	28	46
21	27	52	144	706	826	a2,800	1,660	1,170	164	59	26	164
22	27	52	135	540	695	h2,530	1,190	982	161	65	24	304
23	27	67	208	446	645	a2,400	1,080	1,010	149	72	23	140
24	26	428	192	384	590	h2,160	3,670	1,030	140	63	24	84
25	26	297	152	334	530	h1,670	3,460	886	130	56	36	63
26	27	389	130	293	490	h1,540	2,600	772	122	54	61	54
27	27	442	116	270	565	h1,200	1,880	976	120	51	49	48
28	26	278	127	255	590	1,020	1,720	1,420	115	49	40	44
29	28	201	248	246	-	1,000	1,630	1,390	113	48	36	43
30	31	182	317	348	-	904	1,530	1,110	110	48	34	38
31	54	-	228	742	-	1,100	-	668	-	46	30	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff Inches	Runoff Acre-feet
October	1,106	64	26	35.7	0.132	0.15	2,190
November	6,005	442	52	200	.741	.83	11,910
December	5,304	397	73	171	.633	.73	10,520
Calendar year 1944	136,985	2,810	21	374	1.39	18.87	271,700
January	27,906	2,560	241	900	3.33	3.84	55,350
February	46,987	5,310	490	1,678	6.21	6.47	93,200
March	41,759	3,500	440	1,347	4.99	5.75	82,830
April	51,524	3,670	620	1,717	6.36	7.10	102,200
May	33,188	2,370	425	1,071	3.97	4.57	65,830
June	8,839	675	110	295	1.09	1.22	17,530
July	2,205	108	46	71.1	.263	.30	4,370
August	1,092	61	23	35.2	.130	.15	2,170
September	1,632	304	22	54.4	.201	.22	3,240
Water year 1944-45	227,547	5,310	22	623	2.31	31.33	451,300

a No gage-height record; discharge computed on basis of records for station near Star.
h Computed from staff-gage reading.
Time basis: Pacific war time up to 2 a.m., Sept. 30, 1945; Pacific standard time thereafter. To convert war time to standard time, subtract 1 hour.

Mosby Creek near Cottage Grove, Oreg.

Location.- Staff gage, lat. 43°45', long. 122°59', in NW¼ sec. 18, T. 21 S., R. 3 W., 5 miles southeast of Cottage Grove.

Drainage area.- 85 square miles.

Records available.- February 1936 to September 1945.

Extremes.- Maximum discharge observed during year, 2,020 second-feet Feb. 13 (gage height, 4.30 feet); minimum observed, 5.8 second-feet Oct. 23, 24.
1936-45: Maximum discharge, 7,760 second-feet Dec. 30, 1942 (gage height, 9.8 feet, from floodmark), from rating curve extended above 2,100 second-feet; minimum, 3 second-feet Aug. 15 to Sept. 2, 1940.

Remarks.- Records fair except those for periods of no gage-height record, which are poor. Gage read once daily, twice daily at medium and high stages. No diversion or regulation above station.

Rating table, water year 1944-45 (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Sept. 27-30)

0.4	2.5	1.2	127	3.0	1,020
.5	8.0	1.5	217	3.5	1,350
.6	15	1.8	340	4.0	1,750
.8	38	2.1	485		
1.0	79	2.5	710		

Discharge, in second-feet, water year October 1944 to September 1945

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	a12	56	72	a90	143	157	228	266	151	a24	a12	8.7
2	a11	45	122	88	184	154	197	232	132	23	12	a8.4
3	a10	a110	a100	70	191	172	172	204	117	a22	12	8.0
4	a11	97	79	54	450	163	169	172	112	a21	12	a8.0
5	a15	d45	61	65	1,010	157	169	157	d120	20	a12	8.0
6	a12	d50	49	210	710	143	217	140	d125	19	12	a7.7
7	a10	90	a40	485	496	149	a450	124	d115	19	12	7.4
8	a10	d55	a35	318	1,630	160	818	114	d100	19	a12	a7.2
9	a9	d150	a30	194	734	172	d800	d110	84	a19	12	a7.0
10	a9	d80	a27	154	475	546	d700	d100	74	19	11	6.9
11	a9	52	a24	138	415	529	1,020	d100	68	19	a11	a6.6
12	a9	43	a21	184	380	518	782	d190	61	a19	a11	6.4
13	a9	38	a20	274	1,580	551	600	d220	56	19	11	a6.4
14	8.7	30	18	340	1,180	622	430	d210	52	a19	11	6.4
15	a8.0	24	a17	518	650	584	376	d200	49	19	a11	6.9
16	7.4	20	16	600	367	546	322	698	47	a18	a10	7.4
17	7.4	17	a16	524	435	981	313	622	43	18	10	a7.2
18	6.9	d15	a15	562	590	968	300	529	42	a18	10	6.9
19	6.9	d14	a25	358	395	1,410	287	445	40	18	a10	6.9
20	6.4	d13	a45	247	295	1,580	254	331	38	a18	10	a20
21	6.4	d12	a40	166	228	1,320	228	291	a38	18	a10	45
22	a6.1	d11	a50	140	187	1,220	200	258	37	18	10	35
23	5.8	d50	a55	112	166	981	204	d230	35	18	a9.7	28
24	5.8	d150	a45	88	143	644	740	207	34	17	9.4	23
25	6.4	58	a35	74	127	606	922	178	33	a17	9.4	19
26	6.4	97	a30	65	117	d550	782	154	32	17	a9.4	15
27	a6.6	122	26	58	130	d500	617	204	30	15	9.4	11
28	6.9	70	42	52	143	d400	507	258	29	15	a9.0	9.4
29	6.9	32	130	52	-	d350	336	239	28	14	8.7	9.4
30	7.4	25	a150	65	-	d300	295	204	a26	14	8.7	8.7
31	14	-	a110	93	-	d300	-	172	-	13	a8.7	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff Inches	Runoff Acre-feet
October	266.4	15	5.8	8.59	0.101	0.12	528
November	1,671	150	11	55.7	.655	.73	3,310
December	1,545	150	15	49.8	.586	.68	3,060
Calendar year 1944	35,506.3	668	5.0	97.0	1.14	15.55	70,420
January	6,438	600	52	208	2.45	2.82	12,770
February	13,551	1,630	117	484	5.69	5.93	26,880
March	17,433	1,580	143	562	6.61	7.63	34,580
April	13,435	1,020	169	448	5.27	5.88	26,650
May	7,559	698	100	244	2.87	3.31	14,990
June	1,948	151	26	64.9	.764	.85	3,860
July	566	24	13	18.3	.215	.25	1,120
August	326.4	12	8.7	10.5	.124	.14	647
September	361.9	45	6.4	12.1	.142	.16	718
Water year 1944-45	65,100.7	1,630	5.8	178	2.09	28.50	129,100

a No gage-height record; discharge computed on basis of records for Coast Fork Willamette River at London and Row River at Star.
d Doubtful gage-height record; discharge computed on basis of records for Coast Fork Willamette River at London and Row River at Star.
Time basis: Pacific war time up to 2 a.m., Sept. 30, 1945; Pacific standard time thereafter. To convert war time to standard time, subtract 1 hour.

McKenzie River at McKenzie Bridge, Oreg.

Location.- Water-stage recorder, lat. 44°11', long. 122°07', in NE¼ sec. 18, T. 16 S., R. 6 E., 1.7 miles east of village of McKenzie Bridge. Datum of gage is 1,418.92 feet above mean sea level, datum of 1929.

Drainage area.- 345 square miles at measuring section three-quarters of a mile above gage.

Records available.- August 1910 to September 1945.

Average discharge.- 29 years (1910-14, 1915-16, 1918-21, 1923-25, 1926-45), 1,574 second-feet.

Extremes.- Maximum discharge during year, 5,530 second-feet Feb. 13 (gage height, 4.33 feet); minimum, 836 second-feet Oct. 27-30 (gage height, 0.88 foot).
1910-45: Maximum discharge, 18,000 second-feet Jan. 6, 1923 (gage height, 8.3 feet, from floodmarks at former gage at highway bridge), from rating curve extended above 2,400 second-feet; minimum, 805 second-feet Oct. 20, 1931.

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

Rating table, water year 1944-45 (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used June 20 to Sept. 30)

0.9	850	2.4	2,450
1.2	1,090	2.9	3,120
1.6	1,490	3.4	3,880
2.0	1,950	4.1	5,090

Discharge, in second-feet, water year October 1944 to September 1945

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	872	918	1,050	902	1,350	1,470	1,540	2,480	1,900	1,330	1,080	973
2	872	888	1,030	918	1,380	1,440	1,500	2,670	1,840	1,320	1,080	973
3	872	1,040	1,000	910	1,500	1,410	1,470	2,830	1,780	1,310	1,070	981
4	880	973	1,010	910	1,520	1,380	1,450	2,750	1,750	1,300	1,060	997
5	888	918	1,040	973	1,820	1,360	1,500	2,580	1,710	1,290	1,060	1,060
6	872	925	1,030	1,220	1,760	1,340	1,590	2,500	1,680	1,280	1,050	966
7	872	989	1,020	2,080	2,400	1,320	1,700	2,450	1,640	1,270	1,050	925
8	865	973	a1,000	1,750	4,330	1,300	2,060	2,380	1,610	1,260	1,040	925
9	865	981	a990	1,420	3,110	1,310	1,870	2,310	1,590	1,250	1,020	918
10	865	965	a980	1,390	2,540	1,470	1,760	2,310	1,560	1,240	1,010	918
11	865	949	a970	1,340	2,810	1,450	1,760	2,190	1,530	1,230	1,000	918
12	865	941	965	1,640	2,760	1,500	1,710	2,310	1,510	1,260	1,000	918
13	865	925	957	2,290	5,040	1,510	1,660	2,450	1,500	1,250	1,000	910
14	858	918	949	2,030	4,070	1,520	1,620	2,570	1,490	1,240	997	910
15	858	910	941	1,930	3,200	1,490	1,610	2,680	1,470	1,230	989	910
16	858	902	933	1,820	2,760	1,470	1,600	2,800	1,450	1,210	981	910
17	850	902	918	1,770	2,570	1,460	1,590	2,750	1,420	1,200	981	910
18	850	895	918	1,780	2,370	1,440	1,620	2,570	1,420	1,190	981	902
19	850	888	918	1,690	2,190	1,470	1,730	2,400	1,410	1,170	973	902
20	850	888	933	1,630	2,080	1,730	1,890	2,260	1,400	1,160	973	918
21	850	880	925	1,560	1,970	1,810	1,970	2,180	1,420	1,150	965	925
22	850	872	918	1,500	1,880	1,870	1,840	2,120	1,400	1,160	965	925
23	843	910	910	1,470	1,790	1,850	1,880	2,080	1,370	1,180	965	910
24	843	918	910	1,410	1,710	1,760	2,460	2,030	1,370	1,170	965	902
25	843	902	902	1,370	1,640	1,720	2,280	1,970	1,370	1,160	989	902
26	843	1,030	902	1,330	1,600	1,700	2,120	1,970	1,370	1,140	973	895
27	843	1,030	895	1,300	1,570	1,630	2,060	2,220	1,370	1,140	965	888
28	836	973	902	1,280	1,500	1,600	2,070	2,150	1,360	1,130	957	880
29	836	957	910	1,260	-	1,570	2,140	2,090	1,360	1,120	965	888
30	843	989	895	1,290	-	1,540	2,320	2,060	1,350	1,110	965	872
31	865	-	895	1,320	-	1,570	-	1,990	-	1,100	965	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff	
						Inches	Acre-feet
October	26,587	888	836	858	2.49	2.87	52,730
November	28,149	1,040	872	938	2.72	3.03	55,830
December	29,516	1,050	895	952	2.76	3.18	58,540
Calendar year 1944	416,106	2,000	836	1,137	3.30	44.85	825,300
January	45,483	2,290	902	1,467	4.25	4.90	90,210
February	65,220	5,040	1,350	2,329	6.75	7.03	129,400
March	47,460	1,870	1,300	1,531	4.44	5.12	94,140
April	54,370	2,460	1,450	1,812	5.25	5.86	107,800
May	73,100	2,830	1,970	2,358	6.83	7.88	145,000
June	45,400	1,900	1,350	1,513	4.39	4.89	90,050
July	37,550	1,330	1,100	1,211	3.51	4.05	74,480
August	31,034	1,080	957	1,001	2.90	3.35	61,560
September	27,731	1,060	872	924	2.68	2.99	55,000
Water year 1944-45	511,600	5,040	836	1,402	4.06	55.15	1,015,000

Peak discharge.- Jan. 7 (2:30 p.m.) 2,570 sec.-ft.; Jan. 13 (12:30 p.m.) 2,640 sec.-ft.; Feb. 8 (7 a.m.) 5,180 sec.-ft.; Feb. 13 (2 to 3 p.m.) 5,530 sec.-ft.
a No gage-height record; discharge computed on basis of records for station near Vida.
Time basis: Pacific war time up to 2 a.m., Sept. 30, 1945; Pacific standard time thereafter.
To convert war time to standard time, subtract 1 hour.

McKenzie River near Vida, Oreg.

Location.- Water-stage recorder, lat. 44°07', long. 122°28', in NE¼ sec. 5, T. 17 S., R. 3 E., 1 mile upstream from head of Martin Rapids and 5 miles east of Vida. Datum of gage is 855.56 feet above mean sea level, datum of 1929.
Drainage area.- 930 square miles.
Records available.- September 1924 to September 1945. June 1910 to March 1911 (gage heights only), at site at Martin Rapids.
Average discharge.- 21 years, 3,559 second-feet.
Extremes.- Maximum discharge during year, 26,600 second-feet Feb. 13 (gage height, 9.09 feet); minimum, 1,280 second-feet Oct. 28-30 (gage height, 0.57 foot).
1924-45: Maximum discharge, 43,900 second-feet Jan. 1, 1943 (gage height, 14.6 feet), from rating curve extended above 25,000 second-feet; minimum, 1,260 second-feet Nov. 7, 1930, Sept. 17, Oct. 4, 8, 9, 1931 (gage height, 0.36 foot).
Flood of Jan. 6, 1923, reached a stage of 17.25 feet (discharge, 60,000 second-feet, estimated).
Remarks.- Records good. No diversion or regulation above station.
Cooperation.- Water-stage recorder inspected by employee of Eugene Water Board.

Rating tables, water year 1944-45 (gage height, in feet, and discharge, in second-feet)

Oct. 1 to Feb. 13				Feb. 14 to Sept. 30			
0.6	1,310	3.0	5,550	0.6	1,350	2.0	3,470
1.0	1,810	4.0	8,250	1.0	1,870	2.5	4,430
1.5	2,560	5.0	11,200	1.5	2,620		
2.0	3,450	6.4	16,100	Note.- Same as preceding table above 2.5 feet.			
2.5	4,430	8.4	23,800				

Discharge, in second-feet, water year October 1944 to September 1945

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

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff	
						Inches	Acre-feet
October	41,240	1,470	1,280	1,330	1.43	1.65	81,800
November	54,040	2,660	1,380	1,801	1.94	2.16	107,200
December	57,050	2,460	1,550	1,840	1.98	2.28	113,200
Calendar year 1944	873,730	7,660	1,280	2,387	2.57	34.94	1,733,000
January	135,830	9,510	1,670	4,382	4.71	5.43	269,400
February	210,990	23,800	3,290	7,535	8.10	8.44	418,500
March	132,450	6,770	2,730	4,273	4.59	5.30	262,700
April	170,940	9,660	3,540	5,698	6.13	6.84	339,100
May	202,530	9,780	4,730	6,533	7.02	8.10	401,700
June	91,400	4,640	2,300	3,047	3.28	3.66	181,300
July	60,200	2,260	1,730	1,942	2.09	2.41	119,400
August	50,110	1,720	1,540	1,616	1.74	2.00	99,390
September	45,320	1,700	1,420	1,511	1.62	1.81	89,890
Water year 1944-45	1,252,100	23,800	1,280	3,430	3.69	50.08	2,484,000

Peak discharge.- Jan. 7 (4:30 p.m.) 12,100 sec.-ft.; Jan. 13 (4 p.m.) 10,700 sec.-ft.; Feb. 8 (9 a.m.) 20,600 sec.-ft.; Feb. 13 (5:30 p.m.) 26,600 sec.-ft.; Apr. 24 (1 p.m.) 10,600 sec.-ft.; May 17 (3:30 a.m.) 10,100 sec.-ft.
Time basis: Pacific war time up to 2 a.m., Sept. 30, 1945; Pacific standard time thereafter. To convert war time to standard time, subtract 1 hour.

McKenzie River near Coburg, Oreg.

Location.- Water-stage recorder, lat. 44°06'48", long. 123°02'49", in NE¼NE¼ sec. 9, T. 17 S., R. 3 W., at Armitage Bridge, 2 miles southeast of Coburg and 3 miles upstream from mouth. Datum of gage is 395.96 feet above mean sea level, datum of 1929. Prior to Nov. 24, 1944, wire-weight gage at same site and datum.
Drainage area.- 1,310 square miles.
Records available.- October 1944 to September 1945.
Extremes.- Maximum discharge during year, 37,900 second-feet Feb. 14 (gage height, 12.61 feet); minimum daily, 1,310 second-feet Oct. 29.
Remarks.- Records excellent except those for Oct. 1 to Nov. 24, Aug. 12 to Sept. 30, which are good. Slight diurnal fluctuation caused by log ponds and power plants upstream. Water supply for city of Eugene is diverted about 10 miles upstream; small diversions above station for irrigation.
Cooperation.- Wire-weight gage read once daily during fall and winter months by employee of U. S. Weather Bureau.

Rating tables, water year 1944-45 (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Aug. 12 to Sept. 30)

Oct. 3 to Feb. 13					Feb. 14 to Sept. 30				
2.2	1,260	3.6	3,960	7.0	12,800	1.6	1,440	4.0	5,750	9.0	22,000
2.6	1,940	4.4	5,740	8.5	18,200	2.0	1,920	5.0	8,210	10.5	27,500
3.0	2,720	5.5	8,510	10.0	24,500	2.5	2,700	6.0	10,800	12.0	34,700
						3.0	3,620	7.5	15,300		

Discharge, in second-feet, water year October 1944 to September 1945

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	e1,400	h2,110	2,720	2,220	5,860	4,680	6,610	8,460	5,940	2,400	1,770	1,530
2	e1,400	h2,820	2,980	2,720	6,270	4,490	6,010	9,340	5,500	2,370	1,750	1,530
3	h1,360	h2,520	2,920	2,540	6,150	4,540	5,570	9,940	5,140	2,340	1,750	1,520
4	h1,450	h3,270	2,580	2,340	6,200	4,430	5,250	9,710	4,870	2,320	1,740	1,520
5	h1,620	h2,210	2,880	2,560	8,780	4,260	5,820	8,720	4,700	2,290	1,730	1,770
6	h1,740	h1,800	2,700	4,370	11,600	4,160	7,460	8,140	4,560	2,240	1,720	1,800
7	h1,570	h2,320	2,540	10,700	10,600	4,020	8,110	7,680	4,370	2,210	1,710	1,660
8	h1,470	h2,360	2,360	11,800	22,000	4,040	11,700	7,210	4,180	2,200	1,710	1,610
9	h1,470	h2,300	2,190	7,360	21,000	3,940	11,100	6,860	4,180	2,150	1,710	1,600
10	h1,440	h2,260	2,050	5,860	13,500	5,250	9,370	6,840	3,900	2,140	1,680	1,560
11	h1,370	h1,940	1,940	5,350	12,700	6,130	9,970	6,420	3,740	2,090	1,670	1,550
12	h1,390	h1,850	1,830	5,650	12,700	6,160	10,200	6,420	3,600	2,060	1,670	1,550
13	h1,450	e1,720	1,740	10,100	25,400	7,310	8,880	7,610	3,490	2,020	1,670	1,540
14	h1,420	e1,630	1,730	11,600	30,600	9,280	7,880	8,160	3,390	2,020	1,680	1,530
15	h1,450	e1,600	1,660	10,100	18,100	9,160	7,380	8,640	3,300	2,020	1,650	1,540
16	h1,390	e1,580	1,570	12,100	13,100	8,690	7,160	10,700	3,190	1,980	1,630	1,560
17	h1,390	e1,530	1,560	10,600	11,300	8,440	6,810	12,900	3,100	1,960	1,630	1,540
18	h1,390	e1,520	1,570	10,500	10,700	9,190	6,610	11,600	3,040	1,950	1,620	1,530
19	h1,390	e1,510	1,590	9,080	9,160	8,800	7,060	9,810	2,950	1,980	1,610	1,510
20	h1,360	e1,500	1,710	7,460	8,140	10,900	7,760	8,510	2,930	1,920	1,600	1,620
21	h1,360	e1,480	1,900	6,290	7,260	12,800	8,490	7,760	2,900	1,910	1,590	1,860
22	h1,400	e1,470	1,780	5,510	6,610	11,700	7,880	7,260	2,880	1,990	1,590	1,920
23	h1,360	e1,750	1,900	4,940	6,210	12,800	7,260	6,940	2,790	2,000	1,600	1,820
24	h1,340	2,040	1,810	4,520	6,700	10,800	10,700	6,660	2,720	1,910	e1,600	1,690
25	h1,310	2,150	1,760	4,210	5,340	9,420	11,900	6,230	2,630	1,880	e1,700	1,610
26	h1,320	2,660	1,710	3,940	5,110	8,850	10,100	5,940	2,600	1,860	1,730	1,590
27	h1,320	3,440	1,620	3,670	5,110	7,910	8,900	7,040	2,560	1,830	1,620	1,560
28	h1,340	2,720	1,710	3,460	4,890	7,410	8,260	7,910	2,500	1,820	1,560	1,530
29	h1,310	2,280	2,190	3,390	-	7,180	8,110	7,360	2,480	1,820	1,570	1,520
30	h1,340	2,110	2,520	3,860	-	6,610	8,310	7,010	2,450	1,800	1,560	1,480
31	h1,620	-	2,170	5,330	-	6,570	-	6,470	-	1,780	1,540	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff: Inches	Runoff: Acre-feet
October	43,940	1,740	1,310	1,417	1.08	1.25	87,150
November	62,450	3,440	1,470	2,082	1.59	1.77	123,900
December	63,890	2,980	1,560	2,061	1.57	1.81	126,700
Calendar year	-	-	-	-	-	-	-
January	194,130	12,100	2,220	6,262	4.78	5.51	385,100
February	310,290	30,900	4,890	11,080	8.46	8.81	615,500
March	228,920	12,800	3,940	7,385	5.64	6.50	454,100
April	246,620	11,900	5,250	8,221	6.28	7.00	489,200
May	250,270	12,900	5,940	8,073	6.16	7.11	496,400
June	106,580	5,940	2,450	3,553	2.71	3.03	211,400
July	63,260	2,400	1,780	2,041	1.56	1.80	125,500
August	51,360	1,770	1,540	1,657	1.26	1.46	101,900
September	48,150	1,920	1,480	1,605	1.23	1.37	95,500
Water year 1944-45	1,669,860	30,900	1,310	4,575	3.49	47.42	3,312,000

Peak discharge.- Jan. 8 (12:30 a.m.) 15,000 sec.-ft.; Jan. 13 (12 p.m.) 13,800 sec.-ft.; Jan. 16 (2:30 p.m.) 13,200 sec.-ft.; Feb. 8 (8 p.m.) 29,600 sec.-ft.; Feb. 11 (6 p.m.) 14,000 sec.-ft.; Feb. 14 (12:30 a.m.) 37,900 sec.-ft.
e Gage height not an index of flow because of shifting control; discharge computed on basis of records for station near Vida.
h Computed from wire-weight gage reading.
Time basis: Pacific war time up to 2 a.m., Sept. 30, 1945; Pacific standard time thereafter. To convert war time to standard time, subtract 1 hour.

Blue River near Blue River, Oreg.

Location.- Water-stage recorder, lat. 44°11', long. 122°17', near line between secs. 13 and 14, T. 16 S., R. 4 E., 3 miles upstream from North Fork and 3½ miles northeast of Blue River post office.

Drainage area.- 75 square miles.

Records available.- September 1935 to September 1945.

Average discharge.- 10 years, 334 second-feet.

Extremes.- Maximum discharge during year, 4,510 second-feet Feb. 8 (gage height, 5.73 feet); minimum, 18 second-feet Sept. 18-20 (gage height, 1.06 feet).
1935-45: Maximum discharge, 8,020 second-feet Dec. 31, 1942 (gage height, 8.15 feet), from rating curve extended above 5,500 second-feet; minimum, 13 second-feet Sept. 27, 28, Oct. 1, 2, 1938.

Remarks.- Records good except those below 100 second-feet, which are fair. No diversion or regulation above station.

Discharge, in second-feet, water year October 1944 to September 1945

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	a50	232	379	151	694	228	536	926	338	75	31	22
2	a45	143	306	214	726	218	441	1,020	300	75	31	22
3	a42	520	246	174	870	223	379	1,060	270	69	29	22
4	a60	241	275	174	774	218	344	870	250	69	29	22
5	a90	130	311	355	1,510	205	529	734	236	66	28	40
6	a60	143	260	1,050	1,150	196	774	670	218	64	28	28
7	a45	300	223	2,060	2,250	192	902	606	205	58	28	23
8	a37	192	192	1,290	3,580	187	1,460	536	192	58	28	22
9	a32	223	160	742	1,960	214	968	487	182	55	26	22
10	28	174	138	590	1,200	630	742	474	174	55	26	20
11	a26	130	117	467	1,330	522	710	415	160	55	26	20
12	28	103	99	866	1,280	566	654	501	151	52	26	20
13	34	81	92	1,690	3,330	590	536	614	147	50	26	20
14	31	69	85	1,240	1,930	682	480	790	143	47	26	20
15	31	61	78	1,060	1,180	536	a480	870	130	45	24	20
16	29	52	72	1,000	838	460	522	1,070	126	45	24	23
17	28	47	69	894	710	448	515	1,150	121	45	23	22
18	28	43	64	910	606	434	606	959	117	43	23	20
19	28	38	66	686	494	529	814	750	113	43	23	18
20	28	36	106	515	422	1,020	1,010	598	110	40	22	34
21	28	34	103	403	367	977	1,020	522	106	40	22	52
22	28	31	88	344	328	934	790	460	103	45	23	64
23	28	88	88	300	300	910	774	434	95	43	23	38
24	28	147	85	270	275	686	1,360	397	92	40	22	29
25	28	117	78	241	255	646	1,050	355	92	38	29	26
26	28	501	72	223	246	662	798	355	88	36	31	24
27	28	379	72	210	246	574	678	654	85	36	26	23
28	28	246	88	196	236	522	686	638	81	36	24	22
29	28	182	113	196	-	515	742	522	78	34	23	22
30	34	228	99	290	-	494	846	454	78	34	23	20
31	92	-	92	606	-	590	-	391	-	31	22	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff	
						Inches	Acre-feet
October	1,158	92	26	37.4	0.499	0.57	2,300
November	4,911	520	31	164	2.19	2.44	9,740
December	4,316	379	64	139	1.85	2.14	8,560
Calendar year 1944	66,291	1,510	18	181	2.41	32.87	131,500
January	19,427	2,060	151	627	8.36	9.63	38,530
February	29,087	3,580	236	1,039	13.9	14.42	57,690
March	15,708	1,020	187	507	6.76	7.79	31,160
April	22,146	1,460	344	738	9.84	10.98	43,930
May	20,282	1,150	355	654	8.72	10.06	40,230
June	4,581	338	78	153	2.04	2.27	9,090
July	1,522	75	31	49.1	.655	.75	3,020
August	795	31	22	25.6	.341	.39	1,580
September	780	64	18	26.0	.347	.39	1,550
Water year 1944-45	124,713	3,680	18	342	4.56	61.83	247,400

Peak discharge.- Jan. 7 (11:30 a.m. to 1 p.m.) 2,710 sec.-ft.; Jan. 13 (12 m.) 2,090 sec.-ft.; Feb. 8 (7 a.m.) 4,510 sec.-ft.; Feb. 13 (9:30 a.m.) 3,850 sec.-ft.
a No gage-height record; discharge computed on basis of records for McKenzie River near Vida.
Time basis: Pacific war time up to 2 a.m., Sept. 30, 1945; Pacific standard time thereafter. To convert war time to standard time, subtract 1 hour.

Mohawk River near Springfield, Oreg.

Location.- Wire-weight gage, lat. 44°06', long. 122°57', in sec. 17, T. 17 S., R. 2 W., 1 mile upstream from mouth and 4½ miles northeast of Springfield.

Drainage area.- 180 square miles.

Records available.- September 1935 to September 1945.

Average discharge.- 10 years, 488 second-feet.

Extremes.- Maximum discharge observed during year, 3,840 second-feet Feb. 13 (gage height, 13.87 feet); minimum observed, 25 second-feet Oct. 29 (gage height, 1.14 feet).
1935-45: Maximum discharge observed, 8,160 second-feet Jan. 1, 1943 (gage height, 21.3 feet, from floodmark), from rating curve extended above 5,000 second-feet; minimum observed, 11 second-feet Sept. 17, 1938.

Remarks.- Records fair except those above 1,000 second-feet and those for periods of no gage-height record, which are poor. Gage read once daily during low-water periods, twice daily at other times. No diversion above station; some regulation at low flow caused by log ponds.

Discharge, in second-feet, water year October 1944 to September 1945

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	57	98	272	270	782	477	814	621	432	118	46	28
2	36	a80	265	309	759	434	722	624	400	114	44	28
3	32	349	227	265	747	477	655	632	374	107	42	30
4	34	183	287	243	694	450	562	551	356	103	42	33
5	57	118	260	344	1,180	424	878	456	344	98	40	125
6	40	129	217	725	1,320	432	1,030	421	319	99	38	58
7	35	183	187	1,040	1,200	406	1,100	382	312	92	36	41
8	34	127	168	995	3,080	432	1,790	356	292	84	35	38
9	35	170	162	750	2,250	411	1,610	356	272	80	34	33
10	34	135	151	663	1,550	989	1,340	346	260	82	33	31
11	32	118	141	518	1,490	840	1,720	309	241	79	36	30
12	35	82	131	635	1,560	854	1,660	529	227	79	38	29
13	35	76	107	968	3,210	1,110	1,340	739	217	74	40	28
14	34	66	122	1,010	2,980	1,650	1,140	716	208	70	37	29
15	31	64	96	1,040	1,890	1,840	1,010	716	199	65	35	28
16	34	58	103	1,810	1,400	1,920	892	1,180	206	66	34	28
17	31	53	94	1,480	1,320	1,900	796	1,510	183	70	32	29
18	30	50	89	1,460	1,330	2,440	727	1,320	174	70	31	29
19	27	50	108	1,290	1,020	2,030	694	1,030	174	71	31	28
20	29	48	114	1,090	854	2,660	677	866	168	79	a29	141
21	28	46	125	898	785	3,000	733	762	170	71	28	94
22	28	45	114	788	747	2,680	554	669	159	a90	26	74
23	26	a110	143	753	702	2,610	796	624	149	77	a26	65
24	28	149	a134	680	652	2,080	1,140	548	139	66	26	54
25	28	147	125	607	571	1,720	1,190	510	141	58	39	47
26	27	382	120	537	554	1,520	995	496	139	58	48	45
27	26	260	114	499	543	1,260	837	587	133	52	38	42
28	26	179	151	469	491	1,170	747	485	125	49	34	39
29	26	159	424	469	-	1,040	680	461	120	50	32	37
30	29	151	385	820	-	927	652	624	118	48	30	35
31	57	-	319	762	-	875	-	485	-	47	29	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff	
						Inches	Acre-feet
October	1,040	57	25	33.5	.0.186	0.21	2,060
November	3,865	382	45	129	.717	.80	7,670
December	5,455	424	89	176	.978	1.13	10,820
Calendar year 1944	94,758	1,690	18	259	1.44	19.59	188,000
January	24,187	1,810	243	780	4.33	5.00	47,970
February	35,661	3,210	491	1,274	7.08	7.37	70,730
March	41,052	3,000	400	1,324	7.36	8.48	81,430
April	29,481	1,790	554	983	5.46	6.09	58,470
May	19,911	1,510	309	642	3.57	4.11	39,490
June	6,751	432	118	225	1.25	1.39	13,390
July	2,366	118	47	76.3	.424	.49	4,690
August	1,089	46	26	35.1	.195	.22	2,160
September	1,376	141	28	45.9	.255	.28	2,730
Water year 1944-45	172,234	3,210	25	472	2.62	35.57	342,000

a No gage-height record; discharge computed on basis of records for Blue River near Blue River.
Time basis: Pacific war time up to 2 a.m., Sept. 30, 1945; Pacific standard time thereafter. To convert war time to standard time, subtract 1 hour.

Long Tom River near Noti, Oreg.

Location.- Water-stage recorder, lat. 44°03', long. 123°26', in sec. 33, T. 17 S., R. 6 W., an eighth of a mile upstream from railroad bridge, 1 mile downstream from Noti Creek, and 1⅛ miles southeast of Noti. Datum of gage is 388.76 feet above mean sea level (levels by U. S. Weather Bureau).

Drainage area.- 88 square miles.

Records available.- October 1935 to September 1945.

Average discharge.- 10 years, 210 second-feet.

Extremes.- Maximum discharge during year, 1,920 second-feet Feb. 8 (gage height, 14.20 feet); minimum, 12 second-feet Oct. 12, 21-30.
1935-45: Maximum discharge, 4,300 second-feet Jan. 1, 1943 (gage height, 18.28 feet); minimum observed, 7 second-feet Sept. 25-27, 1939 (gage height, 0.66 foot).

Remarks.- Records good. No diversion above station; slight diurnal fluctuation caused by operation of log pond above Noti.

Rating tables, water year 1944-45 (gage height, in feet, and discharge, in second-feet)

Oct. 1 to Feb. 8

0.5	9.5	1.8	102	6.5	605
.7	16	2.3	153	8.0	770
.9	27	3.0	232	10.0	1,030
1.1	41	4.0	340	12.9	1,540
1.4	64	5.0	440		

Feb. 9 to Sept. 30

0.7	16	2.3	158	8.0	845
.9	27	3.0	236	10.0	1,100
1.1	43	4.0	356	12.4	1,480
1.4	67	5.0	483		
1.8	104	6.5	669		

Discharge, in second-feet, water year October 1944 to September 1945

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	15	50	154	179	308	209	258	157	111	52	26	17
2	15	58	144	149	379	192	250	143	107	50	24	15
3	15	170	122	126	422	194	235	138	105	49	24	16
4	15	152	116	114	420	191	221	137	109	49	22	19
5	16	68	107	125	609	183	265	135	111	47	21	38
6	16	55	96	184	705	179	332	128	105	45	22	27
7	15	88	86	431	684	184	427	123	98	44	24	22
8	13	71	79	448	1,540	189	736	120	95	42	22	19
9	13	92	70	330	1,470	183	713	117	90	40	24	16
10	14	94	65	259	868	408	536	127	90	39	22	18
11	15	71	61	213	663	490	544	136	86	36	20	17
12	15	56	58	192	534	381	548	196	83	37	23	16
13	15	43	52	269	886	379	454	243	81	36	25	16
14	13	a40	49	347	1,090	592	406	274	81	34	22	17
15	14	h34	47	438	784	746	358	271	79	34	20	15
16	15	h34	47	921	585	754	321	282	76	36	20	16
17	15	h35	43	708	542	929	292	303	72	36	20	17
18	15	33	45	552	499	1,620	271	261	70	35	18	16
19	15	30	46	444	415	1,180	249	234	67	37	18	16
20	15	32	62	372	362	1,130	234	215	65	37	18	16
21	15	29	93	313	322	1,160	220	176	65	37	18	23
22	12	29	83	263	286	942	204	169	65	40	17	26
23	13	29	110	227	249	795	202	177	63	38	17	24
24	14	63	114	199	242	641	211	162	60	35	16	21
25	14	64	98	176	222	585	217	152	60	35	19	19
26	15	86	85	158	213	517	220	144	58	31	23	20
27	15	109	80	143	240	441	194	139	58	29	22	18
28	15	83	158	133	231	388	183	140	57	29	19	18
29	12	69	266	127	-	351	177	129	57	26	19	16
30	17	85	302	146	-	316	168	123	54	28	18	16
31	38	-	230	221	-	285	-	116	-	26	18	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff Inches	Runoff Acre-feet
October	474	38	12	15.3	0.174	0.20	940
November	1,952	170	29	65.1	.740	.82	3,870
December	3,168	302	43	102	1.16	1.34	6,280
Calendar year 1944	38,931	549	10	106	1.20	16.44	77,210
January	8,907	921	114	287	3.26	3.76	17,670
February	15,770	1,540	213	563	6.40	6.66	31,280
March	16,734	1,620	179	540	6.14	7.07	33,190
April	9,646	736	168	322	3.66	4.08	19,130
May	5,367	303	116	173	1.97	2.27	10,660
June	2,378	111	54	79.3	.901	1.00	4,720
July	1,169	52	26	37.7	.428	.49	2,320
August	641	26	16	20.7	.235	.27	1,270
September	570	38	15	19.0	.216	.24	1,130
Water year 1944-46	66,776	1,620	12	183	2.08	28.20	132,400

a No recorder record; discharge computed on basis of range in stage and once-daily gage reading.
h Computed from staff-gage reading.
Time basis: Pacific war time up to 2 a.m., Sept. 30, 1945; Pacific standard time thereafter.
To convert war time to standard time, subtract 1 hour.

Fern Ridge Reservoir near Elmira, Oreg.

Location.- Water-stage recorder, lat. 44°07'18", long. 123°17'56", near center of sec. 4, T. 17 S., R. 5 W., in control house at spillway section of dam across Long Tom River and Coyote Creek, 4½ miles northeast of Elmira. Datum of gage is at mean sea level (levels by Corps of Engineers, U. S. Army).

Drainage area.- 252 square miles.

Records available.- October 1941 to September 1945.

Extremes.- Maximum contents during year, 101,200 acre-feet May 19 (elevation, 373.50 feet); minimum, 6,140 acre-feet Dec. 18 (elevation, 352.41 feet).
1941-45: Maximum contents, 105,400 acre-feet Jan. 1, 1943 (elevation, 373.74 feet); minimum since first filling in 1942, 3,220 acre-feet Nov. 29, Dec. 11, 12, 17, 1943, Jan. 12, 1944 (elevation, 349.95 feet).

Remarks.- Reservoir is formed by earth-fill dam with concrete outlet and spillway, completed in 1941 by Corps of Engineers, U. S. Army; storage began Nov. 13, 1941. Capacity, 101,200 acre-feet between elevations 340 feet (sill of outlet gate) and 373.5 feet (maximum operating pool level); dead storage, 23 acre-feet below elevation 340 feet. Reservoir used for flood control and improvement of navigation. Daily contents computed from elevations at 12 p.m. Capacity table computed by Geological Survey on basis of areas furnished by Corps of Engineers, U. S. Army.

Cooperation.- Water-stage recorder inspected by employees of Corps of Engineers, U. S. Army.

Contents, in acre-feet, water year October 1944 to September 1945

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	52,580	25,880	7,670	6,910	9,090	38,550	75,110	96,350	100,900	99,550	95,270	91,190
2	52,530	22,620	7,840	6,390	9,800	39,320	75,720	96,800	100,900	99,460	95,180	91,020
3	52,470	19,330	7,730	6,370	10,910	40,010	76,480	96,990	100,900	99,370	94,910	91,190
4	52,530	15,690	7,450	6,520	12,400	40,620	77,490	97,440	101,000	99,180	94,730	91,020
5	52,410	11,840	7,120	6,550	14,790	41,380	78,500	97,720	100,900	99,090	94,730	91,020
6	52,410	9,040	6,720	6,910	16,790	42,100	80,180	98,080	100,300	99,090	94,640	90,930
7	52,410	7,700	6,550	7,180	18,500	42,880	82,330	98,260	100,500	99,000	94,550	90,840
8	52,350	7,390	6,540	7,500	22,160	43,480	84,220	98,450	100,500	98,720	94,460	90,410
9	52,290	7,190	6,540	7,440	26,790	44,480	85,380	98,910	100,500	98,630	94,370	90,410
10	52,290	6,980	6,480	7,040	27,960	45,920	85,890	99,180	100,600	98,540	94,190	90,410
11	52,240	6,970	6,410	6,690	27,370	47,780	85,720	99,460	100,600	98,450	94,100	90,320
12	52,180	6,900	6,420	6,460	26,250	49,690	84,800	100,100	100,600	98,360	94,010	90,320
13	52,120	6,880	6,340	6,410	27,100	51,380	84,720	100,100	100,700	98,170	93,840	90,150
14	52,120	6,870	6,240	6,750	30,160	53,640	85,380	100,200	100,700	97,900	93,840	90,060
15	52,060	6,850	6,200	7,860	32,320	55,670	86,140	100,600	100,700	97,620	93,750	89,970
16	52,060	6,840	6,190	9,030	31,620	57,700	86,980	100,500	100,700	97,530	93,660	89,800
17	52,010	6,790	6,170	10,130	30,310	61,330	87,910	100,900	100,800	97,260	93,390	89,540
18	51,950	6,770	6,140	10,090	28,900	67,820	88,680	101,100	100,900	97,260	92,950	89,370
19	51,950	6,710	6,230	9,010	29,010	70,960	89,370	101,000	100,900	97,170	92,950	89,460
20	51,950	6,680	6,540	7,210	29,010	73,310	89,710	100,900	100,800	97,080	92,770	89,540
21	51,950	6,680	6,750	6,410	30,980	71,510	90,230	100,900	100,500	96,990	92,680	89,630
22	51,950	6,690	7,180	6,460	32,160	74,130	91,020	100,900	100,300	96,990	92,420	89,540
23	51,890	6,850	7,510	6,580	33,220	72,350	91,630	101,000	100,200	96,800	92,150	89,460
24	51,380	6,960	7,590	6,540	34,150	70,110	92,240	100,900	100,100	96,620	92,070	89,460
25	50,020	7,240	7,540	6,610	34,970	68,250	93,120	100,900	100,000	96,530	92,070	88,940
26	48,050	7,450	7,410	6,750	35,890	67,820	93,750	100,900	100,000	96,440	91,800	86,470
27	44,940	7,500	7,350	6,980	36,740	69,170	94,190	100,900	100,000	96,260	91,800	86,470
28	40,900	7,450	7,510	7,150	37,790	70,670	94,820	100,900	99,920	96,080	91,800	85,550
29	36,920	7,420	7,890	7,360	-	72,130	95,360	100,900	99,650	95,720	91,630	84,220
30	33,220	7,540	7,830	8,000	-	73,460	95,810	100,900	99,550	95,540	91,360	82,660
31	29,580	-	7,480	8,570	-	74,280	-	100,900	-	95,450	91,280	-

Monthly elevation and contents, water year October 1944 to September 1945

Date	Elevation (feet)†	Contents (acre-feet)	Change in contents during month (acre-feet)
Sept.30	367.05	52,640	-
Oct. 31	362.09	29,580	-23,060
Nov. 30	353.37	7,540	-22,040
Dec. 31	353.33	7,480	-60
Calendar year 1944	-	-	+4,090
Jan. 31	354.01	8,570	+1,090
Feb. 28	364.14	37,790	+29,220
Mar. 31	370.31	74,280	+36,490
Apr. 30	372.91	95,810	+21,530
May 31	373.47	100,900	+5,090
June 30	373.32	99,550	-1,350
July 31	372.87	95,450	-4,100
Aug. 31	372.40	91,280	-4,170
Sept.30	371.38	82,660	-8,620
Water year 1944-45	-	-	+30,020

† Elevation at 12 p.m.
Time basis: Pacific war time up to 2 a.m., Sept. 30, 1945; Pacific standard time thereafter. To convert war time to standard time, subtract 1 hour.

Long Tom River below Fern Ridge Dam, near Smithfield, Oreg.

Location.- Water-stage recorder and masonry control, lat. 44°07'25", long. 123°18'00", in NW¼ sec. 4, T. 17 S., R. 5 W., in canalized river channel 1,000 feet downstream from Fern Ridge Dam, which impounds runoff of Long Tom River and Coyote Creek, and 2½ miles south of Smithfield. Datum of gage is 332.00 feet above mean sea level, datum of 1929 (surveys by Corps of Engineers, U. S. Army).

Drainage area.- 252 square miles.

Records available.- October 1943 to September 1945. August 1939 to September 1943 at site 2½ miles downstream, below Coyote Creek.

Extremes (regulated), not including diversion to Coyote Creek.- Maximum discharge during year, 2,900 second-feet Mar. 24 (gage height, 5.99 feet); minimum, 2 second-feet Oct. 22, 23.
1943-45: Maximum, that of Mar. 24, 1945; no flow part of June 11, 12, 1944.

Remarks.- Records of flow in river channel excellent; records of diversion to Coyote Creek poor. A few small diversions above station; several second-feet diverted around station to Coyote Creek channel through 24-inch concrete pipe 600 feet long, several hundred feet upstream, record of which is based on discharge measurements and once-daily gage readings on Coyote Creek channel. Fern Ridge Dam, 1,000 feet above station, was completed in 1941, and has regulated flow since Nov. 13, 1941 (see preceding page).

Discharge, in second-feet, water year October 1944 to September 1945

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	13	1,930	186	670	767	30	83	19	125	22	18	25
2	13	1,930	211	576	785	30	51	14	125	22	19	33
3	13	1,970	315	287	577	30	26	14	125	22	19	20
4	13	2,000	360	176	412	30	26	14	125	22	18	19
5	13	1,950	356	260	475	30	26	17	341	22	17	18
6	14	1,600	348	284	970	29	26	18	325	20	17	18
7	14	739	247	480	1,470	26	162	18	74	20	16	17
8	14	329	153	590	1,720	24	522	17	57	20	18	16
9	14	224	130	692	1,770	24	966	16	57	20	15	14
10	14	221	130	755	1,940	23	1,160	14	57	20	15	16
11	14	127	130	632	2,010	22	1,240	13	33	20	20	19
12	15	122	87	585	2,080	101	1,550	218	17	22	22	20
13	15	72	113	580	1,820	253	1,070	484	17	22	19	20
14	14	58	113	585	1,330	490	425	372	16	22	18	19
15	14	52	84	790	1,190	1,040	312	336	16	22	18	19
16	14	52	69	1,160	1,940	1,340	200	642	16	22	18	20
17	14	52	69	1,330	2,120	1,320	118	328	16	22	18	18
18	14	52	67	1,540	1,990	1,220	118	324	16	22	18	20
19	13	52	67	1,600	1,010	1,840	100	384	29	22	18	24
20	13	52	69	1,680	417	2,280	98	384	52	22	24	24
21	10	36	69	1,130	177	2,490	54	364	54	20	24	25
22	2	27	69	594	49	2,770	30	253	55	20	25	25
23	20	27	95	443	48	2,800	77	144	37	20	26	25
24	249	27	192	443	36	2,680	111	196	27	20	25	25
25	637	27	235	340	25	2,300	113	249	27	20	25	227
26	924	36	235	259	25	1,370	115	249	20	26	25	530
27	1,420	112	235	192	26	281	91	249	16	25	25	530
28	1,860	170	235	192	30	76	32	249	16	26	25	530
29	1,990	140	369	192	-	24	32	145	20	23	25	535
30	2,050	140	590	252	-	42	32	102	22	20	26	676
31	1,960	-	676	555	-	83	-	125	-	19	27	-

Month	Observed				Diversion to Coyote Creek channel (acre-feet)	Adjusted for diversion			
	Discharge in second-feet			Runoff in acre-feet		Runoff in acre-feet	Discharge in second-feet		Runoff in inches
	Maximum	Minimum	Mean				Mean	Per square mile	
October	2,050	2	368	22,610	397	23,010	374	-	-
November	2,000	27	478	28,420	597	29,020	488	-	-
December	676	67	203	12,500	637	13,140	214	-	-
Calendar year 1944	2,050	2	200	145,500	4,234	149,700	206	0.817	11.14
January	1,680	176	640	39,360	736	40,100	652	-	-
February	2,120	25	972	53,970	577	54,550	982	-	-
March	2,800	22	810	49,790	559	50,340	819	-	-
April	1,550	26	299	17,780	498	18,280	307	-	-
May	642	13	193	11,840	377	12,220	199	-	-
June	341	16	64.4	3,830	260	4,090	68.7	-	-
July	26	19	21.5	1,320	71	1,390	22.6	-	-
August	27	15	20.7	1,280	97	1,380	22.5	-	-
September	676	14	117	6,980	250	7,230	122	-	-
Water year 1944-45	2,800	2	345	249,700	5,056	254,800	352	1.40	18.96

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

Long Tom River at Monroe, Oreg.

Location.- Water-stage recorder and concrete control, lat. 44°18'50", long. 123°17'45", in NE¼ sec. 33, T. 14 S., R. 5 W., in canalized river channel at Monroe, 800 feet upstream from a concrete drop structure and just downstream from Shafer Creek. Datum of gage is 270.00 feet above mean sea level, datum of 1929 (levels by Corps of Engineers, U. S. Army). Prior to Nov. 24, 1944, staff gages at same site and at site 2,400 feet downstream.

Drainage area.- 391 square miles.

Records available.- November 1920 to September 1945 (1925-27 incomplete).

Average discharge.- 22 years (1921-25, 1927-45), 689 second-feet.

Extremes (regulated).- Maximum discharge during year, 3,950 second-feet Mar. 22 (gage height, 7.65 feet); no flow Oct. 20-22 (water filling pool at gage).
1929-45: Maximum discharge, 19,300 second-feet Jan. 2, 1943 (gage height, 17.14 feet, datum then in use, from graph based on gage readings), includes some overflow from Willamette River near Junction City; minimum, that of Oct. 20-22, 1944; minimum observed prior to regulation of flow, 7 second-feet Sept. 29, Oct. 1, 1939.

Remarks.- Records excellent except those for Oct. 18 to Nov. 24, which are fair, and those for Oct. 1-17, which are poor. Gage read twice daily Oct. 19 to Nov. 23. A few small diversions above station. Flow regulated by Fern Ridge Reservoir beginning Nov. 13, 1941 (see p.). In 1943 and 1944 river channel was improved from outlet of Fern Ridge Reservoir to a point below Monroe.

Cooperation.- Gage-height record collected in cooperation with U. S. Weather Bureau. Water-stage recorder inspected by employee of Corps of Engineers, U. S. Army.

Discharge, in second-feet, water year October 1944 to September 1945

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1		2,010	254	860	1,620	232	307	136	184	37	23	32
2		1,990	301	790	1,610	200	277	118	184	35	25	30
3		2,080	332	482	1,440	195	216	105	184	35	25	30
4		2,160	432	295	998	190	200	97	184	35	25	30
5		2,080	418	390	1,370	179	243	92	265	35	25	27
6		1,980	411	490	1,820	190	338	88	475	37	23	25
7		1,230	351	750	2,800	205	553	84	169	32	23	23
8		482	248	998	3,790	210	1,320	80	109	32	23	23
9		277	190	954	3,450	205	1,700	76	105	32	25	21
10	18	277	179	1,020	2,950	418	1,750	88	101	32	23	21
11		226	174	921	2,780	475	1,720	84	92	30	25	19
12		169	159	810	2,700	498	2,010	195	57	32	27	23
13		131	127	890	3,060	900	1,780	569	53	32	30	25
14		98	145	965	2,850	1,490	850	552	53	30	27	25
15		72	136	1,340	2,110	2,020	586	460	50	30	27	25
16		69	105	2,190	2,490	2,480	505	720	46	30	27	25
17		67	101	2,190	2,730	2,950	338	594	43	27	25	25
18	18	72	101	2,230	2,720	3,240	319	439	43	30	23	23
19	12	64	105	2,070	1,940	3,280	283	520	40	32	23	23
20	0	64	127	2,080	987	3,680	260	520	68	30	23	27
21	0	61	159	1,620	620	3,790	238	490	76	30	27	32
22	1	40	179	976	370	3,910	164	377	76	32	27	32
23	10	41	243	647	319	3,590	174	307	72	30	30	32
24	21	53	295	612	289	3,310	254	248	53	30	30	30
25	594	57	351	544	238	2,960	295	344	50	27	32	57
26	840	80	319	432	221	2,340	307	332	46	27	32	505
27	1,300	113	313	332	232	860	289	332	40	32	30	520
28	1,780	232	425	313	238	482	210	332	37	30	30	520
29	1,920	195	567	313	-	358	164	277	35	27	30	520
30	2,060	210	840	418	-	307	154	159	37	25	30	638
31	2,000	-	921	1,020	-	319	-	190	-	25	32	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff: Inches	Runoff: Acre-feet
October	10,862	2,060	0	350	-	-	21,540
November	16,680	2,160	40	556	-	-	33,080
December	9,008	921	101	291	-	-	17,870
Calendar year 1944	109,888	2,160	0	300	0.767	10.45	218,000
January	29,942	2,230	295	966	-	-	59,390
February	48,742	3,790	221	1,741	-	-	96,680
March	45,463	3,910	179	1,467	-	-	90,170
April	17,804	2,010	154	593	-	-	35,310
May	9,005	720	76	290	-	-	17,860
June	3,027	475	35	101	-	-	6,000
July	960	37	25	31.0	-	-	1,900
August	827	32	23	26.7	-	-	1,640
September	3,388	638	19	113	-	-	6,720
Water year 1944-45	195,708	3,910	0	536	1.37	18.61	388,200

Note.- Discharge for period Oct. 1 to Nov. 23 computed as follows: Oct. 1-17 on basis of records for station below Fern Ridge Dam, near Smithfield; Oct. 18 from discharge measurement on that date; Oct. 19 to Nov. 23 on basis of staff-gage readings.
Time basis: Pacific war time up to 2 a.m., Sept. 30, 1945; Pacific standard time thereafter. To convert war time to standard time, subtract 1 hour.

Coyote Creek near Crow, Oreg.

Location.- Water-stage recorder and concrete control, lat. 44°01'19", long. 123°15'17", in NE¼ sec. 11, T. 18 S., R. 5 W., just upstream from backwater of Fern Ridge Reservoir, 1 mile downstream from Spencer Creek, and 5 miles northeast of Crow. Datum of gage is 374.0 feet above mean sea level (Corps of Engineers, U. S. Army, bench mark).

Drainage area.- 94 square miles.

Records available.- June 1940 to September 1945.

Extremes.- Maximum discharge during year, 2,240 second-feet Mar. 18 (gage height, 11.53 feet); minimum, 0.3 second-foot Oct. 27-30, Sept. 17-21.
1940-45: Maximum discharge, 7,370 second-feet Dec. 8, 1942 (gage height, 13.60 feet); no flow at times in August and September 1940.

Remarks.- Records fair except those for Nov. 1-3, Jan. 1 to Feb. 11, Aug. 26 to Sept. 5, which are poor.

Rating tables, water year 1944-45 (gage height, in feet, and discharge, in second-feet)

Oct. 1 to Mar. 17

0.3	0.25	1.8	62	9.0	619
.4	.8	2.6	90	10.0	840
.6	5.0	3.5	133	10.6	1,220
.8	17	4.6	196	11.3	1,930
1.0	30	6.0	291		
1.3	45	7.5	417		

Mar. 18 to Sept. 30

0.3	0.3	1.3	44	6.5	358
.4	1.1	1.7	64	8.0	491
.5	2.5	2.1	73	9.0	621
.6	5.0	2.7	97	10.0	840
.7	10	3.3	128	10.6	1,220
.8	17	4.0	170	11.3	1,930
1.0	30	5.0	239		

Discharge, in second-feet, water year October 1944 to September 1945

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.4	h2.1	68	148	361	110	128	73	40	8.1	2.0	h1.1
2	.5	h10	96	119	449	97	112	68	34	7.6	2.0	h1.1
3	.7	h10	94	96	417	96	101	63	30	7.6	2.2	h1.1
4	.7	31	86	82	335	95	93	57	29	7.1	2.0	h1.1
5	.7	32	72	81	570	86	116	54	27	6.6	2.0	h1.1
6	.6	16	63	103	808	86	187	49	28	6.0	1.9	.9
7	.7	14	57	181	798	95	218	45	25	6.0	1.9	1.1
8	.6	18	53	210	1,890	100	449	41	23	5.5	1.9	1.1
9	.7	24	45	190	1,630	95	508	39	22	4.7	1.9	1.2
10	.6	34	36	169	825	180	440	43	21	4.7	1.7	.9
11	.6	34	29	151	617	214	397	42	20	4.4	1.7	.8
12	.6	19	23	138	442	235	382	56	19	4.1	1.6	.7
13	.5	14	20	171	662	311	325	81	18	3.8	1.7	.5
14	.5	10	20	215	1,160	514	257	93	18	3.8	1.9	.4
15	.6	8.1	14	345	813	721	209	82	17	3.6	1.9	.4
16	.6	7.6	15	701	599	788	174	94	16	3.6	1.7	.4
17	.7	6.0	14	719	468	1,040	148	116	16	3.6	1.5	.4
18	.7	6.0	14	577	441	1,930	127	126	15	3.6	1.3	.3
19	.7	5.5	15	392	351	1,000	111	100	14	3.8	1.1	.3
20	.6	5.0	40	277	275	960	98	85	13	4.1	1.1	.3
21	.6	4.6	65	211	224	1,000	88	75	12	3.8	1.0	.6
22	.5	4.2	68	171	188	795	79	69	12	3.8	.9	1.0
23	.5	4.6	102	140	161	678	83	68	12	3.6	.8	1.6
24	.4	9.2	95	120	140	554	123	64	12	3.6	.7	2.5
25	.4	28	81	106	123	469	126	56	10	3.3	.7	2.0
26	.4	45	68	93	112	399	136	50	9.7	3.1	h.9	1.7
27	.4	53	62	83	129	310	109	50	9.7	2.9	h1.1	1.5
28	.4	49	100	74	131	253	98	56	9.2	2.7	h1.1	1.2
29	.3	36	157	71	-	208	91	49	9.2	2.3	h1.1	1.1
30	.5	37	225	119	-	169	81	57	8.6	2.0	h1.1	1.0
31	1.8	-	199	279	-	145	-	48	-	2.2	h1.1	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff Inches	Runoff Acre-feet
October	18.5	1.8	0.3	0.60	0.0064	0.007	37
November	576.9	53	2.1	19.2	.204	.23	1,140
December	2,096	225	14	67.6	.719	.83	4,160
Calendar year 1944	24,493.0	599	.1	66.9	.712	9.68	48,590
January	6,532	719	71	211	2.24	2.58	12,960
February	15,119	1,890	112	540	5.74	5.98	29,990
March	13,733	1,930	86	443	4.71	5.43	27,240
April	5,594	508	79	186	1.98	2.21	11,100
May	2,049	126	39	66.1	.703	.81	4,060
June	549.4	40	8.6	18.3	.195	.22	1,090
July	135.6	8.1	2.0	4.37	.046	.05	269
August	45.5	2.2	.7	1.47	.016	.02	90
September	29.4	2.5	.3	.98	.010	.01	58
Water year 1944-45	46,478.3	1,930	.3	127	1.35	18.38	92,190

h Computed from staff-gage reading.
Time basis: Pacific war time up to 2 a.m., Sept. 30, 1945; Pacific standard time thereafter. To convert war time to standard time, subtract 1 hour.

Marys River near Philomath, Oreg.

Location.- Wire-weight gage, lat. 44°31'35", long. 123°20'00", in SW¼ sec. 18, T. 12 S., R. 5 W., at bridge 2 miles upstream from Muddy Creek and 2 miles southeast of Philomath.

Drainage area.- 155 square miles (including drainage area of Evergreen Creek above road crossing 1½ miles south of station).

Records available.- October 1940 to September 1945.

Extremes.- Maximum discharge observed during year, 4,500 second-feet Feb. 8 (gage height, 18.74 feet); minimum observed, 9 second-feet Oct. 24.
1940-45: Maximum discharge, 7,720 second-feet Jan. 1, 1943 (gage height, 20.46 feet, from graph based on gage readings); minimum observed, 6 second-feet Sept. 12, 13, 1944.

Remarks.- Records fair; they include flow of Evergreen Creek at road crossing 1½ miles south, with which overflow from Marys River may at times be mingled. Gage read twice daily. City of Corvallis diverts municipal supply from headwaters; other small diversions above station for irrigation. No regulation.

Rating table, water year 1944-45 (gage height, in feet, and discharge in second-feet)

2.6	8	4.3	161	9.0	915
2.8	18	5.0	250	10.0	1,100
3.0	33	6.0	395	11.0	1,300
3.3	58	7.0	560	13.0	1,720
3.7	96	8.0	735	16.0	2,600

Discharge, in second-feet, water year October 1944 to September 1945

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	17	86	237	289	599	332	478	272	219	62	25	13
2	21	65	178	261	976	314	432	253	203	60	25	12
3	17	151	138	223	1,010	383	398	241	195	56	26	10
4	16	110	161	201	688	421	371	228	186	54	25	31
5	16	83	163	225	2,030	413	456	219	178	54	24	60
6	16	71	142	432	1,800	403	485	206	169	51	23	70
7	16	106	156	841	2,290	392	587	192	161	49	24	38
8	17	102	166	836	2,470	472	1,370	185	155	46	22	28
9	17	147	147	717	2,320	478	1,280	180	149	44	22	24
10	12	138	127	574	1,560	1,380	1,090	189	144	43	22	21
11	13	100	112	443	1,330	1,180	1,300	214	136	41	21	18
12	11	76	100	397	1,150	1,120	1,330	334	130	39	22	17
13	11	63	90	579	1,800	991	1,130	485	126	38	22	15
14	14	54	83	652	1,790	1,400	926	782	123	38	22	11
15	14	47	72	1,180	1,450	1,400	778	875	116	36	21	17
16	14	43	69	2,340	1,120	1,440	665	897	108	36	21	11
17	11	39	67	1,800	1,050	1,960	577	848	104	36	20	14
18	12	37	66	1,550	930	2,360	509	744	98	36	18	13
19	14	35	67	1,270	764	1,870	459	621	92	38	17	17
20	13	34	92	997	654	2,550	421	536	86	35	16	13
21	13	33	124	785	568	2,030	384	472	86	36	17	28
22	13	31	118	631	506	1,720	352	417	84	41	11	30
23	13	35	175	519	461	1,470	347	454	82	41	16	33
24	12	78	149	440	422	1,190	371	400	77	39	12	27
25	13	74	125	383	380	1,170	374	353	72	36	16	24
26	13	98	107	342	362	1,020	359	324	71	33	14	22
27	13	122	102	306	390	857	324	310	71	31	13	20
28	10	108	408	278	358	739	312	293	69	31	19	19
29	12	88	390	258	-	638	298	264	67	29	16	17
30	15	180	408	306	-	560	286	250	65	27	15	15
31	33	-	332	495	-	512	-	233	-	27	11	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff	
						Inches	Acre-feet
October	452	33	10	14.6	0.094	0.11	897
November	2,454	180	31	81.1	.523	.58	4,830
December	4,871	408	66	157	1.01	1.17	9,660
Calendar year 1944	71,817	1,450	6	196	1.26	17.23	142,400
January	20,550	2,340	201	663	4.28	4.93	40,760
February	31,428	2,470	358	1,122	7.24	7.54	62,340
March	33,165	2,550	314	1,070	6.90	7.96	65,780
April	18,449	1,370	286	615	3.97	4.43	36,590
May	12,271	897	180	396	2.55	2.94	24,340
June	3,622	219	65	121	.781	.87	7,180
July	1,263	62	27	40.7	.263	.30	2,510
August	598	26	11	19.3	.125	.14	1,190
September	688	70	10	22.9	.148	.17	1,360
Water year 1944-45	129,791	2,550	10	356	2.30	31.14	257,400

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

Calapooya River at Holley, Oreg.

Location.- Staff gage, lat. 44°21', long. 122°47', near line between secs. 14 and 15, T. 14 S., R. 1 W., a quarter of a mile southwest of Holley and 4 miles upstream from Brush Creek. Datum of gage is 527.20 feet above mean sea level, datum of 1929.
Drainage area.- 99 square miles.
Records available.- September 1935 to September 1945.
Average discharge.- 10 years, 382 second-feet.
Extremes.- Maximum discharge during year, 4,420 second-feet Feb. 8 (gage height, 7.90 feet, observed at peak); minimum observed, 20 second-feet Oct. 29 (gage height, 0.63 foot).
1935-45: Maximum discharge, 9,400 second-feet Dec. 31, 1942 (gage height, 12.10 feet), from rating curve extended above 5,200 second-feet; minimum observed, 13 second-feet (regulated), Sept. 8, 1940.
Remarks.- Records good. Gage read once daily, oftener during periods of high water. No diversions above station; slight regulation at times during low-water periods by small dam upstream.
Cooperation.- Gage-height record collected in cooperation with U. S. Weather Bureau.
Revisions.- Revised figures of discharge, in second-feet, for December 1942, superseding those published in Water-Supply Paper 984, are given herewith:

Dec. 26.....1,340

Month	Second-foot-days	Mean	Per square mile	Runoff in inches	Runoff in acre-feet
December.....	57,725	1,862	18.8	21.68	114,500
Calendar year 1942..	177,261	486	4.91	66.60	351,600
Water year 1942-43..	219,431	601	6.07	82.43	435,200

Discharge, in second-feet, water year October 1944 to September 1945

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	48	99	270	155	503	347	710	690	339	82	38	27
2	34	144	253	221	620	331	601	730	304	81	38	27
3	31	308	210	186	638	363	542	700	280	75	37	27
4	31	273	208	173	642	347	475	640	262	73	37	27
5	64	149	256	232	1,350	331	740	542	245	68	36	124
6	55	115	218	670	1,130	312	1,010	493	234	68	35	60
7	41	210	193	1,300	1,440	294	1,110	447	217	66	35	38
8	33	184	177	910	3,970	323	1,990	407	201	65	34	34
9	30	205	157	629	2,030	301	1,320	367	192	63	34	29
10	28	168	144	485	1,340	986	1,050	395	186	62	33	28
11	29	134	128	429	1,430	826	1,230	331	172	60	33	27
12	27	111	123	461	1,210	848	1,110	339	164	57	34	27
13	26	97	113	1,050	3,370	865	914	547	161	55	34	26
14	27	87	104	916	2,330	1,110	816	700	153	54	33	26
15	26	77	101	998	1,430	1,010	780	750	146	54	32	26
16	25	72	95	1,580	1,130	904	760	1,070	138	52	31	29
17	24	67	92	1,130	1,030	1,310	700	1,280	133	52	30	28
18	24	64	88	1,260	898	1,210	660	1,010	128	51	29	27
19	24	60	87	943	735	1,100	770	821	121	51	28	26
20	23	58	102	760	670	2,180	854	680	117	49	27	32
21	23	54	110	611	574	1,820	843	592	113	47	27	110
22	22	50	95	494	520	1,780	720	552	110	60	27	92
23	22	58	111	429	484	1,700	710	520	106	58	27	79
24	22	177	101	373	443	1,300	1,310	524	102	51	26	51
25	22	147	94	325	403	1,060	1,090	455	98	48	32	40
26	21	259	90	294	371	936	848	415	94	46	48	37
27	21	297	87	263	387	800	735	502	94	44	38	34
28	21	232	123	247	359	770	700	547	90	43	32	32
29	20	177	173	238	-	770	680	467	86	42	30	30
30	21	164	193	270	-	690	690	427	84	40	29	29
31	49	-	155	503	-	740	-	375	-	39	27	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff	
						Inches	Acre-feet
October	914	64	20	29.5	0.298	0.34	1,810
November	4,297	308	50	143	1.44	1.61	8,520
December	4,451	270	87	144	1.45	1.67	8,830
Calendar year 1944	73,476	1,400	20	201	2.03	27.58	145,700
January	18,535	1,580	155	598	6.04	6.96	36,760
February	31,437	3,970	359	1,123	11.3	11.81	62,350
March	27,664	2,180	294	892	9.01	10.39	54,870
April	26,468	1,990	475	882	8.91	9.94	52,500
May	18,315	1,280	331	591	5.97	6.88	36,330
June	4,870	339	84	162	1.64	1.83	9,660
July	1,755	82	39	56.6	.572	.66	3,480
August	1,011	48	26	32.6	.329	.38	2,010
September	1,229	124	26	41.0	.414	.46	2,440
Water year 1944-45	140,946	3,970	20	386	3.90	53.93	279,600

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

Calapooya River at Albany, Oreg.

Location.- Wire-weight gage, lat. 44°37'15", long. 123°07'40", in NW¼ sec. 13, T. 11 S., R. 4 W., half a mile downstream from Oak Creek, 1½ miles southwest of Albany, and 3 miles upstream from mouth. Datum of gage is 180.37 feet above mean sea level (datum of 1929).

Drainage area.- 362 square miles.

Records available.- October 1940 to September 1945.

Extremes.- Maximum discharge observed during year, 5,460 second-feet Mar. 22 (gage height, 15.07 feet); minimum observed, 8 second-feet (regulated) Oct. 24 (gage height, 0.95 foot); minimum daily, 14 second-feet Aug. 16, Sept. 3, 17.
1940-45: Maximum discharge, 18,400 second-feet Jan. 2, 1943; maximum gage height, 25.5 feet Jan. 2, 1943, from graph based on gage readings, affected by backwater from Willamette River; minimum discharge observed, 8 second-feet (regulated) Sept. 12, Oct. 24, 1944; minimum daily, 12 second-feet Aug. 26, 1941, Sept. 11, 1944.

Remarks.- Records good. Gage read twice daily, oftener at high stages. A few small diversions above station for irrigation. Diurnal fluctuation caused by ponds at flour mille near Shedd.

Rating table, water year 1944-45 (gage height, in feet, and discharge, in second-feet)

I.1	13	2.6	166	7.0	1,300
1.3	21	3.0	240	9.0	2,070
1.5	32	3.5	340	11.0	2,990
1.7	45	4.0	440	13.0	4,070
2.0	74	5.0	690	15.0	5,410
2.3	115	6.0	970		

Discharge, in second-feet, water year October 1944 to September 1945

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	29	36	284	392	1,930	540	940	758	438	94	42	27
2	15	42	408	344	1,970	508	871	740	400	99	40	26
3	47	182	402	368	1,580	500	755	752	362	90	38	14
4	35	284	372	330	1,330	610	678	735	344	97	36	19
5	34	358	426	316	1,830	605	650	652	332	74	36	31
6	32	248	404	540	2,940	540	949	570	310	89	20	30
7	30	191	356	1,260	3,140	608	1,310	530	296	84	30	37
8	44	254	348	1,740	4,310	518	2,650	478	278	78	36	51
9	32	268	300	1,590	5,080	502	3,430	436	266	71	34	61
10	55	272	248	988	5,050	823	2,920	422	248	84	32	17
11	27	250	229	1,000	3,660	1,880	2,130	432	229	70	30	39
12	33	202	208	928	2,860	1,640	2,280	418	232	79	28	25
13	21	162	188	1,180	3,280	2,650	1,970	678	198	78	18	32
14	24	150	166	1,670	4,420	3,150	1,450	910	210	79	29	26
15	31	157	155	2,200	5,340	3,760	1,150	1,000	202	73	a22	24
16	16	128	145	3,060	4,130	3,400	1,040	1,220	186	47	14	22
17	25	97	138	3,420	2,300	2,940	952	2,280	173	74	25	14
18	31	81	126	3,050	2,660	4,190	850	2,660	155	51	32	22
19	32	81	128	2,560	2,320	4,030	802	2,300	170	53	25	30
20	29	72	128	2,000	1,460	3,290	856	1,350	153	48	15	25
21	26	79	191	1,330	1,140	4,800	922	1,000	148	44	24	26
22	26	78	213	1,010	958	5,200	904	826	134	61	28	30
23	15	72	276	802	832	4,030	780	738	110	35	22	92
24	18	67	292	698	752	3,500	880	715	94	73	22	86
25	24	138	219	615	665	2,590	1,380	710	103	65	21	79
26	24	206	188	548	610	2,150	1,410	662	115	55	22	72
27	22	380	168	488	582	1,640	1,070	540	112	44	15	53
28	22	450	188	434	605	1,260	874	580	110	41	25	34
29	21	342	296	406	-	1,170	775	635	108	48	41	22
30	19	272	638	412	-	1,050	775	560	99	18	32	50
31	26	-	555	1,140	-	931	-	498	-	36	31	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff Inches	Runoff Acre-feet
October	865	55	15	27.9	0.077	0.09	1,720
November	5,599	450	36	187	.517	.58	11,110
December	8,383	638	126	270	.746	.86	16,630
Calendar year 1944	133,140	2,810	12	364	1.01	13.68	264,100
January	36,819	3,420	316	1,188	3.28	3.78	73,030
February	67,734	5,340	582	2,419	6.68	6.96	134,300
March	65,005	5,200	500	2,097	5.79	6.68	128,900
April	38,403	3,430	650	1,280	3.54	3.95	76,170
May	26,785	2,660	418	864	2.39	2.75	53,130
June	6,315	438	94	210	.580	.65	12,530
July	2,032	99	18	65.5	.181	.21	4,030
August	865	42	14	27.9	.077	.09	1,720
September	1,116	92	14	37.2	.103	.11	2,210
Water year 1944-45	259,921	5,340	14	712	1.97	26.71	515,500

a No gage-height record; discharge computed on basis of records for station at Holley.
Time basis: Pacific war time up to 2 a.m., Sept. 30, 1945; Pacific standard time thereafter.
To convert war time to standard time, subtract 1 hour.

North Santiam River at Detroit, Oreg.

Location.- Water-stage recorder, lat. 44°43', long. 122°08', in NE¼ sec. 12, T. 10 S., R. 5 E., 1 mile east of Detroit. Datum of gage is 1,475.68 feet above mean sea level, datum of 1929.

Drainage area.- 224 square miles.

Records available.- January 1907 to October 1909, October 1928 to September 1945. August 1910 to October 1913 at site above Boulder Creek (records not equivalent).

Average discharge.- 18 years (1907-8, 1928-45), 899 second-feet.

Extremes.- Maximum discharge during year, 7,850 second-feet Feb. 8 (gage height, 7.41 feet); minimum, 293 second-feet (regulated) Oct. 19, 28 (gage height, 0.39 foot); minimum daily, 315 second-feet Oct. 27-29.
1907-9, 1910-11, 1928-45: Maximum discharge, 15,000 second-feet Mar. 31, 1931 (gage height, about 12.0 feet), from rating curve extended above 2,700 second-feet; minimum, 254 second-feet Oct. 7, 1940 (gage height, 0.15 foot).

Remarks.- Records good. No diversion above station; slight diurnal fluctuation caused by power plant at Idanha.

Cooperation.- Water-stage recorder inspected by employees of U. S. Forest Service.

Rating tables, water year 1944-45 (gage height, in feet, and discharge, in second-feet)

Oct. 1 to Feb. 7				Feb. 8 to Sept. 30			
0.5	315	2.0	945	0.6	345	3.4	1,930
.6	338	2.7	1,360	1.1	510	4.1	2,630
1.1	508	3.4	1,930	1.5	685	4.8	3,460
1.5	685	4.1	2,630	2.0	945	5.6	4,580
				2.7	1,370	6.5	6,050

Discharge, in second-feet, water year October 1944 to September 1945

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	346	484	626	420	654	745	1,030	1,890	1,220	559	422	389
2	338	460	608	420	695	720	962	2,180	1,150	564	422	383
3	338	846	559	406	835	715	918	2,450	1,080	550	419	379
4	346	700	595	406	857	685	879	2,320	1,030	530	412	422
5	368	550	640	480	1,220	658	956	2,030	994	522	412	534
6	343	516	631	804	1,200	640	1,020	1,950	967	522	416	422
7	333	559	640	1,700	2,560	631	1,120	1,840	928	522	416	399
8	329	512	604	1,550	6,050	631	1,460	1,730	884	510	422	392
9	326	508	564	1,160	3,720	654	1,280	1,610	874	503	419	383
10	322	468	529	1,090	2,520	934	1,160	1,630	835	500	412	373
11	322	445	500	989	2,650	862	1,150	1,530	815	496	408	376
12	329	416	472	1,300	2,370	945	1,080	1,740	790	489	405	373
13	360	406	457	2,390	4,850	945	1,010	2,030	785	486	405	373
14	336	389	441	2,000	3,370	956	962	2,260	750	475	405	373
15	333	380	426	1,820	2,360	906	956	2,540	720	464	402	383
16	324	371	420	1,570	1,880	874	956	2,700	695	461	405	379
17	322	365	409	1,400	1,640	884	945	2,520	685	458	402	370
18	317	362	402	1,290	1,440	862	994	2,140	695	450	402	367
19	317	354	406	1,130	1,260	945	1,110	1,810	705	440	395	362
20	317	349	438	1,030	1,180	1,400	1,290	1,600	685	444	389	426
21	317	346	441	934	1,070	1,390	1,470	1,470	705	450	389	426
22	320	346	430	852	989	1,400	1,380	1,400	654	475	389	412
23	320	395	409	795	945	1,350	1,430	1,360	636	468	389	402
24	320	430	406	745	879	1,190	1,940	1,270	636	447	389	383
25	317	406	398	705	835	1,160	1,780	1,180	626	447	408	370
26	317	618	392	667	825	1,130	1,530	1,210	618	436	433	367
27	315	640	389	636	800	1,080	1,430	1,700	595	440	402	359
28	315	550	402	604	770	1,060	1,430	1,570	568	440	399	351
29	315	512	406	595	-	1,010	1,510	1,500	572	433	392	351
30	331	564	392	600	-	978	1,730	1,440	564	422	389	345
31	368	-	383	640	-	1,050	-	1,360	-	422	389	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff Inches	Runoff Acre-feet
October	10,219	368	315	330	1.47	1.70	20,270
November	14,247	846	346	475	2.12	2.37	28,260
December	14,815	640	383	478	2.13	2.46	29,390
Calendar year 1944	217,837	1,410	315	595	2.66	36.18	432,100
January	31,128	2,390	406	1,004	4.48	5.17	61,740
February	50,404	6,050	654	1,800	8.04	8.37	99,970
March	29,390	1,400	631	948	4.23	4.88	58,290
April	36,868	1,940	879	1,229	5.49	6.12	73,130
May	55,960	2,700	1,180	1,805	8.06	9.29	111,000
June	23,461	1,220	564	782	3.49	3.90	46,530
July	14,825	564	422	478	2.13	2.46	29,400
August	12,558	433	389	405	1.81	2.08	24,910
September	11,624	534	345	387	1.73	1.93	23,060
Water year 1944-45	305,499	6,050	315	837	3.74	50.73	606,000

Peak discharge.- Feb. 8 (8 a.m.) 7,850 sec.-ft.; Feb. 13 (9 a.m.) 5,580 sec.-ft.
Time basis: Pacific war time up to 2 a.m., Sept. 30, 1945; Pacific standard time thereafter.
To convert war time to standard time, subtract 1 hour.

North Santiam River above Mayflower Creek, near Detroit, Oreg.

Location.- Water-stage recorder, lat. 44°44', long. 122°15', in NW¼ sec. 7, T. 10 S., R. 5 E., 850 feet downstream from axis of Detroit dam site, 0.3 mile upstream from Mayflower Creek, and 5 miles west of Detroit. Datum of gage is 1,192.20 feet above mean sea level, datum of 1929.

Drainage area.- 438 square miles.

Records available.- October 1938 to September 1945.

Extremes.- Maximum discharge during year, 18,900 second-feet Feb. 8 (gage height, 12.37 feet); minimum, 448 second-feet probably Oct. 28 (gage height, 3.02 feet, from range of stage while recorder was stopped).
1938-45: Maximum discharge, 28,800 second-feet Nov. 23, 1942 (gage height, 15.17 feet), from rating curve extended above 13,000 second-feet; minimum, 410 second-feet (regulated) Oct. 25, 1942 (gage height, 2.87 feet); minimum daily, 432 second-feet Sept. 1, 1940.

Remarks.- Records excellent except those for periods of no gage-height record, which are fair. No diversions above station; slight diurnal fluctuation by power plant at Idanha.

Rating table, water year 1944-45 (gage height, in feet, and discharge, in second-feet)

3.0	440	5.0	1,900	8.5	8,300
3.4	620	5.7	2,780	9.5	10,800
3.8	850	6.5	4,020	10.5	13,500
4.4	1,300	7.5	6,000	11.5	16,300

Discharge, in second-feet, water year October 1944 to September 1945

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	560	900	1,470	832	1,280	1,600	2,500	4,740	2,390	913	595	516
2	535	864	1,370	920	1,510	1,550	2,200	5,320	2,200	913	590	512
3	525	2,240	1,220	850	2,040	1,550	2,000	5,740	2,020	899	585	508
4	560	1,800	1,280	844	2,100	1,400	1,850	5,240	1,880	864	580	565
5	665	1,250	1,460	1,140	3,160	1,300	2,600	4,440	1,800	838	580	638
6	595	1,110	1,400	2,650	3,140	1,250	2,900	4,220	1,720	838	580	610
7	550	1,330	1,370	6,310	6,840	1,200	3,000	3,930	1,640	838	575	565
8	530	1,220	1,280	4,420	15,400	1,250	4,500	3,630	1,560	826	580	535
9	520	1,210	1,160	2,920	9,000	1,150	3,500	3,330	1,550	814	575	520
10	500	1,080	1,080	2,490	6,000	2,500	3,000	3,300	1,480	790	570	508
11	496	969	990	2,190	6,000	2,400	3,000	3,090	1,430	778	565	508
12	508	876	934	3,360	5,800	2,600	2,460	3,550	1,390	760	560	504
13	585	814	878	6,310	13,000	2,600	2,250	4,600	1,350	742	555	500
14	530	760	838	5,120	8,000	2,500	2,160	5,260	1,290	736	550	496
15	516	718	808	4,520	5,600	2,400	2,190	5,980	1,220	712	545	516
16	504	688	784	4,020	4,500	2,200	2,260	6,400	1,200	712	540	520
17	492	660	760	3,520	3,600	2,200	2,190	6,150	1,190	694	540	512
18	484	640	736	3,280	3,300	2,200	2,320	4,920	1,210	682	535	508
19	480	620	742	2,720	2,800	2,100	2,860	3,970	1,230	665	530	492
20	475	605	802	2,340	2,400	4,000	3,470	3,380	1,210	665	520	605
21	470	590	832	2,040	2,200	3,800	3,950	3,050	1,240	670	516	680
22	465	585	796	1,780	2,000	3,700	3,440	2,860	1,160	706	520	630
23	460	718	778	1,630	1,850	3,600	3,330	2,780	1,080	700	516	615
24	460	920	748	1,520	1,750	3,000	4,980	2,570	1,070	660	516	575
25	460	850	730	1,390	1,650	2,800	4,380	2,360	1,050	655	555	555
26	455	1,510	712	1,310	1,650	2,700	3,580	2,320	1,050	640	615	550
27	455	1,610	700	1,240	1,650	2,600	3,160	3,330	969	625	560	525
28	450	1,280	748	1,190	1,600	2,500	3,260	3,230	948	620	540	516
29	450	1,120	766	1,140	-	2,400	3,630	3,070	962	615	525	504
30	470	1,220	730	1,140	-	2,250	4,330	2,920	934	605	520	496
31	600	-	694	1,200	-	2,600	-	2,710	-	600	516	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff: Inches	Runoff: Acre-feet
October	15,785	665	450	509	1.16	1.34	31,310
November	30,759	2,240	585	1,025	2.34	2.61	61,010
December	29,596	1,470	694	955	2.18	2.51	58,700
Calendar year 1944	436,026	4,600	450	1,191	2.72	37.02	864,800
January	76,336	6,310	832	2,462	5.62	6.48	151,400
February	120,030	15,400	1,290	4,287	9.79	10.19	238,100
March	71,900	4,000	1,150	2,319	5.29	6.10	142,600
April	91,250	4,980	1,850	3,042	6.95	7.75	181,000
May	122,390	6,400	2,320	3,948	9.01	10.39	242,800
June	41,423	2,390	934	1,381	3.15	3.52	82,160
July	22,775	913	600	735	1.68	1.93	45,170
August	17,149	615	516	553	1.26	1.46	34,010
September	16,454	638	492	548	1.25	1.40	32,640
Water year 1944-45	655,847	15,400	450	1,797	4.10	55.68	1,301,000

Note.- No gage-height record Oct. 20 to Nov. 1, Feb. 9 to Apr. 11; discharge computed on basis of records for North Santiam River at Detroit.
Time basis: Pacific war time up to 2 a.m., Sept. 30, 1945; Pacific standard time thereafter. To convert war time to standard time, subtract 1 hour.

North Santiam River at Mehama, Oreg.

Location.- Water-stage recorder, lat. 44°47', long. 122°37', in NW¼ sec. 18, T. 9 S., R. 2 E., at Mehama, half a mile downstream from Little North Santiam River. Datum of gage is 601.78 feet above mean sea level, datum of 1929.

Drainage area.- 665 square miles.

Records available.- July 1905 to March 1907, October 1910 to September 1914, September 1921 to September 1945.

Average discharge.- 29 years (1905-6, 1910-14, 1921-45), 3,127 second-feet.

Extremes.- Maximum discharge during year, 33,400 second-feet Feb. 8 (gage height, 10.62 feet); minimum, 503 second-feet Oct. 28.

1905-7, 1910-14, 1921-45: Maximum discharge, 62,900 second-feet Nov. 20, 1921, Jan. 6, 1923 (gage height, 17.5 feet); minimum, 400 second-feet (regulated) Sept. 29, Oct. 13, 1934; minimum daily, 420 second-feet Sept. 18, 1924.

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)
769.....	1933-34	Dec. 22	12.70	49,600
794.....	1934-35	Dec. 20	11.7	41,600
814.....	1935-36	Jan. 4	10.98	36,100
834.....	1936-37	Apr. 14	10.89	35,400
864.....	1937-38	Jan. 22	11.17	37,500
964.....	1941-42	Dec. 2	10.18	30,200
984.....	1942-43	Nov. 23	13.56	56,700

Remarks.- Records good. Slight regulation of low-water flow by mill dam at Mill City. No diversion above station for irrigation.

Cooperation.- Gage-height record collected in cooperation with U. S. Weather Bureau.

Revisions.- Revised figures of discharges for high-water periods in the water years 1934 to 1938 and 1943 are given herewith. They supersede those published in water-supply papers 769, 794, 814, 834, 864, and 984.

Day (water year)	Discharge (second-feet)	Day (water year)	Discharge (second-feet)	Day (water year)	Discharge (second-feet)	Day (water year)	Discharge (second-feet)
1933-34		1935-36		1937-38		1942-43	
Dec. 22	41,700	Jan. 4	30,100	Jan. 22	27,500	Nov. 29	27,300
Jan. 23	27,400	11	25,000			Dec. 31	28,500
				1942-43		Jan. 1	33,000
1934-35		1936-37		Nov. 23	34,100		
Dec. 20	26,300	Apr. 14	30,400	27	27,000		

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff	
						Inches	Acre-feet
December 1933.....	309,960	41,700	1,180	9,999	15.0	17.33	614,800
Calendar year 1933.....	1,532,034	41,700	788	4,197	6.31	85.63	3,039,000
January 1934.....	226,320	27,400	3,420	7,300	11.0	12.66	484,900
Water year 1933-34.....	1,078,641	41,700	525	2,955	4.44	60.33	2,140,000
December 1934.....	190,680	26,300	2,580	6,151	9.25	10.66	378,200
Calendar year 1934.....	1,083,625	27,400	518	2,969	4.46	60.60	2,149,000
Water year 1934-35.....	1,164,300	26,300	518	3,190	4.80	65.11	2,309,000
January 1936.....	268,350	30,100	2,080	8,656	13.0	15.01	532,300
Water year 1935-36.....	1,066,033	30,100	524	2,913	4.38	59.60	2,114,000
Calendar year 1936.....	1,028,004	30,100	468	2,809	4.22	57.47	2,039,000
April 1937.....	226,780	30,400	3,720	7,559	11.4	12.68	449,800
Water year 1936-37.....	1,049,312	30,400	468	2,875	4.32	58.68	2,081,000
Calendar year 1937.....	1,388,621	30,400	628	3,804	5.72	77.67	2,754,000
January 1938.....	198,400	27,500	2,490	6,400	9.62	11.10	393,500
Water year 1937-38.....	1,373,329	27,500	582	3,763	5.66	76.82	2,724,000
Calendar year 1938.....	1,175,526	27,500	582	3,221	4.84	65.74	2,332,000
November 1942.....	268,690	34,100	1,820	8,956	13.5	15.03	532,900
December.....	278,020	29,500	4,660	8,968	13.5	15.55	551,400
Calendar year 1942.....	1,170,981	34,100	500	3,208	4.82	65.49	2,322,000
January 1943.....	175,540	33,000	2,710	5,663	8.52	9.82	348,200
Water year 1942-43.....	1,578,778	34,100	500	4,325	6.50	88.30	3,131,000
Calendar year 1943.....	1,240,070	33,000	676	3,397	5.11	69.36	2,460,000

Peak discharge (water year).- 1937-38: Nov. 25 (8 p.m.) 21,300 sec.-ft.; Dec. 30 (3 a.m.) 33,300 sec.-ft.; Jan. 22 (4 a.m.) 37,500 sec.-ft.; Mar. 18 (6 p.m.) 18,400 sec.-ft.; Apr. 18 (11 a.m.) 19,000 sec.-ft.

1941-42: Nov. 15 (2:30 p.m.) 21,600 sec.-ft.; Dec. 2 (10 p.m.) 21,800 sec.-ft.; Dec. 19 (3:30 p.m.) 22,400 sec.-ft.

1942-43: Nov. 23 (4 p.m.) 56,700 sec.-ft.; Nov. 27 (3:30 a.m.) 37,900 sec.-ft.; Nov. 29 (4 p.m.) 40,200 sec.-ft.; Jan. 1 (1 a.m.) 49,500 sec.-ft.; Feb. 6 (5 p.m.) 24,400 sec.-ft.; Mar. 31 (7 p.m.) 24,800 sec.-ft.

Discharge, in second-feet, of North Santiam River at Mehama, Oreg., water year October 1944 to September 1945

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	790	1,360	2,410	1,330	2,040	2,310	4,100	7,280	3,470	1,100	668	612
2	632	1,530	2,260	1,630	2,440	2,180	3,670	7,860	3,120	1,100	652	620
3	668	3,350	2,000	1,480	3,080	2,250	3,180	8,350	2,880	1,070	636	612
4	754	3,100	2,090	1,450	3,280	2,150	2,880	7,490	2,670	1,040	636	652
5	1,170	2,080	2,470	1,920	5,070	2,030	3,310	6,380	2,540	1,010	628	1,390
6	1,040	1,780	2,310	5,420	5,460	1,920	4,080	5,980	2,440	996	628	925
7	838	2,470	2,280	12,900	11,000	1,850	4,730	5,500	2,330	996	628	745
8	754	2,120	2,150	8,740	25,900	1,860	7,410	5,120	2,200	985	628	684
9	700	2,080	1,920	5,070	14,200	1,940	5,700	4,640	2,140	945	628	644
10	676	1,840	1,740	4,210	9,050	5,120	4,960	4,640	2,060	945	620	636
11	644	1,570	1,570	3,590	9,810	4,300	5,260	4,390	1,940	915	612	628
12	636	1,390	1,440	6,010	9,300	4,590	4,750	5,260	1,900	895	612	620
13	700	1,260	1,340	10,900	22,600	4,590	4,060	7,250	1,860	885	605	628
14	684	1,160	1,280	9,080	13,300	4,610	3,720	8,320	1,850	766	605	620
15	644	1,060	1,200	8,060	8,830	4,280	3,720	9,840	1,700	838	598	620
16	620	996	1,160	7,750	6,380	3,920	3,860	11,000	1,610	818	598	652
17	605	935	1,090	6,480	5,480	3,880	3,650	10,600	1,570	818	590	628
18	590	895	1,070	6,510	4,750	3,880	3,820	8,230	1,580	800	590	620
19	582	866	1,060	5,070	4,030	3,990	4,730	6,510	1,580	790	582	590
20	575	809	1,110	4,080	3,590	7,580	5,700	5,410	1,540	763	575	763
21	568	790	1,190	3,430	3,200	7,280	6,380	4,910	1,540	772	560	996
22	552	781	1,120	3,010	2,950	6,640	5,380	4,480	1,480	809	560	1,030
23	552	955	1,120	2,590	2,780	6,400	5,070	4,320	1,370	800	575	1,020
24	545	1,570	1,090	2,360	2,540	5,220	7,860	4,010	1,330	763	575	935
25	545	1,480	1,050	2,170	2,360	4,780	7,030	3,630	1,300	718	644	856
26	538	2,970	1,040	2,000	2,340	4,540	5,620	3,450	1,280	700	828	809
27	531	3,330	1,020	1,720	2,500	4,140	4,940	5,050	1,220	684	718	781
28	524	2,370	1,060	1,630	2,340	3,990	5,310	5,120	1,160	684	652	727
29	524	1,970	1,140	1,530	-	3,880	5,980	4,680	1,160	676	620	700
30	545	1,970	1,110	1,500	-	3,610	6,740	4,340	1,140	668	620	676
31	727	-	1,040	1,670	-	4,190	-	3,970	-	660	605	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff	
						Inches	Acre-feet
October	20,513	1,170	524	662	0.995	1.15	40,690
November	50,837	3,350	781	1,695	2.55	2.84	100,800
December	45,930	2,470	1,020	1,482	2.23	2.57	91,100
Calendar year 1944	657,023	8,470	517	1,795	2.70	36.76	1,303,000
January	135,290	12,900	1,330	4,364	6.56	7.57	268,300
February	190,600	25,900	2,040	6,807	10.2	10.66	378,000
March	123,800	7,580	1,850	3,994	6.01	6.92	245,600
April	147,500	7,860	2,880	4,917	7.39	8.25	292,600
May	188,010	11,000	3,450	6,065	9.12	10.51	372,900
June	55,960	3,470	1,140	1,865	2.80	3.13	111,000
July	26,509	1,100	660	855	1.29	1.48	52,580
August	19,276	828	560	622	.935	1.08	38,230
September	22,419	1,390	590	747	1.12	1.25	44,470
Water year 1944-45	1,026,644	25,900	524	2,813	4.23	57.41	2,036,000

Peak discharge.- Jan. 7 (3 p.m.) 17,400 sec.-ft.; Feb. 8 (10 a.m.) 33,400 sec.-ft.; Feb. 13 (10 a.m.) 27,400 sec.-ft.

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

Santiam River at Jefferson, Oreg.

Location.- Water-stage recorder, lat. 44°42'50", long. 123°00'40", in SE¼ sec. 11, T. 10 S., R. 3 W., in Jefferson, 350 feet upstream from railroad bridge, 2 miles downstream from confluence of North Santiam and South Santiam Rivers, and 9 miles upstream from mouth. Datum of gage is 199.63 feet above mean sea level, datum of 1929.

Drainage area.- 1,790 square miles.

Records available.- July 1905 to July 1906 (gage heights only), October 1907 to September 1916 and October 1939 to September 1945, in reports of Geological Survey. April 1904 to September 1944 (gage heights only, incomplete for some years) in reports of U. S. Weather Bureau.

Average discharge.- 15 years (1907-16, 1939-45), 7,115 second-feet.

Extremes.- Maximum discharge during year, 63,800 second-feet Feb. 8 (gage height, 17.28 feet); minimum, 358 second-feet Oct. 28, 29 (gage height, 1.47 feet).

1905-6, 1907-16, 1939-45: Maximum discharge observed, 144,000 second-feet (revised) during night of Nov. 22, 1909 (gage height, 18.2 feet, site and datum then in use), from curve of relation between gages based on readings from 1940 to 1945, and rating curve for gage at present site extended above 109,000 second-feet; corresponding gage height at present site, 23.0 feet from curve of relation. Minimum discharge observed, 260 second-feet Aug. 15-22, Aug. 24 to Sept. 2, 1940 (gage height, -1.00 foot, site and datum then in use).

Maximum discharge known, about 176,000 second-feet Nov. 21, 1921 (gage height, 19.5 feet at railroad bridge 350 feet downstream, site and datum in use prior to Oct. 1, 1940; corresponding gage height at present site, 24.4 feet, from curve of relation).

Revision.- The maximum discharge for the water year 1943 has been revised to 111,000 second-feet Jan. 1 (gage height, 21.24 feet), superseding figure published in Water-Supply Paper 984.

Remarks.- Records excellent except those for periods of no gage-height record, or those computed from partly estimated gage-height record or staff-gage reading, which are fair. Salem Canal diverts from North Santiam River at Stayton for irrigation and power use; most of this water reaches Willamette River through Mill Creek at Salem. Stayton Canal diverts from North Santiam River at Stayton for irrigation of lands near West Stayton; some return flow reaches North Santiam River above station. Albany power canal diverts from South Santiam River at Lebanon, return flow reaches Willamette River at Albany. No regulation.

Cooperation.- Gage-height record collected in cooperation with U. S. Weather Bureau.

Revisions.- Revised figures of discharge, in second-feet, for the high-water period in the water year 1910, superseding those published in Water-Supply Paper 370, are given herewith:

Nov. 23	112,000
24	89,000

Month	Maximum	Minimum	Mean	Runoff in acre-feet
November	112,000	4,900	26,300	1,560,000
Water year 1909-10	112,000	350	8,390	6,070,000

Discharge, in second-feet, of Santiam River at Jefferson, Oreg., water year October 1944 to September 1945

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	965	818	4,810	2,340	5,510	5,110	9,550	13,900	6,680	1,290	520	428
2	768	2,930	5,040	3,360	6,460	4,880	f8,500	14,800	5,960	1,250	506	426
3	633	4,380	4,420	3,240	7,230	4,990	a7,600	15,900	5,420	a1,200	506	430
4	604	7,580	4,250	2,920	8,450	5,000	a7,000	14,700	4,950	a1,150	498	475
5	714	4,860	5,350	3,360	11,100	4,620	a8,000	12,100	4,620	1,080	475	1,430
6	1,200	3,800	4,990	7,490	16,700	4,300	h9,760	10,900	4,350	1,110	488	1,320
7	957	4,350	4,600	24,700	18,800	4,020	a12,000	10,200	4,070	1,100	484	850
8	775	4,720	4,470	24,600	48,400	3,890	a16,000	9,270	3,800	1,070	480	665
9	688	4,350	3,880	13,500	42,700	3,780	f17,600	8,450	3,550	913	480	580
10	610	4,160	3,420	10,100	24,400	9,280	13,900	8,400	3,460	899	475	535
11	566	3,440	3,040	8,940	22,800	11,500	14,600	7,870	3,210	837	466	502
12	532	2,900	2,780	10,300	22,500	11,100	14,400	8,690	3,010	804	470	480
13	532	2,520	2,560	21,300	45,900	13,100	11,900	13,600	2,920	785	470	475
14	566	2,220	2,360	24,800	44,600	13,300	10,200	16,300	2,850	767	457	452
15	527	1,980	2,210	20,200	25,500	13,700	9,450	19,100	2,660	767	448	462
16	516	1,770	2,080	21,600	17,600	11,900	9,370	25,400	2,480	792	434	484
17	490	1,650	1,860	18,300	14,700	11,300	8,790	28,700	2,360	725	430	488
18	460	1,520	1,740	18,400	13,500	13,400	8,430	22,700	2,290	703	418	475
19	432	1,420	1,650	14,600	10,900	11,900	9,530	16,300	2,240	681	414	462
20	424	1,330	1,770	11,400	9,370	20,100	11,300	12,700	2,110	660	406	520
21	410	1,260	2,060	9,240	8,240	26,400	13,000	10,900	2,040	660	398	804
22	394	1,200	2,030	7,800	7,360	20,800	11,800	9,630	1,980	686	398	1,180
23	394	1,210	2,210	6,720	6,820	21,000	10,200	8,920	1,860	749	398	1,340
24	386	2,160	2,040	5,980	6,280	16,100	15,700	8,500	1,780	708	398	1,140
25	382	2,750	1,880	5,330	5,770	13,200	18,700	7,670	1,700	655	414	899
26	370	4,060	1,760	4,810	5,400	12,200	14,000	6,920	1,590	620	511	785
27	362	7,210	1,750	4,380	5,710	10,800	11,400	8,640	1,520	585	580	720
28	362	5,490	1,890	4,020	5,420	9,760	11,200	10,700	1,430	570	516	655
29	358	4,250	2,280	3,720	-	9,660	12,200	9,370	1,370	565	475	600
30	378	3,830	2,780	3,670	-	8,790	13,100	8,380	1,370	560	448	575
31	432	-	2,400	4,550	-	8,860	-	7,560	-	530	434	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	17,187	1,200	358	554	34,090
November	96,118	7,580	818	3,204	190,600
December	90,360	5,350	1,650	2,915	179,200
Calendar year 1944	1,297,374	20,900	294	3,545	2,573,000
January	325,670	24,800	2,340	10,510	646,000
February	468,120	48,400	5,400	16,720	928,500
March	338,740	26,400	3,780	10,930	671,900
April	349,180	18,700	7,000	11,640	692,600
May	387,170	28,700	6,920	12,490	767,900
June	89,630	6,680	1,370	2,988	177,800
July	25,471	1,290	530	822	50,520
August	14,295	580	398	461	28,350
September	20,635	1,430	426	688	40,930
Water year 1944-45	2,222,576	48,400	358	6,089	4,408,000

Peak discharge.- Feb. 8 (8 to 9 p.m.) 63,800 sec.-ft.; Feb. 13 (9 p.m.) 63,500 sec.-ft.
a No gage-height record; discharge computed on basis of records for North Santiam River at Mehama.
f Computed from partly estimated gage-height record.
h Computed from staff-gage reading.
Time basis: Pacific war time up to 2 a.m., Sept. 30, 1945; Pacific standard time thereafter.
To convert war time to standard time, subtract 1 hour.

Breitenbush River above French Creek, near Detroit, Oreg.

Location.- Water-stage recorder, lat. 44°45', long. 122°08', in NE¼ sec. 36, T. 9 S., R. 5 E., 0.1 mile downstream from Canyon Creek, 1½ miles upstream from French Creek, and 2 miles east of Detroit. Datum of gage is 1,559.64 feet above mean sea level, datum of 1929.

Drainage area.- 102 square miles.

Records available.- June 1932 to September 1945. October 1910 to October 1913 (fragmentary) at site below French Creek; records equivalent except for inflow from French Creek.

Average discharge.- 13 years (1932-45), 504 second-feet.

Extremes.- Maximum discharge during year, 5,730 second-feet Feb. 8 (gage height, 7.60 feet); minimum, 90 second-feet Oct. 26-30 (gage height, 0.48 foot).
1932-45: Maximum discharge, 9,710 second-feet (revised) Nov. 23, 1942 (gage height, 10.56 feet); minimum, 87 second-feet Sept. 2, 1940 (gage height, 0.56 foot).

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

Cooperation.- Water-stage recorder inspected by employee of U. S. Forest Service.

Rating table, water year 1944-45 (gage height, in feet, and discharge, in second-feet)

0.5	92	1.6	335	3.8	1,520
.7	118	2.0	485	4.6	2,240
1.0	174	2.5	710	5.6	3,290
1.3	245	3.1	1,030	6.7	4,590

Discharge, in second-feet, water year October 1944 to September 1945

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	111	220	352	206	275	323	570	1,310	646	266	140	110
2	105	189	320	222	314	308	509	1,470	579	272	138	108
3	105	615	284	201	457	305	465	1,590	538	266	138	108
4	114	477	302	198	457	293	429	1,350	497	251	134	124
5	149	308	352	266	770	275	481	1,130	481	240	131	196
6	129	269	352	672	725	263	517	1,070	445	240	131	142
7	117	326	342	2,320	970	257	602	994	417	242	129	126
8	110	299	320	1,230	4,480	254	910	915	405	235	128	118
9	105	299	287	755	2,330	275	725	830	409	230	126	112
10	102	a260	257	642	1,400	579	597	830	394	228	126	110
11	100	a230	238	548	1,550	501	606	775	388	220	124	108
12	104	a210	220	1,160	1,400	543	602	920	391	210	123	105
13	118	a190	208	2,220	3,280	534	543	1,210	363	203	123	105
14	110	a170	196	1,420	1,930	534	509	1,280	335	194	121	104
15	105	a160	189	1,160	1,230	509	521	1,580	314	189	120	110
16	103	a150	183	988	942	469	538	1,710	311	185	120	112
17	100	a140	174	860	805	477	509	1,500	329	181	118	108
18	98	a135	168	800	675	481	548	1,150	352	174	117	107
19	97	a130	172	660	588	548	760	926	366	170	115	104
20	96	a125	185	513	517	1,090	937	795	360	168	114	136
21	94	124	194	477	469	937	1,070	730	360	166	112	153
22	94	124	187	417	429	866	898	700	338	178	111	144
23	94	174	181	380	394	810	871	670	306	174	111	136
24	92	208	174	352	374	695	1,140	633	314	164	111	128
25	92	201	168	329	349	628	976	584	311	159	131	121
26	91	366	164	314	342	620	625	584	314	157	148	123
27	91	384	161	299	342	597	755	820	266	155	126	117
28	90	296	170	284	329	570	825	805	266	151	120	111
29	90	257	172	272	-	548	964	810	281	149	115	107
30	97	299	159	263	-	525	1,210	795	269	145	114	105
31	128	-	155	263	-	592	-	735	-	142	112	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff Inches	Runoff Acre-feet
October	3,230	149	90	104	0.963	1.11	6,410
November	7,335	615	124	244	2.26	2.53	14,550
December	6,986	352	155	225	2.08	2.41	13,860
Calendar year 1944	103,493	943	90	283	2.62	35.64	205,300
January	20,691	2,320	198	667	6.18	7.13	41,040
February	28,123	4,480	275	1,004	9.30	9.68	55,780
March	16,206	1,090	254	523	4.84	5.58	32,140
April	21,412	1,210	429	714	6.61	7.37	42,470
May	31,201	1,710	584	1,006	9.31	10.74	61,890
June	11,367	646	266	379	3.51	3.91	22,550
July	6,104	272	142	197	1.82	2.10	12,110
August	3,827	148	111	123	1.14	1.32	7,590
September	3,598	196	104	120	1.11	1.24	7,140
Water year 1944-45	160,080	4,480	90	439	4.06	55.12	317,500

Peak discharge.- Feb. 8 (6:30 a.m.) 5,730 sec.-ft.; Feb. 13 (7 a.m.) 4,120 sec.-ft.
a No gage-height record; discharge computed on basis of records for North Santiam River at Detroit and above Mayflower Creek, near Detroit.
Time basis: Pacific war time up to 2 a.m., Sept. 30, 1945; Pacific standard time thereafter. To convert war time to standard time, subtract 1 hour.

Little North Santiam River near Mehama, Oreg.

Location.- Wire-weight gage, lat. 44°48', long. 122°34', in NW¼ sec. 16, T. 9 S., R. 2 E., 2 miles east of Mehama and mouth of river. Datum of gage is 655.41 feet above mean sea level, datum of 1929.

Drainage area.- 110 square miles.

Records available.- October 1931 to September 1945. July to September 1924 and July to September 1931 at site 4 miles upstream.

Average discharge.- 14 years, 708 second-feet.

Extremes.- Maximum discharge during year, 11,700 second-feet Feb. 8 (gage height, 11.6 feet, from floodmark); minimum observed, 24 second-feet Aug. 23 (gage height, 2.22 feet).

1924, 1931-45: Maximum discharge, 19,400 second-feet Nov. 23, 1942 (gage height, 14.9 feet), from rating curve extended above 10,000 second-feet; minimum observed, 21 second-feet Sept. 11, 1934, Sept. 27, 28, 1938, Sept. 1, 1940.

Remarks.- Records fair. Gage read once daily. No regulation or diversion above station.

Rating table, water year 1944-45 (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Oct. 1 to Nov. 9, July 1 to Sept. 30)

2.2	28	3.1	136	4.5	630	7.1	2,870
2.4	47	3.4	199	5.0	895	8.0	4,270
2.6	69	3.7	288	5.6	1,270	9.0	6,180
2.8	92	4.1	440	8.3	1,920	10.1	8,440

Discharge, in second-feet, water year October 1944 to September 1945

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	154	531	536	517	620	471	978	1,680	625	98	39	33
2	106	298	517	466	650	436	796	1,660	536	97	35	30
3	91	1,440	503	423	680	466	700	1,680	444	92	40	28
4	130	1,060	645	419	1,050	458	680	1,260	402	88	41	45
5	d400	660	780	763	1,390	432	680	1,140	359	81	32	359
6	d300	541	660	3,220	1,190	398	1,110	1,050	322	80	33	158
7	189	1,110	650	7,580	4,220	d402	1,700	928	295	80	34	134
8	140	725	575	4,180	8,420	378	2,350	917	285	77	32	104
9	120	705	522	1,180	2,620	565	1,090	851	278	73	31	85
10	106	551	432	d900	1,420	1,850	1,110	922	259	67	32	62
11	95	453	348	d840	2,470	1,130	1,370	1,010	244	65	31	59
12	92	d282	308	2,250	2,430	1,170	1,160	1,420	229	62	31	55
13	d95	272	275	4,200	6,980	1,130	961	1,780	218	61	32	47
14	d85	202	241	2,230	2,840	1,080	824	2,320	250	61	30	46
15	77	182	207	1,940	1,990	983	d895	4,160	253	59	30	51
16	74	173	202	1,950	1,130	895	988	3,690	204	57	28	51
17	71	167	182	1,780	1,050	640	944	2,640	177	44	28	54
18	67	164	177	1,700	895	615	922	2,000	167	50	27	55
19	64	138	175	1,280	768	1,280	1,230	1,700	171	52	26	62
20	61	133	177	1,030	645	2,110	1,380	1,080	160	47	25	156
21	62	149	202	846	625	2,150	1,600	972	150	51	26	171
22	51	d150	212	720	585	1,630	d1,190	900	152	58	26	229
23	48	143	210	600	536	1,540	900	878	143	64	24	218
24	49	436	177	512	512	1,300	2,260	818	134	56	25	202
25	47	402	162	458	462	978	1,930	725	128	51	56	171
26	46	1,930	147	411	398	978	1,140	802	123	47	131	130
27	44	1,430	154	371	536	884	1,100	983	123	46	67	101
28	44	725	169	326	498	868	1,240	922	120	44	49	110
29	49	710	210	312	-	829	1,690	895	120	41	38	82
30	133	625	189	302	-	840	1,760	834	118	42	34	87
31	329	-	173	427	-	1,020	-	725	-	40	33	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff Inches	Runoff Acre-feet
October	3,419	400	44	110	1.00	1.16	6,780
November	16,487	1,930	133	550	5.00	5.57	32,700
December	10,117	780	147	326	2.96	3.42	20,070
Calendar year 1944	152,836	4,310	26	418	3.80	51.68	303,200
January	44,133	7,580	302	1,424	12.9	14.92	87,540
February	47,610	8,420	398	1,700	15.5	16.10	94,450
March	29,886	2,150	378	964	8.76	10.10	59,280
April	36,678	2,350	680	1,223	11.1	12.40	72,750
May	43,342	4,160	725	1,398	12.7	14.65	85,970
June	7,189	625	118	240	2.18	2.43	14,260
July	1,930	98	40	62.3	.566	.65	3,830
August	1,146	131	24	37.0	.336	.39	2,270
September	3,175	359	28	106	.964	1.07	6,300
Water year 1944-45	245,112	8,420	24	672	6.11	82.86	486,200

d Doubtful gage-height record; discharge computed on basis of records for North Santiam River at Mehama and North Santiam River above Mayflower Creek, near Detroit.

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

South Santiam River below Cascadia, Oreg.

Location.- Water-stage recorder, lat. 44°24', long. 122°30', in SE¼ sec. 36, T. 13 S., R. 2 E., 100 feet downstream from bridge at Cascadia ranger station, half a mile downstream from Tollgate Creek, three-quarters of a mile upstream from Deer Creek, and 1½ miles southwest of Cascadia. Gaging cable is 0.7 mile upstream, above Tollgate Creek. Datum of gage is 759.38 feet above mean sea level, datum of 1929.
Drainage area.- 174 square miles at gaging cable.
Records available.- September 1935 to September 1945. Records do not include runoff from 3 square miles between cable and gage.
Average discharge.- 10 years, 673 second-feet.
Extremes.- Maximum discharge during year, 8,570 second-feet Feb. 13 (gage height, 11.02 feet); minimum, 38 second-feet Oct. 29 (gage height, 1.27 feet).
1935-45: Maximum discharge, 17,000 second-feet Dec. 31, 1942 (gage height, 15.75 feet), from rating curve extended above 6,300 second-feet by logarithmic plotting; minimum, 23 second-feet Dec. 1, 2, 1936 (gage height, 0.98 foot).
Remarks.- Records good except those for June 15 to Sept. 30, which are fair. No diversion or regulation above station.
Cooperation.- Water-stage recorder inspected by employees of U. S. Forest Service.

Rating tables, water year 1944-45 (gage height, in feet, and discharge, in second-feet)

Oct. 1 to Feb. 13					Feb. 14 to Sept. 30				
1.3	41	2.6	310	5.8	2,270	1.3	49	2.6	320	5.8	2,290
1.5	63	3.0	470	7.0	3,400	1.5	74	3.0	480	7.0	3,400
1.7	91	3.5	710	8.5	5,100	1.7	104	3.5	725	8.5	5,150
2.0	145	4.0	980	10.0	7,050	2.0	159	4.0	1,000		
2.3	215	4.8	1,490			2.3	230	4.8	1,520		

Discharge, in second-feet, water year October 1944 to September 1945

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	93	263	595	306	810	448	987	1,760	802	149	68	47
2	75	205	492	365	930	427	862	2,030	710	139	68	46
3	68	672	401	300	1,220	444	769	2,110	625	132	66	45
4	75	474	479	282	1,150	431	705	1,800	570	126	65	49
5	149	286	553	417	2,740	407	896	1,480	545	123	64	161
6	117	275	443	1,580	2,190	375	1,260	1,400	516	121	62	96
7	86	456	389	2,730	2,570	359	1,610	1,280	471	116	60	68
8	72	345	345	1,910	6,160	359	2,780	1,160	427	112	60	56
9	64	405	303	1,170	3,580	379	1,840	1,050	411	111	59	51
10	61	324	269	1,020	2,240	1,200	1,510	1,060	391	107	57	49
11	58	260	242	859	2,860	1,040	1,730	928	359	104	57	47
12	57	218	215	1,550	2,700	1,190	1,610	1,060	334	101	57	45
13	59	187	199	2,720	7,210	1,260	1,280	1,420	330	99	57	44
14	59	168	184	2,190	4,050	1,330	1,120	1,790	313	99	57	43
15	57	156	175	2,050	2,420	1,190	1,100	2,150	285	94	56	46
16	55	141	164	2,210	1,700	1,020	1,100	2,700	270	91	55	50
17	52	132	160	1,770	1,390	1,160	999	2,880	255	90	53	48
18	50	122	153	1,770	1,160	1,160	1,040	2,210	248	88	51	45
19	48	113	156	1,340	957	1,200	1,250	1,650	235	88	50	43
20	47	105	166	1,030	835	2,560	1,560	1,340	228	85	48	98
21	46	100	198	820	730	2,260	1,700	1,200	222	84	47	161
22	45	96	178	695	660	2,070	1,420	1,100	210	98	46	180
23	45	134	184	600	625	1,970	1,400	1,050	200	99	45	143
24	44	260	171	528	565	1,500	2,970	963	190	88	46	106
25	43	210	162	474	520	1,330	2,540	862	182	84	70	88
26	42	515	151	434	502	1,220	1,850	852	176	80	90	75
27	40	595	147	401	494	1,050	1,540	1,660	170	77	73	68
28	39	405	173	369	462	1,000	1,540	1,510	163	74	59	61
29	38	324	224	353	-	975	1,590	1,240	159	71	54	57
30	45	365	212	417	-	906	1,670	1,120	155	71	50	55
31	115	-	189	700	-	1,030	-	945	-	70	49	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff Inches	Runoff Acre-feet
October	1,942	149	38	62.6	0.360	0.42	3,850
November	8,311	672	96	277	1.59	1.78	16,480
December	8,046	595	147	260	1.49	1.72	15,960
Calendar year 1944	138,436	2,610	38	378	2.17	29.59	274,600
January	33,360	2,730	282	1,076	6.18	7.13	66,170
February	53,430	7,210	462	1,908	11.0	11.42	106,000
March	35,250	2,560	359	1,073	6.17	7.11	65,950
April	44,228	2,970	705	1,474	8.47	9.45	87,720
May	45,760	2,880	852	1,476	8.48	9.78	90,760
June	10,152	802	155	338	1.94	2.17	20,140
July	3,071	149	70	99.1	.570	.66	6,090
August	1,799	90	45	58.0	.333	.38	3,570
September	2,171	180	43	72.4	.416	.46	4,310
Water year 1944-45	245,520	7,210	38	673	3.87	52.48	487,000

Peak discharge.- Feb. 8 (8 a.m.) 8,320 sec.-ft.; Feb. 13 (9 a.m.) 8,570 sec.-ft.
Time basis: Pacific war time up to 2 a.m., Sept. 30, 1945; Pacific standard time thereafter. To convert war time to standard time, subtract 1 hour.

South Santiam River at Waterloo, Oreg.

Location.- Water-stage recorder, lat. 44°29'55", long. 122°49'20", in NW¼ sec. 28, T. 12 S., R. 1 W., 200 yards downstream from bridge at Waterloo and 2½ miles upstream from Hamilton Creek. Datum of gage is 370.39 feet above mean sea level, datum of 1929.

Drainage area.- 640 square miles.

Records available.- July 1905 to March 1907, October 1910 to December 1911, July 1923 to September 1945.

Average discharge.- 23 years (1905-6, 1923-45), 2,652 second-feet.

Extremes.- Maximum discharge during year, 32,500 second-feet Feb. 8 (gage height, 13.70 feet); minimum, 139 second-feet Oct. 29, 30 (gage height, 2.10 feet).
1905-7, 1910-11, 1923-45: Maximum discharge, 70,000 second-feet Mar. 31, 1931 (gage height, 22.0 feet), from rating curve extended above 37,000 second-feet; minimum, 96 second-feet Sept. 1, 2, 1940 (gage height, 1.98 feet).

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

Cooperation.- Gage-height record collected in cooperation with U. S. Weather Bureau.

Rating table, water year 1944-45 (gage height, in feet, and discharge, in second-feet)

2.1	139	3.4	1,040	6.8	7,390
2.3	218	3.8	1,510	8.0	11,000
2.5	324	4.3	2,220	9.3	15,400
2.7	450	5.0	3,350	11.0	21,600
3.0	675	5.8	4,940	13.0	29,600

Discharge, in second-feet, water year October 1944 to September 1945

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	485	912	2,070	1,040	2,690	1,820	3,860	5,720	2,530	535	258	175
2	330	1,150	1,940	1,640	3,250	1,740	3,320	6,220	2,250	506	253	171
3	268	2,750	1,600	1,330	3,660	1,890	2,980	6,450	2,020	499	248	168
4	268	2,630	1,720	1,190	3,900	1,860	2,690	5,620	1,840	492	243	175
5	437	1,470	2,220	1,680	7,070	1,700	3,250	4,680	1,740	478	238	577
6	565	1,190	1,840	5,590	7,390	1,610	4,640	4,300	1,630	464	233	542
7	404	1,770	1,630	11,700	9,820	1,500	5,300	3,960	1,510	450	228	313
8	318	1,610	1,500	8,310	24,600	1,510	9,710	3,620	1,410	430	218	243
9	274	1,640	1,280	4,830	14,400	1,480	6,810	3,250	1,320	437	218	201
10	248	1,460	1,130	3,900	8,630	5,000	5,550	3,320	1,250	417	209	201
11	223	1,150	1,000	3,420	9,800	4,400	6,320	2,950	1,170	397	214	184
12	218	955	926	5,560	8,660	4,720	6,080	3,480	1,100	391	201	179
13	223	832	850	11,000	26,500	5,070	4,920	5,210	1,070	378	205	175
14	223	718	778	8,950	15,500	5,340	4,240	6,350	1,020	378	201	168
15	218	643	726	7,800	9,010	5,070	4,040	7,500	965	372	196	168
16	205	588	684	9,220	6,450	4,380	4,080	10,200	926	366	192	175
17	201	550	643	7,260	5,500	4,680	3,710	10,800	878	360	188	192
18	192	513	611	7,440	4,900	4,920	3,670	7,940	841	354	179	175
19	179	485	603	5,600	4,020	4,810	4,380	5,860	814	360	175	171
20	175	450	675	4,380	3,530	10,500	5,280	4,720	760	348	171	239
21	175	424	850	3,570	3,080	9,680	5,790	4,100	734	336	171	558
22	171	404	743	2,960	2,770	8,160	4,790	3,640	718	384	168	726
23	168	437	796	2,560	2,580	7,940	4,380	3,440	675	417	164	627
24	164	995	718	2,260	2,340	6,050	8,300	3,210	659	372	168	471
25	161	995	684	2,020	2,140	5,180	8,220	2,880	619	342	175	366
26	157	2,230	651	1,790	2,020	4,730	6,030	2,640	595	313	290	318
27	153	2,900	619	1,640	2,080	4,200	5,010	4,220	588	307	290	279
28	146	1,910	675	1,500	1,920	3,920	5,010	4,470	572	302	228	253
29	143	1,470	965	1,410	-	3,960	5,280	3,750	565	290	205	233
30	146	1,370	1,070	1,520	-	3,580	5,460	3,350	572	274	188	214
31	223	-	907	2,280	-	3,820	-	2,910	-	258	171	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff Inches	Runoff Acre-feet
October	7,461	565	143	241	0.377	0.43	14,800
November	36,601	2,900	404	1,220	1.91	2.13	72,600
December	33,104	2,220	603	1,068	1.67	1.92	65,660
Calendar year 1944	522,530	10,900	139	1,427	2.23	30.34	1,036,000
January	135,350	11,700	1,040	4,366	6.82	7.87	268,500
February	198,410	26,500	1,920	7,086	11.1	11.53	393,500
March	135,280	10,500	1,480	4,364	6.82	7.86	268,300
April	153,100	9,710	2,690	5,103	7.97	8.90	303,700
May	150,760	10,800	2,640	4,863	7.60	8.76	299,000
June	33,341	2,530	565	1,111	1.74	1.94	66,130
July	12,007	535	258	387	.605	.70	23,820
August	6,486	290	164	209	.327	.38	12,860
September	8,637	726	168	288	.450	.50	17,130
Water year 1944-45	910,537	26,500	143	2,494	3.90	52.92	1,806,000

Peak discharge.- Feb. 8 (11 a.m.) 32,500 sec.-ft.; Feb. 13 (12 m.) 32,300 sec.-ft.
Time basis: Pacific war time up to 2 a.m., Sept. 30, 1945; Pacific standard time thereafter.
To convert war time to standard time, subtract 1 hour.

Middle Santiam River near Foster, Oreg.

Location.- Water-stage recorder, lat. 44°28', long. 122°31', in SE¼ sec. 2, T. 13 S., R. 2 E., half a mile upstream from Green Peter Creek and 8 miles northeast of Foster. Datum of gage is 733.44 feet above mean sea level (North Pacific Railway bench mark).

Drainage area.- 271 square miles.

Records available.- August 1931 to September 1945.

Average discharge.- 14 years, 1,411 second-feet.

Extremes.- Maximum discharge during year, 19,600 second-feet Feb. 8 (gage height, 14.45 feet); minimum, 79 second-feet Oct. 29, 30 (gage height, 1.43 feet).
1931-45: Maximum discharge, 33,500 second-feet Dec. 31, 1942 (gage height, 18.70 feet), from rating curve extended above 23,000 second-feet; minimum, 54 second-feet Dec. 1, 1936 (gage height, 1.25 feet).

Remarks.- Records excellent except those below 200 second-feet, which are good. No regulation or diversion above station.

Rating table, water year 1944-45 (gage height, in feet, and discharge, in second-feet)

1.4	76	3.6	685	8.0	4,850
1.8	129	4.3	1,050	9.5	7,280
2.2	202	5.0	1,540	11.0	10,400
2.6	302	5.8	2,250	13.0	15,400
3.0	434	6.8	3,310	16.0	24,500

Discharge, in second-feet, water year October 1944 to September 1945

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	206	824	1,130	716	1,430	918	2,000	3,370	1,220	266	131	92
2	152	613	996	913	1,680	875	1,680	3,740	1,080	258	126	91
3	139	2,390	850	740	2,040	924	1,480	3,740	984	248	124	88
4	167	1,330	1,040	708	2,000	880	1,340	3,160	913	241	124	99
5	364	830	1,220	1,250	3,500	825	1,800	2,610	860	234	123	474
6	264	735	1,010	4,100	3,300	785	2,500	2,450	815	226	120	220
7	192	1,100	924	7,620	6,250	745	2,970	2,210	770	220	120	147
8	159	875	835	4,460	14,300	765	4,750	1,990	712	215	116	122
9	142	940	735	2,670	6,920	840	3,200	1,790	680	206	114	110
10	131	775	654	2,220	4,310	3,210	2,660	1,810	644	202	113	103
11	123	631	582	1,840	5,190	2,200	3,090	1,640	604	200	111	99
12	118	522	530	4,040	5,650	2,580	2,720	2,240	577	194	110	96
13	128	445	479	7,300	14,900	2,460	2,240	3,170	554	190	107	92
14	124	384	441	4,860	7,140	2,410	1,990	3,790	538	184	106	90
15	117	345	409	4,270	4,400	2,230	1,990	4,720	506	178	104	95
16	113	314	381	4,470	3,200	1,940	2,080	5,800	479	176	103	103
17	107	288	364	3,900	2,760	1,990	1,880	5,480	456	172	100	100
18	103	264	345	3,790	2,390	1,970	2,040	3,910	438	171	97	96
19	100	248	338	2,840	1,990	2,450	2,610	2,940	420	167	96	91
20	97	231	412	2,210	1,700	5,380	3,200	2,350	402	161	94	170
21	95	222	441	1,790	1,480	4,220	3,310	2,010	384	159	92	294
22	92	211	395	1,510	1,340	3,770	2,580	1,800	371	184	91	381
23	90	313	391	1,320	1,240	3,550	2,440	1,700	354	180	90	296
24	88	644	371	1,160	1,110	2,730	4,510	1,540	342	163	87	209
25	87	572	354	1,040	1,030	2,430	3,990	1,390	326	156	123	167
26	85	1,900	338	952	996	2,320	3,020	1,360	314	152	154	152
27	83	1,650	326	870	1,030	2,020	2,560	2,310	302	147	135	139
28	80	1,070	378	810	962	1,960	2,830	2,180	294	143	113	128
29	79	840	494	780	-	2,030	3,020	1,820	288	139	104	118
30	87	845	467	830	-	1,830	3,200	1,600	280	137	99	113
31	171	-	420	1,250	-	2,090	-	1,400	-	134	95	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff Inches	Runoff Acre-feet
October	4,083	364	79	132	0.487	0.56	8,100
November	22,351	2,390	211	745	2.75	3.07	44,330
December	18,050	1,220	326	582	2.15	2.48	35,800
Calendar year 1944	277,529	6,430	76	758	2.80	38.09	550,400
January	77,319	7,620	708	2,494	9.20	10.61	153,400
February	104,238	14,900	962	3,723	13.7	14.30	206,800
March	65,327	5,380	745	2,107	7.77	8.97	129,600
April	79,680	4,750	1,340	2,656	9.80	10.93	158,000
May	82,020	5,800	1,360	2,646	9.76	11.26	162,700
June	16,907	1,220	280	564	2.08	2.32	33,530
July	5,803	266	134	187	.690	.80	11,510
August	3,422	154	87	110	.406	.47	6,790
September	4,575	474	88	152	.561	.63	9,070
Water year 1944-45	483,785	14,900	79	1,325	4.89	66.40	959,600

Peak discharge.- Feb. 8 (8 a.m.) 19,600 sec.-ft.; Feb. 13 (8 a.m.) 18,500 sec.-ft.
Time basis: Pacific war time up to 2 a.m., Sept. 30, 1945; Pacific standard time thereafter.
To convert war time to standard time, subtract 1 hour.

Albany power canal near Lebanon, Ore.

Location.- Water-stage recorder, lat. 44°32'55", long. 122°54'20", in SW¼ sec. 2, T. 12 S., R. 2 W., an eighth of a mile downstream from spillway and 1 mile north of Lebanon. Datum of gage is 322.90 feet above mean sea level, datum of 1929.

Records available.- April 1926 to September 1945. February to December 1919 at site near Albany.

Average discharge.- 19 years, 220 second-feet.

Extremes.- Maximum discharge during year, 324 second-feet Jan. 6, Mar. 10 (gage height, 3.95 feet); minimum, 12 second-feet Aug. 9 (gage height, 0.22 foot).
1919, 1926-45: Maximum discharge, 346 second-feet Nov. 15, 1942 (gage height, 4.15 feet); no flow at times.

Remarks.- Records good except those for Oct. 1 to Jan. 5, which are fair. Canal diverts from South Santiam River at Lebanon and discharges into Calapooya River at mouth. Lebanon ditch discharges into canal just below canal intake. Water is used for power and water supply at Albany.

Cooperation.- Recorder inspected by employee of Mountain States Power Co.

Discharge, in second-feet, water year October 1944 to September 1945

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	225	53	110	247	266	284	290	286	273	267	195	147
2	201	56	111	263	245	284	287	286	273	261	200	147
3	174	54	110	259	255	271	283	289	271	264	181	145
4	168	53	110	259	280	238	278	286	273	269	178	146
5	192	61	119	265	250	251	277	278	269	262	183	221
6	227	51	152	288	250	278	288	276	279	259	179	270
7	207	53	187	306	270	276	271	277	292	257	179	234
8	190	55	186	295	232	277	241	274	288	251	170	202
9	178	55	184	268	226	277	243	271	285	249	166	189
10	167	56	182	257	256	279	269	271	279	247	164	169
11	153	54	180	259	276	239	279	268	281	245	164	171
12	151	53	92	278	260	247	286	269	284	247	168	156
13	148	53	55	296	220	264	273	286	283	245	161	154
14	155	52	54	261	202	264	265	289	283	237	159	144
15	156	52	54	236	254	193	266	292	281	110	162	146
16	150	52	103	261	252	225	273	277	279	229	160	153
17	149	51	212	242	251	244	276	259	278	222	154	159
18	170	51	210	246	261	246	273	254	274	224	152	157
19	169	51	204	251	270	247	276	269	276	226	145	152
20	159	50	208	270	284	216	286	264	277	227	139	159
21	155	49	217	275	280	219	289	273	278	225	137	260
22	154	49	215	270	283	243	284	274	277	233	136	273
23	149	49	218	265	282	256	281	273	245	238	132	276
24	153	52	217	271	284	294	297	275	215	236	128	267
25	153	54	215	281	283	299	281	288	233	232	142	245
26	142	54	210	276	281	296	269	283	274	223	186	226
27	146	56	43	277	285	293	276	296	273	216	221	218
28	139	72	106	281	284	290	279	286	276	215	196	201
29	139	110	238	279	-	288	281	270	278	214	179	197
30	146	110	249	270	-	285	285	269	277	204	158	186
31	98	-	248	266	-	285	-	270	-	201	148	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	5,063	227	98	163	10,040
November	1,711	110	49	57.0	3,390
December	4,999	249	43	161	9,920
Calendar year 1944	72,517	302	43	198	143,800
January	8,298	306	236	268	16,460
February	7,312	285	202	261	14,500
March	8,138	299	193	263	16,140
April	8,301	297	241	277	16,460
May	8,578	296	254	277	17,010
June	8,203	292	215	273	16,270
July	7,235	269	110	233	14,350
August	5,122	221	128	165	10,160
September	5,772	278	144	192	11,450
Water year 1944-45	78,732	306	43	216	156,200

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

Luckiamute River near Hoskins, Oreg.

Location.- Water-stage recorder, lat. 44°43', long. 123°30', in NE¼ sec. 11, T. 10 S., R. 7 W., a quarter of a mile downstream from Benton County line and 3½ miles northwest of Hoskins. Datum of gage is 378.7 feet above mean sea level (from river-profile survey).

Drainage area.- 34 square miles.

Records available.- May 1934 to September 1945.

Average discharge.- 11 years, 180 second-feet.

Extremes.- Maximum discharge during year, 2,520 second-feet Feb. 7 (gage height, 8.76 feet); minimum, 9.2 second-feet Oct. 19, 20.
1934-45: Maximum discharge, 5,080 second-feet Dec. 29, 1937; minimum, 7 second-feet Sept. 2-5, 10, 21, 22, 1934.

Remarks.- Records good. No diversion or regulation above station; log ponds upstream cause diurnal fluctuation at times.

Rating tables, water year 1944-45 (gage height, in feet, and discharge, in second-feet)

Oct. 1 to Feb. 7						Feb. 8 to Sept. 30					
0.90	8	1.8	99	4.0	720	0.9	8	1.8	110	4.0	725
1.0	14	2.1	157	5.0	1,060	1.0	13	2.1	170	5.0	1,090
1.1	21	2.5	257	6.5	1,600	1.1	20	2.5	265	6.5	1,690
1.3	38	3.0	399			1.3	39	3.0	400		
1.5	59	3.5	555			1.5	65	3.5	550		

Discharge, in second-feet, water year October 1944 to September 1945

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	13	86	231	228	167	146	188	104	104	35	16	10
2	12	58	169	206	218	144	174	102	100	33	15	10
3	13	176	144	184	332	158	162	96	96	32	14	12
4	15	114	176	169	357	150	158	94	92	31	14	206
5	22	124	174	214	604	144	260	90	89	30	13	120
6	15	126	181	588	539	138	340	88	86	29	13	51
7	13	131	206	1,440	1,540	144	481	83	83	28	14	36
8	12	113	181	894	1,490	174	830	78	78	27	13	30
9	12	129	159	545	802	214	599	82	76	26	13	25
10	10	104	135	402	564	764	496	90	72	25	13	22
11	10	96	118	320	487	499	634	120	70	24	13	20
12	12	81	108	485	798	391	532	176	66	24	13	19
13	13	71	96	953	1,400	343	433	238	65	23	13	19
14	12	63	88	771	802	541	358	346	62	23	13	18
15	12	57	84	925	557	538	315	514	59	22	12	17
16	11	52	76	1,010	442	511	278	523	58	22	12	18
17	10	49	72	788	418	578	248	454	54	22	12	16
18	10	46	69	684	343	624	220	370	51	21	12	16
19	10	43	84	558	308	686	190	315	49	19	11	15
20	10	40	108	448	278	1,060	176	272	46	20	10	21
21	10	38	101	360	255	778	164	235	46	26	10	33
22	10	37	102	306	230	630	150	218	45	32	10	32
23	11	60	102	260	208	508	148	205	43	24	10	25
24	11	83	99	226	188	424	144	172	41	22	10	21
25	10	75	94	201	172	403	136	158	39	21	14	20
26	10	142	90	176	170	343	124	146	39	19	14	19
27	10	129	92	157	166	308	124	140	37	18	12	18
28	10	104	228	139	152	290	118	128	37	18	12	16
29	12	98	234	131	-	255	114	118	38	18	11	16
30	35	224	226	133	-	230	110	110	36	17	10	15
31	46	-	208	150	-	210	-	107	-	16	10	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff Inches	Runoff Acre-feet
October	422	46	10	13.6	0.400	0.46	837
November	2,749	224	37	91.6	2.69	3.01	5,450
December	4,235	234	69	137	4.03	4.63	8,400
Calendar year 1944	39,944	832	e	109	3.21	43.69	79,220
January	14,051	1,440	131	453	13.3	15.37	27,870
February	13,987	1,540	152	500	14.7	15.30	27,740
March	12,326	1,060	138	398	11.7	13.48	24,450
April	8,404	830	110	280	8.24	9.19	16,670
May	5,972	523	78	193	5.68	6.53	11,850
June	1,855	104	36	61.8	1.82	2.03	3,680
July	746	35	16	24.1	.709	.82	1,480
August	382	16	10	12.3	.362	.42	758
September	916	206	10	30.5	.897	1.00	1,820
Water year 1944-45	66,045	1,540	10	181	5.32	72.24	131,005

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

Luckiamute River at Pedee, Oreg.

Location.- Staff gage, lat. 44°44'45", long. 123°25'05", near line between SW¼ sec. 34 and SE¼ sec. 33, T. 9 S., R. 6 W., half a mile southwest of Pedee and three-quarters of a mile downstream from Pedee Creek. Datum of gage is 243.07 feet above mean sea level, datum of 1929.

Drainage area.- 115 square miles (revised).

Records available.- October 1940 to September 1945.

Extremes.- Maximum discharge observed during year, 4,330 second-feet Feb. 7 (gage height, 11.6 feet); minimum observed, 10 second-feet (regulated) Oct. 18, 1940-45: Maximum discharge, 7,010 second-feet Nov. 23, 1942 (gage height, 14.44 feet), from rating curve extended above 3,400 second-feet; minimum observed, 7 second-feet (regulated) Sept. 12, 1944.

Remarks.- Records fair. Gage read twice daily. Small diversions above station for irrigation. Some diurnal fluctuation in summer caused by log ponds above station.

Discharge, in second-feet, water year October 1944 to September 1945

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	31	126	308	428	411	300	422	221	207	71	32	24
2	16	156	229	371	419	306	377	207	198	67	34	15
3	18	205	215	339	522	318	347	199	186	65	33	23
4	22	139	244	328	788	306	360	192	175	62	33	168
5	29	152	235	355	1,380	296	525	166	166	61	34	95
6	32	152	246	898	2,280	d280	592	179	165	60	31	74
7	21	170	303	2,330	3,020	358	904	172	161	58	29	51
8	20	150	279	1,650	3,310	608	1,720	165	156	52	29	48
9	18	177	240	1,070	1,900	960	1,240	163	150	49	27	42
10	15	156	213	816	1,410	1,440	1,140	177	145	48	31	29
11	15	136	203	628	1,220	988	1,430	194	136	48	32	28
12	17	127	186	514	1,650	848	1,130	321	126	47	33	28
13	22	99	166	1,750	2,910	912	936	419	124	47	32	27
14	22	89	161	1,420	1,810	1,340	808	708	120	46	32	27
15	20	83	143	1,950	1,280	1,280	684	832	117	45	29	24
16	20	73	134	2,240	1,100	1,340	584	964	111	45	24	28
17	19	68	129	1,690	1,010	1,580	532	848	105	43	22	27
18	16	63	119	1,480	816	1,720	458	708	102	43	26	27
19	13	56	138	1,230	760	1,540	419	596	95	43	29	24
20	14	51	194	936	d700	2,280	382	511	94	42	19	27
21	15	51	198	820	d600	1,980	347	452	92	43	25	48
22	16	51	201	676	d500	1,710	316	408	91	53	19	40
23	15	83	223	556	d450	1,290	313	393	88	44	25	32
24	15	127	199	480	d400	1,020	310	344	82	37	25	37
25	16	112	186	434	368	1,010	313	310	80	37	32	32
26	17	209	175	402	363	824	266	291	79	36	32	29
27	16	196	172	358	323	704	272	275	79	36	33	29
28	15	163	457	321	316	640	250	259	75	35	32	25
29	17	139	457	300	-	504	242	242	75	35	27	24
30	35	240	440	313	-	490	231	225	75	34	24	24
31	68	-	425	344	-	471	-	217	-	34	28	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff: Inches	Runoff: Acre-feet
October	645	68	13	20.8	0.181	0.21	1,280
November	3,799	240	51	127	1.10	1.23	7,540
December	7,218	457	119	233	2.03	2.33	14,320
Calendar year 1944	80,531	1,220	7	219	†1.90	†25.97	159,300
January	27,427	2,330	300	885	7.70	8.87	54,400
February	32,016	3,310	316	1,143	9.94	10.35	63,500
March	29,643	2,280	280	956	8.31	9.59	58,800
April	17,850	1,720	231	595	5.17	5.77	35,400
May	11,378	964	163	367	3.19	3.68	22,570
June	3,657	207	75	122	1.06	1.18	7,250
July	1,466	71	34	47.3	.411	.47	2,910
August	893	34	19	28.8	.250	.29	1,770
September	1,156	168	15	38.5	.335	.37	2,290
Water year 1944-45	137,148	3,310	13	376	3.27	44.34	272,000

† Computed on basis of revised drainage area.
d Doubtful gage-height record; discharge computed on basis of records for stations near Hoskins and near Suver.
Time basis: Pacific war time up to 2 a.m., Sept. 30, 1945; Pacific standard time thereafter. To convert war time to standard time, subtract 1 hour.

Luckiamute River near Suver, Oreg.

Location.- Water-stage recorder, lat. 44°47'00", long. 123°14'00", in SW¼SW¼ sec. 18, T. 9 S., R. 4 W., at highway bridge at Helmick State Park, 3 miles downstream from Little Luckiamute River and 3 miles northwest of Suver. Datum of gage is 171.37 feet above mean sea level, datum of 1929.
Drainage area.- 240 square miles (revised).
Records available.- August 1905 to October 1911, July 1940 to September 1945.
Average discharge.- 11 years (1905-11, 1940-45), 848 second-feet.
Extremes.- Maximum discharge during year, 7,740 second-feet Feb. 8 (gage height, 27.87 feet); minimum, 25 second-feet Aug. 23 (gage height, 1.90 feet).
1905-11, 1940-45: Maximum discharge, 14,400 second-feet Apr. 1, 1943 (gage height, 29.40 feet), from rating curve extended above 11,000 second-feet; minimum, 21 second-feet Sept. 10, 1944 (gage height, 1.78 feet).
Maximum stage known at present site, 33.5 feet from floodmark, probably on Dec. 29, 1937 (discharge not determined).
Remarks.- Records good. A few small diversions above station for irrigation; no diversion around station. Some diurnal fluctuation during periods of low flow caused by millpond above station.
Cooperation.- Gage-height record collected in cooperation with U. S. Weather Bureau.

Rating tables, water year 1944-45 (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Oct. 1 to Nov. 2, July 29 to Sept. 4)

Oct. 1 to Nov. 3				Nov. 4 to Sept. 30							
1.9	27	3.4	154	2.0	31	3.6	154	8.0	695	19.0	2,770
2.1	41	4.0	214	2.3	49	4.4	238	10.0	995	22.0	3,670
2.4	64	5.0	326	2.7	77	5.4	356	13.0	1,480	24.0	4,520
2.8	98	6.5	515	3.1	109	6.6	504	16.0	2,050	27.0	6,540

Discharge, in second-feet, water year October 1944 to September 1945

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	61	177	755	760	916	653	947	453	366	115	56	38
2	47	258	611	800	1,270	610	863	423	364	109	56	36
3	37	305	479	702	1,440	638	790	399	350	102	56	33
4	38	518	460	638	1,630	652	732	380	336	99	54	68
5	44	385	513	694	2,620	601	894	363	328	96	51	555
6	58	384	498	992	3,100	582	1,150	345	318	93	53	236
7	52	414	547	2,340	3,080	555	1,470	331	300	89	51	124
8	43	374	570	3,450	6,500	646	2,740	315	284	86	53	92
9	40	402	508	2,640	5,850	687	2,890	303	267	80	52	75
10	38	410	447	1,750	4,090	1,820	2,140	327	258	77	49	66
11	35	334	394	1,370	2,840	2,340	2,050	369	246	75	48	56
12	34	302	352	1,330	2,330	1,820	2,140	538	236	71	49	53
13	36	244	316	2,120	3,820	1,750	1,910	808	226	71	51	52
14	42	206	285	2,830	4,460	2,050	1,540	1,120	222	68	50	50
15	42	176	264	2,870	3,240	2,400	1,350	1,320	210	68	48	50
16	38	159	242	3,760	2,330	2,480	1,210	1,690	201	68	45	46
17	37	146	226	3,580	1,950	2,560	1,090	1,550	187	66	47	49
18	38	134	213	3,160	1,810	3,030	978	1,370	176	66	43	47
19	37	125	210	2,600	1,480	2,920	894	1,150	165	67	42	44
20	30	117	313	2,050	1,300	3,640	821	974	158	63	42	45
21	33	111	439	1,670	1,160	4,480	758	869	153	62	37	54
22	34	104	396	1,390	1,050	3,600	694	772	150	78	39	83
23	33	103	457	1,190	953	2,920	652	834	147	90	36	79
24	33	185	427	1,040	864	2,230	652	746	140	73	36	66
25	35	239	385	905	788	1,950	619	643	132	66	38	58
26	35	277	350	806	737	1,800	579	582	128	63	48	54
27	35	462	331	726	768	1,520	531	544	126	60	48	52
28	35	384	568	656	722	1,350	518	527	125	59	47	48
29	33	316	870	603	-	1,230	494	479	123	58	38	47
30	38	374	880	582	-	1,100	481	438	120	59	37	45
31	96	-	756	760	-	1,010	-	408	-	58	36	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff	
						Inches	Acre-feet
October	1,267	96	30	40.9	0.170	0.20	2,510
November	8,125	518	103	271	1.13	1.26	16,120
December	14,062	880	210	454	1.89	2.18	27,890
Calendar year 1944	159,604	2,430	24	436	†1.82	†24.74	316,600
January	50,764	3,760	582	1,638	6.82	7.87	100,700
February	63,098	6,500	722	2,254	9.39	9.78	125,200
March	55,604	4,480	555	1,794	7.48	8.62	110,300
April	34,477	2,890	481	1,149	4.79	5.34	68,380
May	21,370	1,690	303	689	2.87	3.31	42,390
June	6,562	386	120	219	.912	1.02	13,020
July	2,357	115	58	76.0	.317	.37	4,680
August	1,436	56	36	46.3	.192	.22	2,850
September	2,401	555	33	80.0	.333	.37	4,760
Water year 1944-45	261,523	6,500	30	717	2.99	40.54	518,800

† Computed on basis of revised drainage area.
Time basis: Pacific war time up to 2 a.m., Sept. 30, 1945; Pacific standard time thereafter. To convert war time to standard time, subtract 1 hour.

Mill Creek at penitentiary annex, near Salem, Oreg.

Location.- Water-stage recorder, lat. 44°52'55", long. 122°58'35", in NE¼ sec. 18, T. 8 S., R. 2 W., at State penitentiary annex, 5 miles south of Salem.
Records available.- October 1940 to September 1945 in reports of Geological Survey. November 1938 to September 1940 in files of Oregon State engineer.
Extremes.- Maximum discharge during year, 1,850 second-feet Mar. 20 (gage height, 4.86 feet); minimum, 85 second-feet (regulated) July 6; minimum daily, 88 second-feet July 7.

1938-45: Maximum discharge, 3,880 second-feet Feb. 7, 1943 (gage height, 6.95 feet), from rating curve extended above 2,600 second-feet; minimum, 44 second-feet July 13, 1939.

Maximum discharge known, 8,320 second-feet Dec. 29, 1937, computed by velocity-area method on basis of discharge measurement of 7,300 second-feet made that day.

Remarks.- Records good except those for period of no gage-height record, which are poor. Salem power canal diverts water from North Santiam River at Stayton into Mill Creek; some diversions from canal and creek above station for irrigation. Flow diverted for irrigation on left bank between gage and control is not included in record. Diurnal fluctuation caused by changes in head gates and small power plants above station.

Rating tables, water year 1944-45 (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Feb. 9 to Mar. 26)

Oct. 1 to Mar. 20

1.3	182	2.7	635
1.6	252	3.1	820
1.9	337	3.5	1,030
2.3	475	4.2	1,490

Mar. 21 to Sept. 30

0.7	88	2.3	490
1.0	125	2.7	650
1.3	183	3.1	830
1.9	350		

Note.- Same as preceding table above 3.5 feet.

Discharge, in second-feet, water year October 1944 to September 1945

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	209	242	337	380	a470	213	269	238	254	185	177	175
2	193	310	377	a460	193	278	222	240	179	179	172	
3	191	240	293	347	a450	344	347	212	232	170	183	177
4	186	257	331	340	a650	426	332	205	227	175	177	195
5	216	227	325	426	a800	360	420	202	220	166	190	230
6	234	218	307	680	a700	313	466	190	222	101	177	232
7	216	237	337	920	a950	287	604	185	220	88	179	212
8	200	220	328	725	a1,400	287	860	179	212	94	177	200
9	195	227	301	595	942	287	758	181	210	160	179	193
10	193	222	290	607	694	527	722	190	207	172	179	183
11	195	209	285	587	734	444	920	197	200	172	181	190
12	200	200	279	734	720	642	713	284	195	175	179	185
13	216	193	271	825	1,190	756	590	354	190	166	185	175
14	213	189	263	725	931	1,020	522	341	190	168	181	177
15	216	193	257	1,000	623	980	466	396	183	172	183	183
16	204	216	250	1,030	523	1,090	427	646	177	162	185	197
17	200	211	247	a820	607	1,090	392	790	172	170	177	195
18	209	211	242	a880	707	1,140	360	722	168	172	183	193
19	211	211	250	a760	507	870	341	582	168	175	175	190
20	209	204	299	a660	422	1,430	317	486	210	183	175	210
21	209	202	310	a580	363	1,430	296	434	219	193	179	227
22	209	195	322	a520	328	1,270	278	396	214	220	168	235
23	206	216	344	a470	301	920	299	371	207	220	168	232
24	206	255	307	a430	263	708	317	344	197	212	168	224
25	206	255	287	a390	234	650	290	317	190	200	175	220
26	206	316	274	a360	225	568	266	290	200	195	193	220
27	204	301	271	h334	274	466	249	326	197	188	210	214
28	209	276	322	a335	250	444	243	329	190	183	193	217
29	209	268	388	a300	-	396	240	284	185	179	188	212
30	209	304	416	a310	-	329	254	317	188	177	181	207
31	220	-	363	a400	-	296	-	299	-	179	179	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	6,403	234	186	207	12,700
November	6,908	316	189	230	13,700
December	9,406	416	242	303	18,660
Calendar year 1944	100,097	1,040	146	273	198,500
January	17,847	1,030	300	576	35,400
February	16,718	1,400	225	597	33,160
March	20,166	1,430	193	651	40,000
April	12,836	920	240	428	25,460
May	10,509	790	179	339	20,840
June	6,075	254	168	202	12,050
July	5,353	220	88	173	10,620
August	5,603	210	168	181	11,110
September	6,072	235	172	202	12,040
Water year 1944-45	123,896	1,430	88	339	245,700

a No gage-height record; discharge computed on basis of recorded range in stage, records for Mill Creek at Salem, and unpublished record for Shelton ditch at Salem.
h Computed from staff-gage reading.
Time basis: Pacific war time up to 2 a.m., 8sept. 30, 1945; Pacific standard time thereafter. To convert war time to standard time, convert 1 hour.

Mill Creek at Salem, Oreg.

Location.- Water-stage recorder, lat. 44°56'05", long. 123°01'00", in NE¼ sec. 26, T. 7 S., R. 3 W., at State Street Bridge in Salem, 220 feet downstream from 19th Street diversion. Datum of gage is 165.50 feet above mean sea level (datum of 1929).

Records available.- October 1940 to September 1945 in reports of Geological Survey. July 1938 to September 1940 in files of Oregon State engineer.

Extremes.- Maximum discharge during year, 708 second-feet Mar. 14 (gage height, 3.92 feet); minimum, 7 second-feet Oct. 4, July 8.
1938-45: Maximum discharge recorded, 1,110 second-feet Feb. 7, 1943 (gage height, 5.53 feet, from floodmark); no flow Oct. 2, 1939.

Remarks.- Records good except those for periods of no gage-height record, which are poor. Salem power canal diverts water into Mill Creek near Stayton; several diversions from Mill Creek, including Shelton flood bypass 1½ miles upstream, and 19th Street power diversion 220 feet upstream. Diurnal fluctuation caused by power plants above station.

Rating table, water year 1944-45 (gage height, in feet, and discharge, in second-feet)

0.6	11	1.4	105	2.6	361
.7	18	1.6	141	2.9	435
.8	27	1.8	181	3.2	512
1.0	48	2.0	223	3.5	592
1.2	74	2.3	290		

Discharge, in second-feet, water year October 1944 to September 1945

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	99	83	67	202	172	14	114	95	126	85	41	42
2	68	56	135	189	108	10	108	80	107	89	45	46
3	49	74	171	181	141	35	149	71	103	76	49	44
4	41	102	171	165	a290	89	149	71	97	80	41	63
5	67	108	149	204	375	64	185	66	84	80	50	64
6	77	82	145	304	356	47	227	59	95	29	46	76
7	73	95	161	422	422	40	263	61	94	10	48	88
8	a62	77	149	349	576	71	425	40	74	10	46	63
9	a54	89	151	295	402	119	378	46	92	61	47	58
10	a52	82	171	283	297	315	349	46	74	44	47	59
11	a53	78	147	297	320	272	438	50	61	46	53	58
12	55	86	112	335	304	373	371	103	71	48	45	58
13	64	61	119	359	442	483	306	177	64	38	53	45
14	68	56	110	356	390	470	265	177	59	39	39	52
15	82	52	112	445	258	392	339	208	61	40	33	53
16	74	67	105	481	173	440	179	325	47	36	48	56
17	47	61	119	402	163	440	187	400	45	42	44	70
18	64	67	103	432	230	440	167	385	40	41	41	55
19	66	92	91	373	135	332	165	327	44	42	39	58
20	63	67	122	320	99	432	151	267	54	42	63	63
21	61	44	141	297	76	481	133	234	53	50	58	78
22	86	11	141	263	68	412	128	215	70	63	46	84
23	67	19	157	238	58	349	130	189	64	70	42	89
24	58	28	169	223	41	320	157	169	53	63	39	82
25	56	26	161	204	46	337	a135	157	54	61	52	78
26	54	67	122	196	24	281	a110	145	55	58	a70	76
27	56	46	122	185	26	215	a95	185	56	47	74	73
28	59	30	163	192	22	192	91	177	56	48	58	73
29	61	28	196	169	-	177	147	153	48	45	53	71
30	64	41	227	169	-	149	100	159	49	44	52	68
31	74	-	206	204	-	139	-	145	-	44	47	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	1,974	99	41	63.7	3,920
November	1,875	108	11	62.5	3,720
December	4,415	227	67	142	8,760
Calendar year 1944	37,419	463	11	102	74,220
January	8,734	481	165	282	17,320
February	6,014	576	22	215	11,930
March	7,930	483	10	256	15,730
April	6,141	438	91	205	12,180
May	4,982	400	40	161	9,880
June	2,050	126	40	68.3	4,070
July	1,565	89	10	50.5	3,100
August	1,507	74	33	48.6	2,990
September	1,963	89	42	65.4	3,890
Water year 1944-45	49,150	576	10	135	97,490

a No gage-height record; discharge computed on basis of recorded range in stage, records for Mill Creek at penitentiary annex, near Salem, and unpublished record for Shelton ditch at Salem.
Time basis: Pacific war time up to 2 a.m., Sept. 30, 1945; Pacific standard time thereafter. To convert war time to standard time, subtract 1 hour.

South Yamhill River near Willamina, Oreg.

Location.- Water-stage recorder, lat. 45°03', long. 123°30', in sec. 14, T. 6 S., R. 7 W., a third of a mile upstream from Wallace Bridge, 2 miles upstream from Willamina Creek, and 2 miles southwest of Willamina. Datum of gage is 235.01 feet above mean sea level, datum of 1929.
Drainage area.- 133 square miles.
Records available.- May 1934 to September 1945.
Average discharge.- 11 years, 537 second-feet.
Extremes.- Maximum discharge during year, 10,900 second-feet Feb. 7 (gage height, 12.04 feet); minimum, 13 second-feet Aug. 21, 23, Sept. 1, 2 (gage height, 0.54 foot).
1934-45: Maximum discharge, 14,000 second-feet Dec. 27, 1937 (gage height, 14.08 feet); minimum, 3 second-feet (regulated) Aug. 22, 1938, Oct. 16, 1942; minimum daily, 7 second-feet Aug. 22, 1938.
Remarks.- Records excellent except those for Feb. 22-28, which are fair. Occasional slight regulation during summer by millpond upstream; no diversion above station.
Cooperation.- Gage-height record collected in cooperation with U. S. Weather Bureau.

Rating tables, water year 1944-45 (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Oct. 1 to Nov. 2)

Oct. 1 to Feb. 7

0.6	15	1.4	168	3.6	1,170
.7	23	1.6	229	4.2	1,580
.8	34	1.9	329	5.0	2,200
.9	48	2.2	445	6.0	3,170
1.0	66	2.6	630	7.4	4,710
1.2	112	3.0	830	9.0	6,690

Feb. 8 to Sept. 30

0.5	11	0.8	36
.6	17	.9	49
.7	25	1.0	66

Note.- Same as preceding table above 1.0 foot.

Discharge, in second-feet, water year October 1944 to September 1945

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	27	366	924	675	585	468	562	281	220	63	25	14
2	21	245	675	600	962	445	490	278	204	51	24	14
3	18	640	558	553	1,180	625	454	278	198	48	23	15
4	24	625	585	526	1,170	590	421	278	186	46	23	606
5	41	566	526	630	2,450	571	615	274	174	44	24	375
6	37	441	530	1,510	1,910	535	710	261	165	42	23	151
7	24	441	640	3,000	6,770	548	1,140	239	159	40	23	102
8	20	690	553	2,270	5,750	715	2,130	223	154	37	23	74
9	20	765	494	1,530	2,940	1,150	1,590	207	145	36	23	61
10	18	517	441	1,160	1,940	3,040	1,400	235	145	35	23	51
11	18	441	389	929	1,540	1,760	1,970	348	136	35	21	45
12	18	348	340	1,100	1,880	1,440	1,640	499	128	35	21	44
13	21	287	308	1,880	3,740	1,200	1,350	790	131	34	22	39
14	22	239	284	1,740	2,270	1,370	1,120	968	126	34	21	37
15	20	204	261	2,680	1,600	1,800	951	1,210	112	34	20	36
16	18	177	235	2,750	1,210	1,800	810	1,100	104	34	19	40
17	a18	162	217	2,380	1,180	2,010	700	968	100	34	18	36
18	a18	142	198	2,290	956	2,060	615	841	90	34	16	34
19	17	134	204	1,820	810	2,640	544	725	83	33	16	33
20	17	117	268	1,430	720	4,290	494	635	81	32	15	56
21	17	112	268	1,120	630	2,480	472	548	79	34	14	120
22	a17	107	255	912	a580	2,010	421	490	74	51	14	74
23	18	192	268	755	a540	1,620	409	454	70	42	14	59
24	18	322	239	640	a510	1,290	450	401	66	35	14	49
25	18	268	223	548	a480	1,350	409	359	63	32	16	46
26	20	413	210	481	a460	1,120	355	326	63	32	22	45
27	19	445	220	425	a510	946	329	301	63	32	23	41
28	20	378	640	378	a480	841	304	287	63	29	19	39
29	20	374	635	348	-	735	301	274	61	28	18	36
30	128	1,080	576	329	-	645	287	255	59	28	16	35
31	229	-	526	429	-	600	-	235	-	27	15	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff	
						Inches	Acre-feet
October	961	229	17	31.0	0.233	0.27	1,910
November	11,238	1,080	107	375	2.82	3.14	22,290
December	12,690	924	198	409	3.08	3.55	25,170
Calendar year 1944	118,928	1,900	10	325	2.44	33.26	235,900
January	37,618	3,000	329	1,220	9.17	10.57	75,010
February	45,753	6,770	460	1,634	12.3	12.79	90,750
March	43,194	4,290	445	1,393	10.5	12.08	85,670
April	25,443	2,130	287	781	5.87	6.56	46,500
May	14,568	1,210	207	470	3.53	4.07	28,900
June	3,502	220	59	117	.880	.98	6,950
July	1,151	63	27	37.1	.279	.32	2,280
August	606	25	14	19.6	.147	.17	1,210
September	2,407	606	14	80.2	.603	.67	4,770
Water year 1944-45	197,333	6,770	14	541	4.07	55.17	391,400

Peak discharge.- Feb. 7 (7:30 p.m.) 10,900 sec.-ft.; Feb. 13 (2 a.m.) 4,910 sec.-ft.; Mar. 10 (4:30 a.m.) 4,050 sec.-ft.; Mar. 20 (4 a.m.) 5,470 sec.-ft.
a No gage-height record; discharge computed on basis of records for Willamina Creek near Willamina.
Time basis: Pacific war time up to 2 a.m., Sept. 30, 1945; Pacific standard time thereafter. To convert war time to standard time, subtract 1 hour.

South Yamhill River near Whiteson, Oreg.

Location.- Water-stage recorder, lat. 45°10'10", long. 123°12'25", in NW¼ sec. 5, T. 5 S., R. 4 W., at Whiteson Bridge on Pacific Highway West, 1 mile downstream from Salt Creek, and 1½ miles northwest of Whiteson. Datum of gage is 82.30 feet above mean sea level, datum of 1929.

Drainage area.- 502 square miles.

Records available.- July 1940 to September 1945.

Extremes.- Maximum discharge during year, 20,700 second-feet Feb. 8 (gage height, 40.9 feet); minimum, 27 second-feet Aug. 23 (gage height, 1.22 feet).
1940-45: Maximum discharge, 22,300 second-feet Apr. 1, 1943 (gage height, 41.91 feet); minimum, 18 second-feet Aug. 23, 1941, Sept. 14, 1944.

Remarks.- Records good except those above 8,000 second-feet, which are fair. Slight regulation during low-water periods from log ponds upstream. Small diversions above station for irrigation.

Cooperation.- Gage-height record collected in cooperation with U. S. Weather Bureau.

Discharge, in second-feet, water year October 1944 to September 1945

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	77	443	1,850	1,030	1,060	1,320	1,640	723	495	152	61	32
2	70	584	1,330	1,200	1,680	1,240	1,550	680	467	137	57	31
3	57	551	952	1,040	2,520	1,360	1,340	643	444	120	54	33
4	49	1,100	870	942	2,940	1,600	1,220	611	425	114	55	102
5	50	1,030	908	948	4,050	1,510	1,330	576	393	111	55	1,100
6	79	831	808	1,490	5,990	1,420	1,620	528	379	106	54	435
7	79	707	882	4,030	6,010	1,310	2,030	499	360	103	50	228
8	63	714	944	5,610	15,700	1,480	4,180	472	342	97	46	162
9	57	1,280	819	4,750	16,300	1,670	5,250	450	325	91	49	150
10	51	1,060	727	3,090	10,600	3,970	4,340	470	318	83	49	113
11	46	783	630	2,230	6,660	6,390	3,920	565	308	79	45	98
12	42	645	566	1,900	4,630	5,130	4,170	772	284	76	43	90
13	48	505	513	2,610	6,960	4,090	3,620	1,340	273	77	48	82
14	52	418	470	3,840	7,640	4,130	3,000	1,970	271	74	50	77
15	56	355	429	4,170	5,890	5,340	2,520	2,110	252	74	46	74
16	52	308	407	5,870	4,080	5,440	2,170	2,560	238	76	45	71
17	49	279	374	6,090	3,350	5,500	1,890	2,240	229	74	41	75
18	44	251	359	5,780	3,290	6,010	1,670	2,030	222	75	38	69
19	43	231	346	5,370	2,770	5,970	1,500	1,740	197	76	39	67
20	42	215	416	4,270	2,540	7,380	1,370	1,490	186	73	36	67
21	42	197	499	3,100	2,010	10,400	1,250	1,300	178	73	35	100
22	43	192	454	2,330	1,770	8,530	1,150	1,130	174	80	31	182
23	42	e200	499	1,850	1,630	6,190	1,070	1,070	170	107	30	129
24	41	423	472	1,520	1,490	4,550	1,090	992	164	88	31	107
25	41	495	442	1,260	1,330	3,760	1,070	864	155	76	32	95
26	42	470	419	1,090	1,220	3,670	980	793	144	71	39	88
27	42	777	401	958	1,400	3,120	878	725	144	69	55	84
28	43	698	661	842	1,460	2,630	824	682	145	67	51	79
29	43	586	1,210	759	-	2,270	781	629	141	66	43	76
30	49	904	1,200	712	-	1,960	756	578	140	68	36	73
31	218	-	1,040	738	-	1,750	-	531	-	66	35	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff: Inches	Runoff: Acre-feet
October	1,752	218	41	56.5	0.113	0.13	3,480
November	17,232	1,280	192	574	1.14	1.28	34,180
December	21,897	1,850	346	706	1.41	1.62	43,430
Calendar year 1944	269,376	4,160	20	736	1.47	19.95	534,400
January	81,419	6,090	712	2,626	5.23	6.03	161,500
February	126,870	16,300	1,060	4,531	9.03	9.40	251,600
March	121,090	10,400	1,240	3,960	7.78	8.97	240,200
April	60,179	5,250	756	2,006	4.00	4.46	119,400
May	31,763	2,560	450	1,025	2.04	2.35	63,000
June	7,963	495	140	265	.528	.59	15,790
July	2,699	152	66	87.1	.174	.20	5,350
August	1,379	61	30	44.5	.089	.10	2,740
September	4,149	1,100	31	138	.275	.31	8,230
Water year 1944-45	478,392	16,300	30	1,311	2.61	35.44	948,900

e No gage-height record; discharge computed on basis of records for South Yamhill River near Willamina and Willamina Creek near Willamina.
Time basis: Pacific war time up to 2 a.m., Sept. 30, 1945; Pacific standard time thereafter. To convert war time to standard time, subtract 1 hour.

Willamina Creek near Willamina, Oreg.

Location.- Water-stage recorder, lat. 45°08'35", long. 123°29'40", in N½ sec. 13, T. 5 S., R. 7 W., 4 miles north of Willamina. Datum of gage is 315.1 feet above mean sea level (from river-profile survey).

Drainage area.- 65 square miles.

Records available.- June 1934 to September 1945.

Average discharge.- 11 years, 216 second-feet.

Extremes.- Maximum discharge during year, 3,210 second-feet Feb. 7 (gage height, 7.80 feet); minimum, 12 second-feet Oct. 29.
1934-45: Maximum discharge, 5,720 second-feet Dec. 27, 1937 (gage height, 9.83 feet, present datum); minimum, 9 second-feet Sept. 3, 4, 1934, Sept. 9, 1935, Aug. 8-10, 19, Sept. 22-27, 1939, Aug. 17, 18, 1940.

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

Rating table, water year 1944-45 (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Oct. 1-30)

1.3	14	2.1	75	3.3	345	5.0	1,080
1.5	21	2.3	107	3.6	450	5.5	1,350
1.7	33	2.6	164	4.0	605	6.1	1,740
1.9	51	2.9	230	4.5	825	6.8	2,280

Discharge, in second-feet, water year October 1944 to September 1945

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	17	97	238	230	192			144	111	40	20	14
2	15	60	179	216	238			136	105	38	20	13
3	16	164	156	200	276			131	100	36	19	17
4	18	116	187	189	291			125	95	36	20	166
5	26	112	183	252	637			121	93	35	18	75
6	21	102	172	714	553			114	90	34	17	38
7	16	111	189	1,230	2,260			111	86	32	18	29
8	15	134	172	885	1,800			105	82	30	18	24
9	15	158	154	613	1,060			107	81	29	17	21
10	14	111	138	474	780			116	80	28	17	20
11	13	88	125	373	663			129	75	27	17	19
12	14	74	116	426	959			185	72	26	18	19
13	16	65	105	633	1,570		a385	248	71	25	18	17
14	15	56	98	613	1,020			279	70	25	17	17
15	15	51	92	951	748			342	67	25	16	18
16	14	48	86	1,060	593	a610		333	65	25	16	20
17	14	46	80	985	553			306	60	26	15	18
18	14	43	78	935	450			279	59	25	15	18
19	13	40	88	753	380			248	54	24	14	17
20	13	39	111	601	339			223	53	24	14	27
21	13	37	109	485	306			207	51	28	14	47
22	13	36	107	398	276			192	51	33	13	32
23	13	55	105	336	250			185	49	28	14	25
24	13	88	97	288	235			170	47	25	14	23
25	13	75	92	250	a215		200	160	44	25	18	23
26	13	123	87	225	a210		181	148	44	24	21	21
27	13	127	90	203	a220		172	142	46	23	18	20
28	13	105	198	189	a210		162	134	45	22	16	18
29	14	100	189	174	-		158	125	44	22	14	17
30	38	273	179	168	-		150	120	43	23	14	17
31	67	-	170	179	-		-	116	-	21	14	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff Inches	Runoff Acre-feet
October	537	67	13	17.3	0.266	0.31	1,070
November	2,734	273	36	91.1	1.40	1.56	5,420
December	4,170	238	78	135	2.08	2.39	8,270
Calendar year 1944	47,461	748	11	130	2.00	27.16	94,140
January	15,228	1,230	168	491	7.55	8.71	30,200
February	17,284	2,260	192	617	9.49	9.89	34,280
March	18,910	-	-	610	9.38	10.82	37,510
April	10,263	-	150	342	5.26	5.87	20,360
May	5,481	342	105	177	2.72	3.14	10,870
June	2,033	111	43	67.8	1.04	1.16	4,030
July	864	40	21	27.9	.429	.49	1,710
August	514	21	13	16.6	.255	.29	1,020
September	850	166	13	28.3	.435	.49	1,690
Water year 1944-45	78,868	2,260	13	216	3.32	45.12	156,400

a No gage-height record; discharge computed on basis of records for South Yamhill River near Willamina.
Time basis: Pacific war time up to 2 a.m., Sept. 30, 1945; Pacific standard time thereafter. To convert war time to standard time, subtract 1 hour.

North Yamhill River near Pike, Oreg.

Location.- Water-stage recorder, lat. 45°22'15", long. 123°17'10", in NE¼ sec. 27, T. 2 S., R. 5 W., 1⅛ miles downstream from Haskins Creek and 1⅛ miles west of Pike. Datum of gage is 249.2 feet above mean sea level (Corps of Engineers, U. S. Army, bench mark).

Drainage area.- 48 square miles.

Records available.- October 1940 to September 1945.

Extremes.- Maximum discharge during year, 3,260 second-feet Feb. 7 (gage height, 7.59 feet); minimum, 7.5 second-feet Sept. 2 (gage height, 0.97 foot).
1940-45: Maximum discharge, 3,830 second-feet Dec. 18, 1941 (gage height, 8.24 feet), affected by release of water from log pond upstream; minimum, 4.2 second-feet (regulated) Sept. 11, 1944; minimum daily, 6.0 second-feet Sept. 10, 11, 1944.

Remarks.- Records good except those for October, which are fair. Occasional diurnal fluctuations caused by small dams upstream; no seasonal regulation. Water supply for city of McMinnville is diverted from Haskins Creek above station, mean annual diversion in water year 1944-45 being 1.50 second-feet.

Rating table, water year 1944-45 (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Oct. 2-30)

1.0	9.0	1.8	105	3.6	675
1.1	16	2.0	147	4.2	965
1.2	24	2.3	219	5.0	1,420
1.4	45	2.7	332	6.0	2,050
1.6	71	3.1	470		

Discharge, in second-feet, water year October 1944 to September 1945

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	17	74	199	165	177	154	253	103	70	26	15	8.5
2	13	53	149	152	222	154	232	100	67	25	15	8.5
3	13	127	125	140	284	175	212	94	65	24	15	13
4	14	96	138	132	316	165	202	87	63	23	15	140
5	22	79	127	177	662	156	229	73	61	22	14	53
6	15	68	123	378	494	149	240	68	60	22	12	28
7	13	68	132	688	1,990	154	301	65	57	21	13	22
8	12	94	119	478	1,260	192	400	61	55	19	13	19
9	12	125	105	339	729	381	332	64	53	18	12	18
10	11	96	92	278	546	835	310	68	52	18	12	16
11	9.7	81	84	227	466	510	410	79	51	18	13	15
12	10	65	76	326	681	424	372	119	47	18	13	15
13	12	57	68	542	830	382	320	177	47	18	13	13
14	12	50	63	478	574	582	281	194	46	18	12	13
15	12	65	57	610	452	534	261	206	45	18	11	13
16	9.7	105	55	598	386	582	248	199	42	18	11	13
17	9.7	92	52	562	446	752	227	182	41	18	10	13
18	9.7	81	50	562	356	662	212	165	40	18	10	13
19	9.7	42	56	452	307	1,050	196	147	35	17	9.7	12
20	9.0	33	67	358	275	1,530	184	134	33	17	9.7	18
21	9.0	32	63	292	250	900	175	125	32	19	9.0	29
22	9.0	30	61	248	229	706	163	119	34	21	8.5	19
23	9.7	49	58	212	214	578	158	132	34	19	9.7	17
24	10	67	55	187	194	482	149	111	32	18	9.7	16
25	10	58	53	165	182	506	140	103	31	18	11	16
26	10	107	52	149	177	442	129	98	30	18	12	15
27	9.7	117	55	136	184	386	125	94	31	16	12	15
28	9.0	94	158	125	165	348	117	91	30	16	10	14
29	10	91	145	117	-	310	113	81	30	16	9.7	13
30	28	240	129	113	-	286	111	77	28	17	8.5	13
31	33	-	119	152	-	272	-	74	-	16	8.5	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff Inches	Runoff Acre-feet
October	392.9	33	9.0	12.7	0.265	0 30	779
November	2,436	240	30	81.2	1.69	1.89	4,830
December	2,885	199	50	93.1	1.94	2.24	5,720
Calendar year 1944	33,907.6	622	6.0	92.6	1.93	26 27	67,240
January	9,538	688	113	308	6.42	7.39	18,920
February	13,050	1,990	165	466	9.71	10 11	25,880
March	14,739	1,530	149	475	9.90	11.42	29,230
April	6,802	410	111	227	4.73	5.27	13,490
May	3,490	206	61	113	2.35	2.70	6,920
June	1,342	70	28	44.7	.931	1.04	2,660
July	590	26	16	19.0	.396	.46	1,170
August	357	15	8.5	11.5	.240	.28	708
September	631	140	8.5	21.0	.437	.49	1,250
Water year 1944-45	56,252.9	1,990	8.5	154	3.21	43 59	111,600

Peak discharge.- Feb. 7 (3 p.m.) 3,260 sec.-ft.; Feb. 12 (10 p.m.) 1,280 sec.-ft.; Mar. 9 (11:30 p.m.) 1,150 sec.-ft.; Mar. 20 (1:30 a.m.) 2,070 sec.-ft.
Time basis: Pacific war time up to 2 a.m., Sept. 30, 1945; Pacific standard time thereafter. To convert war time to standard time, subtract 1 hour.

Haskins Creek near McMinnville, Oreg.

Location.- Water-stage recorder and wooden control, lat. 45°18'50", long. 123°21'55", in NE¼ sec. 13, T. 3 S., R. 6 W., 300 feet upstream from high-water line of McMinnville water-supply reservoir and 11 miles northwest of McMinnville.

Drainage area.- 5.7 square miles.

Records available.- October 1928 to September 1945.

Average discharge.- 17 years, 24.4 second-feet (adjusted for diversion, 1937-45).

Extremes (not adjusted for diversion).- Maximum discharge during year, 217 second-feet Feb. 7 (gage height, 2.90 feet); minimum, 0.2 second-foot Sept. 2 (gage height, 1.15 feet).

1928-45: Maximum discharge, 610 second-feet Mar. 31, 1931 (gage height, 4.00 feet, before control was built); minimum prior to diversion above station, 1.0 second-foot Oct. 8, 1932.

Remarks.- Records good except those for Feb. 4 to Mar. 15 and those for periods of no gage-height record, which are fair. Since Sept. 2, 1937, a small amount of water has been diverted at a point 800 feet upstream into a 12-inch steel pipe, which delivers it into intake of McMinnville water-supply pipe line below reservoir. No regulation.

Cooperation.- Water-stage recorder inspected by employees of city of McMinnville.

Discharge, in second-feet, water year October 1944 to September 1945

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2.9	14	23	21	27	27	40	18	11	3.8	3.5	0.5
2	2.2	8.6	a17	19	30	27	37	17	11	3.5	3.5	.3
3	2.6	20	a14	19	38	28	34	16	10	3.5	3.5	1.0
4	3.5	16	a16	19	42	27	33	15	9.4	3.3	3.5	19
5	4.9	14	a14	23	49	26	34	14	9.4	3.3	3.3	5.6
6	2.9	13	a14	37	45	24	36	13	8.8	3.3	3.0	3.3
7	2.4	12	a15	56	147	26	36	12	8.2	3.0	2.7	2.7
8	2.2	19	a17	56	108	29	49	12	8.2	2.4	2.7	2.2
9	2.0	19	16	45	60	42	45	12	7.6	2.4	2.4	2.0
10	1.9	16	14	40	44	a120	45	12	7.1	2.4	2.2	2.2
11	1.7	14	13	33	47	a80	55	16	6.6	2.4	2.2	2.2
12	1.9	11	11	45	57	h61	53	23	6.1	2.4	2.2	2.4
13	2.0	8.6	10	49	49	a54	49	29	6.1	2.2	2.0	2.0
14	2.0	6.4	9.3	42	52	a68	45	29	5.6	2.2	1.6	2.0
15	1.9	5.6	8.6	45	57	64	41	29	5.6	2.2	1.4	1.6
16	1.5	4.9	8.0	51	55	61	37	27	5.2	2.0	1.2	2.0
17	1.5	4.5	7.4	46	56	55	35	26	5.2	2.2	1.0	1.8
18	1.3	4.1	6.9	43	51	55	32	24	5.2	2.2	.9	1.6
19	1.3	3.5	8.0	45	45	96	30	22	5.2	2.0	.8	1.4
20	1.3	3.5	8.6	45	40	179	28	21	5.2	2.2	.7	3.0
21	1.2	3.5	8.0	45	37	135	27	20	4.8	3.5	.6	3.6
22	1.2	3.2	8.0	40	34	112	26	18	4.8	3.8	.6	2.0
23	1.3	7.4	6.9	34	33	92	26	21	4.4	3.5	.6	1.8
24	1.3	9.3	6.4	31	30	77	25	18	4.4	3.5	.6	2.0
25	1.3	9.3	6.0	29	29	77	24	17	4.1	3.5	.9	2.0
26	1.3	14	6.0	26	29	67	23	16	4.1	3.3	.9	1.8
27	1.2	12	7.4	24	30	58	22	15	4.1	3.3	.7	1.6
28	1.0	12	17	23	28	52	21	16	4.1	3.3	.6	1.6
29	1.5	14	16	22	-	49	20	12	4.1	3.5	.5	1.8
30	4.5	26	14	20	-	45	19	12	4.1	3.8	.4	1.6
31	8.6	-	15	23	-	43	-	11	-	3.8	.4	-

Month	Observed				Diversion for McMinnville water supply (acre-feet)	Adjusted for diversion			
	Discharge in second-feet			Runoff in acre-feet		Runoff in acre-feet	Discharge in second-feet		Runoff in inches
	Maximum	Minimum	Mean				Mean	Per square mile	
October	8.6	1.0	2.20	135	63	198	3.22	0.565	0.65
November	28	3.2	11.0	655	67	722	12.1	2.12	2.36
December	23	6.0	11.8	723	114	837	13.6	2.39	2.76
Calendar year 1944	61	.3	13.8	10,030	1,221	11,251	15.5	2.72	37.01
January	56	19	35.4	2,170	106	2,276	37.0	6.49	7.48
February	147	27	48.2	2,680	114	2,794	50.3	8.82	9.18
March	179	24	63.1	3,880	99	3,979	64.7	11.4	13.14
April	55	19	34.2	2,040	124	2,164	36.4	6.39	7.13
May	29	11	18.1	1,110	125	1,235	20.1	3.53	4.07
June	11	4.1	6.32	376	112	488	8.20	1.44	1.61
July	3.8	2.0	2.96	182	84	266	4.33	.760	.88
August	3.5	.4	1.65	101	73	174	2.83	.496	.57
September	19	.3	2.62	156	7.3	163	2.74	.481	.54
Water year 1944-45	179	.3	19.6	14,208	1,088	15,296	21.1	3.70	50.37

Peak discharge.- Feb. 7 (3 p.m.) 217 sec.-ft.; Mar. 20 (2 a.m.) 210 sec.-ft.

a No gage-height record; discharge computed on basis of records for North Fork Yamhill River near Pike.

h Computed from staff-gage reading.

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

Molalla River above Pine Creek, near Wilhoit, Oreg.

Location.- Water-stage recorder, lat. 45°01', long. 122°29', near line between secs. 30 and 31, T. 6 S., R. 3 E., 1,700 feet upstream from Pine Creek and 5 miles southeast of Wilhoit.

Drainage area.- 96 square miles.

Records available.- October 1935 to September 1945.

Average discharge.- 10 years, 459 second-feet.

Extremes.- Maximum discharge during year, 7,620 second-feet Feb. 7 (gage height, 9.54 feet); minimum, 26 second-feet Oct. 28, 29 (gage height, 0.68 foot).
1935-45: Maximum discharge, 11,600 second-feet Nov. 23, 1942 (gage height, 9.30 feet), from rating curve extended above 4,000 second-feet by velocity-area studies; minimum, 19 second-feet Aug. 30 to Sept. 2, 1940.

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

Rating tables, water year 1944-45 (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Dec. 1-5)

Oct. 1 to Feb. 7						Feb. 8 to Sept. 30					
0.7	28	2.0	240	4.8	1,860	0.1	29	1.5	247	4.5	1,630
.9	49	2.4	370	5.8	2,790	.3	46	1.9	350	5.6	2,590
1.1	72	2.8	540	7.0	4,160	.5	68	2.4	520	6.7	3,800
1.4	114	3.3	810			.8	110	3.0	780	8.0	5,430
1.7	168	4.0	1,260			1.1	161	3.7	1,130		

Discharge, in second-feet, water year October 1944 to September 1945

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	58	191	490	180	310	301	699	1,250	414	89	42	35
2	45	188	390	218	414	288	588	1,370	371	87	42	33
3	40	883	310	192	780	286	508	1,380	336	81	42	35
4	53	656	324	202	734	271	452	1,140	312	76	41	157
5	110	414	382	486	1,030	257	681	945	288	76	40	424
6	81	338	342	1,600	1,200	245	955	865	278	74	39	157
7	61	575	390	2,940	4,430	238	1,220	785	259	72	38	106
8	52	418	360	1,660	5,200	249	2,040	726	240	69	37	81
9	47	398	307	924	2,250	414	1,230	650	233	68	36	68
10	44	307	255	717	1,340	1,780	950	672	215	67	35	60
11	39	235	218	550	1,370	1,100	920	780	204	64	35	54
12	39	188	188	834	1,310	1,030	840	1,100	189	62	35	50
13	41	156	168	1,870	3,390	950	722	1,570	196	61	35	47
14	39	134	152	1,480	1,910	910	654	1,820	194	58	35	45
15	39	119	139	1,600	1,230	800	658	2,540	175	57	34	49
16	37	108	130	1,700	940	694	708	2,700	163	56	33	63
17	35	99	122	1,530	830	712	645	1,830	154	56	32	54
18	32	92	116	1,560	699	699	676	1,640	147	54	32	54
19	33	85	112	1,120	592	900	850	1,190	140	53	31	48
20	32	80	120	822	516	2,240	1,020	965	136	51	31	148
21	31	75	125	620	452	1,570	1,090	855	131	54	29	145
22	30	71	116	490	414	1,350	890	766	124	73	28	145
23	30	125	108	406	386	1,190	920	726	118	63	28	136
24	30	208	104	349	353	945	1,500	654	113	56	28	115
25	29	164	99	300	325	885	1,250	576	108	53	71	104
26	28	774	95	267	325	815	945	524	106	50	107	107
27	27	678	93	238	322	722	800	650	102	48	63	96
28	26	418	128	215	304	690	855	654	100	46	46	84
29	26	307	137	200	-	663	1,000	592	100	45	41	74
30	29	393	125	200	-	600	1,200	544	95	44	37	68
31	57	-	116	243	-	735	-	473	-	43	35	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff	
						Inches	Acre-feet
October	1,300	110	26	41.9	0.436	0.50	2,580
November	8,877	883	71	296	3.08	3.44	17,610
December	6,361	490	93	202	2.10	2.43	12,420
Calendar year 1944	92,423	1,760	24	253	2.64	35.80	183,300
January	25,713	2,940	180	829	8.64	9.96	51,000
February	33,356	5,200	304	1,191	12.4	12.93	66,160
March	24,529	2,240	258	791	8.24	9.50	48,650
April	27,466	2,040	452	916	9.54	10.64	54,480
May	32,932	2,700	473	1,062	11.1	12.76	65,320
June	5,741	414	95	191	1.99	2.22	11,390
July	1,908	89	43	61.5	.641	.74	3,780
August	1,238	107	28	39.9	.416	.48	2,460
September	2,642	424	33	94.7	.986	1.10	5,640
Water year 1944-45	172,163	5,200	26	472	4.92	66.69	341,500

Peak discharge.- Jan. 7 (11 a.m.) 3,980 sec.-ft.; Feb. 7 (9 p.m.) 7,620 sec.-ft.; Feb. 8 (5:30 a.m.) 6,810 sec.-ft.; Feb. 13 (6 a.m.) 4,160 sec.-ft.
Time basis: Pacific war time up to 2 a.m., Sept. 30, 1945; Pacific standard time thereafter. To convert war time to standard time, subtract 1 hour.

Molalla River near Canby, Oreg.

Location.- Water-stage recorder, lat. 45°15', long. 122°41', in NE¼ sec. 9, T. 4 S., R. 1 E., at bridge 1½ miles south of Canby. Datum of gage is 104.56 feet above mean sea level, datum of 1929.

Drainage area.- 323 square miles.

Records available.- August 1928 to September 1945.

Average discharge.- 17 years, 974 second-feet.

Extremes.- Maximum discharge during year, 9,140 second-feet Feb. 7 (gage height, 8.7 feet, from floodmark); minimum, 66 second-feet Oct. 29, 30 (gage height, 1.86 feet).
1928-45: Maximum discharge, 22,300 second-feet Mar. 31, 1931 (gage height, 14.7 feet), from rating curve extended above 16,000 second-feet; minimum, 25 second-feet Sept. 14, 1938; minimum daily, 38 second-feet Sept. 7, 1935.

Remarks.- Records excellent except those for periods of no gage-height record, which are poor. A few small diversions above station for irrigation.

Cooperation.- Staff gage read once daily October to March by employee of U. S. Weather Bureau.

Rating tables, water year 1944-45 (gage height, in feet, and discharge, in second-feet)

Oct. 1 to May 17				May 18 to Sept. 30			
1.9	75	3.4	1,110	1.8	75	3.3	1,070
2.1	147	3.8	1,520	2.0	134	3.8	1,600
2.3	245	4.3	2,100	2.2	223	4.4	2,260
2.5	364	5.2	3,220	2.4	337	5.2	3,240
2.8	579	6.3	4,600	2.6	476	6.2	4,640
3.1	832	7.7	7,230	2.9	700		

Discharge, in second-feet, water year October 1944 to September 1945

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	161	188	744	339	611	744	1,540	2,410	1,200	218	108	97
2	127	358	685	460	744	736	1,330	2,530	1,040	204	105	94
3	111	727	579	451	1,040	762	1,180	2,580	910	194	108	99
4	119	1,100	571	418	1,180	744	1,030	2,220	807	189	108	134
5	170	685	643	564	1,540	710	1,160	1,790	732	180	102	716
6	203	556	635	1,350	2,060	676	1,590	1,560	700	159	97	a400
7	156	744	736	3,710	h 4,690	619	2,090	1,430	655	154	97	a300
8	131	685	814	3,020	h 7,230	627	4,560	1,310	610	146	97	a240
9	119	643	710	1,850	4,300	595	3,380	1,170	558	a140	94	a200
10	115	571	603	1,420	2,920	2,400	2,510	1,180	535	a135	94	a170
11	107	474	526	1,140	h2,960	2,180	2,400	1,200	491	131	91	a150
12	101	398	474	1,410	2,860	2,340	2,280	1,710	462	131	94	a135
13	104	352	411	2,460	5,890	2,790	1,980	2,680	469	131	94	a125
14	104	302	377	2,650	4,690	2,690	1,730	3,310	469	131	91	a120
15	101	273	345	2,950	3,130	2,460	1,590	4,440	426	131	91	a130
16	97	245	321	3,060	2,340	2,110	1,620	6,000	397	131	88	a160
17	94	240	296	2,730	2,090	1,940	1,460	5,960	364	131	88	a150
18	91	219	285	2,990	1,930	1,870	1,380	4,420	350	131	86	a140
19	88	203	268	2,380	1,620	1,820	1,530	3,180	319	124	83	a130
20	88	193	279	1,840	1,440	3,480	1,760	2,500	313	124	78	a290
21	85	184	302	1,450	1,250	3,690	1,980	2,220	302	131	78	a330
22	81	179	285	1,190	1,120	3,220	1,700	1,960	296	163	71	a330
23	81	198	291	996	1,050	3,020	1,590	a1,850	278	163	75	a320
24	78	384	269	877	941	2,450	2,630	a1,700	262	142	78	a280
25	75	345	262	770	859	2,180	2,650	a1,500	250	131	99	a250
26	75	731	245	676	797	2,030	1,980	a1,400	245	124	267	a250
27	75	1,040	240	611	823	1,730	1,590	a2,000	245	121	199	a220
28	73	762	262	564	762	1,580	1,600	a2,300	234	118	138	a210
29	68	603	333	526	-	1,500	1,910	2,030	234	118	121	a195
30	68	571	352	503	-	1,330	2,270	1,690	228	118	112	a180
31	91	-	327	549	-	1,460	-	1,420	-	112	102	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff: Inches	Runoff: Acre-feet
October	3,237	203	68	104	0.322	0.37	6,420
November	14,153	1,100	179	472	1.46	1.63	28,070
December	13,470	814	240	435	1.35	1.55	26,720
Calendar year 1944	195,603	2,910	52	534	1.65	22.51	388,000
January	45,884	3,710	339	1,480	4.58	5.28	91,010
February	62,867	7,230	611	2,245	6.95	7.24	124,700
March	56,483	3,690	595	1,822	5.64	6.50	112,000
April	58,020	4,580	1,030	1,934	5.99	6.68	115,100
May	73,650	6,000	1,170	2,376	7.36	8.48	146,100
June	14,381	1,200	228	479	1.48	1.66	28,520
July	4,456	218	112	144	.446	.51	8,840
August	3,234	267	71	104	.322	.37	6,410
September	6,545	716	94	218	.675	.75	12,980
Water year 1944-45	356,380	7,230	68	976	3.02	41.02	706,900

Peak discharge.- Feb. 7 (about 10 p.m.) 9,140 sec.-ft.; Feb. 13 (1 p.m.) 7,420 sec.-ft.
a No gage-height record; discharge computed on basis of records for station above Pine Creek, near Wilhoit.
h Computed from once-daily staff-gage readings.
Time basis: Pacific war time up to 2 a.m., Sept. 30, 1945; Pacific standard time thereafter.
To convert war time to standard time, subtract 1 hour.

Pudding River near Mount Angel, Oreg.

Location.- Wire-weight gage, lat. 45°03'49", long. 122°49'45", in SE¼ sec. 8, T. 6 S., R. 1 W., at Cline Bridge, 2 miles west of Mt. Angel and 4 miles upstream from Little Pudding River. Datum of gage is 119.76 feet above mean sea level, datum of 1929.

Drainage area.- 207 square miles.

Records available.- October 1939 to September 1945.

Extremes.- Maximum discharge during year not determined; minimum observed, 15 second-feet Oct. 20.
1939-45: Maximum discharge observed, 6,900 second-feet Jan. 1, 1943 (gage height, 28.85 feet); minimum observed, 9 second-feet Sept. 13, 1944 (gage height, 0.49 foot).

Remarks.- Records fair. Gage read twice daily Oct. 1 to Nov. 27, once daily Nov. 28 to Dec. 30, occasionally thereafter. Some small diversions for irrigation above station; no regulation.

Discharge, in second-feet, water year October 1944 to September 1945

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	56	75	550	-		594		-	494			-
2	35	173	481	-				-	452			-
3	27	221	413	-				-	414			-
4	28	536	392	-				-	397			38
5	42	341	390	-				-	370			420
6	50	317	385	-				-	368			134
7	40	418	395	-				-	346			79
8	32	353	382	-				-	314			-
9	27	353	366	-				-	295			-
10	26	309	335	992				-	-			42
11	26	244	319	-				-	264			36
12	21	204	280	-				-	249			32
13	25	180	259	-				-	242			31
14	29	160	237	-				-	-			28
15	26	139	212	-				-	233			-
16	23	131	198	1,840				-	-			-
17	22	120	187	-				-	-			-
18	18	115	180	-			940	-	178			34
19	17	106	176	-				-	161			34
20	15	102	184	-				-	145			37
21	18	96	187	-				-	-			120
22	18	92	190	-				-	134			135
23	18	94	308	906				-	-			-
24	18	250	319	794				-	-	59		-
25	19	272	305	-				-	-			-
26	20	408	248	-				-	-			-
27	19	621	202	-				-	104			-
28	16	455	180	-				739	-			-
29	18	387	244	-				655	-			-
30	19	347	337	-				577	-			-
31	23	-	a380	-				542	-			-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff Inches	Runoff Acre-feet
October	791	56	15	25.5	0.123	0.14	1,570
November	7,619	621	75	254	1.23	1.37	15,110
December	9,221	550	176	297	1.43	1.66	18,290
Calendar year 1944	123,472	1,580	9	337	1.63	22.19	244,900
January							
February							
March							
April							
May							
June							
July							
August							
September							
Water year							

a No gage-height record; discharge computed on basis of records for station at Aurora.
Time basis: Pacific war time up to 2 a.m., Sept. 30, 1945; Pacific standard time thereafter. To convert war time to standard time, subtract 1 hour.

Pudding River at Aurora, Oreg.

Location.- Wire-weight gage, lat. 45°14', long. 122°45', in SE¼ sec. 12, T. 4 S., R. 1 W., at highway bridge at Aurora, half a mile upstream from Mill Creek. Datum of gage is 76.79 feet above mean sea level, datum of 1929.

Drainage area.- 493 square miles.

Records available.- October 1928 to September 1945.

Average discharge.- 17 years, 1,055 second-feet.

Extremes.- Maximum discharge observed during year, 4,500 second-feet Mar. 23 (gage height, 14.69 feet); minimum observed, 54 second-feet Aug. 23, 24 (gage height, 0.25 foot).
1928-45: Maximum discharge, 13,800 second-feet Dec. 30, 1937 (gage height, 24.5 feet, from graph based on gage readings), from rating curve extended above 9,000 second-feet; minimum, 37 second-feet Sept. 9, 12, 1935.
Maximum stage known, 25.0 feet Jan. 9, 1923 (discharge, 14,500 second-feet, from subsequent rating curve extended above 9,000 second-feet).

Remarks.- Records good except those for periods of no gage-height record, which are fair. Gage read twice daily Oct. 1 to June 30, once daily thereafter. Small diversions above station; slight regulation at times in summer by mills on tributaries.

Rating tables, water year 1944-45 (gage height, in feet, and discharge, in second-feet)

Oct. 1 to Feb. 9						Feb. 10 to Sept. 30					
0.5	63	3.0	482	10.0	2,480	0.3	58	2.4	376	8.0	1,870
.8	93	4.0	710	12.0	3,230	.6	89	3.2	542	10.0	2,540
1.2	150	5.0	960	14.0	4,130	.9	124	4.0	726	12.0	3,300
1.6	215	6.5	1,380			1.3	179	5.0	975	15.0	4,650
2.2	322	8.0	1,830			1.8	261	6.5	1,420		

Discharge, in second-feet, water year October 1944 to September 1945

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	75	82	601	461	635	1,080	1,780	1,210	940	179	87	64
2	88	144	745	461	965	1,000	1,650	1,150	845	170	82	61
3	90	254	672	501	1,140	950	1,480	1,090	765	163	79	60
4	77	534	597	486	1,340	985	1,330	1,020	704	151	76	79
5	74	742	578	482	1,490	995	1,250	920	660	146	76	100
6	86	574	592	662	2,110	955	1,510	815	618	140	76	a600
7	102	507	562	1,300	2,330	905	1,770	740	595	a130	74	a300
8	96	576	629	2,040	3,380	865	2,940	676	560	a120	73	a200
9	80	532	640	2,050	4,200	885	3,850	627	516	a114	72	a160
10	76	499	567	1,760	4,150	1,110	3,650	600	484	a110	74	127
11	69	463	512	1,500	3,880	2,140	3,310	637	461	107	69	118
12	67	384	461	1,320	3,810	2,360	3,240	721	432	105	70	101
13	69	337	418	1,450	3,770	2,910	3,060	1,130	408	104	71	93
14	68	283	384	1,900	4,160	3,170	2,720	1,670	396	100	73	90
15	70	249	352	2,270	4,070	3,600	2,320	2,090	396	99	74	89
16	72	222	326	2,670	3,790	3,660	1,990	2,820	372	96	72	86
17	70	205	307	2,850	3,440	3,530	1,770	3,600	336	100	71	87
18	66	192	289	2,970	3,260	a3,100	1,610	4,060	311	99	67	94
19	64	179	276	3,020	3,000	a2,700	1,490	3,880	290	97	65	92
20	63	169	278	2,820	2,520	3,390	1,430	3,340	268	96	61	97
21	61	158	296	2,460	2,100	4,100	1,400	2,710	247	96	60	108
22	60	153	326	2,050	1,780	4,480	1,360	2,180	234	104	57	167
23	60	155	333	1,700	1,560	4,480	1,250	1,850	228	120	54	202
24	61	174	356	1,420	1,400	4,360	1,270	1,620	220	157	54	210
25	59	265	335	1,210	1,250	3,950	1,400	1,400	213	130	57	180
26	60	337	307	1,080	1,130	3,840	1,310	1,210	200	114	62	160
27	60	710	285	960	1,070	3,440	1,120	1,200	188	102	80	150
28	60	810	280	915	1,130	2,910	1,000	1,610	185	94	102	144
29	67	780	314	790	-	2,480	1,020	1,470	185	91	101	133
30	63	525	412	730	-	2,140	1,100	1,230	182	87	81	124
31	66	-	482	720	-	1,870	-	1,050	-	88	70	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff	
						Inches	Acre-feet
October	2,199	102	59	70.9	0.144	0.17	4,360
November	11,196	810	82	373	.757	.84	22,210
December	13,512	745	276	436	.884	1.02	26,800
Calendar year 1944	210,463	3,010	40	575	1.17	15.88	417,400
January	47,018	3,020	461	1,517	3.08	3.55	93,260
February	69,060	4,200	835	2,466	5.00	5.21	137,000
March	78,340	4,480	865	2,527	5.13	5.91	155,400
April	56,380	3,850	1,000	1,879	3.81	4.25	111,800
May	50,326	4,060	600	1,623	3.29	3.80	99,820
June	12,439	940	182	415	.842	.94	24,670
July	3,607	179	86	116	.235	.27	7,150
August	2,240	102	54	72.3	.147	.17	4,440
September	4,276	600	60	143	.290	.32	8,480
Water year 1944-45	350,593	4,480	54	961	1.95	26.45	695,400

a No gage-height record; discharge computed on basis of records for Pudding River near Mount Angel and Molalla River near Canby.
Time basis: Pacific war time up to 2 a.m., Sept. 30, 1945; Pacific standard time thereafter. To convert war time to standard time, subtract 1 hour.

Butte Creek at Monitor, Oreg.

Location.- Staff gage, lat. 45°06', long. 122°45', in SE¼SE¼ sec. 25, T. 5 S., R. 1 W., at highway bridge in Monitor, 5 miles upstream from mouth.

Drainage area.- 64 square miles.

Records available.- October 1940 to September 1945 in reports of Geological Survey. January to December 1936 in files of State engineer.

Extremes.- Maximum discharge observed during year, 1,850 second-feet Feb. 8 (gage height, 7.84 feet); minimum observed, 5 second-feet Aug. 20-24.
1936, 1940-45: Maximum discharge observed, 4,410 second-feet Nov. 28, 1942 (gage height, 12.70 feet); minimum observed, 5 second-feet Sept. 7-12, 1944, Aug. 20-24, 1945.

Remarks.- Records fair. Gage read twice daily Oct. 1 to Mar. 31, once daily thereafter. Small diversions above station for irrigation. Some diurnal fluctuation caused by mills at Scotts Mills.

Rating tables, water year 1944-45 (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used July 16-23, July 31 to Aug. 9, Aug. 11-22)

Oct. 1 to Apr. 11

1.8	7.8	2.6	79	4.4	611
1.9	12	2.9	136	5.2	885
2.0	19	3.2	217	6.0	1,160
2.2	34	3.5	310	7.2	1,590
2.4	53	3.9	441		

Apr. 12 to Sept. 30

1.7	5	2.2	40	3.3	247
1.8	10	2.4	61	3.7	369
1.9	16	2.7	99	4.3	557
2.0	23	3.0	162		

Discharge, in second-feet, water year October 1944 to September 1945

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	16	38	164	68	129	132	297	289	128	35	11	8
2	16	68	136	73	151	127	247	265	118	33	11	8
3	14	138	132	73	241	138	232	259	107	31	10	8
4	16	275	114	81	244	132	217	217	99	28	10	26
5	28	141	106	144	352	127	211	188	93	25	10	50
6	29	146	108	247	489	123	316	162	85	25	9	65
7	20	146	136	455	878	132	358	148	82	23	9	52
8	18	110	123	395	1,580	132	1,060	141	78	22	8	32
9	16	125	106	266	801	118	703	135	76	20	8	29
10	14	99	93	229	567	808	536	139	75	20	8	26
11	12	82	82	191	557	516	652	217	70	19	8	23
12	12	71	75	208	472	506	551	338	65	19	8	19
13	16	60	68	320	1,170	557	462	425	65	16	8	17
14	15	52	61	392	761	618	400	493	66	15	8	17
15	14	49	58	502	523	557	360	592	61	16	8	16
16	14	45	55	523	421	492	326	1,020	57	15	7	20
17	12	41	52	516	428	543	283	1,030	52	15	6	19
18	12	38	49	546	382	516	259	783	48	14	6	16
19	12	36	49	441	304	563	262	512	45	14	6	15
20	11	32	51	349	253	1,240	301	400	43	12	5	19
21	11	31	57	278	214	944	344	332	40	12	5	43
22	10	29	55	229	188	829	338	295	40	29	5	44
23	11	38	55	194	172	716	332	253	38	23	5	43
24	11	75	50	180	158	611	329	205	37	17	5	42
25	10	59	47	172	144	526	271	180	36	17	7	38
26	10	151	45	132	136	448	226	162	34	16	26	33
27	9	183	45	121	146	388	183	217	34	14	23	31
28	9	129	55	110	136	375	188	226	35	12	16	26
29	9	106	71	101	-	336	214	220	35	12	12	23
30	11	123	73	99	-	304	307	157	34	11	10	20
31	16	-	65	114	-	284	-	144	-	11	9	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff Inches	Runoff Acre-feet
October	434	29	9	14.0	0.219	0.25	861
November	2,716	275	29	90.5	1.41	1.58	5,390
December	2,436	164	45	78.6	1.23	1.42	4,830
Calendar year 1944	39,754	591	5	109	1.70	23.10	78,860
January	7,749	546	68	250	3.91	4.50	15,370
February	11,997	1,580	129	428	6.69	6.97	23,800
March	13,838	1,240	118	446	6.97	8.04	27,450
April	10,765	1,060	183	359	5.61	6.26	21,350
May	10,144	1,030	135	327	5.11	5.89	20,120
June	1,876	128	34	62.5	.977	1.09	3,720
July	591	35	11	19.1	.298	.34	1,170
August	287	26	5	9.26	.145	.17	569
September	828	65	8	27.6	.431	.48	1,640
Water year 1944-45	63,661	1,580	5	174	2.72	37.00	126,300

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

Tualatin River at Gaston, Oreg.

Location.- Staff gage, lat. 45°26'10", long. 123°10'05", in W½ sec. 34, T. 1 S., R. 4 W., 1.5 miles west of Gaston.

Drainage area.- 51 square miles (revised) at measuring section at Gaston.

Records available.- October 1940 to September 1945.

Extremes.- Maximum discharge during year, 2,540 second-feet Feb. 7 (gage height, 10.2 feet, from floodmark); minimum observed, 13 second-feet Oct. 27, 28, Aug. 30.
1940-45: Maximum discharge, 3,540 second-feet Dec. 19, 1941 (gage height, 13.88 feet, site and datum then in use), from rating curve extended above 2,500 second-feet; minimum observed, 11 second-feet Sept. 6, 8-13, 1944.

Remarks.- Records good. Staff gage read twice daily. Slight diurnal fluctuation caused by log ponds upstream. Small diversions above station for irrigation.

Rating tables, water year 1944-45 (gage height, in feet, and discharge, in second-feet)

Oct. 1 to Jan. 7				Jan. 8 to Sept. 30			
0.3	11	1.8	114	0.3	14	2.4	213
.5	17	2.2	172	.5	21	3.0	321
.7	25	2.7	256	.8	36	4.0	501
.9	36	3.3	364	1.1	56	5.0	690
1.2	57	4.0	497	1.5	90	7.0	1,100
1.5	82	5.0	697	1.9	137	9.0	1,790

Discharge, in second-feet, water year October 1944 to September 1945

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	22	105	225	140	165	166	267	109	84	35	20	14
2	19	84	166	146	208	157	242	104	83	33	20	14
3	17	175	129	132	258	171	218	99	81	32	20	15
4	19	137	153	125	346	159	199	96	77	32	19	220
5	27	99	172	162	586	154	235	93	76	30	19	107
6	31	80	159	234	440	154	254	87	73	30	18	48
7	26	110	151	667	1,390	147	274	85	71	28	19	35
8	19	126	130	544	1,670	183	348	81	69	25	19	29
9	17	183	120	330	960	249	310	79	66	26	19	25
10	16	124	104	267	548	805	296	86	65	25	17	23
11	16	99	93	249	433	433	379	115	63	24	17	21
12	15	77	84	326	461	359	350	141	60	25	17	21
13	17	65	76	604	900	388	303	198	59	24	17	19
14	16	57	72	487	525	492	280	227	58	24	16	19
15	16	51	68	483	393	456	267	199	56	25	16	18
16	15	48	64	572	343	576	263	174	53	25	16	19
17	15	43	62	496	368	720	251	164	50	25	16	17
18	14	41	59	595	323	652	213	155	49	25	15	17
19	14	38	62	434	289	810	213	138	47	24	15	18
20	14	36	73	353	263	1,730	204	127	44	22	15	22
21	14	35	73	292	240	1,030	196	118	44	25	14	30
22	14	35	68	253	231	742	177	109	42	25	14	29
23	14	45	67	229	218	565	171	213	40	24	15	26
24	14	90	63	208	208	492	165	147	39	23	14	21
25	14	75	60	183	193	451	151	140	38	22	15	21
26	14	154	57	170	186	400	143	124	38	22	16	20
27	13	191	57	154	190	361	137	116	40	22	16	19
28	14	134	140	145	174	339	128	109	38	19	15	18
29	14	102	126	136	-	321	123	102	39	21	15	17
30	21	242	112	129	-	296	123	94	36	23	14	17
31	42	-	103	154	-	289	-	88	-	22	14	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff	
						Inches	Acre-feet
October	553	42	13	17.8	0.349	0.40	1,100
November	2,881	242	35	96.0	1.88	2.10	5,710
December	3,148	225	57	102	2.00	2.30	6,240
Calendar year 1944	37,046	779	11	101	1.98	27.02	73,470
January	9,399	667	125	303	5.94	6.85	18,640
February	12,407	1,670	165	443	8.69	9.05	24,610
March	14,247	1,730	147	460	9.02	10.39	28,260
April	6,860	379	123	229	4.49	5.00	13,610
May	3,917	227	79	126	2.47	2.86	7,770
June	1,678	84	36	55.9	1.10	1.22	3,330
July	787	35	19	25.4	.498	.57	1,560
August	512	20	14	16.5	.324	.37	1,020
September	959	220	14	31.3	.614	.68	1,860
Water year 1944-45	57,328	1,730	13	157	3.08	41.79	113,700

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

Tualatin River near Dilley, Oreg.

Location.- Wire-weight gage, lat. 45°28'25", long. 123°07'20", in NW¼ sec. 24, T. 1 S., R. 4 W., at county road bridge three-quarters of a mile downstream from Scoggin Creek and 1½ miles south of Dilley. Datum of gage is 151.10 feet above mean sea level, datum of 1929.

Drainage area.- 133 square miles.

Records available.- October 1940 to September 1945.

Extremes.- Maximum discharge during year, 4,780 second-feet Feb. 8 (gage height, 12.71 feet, from floodmark); minimum observed, 13 second-feet Oct. 22, 23.
1940-45: Maximum discharge, 5,360 second-feet Dec. 19, 1941 (gage height, 12.90 feet, from floodmark); minimum observed, 4 second-feet Aug. 21, 1941.

Remarks.- Records fair. Gage read once daily. Diversions above station for irrigation, chiefly in Wapato Lake area. Diurnal fluctuation caused by dam below Gaston.

Discharge, in second-feet, water year October 1944 to September 1945

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	44	103	378	212	342	335	528	201	162	54	26	15
2	29	160	280	268	404	315	474	192	154	49	24	17
3	25	131	215	244	435	331	434	183	138	46	21	15
4	25	237	220	219	565	325	394	172	137	44	23	111
5	16	171	a250	247	797	300	418	164	137	44	23	340
6	39	126	a230	327	950	292	425	162	132	41	20	98
7	21	152	a220	679	1,540	277	451	152	127	41	18	59
8	21	166	a200	1,270	4,040	330	677	142	123	30	17	42
9	20	275	a180	709	2,300	381	665	135	119	28	19	36
10	19	212	a160	549	1,540	1,150	608	150	115	27	16	31
11	19	159	140	493	1,170	1,210	637	195	111	27	16	30
12	19	103	a130	495	1,030	908	672	189	107	26	16	28
13	17	99	a115	711	1,460	845	604	282	103	26	18	26
14	20	89	a105	905	1,330	1,020	539	381	100	24	20	21
15	18	76	a100	914	982	1,210	494	349	91	30	20	21
16	19	69	a97	1,070	835	1,370	468	326	87	31	17	22
17	18	62	a95	998	823	1,670	431	289	82	32	16	22
18	21	59	a90	1,020	809	1,710	398	275	75	32	14	24
19	18	54	92	950	721	1,670	376	257	75	32	20	24
20	16	51	108	788	639	3,030	360	233	72	30	17	22
21	14	51	116	675	566	2,750	340	221	71	31	16	36
22	13	49	93	572	523	1,800	317	280	68	39	16	46
23	13	40	108	490	491	1,460	298	315	66	33	15	35
24	17	124	92	427	454	1,150	288	288	58	33	19	30
25	19	108	87	377	417	986	271	261	55	28	22	28
26	18	142	87	343	389	890	253	242	54	24	22	28
27	17	287	83	314	391	797	238	234	57	24	22	26
28	16	207	156	289	363	726	219	222	55	21	15	24
29	17	155	212	270	-	668	212	199	60	21	17	25
30	20	270	204	255	-	598	212	186	59	26	15	24
31	64	-	180	276	-	552	-	177	-	26	14	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff	
						Inches	Acre-feet
October	672	64	13	21.7	0.163	0.19	1,330
November	3,987	287	40	133	1.00	1.11	7,910
December	4,823	378	83	156	1.17	1.35	9,570
Calendar year 1944	67,376	1,020	10	184	1.38	18.84	133,600
January	17,356	1,270	212	560	4.21	4.85	34,430
February	26,306	4,040	342	940	7.07	7.36	52,180
March	31,056	3,030	277	1,002	7.53	8.68	61,600
April	12,701	677	212	423	3.18	3.55	25,190
May	7,054	381	135	228	1.71	1.97	13,990
June	2,850	162	54	95.0	.714	.80	5,650
July	1,000	54	21	32.2	.243	.28	1,980
August	574	26	14	18.5	.139	.16	1,140
September	1,306	340	15	43.5	.327	.37	2,590
Water year 1944-45	109,685	4,040	13	301	2.26	30.67	217,600

a No gage-height record; discharge computed on basis of records for stations at Gaston and near Farmington.

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

Tualatin River at Farmington, Oreg.

Location.- Staff gage, lat. 45°27'00", long. 122°57'00", in SE¼ sec. 29, T. 1 S., R. 2 W., at highway bridge at Farmington, 7½ miles southwest of Beaverton. Auxiliary staff gage at highway bridge 6½ miles downstream, 1 mile northeast of Scholls. Datum of each gage is 100.42 feet above mean sea level, datum of 1929. All discharge measurements made at Farmington.

Drainage area.- 568 square miles.

Records available.- October 1939 to September 1945.

Extremes.- Maximum discharge observed during year, 8,130 second-feet Mar. 22 (gage height, 30.09 feet); maximum gage height observed, 30.30 feet Mar. 23; minimum discharge observed, 40 second-feet Oct. 24.

1939-45: Maximum discharge observed, 14,500 second-feet Dec. 20, 1941 (gage height, 33.30 feet); maximum gage height observed, 33.45 feet Dec. 21, 1941; minimum discharge observed, 28 second-feet Sept. 13, 14, 1944.

Maximum stage known, about 37 feet at Farmington, Dec. 22 or 23, 1933.

Remarks.- Records good. Gages read twice daily. For gage heights above 8 feet, discharge computed by using fall as determined by twice-daily readings of auxiliary gage as a factor. Stage-discharge relation affected at times by backwater from flashboards on low dam 30 miles downstream. Slight regulation by log ponds and dam below Gaston have little effect at this station; considerable pondage between this station and the station near Willamette. Some diversions by pumping for irrigation above station, chiefly at Wapato Lake, near Gaston.

Discharge, in second-feet, water year October 1944 to September 1945

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	109	124	492	460	933	1,240	2,590	679	495	163	69	50
2	110	213	671	514	1,130	1,130	2,230	631	458	157	70	48
3	86	317	560	570	1,210	1,070	1,910	588	430	137	62	48
4	66	361	496	548	1,360	1,110	1,610	543	404	126	55	91
5	68	463	494	508	1,700	1,120	1,410	513	386	122	61	267
6	66	507	519	548	2,140	1,060	1,400	491	360	121	62	470
7	78	295	494	779	2,430	1,000	1,450	467	365	114	56	275
8	76	280	479	1,150	3,320	961	1,780	449	350	107	54	167
9	64	304	437	1,460	4,770	1,020	2,110	422	334	96	50	131
10	60	363	383	1,540	6,450	1,360	2,090	416	321	87	48	107
11	55	361	356	1,480	6,530	2,130	2,070	442	302	84	51	92
12	52	254	317	1,290	6,260	2,430	2,080	510	292	81	54	90
13	57	245	281	1,280	5,750	2,750	2,080	631	279	80	64	84
14	57	221	257	1,700	5,220	3,130	1,990	780	278	80	71	80
15	56	187	233	1,980	4,790	3,320	1,870	900	269	80	67	73
16	56	166	209	2,250	4,540	3,490	1,750	897	263	83	55	73
17	56	154	203	2,500	4,250	3,780	1,620	904	249	87	55	73
18	55	148	188	2,650	3,940	4,140	1,430	880	232	89	55	73
19	56	142	194	2,710	3,640	4,590	1,310	832	219	91	52	73
20	55	132	195	2,680	3,330	5,100	1,210	771	206	91	56	77
21	50	126	214	2,630	2,900	6,230	1,130	668	201	86	58	87
22	48	128	231	2,410	2,550	7,950	1,040	631	192	86	56	113
23	46	132	229	2,100	2,270	7,920	972	620	190	93	52	141
24	42	131	222	1,780	2,030	7,270	934	810	185	102	47	121
25	48	198	207	1,450	1,740	6,440	906	654	176	100	53	103
26	54	257	196	1,190	1,490	5,770	838	790	167	89	59	91
27	59	330	185	1,040	1,350	5,520	770	742	161	81	69	90
28	85	500	198	960	1,350	4,780	714	711	161	86	71	86
29	58	436	350	892	-	4,030	669	669	162	63	72	82
30	62	376	454	813	-	3,560	678	589	163	62	61	78
31	72	-	496	764	-	3,070	-	543	-	64	55	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff: Inches	Runoff: Acre-feet
October	1,964	110	42	63.4	0.112	0.13	3,900
November	7,873	507	124	262	.461	.52	15,620
December	10,440	671	185	337	.593	.68	20,710
Calendar year 1944	209,444	3,440	28	572	1.01	13.71	415,500
January	44,626	2,710	460	1,440	2.54	2.92	88,510
February	89,393	6,530	933	3,193	5.62	5.85	177,300
March	108,471	7,950	961	3,499	6.16	7.10	215,100
April	44,661	2,590	678	1,489	2.62	2.92	88,580
May	20,373	904	416	657	1.16	1.33	40,410
June	8,270	495	161	276	.486	.54	16,400
July	2,990	163	62	96.5	.170	.20	5,930
August	1,822	72	47	58.8	.104	.12	3,610
September	3,434	470	46	114	.201	.22	6,810
Water year 1944-45	344,317	7,950	42	943	1.66	22.53	682,900

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

Tualatin River near Willamette, Oreg.

Location.- Water-stage recorder, lat. 45°21'05", long. 122°40'35", in SW¼ sec. 34, T. 2 S., R. 1 E., 300 feet upstream from county bridge and 1 mile northwest of Willamette. Datum of gage is 85.61 feet above mean sea level, datum of 1929 (levels by Corps of Engineers, U. S. Army).
Drainage area.- 710 square miles.
Records available.- July 1928 to September 1945.
Average discharge.- 17 years, 1,308 second-feet (including flow of Oswego Canal).
Extremes (river only).- Maximum discharge during year, 7,220 second-feet Mar. 24, 25 (gage height, 10.40 feet); minimum, 10 second-feet Aug. 22-25, 27 (gage height, 1.48 feet).
1928-45: Maximum discharge, 23,300 second-feet Dec. 23, 1933 (gage height, 17.72 feet, present datum); minimum observed, 2 second-feet Aug. 14-21, 1928 (gage height, 1.27 feet, present datum).
Remarks.- Records excellent. Oswego Canal (p. 164) diverts water 4⅝ miles above station for recreational use in Oswego Lake and for development of power between outlet of that lake and Willamette River, to which water is returned. Several small diversions above station for irrigation. Some regulation during low-water season by flashboards on crest of diversion dam of Oswego Canal.

Rating table, water year 1944-45 (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Oct. 1 to Feb.7)

1.5	11	2.7	194	5.8	1,e60
1.6	17	3.0	280	6.6	2,520
1.8	34	3.4	422	7.6	3,470
2.0	58	3.8	600	9.0	5,110
2.2	88	4.3	860	10.4	7,220
2.4	125	5.0	1,290		

Discharge, in second-feet, water year October 1944 to September 1945

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	34	110	406	528	800	1,450	3,230	740	620	119	28	13
2	69	179	560	519	939	1,340	2,620	720	578	121	25	12
3	61	332	600	578	1,150	1,250	2,430	675	528	108	24	13
4	45	410	542	600	1,300	1,210	2,030	625	465	97	23	19
5	41	474	524	582	1,700	1,210	1,760	591	465	86	23	45
6	35	474	546	591	2,230	1,170	1,640	564	448	82	19	290
7	32	382	568	710	2,920	1,110	1,670	537	435	82	17	309
8	37	315	591	1,000	4,460	1,080	2,140	501	414	72	16	184
9	37	322	546	1,370	4,590	1,100	2,480	478	394	64	16	116
10	31	353	478	1,560	5,110	1,420	2,580	465	371	49	15	78
11	24	394	422	1,570	5,680	2,040	2,570	474	364	43	15	57
12	19	364	378	1,480	5,960	2,730	2,500	542	280	35	13	48
13	19	309	346	1,420	6,120	3,250	2,440	640	176	32	13	41
14	19	256	343	1,610	5,900	3,980	2,340	805	210	32	13	37
15	19	186	319	2,100	5,540	4,360	2,230	957	247	29	15	36
16	23	162	262	2,580	5,150	4,320	2,050	1,110	241	28	16	32
17	23	151	238	2,780	4,900	4,430	1,860	1,140	227	30	16	30
18	23	162	227	2,940	4,660	4,540	1,680	1,090	213	30	15	28
19	23	167	221	2,940	4,260	4,760	1,540	1,020	194	32	13	27
20	21	160	224	2,920	3,920	5,180	1,420	939	184	33	12	44
21	19	153	233	2,840	3,560	5,510	1,300	844	174	36	11	59
22	19	146	247	2,700	3,220	6,180	1,200	783	162	38	10	68
23	19	155	256	2,490	2,870	6,960	1,130	805	158	42	10	85
24	16	164	253	2,170	2,540	7,190	1,080	882	153	46	10	88
25	15	186	247	1,780	2,170	7,170	1,040	1,000	142	54	10	77
26	16	271	236	1,430	1,860	6,720	969	969	129	45	11	65
27	18	322	221	1,190	1,660	6,150	893	915	125	38	10	52
28	22	448	230	1,020	1,530	5,570	832	876	119	33	11	44
29	23	470	280	910	-	4,930	788	822	117	30	12	41
30	25	390	426	822	-	4,300	766	745	117	28	13	37
31	35	-	524	778	-	3,680	-	675	-	27	13	-

Month	Observed				Diversion by Oswego Canal (acre-feet)	Adjusted for diversion			
	Discharge in second-feet			Runoff in acre-feet		Runoff in acre-feet	Discharge in second-feet		Runoff in inches
	Maximum	Minimum	Mean				Mean	Per square mile	
October	69	15	27.8	1,710	4,130	5,840	95.0	0.134	0.15
November	474	110	279	16,600	644	17,240	290	.408	.46
December	600	221	371	22,800	3,110	25,910	422	.594	.68
Calendar year 1944	3,230	6	613	444,800	46,390	491,200	677	.954	12.98
January	2,940	519	1,565	96,210	5,850	102,100	1,660	2.34	2.70
February	6,120	800	3,453	191,800	7,970	199,800	3,597	5.07	5.28
March	7,190	1,080	3,755	230,900	9,040	239,900	3,902	5.50	6.34
April	3,230	766	1,780	105,900	4,550	110,400	1,856	2.61	2.91
May	1,140	465	772	47,460	2,910	50,370	819	1.15	1.33
June	620	117	282	16,760	3,870	20,630	347	.489	.55
July	121	27	52.3	3,220	4,620	7,840	128	.180	.21
August	28	10	15.1	928	3,870	4,800	78.0	.110	.13
September	309	12	69.2	4,120	4,410	8,530	143	.201	.22
Water year 1944-45	7,190	10	1,020	738,400	54,970	793,400	1,096	1.54	20.96

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

Scoggin Creek near Gaston, Oreg.

Location.- Water-stage recorder, lat. 45°27', long. 123°09', in NW¼ sec. 26, T. 1 S., R. 4 W., 500 feet upstream from highway bridge, 1½ miles upstream from mouth, and 1.7 miles northwest of Gaston. Datum of gage is 168.44 feet above mean sea level, datum of 1929.

Drainage area.- 44.0 square miles.

Records available.- October 1940 to September 1945.

Extremes.- Maximum discharge during year, 1,600 second-feet Feb. 7 (gage height, 14.45 feet); minimum, 3.0 second-feet Oct. 4.
1940-45: Maximum discharge, 1,610 second-feet Jan. 18, 1941 (gage height, 14.31 feet); minimum, 1.2 second-feet Oct. 7, 8, 1943.

Remarks.- Records good. Small diversions by pumping above station for irrigation. Water supply for Hillsboro is diverted from Sein Creek above station; some diurnal fluctuation caused by log ponds above station.

Rating tables, water year 1944-45 (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Oct. 6 to Nov. 3, July 11-19)

Oct. 1 to Feb. 6						Feb. 7 to Sept. 30					
2.0	3.6	2.9	48	4.8	272	2.1	5.0	3.1	71	5.4	322
2.1	4.9	3.1	67	5.4	326	2.3	9.4	3.4	105	6.4	402
2.3	9.7	3.4	97	6.4	420	2.5	18	3.8	162	7.6	549
2.5	19	3.8	157			2.7	31	4.3	231	9.6	830
2.7	31	4.3	227			2.9	50	4.8	278	12.0	1,200

Discharge, in second-feet, water year October 1944 to September 1945

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	11	36	107	78	107	103	182	73	58	20	10	5.2
2	8.2	30	82	76	134	97	162	72	58	18	8.3	4.6
3	6.0	61	72	72	161	100	148	69	56	18	9.4	4.9
4	4.4	56	77	68	188	100	135	68	55	18	9.4	72
5	7.4	42	77	78	376	93	148	63	52	e17	8.6	56
6	10	33	69	93	326	91	146	60	48	e14	7.8	23
7	7.1	39	67	317	932	89	172	59	47	e11	7.2	16
8	4.0	42	60	300	1,260	108	272	56	46	e10	5.8	13
9	4.1	64	56	207	627	152	247	55	44	e12	7.2	12
10	4.6	50	51	164	408	605	225	59	43	e10	5.7	12
11	4.8	43	48	136	338	361	245	68	43	8.6	6.0	11
12	4.8	36	44	196	341	302	233	84	41	8.6	5.8	11
13	5.5	30	41	338	485	270	211	114	40	8.9	6.7	9.1
14	4.5	26	37	326	352	349	192	134	37	9.1	8.3	6.7
15	4.5	22	37	348	298	363	172	117	33	12	7.5	6.7
16	5.1	21	34	405	262	406	156	112	31	14	5.3	8.3
17	4.8	19	31	345	280	606	144	103	30	14	5.3	9.1
18	5.7	19	30	352	257	570	134	97	29	13	5.5	11
19	5.3	19	31	303	227	667	124	88	28	12	5.7	9.1
20	5.1	17	36	250	202	1,360	119	82	27	11	5.7	10
21	4.8	15	37	210	180	872	112	78	25	13	5.5	20
22	3.3	14	36	173	165	601	104	73	25	16	5.5	18
23	4.2	15	35	144	153	430	98	110	22	14	5.5	13
24	6.0	36	33	122	141	348	93	97	19	12	5.5	11
25	5.7	32	32	110	128	343	90	90	18	11	6.0	11
26	5.7	63	30	102	122	309	85	83	18	7.2	6.7	10
27	4.1	73	28	94	119	279	83	80	20	6.5	5.5	9.4
28	3.9	57	66	88	109	256	80	78	20	6.2	5.3	9.1
29	3.9	51	74	83	-	230	78	71	23	6.7	5.3	9.1
30	6.8	102	67	80	-	209	76	68	22	11	5.2	8.6
31	22	-	61	93	-	195	-	32	-	11	5.2	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff Inches	Runoff Acre-feet
October	187.3	22	3.3	6.04	0.137	0.16	372
November	1,166	102	14	38.9	.884	.99	2,310
December	1,586	107	28	51.2	1.16	1.34	3,150
Calendar year 1944	22,160.6	486	1.5	60.5	1.38	18.72	43,950
January	5,751	405	68	186	4.23	4.86	11,410
February	8,678	1,260	107	310	7.05	7.33	17,210
March	10,864	1,360	89	350	7.95	9.18	21,550
April	4,466	272	76	149	3.39	3.77	8,860
May	2,523	134	55	81.4	1.85	2.13	5,000
June	1,058	58	18	35.3	.802	.89	2,100
July	373.8	20	6.2	12.1	.275	.32	741
August	202.4	10	5.2	6.53	.148	.17	401
September	429.9	72	4.6	14.3	.325	.36	853
Water year 1944-45	37,285.4	1,360	3.3	102	2.32	31.50	73,960

Peak discharge.- Feb. 7 (10 to 11 p.m.) 1,600 sec.-ft.; Mar. 20 (10 a.m.) 1,510 sec.-ft.
e Stage-discharge relation indefinite; discharge computed on basis of records for Scoggin Creek at Gaston and Gales Creek near Forest Grove.
Time basis: Pacific war time up to 2 a.m., Sept. 30, 1945; Pacific standard time thereafter. To convert war time to standard time, subtract 1 hour.

Gales Creek near Gales Creek, Oreg.

Location.- Staff gage, lat. 45°39', long. 123°16', in SE¼ sec. 23, T. 2 N., R. 5 W., half a mile downstream from Beaver Creek and 4½ miles northwest of Gales Creek post office. Datum of gage is 448.88 feet above mean sea level, unadjusted.

Drainage area.- 33 square miles.

Records available.- September 1935 to September 1945 (discontinued).

Average discharge.- 10 years, 107 second-feet.

Extremes.- Maximum discharge during year, 2,780 second-feet Feb. 7 (gage height, 7.1 feet, from floodmark); minimum observed, 5.6 second-feet (regulated) July 16 (gage height, 1.18 feet); minimum daily, 6.5 second-feet Oct. 20.
1935-45: Maximum discharge, 3,540 second-feet Dec. 27, 1937 (gage height, 8.10 feet, from floodmark); minimum observed, 3.1 second-feet (regulated) Sept. 24, 1944.

Remarks.- Records good. Gage read once daily, twice daily at high stages. No diversion above station; diurnal fluctuation at times caused by log pond 3 miles above station.

Rating tables, water year 1944-45 (gage height, in feet, and discharge, in second-feet)

Oct. 1 to Feb. 7						Feb. 8 to Sept. 30			
1.1	5.0	2.0	70	3.4	425	1.3	9	2.7	195
1.2	7.5	2.2	102	3.8	605	1.5	18	3.0	285
1.4	15	2.5	162	4.4	945	1.7	33	3.4	430
1.6	26	2.8	235	5.0	1,330	1.9	53	3.8	605
1.8	44	3.1	320	5.6	1,720	2.1	80	4.4	945
						2.4	129	5.0	1,330

Discharge, in second-feet, water year October 1944 to September 1945

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	8.2	41	85	82	80	108	156	76	57	24	13	8.7
2	7.5	20	67	74	79	106	143	70	56	20	12	8.4
3	9.6	69	62	70	151	115	131	66	56	22	e16	9.8
4	9.2	48	59	63	167	122	125	65	53	22	12	200
5	13	33	55	80	257	116	149	62	51	19	11	62
6	10	27	57	102	252	113	178	58	50	26	12	38
7	8.9	34	60	248	1,590	108	195	57	49	18	11	38
8	7.8	49	56	222	1,370	135	231	56	45	18	12	25
9	7.5	54	54	171	625	188	246	58	45	17	12	22
10	7.0	39	49	153	450	721	252	69	43	17	11	19
11	7.0	30	44	120	348	450	288	77	42	16	11	16
12	7.5	29	40	200	334	338	278	111	41	18	11	16
13	7.5	29	39	311	344	272	259	118	40	16	12	16
14	7.5	21	35	284	296	410	222	133	39	16	11	15
15	7.5	20	a34	308	259	414	208	125	38	15	a10	15
16	a7.4	18	34	296	222	398	193	111	37	e13	11	16
17	7.2	17	31	284	219	590	176	108	37	15	11	15
18	7.0	16	27	332	203	537	158	97	33	16	10	14
19	7.2	16	31	290	183	765	145	90	32	14	9.0	14
20	6.5	15	31	240	171	1,320	129	83	32	13	9.8	21
21	7.0	15	29	200	158	732	122	80	31	17	8.1	30
22	6.8	14	29	a170	145	546	115	80	30	17	9.0	21
23	7.0	e25	28	140	139	410	113	95	29	16	9.0	e18
24	10	a40	26	122	129	330	108	83	28	14	8.7	16
25	6.8	31	a25	109	120	310	95	79	27	13	9.4	15
26	7.0	109	24	99	118	272	92	74	27	14	10	15
27	7.0	85	e23	90	122	240	90	72	28	12	9.8	14
28	7.0	67	64	82	111	217	84	67	27	13	7.8	13
29	7.0	69	51	76	-	195	80	62	25	13	9.0	13
30	13	87	49	70	-	171	79	63	25	13	8.1	13
31	24	-	45	79	-	167	-	58	-	14	8.7	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff	
						Inches	Acre-feet
October	263.6	24	6.5	8.50	0.25e	0.30	523
November	1,167	109	14	38.9	1.18	1.32	2,310
December	1,343	85	23	43.3	1.31	1.51	2,660
Calendar year 1944	22,752.4	474	3.1	62.2	1.88	25.66	45,130
January	5,167	332	63	167	5.06	5.82	10,250
February	8,672	1,590	79	310	9.39	9.77	17,200
March	10,916	1,320	106	352	10.7	12.30	21,650
April	4,838	288	79	161	4.88	5.45	9,600
May	2,503	133	56	80.7	2.45	2.82	4,960
June	1,153	57	25	38.4	1.16	1.30	2,290
July	511	26	12	16.5	.500	.58	1,010
August	325.4	16	7.8	10.5	.31e	.37	645
September	756.9	200	8.4	25.2	.764	.85	1,500
Water year 1944-45	37,615.9	1,590	6.5	103	3.12	42.39	74,600

a No gage-height record; discharge computed on basis of records for station near Forest Grove.
e Gage height doubtful or not representative of daily discharge; discharge computed on basis of records for station near Forest Grove.
Time basis: Pacific war time up to 2 a.m., Sept. 30, 1945; Pacific standard time thereafter. To convert war time to standard time, subtract 1 hour.

Gales Creek near Forest Grove, Oreg.

Location.- Water-stage recorder, lat. 45°33'10", long. 123°11'10", in E½ sec. 21, T. 1 N., R. 4 W., at bridge 2¼ miles southeast of village of Gales Creek and 4½ miles northwest of Forest Grove. Datum of gage is 203.01 feet above mean sea level, datum of 1929.

Drainage area.- 66 square miles.

Records available.- October 1940 to September 1945.

Extremes.- Maximum discharge during year, 4,040 second-feet Feb. 7 (gage height, 8.38 feet); minimum, 5 second-feet (regulated) June 18 (gage height, 1.17 feet).
1940-45: Maximum discharge, that of Feb. 7, 1945; minimum, that of June 18, 1945.

Remarks.- Records good. Small diversions above station for irrigation; some diurnal fluctuations at low flow caused by log ponds above station.

Rating tables, water year 1944-45 (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Oct. 1 to Dec. 8)

Oct. 1 to Feb. 7						Feb. 8 to Sept. 30					
1.6	8	2.3	111	4.2	870	1.4	13	2.3	123	4.4	990
1.7	17	2.6	181	4.8	1,260	1.5	19	2.6	194	5.0	1,400
1.8	28	2.9	265	5.6	1,840	1.6	26	2.9	279	6.0	2,140
1.9	41	3.2	371	6.4	2,440	1.8	45	3.2	360		
2.1	73	3.6	550			2.0	70	3.8	655		

Discharge, in second-feet, water year October 1944 to September 1945

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	16	66	122	111	147	174	264	117	84	32	18	12
2	13	48	99	111	174	164	238	111	80	30	18	12
3	13	99	86	103	218	192	221	105	79	30	18	14
4	16	84	86	97	278	186	216	103	74	30	23	170
5	20	58	82	111	560	174	235	99	74	29	18	105
6	19	46	80	135	468	174	258	92	72	29	17	53
7	16	54	82	297	2,260	174	324	89	69	25	15	40
8	15	63	78	312	1,990	218	442	85	66	24	16	31
9	14	84	77	238	972	341	442	85	65	23	16	27
10	12	66	70	207	685	1,000	392	94	64	21	15	25
11	12	53	66	181	555	680	429	113	61	22	15	22
12	12	47	61	250	550	528	412	143	58	22	16	21
13	14	36	56	464	585	438	366	186	58	22	16	20
14	14	36	53	473	488	685	328	199	55	26	15	20
15	14	33	48	545	408	710	307	184	52	23	13	20
16	13	32	46	535	362	810	279	169	50	23	12	20
17	12	28	44	496	412	1,040	264	157	49	20	14	19
18	12	28	42	535	366	918	238	143	40	23	14	20
19	12	27	44	460	328	1,290	218	134	43	21	14	18
20	12	27	47	360	301	2,060	205	125	41	20	13	22
21	12	26	47	291	273	1,200	186	119	40	23	13	35
22	12	25	46	241	252	918	176	115	41	27	12	29
23	13	37	47	207	235	705	172	152	40	24	13	25
24	14	59	42	184	221	575	162	134	38	22	13	21
25	14	54	41	161	202	555	150	123	35	20	14	20
26	15	118	37	147	194	465	141	113	35	20	15	20
27	15	105	36	133	202	412	136	109	36	19	15	19
28	15	82	101	122	182	366	127	101	36	18	14	18
29	16	73	101	113	-	328	126	92	33	18	13	18
30	24	138	87	107	-	298	123	92	34	20	12	18
31	40	-	78	131	-	279	-	87	-	20	12	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff	
						Inches	Acre-feet
October	471	40	12	15.2	0.230	0.27	934
November	1,732	138	25	57.7	.874	.98	3,440
December	2,032	122	36	65.5	.992	1.15	4,030
Calendar year 1944	37,427	799	7.0	102	1.55	21.10	74,240
January	7,858	545	97	253	3.83	4.43	15,590
February	13,868	2,260	147	495	7.50	7.81	27,510
March	18,057	2,060	164	582	8.82	10.17	35,820
April	7,576	442	123	253	3.83	4.27	15,030
May	3,770	199	85	122	1.85	2.12	7,480
June	1,602	84	33	53.4	.809	.90	3,180
July	725	32	18	23.4	.355	.41	1,440
August	462	23	12	14.9	.226	.26	916
September	914	170	12	30.5	.462	.52	1,810
Water year 1944-45	59,067	2,260	12	162	2.45	33.29	117,200

Peak discharge.- Feb. 7 (6:30 p.m.) 4,040 sec.-ft.; Mar. 20 (3 a.m.) 2,540 sec.-ft.
Time basis: Pacific war time up to 2 a.m., Sept. 30, 1945; Pacific standard time thereafter.
To convert war time to standard time, subtract 1 hour.

East Fork Dairy Creek at Mountaindale, Oreg.

Location.- Water-stage recorder, lat. 45°38'05", long. 123°02'35", in NW¼ sec. 27, T. 2 N., R. 3 W., at dam site three-quarters of a mile north of village of Mountaindale. Datum of gage is 183.04 feet above mean sea level, datum of 1929.
Drainage area.- 43.0 square miles, including two small streams on left bank which enter creek below station.
Records available.- October 1940 to September 1945.
Extremes.- Maximum discharge during year, 1,160 second-feet Feb. 7 (gage height, 12.09 feet); minimum, 9 second-feet Oct. 8-12, 16-29.
1940-45: Maximum discharge, that of Feb. 7, 1945; minimum, 7 second-feet Sept. Sept. 10-12, 1944.
Remarks.- Records fair. Records include measured or estimated discharge of two small streams which flow through dam site and enter creek from left bank about 1 mile below station. Probably some pumping for irrigation above station. Diurnal fluctuation at low stages caused by log pond upstream.

Rating tables, water year 1944-45 (gage height, in feet, and discharge, in second-feet) (Shifting-control method used Oct. 1 to Jan. 6)

Oct. 1 to Feb. 7				Feb. 7 to Sept. 30					
0.6	8	3.0	81	0.6	9	2.3	61	8.0	450
.8	12	4.0	127	.8	13	3.0	89	10.0	640
1.1	19	5.0	184	1.1	21	4.0	134	11.0	780
1.4	27	6.3	271	1.4	30	5.0	199	11.6	945
1.8	39	8.0	408	1.8	42	6.3	302		
2.3	55	9.5	543						

Discharge, in second-feet, water year October 1944 to September 1945

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	13	34	a60	47	71	97	147	70	57	25	14	10
2	12	21	a50	46	76	94	134	67	55	24	a12	10
3	11	a55	a45	46	83	101	126	65	54	23	a14	12
4	11	a48	a48	46	88	94	120	63	52	23	a14	55
5	13	a25	a48	54	170	89	126	61	51	23	a14	29
6	11	a19	a44	64	186	88	121	58	49	22	a13	18
7	10	a20	41	102	544	87	130	56	48	21	a13	14
8	9	23	36	116	918	95	197	55	45	20	13	13
9	9	a24	34	102	526	100	198	55	45	20	13	12
10	9	a22	32	98	379	296	185	56	44	20	13	12
11	9	20	30	87	322	277	191	55	42	19	13	11
12	9	19	30	108	283	265	170	64	40	19	13	11
13	10	18	27	151	275	251	155	69	40	19	13	11
14	10	17	26	173	247	398	146	68	40	18	13	11
15	10	17	24	214	217	455	138	63	38	19	12	11
16	9	17	24	280	193	446	131	68	36	19	12	12
17	9	16	24	260	204	534	124	67	35	20	11	11
18	9	16	24	237	176	571	116	72	33	19	11	11
19	9	16	23	217	158	580	110	70	32	17	11	11
20	9	15	23	189	150	949	105	68	32	17	11	14
21	9	16	22	165	140	719	99	68	31	19	10	19
22	9	15	22	139	132	563	94	68	31	21	10	14
23	9	20	22	122	124	442	97	90	30	19	11	12
24	9	31	21	108	116	360	90	82	29	17	11	12
25	9	27	20	96	110	336	85	80	28	16	11	12
26	9	44	19	88	108	280	81	78	28	16	12	12
27	9	39	19	81	109	240	79	75	29	15	12	a11
28	9	31	46	75	100	216	76	71	28	14	11	a11
29	9	26	44	69	-	187	74	66	28	15	10	a10
30	12	a55	40	66	-	168	76	63	27	16	10	a10
31	22	-	39	68	-	157	-	61	-	15	10	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff Inches	Runoff Acre-feet
October	316	22	9	10.2	0.237	0.27	627
November	766	55	15	25.5	.593	.66	1,520
December	1,007	60	19	32.5	.756	.87	2,000
Calendar year 1944	19,553	323	7	53.4	1.24	16.91	38,780
January	3,714	280	46	120	2.79	3.21	7,370
February	6,205	918	71	222	5.16	5.37	12,310
March	9,535	949	87	308	7.16	8.25	18,910
April	5,721	198	74	124	2.88	3.22	7,380
May	2,072	90	55	66.8	1.55	1.79	4,110
June	1,157	57	27	38.6	.898	1.00	2,290
July	590	25	14	19.0	.442	.51	1,170
August	371	14	10	12.0	.279	.32	736
September	422	55	10	14.1	.328	.36	837
Water year 1944-45	29,876	949	9	81.9	1.90	25.85	59,260

Peak discharge.- Feb. 7 (12 p.m.) 1,160 sec.-ft.; Mar. 20 (1 p.m.)1,050 sec.-ft.
a No gage-height record; discharge computed on basis of recorded range in stage and records for Scoggin Creek near Gaston and Gales Creek near Forest Grove.
Time basis: Pacific war time up to 2 a.m., Sept. 30, 1945; Pacific standard time thereafter. To convert war time to standard time, subtract 1 hour.

Oswego Canal near Oswego, Oreg.

Location.- Water-stage recorder, lat. 45°23'30", long. 122°43'10", in NW¼ sec. 20, T. 2 S., R. 1 E., half a mile downstream from point of diversion from Tualatin River, 1 mile upstream from Oswego Lake, and 3 miles southwest of Oswego. Datum of gage is 96.50 feet above mean sea level, datum of 1929. Auxiliary gage at outlet of Oswego Lake for determination of backwater effect of lake on stages at canal gage.

Records available.- October 1928 to September 1945.

Average discharge.- 17 years, 64.1 second-feet.

Extremes.- Maximum discharge during year, 260 second-feet Mar. 24, 25 (gage height, 9.50 feet); minimum, 0.4 second-foot Nov. 18, Dec. 14 (head gate closed).
1928-45: Maximum discharge, 6,000 second-feet Dec. 23, 1933 (gage height, 16.1 feet, site and datum then in use), computed from slope, area, and lake spillway data; practically no flow at times.

Remarks.- Records good. Oswego Canal diverts water from Tualatin River in N½ sec. 20, but diversion dam is in NE¼ sec. 33, about 3 miles downstream. Water used for development of power below Oswego Lake and returned to Willamette River at that point.

Discharge, in second-feet, water year October 1944 to September 1945

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	72	1.2	89	56	64	70	121	46	44	82	69	59
2	74	1.0	94	56	70	67	109	45	41	82	68	58
3	73	1.2	95	59	80	65	96	44	41	80	68	58
4	72	1.0	93	60	86	63	84	42	40	79	67	66
5	71	1.1	90	60	101	63	75	41	40	78	67	75
6	70	1.2	87	61	118	61	71	40	40	78	67	89
7	70	1.3	73	68	143	59	72	40	39	76	67	90
8	70	2.0	64	82	180	58	68	38	38	76	66	84
9	71	2.1	52	96	182	58	98	38	38	75	66	80
10	69	2.0	48	103	200	69	101	37	38	74	65	77
11	68	2.1	45	104	221	89	101	38	37	73	64	76
12	68	2.1	43	101	226	113	100	41	41	73	64	75
13	68	2.1	28	99	230	129	97	46	68	72	64	74
14	68	14	.4	106	222	157	94	50	84	72	64	74
15	68	40	16	120	208	169	90	54	86	73	64	74
16	69	39	40	126	194	167	86	58	86	73	64	74
17	69	28	39	133	184	173	79	58	86	74	64	74
18	68	.4	38	138	177	178	74	57	86	75	62	74
19	68	.6	38	138	164	182	69	55	85	75	61	74
20	67	1.6	38	137	153	198	65	52	84	75	61	75
21	67	1.6	38	135	139	211	61	50	83	76	60	75
22	67	1.7	40	131	127	235	58	48	82	77	60	76
23	66	3.1	40	123	116	253	56	48	82	77	58	77
24	65	3.6	40	115	105	260	55	50	81	77	57	77
25	64	3.7	39	102	93	258	54	54	81	76	57	76
26	64	4.1	38	89	85	246	52	53	81	75	57	74
27	65	4.1	37	81	77	227	49	52	80	74	58	73
28	65	20	38	74	73	205	48	52	80	73	60	72
29	65	51	41	69	-	180	47	49	80	72	60	71
30	65	88	50	65	-	159	46	46	81	70	61	71
31	36	-	56	62	-	138	-	45	-	69	60	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	2,082	74	36	67.2	4,130
November	324.9	88	.4	10.8	644
December	1,569.4	95	.4	50.6	3,110
Calendar year 1944	23,392.3	147	.4	63.9	46,390
January	2,949	138	56	95.1	5,850
February	4,018	230	64	144	7,970
March	4,560	260	58	147	9,040
April	2,296	121	46	76.5	4,550
May	1,467	58	37	47.3	2,910
June	1,953	66	37	65.1	3,870
July	2,331	82	69	75.2	4,620
August	1,950	69	57	62.9	3,870
September	2,222	90	58	74.1	4,410
Water year 1944-45	27,722.3	260	.4	76.0	54,970

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

Clackamas River at Big Bottom, Oreg.

Location.- Water-stage recorder, lat. 45°01', long. 121°55', in sec. 26, T. 6 S., R. 7 E., just downstream from Pot Creek at lower end of Big Bottom, half a mile upstream from site of proposed dam, and 28 miles southeast of Estacada.

Drainage area.- 132 square miles.

Records available.- April 1920 to September 1945.

Average discharge.- 25 years, 438 second-feet.

Extremes.- Maximum discharge during year, 2,800 second-feet Feb. 8 (gage height, 5.55 feet); minimum, 208 second-feet Oct. 10 (gage height, 1.45 feet).
1920-45: Maximum discharge, 6,750 second-feet Mar. 31, 1931 (gage height, 8.28 feet), from rating curve extended above 3,500 second-feet; minimum, 184 second-feet Sept. 12, 1942.

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

Cooperation.- Water-stage recorder graph and 12 discharge measurements furnished by Portland General Electric Co.

Rating table, water year 1944-45 (gage height, in feet, and discharge, in second-feet)

1.5	220	2.8	695
1.6	245	3.2	890
1.9	340	3.8	1,230
2.2	445	4.4	1,680
2.5	565	5.1	2,320

Discharge, in second-feet, water year October 1944 to September 1945

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	218	275	305	230	281	347	438	850	520	260	220	212
2	215	242	281	230	281	333	417	940	500	260	220	212
3	215	378	266	225	312	330	403	1,060	480	254	220	212
4	222	305	263	225	308	319	389	1,060	460	248	220	230
5	245	251	281	240	406	312	424	970	434	245	220	272
6	222	238	278	296	392	308	442	910	420	245	218	230
7	215	257	287	557	972	302	473	880	406	242	218	225
8	212	248	275	509	2,240	299	585	860	392	240	215	222
9	212	245	263	406	1,380	305	517	820	378	238	215	220
10	210	238	254	396	978	424	485	800	368	238	215	218
11	210	230	248	382	1,010	386	489	790	358	235	212	218
12	212	225	242	513	900	406	469	850	347	235	212	215
13	218	220	240	755	1,610	400	438	940	358	235	212	215
14	215	218	235	654	1,160	400	428	1,050	350	232	212	212
15	212	215	230	668	910	386	428	1,200	336	230	218	220
16	210	212	232	569	765	375	434	1,250	322	230	220	220
17	212	215	232	517	682	372	428	1,200	319	230	215	218
18	212	212	230	501	601	364	442	1,100	312	230	212	212
19	212	210	230	449	541	392	477	950	305	228	210	212
20	210	210	232	414	501	561	517	860	302	228	210	242
21	210	210	232	386	469	561	581	770	296	228	210	235
22	210	210	230	358	442	549	577	710	293	230	210	228
23	212	238	228	344	420	537	614	680	287	230	210	222
24	210	242	225	330	400	497	765	650	284	228	210	222
25	210	235	225	316	382	489	731	620	278	225	225	220
26	210	308	225	305	378	481	659	600	275	225	228	222
27	210	312	225	296	364	453	628	620	275	225	220	218
28	212	272	228	290	350	438	641	630	269	222	218	215
29	212	257	228	284	-	428	686	600	269	222	215	215
30	220	278	222	281	-	417	780	560	263	220	212	215
31	235	-	222	281	-	442	-	540	-	220	212	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff: Inches	Runoff: Acre-feet
October	6,660	245	210	215	1.63	1.88	13,210
November	7,406	378	210	247	1.87	2.09	14,690
December	7,594	305	222	245	1.86	2.14	15,060
Calendar year 1944	109,998	581	210	300	2.27	30.96	218,000
January	12,207	755	225	394	2.98	3.44	24,210
February	19,435	2,240	281	694	5.26	5.48	38,550
March	12,613	561	299	407	3.08	3.55	25,020
April	15,785	780	389	526	3.98	4.45	31,310
May	26,320	1,250	540	849	6.43	7.42	52,200
June	10,456	520	263	349	2.64	2.95	20,740
July	7,258	260	220	234	1.77	2.04	14,400
August	6,684	228	210	216	1.64	1.88	13,260
September	6,649	272	212	222	1.68	1.87	13,190
Water year 1944-45	139,067	2,240	210	381	2.89	39.19	275,800

Peak discharge.- Feb. 8 (8:30 a.m.) 2,800 sec.-ft.; Feb. 13 (9 a.m.) 1,900 sec.-ft.
Note.- No gage-height record May 5 to June 4; discharge computed on basis of records for Clackamas River above Three Lynx Creek, Clackamas River near Cazadero, and Oak Grove Fork above power-plant intake.
Time basis: Pacific war time up to 2 a.m., Sept. 30, 1945; Pacific standard time thereafter. To convert war time to standard time, subtract 1 hour.

Clackamas River above Three Lynx Creek, Oreg.

Location.- Water-stage recorder, lat. 45°07', long. 122°04', in NE¼ sec. 21, T. 5 S., R. 6 E., just downstream from power plant, 500 feet upstream from Three Lynx Creek and 17 miles southeast of Estacada. Datum of gage is 1,098 feet above mean sea level (levels by Portland General Electric Co.).
Drainage area.- 488 square miles.
Records available.- October 1911 to December 1913, October 1921 to September 1945.
Average discharge.- 26 years, 1,795 second-feet.
Extremes.- Maximum discharge during year, 16,300 second-feet Feb. 8 (gage height, 10.0 feet); minimum, not determined; minimum daily, 578 second-feet Sept. 2.
1911-13, 1921-45: Maximum discharge, 34,800 second-feet Mar. 31, 1931 (gage height, 15.5 feet), from rating curve extended above 11,000 second-feet; minimum observed, 375 second-feet (regulated) Aug. 10, 16, 1924, Sept. 20, 1936; minimum daily, 536 second-feet Oct. 22, 1930.
Remarks.- Records good except those for periods of partly estimated or no gage-height record, which are fair. Water diverted from Oak Grove Fork is used in power plant on Clackamas River just above station. Considerable diurnal fluctuation during periods of low flow.
Cooperation.- Water-stage recorder graph and 12 discharge measurements furnished by Portland General Electric Co.

Rating table, water year 1944-45 (gage height, in feet, and discharge, in second-feet)

0.8	550	3.0	2,180
1.2	725	4.0	3,240
1.6	970	5.0	4,560
2.2	1,440	6.0	6,260

Discharge, in second-feet, water year October 1944 to September 1945

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	614	a750	1,370	752	991	1,300	1,900	3,890	2,000	888	690	652
2	610	822	1,230	804	1,040	1,260	1,880	4,300	1,990	864	690	578
3	618	1,670	1,080	769	1,250	1,280	1,720	4,760	1,940	858	690	648
4	639	1,440	1,110	769	1,300	1,180	1,590	4,530	1,770	798	695	705
5	730	a1,100	1,180	928	1,980	1,180	1,800	3,950	1,640	834	630	991
6	680	a1,000	1,140	1,740	2,230	1,140	2,080	3,760	1,610	852	710	736
7	639	a1,200	1,180	4,450	6,580	1,100	2,300	3,580	1,550	792	648	695
8	626	a1,100	1,170	3,660	12,700	1,110	3,090	3,430	1,480	810	666	662
9	634	a1,050	1,040	2,480	6,490	1,140	2,710	3,230	1,450	816	670	590
10	610	963	956	2,030	4,140	2,300	2,350	3,200	1,320	816	675	675
11	618	888	900	1,810	4,000	2,030	2,290	3,220	1,420	780	675	630
12	618	828	852	2,180	3,960	2,050	2,250	3,700	1,310	786	652	634
13	639	816	828	3,570	8,080	1,960	2,000	4,410	1,380	774	670	648
14	639	758	786	3,420	5,650	1,960	1,960	4,860	1,340	798	662	662
15	622	725	758	3,340	3,960	1,880	1,850	5,500	1,280	752	634	675
16	666	742	774	3,030	3,220	1,770	1,940	5,790	1,220	792	725	644
17	614	710	758	2,680	2,800	1,760	1,900	5,040	1,170	780	662	695
18	614	715	736	2,610	2,430	1,720	1,910	4,190	1,190	774	630	644
19	606	666	747	2,290	2,180	1,910	2,220	3,540	1,160	764	626	652
20	610	670	774	1,980	2,000	3,230	2,580	3,160	1,130	758	670	792
21	622	670	786	1,660	1,830	3,170	3,010	2,890	1,090	728	630	798
22	590	666	758	1,580	1,720	2,800	2,790	2,720	1,090	705	630	742
23	602	774	736	1,410	1,660	2,700	2,840	2,600	1,060	822	639	675
24	602	928	715	1,340	1,520	2,340	3,920	2,430	984	742	644	747
25	606	864	690	1,260	1,440	2,210	3,830	2,270	1,020	736	715	705
26	590	1,340	710	1,150	1,490	2,230	3,260	2,170	984	728	725	720
27	614	1,610	710	1,100	1,460	2,030	2,900	2,440	970	728	705	670
28	602	1,250	736	1,000	1,440	1,940	2,730	2,470	928	736	634	652
29	a580	1,080	752	1,030	-	1,880	3,090	2,360	914	630	639	657
30	a600	1,180	752	984	-	1,800	3,560	2,320	882	747	644	622
31	a650	-	685	984	-	1,940	-	2,200	-	715	639	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff	
						Inches	Acre-feet
October	19,304	730	580	623	1.28	1.47	38,290
November	28,975	1,670	666	966	1.98	2.21	57,470
December	27,399	1,370	685	884	1.81	2.09	54,350
Calendar year 1944	421,476	3,540	566	1,152	2.36	32.12	836,000
January	58,790	4,450	752	1,896	3.89	4.48	116,600
February	89,541	12,700	991	3,198	6.55	6.82	177,600
March	58,300	3,230	1,100	1,881	3.85	4.44	115,600
April	74,300	3,920	1,590	2,477	5.08	5.66	147,400
May	108,910	5,790	2,170	3,513	7.20	8.30	216,000
June	39,072	2,000	882	1,302	2.67	2.98	77,500
July	24,088	888	630	777	1.59	1.84	47,760
August	20,614	725	626	665	1.36	1.57	40,890
September	20,596	991	578	687	1.41	1.57	40,850
Water year 1944-45	569,889	12,700	578	1,561	3.20	43.43	1,130,000

a No gage-height record; discharge computed on basis of records for Clackamas River near Cazadero.
Note.- Stage fell below inlet owing to regulation for several hours each day Oct. 3, 4, 6-14, 17-29, July 11, Aug. 5-25, 27-31, Sept. 1-4, 7-15, 17-19, 28-30; discharge computed from partly estimated gage height.
Time basis: Pacific war time up to 2 a.m., Sept. 30, 1945; Pacific standard time thereafter. To convert war time to standard time, subtract 1 hour.

Clackamas River near Cazadero, Oreg.

Location.- Water-stage recorder, lat. 45°14', long. 122°16', in NE¼ sec. 11, T. 4 S., R. 4 E., half a mile upstream from backwater from Cazadero Dam of Portland General Electric Co. and 3 miles southeast of Cazadero. Datum of gage is 532.0 feet above mean sea level (levels by Portland General Electric Co.); gage readings have been reduced to elevations above mean sea level.
Drainage area.- 665 square miles.
Records available.- January 1909 to September 1945.
Average discharge.- 36 years, 2,544 second-feet.
Extremes.- Maximum discharge during year, 20,300 second-feet Feb. 8 (elevation, 544.60 feet); minimum, 582 second-feet (regulated) July 21; minimum daily, 632 second-feet Oct. 29.
1909-45: Maximum discharge, 60,800 second-feet Mar. 31, 1931 (elevation, 556.5 feet), by computation of flow over dam; minimum, 410 second-feet Oct. 20, 1925, Sept. 28, 1930 (elevation, 532.03 feet), caused by shut-down in power plant at Three Lynx; minimum daily, 587 second-feet Aug. 17, 1930.
Remarks.- Records fair. Some diurnal fluctuation during low flow due to Oak Grove power plant. No diversion above station.
Cooperation.- Water-stage recorder graph and 12 discharge measurements furnished by Portland General Electric Co.

Rating tables, water year 1944-45 (gage height, in feet, and discharge, in second-feet)

Dec. 4 to Mar. 20						Mar. 21 to Sept. 30					
533.0	640	535.5	2,500	540.0	9,000	533.0	700	534.7	1,930	537.5	4,960
533.5	900	536.5	3,540	541.5	12,400	533.5	980	535.5	2,670	538.5	6,510
534.0	1,220	537.5	4,760	543.0	16,100	534.0	1,340	536.5	3,700	540.0	9,260
534.7	1,760	538.5	6,260								

Discharge, in second-feet, water year October 1944 to September 1945

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	746	966	1,740	950	1,350	1,820	3,050	6,360	2,990	1,160	838	756
2	705	1,030	1,500	1,100	1,460	1,770	2,930	6,950	2,770	1,200	816	691
3	710	1,920	1,300	1,030	1,740	1,780	2,660	7,560	2,630	1,130	827	750
4	779	2,000	1,400	1,010	1,870	1,670	2,470	7,070	2,540	1,050	816	932
5	936	1,360	1,500	1,250	2,650	1,660	2,690	6,020	2,340	1,130	720	1,440
6	850	1,220	1,400	2,900	3,120	1,580	3,140	5,540	2,310	1,110	844	1,020
7	757	1,510	1,500	6,860	7,320	1,510	3,570	5,220	2,190	1,040	740	872
8	720	1,430	1,450	5,600	16,100	1,500	5,240	4,920	2,100	1,000	800	816
9	735	1,380	1,300	3,460	9,000	1,460	4,290	4,550	2,050	1,030	783	745
10	695	1,260	1,200	2,880	6,040	3,110	3,570	4,460	1,920	1,020	794	805
11	680	1,140	1,100	2,510	5,990	2,930	3,610	4,380	1,980	974	783	750
12	690	1,020	1,050	3,530	5,720	3,070	3,670	5,100	1,830	962	756	725
13	715	1,010	980	5,650	12,500	3,100	3,250	6,580	1,930	956	810	725
14	710	924	930	5,140	8,460	3,010	3,030	7,420	1,930	944	778	735
15	685	856	900	4,940	5,960	2,870	2,990	8,590	1,790	908	735	788
16	672	872	920	4,480	4,530	2,600	3,190	9,260	1,690	987	822	800
17	676	828	900	4,030	3,970	2,600	3,030	8,460	1,600	938	800	810
18	672	823	870	3,910	3,310	2,550	3,050	7,020	1,630	926	783	778
19	662	790	890	3,260	2,930	2,710	3,470	5,640	1,560	908	700	720
20	662	774	910	2,750	2,650	4,620	4,000	4,980	1,500	902	756	1,140
21	680	757	940	2,370	2,430	4,880	4,750	4,470	1,480	908	756	1,070
22	649	762	920	2,140	2,290	4,390	4,520	4,130	1,420	872	740	950
23	658	918	900	1,930	2,200	4,290	4,480	3,890	1,400	968	725	866
24	658	1,160	880	1,790	2,080	3,680	7,290	3,590	1,300	884	730	926
25	644	1,050	860	1,650	1,900	3,440	6,600	3,330	1,350	890	860	890
26	649	1,740	860	1,560	2,010	3,410	5,100	3,170	1,300	849	980	908
27	654	2,160	880	1,460	1,930	3,150	4,430	3,970	1,270	844	960	866
28	662	1,660	900	1,400	1,850	2,990	4,300	3,930	1,260	849	740	822
29	632	1,410	920	1,370	-	2,890	4,820	3,660	1,250	761	772	783
30	658	1,460	920	1,340	-	2,730	5,810	3,500	1,220	672	745	740
31	740	-	860	1,350	-	3,020	-	3,280	-	838	720	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff: Inches	Runoff: Acre-feet
October	21,741	936	632	701	1.05	1.22	43,120
November	36,190	2,160	757	1,206	1.81	2.02	71,780
December	33,580	1,740	860	1,083	1.63	1.88	66,600
Calendar year 1944	553,614	5,640	632	1,513	2.28	30.95	1,098,000
January	85,600	6,860	950	2,761	4.15	4.79	169,800
February	123,360	16,100	1,350	4,406	6.63	6.90	244,700
March	86,790	4,880	1,460	2,800	4.21	4.85	172,100
April	118,800	7,290	2,470	3,960	5.95	6.64	235,600
May	166,900	9,260	3,170	5,384	8.10	9.33	331,000
June	54,530	2,990	1,220	1,818	2.73	3.05	108,200
July	29,810	1,200	761	962	1.45	1.67	59,130
August	24,329	980	700	785	1.18	1.36	48,260
September	25,619	1,440	691	854	1.28	1.43	50,810
Water year 1944-45	807,249	16,100	632	2,212	3.33	45.14	1,601,000

Peak discharge.- Feb. 8 (9 a.m.) 20,300 sec.-ft.; Feb. 13 (10 a.m.) 15,100 sec.-ft.
Note.- No gage-height record Dec. 2 to Jan. 2; discharge computed on basis of records for station above Three Lynx Creek.
Time basis: Pacific war time up to 2 a.m., Sept. 30, 1945; Pacific standard time thereafter. To convert war time to standard time, subtract 1 hour.

Oak Grove Fork above power-plant intake, Oreg.

Location.- Water-stage recorder, lat. 45°04', long. 121°57', in SW¼ sec. 3, T. 6 S., R. 7 E., two-thirds of a mile upstream from Kink Creek, 1 mile upstream from intake of power development of Portland General Electric Co., and 24 miles southeast of Estacada.
Drainage area.- 126 square miles.
Records available.- December 1923 to September 1945. May 1909 to December 1923 (incomplete) at site 1 mile downstream, below Kink Creek; records equivalent except for slight inflow from springs and Kink Creek.
Average discharge.- 21 years (1924-45), 451 second-feet.
Extremes.- Maximum discharge during year, 1,240 second-feet Feb. 13 (gage height, 3.26 feet); minimum, 256 second-feet Sept. 18, 19 (gage height, 1.78 feet).
1909-45: Maximum discharge, 5,000 second-feet Jan. 7, 1923 (gage height, 5.45 feet); computed from flow at stations on Clackamas River; minimum, 236 second-feet Oct. 15, 16, 18, 1931 (gage height, 1.42 feet).
Remarks.- Records fair. Discharge includes flow of Spring Creek, just below gage. No diversion or regulation above station.
Cooperation.- Water-stage recorder graph and 12 discharge measurements furnished by Portland General Electric Co.

Rating tables, water year 1944-45 (gage height, in feet, and discharge, in second-feet)

Oct. 1 to May 17				May 18 to Sept. 30			
1.7	265	2.6	725	1.7	222	2.6	715
1.8	305	2.9	940	1.8	264	2.8	860
2.0	395	3.2	1,190	2.2	470	3.0	1,020
2.2	495	3.5	1,470	2.4	588		
2.4	605						

Discharge, in second-feet, water year October 1944 to September 1945

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	310	323	323	289	323	400	460	884	576	340	296	273
2	305	305	310	285	323	395	445	924	558	340	292	273
3	301	368	305	281	328	395	430	996	534	340	292	278
4	301	328	323	289	323	386	420	1,030	516	335	287	292
5	314	305	323	297	368	377	440	988	505	335	287	301
6	301	310	318	395	354	372	465	956	499	330	282	278
7	301	323	323	572	460	372	490	924	482	335	282	273
8	297	310	314	480	839	368	539	892	470	330	282	269
9	297	310	310	405	744	368	517	860	453	330	282	264
10	297	305	305	386	623	430	490	846	448	330	282	264
11	297	297	301	368	695	400	495	832	431	325	278	264
12	297	293	301	465	677	415	475	900	420	320	273	260
13	297	293	297	534	1,130	415	465	1,010	431	320	273	260
14	293	289	297	512	908	415	465	1,040	425	320	269	260
15	293	289	293	500	751	400	485	1,080	414	320	269	269
16	293	289	293	485	671	395	512	1,140	398	315	273	260
17	293	289	293	460	623	400	506	1,120	a392	310	269	264
18	293	289	293	450	572	390	506	1,010	387	310	269	256
19	293	285	293	425	528	405	539	900	a382	310	273	256
20	293	285	293	400	512	480	583	838	376	310	273	310
21	289	285	293	386	485	480	623	785	371	305	269	282
22	289	285	289	368	470	480	611	757	365	305	269	269
23	289	305	285	364	455	475	707	729	360	305	273	269
24	289	305	285	354	440	455	972	702	355	301	269	264
25	289	293	285	346	425	460	892	663	350	301	273	264
26	289	323	285	336	425	460	790	638	350	301	301	269
27	289	318	285	332	420	445	758	663	350	301	278	264
28	289	a308	289	328	405	445	758	670	345	301	273	264
29	289	297	289	323	-	445	784	644	345	296	273	264
30	293	314	285	323	-	445	853	625	340	292	278	264
31	301	-	281	328	-	475	-	600	-	292	273	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff: Inches	Runoff: Acre-feet
October	9,161	314	289	296	2.35	2.70	18,170
November	9,118	368	285	304	2.41	2.69	18,090
December	9,259	323	281	299	2.37	2.73	18,360
Calendar year 1944	135,341	578	281	370	2.94	39.95	268,400
January	12,066	572	281	389	3.09	3.56	23,930
February	15,277	1,130	323	546	4.33	4.51	30,300
March	13,043	480	368	421	3.34	3.85	25,870
April	17,475	972	420	582	4.62	5.16	34,660
May	26,646	1,140	600	860	6.83	7.86	52,850
June	12,628	576	340	421	3.34	3.73	25,050
July	9,805	340	292	316	2.51	2.89	19,450
August	8,612	301	269	278	2.21	2.54	17,080
September	8,097	310	256	270	2.14	2.39	16,060
Water year 1944-45	151,187	1,140	256	414	3.29	44.61	299,900

Peak discharge.- Feb. 8 (12 m.) 908 sec.-ft.; Feb. 13 (7 a.m.) 1,240 sec.-ft.
a No gage-height record; discharge computed on basis of records for Clackamas River at Big Bottom and above Three Lynx Creek.
Time basis: Pacific war time up to 2 a.m., Sept. 30, 1945; Pacific standard time thereafter. To convert war time to standard time, subtract 1 hour.

Johnson Creek at Sycamore, Oreg.

Location.- Water-stage recorder and concrete control with steel weir for low flows, lat. 45°28'40", long. 122°30'30", in lot 2, SW¼ sec. 13, T. 1 S., R. 2 E., a third of a mile southwest of Sycamore station. Datum of gage is 228.03 feet above mean sea level, datum of 1929.

Drainage area.- 28.2 square miles.

Records available.- June 1940 to September 1945.

Extremes.- Maximum discharge during year, 529 second-feet Feb. 7 (gage height, 6.33 feet); minimum, 0.6 second-foot Oct. 15, Aug. 20, 21.
1940-45: Maximum discharge, 1,770 second-feet Nov. 23, 1942 (gage height, 11.76 feet); minimum, 0.2 second-foot Aug. 14-16, 18-22, 1940, Aug. 2, 21, 22, 1941.

Remarks.- Records good except those for Jan. 15 to Feb. 6, and those for periods of ice effect or no gage-height record, which are fair. Small diversions above station for irrigation; no regulation.

Rating tables, water year 1944-45 (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Nov. 2-17, June 6-21)

Oct. 1 to Jan. 15						Jan. 16 to Sept. 30					
0.9	1.2	1.4	15	3.0	98	0.8	0.6	1.3	12	2.6	87
1.0	2.1	1.6	23	3.5	134	.9	1.1	1.4	17	3.1	125
1.1	4.4	1.9	38	4.2	197	1.0	2.0	1.6	27	3.8	189
1.2	7.8	2.2	53			1.1	4.2	1.9	43	4.6	279
1.3	11	2.6	74			1.2	7.8	2.2	61	5.5	402

Discharge, in second-feet, water year October 1944 to September 1945

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2.3	3.9	34	8.9	30	32	54	24	24	2.4	1.3	1.6
2	1.7	3.5	27	10	48	30	44	18	19	2.4	1.3	1.6
3	1.9	21	23	9.6	89	63	38	16	16	2.0	1.3	1.5
4	2.3	23	28	9.6	80	54	32	14	15	2.0	1.4	4.2
5	2.8	8.9	30	14	143	46	69	12	13	1.9	1.4	4.2
6	2.3	6.4	34	*38	112	40	114	11	10	1.8	1.4	3.1
7	2.0	9.2	62	79	280	34	194	10	9.6	1.7	1.5	2.0
8	1.6	10	52	73	*331	34	398	9.1	8.7	1.6	1.5	1.9
9	1.5	7	41	*57	208	33	232	8.7	7.8	1.6	1.6	1.7
10	1.5	5	32	54	150	93	158	10	7.1	1.7	1.6	1.4
11	1.5	4	24	50	203	81	182	10	6.4	1.6	1.6	1.6
12	1.6	4	19	*93	220	224	142	22	6.0	1.5	1.7	1.6
13	1.8	3.7	15	102	278	236	108	56	5.3	1.8	1.6	1.6
14	1.7	3.7	12	107	173	387	84	95	5.3	1.1	1.6	1.6
15	1.4	3.5	b11	195	121	266	68	146	4.6	1.3	1.5	2.4
16	1.5	3.5	b11	298	93	202	56	363	4.2	1.5	1.0	2.4
17	1.6	*3.7	b10	262	142	204	46	360	4.0	1.7	1.0	1.8
18	1.6	3.9	b9	268	144	170	39	260	3.8	1.3	.8	1.7
19	1.4	3.9	7.8	169	103	141	32	143	3.5	1.3	1.0	1.7
20	1.4	3.5	6.8	116	85	176	28	94	3.3	1.1	.9	4.6
21	1.5	3.5	8.2	85	70	169	24	68	3.3	1.3	.7	3.8
22	1.5	3.0	7.5	65	60	178	20	53	3.3	2.7	.8	3.1
23	1.5	4.2	6.8	51	51	167	28	52	3.3	1.9	1.4	2.9
24	1.5	6.1	6.1	42	42	135	30	46	3.3	1.3	1.6	1.8
25	1.3	6.8	5.4	34	36	157	27	36	3.3	1.0	2.2	2.4
26	1.3	30	b5.1	29	35	172	23	29	3.1	1.3	2.2	2.0
27	1.2	25	b4.7	24	42	122	20	57	3.1	1.6	1.8	2.0
28	1.1	20	5.8	20	34	102	16	60	2.9	1.5	1.9	1.7
29	1.1	16	8.2	18	-	81	18	48	2.9	1.3	1.7	1.6
30	1.2	21	10	16	-	64	32	37	2.4	1.3	1.6	1.6
31	1.9	-	8.5	24	-	62	-	30	-	1.1	1.6	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff	
						Inches	Acre-feet
October	50.5	2.8	1.1	1.63	0.058	0.07	100
November	270.9	30	3.0	9.03	.320	.36	537
December	564.9	62	4.7	18.2	.645	.74	1,120
Calendar year 1944	6,857.7	216	.7	18.7	.663	9.04	13,600
January	2,421.1	298	8.9	78.1	2.77	3.19	4,800
February	3,403	331	30	122	4.33	4.49	6,750
March	4,005	387	30	129	4.57	5.28	7,940
April	2,356	398	16	78.5	2.78	3.11	4,670
May	2,197.8	363	8.7	70.9	2.51	2.90	4,360
June	207.5	24	2.4	6.92	.245	.27	412
July	49.0	2.7	1.0	1.58	.056	.06	97
August	44.5	2.2	.7	1.44	.051	.06	88
September	67.1	4.6	1.4	2.24	.079	.09	133
Water year 1944-45	15,637.3	398	.7	42.8	1.52	20.62	31,010

Peak discharge.- Feb. 7 (7 p.m.) 529 sec.-ft.; Mar. 14 (11 a.m.) 468 sec.-ft.; Apr. 7 (12 p.m.) 484 sec.-ft.; May 16 (1 p.m.) 440 sec.-ft.; May 17 (7 a.m.) 438 sec.-ft.
* Winter discharge measurement made on this day.
b Stage-discharge relation affected by ice.
Time basis: Pacific war time up to 2 a.m., Sept. 30, 1945; Pacific standard time thereafter. To convert war time to standard time, subtract 1 hour.

Salmon Creek near Battle Ground, Wash.

Location.- Staff gage, lat. 45°46'25", long. 122°26'35", in NE¼SW¼ sec. 4, T. 3 N., R. 3 E., 100 feet upstream from county highway bridge, 150 feet downstream from Rock Creek, and 4 miles east of Battle Ground.
Drainage area.- 18.3 square miles.
Records available.- October 1943 to September 1945.
Extremes.- Maximum discharge observed during year, 395 second-feet probably Feb. 7 (gage height, 1.80 feet, from high-water mark on gage); minimum observed, 1.9 second-feet Aug. 21, 22. 1943-45. Maximum discharge, that of Feb. 7, 1945; minimum not determined, probably occurred sometime Sept. 8-11, 1944, when water was below gage.
Revision.- The maximum discharge for the water year 1944 has been revised to 330 second-feet Feb. 6, 1944 (gage height, 1.66 feet, from graph based on gage readings), superseding figure published in Water-Supply Paper 1014.
Remarks.- Records good except those for periods of no gage-height record, which are fair. Gage read once daily. No diversion or regulation.
Revisions.- Revised figures of discharge, in second-feet, for the high-water periods in the water year 1944, superseding those published in Water-Supply Paper 1014, are given herewith:

Dec. 3	235	Feb. 6	252
4	218	7	161
5	132	8	121
Feb. 5	187		

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff	
						Inches	Acre-feet
December	1,696	235	16	54.7	2.99	3.45	3,360
February	2,395	252	34	82.6	4.51	4.87	4,750
Water year 1943-44	-	-	-	-	-	-	22,570

Rating table, water year 1944-45 (gage height, in feet, and discharge, in second-feet)

0.0	2.2	0.4	12	1.3	200
.1	3.2	.6	30	1.6	310
.2	4.8	.8	64		
.3	7.5	1.0	110		

Discharge, in second-feet, water year October 1944 to September 1945

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	5.3	19	73	30	33	60	64	45	39	7.5	3.5	2.2
2	3.8	13	53	30	42	53	53	39	36	8.4	3.5	2.0
3	10	56	45	30	53	68	49	39	33	e.4	3.5	3.2
4	7.5	39	121	30	49	77	49	36	30	7.5	3.8	23
5	8.4	26	143	34	93	68	64	33	28	7.0	a3.4	7.0
6	5.9	39	105	174	105	60	68	30	26	6.4	3.0	4.8
7	4.5	60	105	290	252	53	93	28	26	6.4	4.8	4.2
8	4.5	39	91	155	290	60	228	23	23	5.9	3.5	3.5
9	3.8	42	96	124	174	64	187	21	a21	5.9	3.5	2.8
10	3.8	36	60	121	126	143	143	26	19	5.3	3.2	2.6
11	4.5	33	49	108	167	121	160	33	19	4.8	3.8	2.4
12	5.3	26	42	158	228	204	149	36	19	4.8	3.5	2.4
13	5.3	21	36	221	252	214	121	96	19	a5.0	4.2	2.8
14	4.8	18	33	200	167	221	100	96	19	5.3	3.5	2.4
15	4.2	16	30	252	132	187	91	68	16	7.5	3.2	7.5
16	3.5	15	29	252	105	155	73	252	15	5.9	3.5	4.2
17	3.2	13	26	270	100	161	64	270	12	5.9	2.8	4.8
18	3.5	12	23	252	86	180	56	180	13	4.8	2.6	3.8
19	2.8	12	23	200	82	193	45	115	12	3.8	a2.3	3.2
20	3.2	11	28	161	73	235	45	91	12	4.2	2.0	12
21	3.0	10	23	126	73	187	39	77	12	4.2	1.9	12
22	3.1	12	21	100	60	200	39	68	12	7.5	1.9	9.3
23	3.5	30	19	86	60	167	60	193	12	5.9	2.2	6.4
24	3.2	45	19	68	56	132	49	a157	9.3	4.5	2.0	5.3
25	3.2	42	18	56	49	126	49	121	11	4.5	2.0	5.3
26	3.0	126	18	53	56	105	42	86	11	4.2	4.2	5.3
27	3.0	82	18	45	60	96	45	77	10	3.5	3.0	4.5
28	3.0	60	26	42	64	105	39	64	10	3.5	2.6	3.5
29	3.0	45	26	36	-	73	36	53	9.3	4.2	2.6	3.0
30	4.2	82	26	33	-	68	49	49	10	4.2	2.2	3.0
31	8.4	-	23	36	-	68	-	42	-	3.8	2.6	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff	
						Inches	Acre-feet
October	138.4	10	2.8	4.46	0.244	0.28	275
November	1,080	126	10	36.0	1.97	2.19	2,140
December	1,448	143	18	46.7	2.55	2.94	2,870
Calendar year 1944	11,807.9	252	1.8	32.3	1.77	23.93	23,420
January	3,773	290	30	122	6.67	7.67	7,480
February	3,087	290	33	110	6.01	6.27	6,120
March	3,904	235	53	126	6.89	7.93	7,740
April	2,373	228	36	79.1	4.32	4.82	4,710
May	2,544	270	21	82.1	4.49	5.17	5,050
June	543.6	39	9.3	18.1	.989	1.10	1,080
July	170.7	8.4	3.5	5.51	.301	.35	339
August	94.3	4.8	1.9	3.04	.166	.19	187
September	158.4	23	2.0	5.28	.289	.32	314
Water year 1944-45	19,314.4	290	1.9	52.9	2.89	39.23	38,300

a No gage-height record; discharge interpolated.
Time basis: Pacific war time up to 2 a.m., Sept. 30, 1945; Pacific standard time thereafter. To convert war time to standard time, subtract 1 hour.

Lewis River near Cougar, Wash.

Location.- Water-stage recorder, lat. 46°03'30", long. 122°12'50", in SE¼ sec. 29, T. 7 N., R. 5 E., 1 mile downstream from Swift Creek and 4 miles east of Cougar. Datum of gage is 576.4 feet above mean sea level (from river-profile survey).

Drainage area.- 481 square miles.

Records available.- July 1910 to March 1912 (gage heights only), June 1924 to September 1945. July 1909 to June 1910 at site 1,000 feet upstream from Swift Creek.

Average discharge.- 21 years (1924-45), 2,653 second-feet.

Extremes.- Maximum discharge during year, 24,300 second-feet Feb. 7 (gage height, 11.42 feet); minimum, 565 second-feet Oct. 29, 30 (gage height, 2.97 feet).
1910-12, 1924-45: Maximum discharge, 54,400 second-feet Dec. 21, 1933 (gage height, 15.7 feet, datum then in use), from rating curve extended above 15,000 second-feet; minimum, 454 second-feet Oct. 21, 1951 (gage height, 0.01 foot, datum then in use).

Remarks.- Records excellent except those for period of shifting control, which are good, and those for periods of no gage-height record, which are poor. No diversion or regulation.

Rating table, water year 1944-45, except during period of shifting control (gage height, in feet, and discharge, in second-feet)

3.0	580	5.0	2,610	7.5	8,320
3.3	760	5.5	3,430	8.0	10,000
3.6	985	6.0	4,400	9.0	13,800
4.0	1,350	6.5	5,530	10.0	18,000
4.5	1,920	7.0	6,830	11.0	22,400

Discharge, in second-feet, water year October 1944 to September 1945

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	635	1,400	2,390	1,120	1,680	1,750	2,680	3,700	4,300	1,560	905	695
2	613	1,070	2,180	1,110	1,680	1,700	2,540	4,600	3,800	1,560	898	695
3	706	1,290	2,050	1,080	2,120	1,800	2,390	7,000	3,520	1,500	898	734
4	788	1,860	2,390	1,120	2,120	1,700	2,320	6,600	3,340	1,450	882	2,320
5	961	1,920	3,250	1,560	2,680	1,600	2,610	6,000	3,160	1,400	875	1,850
6	823	1,920	3,900	2,270	2,760	1,550	2,680	5,700	3,000	1,350	868	1,100
7	721	2,180	3,800	6,950	11,800	1,500	2,840	5,400	2,840	1,350	868	937
8	671	3,080	3,340	6,030	20,600	1,800	2,920	5,200	2,760	1,350	860	875
9	647	3,430	3,000	4,610	12,200	2,450	2,760	5,100	2,760	1,300	845	816
10	635	2,760	2,680	4,500	7,700	4,000	2,680	5,000	2,760	1,300	823	788
11	624	2,390	2,460	4,830	6,420	3,500	2,760	5,600	2,610	1,250	809	767
12	618	2,050	2,180	8,280	5,780	3,500	2,610	6,200	2,540	1,200	802	747
13	613	1,800	2,050	12,800	5,290	3,500	2,460	7,000	2,460	1,200	795	740
14	608	1,620	1,920	10,700	4,780	3,700	2,390	7,800	2,390	1,140	802	728
15	596	1,450	1,740	7,860	4,090	3,500	2,460	7,700	2,250	1,120	781	760
16	591	1,350	1,680	6,290	3,700	3,200	2,460	8,010	2,180	1,100	774	795
17	586	1,300	1,560	5,900	3,430	2,900	2,460	7,860	2,320	1,090	774	767
18	580	1,200	1,660	5,410	3,080	2,800	2,460	6,700	2,390	1,060	760	747
19	580	1,150	1,560	4,610	2,840	3,600	2,610	5,900	2,610	1,030	747	714
20	580	1,100	1,500	3,990	2,650	6,000	3,000	5,290	2,680	1,020	728	961
21	575	1,110	1,450	3,520	2,500	5,000	3,500	4,720	2,760	1,120	721	977
22	591	1,160	1,400	3,080	2,400	4,300	3,400	4,500	2,540	1,250	728	905
23	596	1,500	1,250	2,760	2,250	3,800	3,400	4,830	2,320	1,070	734	898
24	580	1,740	1,250	2,540	2,150	3,520	3,800	4,720	2,180	1,030	728	868
25	575	1,560	1,160	2,390	2,050	3,340	4,500	4,300	2,180	1,020	734	852
26	570	2,320	1,160	2,180	1,950	3,080	4,000	4,190	2,120	994	774	830
27	570	2,460	1,160	2,050	1,900	2,920	3,600	4,400	1,920	985	740	802
28	570	2,120	1,200	1,920	1,800	2,920	3,300	4,500	1,740	977	734	781
29	570	1,980	1,160	1,800	-	2,760	3,200	4,610	1,680	953	728	760
30	591	2,460	1,120	1,740	-	2,680	3,400	5,060	1,560	937	708	740
31	781	-	1,100	1,680	-	2,760	-	4,830	-	913	702	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff: Inches	Runoff: Acre-feet
October	19,747	961	570	637	1.32	1.53	39,170
November	54,730	3,430	1,070	1,824	3.79	4.23	108,600
December	60,600	3,900	1,100	1,955	4.06	4.69	120,200
Calendar year 1944	635,457	7,200	570	1,736	3.61	49.13	1,260,000
January	126,680	12,800	1,080	4,086	8.49	9.79	251,300
February	124,340	20,600	1,680	4,441	9.23	9.61	246,600
March	93,130	6,000	1,500	3,004	6.25	7.20	184,700
April	88,190	4,500	2,320	2,940	6.11	6.82	174,900
May	173,020	8,010	3,700	5,581	11.6	13.38	343,200
June	77,670	4,300	1,560	2,589	5.38	6.01	154,100
July	36,579	1,560	913	1,180	2.45	2.83	72,550
August	24,525	905	702	791	1.64	1.90	48,640
September	26,949	2,320	695	898	1.87	2.08	53,450
Water year 1944-45	906,160	20,600	570	2,483	5.16	70.07	1,797,000

Peak discharge.- Jan. 13 (12 m.) 15,400 sec.-ft.; Feb. 7 (10 p.m., 11:15 p.m.) 24,300 sec.-ft.
Note.- Shifting-control method used Jan. 14 to Feb. 7. No gage-height record Feb. 20 to Mar. 22, Apr. 21 to May 14; discharge computed on basis of records for stations on nearby streams.
Time basis: Pacific war time up to 2 a.m., Sept. 30, 1945; Pacific standard time thereafter. To convert war time to standard time, subtract 1 hour.

Lewis River at Ariel, Wash.

Location.- Water-stage recorder, lat. 45°57'10", long. 122°33'45", in NW¼NE¼ sec. 4, T. 5 N., R. 2 E., at Ariel, half a mile downstream from Ariel Dam and power plant and 3 miles upstream from Cedar Creek. Datum of gage is 44 feet above mean sea level, unadjusted (levels by Northwestern Electric Co.).

Drainage area.- 731 square miles.

Records available.- July 1922 to September 1945. July to November 1909 at site 3 miles upstream.

Average discharge.- 22 years (1923-45), 4,343 second-feet, adjusted for storage since March 1931.

Extremes (regulated).- Maximum discharge during year, 42,800 second-feet Feb. 7 (gage height, 18.08 feet); minimum recorded, 472 second-feet Aug. 19 (gage height, 0.63 foot); discharge may have been less during some period of no gage-height record.

1909, 1922-45: Maximum discharge, 129,000 second-feet Dec. 22, 1933 (gage height, 35.0 feet, from floodmarks), from rating curve extended above 22,000 second-feet and from spillway-gate openings; no flow at times on June 30 and July 1-3, 6-9, 1931 (caused by regulation during construction of Ariel Dam); minimum daily discharge, 1 second-foot July 6, 1931.

Remarks.- Records good except those for periods of shifting control or no gage-height record, which are fair. No diversions. Flow regulated by Lake Merwin Reservoir on Lewis River, lat. 45°57'30", long. 122°33'10", in SW¼ sec. 34, T. 6 N., R. 2 E., at Ariel, completed in 1931; usable storage, 246,000 acre-feet between elevations 165 feet (set by Federal Power Commission) and 235 feet (spillway crest) above mean sea level. Water is used for power.

Cooperation.- Gage-height record collected in cooperation with Pacific Power & Light Co.

Discharge, in second-feet, water year October 1944 to September 1945

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	†1,950	2,580	3,550	1,920	3,980	3,840	†4,780	6,940	5,190	†1,360	1,260	750
2	2,120	2,970	3,570	2,260	3,660	3,920	4,170	8,250	4,920	1,690	1,210	†501
3	2,080	2,830	†3,520	2,690	3,680	3,900	4,280	9,920	†4,450	1,370	1,220	502
4	2,250	3,220	3,560	2,380	†3,080	†3,420	4,010	10,100	4,240	1,650	940	3,820
5	2,320	†2,990	3,560	2,250	2,910	3,430	4,650	9,330	3,980	1,900	†530	4,190
6	2,300	3,130	3,610	1,900	3,820	3,750	4,960	†9,020	3,640	2,490	1,170	3,550
7	2,230	3,340	3,480	†570	24,500	3,880	5,530	8,640	3,690	2,030	1,190	1,130
8	†1,220	3,250	3,590	1,390	33,200	3,850	†6,350	8,390	3,710	†1,940	1,310	1,010
9	2,210	3,540	3,030	1,860	17,000	3,860	5,680	7,430	3,730	1,730	1,090	†524
10	2,650	3,580	†3,110	3,940	12,400	3,460	5,520	6,780	†2,710	1,250	1,160	1,020
11	2,700	3,600	3,150	8,760	†11,000	†3,420	6,190	8,890	3,440	1,340	1,020	1,230
12	2,580	†3,080	3,270	19,000	11,200	3,520	5,690	10,800	3,750	1,240	†520	1,160
13	2,400	3,180	3,240	24,100	11,700	3,640	5,110	†11,300	3,900	1,340	1,150	1,280
14	2,170	3,570	3,420	†19,500	8,660	4,460	4,560	11,700	3,030	1,200	1,150	1,250
15	†1,600	3,560	3,570	13,600	7,560	5,800	†4,670	10,600	1,830	†616	518	2,170
16	2,590	3,550	3,310	12,000	6,320	5,160	4,800	12,200	2,730	1,290	886	†573
17	2,700	3,540	†2,940	11,300	5,950	5,440	4,470	12,100	†2,840	1,360	1,420	928
18	2,430	3,510	3,400	11,800	†5,540	†5,220	4,240	9,900	3,150	1,340	827	944
19	2,560	†3,550	3,550	8,320	4,400	7,300	4,540	8,440	3,170	1,400	†488	1,040
20	2,560	3,520	3,540	5,860	4,270	12,600	4,970	†7,550	2,790	1,510	1,090	1,100
21	2,270	3,520	3,560	†6,440	4,010	10,100	5,970	6,840	2,940	1,090	940	1,900
22	†2,020	3,490	3,570	4,790	3,850	8,760	†5,330	6,360	3,060	†1,060	796	2,300
23	2,320	3,530	3,560	4,140	4,000	8,030	5,760	6,540	2,720	1,440	774	†574
24	2,130	3,470	†2,570	4,420	3,840	6,550	6,230	6,300	†2,010	1,310	1,030	1,780
25	1,520	3,480	1,670	3,960	†3,740	†6,530	5,800	6,000	2,420	1,400	1,130	1,400
26	1,390	†3,510	2,530	3,880	3,630	5,600	5,560	5,410	2,660	1,280	†499	1,350
27	1,370	3,500	2,010	3,950	3,870	5,550	5,450	†5,740	2,550	1,410	930	1,190
28	1,510	3,510	2,190	†3,640	3,770	5,240	4,940	5,900	2,360	1,150	1,090	1,070
29	†1,090	3,520	1,940	3,560	-	4,530	†5,280	6,020	1,750	†632	1,160	854
30	1,480	3,530	1,610	3,970	-	4,620	6,280	6,400	1,130	1,240	1,130	†534
31	1,850	-	†1,740	3,880	-	5,170	-	5,980	-	1,270	1,100	-

Month	Observed: Discharge in second-feet: Maximum	Observed: Discharge in second-feet: Minimum	Observed: Discharge in second-feet: Mean	Observed: Runoff in acre-feet	Change in contents in Lake Merwin Reservoir (acre-feet)	Adjusted for change in reservoir contents: Runoff in acre-feet	Adjusted for change in reservoir contents: Discharge in second-feet: Mean	Adjusted for change in reservoir contents: Discharge in second-feet: Per square mile	Adjusted for change in reservoir contents: Runoff in inches
October	2,700	1,090	2,083	128,100	-65,200	62,900	1,023	1.40	1.61
November	3,600	2,580	3,373	200,700	-1,900	198,900	3,343	4.57	5.10
December	3,610	1,610	3,062	188,300	+8,800	197,100	3,206	4.39	5.06
Calendar year 1944	10,400	500	2,800	2,033,000	-32,600	2,000,000	2,755	3.77	51.31
January	24,100	570	6,517	400,700	+74,700	475,400	7,732	10.6	12.19
February	33,200	2,910	7,698	427,500	-4,000	423,500	7,686	10.4	10.86
March	12,600	3,420	5,308	326,400	+10,300	336,700	5,476	7.49	8.64
April	6,350	4,010	5,192	309,000	+1,200	310,200	5,213	7.13	7.96
May	12,200	5,410	8,241	506,700	+1,200	507,900	8,260	11.3	13.03
June	5,190	1,130	3,150	187,400	+800	188,200	3,163	4.33	4.83
July	2,490	616	1,398	85,940	-400	85,540	1,391	1.90	2.19
August	1,420	488	991	60,950	-800	60,150	978	1.34	1.54
September	4,190	501	1,388	82,620	+400	83,020	1,395	1.91	2.13
Water year 1944-45	33,200	488	4,012	2,904,000	+25,200	2,930,000	4,046	5.53	75.14

† Sunday.

Note.- No gage-height record Dec. 10 to Jan. 9, May 14-19, July 30 to Aug. 4, Sept. 4-7; discharge computed on basis of power output.

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

East Fork Lewis River near Heisson, Wash.

Location.- Water-stage recorder, lat. 45°50', long. 122°28', in N½ sec. 17, T. 4 N., R. 3 E., just upstream from Basket Creek, 1½ miles northeast of Heisson and 20 miles upstream from mouth. Datum of gage is 366.8 feet above mean sea level (from river-profile surveys).

Drainage area.- 125 square miles.

Records available.- September 1929 to September 1945.

Average discharge.- 16 years, 696 second-feet.

Extremes.- Maximum discharge during year, 9,710 second-feet Feb. 7 (gage height, 9.76 feet); minimum, 45 second-feet Aug. 22 (gage height, 0.21 foot).
1929-45: Maximum discharge, 15,600 second-feet Dec. 22, 1933 (gage height, 12.3 feet), from rating curve extended above 12,000 second-feet; minimum, 29 second-feet Nov. 3, 1935 (gage height, 0.04 foot).

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

Rating table, water year 1944-45 (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Oct. 1-5, 22-26)

0.4	59	1.3	187	3.0	751	6.0	3,160
.6	79	1.6	254	3.5	1,010	7.0	4,570
.8	104	2.0	363	4.0	1,320	8.0	6,230
1.0	133	2.5	535	5.0	2,100	9.0	8,080

Discharge, in second-feet, water year October 1944 to September 1945

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	112	500	450	308	407	516	982	1,250	497	124	68	48
2	98	375	420	308	479	516	824	1,500	461	121	67	50
3	156	400	400	297	728	638	728	1,390	427	117	67	62
4	242	500	450	300	775	575	659	1,130	397	115	65	833
5	335	500	1,000	559	1,560	535	875	901	378	114	62	432
6	200	500	2,000	1,730	1,500	497	1,040	849	357	103	57	208
7	140	600	1,750	3,830	5,240	479	1,220	751	333	103	58	143
8	110	800	1,300	2,220	4,860	575	1,880	682	316	93	60	118
9	94	1,000	1,100	1,390	2,580	636	1,500	616	333	95	60	99
10	81	600	900	1,280	1,800	2,150	1,320	575	305	94	60	87
11	78	470	750	1,250	1,880	1,460	1,720	682	287	93	64	80
12	75	400	650	2,720	2,240	1,500	1,460	849	272	87	62	76
13	72	340	560	3,630	2,860	1,500	1,220	1,160	264	87	63	69
14	70	290	500	2,800	2,060	1,600	1,100	1,560	266	83	62	69
15	68	250	440	2,640	1,530	1,500	1,160	1,390	242	83	58	91
16	67	235	390	2,690	1,220	1,320	1,250	2,340	228	83	55	107
17	66	220	351	2,740	1,040	1,500	1,010	2,430	219	91	53	92
18	65	210	327	2,740	975	1,600	955	1,960	210	87	52	94
19	64	205	319	2,140	751	1,920	1,010	1,500	200	73	50	81
20	64	200	327	1,640	704	3,420	1,100	1,160	191	77	50	241
21	64	200	295	1,320	659	2,380	1,190	955	187	112	48	295
22	64	220	276	1,040	596	2,060	955	849	181	164	47	232
23	64	250	254	901	575	1,760	982	1,010	170	103	48	226
24	62	300	249	751	535	1,420	1,280	901	161	83	49	200
25	60	250	232	682	497	1,280	1,100	799	150	83	55	175
26	57	320	228	596	535	1,220	928	728	150	77	104	155
27	56	350	219	535	555	1,130	824	751	152	73	65	140
28	55	320	289	497	516	1,130	775	659	147	71	55	130
29	55	300	287	444	-	1,070	875	616	145	70	53	120
30	56	370	262	420	-	955	1,220	616	136	73	50	110
31	100	-	247	424	-	1,130	-	555	-	70	50	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff	
						Inches	Acre-feet
October	2,950	335	55	95.2	0.762	0.88	5,850
November	11,475	1,000	200	382	3.06	3.41	22,760
December	17,222	2,000	219	556	4.45	5.12	34,160
Calendar year 1944	153,999	3,460	45	421	3.37	45.81	305,400
January	44,822	3,830	297	1,446	11.6	13.34	88,900
February	39,557	5,240	407	1,413	11.3	11.77	78,460
March	39,972	3,420	479	1,289	10.3	11.89	79,280
April	33,142	1,880	659	1,105	8.84	9.86	65,740
May	33,114	2,430	555	1,068	8.54	9.85	65,680
June	7,762	497	136	259	2.07	2.31	15,400
July	2,935	164	70	94.7	.758	.87	5,820
August	1,817	104	47	58.6	.469	.54	3,600
September	4,863	833	48	162	1.30	1.45	9,650
Water year 1944-45	239,631	5,240	47	657	5.26	71.29	475,300

Peak discharge.- Jan. 7 (9:30 a.m.) 4,730 sec.-ft.; Jan. 13 (10:30 a.m.) 4,570 sec.-ft.; Feb. 7 (6:25 p.m.) 9,710 sec.-ft.

Note.- No gage-height record Oct. 6-21, Oct. 27 to Dec. 16, Sept. 24-30; discharge computed on basis of records for stations on nearby streams.

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

Cowlitz River at Packwood, Wash.

Location.- Water-stage recorder, lat. 46°36'40", long. 121°40'45", in SE¼ sec. 16, T. 13 N., R. 9 E., half a mile upstream from Skate Creek and half a mile northwest of Packwood.

Drainage area.- 287 square miles.

Records available.- September 1929 to September 1945. July 1911 to December 1919 at site 1 mile upstream, published as Cowlitz River at Lewis.

Average discharge.- 24 years, 1,522 second-feet.

Extremes.- Maximum discharge during year, 14,100 second-feet Jan. 7 (gage height, 10.31 feet); minimum, 391 second-feet Aug. 31.
1911-19, 1929-45: Maximum discharge, 36,600 second-feet Dec. 21, 1933 (gage height, 13.0 feet), from rating curve extended above 12,600 second-feet; minimum, 160 second-feet Nov. 21, 1929 (gage height, 2.10 feet).

Remarks.- Records fair. No diversion or regulation.

Discharge, in second-feet, water year October 1944 to September 1945

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	485	586	839	463	754	799	867	2,150	3,270	1,570	721	474
2	479	546	760	432	760	786	825	3,070	2,750	1,780	734	474
3	658	604	714	427	780	786	806	4,620	2,590	1,780	714	458
4	551	806	1,310	416	773	773	766	5,210	2,520	1,620	695	1,430
5	786	721	2,920	506	874	728	773	4,620	2,590	1,570	714	1,190
6	670	754	3,090	833	895	734	786	4,500	2,360	1,670	728	902
7	604	766	2,150	8,910	4,680	721	780	4,390	2,290	1,720	734	792
8	563	825	1,670	3,680	8,350	708	799	4,280	2,290	1,670	721	714
9	540	860	1,380	2,020	4,050	728	766	3,750	2,440	1,670	714	652
10	540	747	1,200	1,780	2,670	958	747	3,270	2,360	1,670	683	586
11	523	670	1,030	1,840	2,220	902	760	3,180	2,290	1,570	658	546
12	506	621	930	3,460	2,020	895	747	3,090	2,080	1,470	652	501
13	463	574	839	7,210	1,780	874	714	3,000	1,840	1,340	621	495
14	468	485	773	4,170	1,570	888	747	2,920	1,620	1,240	639	495
15	479	523	721	2,840	1,420	839	792	2,750	1,570	1,240	627	506
16	479	501	676	2,220	1,340	812	867	2,920	1,720	1,020	633	479
17	506	485	633	1,900	1,240	780	881	2,840	1,960	937	598	495
18	506	468	609	1,720	1,160	766	909	2,590	2,360	881	568	479
19	501	453	615	1,520	1,100	874	1,030	2,520	2,590	902	528	447
20	501	442	645	1,380	1,050	1,160	1,240	2,440	2,920	902	523	1,100
21	468	538	621	1,240	1,010	1,110	1,520	2,360	3,090	951	517	916
22	557	1,160	592	1,160	980	1,050	1,420	2,360	2,440	988	557	839
23	495	1,240	534	1,100	937	972	1,420	2,750	2,150	881	540	846
24	479	1,240	517	1,040	902	923	1,470	2,840	2,220	860	490	909
25	468	1,070	495	980	874	881	1,420	2,670	2,520	895	447	1,160
26	474	1,380	501	930	867	860	1,380	2,670	2,360	853	468	1,090
27	490	1,340	501	888	846	825	1,380	3,000	1,780	867	495	965
28	474	1,040	490	867	812	825	1,420	3,460	1,520	860	563	916
29	458	888	479	832	-	806	1,470	3,850	1,420	792	540	881
30	463	867	468	799	-	792	1,840	4,850	1,380	728	485	867
31	479	-	458	773	-	909	-	4,620	-	728	453	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff: Inches	Runoff: Acre-feet
October	16,113	786	458	520	1.81	2.09	31,960
November	23,200	1,380	442	773	2.69	3.01	46,020
December	29,160	3,090	458	941	3.28	3.78	57,840
Calendar year 1944	359,630	3,090	396	983	3.45	46.61	713,300
January	58,336	8,910	416	1,882	6.56	7.56	115,700
February	46,714	5,350	754	1,668	5.81	6.05	92,660
March	26,464	1,160	708	854	2.98	3.43	52,490
April	31,342	1,840	714	1,045	3.64	4.06	62,170
May	103,540	5,210	2,150	3,340	11.6	13.42	206,100
June	67,290	3,270	1,380	2,243	7.82	8.72	133,500
July	37,625	1,780	728	1,214	4.23	4.88	74,630
August	18,760	734	447	605	2.11	2.43	37,210
September	22,604	1,430	447	753	2.62	2.93	44,830
Water year 1944-45	481,148	8,910	416	1,318	4.59	62.36	954,400

Peak discharge.- Jan. 7 (11:45 a.m.) 14,100 sec.-ft.; Jan. 13 (11 a.m.) 10,000 sec.-ft.; Feb. 7 (10:15, 10:40 p.m.) 12,200 sec.-ft.
Time basis: Pacific war time up to 2 a.m., Sept. 30, 1945; Pacific standard time thereafter. To convert war time to standard time, subtract 1 hour.

Cowlitz River near Mayfield, Wash.

Location.- Water-stage recorder, lat. 46°30'40", long. 122°36'50", in NE¼ sec. 24, T. 12 N., R. 1 E., 1 mile upstream from Mill Creek, 2 miles downstream from Winston Creek, and 2½ miles west of Mayfield. Datum of gage is 226.6 feet above mean sea level, datum of 1929.

Drainage area.- 1,400 square miles.

Records available.- April 1934 to September 1945. August 1910 to November 1911 at site 2½ miles upstream, published as Cowlitz River at Mayfield.

Average discharge.- 11 years, 5,195 second-feet.

Extremes.- Maximum discharge during year, 29,200 second-feet Feb. 8 (gage height, 18.22 feet); minimum, 1,120 second-feet Oct. 29 (gage height, 7.78 feet).
1910-11, 1934-45: Maximum discharge, 42,600 second-feet Nov. 24, 1942 (gage height, 21.50 feet); minimum, 766 second-feet Nov. 30, Dec. 1, 1936 (gage height, 7.18 feet).
Flood of December 1933 is known to have exceeded that of Nov. 24, 1942.

Remarks.- Records excellent except those for period of shifting control, which are good. No diversion or regulation.

Rating table, water year 1944-45, except during period of shifting control
(gage height, in feet, and discharge, in second-feet)

8.0	1,350	10.0	4,370	14.0	14,500
8.5	1,950	11.0	6,420	16.0	21,000
9.0	2,660	12.0	8,800	18.0	28,300
9.5	3,470	13.0	11,500		

Discharge, in second-feet, water year October 1944 to September 1945

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,680	1,880	3,730	2,220	3,330	3,950	5,480	9,720	11,200	3,660	1,910	1,340
2	1,530	2,160	3,470	2,190	3,330	3,910	5,170	11,800	9,320	3,890	1,900	1,350
3	1,570	2,040	3,180	2,080	3,500	4,110	5,010	15,600	8,300	4,140	1,900	1,370
4	1,910	2,210	3,750	2,030	3,750	3,980	4,810	17,500	7,810	3,930	1,860	2,120
5	2,120	2,380	7,260	2,580	4,390	3,770	5,310	16,800	7,500	3,730	1,810	4,180
6	2,330	2,390	10,700	3,930	4,750	3,590	5,620	15,900	7,120	3,610	1,810	2,750
7	2,090	2,460	10,200	13,000	9,340	3,500	5,710	15,300	6,760	3,680	1,830	2,070
8	1,910	2,510	7,980	20,200	26,100	3,560	6,420	14,700	6,530	3,730	1,860	1,780
9	1,780	3,280	6,610	13,400	23,000	3,570	6,160	13,700	6,490	3,660	1,830	1,600
10	1,690	3,080	5,520	10,000	16,500	5,940	6,110	12,300	6,640	3,640	1,810	1,480
11	1,630	2,780	4,790	9,010	13,300	5,580	6,640	12,100	6,290	3,500	1,760	1,450
12	1,570	2,520	4,280	12,000	12,700	5,710	6,480	12,500	6,000	3,380	1,720	1,430
13	1,530	2,300	3,860	18,200	12,000	5,690	6,020	12,600	5,750	3,200	1,710	1,370
14	1,460	2,120	3,560	20,800	10,400	5,830	5,710	13,200	5,480	3,020	1,660	1,350
15	1,440	1,980	3,300	16,200	9,030	5,690	5,580	12,500	4,930	2,910	1,660	1,400
16	1,380	1,870	3,110	12,800	8,030	5,270	5,730	13,100	4,730	2,750	1,650	1,460
17	1,360	1,800	2,940	11,300	7,240	5,050	5,640	13,800	4,950	2,630	1,650	1,430
18	1,330	1,740	2,800	10,900	6,570	5,010	5,430	12,500	5,520	2,480	1,630	1,440
19	1,310	1,680	2,700	9,550	6,000	4,950	5,600	11,100	6,220	2,380	1,570	1,400
20	1,260	1,620	2,680	8,200	5,580	6,980	6,240	10,200	6,570	2,330	1,470	1,750
21	1,240	1,590	2,620	7,150	5,250	8,000	7,500	9,450	7,100	2,360	1,450	2,320
22	1,250	1,710	2,520	6,400	4,990	7,520	8,100	9,060	6,870	2,600	1,440	1,950
23	1,350	2,660	2,420	5,790	4,890	7,170	8,000	9,530	6,000	2,580	1,480	1,910
24	1,330	3,820	2,280	5,230	4,600	6,550	8,520	10,200	5,540	2,330	1,480	1,830
25	1,240	3,610	2,210	4,890	4,330	6,020	8,350	9,850	5,580	2,260	1,470	2,030
26	1,180	4,620	2,150	4,520	4,280	5,710	7,860	9,400	5,770	2,260	1,560	2,460
27	1,160	5,980	2,120	4,140	4,260	5,350	7,470	9,480	5,430	2,180	1,470	2,160
28	1,170	5,010	2,150	3,950	4,020	5,250	7,120	10,300	4,410	2,180	1,460	1,940
29	1,150	4,070	2,160	3,730	-	5,150	7,050	10,800	3,960	2,150	1,470	1,800
30	1,150	3,780	2,110	3,560	-	4,930	8,150	11,800	3,710	2,090	1,470	1,700
31	1,300	-	2,090	3,450	-	5,210	-	12,600	-	1,980	1,390	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff: Inches	Runoff: Acre-feet
October	46,400	2,330	1,150	1,497	1.07	1.23	92,030
November	81,650	5,980	1,590	2,722	1.94	2.17	162,000
December	121,150	10,700	2,090	3,908	2.79	3.22	240,300
Calendar year 1944	1,281,370	10,900	1,150	3,501	2.50	34.04	2,542,000
January	253,400	20,800	2,030	8,174	5.84	6.73	502,600
February	225,460	26,100	3,330	8,052	5.75	5.99	447,200
March	162,480	8,000	3,500	5,241	3.74	4.32	322,300
April	192,970	8,520	4,810	6,432	4.59	5.13	382,800
May	379,390	17,500	9,060	12,240	8.74	10.08	752,500
June	188,480	11,200	3,710	6,283	4.49	5.01	373,800
July	91,220	4,140	1,980	2,943	2.10	2.42	180,900
August	51,140	1,910	1,390	1,650	1.18	1.36	101,400
September	54,630	4,180	1,340	1,821	1.30	1.45	108,400
Water year 1944-45	1,848,370	26,100	1,150	5,064	3.62	49.11	3,666,000

Peak discharge.- Jan. 8 (6 a.m.) 21,900 sec.-ft.; Jan. 14 (4 a.m.) 22,300 sec.-ft.; Feb. 8 (8:30 p.m.) 29,200 sec.-ft.

Note.- Shifting-control method used June 3 to Sept. 30.

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

Cowlitz River at Castle Rock, Wash.

Location.- Water-stage recorder, lat. 46°16'30", long. 122°55'00", in SE¼ sec. 10, T. 9 N., R. 2 W., at highway bridge in Castle Rock, 2½ miles downstream from Toutle River and 14 miles upstream from mouth. Datum of gage is 19.73 feet above mean sea level, datum of 1929.

Drainage area.- 2,240 square miles.

Records available.- December 1926 to September 1945.

Average discharge.- 18 years (1927-45), 8,212 second-feet.

Extremes.- Maximum discharge during year, 45,300 second-feet Feb. 8 (gage height, 17.67 feet); minimum, 1,580 second-feet Oct. 30 (gage height, 6.04 feet).
1926-45: Maximum discharge observed, 139,000 second-feet Dec. 23, 1933 (gage height, 31.6 feet, present datum), from rating curve extended above 65,000 second-feet; minimum discharge, 998 second-feet Nov. 7, 8, 1935.

Remarks.- Records excellent except those above 20,000 second-feet, which are good. No diversion or regulation.

Rating tables, water year 1944-45 (gage height, in feet, and discharge, in second-feet)

Oct. 1 to Feb. 7						Feb. 8 to Sept. 30			
6.1	1,670	8.0	5,010	12.0	16,400	6.5	2,360	10.0	9,980
6.5	2,290	9.0	7,190	14.0	25,200	7.0	3,240	11.0	12,900
7.0	3,130	10.0	9,750	16.0	35,800	7.5	4,180	12.0	16,500
7.5	4,040	11.0	12,800			8.0	5,200	14.0	25,200
						9.0	7,430	16.0	35,800

Discharge, in second-feet, water year October 1944 to September 1945

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2,390	2,670	6,590	3,510	5,190	5,820	8,340	11,800	14,100	4,600	2,430	1,740
2	2,130	3,200	5,880	3,560	5,210	5,710	7,980	14,000	11,800	4,680	2,380	1,740
3	2,050	2,990	5,290	3,330	5,710	6,320	7,620	18,500	10,600	5,030	2,340	1,790
4	2,390	3,540	5,500	3,200	6,500	6,210	7,290	21,800	10,000	5,030	2,310	3,090
5	2,890	3,760	8,720	3,780	8,240	5,750	8,790	21,400	9,470	4,660	2,250	5,800
6	3,080	3,690	13,800	5,800	9,470	5,410	10,000	19,800	9,180	4,480	2,230	4,500
7	2,840	3,740	14,400	17,600	22,300	5,220	10,000	19,000	8,760	4,440	2,260	3,110
8	2,590	4,170	11,600	29,200	44,200	5,560	13,500	18,100	8,410	4,540	2,280	2,650
9	2,420	6,040	9,500	20,900	38,600	5,730	12,700	17,000	8,280	4,500	2,250	2,380
10	2,270	5,650	8,080	14,900	26,200	11,600	11,000	15,400	8,380	4,420	2,230	2,180
11	2,180	4,730	7,080	13,100	20,400	11,000	11,600	15,000	8,140	4,420	2,200	2,060
12	2,110	4,120	6,280	16,300	19,300	10,300	11,700	15,700	7,790	4,200	2,170	2,020
13	2,050	3,620	5,610	25,500	19,900	11,000	10,500	16,300	7,570	4,050	2,170	1,960
14	1,990	3,220	5,130	30,400	16,900	12,800	9,490	17,300	7,310	3,760	2,120	1,910
15	1,960	2,990	4,770	26,000	14,300	12,900	9,020	16,800	6,660	3,610	2,100	1,960
16	1,900	2,760	4,440	20,200	12,500	10,900	8,920	17,900	6,240	3,460	2,100	2,150
17	1,860	2,650	4,150	17,900	11,400	9,820	8,710	20,600	6,240	3,330	2,090	2,070
18	1,840	2,540	3,930	18,000	10,300	9,900	8,280	18,500	6,620	3,130	2,070	1,990
19	1,780	2,420	3,850	15,900	9,260	10,700	8,160	15,900	7,570	2,950	2,010	1,980
20	1,760	2,320	3,960	13,300	8,610	18,100	8,560	14,300	8,060	2,880	1,930	2,560
21	1,730	2,270	3,810	11,400	8,060	17,900	9,660	12,900	8,540	2,930	1,850	3,330
22	1,720	2,470	3,650	10,300	7,720	15,800	10,700	12,200	8,710	3,200	1,820	3,010
23	1,760	3,110	3,470	8,980	7,500	14,500	10,500	12,700	7,720	3,290	1,840	2,770
24	1,820	5,520	3,220	8,160	7,010	12,300	11,500	13,800	7,010	2,950	1,860	2,700
25	1,740	5,520	3,060	7,500	6,780	10,900	11,700	13,200	6,940	2,840	1,880	2,670
26	1,670	6,960	3,010	6,940	6,300	10,100	10,900	12,300	7,080	2,790	2,170	3,200
27	1,620	9,280	2,980	6,410	6,430	9,130	10,300	12,400	6,940	2,750	2,060	2,990
28	1,610	8,010	3,220	5,970	6,080	8,740	9,760	12,800	5,860	2,680	1,900	2,680
29	1,600	6,550	3,510	5,610	-	8,380	9,340	13,400	5,260	2,680	1,900	2,440
30	1,610	6,350	3,440	5,340	-	7,860	10,300	14,100	4,910	2,620	1,910	2,300
31	1,850	-	3,240	5,230	-	8,010	-	15,100	-	2,510	1,850	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff	
						Inches	Acre-feet
October	63,230	3,080	1,600	2,040	0.911	1.05	125,400
November	126,860	9,280	2,270	4,229	1.89	2.11	251,600
December	175,170	14,400	2,980	5,651	2.52	2.91	347,400
Calendar year 1944	1,874,180	18,200	1,550	5,121	2.29	31.13	3,717,000
January	384,220	30,400	3,200	12,390	5.53	6.33	762,100
February	370,370	44,200	5,190	13,230	5.91	6.15	734,600
March	304,370	18,100	5,220	9,818	4.38	5.05	603,700
April	296,820	13,500	7,290	9,894	4.42	4.93	588,700
May	490,000	21,800	11,800	15,810	7.06	8.14	971,900
June	240,350	14,100	4,910	8,012	3.58	3.99	476,700
July	113,430	5,030	2,510	3,659	1.63	1.83	225,000
August	64,960	2,430	1,820	2,095	.935	1.01	128,800
September	77,730	5,800	1,740	2,591	1.16	1.29	154,200
Water year 1944-45	2,707,510	44,200	1,600	7,418	3.31	44.93	5,370,000

Peak discharge.- Jan. 8 (11 a.m.) 30,600 sec.-ft.; Jan. 14 (9:30 a.m.) 31,200 sec.-ft.; Feb. 8 (12:30 a.m.) 45,300 sec.-ft.; May 4 (9 to 12 p.m.) 22,400 sec.-ft.

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

Cispus River near Randle, Wash.

Location.- Water-stage recorder, lat. 46°26'50", long. 121°51'35", in NW¼ sec. 18, T. 11 N., R. 8 E. (unsurveyed), 500 feet upstream from bridge to Tower Rock ranger station, 4 miles downstream from North Fork, and 8 miles southeast of Randle. Datum of gage is 1,221.4 feet above mean sea level (from river-profile survey).

Drainage area.- 323 square miles.

Records available.- October 1910 to February 1912, September 1929 to September 1945.

Average discharge.- 17 years (1910-11, 1929-45), 1,214 second-feet.

Extremes.- Maximum discharge during year, 8,240 second-feet probably Feb. 8 (gage height, 8.26 feet, from recorded range in stage); minimum, 290 second-feet Oct. 21, 28, 29 (gage height, 2.64 feet).

1910-12, 1929-45: Maximum discharge, 20,000 second-feet Dec. 22, 1933 (gage height, 12.7 feet), from rating curve extended above 8,000 second-feet; minimum, 183 second-feet Dec. 30, 1936; minimum gage height, 2.55 feet Oct. 25, 1942.

Remarks.- Records good except those for period of no gage-height record, which are poor. No diversion or regulation.

Rating tables, water year 1944-45 (gage height, in feet, and discharge, in second-feet)

Oct. 1 to Feb. 7				Feb. 8 to Sept. 30					
2.9	356	4.4	1,320	2.7	267	4.0	920	6.0	3,550
3.3	500	5.0	2,050	3.0	352	4.4	1,320	7.0	5,400
3.6	655	5.8	3,220	3.3	466	5.0	2,050	8.0	7,540
4.0	935			3.6	625	5.5	2,750		

Discharge, in second-feet, water year October 1944 to September 1945

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	350	377	674	435	610	746	983	1,500	2,680	1,000	500	369
2	300	359	621	424	600	711	938	2,000	2,320	960	490	369
3	330	386	583	413	680	711	920	2,800	2,120	940	480	355
4	390	496	644	417	800	684	896	2,600	1,980	920	470	836
5	500	496	1,090	458	950	632	912	2,400	1,860	900	460	695
6	430	496	1,530	512	1,300	632	938	2,200	1,790	880	460	441
7	370	524	1,450	1,380	1,800	632	956	2,100	1,700	860	460	397
8	348	857	1,250	1,610	6,000	625	992	2,000	1,650	840	460	379
9	348	960	1,080	1,320	3,000	625	956	1,900	1,650	840	450	359
10	345	777	969	1,250	2,200	938	947	1,750	1,650	820	440	352
11	340	649	880	1,320	1,900	856	929	1,900	1,600	800	430	355
12	332	572	813	1,860	1,800	848	896	2,200	1,550	760	430	349
13	329	524	750	3,140	2,000	832	856	2,500	1,550	720	420	346
14	324	483	698	2,900	1,800	832	856	3,200	1,550	680	420	333
15	319	458	655	2,250	1,550	800	912	3,000	1,500	640	410	352
16	314	443	621	1,600	1,440	776	1,040	3,600	1,400	620	400	352
17	309	428	593	1,500	1,340	753	1,010	4,000	1,400	600	390	355
18	306	417	572	1,400	1,230	732	1,030	3,900	1,450	580	390	343
19	304	406	567	1,300	1,140	848	1,190	3,700	1,500	566	380	324
20	299	393	562	1,200	1,080	1,670	1,490	3,400	1,550	596	370	443
21	297	393	542	1,100	1,010	1,610	1,860	3,200	1,600	625	360	397
22	306	420	524	1,000	956	1,440	1,790	3,000	1,500	697	360	372
23	309	524	479	920	920	1,320	1,790	3,300	1,400	677	360	379
24	304	542	466	870	872	1,170	1,790	3,200	1,300	584	360	369
25	302	500	450	810	840	1,120	2,000	3,000	1,300	590	380	401
26	299	578	458	760	824	1,060	1,700	2,900	1,300	566	540	397
27	299	626	458	720	792	1,000	1,400	3,000	1,250	561	430	369
28	297	562	462	700	746	956	1,300	2,900	1,200	550	400	349
29	297	538	454	670	-	929	1,200	3,000	1,100	524	369	333
30	319	638	439	640	-	912	1,400	3,060	1,050	520	376	327
31	351	-	431	620	-	1,010	-	3,060	-	500	366	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff Inches	Runoff Acre-feet
October	10,267	500	297	331	1.02	1.18	20,360
November	15,822	960	359	527	1.63	1.82	31,380
December	21,765	1,530	431	702	2.17	2.51	43,170
Calendar year 1944	272,179	2,250	297	744	2.30	31.34	539,900
January	35,499	3,140	413	1,145	3.54	4.09	70,410
February	40,180	6,000	600	1,435	4.44	4.63	79,700
March	28,419	1,670	625	917	2.84	3.27	56,370
April	35,877	2,000	856	1,196	3.70	4.13	71,160
May	86,270	4,000	1,500	2,783	8.62	9.93	171,100
June	47,450	2,680	1,050	1,582	4.90	5.46	94,120
July	21,916	1,000	500	707	2.19	2.52	43,470
August	13,011	540	360	420	1.30	1.50	25,810
September	11,797	836	324	393	1.22	1.36	23,400
Water year 1944-45	368,273	6,000	297	1,009	3.12	42.40	730,400

Note.- No gage-height record Oct. 1-7, Jan. 16 to Feb. 14, Apr. 25 to May 29, June 7 to July 18, July 30 to Aug. 28; discharge computed on basis of records for stations on nearby streams.
Time basis: Pacific war time up to 2 a.m., Sept. 30, 1945; Pacific standard time thereafter. To convert war time to standard time, subtract 1 hour.

Tilton River near Cinebar, Wash.

Location.- Water-stage recorder, lat. 46°34'35", long. 122°31'15", in SW¼ sec. 26, T. 13 N., R. 2 E., 1,000 feet downstream from Cinnabar Creek, 2 miles southeast of Cinebar, and 2⅔ miles upstream from mouth. Datum of gage is 397.6 feet above mean sea level (from river-profile survey).

Drainage area.- 158 square miles.

Records available.- February 1941 to September 1945.

Extremes.- Maximum discharge during year, 8,660 second-feet Jan. 7 (gage height, 11.55 feet), from rating curve extended above 3,500 second-feet; minimum, 74 second-feet Aug. 23, 24.

1941-45: Maximum discharge, 9,850 second-feet Nov. 23, 1942 (gage height, 12.21 feet), from rating curve extended above 3,500 second-feet; minimum, 66 second-feet Sept. 11, 12, 1944.

Remarks.- Records excellent except those for period of shifting control, which are good. No diversion or regulation.

Rating tables, water year 1944-45, except during period of shifting control
(gage height, in feet, and discharge, in second-feet)

3.7	81	4.7	314	7.0	1,770
3.9	114	5.0	422	8.0	2,840
4.1	152	5.5	660	9.0	4,190
4.3	198	6.0	970	10.0	5,760
4.5	252	6.5	1,340	11.0	7,520

Discharge, in second-feet, water year October 1944 to September 1945

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	184	701	840	399	535	605	1,150	1,540	595	188	104	76
2	170	780	720	403	540	610	1,040	1,820	540	181	102	78
3	242	684	638	370	666	714	970	2,010	494	174	100	88
4	331	684	1,120	362	810	690	905	1,680	472	172	99	617
5	467	590	2,490	1,010	1,040	627	1,260	1,420	442	163	97	564
6	414	610	2,440	1,940	1,180	590	1,420	1,340	426	159	94	295
7	338	644	1,820	6,470	4,140	564	1,380	1,220	407	152	92	214
8	285	616	1,380	3,620	5,430	600	1,460	1,150	388	148	92	174
9	252	672	1,110	2,160	3,620	716	1,340	1,040	384	142	91	152
10	221	580	905	1,720	2,320	2,270	1,420	970	366	140	89	136
11	203	503	780	1,590	2,060	1,540	1,590	1,150	352	136	89	125
12	184	451	684	3,340	2,160	1,540	1,500	1,300	331	134	89	116
13	179	388	600	4,260	2,160	1,460	1,300	1,340	334	132	95	109
14	172	345	540	3,220	1,770	1,460	1,220	1,640	345	130	94	106
16	165	317	498	2,440	1,500	1,300	1,220	1,460	314	128	89	121
16	159	295	455	2,010	1,300	1,150	1,260	1,770	295	132	86	134
17	152	279	422	2,270	1,150	1,080	1,150	1,820	279	134	84	127
18	148	258	395	2,540	1,000	1,110	1,080	1,540	270	130	81	121
19	140	244	403	2,110	905	1,150	1,110	1,300	261	125	80	95
20	136	232	399	1,720	810	1,960	1,220	1,150	252	121	78	257
21	134	238	362	1,420	750	1,770	1,420	1,040	244	132	78	235
22	152	288	345	1,220	750	1,590	1,300	938	241	167	76	206
23	186	699	324	1,080	750	1,540	1,300	1,080	230	138	75	216
24	156	1,220	308	938	675	1,340	1,460	1,040	221	127	75	208
26	142	970	295	840	638	1,180	1,340	938	214	121	97	308
26	136	1,870	285	780	622	1,080	1,180	872	206	118	161	304
27	130	2,160	282	696	632	970	1,110	840	206	114	116	252
28	127	1,460	295	638	595	1,110	1,040	810	206	109	97	211
29	123	1,080	311	595	-	1,080	1,150	780	201	107	89	188
30	130	938	304	554	-	970	1,460	750	198	107	83	170
31	198	-	328	549	-	1,180	-	672	-	106	81	-

Month	Seoond-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff	
						Inches	Acre-feet
October	6,156	467	123	199	1.26	1.45	12,210
November	20,796	2,160	232	693	4.39	4.89	41,250
December	22,078	2,490	282	712	4.51	5.20	43,790
Calendar year 1944	193,720	3,520	66	529	3.35	45.60	384,200
January	53,264	6,470	362	1,718	10.9	12.54	105,600
February	40,511	5,430	535	1,447	9.16	9.54	80,350
March	35,546	2,270	564	1,147	7.26	8.37	70,500
April	37,755	1,590	905	1,258	7.96	8.89	74,890
May	38,420	2,010	672	1,239	7.84	9.04	76,200
June	9,714	595	198	324	2.05	2.29	19,270
July	4,267	188	106	138	.873	1.00	8,460
August	2,853	161	75	92.0	.582	.67	5,660
September	6,003	617	76	200	1.27	1.41	11,910
Water year 1944-45	277,363	6,470	75	760	4.81	65.29	550,100

Note.- Shifting-control method used Sept. 5-30.
Time basis: Pacific war time up to 2 a.m., Sept. 30, 1945; Pacific standard time thereafter. To convert war time to standard time, subtract 1 hour.

Toutle River near Silver Lake, Wash.

Location.- Water-stage recorder, lat. 46°20'10", long. 122°45'30", in SE¼ sec. 19, T. 10 N., R. 1 E., at highway bridge, half a mile downstream from confluence of North and South Forks and 5 miles northeast of Silver Lake. Datum of gage is 407.3 feet above mean sea level (from river-profile survey.

Drainage area.- 474 square miles.

Records available.- October 1919 to December 1925, September 1929 to September 1945. September 1909 to August 1912 at site 2 miles downstream, published as Toutle River near Castle Rock.

Average discharge.- 21 years (1909-11, 1919-21, 1922-23, 1929-45), 1,906 second-feet.

Extremes.- Maximum discharge during year, 14,900 second-feet Feb. 7 (gage height, 11.28 feet); minimum, 316 second-feet Oct. 29.

1909-12, 1919-23, 1929-45: Maximum discharge observed, 35,600 second-feet Mar. 2, 1910; maximum gage height recorded, 22.7 feet Dec. 23, 1933; minimum discharge, 240 second-feet Nov. 21, 1929.

Remarks.- Records good except those for period of shifting control, which are fair, and those for periods of no gage-height record, which are poor. No diversion or regulation.

Rating tables, water year 1944-45, except during period of shifting control (gage height, in feet, and discharge, in second-feet)

Oct. 1 to Jan. 6				Jan. 7 to Sept. 30					
1.7	325	3.5	1,640	1.7	380	3.0	1,250	6.0	5,890
1.9	430	4.0	2,200	1.9	485	3.5	1,700	8.0	9,430
2.1	550	4.5	2,890	2.1	600	4.0	2,260	10.0	12,700
2.5	820	5.0	3,700	2.5	870	5.0	3,850		
3.0	1,190	6.0	5,620						

Discharge, in second-feet, water year October 1944 to September 1945

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	532	1,130	1,000	827	1,310	1,440	2,140	2,700	2,320	970	490	371
2	472	855	930	806	1,420	1,410	2,020	3,160	2,120	978	480	371
3	532	974	900	764	1,770	1,580	1,910	4,040	1,940	970	474	390
4	628	1,200	1,000	757	1,830	1,510	1,830	3,850	1,860	933	463	1,670
5	700	1,200	2,800	1,090	2,290	1,400	2,260	3,390	1,770	898	458	1,470
6	570	1,200	4,200	1,760	2,400	1,330	2,520	3,280	1,710	884	452	856
7	490	1,300	4,000	5,340	8,490	1,710	2,630	3,180	1,680	877	446	672
8	450	1,800	3,000	4,340	10,400	1,410	3,540	3,050	1,600	870	452	582
9	410	2,000	2,200	2,980	6,710	1,590	3,030	2,840	1,590	856	441	529
10	390	1,300	1,800	2,700	4,870	3,570	2,720	2,700	1,590	849	430	496
11	390	1,000	1,550	2,590	4,230	2,720	3,090	2,960	1,530	821	425	463
12	385	760	1,350	4,320	4,290	2,830	3,030	3,140	1,460	779	425	441
13	385	640	1,250	5,780	4,470	2,840	2,670	3,410	1,490	744	425	425
14	380	580	1,150	5,250	3,730	3,140	2,430	3,870	1,490	704	420	415
15	375	540	1,050	4,700	3,160	2,880	2,350	3,540	1,360	678	420	468
16	370	520	950	4,120	2,820	2,550	2,300	4,570	1,310	678	415	552
17	370	500	890	4,120	2,590	2,430	2,150	4,800	1,310	672	405	480
18	365	480	855	4,160	2,340	2,400	2,060	4,040	1,380	626	395	482
19	365	460	897	3,570	2,140	2,860	2,060	3,370	1,450	600	385	485
20	360	450	897	2,980	2,020	5,660	2,140	3,030	1,490	588	376	1,250
21	355	450	855	2,590	1,900	4,680	2,320	2,800	1,540	652	371	1,050
22	370	500	820	2,270	1,810	4,250	2,320	2,620	1,430	814	371	877
23	397	580	778	2,070	1,770	3,630	2,400	3,060	1,310	639	371	870
24	360	700	729	1,890	1,640	3,060	2,790	2,950	1,270	600	371	821
25	345	600	701	1,740	1,560	2,800	2,920	2,730	1,270	570	400	821
26	335	740	687	1,620	1,550	2,580	2,650	2,590	1,270	558	665	856
27	330	800	687	1,530	1,550	2,320	2,440	2,670	1,180	546	485	793
28	320	710	799	1,430	1,460	2,270	2,250	2,590	1,090	534	420	730
29	320	680	799	1,360	-	2,130	2,180	2,620	1,060	518	405	672
30	355	900	771	1,310	-	2,010	2,520	2,730	1,010	512	390	632
31	596	-	743	1,320	-	2,210	-	2,600	-	502	376	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff	
						Inches	Acre-feet
October	13,002	700	320	419	0.884	1.02	25,790
November	25,549	2,000	450	852	1.80	2.00	50,680
December	41,038	4,200	687	1,324	2.79	3.22	81,400
Calendar year 1944	414,973	4,210	272	1,134	2.39	32.56	823,100
January	82,084	5,780	757	2,648	5.59	6.44	162,800
February	86,520	10,400	1,310	3,090	6.52	6.79	171,600
March	73,800	5,660	1,910	2,542	5.36	6.18	156,300
April	73,670	3,540	1,830	2,456	5.18	5.78	146,100
May	98,900	4,800	2,590	3,190	6.73	7.76	196,200
June	44,880	2,320	1,010	1,496	3.16	3.52	89,020
July	22,420	978	502	723	1.53	1.76	44,470
August	13,302	665	371	429	.905	1.04	26,380
September	20,990	1,670	371	700	1.48	1.65	41,630
Water year 1944-45	601,155	10,400	320	1,647	3.47	47.16	1,192,000

Note.- No gage-height record Oct. 5-18, Nov. 4 to Dec. 17, Sept. 18; discharge computed on basis of recorded range in stage and records for stations on nearby streams. Shifting-control method used Dec. 18 to Jan. 6.

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

South Fork Toutle River at Toutle, Wash.

Location.- Water-stage recorder, lat. 46°19'20", long. 122°41'45", in SW¼NW¼ sec. 28, T. 10 N., R. 1 E., half a mile southwest of Toutle, 1½ miles upstream from mouth, and 3 miles downstream from Johnson Creek. Datum of gage is at mean sea level (from river-profile survey).

Drainage area.- 118 square miles.

Records available.- October 1939 to September 1945.

Extremes.- Maximum discharge during year, 7,290 second-feet Feb. 7 (elevation, 457.84 feet); minimum, 76 second-feet Aug. 21-25, Sept. 2, 3.
1939-45: Maximum discharge, that of Feb. 7, 1945; minimum, 67 second-feet Sept. 9-13, 1944.

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

Rating tables, water year 1944-45 (elevation, in feet, and discharge, in second-feet)
(Shifting-control method used Sept. 15-30)

Oct. 1 to Jan. 13				Jan. 14 to Sept. 30					
451.9	82	453.5	795	451.9	94	453.5	850	455.5	3,290
452.2	140	454.0	1,270	452.2	161	454.0	1,330	456.0	4,070
452.5	222	454.7	2,110	452.5	255	454.5	1,890	457.0	5,780
453.0	445			453.0	490	455.0	2,560		

Discharge, in second-feet, water year October 1944 to September 1945

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	131	505	980	232	335	380	690	850	613	172	100	78
2	118	322	731	219	415	370	641	1,070	538	167	98	76
3	140	375	598	206	662	415	599	1,330	484	161	96	89
4	164	670	655	210	746	400	557	1,230	446	158	94	844
5	257	648	731	385	976	375	754	1,070	420	154	92	561
6	197	584	898	705	976	350	868	1,060	400	151	87	d240
7	167	612	779	2,040	3,850	355	886	1,020	405	144	89	d170
8	150	1,050	685	1,610	4,230	410	1,200	958	375	141	89	d140
9	140	1,400	a530	1,060	2,420	528	1,000	868	380	138	87	d120
10	131	980	445	943	1,650	1,650	877	842	360	138	85	d110
11	120	708	406	907	1,430	1,140	994	1,040	340	136	85	d100
12	116	531	360	1,670	a900	1,090	976	1,120	323	132	89	d100
13	114	428	322	2,110	a1,100	1,050	842	1,300	327	127	89	d90
14	112	350	296	1,830	a1,000	1,180	762	1,480	331	123	89	d85
15	110	309	276	1,650	a850	1,050	730	1,270	303	121	87	144
16	105	276	257	1,480	a780	913	722	1,540	283	125	85	189
17	103	250	240	1,540	a720	859	662	1,600	283	132	83	148
18	99	232	229	1,540	655	868	627	1,540	287	118	81	116
19	96	213	236	1,270	606	1,130	641	1,140	287	114	80	106
20	96	194	236	1,040	564	2,630	683	1,010	275	112	78	465
21	94	210	219	859	526	2,020	770	886	267	139	76	425
22	96	232	206	730	496	1,600	754	802	248	198	76	307
23	101	433	194	627	490	1,350	786	931	234	132	76	263
24	92	518	186	550	446	1,110	842	877	217	121	76	241
25	89	423	178	484	420	976	842	794	211	114	87	227
26	87	989	175	446	415	877	770	754	201	110	164	227
27	85	898	178	405	415	778	698	810	198	108	100	211
28	82	685	222	375	385	770	634	754	192	106	89	195
29	82	557	219	355	-	722	627	770	192	102	83	183
30	96	989	203	335	-	669	762	794	181	102	80	172
31	204	-	197	340	-	722	-	714	-	102	78	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff	
						Inches	Acre-feet
October	3,774	257	82	122	1.03	1.19	7,490
November	16,571	1,400	194	552	4.68	5.22	32,870
December	12,067	980	175	389	3.30	3.80	23,930
Calendar year 1944	130,246	1,640	67	356	3.02	41.04	258,300
January	28,153	2,110	206	908	7.69	8.87	55,840
February	28,458	4,230	335	1,016	8.61	8.97	56,450
March	28,737	2,630	350	927	7.86	9.06	57,000
April	23,196	1,200	557	773	6.55	7.31	46,010
May	32,024	1,600	714	1,033	8.75	10.09	63,520
June	9,601	613	181	320	2.71	3.03	19,040
July	4,098	193	102	132	1.12	1.29	8,130
August	2,748	164	76	88.6	.751	.87	5,450
September	6,422	844	76	214	1.81	2.02	12,740
Water year 1944-45	195,849	4,230	76	537	4.55	61.72	388,500

a No gage-height record; discharge computed on basis of recorded range in stage and records for stations on nearby streams.
d Doubtful gage-height record; discharge computed on basis of records for stations on nearby streams.
Time basis: Pacific war time up to 2 a.m., Sept. 30, 1945; Pacific standard time thereafter. To convert war time to standard time, subtract 1 hour.

Elokomin River near Cathlamet, Wash.

Location.- Water-stage recorder, lat. 46°13'10", long. 123°20'30", in SE¼ sec. 31, T. 9 N., R. 5 W., 2 miles northeast of Cathlamet and 4 miles upstream from mouth. Datum of gage is 29.60 feet above mean sea level, datum of 1929.

Drainage area.- 66 square miles.

Records available.- October 1940 to September 1945.

Extremes.- Maximum discharge during year, 5,850 second-feet Feb. 7 (gage height, 10.6 feet); minimum, 24 second-feet Aug. 21, 22, Sept. 2, 3.
1940-45: Maximum discharge, that of Feb. 7, 1945; minimum, that of Aug. 21, 22, Sept. 2, 3, 1945.
Maximum stage known, 17.2 feet in December 1933, from information by local residents.

Remarks.- Records excellent except those above 2,000 second-feet, which are good. No diversion or regulation.

Discharge, in second-feet, water year October 1944 to September 1945

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	96	427	338	326	228	241	350	171	119	54	33	25
2	81	341	291	291	226	251	317	162	115	53	33	24
3	118	403	276	262	257	338	285	152	112	51	33	31
4	150	366	467	251	271	291	292	146	112	51	31	465
5	268	320	924	415	543	268	474	142	106	50	30	223
6	167	335	910	734	510	251	474	134	105	48	29	132
7	132	338	665	2,890	3,860	246	492	132	99	45	30	67
8	114	612	528	1,590	2,510	305	605	125	96	45	31	70
9	103	645	432	938	1,380	666	585	130	98	45	30	61
10	92	492	366	688	965	1,480	665	148	94	44	30	53
11	84	395	317	613	855	855	938	236	92	42	30	49
12	79	323	279	1,640	1,050	805	780	262	89	41	33	46
13	78	274	251	1,900	1,080	688	645	323	91	41	31	44
14	78	236	226	1,350	855	1,110	547	369	87	41	30	42
15	73	208	210	1,050	566	1,050	492	317	82	41	29	49
16	67	192	196	830	585	938	432	335	79	46	29	49
17	64	176	182	1,050	547	882	382	305	74	45	28	44
18	62	160	173	1,140	460	755	344	276	73	41	27	41
19	60	154	201	938	405	1,800	305	246	71	42	26	40
20	58	144	201	732	382	2,560	288	226	68	42	25	89
21	57	144	176	605	350	1,440	271	213	67	53	25	82
22	64	144	162	510	338	1,200	251	198	67	58	24	62
23	67	293	152	442	320	965	262	206	64	45	25	70
24	58	311	144	388	299	780	251	187	61	41	25	62
25	55	300	140	341	279	688	223	176	61	39	34	94
26	54	799	136	308	282	585	203	165	60	39	46	74
27	53	625	136	276	279	510	208	154	61	37	33	64
28	51	474	226	249	251	510	198	144	60	36	28	57
29	53	379	236	233	-	446	194	138	58	35	27	53
30	74	395	210	220	-	405	180	134	58	36	25	50
31	171	-	216	249	-	395	-	128	-	35	25	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff Inches	Runoff Acre-feet
October	2,781	268	51	89.7	1.36	1.57	5,520
November	10,405	799	144	347	5.26	5.86	20,640
December	9,367	924	136	302	4.58	5.28	18,580
Calendar year 1944	84,369	1,290	25	231	3.50	47.55	167,300
January	23,449	2,890	220	756	11.5	13.21	46,510
February	19,933	3,860	226	712	10.8	11.23	39,540
March	23,704	2,560	241	765	11.6	13.36	47,020
April	11,933	938	180	398	6.03	6.72	23,670
May	6,180	369	125	199	3.02	3.48	12,260
June	2,479	119	58	82.6	1.25	1.40	4,920
July	1,362	58	35	43.9	.665	.77	2,700
August	915	46	24	29.5	.447	.52	1,810
September	2,332	465	24	77.7	1.18	1.31	4,630
Water year 1944-45	114,840	3,860	24	315	4.77	64.71	227,800

Peak discharge.- Jan. 7 (10 a.m.) 4,260 sec.-ft.; Feb. 7 (5:30 p.m.) 5,850 sec.-ft.; Mar. 20 (12:30 a.m.) 3,550 sec.-ft.
Time basis: Pacific war time up to 2 a.m., Sept. 30, 1945; Pacific standard time thereafter. To convert war time to standard time, subtract 1 hour.

Youngs River near Astoria, Oreg.

Location.- Water-stage recorder, lat. 46°04', long. 123°47', in NW¼ sec. 27, T. 7 N., R. 9 W., 50 feet upstream from crest of Youngs River Falls, 2⅝ miles southwest of Olney, and 9 miles southeast of Astoria. Datum of gage is 62.64 feet above mean sea level, datum of 1929.

Drainage area.- 32 square miles.

Records available.- January 1934 to September 1945. March 1916 to September 1917 (gage heights only) at site 3 miles upstream. August 1927 to December 1933 at site 1 mile upstream.

Average discharge.- 11 years (1934-45), 156 second-feet.

Extremes.- Maximum discharge during year, 2,680 second-feet Feb. 7 (gage height, 10.41 feet); minimum, 5.2 second-feet Aug. 30 to Sept. 3 (gage height, 0.70 foot).

1927-45: Maximum discharge, 6,300 second-feet Nov. 24, 1927 (gage height, 6.52 feet, site and datum then in use), from rating curve extended above 2,000 second-feet; minimum, 3.7 second-feet Sept. 22, 23, 1938.

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

Rating table, water year 1944-45 (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Oct. 1-30)

0.7	5.2	1.9	32	4.0	230
.8	6.6	2.2	44	5.0	450
1.0	10.0	2.6	63	6.0	720
1.3	16.2	3.0	97	7.0	1,050
1.6	23.5	3.5	151	8.1	1,490

Discharge, in second-feet, water year October 1944 to September 1945

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	15	207	246	158	78	132	130	78		16	8.0	5.2
2	11	129	181	129	116	153	115	72		15	7.7	5.2
3	22	201	152	115	182	368	106	66		14	7.7	7.6
4	36	182	226	107	209	298	106	64		14	7.9	130
5	89	189	244	154	570	235	259	60		14	7.6	60
6	40	167	310	387	422	184	226	56	a59	13	6.9	30
7	27	155	225	935	1,490	178	250	53		13	6.9	20
8	20	506	173	545	1,150	248	400	50		13	6.9	15
9	17	364	141	332	603	360	375	50		12	7.2	12
10	14	217	121	248	405	771	390	81		12	7.4	10
11	12	166	105	209	357	460	592	173		12	7.2	9.3
12	12	129	90	508	577	375	492	196		12	7.2	8.7
13	12	106	79	669	580	368	361	292		11	7.2	8.0
14	12	87	70	498	388	711	281	348		11	7.2	7.9
15	11	75	64	729	285	535	254	252		11	7.1	9.3
16	10	66	59	676	223	465	195	244	a32	12	6.8	10
17	9.3	58	54	735	204	415	160	198		12	6.5	11
18	8.6	52	52	801	167	420	139	170		11	6.0	11
19	8.0	49	57	675	144	1,030	126			10	5.8	9.8
20	8.0	45	54	452	134	1,160	114			10	5.5	50
21	8.2	44	49	312	125	606	116			14	5.3	48
22	9.6	44	47	234	116	465	102	a142	22	14	5.3	36
23	9.5	136	44	181	128	382	108		22	12	5.3	28
24	8.9	173	42	147	112	295	144		20	11	5.3	22
25	8.6	150	40	128	102	308	125		19	9.8	5.8	21
26	8.0	361	39	114	106	248	109		19	9.6	7.6	21
27	7.7	326	42	101	149	205	105		20	8.7	6.8	18
28	7.4	219	152	90	127	198	96		19	8.6	6.0	15
29	7.4	178	155	82	-	166	90	a109	18	8.4	5.6	13
30	24	343	132	76	-	144	85		18	8.6	5.3	12
31	109	-	121	77	-	143	-		-	8.6	5.3	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff Inches	Runoff Acre-feet
October	602.2	109	7.4	19.4	0.606	0.70	1,190
November	5,124	506	44	171	5.34	5.96	10,160
December	3,666	310	39	115	3.59	4.14	7,070
Calendar year 1944	37,422.4	600	4.4	102	3.19	43.49	74,210
January	10,606	935	76	342	10.7	12.33	21,040
February	9,249	1,490	78	330	10.3	10.75	18,350
March	12,026	1,160	132	388	12.1	13.98	23,850
April	6,153	592	85	205	6.41	7.15	12,200
May	4,151	348	50	134	4.19	4.82	8,230
June	1,106	-	18	36.9	1.15	1.29	2,190
July	361.3	16	8.4	11.7	.366	.42	717
August	204.2	8.0	5.3	6.59	.206	.24	405
September	664.0	130	5.2	22.1	.691	.77	1,320
Water year 1944-45	53,812.7	1,490	5.2	147	4.59	62.55	106,700

Peak discharge.- Jan. 7 (10:30 a.m.) 1,290 sec.-ft.; Jan. 15 (6 p.m.)990 sec.-ft.; Jan. 17 (4 p.m.) 1,000 sec.-ft.; Feb. 7 (6:30 p.m.) 2,680 sec.-ft.; Mar. 10 (4 a.m.) 998 sec.-ft.; Mar. 20 (1 a.m.) 1,740 sec.-ft.

a No gage-height record; discharge computed on basis of range in stage and records for Nehalem River near Foss.

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

NEHALEM RIVER BASIN

Nehalem River near Foss, Oreg.

Location.- Water-stage recorder, lat. 45°42', long. 123°45', in NW¼ sec. 35, T. 3 N., R. 9 W., a quarter of a mile upstream from Cook Creek and 2.2 miles northeast of Foss. Datum of gage is 32.60 feet above mean sea level, datum of 1929 (Oregon State Highway Department bench mark).

Drainage area.- 667 square miles.

Records available.- October 1939 to September 1945.

Extremes.- Maximum discharge during year, 30,800 second-feet Feb. 7 (gage height, 17.05 feet); minimum, 82 second-feet Sept. 3 (gage height, 1.41 feet).
1939-45: Maximum discharge, 31,100 second-feet Dec. 19, 1941 (gage height, 17.13 feet); minimum, 78 second-feet Sept. 11-13, 1944 (gage height, 1.45 feet).

Remarks.- Records good. No known diversion or regulation.

Rating table, water year 1944-45 (gage height, in feet, and discharge, in second-feet)

(Shifting-control method used June 18 to Sept. 30)

1.4	65	3.0	895	8.0	6,850
1.6	119	3.5	1,260	9.5	10,100
1.8	190	4.0	1,660	11.0	13,900
2.0	278	5.0	2,620	13.0	19,200
2.3	435	6.0	3,760	16.0	27,800
2.6	625	7.0	5,140		

Discharge, in second-feet, water year October 1944 to September 1945

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	203	1,460	2,590	1,780	1,470	1,930	2,780	1,470	1,070	293	139	90
2	182	1,240	2,320	1,860	1,660	1,900	2,540	1,410	1,020	283	139	85
3	224	1,540	2,000	1,770	2,220	2,490	2,340	1,330	958	269	136	96
4	250	1,610	2,220	1,650	2,660	2,880	2,190	1,230	930	260	136	1,620
5	354	1,480	2,550	1,910	4,290	2,940	2,550	1,150	881	250	136	1,270
6	332	1,440	2,770	3,080	5,290	2,720	3,000	1,080	839	237	132	729
7	278	1,640	2,660	8,890	26,800	2,590	3,470	1,020	797	228	129	502
8	246	3,170	2,400	7,760	22,400	2,850	4,640	958	762	215	126	348
9	224	3,340	2,100	5,680	17,900	4,940	6,410	923	729	207	122	273
10	194	2,500	1,830	4,450	10,300	11,300	6,550	1,010	703	203	119	226
11	175	1,860	1,600	3,760	7,000	10,600	7,920	1,480	670	190	116	203
12	163	1,440	1,420	4,990	6,870	8,090	8,160	1,690	638	182	116	190
13	160	1,180	1,280	7,510	8,010	6,660	7,100	2,300	638	182	116	171
14	156	1,010	1,160	7,170	6,790	8,450	5,880	3,160	612	179	113	167
15	149	881	1,060	7,390	5,470	9,970	4,990	2,850	586	175	113	167
16	149	790	979	7,970	4,500	9,150	4,380	2,690	547	179	113	171
17	145	722	916	8,160	3,930	8,070	3,750	2,480	508	179	110	167
18	145	677	860	8,590	3,510	8,270	3,300	2,260	477	175	107	167
19	142	625	867	8,990	3,120	13,600	3,000	2,110	441	171	104	160
20	139	580	846	7,430	2,820	20,400	2,760	1,940	413	171	102	224
21	132	540	804	5,850	2,580	18,000	2,590	1,800	391	190	96	369
22	136	528	783	4,570	2,410	12,700	2,350	1,720	380	207	96	354
23	136	769	736	3,710	2,300	8,900	2,190	1,830	359	194	93	302
24	132	1,160	690	3,120	2,130	6,790	2,220	1,920	343	182	93	288
25	129	1,240	658	2,640	1,980	5,830	2,100	1,880	332	182	96	255
26	129	3,360	632	2,280	1,910	5,120	1,900	1,710	327	175	99	241
27	129	3,450	632	1,990	2,060	4,460	1,740	1,570	317	167	102	219
28	126	2,880	1,000	1,790	1,990	3,980	1,630	1,470	307	152	99	207
29	136	2,360	1,180	1,600	-	3,530	1,540	1,370	312	145	99	186
30	219	2,800	1,410	1,470	-	3,180	1,520	1,240	302	145	96	182
31	580	-	1,390	1,450	-	2,970	-	1,160	-	142	93	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff: Inches	Runoff: Acre-feet
October	5,994	580	126	193	0.289	0.33	11,890
November	48,272	3,450	528	1,609	2.41	2.69	95,750
December	44,343	2,770	632	1,430	2.14	2.47	87,950
Calendar year 1944	519,610	6,570	78	1,420	2.13	28.97	1,031,000
January	141,460	8,890	1,450	4,563	6.84	7.89	280,600
February	164,370	26,800	1,470	5,870	8.80	9.16	326,000
March	215,160	20,400	1,900	6,941	10.4	12.00	426,800
April	107,490	8,160	1,520	3,583	5.37	5.99	213,200
May	52,211	3,160	923	1,684	2.52	2.91	103,600
June	17,589	1,070	302	586	.879	.98	34,890
July	6,109	293	142	197	.295	.34	12,120
August	3,486	139	93	112	.168	.19	6,910
September	9,631	1,620	85	321	.481	.54	19,100
Water year 1944-45	816,115	26,800	85	2,236	3.35	45.49	1,619,000

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

Wilson River near Tillamook, Oreg.

Location.- Water-stage recorder, lat. 45°29', long. 123°43', in NW¼ sec. 18, T. 1 S., R. 8 W., 1 mile upstream from North Fork and 6½ miles east of Tillamook. Datum of gage is 42.13 feet above mean sea level, datum of 1929.

Drainage area.- 159 square miles.

Records available.- July 1931 to September 1945. December 1914 to November 1916 (incomplete) at site three-quarters of a mile downstream.

Average discharge.- 14 years (1931-45), 1,159 second-feet.

Extremes.- Maximum discharge during year, 22,800 second-feet Feb. 7 (gage height, 17.13 feet), from rating curve extended above 15,000 second-feet; minimum, 72 second-feet Aug. 20-23.

1914-16, 1931-45: Maximum discharge, 30,000 second-feet Dec. 21, 1933 (gage height, 19.28 feet, site and datum then in use), from rating curve extended above 15,000 second-feet; minimum observed, 55 second-feet Sept. 10-12, 1944 (gage height, 1.01 feet).

Remarks.- Records good except those for period of shifting control, which are fair. No diversion or regulation above station.

Rating table, water year 1944-45 (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used May 7 to Sept. 30)

1.1	70	2.1	375	4.2	1,870	8.5	7,280
1.3	113	2.5	555	5.0	2,700	10.0	9,450
1.5	165	3.0	870	6.0	3,890	11.5	11,800
1.8	260	3.8	1,330	7.0	5,190	13.0	14,300

Discharge, in second-feet, water year October 1944 to September 1945

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	222	1,350	1,590	1,030	652	772	1,220	744	438	160	106	84
2	162	1,040	1,310	996	758	779	1,070	737	415	152	106	84
3	200	1,450	1,120	870	1,290	961	961	718	399	149	104	148
4	232	1,440	1,390	800	1,580	940	905	646	387	146	102	3,360
5	351	1,350	1,920	1,190	2,220	891	1,310	582	375	143	102	1,730
6	303	1,330	1,990	2,460	2,170	835	1,640	540	359	138	99	758
7	246	1,580	1,830	6,940	13,700	842	1,860	498	347	133	99	515
8	210	2,160	1,520	4,400	10,500	1,040	2,040	456	331	133	99	424
9	182	2,450	1,290	2,590	5,220	2,330	1,930	446	319	130	97	359
10	162	1,680	1,090	2,090	3,400	6,760	1,970	482	311	128	95	311
11	149	1,270	940	1,890	2,620	3,560	2,790	976	299	126	95	278
12	143	989	814	3,580	3,020	2,570	2,630	1,170	288	126	92	256
13	141	821	730	5,680	4,440	2,200	2,130	1,550	284	126	88	236
14	136	694	658	4,230	3,080	2,850	1,810	2,180	278	120	86	222
15	126	610	594	3,570	2,300	2,840	1,700	1,850	260	120	82	219
16	120	545	540	3,890	1,840	2,560	1,650	1,750	250	120	80	216
17	116	496	496	3,650	1,640	2,490	1,410	1,600	236	120	78	200
18	118	469	460	3,840	1,390	2,560	1,280	1,360	225	118	76	188
19	116	438	469	3,030	1,200	5,280	1,230	1,160	219	116	74	177
20	113	407	464	2,330	1,090	9,580	1,220	1,000	210	113	72	303
21	108	383	446	1,820	996	4,860	1,220	891	200	133	72	496
22	111	375	420	1,480	933	3,480	1,050	800	197	157	72	387
23	111	646	399	1,250	898	2,880	996	877	191	130	72	323
24	106	947	379	1,070	835	2,330	1,030	786	185	123	80	288
25	104	877	363	940	772	2,110	968	712	177	116	102	274
26	102	2,170	347	828	786	1,870	956	658	174	113	116	253
27	99	2,110	347	737	863	1,640	793	604	171	111	108	236
28	97	1,590	628	670	793	1,540	730	555	171	108	97	222
29	104	1,270	664	610	-	1,440	718	515	171	108	92	213
30	194	1,520	610	572	-	1,310	758	487	168	108	86	206
31	492	-	599	599	-	1,310	-	456	-	108	84	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff Inches	Runoff Acre-feet
October	5,176	492	97	167	1.05	1.21	10,270
November	34,457	2,450	375	1,149	7.23	8.06	68,340
December	26,417	1,990	347	852	5.36	6.18	52,400
Calendar year 1944	255,072	5,160	55	69.7	4.38	59.67	505,900
January	69,632	6,940	572	2,246	14:1	16.29	138,100
February	70,988	13,700	652	2,535	15.9	16.60	140,800
March	77,410	9,580	772	2,497	15.7	18.11	153,500
April	41,975	2,790	718	1,399	8.80	9.82	83,260
May	27,786	2,180	446	896	5.64	6.50	55,110
June	8,035	438	168	268	1.69	1.88	15,940
July	3,932	160	108	127	.799	.92	7,800
August	2,813	116	72	90.7	.570	.66	5,580
September	12,966	3,360	84	432	2.72	3.03	25,720
Water year 1944-45	381,585	13,700	72	1,045	6.57	89.26	756,800

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

Trask River near Tillamook, Oreg.

Location.- Water-stage recorder, lat. 45°27', long. 123°44', in NW¼ sec. 31, T. 1 S., R. 8 W., half a mile upstream from Gold Creek and 6 miles east of Tillamook.

Drainage area.- 143 square miles (revised). Revised figure has been used in computations since Oct. 1, 1941.

Records available.- July 1931 to September 1945.

Average discharge.- 14 years, 937 second-feet.

Extremes.- Maximum discharge during year, 11,900 second-feet Feb. 7 (gage height, 9.32 feet); minimum, 72 second-feet Sept. 3 (gage height, 0.40 foot).
1931-45: Maximum discharge, 20,000 second-feet Dec. 22, 1933 (gage height, 13.00 feet); minimum, 58 second-feet Sept. 26, 27, 1939.
Maximum stage known, about 17 feet, probably occurred during flood of November 1921 or Mar. 31, 1931 (discharge, 30,000 second-feet, from rating curve extended above 12,000 second-feet).

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

Rating table, water year 1944-45 (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used June 24 to Sept. 30)

0.4	62	1.7	520	4.0	2,640
.6	105	2.0	690	4.8	3,800
.8	158	2.4	960	5.8	5,370
1.1	255	2.8	1,290	7.5	8,020
1.4	375	3.3	1,800		

Discharge, in second-feet, water year October 1944 to September 1945

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	176	850	1,340	815	666	702	1,070	564	a420	179	108	76
2	147	660	1,120	796	750	720	960	542	a400	170	106	74
3	152	1,100	976	732	1,010	938	865	526	a380	167	105	110
4	176	960	1,180	708	1,140	900	843	500	a360	167	105	1,460
5	258	871	1,340	945	2,040	843	1,030	470	352	164	103	801
6	210	815	1,340	2,150	1,940	796	1,200	445	344	161	100	406
7	176	930	1,250	5,240	7,820	789	1,420	430	330	155	100	283
8	152	1,290	1,100	3,560	6,780	945	1,950	411	318	152	103	227
9	136	1,510	960	2,210	3,880	1,560	1,840	406	318	150	100	201
10	122	1,140	836	1,760	2,700	4,700	1,930	440	306	147	100	179
11	115	900	744	1,470	2,200	2,850	2,950	597	294	147	100	164
12	115	726	684	2,160	3,000	2,150	2,600	708	286	141	98	155
13	118	619	602	3,590	4,920	1,810	2,040	930	283	138	98	150
14	112	542	558	3,100	3,090	2,380	1,700	1,240	272	138	96	147
15	108	490	520	3,100	2,210	2,380	1,530	1,200	266	136	94	150
16	100	445	495	3,880	1,740	2,180	1,420	a1,130	255	136	91	150
17	98	411	465	3,540	1,530	2,300	1,240	a1,060	244	136	89	138
18	98	380	430	3,530	1,270	2,420	1,100	a980	234	133	87	133
19	94	362	455	2,840	1,110	3,800	1,010	a900	227	130	84	128
20	91	339	475	2,180	990	6,850	945	a830	220	128	82	238
21	91	326	445	1,720	908	4,120	915	a770	220	153	80	406
22	91	310	420	1,390	843	3,050	815	a700	217	167	80	272
23	91	510	406	1,180	815	2,550	815	a760	210	133	82	224
24	89	654	384	1,010	750	2,120	857	a700	204	128	84	207
25	87	608	366	900	702	1,980	782	a660	198	128	91	201
26	84	1,120	357	802	714	1,730	714	a620	194	122	103	185
27	82	1,300	366	726	796	1,500	684	a570	198	118	94	173
28	82	1,070	654	672	726	1,420	660	a530	194	115	87	164
29	96	922	648	624	-	1,290	602	a490	191	112	80	155
30	210	1,370	614	592	-	1,180	597	a460	185	112	78	153
31	375	-	602	636	-	1,140	-	a440	-	110	76	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff	
						Inches	Acre-feet
October	4,132	375	82	133	0.930	1.07	8,200
November	23,530	1,510	310	784	5.48	6.12	46,670
December	22,132	1,340	357	714	4.99	5.76	43,900
Calendar year 1944	214,597	3,520	62	586	4.10	55.80	425,600
January	58,558	5,240	592	1,889	13.2	15.23	116,100
February	57,040	7,820	666	2,037	14.2	14.83	113,100
March	64,093	6,850	702	2,068	14.5	16.67	127,100
April	37,104	2,950	597	1,237	8.65	9.65	73,590
May	21,009	1,240	406	678	4.74	5.46	41,670
June	8,120	420	185	271	1.90	2.11	16,110
July	4,373	179	110	141	.986	1.14	8,670
August	2,886	108	76	93.1	.651	.75	5,720
September	7,510	1,460	74	250	1.75	1.95	14,900
Water year 1944-45	310,487	7,820	74	851	5.95	80.74	615,700

a No gage-height record; discharge computed on basis of records for Nehalem River near Foss and Wilson River near Tillamook.
Time basis: Pacific war time up to 2 a.m., Sept. 30, 1945; Pacific standard time thereafter. To convert war time to standard time, subtract 1 hour.

Siletz River at Siletz, Oreg.

Location.- Water-stage recorder, lat. 44°43', long. 123°53', in NW¼SW¼ sec. 11, T. 10 S., R. 10 W., 1½ miles east of Siletz. Datum of gage is 102.32 feet above mean sea level, datum of 1929.
Drainage area.- 202 square miles.
Records available.- November 1905 to May 1912, January 1924 to September 1945.
Average discharge.- 25 years (1906-11, 1925-45), 1,572 second-feet.
Extremes.- Maximum discharge during year, 22,400 second-feet Feb. 7 (gage height, 20.5 feet), from rating curve extended above 9,000 second-feet; minimum, 74 second-feet Oct. 29 (gage height, 2.27 feet).
1905-12, 1924-45: Maximum discharge, 34,600 second-feet Nov. 22, 1909, from rating curve extended above 19,000 second-feet; minimum observed, 51 second-feet Dec. 6, 7, 1929.
Maximum discharge known, 40,800 second-feet Nov. 20, 1921 (gage height, 31.6 feet, site and datum then in use), from rating curve extended above 19,000 second-feet.
Remarks.- Records good. No diversion above station. Some diurnal fluctuation caused by log pond at Valsetz.

Rating table, water year 1944-45 (gage height, in feet, and discharge, in second-feet)

2.3	78	4.0	630	8.0	3,410
2.5	116	4.6	920	9.5	4,910
2.8	188	5.2	1,270	11.0	6,540
3.1	277	6.0	1,780	13.0	9,200
3.5	418	7.0	2,540	15.3	12,800

Discharge, in second-feet, water year October 1944 to September 1945

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	140	1,180	2,120	1,520	1,150	905	1,290	900	626	199	118	83
2	106	845	1,660	1,470	1,580	875	1,160	850	585	196	116	85
3	118	2,190	1,380	1,330	2,210	1,080	1,070	815	558	188	112	98
4	162	2,130	1,630	1,230	2,360	1,040	997	770	523	185	112	2,280
5	246	2,400	1,830	1,560	3,650	1,000	1,660	716	506	183	112	1,640
6	185	1,950	1,920	4,600	3,710	964	2,080	675	490	172	110	730
7	140	1,840	1,970	10,400	12,700	958	2,700	644	454	172	110	502
8	123	2,030	1,760	6,560	12,300	1,220	4,930	603	434	167	110	386
9	114	2,500	1,520	3,970	5,960	1,600	3,910	598	410	165	104	320
10	104	1,880	1,300	2,920	4,000	5,980	3,250	688	391	160	104	284
11	98	1,720	1,130	2,370	3,230	3,980	4,150	1,010	373	155	102	258
12	100	1,390	997	3,510	5,020	2,930	3,890	1,500	355	152	102	243
13	112	1,160	880	6,360	9,520	2,520	2,960	2,240	341	150	102	225
14	104	964	800	5,650	5,360	3,200	2,430	3,260	330	148	98	213
15	100	835	740	5,920	3,630	3,310	2,050	4,300	317	145	96	216
16	96	740	675	7,060	2,720	3,170	1,800	4,500	303	140	94	222
17	92	662	639	5,730	2,540	3,320	1,580	3,810	297	138	92	199
18	91	598	590	5,090	2,150	3,660	1,410	3,130	284	136	89	191
19	87	536	644	4,040	1,850	4,440	1,310	2,510	274	138	85	178
20	87	502	850	3,130	1,630	9,160	1,250	2,050	268	136	83	277
21	85	470	845	2,480	1,380	5,780	1,190	1,710	258	172	82	434
22	85	434	790	2,030	1,250	4,380	1,070	1,480	249	246	80	384
23	87	630	800	1,710	1,160	3,430	1,090	1,370	246	165	80	315
24	85	810	740	1,470	1,070	2,750	1,220	1,170	237	145	89	277
25	82	770	698	1,280	980	2,640	1,170	1,040	231	138	152	265
26	78	1,180	657	1,150	986	2,280	1,040	948	228	136	165	249
27	76	1,260	662	1,030	1,050	1,960	1,010	890	225	131	125	228
28	75	1,080	1,140	926	936	1,840	975	830	216	131	102	216
29	96	997	1,270	855	-	1,630	970	760	210	123	94	202
30	338	2,040	1,280	850	-	1,490	953	711	208	123	91	199
31	675	-	1,220	1,030	-	1,380	-	670	-	118	87	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff	
						Inches	Acre-feet
October	4,167	675	75	134	0.663	0.77	8,270
November	37,723	2,500	434	1,257	6.22	6.95	74,820
December	35,137	2,120	590	1,133	5.61	6.47	69,690
Calendar year 1944	314,093	5,970	74	858	4.26	57.82	623,000
January	99,231	10,400	850	3,201	15.85	18.27	196,800
February	96,282	12,700	936	3,439	17.02	17.73	191,000
March	84,872	9,160	875	2,738	13.55	15.63	168,300
April	56,365	4,930	953	1,879	9.30	10.38	111,800
May	47,148	4,500	598	1,521	7.53	8.68	93,520
June	10,427	626	208	348	1.72	1.92	20,680
July	4,853	246	118	157	.777	.89	9,630
August	5,198	165	80	103	.510	.59	6,340
September	11,399	2,280	83	380	1.88	2.10	22,610
Water year 1944-45	490,802	12,700	75	1,345	6.66	90.38	973,500

Peak discharge.- Jan. 7 (12:30 p.m.) 13,500 sec.-ft.; Feb. 7 (8:30 p.m.) 22,400 sec.-ft.; Feb. 13 (3 a.m.) 12,000 sec.-ft.; Mar. 20 (6 a.m.) 10,900 sec.-ft.
Time basis: Pacific war time up to 2 a.m., Sept. 30, 1945; Pacific standard time thereafter. To convert war time to standard time, subtract 1 hour.

Alsea River near Tidewater, Oreg.

Location.- Water-stage recorder, lat. 44°23', long. 123°50', in NW¼NW¼ sec. 6, T. 14 S., R. 9 W., three-quarters of a mile downstream from Grass Creek, 2.3 miles upstream from Scott Creek, and 3.8 miles southeast of Tidewater. Datum of gage is 48.16 feet above mean sea level, datum of 1929.

Drainage area.- 334 square miles.

Records available.- October 1939 to September 1945.

Extremes.- Maximum discharge during year, 17,900 second-feet Feb. 7 (gage height, 17.18 feet), from rating curve extended above 12,000 second-feet; minimum, 72 second-feet Oct. 28, 29 (gage height, 1.51 feet).
1939-45: Maximum discharge, 22,900 second-feet Jan. 1, 1943 (gage height, 19.98 feet), from rating curve extended above 12,000 second-feet; minimum, 62 second-feet Sept. 1, 1940 (gage height, 1.43 feet).

Remarks.- Records good. No regulation; a few small diversions above station for irrigation.

Rating table, water year 1944-45 (gage height, in feet, and discharge, in second-feet)

1.5	70	3.0	580	7.0	3,240
1.7	108	3.5	830	8.0	4,200
1.9	161	4.0	1,110	9.0	5,270
2.1	222	4.5	1,410	11.0	7,840
2.3	288	5.0	1,730	13.0	10,800
2.6	402	6.0	2,410	16.0	15,800

Discharge, in second-feet, water year October 1944 to September 1945

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	150	810	1,780	1,300	1,550	1,290	1,610	929	830	268	136	89
2	116	566	1,240	1,190	2,400	1,230	1,460	890	790	261	136	87
3	106	1,360	962	1,060	2,950	1,400	1,370	841	760	248	136	89
4	108	1,180	880	962	3,160	1,470	1,270	805	730	244	133	363
5	116	830	815	1,020	5,740	1,410	1,650	770	700	238	133	715
6	120	770	770	1,690	4,980	1,380	1,990	735	680	235	130	292
7	108	995	775	3,560	7,960	1,330	2,500	705	660	228	133	188
8	98	1,010	785	3,400	15,500	1,650	4,910	685	625	219	133	153
9	93	1,540	720	2,330	8,160	1,810	3,900	670	600	216	130	133
10	89	1,430	660	1,920	4,980	5,130	3,090	735	585	210	130	123
11	85	1,010	595	1,630	3,830	3,980	3,810	868	552	203	126	116
12	85	750	548	1,630	3,450	3,100	3,920	1,320	529	200	126	110
13	85	595	506	2,770	7,400	2,900	3,270	2,100	511	191	130	108
14	87	497	475	3,110	5,310	4,260	2,720	4,210	497	185	128	106
15	87	462	448	4,460	3,820	4,680	2,350	4,120	475	185	123	106
16	85	370	419	8,540	3,030	4,740	2,070	3,400	457	182	118	108
17	84	335	402	5,650	2,970	5,560	1,850	3,100	436	179	113	108
18	82	310	386	4,750	2,770	7,330	1,670	2,660	415	176	110	110
19	80	288	402	3,960	2,410	5,360	1,520	2,240	398	176	108	106
20	80	268	506	3,100	2,130	8,130	1,400	1,930	382	176	106	128
21	80	254	595	2,500	1,890	7,010	1,290	1,720	366	185	104	194
22	78	248	571	2,100	1,720	5,270	1,190	1,550	366	251	100	197
23	78	295	790	1,810	1,600	4,360	1,180	1,620	347	206	95	150
24	77	502	770	1,590	1,460	3,560	1,230	1,440	332	179	98	130
25	77	462	675	1,420	1,340	3,470	1,270	1,310	317	170	113	123
26	77	615	600	1,280	1,300	3,150	1,290	1,210	313	164	128	118
27	75	863	590	1,160	1,470	2,660	1,160	1,150	310	158	120	113
28	73	700	1,130	1,070	1,370	2,350	1,100	1,090	295	150	108	106
29	82	610	1,630	1,000	-	2,070	1,030	995	288	144	102	104
30	176	1,120	1,940	1,020	-	1,860	984	934	278	141	95	100
31	324	-	1,510	1,230	-	1,710	-	885	-	139	93	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff Inches	Runoff Acre-feet
October	3,141	324	73	101	0.302	0.35	6,230
November	21,045	1,540	248	702	2.10	2.34	41,740
December	24,875	1,940	386	802	2.40	2.77	49,340
Calendar year 1944	284,391	4,860	72	777	2.33	31.67	564,100
January	74,212	8,540	962	2,394	7.17	8.26	147,200
February	106,650	15,500	1,300	3,809	11.40	11.88	211,500
March	105,610	8,130	1,230	3,407	10.20	11.76	209,500
April	60,054	4,910	984	2,002	5.99	6.69	119,100
May	47,617	4,210	670	1,536	4.60	5.30	94,450
June	14,824	830	278	494	1.48	1.65	29,400
July	6,107	268	139	197	.590	.68	12,110
August	3,674	136	93	119	.356	.41	7,290
September	4,673	715	87	156	.467	.52	9,270
Water year 1944-45	472,482	15,500	73	1,294	3.87	52.61	937,100

Peak discharge.- Jan. 16 (8 a.m.) 9,450 sec.-ft.; Feb. 7 (10 p.m.) 17,900 sec.-ft.; Feb. 13 (10 a.m.) 8,260 sec.-ft.; Mar. 18 (3 a.m.) 8,410 sec.-ft.; Mar. 20 (4:30 p.m.) 9,360 sec.-ft.
Time basis: Pacific war time up to 2 a.m., Sept. 30, 1945; Pacific standard time thereafter.
To convert war time to standard time, subtract 1 hour.

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Lake Creek at Triangle Lake, Oreg.

Location.- Water-stage recorder, lat. 44°10', long. 123°34', in SW¼ sec. 20, T. 16 S., R. 7 W., 500 feet downstream from outlet of Triangle Lake. Datum of gage is 672.41 feet above mean sea level, datum of 1929.

Drainage area.- 50 square miles.

Records available.- August 1931 to September 1945.

Average discharge.- 14 years, 194 second-feet.

Extremes.- Maximum discharge during year, 1,450 second-feet about Feb. 9 (gage height, 4.86 feet, from recorded range in stage); minimum, 10 second-feet Oct. 1-4, 11-30, Aug. 25, 29-31.

1931-45: Maximum discharge, 3,960 second-feet Dec. 22, 1933, Jan. 13, 1936 (gage height, 8.1 feet), from rating curve extended above 2,400 second-feet; minimum, 2.7 second-feet (regulated) Aug. 1, 1944; minimum daily, 5.5 second-feet Sept. 30 to Oct. 3, 1939.

Remarks.- Records good except those for Oct. 1 to Feb. 16, which are fair. No diversion above station. Flow regulated by natural storage in Triangle Lake; temporary dam at lake outlet in use October 1-31, July 2 to Sept. 30.

Rating table, water year 1944-45 (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Oct. 1 to Jan. 6)

0.5	6.3	1.3	64	2.6	346
.7	15	1.6	107	3.0	485
.9	26	1.9	163	3.5	700
1.1	42	2.2	234		

Discharge, in second-feet, water year October 1944 to September 1945

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	10	32	128	172	a220	207	271	149	116	36	19	15
2	10	40	155	157	a240	195	252	141	109	28	19	14
3	10	68	141	145	a340	195	234	135	104	21	18	14
4	10	116	122	134	a370	190	222	126	102	19	16	15
5	11	119	112	137	a450	183	239	121	99	20	18	18
6	11	105	104	165	a520	181	302	117	96	21	16	21
7	11	101	99	304	a680	161	366	110	90	21	14	22
8	11	102	93	434	a1,000	183	497	107	85	22	14	21
9	11	107	87	a400	a1,300	195	601	102	83	22	14	21
10	11	116	80	a250	a1,200	284	565	104	80	22	14	20
11	10	112	74	a220	a800	444	529	109	77	22	14	19
12	10	97	69	a190	a550	459	529	132	74	22	14	19
13	10	80	64	a200	a700	409	497	187	70	21	14	18
14	10	68	59	a260	a850	448	437	293	69	20	14	18
15	10	56	54	a310	a950	541	378	402	67	21	14	17
18	10	49	51	a440	a540	592	337	416	63	21	14	17
17	10	44	48	a820	497	735	302	395	60	21	14	16
18	10	39	46	a580	466	1,010	274	362	58	21	14	16
19	10	37	47	a470	434	1,020	252	310	56	21	14	16
20	10	33	52	a410	381	995	234	271	53	21	14	15
21	10	31	63	a340	337	1,040	219	237	50	21	14	16
22	10	28	74	a290	299	985	207	214	49	21	13	17
23	10	32	64	a260	271	830	199	204	47	21	14	20
24	10	38	97	a240	247	686	199	190	46	22	14	21
25	10	46	99	a230	226	592	202	176	44	22	14	20
26	10	58	93	a210	214	517	199	161	43	22	14	19
27	10	73	87	a180	222	455	185	153	41	21	14	19
28	10	83	105	a170	219	405	176	145	40	20	14	18
29	10	83	151	a165	--	362	165	137	39	20	13	17
30	11	90	181	a165	-	322	157	128	38	20	13	17
31	21	-	185	a190	-	290	-	121	-	19	13	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff: Inches	Runoff: Acre-feet
October	328	21	10	10.6	0.212	0.24	651
November	2,085	119	26	69.5	1.39	1.55	4,140
December	2,904	185	46	93.7	1.87	2.16	5,760
Calendar year 1944	35,966.1	466	7.9	98.3	1.97	26.75	71,350
January	8,638	820	134	279	5.58	6.42	17,130
February	14,523	1,300	214	519	10.4	10.80	28,810
March	15,131	1,040	181	488	9.76	11.25	30,010
April	9,228	601	157	308	6.16	6.86	18,300
May	5,955	416	102	192	3.84	4.43	11,810
June	2,048	116	38	68.3	1.37	1.52	4,060
July	674	38	19	21.7	.434	.50	1,340
August	454	19	13	14.6	.292	.34	900
September	536	22	14	17.9	.358	.40	1,060
Water year 1944-45	62,504	1,300	10	171	3.42	46.47	124,000

a No gage-height record; discharge computed on basis of records for Long Tom River near Noti and Alsea River near Tidewater.

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

South Umpqua River at Tiller, Oreg.

Location.- Water-stage recorder, lat. 42°56', long. 122°57', in NE¼ sec. 33, T. 30 S., R. 2 W., 0.3 mile upstream from Elk Creek, 0.4 mile downstream from Salt Creek, and 0.4 mile east of Tiller. Datum of gage is 991.8 feet above mean sea level, datum of 1929 (from river-profile survey).

Drainage area.- 454 square miles.

Records available.- November 1910 to November 1911, October 1939 to September 1945.

Extremes.- Maximum discharge during year, 16,200 second-feet Feb. 13 (gage height, 13.76 feet); minimum 34 second-feet Oct. 29, 30 (gage height, 0.83 foot).
1910-11, 1939-45: Maximum discharge, 29,900 second-feet Dec. 31, 1942 (gage height, 18.96 feet), from rating curve extended above 10,000 second-feet; minimum observed, 20 second-feet Sept. 3, 4, 1911.

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

Cooperation.- Water-stage recorder inspected by employee of U. S. Forest Service.

Rating table, water year 1944-45 (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Oct. 1-31, Aug. 1 to Sept. 30)

0.8	33	2.0	340	6.0	3,150
.9	44	2.4	505	7.0	4,200
1.1	77	2.9	740	8.5	6,150
1.3	120	3.5	1,080	10.0	8,550
1.5	173	4.2	1,540	11.5	11,400
1.7	235	5.0	2,220	13.5	15,600

Discharge, in second-feet, water year October 1944 to September 1945

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	70	185	393	235	a1,500	700	1,340	1,980	1,190	200	73	47
2	52	165	404	294	a2,500	685	1,130	2,070	1,030	191	72	46
3	46	392	319	291	a2,100	710	985	2,100	928	182	68	44
4	43	291	274	256	a1,700	720	867	1,840	856	173	66	43
5	50	188	274	302	a3,500	675	790	1,570	900	165	64	43
6	59	148	266	1,440	a4,000	655	850	1,390	818	159	63	48
7	48	352	238	2,900	a3,000	715	1,020	1,220	755	151	63	48
8	46	235	206	2,200	a7,000	740	1,540	1,100	705	145	63	44
9	44	365	182	1,270	4,180	796	1,560	1,020	645	140	61	42
10	44	368	162	1,170	2,660	985	1,480	1,070	595	135	59	41
11	43	376	145	1,180	3,130	1,680	2,040	916	550	130	58	40
12	42	260	135	1,190	3,530	2,100	2,240	916	505	125	58	38
13	42	191	122	2,580	14,700	2,940	1,810	1,210	478	120	58	37
14	43	148	118	2,460	9,950	2,450	1,600	1,180	448	115	56	37
15	43	122	108	1,870	4,490	2,350	1,720	1,820	420	113	56	37
16	42	111	108	1,630	2,940	1,970	1,870	4,390	392	111	54	37
17	41	102	102	1,470	2,290	1,900	1,770	4,850	368	106	53	38
18	40	97	99	a1,600	2,090	1,660	1,830	4,490	352	104	50	38
19	38	93	111	a1,300	1,690	1,610	2,090	3,320	336	102	48	38
20	37	87	317	a1,050	1,400	2,150	2,440	2,510	319	99	47	44
21	37	83	340	a850	1,170	2,610	2,440	1,970	308	97	47	70
22	36	81	298	a700	1,020	2,910	1,960	1,640	305	95	47	165
23	36	93	340	a620	922	3,190	1,620	1,870	288	93	46	118
24	36	256	284	a560	828	2,360	2,370	1,920	274	91	46	79
25	36	219	242	a520	745	1,900	2,470	1,840	260	87	48	64
26	36	303	209	a480	690	1,630	2,210	1,910	249	85	77	59
27	35	428	191	a450	730	1,360	1,830	1,990	238	81	66	54
28	35	284	185	a430	710	1,310	1,920	2,000	229	79	56	53
29	34	222	256	a400	-	1,290	2,010	1,770	219	77	52	52
30	37	209	302	a450	-	1,230	1,970	1,720	209	75	46	50
31	86	-	260	a800	-	1,420	-	1,410	-	73	47	-

Month	Second-feet-days	Maximum	Minimum	Mean	Per square mile	Runoff	
						Inches	Acre-feet
October	1,357	86	34	43.8	0.096	0.11	2,690
November	6,454	428	81	215	.474	.53	12,800
December	6,990	404	99	225	.496	.57	13,860
Calendar year 1944	190,069	4,830	34	519	1.14	15.56	377,000
January	32,948	2,900	235	1,063	2.34	2.70	65,350
February	85,165	14,700	690	3,042	6.70	6.98	168,900
March	49,401	3,190	655	1,594	3.51	4.05	97,990
April	51,772	2,470	790	1,726	3.80	4.24	102,700
May	61,002	4,850	916	1,968	4.33	5.00	121,000
June	15,169	1,190	209	506	1.11	1.24	30,090
July	3,699	200	73	119	.262	.30	7,340
August	1,768	77	46	57.0	.126	.14	3,510
September	1,594	165	37	53.1	.117	.13	3,160
Water year 1944-45	317,319	14,700	34	869	1.91	25.99	629,400

Peak discharge.- Feb. 13 (11 p.m.) 16,200 sec.-ft.; May 16 (2 p.m.) 5,840 sec.-ft.
a No gage-height record; discharge computed on basis of records for stations near Brockway and near Elkton.
Time basis: Pacific war time up to 2 a.m., Sept. 30, 1945; Pacific standard time thereafter. To convert war time to standard time, subtract 1 hour.

South Umpqua River near Brockway, Oreg.

Location.- Wire-weight gage, lat. 43°08', long. 123°24', in SW¼ sec. 15, T. 28 S., R. 6 W., at Winston Bridge on Pacific Highway, 2½ miles northeast of Brockway and 4 miles downstream from Lookingglass Creek. Datum of gage is 461.84 feet above mean sea level, datum of 1929 (Oregon State Highway bench mark). Prior to Apr. 10, 1945, chain gage at same site and datum.
Drainage area.- 1,640 square miles.
Records available.- December 1905 to June 1912, October 1923 to September 1926, January 1942 to September 1945.
Average discharge.- 11 years (1906-11, 1923-26, 1942-45), 2,398 second-feet.
Extremes.- Maximum discharge during year, 31,500 second-feet Feb. 14 (gage height, 18.32 feet, from graph based on gage readings); minimum observed, 76 second-feet Sept. 19 (gage height, 3.04 feet).
1905-12, 1923-26, 1942-45: Maximum discharge, 71,000 second-feet Jan. 4, 1907 (gage height, 26.0 feet, from floodmark, former site and datum), from rating curve extended above 15,000 second-feet parallel to later curve defined by discharge measurements to 24,000 second-feet; minimum observed, 36 second-feet Aug. 12, 13, 1926.
Flood of Feb. 21, 1927, reached a stage of about 31.5 feet, present site and datum (discharge, about 78,000 second-feet). Flood of February 1890 reached a stage just 2 feet higher, according to John Lander who lived nearby at the time of both floods (discharge, about 85,000 second-feet).
Remarks.- Records good except those for periods of no gage-height record, which are fair. Gage read twice daily. Many small diversions above station for irrigation; no regulation.
Cooperation.- Gage-height record furnished by Bureau of Reclamation.

Rating table, water year 1944-45 (gage height, in feet, and discharge, in second-feet)

3.0	70	5.0	800	10.0	8,340
3.3	121	5.5	1,160	11.0	10,600
3.6	180	6.0	1,590	12.0	13,300
3.9	265	7.0	2,770	14.0	18,700
4.2	380	8.0	4,260	16.0	24,500
4.6	570	9.0	6,160	18.0	30,500

Discharge, in second-feet, water year October 1944 to September 1945

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	91	244	764	1,110	2,460	2,140	3,600	a3,300	2,650	398	148	103
2	116	332	1,660	912	6,440	2,120	3,220	a3,500	2,200	389	142	100
3	130	380	1,200	975	5,300	2,060	2,810	a3,300	1,920	356	140	94
4	117	835	961	891	4,450	a2,100	2,510	a2,900	1,790	340	140	93
5	105	856	794	807	12,400	2,130	a2,400	a2,500	1,760	324	136	89
6	103	620	698	1,250	13,000	2,150	2,340	a2,200	1,730	300	132	91
7	107	475	630	5,360	7,340	2,430	2,640	a1,900	1,620	293	130	93
8	107	710	570	4,960	8,710	2,560	6,120	1,900	1,440	279	129	96
9	108	a1,200	510	3,310	14,100	2,560	5,980	1,800	1,320	272	127	100
10	105	1,990	438	2,610	8,500	2,700	5,340	1,730	1,220	262	125	96
11	105	1,940	416	a2,200	6,320	4,770	5,520	1,720	1,130	253	125	94
12	108	1,040	376	a2,000	6,440	5,060	6,760	1,570	1,040	247	121	a90
13	110	758	a340	a5,000	19,000	6,320	5,840	2,030	982	235	119	86
14	110	570	320	a8,000	27,800	6,510	5,150	2,330	919	223	121	83
15	107	443	293	a7,000	15,000	7,170	4,500	2,590	856	211	123	80
16	110	372	282	6,280	8,360	6,680	4,400	4,540	807	205	123	81
17	108	320	276	4,700	6,530	11,900	4,190	8,390	764	200	121	80
18	107	286	272	5,060	a5,800	a9,500	3,900	8,520	716	198	117	78
19	103	268	a272	5,110	5,060	7,880	3,930	6,520	680	198	110	76
20	98	256	282	3,700	4,360	8,780	4,160	5,040	636	198	107	80
21	100	238	398	2,870	3,650	11,800	4,330	4,060	608	198	103	86
22	98	229	570	2,330	3,120	9,140	3,800	3,360	592	190	100	119
23	93	a250	586	1,930	2,760	9,860	3,210	3,290	565	188	100	166
24	93	a600	652	1,620	2,480	7,930	3,150	3,260	550	180	96	235
25	93	710	576	1,400	2,170	6,550	4,190	3,220	510	178	93	176
26	93	570	510	1,260	2,030	6,120	3,960	3,180	480	a174	96	152
27	89	716	430	1,130	2,000	5,210	3,420	3,590	466	a170	100	132
28	89	884	490	1,010	2,210	4,230	3,140	3,960	456	166	132	a124
29	89	710	1,400	961	-	3,900	3,420	3,650	a440	164	121	119
30	93	550	1,930	947	-	3,640	3,260	3,460	412	156	110	116
31	110	-	1,470	1,160	-	3,180	-	3,040	-	152	107	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff Inches	Runoff Acre-feet
October	3,195	130	89	103	0.063	0.07	6,340
November	19,352	1,990	229	645	.393	.44	38,380
December	20,366	1,930	272	657	.401	.46	40,400
Calendar year 1944	454,475	9,500	56	1,242	.757	10.30	901,500
January	87,753	8,000	807	2,831	1.73	1.99	174,100
February	207,790	27,800	2,000	7,421	4.52	4.71	412,100
March	169,080	11,900	2,060	5,454	3.33	3.83	335,400
April	121,190	6,760	2,340	4,040	2.46	2.75	240,400
May	106,670	8,520	1,570	3,441	2.10	2.42	211,600
June	31,259	2,650	412	1,042	.635	.71	62,000
July	7,297	398	152	235	.143	.17	14,470
August	3,694	148	93	119	.073	.08	7,330
September	3,208	235	76	107	.065	.07	6,360
Water year 1944-45	780,854	27,800	76	2,139	1.30	17.70	1,549,000

a No gage-height record; discharge computed on basis of records for South Umpqua River at Tiller and North Umpqua River above Rock Creek, near Glide.
Time basis: Pacific war time up to 2 a.m., Sept. 30, 1945; Pacific standard time thereafter. To convert war time to standard time, subtract 1 hour.

Umpqua River near Elkton, Oreg.

Location.- Staff gage, lat. 43°35', long. 123°33', in sec. 8, T. 23 S., R. 7 W., 4 miles south of Elkton. Datum of gage is 91.33 feet above mean sea level, datum of 1929.

Drainage area.- 3,680 square miles.

Records available.- October 1905 to September 1945 (incomplete prior to November 1908).

Average discharge.- 40 years, 6,997 second-feet.

Extremes.- Maximum discharge during year, 76,500 second-feet Feb. 14 (gage height, 23.12 feet, from floodmark); minimum observed, 808 second-feet Oct. 27-29 (gage height, 1.06 feet).

1905-45: Maximum discharge, 172,000 second-feet Feb. 21, 1927, Dec. 31, 1942, from rating curve extended above 50,000 second-feet; maximum gage height, 41.1 feet, Dec. 31, 1942; minimum discharge observed, 640 second-feet July 18, 1926 (gage height, 0.71 foot).

Maximum stage known, 45.5 feet sometime in 1861.

Remarks.- Records good. Gage read twice daily. Some diversions for irrigation from streams in South Umpqua River Basin, but low flow probably only slightly affected. Slight fluctuation by gates and racks of fish hatchery at Diamond Lake and by power plant at Winchester ordinarily does not affect discharge at this station.

Rating table, water year 1944-45 (gage height, in feet, and discharge, in second-feet)

1.0	760	4.0	4,330	11.0	23,400
1.5	1,190	5.0	6,060	13.0	30,700
2.0	1,710	6.0	8,200	16.0	43,100
2.5	2,290	7.0	10,700	19.0	56,600
3.0	2,920	9.0	16,500	23.0	76,000

Discharge, in second-feet, water year October 1944 to September 1945

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	929	992	2,350	3,460	9,540	5,680	9,300	9,800	6,760	1,920	1,120	956
2	938	1,300	2,400	3,080	11,800	5,500	9,300	9,670	6,260	1,880	1,110	956
3	929	1,700	2,560	3,150	11,200	5,590	8,800	9,540	5,680	1,810	1,100	938
4	929	1,890	2,800	3,050	10,400	5,680	8,680	9,170	5,150	1,760	1,080	929
5	938	2,300	2,870	3,040	17,200	5,780	8,920	8,680	4,980	1,710	1,080	920
6	920	2,510	2,700	3,250	31,500	5,870	9,920	8,200	4,810	1,680	1,080	904
7	920	2,170	2,460	12,900	21,600	5,960	12,900	7,520	4,650	1,640	1,060	904
8	920	2,000	2,240	16,800	22,000	6,260	18,500	6,980	4,490	1,610	1,060	904
9	920	2,250	2,010	10,700	39,700	7,080	19,900	6,460	4,180	1,580	1,050	904
10	904	2,910	1,850	7,630	23,400	9,040	19,500	5,870	3,880	1,520	1,050	904
11	888	4,100	1,720	7,080	18,100	11,200	19,200	5,680	3,740	1,460	1,050	888
12	888	4,260	1,600	6,870	17,800	12,300	17,800	5,590	3,530	1,430	1,030	888
13	904	3,740	1,520	7,970	33,800	14,000	15,600	5,590	3,450	1,380	1,030	888
14	888	2,150	1,490	14,600	71,500	16,200	12,900	6,160	3,320	1,350	1,010	904
15	888	1,780	1,460	13,700	40,500	18,500	11,200	7,520	3,150	1,310	1,010	904
16	872	1,530	1,400	17,500	23,400	18,800	10,700	14,600	2,950	1,280	1,000	904
17	864	1,400	1,370	15,900	15,900	22,600	10,200	21,200	2,720	1,290	992	904
18	856	1,340	1,320	14,300	14,900	35,500	10,200	19,800	2,800	1,280	992	904
19	856	1,240	1,280	12,600	14,000	23,700	10,400	17,800	2,720	1,270	974	896
20	840	1,200	1,280	11,200	11,500	24,400	10,700	13,700	2,650	1,270	974	912
21	840	1,160	2,030	9,670	9,800	28,400	11,200	11,200	2,570	1,250	965	965
22	840	1,260	2,450	6,760	8,560	20,200	11,200	10,200	2,490	1,230	956	1,020
23	840	1,510	2,520	5,680	7,300	26,200	9,420	9,170	2,450	1,230	956	1,080
24	840	1,810	2,600	5,150	6,560	23,400	10,400	8,560	2,360	1,210	938	1,190
25	824	2,040	2,480	4,730	5,960	18,100	12,900	8,080	2,250	1,210	938	1,270
26	824	2,220	2,190	4,260	5,500	14,300	14,300	7,740	2,210	1,190	965	1,260
27	808	2,350	2,000	3,670	5,320	12,600	12,300	7,630	2,130	1,170	992	1,210
28	808	2,350	2,000	3,530	5,780	11,000	11,200	8,200	2,070	1,170	983	1,150
29	808	2,330	2,240	3,320	-	9,800	10,200	8,680	1,990	1,150	974	1,090
30	848	2,300	3,350	3,600	-	9,420	9,920	8,200	1,950	1,150	974	1,030
31	920	-	4,410	5,960	-	9,170	-	7,410	-	1,140	965	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff	
						Inches	Acre-feet
October	27,191	938	808	877	0.238	0.27	53,930
November	62,092	4,260	992	2,070	.562	.63	123,200
December	66,950	4,410	1,280	2,160	.587	.68	132,800
Calendar year 1944	1,425,974	25,500	808	3,896	1.06	14.41	2,829,000
January	245,110	17,500	3,040	7,907	2.15	2.48	486,200
February	514,520	71,500	5,320	18,380	4.99	5.20	1,021,000
March	442,230	35,500	5,500	14,270	3.88	4.47	877,200
April	367,660	19,900	8,680	12,260	3.33	3.72	729,200
May	294,600	21,200	5,590	9,503	2.58	2.98	584,300
June	104,340	6,760	1,950	3,478	.945	1.05	207,000
July	43,530	1,920	1,140	1,404	.382	.44	86,340
August	31,458	1,120	938	1,015	.276	.32	62,400
September	29,476	1,270	888	983	.267	.30	58,460
Water year 1944-45	2,229,157	71,500	808	6,107	1.66	22.54	4,422,000

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

Cow Creek near Azalea, Oreg.

Location.- Staff gage, lat. 42°50', long. 123°11', in sec. 4, T. 32 S., R. 4 W., 4 miles northeast of Azalea.

Drainage area.- 76 square miles.

Records available.- April 1926 to September 1945.

Average discharge.- 15 years (1929-31, 1932-45), 88.9 second-feet.

Extremes.- Maximum discharge during year, 1,590 second-feet Feb. 8 (gage height, 6.2 feet, from graph based on gage readings); minimum observed, 6.1 second-feet Sept. 14, Sept. 14, 15.

1926-45: Maximum discharge observed, 3,850 second-feet Feb. 6, 1938 (gage height, 9.6 feet), Jan. 21, 1943 (gage height, 9.5 feet), from rating curve extended above 1,130 second-feet; minimum observed, 4 second-feet Sept. 9-19, 1929, Aug. 26-28, 1931, Aug. 21 to Sept. 6, 1934.

Remarks.- Records good except those for periods of shifting control, which are fair, and those for Nov. 26-29, Jan. 13, 14, which are poor. Staff gage read once daily. Small diversions above station for irrigation.

Rating table, water year 1944-45 (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Oct. 1 to Nov. 8, July 20 to Sept. 30)

1.7	6.7	2.1	35	2.6	120	3.7	435
1.8	11	2.2	49	2.8	168	4.1	590
1.9	17	2.3	64	3.1	249	4.5	750
2.0	25	2.4	80	3.4	338	5.0	990

Discharge, in second-feet, water year October 1944 to September 1945

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	12	24	49	23	338	77	158	116	103	23	11	8.0
2	10	33	38	23	194	74	138	103	93	23	11	7.1
3	9.3	48	33	21	176	77	125	95	86	23	11	7.1
4	10	36	31	21	138	78	116	90	80	21	11	8.0
5	12	23	28	22	890	74	105	80	77	21	10	8.0
6	10	20	25	49	368	70	112	72	72	19	10	7.6
7	9.3	23	23	107	243	67	116	67	67	19	11	7.6
8	9.3	26	21	70	1,040	66	199	62	64	19	10	7.6
9	9.3	61	20	56	470	67	184	58	61	18	9.7	7.1
10	8.8	48	19	55	241	84	176	56	58	17	9.3	7.1
11	9.3	36	19	52	216	216	249	55	55	17	9.3	6.7
12	9.7	29	19	48	173	184	227	69	52	17	10	6.4
13	9.7	23	18	46	750	181	189	67	49	16	10	6.4
14	9.3	21	18	d99	510	194	178	64	48	16	9.7	6.1
15	9.3	18	17	84	302	202	189	72	45	16	9.3	6.1
16	9.3	17	18	78	227	168	205	221	43	15	9.3	6.4
17	8.8	16	19	74	194	368	194	184	41	15	8.8	6.4
18	8.8	16	17	69	168	216	186	224	38	15	8.4	6.4
19	8.4	15	16	66	138	189	194	184	36	15	8.4	6.7
20	8.4	15	17	61	116	368	202	138	35	14	7.6	8.0
21	8.4	15	19	50	103	338	186	120	35	14	7.6	10
22	8.4	15	19	43	95	314	153	112	33	13	7.6	13
23	8.8	20	21	35	90	278	138	105	32	13	7.6	12
24	8.8	31	20	34	82	243	189	99	29	13	8.0	10
25	8.8	25	19	32	75	278	173	105	28	13	8.4	9.3
26	8.4	23	17	31	74	221	153	132	28	13	9.3	8.6
27	8.4	23	18	28	75	184	138	158	26	12	8.8	8.4
28	8.8	23	20	26	75	171	158	150	26	12	8.0	8.0
29	9.7	23	33	25	-	166	143	138	25	11	8.0	8.0
30	15	25	30	30	-	148	129	129	25	11	8.0	7.6
31	34	-	25	64	-	168	-	114	-	11	8.4	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff	
						Inches	Acre-feet
October	318.5	34	8.4	10.3	0.136	0.16	632
November	771	61	15	25.7	.338	.38	1,530
December	706	49	16	22.8	.300	.35	1,400
Calendar year 1944	17,168.6	296	5.7	46.9	.617	8.42	34,050
January	1,522	107	21	49.1	.646	.74	3,020
February	7,561	1,040	74	270	3.55	3.70	15,000
March	5,529	368	66	178	2.34	2.71	10,970
April	5,002	249	105	167	2.20	2.45	9,920
May	3,439	224	55	111	1.46	1.68	6,820
June	1,490	103	25	49.7	.654	.73	2,960
July	495	23	11	16.0	.211	.24	982
August	284.5	11	7.6	9.18	.121	.14	564
September	235.9	13	6.1	7.86	.103	.12	468
Water year 1944-45	27,353.9	1,040	6.1	74.9	.986	13.40	54,270

d Doubtful gage-height record; discharge computed on basis of records for South Umpqua River at Tiller.

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

North Umpqua River below Lake Creek, Oreg.

Location.- Water-stage recorder, lat. 43°19', long. 122°11', in NW¼ sec. 13, T. 26 S., R. 5 E., 200 yards downstream from Lake Creek and 30 miles southwest of Crescent. Altitude of gage, 4,090 feet (from river-profile map).

Drainage area.- 175 square miles.

Records available.- October 1927 to September 1945.

Average discharge.- 18 years, 364 second-feet.

Extremes.- Maximum discharge during year, 653 second-feet May 16 (gage height, 1.58 feet); minimum, 269 second-feet Jan. 3 (gage height, 0.79 foot).
1927-45: Maximum discharge, 1,190 second-feet June 9, 1933 (gage height, 2.34 feet), from rating curve extended above 700 second-feet; minimum, 206 second-feet Dec. 9, 1931.

Remarks.- Records good except those for period of no gage-height record, which are fair. No diversion above station. Flow slightly regulated by Diamond Lake.

Rating table, water year 1944-45 (gage height, in feet, and discharge, in second-feet)

0.8	273	1.4	545
1.0	353	1.6	665
1.2	441		

Discharge, in second-feet, water year October 1944 to September 1945

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	308	304	312	308	328	356	345	485	540	392	345	328
2	296	308	312	308	332	356	341	516	557	387	345	332
3	296	324	308	296	328	353	362	563	545	387	345	337
4	296	320	308	308	328	353	366	611	540	383	345	332
5	300	308	312	308	341	353	366	617	534	383	345	332
6	296	312	312	320	337	349	370	611	523	383	345	328
7	296	324	308	353	349	349	374	617	512	379	345	328
8	296	324	308	341	400		379	593	506	379	345	328
9	296	324	308	324	374		374	599	501	379	341	324
10	292	320	304	328	362		370	581	496	374	341	324
11	289	316	304	320	392		366	587	485	374	345	332
12	289	312	304	341	387		348	575	461	366	345	332
13	289	308	300	383	446		345	587	456	366	341	332
14	289	308	300	374	441		345	593	451	366	341	332
15	289	308	296	374	414		345	617	446	362	341	328
16	289	308	296	353	400		345	629	441	356	341	328
17	289	308	292	349	400		349	629	436	356	337	324
18	289	304	292	345	396		356	617	436	356	332	324
19	285	304	304	341	392	a350	366	605	432	353	341	324
20	285	304	312	337	383		366	593	432	353	345	328
21	285	304	312	320	379		362	563	428	353	337	337
22	285	304	316	328	374		362	563	423	353	337	341
23	285	308	312	324	374		374	575	418	356	337	337
24	285	304	308	328	370		432	563	414	353	337	332
25	285	304	308	324	366		441	557	410	353	341	328
26	285	308	304	324	362		451	551	405	353	341	324
27	289	308	304	320	356		441	563	405	353	337	324
28	289	308	308	320	356		441	557	400	349	337	324
29	289	308	308	316	-		446	551	400	349	332	320
30	292	312	308	320	-		466	563	396	345	332	320
31	304	-	308	324	-	349	-	557	-	345	328	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff Inches	Runoff Acre-feet
October	9,027	308	285	291	1.66	1.92	17,900
November	9,316	324	304	311	1.78	1.98	18,480
December	9,488	316	292	306	1.75	2.20	18,820
Calendar year 1944	128,762	480	285	352	2.01	27.36	255,400
January	10,259	383	296	331	1.89	2.18	20,350
February	10,467	446	328	374	2.14	2.22	20,760
March	10,868	-	-	351	2.01	2.31	21,560
April	11,395	466	341	380	2.17	2.42	22,600
May	17,990	629	485	580	3.31	3.82	35,680
June	13,829	557	396	461	2.63	2.94	27,430
July	11,296	392	345	364	2.08	2.40	22,410
August	10,547	345	328	340	1.94	2.24	20,920
September	9,664	341	320	329	1.88	2.10	19,560
Water year 1944-45	134,346	629	285	368	2.10	28.55	266,500

a No gage-height record; discharge computed on basis of records for North Umpqua River at Toketee Falls and Lake Creek at Diamond Lake, near Fort Klamath.

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

North Umpqua River at Toketee Falls, Oreg.

Location.- Water-stage recorder, lat. 43°16', long. 122°25', in T. 26 S., R. 3 E. (unsurveyed), an eighth of a mile downstream from Clearwater River, half a mile upstream from Toketee Falls, and 30 miles east of Hoaglin. Datum of gage is 2,373 feet above mean sea level (surveys of The California Oregon Power Co.).

Drainage area.- 337 square miles.

Records available.- February 1908 to July 1909, December 1914 to November 1917 (incomplete), July 1924 to September 1945.

Average discharge.- 20 years (1925-45), 862 second-feet.

Extremes.- Maximum discharge during year, 2,900 second-feet Feb. 13 (gage height, 3.82 feet); minimum, 560 second-feet Oct. 26 (gage height, 0.80 foot).
1908-9, 1914-17, 1924-45: Maximum discharge, 5,080 second-feet Dec. 31, 1942 (gage height, 5.90 feet), from rating curve extended above 1,900 second-feet by logarithmic plotting; minimum, 475 second-feet Nov. 27-29, Dec. 12, 14, 1931.

Remarks.- Records good. No diversion above station; regulation at Diamond Lake has little effect.

Rating table, water year 1944-45 (gage height, in feet, and discharge, in second-feet)

0.8	560	2.2	1,500
1.1	720	2.8	1,990
1.6	1,040	3.6	2,700

Discharge, in second-feet, water year October 1944 to September 1945

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	585	626	654	616	775		861	1,580	1,300	817	692	643
2	580	616	638	610	793		848	1,710	1,280	817	687	643
3	580	704	621	590	793		848	1,870	1,260	811	687	643
4	590	665	616	600	787		848	1,840	1,230	799	687	643
5	600	626	621	616	900		848	1,770	1,220	793	682	654
6	585	616	621	748	854		861	1,720	1,200	787	682	643
7	585	654	616	1,080	921		914	1,670	1,170	781	682	638
8	580	826	610	1,000	1,600		1,050	1,600	1,140	775	662	632
9	575	643	605	823	1,360		991	1,560	1,120	770	676	632
10	575	643	595	817	1,200		970	1,550	1,100	764	676	626
11	575	632	600	799	1,370		977	1,480	1,080	758	676	632
12	575	616	595	894	1,470		928	1,500	1,050	753	676	632
13	575	605	590	1,270	2,660		894	1,550	1,040	753	676	632
14	575	600	585	1,250	2,250		894	1,520	1,010	748	670	632
15	575	600	580	1,140	1,760	a880	907	1,630	984	742	670	626
16	575	595	580	1,010	1,510		914	1,900	970	736	665	826
17	570	595	580	956	1,360		942	1,860	963	731	660	621
18	570	595	575	900	1,230		1,000	1,750	956	731	660	621
19	570	590	595	842	1,140		1,100	1,640	956	726	660	621
20	570	585	660	805	1,080		1,240	1,570	949	726	665	638
21	570	585	638	758	1,020		1,280	1,480	949	720	660	676
22	565	585	638	748	984		1,210	1,460	935	720	654	676
23	565	605	648	736	949		1,240	1,450	914	720	654	654
24	565	616	632	726	914		1,610	1,400	887	714	654	638
25	565	600	621	714	887		1,620	1,360	880	714	676	632
26	565	632	610	709	874		1,560	1,360	874	709	665	626
27	565	638	610	698	868		1,480	1,400	861	709	854	621
28	570	621	610	687	848		1,450	1,370	842	704	648	621
29	570	616	616	682	-	842	1,450	1,360	835	698	648	616
30	575	621	610	714	-	848	1,500	1,370	823	698	643	616
31	616	-	595	742	-	874	-	1,340	-	692	643	-

Month	Second-feet-days	Maximum	Minimum	Mean	Per square mile	Runoff Inches	Runoff Acre-feet
October	17,856	616	565	576	1.71	1.97	35,420
November	18,551	704	585	618	1.83	2.05	36,800
December	18,965	660	575	612	1.82	2.09	37,620
Calendar year 1944	280,788	1,310	565	767	2.28	30.98	557,000
January	25,280	1,270	590	815	2.42	2.79	50,140
February	33,157	2,660	775	1,184	3.51	3.66	65,770
March	27,204	-	-	878	2.61	3.00	53,960
April	33,235	1,620	848	1,108	3.29	3.67	65,920
May	48,620	1,900	1,340	1,568	4.66	5.37	96,440
June	30,778	1,300	823	1,026	3.04	3.40	61,050
July	23,116	817	692	746	2.21	2.55	45,850
August	20,710	692	643	668	1.98	2.29	41,080
September	19,054	676	616	635	1.88	2.10	37,790
Water year 1944-45	316,526	2,660	565	867	2.57	34.94	627,900

Peak discharge.- Jan. 7 (6:30 p.m.) 1,270 sec.-ft.; Jan. 13 (4:30 p.m.) 1,480 sec.-ft.; Feb. 8 (7 a.m.) 1,750 sec.-ft.; Feb. 13 (5 p.m.) 2,900 sec.-ft.

a No gage-height record; discharge computed on basis of range in stage and records for stations below Lake Creek and above Rock Creek, near Glide.

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

North Umpqua River above Rock Creek, near Glide, Oreg.

Location.- Water-stage recorder, lat. 43°20', long. 123°00', in NW¼ sec. 12, T. 26 S., R. 3 W., half a mile upstream from Rock Creek and 5 miles northeast of Glide. Altitude of gage, 770 feet (from river-profile map).

Drainage area.- 886 square miles.

Records available.- June 1924 to September 1945 (discontinued).

Average discharge.- 21 years, 2,277 second-feet.

Extremes.- Maximum discharge during year, 23,500 second-feet Feb. 13 (gage height, 12.99 feet); minimum, 691 second-feet Oct. 25, 26 (gage height, 2.18 feet).
1924-45: Maximum discharge, 55,000 second-feet Feb. 20, 1927 (gage height, 20.18 feet), from rating curve extended above 18,000 second-feet; minimum, 521 second-feet Oct. 16, 1931 (gage height, 1.86 feet).
Flood of Dec. 28, 1945, reached a stage of 20.1 feet, from floodmark, and destroyed recorder shelter.

Remarks.- Records good. No diversion above station; regulation at Diamond Lake has little effect.

Rating table, water year 1944-45 (gage height, in feet, and discharge, in second-feet)

2.2	700	4.0	2,040	8.0	8,630
2.5	855	4.5	2,540	9.0	11,100
2.9	1,040	5.0	3,120	10.5	15,200
3.2	1,340	6.0	4,540	12.0	20,000
3.6	1,660	7.0	6,420		

Discharge, in second-feet, water year October 1944 to September 1945

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	770	1,100	1,730	1,140	2,550	1,920	3,180	4,800	3,150	1,260	909	800
2	735	1,010	1,680	1,410	3,100	1,890	2,680	5,170	2,860	1,240	903	795
3	720	1,610	1,400	1,320	2,890	1,900	2,410	5,560	2,700	1,220	897	795
4	720	1,480	1,260	1,200	2,740	1,860	2,200	5,040	2,540	1,190	891	790
5	765	1,100	1,320	1,410	4,750	1,790	2,160	4,430	2,530	1,170	891	806
6	755	1,000	1,280	4,030	5,060	1,770	3,200	4,120	2,500	1,160	891	816
7	730	1,540	1,180	7,540	4,350	1,760	4,020	3,800	2,390	1,140	891	795
8	715	1,220	1,100	5,670	11,700	1,890	7,570	3,550	2,290	1,110	885	790
9	715	1,530	1,030	3,350	8,310	2,050	5,220	3,350	2,180	1,100	873	780
10	715	1,450	975	3,040	5,280	2,780	4,120	3,410	2,080	1,090	867	775
11	715	1,410	939	2,980	5,490	3,660	4,480	3,060	2,000	1,070	867	765
12	715	1,170	915	3,300	5,560	3,820	4,680	3,080	1,910	1,050	873	770
13	725	1,030	873	6,280	20,500	4,720	3,820	3,720	1,870	1,050	867	770
14	725	939	850	5,960	15,100	4,280	3,410	3,730	1,800	1,040	861	765
15	720	879	833	4,920	7,990	4,040	3,520	4,100	1,740	1,030	850	765
16	715	850	828	4,770	5,510	3,430	3,620	6,740	1,680	1,020	844	765
17	710	816	811	4,060	4,570	3,320	3,510	8,190	1,640	1,010	833	760
18	705	811	806	4,640	4,490	3,200	3,640	7,080	1,620	1,010	828	760
19	700	790	873	3,640	3,750	3,390	4,260	5,940	1,590	1,000	822	755
20	696	785	1,410	2,840	3,260	5,130	4,990	4,990	1,560	994	828	785
21	696	775	1,470	2,360	2,840	5,520	5,010	4,280	1,550	988	822	933
22	696	770	1,340	2,050	2,600	5,760	4,110	3,800	1,540	968	811	1,270
23	696	861	1,470	1,860	2,420	6,740	3,610	4,110	1,490	988	811	1,000
24	696	1,380	1,350	1,730	2,260	4,650	6,000	4,110	1,440	982	806	885
25	696	1,200	1,220	1,600	2,110	3,850	6,670	3,780	1,400	969	855	833
26	696	1,550	1,110	1,500	2,020	3,580	5,920	3,500	1,390	957	903	806
27	696	1,320	1,070	1,440	2,020	3,170	4,780	3,580	1,360	945	844	795
28	696	1,350	1,080	1,390	1,960	2,900	4,650	3,860	1,320	939	822	780
29	696	1,140	1,320	1,360	-	2,990	4,680	3,800	1,300	927	816	775
30	710	1,140	1,350	1,480	-	2,880	4,680	4,230	1,270	921	811	770
31	885	-	1,160	2,340	-	3,250	-	3,590	-	915	800	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff Inches	Runoff Acre-feet
October	22,325	885	696	720	0.813	0.94	44,280
November	34,706	1,820	770	1,157	1.31	1.46	68,840
December	36,033	1,730	806	1,162	1.31	1.51	71,470
Calendar year 1944	595,429	7,390	690	1,627	1.84	24.99	1,181,000
January	92,610	7,540	1,140	2,987	3.37	3.89	183,700
February	145,180	20,500	1,960	5,185	5.85	6.09	288,000
March	103,890	6,740	1,760	3,351	3.78	4.36	206,100
April	126,800	7,570	2,160	4,227	4.77	5.32	251,500
May	136,500	8,190	3,060	4,403	4.97	5.73	270,700
June	56,690	3,150	1,270	1,890	2.13	2.38	112,400
July	32,473	1,260	915	1,048	1.18	1.36	64,410
August	26,472	909	800	854	.964	1.11	52,510
September	24,449	1,270	755	815	.920	1.03	48,490
Water year 1944-45	838,126	20,500	696	2,296	2.59	35.18	1,662,000

Peak discharge.- Feb. 8 (11:30 a.m.) 17,100 sec.-ft.; Feb. 13 (12 m.) 23,500 sec.-ft.
Time basis: Pacific war time up to 2 a.m., Sept. 30, 1945; Pacific standard time thereafter.
To convert war time to standard time, subtract 1 hour.

Lake Creek at Diamond Lake, near Fort Klamath, Oreg.

Location.- Water-stage recorder, lat. 43°11', long. 122°10', in SW¼ sec. 30, T. 27 S., R. 6 E., 260 feet downstream from outlet of Diamond Lake and 35 miles north of Fort Klamath. Altitude of gage, 5,180 feet (from river-profile map).

Drainage area.- 57 square miles.

Records available.- May 1922 to September 1925 (incomplete), October 1926 to September 1945.

Average discharge.- 18 years (1926-29, 1930-45), 47.5 second-feet.

Extremes.- Maximum discharge during year, 115 second-feet (regulated) May 17 (gage height, 1.68 feet); minimum, 1.4 second-feet (regulated) Apr. 12, 23.
1922-25, 1926-45: Maximum discharge observed, 336 second-feet Jan. 1, 1943 (gage height, 2.8 feet), from rating curve extended above 120 second-feet; no flow (result of regulation) Aug. 25-27, 1931.

Remarks.- Records good except those above 60 or below 20 second-feet, which are fair, and those for May 5-17, which are poor. Flow regulated by gates and fish racks at lake outlet, and at times by collection of moss on racks. No diversions above station.

Rating table, water year 1944-45 (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Dec. 28 to Jan. 9)

0.7	13	1.1	42
.8	18	1.3	64
.9	25	1.5	89

Discharge, in second-feet, water year October 1944 to September 1945

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	a16	51	75	54	55	a66	58	41	70	37	27	29
2	a16	53	74	53	55	a66	63	42	85	36	27	33
3	a16	56	72	52	56	a66	79	43	86	35	31	35
4	a18	60	57	52	55	a64	82	42	e1	35	30	32
5	a20	58	49	52	62	a64	81		79	35	29	30
6	a21	60	48	52	61	a64	79		79	34	27	29
7	a21	61	46	52	63	a63	76		76	34	27	30
8	21	60	48	52	70	a62	77		75	a34	27	29
9	21	60	48	51	70	61	75		74	a34	27	29
10	22	61	48	52	69	61	74		72	a33	27	29
11	16	61	48	52	70	61	71	a56	58	a33	35	38
12	18	60	46	54	71	61	53		46	a33	34	38
13	18	58	49	56	80	62	55		46	a32	31	37
14	18	56	53	56	82	65	55		45	a32	30	36
15	20	56	49	60	80	66	54		45	a31	29	35
16	20	57	48	60	79	65	54		45	a24	27	34
17	22	63	48	60	79	69	55	76	45	a29	27	33
18	22	62	48	61	80	69	53	86	45	a29	26	32
19	23	61	50	60	a78	69	55	88	44	a28	31	32
20	24	60	54	60	a76	70	41	38	44	28	33	31
21	25	60	54	58	a74	69	23	42	43	27	28	33
22	25	60	54	58	a72	70	25	91	41	27	33	34
23	27	63	53	58	h70	70	33	95	41	34	33	33
24	27	64	54	56	a70	70	39	93	41	31	31	35
25	27	68	54	55	a70	69	50	92	40	31	31	33
26	36	70	54	55	a70	68	62	92	39	30	31	32
27	45	71	53	54	a68	65	49	90	39	29	31	32
28	51	70	54	53	a68	65	40	85	39	28	30	31
29	51	70	56	52	-	63	41	85	38	27	29	30
30	49	71	56	52	-	61	40	86	38	27	29	30
31	50	-	56	52	-	60	-	86	-	27	29	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff Inches	Runoff Acre-feet
October	806	51	16	26.0	0.456	0.53	1,600
November	1,843	71	51	61.4	1.08	1.20	3,660
December	1,656	75	46	53.4	.937	1.08	3,280
Calendar year 1944	17,057	77	16	46.6	.818	11.13	33,830
January	1,706	61	51	55.0	.965	1.11	3,380
February	1,953	82	55	69.8	1.22	1.27	3,870
March	2,024	70	60	65.3	1.15	1.32	4,010
April	1,692	82	23	56.4	.989	1.10	3,360
May	2,065	-	-	66.6	1.17	1.35	4,100
June	1,639	86	38	54.6	.958	1.07	3,250
July	964	37	24	31.1	.546	.63	1,910
August	917	35	26	29.6	.519	.60	1,820
September	972	38	29	32.4	.568	.63	1,930
Water year 1944-45	18,237	-	-	50.0	.877	11.89	36,170

a No gage-height record; discharge computed on basis of weather records and records for North Umpqua River below Lake Creek.
h Computed from staff-gage reading.
Time basis: Pacific war time up to 2 a.m., Sept. 30, 1945; Pacific standard time thereafter. To convert war time to standard time, subtract 1 hour.

Clearwater River above Trap Creek, Oreg.

Location.- Water-stage recorder, lat. 43°15', long. 122°17', in SE¼ sec. 1, T. 27 S., R. 4 E., 150 yards upstream from Trap Creek and 40 miles east of Glide. Altitude of gage, 3,760 feet (from river-profile map).

Drainage area.- 40 square miles.

Records available.- October 1927 to September 1945.

Average discharge.- 17 years (1928-45), 144 second-feet.

Extremes.- Maximum discharge during year, 256 second-feet May 3 (gage height, 1.49 feet); minimum, 118 second-feet Jan. 3 (gage height, 0.80 foot).
1927-45: Maximum discharge, 451 second-feet Jan. 1, 1943 (gage height, 2.17 feet), from rating curve extended above 200 second-feet; minimum, 91 second-feet Nov. 4-6, 27, Dec. 12, 29, 1931, Jan. 3, 1932.

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

Rating table, water year 1944-45 (gage height, in feet, and discharge, in second-feet)

0.8	118	1.1	167
.9	133	1.3	209
1.0	149	1.5	258

Discharge, in second-feet, water year October 1944 to September 1945

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	127	128	124	121	128	139	128	198			130	124
2	126	128	122	121	128	138	128	216			130	124
3	126	141	122	120	127	138	128	246			130	124
4	126	136	122	120	128	138	128	246			130	124
5	126	127	122	120	135	138	130	236			130	124
6	126	128	122	127	130	136	132	231			130	124
7	126	128	122	132	136	135	136	223			133	124
8	126	127	122	130	171	135	136	221			130	124
9	126	128	121	127	154	135	133	219			130	124
10	126	127	121	127	149	135	133	221			130	122
11	126	126	121	127	158	136	133	207			130	122
12	126	126	121	132	158	138	133	216			130	122
13	126	124	121	138	200	135	133	228		a135	128	122
14	126	124	120	143	194	135	133	216			128	122
15	126	124	120	144	177	135	133	223			128	122
16	126	124	120	136	167	133	133	236	a170		128	122
17	126	122	120	135	163	133	135	223			127	122
18	126	122	120	132	158	132	136	221			127	122
19	126	122	122	130	154	132	138				127	122
20	126	122	126	128	149	133	143				127	124
21	124	122	124	127	147	132	147				127	128
22	124	122	124	127	146	133	149				126	126
23	124	124	124	127	144	132	153				126	124
24	124	122	122	126	143	130	163				126	121
25	124	122	122	126	141	132	179	a205			128	121
26	124	124	122	126	141	130	177			130	127	121
27	124	124	122	124	141	130	173			130	126	121
28	122	122	122	124	139	130	177			130	126	121
29	122	122	122	124	-	130	179			130	126	121
30	124	124	121	124	-	130	185			130	126	121
31	130	-	121	126	-	130	-		-	130	126	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff Inches	Runoff Acre-feet
October	3,887	130	122	125	3.12	3.61	7,710
November	3,762	141	122	125	3.12	3.50	7,460
December	3,777	126	120	122	3.05	3.51	7,490
Calendar year 1944	53,426	198	120	146	3.65	49.67	106,000
January	3,971	144	120	128	3.20	3.69	7,880
February	4,206	200	127	150	3.75	3.91	8,340
March	4,148	139	130	134	3.35	3.86	8,230
April	4,364	185	128	145	3.62	4.06	8,660
May	6,692	246	-	216	5.40	6.22	13,270
June	5,100	-	-	170	4.25	4.74	10,120
July	4,155	-	130	134	3.35	3.86	8,240
August	3,973	130	126	128	3.20	3.69	7,880
September	3,685	128	121	123	3.08	3.43	7,310
Water year 1944-45	51,720	246	120	142	3.55	48.08	102,600

a No gage-height record; discharge computed on basis of records for North Umpqua River below Lake Creek and at Toketee Falls.

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

South Fork Coquille River at Powers, Oreg.

Location.- Water-stage recorder, lat. 42°54', long. 124°04', in SE¼ sec. 12, T. 31 S., R. 12 W., half a mile northeast of bridge at Powers and three-quarters of a mile upstream from Woodward Creek. Altitude of gage, 200 feet (from river-profile map).

Drainage area.- 169 square miles.

Records available.- October 1928 to September 1945. September 1916 to September 1926 at site 1½ miles upstream.

Average discharge.- 26 years (1916-26, 1929-45), 709 second-feet.

Extremes.- Maximum discharge during year, 10,800 second-feet Feb. 8 (gage height, 11.56 feet), from rating curve extended above 2,200 second-feet on basis of former curves defined to 10,000 second-feet; minimum, 18 second-feet Oct. 27-29 (gage height, 0.96 foot).
1916-26, 1928-45: Maximum discharge, 25,300 second-feet Oct. 31, 1924 (gage height, 17.5 feet, site and datum then in use), from rating curve extended above 12,000 second-feet; minimum, 12 second-feet Sept. 22-25, 27-30, 1939.

Remarks.- Records good. No regulation above station. Small diversions for irrigation.

Rating table, water year 1944-45 (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used May 26 to Sept. 30)

1.0	21	2.1	235	4.4	1,680
1.2	43	2.4	355	5.2	2,410
1.4	70	2.8	555	6.4	3,690
1.6	104	3.2	785	7.8	5,460
1.8	150	3.7	1,120	9.7	8,080

Discharge, in second-feet, water year October 1944 to September 1945

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	38	382	1,950	671	2,510	785	1,150	610	324	84	39	27
2	29	226	1,380	616	3,500	743	980	599	302	81	38	27
3	25	1,900	1,010	566	3,490	792	844	538	282	80	37	26
4	24	1,870	792	528	2,500	804	737	465	270	76	36	24
5	24	1,160	643	749	5,140	767	915	420	282	75	36	32
6	25	701	533	960	3,330	967	1,820	373	266	72	35	41
7	24	755	450	1,430	3,330	1,120	2,380	328	242	70	35	31
8	24	1,000	391	1,270	8,020	1,430	4,620	298	232	69	33	28
9	24	2,950	337	967	3,950	1,260	2,750	278	220	66	33	25
10	23	2,000	298	902	2,380	3,210	1,980	282	211	63	33	24
11	23	1,170	270	798	1,700	2,830	2,040	274	199	62	33	23
12	24	811	242	677	1,460	2,170	2,020	490	190	59	35	22
13	24	610	220	824	4,190	1,790	1,590	1,100	184	57	33	21
14	25	465	205	941	3,590	2,010	1,330	1,160	175	56	33	21
15	24	368	190	2,650	2,240	1,900	1,200	915	168	56	32	21
16	24	314	178	2,910	1,590	1,990	1,210	954	162	55	32	22
17	22	270	172	2,290	1,820	4,860	1,170	1,020	155	55	31	21
18	22	238	165	2,720	2,310	3,130	1,130	934	150	53	30	20
19	21	211	181	2,060	1,710	2,350	1,170	798	135	53	29	20
20	20	196	286	1,450	1,330	6,820	1,220	671	145	51	29	24
21	20	181	310	1,100	1,060	4,270	1,130	599	140	50	29	46
22	20	170	302	876	908	2,910	941	538	136	50	28	80
23	20	205	290	731	818	2,610	798	495	132	50	27	60
24	19	391	242	621	743	1,990	811	465	123	48	27	46
25	19	355	226	544	671	1,970	928	516	114	46	32	38
26	19	725	211	485	654	1,880	902	485	106	46	36	33
27	18	648	308	435	856	1,510	773	480	100	44	35	31
28	18	511	1,610	396	856	1,300	713	470	97	43	32	29
29	18	506	1,780	364	-	1,210	677	440	93	43	31	27
30	147	1,460	1,310	415	-	1,130	648	400	90	42	30	26
31	308	-	856	1,050	-	1,160	-	364	-	41	29	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff	
						Inches	Acre-feet
October	1,113	306	18	35.9	0.212	0.24	2,210
November	22,749	2,950	170	758	4.49	5.01	45,120
December	17,338	1,950	165	559	3.31	3.82	34,390
Calendar year 1944	171,966	2,950	18	470	2.78	37.85	341,100
January	32,996	2,910	364	1,064	6.30	7.26	65,450
February	66,656	8,020	654	2,381	14.1	14.67	132,200
March	63,668	6,820	743	2,054	12.2	14.01	126,300
April	40,577	4,620	648	1,353	8.01	8.98	80,480
May	17,759	1,160	274	573	3.39	3.91	35,220
June	5,427	324	90	181	1.07	1.19	10,760
July	1,796	84	41	57.9	.343	.40	3,560
August	1,008	39	27	32.5	.192	.22	2,000
September	916	80	20	30.5	.180	.20	1,820
Water year 1944-45	272,003	8,020	18	74.5	4.41	59.86	539,500

Peak discharge.- Feb. 8 (6 a.m.) 10,800 sec.-ft.; Mar. 20 (12 m.) 8,110 sec.-ft.
Time basis: Pacific war time up to 2 a.m., Sept. 30, 1945; Pacific standard time thereafter.
To convert war time to standard time, subtract 1 hour.

Middle Fork Coquille River near Myrtle Point, Oreg.

Location.- Water-stage recorder, lat. 43°02', long. 124°05', in S½ sec. 26, T. 29 S., R. 12 W., a third of a mile downstream from Indian Creek and 3¾ miles southeast of Myrtle Point. Datum of gage is 41.20 feet above mean sea level, datum of 1929.
Drainage area.- 305 square miles.
Records available.- October 1930 to September 1945.
Average discharge.- 15 years, 729 second-feet.
Extremes.- Maximum discharge during year, 10,200 second-feet Feb. 13 (gage height, 16.58 feet); minimum, 12 second-feet Oct. 29 (gage height, 1.85 feet).
1930-45: Maximum discharge, 22,600 second-feet Jan. 2, 1933 (gage height, 22.5 feet), from rating curve extended above 9,000 second-feet; minimum daily, 1 second-foot July 16, 17, 1931.
Maximum stage known, 25.8 feet, probably on Oct. 31, 1924.
Remarks.- Records good. Log ponds above station cause diurnal fluctuation at times. No diversion above station.

Rating tables, water year 1944-45 (gage height, in feet, and discharge, in second-feet)

Oct. 1 to Mar. 31

1.8	11	3.8	169	9.5	2,450
2.0	17	4.4	277	11.0	3,600
2.3	29	5.0	406	12.5	5,000
2.6	45	6.0	680	14.0	6,670
3.0	75	7.0	1,100	15.5	8,660
3.4	115	8.0	1,600		

Apr. 1 to Sept. 30

1.8	12
2.0	18
2.3	29

Note.- Same as preceding table above 2.3 feet.

Discharge, in second-feet, water year October 1944 to September 1945

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	49	160	908	780	1,260	1,240	940	575	399	91	30	19
2	33	146	748	623	1,740	1,020	812	515	359	87	30	19
3	25	298	539	551	1,960	1,160	692	468	339	82	29	18
4	21	488	425	482	1,730	1,370	617	425	312	79	29	18
5	19	406	365	475	4,610	1,260	602	390	326	74	28	19
6	20	261	322	781	4,030	1,700	768	361	328	72	27	24
7	21	346	279	1,790	2,370	2,180	960	333	297	70	26	24
8	19	320	249	1,420	3,740	2,020	3,030	314	275	67	26	20
9	18	1,860	220	1,060	3,480	1,740	3,460	301	257	64	25	18
10	17	1,380	199	904	2,310	2,010	2,650	303	251	61	25	17
11	16	680	175	772	1,820	2,280	3,220	273	231	59	25	16
12	16	445	164	656	1,740	2,010	3,580	314	218	57	25	15
13	18	310	150	700	8,410	1,900	2,520	425	202	56	25	15
14	19	253	141	928	6,930	2,130	1,890	432	192	53	25	15
15	18	202	127	2,380	3,510	2,590	1,560	525	179	52	24	15
16	17	171	119	4,300	2,220	2,830	1,360	848	171	51	24	15
17	16	150	114	2,860	2,070	6,590	1,150	1,090	163	49	24	15
18	16	131	112	3,600	3,400	6,290	980	864	154	48	22	15
19	16	116	113	2,930	2,480	3,440	876	712	144	46	20	14
20	15	106	136	1,990	1,800	3,930	792	590	137	46	20	14
21	15	98	148	1,420	1,380	4,180	704	525	132	45	20	19
22	14	91	150	1,020	1,100	2,940	617	478	132	45	20	a70
23	14	102	169	816	940	2,820	548	468	123	46	19	58
24	13	368	157	668	816	2,640	617	470	117	43	18	30
25	13	365	146	566	692	2,310	744	480	112	39	21	30
26	13	328	136	498	662	1,930	736	512	108	38	35	25
27	13	370	140	458	1,260	1,580	641	522	104	37	32	23
28	13	333	796	397	1,520	1,350	712	542	100	36	25	21
29	13	303	2,270	346	-	1,280	700	528	96	34	22	19
30	20	462	2,190	361	-	1,120	638	490	93	34	21	19
31	113	-	1,200	468	-	1,000	-	448	-	32	20	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff Inches	Runoff Acre-feet
October	663	113	13	21.4	0.070	0.08	1,320
November	11,049	1,860	91	368	1.21	1.35	21,920
December	13,107	2,270	112	423	1.39	1.60	26,000
Calendar year 1944	162,052	3,380	13	443	1.45	19.76	321,400
January	37,000	4,300	346	1,194	3.91	4.51	73,390
February	69,980	8,410	662	2,499	8.19	8.53	138,800
March	72,860	6,590	1,000	2,350	7.70	8.88	144,500
April	39,116	3,530	548	1,304	4.28	4.77	77,590
May	15,571	1,090	273	502	1.65	1.90	30,880
June	6,051	399	93	202	.662	.74	12,000
July	1,693	91	32	54.6	.179	.21	3,360
August	762	35	18	24.6	.081	.09	1,510
September	668	70	14	22.3	.073	.08	1,320
Water year 1944-45	268,520	8,410	13	736	2.41	32.74	532,600

Peak discharge.- Feb. 13 (3 p.m.) 10,200 sec.-ft.; Mar. 17 (8 p.m.) 9,950 sec.-ft.
a No gage-height record; discharge computed on basis of records for South Fork Coquille River at Powers.
Time basis: Pacific war time up to 2 a.m., Sept. 30, 1945; Pacific standard time thereafter. To convert war time to standard time, subtract 1 hour.

North Fork Coquille River near Myrtle Point, Oreg.

Location.- Water-stage recorder, lat. 43°06', long. 124°04', in NW¼ sec. 36, T. 28 S., R. 12 W., a quarter of a mile downstream from East Fork and 4½ miles northeast of Myrtle Point. Datum of gage is 10.94 feet above mean sea level, datum of 1929.

Drainage area.- 276 square miles.

Records available.- October 1930 to September 1945. October 1928 to September 1930 at site 3½ miles downstream.

Average discharge.- 16 years (1929-45), 692 second-feet.

Extremes.- Maximum discharge during year, 7,900 second-feet Feb. 14 (gage height, 32.35 feet); minimum, 30 second-feet Oct. 25 (gage height, 2.00 feet).
1928-45: Maximum discharge, 10,400 second-feet Jan. 3, 1933; maximum gage height, 38.3 feet Dec. 31, 1942; minimum discharge, 14 second-feet Sept. 3, 1939.
Maximum stage known, 41.2 feet sometime during winter of 1909-10.

Remarks.- Records poor. No diversion above station. Flow slightly regulated by operation of log ponds above station.

Discharge, in second-feet, water year October 1944 to September 1945

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	57	298	1,110	1,040	1,180	1,440	1,280	754	434	115	58	52
2	63	248	1,070	826	1,650	1,250	1,180	630	408	126	58	50
3	60	488	786	722	1,880	1,170	1,080	619	389	122	59	49
4	54	1,210	635	629	2,250	1,300	1,000	568	368	116	58	48
5	51	715	547	585	3,120	1,250	963	520	365	105	57	49
6	49	451	478	732	5,140	1,400	1,060	477	361	132	56	65
7	47	561	424	2,260	4,010	2,350	1,230	444	341	114	55	70
8	46	609	382	2,750	4,090	2,600	2,160	412	320	108	55	62
9	46	1,080	350	2,090	4,930	2,470	3,490	383	305	109	53	55
10	45	2,120	324	1,480	3,870	2,340	3,300	379	298	110	51	51
11	44	1,040	294	1,310	2,980	2,800	3,590	373	279	114	50	48
12	44	608	274	1,060	2,650	2,640	5,020	355	265	110	51	46
13	44	442	253	1,040	5,690	2,520	4,130	619	253	107	51	46
14	45	347	239	1,780	7,560	2,610	3,200	822	240	103	51	45
15	45	291	228	2,220	5,880	3,410	2,590	846	231	101	50	44
16	45	255	218	4,420	4,160	3,940	2,120	1,010	222	98	49	44
17	45	228	205	3,980	3,100	4,780	1,760	1,610	216	93	49	43
18	44	205	197	3,430	3,590	6,770	1,480	1,620	203	91	47	43
19	58	186	197	3,360	3,260	6,110	1,280	1,350	203	84	47	42
20	58	170	233	3,030	2,560	5,120	1,130	1,080	215	77	46	42
21	42	157	281	2,240	2,020	5,550	993	956	204	77	41	44
22	35	147	266	1,720	1,650	4,680	895	839	194	82	37	129
23	32	151	283	1,380	1,410	3,970	808	788	181	89	37	171
24	31	369	265	1,180	1,250	3,360	768	735	124	85	38	121
25	47	483	242	1,020	1,100	2,830	780	656	104	80	41	86
26	45	464	227	883	983	2,480	792	603	123	74	64	70
27	39	693	223	778	1,180	2,100	774	582	136	70	77	58
28	35	720	475	710	1,550	1,840	759	571	137	65	72	52
29	34	456	1,590	641	-	1,750	826	528	163	60	62	49
30	37	547	2,230	608	-	1,550	822	494	142	58	57	45
31	114	-	1,630	715	-	1,380	-	464	-	57	54	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff	
						Inches	Acre-feet
October	1,481	114	31	47.8	0.173	0.20	2,940
November	15,739	2,120	147	525	1.90	2.12	31,220
December	16,156	2,230	197	521	1.89	2.18	32,040
Calendar year 1944	205,064	3,130	-	560	2.03	27.63	406,700
January	50,619	4,420	585	1,633	5.92	6.82	100,400
February	84,693	7,560	983	3,025	11.0	11.41	168,000
March	89,860	6,770	1,170	2,899	10.5	12.11	178,200
April	51,310	5,020	759	1,710	6.20	6.91	101,800
May	22,137	1,620	355	714	2.59	2.98	43,910
June	7,424	434	104	247	.895	1.00	14,730
July	2,932	132	57	94.6	.343	.40	5,820
August	1,631	77	37	52.6	.191	.22	3,240
September	1,815	171	42	60.5	.219	.24	3,600
Water year 1944-45	345,797	7,560	31	947	3.43	46.59	685,900

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

Rogue River above Bybee Creek, Oreg.

Location.- Water-stage recorder, lat. 42°56', long. 122°26', in NE¼ sec. 26, T. 30 S., R. 3E., 700 feet upstream from Bybee Creek and 2 miles northeast of Union Creek. Altitude of gage, 3,465 feet (from river-profile map).
Drainage area.- 155 square miles (revised), not including Crater Lake Basin.
Records available.- January 1930 to September 1945.
Average discharge.- 15 years, 462 second-feet.
Extremes.- Maximum discharge during year, 2,150 second-feet Feb. 13 (gage height, 4.96 feet); minimum, 250 second-feet Oct. 28-30 (gage height, 1.14 feet).
1930-45: Maximum discharge, 4,430 second-feet Nov. 29, 1942 (gage height, 7.84 feet), from rating curve extended above 2,000 second-feet; minimum daily, 180 second-feet (estimated) Jan. 7, 1937 (gage height affected by ice).
Remarks.- Records good. No diversion or regulation above station.
Cooperation.- Water-stage recorder inspected by employee of The California Oregon Power Co.
Revisions.- Figures of discharge in second-feet per square mile and runoff in inches previously published should be reduced 24 percent in order to conform with the revised figure for drainage area as given above.

Rating table, water year 1944-45, except periods of ice effect
(gage height, in feet, and discharge, in second-feet)

1.1	240	3.0	990
1.5	350	3.6	1,310
1.9	490	4.2	1,670
2.4	705		

Discharge, in second-feet, water year Octcber 1944 to September 1945

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	270	326	317	288	470	404	412	1,160	746	384	296	278
2	265	320	302	282	522	390	390	1,320	714	377	296	275
3	262	506	290	278	510	394	387	1,560	692	371	296	275
4	270	422	290	293	470	374	384	1,470	674	365	293	275
5	275	314	305	305	546	371	380	1,360	669	362	293	280
6	265	308	308	401	474	371	415	1,290	656	356	293	278
7	262	329	302	718	478	362	443	1,220	633	356	296	275
8	260	302	293	664	1,120	359	502	1,180	615	347	290	275
9	262	323	285	506	910	356	440	1,130	602	344	290	272
10	260	308	280	534	736	380	422	1,200	579	341	290	272
11	260	296	278	510	975	429	422	1,040	566	341	288	272
12	260	285	275	633	875	458	394	1,080	558	338	288	272
13	260	278	272	*1,080	1,660	440	387	1,220	550	335	285	272
14	260	272	270	910	1,540	429	398	1,110	526	332	285	272
15	260	270	268	808	1,030	404	415	1,250	510	329	285	272
16	258	270	268	646	850	398	440	1,590	498	329	282	272
17	258	268	265	570	764	384	478	1,410	498	326	282	272
18	258	265	265	518	674	384	558	1,220	498	326	282	272
19	255	262	293	474	610	377	674	1,080	494	323	288	270
20	255	260	374	440	566	404	818	980	482	320	290	282
21	255	260	338	b400	534	398	920	900	478	317	285	320
22	255	262	356	b390	510	a415	845	875	470	320	282	347
23	255	293	359	b380	486	a405	813	895	450	320	280	302
24	252	285	332	b370	462	a400	1,140	845	440	314	280	288
25	252	275	317	b365	443	a390	1,040	808	429	311	299	282
26	252	293	305	362	440	a380	915	818	422	311	293	280
27	252	293	302	356	429	a375	850	813	412	308	285	278
28	250	280	305	347	412	a370	910	795	401	305	282	275
29	250	288	302	347	-	a368	960	786	394	302	280	275
30	260	317	293	380	-	384	1,040	804	387	299	280	272
31	353	-	282	412	-	415	-	782	-	299	278	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff Inches	Runoff Acre-feet
October	8,121	353	250	262	1.69	1.95	16,110
November	9,030	506	260	301	1.94	2.17	17,910
December	9,291	374	265	300	1.94	2.23	18,430
Calendar yesr 1944	147,900	1,020	250	404	2.61	35.49	293,400
January	14,967	1,080	278	483	3.12	3.59	29,690
February	19,496	1,660	412	696	4.49	4.68	38,670
March	12,168	458	356	393	2.54	2.92	24,130
April	18,592	1,140	380	620	4.00	4.46	36,880
May	33,991	1,590	782	1,096	7.07	8.16	67,420
June	16,043	746	387	535	3.45	3.85	31,820
July	10,308	384	299	333	2.15	2.47	20,450
August	8,912	299	278	287	1.85	2.14	17,680
September	8,402	347	270	280	1.81	2.02	16,670
Water year 1944-45	169,321	1,660	250	464	2.99	40.64	335,900

* Winter discharge measurement made on this day.
a No gage-height record; discharge computed on basis of records for station above Prospect.
b Stage-discharge relation affected by ice.
Time basis: Pacific war time up to 2 a.m., Sept. 30, 1945; Pacific standard time thereafter. To convert war time to standard time, subtract 1 hour.

Rogue River above Prospect, Oreg.

Location.- Water-stage recorder, lat. 42°47', long. 122°30', in NE¼ sec. 19, T. 32 S., R. 3 E., 1⅛ miles upstream from intake of diversion of The California Oregon Power Co., 2 miles northwest of Prospect, and 3 miles upstream from Mill Creek. Altitude of gage, 2,620 feet (from river-profile map).

Drainage area.- 332 square miles.

Records available.- July 1907 to February 1912 (incomplete), October 1923 to September 1945.

Average discharge.- 23 years (1910-11, 1923-45), 710 second-feet.

Extremes.- Maximum discharge during year, 5,020 second-feet Feb. 13 (gage height, 5.41 feet); minimum, 322 second-feet Oct. 27-30 (gage height, 1.38 feet).
1907-12, 1923-45: Maximum discharge, 9,300 second-feet (estimated) Nov. 22, 1909 (gage height, about 7.0 feet, site and datum then in use); minimum observed, 200 second-feet Nov. 20, 1931 (gage height, 1.07 feet).

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

Cooperation.- Water-stage recorder graph furnished by The California Oregon Power Co.

Rating table, water year 1944-45 (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used June 1 to Sept. 30)

1.4	330	2.5	1,000	4.0	2,790
1.6	415	2.8	1,290	4.5	3,540
1.9	570	3.2	1,730	5.1	4,500
2.2	770	3.6	2,230		

Discharge, in second-feet, water year October 1944 to September 1945

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	346	442	470	392	833	606	756	1,910	1,130	540	402	384
2	342	415	438	388	1,050	582	714	2,190	1,080	534	402	364
3	336	665	420	370	1,020	562	679	2,500	1,040	522	402	379
4	338	606	406	374	928	552	644	2,400	1,000	510	402	379
5	350	438	420	406	1,260	534	630	2,180	964	510	402	384
6	346	406	424	570	1,030	546	686	2,050	960	500	402	384
7	342	442	420	1,120	944	528	735	1,870	912	490	406	384
8	338	406	406	1,140	2,420	522	912	1,790	888	485	397	384
9	338	428	397	833	2,000	510	812	1,690	872	475	397	379
10	338	428	384	856	1,480	540	756	1,800	840	470	397	374
11	334	424	379	840	1,800	666	756	1,570	819	470	397	374
12	334	402	374	896	1,770	777	707	1,580	805	465	392	374
13	334	384	362	1,770	4,400	833	672	1,670	784	460	392	374
14	334	370	358	•1,620	3,670	791	658	1,720	749	456	392	374
15	334	362	354	1,390	2,220	721	693	2,000	714	451	392	374
16	334	358	346	1,090	1,680	672	756	2,900	693	446	392	374
17	334	358	346	944	1,460	651	826	2,660	666	442	388	370
18	330	350	346	848	1,250	630	960	2,300	666	433	388	370
19	330	350	384	749	1,070	618	1,180	1,970	693	433	388	374
20	326	346	500	679	968	658	1,490	1,720	679	428	397	379
21	326	346	475	600	888	693	1,680	1,530	672	424	384	428
22	326	346	475	582	812	749	1,510	1,460	665	424	384	495
23	326	374	495	570	777	749	1,400	1,500	637	424	384	458
24	326	402	460	570	728	693	2,000	1,390	618	415	384	406
25	326	374	438	540	686	679	1,890	1,300	606	415	402	397
26	326	392	410	522	672	672	1,620	1,340	594	415	410	392
27	322	402	410	510	658	637	1,480	1,320	576	410	397	388
28	322	388	410	495	612	630	1,510	1,290	558	410	392	384
29	322	384	410	495	-	637	1,610	1,240	546	406	392	384
30	330	420	397	552	-	658	1,730	1,250	540	402	392	384
31	442	-	374	686	-	749	-	1,200	-	402	388	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff	
						Inches	Acre-feet
October	10,434	442	322	337	1.02	1.17	20,700
November	12,208	665	346	407	1.23	1.37	24,210
December	12,688	500	346	409	1.23	1.42	25,170
Calendar year 1944	218,708	1,670	322	598	1.80	24.51	433,800
January	23,397	1,770	370	755	2.27	2.62	46,410
February	39,086	4,400	612	1,396	4.20	4.38	77,550
March	20,065	833	510	648	1.95	2.25	39,840
April	32,452	2,000	630	1,082	3.26	3.64	64,370
May	55,490	2,900	1,200	1,790	5.39	6.22	110,100
June	23,026	1,130	540	768	2.31	2.58	45,670
July	14,067	540	402	454	1.37	1.58	27,900
August	12,236	410	384	395	1.19	1.37	24,270
September	11,648	495	370	388	1.17	1.30	23,100
Water year 1944-45	266,817	4,400	322	731	2.20	29.90	529,300

Peak discharge.- Jan 13 (6 p.m.) 2,240 sec.-ft.; Feb. 8 (12 m.) 3,000 sec.-ft.; Feb. 13 (11 p.m.) 5,020 sec.-ft.; Apr. 24 (2 p.m.) 2,240 sec.-ft.

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

Rogue River below South Fork Rogue River, near Prospect, Oreg.

Location.- Water-stage recorder, lat. 42°42', long. 122°36', in NW¼ sec. 16, T. 33 S., R. 2 E., at bridge 6 miles southwest of Prospect. Altitude of gage, 1,708 feet (from river-profile map).

Drainage area.- 643 square miles.

Records available.- April 1929 to September 1945.

Average discharge.- 16 years, 1,566 second-feet.

Extremes.- Maximum discharge during year, 9,900 second-feet Feb. 13, 14 (gage height, 7.5 feet); minimum, 532 second-feet (regulated) Dec. 14 (gage height, 0.18 foot); minimum daily, 820 second-feet Oct. 29, 30.
1929-45: Maximum discharge, 16,100 second-feet Nov. 29, 1942 (gage height, 10.5 feet), from rating curve extended above 5,700 second-feet; minimum gage height and minimum daily discharge not determined, as stage falls too low at times to be recorded.

Remarks.- Records good except those for periods of no gage-height record, which are fair. Small diversions above station for irrigation. Considerable diurnal fluctuation caused by power plant 4 miles above station.

Cooperation.- Water-stage recorder graph furnished by The California Oregon Power Co.

Rating table, water year 1944-45 (gage height, in feet, and discharge, in second-feet)

0.7	790	2.0	1,800	4.0	4,200
1.0	980	2.5	2,310	5.0	5,700
1.3	1,200	3.0	2,860	6.0	7,300
1.6	1,440	3.5	3,510	7.0	9,000

Discharge, in second-feet, water year October 1944 to September 19'5

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	902	1,020	a1,100	948	1,590	a1,550	1,770	3,460	2,750	1,380	1,070	882
2	870	980	a1,050	948	1,930	a1,500	1,700	3,790	2,610	1,370	1,060	889
3	870	1,220	a980	908	1,880	a1,500	1,660	4,380	2,530	1,350	1,060	882
4	882	1,300	a950	922	1,720	a1,440	1,620	4,230	2,450	1,320	1,040	882
5	902	1,070	a990	980	2,260	1,390	1,580	3,860	2,410	1,340	1,040	896
6	960	980	a1,000	1,180	2,010	1,410	1,660	3,700	2,350	1,300	1,040	908
7	889	1,060	a980	1,980	1,820	1,380	1,710	3,460	2,240	1,290	1,060	908
8	896	980	a960	2,110	3,740	1,380	2,040	3,330	2,170	1,280	1,040	889
9	870	1,060	928	1,640	3,700	1,360	1,900	3,200	2,130	1,260	1,050	896
10	870	1,070	915	1,620	2,840	1,360	1,800	3,460	2,080	1,250	1,040	882
11	902	1,030	915	1,620	3,420	1,550	1,870	3,100	2,010	1,240	1,040	863
12	882	967	902	1,670	3,440	1,680	1,800	3,050	1,990	1,220	1,050	896
13	882	967	896	3,040	8,560	1,820	1,710	3,480	1,940	1,210	1,020	882
14	876	928	882	2,920	7,710	1,800	1,680	3,300	1,890	1,200	1,020	908
15	870	922	882	2,640	4,920	1,750	1,710	3,710	1,810	1,200	1,000	915
16	863	915	889	2,190	a3,700	1,660	1,790	5,660	1,770	1,190	994	922
17	838	915	870	1,930	a3,300	1,650	1,880	5,380	1,750	1,180	987	902
18	844	902	870	1,790	a3,000	1,600	2,020	4,740	1,740	1,140	994	889
19	832	896	934	1,640	a2,600	1,580	2,270	4,120	1,730	1,190	980	896
20	838	889	1,110	1,520	a2,350	1,640	2,620	3,640	1,710	1,150	987	908
21	856	889	1,080	1,410	a2,200	1,730	3,000	3,300	1,690	1,140	967	987
22	850	882	1,080	1,340	a2,000	1,950	2,830	3,200	1,680	1,140	954	1,100
23	863	928	1,130	1,300	a1,880	2,020	2,660	3,290	1,610	1,150	941	1,010
24	850	980	1,050	1,280	a1,780	1,890	3,440	3,070	1,560	1,130	934	960
25	844	928	1,020	1,250	a1,720	1,830	3,410	2,940	1,560	1,110	954	928
26	838	954	980	1,220	a1,650	1,770	3,050	3,040	1,580	1,110	960	928
27	832	987	967	1,180	a1,630	1,700	2,810	3,000	1,480	1,080	928	915
28	844	934	987	1,170	a1,600	1,690	3,000	2,980	1,460	1,090	908	915
29	820	934	994	1,160	-	1,670	3,120	2,930	1,440	1,080	896	902
30	820	994	960	1,250	-	1,660	3,180	2,990	1,420	1,060	889	902
31	974	-	934	1,380	-	1,760	-	2,890	-	1,050	889	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff: Inches	Runoff: Acre-feet
October	26,929	974	820	869	1.35	1.56	53,410
November	29,481	1,300	882	983	1.53	1.71	58,470
December	30,185	1,130	870	974	1.51	1.75	59,870
Calendar year 1944	490,347	3,010	820	1,340	2.08	28.37	972,600
January	48,136	3,040	908	1,553	2.42	2.78	95,480
February	80,950	8,560	1,590	2,891	4.50	4.68	160,600
March	50,670	2,020	1,360	1,635	2.54	2.93	100,500
April	67,290	3,440	1,580	2,243	3.49	3.89	133,500
May	110,680	5,660	2,890	3,570	5.55	6.40	219,500
June	57,540	2,750	1,420	1,918	2.98	3.33	114,100
July	37,200	1,380	1,050	1,200	1.87	2.15	73,790
August	30,792	1,070	889	993	1.54	1.78	61,080
September	27,442	1,100	863	915	1.42	1.59	54,430
Water year 1944-45	597,295	8,560	820	1,636	2.54	34.55	1,185,000

a No gage-height record; discharge computed on basis of records for stations above Prospect and at Dodge Bridge, near Eagle Point.
Time basis: Pacific war time up to 2 a.m., Sept. 30, 1945; Pacific standard time thereafter. To convert war time to standard time, subtract 1 hour.

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Rogue River at Dodge Bridge, near Eagle Point, Oreg.

Location.- Water-stage recorder, lat. 42°32', long. 122°50', in SE¼ sec. 17, T. 35 S., R. 1 W., at Dodge Bridge, 0.6 mile downstream from Reese Creek and 4½ miles northwest of Eagle Point. Datum of gage is 1,273.66 feet above mean sea level, datum of 1929.

Records available.- October 1938 to September 1945.

Extremes.- Maximum discharge during year, 18,100 second-feet Feb. 14 (gage height, 7.59 feet); minimum, 687 second-feet (regulated) Oct. 2, 21 (gage height, 1.02 feet); minimum daily, 938 second-feet Oct. 7.
1938-45: Maximum discharge, 25,800 second-feet Dec. 31, 1942 (gage height, 9.52 feet), from rating curve extended above 10,500 second-feet; minimum, 611 second-feet (regulated) Aug. 6, 14, 29, Sept. 9, 1940 (gage height, 0.99 foot); minimum daily, 830 second-feet Sept. 1, 1940.

Remarks.- Records good. Many small diversions above station for irrigation; most of flow of Big Butte Creek is diverted near Butte Falls. Some diurnal fluctuation caused by power plant about 30 miles upstream.

Rating tables, water year 1944-45 (gage height, in feet, and discharge, in second-feet)

Oct. 1 to Feb. 13						Feb. 14 to Sept. 30					
1.2	890	2.4	2,650	4.3	6,760	1.1	870	2.3	2,570	4.2	6,550
1.5	1,270	3.0	3,760	5.3	9,720	1.4	1,210	2.8	3,480	5.3	9,720
1.9	1,860	3.6	5,050	6.7	14,700	1.8	1,760	3.4	4,690	6.7	14,700

Discharge, in second-feet, water year October 1944 to September 1945

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,010	1,230	1,410	1,220	2,400	2,250	2,920	4,150	3,850	1,600	1,140	1,050
2	962	1,170	1,340	1,200	3,090	2,180	2,740	4,440	3,630	1,600	1,130	1,070
3	950	1,450	1,270	1,190	2,800	2,180	2,600	4,220	3,460	1,550	1,130	1,060
4	950	1,700	1,150	1,130	2,550	2,120	2,480	4,860	3,310	1,540	1,110	1,050
5	986	1,370	1,180	1,180	5,280	2,020	2,370	4,460	3,270	1,510	1,110	1,070
6	974	1,180	1,190	2,030	4,000	2,010	2,380	4,250	3,120	1,500	1,130	1,070
7	938	1,330	1,170	3,260	3,070	2,010	2,470	3,970	2,970	1,470	1,130	1,070
8	974	1,230	1,150	3,140	8,110	1,990	3,050	3,850	2,830	1,470	1,130	1,040
9	962	1,410	1,100	2,400	6,730	1,990	2,990	3,710	2,710	1,430	1,130	1,050
10	998	1,490	1,090	2,270	4,670	2,040	2,780	3,890	2,600	1,420	1,130	1,060
11	1,010	1,400	1,080	2,350	4,960	2,620	2,920	3,630	2,520	1,370	1,110	1,010
12	998	1,220	1,050	2,240	5,260	2,920	2,990	3,520	2,450	1,400	1,130	1,000
13	998	1,190	1,040	3,720	14,100	3,480	2,740	4,110	2,380	1,370	1,130	991
14	974	1,140	1,040	4,110	14,100	3,630	2,620	4,070	2,300	1,350	1,110	991
15	986	1,100	1,020	3,840	7,780	3,420	2,660	4,520	2,210	1,330	1,100	980
16	998	1,050	1,020	3,410	5,760	3,140	2,830	7,920	2,120	1,340	1,080	1,010
17	962	1,080	1,020	2,980	5,120	3,670	2,870	7,830	2,090	1,310	1,080	1,040
18	950	1,050	1,040	3,020	4,630	3,380	2,960	7,230	2,050	1,310	1,080	1,000
19	974	1,040	1,090	2,600	4,010	3,210	3,250	5,950	2,040	1,290	1,090	991
20	962	1,050	1,440	2,290	3,580	3,480	3,580	5,140	2,010	1,260	1,100	1,000
21	950	1,020	1,420	2,000	3,230	3,830	5,970	4,560	1,940	1,220	1,110	1,080
22	974	1,020	1,550	1,800	3,010	4,270	3,770	4,330	1,930	1,220	1,070	1,240
23	962	1,040	1,440	1,730	2,810	4,860	3,540	4,880	1,900	1,240	1,060	1,210
24	962	1,190	1,330	1,680	2,620	3,910	4,010	4,330	1,800	1,220	1,070	1,100
25	974	1,110	1,230	1,610	2,520	3,560	4,460	4,210	1,760	1,210	1,080	1,100
26	962	1,140	1,200	1,550	2,400	3,400	4,050	4,750	1,780	1,200	1,150	1,080
27	950	1,190	1,170	1,510	2,400	3,080	3,730	4,750	1,730	1,190	1,090	1,080
28	974	1,170	1,200	1,470	2,330	2,920	3,770	4,710	1,730	1,170	1,080	1,060
29	950	1,060	1,240	1,410	-	2,960	3,970	4,750	1,670	1,160	1,070	1,040
30	998	1,170	1,370	1,520	-	2,810	3,970	4,520	1,640	1,160	1,070	1,050
31	1,110	-	1,220	1,780	-	2,960	-	4,210	-	1,140	1,060	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	30,282	1,110	938	977	60,060
November	35,990	1,700	1,020	1,200	71,390
December	37,060	1,440	1,020	1,195	73,510
Calendar year 1944	635,750	4,940	890	1,737	1,261,000
January	67,640	4,110	1,130	2,182	134,200
February	133,320	14,100	2,330	4,731	264,400
March	92,300	4,860	1,990	2,977	183,100
April	95,440	4,460	2,370	3,131	189,300
May	146,320	7,920	3,520	4,720	290,200
June	71,800	3,850	1,640	2,393	142,400
July	41,550	1,600	1,140	1,340	82,410
August	34,190	1,150	1,060	1,103	67,810
September	31,643	1,240	980	1,055	62,760
Water year 1944-45	817,535	14,100	938	2,240	1,622,000

Peak discharge.- Feb. 14 (1:30 a.m.) 18,100 sec.-ft.; May 16 (3:30 p.m.) 9,590 sec.-ft.
Time basis: Pacific war time up to 2 a.m., Sept. 30, 1945; Pacific standard time thereafter.
To convert war time to standard time, subtract 1 hour.

Rogue River at Raygold, near Central Point, Oreg.

Location.- Water-stage recorder, lat. 42°26', long. 122°59', in sec. 18, T. 36 S., R. 2 W., at Raygold, just downstream from dam and powerhouse of The California Oregon Power Co., half a mile downstream from Bear Creek, and 6 miles northwest of Central Point. Datum of gage is 1,121.78 feet above mean sea level, datum of 1929.
Drainage area.- 2,020 square miles.
Records available.- August 1905 to September 1945.
Average discharge.- 40 years, 2,725 second-feet.
Extremes.- Maximum discharge during year, 27,100 second-feet Feb. 14 (gage height, 10.98 feet); minimum, 720 second-feet (regulated) Oct. 11, Sept. 22 (gage height, 0.23 foot); minimum daily, 998 second-feet Sept. 14, 15.
1905-45: Maximum discharge, 91,500 second-feet Feb. 21, 1927 (gage height, 24.8 feet, from floodmark), from rating curve extended above 36,000 second-feet; minimum not determined; minimum daily, 616 second-feet Sept. 6, 1931.
Remarks.- Records good except those for period of no gage-height record, which are fair. Many diversions above station for irrigation. Diurnal fluctuation caused by power plant just above station.
Cooperation.- Water-stage recorder inspected by employees of The California Oregon Power Co.

Rating table, water year 1944-45 (gage height, in feet, and discharge, in second-feet)

0.6	990	2.5	3,100	6.0	10,400
1.0	1,320	3.0	3,880	7.0	13,300
1.5	1,820	4.0	5,720	8.0	16,500
2.0	2,420	5.0	7,920	10.0	23,500

Discharge, in second-feet, water year October 1944 to September 1945

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,160	1,300	1,480	a1,320	2,420	2,430	3,400	4,480	4,940	1,580	1,140	1,070
2	1,090	1,250	1,540	a1,280	3,590	2,380	3,200	4,790	4,460	1,560	1,140	1,090
3	1,090	1,490	1,420	a1,250	3,140	2,340	2,990	5,170	4,220	1,510	1,130	1,070
4	1,080	1,830	1,340	h1,230	2,860	2,320	2,860	5,280	3,960	1,520	1,130	1,070
5	1,090	1,500	1,300	h1,230	6,420	2,190	2,710	4,880	3,950	1,480	1,130	1,070
6	1,090	1,300	1,310	1,820	5,170	2,160	2,680	4,620	3,780	1,470	1,130	1,090
7	1,080	1,450	1,280	3,590	3,590	2,190	2,750	4,360	3,530	1,440	1,210	1,090
8	1,070	1,370	1,280	3,480	10,400	2,150	3,190	4,150	3,320	1,420	1,160	1,070
9	1,060	1,590	1,230	2,670	8,830	2,160	3,530	3,950	3,160	1,400	1,140	1,040
10	1,090	1,740	1,220	2,450	5,660	2,160	3,300	4,100	3,030	1,370	1,140	1,050
11	1,100	1,620	1,200	2,640	5,720	2,670	3,310	3,960	2,850	1,370	1,140	1,040
12	1,130	1,400	1,170	2,330	6,010	3,020	3,530	3,640	2,740	1,360	1,140	1,010
13	1,090	1,300	1,160	3,540	18,200	3,950	3,250	4,370	2,620	1,340	1,130	1,020
14	1,110	1,230	1,140	4,700	21,000	4,250	3,060	4,390	2,480	1,320	1,120	998
15	1,100	1,200	1,140	4,240	10,100	3,980	3,030	4,750	2,370	1,310	1,110	998
16	1,090	1,190	1,120	3,960	7,010	3,620	3,180	8,740	2,240	1,300	1,100	1,010
17	1,050	1,180	1,100	3,300	6,140	4,440	3,240	9,560	2,160	1,290	1,100	1,050
18	1,050	1,160	1,130	3,690	5,620	4,080	3,320	8,860	2,100	1,280	1,090	1,020
19	1,050	1,160	1,170	3,070	4,680	3,660	3,640	7,410	2,040	1,270	1,100	1,040
20	1,050	1,120	1,470	2,620	4,140	3,620	4,030	6,290	1,980	1,270	1,110	1,030
21	1,050	1,130	1,520	2,260	3,670	4,590	4,480	5,480	1,940	1,260	1,140	1,110
22	1,080	1,130	1,430	2,030	3,380	5,290	4,430	5,000	1,930	1,240	1,090	1,300
23	1,050	1,140	1,530	1,930	3,160	7,010	4,080	6,550	1,910	1,240	1,090	1,310
24	1,050	a1,260	1,450	1,850	2,950	5,050	4,320	5,780	1,830	1,250	1,080	1,170
25	1,050	1,250	1,360	1,800	2,760	4,360	5,210	5,480	1,790	1,230	1,090	1,140
26	1,050	1,250	1,300	1,710	2,620	4,100	4,810	6,420	1,780	1,210	1,130	1,120
27	a1,050	1,330	1,280	1,660	2,600	3,620	4,320	6,420	1,710	1,180	1,120	1,120
28	1,050	1,310	1,280	1,590	2,520	3,380	4,190	6,060	1,690	1,170	1,100	1,120
29	1,050	1,280	1,330	1,580	-	3,510	4,480	6,860	1,650	1,170	1,090	1,090
30	1,050	1,280	1,490	1,640	-	3,340	4,370	6,640	1,600	1,170	1,070	1,070
31	1,160	-	a1,400	1,930	-	3,370	-	5,720	-	1,140	1,070	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	33,400	1,160	1,050	1,077	66,250
November	39,740	1,630	1,120	1,325	78,820
December	40,570	1,540	1,100	1,309	80,470
Calendar year 1944	712,260	6,280	950	1,946	1,413,000
January	74,390	4,700	1,230	2,400	147,600
February	164,360	21,000	2,420	5,870	326,000
March	107,590	7,010	2,150	3,471	213,400
April	108,880	5,210	2,680	3,629	216,000
May	174,160	9,560	3,640	5,618	345,400
June	79,760	4,940	1,600	2,659	158,200
July	41,120	1,580	1,140	1,326	81,560
August	34,660	1,210	1,070	1,118	68,750
September	32,476	1,310	998	1,083	64,420
Water year 1944-45	931,106	21,000	998	2,551	1,847,000

Peak discharge.- Feb. 5 (4 p.m.) 8,780 sec.-ft.; Feb. 8 (12 m.) 14,700 sec.-ft.; Feb. 14 (6:30 a.m.) 27,100 sec.-ft.; Mar. 23 (1:30 a.m.) 8,830 sec.-ft.; May 16 (7 p.m.) 12,400 sec.-ft.; May 26 (4:30 a.m.) 8,350 sec.-ft.
a No gage-height record; discharge computed on basis of records for stations at Dodge Bridge, near Eagle Point, and at Grants Pass.
h Computed from staff-gage reading.
Time basis: Pacific war time up to 2 a.m., Sept. 30, 1945; Pacific standard time thereafter. To convert war time to standard time, subtract 1 hour.

Rogue River at Grants Pass, Oreg.

Location.- Water-stage recorder, lat. 42°26', long. 123°19', in NW¼ sec. 20, T. 36 S., R. 5 W., at filter plant 0.6 mile east of Pacific Highway bridge at Grants Pass. Datum of gage is 888.28 feet above mean sea level, datum of 1929.

Records available.- January 1939 to September 1945.

Extremes.- Maximum discharge during year, 29,300 second-feet Feb. 14 (gage height, 13.3 feet); minimum, 662 second-feet (regulated) Oct. 3 (gage height, 0.44 foot); minimum daily, 854 second-feet Sept. 15, 16.

1939-45: Maximum discharge, 54,400 second-feet Jan. 21, 1943 (gage height, 19.83 feet), from rating curve extended above 23,000 second-feet; minimum, 560 second-feet (regulated) Aug. 8, 1940 (gage height, 0.30 foot); minimum daily, 637 second-feet Aug. 8, 1940.

Maximum stages known, about 32 feet in February 1890 and about 28 feet Feb. 22, 1927, from floodmarks.

Remarks.- Records good. Many diversions from Rogue River and tributaries above station, the largest of which are at Savage Rapids Dam of Grants Pass Irrigation District, 5 miles upstream. Flow slightly regulated by Fish Lake and Emigrant Gap Reservoirs and by pools above dams at Raygold and Savage Rapids.

Cooperation.- Water-stage recorder inspected by employees of Grants Pass Water Department.

Rating table, water year 1944-45 (gage height, in feet, and discharge, in second-feet)

0.8	790	2.8	3,250	7.0	11,600
.9	1,030	3.5	4,390	9.0	16,600
1.2	1,300	4.2	5,680	12.0	25,100
1.6	1,710	5.0	7,250		
2.2	2,420	6.0	9,400		

Discharge, in second-feet, water year October 1944 to September 1945

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,310	1,430	1,560	1,450	2,540	2,640	3,690	4,350	5,000	1,410	950	918
2	1,520	1,400	1,760	1,450	4,210	2,550	3,480	4,610	4,410	1,350	966	926
3	1,120	1,550	1,630	1,440	3,710	2,480	3,200	4,980	4,120	1,310	966	934
4	1,140	2,030	1,500	1,390	3,400	2,520	3,060	5,200	3,870	1,270	966	934
5	1,130	1,790	1,470	1,390	7,700	2,360	2,890	4,800	3,870	1,290	942	934
6	1,150	1,490	1,470	1,620	6,930	2,300	2,860	4,500	3,680	1,260	942	934
7	1,120	1,530	1,430	3,680	4,500	2,330	2,960	4,190	3,440	1,190	982	926
8	1,110	1,600	1,410	3,740	12,200	2,290	3,580	3,920	3,200	1,230	982	918
9	1,100	1,690	1,390	2,960	11,000	2,290	3,900	3,740	3,020	1,200	950	910
10	1,130	1,950	1,370	2,590	6,890	2,290	3,580	3,810	2,900	1,170	950	894
11	1,180	1,920	1,320	2,900	6,160	2,850	3,550	3,850	2,710	1,160	942	886
12	1,160	1,630	1,310	2,520	6,450	3,200	3,840	3,500	2,580	1,160	958	878
13	1,150	1,470	1,300	3,430	17,500	4,180	3,520	4,210	2,460	1,130	950	870
14	1,170	1,430	1,270	5,090	23,700	4,530	3,280	4,340	2,300	1,130	942	862
15	1,160	1,340	1,250	4,480	12,100	4,520	3,220	4,700	2,190	1,100	926	854
16	1,140	1,300	1,250	4,530	8,340	4,040	3,380	7,710	2,050	1,080	926	854
17	1,160	1,300	1,240	3,570	7,050	5,660	3,420	10,100	1,940	1,080	942	862
18	1,140	1,280	1,260	4,040	6,490	5,470	3,070	9,110	1,890	1,090	918	870
19	1,160	1,290	1,270	3,430	5,430	4,480	3,710	7,690	1,830	1,070	910	862
20	1,120	1,250	1,490	2,880	4,700	4,950	4,120	6,530	1,790	1,080	918	878
21	1,140	1,260	1,700	2,510	4,140	6,000	4,610	5,660	1,730	1,040	942	918
22	1,150	1,230	1,580	2,220	3,750	5,850	4,570	5,000	1,720	1,040	926	1,110
23	1,140	1,260	1,630	2,090	3,460	8,700	4,190	6,310	1,700	1,030	910	1,260
24	1,140	1,340	1,620	2,000	3,240	6,210	4,210	5,930	1,610	1,040	910	1,140
25	1,120	1,430	1,520	1,920	3,020	5,260	5,400	5,600	1,560	1,030	910	1,050
26	1,130	1,400	1,450	1,880	2,830	4,930	4,970	6,060	1,540	1,010	918	1,030
27	1,140	1,450	1,400	1,820	2,810	4,300	4,340	6,810	1,520	998	974	990
28	1,110	1,480	1,410	1,750	2,780	3,890	4,110	6,190	1,480	950	950	998
29	1,120	1,420	1,470	1,700	-	3,970	4,460	6,970	1,460	974	934	982
30	1,140	1,410	1,640	1,800	-	3,750	4,340	6,650	1,420	998	918	966
31	1,220	-	1,570	2,040	-	3,710	-	5,910	-	966	918	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	35,920	1,520	1,100	1,158	71,250
November	44,350	2,030	1,230	1,478	87,970
December	44,940	1,760	1,240	1,450	89,140
Calendar year 1944	735,232	6,800	838	2,008	1,458,000
January	80,310	5,090	1,390	2,591	159,300
February	187,010	23,700	2,540	6,678	370,900
March	124,480	8,700	2,290	4,015	246,900
April	113,510	5,400	2,860	3,784	225,100
May	172,930	10,100	3,500	5,578	343,000
June	74,990	5,000	1,420	2,500	148,700
July	34,836	1,410	950	1,124	69,100
August	29,138	982	910	940	57,790
September	28,348	1,260	854	945	56,230
Water year 1944-45	970,762	23,700	854	2,660	1,925,000

Peak discharge.- Feb. 5 (6:30 p.m.) 11,200 sec.-ft.; Feb. 8 (3 p.m.) 18,600 sec.-ft.; Feb. 14 (9 to 10 a.m.) 29,300 sec.-ft.; Mar. 23 (5 a.m.) 10,200 sec.-ft.; May 16 (9 p.m.) 12,100 sec.-ft.

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

Reservoirs in Rogue River Basin, Oreg.

Fish Lake Reservoir.- Staff gage, lat. 42°23', long. 122°21', in SW¼ sec. 3, T. 37 S., R. 4 E., at reservoir outlet, 18 miles east of Lake Creek. Datum of gage is at mean sea level (irrigation district datum). Drainage area, 17 square miles. Records available, December 1915 to September 1945. Maximum contents observed during year, 6,556 acre-feet June 20 (elevation, 4,823.56 feet); minimum observed, 259 acre-feet Sept. 29 (elevation, 4,802.52 feet). Maximum contents observed during period 1915-45, 7,975 acre-feet June 20, 1938 (elevation, 4,827.09 feet); no usable contents at times.

Reservoir is formed by rock-faced earth dam, completed in fall of 1915; storage began in November 1915. Capacity, 7,527 acre-feet between elevations 4,799 feet (outlet tunnel) and 4,826 feet (spillway channel, incomplete). Water is diverted during summer from Fourmile Lake in Klamath River Basin through Cascade Canal into Fish Lake. Gage read once daily by employee of Medford Irrigation District.

Emigrant Gap Reservoir.- Staff gage, lat. 42°10', long. 122°36', in SE¼ sec. 20, T. 39 S., R. 2 E., at Emigrant Gap Dam of Talent Irrigation District on Emigrant Creek, 6 miles southeast of Ashland. Datum of gage is at mean sea level (levels by Talent Irrigation District). Records available, December 1924 to September 1945. Maximum contents observed during year, 8,424 acre-feet May 24 (elevation, 2,173.85 feet); minimum observed, 40 acre-feet Sept. 12 (elevation, 2,082.0 feet). Maximum contents during period 1924-45, 8,748 acre-feet Feb. 20, 1927 (elevation, 2,175.2 feet); no usable contents at times.

Reservoir is formed by concrete arch dam, completed in 1924 by Talent Irrigation District; storage began in December 1924. Capacity, 8,342 acre-feet between elevations 2,070 feet (16-inch sluice pipe) and 2,173.5 feet (crest of spillway). Dead storage negligible. Water is used for irrigation of lands near Talent. Gage read once to seven times weekly by employee of Talent Irrigation District.

Monthly gage height and contents, water year October 1944 to September 1945

Date	Fish Lake Reservoir			Emigrant Gap Reservoir		
	Elevation (feet)	Contents (acre-feet)	Change in contents during month (acre-feet)	Elevation (feet)	Contents (acre-feet)	Change in contents during month (acre-feet)
Sept.30	4,802.24	224	-	2,085.0	70	-
Oct. 31	4,807.80	1,381	+1,157	-	a237	+167
Nov. 30	4,810.98	2,267	+886	-	a396	+159
Dec. 31	4,812.67	2,775	+508	-	a737	+341
Calendar year 1944	-	-	-3,996	-	-	-289
Jan. 31	4,814.00	3,190	+415	-	a1,391	+654
Feb. 28	4,815.63	3,717	+527	-	a4,743	+3,352
Mar. 31	4,816.60	4,039	+322	-	a7,786	+3,043
Apr. 30	4,818.10	4,553	+514	-	a8,121	+335
May 31	4,822.45	6,131	+1,578	-	a8,355	+234
June 30	4,822.02	5,968	-163	-	a7,342	-1,013
July 31	4,812.55	2,738	-3,230	2,147.6	3,760	-3,582
Aug. 31	4,804.76	644	-2,094	2,106.0	568	-3,192
Sept.30	4,803.78	449	-195	-	a192	-376
Water year 1944-45	-	-	+225	-	-	+122

a Interpolated.

Note.- Time of gage readings not known.

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

South Fork Rogue River above Imnaha Creek, near Prospect, Oreg.

Location.- Water-stage recorder, lat. 42°42', long. 122°23', in NE¼ sec. 18, T. 33 S., R. 4 E., 300 yards upstream from Imnaha Creek, 400 yards upstream from South Fork diversion dam, and 6 miles southeast of Prospect.

Drainage area.- 52 square miles.

Records available.- October 1931 to September 1945.

Average discharge.- 14 years, 123 second-feet.

Extremes.- Maximum discharge during year, 1,170 second-feet Feb. 13 (gage height, 4.76 feet), from rating curve extended above 250 second-feet; minimum, 41 second-feet Oct. 28 (gage height, 1.34 feet).
1931-45: Maximum discharge, 2,170 second-feet Dec. 1, 1942 (gage height, 6.21 feet), from rating curve extended above 250 second-feet on basis of former curve well defined to 1,000 second-feet; minimum, 27 second-feet Oct. 1-21, 1931.

Remarks.- Records good except those above 250 second-feet, which are fair. No diversion or regulation above station.

Cooperation.- Water-stage recorder graph furnished by The California Oregon Power Co.

Rating tables, water year 1944-45 (gage height, in feet, and discharge, in second-feet)

Oct. 1 to Jan. 13		Jan. 14 to Sept. 30			
1.3	36	1.4	56	2.8	307
1.5	62	1.6	85	3.3	443
1.7	92	1.8	116	3.8	630
1.9	124	2.1	165	4.3	890
2.2	173	2.4	221	4.7	1,070
2.5	228				

Discharge, in second-feet, water year October 1944 to September 1945

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	47	52	59	49	97	122	114	346	275	110	76	62
2	46	54	54	49	105	121	111	375	256	108	74	60
3	44	76	51	47	103	118	108	415	245	108	74	60
4	44	70	49	47	100	113	108	406	239	106	73	60
5	47	56	48	51	111	108	108	372	237	105	73	62
6	47	54	48	64	108	106	111	354	231	103	73	62
7	46	56	48	130	111	103	118	331	215	102	72	60
8	46	55	48	148	271	103	132	312	208	100	73	59
9	44	55	47	113	258	103	124	300	200	98	72	59
10	43	55	47	108	198	103	122	338	193	97	70	57
11	43	51	46	105	300	108	119	289	183	97	69	56
12	43	49	44	113	312	114	116	266	179	96	69	56
13	43	48	44	232	1,060	118	116	275	172	94	69	56
14	44	47	44	227	759	113	116	284	165	92	69	55
15	44	46	44	229	469	110	119	324	158	91	67	55
16	43	46	43	165	351	108	126	557	153	90	67	55
17	43	47	43	140	293	108	130	490	150	90	66	55
18	43	47	43	126	245	105	142	412	150	88	66	53
19	43	46	52	116	204	110	158	375	148	86	66	53
20	43	46	71	108	179	110	185	336	143	85	66	55
21	43	46	62	98	163	108	225	302	142	85	64	62
22	43	46	66	94	151	116	231	296	138	85	64	70
23	42	52	65	91	146	114	223	307	134	85	64	63
24	42	51	61	88	142	111	306	284	127	84	63	60
25	42	48	56	85	135	110	293	273	124	82	66	59
26	42	51	54	84	130	111	271	280	122	80	67	57
27	42	56	52	82	127	108	254	280	119	79	66	57
28	41	54	51	80	124	108	319	280	116	79	64	56
29	42	51	51	79	--	108	324	275	114	78	63	56
30	43	52	51	85	--	110	319	298	113	78	63	56
31	51	--	51	94	--	113	--	298	--	78	62	--

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff Inches	Runoff Acre-feet
October	1,359	51	41	43.8	0.842	0.97	2,700
November	1,563	76	46	52.1	1.00	1.12	3,100
December	1,593	71	43	51.4	.988	1.14	3,160
Calendar year 1944	32,025	291	41	87.5	1.68	22.91	63,530
January	3,327	232	47	107	2.06	2.38	6,600
February	6,752	1,060	97	241	4.63	4.83	13,390
March	3,421	122	103	110	2.12	2.45	6,790
April	5,247	324	108	175	3.37	3.75	10,410
May	10,330	557	266	333	6.40	7.39	20,490
June	5,151	275	113	172	3.31	3.68	10,220
July	2,839	110	78	91.6	1.76	2.03	5,630
August	2,110	76	62	68.1	1.31	1.51	4,190
September	1,746	70	53	58.2	1.12	1.25	3,460
Water year 1944-45	45,438	1,060	41	124	2.38	32.50	90,140

Peak discharge.- Jan. 13 (6 p.m.) 294 sec.-ft.; Feb. 11 (11 a.m.) 354 sec.-ft.; Feb. 13 (2 p.m.) 1,170 sec.-ft.; Apr. 24 (5 p.m.) 346 sec.-ft.
Time basis: Pacific war time up to 2 a.m., Sept. 30, 1945; Pacific standard time thereafter.
To convert war time to standard time, subtract 1 hour.

Imnaha Creek near Prospect, Oreg.

Location.- Staff gage, lat. 42°42', long. 122°23', in NE¼ sec. 18, T. 33 S., R. 4 E., 400 yards upstream from mouth and 6 miles southeast of Prospect.

Drainage area.- 26 square miles.

Records available.- September 1931 to September 1945.

Average discharge.- 14 years, 41.2 second-feet.

Extremes.- Maximum daily discharge during year, 500 second-feet Feb. 13 (gage not read); minimum daily, 19 second-feet Dec. 17, Sept. 11-19.
1931-45: Maximum daily discharge, that of Feb. 13, 1945; minimum observed, 11 second-feet Dec. 14, 1931 (gage height, 0.46 foot).

Remarks.- Records fair. Staff gage read once weekly; discharge for intervening days computed on basis of records for stations on South Fork Rogue River and power canal. No diversion or regulation above station.

Cooperation.- Gage readings furnished by The California Oregon Power Co.

Discharge, in second-feet, water year October 1944 to September 1945

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	22	22	25	20	h30	h50	44	93	89	39	24	20
2	21	h22	24	20	34	49	43	98	86	39	h24	20
3	20	23	23	20	33	48	43	h104	82	38	24	20
4	20	25	23	h20	32	47	43	102	76	38	24	20
5	h21	26	22	20	38	45	h43	100	75	h37	24	20
6	21	25	22	30	37	44	46	98	72	37	24	h20
7	21	24	h22	50	38	43	49	96	h70	36	23	20
8	21	23	22	77	h63	h41	53	94	68	36	23	20
9	21	h23	22	60	60	41	52	92	66	35	h23	20
10	21	23	21	50	51	40	51	h97	64	35	23	20
11	21	23	21	h43	100	43	50	95	62	34	23	19
12	h21	23	20	h28	100	44	h49	95	60	h34	23	19
13	h21	22	20	110	500	43	49	96	58	33	22	h19
14	21	22	h20	90	250	42	49	98	h56	32	22	19
15	21	22	20	105	h124	h41	49	105	55	31	22	19
16	21	h22	20	60	100	41	50	170	54	30	h22	19
17	21	22	19	40	88	41	50	h151	53	29	22	19
18	21	22	21	h32	78	42	51	140	52	28	22	19
19	h21	22	24	30	73	43	h52	130	51	h26	22	19
20	21	22	27	28	69	46	h64	120	50	26	21	h20
21	21	22	h22	26	66	47	73	115	h49	26	21	22
22	21	22	23	25	h62	h47	70	110	48	26	20	23
23	20	h23	24	24	60	47	68	106	47	25	h20	22
24	20	23	24	23	57	46	88	h101	46	25	20	22
25	20	23	23	h22	56	46	84	98	45	25	20	21
26	h20	23	23	22	54	45	h81	96	44	h25	20	20
27	20	24	23	21	53	44	76	97	43	24	20	h20
28	20	24	h22	21	52	44	92	100	h42	h24	20	20
29	20	23	21	21	-	h43	93	103	42	24	20	20
30	21	h22	21	23	-	44	90	100	40	24	h20	20
31	23	-	20	27	-	45	-	h91	-	24	20	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff: Inches	Runoff: Acre-feet
October	645	23	20	20.8	0.800	0.92	1,280
November	687	26	22	22.9	.881	.98	1,360
December	684	27	19	22.1	.850	.98	1,360
Calendar year 1944	12,210	84	19	33.4	1.28	17.47	24,220
January	1,188	110	20	38.3	1.47	1.70	2,360
February	2,358	500	30	84.2	3.24	3.37	4,680
March	1,372	50	40	44.3	1.70	1.96	2,720
April	1,795	93	43	59.8	2.30	2.57	3,560
May	3,291	170	91	106	4.08	4.71	6,530
June	1,747	89	40	58.2	2.24	2.50	3,470
July	945	39	24	30.5	1.17	1.35	1,870
August	678	24	20	21.9	.842	.97	1,340
September	601	23	19	20.0	.769	.86	1,190
Water year 1944-45	15,991	500	19	43.8	1.68	22.87	31,720

h Gage read on this day.
Time basis: Pacific war time up to 2 a.m., Sept. 30, 1945; Pacific standard time thereafter. To convert war time to standard time, subtract 1 hour.

South Fork power canal near Prospect, Oreg.

Location.- Water-stage recorder, lat. 42°43', long. 122°24', in E½ sec. 12, T. 33 S., R. 3 E., 1 mile downstream from head gate at diversion dam and 5 miles southeast of Prospect; electrical-output meter in power plant in W½ sec. 1, T. 33 S., R. 3 E. Datum of gage is about 3,357 feet above mean sea level (levels by The California Oregon Power Co.)

Records available.- April 1932 to September 1945.

Average discharge.- 13 years, 103 second-feet.

Extremes.- Maximum daily discharge during year, 158 second-feet Feb. 19, May 8, 19, 22, 24, June 19; no flow part of Jan. 23, June 22. Minimum daily, 54 second-feet Oct. 25, 26, 28-30.

1932-45: Maximum discharge, 175 second-feet May 31, June 17, 1933, Feb. 6, 1940; no flow at times.

Remarks.- Records good. Daily discharge computed on basis of electrical output of power plant below station, the relation between electrical output and discharge being based on discharge measurements. This canal, completed in March 1932, diverts water from South Fork Rogue River 200 feet below mouth of Imnaha Creek for use at power plant located in W½ sec. 1, T. 33 S., R. 3 E., from which water may be wasted into Middle Fork Rogue River or mingled with flow of other diversions in Main power canal.

Cooperation.- Water-stage recorder graph and record of electrical output furnished by The California Oregon Power Co.

Discharge, in second-feet, water year October 1944 to September 1945

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	65	64	79	66	121	156	154	157	157	146	94	76
2	61	66	70	65	132	156	148	156	157	144	94	74
3	61	95	67	62	126	155	147	155	157	142	92	76
4	61	90	66	62	122	153	146	156	157	140	92	74
5	63	70	66	68	138	146	143	156	157	138	90	76
6	60	67	66	85	134	144	149	157	157	133	90	78
7	59	76	64	151	138	140	155	156	157	134	89	74
8	58	70	63	152	157	138	155	158	157	129	90	73
9	60	74	61	141	156	134	156	157	157	128	88	72
10	58	70	61	139	156	134	154	156	157	125	85	70
11	58	66	60	137	156	148	156	157	157	126	87	70
12	60	64	60	134	157	153	156	157	157	122	86	70
13	59	63	59	151	156	156	155	156	157	121	85	69
14	61	60	58	152	154	153	156	157	157	118	82	69
15	58	61	59	154	154	145	155	156	157	115	84	68
16	58	60	59	152	155	142	157	157	157	116	82	69
17	58	60	59	152	157	143	156	156	156	114	82	68
18	57	59	58	148	157	136	157	156	157	110	80	68
19	57	58	72	138	158	137	156	158	158	111	81	68
20	57	58	96	130	156	147	157	157	157	108	82	67
21	56	58	92	120	157	142	156	157	157	106	78	78
22	55	58	85	118	157	154	156	158	157	106	78	90
23	56	68	82	110	157	156	157	157	157	106	77	82
24	55	63	74	106	157	152	157	158	157	103	77	71
25	54	62	71	102	157	154	156	157	157	102	82	71
26	54	68	66	98	156	153	155	157	157	101	86	70
27	55	73	69	96	157	149	156	157	156	100	80	68
28	54	66	67	92	157	148	156	157	154	98	80	69
29	54	66	66	92	-	147	156	157	156	95	78	67
30	54	69	66	102	-	147	156	155	152	98	77	70
31	69	-	66	114	-	154	-	156	-	95	78	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	1,805	69	54	58.2	3,580
November	2,002	95	58	66.7	3,970
December	2,097	96	58	67.6	4,160
Calendar year 1944	37,490	157	54	103	74,350
January	3,589	154	62	116	7,120
February	4,195	158	121	150	8,320
March	4,572	156	134	147	9,070
April	4,629	157	143	154	9,180
May	4,857	158	155	157	9,630
June	4,700	158	152	157	9,320
July	3,630	146	95	117	7,200
August	2,606	94	77	84.1	5,170
September	2,165	90	67	72.2	4,290
Water year 1944-45	40,847	158	54	112	81,010

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

Middle Fork Rogue River near Prospect, Oreg.

Location.- Water-stage recorder, lat. 42°44', long. 122°24', in NE¼ sec. 1, T. 33 S., R. 3 E., 1,000 feet downstream from diversion dam and intake of Middle Fork power canal and 4⅛ miles southeast of Prospect. Altitude of gage, 2,620 feet (from river-profile map).

Drainage area.- 57 square miles.

Records available.- May 1925 to September 1945 (include flow of Middle Fork power canal).

Average discharge.- 20 years, 170 second-feet.

Extremes.- Maximum combined discharge of river and canal during year, 1,190 second-feet Feb. 13 (river gage height, 3.69 feet); minimum daily, 102 second-feet Oct. 19, 20, 23-29.

1925-45: Maximum discharge, 2,760 second-feet Nov. 29, 1942 (river gage height, 5.15 feet), from rating curve extended above 1,100 second-feet; minimum, 72 second-feet Aug. 24 to Sept. 5, 1931.

Remarks.- Records good except those above 250 second-feet, and those for periods of no gage-height record, which are fair. Rating curve for river only defined to 110 second-feet by measurements and to 1,100 second-feet by study of increments of discharge when flow in canal was changed. Flow in river controlled since Nov. 19, 1931, by head gates at diversion dam of power canal which diverts water around station; practically no storage above diversion dam. Figures of discharge include flow of Middle Fork power canal.

Cooperation.- Water-stage recorder graph furnished by The California Oregon Power Co.

Discharge, in second-feet, water year October 1944 to September 1945

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	109	115	121	108	154	158	166	382	314	165	131	120
2	107	120	116	106	161	156	162	413	299	167	130	120
3	107	149	113	105	156	154	160	463	296	165	130	120
4	107	133	113	105	152	151	159	435	287	163	129	120
5	110	116	113	110	169	148	158	406	282	160	129	122
6	107	117	112	142	161	148	163	392	273	158	129	121
7	106	119	111	265	163	144	169	376	262	154	129	119
8	106	117	109	221	320	142	165	366	262	153	129	119
9	106	125	107	174	318	140	174	349	261	153	129	118
10	105	122	107	179	280	141	173	419	255	154	128	118
11	105	118	107	162	426	153	174	349	250	152	128	117
12	105	114	106	207	436	163	173	348	250	149	127	117
13	106	113	105	456	1,040	164	a173	361	242	152	127	116
14	107	109	105	324	793	163	a174	340	228	143	126	116
15	105	108	104	303	543	162	a175	376	221	144	126	116
16	105	108	104	238	a400	159	181	609	216	143	127	116
17	104	107	103	209	a320	158	188	543	218	145	126	116
18	103	107	104	188	a270	155	201	461	224	142	125	115
19	102	106	118	173	a235	156	222	407	228	140	125	115
20	102	105	134	159	a215	162	257	364	226	133	125	119
21	103	105	122	151	a195	163	292	336	228	133	123	128
22	103	106	133	145	a182	183	282	330	224	133	123	137
23	102	119	124	141	a176	196	270	327	208	133	121	125
24	102	113	116	136	a169	178	382	310	201	133	122	120
25	102	111	112	134	a164	176	332	301	198	135	131	119
26	102	118	110	132	a162	174	299	310	192	133	126	116
27	102	117	109	127	a160	169	276	310	186	134	123	115
28	102	113	109	125	a159	168	360	323	178	135	121	114
29	102	112	110	125	-	166	348	336	170	132	121	114
30	104	117	108	137	-	165	351	346	167	132	121	114
31	120	-	107	141	-	169	-	336	-	133	120	-

Month	Second-feet-days	Maximum	Minimum	Mean	Per square mile	Runoff	
						Inches	Acre-feet
October	3,258	120	102	105	1.84	2.13	6,460
November	3,459	149	105	115	2.02	2.26	6,860
December	3,472	134	103	112	1.96	2.27	6,890
Calendar year 1944	55,185	357	102	151	2.65	36.01	109,500
January	5,428	456	105	175	3.07	3.54	10,770
February	8,079	1,040	152	289	5.07	5.27	16,020
March	4,974	186	140	160	2.81	3.25	9,870
April	6,779	382	158	226	3.96	4.42	13,450
May	11,724	609	301	378	6.63	7.65	23,250
June	7,046	314	167	235	4.12	4.60	13,980
July	4,531	167	132	146	2.56	2.96	8,990
August	3,907	131	120	126	2.21	2.55	7,750
September	3,562	137	114	119	2.09	2.32	7,070
Water year 1944-45	66,219	1,040	102	181	3.18	43.22	131,400

a No gage-height record; discharge at river station computed on basis of range in stage, weather records, and records for South Fork Rogue River above Imnaha Creek, near Prospect, and Middle Fork power canal near Prospect.

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

Middle Fork power canal near Prospect, Oreg.

Location.- Water-stage recorder, lat. 42°44', long. 122°24', in NE¼ sec. 1, T. 33 S., R. 3 E., 1,000 feet downstream from head gate at diversion dam and 4½ miles southeast of Prospect. Datum of gage is about 2,632 feet above mean sea level (levels by The California Oregon Power Co.).

Records available.- November 1931 to September 1945.

Average discharge.- 14 years, 108 second-feet.

Extremes.- Maximum discharge during year, 152 second-feet July 10 (gage height, 3.05 feet); no flow part of July 1.
1931-45: Maximum discharge, 196 second-feet Feb. 3, 1935 (gage height, 3.50 feet); no flow at times.

Remarks.- Records good. This canal, completed in November 1931, diverts water from Middle Fork Rogue River into Main power canal to supplement flow of Rogue River above Prospect diversion dam.

Cooperation.- Water-stage recorder graph furnished by The California Oregon Power Co.

Discharge, in second-feet, water year October 1944 to September 1945

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	107	112	116	108	133	124	135	142	96	86	129	118
2	106	114	112	106	133	124	134	142	96	132	128	118
3	106	118	110	105	133	124	134	143	96	134	127	118
4	106	116	110	105	133	124	134	142	96	134	127	117
5	109	112	110	110	133	124	134	142	96	134	125	120
6	106	111	110	124	133	124	135	142	96	134	125	118
7	105	114	109	118	132	124	136	142	96	134	125	116
8	105	113	107	107	89	124	136	142	96	137	125	116
9	105	118	106	107	1.5	128	136	143	95	138	125	115
10	104	118	106	107	1.4	132	135	144	94	143	124	115
11	104	114	106	107	1.3	133	135	143	92	148	124	114
12	104	110	105	107	1.3	134	136	143	92	145	124	114
13	105	109	104	107	1.1	134	136	143	92	143	124	114
14	106	107	104	106	.9	134	136	143	92	142	123	114
15	104	106	103	106	.8	134	137	144	92	141	123	114
16	104	106	103	106	.8	134	137	144	92	140	124	114
17	103	105	102	106	.8	134	137	132	92	140	123	114
18	102	105	103	106	.8	134	137	95	92	139	122	114
19	102	105	114	106	.8	134	138	95	92	137	122	114
20	102	104	120	114	.8	134	138	96	92	136	122	117
21	103	104	117	120	.8	134	140	96	92	135	120	124
22	103	105	124	120	33	135	140	96	92	135	120	129
23	102	114	123	120	98	135	141	96	107	134	118	121
24	102	110	116	119	98	134	142	95	127	134	119	117
25	102	109	111	122	113	134	141	95	118	133	127	116
26	102	114	109	124	124	135	141	95	108	133	123	114
27	102	113	109	124	124	135	140	95	114	131	120	113
28	102	110	109	124	124	135	142	96	118	132	118	113
29	102	110	110	124	--	135	142	96	128	131	118	113
30	103	114	108	131	--	134	142	96	128	129	118	113
31	115	--	107	132	--	135	--	96	--	130	118	--

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	3,233	115	102	104	6,410
November	3,320	118	104	111	6,590
December	3,403	124	102	110	6,750
Calendar year 1944	44,602.7	154	.2	122	88,460
January	3,528	132	105	114	7,000
February	1,746.1	133	.8	62.4	3,460
March	4,072	135	124	131	8,080
April	4,127	142	134	138	8,190
May	3,754	144	95	121	7,460
June	3,009	128	92	100	5,970
July	4,174	148	86	135	8,280
August	3,810	129	118	123	7,560
September	3,487	129	113	116	6,920
Water year 1944-45	41,663.1	148	.8	114	82,660

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

Red Blanket Creek near Prospect, Oreg.

Location.- Staff gage, lat. 42°47', long. 122°26', in NE¼ sec. 23, T. 32 S., R. 3 E., 3 miles northeast of Prospect.

Drainage area.- 40 square miles.

Records available.- May 1925 to September 1945. Prior to October 1928 in NE¼ sec. 34, T. 32 S., R. 3 E.

Average discharge.- 20 years, 102 second-feet.

Extremes.- Maximum daily discharge during year, 700 second-feet Feb. 13 (gage not read); minimum daily, 51 second-feet Oct. 17-21.
1925-45: Maximum discharge observed, 1,880 second-feet Nov. 29, 1942 (gage height, 5.1 feet, from floodmark), from rating curve extended above 350 second-feet; minimum observed, 34 second-feet Sept. 3, 4, 25, Oct. 9, 16, 1931.

Remarks.- Records fair for days when gage was read, poor for other periods. Gage read only once weekly; discharge for intervening days computed on basis of records for South Fork Rogue River near Prospect and Red Blanket power canal. One diversion above station for irrigation.

Cooperation.- Gage readings furnished by The California Oregon Power Co.

Discharge, in second-feet, water year October 1944 to September 1945

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	53	60	h71	61	100	103	104	240	h193	105	75	61
2	53	64	69	60	h114	h101	102	258	187	103	74	61
3	52	h83	68	60	112	98	100	290	182	100	h74	61
4	52	74	66	61	110	96	98	h250	178	98	74	60
5	52	66	65	h63	120	93	96	245	174	97	74	60
6	h52	64	64	90	115	92	h101	240	169	h95	73	60
7	52	65	62	160	115	91	108	235	164	94	73	h60
8	52	65	h61	130	226	91	112	232	h162	93	73	60
9	52	70	60	100	h226	h90	107	230	160	92	72	60
10	52	h67	59	104	200	92	105	290	156	91	h72	59
11	52	65	58	94	300	98	104	h220	152	90	72	59
12	52	64	58	h117	310	106	103	220	149	89	71	58
13	h52	62	58	260	700	107	h101	250	146	h88	70	58
14	52	60	57	185	500	106	102	220	141	87	70	h57
15	52	59	h57	175	370	105	104	250	h138	86	69	57
16	52	58	56	150	h274	h103	110	400	136	84	68	57
17	51	h58	56	140	238	103	126	355	136	83	h67	57
18	51	57	57	125	209	103	130	h315	140	82	66	58
18	51	57	70	h111	178	105	145	280	144	81	66	58
20	h51	58	84	107	160	108	h164	250	142	h80	65	59
21	51	58	78	100	150	109	190	235	136	80	64	h66
22	52	58	h83	95	138	115	184	230	h131	79	64	74
23	52	64	80	92	h131	h117	175	220	127	78	63	66
24	52	h60	72	88	124	116	249	200	124	78	h62	64
25	52	58	69	85	119	113	215	h188	120	78	67	62
26	52	64	67	h81	114	110	190	194	118	77	66	60
27	h52	64	65	81	110	107	h172	200	115	h77	64	59
28	52	62	63	80	106	105	240	206	111	77	63	h58
29	52	60	h62	78	-	103	230	212	h109	h77	63	58
30	54	65	62	79	-	h100	225	216	107	76	62	58
31	63	-	61	88	-	105	-	210	-	75	h61	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff Inches	Runoff Acre-feet
October	1,622	63	51	52.3	1.31	1.51	3,220
November	1,889	83	57	63.0	1.58	1.76	3,750
December	2,018	84	56	65.1	1.63	1.88	4,000
Calendar year 1944	30,547	186	49	83.5	2.09	28.40	60,590
January	3,300	260	60	106	2.65	3.07	6,550
February	5,669	700	100	202	5.05	5.27	11,240
March	3,191	117	90	103	2.58	2.97	6,330
April	4,288	245	96	143	3.58	3.99	8,510
May	7,381	400	188	245	6.12	7.05	15,040
June	4,347	193	107	145	3.62	4.04	8,620
July	2,670	105	75	86.1	2.15	2.48	5,300
August	2,117	75	61	68.3	1.71	1.97	4,200
September	1,805	74	57	60.2	1.50	1.68	3,580
Water year 1944-45	40,497	700	51	111	2.78	37.67	80,340

h Gage read on this day.
Time basis: Pacific war time up to 2 a.m., Sept. 30, 1945; Pacific standard time thereafter. To convert war time to standard time, subtract 1 hour.

Red Blanket power canal near Prospect, Oreg.

Location.- Water-stage recorder, lat. 42°45', long. 122°27', in SE¼ sec. 27, T. 32 S., R. 3 E., 200 yards downstream from head gate and diversion dam and 2 miles east of Prospect. Datum of gage is 2,612 feet above mean sea level (surveys of The California Oregon Power Co.).

Records available.- November 1931 to September 1945.

Average discharge.- 13 years, 65.5 second-feet.

Extremes.- Maximum discharge during year, 98 second-feet Jan. 24, July 10 (gage height, 3.17 feet); minimum recorded, 9 second-feet Feb. 10 (gage height, 1.15 feet).
1931-45: Maximum discharge, 116 second-feet Nov. 6, 1932; no flow for part of day Sept. 24, 25, 1932.

Remarks.- Records excellent. This canal, completed in October 1932, diverts water from Red Blanket Creek into Main power canal to supplement flow of Rogue River above Prospect diversion dam.

Cooperation.- Water-stage recorder graph furnished by The California Oregon Power Co.

Discharge, in second-feet, water year October 1944 to September 1945

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	54	67	75	61	90	90	90	e6	85	92	73	62
2	52	62	68	61	91	92	90	86	85	91	73	61
3	52	83	65	59	91	94	90	86	85	91	72	61
4	54	81	63	58	91	93	90	86	85	91	72	61
5	54	67	63	63	89	92	90	86	85	91	71	63
6	53	64	63	74	87	92	91	86	85	91	72	62
7	53	68	62	84	87	91	91	86	85	90	72	61
8	53	62	61	83	87	91	92	87	85	89	73	61
9	54	71	61	83	38	90	91	87	84	88	72	60
10	52	70	59	83	57	91	91	87	84	80	71	59
11	50	66	59	82	83	93	91	87	83	88	71	59
12	51	62	58	82	84	91	90	87	84	89	70	58
13	52	59	58	82	86	89	89	88	85	86	68	58
14	53	58	58	80	85	89	89	87	84	85	67	58
15	53	57	56	80	84	90	89	a88	87	85	67	58
16	53	56	56	80	42	89	90	a89	90	85	66	58
17	52	56	56	80	a10	89	90	88	90	83	66	58
18	52	55	56	79	a10	89	91	88	91	83	65	58
19	52	54	65	80	50	89	91	87	92	82	65	58
20	52	54	80	83	89	89	92	87	92	82	67	59
21	52	54	71	87	89	89	92	86	92	80	65	66
22	53	54	76	89	90	89	92	86	92	80	64	79
23	55	58	77	89	91	89	92	86	92	80	63	67
24	54	58	69	89	91	89	89	86	92	79	63	63
25	54	56	65	85	91	89	86	86	92	79	67	61
26	54	66	64	82	91	89	86	86	92	76	67	61
27	53	65	62	80	91	89	85	86	92	76	65	60
28	53	62	62	78	90	89	85	86	92	75	64	59
29	54	62	63	77	-	89	86	86	92	75	64	59
30	55	65	61	81	-	91	86	85	92	74	64	59
31	68	-	59	89	-	91	-	85	-	73	62	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	1,656	68	50	53.4	3,280
November	1,872	83	54	62.4	3,710
December	1,971	80	56	63.6	3,910
Calendar year 1944	27,091	96	50	74.0	53,730
January	2,443	89	58	78.8	4,850
February	2,155	91	10	77.0	4,270
March	2,796	94	89	90.2	5,550
April	2,687	92	85	89.6	5,330
May	2,683	89	85	86.5	5,320
June	2,646	92	83	88.2	5,250
July	2,589	92	73	83.8	5,150
August	2,101	73	62	67.8	4,170
September	1,827	79	58	60.9	3,620
Water year 1944-45	27,435	94	10	75.2	54,410

a No gage-height record; discharge computed on basis of recorded range in stage.
Time basis: Pacific war time up to 2 a.m., Sept. 30, 1945; Pacific standard time thereafter. To convert war time to standard time, subtract 1 hour.

Main power canal below all feeders, near Prospect, Oreg.

Location.- Water-stage recorder, lat. 42°45', long. 122°28', in SW¼ sec. 28, T. 32 S., R. 3 E., 0.8 mile downstream from outlet of Red Blanket power canal, 1 mile east of Prospect, and 1.6 miles upstream from diversion dam on Rogue River. Datum of gage is 2,599.0 feet above mean sea level, datum of 1929.

Records available.- November 1931 to September 1945.

Average discharge.- 13 years (1932-45), 265 second-feet.

Extremes.- Maximum discharge during year, 387 second-feet Mar. 11; minimum, 22 second-feet Feb. 16.
1931-45: Maximum discharge, 423 second-feet June 22, 1936; no flow at times.

Remarks.- Records fair. This canal, completed in November 1931, carries water diverted from South and Middle Forks Rogue River and Red Blanket Creek into Rogue River above Prospect diversion dam.

Cooperation.- Water-stage recorder graph furnished by The California Oregon Power Co.

Discharge, in second-feet, water year October 1944 to September 1945

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	229	241	266	225	300	382	349	204	163	286	309	268
2	223	244	247	222	277	383	348	204	162	356	309	266
3	223	241	236	216	272	385	346	205	161	359	309	264
4	225	270	235	215	266	380	342	205	160	359	309	262
5	230	253	238	234	282	376	342	205	160	351	304	271
6	223	247	236	277	276	373	349	205	158	351	303	271
7	221	260	234	252	280	368	351	205	167	353	303	265
8	221	247	230	226	200	368	216	205	197	346	304	260
9	221	264	225	277	71	368	215	204	219	348	304	256
10	218	262	222	320	88	373	248	205	246	349	301	254
11	218	247	221	317	118	309	342	204	244	354	300	253
12	216	240	218	317	122	300	344	205	242	351	298	254
13	219	232	216	264	129	296	342	205	262	342	292	253
14	219	228	215	232	125	295	342	205	271	339	287	253
15	221	226	215	230	119	287	342	205	303	339	285	253
16	218	216	207	229	79	336	342	211	332	332	284	252
17	218	215	208	228	37	376	344	198	332	332	285	248
18	216	214	209	223	36	371	271	171	336	329	284	248
19	215	211	248	252	80	371	205	170	336	325	a280	247
20	214	211	293	314	124	368	207	168	336	327	a282	254
21	212	211	268	312	186	314	209	167	336	325	282	277
22	214	214	285	309	285	262	209	167	309	327	280	309
23	212	240	285	295	358	277	209	167	351	329	280	276
24	211	234	260	298	358	351	207	167	371	324	279	260
25	212	228	248	293	370	351	202	167	351	322	298	254
26	211	250	240	292	383	349	202	167	342	319	295	252
27	211	253	236	288	382	344	201	167	359	314	284	248
28	212	240	236	282	382	344	202	166	363	317	279	246
29	215	238	238	279	-	344	202	166	366	316	277	246
30	219	252	230	300	-	346	204	166	363	314	279	244
31	258	-	229	324	-	351	-	165	-	311	271	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	6,795	258	211	219	13,480
November	7,129	270	211	238	14,140
December	7,374	293	207	238	14,630
Calendar year 1944	102,457	390	65	280	203,200
January	8,342	324	215	269	16,550
February	5,985	383	36	214	11,870
March	10,698	385	262	345	21,220
April	8,234	351	201	274	16,330
May	5,821	211	165	188	11,550
June	8,268	371	158	276	16,440
July	10,346	359	286	334	20,520
August	9,036	309	271	291	17,920
September	7,763	309	244	259	15,400
Water year 1944-45	95,811	385	36	262	190,000

a No gage-height record; discharge computed on basis of records for feeder canals.
Time basis: Pacific war time up to 2 a.m., Sept. 30, 1945; Pacific standard time thereafter. To convert war time to standard time, subtract 1 hour.

South Fork Big Butte Creek near Butte Falls, Oreg.

Location.- Water-stage recorder, lat. 42°32', long. 122°33', in SW¼ sec. 11, T. 35 S., R. 2 E., just downstream from Ginger Creek and 1 mile east of Butte Falls.

Records available.- September 1910 to October 1911, August to October 1915, October 1917 to September 1922, March 1925 to September 1945. August 1922 to March 1925 at site at Butte Falls.

Average discharge.- 29 years (1910-11, 1917-45), 155 second-feet.

Extremes.- Maximum discharge during year, 1,000 second-feet Feb. 14 (gage height, 2.43 feet); minimum, 70 second-feet Oct. 30 (gage height, 0.56 foot).
1910-11, 1915, 1917-45: Maximum discharge, 2,470 second-feet Feb. 20, 1927 (gage height, 4.05 feet), from rating curve extended above 1,600 second-feet; minimum, 39 second-feet Oct. 14, 1931 (gage height, 0.32 foot).

Remarks.- Records good. Diversions above station for irrigation, and since 1927 for Medford municipal supply. No regulation.

Rating table, water year 1944-45 (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used July 26 to Sept. 30)

0.6	78	1.0	185	1.6	455
.7	101	1.2	257	1.9	640
.8	126	1.4	347	2.2	840

Discharge, in second-feet, water year October 1944 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	78	78	90	83	121	163	227	227	363	124	96	78
2	78	83	90	83	132	157	223	223	337	121	96	80
3	76	94	87	80	134	160	212	227	313	121	92	78
4	76	92	85	80	124	157	205	219	295	121	92	80
5	76	83	83	85	205	148	199	212	291	116	90	85
6	76	87	83	121	192	148	192	199	262	116	90	83
7	76	94	80	163	173	146	199	188	257	116	99	83
8	76	85	80	132	313	148	238	182	242	114	92	80
9	76	106	76	114	313	143	223	176	230	111	90	80
10	76	101	76	118	265	143	212	192	219	111	90	78
11	78	94	76	114	286	146	227	173	212	111	90	78
12	76	87	76	116	323	170	227	173	199	111	90	78
13	76	83	76	132	791	205	216	176	188	111	90	78
14	78	80	76	143	826	234	209	195	185	108	90	80
15	78	80	76	179	539	238	205	202	179	108	87	80
16	78	80	76	166	444	227	202	384	170	108	87	83
17	76	78	76	157	389	230	212	467	163	106	83	83
18	76	78	76	160	342	223	216	461	157	104	80	80
19	76	78	85	146	286	212	219	455	154	101	83	80
20	76	78	90	134	261	212	227	411	146	101	80	80
21	74	78	83	118	238	238	234	368	146	101	80	85
22	74	78	83	111	223	309	234	363	146	101	83	94
23	74	83	80	104	209	384	227	433	143	101	83	87
24	74	90	80	101	195	342	249	400	140	101	83	83
25	74	85	78	101	185	323	257	395	134	99	85	80
26	74	87	78	96	179	304	246	438	132	99	87	76
27	72	90	78	96	179	274	230	455	132	99	87	78
28	72	87	78	92	170	261	236	455	129	99	85	76
29	72	85	80	94	-	249	238	444	126	99	83	76
30	70	83	83	101	-	234	230	461	126	99	83	76
31	76	-	83	104	-	230	-	411	-	99	80	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	2,338	78	70	75.4	4,640
November	2,565	106	78	85.5	5,090
December	2,497	90	76	80.5	4,950
Calendar year 1944	42,972	337	68	117	85,240
January	3,624	179	80	117	7,190
February	8,037	826	121	287	15,940
March	6,758	364	143	218	13,400
April	6,673	257	192	222	13,240
May	9,765	467	173	315	19,370
June	5,936	363	126	198	11,770
July	3,337	124	99	108	6,620
August	2,706	99	80	87.3	5,370
September	2,416	94	76	80.5	4,790
Water year 1944-45	56,652	826	70	155	112,400

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

South Fork Little Butte Creek near Lake Creek, Oreg.

Location.- Water-stage recorder, lat. 42°25', long. 122°36', in SE¼ sec. 29, T. 36 S., R. 2 E., a quarter of a mile upstream from intake of Rogue River Valley Canal and 1½ miles southeast of Lake Creek post office.
Records available.- April 1921 to September 1945. November 1910 to April 1913 at site in sec. 11, T. 37 S., R. 2 E., 5 miles above Lake Creek.
Average discharge.- 25 years (1911-12, 1921-45), 95.5 second-feet.
Extremes.- Maximum discharge during year, 1,190 second-feet Feb. 13; maximum gage height, 4.03 feet Feb. 14; minimum, 13 second-feet Sept. 13; minimum gage height, 1.24 feet Oct. 21.
1910-13, 1921-45: Maximum discharge, 2,870 second-feet Jan. 21, 1943 (gage height, 5.77 feet, from floodmark), from rating curve extended above 400 second-feet by logarithmic plotting; minimum, 2 second-feet Aug. 10, 1931 (gage height, 0.97 foot).
Remarks.- Records good except those for periods of shifting control or no gage-height record, which are fair. Diversions above station for irrigation.

Rating tables, water year 1944-45, except periods of shifting control
(gage height, in feet, and discharge, in second-feet)

Oct. 1 to Feb. 12				Feb. 13 to Sept. 30					
1.3	24	1.8	126	1.3	15	1.7	75	2.5	378
1.4	34	2.0	193	1.4	24	1.8	102	2.8	535
1.5	48	2.2	270	1.5	35	2.0	168	3.1	710
1.6	69	2.4	360	1.6	52	2.2	245	3.4	910

Discharge, in second-feet, water year October 1944 to September 1945

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	23	23	42	24	58	99	a150	378	412	32	20	18
2	22	24	35	22	91	91	a140	383	350	30	19	17
3	22	31	30	20	88	94	a130	396	309	26	19	17
4	22	30	28	22	74	91	a125	388	279	23	19	17
5	22	26	28	24	219	78	a120	364	279	27	19	18
6	21	26	26	35	126	86	a120	340	253	32	20	18
7	21	31	25	69	93	75	a125	318	226	31	23	17
8	21	28	23	58	310	73	a150	291	198	30	21	17
9	21	34	22	45	320	70	a145	270	179	28	19	17
10	21	33	22	54	215	70	a145	279	161	28	19	16
11	22	31	22	58	279	83	a180	237	144	28	19	15
12	22	27	22	50	342	111	a165	222	133	27	19	15
13	23	25	22	80	917	172	a160	226	124	25	19	14
14	22	23	21	96	742	176	a160	226	114	25	20	14
15	21	23	21	129	422	158	a160	226	105	25	20	15
16	20	23	21	99	327	136	a170	632	94	25	20	16
17	19	23	21	91	287	118	183	562	86	25	18	16
18	19	22	21	96	266	114	210	552	75	24	18	15
19	19	22	22	88	222	111	245	491	70	24	18	16
20	19	22	25	67	206	121	291	432	66	23	18	18
21	19	22	25	54	183	154	327	364	64	23	18	23
22	19	22	25	50	168	249	327	402	61	24	18	27
23	19	24	28	45	158	266	309	602	59	22	18	22
24	19	27	25	42	140	206	393	518	54	23	18	20
25	19	25	24	42	127	183	427	454	49	22	18	19
26	19	22	22	41	118	164	407	508	47	22	18	19
27	19	32	23	40	111	140	373	480	42	22	18	18
28	19	30	24	35	102	144	383	557	38	19	17	18
29	20	28	23	37	-	168	383	632	35	20	17	18
30	21	29	23	41	-	a160	373	716	33	21	17	18
31	24	-	22	47	-	a155	-	513	-	20	17	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	639	24	19	20.6	1,270
November	788	34	22	26.3	1,560
December	764	42	21	24.6	1,520
Calendar year 1944	26,550	410	14	72.5	52,680
January	1,701	129	20	54.9	3,370
February	6,711	917	58	240	13,310
March	4,116	266	70	133	8,160
April	6,976	427	120	233	13,840
May	12,961	716	222	418	25,710
June	4,139	412	33	138	8,210
July	776	32	19	25.0	1,540
August	581	23	17	18.7	1,150
September	528	27	14	17.6	1,050
Water year 1944-45	40,680	917	14	111	80,690

Peak discharge.- Feb. 13 (11 a.m.) 1,190 sec.-ft.; Feb. 14 (2 a.m.) 1,160 sec.-ft.; May 16 (11 a.m.) 924 sec.-ft.; May 23 (4 a.m.) 723 sec.-ft.; May 28 (8:30 p.m.) 1,040 sec.-ft.; May 30 (1 a.m.) 889 sec.-ft.
a No gage-height record; discharge computed on basis of records for North Fork Little Butte Creek near Lake Oreek and South Fork Big Butte Creek near Butte Falls.
Note.- Shifting-control method used Oct. 15 to Jan. 15, Feb. 13 to Apr. 30.
Time basis: Pacific war time up to 2 a.m., Sept. 30, 1945; Pacific standard time thereafter. To convert war time to standard time, subtract 1 hour.

North Fork Little Butte Creek at Fish Lake, near Lake Creek, Oreg.

Location.- Water-stage recorder, lat. 42°23', long. 122°21', in S½ sec. 4, T. 37 S., R. 4 E., half a mile downstream from outlet of Fish Lake and 18 miles east of Lake Creek post office.

Drainage area.- 18 square miles.

Records available.- October 1914 to September 1945.

Average discharge.- 30 years (1915-45), 32.4 second-feet.

Extremes (regulated).- Maximum discharge during year, 137 second-feet July 28 (gage height, 1.64 feet); minimum, 0.3 second-foot Oct. 5-31 (gage height, -0.04 foot).
1914-45: Maximum discharge, 158 second-feet July 10, 1930; no flow at times.

Remarks.- Records good except those for period of shifting control and those below 5 second-feet, which are fair, and those for periods of no gage height record, which are poor. Flow regulated by Fish Lake Reservoir. Since September 1923 water has been diverted by Cascade Canal from Fourmile Lake, in Klamath River Basin, into Fish Lake Basin. No diversion from creek above station.

Rating table, water year 1944-45, except period of shifting control
(gage height, in feet, and discharge, in second-feet)

0.0	0.4	0.5	7.2	1.1	50
.1	1.0	.6	11	1.3	77
.2	1.9	.7	15	1.6	129
.3	3.1	.8	21		
.4	4.8	.9	29		

Discharge, in second-feet, water year October 1944 to September 1945

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	6.2	a0.6	4.8	8.6	11	15	15	23	30	95	129	82
2	5.3	.9	4.8	8.6	11	15	15	25	31	91	127	79
3	1.4	1.1	4.8	8.6	11	15	15	27	31	91	127	76
4	a.8	1.3	4.8	8.6	12	15	15	27	31	96	127	70
5	h.3	1.4	5.0	8.6	12	15	15	28	31	100	127	67
6	a.3	1.6	5.3	9.2	12	15	15	28	31	100	127	64
7	a.3	1.5	5.5	9.6	12	15	15	28	31	100	127	62
8	a.3	1.6	5.5	9.6	12	15	15	28	32	102	125	59
9	a.3	1.8	5.5	9.6	12	15	15	28	31	102	129	56
10	a.3	1.9	5.5	9.6	12	15	15	28	31	105	127	53
11	a.3	2.0	5.8	9.2	13	15	15	29	31	107	127	49
12	h.3	2.1	6.0	9.2	13	15	15	29	30	116	127	48
13	2.3	2.3	6.2	9.9	15	15	15	29	30	127	127	44
14	a.3	2.3	6.2	10	15	15	15	30	30	129	121	43
15	a.3	2.4	6.2	10	15	15	15	29	30	129	118	42
16	a.3	2.6	6.2	10	15	15	15	30	30	127	112	40
17	a.3	2.6	6.5	11	15	15	15	16	30	30	127	110	39
18	a.3	2.7	6.5	11	15	15	15	16	30	30	129	107	38
19	h.3	2.7	6.7	11	15	15	15	16	30	30	129	102	44
20	a.3	2.9	7.0	11	15	15	15	17	30	34	129	98	53
21	a.3	3.0	7.0	11	15	15	15	18	30	53	127	96	49
22	a.3	3.0	7.5	11	15	15	15	18	31	53	129	95	32
23	a.3	3.4	7.5	11	15	15	15	19	31	53	131	96	19
24	a.3	3.6	7.5	11	15	15	15	20	31	63	129	100	20
25	a.3	3.6	7.9	11	15	15	15	20	31	77	127	98	29
26	h.3	4.0	7.9	11	15	15	15	21	31	83	131	96	39
27	a.3	4.1	7.9	11	15	15	15	21	32	82	129	95	39
28	a.3	4.1	7.9	11	15	15	15	22	32	83	131	90	39
29	a.3	4.5	7.9	11	-	15	15	22	32	90	135	87	38
30	a.3	4.6	8.2	11	-	15	15	23	31	93	133	85	37
31	a.3	-	8.2	11	-	15	15	-	31	-	131	83	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	19.8	6.2	0.3	0.64	39
November	76.2	4.6	.6	2.54	151
December	200.2	8.2	4.8	6.46	397
Calendar year 1944	14,303.4	135	.3	39.1	28,380
January	313.9	11	8.6	10.1	623
February	383	15	11	13.7	760
March	465	15	15	15.0	922
April	509	23	15	17.0	1,010
May	909	32	23	29.3	1,800
June	1,345	93	30	44.8	2,670
July	3,664	135	91	118	7,270
August	3,442	129	83	111	6,830
September	1,449	82	19	48.3	2,870
Water year 1944-45	12,776.1	135	.3	35.0	25,340

a No gage-height record; discharge interpolated.
h Computed from staff-gage reading.
Note.- Shifting-control method used May 10 to July 14.
Time basis: Pacific war time up to 2 a.m., Sept. 30, 1945; Pacific standard time thereafter.
To convert war time to standard time, subtract 1 hour.

North Fork Little Butte Creek near Lake Creek, Oreg.

Location.- Water-stage recorder, lat. 42°24', long. 122°32', in SW¼ sec. 25, T. 36 S., R. 2 E., a quarter of a mile upstream from point of diversion of Hanley South Canal and 4½ miles east of Lake Creek post office. Datum of gage is 2,125.01 feet above mean sea level, datum of 1929.

Records available.- September 1911 to March 1913 (incomplete), May 1922 to September 1928 (incomplete), and October 1931 to September 1944 in reports of Geological Survey. September 1911 to March 1913, May 1922 to September 1936 in reports of State engineer.

Average discharge.- 19 years (1911-12, 1922-23, 1928-45), 65.9 second-feet.

Extremes.- Maximum discharge during year, 255 second-feet Feb. 14 (gage height, 2.35 feet); minimum, 19 second-feet Oct. 10 (gage height, 1.44 feet).
1911-13, 1922-28, 1931-45: Maximum discharge, 680 second-feet Dec. 30, 1924 (gage height, 3.30 feet), from rating curve extended above 170 second-feet; minimum, 11 second-feet (computed on basis of records for station at Fish Lake, near Lake Creek) Oct. 29 to Nov. 8, 1931.

Remarks.- Records good. Flow regulated by Fish Lake Reservoir. Small diversions above station for irrigation; some water diverted into Fish Lake from Fourmile Lake, in Klamath River Basin, since September 1923.

Rating table, water year 1944-45 (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Feb. 12 to Apr. 15, Apr. 26 to May 16, June 24 to Aug. 4)

1.5	22	1.9	77
1.6	30	2.0	103
1.7	41	2.1	134
1.8	56		

Discharge, in second-feet, water year October 1944 to September 1945

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	26	20	31	31	41	48	60	73	109	131	152	100
2	25	23	30	31	41	48	56	73	100	128	152	98
3	21	23	29	31	41	50	54	75	95	125	152	95
4	20	22	28	32	39	48	53	73	93	128	152	90
5	20	22	28	33	60	47	53	71	93	131	156	87
6	20	24	28	42	47	48	53	69	90	131	156	85
7	20	24	28	44	44	47	53	69	85	128	152	82
8	20	24	28	37	80	47	60	66	82	131	156	77
9	20	28	28	34	64	47	56	69	77	131	152	75
10	20	27	28	39	52	47	58	69	77	134	149	71
11	20	24	28	37	52	48	69	66	75	134	152	69
12	20	23	28	37	85	56	62	69	73	138	152	69
13	21	23	28	47	160	66	58	69	71	152	149	64
14	20	23	28	44	125	66	58	75	71	152	149	62
15	20	23	28	56	85	62	58	73	71	152	141	60
16	20	24	29	44	75	60	58	131	69	149	138	56
17	20	24	29	47	75	56	58	109	66	145	134	56
18	20	24	29	52	75	54	58	98	66	149	131	56
19	20	24	30	44	64	54	60	103	66	149	125	58
20	20	24	30	40	58	58	60	93	64	149	118	73
21	20	24	30	38	56	66	62	85	87	149	112	73
22	20	24	31	37	54	82	60	93	90	156	109	62
23	20	28	30	37	53	82	60	112	90	156	112	41
24	20	28	30	37	52	73	73	98	95	152	122	40
25	20	27	30	36	50	69	77	93	112	149	122	47
26	20	29	30	36	50	66	75	98	122	152	115	60
27	20	29	30	36	50	60	73	106	122	152	112	60
28	20	28	30	36	50	66	75	109	122	160	109	56
29	20	28	31	36	-	64	73	134	131	164	106	56
30	20	28	31	38	-	62	73	141	131	160	103	54
31	22	-	31	38	-	60	-	122	-	156	100	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	635	26	20	20.5	1,260
November	746	29	20	24.9	1,480
December	907	31	28	29.3	1,800
Calendar year 1944	24,914	156	20	68.1	49,420
January	1,207	56	31	38.9	2,390
February	1,778	160	39	63.5	3,530
March	1,807	82	47	58.3	3,580
April	1,858	77	53	61.9	3,690
May	2,784	141	66	89.8	5,520
June	2,695	131	64	89.8	5,350
July	4,473	164	125	144	8,870
August	4,140	156	100	134	8,210
September	2,032	100	40	67.7	4,030
Water year 1944-45	25,062	164	20	68.7	49,710

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

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Diversions from Little Butte Creek near Lake Creek, Oreg.

The following canals divert water from Little Butte Creek and its tributaries near Lake Creek post office:

Hanley South and Hanley North Canals, from North Fork in SW¼ sec. 26, T. 36 S., R. 2 E. Water used for irrigation of land on both sides of Little Butte Creek near Lake Creek.

Rogue River Valley Canal, from South Fork in SE¼ sec. 29, T. 36 S., R. 2 E., and from North Fork in NE¼ sec. 20, T. 36 S., R. 2 E. Water used for irrigation of about 15,000 acres of land, chiefly in Bear Creek Basin, on both sides of that creek below Phoenix.

Eagle Point Canal, from main stream in SE¼ sec. 31, T. 35 S., R. 1 E. Water used for irrigation of lands near Eagle Point.

Records for Hanley South and North Canals and Eagle Point Canal are partly estimated.

Records for these canals, published as a group, are available from April 1929 to September 1945; records of some of the canals published separately prior to 1929.

Many smaller canals divert from Little Butte Creek and its tributaries.

Diversions, in acre-feet, water year October 1944 to September 1945

Month	Hanley South Canal	Hanley North Canal	Rogue River Valley Canal below junction of intakes	Eagle Point Canal
October	all	-	b323	c125
November	-	-	-	-
December	-	-	-	-
January	-	-	-	-
February	-	-	-	-
March	-	-	-	-
April	d71	-	4,180	-
May	360	-	5,180	e141
June	345	f205	5,900	950
July	361	498	8,680	1,100
August	417	504	7,510	1,050
September	363	437	3,560	819
Water year 1944-45	-	-	-	-

a Oct. 1-14.
b Oct. 1-11.
c Oct. 1-23.
d Apr. 25-30.
e May 26-30.
f June 19-31.
Time basis: Pacific war time up to 2 a.m., Sept. 30, 1945; Pacific standard time thereafter. To convert war time to standard time, subtract 1 hour.

Emigrant Creek near Ashland, Oreg.

Location.- Water-stage recorder, lat. 42°10', long. 122°36', in sec. 20, T. 39 S., R. 2 E., 500 feet downstream from Emigrant Gap Reservoir Dam and 6 miles southeast of Ashland.

Records available.- January 1920 to September 1945.

Average discharge.- 12 years (1924-28, 1929-30, 1933-35, 1940-45), 20.5 second-feet.

Extremes.- Maximum discharge during year, 391 second-feet May 30 (gage height, 2.82 feet); no flow at times.
1920-45: Maximum discharge, 5,260 second-feet Feb. 20, 1927, by computation of flow over dam; no flow at times.

Remarks.- Records fair except those for Oct. 1 to Mar. 18, which are poor. Flow regulated since December 1924 by Emigrant Gap Reservoir. Diversions above station for irrigation; principal canals are Ashland lateral and East lateral. Water diverted by Keene Creek Canal from Klamath River Basin into Emigrant Creek above station.

Rating tables, water year 1944-45 (gage height, in feet, and discharge, in second-feet)

Oct. 1 to Sept. 4

0.7	6.3	1.1	28	2.0	165
.8	10	1.3	45	2.3	240
.9	15	1.5	68	2.6	325
1.0	21	1.7	100		

Note.- Same as following table below 0.7 foot.

Sept. 5-30

0.1	0.15	0.7	6.0
.2	.3	.8	8.9
.3	.7	.9	13
.4	1.3	1.0	18
.5	2.3	1.1	24
.6	3.8		

Discharge, in second-feet, water year October 1944 to September 1945

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1							a0.7	2.3	120	30	34	5.7
2							.7	.8	86	30	34	.2
3							.7	.6	71	30	33	.1
4							.7	.5	58	30	33	.1
5							7.8	.5	58	26	32	12
8							26	.4	57	23	32	28
7							39	.5	50	24	32	23
8							57	.5	40	22	31	22
9							63	.5	37	22	31	20
10						a0.4	66	a.5	31	27	32	19
11							76	a.5	27	27	33	18
12							81	.5	24	27	34	9.9
13							64	.5	20	27	31	.3
14							63	.5	16	27	29	.2
15							71	.5	12	28	27	.1
16	0	a0.1	a0.1	a0.2	a0.3		82	.5	5.0	29	27	.1
17							82	.5	.8	32	28	.1
18							86	.5	.5	33	24	a.1
19						h.5	93	.5	.6	34	24	a.1
20						a.5	95	.5	.5	35	22	a.1
21						a.5	72	.5	.5	35	20	a0
22						a.5	61	.5	.5	35	20	a0
23						h.5	45	67	.4	35	17	a0
24						a.5	36	163	.4	35	17	0
25						a.5	34	104	.4	35	18	0
28						h.5	30	110	3.6	35	18	0
27						a.5	21	106	5.0	35	18	0
28						a.6	13	104	5.0	34	18	0
29					-	a.6	7.8	204	8.9	34	17	0
30					-	a.6	4.3	313	30	34	17	0
31		-			-	a.6	-	182	-	34	14	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	0	0	0	0	0
November	3.0	-	-	.10	6.0
December	3.1	-	-	.10	6.1
Calendar year 1944	2,937.9	53	0	8.03	5,830
January	6.2	-	-	.20	12
February	8.4	-	-	.30	17
March	14.1	-	-	.45	28
April	1,378.7	95	.7	46.0	2,730
May	1,366.1	313	.4	44.1	2,710
June	769.1	120	.4	25.6	1,530
July	944	35	22	30.5	1,870
August	795	34	14	25.6	1,580
September	159.1	28	0	5.30	318
Water year 1944-45	5,446.8	313	0	14.9	10,810

a No gage-height record; discharge interpolated or computed on basis of change in stage of Emigrant Reservoir near Ashland.
h Computed on basis of staff-gage reading.
Time basis: Pacific war time up to 2 a.m., 8ept. 30, 1945; Pacific standard time thereafter. To convert war time to standard time, subtract 1 hour.

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Bear Creek at Medford, Oreg.

Location.- Water-stage recorder, lat. 42°19', long. 122°52', in NW¼ sec. 30, T. 37 S., R. 1 W., just upstream from Main Street Bridge in Medford. Datum of gage is 1,343.89 feet above mean sea level, datum of 1929.
Records available.- March 1915 to September 1945 (incomplete prior to April 1927).
Average discharge.- 24 years (1920-26, 1927-45), 78.0 second-feet.
Extremes.- Maximum discharge during year, 1,060 second-feet May 30 (gage height, 2.73 feet); minimum, 7.1 second-feet sometime during period Sept. 10-30 (gage height, 0.24 foot).
1915-45: Maximum discharge, 10,200 second-feet Feb. 20, 1927 (gage height, 10.15 feet), from rating curve extended above 1,600 second-feet; practically no flow at times.
Revisions.- The maximum discharge for the water year 1944 has been revised to 375 second-feet Apr. 24 (gage height, 1.68 feet), superseding figure published in Water-Supply Paper 1014.
Remarks.- Records good except those for periods of shifting control, which are fair, and those for periods of no gage-height record, which are poor. Diversions above station for irrigation. Flow partly regulated since December 1924 by Emigrant Gap Reservoir.
Revisions.- Revised figures of discharge, in second-feet, for the high-water periods in the water year 1944, superseding those published in Water-Supply Paper 1014, are given herewith:

Mar. 10.....204
Apr. 24.....265

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
March	2,626	204	55	84.7	5,210
April	3,101	265	40	103	6,150
Water year 1943-44	15,129.8	265	4.0	41.3	30,010

Discharge, in second-feet, water year October 1944 to September 1945

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	19	37	39	24	37	65	115	65	410	a23	11	a16
2	17	42	44	22	61	63	102	61	332	a20	13	a16
3	15	47	37	22	56	59	100	68	301	a19	14	a16
4	9.3	63	34	24	47	58	90	61	278	a19	15	a15
5	9.3	49	34	24	126	56	86	58	328	a18	16	a14
6	9.3	46	36	30	96	58	92	54	306	16	19	a15
7	9.3	52	34	39	74	56	111	54	274	17	19	a12
8	9.3	44	33	47	234	52	138	37	237	18	19	a9.5
9	10	63	31	39	208	52	150	36	211	15	18	h10
10	13	56	30	40	122	54	150	47	194	17	19	a13
11	18	47	28	40	131	58	169	44	175	34	21	a14
12	17	42	28	34	140	68	172	65	163	20	20	a10
13	39	37	25	54	558	100	148	92	148	12	21	a9.0
14	30	36	25	54	516	96	142	105	131	9.3	20	a8.0
15	25	31	25	49	200	90	148	100	117	11	20	a7.5
16	24	30	25	42	150	82	160	237	100	12	22	a7.5
17	22	30	25	39	140	117	155	194	72	13	20	a7.5
18	21	30	25	46	133	113	184	245	67	14	19	a7.5
19	21	30	25	42	117	109	197	225	61	16	21	a7.5
20	20	25	31	34	109	115	211	211	58	17	22	a8.0
21	19	25	34	27	96	140	200	190	54	16	19	a11
22	19	25	31	25	92	181	184	178	52	15	14	a14
23	18	27	33	25	86	241	163	380	51	17	12	a12
24	18	28	31	25	78	181	148	588	51	16	12	a9.5
25	19	28	27	24	84	155	150	445	49	15	14	a9.0
26	22	30	25	24	70	142	138	600	47	16	17	a9.0
27	20	34	22	24	68	122	96	516	a40	16	19	a9.0
28	19	36	22	22	65	115	92	472	a35	15	16	a9.0
29	17	30	25	22	-	126	84	650	a30	15	15	a9.0
30	19	31	27	24	-	117	72	879	a25	14	16	a9.0
31	36	-	25	28	-	120	-	570	-	12	16	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	581.5	39	9.3	18.8	1,150
November	1,131	63	25	37.7	2,240
December	916	44	22	29.5	1,820
Calendar year 1944	15,314.3	265	4.0	41.8	30,370
January	1,015	54	22	32.7	2,010
February	3,894	558	37	139	7,720
March	3,161	241	52	102	6,270
April	4,147	211	72	138	8,230
May	7,527	879	36	243	14,930
June	4,397	410	25	147	8,720
July	507.3	34	9.3	16.4	1,010
August	539	22	11	17.4	1,070
September	323.5	16	7.5	10.8	642
Water year 1944-45	28,139.3	879	7.5	77.1	55,810

Peak discharge.- Feb. 13 (5 p.m.) 682 sec.-ft.; Feb. 14 (3:30 a.m.) 816 sec.-ft.; May 24 (7 a.m.) 858 sec.-ft.; May 26 (1:30 p.m.) 928 sec.-ft.; May 29 (2:30 a.m.) 728 sec.-ft.; May 30 (6 a.m.) 1,060 sec.-ft.
a No gage-height record; discharge computed on basis of records for Bear Creek Canal at Medford.
Note.- Shifting-control method used Oct. 1 to Nov. 8, Dec. 17 to Feb. 14, Sept. 9.
Time basis: Pacific war time up to 2 a.m., Sept. 30, 1945; Pacific standard time thereafter.
To convert war time to standard time, subtract 1 hour.

Diversions in Bear Creek Basin, Oreg.

The following canals divert from streams in Bear Creek Basin:

Ashland lateral of Talent Irrigation District, from Sampson Creek in SW¼ sec. 26, T. 39 S., R. 2 E. Water used to irrigate lands near Ashland. Most of flow is received from Keene Creek, in Klamath River Basin, through Keene Creek Canal.

East lateral of Talent Irrigation District, from Emigrant Gap Reservoir in SE¼ sec. 20, T. 39 S., R. 2 E. Water used to irrigate lands mostly on east side of Bear Creek above Medford.

Talent lateral of Talent Irrigation District, from Bear Creek in SW¼ sec. 33, T. 38 S., R. 1 E. Water used to irrigate lands near Talent.

Phoenix Canal, from Bear Creek in NW¼ sec. 23, T. 38 S., R. 1 W. Water supplements flow of Medford Irrigation District Canal, used to irrigate lands west of Bear Creek.

Bear Creek Canal, from Bear Creek at Medford. Water used to irrigate lands west of Bear Creek near Central Point.

Records of these canals, published as a group, are available from April 1929 to September 1945; records for some of the canals published separately prior to 1929.

Many smaller canals also divert from Bear Creek and its tributaries.

Diversions, in acre-feet, water year October 1944 to September 194f

Month	Ashland lateral	East lateral	Talent lateral	Phoenix Canal	Bear Creek Canal
October	-	0	a15	b105	c4.4
November	-	0	-	-	-
December	-	0	-	-	-
January	-	0	-	-	-
February	-	0	-	-	-
March	-	0	-	-	-
April	d20	547	e588	f828	1,140
May	138	1,720	1,850	1,150	913
June	454	1,560	1,320	822	1,130
July	1,180	4,300	2,460	1,090	914
August	1,090	3,490	2,000	748	934
September	282	353	535	468	586
Water year 1944-45	-	12,270	-	-	-

a Oct. 1-10.
b Oct. 1-11.
c Oct. 1-10.
d Apr. 25-30.
e Apr. 19-30.
f Apr. 2-30.
Note.- Not much flow during periods of no record.
Time basis: Pacific war time up to 2 a.m., Sept. 30, 1945; Pacific standard time thereafter. To convert war time to standard time, subtract 1 hour.

Applegate River near Copper, Oreg.

Location.- Water-stage recorder, lat. 42°03', long. 123°07', in SE¼ sec. 25, T. 40 S., R. 4 W., a quarter of a mile downstream from French Gulch, 1½ miles downstream from Squaw Creek, and 3 miles northeast of Copper store. Datum of gage is 1,759.66 feet above mean sea level, datum of 1929.

Drainage area.- 152 square miles.

Records available.- December 1938 to September 1945.

Extremes.- Maximum discharge during year, 5,330 second-feet Feb. 8 (gage height, 9.82 feet); minimum, 22 second-feet Oct. 8 (gage height, 0.87 foot).
1938-45: Maximum discharge, 7,980 second-feet Dec. 31, 1942 (gage height, 12.85 feet); minimum, 20 second-feet Sept. 23-25, 1939.

Remarks.- Records good. About 11 second-feet diverted for irrigation of 482 acres above station in Applegate River Basin; Grand Applegate ditch diverts about 3.3 second-feet around station on left bank. About 21 second-feet for irrigation and 8 second-feet for mining use are diverted at times into Thompson Creek Basin. Several hundred acre-feet normally stored each winter in Squaw Lake for irrigation the following summer.

Rating table, water year 1944-45 (gage height, in feet, and discharge, in second-feet)

0.9	24.	1.9	150	4.0	920
1.0	32	2.2	218	4.6	1,300
1.2	51	2.5	304	5.4	1,850
1.4	74	2.9	440	6.4	2,600
1.6	101	3.4	625	7.8	3,680

Discharge, in second-feet, water year October 1944 to September 1945

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	28	a95	343	141	663	330	447	1,070	585	136	67	45
2	27	a65	247	137	892	310	422	1,200	545	130	64	42
3	25	a400	198	130	750	298	398	1,190	517	124	63	41
4	24	a550	184	130	601	282	380	1,080	500	122	60	39
5	24	a220	206	150	1,330	267	363	998	489	119	55	41
6	24	a150	218	177	876	267	380	914	458	114	56	43
7	23	146	206	360	810	253	444	832	433	113	58	41
8	23	137	186	374	3,690	247	553	765	416	107	56	39
9	23	256	168	339	1,900	239	468	730	384	102	56	38
10	23	236	152	426	1,280	256	430	730	363	104	58	36
11	24	162	143	384	1,110	323	412	621	343	107	61	36
12	25	143	136	346	926	353	388	832	326	110	59	33
13	30	124	126	621	2,150	345	363	1,030	314	104	54	34
14	30	112	119	617	2,110	330	356	968	295	100	51	34
15	28	104	114	678	1,400	314	384	882	273	95	51	35
16	28	100	110	510	1,090	298	464	1,160	261	91	49	34
17	27	97	108	444	898	326	506	950	241	91	49	34
18	29	94	114	398	750	307	629	826	231	88	48	34
19	30	90	222	350	649	304	600	750	226	86	47	34
20	29	87	436	310	581	464	1,070	678	213	82	44	34
21	29	87	346	279	531	520	1,070	625	203	82	44	40
22	28	93	343	256	496	524	887	593	198	80	42	45
23	28	129	288	236	464	514	795	553	184	80	40	46
24	28	141	234	221	430	461	904	545	170	78	40	41
25	28	124	203	208	405	461	860	528	166	75	42	38
26	27	162	182	200	384	436	730	557	160	74	43	39
27	a26	203	172	188	366	408	692	549	154	73	43	39
28	a25	179	182	182	346	388	735	565	148	72	42	a39
29	a25	228	170	179	-	377	800	637	143	70	43	a36
30	a32	343	156	210	-	391	909	701	141	69	55	a37
31	a100	-	145	282	-	444	-	645	-	69	47	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	900	100	23	29.0	1,790
November	5,077	550	65	169	10,070
December	6,157	436	108	199	12,210
Calendar year 1944	65,494	770	23	179	129,900
January	9,463	678	130	305	18,770
February	27,878	3,690	346	996	55,300
March	11,035	524	239	356	21,890
April	18,039	1,070	356	601	35,780
May	24,724	1,200	528	798	49,040
June	9,080	585	141	303	18,010
July	2,947	136	69	95.1	5,850
August	1,587	67	40	51.2	3,150
September	1,147	46	33	38.2	2,280
Water year 1944-45	118,034	3,690	23	323	234,100

Peak discharge.- Feb. 8 (7:45 a.m.) 5,330 sec.-ft.; Feb. 13 (8 p.m.) 2,870 sec.-ft.
a No gage-height record; discharge computed on basis of range in stage and records for stations near Ruch and near Applegate.
Time basis: Pacific war time up to 2 a.m., Sept. 30, 1945; Pacific standard time thereafter. To convert war time to standard time, subtract 1 hour.

Applegate River near Ruch, Oreg.

Location.- Water-stage recorder, lat. 42°11', long. 123°03', in sec. 15, T. 39 S., R. 3 W., at Cameron Bridge, 1½ miles upstream from Little Applegate River and 4½ miles south of Ruch. Datum of gage is 1,475.09 feet above mean sea level, datum of 1929 (levels by Corps of Engineers, U. S. Army).

Drainage area.- 230 square miles.

Records available.- June 1911 to September 1914, September 1925 to September 1945.

Average discharge.- 22 years (1911-14, 1925-26, 1927-45), 341 second-feet.

Extremes.- Maximum discharge during year, 5,840 second-feet Feb. 8 (gage height, 6.83 feet); minimum not recorded; minimum daily, 21 second-feet Oct. 1, 4-10.
1911-14, 1925-45: Maximum discharge, 20,000 second-feet Feb. 20, 1927 (gage height, 16.0 feet), from rating curve extended above 8,000 second-feet; minimum, 7 second-feet Sept. 2, 1929 (gage height, 0.26 foot).

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

Rating table, water year 1944-45 (gage height, in feet, and discharge, in second-feet)

-0.2	24	0.3	99	1.4	465	3.0	1,520
-.1	34	.5	145	1.8	690	3.5	1,930
0.0	46	.8	232	2.2	920	4.0	2,380
.1	61	1.1	345	2.6	1,200	5.0	3,420

Discharge, in eecond-feet, water year October 1944 to September 1945

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	a21	97	358	153	609	360	470	1,010	615	a145	61	40
2	a22	66	267	148	902	341	445	1,130	570	a135	60	40
3	a22	433	216	143	764	a320	417	1,120	535	a130	60	36
4	a21	588	194	138	620	a300	399	1,040	515	a130	58	38
5	a21	253	213	155	1,320	a280	381	962	505	128	56	39
6	h21	166	226	177	902	a270	386	902	470	121	56	45
7	a21	168	219	333	789	260	440	812	440	119	52	38
8	a21	143	200	386	3,650	260	575	734	412	117	50	34
9	a21	271	183	337	1,940	253	490	745	390	110	48	34
10	a21	264	168	412	1,240	256	450	734	368	110	46	35
11	a22	206	158	300	1,100	317	426	646	345	114	45	33
12	a24	166	150	341	934	354	399	772	329	121	45	36
13	a30	140	140	601	2,020	345	381	976	305	a110	45	38
14	a30	126	133	625	2,080	337	366	927	290	99	42	35
15	a29	119	128	701	1,350	317	386	866	275	97	41	35
16	a29	117	123	530	1,060	301	470	1,090	264	95	40	35
17	a28	117	121	450	902	350	515	920	253	93	41	33
18	30	117	123	404	778	325	635	830	a240	91	a40	33
19	31	117	200	354	679	313	800	762	a230	89	a39	33
20	31	114	426	313	610	470	1,010	701	a220	83	a37	33
21	33	114	350	278	555	585	1,040	646	a205	79	a37	34
22	33	114	337	260	520	575	878	610	200	77	a35	41
23	32	126	294	246	475	580	789	575	188	77	a33	46
24	31	155	250	232	445	505	872	560	180	75	a33	44
25	30	135	216	219	422	495	854	550	a175	74	a34	40
26	27	161	191	210	417	475	734	580	a170	74	a35	40
27	26	210	183	200	412	435	706	585	a160	74	34	46
28	22	194	191	191	390	412	740	585	a155	72	34	45
29	27	216	183	186	-	404	800	662	a150	70	36	41
30	32	341	166	206	-	404	878	718	a145	68	52	39
31	108	-	158	275	-	460	-	674	-	63	39	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	897	108	21	28.9	1,780
November	5,558	588	68	185	11,020
December	6,467	426	121	209	12,830
Calendar year 1944	67,969	818	18	186	134,800
January	9,594	701	138	309	19,030
February	27,905	3,650	390	997	55,350
March	11,667	585	253	376	23,140
April	18,134	1,040	368	604	35,970
May	24,474	1,130	550	789	48,540
June	9,299	615	145	310	18,440
July	3,040	145	63	98.1	6,030
August	1,364	61	33	44.0	2,710
September	1,139	46	33	38.0	2,260
Water year 1944-45	119,538	3,650	21	328	237,100

Peak discharge.- Feb. 5 (9 a.m.) 1,640 sec.-ft.; Feb. 8 (8:30 a.m.) 5,840 sec.-ft.; Feb. 13 (9 p.m.) 2,760 sec.-ft.

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

h Computed from staff-gage reading.

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

Applegate River near Applegate, Oreg.

Location.- Water-stage recorder, lat. 42°14', long. 123°08', in NE¼ sec. 26, T. 38 S., R. 4 W., 0.9 mile downstream from Keeler Creek and 2 miles southeast of Applegate. Datum of gage is 1,285.33 feet above mean sea level, datum of 1929.

Drainage area.- 413 square miles.

Records available.- October 1938 to September 1945.

Extremes.- Maximum discharge during year, 6,210 second-feet Feb. 8 (gage height, 7.60 feet); minimum, 7 second-feet Sept. 18 (gage height, 0.30 foot).
1938-45: Maximum discharge, 15,100 second-feet Jan. 21, 1943 (gage height, 11.87 feet), from rating curve extended above 4,300 second-feet; minimum, that of Sept. 18, 1945.

Remarks.- Records good. Many diversions above station for irrigation of about 4,000 acres in Applegate River Basin. About 10 second-feet is diverted through Wagner Gap to Bear Creek Basin for several months each year; Fowler-Keeler and Berryman ditches may divert 4.3 and 13.6 second-feet, respectively, around station.

Rating table, water year 1944-45 (gage height, in feet, and discharge, in second-feet)

0.3	7	1.4	105	3.5	1,100
.4	10	1.7	169	4.0	1,530
.6	17	2.0	255	4.6	2,170
.8	29	2.3	369	5.3	2,990
1.0	48	2.6	510	6.1	4,040
1.2	73	3.0	745		

Discharge, in second-feet, water year October 1944 to September 1945

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	16	88	365	159	553	378	521	1,190	845	126	35	15
2	17	73	280	157	980	361	495	1,330	778	114	34	13
3	16	372	223	150	866	348	470	1,330	712	100	37	12
4	16	656	203	143	674	332	441	1,240	680	98	37	15
5	15	290	217	155	1,470	317	427	1,130	680	98	38	17
6	15	190	229	177	1,120	313	422	1,060	644	100	41	20
7	15	190	223	298	901	298	475	958	598	95	40	19
8	17	164	209	395	3,980	294	626	908	565	91	38	17
9	18	280	190	344	2,500	283	548	852	526	84	37	16
10	20	290	174	395	1,540	283	500	852	500	82	35	16
11	21	233	164	413	1,300	336	475	738	455	91	38	17
12	22	187	155	348	1,080	378	451	838	432	96	36	17
13	24	155	143	554	2,270	387	422	1,160	404	91	34	15
14	31	139	137	656	2,700	373	413	1,080	378	84	25	9
15	31	128	130	752	1,680	357	422	1,020	344	80	22	9
16	29	122	124	576	1,280	340	521	1,280	317	76	22	8
17	26	116	120	485	1,070	404	565	1,150	298	78	20	8
18	22	113	120	432	915	395	668	1,040	276	72	15	7
19	22	109	179	382	778	378	873	965	249	65	16	12
20	20	103	395	336	693	505	1,140	880	229	59	15	19
21	20	102	365	301	626	680	1,220	810	217	56	15	21
22	22	102	328	280	582	656	1,030	764	212	55	13	25
23	23	126	309	262	538	668	915	745	201	53	12	32
24	22	164	258	245	495	592	1,000	745	185	49	11	32
25	22	145	223	233	465	576	1,000	732	179	47	10	28
26	21	162	201	223	436	543	859	797	159	46	11	26
27	21	212	187	215	422	500	804	838	150	40	12	28
28	20	209	195	203	395	470	831	831	141	38	11	29
29	20	209	195	201	-	455	915	929	134	38	12	27
30	25	328	182	215	-	455	1,020	1,040	130	37	20	28
31	82	-	164	276	-	505	-	958	-	36	17	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	711	82	15	22.9	1,410
November	5,757	656	73	192	11,420
December	6,587	395	120	212	13,070
Calendar year 1944	70,077	910	12	191	139,000
January	9,961	752	143	321	19,760
February	32,309	3,980	395	1,154	64,080
March	13,160	680	283	425	26,100
April	20,469	1,220	413	682	40,600
May	30,190	1,330	732	974	59,880
June	11,618	845	130	387	23,040
July	2,275	126	36	73.4	4,510
August	759	41	10	24.5	1,510
September	557	32	7	18.6	1,100
Water year 1944-45	134,353	3,980	7	368	266,500

Peak discharge.- Feb. 5 (11:30 a.m.) 1,910 sec.-ft.; Feb. 8 (11 a.m.) 6,210 sec.-ft.; Feb. 13 (12 m.) 3,350 sec.-ft.
Time basis: Pacific war time up to 2 a.m., Sept. 30, 1945; Pacific standard time thereafter. To convert war time to standard time, subtract 1 hour.

Applegate River near Wilderville, Oreg.

Location.- Staff gage, lat. 42°21', long. 123°24', in W½ sec. 15, T. 37 S., R. 6 W., 900 feet downstream from Jackson Creek and 4 miles southeast of Wilderville. Datum of gage is 949.54 feet above mean sea level, datum of 1929 (levels by Corps of Engineers, U. S. Army).
Drainage area.- 627 square miles.
Records available.- October 1938 to September 1945.
Extremes.- Maximum discharge during year, 8,740 second-feet Feb. 8 (gage height, 9.8 feet, from graph based on gage readings); minimum observed, 5 second-feet Aug. 18, 19. 1938-45: Maximum discharge observed, 22,200 second-feet Jan. 21, 1943 (gage height, 16.10 feet), from rating curve extended above 9,500 second-feet by logarithmic plotting; minimum observed, 3.0 second-feet Sept. 12-15, 18-25, 1939.
Remarks.- Records good except those for November to January, and those below 10 second-feet, which are fair. Gage read once daily Oct. 1-31, Apr. 1 to Sept. 30, twice daily Nov. 1 to Mar. 31. Many diversions above station for irrigation and mining. Two irrigation ditches on left bank divert about 17 second-feet around station.

Rating tables, water year 1944-45 (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Nov. 4 to Jan. 14)

Oct. 1 to Feb. 7				Feb. 8 to Sept. 30					
1.3	23	3.0	413	0.8	5	2.0	103	4.0	1,050
1.5	36	3.4	640	1.0	9	2.3	167	4.6	1,520
1.8	64	3.9	950	1.2	17	2.6	260	5.4	2,290
2.1	113	4.5	1,380	1.4	30	2.9	389	6.2	3,170
2.4	182	5.2	2,040	1.6	47	3.2	550	7.0	4,200
2.7	278	6.0	2,920	1.8	71	3.6	785	8.0	5,650

Discharge, in second-feet, water year October 1944 to September 1945

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	22	128	413	226	762	566	804	1,230	1,040	122	23	7
2	23	121	345	213	1,840	539	779	1,400	980	114	14	7
3	24	232	290	207	1,910	550	725	1,380	902	104	13	7
4	24	796	260	210	1,490	534	707	1,320	850	93	12	7
5	27	350	229	223	2,740	490	665	1,210	837	74	16	8
6	28	246	246	267	2,160	478	641	1,150	798	70	17	10
7	30	229	236	336	1,550	456	713	1,050	804	77	14	10
8	32	215	223	518	5,640	468	1,050	980	677	75	16	10
9	34	314	210	468	4,420	446	928	934	629	63	13	12
10	35	424	196	462	2,580	440	837	954	594	54	16	11
11	37	350	185	557	2,010	517	785	837	539	53	11	10
12	36	264	182	468	1,730	561	737	824	495	57	11	10
13	39	213	170	529	2,800	588	665	1,270	440	53	10	8
14	48	182	162	970	4,170	611	641	1,250	409	54	12	9
15	54	172	152	1,500	2,740	600	653	1,240	375	51	11	8
16	60	162	152	1,310	2,030	572	731	1,690	333	43	10	8
17	58	150	152	1,020	1,750	1,200	798	1,440	308	52	7	8
18	57	143	157	996	1,520	1,020	902	1,290	283	53	5	7
19	59	134	172	802	1,260	837	1,090	1,250	253	54	5	7
20	57	130	354	700	1,130	1,040	1,370	1,150	225	43	7	8
21	52	126	457	604	1,020	1,370	1,460	1,050	216	44	7	10
22	53	124	373	523	941	1,330	1,300	980	200	43	7	27
23	64	130	388	468	856	1,400	1,120	954	194	44	6	28
24	59	167	322	446	773	1,180	1,240	922	186	42	7	30
25	54	162	286	424	713	1,110	1,220	915	178	43	7	32
26	56	172	267	398	665	1,040	1,050	987	165	53	8	33
27	53	232	232	373	641	948	1,000	1,040	157	54	8	35
28	51	236	264	345	594	863	1,020	1,020	145	51	7	32
29	48	216	282	332	-	818	1,080	1,110	137	33	7	35
30	59	314	290	354	-	785	1,130	1,250	130	29	7	33
31	71	-	246	440	-	811	-	1,160	-	27	8	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	1,404	71	22	45.3	2,780
November	6,832	796	121	228	13,550
December	7,893	457	152	255	15,660
Calendar year 1944	95,018	1,520	4	260	188,500
January	16,689	1,500	207	538	33,100
February	52,435	5,640	594	1,873	104,000
March	24,168	1,400	440	780	47,940
April	27,841	1,460	641	928	55,220
May	35,237	1,690	824	1,137	69,890
June	13,479	1,040	130	449	26,740
July	1,860	122	27	60.0	3,690
August	322	23	5	10.4	639
September	467	35	7	15.6	926
Water year 1944-45	188,627	5,640	5	517	374,100

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

Illinois River at Kerby, Oreg.

Location.- Water-stage recorder, lat. 42°13', long. 123°39', in NW¼ sec. 4, T. 39 S., R. 8 W., 1 mile northwest of Kerby. Altitude of gage, 1,218 feet (from river-profile map).
Drainage area.- 367 square miles.
Records available.- March 1926 to September 1945.
Average discharge.- 19 years, 1,063 second-feet.
Extremes.- Maximum discharge during year, 21,500 second-feet Feb. 8 (gage height, 17.19 feet); minimum daily, 27 second-feet Sept. 4.
1926-45: Maximum discharge, 50,000 second-feet Feb. 20, 1927 (gage height, 19.6 feet, site and datum then in use), from rating curve extended above 26,000 second-feet; minimum, 13 second-feet Sept. 10-15, 1934.
Remarks.- Records good except those for periods of shifting control or no gage-height record, which are fair. Diversions above station for irrigation.

Rating tables, water year 1944-45, except periods of shifting control (gage height, in feet, and discharge, in second-feet)

Oct. 1 to Feb. 7						Feb. 8 to Sept. 30					
0.2	31	1.3	340	4.0	1,800	-0.5	29	1.2	440	6.0	3,850
.3	47	1.6	455	5.0	2,650	-.4	38	1.6	590	8.0	6,120
.5	90	2.0	625	6.0	3,620	-.2	63	2.0	755	10.0	8,850
.7	142	2.5	870	7.0	4,620	0.0	98	2.5	1,000	12.0	12,000
1.0	235	3.0	1,150	9.0	6,950	.2	141	3.0	1,280	14.0	15,500
						.5	217	4.0	1,980		
						.8	305	5.0	2,850		

Discharge, in second-feet, water year October 1944 to September 1945

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	36	383	2,580	1,200	3,470	850	1,770	1,090	678	140	43	h29
2	34	410	1,960	1,000	4,490	804	1,520	1,140	638	h137	42	28
3	34	3,090	1,470	950	5,360	782	1,350	1,120	610	130	41	28
4	34	2,840	1,190	950	3,520	750	1,240	1,060	586	125	40	27
5	35	1,900	1,030	1,200	7,760	714	1,180	967	590	125	38	h29
6	34	1,160	925	1,560	4,560	773	1,730	885	566	115	h38	33
7	34	1,110	850	2,080	3,620	827	2,320	809	534	115	39	32
8	34	988	700	1,940	16,000	915	3,730	764	506	105	38	31
9	36	2,580	h630	1,510	7,740	1,010	2,470	728	478	h98	38	h31
10	34	3,170	550	1,600	4,480	1,770	1,920	746	458	92	39	30
11	34	2,150	500	1,520	3,400	2,340	1,760	706	433	94	42	30
12	37	1,420	475	1,290	2,770	1,800	1,650	796	416	95	39	28
13	36	1,080	450	1,860	9,450	1,540	1,450	1,730	398	90	h34	29
14	36	880	425	2,070	8,430	1,640	1,310	2,160	384	85	33	29
15	36	750	410	3,820	4,680	1,850	1,270	1,800	366	78	33	30
16	37	652	410	3,500	3,370	2,020	1,340	2,160	323	h73	32	h29
17	37	598	407	2,520	2,980	3,970	1,340	2,060	302	70	32	29
18	37	548	411	2,370	2,730	2,990	1,380	1,700	284	68	32	29
19	37	507	625	1,590	2,230	2,210	1,470	1,430	269	66	31	29
20	36	471	1,560	1,580	1,870	4,270	1,590	1,220	254	64	h31	29
21	37	447	1,430	1,340	1,620	3,960	1,560	1,080	245	63	30	34
22	37	431	1,350	1,180	1,430	3,790	1,370	972	237	61	29	40
23	34	479	1,260	1,050	1,300	3,690	1,230	885	223	h60	28	41
24	33	634	1,190	955	1,190	2,660	1,220	818	212	57	28	h37
25	33	580	1,010	855	1,090	2,860	1,260	796	198	56	29	35
26	33	1,120	880	825	1,020	2,610	1,190	786	188	53	29	37
27	33	1,430	800	775	972	2,150	1,060	768	182	51	29	37
28	33	1,140	1,500	725	915	1,880	1,020	742	160	49	29	37
29	37	1,050	2,100	700	-	1,740	1,020	736	158	47	29	35
30	63	1,840	h1,900	810	-	1,700	1,040	764	146	h45	35	36
31	266	-	1,500	1,480	-	1,870	-	724	-	44	30	-

Month	Second-foot-days	Maxisum	Minimum	Mean	Runoff in acre-feet
October	1,348	266	33	43.5	2,670
November	35,838	3,170	383	1,195	71,080
December	32,468	2,560	407	1,047	64,400
Calendar year 1944	236,398	3,900	28	646	468,900
January	47,135	3,820	700	1,520	93,490
February	112,447	16,000	915	4,016	223,000
March	62,735	4,270	714	2,024	124,400
April	45,790	3,760	1,020	1,526	90,820
May	34,192	2,160	706	1,103	67,820
June	11,022	678	146	367	21,860
July	2,550	140	44	82.3	5,060
August	1,060	43	28	34.2	2,100
September	958	41	27	31.9	1,900
Water year 1944-45	387,543	16,000	27	1,062	768,600

Peak discharge.- Feb. 3 (6:30 a.m.) 6,330 sec.-ft.; Feb. 5 (11 a.m.) 10,100 sec.-ft.; Feb. 8 (10 a.m.) 21,500 sec.-ft.; Feb. 13 (5:30 p.m.) 13,200 sec.-ft.
h Computed from staff-gage reading.
Note.- No gage-height record except occasional gage readings Dec. 7-16, 22, 23, Dec. 27 to Jan. 5, July 1 to Sept. 30; discharge computed on basis of records for Applegate River near Copper. Shifting-control method used Oct. 1-30, Sept. 24.
Time basis: Pacific war time up to 2 a.m., Sept. 30, 1945; Pacific standard time thereafter. To convert war time to standard time, subtract 1 hour.

Springs in the Walla Walla River Basin, Oreg.-Wash.

Ground-water overflow through many springs on the alluvial fan of the Walla Walla River near Milton and Freewater, Oreg., amounts to about 50,000 acre-feet a year. During the irrigation season practically all the overflow is used to water crops on land not served by diversion from the river. A survey made in 1933 listed 57 springs or spring groups in the area, arranged in "inner," "intermediate," and "outer" zones concentric about the apex of the alluvial fan.[1]

The inner zone is 3 to 3½ miles downstream from Freewater and extends from the vicinity of Nicholas Spring, which is about half a mile east of the Walla Walla River at McCoy Bridge, to springs in the vicinity of Dugger Creek. Within this zone are fully three-fourths of the springs in the Walla Walla Basin. The intermediate and outer zones, each of which contains only a few springs, are about 2 miles and 4 miles, respectively, beyond the inner zone.

In order to bring about a more effective use of the available water supply through a better understanding of the relation between surface- and ground-water supplies in the basin, discharge measurements of each of the principal springs and measurements of ground-water levels in representative wells have been made and the results published periodically since 1932.

Discharge measurements, in second-feet, of springs in Walla Walla River Basin, Oreg.-Wash., during water year October 1944 to September 1945†

Date	Spring	Locality	Discharge (sec.-ft.)
Springs of the inner zone			
Feb. 16	Nicholas Spring, Oreg.	NE¼NE¼ sec. 24, T. 6 N., R. 35 E., 150 feet above confluence of spring channel and Walla Walla River.	1.28
May 22	....do	....do	1.63
Aug. 17	....do	....do	.52
Feb. 12	Big Spring Branch (west prong), Oreg.	SE¼NW¼ sec. 24, T. 6 N., R. 35 E., at Ballou residence, 75 feet above bridge on county road.	6.91
May 21	....do	....do	15.11
Aug. 17	....do	....do	3.72
Feb. 12	Big Spring Branch (east prong), Oreg.	NE¼SW¼ sec. 24, T. 6 N., R. 35 E., above flow line of small reservoir supplying two diversion pumps.	3.15
May 22	....do	....do	4.22
Aug. 17	....do	....do	1.88
Feb. 13	Engle Spring, Oreg.	NW¼SE¼ sec. 23, T. 6 N., R. 35 E., total flow at diversion dam.	3.16
May 22	....do	....do	3.86
Aug. 17	....do	....do	2.89
Feb. 13	Downing Spring, Oreg.	SE¼SW¼ sec. 23, T. 6 N., R. 35 E., at weir, 200 feet below spring orifice.	1.42
May 21	....do	....do	2.56
Aug. 17	....do	....do	.84
Feb. 12	Haun Spring, Oreg.	NW¼SE¼ sec. 23, T. 6 N., R. 35 E., at Haun farm, 50 feet above highway crossing.	1.31
May 21	....do	....do	2.01
Aug. 17	....do	....do	.92
Springs of the intermediate and outer zones			
Feb. 12	McEvoy Spring, Wash.	SE¼NE¼ sec. 10, T. 6 N., R. 35 E., at McEvoy farm, 200 feet above Walla Walla Valley Railway.	2.94
May 21	....do	....do	2.87
Aug. 17	....do	....do	2.62
Feb. 12	Lewis Spring, Oreg.	NW¼NW¼ sec. 23, T. 6 N., R. 35 E., below road crossing.	1.64
May 21	....do	....do	1.87
Aug. 17	....do	....do	1.84
Feb. 12	Unnamed spring, Wash.	NW¼NE¼ sec. 16, T. 6 N., R. 35 E., at a small diversion structure.	3.06
May 21	....do	....do	3.28
Aug. 17	....do	....do	2.06
Feb. 13	East Mud Creek (west prong), Oreg.	SW¼SW¼ sec. 22, T. 6 N., R. 35 E., at two weirs.	1.35
May 21	....do	....do	2.65
Aug. 18	....do	....do	1.88
Feb. 13	East Mud Creek (east prong), Oreg.	SE¼SW¼ sec. 22, T. 6 N., R. 35 E., in diversion ditch, 150 feet below diversion dam.	.61
May 21	....do	....do	1.61
Aug. 18	....do	....do	.77
Feb. 13	East Mud Creek (branch of), Oreg.	SW¼SW¼ sec. 16, T. 6 N., R. 35 E., near Lockwood dwelling.	4.13
May 21	....do	....do	5.26
Aug. 17	....do	....do	1.97
Feb. 13	South Mud Creek, Oreg.	SE¼NW¼ sec. 28, T. 6 N., R. 35 E., at Von der Ahe farm.	2.64
May 25	....do	....do	4.37
Aug. 18	....do	....do	1.50
Mar. 5	Johnson Creek, Oreg.	SE¼NW¼ sec. 29, T. 6 N., R. 35 E., at two weirs.	3.01
May 23	....do	....do	3.21
Aug. 17	....do	....do	.95
Feb. 12	Dugger Creek, Oreg.	NW¼NW¼ sec. 32, T. 6 N., R. 35 E., at two weirs.	7.47
May 23	....do	....do	9.17
Aug. 17	....do	....do	4.72
Feb. 12	Schwartz Spring Branch (south prong), Oreg.	SW¼SE¼ sec. 23, T. 6 N., R. 34 E., at weirs.	4.41

† Measurements by Umatilla County deputy watermaster.

[1] Piper, A. M., Robinson, T. W., and Thomas, H. E., Ground water in the Walla Walla Basin, Ore.-Wash: Supreme Court of the United States, October term 1935, State of Washington vs. State of Oregon, transcript of record, p. 132 A, October 14, 1935.

Discharge measurements, in second-feet, of springs in Walla Walla River Basin, Oreg.-Wash., during water year October 1944 to September 1945†--Continued

Springs of the intermediate and outer zones--Continued

Date	Spring	Locality	Discharge (sec.-ft.)
May 24	Schwartz Spring Branch (south prong), Oreg.	SW¼SE¼ sec. 23, T. 6 N., R. 34 E., at weirs....	10.10
Aug. 17	....do.....	....do.....	2.66
Feb. 12	Schwartz Spring Branch (north prong), Oreg.	NE¼SW¼ sec. 23, T. 6 N., R. 34 E., in ditch diverting from spring.	3.31
May 24	....do.....	....do.....	3.91
Aug. 17	....do.....	....do.....	3.90
Feb. 12	South Mud Creek, Oreg.....	SW¼SE¼ sec. 13, T. 6 N., R. 34 E., at Krumbaugh farm.	5.24
May 24	....do.....	....do.....	6.13
Aug. 18	....do.....	....do.....	5.15

† Measurements by Umatilla County deputy watermaster.

Measurements of stream flow in the Pacific slope basins in Oregon and lower Columbia River Basin made at points other than gaging stations are given in the following table:

Miscellaneous discharge measurements in Pacific slope basins in Oregon and lower Columbia River Basin during water year October 1944 to September 1945

Walla Walla River Basin, Wash.

Date	Stream	Tributary to or diverting from--	Locality	Discharge (sec.-ft.)
Oct. 10	Touchet River....	Walla Walla River..	Sec. 7, T. 9 N., R. 37 E., at road bridge 1/8 mile south of Bolles.	40.3
Dec. 6	....do.....	....do.....	....do.....	60.8
Jan. 24	....do.....	....do.....	....do.....	115
Apr. 30	....do.....	....do.....	....do.....	360
July 5	....do.....	....do.....	....do.....	38.5
Aug. 30	....do.....	....do.....	....do.....	24.2
Oct. 11	Wolf Creek.....	East Fork Touchet River.	SW¼ sec. 23, T. 9 N., R. 39 E., 500 feet below Robinson Creek, near Dayton.	19.0
Dec. 6	....do.....	....do.....	....do.....	25.4
Jan. 24	....do.....	....do.....	....do.....	30.7
Apr. 30	....do.....	....do.....	....do.....	119
July 6	....do.....	....do.....	....do.....	28.6
Aug. 30	....do.....	....do.....	....do.....	18.6
Oct. 11	South Fork Touchet River.	Touchet River.....	Sec. 31, T. 10 N., R. 39 E., just above mouth, near Dayton.	2.07
Dec. 6	....do.....	....do.....	....do.....	9.72
Jan. 24	....do.....	....do.....	....do.....	25.1
May 1	....do.....	....do.....	....do.....	131
July 6	....do.....	....do.....	....do.....	7.43
Aug. 31	....do.....	....do.....	....do.....	.78
Oct. 11	Patit Creek.....	....do.....	Sec. 30, T. 10 N., R. 39 E., 400 feet above mouth, at Dayton.	†.3
Dec. 6	....do.....	....do.....	....do.....	No flow
Jan. 25	....do.....	....do.....	....do.....	2.19
May 1	....do.....	....do.....	....do.....	19.8
July 5	....do.....	....do.....	....do.....	.21
Aug. 30	....do.....	....do.....	....do.....	†.03

† Estimated.

John Day River Basin, Oreg.

June 11	John Day River..	Columbia River.....	Riverside School, below Reynolds Creek, 6 miles southeast of Prairie City.	111
Aug. 20	....do.....	....do.....	....do.....	25.0
June 11	Irrigation diversion.	John Day River.....	Above Reynolds Creek, 6 miles southeast of Prairie City.	3.1
Aug. 20	....do.....	....do.....	....do.....	2.7

Deschutes River Basin, Oreg.

Sept. 7	Lost River.....	Deschutes River....	NW¼SW¼ sec. 27, T. 18 S., R. 11 E., 1,500 feet above Arnold Canal diversion.	†2.0

† Estimated.

Little White Salmon River Basin, Wash.

Jan. 30	Broughton Lumber Co. diversion.	Little White Salmon River.	SW¼ sec. 36, T. 4 N., R. 9 E., at Willard.	21.7
May 9	....do.....	....do.....	....do.....	21.5
June 25	....do.....	....do.....	....do.....	12.2
Aug. 2	....do.....	....do.....	....do.....	21.3
Sept.29	....do.....	....do.....	....do.....	23.4

Wind River Basin, Wash.

June 23	Little Wind River	Wind River.....	SW¼SW¼ sec. 22, T. 3 N., R. 8 E., just above mouth, near Carson.	7.51

Willamette River Basin, Oreg.

Nov. 8	Willamette River.	Columbia River.....	1⅛ miles below Wilsonville.....	11,310
July 12	Leakage through tunnel from Waldo Lake.	Black Creek.....	Outlet of unused tunnel from Klovdahl Bay.	8.2
Sept.18	....do.....	....do.....	....do.....	8.0
Aug. 28	Mill ditch.....	Middle Fork Willamette River.	Second Street Bridge, Springfield.	193
Oct. 29	Irrigation diversion.	McKenzie River.....	Intake, 2 miles southeast of Coburg..	28.3
Aug. 28	....do.....	....do.....	....do.....	55.3
Oct. 26	Long Tom River...	Willamette River...	Drop structure in rectified channel, station 570, 5 miles south of Monroe.	839
Nov. 1	....do.....	....do.....	....do.....	1,660
June 20	Rock Creek.....	Marys River.....	Highway crossing 4⅛ miles southeast of Philomath.	10.0
Dec. 27	Calapooya River..	Willamette River...	Mouth, below power canal at Albany...	183
June 8	....do.....	....do.....	....do.....	580
July 2	....do.....	....do.....	....do.....	356
24	....do.....	....do.....	....do.....	329
Aug. 29	....do.....	....do.....	....do.....	254
Mar. 21	South Yamhill River.	Yamhill River.....	Above Rock Creek, at Grande Ronde....	1,100
Apr. 25	....do.....	....do.....	....do.....	180
June 19	....do.....	....do.....	....do.....	37.7
Aug. 8	....do.....	....do.....	....do.....	7.7

Miscellaneous discharge measurements in Pacific slope basins in Oregon and lower Columbia River Basin during water year October 1944 to September 1945--Continued

Willamette River Basin, Oreg.--Continued

Date	Stream	Tributary to or diverting from--	Locality	Discharge (sec.-ft.)
Mar. 21	Rock Creek.....	South Yamhill River.	Mouth, at Grande Ronde.....	686
Apr. 25	....do.....	....do.....	....do.....	138
June 19	....do.....	....do.....	....do.....	20.1
Aug. 8	....do.....	....do.....	....do.....	11.2
Mar. 21	Cosper Creek.....	....do.....	Mouth, 1½ miles east of Grande Ronde.	131
Apr. 25	....do.....	....do.....	....do.....	21.6
June 19	....do.....	....do.....	....do.....	4.6
Aug. 8	....do.....	....do.....	....do.....	.8
Mar. 21	Turner Creek.....	North Yamhill River.	Mouth, 4 miles northwest of Yamhill..	205
Apr. 26	....do.....	....do.....	....do.....	26.0
June 21	....do.....	....do.....	....do.....	6.3
July 22	....do.....	....do.....	....do.....	3.3
Sept.12	....do.....	....do.....	....do.....	1.2
July 11	Mill Creek.....	Pudding River.....	Mouth, at Aurora.....	6.1
Sept.13	....do.....	....do.....	....do.....	8.0

Lewis River Basin, Wash.

Sept.11	Speelyai Creek...	Lewis River.....	NW¼SE¼ sec. 7, T. 6 N., R. 4 E., 20 feet below first tributary from right, near Yale.	15.3
11	....do.....	....do.....	NW¼NW¼ sec. 17, T. 6 N., R. 4 E., 300 feet above county road bridge, near Yale.	15.5

Kalama River Basin, Wash.

Aug. 20	Kalama River.....	Columbia River.....	Sec. 34, T. 7 N., R. 1 W., above hatchery intake, near Kalama.	230
Sept.12	....do.....	....do.....	....do.....	271

Cowlitz River Basin, Wash.

Sept.13	Hall Creek.....	Cowlitz River.....	NW¼ sec. 33, T. 13 N., R. 9 E., 600 feet above mouth, near Packwood.	9.71
13	Johnson Creek....	....do.....	SE¼ sec. 32, T. 13 N., R. 9 E., at highway crossing, near Packwood.	30.3

Rogue River Basin, Oreg.

Oct. 14	Long Gulch.....	East Fork Illinois River.	NW¼SE¼ sec. 10, T. 41 S., R. 8 W., at Basye Ranch, 2½ miles south of Takilma.	0
Apr. 13	....do.....	....do.....	....do.....	6.24
June 13	....do.....	....do.....	....do.....	.87
Aug. 8	....do.....	....do.....	....do.....	†.20
Oct. 17	Wood Creek.....	West Fork Illinois River.	SE¼NW¼ sec. 29, T. 40 S., R. 8 W., 2 miles east of O'Brien.	†.10
Mar. 6	....do.....	....do.....	....do.....	7.95
Apr. 13	....do.....	....do.....	....do.....	12.4
May 15	....do.....	....do.....	....do.....	3.59
June 13	....do.....	....do.....	....do.....	2.61
Aug. 8	....do.....	....do.....	....do.....	†.60
Oct. 14	Crooks Creek.....	Deer Creek.....	Sec. 9, T. 38 S., R. 7 W., 4 miles east of Selma.	†.07
Nov. 20	....do.....	....do.....	....do.....	2.00
Feb. 5	....do.....	....do.....	....do.....	4.95
Mar. 7	....do.....	....do.....	....do.....	6.91
Apr. 16	....do.....	....do.....	....do.....	8.69
June 14	....do.....	....do.....	....do.....	2.18
Aug. 10	....do.....	....do.....	....do.....	†.50
Oct. 9	Thompson Creek...	....do.....	Near south line of sec. 21, T. 38 S., R. 7 W., at road bridge 5 miles southeast of Selma.	.21
Nov. 20	....do.....	....do.....	....do.....	5.34
Jan. 26	....do.....	....do.....	....do.....	12.9
Mar. 7	....do.....	....do.....	....do.....	8.69
Apr. 16	....do.....	....do.....	....do.....	19.9
June 14	....do.....	....do.....	....do.....	3.67
Aug. 9	....do.....	....do.....	....do.....	†.20
Oct. 9	McMullin Creek...	....do.....	Sec. 30, T. 38 S., R. 7 W., 4 miles southeast of Selma.	0
Nov. 20	....do.....	....do.....	....do.....	1.49
Jan. 27	....do.....	....do.....	....do.....	7.96
Mar. 7	....do.....	....do.....	....do.....	9.38
Apr. 16	....do.....	....do.....	....do.....	14.9
June 14	....do.....	....do.....	....do.....	2.63
Aug. 9	....do.....	....do.....	....do.....	†.20
Oct. 14	Draper Creek.....	....do.....	NW¼ sec. 12, T. 38 S., R. 5 W., 1 mile east of Selma.	†.04
Nov. 20	....do.....	....do.....	....do.....	1.63
Mar. 7	....do.....	....do.....	....do.....	4.42
Apr. 16	....do.....	....do.....	....do.....	7.52
June 14	....do.....	....do.....	....do.....	1.25
Aug. 10	....do.....	....do.....	....do.....	†.20
Oct. 3	Clear Creek.....	....do.....	SE¼SW¼ sec. 2, T. 38 S., R. 8 W., at Selma.	†.02
Nov. 18	....do.....	....do.....	....do.....	11.8
Jan. 17	....do.....	....do.....	....do.....	72.6
Mar. 7	....do.....	....do.....	....do.....	14.5
Apr. 16	....do.....	....do.....	....do.....	45.7
June 14	....do.....	....do.....	....do.....	3.73
Aug. 8	....do.....	....do.....	....do.....	0

† Estimated.

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