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SURFACE WATER SUPPLY *of the* UNITED STATES 1943

PART 14

PACIFIC SLOPE BASINS IN OREGON AND LOWER COLUMBIA RIVER BASIN

Prepared under the direction of
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In cooperation with the States of
OREGON AND WASHINGTON
and other agencies

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SURFACE WATER SUPPLY OF PACIFIC SLOPE BASINS IN OREGON AND LOWER COLUMBIA RIVER BASIN, 1943

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, 1943. The work was begun in 1888 in connection with special studies relating to irrigation. Measurements of the flow of streams and of the stage and contents of lakes and reservoirs have been made at about 9,670 gaging stations in the 48 States and also at many in the Territories of Alaska and Hawaii. In July 1943, 5,130 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, not including water in bank storage unless so indicated.

EXPLANATION OF DATA

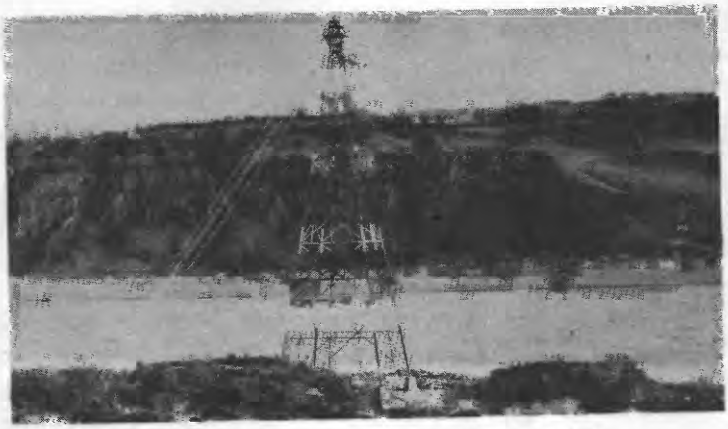
The base data collected at gaging stations consist of records of stage, measurements of discharge, and general information used to supplement the records of stage and discharge measurements in determining the daily flow. The records of stage are obtained either from direct readings on a nonrecording 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 these rating tables gives the daily mean discharge, from which the monthly and the yearly mean discharge are computed. If the stage-discharge relation is subject to change because of frequent or continual change in the physical features that form the control, the daily mean discharge is determined by the "shifting-control method," in which correction factors based on individual discharge measurements and notes by engineers and observers are used in applying the gage heights to the rating tables. At times the stage-discharge relation for a station may be temporarily changed by the presence of aquatic growth or debris on the control. For such times the daily mean discharge is computed by what is essentially the "shifting-control" method, described above.

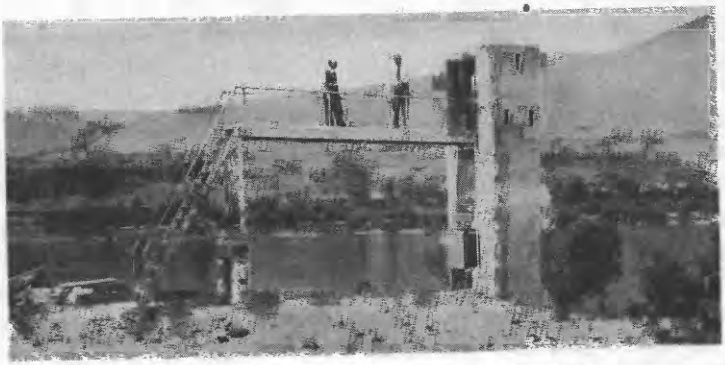
At some gaging stations the stage-discharge relation is affected by backwater from reservoirs, tributary streams, or other sources, which necessitates the use of the "slope method," in which the slope or fall in a reach of the stream is a factor in the determination of discharge. Information requisite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

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

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



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.

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

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

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

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

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. Records of daily discharge prior to February 9, 1942, were computed on the basis of standard time. Records subsequent to that date have been computed on the basis of war time. To convert war time to standard time, subtract 1 hour.

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 of 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 slope and eastern Gulf of Mexico basins (James River to Mississippi River).
3. Ohio River Basin.
4. St. Lawrence River Basin.
5. Hudson Bay and upper Mississippi River Basins.
6. Missouri River Basin.
7. Lower Mississippi River Basin.
8. Western Gulf of Mexico basins.

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

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

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

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

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

East of the Mississippi River:
Albany, N. Y., 528 Federal Building.
Asheville, N. C., 220 Post Office Building.
Atlanta, Ga., 3 North Rhodes Center NW.
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., 242 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., 309 Mineral Industries Building.
New Philadelphia, Ohio, Muskingum Watershed Conservancy District Building.
Ocala, Fla., 302 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.
Williamsburg, Ky., Kentucky Highway Building.

West of the Mississippi River:
Albuquerque, N. Mex., 723 North Second Street.
Austin, Tex., 302 West Fifteenth Street.
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., 1404 Statehouse.
Los Angeles, Calif., 429-F United States Post Office and Courthouse.
Oklahoma City, Okla., 535 Capital Building.
Portland, Oreg., 606 Post Office Building.
Rolla, Mo., Missouri Geological Survey Building, Missouri School of Mines and Metallurgy.
St. Louis, Mo., 1002 New Federal Building.
Salt Lake City, Utah, 303 Federal Building.
San Francisco, Calif., 625 Market Street Building.
Santa Fe, N. Mex., 204 United States Courthouse.
Tacoma, Wash., 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.

PUBLICATIONS

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

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

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

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

Papers on surface water supply containing records from 1899 to date, grouped by years and drainage basins, are listed by number on page 8. The data for any particular station will, in general, be found in the reports covering the years during which the station was maintained. For example, the data for 1910 to 1920 for any station in the area covered by part 3 are published in Water-Supply Papers 283, 303, 323, 353, 403, 433, 453, 473, 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 a summary of yearly discharge at gaging stations in the area covered by that report. Gaging stations at which 10 or more complete years of record have been collected are represented. These summaries are available also as separate reprints.

Numbers of water-supply papers containing results of stream measurements, 1899-1943

(For basins included see p. 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	c36, 37	37	37	d37, 38	38, e39	38, f39	38	38	38
1900 g...	47, h48	48	48, 149	49	49	49, j50	50	50	50	51	51	51	51	51
1901.....	65, 75	65, 75	65, 75	65, 75	k65, 66, 75	66, 75	k65, 66, 75	66, 75	66, 75	66, 75	66, 75	66, 75	66, 75	66, 75
1902.....	82	b82, 83	83	m82, 83	k83, 85	84	k83, 84	84	85	85	85	85	85	85
1903.....	97	b97, 98	98	97	k98, 99, n100	99	k98, 99	99	100	100	100	100	100	100
1904.....	o124, p125, q126	q126, 127	128	129	k128, 130	130, r131	k128, 131	132	133	133, s134	134	135	135	135
1905.....	o165, p166, q167	q167, 168	169	170	171	172	k169, 173	174	175, t177	176, s177	177	178	178	u177, 178
1906.....	o201, p202, q203	q203, 204	205	206	207	208	k205, 209	210	211, t213	212, s213	213	214	214	214
1907-8...	241	242	243	244	245	246	247	248	249	250, s251	251	252	252	252
1909.....	261	262	263	264	265	266	267	268	269	270, s271	271	272	272	272
1910.....	281	282	283	284	285	286	287	288	289	290	291	292	292	292
1911.....	301	302	303	304	305	306	307	308	309	310	311	312	312	312
1912.....	321	322	323	324	325	326	327	328	329	330	331	332-A	332-B	332-C
1913.....	351	352	353	354	355	356	357	358	359	360	361	362-A	362-B	362-C
1914.....	381	382	383	384	385	386	387	388	389	390	391	392	393	394
1915.....	401	402	403	404	405	406	407	408	409	410	411	412	413	414
1916.....	431	432	433	434	435	436	437	438	439	440	441	442	443	444
1917.....	451	452	453	454	455	456	457	458	459	460	461	462	463	464
1918.....	471	472	473	474	475	476	477	478	479	480	481	482	483	484
1919-20..	501	502	503	504	505	506	507	508	509	510	511	512	513	514
1921.....	521	522	523	524	525	526	527	528	529	530	531	532	533	534
1922.....	541	542	543	544	545	546	547	548	549	550	551	552	553	554
1923.....	561	562	563	564	565	566	567	568	569	570	571	572	573	574
1924.....	581	582	583	584	585	586	587	588	589	590	591	592	593	594
1925.....	601	602	603	604	605	606	607	608	609	610	611	612	613	614
1926.....	621	622	623	624	625	626	627	628	629	630	631	632	633	634
1927.....	641	642	643	644	645	646	647	648	649	650	651	652	653	654
1928.....	661	662	663	664	665	666	667	668	669	670	671	672	673	674
1929.....	681	682	683	684	685	686	687	688	689	690	691	692	693	694
1930.....	696	697	698	699	700	701	702	703	704	705	706	707	708	709
1931.....	711	712	713	714	715	716	717	718	719	720	721	722	723	724
1932.....	726	727	728	729	730	731	732	733	734	735	736	737	738	739
1933.....	741	742	743	744	745	746	747	748	749	750	751	752	753	754
1934.....	756	757	758	759	760	761	762	763	764	765	766	767	768	769
1935.....	781	782	783	784	785	786	787	788	789	790	791	792	793	794
1936.....	801	802	803	804	805	806	807	808	809	810	811	812	813	814
1937.....	821	822	823	824	825	826	827	828	829	830	831	832	833	834
1938.....	851	852	853	854	855	856	857	858	859	860	861	862	863	864
1939.....	871	872	873	874	875	876	877	878	879	880	881	882	883	884
1940.....	891	892	893	894	895	896	897	898	899	900	901	902	903	904
1941.....	921	922	923	924	925	926	927	928	929	930	931	932	933	934
1942.....	951	952	953	954	955	956	957	958	959	960	961	962	963	964
1943.....	971	972	973	974	975	976	977	978	979	980	981	982	983	984

a Rating tables and index to Water-Supply Papers 35-39 contained in Water-Supply Paper 39. Tables of monthly discharge for 1899 in 21st Annual Report, part 4.
b James River only.
c Gallatin River.
d Green and Gunnison Rivers and Colorado River above Gunnison River.
e Mojave River only.
f Kings and Kern Rivers and south Pacific slope basins.
g Rating tables and index to Water-Supply Papers 47-52 and data on precipitation, wells, and irrigation in California and Utah contained in Water-Supply Paper 52. 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.

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

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

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

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

State reports containing compilations of records of discharge

State	Period	Report	Issued by
Alabama.....	1895-1915	Bull. 17, Water powers of Alabama.....	Geological Survey of Alabama.
Arkansas....	1857-1928	Stream-gaging Rept. 1.....	Arkansas Geological Survey.
Colorado....	1881-1935	Water resources of Colorado, Appendix 2, Data on stream-gaging stations of Colorado.[1]	State Planning Commission, Water Conservation Board, State engineer.
Do.....	1881-1938	Water resources of Colorado, Appendix 3, vols. 1 and 2, Stream-flow data of Colorado.	Do.
Connecticut.	1900-1927	Bull. 44, Water resources of Connecticut.	State Geological and Natural History Survey.
Do.....	1912-33	5th biennial report[2].....	Connecticut State Water Commission.
Georgia.....	1895-1906	Bull. 16, Water powers of Georgia.....	Geological Survey of Georgia.
Do.....	1907-19	Bull. 38, Water powers of Georgia.....	Do.
Illinois....	1908-11	Water resources of Illinois.....	Rivers and Lakes Commission.
Do.....	1900-1934	Stream-flow data of Illinois.....	Division of Waterways.

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

State reports containing compilations of records of discharge--Continued

State	Period	Report	Issued by
Indiana.....	1923-27	Pub. 72, Surface water supply of Indiana.	Department of Conservation.
Do.....	1927-30	Pub. 112, Surface water supply of Indiana.	Do.
Iowa.....	1873-1932	Stream-flow records of Iowa.....	Iowa State Planning Board.
Do.....	1873-1940	Water-Supply Bull. 1, Summaries of yearly and flood flow relating to Iowa streams.	Iowa Geological Survey.
Do.....	1941-42	Water-Supply Bull. 2, Surface water resources of Iowa.	Do.
Kansas.....	1895-1919	Surface waters of Kansas.....	Kansas Water Commission.
Do.....	1919-24	....do.....	Do.
Do.....	1924-28	Report of Division of Water Resources...	Kansas State Board of Agriculture.
Do.....	1928-35	Stream-flow data of Kansas.....	Do.
Do.....	1935-39	....do.....	Do.
Kentucky....	1910-20	Surface waters of Kentucky.....	Kentucky Geological Survey.
Do.....	1939-41	....do.....	Do.
Louisiana...	1903-38	Geol. Bull. 16, Surface water supply of Louisiana.	Department of Conservation.
Maine.....	1887-1920	1st annual report[2].....	Maine Water Power Commission.
Maryland....	1929-37	Flow data and draft storage curves for major streams in Maryland.	State Planning Commission and Water Resources Commission.
Minnesota...	1909-12	Water-resources investigation of Minnesota.	State Drainage Commission.
Missouri....	1857-1926	Vol. 20, 2d series, Water resources of Missouri.	Missouri Geological Survey and Water Resources.
Do.....	1927-39	Vol. 26, 2d series, Surface waters of Missouri.	Do.
Montana.....	1889-1911	5th biennial report.....	Office of the State engineer.
Do.....	1881-1938	Special Rept. 10, vols. 1-4, Water resources of Montana.	Montana Agricultural Experiment Station.
Nebraska....	1894-1914	1st hydrographic report.....	Bureau of Water Power, Irrigation, and Drainage.
Do.....	1914-28	2d hydrographic report.....	Do.
New Jersey..	1891-1928	Bull. 33, Surface water supply of New Jersey.	Department of Conservation and Development.
Do.....	1928-34	Special Rept. 5, Surface water supply of New Jersey.	State Water Policy Commission.
New Mexico..	1888-1925	Surface water supply of New Mexico.....	Office of the State Engineer.
North Carolina.	1889-1923	Bull. 34, Discharge records of North Carolina streams.[3]	Department of Conservation and Development.
Do.....	1889-1936	Bull. 39, Discharge records of North Carolina streams.[4]	Do.
North Dakota	1919-21	Report to Governor of North Dakota on flood control.	State chief engineer.
Do.....	1882-1938	Surface water in North Dakota.....	State Planning Board.
Ohio.....	1898-1921	Bull. 73, Ohio stream flow.....	Engineering Experiment Station, Ohio State University.
Do.....	1902-39	Bull. 200, Compilation of stream-flow records of Ohio.	Department of Agriculture, Division of Conservation and Natural Resources.
Do.....	1898-1939	Bull. 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.....	1920-36	Bull. 40, Surface waters of Tennessee.[3]	Do.
Utah.....	1889-1905	5th biennial report, State engineer.....	Office of the State Engineer.
Do.....	1906-10	7th biennial report, State engineer.....	Do.
Do.....	1911-16	10th biennial report, State engineer....	Do.
Virginia....	1895-1927	Bull. 31, Water resources of Virginia...	Conservation Commission.
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, Maine, Missouri, Montana, Nebraska, Nevada, New Mexico, New York (also New York City Board of Water Supply and city of Rochester), North Dakota, Oregon, Pennsylvania, Rhode Island, Washington, and Wyoming.

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

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

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 1942 to September 1943 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 operation of irrigation projects.

Records of discharge collected by agencies other than the Geological Survey

Stream	Location	Period	Collected by
Badger Creek.....	NE¼NW¼ sec. 6, T. 4 S., R. 13 E., 1 mile west of Tygh Valley, Oreg.	1941-43	Bureau of Reclamation.
Beaver Creek.....	NE¼ sec. 26, T. 16 S., R. 23 E., ⅝ mile above Congleton Ranch and 3 miles northeast of Paulina, Oreg.	1942-43	Do.
Beaver Creek, North Fork..	SE¼ sec. 21, T. 16 S., R. 25 E., 1¼ miles south of Powell Ranch and 13 miles northeast of Paulina, Oreg.	1942-43	Do.
Big Butte Creek, North Fork.	SW¼ sec. 2, T. 35 S., R. 2 E., 1 mile north of Butte Falls, Oreg.	1928-43	Oregon State engineer.
Big Butte Springs.....	Sec. 17, T. 35 S., R. 3 E., 6 miles east of Butte Falls, Oreg.	1930-43	Do.
Big Draw Creek.....	SW¼ sec. 33, T. 37 S., R. 4 E., or sec. 4, T. 38 S., R. 4 E., at Ashland to Fish Lake road bridge.	1942-43	Do.
Big Marsh Creek.....	NE¼ sec. 20, T. 24 S., R. 7 E., at Hoey ranch, near Crescent, Oreg.	1924, 1928-43*	Do.
Brown Creek.....	SW¼SW¼ sec. 29, T. 21 S., R. S E., near Lapine, Oreg.	1938-43*	Do.
Butter Creek.....	SE¼ sec. 22, T. 2 N., R. 27 E., at Foley Bridge, 15 miles southwest of Hermiston, Oreg.	1933-43	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
Butter Creek	SE¼ sec. 22, T. 1 N., R. 28 E., 1 mile upstream from Vey Ranch, Oreg.	1921-43	Oregon State engineer.
Camas Creek	SE¼ sec. 4, T. 5 S., R. 32 E., 200 feet upstream from Cable Creek, near Ukiah, Oreg.	1932-43*	Do.
Charlton Creek	Sec. 1, T. 21 S., R. 7 E., near Lapine, Oreg.	1924, 1938-43	Do.
Clear Creek	SE¼SW¼ sec. 2, T. 38 S., R. 8 W.	1941-43	Do.
Do	SE¼SE¼ sec. 32, T. 4 S., R. 9 E.	1942-43	Bureau of Reclamation.
Columbia River	Bonneville, Oreg.	1939-43	Corps of Engineers, U. S. Army.
Crooked River, North Fork.	SW¼ sec. 21, T. 14 S., R. 22 E., 3/4 mile upstream from Deep Creek and 15 miles northeast of Paulina, Oreg.	1941-43	Bureau of Reclamation.
Cultus Creek	Sec. 19, T. 20 S., R. 8 E., upstream from Crane Prairie, near Lapine, Oreg.	1938-43*	Oregon State engineer.
Davis Creek	NE¼NE¼ sec. 9, T. 22 S., R. 8 E., near Lapine, Oreg.	1924 1938-43	Do.
Dead Indian Creek	SW¼ sec. 15, T. 38 S., R. 4 E., at Dead Indian Road bridge, about 12 miles east of Ashland, Oreg.	1930-31, 1942-43*	Do.
Deer Creek	Sec. 36, T. 20 S., R. 7 E., near Lapine, Oreg.	1938-43*	Do.
Do	SW¼NE¼ sec. 18, T. 38 S., R. 6 W., below confluence of North and South Forks.	1941-43	Do.
Deschutes River	NE¼ sec. 14, T. 15 S., R. 12 E., 1,500 feet upstream from dam at Cline Falls, Oreg.	1928-43*	Do.
Do	NW¼NW¼ sec. 28, T. 21 S., R. 8 E., below Sheep Springs, near Lapine, Oreg.	1938-43	Do.
Evans Creek	NE¼ sec. 34, T. 34 S., R. 3 W., at Bybee Springs, near Wimer, Oreg.	1940-43*	Do.
Do	Sec. 20, T. 34 S., R. 2 W., 3 miles upstream from West Fork, near Bybee Springs.	1941-43	Do.
Fish Lake Dam, tunnel at	SW¼ sec. 3, T. 37 S., R. 4 E., 18 miles east of Lake Creek, Oreg.	1929-43	Oregon State engineer.
Grave Creek	NW¼SW¼ sec. 5, T. 34 S., R. 4 W., at Pease Bridge, near Grants Pass, Oreg.	1940-43	Do.
Do	NW¼SW¼ sec. 7, T. 34 S., R. 5 W., 1½ miles west of Placer, Oreg.	1929-30, 1932-43*	Do.
Illinois River, East Fork.	NW¼NE¼ sec. 15, T. 41 S., R. 8 W., 3 miles south of Takilma, Oreg.	1926-32, 1940-43	Do.
Illinois River, West Fork.	NE¼SW¼ sec. 26, T. 40 S., R. 9 W., 3 miles south of O'Brien, Oreg.	1930, 1943	Do.
Jumpoff Joe Creek	SW¼ sec. 32, T. 34 S., R. 5 W., 7 miles northwest of Merlin, Oreg.	1929-43*	Do.
Little Butte Creek	SE¼ sec. 19, T. 36 S., R. 2 E., at Lake Creek, Oreg.	1922-24, 1927-43	Do.
Little Butte Creek, North Fork.	Sec. 21, T. 36 S., R. 2 E., above Rogue River Valley Canal intake, near Lake Creek, Oreg.	1931-43*	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.	1931-43*	Do.
Little Walla Walla River	George St., in Milton, Oreg.	1916, 1932-43	Do.
Long Gulch	SW¼SE¼ sec. 10, T. 41 S., R. 8 W., near Basye Ranch, 2½ miles south of Takilma, Oreg.	1940-43	Do.
Ochoco Creek	NE¼ sec. 6, T. 15 S., R. 17 E., below Ochoco Reservoir, 6 miles east of Prineville, Oreg.	1919-43	Do.
Ochoco Reservoir	SW¼ sec. 5, T. 15 S., R. 17 E., 6 miles east of Prineville, Oreg.	1918-43	Do.
Ochoco Springs	NE¼ sec. 6, T. 15 S., R. 17 E., 6 miles east of Prineville, Oreg.	1920-43	Do.
Rancheria Creek	SE¼ sec. 17, T. 35 S., R. 3 E., 10 miles northeast of Lake Creek, Oreg.	1935-43	Do.
Rough and Ready Creek	SE¼NE¼ sec. 15, T. 40 S., R. 9 W., 3 miles west of O'Brien, Oreg.	1940-43	Do.
Salt Creek	SE¼ sec. 30, T. 22 S., R. 6 E., at Gold Lake, Oreg.	1939-43	Do.
Sucker Creek	SW¼ sec. 30, T. 39 S., R. 6 W., below Grayback Creek, 10 miles southeast of Kerby, Oreg.	1940-43	Do.
Umatilla River, North Fork	NW¼ sec. 22, T. 3 N., R. 37 E., 10 miles east of Gibbon, Oreg.	1939-43*	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

Streams	Location	Period	Collected by
White River.....	NE¼ sec. 11, T. 5 S., R. 10 E., 500 feet downstream from Crane Creek and about 1 mile east of abandoned Keep sawmill site, Oreg.	1941-43	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 United States Department of the Interior) are contained in bulletins published by that officer. (See p. 10, "State reports containing compilations of records of discharge.") The other records listed in this table have not been published.
The Soil Conservation Service of the United States Department of Agriculture collected records of runoff from four areas of less than 22 acres each near Newberg, Oreg., during the period 1938 to June 30, 1943, and obtained records for Hinton and Rhea Creeks near Heppner, Oreg., during the period March to September 1943. These records are available in the files of the Soil Conservation Service.

COOPERATION

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

Oregon: Stage engineer, Charles E. Stricklin; Umatilla County Court; and cities of McMinnville and Portland.

Washington: Department of Conservation and Development, Ed Davis, director, and Charles J. Bartholet, supervisor of hydraulics; and Columbia and Walla Walla Counties.

Financial assistance was furnished by the Corps of Engineers, U. S. Army, for the operation of 32 gaging stations in Oregon and 4 in Washington.

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

Oregon: Counties of Crook, Deschutes, Jackson, Jefferson, Josephine, Klamath, and Umatilla; cities of Eugene and Grants Pass; The California Oregon Power Co., Pacific Power & Light Co., Portland General Electric Co., and West Coast Power 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. Pauleen, assistant chief hydraulic engineer, and Rudolph G. Kasel, chief of the division of surface water. The data for the stations in the two States were collected and prepared for publication under supervision of district engineers as followe: 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 D. L. Milliken, assistant engineer, section of reports.

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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 1943. 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.- 65 years, 195,700 second-feet.
Extremes.- Maximum discharge during year, 546,000 second-feet June 21 (elevation, 143.12 feet); minimum, 72,900 second-feet Jan. 23 (elevation, 128.80 feet).
1858-1943: 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 Columbia River Reservoir above Grand Coulee Dam during year, the total increase in contents during year ending Sept. 30, 1943, being 266,400 acre-feet.
Cooperation.- Recorder inspected and staff gage read twice daily by Corps of Engineers, U. S. Army.

Rating table, water year 1942-43 (elevation, in feet, and discharge, in second-feet)

129.0	77,300	131	126,000	134	212,000	138	354,000
129.5	88,800	132	153,000	135	247,000	140	427,000
130	101,000	133	181,000	136	282,000	143	541,000

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	86,400	84,100	104,000	141,000	96,800	123,000	234,000	371,000	486,000	495,000	273,000	118,000
2	85,900	85,500	106,000	143,000	96,800	122,000	248,000	374,000	501,000	497,000	266,000	118,000
3	85,000	85,200	106,000	146,000	94,800	122,000	260,000	383,000	505,000	495,000	259,000	121,000
4	83,900	90,700	106,000	145,000	97,800	122,000	264,000	380,000	500,000	492,000	249,000	121,000
5	83,000	89,000	106,000	138,000	110,000	119,000	270,000	382,000	484,000	493,000	242,000	120,000
6	82,000	90,000	102,000	128,000	109,000	116,000	269,000	382,000	462,000	488,000	235,000	118,000
7	81,300	86,400	96,200	120,000	115,000	f113,000	263,000	385,000	446,000	476,000	230,000	120,000
8	80,600	83,900	92,600	114,000	121,000	f111,000	263,000	380,000	442,000	469,000	224,000	110,000
9	78,600	83,900	90,700	108,000	114,000	h108,000	273,000	370,000	450,000	465,000	217,000	106,000
10	78,800	82,700	90,200	104,000	107,000	h106,000	282,000	363,000	460,000	459,000	212,000	110,000
11	81,800	81,600	90,700	99,800	111,000	h106,000	284,000	355,000	472,000	f455,000	207,000	108,000
12	85,700	81,300	90,000	95,800	121,000	f108,000	278,000	346,000	484,000	f444,000	202,000	104,000
13	86,600	85,200	90,500	91,700	121,000	110,000	275,000	339,000	486,000	434,000	197,000	102,000
14	84,600	84,600	92,400	91,200	122,000	113,000	283,000	326,000	476,000	424,000	193,000	100,000
15	86,400	81,800	100,000	92,200	124,000	116,000	309,000	319,000	473,000	416,000	189,000	97,000
16	86,200	81,300	104,000	95,300	123,000	118,000	342,000	314,000	475,000	400,000	185,000	96,800
17	85,900	81,300	106,000	102,000	121,000	120,000	370,000	306,000	465,000	385,000	180,000	f97,200
18	84,600	86,600	107,000	107,000	120,000	118,000	391,000	295,000	464,000	376,000	174,000	97,800
19	83,000	85,900	105,000	93,100	118,000	118,000	403,000	f288,000	477,000	363,000	168,000	f96,000
20	82,800	83,900	103,000	92,200	118,000	117,000	404,000	281,000	510,000	353,000	158,000	f90,700
21	82,000	82,300	99,200	89,300	118,000	113,000	419,000	279,000	541,000	348,000	152,000	87,400
22	83,000	f81,800	96,800	87,400	122,000	111,000	434,000	283,000	539,000	335,000	149,000	88,800
23	82,300	h81,800	96,200	f76,400	128,000	111,000	439,000	291,000	534,000	321,000	149,000	89,800
24	81,600	h86,400	97,200	f79,300	132,000	109,000	427,000	305,000	528,000	313,000	146,000	92,200
25	81,800	h88,800	101,000	f106,000	132,000	111,000	416,000	343,000	508,000	f312,000	141,000	92,600
26	81,800	h86,400	104,000	f134,000	132,000	113,000	406,000	f368,000	501,000	308,000	135,000	91,700
27	81,100	h111,000	105,000	f127,000	128,000	123,000	397,000	f392,000	494,000	302,000	128,000	89,300
28	81,300	h108,000	115,000	123,000	126,000	152,000	390,000	422,000	491,000	299,000	126,000	86,400
29	80,900	f103,000	118,000	117,000	-	186,000	381,000	443,000	490,000	294,000	125,000	84,100
30	80,600	107,000	121,000	106,000	-	205,000	374,000	468,000	490,000	286,000	125,000	81,800
31	82,700	-	126,000	100,000	-	219,000	-	479,000	-	279,000	122,000	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff	
						Inches	Acre-feet
October	2,572,200	86,600	78,600	82,970	0.350	0.40	5,102,000
November	2,631,400	111,000	81,300	87,710	.370	.41	5,219,000
December	3,167,700	126,000	90,000	102,200	.431	.50	6,283,000
Calendar year 1942	60,983,400	428,000	78,600	167,100	.705	9.55	121,000,000
January	3,392,700	146,000	76,400	109,400	.462	.53	6,729,000
February	3,279,200	132,000	94,800	117,100	.494	.51	6,504,000
March	3,859,000	219,000	106,000	124,500	.525	.61	7,654,000
April	10,048,000	439,000	234,000	334,900	1.41	1.58	19,930,000
May	11,012,000	479,000	279,000	355,200	1.50	1.73	21,840,000
June	14,634,000	541,000	442,000	487,800	2.06	2.30	29,030,000
July	12,276,000	497,000	279,000	396,000	1.67	1.93	24,350,000
August	5,758,000	273,000	122,000	185,700	.784	.90	11,420,000
September	3,035,600	121,000	81,800	101,200	.427	.48	6,021,000
Water year 1942-43	75,665,800	541,000	76,400	207,300	.875	11.88	150,100,000

f Computed on basis of partly estimated gage-height record.
h Computed from staff-gage reading.
Time basis: Pacific war time. 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 1943.

Average discharge.- 19 years (1908-15, 1931-43), 165 second-feet.

Extremes.- Maximum discharge during year, 624 second-feet Apr. 1 (gage height, 2.32 feet); minimum, 79 second-feet Oct. 6-11, Jan. 31 (gage height, 1.00 foot).

1906-17, 1931-43: 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 period of doubtful gage-height record, which are poor. No diversion or regulation above station.

Rating tables, water year 1942-43 (gage height, in feet, and discharge, in second-feet)

Oct. 1 to Apr. 1				Apr. 2 to Sept. 30			
1.0	79	1.8	280	1.1	101	1.9	308
1.2	110	2.0	375	1.3	133	2.1	430
1.4	154	2.2	520	1.5	174	2.3	590
1.6	210			1.7	230		

Discharge, in second-fset, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	83	226	178	440	100	162	562	452	403	209	113	102
2	83	124	165	330	100	152	564	468	357	203	113	102
3	82	142	149	260	100	149	514	416	319	206	112	101
4	82	120	137	220	107	147	410	369	295	192	112	101
5	82	110	132	200	110	144	346	324	286	177	112	101
6	80	105	126	175	115	137	340	308	286	172	112	101
7	80	105	122	160	125	135	362	304	286	165	110	101
8	80	130	126	150	126	135	389	295	295	161	108	101
9	79	124	142	140	118	128	335	295	308	154	107	101
10	79	116	304	135	116	126	286	286	313	148	107	101
11	82	112	276	130	206	126	278	274	295	144	107	101
12	82	108	217	125	482	128	340	265	313	144	107	101
13	82	105	410	120	417	142	452	278	274	137	106	101
14	82	120	375	175	358	142	539	265	362	135	104	101
15	82	165	304	270	304	137	564	251	330	131	106	101
16	82	137	276	245	258	135	548	237	313	128	106	101
17	82	130	247	200	230	128	490	224	313	126	104	101
18	82	126	220	175	220	126	482	230	313	124	102	101
19	82	120	198	160	220	126	505	262	319	123	104	101
20	82	112	178	160	236	122	438	254	299	121	104	101
21	82	107	165	155	288	126	423	251	278	121	106	101
22	82	107	184	145	292	137	369	319	265	118	104	101
23	82	159	205	140	247	154	351	423	240	116	104	101
24	82	258	210	130	204	173	324	423	234	116	102	100
25	82	181	240	125	181	220	299	430	265	114	101	100
26	82	157	205	120	170	358	265	423	251	114	101	101
27	90	147	195	120	165	475	254	403	237	114	101	100
28	85	135	230	120	162	424	282	376	234	114	102	100
29	83	159	228	110	-	396	335	340	227	114	108	98
30	86	196	280	100	-	382	340	319	218	114	108	98
31	139	-	350	95	-	417	-	438	-	113	104	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff Inches	Runoff Acre-feet
October	2,605	139	79	84.0	1.33	1.54	5,170
November	4,143	258	105	138	2.19	2.45	8,220
December	6,774	410	122	219	3.48	4.00	13,440
Calendar year 1942	54,345	546	79	149	2.37	32.09	107,800
January	5,330	440	95	172	2.73	3.15	10,570
February	5,757	482	100	206	3.27	3.40	11,420
March	5,989	475	122	193	3.06	3.54	11,880
April	11,986	564	254	400	6.35	7.08	23,770
May	10,202	468	224	329	5.22	6.02	20,240
June	8,728	403	218	291	4.62	5.15	17,310
July	4,368	209	113	141	2.24	2.58	8,660
August	3,297	113	101	106	1.68	1.95	6,540
September	3,022	102	98	101	1.60	1.78	5,990
Watsr year 1942-43	72,201	564	79	198	3.14	42.64	143,200

Note.- Doubtful gage-height record Dec. 23 to Feb. 7; discharge computed on basis of records for South Fork Walla Walla River below Pacific Power & Light Co.'s plant, near Milton, and North Fork Walla Walla River near Milton.

Time basis: Pacific war time. 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 1943, 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, July 1931 to September 1936, in reports of State engineer; October 1936 to September 1940, in files of State engineer.

Average discharge.- 13 years (1904-5, 1930-31, 1932-43), 164 second-feet.

Extremes.- Maximum discharge during year, 624 second-feet Apr. 2 (gage height, 2.81 feet); minimum, 13 second-feet (regulated) Oct. 29; minimum daily, 76 second-feet Oct. 2. 1903-6, 1929-43: Maximum discharge not determinsd, probably occurred during floods of May 30, 31, 1906, or Mar. 31, 1931; maximum daily discharge, 3,000 second-feet (estimated by Oregon State engineer) Mar. 31, 1931; minimum, 1 second-foot (regulated), June 23, 1940; minimum daily, 64 second-feet Oct. 14, 1930.

Remarks.- Records good below 100 second-feet and fair above. Small diversions above station for irrigation. Water diverted for power-plant operation is returned to river 100 yards above station. Some diurnal fluctuation caused by power plant above station.

Rating tables, water year 1942-43 (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used May 2, 9-31)

Oct. 1 to Apr. 1				Apr. 2 to Sept. 30			
0.9	81	1.8	237	0.8	88	2.1	360
1.0	94	2.0	287	1.0	115	2.4	465
1.2	123	2.2	345	1.2	146	2.7	580
1.4	156	2.4	405	1.5	200		
1.6	194	2.7	500	1.8	270		

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	77	f215	207	486	114	163	493	493	402	223	f92	93
2	76	f129	186	381	116	156	588	482	360	213	a92	92
3	79	137	170	293	116	149	548	a450	321	215	a92	92
4	79	117	156	247	123	146	465	a400	300	202	a92	91
5	79	110	146	224	128	139	406	a350	288	189	a93	91
6	79	105	136	198	134	133	392	a325	285	183	a93	92
7	77	101	123	180	148	129	409	a320	285	172	a93	92
8	77	102	139	169	146	129	434	a310	291	161	f93	89
9	77	f118	186	160	139	126	384	309	303	163	93	88
10	77	114	390	153	133	125	345	303	306	144	93	87
11	79	108	339	146	222	126	327	303	288	136	92	86
12	79	105	271	137	482	126	378	300	306	133	89	86
13	80	102	444	136	435	141	465	303	279	124	89	87
14	80	108	423	193	f393	144	516	300	360	122	88	87
15	81	163	348	304	f330	144	556	276	339	118	89	86
16	81	137	309	274	287	141	532	262	321	116	89	84
17	81	129	269	222	261	137	465	244	318	114	88	86
18	81	125	251	190	244	134	462	239	312	112	88	86
19	81	120	224	180	239	134	a480	247	327	109	89	88
20	79	114	194	180	249	129	437	257	306	108	89	89
21	79	111	176	172	a295	131	440	249	294	107	91	91
22	79	108	207	161	f298	139	392	297	282	107	92	89
23	80	139	224	154	264	156	378	378	282	104	91	89
24	79	249	233	f146	228	178	f354	378	249	101	91	89
25	79	194	271	137	198	226	f330	378	279	100	91	89
26	79	169	230	133	176	350	306	370	262	100	88	89
27	93	165	219	133	169	429	291	360	252	98	89	89
28	84	154	254	131	165	387	334	345	247	98	91	89
29	79	f182	251	a125	-	390	374	327	242	96	96	91
30	85	f224	307	a116	-	381	384	312	235	94	96	91
31	114	-	393	a110	-	399	-	409	-	91	93	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	2,509	114	76	80.9	4,980
November	4,154	249	101	138	8,240
December	7,679	444	126	248	15,230
Calendar year 1942	56,570	507	71	155	112,200
January	5,970	486	110	193	11,840
February	6,232	482	114	223	12,360
March	5,917	429	125	191	11,740
April	12,665	588	291	422	25,120
May	10,276	493	239	331	20,380
June	8,901	402	236	297	17,650
July	4,143	223	91	134	8,220
August	2,825	96	88	91.1	5,600
September	2,668	93	84	88.9	5,290
Water year 1942-43	73,939	588	76	203	146,600

a No gage-height record; discharge computed on basis of records for station near Milton.
f Computed from partly estimated gage-height record.
Time basis: Pacific war time. 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 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 1943.

Extremes.- Maximum discharge during year, 755 second-feet Jan. 1 (gage height, 4.90 feet); no flow at times.
1941-43: 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 fair except those for Dec. 14-20, May 14-18, and those below 10 second-feet, which are poor. Many diversions above station for irrigation. Little Walla Walla River, a natural distributary, diverts 3 miles upstream. No regulation.

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1		f85	155	733	70	157	690	630	314	5		
2		26	135	580	75	136	665	695	268	4		
3		24	113	428	68	122	635	590	191	4		
4		10	96	324	88	115	523	505	151	4		
5		3	92	247	83	104	415	399	132	3		
6		0	73	181	88	92	347	363	122	3		
7		4	66	138	104	93	347	359	99	3		
8		3	91	118	102	90	407	324	84	3		
9		10	125	104	96	84	375	321	86	3		
10		6	409	93	90	80	293	290	90	3		
11		3	446	87	203	76	238	314	83	3		
12		.5	339	82	680	77	272	332	98	2		
13		.5	494	82	695	99	399	387	83	2		
14		.5	555	134	670	113	528	371	152	2		
15		61	442	324	570	105	630	332	164	2		
16		60	379	300	482	102	625	290	142	2		
17		42	318	202	411	96	518	232	132	2		
18		27	256	181	351	93	464	202	144	2		
19		19	202	167	328	93	505	181	149	2		
20		12	164	171	347	87	456	169	144	2		
21		7	136	142	451	90	482	151	129	2		
22		5	194	123	487	102	375	171	116	2		
23		8	272	108	415	134	310	276	102	2		
24		221	294	90	332	176	235	300	85	1		
25		155	395	78	256	276	191	290	93	.5		
26		119	290	80	207	456	149	282	92	.5		
27		118	247	93	186	600	116	241	69	0		
28		97	335	90	169	595	174	199	50	0		
29		112	318	90	-	570	339	164	26	0		
30		174	446	84	-	585	347	146	18	0		
31		-	565	78	-	590	-	269	-	0		

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	0	0	0	0	0
November	1,412.5	221	0	47.1	2,800
December	8,432	555	66	272	16,720
Calendar year 1942	33,269.0	576	0	91.1	65,980
January	5,732	733	78	185	11,370
February	8,104	695	66	289	16,070
March	6,190	600	77	200	12,280
April	12,075	690	116	402	23,950
May	9,795	695	146	316	19,430
June	3,609	314	18	120	7,160
July	64.0	5	0	2.06	127
August	0	0	0	0	0
September	0	0	0	0	0
Water year 1942-43	55,413.5	733	0	152	109,900

f Computed from partly estimated gage-height record.
Time basis: Pacific war time. 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 1943, 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.- 13 years, 42.2 second-feet.

Extremes.- Maximum discharge during year, 612 second-feet May 1 (gage height, 4.57 feet), from rating curve extended above 250 second-feet; minimum, 3.2 second-feet Aug. 12.
1929-43: 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. Diversions above station for irrigation of about 220 acres. No regulation.

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	4.9	103	115	392	21	59	265	482	119	33	4.5	5.5
2	6.6	46	103	218	23	54	320	385	116	28	5.2	5.5
3	6.6	45	89	140	22	51	296	260	102	29	5.0	6.4
4	6.1	38	77	107	28	48	240	186	91	30	4.5	5.8
5	5.5	32	68	90	29	45	194	145	80	27	3.8	5.5
6	3.8	30	61	72	32	40	176	129	73	25	3.5	5.2
7	4.9	25	53	62	40	38	170	124	71	23	4.2	5.0
8	4.9	48	64	54	41	37	182	116	66	21	5.0	5.2
9	6.6	57	96	48	37	35	194	114	65	17	5.0	4.8
10	7.2	51	225	44	32	34	176	104	65	15	4.8	4.5
11	8.4	42	207	38	59	34	158	104	62	13	4.0	4.2
12	8.4	35	155	36	251	32	158	121	64	13	3.4	4.2
13	7.8	30	258	34	209	40	176	145	56	11	3.4	4.6
14	7.2	33	234	52	179	42	209	140	85	10	3.8	4.5
15	7.2	77	174	107	138	41	251	132	87	11	4.0	4.5
16	7.8	66	158	101	121	40	254	109	80	11	4.5	5.0
17	7.8	55	134	78	107	38	221	100	78	10	4.5	5.0
18	7.8	49	117	66	96	38	194	91	80	10	4.5	5.2
19	7.8	44	96	62	90	37	200	93	80	9.8	4.0	5.8
20	7.2	40	81	51	92	36	188	84	76	9.4	4.2	5.8
21	6.6	35	70	48	105	40	194	76	68	8.9	4.5	5.5
22	6.6	36	81	a43	114	50	176	82	64	8.9	4.8	5.5
23	7.8	57	105	a38	105	59	161	107	56	7.3	5.2	5.5
24	7.8	134	113	35	92	71	143	114	52	6.4	5.0	5.5
25	8.4	115	132	30	78	92	133	111	56	6.4	4.8	5.5
26	8.4	93	108	29	67	130	126	109	52	6.0	4.5	5.5
27	9.5	93	98	28	62	162	114	100	48	6.0	4.2	5.5
28	12	81	130	28	60	164	130	91	46	5.0	4.0	5.5
29	11	91	134	28	-	158	215	84	41	3.8	4.2	5.8
30	8.9	125	152	25	-	185	237	75	36	3.5	5.0	5.8
31	22	-	228	23	-	185	-	109	-	4.0	5.5	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	243.5	22	3.8	7.85	483
November	1,809	134	25	60.3	3,590
December	3,916	258	53	126	7,770
Calendar year 1942	18,102.3	308	2.0	49.6	35,910
January	2,207	392	23	71.2	4,380
February	2,330	251	21	83.2	4,620
March	2,135	185	32	68.9	4,230
April	5,851	320	114	195	11,610
May	4,222	482	75	136	8,370
June	2,115	119	36	70.5	4,200
July	422.4	33	3.5	13.6	838
August	137.5	5.5	3.4	4.44	273
September	157.7	6.4	4.2	5.26	313
Water year 1942-43	25,546.1	482	3.4	70.0	50,680

Peak discharge.- Dec. 10 (6 p.m.) 291 sec.-ft.; Dec. 13 (9 p.m.) 361 sec.-ft.; Jan. 1 (10:30 a.m.) 482 sec.-ft.; Feb. 12 (6 a.m.) 286 sec.-ft.; Apr. 1 (12 p.m.) 368 sec.-ft.; May 1 (4 p.m.) 612 sec.-ft.

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. 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 1943.

Extremes.- Maximum discharge during year, 628 second-feet Jan. 1 (gage height, 16.00 feet); minimum, 22 second-feet Oct. 1 (gage height, 14.25 feet).
1913-17, 1938, 1939-43: 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 good. City of Walla Walla diverts about 22 second-feet 4 miles above gage for municipal use.

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	26	127	130	561	41	104	601	376	153	61	31	28
2	24	62	122	337	42	96	501	367	145	60	31	27
3	24	80	104	203	41	89	455	279	131	60	31	27
4	25	65	87	143	54	85	363	220	121	56	31	27
5	24	56	76	115	56	78	275	180	112	53	31	27
6	23	50	69	93	91	72	238	171	107	52	30	27
7	24	48	64	80	113	70	227	162	104	50	30	27
8	24	78	72	72	95	68	238	156	102	47	30	27
9	23	76	91	67	78	67	220	156	104	53	30	27
10	24	67	293	64	72	65	183	137	102	46	29	27
11	25	57	253	59	232	67	168	137	96	46	29	27
12	24	50	177	56	544	68	183	129	98	46	29	27
13	24	46	332	54	445	87	230	137	92	43	29	27
14	24	56	356	78	365	89	279	145	94	42	28	27
15	25	124	293	187	275	83	303	145	87	41	29	27
16	24	97	261	148	215	80	275	137	85	38	28	27
17	24	83	238	b105	178	74	223	129	85	37	28	27
18	24	76	200	b90	166	70	206	119	89	36	28	27
19	24	67	160	b80	160	67	216	114	92	36	28	27
20	24	59	135	80	178	62	203	114	85	35	28	27
21	24	53	117	b70	222	65	209	109	81	35	29	27
22	24	51	140	b65	228	76	177	116	79	35	30	27
23	26	126	162	b60	187	89	168	140	75	33	30	27
24	25	319	157	b55	*158	109	145	142	79	33	28	27
25	24	177	162	b52	131	172	137	145	77	32	27	26
26	25	122	135	b50	116	306	124	142	73	32	27	26
27	41	108	130	b48	111	425	112	134	70	31	27	26
28	28	91	183	47	107	370	145	124	68	31	26	27
29	26	97	183	44	-	348	238	114	66	31	29	27
30	27	130	187	42	-	348	230	109	64	31	30	27
31	84	-	*302	41	-	388	-	162	-	31	29	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	837	84	23	27.0	1,660
November	2,698	319	46	89.9	5,350
December	5,371	356	64	173	10,650
Calendar year 1942	29,346	559	22	80.4	58,200
January	3,246	561	41	105	6,440
February	4,701	544	41	168	9,320
March	4,237	425	62	137	8,400
April	7,272	601	112	242	14,420
May	4,947	376	109	160	9,810
June	2,816	153	64	93.9	5,590
July	1,293	61	31	41.7	2,560
August	900	31	26	29.0	1,790
September	808	28	26	26.9	1,600
Water year 1942-43	39,126	601	23	107	77,590

* Winter discharge measurement made on this day.
b Stage-discharge relation affected by ice.
Time basis: Pacific war time. 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 Yellowhawk Creek diversion and 1.0 mile east of Walla Walla.

Drainage area.- 87 square miles.

Records available.- April 1941 to September 1943.

Extremes (regulated).- Maximum discharge during year, 714 second-feet Apr. 1; maximum gage height, 2.86 feet Jan. 1; minimum discharge, 1.5 second-feet July 24 (gage height, 1.13 feet).

1941-43: Maximum discharge, that of Apr. 1, 1943; maximum gage height, that of Jan. 1, 1943; minimum discharge, 1.0 second-foot June 14, 1941 (gage height, 1.00 foot).

Remarks.- Records good except those for period of ice effect or faulty gage-height record, which are poor. Some regulation at Yellowhawk Creek diversion 0.9 mile upstream. Yellowhawk Creek diverts water to reduce flood peaks in city of Walla Walla and for irrigation during irrigation seasons. City of Walla Walla diverts water for municipal supply. Other small diversions above station for irrigation. Monthly discharge adjusted for Yellowhawk Creek diversion.

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	8.3	126	122	550	42	84	679	344	84	5.3	4.3	4.8
2	10	38	122	430	45	75	656	384	82	4.8	4.8	5.3
3	12	17	87	314	52	70	502	301	e82	5.3	5.3	5.3
4	15	17	61	238	79	68	384	220	e73	5.9	5.3	4.3
5	11	10	52	186	79	66	313	189	57	5.9	7.0	4.3
6	8.9	10	50	149	139	50	269	169	41	4.8	5.9	3.9
7	8.3	9.6	30	90	198	34	253	150	38	4.8	5.9	3.9
8	6.6	10	26	41	175	34	253	150	36	4.3	6.4	3.4
9	9.6	11	80	23	149	32	243	147	35	4.3	6.4	3.4
10	6.9	11	261	27	132	30	197	137	34	3.0	5.9	3.0
11	9.6	15	282	26	326	29	177	130	34	3.0	5.3	2.6
12	9.6	26	226	22	668	29	177	126	40	3.9	4.3	2.6
13	9.6	26	288	22	570	61	197	123	35	3.0	4.3	2.3
14	9.6	24	353	27	427	88	220	130	36	2.0	4.3	2.3
15	10	38	314	115	363	68	248	133	34	2.3	4.3	2.3
16	12	65	282	b95	290	55	225	133	32	2.3	7.0	2.3
17	13	56	272	b75	229	48	193	130	22	2.3	3.9	2.3
18	13	52	238	b65	197	40	181	130	25	2.3	4.8	2.3
19	13	71	175	b55	189	38	185	117	28	2.6	3.0	2.3
20	12	66	139	b45	*189	43	177	68	28	2.3	3.4	2.3
21	13	24	122	b40	215	52	185	47	26	2.0	3.9	3.4
22	12	18	135	b35	225	63	161	e41	26	2.3	7.0	4.8
23	11	61	182	b32	197	82	143	e66	21	1.7	6.4	4.8
24	13	226	194	b30	169	82	117	73	12	1.7	6.4	4.8
25	13	206	255	27	140	86	113	63	12	1.7	5.9	4.8
26	13	142	194	27	120	218	110	54	11	2.0	5.3	5.3
27	13	132	178	27	107	392	91	47	11	3.0	4.8	5.9
28	9.6	122	230	32	104	356	80	45	8.4	4.8	4.3	4.8
29	8.9	108	246	38	-	332	210	38	7.0	4.3	4.8	4.8
30	7.7	112	*305	39	-	350	238	e48	7.0	4.3	5.3	5.3
31	8.3	-	402	42	-	395	-	e68	-	3.9	4.8	-

Month	Observed				Yellowhawk Creek diversion (acre-feet)	Adjusted for diversion	
	Discharge in second-feet			Runoff in acre-feet		Runoff in acre-feet	Mean (second-feet)
	Maximum	Minimum	Mean				
October	15	6.6	10.7	660	1,290	1,950	31.7
November	226	9.6	61.7	3,670	3,520	7,190	121
December	402	26	190	11,710	4,200	15,910	259
Calendar year 1942	536	2.8	64.2	46,520	29,730	76,250	105
January	550	22	95.6	5,880	4,430	10,310	168
February	668	42	208	11,530	2,410	13,940	251
March	395	29	111	6,840	3,340	10,180	166
April	679	80	239	14,240	4,170	18,410	309
May	384	38	129	7,940	4,320	12,260	199
June	84	7.0	33.9	2,020	3,760	5,780	97.1
July	5.9	1.7	3.42	210	1,410	1,620	26.3
August	7.0	3.0	5.18	319	980	1,300	21.1
September	5.9	2.3	3.80	226	1,080	1,310	22.0
Water year 1942-43	679	1.7	90.1	65,240	34,910	100,200	138

* Winter discharge measurement made on this day.
b Stage-discharge relation affected by ice.
e Gage-height record faulty; discharge computed from partly estimated gage heights.
Time basis: Pacific war time. 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 1943.

Extremes.- 1941-42: Maximum discharge during water year, 434 second-feet (revised) June 26 (elevation, 1,743.65 feet, from high-water mark in gage well), from rating curve extended above 200 second-feet; minimum, 0.2 second-foot Aug. 10, 11.

1942-43: Maximum discharge during water year not determined, occurred during period of doubtful gage-height record; minimum, 0.6 second-foot Oct. 24.

1939-43: Maximum discharge, that of June 26, 1942; 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 good except those for periods of ice effect or doubtful or no gage-height record, which are poor. No known diversion or regulation.

Revision.- Revised figures of discharge for the water year 1942, superseding those published in Water-Supply Paper 964, are given herein.

Discharge, in second-feet, 1941-43

1941-42

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2.3	8.0	2.8	10	37	2.6	31	7.1	9.7	24	0.7	0.5
2	2.3	6.8	6.2	9	39	4.4	28	6.7	8.4	19	.7	.4
3	3.6	9.3	28	8	40	5.6	25	6.7	6.4	14	.5	.6
4	6.2	14	27	8	*67	6.7	22	16	5.3	11	.6	.6
5	6.5	13	23	7	62	7.9	20	23	4.2	8.8	.5	.6
6	6.5	11	25	7	52	8.8	18	21	3.7	a7	.5	.6
7	5.9	9.3	24	6	38	8.8	16	18	3.2	a6	.4	.6
8	5.9	7.6	23	*6	32	9.7	14	16	2.8	a4	.5	.6
9	5.9	6.8	20	6	32	24	12	16	4.2	a3	.5	.6
10	5.4	6.2	17	5	31	48	12	28	2.5	a3	.4	.7
11	4.7	5.6	15	5	31	45	11	37	2.3	a2	.4	.7
12	4.7	5.1	13	5	28	46	9.7	34	1.8	1.8	.4	.7
13	4.3	14	11	5	24	37	9.2	30	1.4	1.8	.4	.7
14	3.9	*52	12	5	20	31	9.2	24	1.3	1.8	.4	.6
15	3.6	*106	14	5	19	29	8.4	22	1.9	1.9	.4	.7
16	3.4	83	30	6	16	27	7.9	18	1.6	3.9	.4	.8
17	3.3	a50	43	5	13	27	12	15	1.3	1.9	.4	.8
18	3.1	a38	50	5	10	27	9.7	12	1.3	1.3	.4	.8
19	4.1	a30	62	5	8.4	26	8.8	10	1.2	1.1	.4	.7
20	3.6	a25	63	6	7.9	25	7.9	8.4	1.1	.8	.4	.7
21	3.6	a20	49	6	7.1	25	7.5	7.5	1.0	.7	.4	.7
22	3.6	a16	41	6	6.7	27	6.4	6.7	.8	.6	.4	.6
23	3.4	13	36	6	5.6	26	5.0	6.0	.8	.5	.4	.6
24	3.4	11	31	10	5.0	24	5.3	5.3	.7	.5	.4	.6
25	3.3	9.8	27	14	4.7	21	5.0	7.1	8.9	.6	.4	.6
26	3.3	8.4	22	15	3.2	19	4.4	19	200	.7	.4	.6
27	3.4	7.6	19	48	3.9	16	4.4	20	164	.8	.4	.7
28	5.6	6.8	17	56	3.2	14	6.0	19	78	.8	.8	.8
29	9.3	5.9	15	44	-	14	6.0	15	45	1.0	.8	.8
30	9.3	4.5	13	35	-	16	6.0	13	32	.8	.6	.8
31	8.4	-	11	32	-	19	-	12	-	.8	.5	-

* Winter discharge measurement made on this day.

a No gage-height record; discharge computed on basis of weather records and records for Mill Creek near Walla Walla.

Note.- Stage-discharge relation affected by ice Jan. 1-24.

Discharge, in second-feet, of Blue Creek near Walla Walla, Wash., 1941-43--Continued

1942-43

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1.4	14	61	191	2.7	16	112	75	11	3.0	1.2	1.2
2	1.2	8.8	60	111	3.4	14	75	69	11	2.8	1.1	1.1
3	1.1	12	55	72	3.6	13	55	52	9.4	3.0	1.1	1.1
4	1.2	11	50	54	6.7	13	50	39	9.0	2.6	1.1	1.1
5	1.0	9.7	45	38	6.4	11	48	31	8.1	2.2	1.2	1.1
6	.8	8.4	40	28	28	10	45	26	7.3	2.1	1.1	1.0
7	1.0	8.4	37	24	33	9.2	44	24	6.1	2.0	1.1	1.0
8	1.1	14	35	20	20	9.2	43	20	5.5	1.9	1.1	1.0
9	1.0	15	54	17	15	8.3	42	18	4.8	2.0	1.1	1.0
10	1.2	13	97	17	14	7.5	42	16	4.6	1.9	1.1	1.0
11	1.4	11	90	14	27	7.5	39	22	4.0	1.8	1.1	1.0
12	1.4	9.7	72	14	72	7.5	36	27	4.8	1.9	1.0	.9
13	1.4	8.8	141	14	60	15	36	32	4.8	1.8	1.1	.9
14	1.3	13	104	20	54	15	35	35	5.2	1.7	1.0	.9
15	1.3	22	84	48	48	14	31	32	4.6	1.7	1.0	.9
16	1.1	19	78	43	43	14	26	30	4.0	1.7	1.0	.9
17	.8	17	66	28	43	14	21	31	4.3	1.6	1.0	.9
18	.8	14	60	b18	38	14	17	28	5.5	1.7	1.0	1.0
19	.8	11	54	b13	38	15	17	24	6.1	1.6	1.0	1.0
20	.8	11	49	b10	41	15	17	21	5.8	1.5	1.1	1.1
21	.8	11	46	b8	46	16	18	17	5.5	1.5	1.1	1.1
22	.8	9.7	46	b7	45	18	16	14	5.5	1.5	1.2	.9
23	.8	65	48	b6	38	20	16	12	5.2	1.5	1.2	.9
24	.8	104	49	b5	*31	24	14	11	4.6	1.4	1.2	.9
25	.8	84	52	b4	*27	33	13	9.9	4.8	1.3	1.1	.9
26	1.1	72	56	b3.5	23	54	13	9.4	4.6	1.3	1.1	.9
27	3.0	60	56	3.1	20	76	12	8.1	4.3	1.3	1.1	1.0
28	1.6	54	57	2.9	18	72	21	7.3	3.8	1.2	1.0	1.0
29	1.4	57	59	2.9	-	73	47	6.5	3.5	1.2	1.3	1.0
30	1.4	59	61	2.7	-	46	42	6.5	3.3	1.2	1.4	1.0
31	6.8	-	168	2.7	-	64	-	9.9	-	1.2	1.2	-

* Winter discharge measurement made on this day.
b Stage-discharge relation affected by ice.
Note.- Doubtful gage-height record Nov. 23 to Jan. 17, Jan. 27 to Feb. 19, Apr. 28 to May 4; discharge computed on basis of adjusted gage heights and records for Mill Creek near Walla Walla.

Monthly discharge, in second-feet, 1941-43

Month	Second-feet-days	Maximum	Minimum	Mean	Per square mile	Runoff	
						Inches	Acre-feet
October 1941	145.8	9.3	2.3	4.70	0.276	0.32	289
November	603.7	106	4.5	20.1	1.18	1.32	1,200
December	790	63	2.8	25.5	1.50	1.73	1,570
Calendar year 1941	3,966.6	133	.8	10.9	.641	8.69	7,870
January 1942	395	56	5	12.7	.747	.86	783
February	646.7	67	3.2	23.1	1.36	1.41	1,280
March	667.5	48	2.6	21.5	1.26	1.46	1,320
April	347.8	31	4.4	11.6	.682	.76	690
May	499.5	37	5.3	16.1	.947	1.09	991
June	596.8	200	.7	19.9	1.17	1.31	1,180
July	125.9	24	.5	4.06	.239	.28	250
August	14.8	.8	.4	.48	.028	.03	29
September	19.8	.8	.4	.66	.039	.04	39
Water year 1941-42	4,853.3	200	.4	13.3	.782	10.61	9,620
October 1942	41.4	6.8	.8	1.34	.079	.09	82
November	826.5	104	8.4	27.6	1.62	1.81	1,640
December	2,030.0	168	35	65.5	3.85	4.44	4,030
Calendar year 1942	6,211.7	200	.4	17.0	1.00	13.58	12,310
January 1943	841.8	191	2.7	27.2	1.60	1.84	1,670
February	844.8	72	2.7	30.2	1.78	1.85	1,680
March	738.2	76	7.5	23.8	1.40	1.61	1,460
April	1,043.0	112	12	34.8	2.05	2.28	2,070
May	763.6	75	6.6	24.6	1.45	1.67	1,510
June	171.0	11	3.3	5.70	.335	.37	339
July	55.1	3.0	1.2	1.78	.105	.12	109
August	34.4	1.4	1.0	1.11	.065	.08	68
September	29.7	1.2	.9	.99	.058	.06	59
Water year 1942-43	7,419.5	191	.8	20.3	1.19	16.22	14,720

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

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., 0.8 mile downstream from diversion of Garrison Creek, 1 mile downstream from point of diversion from Mill Creek, and 1 mile east of Walla Walla.

Records available.- April 1941 to September 1943.

Extremes (regulated).- Maximum discharge during year, 155 second-feet Jan. 15; maximum gage height, 3.02 feet Jan. 28 (caused by ice); minimum discharge, 8.5 second-feet Nov. 6, 7 (gage height, 0.80 foot).

1941-43: 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 fair except those for periods of ice effect or no gage-height record, which are poor. Yellowhawk Creek diverts flood water from Mill Creek, which is subject to regulation at flood-control dam on Mill Creek. Many small diversions above station for irrigation.

Rating tables, water year 1942-43, except period of ice effect
(gage height, in feet, and discharge, in second-feet)

Oct. 1 to Apr. 8		Apr. 9 to Sept. 30			
1.0	19	0.8	9.3	1.4	51
1.2	36	1.0	19	1.6	77
1.4	59	1.2	32		
1.6	90				

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	15	34	74	127	b70	38	55	59	46	34	11	17
2	16	40	69	80	b60	40	65	52	51	31	12	17
3	15	67	62	53	b50	38	55	50	58	31	12	17
4	15	60	68	50	43	36	45	55	62	31	12	17
5	14	53	55	50	33	33	45	54	64	28	14	17
6	16	42	50	45	41	41	40	52	70	26	14	17
7	16	34	52	45	37	53	45	58	66	24	f14	17
8	17	42	52	55	28	52	45	63	62	23	f15	17
9	17	52	55	65	22	48	44	62	58	24	f15	17
10	16	54	65	78	30	46	55	56	57	24	14	16
11	20	54	75	74	30	44	54	54	52	23	14	16
12	21	43	90	68	42	44	56	56	54	23	13	16
13	21	43	88	67	32	46	66	56	51	22	13	15
14	21	42	74	82	28	26	77	60	54	20	13	15
15	21	55	59	102	24	34	87	63	54	20	14	16
16	19	52	53	58	25	42	80	64	49	19	15	16
17	17	46	50	44	33	46	66	60	57	18	13	16
18	17	40	50	b40	32	52	56	60	59	17	14	14
19	16	44	49	b35	29	50	59	56	56	16	13	14
20	16	44	49	b35	*31	44	55	49	56	16	13	14
21	16	56	48	b35	40	41	59	45	51	15	12	14
22	16	50	56	b40	43	50	46	51	49	14	15	14
23	16	60	53	b40	36	50	48	80	48	13	16	14
24	17	75	56	b45	29	49	57	74	52	13	16	14
25	16	50	46	b50	29	54	57	66	52	12	15	14
26	17	75	55	b50	31	70	55	63	50	12	15	14
27	34	70	67	b55	32	50	56	56	44	12	14	13
28	35	60	69	b60	31	41	63	56	41	12	14	13
29	31	55	60	b70	-	42	62	54	40	10	15	13
30	27	72	64	b70	-	45	54	50	38	11	17	13
31	43	-	*75	b70	-	50	-	48	-	11	17	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	614	43	14	19.8	1,220
November	1,564	75	34	52.1	3,100
December	1,888	90	46	60.9	3,740
Calendar year 1942	127,603	106	3	35.0	25,300
January	1,838	127	35	59.3	3,650
February	991	70	22	35.4	1,970
March	1,395	70	26	45.0	2,770
April	1,707	87	40	56.9	3,390
May	1,782	80	45	57.5	3,530
June	1,601	70	38	53.4	3,180
July	605	34	10	19.5	1,200
August	434	17	11	14.0	861
September	457	17	13	15.2	906
Water year 1942-43	14,876	127	10	40.8	29,520

* Winter discharge measurement made on this day.
b Stage-discharge relation affected by ice.
f Computed on basis of partly estimated gage-height record.

Note.- No gage-height record Nov. 23-28, Dec. 9-12, 18, 19, Jan. 4-9, Mar. 26, 27, Mar. 30 to Apr. 8, July 21-24, Aug. 10, 11; discharge computed on basis of records for Garrison Creek at Walla Walla.

Time basis: Pacific war time. 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, 0.8 mile downstream from Yellowhawk Creek diversion, and 0.9 mile east of Walla Walla.

Records available.- April 1941 to September 1943.

Extremes (regulated).- Maximum discharge during year, 32 second-feet Jan. 15; maximum gage height, 2.73 feet Jan. 30 (caused by ice); minimum discharge, 0.6 second-foot Oct. 3, 4 (gage height, 1.63 feet).
1941-43: Maximum discharge, that of Jan. 15, 1943; no flow May 10, 1941.

Remarks.- Records good except those for period of shifting control, which are fair, and those for periods of ice effect or no gage-height record, which are poor. Some regulation at Yellowhawk Creek diversion from Mill Creek, 0.8 mile upstream. Yellowhawk Creek diverts water to reduce flood peaks in city of Walla Walla and for irrigation during irrigation seasons. Garrison Creek in turn diverts water from Yellowhawk Creek for irrigation.

Rating table, water year 1942-43, except periods of ice effect or shifting control (gage height, in feet, and discharge, in second-feet)

Oct. 1 to June 2		June 3 to Sept. 30	
1.7	1.2	1.7	1.5
1.8	2.7	1.8	3.0
1.9	5.0	1.9	5.5
2.0	8.6	2.0	9.1
2.2	19	2.1	14

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1.2	1.6	9.0	a18	18	8.1	14	14	5.9	7.9	2.0	1.9
2	.8	5.0	7.7	a13	17	9.0	12	11	7.3	7.1	2.0	1.9
3	.8	11	7.0	9.0	14	7.7	10	11	10	6.7	1.9	1.9
4	.7	9.9	8.6	8.1	9.5	7.7	8.6	14	11	6.7	1.9	1.9
5	.7	7.7	5.3	8.1	5.3	7.0	8.6	12	12	5.8	2.0	1.9
6	.8	6.2	4.7	7.7	7.7	7.7	7.7	12	13	4.6	2.0	2.0
7	1.0	4.8	6.2	7.7	7.3	10	8.6	13	12	4.1	2.0	2.0
8	.9	6.2	7.3	11	5.3	10	11	14	12	3.6	2.0	2.2
9	1.0	7.7	7.3	14	4.0	9.9	11	13	12	3.6	1.9	2.2
10	.9	9.0	a8.5	18	5.0	9.5	13	12	11	3.2	1.9	2.3
11	1.0	8.1	a9.5	18	6.2	9.0	13	12	9.9	3.2	1.7	2.2
12	1.1	5.3	a11	16	8.1	9.0	13	12	11	3.6	1.9	2.3
13	1.1	5.3	a9.5	16	6.7	11	16	13	9.9	3.0	2.2	2.3
14	1.1	15	a8.0	19	5.0	5.0	20	14	10	3.0	2.0	2.2
15	1.1	a10	a7.0	21	4.5	7.3	22	15	9.9	3.2	2.2	2.3
16	.9	6.6	a6.0	12	5.0	9.5	20	16	9.1	3.0	2.2	2.3
17	1.0	5.3	a5.5	11	7.3	9.5	15	15	9.9	3.0	2.2	2.5
18	1.0	4.0	a5.0	9.0	7.0	10	12	16	10	3.0	2.0	3.6
19	1.1	5.3	a5.0	8.6	6.6	10	14	16	9.9	3.0	2.0	3.9
20	.9	5.0	4.7	b8.5	*7.3	9.5	13	12	9.1	2.6	1.9	3.9
21	1.0	8.1	4.7	b9.0	9.9	8.6	14	14	8.7	2.5	1.9	4.1
22	1.0	6.6	6.2	b9.5	11	11	11	21	8.3	2.5	1.9	4.1
23	1.1	8.1	5.6	b10	8.6	11	12	21	8.3	2.2	1.9	3.6
24	1.0	11	5.9	b10	6.6	11	14	18	11	2.2	1.7	3.6
25	.9	5.0	4.2	b11	7.0	12	14	13	11	2.0	1.7	3.6
26	1.1	9.4	5.8	b12	7.3	15	13	10	10	1.6	1.9	3.6
27	2.2	7.7	8.6	b13	7.7	9.9	13	7.7	9.5	1.3	1.9	3.4
28	2.4	5.9	11	b14	7.0	7.7	14	7.3	8.7	1.4	1.7	3.6
29	2.2	4.7	11	b16	-	7.3	13	8.1	7.9	1.9	1.9	3.9
30	1.9	8.6	*12	b17	-	8.1	12	7.0	6.7	1.9	1.9	3.9
31	3.3	-	a14	18	-	8.6	-	5.9	-	1.9	1.9	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	37.2	3.3	0.7	1.20	74
November	214.1	15	1.6	7.14	425
December	231.8	14	4.2	7.48	460
Calendar year 1942	2,235.4	29	.7	6.12	4,440
January	393.2	21	7.7	12.7	780
February	221.9	18	4.0	7.92	440
March	286.6	15	5.0	9.25	568
April	392.5	22	7.7	13.1	779
May	400.0	21	5.9	12.9	793
June	295.0	13	5.9	9.83	585
July	105.3	7.9	1.3	3.40	209
August	60.2	2.2	1.7	1.94	119
September	85.1	4.1	1.9	2.84	169
Water year 1942-43	2,722.9	22	.7	7.46	5,400

* Winter discharge measurement made on this day.
a No gage-height record, discharge computed on basis of records for Yellowhawk Creek at Walla Walla.
b Stage-discharge relation affected by ice.
Note.- Shifting-control method used Feb. 25 to June 2.
Time basis: Pacific war time. 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 (from river-profile survey).

Records available.- April 1941 to September 1943.

Extremes.- Maximum discharge during year not determined, probably occurred during period of faulty gage-height record Apr. 1-4; minimum, 31 second-feet Sept. 14, 15; minimum gage height, 1.91 feet Oct. 1.

1941-43: Maximum discharge not determined, probably occurred during period Apr. 1-4, 1943; minimum, that of Sept. 14, 15, 1943.

Remarks.- Records good except those for periods of ice effect, faulty gage-height record, or shifting control, which are poor. No regulation. Small diversions above station for irrigation during summer months.

Rating tables, water year 1942-43, except periods of ice effect or shifting control (gage height, in feet, and discharge, in second-feet)

Oct. 1 to Apr. 1				Apr. 2 to Sept. 30			
1.9	33	2.7	188	2.1	34	3.1	247
2.1	58	3.0	275	2.3	60	3.5	382
2.3	92	3.3	371	2.5	94	4.0	582
2.5	136	3.7	513	2.7	137		

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	35	105	124	502	b64	161	e480	195	192	80	44	42
2	37	64	131	433	b66	148	e486	209	192	78	42	42
3	38	67	127	348	b70	144	e393	217	176	76	42	41
4	37	58	122	287	b75	141	e438	214	157	74	42	40
5	37	54	124	242	b80	129	408	200	150	70	42	40
6	37	54	122	210	b100	124	378	197	142	66	42	39
7	37	52	122	180	b150	120	353	189	137	65	41	38
8	37	62	129	156	210	120	389	173	135	62	41	38
9	37	61	144	144	191	113	376	173	135	60	39	36
10	37	60	194	131	194	109	346	173	140	59	38	35
11	37	56	216	120	284	107	308	167	135	57	38	34
12	38	55	196	115	402	107	304	167	132	56	39	33
13	38	52	269	115	422	124	325	162	130	54	39	33
14	40	e74	332	141	419	118	364	162	128	50	39	32
15	40	e138	328	222	361	113	371	160	121	49	39	32
16	38	100	303	233	303	111	342	157	114	47	39	32
17	37	91	287	b190	266	105	322	152	119	46	39	33
18	37	81	251	b150	248	102	318	150	128	46	39	33
19	37	76	210	b130	236	102	325	144	128	46	39	34
20	37	69	180	b120	239	100	304	147	119	45	40	34
21	37	66	158	b105	263	100	272	150	114	46	40	35
22	36	64	166	b95	278	107	232	152	108	46	41	35
23	36	e158	e196	b90	254	118	211	178	104	46	40	36
24	36	248	e208	b85	222	124	192	203	98	45	40	36
25	37	166	e222	b80	*194	154	195	200	94	45	40	36
26	37	127	e219	b75	180	216	181	206	94	45	39	38
27	54	111	225	b72	174	e361	170	206	87	45	39	39
28	44	94	*251	b67	169	e388	165	200	83	45	39	39
29	43	94	239	b65	-	385	176	186	81	44	42	39
30	42	109	266	b64	-	388	181	176	81	44	44	38
31	74	-	385	b63	-	476	-	184	-	42	42	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	1,224	74	35	39.5	2,430
November	2,666	248	52	88.9	5,290
December	6,446	385	122	208	12,790
Calendar year 1942	34,812	385	35	95.4	69,040
January	5,030	502	63	162	9,980
February	6,114	422	64	218	12,130
March	5,215	476	100	168	10,340
April	9,336	486	165	311	18,520
May	5,549	217	144	179	11,010
June	3,754	192	81	125	7,450
July	1,679	80	42	54.2	3,330
August	1,249	44	38	40.3	2,480
September	1,092	42	32	36.4	2,170
Water year 1942-43	49,354	502	32	135	97,920

* Winter discharge measurement made on this day.
b Stage-discharge relation affected by ice.
e Intake action faulty; discharge computed on basis of partly estimated gage-height record.
Note.- Shifting-control method used Dec. 16 to Jan. 16, Apr. 10 to June 2.
Time basis: Pacific war time. 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 1943.

Extremes.- Maximum discharge during year not determined, occurred during period of doubtful gage-height record Apr. 2-4; minimum, 16 second-feet Aug. 19, 20 (gage height, 1.67 feet).

1941-43: 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, 13 second-feet Aug. 15-23, 1942 (gage height, 1.66 feet).

Remarks.- Records good except those for periods of ice effect or doubtful gage-height record, which are poor. Many large diversions above station for irrigation. No regulation.

Rating tables, water year 1942-43, except periods of ice effect (gage height, in feet, and discharge, in second-feet)

Oct. 1 to Jan. 2						Jan. 3 to Sept. 30					
1.8	29	2.6	193	4.0	641	1.7	17	2.7	99	4.5	615
2.0	61	2.9	276	4.5	824	1.9	28	3.0	141	5.0	860
2.2	100	3.2	366	5.0	1,010	2.1	41	3.5	243	5.5	1,130
2.4	144	3.5	465	5.7	1,290	2.4	66	4.0	405	6.4	1,660

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	21	142	350	600	75	330	700	467	320	89	23	25
2	22	155	350	*1,270	75	300	1,620	538	316	84	22	24
3	22	108	320	900	80	279	1,350	508	265	80	22	25
4	23	110	290	620	90	270	1,150	467	238	80	20	24
5	23	96	260	450	95	256	950	420	216	80	22	23
6	24	88	240	370	120	223	830	398	200	75	22	23
7	24	84	228	310	200	230	730	364	190	69	23	22
8	25	82	220	260	320	226	690	333	178	64	22	22
9	25	117	250	220	270	216	780	300	172	60	22	21
10	25	108	350	192	240	198	735	310	167	55	23	22
11	25	98	300	176	450	194	660	303	167	52	22	23
12	27	90	290	162	760	186	592	316	165	54	20	22
13	27	86	390	150	1,500	194	570	297	165	55	20	21
14	27	82	500	150	1,250	270	615	316	169	52	19	20
15	28	214	640	200	960	230	660	294	165	48	18	20
16	28	144	460	270	810	220	638	297	150	44	17	20
17	28	123	380	200	720	211	638	288	141	43	20	20
18	29	121	350	170	640	203	592	270	156	41	18	20
19	29	119	330	150	570	203	552	256	163	41	17	20
20	29	115	310	130	538	200	548	248	171	39	17	22
21	29	113	290	120	552	196	548	256	158	38	18	23
22	29	108	260	110	615	209	487	248	150	35	20	23
23	29	231	310	100	*592	251	435	256	138	34	23	23
24	29	420	350	95	525	291	405	282	130	33	24	23
25	28	470	350	90	455	330	368	285	123	31	23	23
26	28	360	350	90	401	405	344	288	126	30	22	24
27	32	300	300	85	333	490	310	285	118	29	21	23
28	51	260	290	85	350	590	300	270	109	27	20	22
29	56	250	330	80	-	710	432	256	103	26	20	24
30	51	300	340	75	-	560	386	238	95	25	20	25
31	47	-	350	75	-	500	-	246	-	25	24	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	920	56	21	29.7	1,820
November	5,094	470	82	170	10,100
December	10,348	640	220	334	20,520
Calendar year 1942	67,689	1,170	13	185	134,200
January	7,955	1,270	75	257	15,780
February	13,586	1,500	75	485	26,950
March	9,171	710	186	296	18,190
April	19,615	1,620	300	654	38,910
May	9,900	538	238	319	19,640
June	5,124	320	95	171	10,160
July	1,538	89	25	49.6	3,050
August	644	24	17	20.8	1,280
September	672	25	20	22.4	1,330
Water year 1942-43	84,567	1,620	17	232	167,700

* Winter discharge measurement made on this day.

Note.- Stage-discharge relation affected by ice Jan. 14 to Feb. 2. Intake action faulty or recorder not operating properly Nov. 1, 16-22, Nov. 24 to Dec. 6, Dec. 8 to Jan. 9, Feb. 3-13, 21, 23, 27, 28, Mar. 27, 28, Mar. 30 to Apr. 10, Apr. 17, 18, and May 2; discharge computed on basis of four discharge measurements, records for Mill Creek near Walla Walla, and partly estimated gage-height record.

Time basis: Pacific war time. 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 1943. April 1933 to June 1939 at site 1 mile downstream.

Extremes.- Maximum discharge during year, 1,630 second-feet Feb. 12 (gage height, 5.22 feet); minimum, 37 second-feet Oct. 23-25 (gage height, 1.90 feet).
1933-43: 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, 1935, Jan. 9, 1937.

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

Rating tables, water year 1942-43 (gage height, in feet, and discharge, in second-feet)

Oct. 1 to Feb. 11				Feb. 12 to Sept. 30			
1.9	37	3.0	290	2.0	47	3.2	320
2.1	66	3.4	460	2.2	64	3.5	450
2.3	100	3.8	645	2.4	90	3.9	655
2.5	142	4.3	905	2.6	126	4.3	900
2.7	195			2.9	210	4.9	1,360

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	41	222	a380	894	126	238	1,200	1,110	545	228	53	49
2	41	137	a300	705	128	220	1,340	1,040	555	207	54	49
3	40	124	a250	500	126	204	1,180	851	510	210	54	49
4	a38	a115	219	392	142	195	907	728	450	192	54	47
5	a38	a110	195	330	147	171	734	616	400	166	55	46
6	a38	a102	178	276	164	154	728	560	372	151	54	47
7	38	a100	a165	246	192	146	794	530	356	136	53	47
8	38	a115	a180	228	181	163	886	495	348	122	53	46
9	38	a185	a250	210	162	144	776	485	348	114	52	46
10	38	a180	a500	198	157	141	638	475	348	103	52	46
11	44	a170	600	189	623	138	565	450	320	98	51	46
12	44	a140	514	175	1,370	141	682	435	356	93	51	46
13	43	a125	954	170	1,030	183	984	450	312	87	50	45
14	43	a115	938	333	818	234	1,200	430	475	82	50	45
15	44	a130	685	586	660	224	1,280	400	515	79	49	45
16	43	a142	582	518	550	207	1,180	392	460	75	49	45
17	43	a140	487	397	480	186	984	368	420	72	48	46
18	41	135	402	294	420	180	921	360	396	69	47	46
19	41	130	330	298	400	168	949	376	420	68	46	46
20	41	a125	283	272	445	157	812	400	430	64	47	46
21	41	a115	249	246	595	183	752	388	400	64	48	46
22	40	a110	298	219	606	217	655	460	372	62	49	46
23	38	a125	358	204	480	270	611	585	332	60	48	46
24	38	a650	384	184	368	304	585	580	300	59	47	46
25	38	a450	428	170	300	405	525	575	332	59	46	46
26	40	a350	342	164	262	776	455	565	316	57	46	46
27	57	a330	298	157	252	1,100	415	525	292	57	45	46
28	45	a310	330	152	245	1,040	548	490	273	57	45	46
29	43	a330	334	144	-	984	806	440	262	58	51	46
30	45	a560	342	135	-	a900	a850	405	245	57	60	44
31	79	-	550	130	-	800	-	530	-	56	53	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff Inches	Runoff Acre-feet
October	1,319	79	38	42.5	0.340	0.39	2,620
November	6,072	650	100	202	1.62	1.81	12,040
December	12,305	954	165	397	3.18	3.66	24,410
Calendar year 1942	79,662	1,400	38	218	1.74	23.70	158,000
January	9,116	894	130	294	2.35	2.71	18,080
February	11,429	1,370	126	408	3.26	3.40	22,670
March	10,573	1,100	138	341	2.73	3.15	20,970
April	24,942	1,340	415	831	6.65	7.42	49,470
May	16,494	1,110	360	532	4.26	4.91	32,720
June	11,460	555	245	382	3.06	3.41	22,730
July	3,062	228	56	98.8	.790	.91	6,070
August	1,560	60	45	50.3	.402	.46	3,090
September	1,386	49	44	46.2	.370	.41	2,750
Water year 1942-43	109,718	1,370	38	301	2.41	32.64	217,600

a No gage-height record; discharge computed on basis of records for stations at Pendleton and McKay Creek near Pilot Rock.

Time basis: Pacific war time. 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, 2¼ miles upstream from McKay Creek. Datum of gage is 1,062.54 feet above mean sea level, datum of 1929.

Drainage area.- 637 square miles.

Records available.- February 1891 to July 1892, May 1903 to June 1905, October 1934 to September 1943. May 1921 to September 1934 at site about 2¼ miles downstream.

Average discharge.- 20 years (1923-43), 445 second-feet.

Extremes.- Maximum discharge during year, 4,330 second-feet Apr. 2 (gage height, 4.34 feet); minimum, 30 second-feet Sept. 14.

1891-92, 1903-5, 1921-43: 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 Reith; 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 period Feb. 4 to Apr. 2, which are fair. Small diversions above station for irrigation; no regulation.

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	a43	159	1,120	2,810	342	828	2,420	2,210	844	365	52	52
2	a43	180	978	2,280	352	791	3,470	2,480	893	356	49	50
3	43	153	841	1,660	370	731	3,630	1,990	858	324	51	50
4	42	147	695	1,270	1,840	669	2,990	1,630	795	342	50	48
5	42	141	587	1,060	603	647	2,250	1,390	714	298	51	46
6	41	136	504	906	570	553	2,060	1,220	653	263	53	44
7	42	132	430	803	629	542	2,180	1,130	599	243	52	40
8	42	160	504	737	605	556	2,430	1,060	558	219	52	40
9	42	244	822	665	526	531	2,250	980	536	202	48	42
10	43	241	1,710	611	476	498	1,790	956	548	184	46	43
11	44	222	2,050	558	964	492	1,500	932	509	170	47	41
12	47	195	1,460	520	2,970	462	1,630	900	526	166	46	41
13	47	176	2,160	482	3,000	635	2,190	908	498	150	45	39
14	47	166	3,210	617	2,460	828	2,710	893	623	140	45	38
15	48	198	2,240	1,030	2,010	854	2,930	865	760	128	43	35
16	48	224	1,820	1,170	1,700	815	2,790	837	728	120	42	38
17	48	222	1,460	990	1,500	755	2,140	781	677	113	40	36
18	47	219	1,170	737	1,360	713	1,820	747	659	106	39	39
19	48	213	978	731	1,300	695	1,640	747	647	97	39	40
20	48	204	854	628	1,360	635	1,580	767	714	91	40	40
21	48	176	761	713	1,650	647	1,510	740	683	88	41	39
22	48	166	822	570	1,620	695	1,360	760	665	89	44	40
23	48	196	1,070	504	1,580	785	1,190	924	611	82	45	40
24	48	1,060	1,100	455	1,280	874	1,070	964	542	78	45	39
25	a49	952	1,530	425	1,070	1,020	996	908	536	a74	43	38
26	a52	719	1,170	405	932	1,590	964	908	564	a68	42	35
27	a64	749	1,000	420	867	2,780	830	844	514	67	40	38
28	66	665	1,110	415	854	2,680	934	795	482	63	39	39
29	61	701	1,160	405	-	2,580	1,580	734	445	61	41	39
30	58	1,210	1,330	365	-	2,440	1,690	659	400	59	57	39
31	66	-	1,710	352	-	2,060	-	754	-	57	59	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	1,505	68	41	48.5	2,990
November	10,330	1,210	132	344	20,490
December	38,356	3,210	450	1,237	75,080
Calendar year 1942	186,691	4,130	30	511	370,300
January	25,514	2,810	352	823	50,610
February	35,190	3,000	342	1,257	69,800
March	31,823	2,880	482	1,026	62,720
April	58,724	3,630	830	1,957	116,500
May	32,413	2,480	659	1,046	64,290
June	18,791	893	400	626	37,250
July	4,863	365	57	157	9,650
August	1,426	59	39	46.0	2,830
September	1,228	52	35	40.9	2,440
Water year 1942-43	259,953	3,630	35	712	515,600

Peak discharge.- Dec. 14 (1:30 a.m.) 3,730 sec.-ft.; Feb. 12 (11:30 p.m.) 3,460 sec.-ft.; Mar. 27 (2:30 p.m.) 3,130 sec.-ft.; Mar. 28 (10 a.m.) 3,150 sec.-ft.; Apr. 2 (8 p.m.) 4,330 sec.-ft.; Apr. 15 (8:30 a.m.) 3,210 sec.-ft.

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

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

Umatilla River at Yoakum, Oreg.

Location.- Water-stage recorder, lat. 45°41', long. 119°02', in SW¼ sec. 2, T. N., R. 30 E., at highway bridge half a mile northeast of Yoakum station and 2¾ 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 Furnish Reservoir, 1910-16), October 1934 to September 1943. June 1915 to September 1934 at site 5 miles upstream, above Furnish Reservoir.

Average discharge.- 40 years, 662 second-feet.

Extremes.- Maximum discharge during year, 4,270 second-feet Apr. 2 (gage height, 6.02 feet); minimum, 45 second-feet Oct. 1, 2 (gage height, 0.71 foot).
1903-43: 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 periods of no gage-height record, which are fair. Diversions above station for irrigation. Flow regulated to some extent by mills at Pendleton, and since 1927 by McKay Reservoir

Rating tables, water year 1942-43 (gage-height, in feet, and discharge, in second-feet)

Oct. 1 to Apr. 2

0.7	43	1.6	283	4.0	1,930
.8	59	1.9	406	4.8	2,760
.9	77	2.3	605	5.7	3,840
1.1	123	2.8	925		
1.3	181	3.4	1,385		

Apr. 3 to Sept. 30

0.8	62	1.7	330	4.0	1,930
.9	81	2.0	465	4.8	2,760
1.0	103	2.4	685	5.7	3,840
1.2	156	2.9	1,010		
1.4	218	3.4	1,390		

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	49	145	1,240	3,680	s520	1,160	3,340	2,990	914	455	410	314
2	46	233	1,060	3,270	s540	f1,120	3,880	3,530	968	415	350	287
3	53	187	925	2,420	561	a1,080	3,870	3,160	947	384	246	280
4	54	172	764	1,880	2,150	f988	3,360	2,730	954	410	225	280
5	49	166	647	1,590	1,020	918	2,750	2,320	882	379	250	276
6	48	163	561	1,360	836	829	2,530	2,000	810	330	253	272
7	46	157	500	1,210	981	803	2,620	1,880	764	303	291	264
8	51	172	525	1,110	967	810	2,850	1,670	715	346	303	261
9	49	283	822	1,020	890	770	2,760	1,410	661	388	338	261
10	49	306	1,620	946	842	736	2,320	1,330	637	435	354	257
11	51	283	2,400	842	1,130	738	2,050	1,280	608	460	374	280
12	53	258	1,750	816	3,330	732	2,080	1,230	608	480	384	287
13	56	233	2,260	777	3,720	869	2,560	1,210	592	495	397	283
14	56	216	3,660	883	3,270	1,050	3,080	1,290	631	515	397	280
15	57	240	2,730	1,410	2,750	1,120	3,390	1,250	842	505	402	272
16	57	291	2,240	1,710	2,340	1,080	3,380	1,240	862	465	397	253
17	57	287	1,900	a1,500	2,060	1,010	2,860	1,160	810	455	379	253
18	57	279	1,610	a1,130	1,880	967	2,510	1,020	810	450	358	261
19	57	269	1,320	a1,100	1,800	946	2,470	989	790	440	358	261
20	57	258	1,180	a1,230	1,840	855	2,350	1,000	882	420	366	268
21	57	240	1,060	h1,100	2,180	790	2,290	982	868	415	370	264
22	59	227	1,090	a1,000	2,420	829	2,040	947	875	450	374	208
23	59	233	1,380	a910	2,150	904	1,860	1,080	810	450	366	174
24	59	911	1,380	a820	1,790	1,010	1,700	1,140	745	415	366	177
25	61	1,010	1,960	a750	1,520	1,180	1,590	1,060	697	402	354	92
26	63	751	1,580	a710	1,330	1,790	1,470	1,060	823	402	354	62
27	77	758	1,330	a720	1,240	3,230	1,290	975	685	406	362	57
28	77	683	1,420	h713	1,200	3,460	1,330	882	564	410	354	56
29	73	653	1,520	a700	-	3,280	2,260	816	537	415	358	52
30	73	1,190	1,770	a660	-	3,160	2,430	739	542	415	370	51
31	77	-	2,170	a600	-	2,660	-	790	-	415	326	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	1,789	77	46	57.7	3,550
November	11,254	1,190	145	375	22,320
December	46,394	3,660	500	1,497	92,020
Calendar year 1942	284,661	4,270	42	780	564,600
January	38,567	3,880	600	1,244	76,500
February	47,267	3,720	520	1,688	93,730
March	40,906	3,460	732	1,320	81,140
April	75,270	3,880	1,290	2,509	149,300
May	45,160	3,530	739	1,457	89,570
June	22,833	968	537	761	45,290
July	13,125	515	303	423	26,030
August	10,786	410	225	348	21,390
September	6,643	314	51	221	13,180
Water year 1942-43	359,984	3,880	46	986	714,000

Peak discharge.- Dec. 14 (9 a.m.) 3,940 sec.-ft.; Jan. 1 (10 a.m.) 4,070 sec.-ft.; Feb 13 (7 a.m. to 11 a.m.) 3,830 sec.-ft.; Mar. 28 (1 p.m. to 3 p.m.) 3,660 sec.-ft.; Apr. 2 (6 p.m.) 4,270 sec.-ft.; May 2 (10:30 a.m.) 3,640 sec.-ft.

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

f Computed on basis of partly estimated gage-height record.

h Computed from staff-gage reading.

Time basis: Pacific war time. 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 1943.

Average discharge.- 40 years, 499 second-feet.

Extremes.- Maximum discharge during year, 3,680 second-feet Apr. 3 (gage height, 5.46 feet; minimum, 14 second-feet Oct. 24-26, July 9, 10 (gage height, 2.18 feet).
1903-43: Maximum discharge observed, 19,600 second-feet May 31, 1906 (gage height, 11.0 feet); no flow at times.

Remarks.- Records fair. Many diversions above station for irrigation; Brownell Canal diverts below station. Flow regulated by McKay and Cold Springs Reservoirs.

ting tables, water year 1942-43 (gage height, in feet, and discharge, in second-feet)

Oct. 1 to Apr. 2						Apr. 3 to Sept. 30					
2.1	9	3.1	250	4.4	1,680	2.1	9	3.1	265	4.4	1,700
2.3	23	3.4	460	4.9	2,570	2.3	23	3.4	490	4.9	2,570
2.5	48	3.7	750	5.4	3,550	2.5	49	3.7	780	5.4	3,550
2.8	119	4.0	1,100			2.8	126	4.0	1,130		

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	26	220	1,100	2,840	783	1,130	2,630	2,080	345	142	90	65
2	28	280	956	3,410	772	1,090	3,170	2,840	439	100	54	53
3	24	317	838	2,700	794	1,030	3,470	2,650	464	79	112	44
4	26	286	698	2,070	1,570	1,030	3,210	2,290	490	51	72	48
5	30	220	569	1,730	2,070	980	2,720	1,960	499	53	82	46
6	25	174	478	1,460	1,080	920	2,330	1,620	398	36	86	43
7	25	152	428	1,300	1,110	860	2,310	1,490	504	26	86	38
8	24	156	388	1,160	1,140	860	2,400	1,250	188	17	100	33
9	21	145	a500	1,060	1,150	838	2,530	986	142	14	84	33
10	19	174	896	992	1,020	783	2,130	868	92	17	37	34
11	23	200	a1,800	920	968	761	1,830	824	86	37	32	36
12	25	187	a1,600	838	2,500	761	1,670	813	89	49	36	49
13	19	169	a1,880	783	3,740	805	1,930	760	55	63	30	53
14	21	149	a2,700	805	3,410	1,030	2,400	791	51	79	19	57
15	23	141	a3,000	1,150	2,930	1,130	2,760	750	104	72	23	69
16	19	149	a2,400	1,630	2,220	1,100	2,760	760	226	69	73	67
17	35	205	a1,950	1,520	2,090	968	2,460	740	243	46	194	61
18	34	178	a1,680	1,330	1,870	872	1,940	620	265	48	49	57
19	23	165	a1,400	1,150	1,730	816	1,800	562	254	51	44	67
20	20	149	a1,180	1,330	1,700	794	1,780	526	317	42	42	67
21	18	141	1,020	1,460	1,870	676	1,670	499	448	36	37	72
22	17	141	908	1,140	2,200	676	1,520	456	535	32	53	65
23	17	141	1,140	1,060	2,160	718	1,330	473	562	34	57	59
24	14	204	1,240	1,000	1,850	816	1,200	553	499	36	53	57
25	14	908	1,610	908	1,550	932	1,020	508	422	31	53	48
26	14	708	1,570	896	1,340	1,230	974	439	499	31	55	49
27	16	626	1,270	908	1,220	2,270	802	405	382	33	51	40
28	20	636	1,230	908	1,160	2,990	730	352	238	65	48	43
29	19	550	1,380	884	-	3,030	1,350	310	123	120	46	48
30	20	750	1,480	849	-	3,050	1,860	265	97	86	97	44
31	69	-	1,940	816	-	2,700	-	243	-	65	89	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	728	69	14	23.5	1,440
November	8,621	908	141	287	17,100
December	41,229	3,000	388	1,330	81,780
Calendar year 1942	195,625	3,450	10	536	388,000
January	41,007	3,410	783	1,323	81,340
February	47,997	3,740	772	1,714	95,200
March	37,646	3,050	676	1,214	74,670
April	60,686	3,470	730	2,023	120,400
May	29,683	2,840	243	958	58,880
June	8,836	562	51	295	17,530
July	1,660	142	14	53.5	3,290
August	1,984	194	19	64.0	3,940
September	1,545	72	33	51.5	3,060
Water year 1942-43	281,622	3,740	14	772	558,600

a No gage-height record; discharge computed on basis of records for station at Yoakum.
Time basis: Pacific war time. 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, 1,32[illegible] 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 1943 (1927-29 incomplete).
Average discharge.- 15 years (1926-27, 1929-43), 87.0 second-feet.
Extremes.- Maximum discharge during year, 1,260 second-feet Jan. 1 (gage height, 4.51 feet); minimum, 1.1 second-feet Oct. 1; minimum gage height, 1.20 feet Aug. 15, 18. 1921, 1926-43: 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 for period of shifting control and periods of no gage-height record, which are fair. Many small diversions above station for irrigation; none between station and McKay Reservoir.

Rating tables, water year 1942-43, except period of shifting control (gage height, in feet, and discharge, in second-feet)

Oct. 1 to Feb. 10						Feb. 11 to Sept. 30					
1.3	1.9	1.8	22	2.8	208	1.3	3.6	2.0	50	3.1	322
1.4	3.8	2.0	40	3.1	340	1.4	6.6	2.2	78	3.4	455
1.5	6.7	2.2	65	3.4	515	1.5	10.5	2.4	115	3.8	675
1.6	10.7	2.4	99	3.8	765	1.6	15.5	2.6	162	4.2	940
1.7	16	2.6	146	4.3	1,110	1.8	29	2.8	217		

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1.5	22	235	1,150	99	a150	406	727	74	50	3.0	4.5
2	1.5	32	198	798	97	135	446	639	97	43	2.8	4.5
3	1.8	27	160	557	97	126	442	490	93	47	2.8	4.5
4	1.9	23	128	407	149	117	396	388	88	50	3.2	4.2
5	2.1	21	106	320	192	107	346	311	85	37	3.0	3.6
6	2.1	20	93	272	227	92	322	292	76	30	3.0	3.6
7	2.1	18	84	246	362	92	311	260	70	27	3.0	3.4
8	2.3	21	99	216	305	95	339	233	63	24	3.0	3.0
9	2.3	30	232	192	246	92	314	208	58	21	3.0	3.0
10	2.5	33	836	166	208	85	284	185	53	19	2.8	3.0
11	2.7	31	635	146	488	83	260	180	48	18	2.8	2.8
12	2.7	28	443	124	982	85	256	183	48	17	2.8	2.8
13	2.8	25	837	117	798	160	270	180	48	16	2.6	2.8
14	3.0	24	e732	201	621	233	292	180	69	14	2.3	2.8
15	3.4	27	e527	277	485	239	295	175	103	13	2.1	2.6
16	3.6	27	e401	272	410	230	284	175	97	10	1.9	2.3
17	5.2	27	e310	219	348	211	252	165	88	7.0	1.9	2.3
18	5.0	27	e250	a190	307	194	227	152	83	5.4	1.9	2.3
19	5.0	26	e205	a210	284	180	220	137	92	5.1	1.9	2.3
20	5.0	25	e178	212	284	165	223	124	115	5.7	1.9	2.3
21	5.0	24	e155	198	318	162	260	111	115	6.0	2.3	2.3
22	5.0	22	e166	185	322	165	233	101	113	6.0	2.6	2.3
23	4.7	24	e216	163	284	178	211	95	109	5.7	2.6	2.3
24	4.7	82	e238	158	246	194	188	85	97	5.4	2.8	2.1
25	4.7	97	e373	149	211	223	178	76	99	5.1	2.8	2.1
26	5.0	84	e295	152	185	318	175	70	95	4.5	2.8	2.1
27	5.5	144	e259	126	170	442	162	63	83	3.6	2.6	2.1
28	6.4	146	e390	138	157	470	274	58	74	3.2	2.3	2.3
29	6.4	236	e384	136	-	460	571	51	66	3.2	2.6	2.6
30	6.7	320	e443	121	-	442	485	49	59	3.0	3.4	2.8
31	7.1	-	e599	108	-	392	-	60	-	3.0	4.2	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	119.7	7.1	1.5	3.86	237
November	1,693	320	18	56.4	3,360
December	10,207	837	84	329	20,250
Calendar year 1942	52,442.6	1,190	0.9	144	104,000
January	7,926	1,150	108	256	15,720
February	8,882	982	97	317	17,620
March	6,317	470	83	204	12,530
April	8,924	571	162	297	17,700
May	6,203	727	49	200	12,300
June	2,458	115	48	81.9	4,880
July	507.9	50	3.0	16.4	1,010
August	82.7	4.2	1.9	2.67	164
September	85.6	4.5	2.1	2.85	170
Water year 1942-43	53,405.9	1,150	1.5	146	105,900

Peak discharge.- Dec. 10 (1 p.m.) 1,120 sec.-ft.; Dec. 13 (6 p.m.) 1,080 sec.-ft.; Jan. 1 (9 a.m. to 10 a.m.) 1,260 sec.-ft.; Feb. 12 (3 a.m.) 1,140 sec.-ft.; Apr. 28 (9:30 p.m.) 657 sec.-ft.; May 1 (3 p.m.) 844 sec.-ft.
a No gage-height record; discharge computed on basis of records for Umatilla River above Meacham Creek and at Pendleton.
e Shifting-control method used.
Time basis: Pacific war time. 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 1943.

Extremes.- Maximum contents observed during year, 71,820 acre-feet May 1 (elevation, 1,320.4 feet); minimum observed, 31,590 acre-feet Sept. 11 (elevation, 1,277.2 feet).

1930-43: 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 first 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 1942 to September 1943

Date	Elevation (feet)	Contents (acre-feet)	Change in contents during month (acre-feet)
Oct. 1	1,282.0	34,970	-
Nov. 1	1,282.0	34,970	0
Dec. 1	1,286.5	38,340	+3,370
Calendar year 1942	-	-	+7,890
Jan. 1	1,300.0	49,840	+11,500
Feb. 1	1,302.0	51,720	+1,880
Mar. 1	1,312.0	62,050	+10,330
Apr. 1	1,314.0	64,280	+2,230
May 1	1,320.4	71,820	+7,540
June 1	1,320.0	71,300	-520
July 1	1,320.0	71,300	0
Aug. 1	1,307.5	57,200	-14,100
Sept. 1	1,286.0	37,970	-19,230
Oct. 1	1,269.5	26,520	-11,450
Water year 1942-43	-	-	-8,450

Time basis: Pacific war time. 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 1943 (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, 402 second-feet May 1, 3, 4 (gage height, 1.45 feet); no flow Oct. 1 to Dec. 12.
1918-43: 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 periods of no gage-height record, which are poor. Diversions above station for irrigation. Flow completely regulated since 1927 by McKay Reservoir.

Rating tables, water year 1942-43 (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Aug. 30 to Sept. 26)

Dec. 23 to Apr. 3				Apr. 4 to Sept. 26			
0.0	0	0.5	58	0.1	3.0	0.6	73
.1	4	.6	82	.2	10.5	.8	127
.2	11	.8	139	.3	21	1.0	194
.3	23	1.0	213	.4	35	1.2	277
.4	39			.6	52	1.4	375

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1			0			217	127	295	7.5	27	365	259
2			0			217	114	392	7.5	25	261	246
3			0			213	139	402	42	25	187	242
4			0	a191		213	156	362	104	24	186	242
5			0			213	176	322	86	22	217	242
6			0			213	184	318	76	20	229	233
7			0			213	190	308	73	g45	273	229
8			0	h197		217	190	226	58	g138	282	229
9			0			217	198	133	29	g200	320	225
10			0		a209	222	210	133	27	g251	335	225
11			0			222	210	133	28	296	350	251
12			0			222	210	133	28	315	360	251
13			78	a197		222	214	130	28	340	365	251
14						222	214	196	27	355	365	251
15						222	217	210	63	335	365	231
18						222	217	210	98	325	365	221
17						222	217	181	96	330	345	225
18			a170		213	222	217	133	96	335	335	229
19					a214	222	217	130	96	335	335	229
20				h197	a215	170	217	a120	96	335	335	229
21					a216	130	214	a110	103	355	335	210
22					217	130	214	101	110	370	330	142
23			h170		222	130	214	78	78	355	330	133
24					226	133	214	52	78	335	330	104
25				a201	226	133	214	52	134	335	330	4.5
26					222	133	194	52	135	345	330	4.5
27			a177		222	100	112	38	63	350	330	a4.5
28					222	58	65	17	12	360	330	a4.5
29					-	58	117	12	89	365	330	a4.5
30				h205	-	77	190	7.5	47	365	324	a4.5
31				a205	-	88	-	7.5	-	365	268	-

Month	Second-feet-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	0	0	0	0	0
November	0	0	0	0	0
December	3,194	-	0	103	6,340
Calendar year 1942	46,649	422	0	128	92,530
January	6,117	-	-	197	12,130
February	5,968	226	-	213	11,840
March	5,493	222	58	177	10,900
April	5,582	217	65	186	11,070
May	4,994.0	402	7.5	161	9,910
June	2,015.0	135	7.5	67.2	4,000
July	7,978	370	20	257	15,820
August	9,742	365	186	314	19,320
September	5,356.0	259	4.5	179	10,620
Water year 1942-43	56,439	402	0	155	112,000

a No gage-height record; discharge interpolated or extrapolated.
g Computed from graph based on gage readings.
h Computed on basis of staff-gage reading.
Time basis: Pacific war time. 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, April 1927 to September 1943 (incomplete prior to October 1929).

Average discharge.- 14 years (1929-43), 36.7 second-feet.

Extremes.- Maximum discharge during year, 532 second-feet Jan. 1 (gage height, 3.70 feet); minimum daily, 0.1 second-foot Oct. 1, July 17 to Sept. 17.

1921-23, 1927-43: 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.

Revisions.- The maximum discharge for water year 1939 has been revised to 995 second-feet Mar. 21 (gage height, 3.69 feet), superseding figure published in Water-Supply Paper 884.

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. Several small diversions above station for irrigation.

Revisions.- Revised figures of discharge for the water year 1939, superseding those published in Water-Supply Paper 884, are given herewith.

Discharge, in second-feet, 1938-39, 1942-43

1938-39

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1		0	10	14	17	28	218	a33				
2		0	10	14	16	a27	228	29				
3		0	8.1	14	16	a26	213	29				
4		0	9.4	14	16	a25	199	h26				
5		0	9.4	15	15	a24	173	a21			a0.2	
6		0	12	14	14	a23	a145	a16				
7		0	12	14	14	22	a125	a12				
8		0	14	13	14	21	a125	h8.0				
9		0	a20	13	a13	21	a127	h7.7			h.2	
10		0	a23	13	a13	20	a115	a6.6				
11		0	a20	14	a12	20	106	a5.4				
12		0	a18	a16	12	52	114	a4.3				
13		0	18	a21	14	115	102	a3.2				
14		0	18	a20	18	90	71	a2.1				
15		0	a17	a20	57	86	66	a1.0	a0.2			
16		0	a17	a20	67	161	61	h.4		a0.2		
17		0	a16	20	a59	176	60					
18		0	a16	20	51	197	63					
19		0	a15	a20	50	380	a70					
20		0	14	a19	47	414	a66				a.1	
21		0	16	a19	42	809	a65					
22		.4	16	a19	39	634	a67					
23		.4	16	a18	36	566	66					
24		a.8	16	18	34	494	65	a.2				
25		a1.0	16	18	33	392	61					
26		a3.0	16	18	32	365	57					
27		a5.0	15	a18	31	326	a52					
28		a7.0	15	a18	31	260	a47					
29		10	15	a17	-	222	a42		h.2			
30		10	14	a17	-	191	a37		a.2			
31		-	14	17	-	185	-		-			

a No gage-height record; discharge interpolated or computed on basis of recorded range in stage, weather records, observer's notes, and records for McKay Creek near Pilot Rock.
h Computed from staff-gage reading.

Discharge, in second-feet, of Birch Creek at Rieth, Oreg., 1938-39, 1942-43--Continued

1942-43

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	h0.1	6.1	75	436	78	125	213	369	38	30	a0.1	a0.1
2	1.6	7.1	71	369	76	114	242	391	40	25	a.1	a.1
3	4.7	7.4	68	290	75	a105	264	339	44	16	a.1	a.1
4	4.7	7.7	58	240	98	98	250	280	48	25	a.1	a.1
5	2.4	8.6	54	206	87	91	225	234	49	18	h.1	a.1
6	a.1	8.9	49	184	86	a89	220	206	46	12	a.1	a.1
7	1.6	9.2	44	169	98	a87	232	184	48	6.5	a.1	a.1
8	4.7	11	45	154	100	a89	274	163	43	3.6	a.1	a.1
9	4.7	12	48	137	93	a81	252	142	39	3.0	a.1	h.1
10	3.2	12	79	123	87	a74	213	123	33	2.9	a.1	a.1
11	4.1	12	122	110	133	68	188	115	28	a2.5	a.1	a.1
12	4.7	13	109	100	250	64	182	110	29	a2.1	a.1	a.1
13	5.6	13	169	100	240	70	208	103	19	a1.7	a.1	a.1
14	6.1	14	240	125	240	76	250	103	26	a1.3	a.1	a.1
15	6.5	15	195	150	227	71	277	102	26	h.9	a.1	a.1
16	6.8	15	167	163	213	70	272	104	24	a.5	a.1	a.1
17	6.8	15	152	a170	204	68	234	96	30	h.1	a.1	a.1
18	5.6	15	137	a164	184	62	195	74	37	a.1	a.1	a.2
19	3.9	16	123	a165	180	71	180	70	45	a.1	a.1	a.2
20	5.4	17	110	163	180	64	178	68	55	a.1	a.1	a.2
21	5.8	17	98	h120	190	65	188	63	66	a.1	a.1	a.2
22	7.4	18	93	h106	204	63	171	56	73	h.1	a.1	a.2
23	6.5	18	91	a105	195	64	156	50	78	a.1	a.1	a.2
24	6.1	19	91	a104	173	66	142	45	73	a.1	a.1	a.2
25	6.3	20	120	a103	157	73	135	30	70	a.1	a.1	a.2
26	6.5	22	104	a102	152	93	128	30	62	a.1	a.1	a.2
27	6.5	25	97	a101	146	167	118	22	51	a.1	a.1	a.3
28	6.3	30	106	h100	137	230	137	18	43	a.1	a.1	a.3
29	6.1	36	118	a93	-	272	237	19	38	h.1	a.1	a.3
30	5.6	71	150	86	-	270	277	21	26	a.1	a.1	a.3
31	5.4	-	206	80	-	240	-	25	-	a.1	a.1	-

a No gage-height record; discharge interpolated or computed on basis of records for McKay Creek near Pilot Rock.
h Computed from staff-gage reading.

Monthly discharge, in second-feet, 1938-39, 1942-43

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October 1938	0	0	0	0	0
November	37.6	10	0	1.25	75
December	465.9	23	8.1	15.0	924
Calendar year 1938	14,916.5	530	0	40.9	29,580
January 1939	525	21	13	16.9	1,040
February	813	67	12	29.0	1,610
March	6,372	809	20	206	12,640
April	3,006	228	37	100	5,960
May	207.7	33	-	6.70	412
June	6.0	-	-	.2	12
July	6.2	-	-	.2	12
August	4.0	-	-	.13	7.9
September	0	0	0	0	0
Water year 1938-39	11,443.4	809	0	31.4	22,690
Calendar year 1939	10,943.5	809	0	30.0	21,700
October 1942	151.8	7.4	.1	4.90	301
November	511.0	71	6.1	17.0	1,010
December	3,389	240	44	109	6,720
Calendar year 1942	32,206.4	635	.1	88.2	63,870
January 1943	4,818	436	80	155	9,560
February	4,283	250	75	153	8,500
March	3,240	272	62	105	6,430
April	6,238	277	118	208	12,370
May	3,755	391	18	121	7,450
June	1,327	78	19	44.2	2,630
July	152.5	30	.1	4.92	302
August	3.1	.1	.1	.10	6.1
September	4.7	.3	.1	.16	9.3
Water year 1942-43	27,873.1	436	.1	76.4	55,290

Time basis: Pacific war time. 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. Brownwell Canal, from right bank of Umatilla River 2 miles downstream from 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 1928 to September 1943; records for some of the canals published separately prior to 1926.

Diversions, in acre-feet, water year October 1942 to September 1943

Month	Furnish Canal	Umatilla project feed canal	Western Land Canal	Allen Canal	Maxwell Canal	West Division main canal	Brownell Canal
October.....	0	-	734	1,360	1,040	10,350	0
November.....	0	10,330	12	a88	42	0	0
December.....	0	13,300	0	-	0	0	0
January.....	0	6,810	0	-	0	0	0
February.....	0	7,770	0	-	0	0	0
March.....	0	5,800	0	-	47	2,750	0
April.....	4,060	9,030	8,040	b309	1,900	8,560	915
May.....	6,890	10,990	12,140	633	2,460	11,040	899
June.....	6,770	10,830	10,730	921	3,380	11,020	904
July.....	8,400	1,730	11,060	1,110	2,120	11,540	1,370
August.....	8,340	-	9,510	1,160	1,820	11,050	1,420
September....	4,520	-	6,630	992	1,250	10,780	1,370
Water year 1942-43..	38,980	-	58,856	-	14,059	77,090	6,878

a Nov. 1-5 (no record Nov. 6 to Apr. 7).
b Apr. 8-30.
Note.- No gage-height record for months of little or no flow and for a few days and short periods at other times; discharge interpolated or computed on basis of information furnished by watermaster.
Time basis: Pacific war time. 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. Prior to Aug. 24, 1943, staff gage with different datum at sites near power plant.

Drainage area.- 231 square miles.

Records available.- October 1926 to September 1943. October 1916 to September 1917 (gage heights only) and March 1925 to September 1926, at site below outlet of Prairie power canal.

Average discharge.- 18 years, 107 second-feet, including flow of Prairie power canal.

Extremes.- Maximum discharge observed during year, 790 second-feet Jan. 1 (gage height, 3.30 feet), from rating curve extended above 300 second-feet; minimum recorded, 7 second-feet Sept. 14, 15.

1926-43: 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 fair. Gage read twice daily prior to Aug. 24, 1943. Diversions above station for irrigation and power (see p.41) for records for Prairie power canal at Prairie City).

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	12	15	46	702	72	100	205	295	387	93	12	12
2	12	17	44	362	71	92	214	301	319	94	14	12
3	12	30	28	212	58	87	235	316	286	99	12	10
4	12	19	18	146	59	90	254	324	244	160	12	10
5	11	20	28	116	55	82	240	304	235	110	13	10
6	10	13	20	96	68	71	262	280	169	97	14	10
7	11	12	23	58	98	78	295	248	140	108	14	11
8	10	24	28	71	78	102	344	217	135	96	16	11
9	10	15	28	64	65	91	304	193	142	89	15	10
10	10	12	34	73	62	81	251	192	150	90	14	9
11	13	12	32	46	80	78	212	187	178	73	13	8
12	11	11	31	41	131	78	212	178	198	68	12	8
13	10	11	87	62	156	133	257	160	184	60	9	8
14	10	11	90	60	140	124	337	138	228	45	10	8
15	10	20	61	58	137	98	432	126	215	22	11	7
16	11	15	53	47	139	87	494	116	148	22	10	8
17	10	14	45	30	154	100	440	101	136	25	12	9
18	10	17	43	41	168	78	408	86	171	31	13	9
19	10	16	41	b20	183	80	412	73	310	31	13	11
20	11	11	38	114	217	67	396	68	269	29	13	12
21	10	11	36	230	268	71	376	68	220	28	13	12
22	16	12	40	283	304	66	327	74	189	27	13	12
23	12	17	54	162	237	65	304	107	154	24	13	13
24	11	30	92	96	189	71	286	171	144	24	14	13
25	11	14	86	112	146	82	314	218	152	21	13	12
26	11	12	28	111	133	135	274	241	127	17	12	12
27	10	39	59	96	124	205	248	246	119	14	12	12
28	10	28	254	86	111	286	248	246	107	14	10	12
29	11	41	108	81	-	283	265	249	104	12	10	12
30	11	45	126	74	-	286	280	257	100	12	14	12
31	11	-	468	67	-	243	-	335	-	12	13	-

Month	River only				River and Prairie power canal			
	Maximum	Minimum	Mean	Runoff in acre-feet	Maximum	Minimum	Mean	Runoff in acre-feet
October	16	10	11.0	674	77	47	65.3	4,010
November	45	11	18.8	1,120	117	77	88.8	5,280
December	468	18	70.0	4,300	545	62	145	8,890
Calendar year 1942	520	6	88.1	63,790	588	27	148	106,900
January	702	20	123	7,570	784	49	192	11,790
February	304	55	132	7,340	377	127	204	11,350
March	286	65	116	7,120	359	138	188	11,590
April	494	205	304	18,100	567	278	377	22,420
May	335	68	197	12,130	417	140	271	16,690
June	387	100	189	11,230	467	180	265	15,780
July	160	12	53.1	3,270	242	78	130	8,020
August	16	9	12.5	772	86	38	55.2	3,400
September	13	7	10.5	625	57	36	47.4	2,820
Water year 1942-43	702	7	103	74,250	784	36	169	122,000

b Stage-discharge relation affected by ice.
Time basis: Pacific war time. 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 1943.

Average discharge.- 17 years, 389 second-feet.

Extremes.- Maximum discharge during year, 3,410 second-feet Jan. 1 (gage height, 10.50 feet); minimum, 55 second-feet Aug. 29 (gage height, 1.77 feet).
1926-43: 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 good. Many diversions above station for irrigation.

Rating table, water year 1942-43 (gage height, in feet, and discharge, in second-feet)

1.8	58	3.6	332	6.5	1,190
2.1	90	4.0	418	7.5	1,620
2.4	127	4.5	538	8.8	2,310
2.8	185	5.1	705	10.2	3,200
3.2	254	5.7	895		

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	71	170	774	3,210	612	1,250	2,410	2,320	1,350	556	130	70
2	70	188	801	2,700	637	1,210	2,440	2,200	1,410	520	131	72
3	72	206	623	1,710	598	1,150	2,590	2,090	1,280	506	122	76
4	76	206	488	1,340	620	1,150	2,650	2,040	1,170	577	123	80
5	80	206	441	1,220	657	1,120	2,650	1,980	1,060	574	123	81
6	82	203	441	1,090	687	1,040	2,700	1,920	972	506	124	83
7	82	203	439	930	1,050	1,040	2,810	1,780	881	493	128	87
8	76	215	446	f822	898	1,270	2,980	1,640	832	523	124	83
9	76	231	500	f777	756	1,480	2,980	1,480	828	474	117	80
10	78	223	606	735	711	1,270	2,590	1,390	853	439	108	79
11	82	216	634	681	753	1,210	2,270	1,340	853	407	104	78
12	88	213	567	595	1,040	1,210	2,210	1,270	856	381	104	78
13	100	215	690	634	1,200	1,470	2,380	1,190	836	364	102	77
14	109	216	1,060	a700	1,300	1,550	2,700	1,120	836	342	95	78
15	117	232	898	a740	1,270	1,380	3,000	1,050	870	312	87	78
16	130	241	768	f681	1,250	1,270	3,140	993	774	281	81	77
17	141	245	717	f585	1,300	1,210	3,020	940	717	254	74	72
18	142	250	672	392	1,430	1,110	2,790	853	729	234	71	71
19	142	254	631	385	1,530	1,110	2,660	789	912	220	70	71
20	142	241	606	623	1,680	1,010	2,570	762	1,080	213	66	69
21	142	231	580	828	1,960	1,010	2,430	756	979	206	62	67
22	142	227	569	1,270	2,200	990	2,210	759	895	195	63	67
23	138	234	681	1,020	2,100	1,010	2,010	789	825	195	66	65
24	133	281	860	a750	1,830	1,110	1,880	937	765	191	66	63
25	134	294	1,120	a620	1,550	1,240	1,820	1,020	756	195	64	63
26	140	288	780	780	1,410	1,750	1,810	1,070	726	187	64	65
27	144	453	714	750	1,340	2,360	1,640	1,090	678	174	61	64
28	151	548	1,450	705	1,290	2,810	1,760	1,050	648	160	61	65
29	154	826	1,320	657	-	3,000	1,960	1,030	595	145	58	63
30	160	1,090	1,110	628	-	3,100	1,900	1,030	587	140	64	64
31	164	-	2,440	508	-	2,690	-	1,170	-	134	71	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	3,558	164	70	115	7,060
November	8,846	1,090	170	295	17,550
December	24,426	2,440	439	788	48,450
Calendar year 1942	235,386	2,440	44	645	466,900
January	29,066	3,210	385	938	57,650
February	33,659	2,200	598	1,202	66,760
March	45,580	3,100	990	1,470	90,410
April	72,960	3,140	1,640	2,432	144,700
May	39,848	2,320	756	1,285	79,040
June	26,553	1,410	587	885	52,670
July	10,098	577	134	326	20,030
August	2,784	131	58	89.8	5,520
September	2,186	87	63	72.9	4,340
Water year 1942-43	299,564	3,210	58	821	594,200

a No gage-height record; discharge computed on basis of records for John Day River at Service Creek and North Fork John Day River at Monument.
f Computed on basis of partly estimated gage-height record.
Time basis: Pacific war time. 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 1943, in reports of Geological Survey. March 1925 to September 1926, and October 1929 to September 1936, in reports of State engineer.

Average discharge.- 15 years (1925-26, 1929-43), 1,490 second-feet.

Extremes.- Maximum discharge during year, 16,100 second-feet Mar. 28 (gage height, 13.14 feet); minimum, 171 second-feet Oct. 1 (gage height, 1.14 feet).
1929-43: 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. Many diversions above station for irrigation.

Rating tables, water year 1942-43, except period of ice effect
(gage height, in feet, and discharge, in second-feet)

Oct. 1 to Mar. 26

1.2	183	3.0	840	6.0	3,150
1.5	250	3.5	1,120	7.5	5,020
2.0	400	4.0	1,440	9.0	7,510
2.5	600	5.0	2,200	11.0	12,090

Mar. 27 to Sept. 30

1.1	175	3.5	1,150	9.0	7,340
1.5	265	4.0	1,490	10.5	10,220
2.0	425	5.0	2,280	12.0	13,400
2.5	630	6.0	3,250		
3.0	870	7.5	5,020		

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	175	334	2,580	11,400	1,540	3,910	9,580	12,400	5,760	a2,500	468	394
2	a176	365	2,480	10,600	1,810	3,800	9,960	11,600	6,030	a2,400	446	372
3	a177	475	2,050	6,980	1,770	3,640	10,400	10,200	5,260	a2,300	436	334
4	179	499	1,620	5,100	1,820	3,500	10,300	9,500	4,790	2,360	432	310
5	a177	495	1,190	4,680	1,950	3,460	9,660	8,940	4,320	2,410	432	292
6	a180	459	1,110	4,210	1,900	3,160	9,840	8,450	3,930	2,170	422	280
7	a185	424	1,180	3,710	2,660	2,970	10,400	7,840	3,670	1,980	414	271
8	a182	428	1,250	3,070	2,660	3,170	11,400	6,810	3,540	1,990	404	265
9	a180	455	1,360	2,810	2,290	4,040	11,600	5,960	3,700	1,860	390	250
10	a178	515	1,540	2,600	2,060	3,840	9,560	5,480	3,910	1,700	376	242
11	a185	483	1,850	2,270	2,150	3,550	8,220	5,280	3,760	1,550	358	235
12	194	424	1,760	2,020	3,230	3,550	8,150	5,200	3,580	1,410	349	228
13	204	393	1,840	1,950	4,080	4,240	9,060	5,010	3,550	1,310	337	220
14	228	390	3,170	2,340	4,590	4,890	10,600	4,710	3,460	1,200	325	218
15	252	435	3,160	2,720	4,470	4,370	12,200	4,380	3,730	1,110	307	213
16	255	487	2,750	2,680	4,210	3,840	13,200	4,130	3,680	1,020	292	205
17	272	560	2,450	2,240	4,330	3,560	12,700	3,910	3,360	950	274	203
18	292	531	2,280	1,360	4,700	3,280	11,500	3,670	3,390	900	252	199
19	290	515	2,060	967	5,010	3,010	11,100	3,400	3,690	845	242	197
20	282	507	1,940	1,880	5,410	3,020	10,900	3,360	a4,200	810	240	197
21	280	447	1,800	2,600	6,390	2,740	10,500	3,460	a4,100	800	238	195
22	278	400	1,760	2,930	7,420	2,830	9,460	3,610	a3,800	795	235	191
23	275	414	2,060	2,970	6,940	2,940	8,320	3,930	a3,550	780	238	187
24	270	543	2,410	2,370	5,960	3,350	7,830	4,840	a3,250	730	245	187
25	265	790	3,220	b1,900	5,110	4,110	7,250	5,420	a3,200	725	242	187
26	268	845	2,800	2,260	4,470	6,820	6,780	5,670	a3,400	706	238	183
27	278	830	2,130	2,240	4,210	12,100	6,310	5,600	a3,100	648	230	183
28	280	1,570	3,540	2,160	4,040	13,700	6,470	5,350	a2,850	598	220	181
29	292	1,550	4,120	2,020	-	13,000	10,600	5,120	a2,750	554	218	181
30	306	3,260	3,470	1,900	-	13,100	10,300	4,840	a2,600	528	245	181
31	309	-	5,650	1,640	-	10,900	-	4,840	-	500	260	-

Month	Second-feet-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	7,344	309	175	237	14,570
November	19,823	3,260	334	661	39,320
December	72,480	5,650	1,110	2,338	143,800
Calendar year 1942	898,257	11,200	137	2,461	1,782,000
January	100,577	11,400	967	3,244	199,500
February	107,180	7,420	1,540	3,828	212,600
March	158,390	13,700	2,740	5,109	314,200
April	294,350	13,200	6,310	9,812	583,800
May	182,910	12,400	3,360	5,900	362,800
June	113,950	6,030	2,600	3,798	226,000
July	40,139	2,500	500	1,295	79,610
August	9,805	468	218	316	19,450
September	6,981	394	181	233	13,850
Water year 1942-43	1,113,929	13,700	175	3,052	2,210,000

a No gage-height record; discharge computed on basis of records for John Day River at Picture Gorge near Dayville and at McDonald Ferry and North Fork John Day River at Monument.
b Stage-discharge relation affected by ice.
Time basis: Pacific war time. 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 1943.
Average discharge.- 38 years, 1,934 second-feet.
Extremes.- Maximum discharge during year, 15,300 second-feet Mar. 29 (gage height, 8.14 feet); minimum daily, 175 second-feet Oct. 1.

1904-43: 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 no gage-height record, which are fair. Diversions above station for irrigation.

Rating tables, water year 1942-43 (gage height, in feet, and discharge, in second-feet)

Oct. 1 to Jan. 1						Jan. 2 to Sept. 30					
1.5	180	3.0	1,520	5.0	5,440	1.5	210	3.0	1,530	6.0	8,070
1.8	345	3.5	2,260	5.5	6,790	1.8	375	3.6	2,420	7.0	11,250
2.1	555	4.0	3,160	6.2	8,890	2.2	665	4.3	3,720	8.0	14,800
2.5	915	4.5	4,230			2.6	1,050	5.0	5,300		

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	a175	321	3,290	6,760	2,310	4,730	11,100	11,200	5,040	2,660	525	255
2	a180	352	3,440	13,000	2,120	4,590	10,200	13,300	6,100	2,570	503	271
3	a185	384	2,910	10,600	2,230	4,430	10,700	12,000	6,370	2,470	482	298
4	h190	390	2,520	7,710	2,520	4,270	11,000	10,800	5,580	2,320	468	394
5	a195	445	a2,050	6,040	3,040	4,080	10,800	10,100	5,010	2,310	503	369
6	200	525	a1,650	5,550	2,810	4,010	10,400	9,490	4,570	2,420	489	345
7	200	525	a1,320	5,010	3,660	3,760	10,400	8,930	4,180	2,160	468	321
8	195	532	h1,350	4,540	3,820	3,600	11,100	8,160	3,850	1,980	447	304
9	200	488	1,580	3,850	3,780	3,720	12,200	7,350	3,720	1,900	427	293
10	205	466	1,730	3,420	3,240	4,450	11,900	6,610	3,700	1,660	427	288
11	200	473	2,010	3,130	3,340	4,430	9,970	6,200	3,990	1,700	408	282
12	200	525	2,160	2,830	4,100	4,080	8,740	6,070	3,910	1,580	401	271
13	195	532	2,260	2,540	4,640	4,140	8,740	5,730	3,700	1,450	382	266
14	205	495	2,340	2,470	5,450	4,770	9,650	5,350	3,680	1,340	369	260
15	210	466	3,490	3,130	5,840	5,400	11,100	4,990	3,580	1,240	357	250
16	225	438	3,760	3,400	5,600	4,940	12,500	4,660	3,740	1,160	345	245
17	246	466	3,300	3,190	5,300	4,450	13,400	4,410	3,820	1,090	333	240
18	268	510	2,930	2,690	5,350	4,140	12,700	4,160	3,500	1,020	310	230
19	280	579	2,670	1,880	5,730	3,870	11,800	3,870	3,460	930	293	225
20	297	579	2,430	1,610	6,020	3,520	11,500	3,640	3,760	880	288	230
21	321	563	2,260	2,240	6,390	3,560	11,200	3,540	4,360	831	282	230
22	315	555	2,150	2,980	7,240	3,220	10,800	3,620	4,250	804	271	220
23	303	532	2,070	a3,200	8,130	3,320	9,650	3,760	3,820	795	276	215
24	303	495	2,290	h3,420	7,530	3,400	8,590	4,060	3,600	795	271	215
25	303	466	2,880	2,800	6,580	3,800	8,100	4,940	3,300	786	266	215
26	303	595	3,650	a2,550	5,780	4,640	7,740	5,580	3,220	716	260	210
27	297	936	3,570	h2,760	5,180	7,530	7,530	5,840	3,440	699	266	215
28	291	1,230	3,400	2,870	4,920	12,400	6,950	5,760	3,130	674	271	215
29	303	1,410	4,300	2,760	-	14,100	8,100	5,480	2,890	625	260	210
30	303	2,210	5,160	2,610	-	13,600	11,800	5,280	2,780	593	250	210
31	309	-	5,160	2,540	-	13,400	-	5,040	-	555	250	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	7,602	321	175	245	15,080
November	18,495	2,210	321	616	36,660
December	86,080	5,160	1,320	2,777	170,700
Calendar year 1942	992,532	11,000	146	2,719	1,969,000
January	126,280	13,000	1,610	4,074	250,500
February	132,650	8,130	2,120	4,738	263,100
March	168,250	14,100	3,220	5,427	333,700
April	310,360	13,400	6,950	10,350	615,600
May	199,920	13,300	3,540	6,449	396,500
June	120,050	6,370	2,780	4,002	238,100
July	42,913	2,660	555	1,384	85,120
August	11,148	525	250	360	22,110
September	7,792	394	210	260	15,460
Water year 1942-43	1,231,528	14,100	175	3,374	2,443,000

Peak discharge.- Jan. 2 (2 p.m.) 14,000 sec.-ft.; Mar. 28 (7 a.m.) 13,300 sec.-ft.; Mar. 29 (7:30 a.m.) 15,300 sec.-ft.; Apr. 9 (9 p.m.) 12,800 sec.-ft.; Apr. 17 (1 p.m.) 13,700 sec.-ft.; May 2 (3 p.m.) 14,100 sec.-ft.

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

h Computed from staff-gage reading.

Time basis: Pacific war time. 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 1943.

Average discharge.- 18 years, 46.3 second-feet.

Extremes.- Maximum discharge observed during year, 93 second-feet Jan. 21 (gage height, 2.90 feet); no flow part of Oct. 22, Nov. 3.
1925-43: Maximum discharge, that of Jan. 21, 1943; no flow at times.

Remarks.- Records good except those for period of shifting control, which are fair. 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 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	35	66	78	82	74	72	73	74	80	82	63	45
2	35	66	76	77	71	72	73	75	73	85	72	44
3	38	50	76	73	73	72	73	75	73	84	64	42
4	44	65	44	76	73	72	73	75	73	82	60	42
5	43	65	75	77	72	72	73	73	73	82	59	41
6	39	65	76	77	74	72	73	73	73	78	57	42
7	40	65	76	75	74	72	73	73	74	83	55	42
8	42	71	75	75	71	73	73	71	74	82	56	41
9	44	71	76	70	71	72	73	72	80	85	53	36
10	46	70	76	70	72	72	73	73	80	78	50	37
11	58	70	75	70	74	72	71	73	74	85	50	37
12	58	72	75	58	71	74	73	73	74	83	46	34
13	58	72	73	77	73	73	73	73	74	84	45	34
14	58	72	76	77	73	73	71	73	74	85	43	34
15	65	72	76	77	74	73	73	72	74	83	38	33
16	63	72	76	77	74	73	73	73	74	73	30	28
17	63	72	75	76	68	72	73	73	76	73	33	28
18	63	72	76	8	72	70	73	73	82	70	28	28
19	60	72	76	50	72	73	76	73	80	77	27	29
20	59	70	76	65	75	73	72	73	78	60	28	33
21	59	71	76	82	69	73	72	72	75	73	28	34
22	45	74	76	75	73	73	73	73	79	74	28	36
23	60	73	76	70	73	73	73	73	79	75	31	38
24	60	70	76	52	72	73	72	73	79	74	32	40
25	60	73	76	72	72	73	67	74	79	74	36	36
26	60	76	60	73	71	73	72	76	79	74	33	38
27	65	77	76	69	71	74	73	76	79	69	29	39
28	65	72	76	71	71	72	72	60	73	68	26	38
29	66	72	81	72	-	74	72	76	79	67	31	40
30	66	72	82	73	-	73	72	82	81	66	48	38
31	66	-	77	39	-	73	-	82	-	66	42	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	1,683	66	35	54.3	3,340
November	2,100	77	60	70.0	4,170
December	2,314	82	44	74.6	4,590
Calendar year 1942	21,716	82	7	59.5	43,070
January	2,125	82	8	68.5	4,210
February	2,021	74	68	72.2	4,010
March	2,251	74	70	72.6	4,460
April	2,176	76	67	72.5	4,320
May	2,300	82	71	74.2	4,560
June	2,295	82	73	76.5	4,550
July	2,396	85	66	77.3	4,750
August	1,323	72	27	42.7	2,620
September	1,107	45	28	36.9	2,200
Water year 1942-43	24,091	85	8	66.0	47,780

Note.- Shifting-control method used Nov. 4 to Jan. 20.
Time basis: Pacific war time. To convert war time to standard time, subtract 1 hour.

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 South Fork Strawberry Creek and 8½ miles south of Prairie City.

Records available.- October 1930 to September 1943.

Average discharge.- 13 years, 11.4 second-feet.

Extremes.- Maximum discharge during year, 82 second-feet July 8; maximum gage height, 2.11 feet Jan. 19, affected by ice; minimum discharge, 2.6 second-feet Oct. 28-30.
1930-43: 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 fair. No diversion above station; some natural regulation by Strawberry Lake.

Rating table, water year 1942-43 (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Oct. 11-13)

1.0	1.4	1.5	24.6
1.1	3.6	1.6	32.9
1.2	6.8	1.8	51.6
1.3	11.2	2.1	84.5
1.4	17.0		

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	3.9	3.1	5.4	4.8	3.1	3.9	6.1	29	71	72	25	7.2
2	3.9	3.6	5.1	4.5	3.1	3.9	6.4	30	69	76	25	6.8
3	3.9	3.6	4.8	4.5	a3.1	3.9	6.8	31	62	76	22	6.8
4	3.6	3.3	4.8	4.5	a3.2	3.6	7.2	34	57	78	21	6.8
5	3.6	3.1	4.8	4.5	a3.2	3.6	7.6	36	53	76	19	6.4
6	3.6	3.1	4.8	4.2	a3.3	3.6	8.5	35	49	73	17	6.4
7	3.6	3.3	4.8	4.2	a3.3	3.6	9.8	34	47	76	16	6.4
8	3.6	3.3	4.8	3.9	a3.4	3.6	11	32	47	79	15	6.4
9	3.6	3.1	4.8	3.9	a3.5	3.6	10	31	51	73	14	6.1
10	3.6	3.1	4.8	3.9	a3.6	3.6	9.4	31	55	71	14	6.1
11	3.3	3.1	4.8	3.9	a3.6	3.6	8.9	30	59	65	12	6.1
12	3.3	2.8	a4.8	3.6	a3.7	3.6	8.9	29	59	61	12	5.7
13	3.3	2.8	a5.1	3.6	a3.8	3.6	11	28	56	57	11	5.7
14	3.1	3.3	a5.1	3.6	a3.8	3.6	16	26	54	54	11	5.4
15	3.3	3.1	a5.1	3.6	a3.9	3.3	23	25	52	51	11	5.4
16	3.1	3.1	4.8	3.6	a3.9	3.3	28	23	51	50	10	5.4
17	3.1	3.1	4.8	b3.6	a4.0	3.3	26	22	53	48	9.8	5.1
18	3.1	3.1	4.8	b3.6	a4.1	b3.3	27	21	62	46	9.8	5.1
19	3.1	2.8	4.5	b3.9	a4.1	3.1	30	20	71	43	9.4	4.8
20	3.1	2.8	4.5	3.6	a4.2	b3.1	30	21	71	42	8.9	4.8
21	3.1	2.8	4.5	3.9	4.2	3.1	30	22	69	41	8.9	4.8
22	2.8	3.1	4.5	3.6	4.5	3.1	30	26	65	40	8.5	4.8
23	2.8	4.8	4.5	3.6	4.5	3.1	30	36	60	38	8.5	4.8
24	2.8	5.1	4.5	3.6	4.5	3.1	30	48	57	38	8.0	4.5
25	2.8	4.2	4.5	3.6	4.5	3.1	30	62	56	36	8.0	4.5
26	2.8	4.8	4.2	3.6	4.2	4.2	29	69	56	35	7.6	4.5
27	2.8	4.8	4.5	3.6	4.2	5.1	28	71	58	33	7.6	4.5
28	2.6	4.2	4.5	3.3	3.9	5.7	27	72	61	30	7.6	4.5
29	2.6	5.7	4.5	3.3	-	6.4	26	73	65	30	7.6	4.2
30	2.6	5.4	4.5	3.3	-	6.8	27	74	70	28	7.6	4.2
31	2.8	-	4.5	3.1	-	6.4	-	73	-	26	7.2	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	99.2	3.9	2.6	3.20	197
November	107.5	5.7	2.8	3.58	213
December	146.4	5.4	4.2	4.72	290
Calendar year 1942	4,840.0	80	2.6	13.3	9,600
January	118.0	4.8	3.1	3.81	234
February	106.4	4.5	3.1	3.80	211
March	120.8	6.8	3.1	3.90	240
April	578.6	30	6.1	19.3	1,150
May	1,194	74	20	38.5	2,370
June	1,766	71	47	58.9	3,500
July	1,642	79	26	53.0	3,260
August	380.0	25	7.2	12.3	754
September	164.2	7.2	4.2	5.47	326
Water year 1942-43	6,423.1	79	2.6	17.6	12,740

a No gage-height record; discharge computed on basis of recorded range in stage, weather records, and records for John Day River at Prairie City.
b Stage-discharge relation affected by ice.
Time basis: Pacific war time. 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 1½ 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 1943.
Average discharge.- 14 years, 344 second-feet.
Extremes.- Maximum discharge during year, 4,180 second-feet Apr. 16 (gage height, 7.95 feet), from rating curve extended above 1,800 second-feet; minimum, 39 second-feet Oct. 9, 10 (gage height, 2.01 feet).
1929-43: 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 stages.

Rating tables, water year 1942-43, except periods of ice effect
(gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Mar. 4 to Apr. 14)

Oct. 1 to Apr. 14				Apr. 15 to Sept. 30					
2.0	38	2.9	195	2.2	63	3.2	385	5.3	1,360
2.2	62	3.2	280	2.4	93	3.6	435	6.0	1,910
2.4	93	3.6	430	2.6	130	4.0	610	6.8	2,690
2.6	128	4.0	610	2.9	199	4.6	925	7.8	3,960

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	50	137	315	457	190	332	980	2,380	2,600	1,050	162	132
2	50	166	250	398	198	322	1,140	2,320	2,250	1,000	162	113
3	52	159	192	304	185	298	1,330	2,340	1,920	1,020	158	100
4	47	134	126	304	172	322	1,320	2,460	1,690	1,010	151	95
5	45	100	142	294	163	308	1,320	2,310	1,500	876	149	90
6	44	88	178	268	159	259	1,440	2,090	1,370	832	145	85
7	42	87	155	195	161	301	1,700	1,850	1,350	859	138	83
8	40	123	159	b170	155	287	1,910	1,580	1,420	788	134	82
9	40	124	163	b150	146	271	1,590	1,500	1,760	715	132	77
10	39	90	170	b135	150	244	1,330	1,600	1,680	640	126	74
11	45	72	166	b125	166	262	1,200	1,460	1,490	570	122	71
12	56	b55	159	b120	195	277	1,430	1,340	1,490	524	117	69
13	59	b65	202	b140	220	287	1,980	1,250	1,410	467	113	66
14	56	107	265	b220	256	287	2,770	1,120	1,440	427	107	66
15	62	148	271	b230	274	265	3,450	1,020	1,570	399	106	66
16	68	146	253	b200	287	256	3,850	958	1,410	367	98	64
17	59	112	229	b130	304	241	3,370	886	1,420	344	93	62
18	53	112	210	b100	322	202	3,290	876	1,560	330	97	61
19	52	95	208	b130	343	256	3,540	930	1,760	313	91	61
20	52	77	200	b200	382	205	2,900	1,040	1,630	316	91	59
21	50	79	195	265	462	235	2,720	1,180	1,420	324	91	58
22	49	123	200	284	516	226	2,280	1,390	1,350	306	97	61
23	49	136	200	250	480	238	2,160	1,990	1,200	273	93	59
24	48	274	200	212	430	262	2,040	2,510	1,130	279	91	59
25	47	198	200	253	354	329	1,930	2,710	1,200	252	88	58
26	47	142	124	244	340	596	1,690	2,770	1,120	228	85	57
27	58	190	168	220	346	875	1,530	2,550	1,080	209	83	55
28	66	202	253	200	343	1,070	1,640	2,470	1,080	199	80	56
29	57	229	220	192	-	1,200	1,850	2,280	1,100	189	83	58
30	62	386	220	178	-	1,210	1,880	2,070	1,070	179	147	58
31	65	-	308	185	-	1,050	-	2,470	-	172	151	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	1,609	68	39	51.9	3,190
November	4,156	366	55	139	8,240
December	6,301	315	124	203	12,500
Calendar year 1942	165,274	2,750	39	453	327,800
January	6,753	457	100	218	13,390
February	7,699	516	146	275	15,270
March	12,773	1,210	202	412	25,330
April	61,560	3,850	980	2,052	122,100
May	55,700	2,770	876	1,797	110,500
June	44,470	2,600	1,070	1,482	88,200
July	15,457	1,050	172	499	30,660
August	3,581	162	80	116	7,100
September	2,155	132	55	71.8	4,270
Water year 1942-43	222,214	3,850	39	609	440,800

b Stage-discharge relation affected by ice.
Time basis: Pacific war time. 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 1943.

Average discharge.- 17 years (1925-27, 1928-43), 1,023 second-feet.

Extremes.- Maximum discharge during year, 13,600 second-feet Mar. 28 (gage height, 11.51 feet); minimum, 86 second-feet Oct. 9, 10 (gage height, 1.54 feet).
1925-43: 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 in period Nov. 2-13, 1936, when recorder was not operating.

Remarks.- Records good except those for period Jan. 10 to Feb. 6, which are fair. Many small diversions above station for irrigation.

Rating tables, water year 1942-43 (gage height, in feet, and discharge, in second-feet)

Oct. 1 to Mar. 27

1.5	78	2.8	600	5.0	2,560
1.8	150	3.2	860	6.0	3,800
2.1	250	3.7	1,240	7.5	5,980
2.4	375	4.3	1,800	9.3	9,160

Mar. 28 to Sept. 30

1.7	93	2.9	605	5.6	3,210
1.9	150	3.4	945	6.8	4,810
2.2	250	4.0	1,440	8.4	7,300
2.5	380	4.7	2,150	10.0	10,320

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	95	159	1,370	6,680	a1,000	2,110	6,330	9,260	4,320	1,740	290	282
2	99	270	1,380	4,970	a1,070	2,040	7,030	7,780	4,210	1,640	278	229
3	99	298	965	3,330	a1,060	1,900	7,150	6,890	3,490	1,590	278	198
4	101	282	725	2,630	a1,050	1,910	6,740	6,450	3,140	1,670	278	177
5	101	243	552	2,500	a1,100	1,830	6,390	5,930	2,790	1,480	266	168
6	97	198	648	2,240	a1,200	1,560	6,490	5,570	2,490	1,360	258	159
7	95	184	642	1,870	1,450	1,640	7,010	4,950	2,350	1,310	246	150
8	93	212	648	1,560	1,210	1,720	8,010	4,350	2,420	1,270	236	144
9	91	266	706	1,400	1,090	2,200	7,220	3,920	2,680	1,160	232	141
10	86	254	853	1,300	1,040	1,920	5,750	3,770	2,740	1,060	226	135
11	97	198	1,030	a1,200	1,230	1,910	5,020	3,630	2,490	968	215	129
12	101	153	937	a1,070	1,920	1,980	5,450	3,340	2,390	896	204	123
13	113	150	1,420	a1,040	2,340	2,550	6,340	3,100	2,320	833	198	117
14	126	187	2,040	a1,500	2,550	2,670	7,650	2,870	2,330	763	187	117
15	121	218	1,800	1,700	2,460	2,250	8,880	2,630	2,710	702	177	109
16	126	294	1,560	1,550	2,330	1,990	9,560	2,450	2,420	664	171	109
17	139	282	1,400	a1,150	2,430	1,820	8,620	2,300	2,280	618	162	106
18	131	243	1,270	a850	2,680	1,570	7,810	2,140	2,430	581	153	104
19	121	243	1,120	a700	2,840	1,620	7,810	2,100	2,710	545	153	101
20	116	201	1,060	a900	3,160	1,460	f7,300	2,160	3,020	521	150	101
21	113	142	986	a1,400	3,850	1,460	f7,270	2,350	2,590	533	147	104
22	113	145	1,030	a2,100	4,200	1,510	f6,200	2,550	2,410	545	153	98
23	113	236	1,320	a1,700	3,570	1,670	f5,500	3,130	2,220	509	159	101
24	111	362	1,420	a1,300	3,090	2,060	f5,140	3,970	1,630	f468	156	104
25	111	570	1,850	a1,050	2,530	2,840	a4,800	4,290	2,160	480	150	101
26	111	395	1,270	a1,250	2,310	6,680	a4,650	4,430	2,150	425	144	98
27	118	697	1,240	a1,200	2,230	9,180	a4,500	4,180	1,930	390	138	96
28	126	860	2,220	a1,140	2,180	10,500	5,230	4,010	1,870	358	132	93
29	145	1,190	1,920	a1,100	-	9,300	8,030	3,750	1,830	340	135	93
30	136	1,810	1,840	a1,000	-	8,730	6,980	3,410	1,790	322	171	101
31	139	-	3,310	a950	-	6,690	-	3,690	-	308	290	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	3,484	145	86	112	6,910
November	10,942	1,810	142	365	21,700
December	40,532	3,310	552	1,307	80,390
Calendar year 1942	568,628	7,710	86	1,558	1,128,000
January	54,330	6,680	700	1,753	107,800
February	59,120	4,200	1,000	2,111	117,300
March	99,270	10,500	1,460	3,202	196,900
April	200,860	9,560	4,500	6,695	398,400
May	125,350	9,260	2,100	4,044	248,600
June	76,310	4,320	1,630	2,544	151,400
July	26,049	1,740	308	840	51,670
August	6,133	290	132	198	12,160
September	3,888	282	93	130	7,710
Water year 1942-43	706,268	10,500	86	1,935	1,401,000

a No gage-height record; discharge computed on basis of records for John Day River at Picture Gorge, near Dayville, and at Service Creek.
f Computed on basis of partly estimated gage-height record.
Time basis: Pacific war time. 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. 8, 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 1943.

Average discharge.- 14 years, 205 second-feet.

Extremes.- Maximum discharge during year, 2,110 second-feet Apr. 16 (gage height, 5.80 feet); minimum, 23 second-feet Oct. 8 (gage height, 1.88 feet).
1929-43: 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 period of no gage-height record, which are fair. Several small diversions above station for irrigation.

Rating tables, water year 1942-43 (gage height, in feet, and discharge, in second-feet)

Oct. 1 to Nov. 29				Nov. 30 to Sept. 30					
1.9	24	2.8	146	1.9	25	2.8	153	4.3	740
2.1	41	3.1	210	2.1	42	3.1	225	4.7	1,060
2.3	64	3.5	320	2.3	66	3.5	340	5.2	1,510
2.5	92	3.9	480	2.5	96	3.9	510	5.7	2,010

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	26	69	295	832	177	407	1,120	1,410	917	331	62	65
2	27	83	260	615	180	407	1,360	1,290	855	307	62	52
3	28	68	187	424	177	372	1,500	1,210	734	301	69	46
4	29	62	125	375	182	372	1,500	1,190	645	310	65	44
5	29	53	124	368	180	350	1,420	1,130	582	277	62	42
6	28	49	133	340	192	310	1,440	1,080	530	255	60	41
7	27	49	131	274	233	325	1,580	982	515	249	57	40
8	26	67	131	249	212	340	1,670	885	530	236	56	38
9	25	73	151	238	194	387	1,620	818	588	215	53	37
10	25	59	238	212	187	358	1,250	789	610	194	48	35
11	29	50	247	187	199	368	1,100	761	555	180	45	34
12	36	46	225	180	288	379	1,150	708	523	168	44	32
13	37	46	470	199	418	490	1,350	651	505	160	44	31
14	35	49	451	274	433	545	1,650	610	495	147	42	31
15	37	67	340	310	411	475	1,840	560	530	139	40	29
16	40	78	292	286	403	420	2,010	535	470	131	39	28
17	36	63	260	225	428	383	1,870	500	470	124	38	28
18	35	65	225	a180	460	322	1,720	465	510	116	38	26
19	34	62	202	a150	500	354	1,690	465	576	110	37	24
20	34	44	180	a180	588	298	1,580	485	571	109	37	25
21	33	40	197	a230	720	316	1,490	515	490	112	37	27
22	35	64	202	a300	740	304	1,280	545	451	116	39	28
23	32	67	236	a260	615	316	1,170	657	411	101	39	28
24	32	125	269	a210	535	368	1,100	789	383	107	39	28
25	31	113	301	241	445	465	1,040	870	395	101	38	27
26	31	83	187	236	420	832	999	893	379	90	36	26
27	35	118	187	236	415	1,320	893	862	361	80	35	25
28	39	160	233	220	415	1,630	941	855	354	76	33	27
29	40	373	236	209	-	1,620	1,220	818	354	72	34	28
30	42	411	301	194	-	1,720	1,140	754	340	67	74	29
31	41	-	515	166	-	1,320	-	818	-	65	91	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	1,014	42	25	32.7	2,010
November	2,746	411	40	91.5	5,450
December	7,531	515	124	243	14,940
Calendar year 1942	103,089	1,410	18	282	204,500
January	8,600	832	150	277	17,060
February	10,348	740	177	370	20,520
March	17,873	1,720	298	577	35,450
April	41,603	2,010	893	1,387	82,520
May	24,900	1,410	465	803	49,390
June	15,631	917	340	521	31,000
July	5,046	331	65	163	10,010
August	1,493	91	33	48.2	2,960
September	1,001	65	24	33.4	1,990
Water year 1942-43	137,786	2,010	24	377	273,300

a No gage-height record; discharge computed on basis of records for John Day River at Prairie City and North Fork John Day River at Monument.
Time basis: Pacific war time. 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 1943.

Average discharge.- 13 years, 21.0 second-feet.

Extremes.- Maximum discharge during year, 269 second-feet Mar. 26, but may have been more during period of ice effect; maximum gage height observed, 5.37 feet Feb. 21, affected by ice; no flow Aug. 16-29, Sept. 10-30.

1930-43: Maximum discharge, 800 second-feet Mar. 18, 1932 (gage height, 4.55 feet), from rating curve extended above 250 second-feet; no flow at times.

Remarks.- Records fair except those for periods Dec. 1 to Mar. 23, June 10-19, and those below 0.5 second-foot, which are poor. Several diversions for irrigation above station.

Rating table, water year 1942-43, except periods of ice effect
(gage height, in feet, and discharge, in second-feet)

0.4	0	1.2	17.2	2.2	132
.6	.6	1.4	32	2.5	194
.8	3.0	1.6	51	2.8	269
1.0	8.0	1.9	85		

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.1	1.3	12	196	33	b78	102	220	26	6.0	0.3	0.4
2	.1	1.6	12	164	35	a84	101	183	31	5.1	.3	.2
3	.1	1.7	b20	166	34	a82	109	136	27	6.6	.4	.2
4	.1	1.5	b7.4	186	35	a84	109	117	25	8.0	.3	.1
5	.1	1.4	5.4	140	35	a80	115	101	23	6.0	.4	.1
6	.1	1.4	6.3	130	34	a76	115	104	17	4.7	.6	.1
7	.1	1.5	b7.1	b105	47	a90	117	88	15	3.8	.5	.1
8	.1	2.0	6.0	b85	59	151	157	75	14	3.4	.4	.1
9	.1	1.7	9.2	b70	53	162	151	65	14	2.9	.2	.1
10	.1	1.6	11	b75	43	118	115	58	a17	2.7	.1	0
11	.1	1.5	b8.0	b70	49	118	96	57	a18	2.6	.2	0
12	.2	1.4	b7.0	b60	80	127	92	55	a16	2.3	.1	0
13	.1	1.4	15	b70	b100	159	102	50	a15	2.3	.1	0
14	.2	1.6	29	b80	b110	136	118	49	a14	2.0	.1	0
15	.2	2.2	b20	a90	b100	a124	132	47	a15	1.6	.1	0
16	.4	1.9	b17	a80	b100	a115	138	46	a14	1.5	0	0
17	.4	2.0	b15	a60	b110	a125	127	43	a13	1.4	0	0
18	.4	3.2	*b13	a30	b120	a115	115	36	a14	1.2	0	0
19	.4	3.4	b12	h21	b140	a120	118	31	a21	1.1	0	0
20	.5	1.6	b13	24	b170	a115	125	30	21	1.1	0	0
21	.6	1.5	b14	25	b200	a120	127	33	17	1.0	0	0
22	.6	2.2	15	50	*220	a115	102	30	15	1.3	0	0
23	.6	5.7	16	b45	174	a120	82	29	12	1.1	0	0
24	.6	4.9	17	b40	a130	134	73	26	11	1.1	0	0
25	.6	3.4	b20	b35	a100	159	78	23	14	1.2	0	0
26	.6	3.2	b15	b42	a86	213	84	21	14	.7	0	0
27	.8	12	17	b40	a78	183	72	18	10	.4	0	0
28	.7	7.1	57	b38	h73	145	107	16	8.0	.3	0	0
29	.9	21	104	b37	-	140	216	15	7.1	.2	0	0
30	.9	18	107	b33	-	145	172	15	6.6	.2	.3	0
31	.9	-	140	b28	-	124	-	20	-	.2	.4	0

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	11.7	0.9	0.1	0.38	23
November	114.9	21	1.3	3.83	228
December	767.4	140	5.4	24.8	1,520
Calendar year 1942	15,519.6	389	0	42.5	30,780
January	2,316	196	21	74.7	4,590
February	2,548	220	33	91.0	5,050
March	3,857	213	76	124	7,650
April	3,467	216	72	116	6,880
May	1,837	220	15	59.3	3,640
June	484.7	31	6.6	16.2	961
July	74.0	8.0	.2	2.39	147
August	4.8	.6	0	.15	9.5
September	1.4	.4	0	.05	2.8
Water year 1942-43	15,483.9	220	0	42.4	30,700

* Winter discharge measurement made on this day.
a No gage-height record; discharge computed on basis of discharge measurements, weather records, and records for John Day River at Prairie City and Middle Fork John Day River at Ritter.
b Stage-discharge relation affected by ice.
h Computed from staff-gage reading.
Time basis: Pacific war time. 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 (revised, from elevation of Crane Prairie Reservoir during period May to August 1943, when slack water extended nearly to station).

Records available.- November 1937 to September 1943.

Extremes.- Maximum discharge during year, 362 second-feet Aug. 31, Sept. 1 (gage height, 2.42 feet); minimum, 55 second-feet Jan. 18 (gage height, 1.20 feet).
1937-43: Maximum discharge, that of Aug. 31, Sept. 1, 1943; minimum, 43 second-feet Dec. 27, 1941 (gage height, 1.12 feet).

Remarks.- Records good except those during period of backwater from Crane Prairie Reservoir, which are fair. No diversion or regulation above station.

Rating table, water year 1942-43, except periods of ice effect or backwater from Crane Prairie Reservoir (gage height, in feet, and discharge, in second-feet)

1.4	94	2.1	273
1.5	117	2.4	356
1.8	193		

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	79	77	84	90	77	79	86	127	246	230	257	359
2	79	77	81	86	77	81	86	132	241	230	262	359
3	79	77	79	84	77	81	86	134	238	232	265	359
4	79	77	b79	84	79	81	86	140	238	230	273	359
5	79	77	79	84	79	81	88	144	227	230	281	356
6	79	77	79	84	79	81	90	150	224	232	284	353
7	79	79	79	84	79	84	92	154	222	230	284	353
8	79	77	79	84	79	84	90	160	232	227	289	350
9	79	77	79	84	77	81	90	164	235	227	292	348
10	79	75	79	84	81	79	90	170	232	230	297	348
11	79	75	79	84	81	79	96	172	232	227	300	348
12	79	75	79	b81	79	79	99	172	232	227	303	345
13	79	75	79	81	79	81	101	175	232	227	308	342
14	79	79	79	81	79	79	103	180	232	227	314	342
15	79	79	79	81	79	79	106	183	230	227	320	339
16	79	77	79	81	79	79	108	185	230	227	322	336
17	79	77	77	81	79	79	112	185	230	227	325	334
18	79	77	79	b79	79	79	112	185	230	230	328	334
19	79	77	81	b79	79	77	117	188	230	230	334	328
20	79	75	79	b79	81	77	117	190	230	232	334	325
21	79	75	81	b79	81	77	117	196	238	235	336	322
22	79	77	81	79	81	79	117	201	238	238	342	322
23	79	81	81	77	81	79	117	206	235	235	345	320
24	79	79	81	b77	81	79	117	211	232	238	345	317
25	79	77	81	77	81	81	120	216	235	238	345	317
26	79	79	81	79	81	84	117	224	235	241	345	314
27	79	84	84	79	79	86	120	227	230	241	345	311
28	79	77	86	79	79	86	124	227	230	243	350	308
29	79	94	84	79	-	88	124	227	232	246	356	306
30	79	81	84	79	-	84	130	238	227	249	356	303
31	77	-	106	b77	-	84	-	246	-	257	359	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	2,447	79	77	78.9	4,850
November	2,340	94	75	78.0	4,640
December	2,517	106	77	81.2	4,990
Calendar year 1942	25,874	106	59	70.9	51,310
January	2,516	90	77	81.2	4,990
February	2,222	81	77	79.4	4,410
March	2,507	88	77	80.9	4,970
April	3,160	130	86	105	6,270
May	5,709	246	127	184	11,320
June	6,975	246	222	232	13,830
July	7,240	257	227	234	14,360
August	9,796	359	257	316	19,430
September	10,057	359	303	335	19,950
Water year 1942-43	57,486	359	75	157	114,000

b Stage-discharge relation affected by ice.
Note.- Backwater from Crane Prairie Reservoir May 27 to Aug. 30.
Time basis: Pacific war time. 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 1943.

Average discharge.- 22 years (1914-15, 1922-43), 184 second-feet.

Extremes.- Maximum discharge during year, 550 second-feet Aug. 29 (gage height, 2.30 feet); minimum, 2 second-feet Nov. 1 (gage height, 0.19 foot).
1914-17, 1922-43: Maximum discharge, 659 second-feet Aug. 3, 1938 (gage height, 2.58 feet); minimum, 2 second-feet (regulated) Dec. 21, 1940, Nov. 1, 1942.

Remarks.- Records good except those for period Oct. 30 to May 31, which are fair. No diversion above station; flow regulated since Nov. 4, 1922 by Crane Prairie Reservoir (see p. 56).

Rating table, water year 1942-43 (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Oct. 29 to Nov. 1, July 29 to Aug. 20)

0.3	6.3	1.0	104
.4	14	1.2	151
.5	24	1.5	238
.6	36	1.8	342
.8	66	2.1	460

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	175	22	5	8	a9	9	9	10	75	126	222	456
2	173	4	5	8	a9	9	9	10	96	126	219	456
3	173	4	5	8	a9	9	9	10	108	124	219	452
4	173	4	5	8	a9	9	9	10	119	124	219	452
5	170	4	5	8	a9	9	9	10	201	124	219	452
6	173	4	5	8	a9	9	9	10	268	124	219	452
7	178	4	5	8	a9	9	9	10	264	122	216	452
8	178	4	5	8	a9	9	9	10	268	119	219	452
9	175	5	5	8	a9	9	9	10	268	117	219	452
10	175	5	5	8	a9	9	9	10	212	117	219	448
11	173	5	5	8	a9	9	9	10	98	115	222	448
12	173	5	5	8	a9	9	9	11	102	111	222	452
13	170	4	5	8	a9	9	9	11	106	111	258	452
14	170	4	5	8	a9	9	9	11	108	111	288	452
15	170	4	5	8	9	9	9	12	108	108	288	452
16	167	5	6	8	9	9	10	12	108	106	288	452
17	164	5	6	8	9	9	10	12	111	104	288	452
18	164	5	6	8	9	9	10	12	113	102	302	452
19	164	5	6	a8	9	9	10	12	113	102	310	452
20	164	5	6	a8	9	9	10	12	113	104	302	452
21	162	5	6	a8	9	9	10	12	119	104	302	452
22	159	5	8	a8	9	9	10	12	124	104	302	452
23	156	5	6	a8	9	9	10	12	128	108	302	452
24	156	5	6	a8	9	9	10	12	131	108	302	452
25	151	5	6	a8	9	9	10	12	136	108	302	452
26	151	5	6	a8	9	9	10	14	138	106	302	452
27	154	5	6	a8	9	9	10	18	136	108	317	452
28	156	5	8	a8	9	9	10	23	134	108	320	448
29	98	5	8	a8	-	9	10	29	128	118	428	448
30	40	5	8	a8	-	9	10	36	128	216	460	448
31	40	-	8	a8	-	9	-	50	-	219	456	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	4,845	178	40	156	9,610
November	157	22	4	5.2	311
December	179	8	5	5.8	355
Calendar year 1942	38,440	503	4	105	76,250
January	248	8	8	8.0	492
February	252	9	9	9.0	500
March	279	9	9	9.0	553
April	285	10	9	9.5	565
May	445	50	10	14.4	883
June	4,261	268	75	142	8,450
July	3,704	219	102	119	7,350
August	8,751	460	216	282	17,360
September	13,548	456	448	452	26,870
Water year 1942-43	36,954	460	4	101	73,300

a No gage-height record; discharge interpolated.
Time basis: Pacific war time. 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, 1938-43) and 9 miles west of Lapine.

Records available.- June 1938 to September 1943.

Extremes.- Maximum discharge during year, 1,520 second-feet Sept. 10 (gage height, 6.43 feet); minimum, 224 second-feet (regulated) Apr. 8 (gage height, 2.48 feet); minimum daily, 267 second-feet Apr. 6.

1938-43: Maximum discharge, that of Sept. 10, 1943; minimum, that of Apr. 8, 1943; minimum daily, that of Apr. 6, 1943.

Remarks.- Records good. Flow regulated by Crane Prairie Reservoir and since Dec. 24, 1942, by Wickiup Reservoir (see p.56).

Rating table, water year 1942-43 (gage-height, in feet, and discharge, in second-feet)
(Shifting-control method used June 28 to Sept. 30)

2.8	284	3.5	460	4.5	833
3.0	332	3.8	579	5.0	1,029
3.2	387	4.1	685	6.0	1,470

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	624	493	490	417	528	552	336	618	710	867	1,070	1,160
2	621	464	490	414	528	552	292	621	736	822	1,070	1,200
3	621	458	474	411	528	552	269	621	773	791	1,040	1,200
4	618	454	470	423	535	552	271	621	822	788	1,020	1,200
5	616	446	480	493	535	552	274	621	910	810	1,010	1,200
6	618	448	480	506	535	552	267	621	977	829	1,010	1,200
7	624	464	477	420	535	552	274	624	1,050	822	1,090	1,200
8	624	464	490	408	535	555	271	624	1,210	825	1,130	1,290
9	624	451	480	411	535	555	276	628	1,270	860	1,120	1,440
10	624	448	477	411	552	555	300	628	1,180	883	1,110	1,480
11	624	448	474	411	565	572	367	628	912	883	1,120	1,470
12	621	a452	474	414	562	607	372	628	703	883	1,200	1,450
13	618	454	474	423	562	621	375	628	653	867	1,220	1,360
14	614	467	474	442	559	618	393	632	689	883	1,200	1,240
15	614	490	477	445	559	600	474	653	751	981	1,200	1,230
16	610	474	477	451	555	569	470	667	822	993	1,190	1,220
17	607	470	477	477	555	552	483	667	926	993	1,190	1,210
18	607	470	477	483	552	552	525	667	933	989	1,210	1,200
19	607	464	477	525	552	552	525	671	898	989	1,200	1,200
20	604	458	480	522	552	525	525	692	898	985	1,190	1,190
21	604	458	480	525	552	477	576	692	871	985	1,180	1,180
22	600	464	490	528	552	439	618	692	844	977	1,170	1,180
23	600	496	490	532	552	402	618	692	846	977	1,160	1,170
24	596	509	454	528	552	408	618	689	848	973	1,150	1,170
25	590	470	442	528	552	408	638	689	871	973	1,080	1,170
26	590	477	426	528	552	414	674	689	930	981	1,050	1,170
27	596	515	420	528	552	355	685	685	957	977	1,140	1,170
28	596	480	420	528	552	280	671	689	906	981	1,170	1,170
29	593	512	411	532	-	317	632	692	875	989	1,190	1,170
30	502	502	414	532	-	348	618	692	875	997	1,240	1,160
31	493	-	417	528	-	350	-	692	-	1,030	1,220	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	18,702	624	493	603	37,090
November	14,122	515	448	471	28,010
December	14,433	490	411	466	28,630
Calendar year 1942	204,697	997	411	561	406,000
January	14,724	532	408	475	29,200
February	15,335	565	528	548	30,420
March	15,495	621	280	500	30,730
April	13,686	685	267	456	27,150
May	20,353	692	618	657	40,370
June	26,648	1,270	653	888	52,860
July	28,583	1,030	788	922	56,690
August	35,340	1,240	1,010	1,140	70,100
September	37,050	1,480	1,160	1,235	73,490
Water year 1942-43	254,471	1,480	267	697	504,700

a No gage-height record; discharge computed on basis of records for station at Pringle Falls.
Time basis: Pacific war time. 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 1943.

Average discharge.- 20 years (1923-43), 701 second-feet.

Extremes.- Maximum discharge during year, 1,450 second-feet (regulated) Sept. 10, 11 (gage height, 2.91 feet); minimum, 271 second-feet (regulated) Apr. 8 (gage height, 0.53 foot); minimum daily, 290 second-feet Apr. 6, 8, 9.
1915-17, 1922-43: Maximum discharge, that of Sept. 10, 1943; minimum, that of Apr. 8, 1943; minimum daily, that of Apr. 6, 8, 9, 1943.

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. 56).

Rating table, water year 1942-43 (gage height, in feet, and discharge in second-feet)

0.7	297	1.1	406	1.7	695	2.4	1,115
.9	343	1.4	540	2.0	865	2.8	1,375

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	615	476	472	392	535	555	340	635	712	877	1,020	1,180
2	615	445	468	389	535	555	312	635	734	841	1,020	1,220
3	615	437	450	386	535	555	292	635	761	805	1,000	1,230
4	610	433	445	392	535	555	292	635	811	805	985	1,230
5	610	433	450	445	540	555	294	635	865	817	992	1,230
6	610	433	454	510	540	555	290	635	955	841	985	1,230
7	615	450	454	403	540	560	292	635	998	841	1,040	1,220
8	615	450	468	382	540	560	290	635	1,120	835	1,100	1,270
9	615	437	458	386	540	560	290	635	1,190	859	1,100	1,380
10	615	433	458	389	555	560	294	635	1,160	895	1,100	1,430
11	615	429	454	392	570	575	358	640	961	895	1,100	1,430
12	615	433	454	396	570	615	360	640	739	895	1,160	1,410
13	610	429	454	406	570	630	363	640	651	895	1,190	1,360
14	615	437	454	429	565	630	366	640	695	895	1,190	1,260
15	610	472	454	429	560	615	458	651	744	967	1,180	1,240
16	610	441	458	433	560	585	463	668	805	1,000	1,170	1,240
17	605	437	458	458	560	565	476	673	895	998	1,180	1,230
18	605	441	458	486	555	570	530	673	937	998	1,210	1,230
19	600	433	458	525	555	570	535	673	889	992	1,200	1,230
20	600	426	463	555	555	545	535	690	889	985	1,190	1,230
21	595	429	463	555	555	481	565	690	877	979	1,190	1,220
22	595	433	476	535	555	454	630	690	841	973	1,180	1,220
23	590	468	476	535	555	399	630	690	841	973	1,180	1,210
24	590	500	441	535	555	406	630	684	841	973	1,170	1,210
25	585	437	414	535	555	410	651	684	859	967	1,120	1,210
26	585	454	403	535	555	414	684	684	907	967	1,070	1,200
27	590	490	396	535	555	386	706	684	937	967	1,160	1,200
28	590	454	392	530	555	294	695	684	907	961	1,200	1,200
29	590	500	379	535	-	314	651	695	883	961	1,210	1,200
30	486	476	392	535	-	346	635	695	877	955	1,240	1,190
31	476	-	396	525	-	349	-	695	-	979	1,260	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	18,492	615	476	597	36,680
November	13,446	500	426	448	26,670
December	13,770	476	379	444	27,310
Calendar year 1942	201,619	987	379	552	399,900
January	14,483	555	382	467	28,730
February	15,455	570	535	552	30,650
March	15,723	630	294	507	31,190
April	13,907	706	290	464	27,580
May	20,513	695	635	662	40,690
June	26,281	1,190	651	876	52,130
July	28,591	1,000	805	922	56,710
August	35,092	1,260	985	1,132	69,600
September	37,540	1,430	1,180	1,251	74,460
Water year 1942-43	253,293	1,430	290	694	502,400

Time basis: Pacific war time. 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, 1½ miles downstream from dam site for proposed Benham Falls Reservoir, and 10 miles southwest of Bend.

Records available.- March 1909 to September 1913, August 1920 to September 1921, February 1924 to September 1943. July 1906 to February 1909 and April to September 1914 at West Ranch, 7 miles upstream.

Average discharge.- 26 years (1906-13, 1924-43), 1,316 second-feet.

Extremes.- Maximum discharge during year, 2,100 second-feet Apr. 23, 24, June 10, 11; maximum gage height, 2.63 feet Apr. 23, 24; minimum discharge, 749 second-feet Nov. 5, 6 (gage height, 0.08 foot).

1906-13, 1920-21, 1924-43: Maximum discharge, 5,000 second-feet (estimated) Nov. 27, 1909 (gage height not determined); minimum, 690 second-feet Feb. 8, 9, 1933 (gage height, -0.14 foot).

Remarks.- Records excellent except those for period 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. 56).

Rating table, water year 1942-43 (gage-height, in feet, and discharge, in second-feet)
(Shifting-control method used Oct. 1 to Nov. 26)

0.1	755	0.5	905	1.1	1,170	2.0	1,650
.3	825	.8	1,030	1.5	1,370	2.5	2,000

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	893	797	1,220	1,120	1,050	1,060	1,360	1,820	1,520	1,520	1,550	1,850
2	893	794	1,240	1,160	1,060	1,060	1,340	1,790	1,540	1,510	1,580	1,830
3	893	769	1,260	1,120	1,060	1,070	1,250	1,750	1,570	1,460	1,620	1,820
4	893	758	1,320	1,110	1,070	1,080	1,200	1,720	1,620	1,440	1,630	1,830
5	893	755	1,390	1,130	1,050	1,070	1,220	1,690	1,690	1,430	1,630	1,830
6	893	758	1,360	1,180	1,040	1,060	1,230	1,660	1,770	1,450	1,630	1,830
7	893	783	1,310	1,240	1,040	1,080	1,220	1,630	1,850	1,460	1,620	1,820
8	893	811	1,260	1,200	1,070	1,080	1,230	1,610	1,930	1,460	1,630	1,820
9	901	800	1,160	1,220	1,060	1,110	1,210	1,600	2,020	1,460	1,680	1,830
10	901	783	1,140	1,250	1,060	1,120	1,210	1,580	2,090	1,510	1,690	1,910
11	901	786	1,100	1,220	1,080	1,140	1,260	1,570	2,050	1,540	1,690	2,000
12	901	797	1,070	1,140	1,110	1,200	1,340	1,560	1,820	1,550	1,690	2,060
13	897	794	1,080	1,060	1,090	1,260	1,340	1,550	1,540	1,550	1,720	2,070
14	897	797	1,060	1,070	1,080	1,270	1,320	1,540	1,430	1,540	1,760	2,060
15	897	833	1,040	1,040	1,070	1,260	1,340	1,540	1,440	1,540	1,780	1,980
16	893	853	1,020	1,010	1,070	1,210	1,450	1,540	1,430	1,580	1,770	1,910
17	889	825	1,010	970	1,070	1,140	1,520	1,540	1,530	1,610	1,770	1,880
18	889	818	990	980	1,080	1,120	1,610	1,520	1,590	1,610	1,770	1,870
19	889	814	990	1,020	1,080	1,100	1,760	1,510	1,610	1,610	1,770	1,850
20	889	797	969	1,030	1,080	1,100	1,840	1,490	1,570	1,610	1,790	1,820
21	889	794	969	1,040	1,080	1,060	1,910	1,490	1,580	1,610	1,790	1,790
22	889	818	975	1,070	1,090	1,030	1,980	1,480	1,580	1,600	1,790	1,780
23	885	869	980	1,110	1,100	1,020	2,060	1,450	1,560	1,590	1,780	1,770
24	885	921	980	1,050	1,080	1,020	2,060	1,440	1,570	1,580	1,780	1,770
25	861	933	970	1,060	1,080	1,060	2,000	1,440	1,570	1,580	1,770	1,760
26	877	981	915	1,050	1,080	1,140	1,980	1,430	1,590	1,570	1,760	1,750
27	881	1,040	890	1,070	1,060	1,230	1,980	1,430	1,620	1,560	1,700	1,710
28	865	1,080	920	1,070	1,060	1,240	1,980	1,440	1,630	1,550	1,710	1,690
29	865	1,140	929	1,060	-	1,240	1,920	1,440	1,600	1,550	1,770	1,690
30	877	1,200	973	1,010	-	1,300	1,840	1,470	1,550	1,640	1,790	1,680
31	811	-	1,050	1,140	-	1,340	-	1,490	-	1,540	1,820	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	27,533	901	811	888	54,610
November	26,698	1,200	755	857	50,970
December	33,540	1,390	890	1,082	66,530
Calendar year 1942	351,872	1,440	708	964	697,900
January	33,990	1,250	970	1,096	67,420
February	30,000	1,110	1,040	1,071	59,500
March	35,270	1,340	1,020	1,138	69,960
April	46,960	2,060	1,200	1,565	93,140
May	48,210	1,820	1,430	1,555	95,620
June	49,490	2,090	1,430	1,650	98,160
July	47,710	1,610	1,430	1,539	94,630
August	53,230	1,820	1,550	1,717	105,600
September	55,260	2,070	1,680	1,842	109,600
Water year 1942-43	486,891	2,090	755	1,334	965,700

Note.- No gage-height record Dec. 22-28, 31, Jan. 1, 4, 5, Jan. 12 to Feb. 23; discharge computed on basis of records for stations below Lava Island, near Bend, and below Bend, and records for diversions from Deschutes River near Bend.

Time basis: Pacific war time. 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 1943.

Average discharge.- 17 years, 1,046 second-feet.

Extremes.- Maximum discharge during year, 1,830 second-feet Apr. 24; minimum, 695 second-feet Nov. 10, 11, 14 (gage height, 0.32 foot).
1926-43: Maximum discharge, that of Apr. 24, 1943; minimum, 568 second-feet Dec. 25, 1941, to Jan. 11, 1942 (gage height, 0.01 foot), caused by ice jam upstream.

Remarks.- Records good except those for periods of no gage-height record, which are fair. Arnold Canal diverts water above station for irrigation (see p. 63). Flow regulated by Crescent Lake, Crane Prairie, and Wickiup Reservoirs (see p. 56).

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	783	741	1,160	1,070	1,020	1,030	1,270	1,650	1,340	1,330	1,340	1,600
2	777	741	1,190	1,110	1,030	1,020	1,250	1,650	1,360	1,310	1,370	1,590
3	777	730	1,210	1,070	1,020	1,020	1,180	1,560	1,390	1,280	1,400	1,580
4	777	715	1,250	1,050	1,030	1,030	1,130	1,530	1,420	1,240	1,420	1,590
5	777	710	1,320	1,070	1,020	1,020	1,140	1,500	1,470	1,240	1,420	1,590
6	777	715	1,320	1,060	1,000	1,020	1,150	1,470	1,530	1,250	1,410	1,590
7	777	725	1,260	1,140	1,000	1,030	1,160	1,440	1,620	1,260	1,410	1,590
8	777	747	1,240	1,130	1,030	1,030	1,150	1,420	1,650	1,260	1,490	1,580
9	783	715	1,130	1,140	1,020	1,040	1,140	1,420	1,700	1,270	1,490	1,580
10	777	700	1,080	1,160	1,020	1,050	1,140	1,390	1,760	1,320	1,490	1,610
11	777	695	1,050	1,160	1,030	1,060	1,160	1,370	1,760	1,340	1,490	1,680
12	777	705	1,020	1,100	1,060	1,110	1,240	1,370	1,630	1,350	1,480	1,740
13	777	700	1,020	1,010	1,060	1,160	1,250	1,350	1,390	1,360	1,500	1,760
14	771	705	1,010	1,020	1,050	1,210	1,240	1,340	1,250	1,360	1,520	1,750
15	765	725	978	980	1,040	1,220	1,250	1,350	1,250	1,340	1,540	1,700
16	765	747	938	950	1,050	1,180	1,350	1,360	1,270	1,370	1,550	1,650
17	765	735	923	905	1,050	1,100	1,420	1,350	1,320	1,410	1,550	1,640
18	753	759	902	910	1,060	1,070	1,500	1,320	1,360	1,410	1,530	1,600
19	747	759	888	950	1,060	1,050	1,600	1,320	1,400	1,410	1,550	1,600
20	747	735	895	970	1,060	1,040	1,680	1,310	1,370	1,410	1,550	1,570
21	747	735	902	985	1,060	1,020	1,740	1,300	1,360	1,410	1,550	1,550
22	741	760	909	1,010	1,060	968	1,740	1,290	1,370	1,400	1,550	1,540
23	747	820	916	1,070	1,070	968	1,790	1,260	1,350	1,390	1,550	1,530
24	741	885	916	1,010	1,060	952	1,820	1,240	1,360	1,390	1,540	1,530
25	735	895	909	1,020	1,060	992	1,810	1,240	1,370	1,420	1,540	1,520
26	741	910	854	1,010	1,050	1,060	1,770	1,290	1,380	1,380	1,530	1,520
27	747	980	828	1,030	1,040	1,140	1,770	1,260	1,400	1,360	1,500	1,500
28	747	1,030	860	1,030	1,030	1,170	1,770	1,260	1,420	1,350	1,490	1,480
29	753	1,090	867	1,010	-	1,150	1,740	1,270	1,410	1,420	1,530	1,480
30	753	1,130	916	960	-	1,200	1,660	1,290	1,400	1,430	1,550	1,470
31	735	-	1,000	1,120	-	1,240	-	1,310	-	1,340	1,570	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	23,613	783	735	762	46,840
November	23,739	1,130	695	791	47,090
December	31,661	1,320	828	1,021	62,800
Calendar year 1942	314,970	1,320	688	863	624,800
January	32,210	1,160	905	1,039	63,890
February	29,140	1,070	1,000	1,041	57,800
March	33,350	1,240	952	1,076	66,150
April	43,000	1,820	1,130	1,433	85,290
May	42,480	1,650	1,240	1,370	84,260
June	43,060	1,760	1,250	1,435	85,410
July	41,810	1,430	1,240	1,349	82,930
August	46,400	1,570	1,340	1,497	92,030
September	47,710	1,760	1,470	1,590	94,630
Water year 1942-43	438,173	1,820	695	1,200	869,100

Note.- No gage-height record Nov. 20 to Dec. 3, Jan. 6 to Feb. 9, Mar. 18, Apr. 26 to May 24; discharge computed on basis of records for stations at Benham Falls, near Bend, and below Bend, and records for diversions from Deschutes River near Bend.
Time basis: Pacific war time. 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 1943.
Average discharge.- 29 years, 643 second-feet.
Extremes.- Maximum discharge during year, 1,500 second-feet Jan. 31 (gage height, 3.51 feet); minimum recorded, 10 second-feet Oct. 28.
1914-43: 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 above 600 second-feet and fair below. Five large canals divert water above station for irrigation (see p. 63). Flow regulated by hydroelectric plant at Bend, and since 1922 by Crescent Lake and Crane Prairie Reservoirs, and to some extent in 1943 by Wickiup Reservoir (see p. 56).

Rating table water year 1942-43 (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Oct. 1-20, Aug. 17 to Sept. 30)

0.9	12	1.3	66	2.2	405
1.0	20	1.5	113	2.5	600
1.1	32	1.7	173	2.9	925
1.2	47	1.9	252	3.3	1,295

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	30	16	1,130	1,060	1,020	997	1,260	1,010	192	315	152	345
2	21	27	1,150	1,090	1,040	1,010	1,240	1,150	214	157	167	350
3	15	26	1,180	1,070	1,030	1,010	1,200	897	266	562	195	345
4	18	h41	1,240	1,040	952	1,020	1,030	691	361	622	206	356
5	18	h12	1,280	1,060	970	979	943	652	465	608	223	356
6	26	h12	1,300	1,060	952	952	925	622	472	615	203	356
7	18	h20	1,260	1,130	862	857	798	572	530	630	199	356
8	18	h42	1,230	1,120	780	780	731	551	566	622	257	356
9	18	h22	1,100	1,130	780	798	707	544	638	630	280	356
10	20	14	1,050	1,150	755	638	683	517	715	652	261	388
11	20	20	1,040	1,160	731	645	691	491	739	699	270	465
12	26	38	1,010	1,080	739	772	780	472	627	699	252	630
13	26	86	997	997	699	943	739	423	394	699	261	544
14	36	108	997	1,020	755	1,060	622	411	206	675	289	551
15	38	201	952	988	840	1,180	504	417	199	608	308	586
16	28	423	622	952	840	1,160	530	417	210	319	298	435
17	24	459	478	a910	900	1,100	600	411	239	284	414	423
18	31	a547	504	a920	988	1,070	652	361	289	244	270	400
19	18	a575	478	a960	988	1,060	707	341	334	261	270	394
20	18	a555	652	a970	1,020	1,040	606	252	303	257	270	378
21	324	565	848	988	1,020	1,030	848	239	298	270	270	366
22	288	558	874	a1,010	1,030	970	848	223	308	270	289	356
23	298	615	900	1,060	1,060	979	891	203	303	257	275	361
24	111	675	900	997	1,050	943	943	188	308	248	275	361
25	73	675	900	1,010	1,040	970	916	173	280	275	270	366
26	32	691	857	997	1,040	1,040	874	160	270	231	266	350
27	30	780	832	1,020	1,020	1,140	857	163	293	227	231	324
28	32	832	848	1,020	1,010	1,210	857	133	324	195	223	314
29	28	925	866	997	-	1,140	823	138	308	227	257	334
30	16	1,090	925	961	-	1,180	806	151	289	244	275	334
31	15	-	988	1,120	-	1,220	-	173	-	167	293	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	1,714	324	15	55.3	3,400
November	10,700	1,090	12	357	21,220
December	29,388	1,300	478	948	58,290
Calendar year 1942	117,055	1,300	6	321	232,200
January	32,047	1,160	910	1,034	63,560
February	25,911	1,050	699	925	51,390
March	30,893	1,220	638	997	61,280
April	24,811	1,260	504	827	49,210
May	13,139	1,150	133	424	26,060
June	10,960	739	192	565	21,740
July	12,769	699	157	412	25,330
August	7,969	414	152	257	15,810
September	11,736	586	314	391	23,280
Water year 1942-43	212,037	1,300	12	581	420,600

a No gage-height record; discharge computed on basis of records for stations above Benham Falls and below Lava Island, near Bend.
h Computed from staff-gage readings.
Time basis: Pacific war time. 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 1943.

Average discharge.- 20 years, 4,162 second-feet.

Extremes.- Maximum discharge during year, 13,300 second-feet Jan. 1 (gage height, 6.89 feet); minimum, 3,100 second-feet Oct. 1-3, 7, 8 (gage height, 1.53 feet).
1923-43: Maximum discharge, that of Jan. 1, 1943; minimum, 2,940 second-feet (regulated) Sept. 20, 1942 (gage height, 1.41 feet).

Remarks.- Records excellent. Large diversions in upper river basin for irrigation.

Rating table. water-year 1942-43 (gage height, in feet, and discharge, in second-feet)

1.5	3,060	2.7	4,850	5.0	9,090
1.8	3,470	3.0	5,350	6.0	11,240
2.1	3,910	3.5	6,210	7.0	13,570
2.4	4,370	4.0	7,120		

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	3,110	3,330	8,080	12,400	5,250	6,100	10,100	6,620	4,420	4,430	3,730	3,790
2	3,100	3,400	7,540	11,600	5,300	6,050	8,940	7,270	4,470	4,400	3,720	3,800
3	3,110	3,430	6,500	10,600	5,320	6,010	9,240	7,440	4,430	4,270	3,670	3,800
4	3,120	3,360	6,070	8,380	5,450	6,010	9,620	6,620	4,470	4,720	3,730	3,800
5	3,120	3,260	5,790	7,400	5,760	5,940	9,430	6,140	4,500	4,580	3,840	3,790
6	3,110	3,260	5,620	6,990	6,120	5,890	9,090	5,890	4,530	4,530	3,840	3,790
7	3,110	3,260	5,490	6,710	6,480	5,810	9,200	5,690	4,530	4,660	3,740	3,790
8	3,100	3,340	5,500	6,430	6,100	5,720	9,090	5,500	4,580	4,750	3,720	3,790
9	3,110	3,290	5,470	6,160	5,930	5,980	9,200	5,350	4,640	4,740	3,760	3,790
10	3,110	3,290	5,440	6,000	5,860	6,660	9,260	5,200	4,720	4,670	3,760	3,790
11	3,110	3,260	5,230	5,910	6,250	6,500	8,140	5,060	4,740	4,580	3,730	3,840
12	3,110	3,260	5,110	5,720	6,100	6,120	7,610	4,910	4,670	4,510	3,740	3,910
13	3,120	3,270	5,080	5,620	6,430	6,280	7,940	4,800	4,480	4,430	3,730	3,940
14	3,150	3,390	5,080	5,520	6,550	6,590	8,300	4,690	4,240	4,430	3,730	3,970
15	3,150	3,610	5,040	5,520	6,570	6,820	8,580	4,610	4,080	4,420	3,760	3,970
16	3,150	3,570	4,980	5,450	6,340	6,530	8,720	4,510	4,040	4,270	3,780	4,000
17	3,150	3,800	4,790	5,300	6,120	6,230	8,740	4,450	4,210	4,030	3,760	3,860
18	3,150	3,780	4,610	5,100	6,120	6,190	8,400	4,390	4,660	4,020	3,860	3,860
19	3,140	3,860	4,580	4,910	6,250	6,030	8,080	4,310	4,610	4,040	3,730	3,800
20	3,140	3,850	4,560	5,230	6,460	5,910	7,860	4,210	4,420	4,100	3,730	3,840
21	3,150	3,840	4,670	5,350	6,820	5,840	7,770	4,160	4,270	4,100	3,740	3,800
22	3,290	3,940	4,850	5,210	7,060	5,790	7,600	4,200	4,230	4,030	3,780	3,800
23	3,370	4,430	4,960	5,450	7,160	5,780	7,200	4,320	4,180	4,000	3,760	3,800
24	3,400	5,230	5,060	5,470	6,700	5,910	6,890	4,400	4,160	4,020	3,760	3,800
25	3,270	4,640	5,150	5,300	6,320	6,170	6,620	4,390	4,290	4,020	3,740	3,820
26	3,180	4,690	5,230	5,280	6,230	6,590	6,440	4,420	4,270	4,080	3,740	3,790
27	3,190	5,780	5,660	5,470	6,100	7,560	6,410	4,400	4,210	3,970	3,740	3,780
28	3,160	5,150	6,210	5,710	6,070	9,340	6,280	4,340	4,290	3,860	3,700	3,730
29	3,180	6,070	6,410	5,470	-	10,900	6,260	4,260	4,320	3,790	3,720	3,730
30	3,190	7,460	7,120	5,330	-	11,700	6,570	4,240	4,350	3,790	3,760	3,740
31	3,220	-	9,510	5,160	-	11,600	-	4,340	-	3,820	3,780	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	98,070	3,400	3,100	3,164	194,500
November	120,100	7,460	3,260	4,003	238,200
December	175,390	9,510	4,560	5,658	347,900
Calendar year 1942	1,488,590	9,510	3,100	4,078	2,952,000
January	196,150	12,400	4,910	6,327	389,100
February	173,220	7,160	5,250	6,186	343,600
March	210,550	11,700	5,720	6,792	417,600
April	243,580	10,100	6,260	8,119	483,100
May	155,130	7,440	4,160	5,004	307,700
June	131,910	4,740	4,040	4,397	261,600
July	132,060	4,750	3,790	4,260	261,900
August	116,280	3,860	3,670	3,751	230,600
September	114,710	4,000	3,730	3,824	227,500
Water year 1942-43	1,867,150	12,400	3,100	5,115	3,703,000

Time basis: Pacific war time. 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 1943. October 1897 to December 1899 at site near Moro, 10 miles above mouth.
Average discharge.- 38 years (1898-99, 1906-43), 5,762 second-feet.
Extremes.- Maximum discharge during year, 32,900 second-feet Jan. 1 (gage height, 8.48 feet), from rating curve extended above 15,000 second-feet; minimum, 3,560 second-feet Oct. 7-10 (gage height, 2.13 feet).
1897-99, 1906-43: 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 excellent except those for period Jan. 1-4, which are fair. Many diversions in upper river basin for irrigation.
Cooperation.- Water-stage recorder inspected by agent of Eastern Oregon Land Co.

Rating table, water year 1942-43 (gage height, in feet, and discharge, in second-feet)

2.1	3,490	4.5	12,000
2.4	4,210	5.0	14,200
2.7	5,080	6.0	19,200
3.0	6,030	7.2	25,800
3.5	7,830	8.5	33,000
4.0	9,800		

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	3,600	3,830	11,700	29,300	6,440	8,060	16,000	9,480	6,940	5,770	4,520	4,350
2	3,580	4,030	13,600	a23,000	6,620	7,980	14,200	9,600	6,860	5,830	4,410	4,350
3	3,580	4,130	10,300	a18,000	6,720	7,870	13,200	10,400	6,720	5,700	4,410	4,380
4	3,560	4,050	8,640	a14,000	7,230	7,790	13,600	9,960	6,510	5,670	4,380	4,380
5	3,580	3,880	7,910	12,400	9,240	7,720	13,500	9,000	6,440	5,960	4,550	4,350
6	3,580	3,810	7,450	11,100	10,500	7,560	12,800	8,600	6,480	5,730	4,610	4,350
7	3,560	3,810	7,120	10,200	16,800	7,410	12,600	8,400	6,440	5,700	4,520	4,320
8	3,560	3,850	7,260	9,560	13,000	7,380	12,700	8,060	6,480	5,830	4,430	4,320
9	3,560	3,930	8,170	8,920	10,400	7,340	12,500	7,750	6,620	5,860	4,410	4,320
10	3,560	3,830	9,120	8,440	9,480	7,940	12,600	7,560	6,680	5,860	4,430	4,320
11	3,580	3,810	8,880	8,130	12,700	8,330	11,800	7,340	6,680	5,700	4,410	4,320
12	3,580	3,780	7,600	7,870	15,900	7,870	10,700	7,040	6,680	5,600	4,410	4,380
13	3,580	3,760	7,300	7,450	13,000	7,720	10,600	6,830	6,680	5,480	4,410	4,460
14	3,620	3,780	7,340	7,600	12,100	8,210	11,600	6,650	6,300	5,350	a4,400	4,430
15	3,640	4,270	7,010	7,870	11,400	8,400	12,400	6,510	5,960	5,320	a4,390	4,460
16	3,640	4,550	6,860	7,720	10,700	8,480	13,000	6,340	5,730	5,320	a4,410	4,490
17	3,620	4,410	6,580	7,260	10,100	7,940	13,000	6,200	5,800	5,050	a4,420	4,460
18	3,620	4,580	6,480	6,620	9,680	7,790	12,800	6,130	6,130	4,900	a4,500	4,410
19	3,620	4,460	6,100	6,200	9,600	7,560	12,500	6,060	6,540	4,840	a4,420	4,380
20	3,620	4,460	6,000	6,720	9,720	7,380	12,300	6,000	6,340	4,900	a4,370	4,380
21	3,620	4,380	5,960	7,940	9,800	7,230	12,100	6,030	6,030	4,930	a4,350	4,380
22	3,620	4,410	6,300	6,970	10,000	7,150	11,600	6,060	5,930	4,870	a4,360	4,350
23	3,780	4,840	6,970	7,040	10,000	7,120	11,000	6,680	5,730	4,780	a4,370	4,350
24	3,830	7,530	7,190	7,120	9,720	7,230	10,200	7,150	5,640	4,750	a4,350	4,350
25	3,810	7,260	7,600	6,830	8,880	7,530	9,760	7,190	5,600	4,750	a4,350	4,350
26	3,730	6,170	7,230	6,760	8,480	8,130	9,200	7,300	5,860	4,750	a4,340	4,350
27	3,670	7,380	7,300	6,900	8,290	9,320	9,080	7,300	5,730	4,780	4,320	4,350
28	3,690	9,800	13,200	7,150	8,060	11,200	9,200	7,120	5,640	4,640	4,320	4,320
29	3,670	8,330	12,000	7,010	-	13,600	9,280	6,900	5,670	4,550	4,270	4,290
30	3,690	13,000	12,300	6,940	-	15,300	9,280	6,680	5,700	4,490	4,320	4,290
31	3,690	-	17,000	6,540	-	15,700	-	6,720	-	4,490	4,350	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	112,660	3,830	3,560	3,634	223,500
November	154,110	13,000	3,760	5,137	305,700
December	264,470	17,000	5,960	8,531	524,600
Calendar year 1942	1,876,140	17,000	3,560	5,140	3,721,000
January	295,560	29,300	6,200	9,534	586,200
February	284,560	16,800	6,440	10,160	564,400
March	266,240	15,700	7,120	8,588	528,100
April	355,100	16,000	9,080	11,840	704,300
May	229,040	10,400	6,000	7,388	454,300
June	186,540	6,940	5,600	6,218	370,000
July	162,150	5,960	4,490	5,231	321,600
August	136,510	4,610	4,270	4,404	270,800
September	130,990	4,490	4,290	4,366	259,800
Water year 1942-43	2,577,930	29,300	3,560	7,063	5,113,000

Peak discharge.- Dec. 28 (12:30 p.m.) 14,800 sec.-ft.; Dec. 31 (3:30 p.m.) 19,200 sec.-ft.; Jan. 1 (4 p.m.) 32,900 sec.-ft.; Feb. 7 (8 a.m.) 18,700 sec.-ft.; Feb. 12 (3:30 a.m.) 17,700 sec.-ft.; Apr. 1 (7 a.m. to 9 a.m.) 16,300 sec.-ft.
a No gage-height record; discharge computed on basis of records for Deschutes River near Madras and White River near Tygh Valley.
Time basis: Pacific war time. 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 1943. Maximum contents observed during year, 60,500 acre-feet June 5-7 (gage height, 46.00 feet); minimum, 36 acre-feet Oct. 6 (gage height, 27.20 feet). Maximum contents observed during period 1922-43, that of June 5-7, 1943; 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 gage heights 24.0 feet (lip of fish screen structure) and 45 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.

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 1943. Maximum contents observed during year, 55,470 acre-feet July 10 (gage height, 15.16 feet); minimum observed, 13,720 acre-feet Oct. 17. Maximum contents observed during period 1922-43, 72,460 acre-feet July 15, 1923 (gage height, 19.55 feet); minimum observed, 9,640 acre-feet Oct. 21, 1931 (gage height, 2.75 feet).

Reservoir is formed by dam of earth and logs, completed and storage begun in 1922. Capacity, 86,050 acre-feet between gage heights 0.0 foot (sill of outlet gate), and 23.0 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 once weekly.

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 contruction of dam reads elevation above mean sea level (levels by Bureau of Reclamation). Records available, December 1942, when storage began, to September 1943. Maximum contents observed during year, 19,940 acre-feet June 7 (elevation, 4,294.40 feet); no storage prior to Dec. 24, 1942.

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 of lands near Madras (diversion canals not completed in 1943).

Other reservoirs.- Only a few very small reservoirs for local irrigation.

Gage height and contents, water year October 1942 to September 1943

Date	Crane Prairie Reservoir			Crescent Lake Reservoir		
	Gage height (feet)†	Contents (acre-feet)	Change in contents during month (acre-feet)	Gage height (feet)†	Contents (acre-feet)	Change in contents during month (acre-feet)
Sept. 30	29.22	644	-	-	a14,210	-
Oct. 31	26.64	135	-509	-	a13,850	-360
Nov. 30	33.97	10,850	+10,715	-	a19,630	+5,780
Dec. 31	-	a26,410	+15,560	-	a27,930	+8,300
Calendar year 1942	-	-	+13,240	-	-	+7,400
Jan. 31	-	a35,410	+9,000	-	a30,310	+2,380
Feb. 28	-	a39,330	+3,920	9.54	34,220	+3,910
Mar. 31	-	a41,600	+2,270	9.75	35,000	+780
Apr. 30	43.66	48,860	+7,260	11.10	40,050	+5,050
May 31	45.48	57,760	+8,900	12.84	46,620	+6,570
June 30	45.98	60,390	+2,630	14.80	54,080	+7,460
July 31	45.74	59,110	-1,280	14.60	53,610	-470
Aug. 31	45.08	55,730	-3,380	12.20	44,530	-9,080
Sept. 30	43.08	46,150	-9,580	11.18	40,350	-4,180
Water year 1942-43	-	-	+45,506	-	-	+26,140
	Wickiup Reservoir					
Sept. 30	-	0	0			
Oct. 31	-	0	0			
Nov. 30	-	0	0			
Dec. 31	4,274.10	1,537	+1,537			
Calendar year 1942	-	-	+1,537			
Jan. 31	4,279.35	4,316	+2,779			
Feb. 28	4,279.32	4,296	-20			
Mar. 31	4,285.20	9,068	+4,772			
Apr. 30	4,293.52	18,710	+9,642			
May 31	4,294.03	19,420	+710			
June 30	4,293.48	18,650	-770			
July 31	4,290.35	14,660	-3,990			
Aug. 31	4,285.10	8,973	-5,687			
Sept. 30	4,280.05	4,802	-4,171			
Water year 1942-43	-	-	+4,802			

† Time of day variable.
a No gage-height record; contents interpolated.
Time basis: Pacific war time. 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 1943.

Extremes.- Maximum discharge during year, 118 second-feet June 1 (gage height, 1.01 feet); minimum, 37 second-feet Oct. 31, Nov. 2-7, 10-26.
1923-25, 1937-43: 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 Nov. 1 to Mar. 10, which are fair. No diversion or regulation above station.

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	43	38	38	48			51	94	116	108	96	92
2	43	38	38	48			51	96	116	108	94	92
3	41	37	38	46			51	99	114	106	94	92
4	41	37	38	46			51	99	116	106	94	92
5	41	37	38	46			53	99	114	106	94	94
						a46						
6	41	37	38	46			53	96	114	104	94	94
7	41	37	38	46			53	99	108	104	94	94
8	41	38	36	46			53	99	106	104	94	94
9	41	38	38	44			53	99	101	101	92	94
10	40	37	38	44			55	101	99	101	92	94
11	40	37	38	44		46	55	99	99	99	94	94
12	40	37	38	43		46	55	99	a99	99	94	94
13	40	37	38	43		46	55	99	a99	99	94	94
14	40	38	38	43		46	56	96	a99	99	94	94
15	40	37	38	43	a45	46	58	96	99	99	94	94
16	40	37	40	43		46	60	96	99	96	96	94
17	40	37	41	43		46	62	96	101	96	96	92
18	40	37	41	43		46	64	96	101	99	96	90
19	40	37	41			46	64	99	101	99	94	90
20	40	37	41			46	66	104	104	99	94	90
21	40	37	41			46	68	104	106	99	92	90
22	40	37	41			46	70	101	108	99	92	90
23	38	37	41			46	78	104	111	99	92	90
24	38	37	43			46	85	106	114	99	94	87
25	38	37	43	a43		46	85	106	114	99	94	87
26	38	37	43			48	85	108	116	99	94	87
27	38	38	43			48	87	106	114	99	92	87
28	38	38	43			50	90	106	111	101	92	87
29	38	40	43		-	50	92	106	111	104	92	87
30	38	38	46		-	50	94	106	108	104	92	87
31	27	-	50		-	50	-	111	-	96	92	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	1,234	43	37	39.8	2,450
November	1,121	40	37	37.4	2,220
December	1,251	50	38	40.4	2,480
Calendar year 1942	14,768	55	30	40.5	29,290
January	1,364	48	-	44.0	2,710
February	1,260	-	-	45.0	2,500
March	1,446	50	-	46.6	2,870
April	1,953	94	51	65.1	3,870
May	3,125	111	94	101	6,200
June	3,218	116	99	107	6,380
July	3,130	108	96	101	6,210
August	2,902	96	92	93.6	5,760
September	2,737	94	87	91.2	5,430
Water year 1942-43	24,741	116	37	67.8	49,080

a No gage-height record; discharge interpolated.
Time basis: Pacific war time. 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 1943.

Extremes.- Maximum discharge during year not determined; maximum discharge observed, 47 second-feet (result of discharge measurement) Sept. 10; minimum, 6.5 second-feet Nov. 15 (gage height, 1.56 feet).

1922-25, 1937-43: Maximum discharge observed, 47 second-feet July 14-16, 1938, Sept. 10, 1943; practically no flow Nov. 14, 1941.

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

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	10	8.0	8.5				24	34				
2	9.0	8.0	8.5				24					
3	10	7.5	8.5				24					
4	10	7.5	8.5	16			25					
5	10	7.5				21	25					
6	9.0	7.5					25					
7	9.0	7.5		15			26					
8	9.0	7.5		16			26					
9	9.0	7.5		16			27					
10	9.0	7.5		16			27					
11	9.0	7.5		16		22	27					
12	9.0	7.5		16		22	27					
13	9.0	7.5		16		22	28					
14	9.0	8.0		16		22	28					44
15	9.0	7.0		16	19	22	29					
16	9.0	8.0		16		22	29	35	39	43	45	
17	9.0	8.0	18	16		22	31					
18	9.0	8.0				22	31					
19	9.0	8.0				22	31					
20	9.0	8.0				22	31					
21	9.0	8.0				22	32					
22	9.0	8.0				20	33					
23	9.0	8.0				20	33					
24	9.0	8.0		17		20	33					
25	9.0	8.0				20	33					
26	9.0	8.0				20	33					
27	9.0	8.0				22	33					
28	8.0	8.0				22	34					38
29	8.0	8.0			-	22	34					38
30	8.0	8.0			-	22	34					38
31	8.0	-			-	22	-		-			-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	279.0	10	8.0	9.00	553
November	233.5	8.0	7.0	7.78	463
December	358.0	-	8.5	11.5	710
Calendar year 1942	4,413.0	23	-	12.1	8,740
January	504	-	-	16.3	1,000
February	532	-	-	19.0	1,060
March	662	22	-	21.4	1,310
April	877	34	24	29.2	1,740
May	1,084	-	34	35.0	2,150
June	1,170	-	-	39.0	2,320
July	1,333	-	-	43.0	2,640
August	1,395	-	-	45.0	2,770
September	1,302	-	38	43.4	2,580
Water year 1942-43	9,729.5	-	-	26.7	19,300

Note.- No gage-height record Dec. 5 to Jan. 6, Jan. 18 to Mar. 10; discharge interpolated. Stage-discharge relation affected by backwater from Crane Prairie Reservoir May 2 to Sept. 27.
Time basis: Pacific war time. 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, 3¾ 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 1943.

Average discharge.- 10 years (1939-43), 66.0 second-feet.

Extremes.- Maximum discharge during year, 355 second-feet Nov. 29, 30 (gage height, 1.38 feet; minimum, 14 second-feet (regulated) Mar. 14; minimum daily, 17 second-feet Oct. 1-5.

1911-14, 1923-24, 1933-43: Maximum discharge, 390 second-feet June 14, 1912, Jan. 4, 1936; minimum, 12 second-feet sometime during Sept. 7-30, 1934.

Remarks.- Records good except those for November and December, which are fair. No diversion above station. 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.

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	17	34	315	172	101	66	74	121	13e	135	82	69
2	17	3e	295	157	101	69	74	121	150	135	76	64
3	17	44	275	150	101	69	74	118	150	135	71	64
4	17	47	252	150	101	69	74	118	150	138	71	64
5	17	42	229	142	101	66	76	116	150	138	71	62
6	18	41	216	135	104	66	82	118	146	135	71	62
7	18	50	212	138	101	69	82	116	146	135	69	59
8	18	66	220	169	101	71	85	114	146	135	69	59
9	18	59	216	169	101	71	85	114	146	135	69	59
10	19	54	204	157	101	71	82	110	142	132	69	59
11	19	50	196	153	98	66	82	110	153	128	66	62
12	19	49	184	150	98	59	82	110	265	118	64	59
13	19	49	172	142	98	34	82	107	300	114	66	59
14	21	59	161	124	95	25	85	107	265	114	64	59
15	21	92	153	142	95	47	88	107	234	107	64	59
16	21	98	146	107	92	64	92	104	216	104	64	62
17	20	98	135	101	88	66	92	101	204	104	62	62
18	21	98	118	98	85	43	95	101	200	101	59	59
19	21	92	104	95	85	41	101	101	196	101	57	59
20	21	82	101	104	85	66	110	98	184	101	57	59
21	22	79	98	118	82	53	118	98	176	101	57	59
22	22	82	98	114	79	59	121	98	169	101	57	57
23	23	98	98	110	76	66	124	101	161	101	57	57
24	23	150	98	107	74	64	124	104	153	101	62	59
25	23	157	95	107	74	64	128	107	157	98	62	59
26	23	172	92	104	71	66	128	110	150	98	62	57
27	28	242	104	104	71	66	128	114	142	92	59	59
28	29	247	107	104	69	66	128	118	135	88	62	57
29	32	280	107	104	-	66	124	118	135	85	74	57
30	29	340	121	104	-	69	124	121	135	85	71	57
31	30	-	150	104	-	74	-	128	-	82	69	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff	
						Inches	Acre-feet
October	663	32	17	21.4	0.549	0.63	1,320
November	3,089	340	34	103	2.64	2.95	6,130
December	5,072	315	92	164	4.21	4.84	10,060
Calendar year 1942	23,921	340	13	65.5	1.68	22.84	47,470
January	3,935	172	95	127	3.26	3.75	7,800
February	2,528	104	69	90.3	2.32	2.41	5,010
March	1,911	74	25	61.6	1.58	1.82	3,790
April	2,944	128	74	98.1	2.52	2.81	5,840
May	3,433	128	98	111	2.85	3.27	6,810
June	5,194	300	135	173	4.44	4.95	10,300
July	3,477	138	82	112	2.87	3.32	6,900
August	2,033	82	57	65.6	1.68	1.94	4,030
September	1,798	69	57	59.9	1.54	1.71	3,570
Water year 1942-43	36,077	340	17	98.8	2.53	34.40	71,560

Time basis: Pacific war time. 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 1943 in reports of Geological Survey. October 1923 to September 1924 (at site 3 miles downstream) in report of State engineer.

Extremes.- Maximum discharge during year, 194 second-feet sometime during period Jan. 8 to Apr. 21 and on Sept. 15, probably caused by release of water from fish hatchery; maximum gage height, 1.69 feet Sept. 15, affected by backwater from aquatic growth; minimum discharge, 73 second-feet (regulated) Oct. 4 (gage height, 0.88 foot).

1938-43: Maximum discharge, that during period Jan. 8 to Apr. 21, Sept. 15, 1943; minimum, 68 second-feet (regulated) Apr. 6, 1942.

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

Water Supply Paper	Water year	Maximum			Minimum		
		Date	Gage height (feet)	Discharge (second-feet)	Date	Gage height (feet)	Discharge (second-feet)
864....	1937-38	Aug. 21	1.77	†163	Sept.25	1.65	147
884....	1938-39	Oct. 28	1.79	†191	May 3	1.19	†112
904....	1939-40	July 18, Sept.15	1.46	†147	Dec. 28, Apr. 8	1.15	†108
934....	1940-41	May 20	1.26	†124	Sept.30	1.02	85
964....	1941-42	June 7, Sept. 8	1.26	†121	Apr. 6	.86	†68

† Regulated.

Remarks.- Records good except those for Jan. 8 to Apr. 21, which are poor. Water diverted above station only to ponds at fish hatcheries, from which water returns to river above station; no regulation.

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	83	81	87	83						163	162	176
2	83	83	85	82						163	162	176
3	83	83	85	82						163	163	176
4	83	83	85	82						163	163	178
5	83	83	85	81					163	163	165	178
6	83	85	85	81						165	163	178
7	83	85	85	81						165	162	178
8	83	82	85							167	163	178
9	83	82	85							167	165	178
10	83	82	85						162	165	165	178
11	82	82	85				125		162	165	165	178
12	83	82	85						162	163	169	180
13	83	82	85						163	163	167	180
14	83	82	85						165	165	169	180
15	83	82	85						165	165	171	180
					83	90		165				
16	83	82	85						163	165	172	180
17	85	82	85						163	165	174	178
18	85	82	85						165	165	176	178
19	85	81	83	81					165	165	176	176
20	85	81	85						163	163	176	176
21	85	81	83						165	165	176	177
22	85	81	85				160		163	163	176	177
23	85	83	83				160		163	162	176	178
24	85	83	83				160		163	162	176	178
25	85	83	82				162		165	162	176	180
26	85	86	83				163		163	160	176	180
27	85	85	85				164		162	158	176	178
28	82	85	82				165		163	158	176	178
29	81	91	82		-		165		163	160	176	178
30	80	85	86		-		165		163	162	176	178
31	81	-	86		-		-		-	162	176	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	2,586	85	80	83.4	5,130
November	2,490	91	81	83.0	4,940
December	2,620	87	82	84.5	5,200
Calendar year 1942	29,969	91	77	82.1	59,450
January	2,516	-	-	81.2	4,990
February	2,324	-	-	83.0	4,610
March	2,790	-	-	90.0	5,530
April	4,089	165	-	136	8,110
May	5,115	-	-	165	10,150
June	4,898	-	-	163	9,720
July	5,062	167	158	163	10,040
August	5,284	176	162	170	10,480
September	5,342	180	176	178	10,600
Water year 1942-43	45,116	180	-	124	89,500

Note.- No gage-height record Dec. 4, Jan. 8 to Apr. 21, Apr. 26, 27, Apr. 30 to June 9, Sept. 20-22; discharge interpolated or computed on basis of recorded range in stage and records for Deschutes River below Snow Creek, near Lapine, Cultus River above Cultus Creek, near Lapine, and Quinn River near Lapine.

Time basis: Pacific war time. 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, 1½ 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 1943.

Average discharge.- 19 years (1924-43), 149 second-feet.

Extremes.- Maximum discharge during year, 985 second-feet Apr. 22 (gage height, 7.00 feet); minimum, 19 second-feet Oct. 3-11 (gage height, 1.03 feet).

1910-13, 1918, 1920, 1924-43: Maximum discharge, that of Apr. 22, 1943; minimum, 8 second-feet Sept. 2, 3, 1931 (gage height, 0.71 foot).

Remarks.- Records good except those for periods of ice effect or no gage-height record, which are poor. Small diversions above station for irrigation. Flow regulated since August 1922 by Crescent Lake Reservoir (see p. 56).

Rating tables, water year 1942-43, except periods of ice effect (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Apr. 23 to May 1)

Oct. 1 to Apr. 22						Apr. 23 to Sept. 30			
1.0	17	1.8	88	4.0	355	2.0	88	5.0	471
1.1	24	2.1	121	5.0	502	2.4	131	6.0	644
1.3	41	2.5	165	6.0	685	3.0	199	7.0	925
1.5	59	3.0	222	7.0	985	4.0	326		

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	21	23	692	457		185	544	725	470	254	259	265
2	20	25	784	454		185	514	685	501	246	281	255
3	19	29	710	375		185	525	664	543	254	283	248
4	19	38	*655	320		185	544	627	595	264	286	242
5	19	54	585	290		185	557	599	597	268	291	241
6	19	50	525	270		184	557	590	561	269	290	239
7	19	46	468	250		182	549	577	525	265	289	236
8	19	54	406	235		196	559	566	482	302	285	235
9	19	66	316	225	(*)	*218	575	556	434	323	280	234
10	19	91	306	215		249	598	539	395	322	276	233
11	19	*99	323	205		281	582	522	371	319	274	234
12	20	71	323			281	562	511	360	312	272	234
13	21	64	314			299	572	496	360	308	270	233
14	22	71	328			303	636	488	364	300	266	233
15	23	99	300		185	269	700	480	361	289	261	228
16	23	121	292			242	755	466	347	277	259	225
17	22	113	266			228	820	456	327	269	256	224
18	22	94	238			216	853	440	312	261	254	189
19	22	90	216			211	922	420	303	257	257	164
20	22	119	204			210	936	400	302	257	256	158
21	20	97	215	195		216	954	376	319	243	256	156
22	20	90	192			238	971	368	343	245	256	154
23	20	145	197			252	950	364	360	250	257	153
24	20	222	222			281	900	362	355	251	261	152
25	20	256	229			313	883	362	357	248	263	146
26	20	285	198			377	852	368	354	240	259	110
27	20	361	339			472	813	386	329	240	255	94
28	22	409	229			530	780	402	308	235	251	87
29	22	505	280		-	586	760	420	286	237	255	85
30	22	563	342		-	617	750	440	264	236	265	83
31	23	-	442		-	587	-	452	-	231	269	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	638	23	19	20.6	1,270
November	4,350	563	23	145	8,630
December	11,136	784	192	359	22,090
Calendar year 1942	52,316	784	19	143	103,800
January	7,196	457	-	232	14,270
February	5,180	-	-	185	10,270
March	8,963	617	182	289	17,780
April	21,473	971	514	716	42,590
May	15,107	725	362	487	29,960
June	11,785	597	264	393	23,380
July	8,272	323	231	267	16,410
August	8,292	291	251	267	16,450
September	5,770	265	83	192	11,440
Water year 1942-43	108,162	971	19	296	214,500

* Winter discharge measurement made on this day.

Note.- No gage-height record Dec. 3, 5, 6, Jan. 3 to Feb. 8; discharge computed on basis of weather records, discharge measurements, and records for Tumalo Creek near Bend and Squaw Creek near Sisters. Stage-discharge relation affected by ice Dec. 4, Jan. 3 to Mar. 5.

Time basis: Pacific war time. 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 measuring 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 1943.

Average discharge.- 18 years (1911-14, 1928-43), 34.5 second-feet.

Extremes.- Maximum discharge during year, 187 second-feet Aug. 1 (gage height, 2.38 feet); minimum observed, 0.2 second-foot Nov. 6 (field estimate by watermaster).
1911-15, 1927-43: Maximum discharge, 313 second-feet July 9, 1929, Aug. 9, 1936; no flow at times.

Remarks.- Records good except those for Oct. 1 to June 21, which are poor. Flow regulated since 1922 by Crescent Lake Reservoir (see p. 56), storage being released June 21 to Sept. 30 for diversion below station through Deschutes County Municipal Improvement District Canal at Bend. No diversion above station.

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1										17	187	166
2										17	185	165
3										17	184	165
4										17	182	165
5										17	181	164
6										50	181	164
7										101	160	164
8										101	180	163
9										100	178	161
10										100	178	161
									1.5			
11										100	180	160
12										99	182	159
13										99	182	159
14										99	182	158
15										99	182	158
	0.3	0.7	0.8	0.8	0.8	0.8	1.0	1.2				
16										98	182	116
17										97	181	86
18										97	180	86
19										97	180	86
20										106	178	86
21									5.9	119	178	86
22									28	119	176	86
23									28	119	175	63
24									28	119	173	14
25									28	119	172	14
26									27	119	172	14
27									17	121	172	14
28									17	122	171	14
29					-				17	122	170	14
30					-				17	149	169	14
31		-			-		-		-	186	167	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	9.3	-	-	0.3	18
November	21.0	-	-	.7	42
December	24.8	-	-	.8	49
Calendar year 1942	6,103.6	106	-	16.7	12,110
January	24.8	-	-	.8	49
February	22.4	-	-	.8	44
March	24.8	-	-	.8	49
April	30.0	-	-	1.0	60
May	37.2	-	-	1.2	74
June	242.9	28	-	8.10	482
July	2,942	186	17	94.9	5,840
August	5,520	187	167	178	10,950
September	3,225	166	14	108	6,400
Water year 1942-43	12,124.2	187	-	33.2	24,060

Note.- No gage-height record Oct. 1 to June 25, June 27, 28, July 1-5, 22-26, Aug. 18, 25, Sept. 13-15, 27-30; discharge interpolated or computed on basis of field estimates by watermaster Oct. 6, Nov. 6, June 11, Feb. 3, 19, Mar. 30, Apr. 3, May 12, June 3.
Time basis: Pacific war time. To convert war time to standard time, subtract 1 hour.

Diversions from Deschutes River near Bend, Oreg.

The following five canals, which are equipped with water-stage recorders, 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 of lands southeast of Bend.

Central Oregon Canal diverts from right bank in NE¼ sec. 13, T. 18 S., R. 11 E.; water used for irrigation of lands 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 of lands 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 to irrigate lands north of Bend, mostly near Redmond.

Records of monthly discharge of these canals, published as a group, are available from October 1926 to September 1943; records for each canal published separately prior to 1926.

Diversions, in acre-feet, water year October 1942 to September 1943

Month	Arnold Canal	Central Oregon Canal	Deschutes County Municipal Improvement District Canal	North Canal	Swalley Canal	Total
October	3,600	22,520	52	17,540	3,150	46,862
November	932	9,780	1,500	11,060	2,700	25,972
December	0	1,540	0	1,350	436	3,326
January	0	0	0	0	103	103
February	0	3,560	0	2,030	672	6,262
March	411	1,920	0	1,510	756	4,597
April	1,100	16,240	0	16,470	2,730	36,540
May	5,100	27,300	1,050	24,190	6,000	63,640
June	5,570	29,000	1,370	27,180	6,490	69,610
July	5,540	17,590	3,270	29,510	7,100	63,010
August	5,970	30,150	7,580	30,550	7,180	81,430
September	5,920	28,600	7,910	27,180	6,450	76,060
Water year 1942-43	34,143	188,200	22,732	188,570	43,767	477,412

Time basis: Pacific war time. 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 1943.

Average discharge.- 28 years (1913-21, 1923-43), 78.1 second-feet, excluding Columbia Southern Canal.

Extremes.- Maximum discharge during year, 950 second-feet Nov. 29, by computation of flow over dam; maximum gage height, 5.05 feet Jan. 31, affected by ice; minimum discharge, 8 second-feet (regulated) Sept. 25, 26; minimum daily, 10 second-feet Nov. 16.
1906-8, 1911-43: 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 Oct. 1 to Nov. 28, May 27 to Sept. 30; fair Nov. 29 to May 26 except those above 300 second-feet and those for periods of ice effect, 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 good. Records of daily discharge do not include diversion by Columbia Southern Canal.

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	49	96	360	126	b66	66	96	143	156	273	111	13
2	49	138	282	112	b67	66	100	143	130	262	100	14
3	48	99	207	104	b66	66	105	156	107	301	100	14
4	47	65	178	102	b68	66	105	158	107	245	90	12
5	47	59	158	97	b68	65	112	158	102	216	137	14
6	47	56	145	92	b68	64	116	151	103	256	98	14
7	47	59	130	90	b68	66	120	151	113	335	88	12
8	47	75	124	86	65	69	126	143	161	359	78	12
9	47	58	118	84	b66	68	122	154	183	323	68	12
10	47	54	108	81	63	66	120	155	204	259	64	12
11	49	51	104	78	65	65	123	105	170	216	60	12
12	48	51	100	79	67	68	137	84	151	175	57	14
13	47	51	118	72	65	68	151	77	130	161	60	12
14	49	45	100	71	65	67	167	75	128	183	63	12
15	48	17	95	71	65	65	192	75	139	178	69	11
16	48	10	92	69	65	65	209	67	213	159	43	11
17	47	12	88	b65	65	65	210	64	387	164	29	11
18	47	45	e6	b61	65	67	217	71	505	170	24	12
19	47	45	84	b80	65	65	228	85	347	207	22	12
20	47	53	83	b85	66	64	214	105	235	210	20	12
21	47	43	82	b95	67	63	206	113	192	195	22	12
22	47	62	e7	b93	68	64	186	109	149	178	25	11
23	47	188	84	b86	68	63	176	156	128	186	17	11
24	47	224	85	b77	68	65	164	161	122	192	14	11
25	42	123	81	b75	67	67	155	175	115	198	14	11
26	35	127	78	b73	*66	79	145	195	124	195	14	11
27	39	209	118	b73	66	84	143	210	156	146	14	12
28	48	132	120	b74	66	87	148	201	180	128	14	15
29	48	565	*103	b74	-	98	145	178	207	115	22	28
30	48	456	111	b67	-	94	151	172	252	117	18	28
31	53	-	123	b67	-	93	-	172	-	132	16	-

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	1,453	53	35	46.9	2,880	0	2,880
November	3,268	565	10	109	6,480	411	6,890
December	3,832	360	78	124	7,600	0	7,600
Calendar year 1942	28,049	565	10	76.8	55,630	5,020	60,650
January	2,559	126	61	82.5	5,080	0	5,080
February	1,854	68	63	66.2	3,680	0	3,680
March	2,178	98	63	70.3	4,320	0	4,320
April	4,589	228	96	153	9,100	0	9,100
May	4,162	210	64	134	8,260	2,310	10,570
June	5,399	505	102	180	10,710	4,270	14,980
July	6,434	359	115	208	12,760	5,160	17,920
August	1,571	137	14	50.7	3,120	3,960	7,080
September	398	28	11	13.3	789	3,370	4,160
Water year 1942-43	37,697	565	10	103	74,780	19,480	94,260

* Winter discharge measurement made on this day.
b Stage-discharge relation affected by ice.
Time basis: Pacific war time. 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 1943.
July 1906 to May 1913 at site 700 feet downstream, below intake of McCallister ditch.
Average discharge.- 31 years (1906-18, 1919-20, 1925-43), 102 second-feet.
Extremes.- Maximum discharge during year, 1,040 second-feet Nov. 29 (gage height, 4.57 feet), from rating curve extended above 850 second-feet; minimum, 40 second-feet Oct. 13, 16, 26, 27, 28 (gage height, 0.74 foot).
1906-43: 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 fair. 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 1942-43, except period of ice effect (gage height, in feet, and discharge, in second-feet)

Oct. 1 to Nov. 29				Nov. 29 to Sept. 30			
0.8	44	1.6	220	1.5	48	2.7	360
1.0	69	1.8	300	1.7	86	3.0	460
1.2	104	2.1	440	1.9	132	3.4	600
1.4	154			2.1	183	3.9	775
				2.4	270	4.6	1,050

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	51	89	394	246	a56	52	84	93	238	288	207	95
2	47	111	285	178	a57	52	90	90	205	297	194	97
3	47	63	199	144	a56	52	90	99	173	321	188	95
4	47	46	160	127	a57	52	86	99	157	294	186	95
5	50	45	144	118	a57	50	90	99	144	282	205	95
6	51	44	127	101	a57	52	90	95	152	306	186	99
7	50	51	120	93	*57	53	a93	95	178	357	175	101
8	48	69	110	86	55	53	a98	93	199	381	167	101
9	50	48	104	82	59	52	a97	101	210	357	162	101
10	47	45	97	78	57	50	a96	106	237	327	162	101
11	45	43	90	72	62	48	a100	95	222	297	160	104
12	43	43	90	72	59	50	a103	88	205	273	160	108
13	42	43	101	66	55	52	a110	82	178	261	165	104
14	46	72	86	70	55	50	a118	82	180	273	170	97
15	43	62	80	70	53	52	a130	80	194	264	162	97
16	42	53	78	66	53	48	140	76	222	252	162	95
17	40	50	76	59	53	48	142	78	309	252	160	95
18	40	50	70	52	53	48	147	86	384	258	150	99
19	41	50	68	70	53	46	170	104	336	273	137	84
20	42	47	66	76	53	48	167	120	276	282	130	84
21	42	53	64	86	55	46	157	122	246	279	134	86
22	43	109	74	82	55	45	132	150	216	267	125	88
23	44	383	74	76	53	46	130	210	186	267	108	84
24	42	354	68	b67	52	48	120	228	173	270	101	84
25	42	163	68	b65	52	52	113	258	170	270	104	86
26	43	302	66	b63	*55	82	101	264	175	261	104	88
27	42	459	157	b63	55	80	99	267	196	240	108	86
28	42	240	130	b64	53	80	101	264	219	222	110	78
29	43	*663	*104	64	-	82	99	258	234	213	130	72
30	42	439	140	57	-	76	99	252	267	213	101	70
31	51	-	237	57	-	84	-	273	-	219	97	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	1,388	51	40	44.8	2,750
November	4,289	663	43	143	8,510
December	3,727	394	64	120	7,390
Calendar year 1942	31,528	663	40	86.4	62,530
January	2,670	246	52	86.1	5,300
February	1,547	62	52	55.2	3,070
March	1,729	84	45	55.8	3,430
April	3,392	170	84	113	6,730
May	4,407	273	76	142	8,740
June	6,501	384	144	217	12,890
July	8,616	381	213	278	17,090
August	4,610	207	97	149	9,140
September	2,769	108	70	92.3	5,490
Water year 1942-43	45,645	663	40	125	90,530

Peak discharge.- Nov. 23 (6 p.m.) 994 sec.-ft.; Nov. 27 (2 a.m.) 710 sec.-ft.; Nov. 29 (4 p.m.) 1,040 sec.-ft.; Dec. 1 (6 p.m.) 520 sec.-ft.; June 17 (10 p.m.) 425 sec.-ft.; July 7 (10 p.m.) 453 sec.-ft.
* Winter discharge measurement made on this day.
a No gage-height record; discharge computed on basis of weather records and records for Tumalo Creek near Bend and Lake Creek near Sisters.
b Stage-discharge relation affected by ice.
Time basis: Pacific war time. 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 1943.

Extremes.- Maximum discharge during year, 5,700 second-feet Mar. 27 (gage height, 6.43 feet), from rating curve extended above 2,600 second-feet; minimum, 7 second-feet Aug. 16 (gage height, 1.07 feet).
1908-11, 1939-43: Maximum discharge recorded, that of Mar. 27, 1943; minimum, 4.4 second-feet July 12, 1940.

Remarks.- Records good except those for periods of ice effect and those above 3,000 second-feet, which are fair. 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 1942-43, except periods of ice effect (gage height, in feet, and discharge, in second-feet)

(Shifting-control method used July 3 to Sept. 30

Oct. 1 to Dec. 31

1.3	29	2.6	380
1.5	57	3.0	635
1.7	95	3.5	1,120
2.0	167	4.0	1,770
2.3	260	4.5	2,500

Jan. 1 to Sept. 30

1.7	78	2.8	450	4.5	2,370
1.9	120	3.2	760	5.0	3,130
2.2	199	3.6	1,170	5.6	4,120
2.5	299	4.0	1,670	6.3	5,440

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	27	39	963	3,290	b200	724	2,520	2,260	347	96	17	16
2	28	45	715	2,240	b300	724	3,113	1,990	409	80	16	16
3	29	46	546	1,330	b320	742	3,290	1,510	342	71	12	14
4	29	45	323	1,060	b300	779	2,860	1,300	308	67	13	15
5	29	45	267	885	b290	742	2,860	1,150	295	67	13	15
6	30	48	228	715	288	638	3,030	1,080	246	64	14	16
7	30	50	246	575	362	638	2,970	935	218	56	14	16
8	28	64	213	462	367	1,280	3,370	817	199	50	14	16
9	27	64	210	456	325	1,750	2,680	733	211	45	14	17
10	25	61	216	387	299	1,440	2,060	679	182	41	14	18
11	25	50	219	347	421	1,270	1,950	654	157	38	16	17
12	26	48	222	333	865	1,340	2,400	614	144	37	16	16
13	26	57	256	303	895	1,510	2,640	565	149	36	16	16
14	27	61	284	325	826	1,500	2,820	476	162	36	16	18
15	28	70	303	325	630	1,150	2,860	433	165	37	13	20
16	29	75	281	b250	508	976	2,720	409	134	38	13	21
17	29	70	250	b170	462	875	2,340	377	118	36	13	21
18	28	75	236	b130	706	760	2,120	333	111	32	13	21
19	28	66	239	b150	976	733	1,950	312	152	30	13	22
20	29	57	216	b160	1,120	630	1,780	303	152	29	12	24
21	29	68	216	b240	1,270	670	1,840	303	144	30	13	24
22	30	81	239	b400	1,440	751	1,450	316	127	29	13	21
23	32	217	303	336	1,160	976	1,310	325	118	27	13	22
24	32	415	400	277	1,030	1,250	1,190	316	118	28	14	24
25	33	198	532	b250	875	1,480	1,160	299	154	29	14	26
26	33	131	415	308	742	2,960	1,080	270	182	28	15	28
27	34	298	502	292	733	4,700	1,040	250	142	26	13	29
28	37	504	1,130	288	742	5,320	1,240	221	116	22	13	29
29	36	1,790	1,030	b280	-	5,300	1,530	193	100	19	13	29
30	36	1,990	1,060	b250	-	3,930	1,580	199	118	18	13	27
31	36	-	2,520	b230	-	2,620	-	303	-	16	15	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	925	37	25	29.8	1,830
November	6,628	1,990	39	228	13,540
December	14,780	2,520	210	477	29,320
Calendar year 1942	142,133	2,790	13	391	281,900
January	17,066	3,290	130	551	33,890
February	18,492	1,440	200	660	36,680
March	50,358	5,320	630	1,624	99,880
April	65,750	3,370	1,040	2,192	130,400
May	19,928	2,260	193	643	39,530
June	5,520	409	100	184	10,950
July	1,258	96	16	40.6	2,500
August	431	17	12	13.9	855
September	614	29	14	20.6	1,220
Water year 1942-43	201,970	5,320	12	555	400,600

b Stage-discharge relation affected by ice.
Time basis: Pacific war time. 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 1943. 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, 6,300 second-feet Mar. 28 (gage height, 7.07 feet), from rating curve extended above 3,500 second-feet; minimum, 5.5 second-feet Aug. 22-26 (gage height, 1.15 feet).

1908-12, 1913-14, 1940-43: 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, that of Mar. 28, 1943.

Remarks.- Records good except those for Jan. 12 to Feb. 5 which are fair. Diversions above station for irrigation; no regulation.

Rating tables, water year 1942-43, except periods of ice effect (gage height, in feet, and discharge, in second-feet)

Oct. 1 to Mar. 27

1.4	17	2.5	262	4.6	2,240
1.6	33	2.8	433	5.2	3,030
1.8	58	3.1	640	6.3	4,770
2.0	97	3.5	970		
2.2	149	4.0	1,500		

Mar. 28 to Sept. 30

1.2	7	2.3	181	4.1	1,620
1.4	19	2.6	313	4.8	2,500
1.6	39	2.9	500	5.7	3,750
1.8	65	3.2	715	6.8	5,740
2.0	100	3.6	1,070		

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	23	33	1,560	3,750	b300	916	2,900	2,360	364	131	23	8.5
2	23	35	872	3,450	b350	907	3,370	2,460	420	112	23	7.5
3	21	40	700	1,900	b460	898	3,740	1,820	427	98	23	7.5
4	22	41	528	1,210	b450	898	3,510	1,490	383	92	24	7.0
5	23	38	364	1,110	453	898	3,280	1,270	364	87	21	8.0
6	23	40	347	943	460	820	3,540	1,160	330	83	18	8.5
7	24	44	303	755	563	755	3,500	1,030	282	78	17	8.5
8	24	50	267	678	708	1,100	3,630	907	253	70	16	8.0
9	23	55	244	612	685	2,100	3,570	804	249	65	16	7.5
10	23	58	240	535	528	2,080	2,630	731	244	57	15	8.0
11	24	57	240	487	420	1,740	2,200	700	214	54	14	8.0
12	23	51	244	b450	787	1,660	2,540	670	192	49	13	7.5
13	23	47	253	433	961	1,940	2,920	640	178	47	13	8.0
14	23	51	308	427	1,050	2,080	3,170	584	188	46	11	8.0
15	23	63	330	b450	863	1,730	3,280	528	188	44	11	8.0
16	25	72	330	b370	715	1,290	3,240	500	178	44	11	8.5
17	25	82	293	b280	633	1,120	2,860	473	159	41	11	8.5
18	25	86	267	b200	779	980	2,490	433	146	40	10	9.0
19	26	80	249	b230	1,070	880	2,270	389	141	37	10	10
20	25	62	253	b350	1,370	820	2,100	370	168	35	8.5	11
21	24	57	244	b450	1,730	779	2,100	353	178	34	8.0	12
22	26	72	249	b600	1,990	846	1,780	359	165	37	6.1	13
23	26	82	288	626	1,660	1,000	1,470	364	155	39	5.5	15
24	26	320	389	433	1,250	1,340	1,340	364	146	39	5.5	16
25	26	359	556	389	980	1,620	1,210	359	159	36	5.5	16
26	27	211	542	460	846	2,530	1,200	324	181	35	5.8	14
27	28	165	440	453	872	4,660	1,060	303	200	36	6.4	16
28	32	395	925	440	952	5,780	1,140	272	162	31	6.4	18
29	37	777	1,210	427	-	6,680	1,640	236	136	31	8.0	20
30	34	2,680	934	364	-	4,860	1,660	222	126	27	8.5	20
31	32	-	2,450	336	-	3,560	-	253	-	24	8.0	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	789	37	21	25.5	1,560
November	6,203	2,680	33	207	12,300
December	16,419	2,450	240	530	32,570
Calendar year 1942	152,373	3,000	5.2	417	302,200
January	23,698	3,750	200	761	46,810
February	23,885	1,990	300	853	47,380
March	58,267	5,780	755	1,880	115,600
April	75,340	3,740	1,060	2,511	149,400
May	22,728	2,460	222	733	45,080
June	6,676	427	126	223	13,240
July	1,679	131	24	54.2	3,330
August	382.2	24	5.5	12.3	758
September	325.5	20	7.0	10.8	646
Water year 1942-43	236,291	5,780	5.5	647	468,700

b Stage-discharge relation affected by ice.

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

Crooked River near Culver, Oreg.

Location.- Staff gage, lat. 44°33', long. 121°16', in SW¼ sec. 11, T. 12 S., R. 12 E., just downstream from Cove power plant and 3 miles northwest of Culver. Datum of gage is 1,721.33 feet above mean sea level, datum of 1929 (Pacific Power & Light Co. bench mark).

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

Records available.- October 1917 to September 1943.

Average discharge.- 26 years, 1,434 second-feet.

Extremes.- Maximum discharge observed during year, 8,260 second-feet Mar. 30, 31 (gage height, 6.70 feet); minimum observed, 1,200 second-feet Oct. 1, 2, 6 (gage height, 0.60 foot).
1917-43: Maximum discharge observed, that of Mar. 30, 31, 1943; minimum, 970 second-feet July 12 to Sept. 5, 1921.

Remarks.- Records good. Gage read once or twice daily. Flow slightly regulated by Ochoco Reservoir. Summer flow above Prineville diverted for irrigation. Springs increase flow about 1,000 second-feet within an area extending a few miles above station.

Cooperation.- Gage readings furnished by Pacific Power & Light Co.

Rating table, water year 1942-43 (gage height, in feet, and discharge, in second-feet)

0.6	1,200	3.3	3,560
1.0	1,450	4.4	4,940
1.6	1,900	5.5	6,430
2.4	2,600	6.6	8,100

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,200	1,300	3,440	4,160	1,770	2,650	5,730	3,160	1,530	1,390	1,250	1,260
2	1,200	1,330	2,700	5,330	1,740	2,580	4,550	3,800	1,650	1,390	1,250	1,260
3	1,210	1,330	2,150	5,070	1,770	2,520	5,070	3,720	1,690	1,380	1,260	1,260
4	1,210	1,330	1,960	3,330	1,840	2,550	5,730	3,140	1,740	1,360	1,250	1,270
5	1,210	1,330	1,740	2,600	1,830	2,560	5,450	2,910	1,680	1,320	1,260	1,270
6	1,200	1,330	1,630	2,550	1,880	2,500	5,160	2,700	1,690	1,320	1,260	1,280
7	1,210	1,330	1,580	2,420	2,000	2,400	5,290	2,560	1,590	1,320	1,250	1,270
8	1,210	1,330	1,550	2,290	2,040	2,420	5,460	2,440	1,550	1,320	1,250	1,270
9	1,210	1,330	1,580	2,090	2,040	2,950	5,460	2,380	1,520	1,320	1,250	1,270
10	1,210	1,330	1,580	2,030	1,980	3,700	d5,000	2,220	1,520	1,310	1,250	1,270
11	1,220	1,330	1,530	1,980	1,910	3,410	4,550	2,100	1,450	1,320	1,250	1,270
12	1,220	1,330	1,530	1,880	1,960	3,030	4,040	2,030	1,450	1,320	1,250	1,270
13	1,220	1,330	1,530	1,890	2,540	3,040	4,360	1,970	1,450	1,310	1,250	1,270
14	1,220	1,330	1,530	1,870	2,820	3,240	4,740	1,950	1,450	1,310	1,240	1,270
15	1,220	1,340	1,580	1,860	2,770	3,330	5,110	1,880	1,460	1,300	1,240	1,270
16	1,220	1,370	1,620	1,880	2,490	2,900	5,200	1,840	1,450	1,260	1,240	1,270
17	1,220	1,340	1,620	1,830	2,360	2,710	5,140	1,790	1,440	1,260	1,240	1,270
18	1,220	1,360	1,620	1,650	2,310	2,700	4,740	1,770	1,420	1,260	1,250	1,270
19	1,220	1,360	1,620	1,550	2,510	2,580	4,360	1,710	1,420	1,260	1,240	1,270
20	1,240	1,330	1,590	1,660	2,880	2,520	3,920	1,660	1,420	1,260	1,240	1,270
21	1,240	1,330	1,580	1,630	3,180	2,410	3,740	1,650	1,440	1,260	1,250	1,270
22	1,240	1,310	1,550	1,630	3,510	2,350	3,800	1,660	1,460	1,260	1,260	1,270
23	1,240	1,310	1,550	1,860	3,570	2,420	3,500	a1,660	1,450	1,250	1,250	1,270
24	1,240	1,310	1,580	1,910	2,930	2,670	3,160	1,650	1,420	1,250	1,250	1,270
25	1,240	1,310	1,660	1,730	2,680	2,960	2,830	1,620	1,450	1,250	1,250	1,280
26	1,240	1,620	1,840	1,690	2,620	3,190	2,780	1,590	1,510	1,250	1,260	1,270
27	1,240	1,550	1,820	1,820	2,510	4,080	2,900	1,590	1,480	1,250	1,260	1,270
28	1,250	1,520	1,770	1,900	2,560	5,590	2,720	1,560	1,520	1,260	1,260	1,270
29	1,280	1,620	2,420	1,880	-	7,170	2,600	1,520	1,460	1,260	1,260	1,270
30	1,280	2,240	2,550	1,790	-	8,100	3,140	1,520	1,420	1,250	1,260	1,270
31	1,300	-	2,700	1,720	-	7,780	-	1,510	-	1,250	1,260	1,270

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	38,080	1,300	1,200	1,228	75,530
November	41,810	2,240	1,300	1,394	82,930
December	56,700	3,440	1,530	1,829	112,500
Calendar year 1942	601,890	4,190	1,170	1,649	1,194,000
January	69,480	5,330	1,550	2,241	137,800
February	67,000	3,570	1,740	2,393	132,900
March	105,010	8,100	2,350	3,387	208,300
April	130,430	5,730	2,720	4,348	258,700
May	65,260	3,800	1,510	2,105	129,400
June	45,180	1,740	1,420	1,506	89,610
July	40,080	1,390	1,250	1,293	79,500
August	38,790	1,260	1,240	1,251	76,940
September	38,090	1,280	1,260	1,270	75,550
Water year 1942-43	735,910	8,100	1,200	2,016	1,460,000

a Nc gage-height record (power forebay drained and refilled); discharge interpolated.
d Doubtful gage-height record; discharge interpolated.
Time basis: Pacific war time. 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 northwest of Grandview.

Records available.- October 1921 to September 1943.

Average discharge.- 22 years, 1,415 second-feet.

Extremes.- Maximum discharge during year, 5,130 second-feet Jan. 1 (gage height, 2.86 feet, from floodmark), from rating curve extended above 2,200 second-feet; minimum observed, 1,080 second-feet Oct. 2-31, Nov. 6, 7, 10-14.

1921-43: 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 except those above 2,300 second-feet, which are poor. Gage read once daily. No diversion or regulation above station.

Rating table, water year 1942-43 (gage height, in feet, and discharge, in second-feet)

0.2	1,100	0.8	1,790	1.4	2,630	2.2	3,900
.5	1,420	1.1	2,200	1.8	3,240	2.6	4,620

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,100	1,200	1,790	4,620	1,400	1,440	1,660	1,640	1,760	1,710	1,520	1,420
2	1,080	1,270	1,840	3,080	1,420	1,420	1,690	1,640	1,710	1,710	1,520	1,400
3	1,080	1,160	1,760	2,630	1,440	1,420	1,740	1,640	1,710	1,710	1,520	1,400
4	1,080	1,100	1,710	2,510	1,540	1,420	1,740	1,610	1,690	1,740	1,520	1,380
5	1,080	1,100	1,640	2,230	1,490	1,420	1,710	1,610	1,660	1,710	1,520	1,350
6	1,080	1,080	1,540	2,120	1,590	1,400	1,690	1,610	1,660	1,660	1,520	1,350
7	1,080	1,080	1,490	1,950	1,740	1,380	1,690	1,590	1,660	1,660	1,520	1,350
8	1,080	1,180	1,590	1,840	1,660	1,380	1,690	1,560	1,660	1,660	1,520	1,350
9	1,080	1,140	1,560	1,740	1,610	1,380	1,690	1,560	1,660	1,660	1,490	1,350
10	1,080	1,080	1,560	1,690	1,640	1,380	1,690	1,560	1,660	1,640	1,490	1,350
11	1,080	1,080	1,520	1,640	1,710	1,380	1,640	1,560	1,660	1,610	1,470	1,350
12	1,080	1,080	1,440	1,590	1,710	1,380	1,640	1,560	1,660	1,590	1,470	1,350
13	1,080	1,080	1,440	1,560	1,690	1,380	1,690	1,540	1,640	1,590	1,470	1,350
14	1,080	1,080	1,420	1,560	1,660	1,380	1,710	1,540	1,610	1,610	1,470	1,350
15	1,080	1,290	1,420	1,540	1,640	1,380	1,760	1,540	1,590	1,590	1,440	1,350
16	1,080	1,180	1,420	1,520	1,610	1,380	1,760	1,540	1,590	1,590	1,440	1,330
17	1,080	1,180	1,400	1,490	1,590	1,380	1,760	1,520	1,590	1,590	1,420	1,330
18	1,080	1,140	1,400	1,490	1,560	1,380	1,760	1,490	1,820	1,590	1,420	1,330
19	1,080	1,120	1,380	1,470	1,560	1,380	1,760	1,490	1,740	1,590	1,420	1,330
20	1,080	1,100	1,380	1,470	1,540	1,400	1,760	1,490	1,660	1,590	1,400	1,330
21	1,080	1,100	1,380	1,740	1,540	1,420	1,760	1,530	1,640	1,590	1,400	1,310
22	1,080	1,240	1,420	1,610	1,540	1,420	1,760	1,590	1,640	1,590	1,400	1,310
23	1,080	1,750	1,470	1,520	1,540	1,470	1,760	1,690	1,610	1,590	1,400	1,310
24	1,080	1,640	1,470	1,440	1,540	1,490	1,740	1,690	1,610	1,590	1,400	1,320
25	1,080	1,350	1,470	1,440	1,490	1,540	1,740	1,690	1,760	1,590	1,400	1,310
26	1,080	1,610	1,420	1,470	1,490	1,590	1,710	1,690	1,660	1,590	1,400	1,310
27	1,080	2,340	1,740	1,520	1,470	1,610	1,710	1,710	1,660	1,560	1,400	1,310
28	1,080	1,660	1,950	1,490	1,470	1,640	1,690	1,710	1,660	1,540	1,420	1,310
29	1,080	2,620	1,870	1,490	-	1,660	1,690	1,710	1,690	1,520	1,440	1,310
30	1,080	2,630	2,070	1,470	-	1,660	1,660	1,740	1,710	1,520	1,440	1,290
31	1,080	-	3,180	1,400	-	1,660	-	1,790	-	1,520	1,440	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	33,500	1,100	1,080	1,081	66,450
November	40,660	2,630	1,080	1,355	80,650
December	50,140	3,180	1,380	1,617	99,450
Calendar year 1942	453,410	3,180	1,080	1,242	899,300
January	56,330	4,620	1,400	1,817	111,700
February	43,880	1,740	1,400	1,567	87,030
March	45,020	1,660	1,380	1,452	89,300
April	51,450	1,760	1,640	1,715	102,000
May	49,830	1,790	1,490	1,607	98,840
June	50,030	1,820	1,590	1,668	99,230
July	50,000	1,740	1,520	1,613	99,170
August	45,100	1,520	1,400	1,455	89,450
September	40,190	1,420	1,290	1,340	79,720
Water year 1942-43	556,130	4,620	1,080	1,524	1,103,000

Time basis: Pacific war time. 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 1943.

Average discharge.- 27 years (1915-18, 1919-43), 48.8 second-feet.

Extremes.- Maximum discharge during year, 255 second-feet (regulated) Jan. 3 (gage height, 3.23 feet); minimum, 6 second-feet (regulated) Oct. 7 (gage height, 0.34 foot); minimum daily, 8 second-feet Oct. 6.

1911-13, 1915-43: 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 shifting control or no gage-height record, which are fair. No diversion above station; occasional regulation by Suttle Lake.

Rating table, water year 1942-43, except period of shifting control (gage height, in feet, and discharge, in second feet)

0.5	10	0.9	24	1.3	48	1.9	101	2.6	176
.7	16	1.1	35	1.6	73	2.2	131	3.0	225

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	19	18	207	182	50	43	65	94	103	62	33	21
2	19	20	184	221	52	43	67	91	110	58	31	19
3	18	22	156	238	50	42	71	89	123	58	31	24
4	17	22	134	196	53	42	74	87	129	55	31	23
5	12	22	126	170	53	41	78	86	118	54	32	20
6	8	22	120	152	54	40	78	86	109	54	32	22
7	15	21	110	135	55	43	78	84	101	52	31	24
8	23	21	107	120	54	47	78	83	96	50	31	24
9	22	21	93	107	54	44	78	81	93	49	31	24
10	21	21	77	96	54	43	77	80	89	47	33	22
11	20	21	67	87	56	42	76	79	87	49	32	16
12	19	20	64	81	54	43	74	78	85	48	31	14
13	18	20	63	76	53	46	73	76	84	46	31	18
14	18	23	68	72	54	47	73	74	79	45	30	24
15	18	31	64	68	54	46	75	73	71	42	31	24
16	17	32	58	66	54	44	77	69	74	41	31	24
17	17	33	54	65	54	42	82	66	74	41	31	22
18	17	33	50	61	51	41	88	64	75	39	30	20
19	17	30	49	58	50	40	95	62	76	38	29	24
20	16	28	49	68	50	39	104	61	77	37	28	30
21	17	26	58	76	50	39	112	62	78	36	28	28
22	16	26	64	71	49	38	115	63	78	36	a28	28
23	15	33	60	64	48	37	121	64	76	35	a28	28
24	16	38	62	59	47	37	120	66	78	35	a28	26
25	16	40	62	58	46	37	117	71	84	36	a28	24
26	16	58	62	56	45	40	112	75	77	34	a28	18
27	18	78	75	56	44	42	109	80	76	33	a28	16
28	18	88	83	57	44	44	106	86	73	33	28	19
29	18	114	90	56	-	49	101	90	69	33	30	20
30	19	144	113	55	-	55	97	94	65	33	29	21
31	18	-	133	51	-	63	-	98	-	32	28	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	538	23	8	17.4	1,070
November	1,126	144	18	37.5	2,230
December	2,762	207	49	89.1	5,480
Calendar year 1942	14,180	207	8	38.8	28,130
January	2,978	238	51	96.1	5,910
February	1,432	56	44	51.1	2,840
March	1,339	63	37	43.2	2,660
April	2,671	121	65	89.0	5,300
May	2,412	98	61	77.8	4,780
June	2,607	129	65	86.9	5,170
July	1,341	62	32	43.3	2,660
August	931	33	28	30.0	1,850
September	667	30	14	22.2	1,320
Water year 1942-43	20,804	238	8	57.0	41,270

a No gage-height record; discharge interpolated.

Note.- Shifting-control method used Jan. 4 to June 3.

Time basis: Pacific war time. 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 1943.

Average discharge.- 26 years, 410 second-feet.

Extremes.- Maximum discharge during year, 5,270 second-feet Jan. 1 (gage height, 7.76 feet); minimum, 32 second-feet Sept. 15 (gage height, -0.19 foot); minimum daily, 80 second-feet Oct. 24.

1917-43: 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 except those for periods of no gage-height record and those for Mar. 27 to July 31, which are fair. 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.

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	89	263	1,480	3,620	396	592	1,660	1,190	1,180	548	196	151
2	90	208	1,430	2,300	416	574	1,520	1,180	1,080	532	196	149
3	91	224	1,010	1,540	416	564	1,410	1,160	1,000	528	193	148
4	90	172	795	1,250	667	552	1,270	1,160	912	500	191	146
5	88	149	668	1,080	994	528	1,230	1,120	875	464	218	146
6	85	146	596	972	2,150	500	1,190	1,170	880	460	208	143
7	85	148	532	865	2,770	500	1,180	1,180	901	440	188	141
8	85	178	618	785	1,580	500	1,170	1,100	945	428	188	138
9	84	163	853	713	1,120	480	1,110	1,090	994	408	184	136
10	84	143	1,180	659	1,020	464	1,060	1,070	962	393	174	135
11	83	141	928	618	2,720	460	1,030	989	885	372	176	136
12	84	141	790	578	2,550	460	1,110	912	940	354	174	136
13	82	141	875	556	1,860	476	1,290	870	984	334	172	135
14	83	180	815	731	1,520	480	1,590	820	835	327	170	134
15	92	496	835	835	1,330	460	1,900	775	790	320	168	130
16	84	444	870	722	1,180	448	2,040	765	775	307	168	132
17	82	404	934	628	1,060	440	1,960	750	810	294	164	132
18	81	327	910	a575	962	420	1,870	750	825	285	163	134
19	81	252	825	a540	896	424	2,110	780	770	278	161	136
20	81	213	755	708	870	400	2,050	840	713	269	161	135
21	84	193	726	654	830	400	1,960	901	695	260	161	134
22	84	232	845	600	800	404	1,670	1,030	677	252	166	134
23	82	882	928	a560	750	412	1,470	1,590	618	243	159	131
24	80	1,550	940	a520	700	444	1,320	1,530	587	240	158	128
25	81	800	945	a500	650	488	1,210	1,610	574	237	152	128
26	82	574	835	a490	628	641	1,140	1,620	574	232	152	126
27	95	1,090	1,000	a485	614	956	1,130	1,510	552	218	151	126
28	95	1,000	1,840	472	596	1,100	1,250	1,370	548	210	151	127
29	89	1,460	1,470	452	-	1,240	1,240	1,260	548	205	151	125
30	103	1,840	1,770	432	-	1,210	1,200	1,200	556	200	180	123
31	145	-	3,180	393	-	1,340	-	1,280	-	198	158	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	2,724	145	80	87.9	5,400
November	14,154	1,840	141	472	28,070
December	32,186	3,180	552	1,038	63,840
Calendar year 1942	125,925	3,180	80	345	249,800
January	25,833	3,620	393	833	51,240
February	32,045	2,770	396	1,144	63,560
March	18,357	1,340	400	592	36,410
April	43,340	2,110	1,030	1,445	85,960
May	34,672	1,620	750	1,115	68,570
June	23,985	1,180	548	800	47,570
July	10,336	548	198	333	20,500
August	5,352	218	151	173	10,620
September	4,055	151	123	135	8,040
Water year 1942-43	246,939	3,620	80	677	489,800

a No gage-height record; discharge computed on basis of records for West Fork Hood River near Dee.
Time basis: Pacific war time. 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.- 360 square miles.

Records available.- December 1910 to September 1943 (1920-28 incomplete). October 1909 to December 1910, at site 1 mile upstream.

Average discharge.- 26 years (1909-20, 1928-43), 819 second-feet.

Extremes.- Maximum discharge during year, 3,280 second-feet May 25 (gage height, 5.96 feet); minimum, 268 second-feet Oct. 12, 13, 25 (gage height, 2.94 feet).
1909-43: 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 period of ice effect, which are fair. All low flow of Hellroaring Creek, a tributary of Big Muddy River, is diverted for irrigation. No regulation.

Rating table, water year 1942-43, except period of ice effect (gage height, in feet, and discharge, in second-feet)

3.0	299	3.6	689	4.4	1,390	5.3	2,410
3.3	479	4.0	1,010	4.8	1,820	5.8	3,070

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	294	660	773	595	b350	512	1,440	1,600	2,230	1,710	719	453
2	289	499	704	553	b370	512	1,540	1,660	2,050	1,660	704	447
3	283	492	631	526	b390	512	1,540	1,660	1,930	1,600	689	434
4	289	428	588	506	b420	519	1,440	1,710	1,880	1,490	667	428
5	269	391	574	519	460	506	1,390	1,660	1,930	1,390	674	428
6	294	367	546	506	526	486	1,340	1,600	2,050	1,390	667	434
7	278	379	533	492	492	506	1,340	1,540	2,110	1,390	631	428
8	278	361	526	473	460	492	1,390	1,490	2,290	1,340	602	415
9	273	349	526	441	*434	479	1,390	1,600	2,480	1,340	595	409
10	273	344	560	409	453	473	1,390	1,600	2,410	1,290	588	409
11	273	321	539	403	499	479	1,440	1,540	2,170	1,170	588	421
12	268	338	539	409	539	473	1,600	1,440	1,990	1,080	595	473
13	268	349	588	421	512	473	1,880	1,390	1,930	1,060	595	466
14	273	499	595	616	512	473	2,230	1,290	1,880	1,060	588	460
15	278	539	623	719	506	466	2,480	1,240	1,930	1,060	567	453
16	273	447	667	667	499	460	2,540	1,240	1,990	1,010	560	453
17	273	428	f742	595	486	460	2,540	1,240	2,230	1,000	553	441
18	278	409	*f712	512	479	447	2,480	1,340	2,350	1,010	533	428
19	278	391	689	b490	479	441	2,800	1,440	2,110	1,050	519	415
20	278	349	667	b460	492	434	2,800	1,660	1,880	1,060	512	460
21	278	391	645	b420	492	447	2,540	1,760	1,820	1,010	606	466
22	289	466	660	b410	499	447	2,230	1,990	1,710	968	492	447
23	278	1,500	623	b400	506	466	2,110	2,600	1,600	976	486	428
24	273	1,540	609	b390	506	512	1,880	2,800	1,540	959	479	428
25	268	1,080	574	b380	499	574	1,710	3,070	1,440	925	473	434
26	273	869	519	b380	506	845	1,600	3,140	1,490	901	479	428
27	289	750	553	b380	499	1,120	1,490	2,930	1,490	845	479	409
28	283	660	602	b370	506	1,540	1,600	2,740	1,540	805	466	397
29	283	773	574	b360	-	1,660	1,600	2,540	1,600	773	466	397
30	289	853	560	b350	-	1,490	1,600	2,350	1,660	773	460	397
31	549	-	623	b340	-	1,440	-	2,350	-	750	466	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff Inches	Runoff Acre-feet
October	8,932	549	268	288	0.800	0.92	17,720
November	17,222	1,540	321	574	1.59	1.78	34,160
December	18,864	773	519	609	1.69	1.95	37,420
Calendar year 1942	237,101	1,930	268	650	1.81	24.49	470,300
January	14,492	719	340	467	1.30	1.50	28,740
February	13,371	539	350	478	1.33	1.38	26,520
March	20,144	1,660	434	650	1.81	2.08	39,960
April	55,350	2,800	1,340	1,845	5.12	6.72	109,800
May	58,210	3,140	1,240	1,878	5.22	6.01	115,500
June	57,710	2,480	1,440	1,924	5.34	5.96	114,500
July	34,845	1,710	750	1,124	3.12	3.60	69,110
August	17,398	719	460	561	1.56	1.80	34,510
September	12,986	473	397	433	1.20	1.34	26,760
Water year 1942-43	329,524	3,140	268	903	2.51	34.04	653,700

* Winter discharge measurement made on this day.
b Stage-discharge relation affected by ice.
f Computed on basis of partly estimated gage-height record.
Time basis: Pacific war time. 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., 3½ 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 1943. July 1909 to January 1912, at site 7 miles upstream, published as Klickitat River at Klickitat. October 1928 to September 1935, 3½ miles upstream, published as Klickitat River at Pitt.
Average discharge.- 17 years (1909-11, 1928-43), 1,470 second-feet.
Extremes.- Maximum discharge during year, 12,900 second-feet Mar. 31 (gage height, 10.10 feet), from rating curve extended above 4,700 second-feet, on basis of velocity-area studies; minimum, 525 second-feet Oct. 24, 25 (gage height, 3.43 feet).
1909-12, 1928-43: 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, 465 second-feet Feb. 4, 1937 (gage height, 3.32 feet).
Remarks.- Records excellent except those for period of ice effect, which are fair. Small diversions above station for irrigation.

Rating table, water year 1942-43, except period of ice effect (gage height, in feet, and discharge, in second-feet)

3.5	560	5.0	2,020	8.0	7,410
3.7	690	5.5	2,710	9.0	9,860
4.0	920	6.0	3,480	10.0	12,600
4.3	1,200	6.5	4,330		
4.6	1,530	7.0	5,280		

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	555	1,030	2,460	5,890	b950	1,960	9,090	3,520	3,080	2,150	1,070	832
2	545	784	2,940	4,060	b1,000	1,960	7,410	3,240	2,940	2,150	1,060	816
3	545	776	1,890	3,080	1,060	1,890	6,520	3,240	2,710	2,020	1,060	816
4	545	711	1,590	2,420	1,310	1,890	5,680	3,240	2,640	1,960	1,050	816
5	550	662	1,420	2,280	1,710	1,770	5,280	3,160	2,640	1,830	1,060	808
6	550	620	1,260	2,020	3,610	1,650	4,890	3,010	2,780	1,770	1,060	808
7	550	627	1,190	1,890	4,600	1,650	4,700	2,940	2,860	1,770	1,010	816
8	550	634	1,310	1,710	*3,640	1,650	4,700	2,780	2,940	1,770	992	792
9	545	608	1,830	1,530	2,780	1,590	4,510	2,780	3,160	1,770	992	784
10	540	596	3,160	1,420	2,560	1,530	4,240	2,860	3,240	1,710	965	784
11	540	578	2,350	1,360	4,240	1,530	4,150	2,710	2,940	1,590	956	776
12	540	572	1,890	1,290	4,510	1,530	4,330	2,560	2,710	1,480	974	840
13	535	572	1,890	1,360	4,420	1,530	4,600	2,490	2,710	1,420	974	840
14	545	627	1,830	3,430	4,240	1,770	5,080	2,420	2,640	1,420	965	832
15	550	880	1,770	4,060	3,810	1,710	5,480	2,350	2,560	1,420	956	824
16	545	776	1,770	2,640	3,400	1,650	5,680	2,280	2,560	1,420	928	816
17	540	768	*1,830	2,080	3,010	1,590	5,480	2,220	2,780	1,360	947	816
18	535	739	1,770	1,710	2,710	1,530	5,080	2,280	3,010	1,360	929	816
19	535	690	1,650	1,770	2,640	1,530	5,680	2,350	2,780	1,420	920	792
20	535	662	1,530	b1,650	2,710	1,420	5,890	2,490	2,490	1,420	904	824
21	535	648	1,530	b1,500	2,560	1,480	5,480	2,710	2,420	1,420	904	840
22	535	739	1,830	b1,300	2,490	1,530	4,700	2,860	2,280	1,310	896	832
23	540	2,200	1,770	b1,200	2,350	1,710	4,510	3,560	2,220	1,310	872	808
24	530	2,860	1,770	b1,150	2,220	2,150	4,060	3,810	2,080	1,360	864	800
25	530	1,890	1,650	b1,100	2,080	2,560	3,720	4,060	2,020	1,290	856	816
26	530	1,530	1,420	b1,100	2,020	3,810	3,480	4,240	1,960	1,280	848	816
27	540	1,360	1,420	b1,100	1,960	5,080	3,320	4,060	2,020	1,220	856	792
28	545	1,290	1,360	b1,050	1,960	5,680	3,560	3,720	2,020	1,160	848	768
29	540	1,360	1,830	b1,000	-	6,310	3,560	3,560	2,080	1,130	848	768
30	540	1,890	2,020	950	-	5,680	3,400	3,320	2,150	1,110	824	768
31	572	-	4,120	b900	-	10,200	-	3,240	-	1,110	840	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff Inches	Runoff Acre-feet
October	16,812	572	530	542	0.463	0.53	33,350
November	29,879	2,860	572	989	.845	.94	58,870
December	58,050	4,120	1,190	1,873	1.60	1.85	115,100
Calendar year 1942	437,131	4,120	530	1,198	1.02	13.90	867,000
January	60,000	5,890	900	1,935	1.65	1.91	119,000
February	76,550	4,600	950	2,734	2.34	2.43	151,800
March	79,520	10,200	1,420	2,565	2.19	2.53	157,700
April	148,260	9,090	3,320	4,942	4.22	4.71	294,100
May	93,860	4,240	2,220	3,028	2.59	2.98	186,200
June	77,420	3,240	1,960	2,581	2.21	2.46	153,600
July	46,910	2,150	1,110	1,513	1.29	1.49	93,040
August	29,238	1,070	824	943	.806	.93	57,990
September	24,256	840	768	809	.691	.77	48,110
Water year 1942-43	740,555	10,200	530	2,029	1.73	23.53	1,469,000

Peak discharge.- Nov. 24 (12:50 a.m.) 3,480 sec.-ft.; Dec. 2 (12:40 a.m.) 4,060 sec.-ft.; Jan. 1 (12:10 a.m.) 7,180 sec.-ft.; Jan. 14 (9:30 p.m.) 5,280 sec.-ft.; Feb. 6 (8:45 p.m.) 5,280 sec.-ft.; Mar. 31 (4 p.m.) 12,900 sec.-ft.
* Winter discharge measurement made on this day.
b Stage-discharge relation affected by ice.
Time basis: Pacific war time. To convert war time to standard time, subtract 1 hour.

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 1943.

Average discharge.- 30 years, 1,048 second-feet (including flow of Pacific Power & Light Co.'s conduit).

Extremes.- Maximum discharge during year (river only), 9,830 second-feet Nov. 23 (gage height, 7.09 feet), from rating curve extended above 4,400 second-feet; minimum, 35 second-feet (regulated) Oct. 4, 15 (gage height, 1.29 feet); minimum daily (including discharge of Pacific Power & Light Co.'s conduit), 227 second-feet Oct. 3.

1913-43: Maximum discharge, 34,000 second-feet Jan. 6, 1923 (gage height, 11.1 feet); 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 except those below 200 or above 2,000 second-feet and those for period of no gage-height record, which are fair. 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 tables, water year 1942-43 (gage height, in feet, and discharge, in second-feet)

Oct. 1 to Nov. 22				Nov. 23 to Sept. 30					
1.4	43	2.6	370	1.4	53	2.6	374	4.3	2,380
1.6	64	3.0	670	1.6	77	3.0	620	4.8	3,430
1.8	99	3.4	1,130	1.8	110	3.4	1,000	5.5	5,090
2.2	198	3.8	1,700	2.2	214	3.8	1,530	6.3	7,250

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	52	1,400	3,960	5,650	461	772	5,060	1,530	1,310	709	151	51
2	48	1,650	3,520	3,840	644	763	3,980	1,490	1,200	684	101	52
3	46	1,620	2,320	2,700	585	745	3,280	1,390	1,110	727	96	53
4	43	858	1,730	2,080	1,420	718	2,760	1,400	967	660	82	50
5	44	508	1,400	1,810	1,310	692	2,250	1,330	989	571	156	49
6	48	370	1,210	1,580	4,220	636	2,030	1,520	989	585	136	48
7	46	406	1,040	1,330	3,780	613	1,910	1,430	1,000	613	88	50
8	44	619	1,110	1,160	2,400	628	1,890	1,250	1,080	620	72	51
9	43	f354	1,530	1,050	1,730	592	1,960	1,210	1,180	644	58	49
10	42	f226	2,880	956	1,750	571	1,620	1,200	1,060	578	57	51
11	55	h143	2,100	880	4,840	550	1,530	1,100	912	473	64	52
12	45	h127	1,710	790	4,170	557	1,650	1,000	850	369	54	52
13	42	h114	2,380	781	3,080	718	2,050	934	890	333	62	54
14	42	a1,740	2,120	1,200	2,460	772	2,460	860	781	342	56	51
15	40	a3,220	1,980	2,030	2,080	692	2,700	810	745	320	58	51
16	41	1,500	1,960	1,680	1,810	652	2,760	790	763	278	52	53
17	42	2,600	1,960	1,330	1,540	599	2,270	754	945	267	47	53
18	42	1,330	1,650	1,070	1,360	550	2,140	745	1,020	275	47	56
19	43	858	1,390	a850	1,240	537	2,480	772	912	324	49	57
20	42	580	1,580	1,180	1,150	498	2,720	820	820	342	48	48
21	42	540	1,640	1,070	1,080	485	3,010	989	810	320	48	48
22	43	1,690	2,870	989	1,040	504	2,300	1,100	763	245	50	51
23	43	7,180	2,320	860	978	557	2,030	1,910	692	248	52	50
24	42	5,600	2,030	a780	912	668	1,840	1,590	636	267	51	51
25	42	2,950	1,780	a710	850	989	1,600	1,620	599	471	55	51
26	42	1,980	1,450	a660	800	1,850	1,430	1,680	585	278	51	53
27	104	2,420	1,730	644	781	3,210	1,380	1,350	592	221	57	48
28	59	1,780	2,250	620	800	3,300	1,490	1,180	599	177	58	48
29	50	3,950	1,870	599	-	3,140	1,810	1,060	668	150	70	51
30	52	3,980	2,010	524	-	2,600	1,620	1,150	718	138	72	50
31	1,140	-	5,420	479	-	5,140	-	1,490	-	143	55	-

Month	Observed: Discharge in second-feet: Maximum	Observed: Discharge in second-feet: Minimum	Observed: Discharge in second-feet: Mean	Observed: Runoff in acre-feet	Pacific Power & Light Co.'s conduit near Hood River (acre-feet)	River and conduit combined: Runoff in acre-feet	River and conduit combined: Discharge in second-feet: Mean	River and conduit combined: Discharge in second-feet: Per square mile	River and conduit combined: Runoff in inches
October	1,140	40	82.2	5,060	15,820	20,880	340		
November	7,180	114	1,744	103,800	26,650	130,400	2,192		
December	5,420	1,040	2,094	128,700	28,610	157,300	2,558		
Calendar year 1942	7,180	34	541	391,640	289,650	681,300	941		
January	5,650	479	1,351	83,070	28,870	111,900	1,820		
February	4,840	461	1,760	97,730	26,120	123,800	2,229		
March	5,140	485	1,139	70,010	29,040	99,050	1,611		
April	5,060	1,380	2,267	134,900	26,460	161,400	2,712		
May	1,910	745	1,208	74,290	27,760	102,000	1,659		
June	1,310	585	873	51,940	27,310	79,250	1,331		
July	727	138	399	24,540	28,300	52,840	859		
August	156	47	69.1	4,250	26,380	30,630	498		
September	57	48	51.1	3,040	20,050	23,090	388		
Water year 1942-43	7,180	40	1,079	781,300	311,400	1,093,000	1,509		

a No gage-height record; discharge computed on basis of records for West Fork Hood River near Dee and Pacific Power & Light Co.'s conduit near Hood River.

f Computed on basis of partly estimated gage-height record.

h Computed from staff-gage reading.

Time basis: Pacific war time. 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 1943.

Average discharge.- 11 years (1932-43), 511 second-feet.

Extremes.- Maximum discharge during year, 10,600 second-feet Nov. 23 (gage height, 11.18 feet), from rating curve extended above 5,000 second-feet; minimum, 103 second-feet Oct. 4 (gage height, 1.44 feet).

1913-15, 1932-43: 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 except those for period of no gage-height record, which are fair.

Rating tables, water year 1942-43 (gage height, in feet, and discharge, in second-feet)

Oct. 1 to Nov. 22

1.4	97	3.0	585
1.7	147	3.5	845
2.0	216	4.2	1,260
2.5	371		

Nov. 23 to Sept. 30

1.8	129	3.4	730	7.0	3,820
2.1	197	4.0	1,100	8.0	5,190
2.5	320	5.0	1,830	9.5	7,550
2.9	470	6.0	2,720		

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	108	926	2,190	3,130	369	462	3,180	958	698	479	249	184
2	107	1,280	1,920	1,970	510	466	2,370	916	692	462	246	184
3	107	1,190	1,300	1,410	458	458	1,930	868	832	454	246	176
4	108	752	1,000	1,110	1,050	446	1,460	662	748	426	237	176
5	108	491	632	1,000	698	430	1,260	838	766	406	261	176
6	111	470	730	904	2,820	406	1,150	996	766	402	249	174
7	110	496	642	784	1,880	406	1,090	916	772	402	231	176
8	108	487	706	688	1,270	422	1,110	814	826	394	222	171
9	107	448	1,100	626	970	402	1,070	772	856	402	219	174
10	110	382	1,930	580	1,140	390	983	754	754	372	217	174
11	114	336	1,350	540	3,300	386	946	700	659	348	214	174
12	111	303	1,090	506	2,310	402	1,050	648	620	320	214	171
13	107	284	1,560	520	1,600	520	1,330	615	637	313	214	169
14	132	1,330	1,390	826	1,250	525	1,550	575	595	320	211	166
15	128	2,080	1,320	1,310	1,020	484	1,630	545	565	310	211	162
16	111	1,210	1,320	1,070	886	454	1,480	540	580	304	208	160
17	108	1,390	1,280	862	772	426	1,280	525	676	300	203	162
18	107	911	1,060	a750	688	402	1,210	530	664	304	197	162
19	105	685	892	a640	637	394	1,390	560	605	313	197	157
20	108	547	946	760	610	380	1,670	605	575	313	197	157
21	110	532	1,150	670	585	372	1,730	610	580	304	205	162
22	111	1,200	2,070	605	560	398	1,320	906	555	290	211	157
23	110	7,440	1,520	545	535	450	1,160	1,260	530	290	194	155
24	107	3,290	1,360	502	515	545	1,050	1,100	497	284	186	155
25	108	1,670	1,160	474	492	844	928	1,110	474	284	184	155
26	123	1,260	958	466	474	1,490	838	1,020	458	284	184	157
27	238	1,510	1,090	462	470	2,580	814	904	458	268	186	162
28	138	1,090	1,290	454	462	2,500	958	808	470	261	181	150
29	143	2,600	1,090	426	-	2,170	1,110	730	488	255	233	146
30	184	2,470	1,360	394	-	1,660	990	760	497	252	217	144
31	982	-	3,680	376	-	3,630	-	1,010	-	255	189	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	4,569	982	105	147	9,060
November	39,060	7,440	284	1,302	77,470
December	41,286	3,680	642	1,332	81,890
Calendar year 1942	184,304	7,440	103	505	365,600
January	25,360	3,130	376	818	50,300
February	28,531	3,300	369	1,019	56,590
March	25,300	3,630	372	816	50,180
April	40,037	3,180	814	1,335	79,410
May	24,755	1,260	525	799	49,100
June	19,293	898	458	643	38,270
July	10,371	479	252	335	20,570
August	6,613	261	181	213	13,120
September	4,948	184	144	165	9,810
Water year 1942-43	270,123	7,440	105	740	535,800

Peak discharge.- Nov. 14 (8 p.m.) 3,150 sec.-ft.; Nov. 23 (10 a.m.) 10,600 sec.-ft.; Dec. 31 (8 p.m.) 4,410 sec.-ft.; Feb. 6 (10 a.m. to 11 a.m.) 3,860 sec.-ft.; Feb. 11 (9 a.m. to 1 p.m.) 3,650 sec. ft.; Mar. 31 (10 a.m. to 11 a.m.) 4,470 sec.-ft.

a Nc gage-height record; discharge computed on basis of records for Hood River near Hood River and White River near Tygh Valley.

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

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

Location.- Venturi 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 1943. October 1913 to September 1914 and January 1916 to July 1922 at site in tailrace of former plant.

Average discharge.- 21 years (1922-43), 356 second-feet.

Extremes.- Maximum discharge observed during year, 490 second-feet Nov. 11, 12; no flow when power plant was occasionally shut down.
1913-14, 1916-43: Maximum discharge observed, 510 second-feet Dec. 30, 1932.

Remarks.- Records good. Discharge determined from hourly readings of Venturi meter checked by occasional 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 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	183	429	462	412	460	480	375	460	460	460	460	355
2	182	470	470	424	480	480	447	460	460	460	480	359
3	181	470	476	468	480	480	470	460	460	460	480	348
4	193	470	475	470	480	480	236	460	460	460	480	346
5	198	476	472	470	480	480	475	460	460	460	480	345
6	190	477	462	474	454	480	470	460	460	460	480	344
7	213	480	479	476	436	480	472	460	460	460	480	348
8	199	320	473	480	460	480	460	460	460	460	480	345
9	211	480	477	450	476	480	285	460	460	460	475	347
10	221	480	463	477	480	480	480	460	460	460	472	355
11	226	485	470	473	464	480	480	460	460	460	468	344
12	233	490	471	480	464	480	480	460	460	460	469	347
13	233	480	470	480	470	480	480	460	460	460	473	347
14	281	465	470	480	470	480	460	460	460	460	468	338
15	306	378	470	480	470	480	480	460	460	460	472	318
16	257	476	470	480	470	480	277	460	460	460	441	308
17	254	480	470	480	470	480	480	460	460	460	425	313
18	257	480	480	436	470	480	480	460	460	463	406	317
19	258	480	471	450	470	480	480	460	460	465	393	310
20	262	480	295	471	470	480	480	460	460	470	392	312
21	261	480	480	476	470	480	470	293	460	470	396	353
22	273	300	473	466	470	480	460	480	460	470	424	343
23	282	378	454	470	470	480	441	460	460	470	382	324
24	262	413	480	480	470	480	460	480	460	474	362	330
25	265	442	480	480	475	480	460	480	460	287	340	340
26	276	463	480	480	480	455	460	335	460	478	350	345
27	425	470	480	480	480	465	460	470	441	480	352	357
28	318	470	474	480	460	422	460	470	460	480	347	327
29	326	310	480	440	-	460	441	441	448	480	393	323
30	365	465	476	480	-	446	460	412	460	480	419	319
31	387	-	420	480	-	395	-	457	-	480	361	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	7,978	425	181	257	15,820
November	13,437	490	300	448	26,650
December	14,423	480	295	465	28,610
Calendar year 1942	146,036	491	155	400	289,600
January	14,553	480	412	469	28,870
February	13,169	480	436	470	26,120
March	14,643	480	395	472	29,040
April	13,339	480	236	445	26,460
May	13,998	480	293	452	27,760
June	13,769	460	441	459	27,310
July	14,267	480	287	460	28,300
August	13,300	480	340	429	26,380
September	10,107	359	308	337	20,050
Water year 1942-43	156,983	490	181	430	311,400

Time basis: Pacific war time. 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 1943 October 1912 to February 1913 at site at Condit Dam, 1 mile upstream.

Average discharge.- 23 years (1915-30, 1935-43), 1,031 second-feet.

Extremes.- Maximum discharge during year, 6,000 second-feet (regulated) Mar. 31 (gage height, 8.31 feet); minimum, 18 second-feet (regulated) Oct. 22 (gage height, 0.96 foot); minimum daily, 332 second-feet (regulated) Oct. 7.
1915-30, 1935-43: 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 table, water year 1942-43 (gage height, in feet, and discharge, in second-feet)

1.0	20	2.3	152	4.5	1,210
1.2	29	2.6	224	5.0	1,630
1.5	47	3.0	356	6.0	2,730
1.7	64	3.5	565	7.0	4,040
2.0	101	4.0	855	8.0	5,500

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	424	†763	1,610	2,890	880	1,240	4,770	1,940	2,020	1,470	†762	808
2	472	734	1,730	2,230	898	1,110	4,100	†1,990	1,940	1,480	1,060	866
3	445	947	1,500	†1,830	912	1,140	3,490	1,950	1,870	1,430	907	735
4	†384	616	1,290	1,660	996	1,230	†3,120	1,960	1,820	†1,430	914	839
5	504	567	1,260	1,530	1,240	1,180	2,800	1,880	1,800	1,380	850	†594
6	499	580	†1,040	1,390	1,940	1,240	2,520	1,920	†1,850	1,320	890	882
7	332	483	1,040	1,310	†2,010	†910	2,480	1,840	1,860	1,350	874	757
8	456	†570	1,040	1,270	1,760	1,170	2,290	1,540	1,890	1,310	†761	786
9	449	584	1,030	1,250	1,500	1,040	2,220	†1,630	1,940	1,290	772	732
10	452	480	1,190	†1,150	1,440	1,100	2,110	1,790	1,950	1,290	1,020	761
11	†466	490	1,250	1,050	1,880	970	†2,020	1,770	1,820	†1,290	900	829
12	458	472	1,220	1,160	2,090	1,020	2,000	1,750	1,790	1,160	760	†572
13	436	650	†1,230	1,100	1,980	1,050	2,100	1,670	†1,750	1,180	774	756
14	434	578	1,260	1,070	†1,850	†1,180	2,360	1,660	1,700	1,150	658	730
15	438	†805	1,250	1,510	1,730	1,140	2,570	1,580	1,670	1,150	†697	727
16	442	974	1,310	1,580	1,640	1,120	2,670	†1,590	1,690	1,150	850	717
17	442	852	1,330	†1,430	1,520	1,100	2,640	1,540	1,740	1,130	916	696
18	†444	814	1,280	1,320	1,450	1,060	†2,540	1,580	1,810	†1,200	784	731
19	442	754	1,250	1,140	1,380	998	2,540	1,550	1,700	1,030	844	†544
20	442	680	†1,240	1,350	1,380	947	2,640	1,640	†1,680	1,110	710	820
21	476	605	1,200	1,260	†1,320	†1,020	2,660	1,650	1,580	1,110	850	696
22	440	†740	1,560	1,250	1,320	1,130	2,420	1,700	1,590	1,080	†667	694
23	370	2,210	1,620	1,110	1,280	1,080	2,300	†1,930	1,550	1,040	1,060	692
24	542	3,180	1,590	†1,080	1,280	1,280	2,210	2,060	1,520	1,050	728	570
25	†336	2,030	1,480	1,070	1,250	1,300	†2,070	2,120	1,460	†1,020	736	701
26	470	1,560	1,330	1,050	1,240	2,180	1,970	2,250	1,440	1,050	740	†522
27	562	1,340	†1,350	1,040	1,150	3,010	1,900	2,220	†1,400	963	830	803
28	474	1,230	1,620	1,000	†1,170	†3,270	2,010	2,120	1,400	946	787	653
29	352	†1,210	1,640	946	-	3,570	2,020	1,980	1,400	1,020	†700	612
30	368	1,330	1,550	929	-	3,190	2,010	†1,900	1,430	1,000	886	672
31	490	-	2,420	†888	-	4,900	-	2,000	-	932	673	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	13,741	562	332	443	27,250
November	28,828	3,180	472	961	57,180
December	42,900	2,420	1,030	1,384	85,090
Calendar year 1942	324,218	3,180	304	888	643,100
January	40,843	2,890	888	1,318	81,010
February	40,486	2,090	880	1,446	80,300
March	47,875	4,900	910	1,544	94,960
April	75,550	4,770	1,900	2,518	149,900
May	57,200	2,250	1,540	1,845	113,500
June	51,090	2,020	1,400	1,703	101,300
July	36,511	1,480	932	1,178	72,420
August	25,560	1,060	667	825	50,700
September	21,499	882	522	717	42,640
Water year 1942-43	482,083	4,900	332	1,321	956,200

† Sunday
Time basis: Pacific war time. 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 2⅞ 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 1943 (includes flow of Little Wind River).

Extremes.- Maximum discharge during year, 15,300 second-feet Nov. 23 (gage height, 16.58 feet), from rating curve extended above 5,000 second-feet; minimum, 144 second-feet Oct. 25, 26 (gage height, 2.49 feet).

1934-43: 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 above 5,000 second-feet, which are fair, and those for periods of no gage-height record, which are poor. Flow occasionally affected by pondage at Forest Service power plant on Trout Creek. No diversion.

Rating tables, water year 1942-43 (gage height, in feet, and discharge, in second-feet)

Oct. 1 to Nov. 23

2.6	159	4.5	629	9.0	3,500
2.8	190	5.0	804	10.0	4,650
3.0	225	5.5	990	11.0	6,000
3.3	287	6.0	1,190	12.0	7,450
3.6	359	7.0	1,740	13.0	9,000
4.0	469	8.0	2,520	15.0	12,400

Nov. 24 to Sept. 30

2.9	178	4.5	550	8.0	2,440
3.1	209	5.0	725	9.0	3,460
3.3	244	5.5	910	10.0	4,650
3.6	304	6.0	1,110	11.0	6,000
4.0	402	7.0	1,670	13.0	9,000

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	155	1,210	4,400	5,170	638	1,030	8,680	1,800	1,260	550	294	226
2	155	1,480	4,780	3,800	795	1,070	6,700	1,650	1,140	550	290	218
3	155	1,850	3,240	2,920	850	1,010	5,170	1,460	1,140	535	280	218
4	155	1,290	2,440	2,350	1,760	990	3,920	1,600	1,070	520	280	218
5	153	876	1,990	1,950	1,840	950	3,130	1,800	1,030	490	290	209
6	152	840	1,670	1,700	4,440	890	2,720	1,700	1,010	475	280	209
7	152	951	1,490	1,490	3,410	850	2,530	1,550	990	460	270	207
8	151	932	1,400	1,340	2,350	830	2,530	1,450	990	460	260	206
9	149	858	1,660	1,240	1,810	795	2,440	1,350	990	460	260	203
10	149	733	2,820	1,140	1,740	760	2,190	1,250	950	460	250	201
11	151	646	2,530	1,070	4,060	742	2,030	1,200	890	430	250	201
12	152	562	2,110	990	4,280	760	2,190	1,150	830	460	244	199
13	149	530	2,620	950	3,460	1,090	2,720	1,100	812	414	244	198
14	156	1,720	2,720	1,070	2,820	795	3,020	1,030	760	304	240	195
15	158	4,410	2,530	1,580	2,350	1,090	3,130	990	725	376	240	193
16	153	3,090	2,440	1,580	1,990	990	2,920	970	725	376	240	193
17	151	3,090	2,350	1,280	1,700	930	2,530	930	760	364	240	193
18	149	2,260	2,030	1,110	1,520	870	2,270	930	760	351	235	192
19	149	1,880	1,700	1,090	1,370	830	2,350	930	742	351	235	188
20	148	1,470	1,700	1,090	1,340	795	2,820	990	725	339	235	178
21	148	1,390	2,110	1,010	1,310	778	3,680	990	725	327	235	173
22	146	2,160	3,820	930	1,240	778	3,020	1,090	725	327	263	178
23	145	11,800	3,350	870	1,180	830	2,620	1,340	742	316	254	178
24	145	8,090	2,720	812	1,140	1,010	2,530	1,310	672	304	235	173
25	144	4,400	2,440	795	1,070	1,460	2,190	1,340	638	304	235	178
26	146	3,130	2,030	778	1,030	3,320	1,880	1,310	620	304	226	173
27	203	2,920	2,510	760	1,010	6,560	1,700	1,210	602	294	226	180
28	170	2,440	4,160	795	1,010	8,520	1,800	1,140	585	294	226	178
29	160	3,240	3,350	778	-	7,000	1,950	1,050	585	294	226	178
30	166	4,040	3,130	708	-	5,170	1,850	1,070	568	283	244	178
31	669	-	5,300	655	-	8,360	-	1,370	-	402	226	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff Inches	Runoff Acre-feet
October	5,284	669	144	170	0.756	0.87	10,480
November	74,288	11,800	530	2,476	11.0	12.28	147,300
December	83,540	5,300	1,400	2,695	12.0	13.81	165,700
Calendar year 1942	359,136	11,800	141	984	4.37	59.35	712,300
January	43,801	5,170	655	1,413	6.28	7.24	86,880
February	53,513	4,440	638	1,911	8.49	8.85	106,100
March	61,853	8,520	742	1,995	8.87	10.22	122,700
April	89,210	8,680	1,700	2,974	13.2	14.75	176,900
May	39,040	1,800	930	1,259	5.60	6.45	77,430
June	24,761	1,260	568	825	3.67	4.09	49,110
July	12,174	550	283	393	1.75	2.01	24,150
August	7,753	294	226	250	1.11	1.28	15,380
September	5,827	226	178	194	.862	.96	11,560
Water year 1942-43	501,044	11,800	144	1,373	6.10	82.81	993,700

Peak discharge.- Nov. 23 (6:45 p.m.) 15,300 sec.-ft.; Dec. 2 (12 p.m. to 2 a.m.) 5,580 sec.-ft.; Dec. 31 (11:30 p.m.) 6,280 sec.-ft.; Mar. 28 (12:30 p.m.) 9,320 sec.-ft.; Mar. 31 (3 p.m.) 9,640 sec.-ft.; Apr. 1 (8:30 a.m. and 9:30 a.m.) 9,160 sec.-ft.

Note.- No gage-height record Apr. 28 to May 13, Aug. 2-11, 14-17; discharge computed on basis of records for East Fork Lewis River near Heisson.

Time basis: Pacific war time. 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.- 262 square miles.

Records available.- August 1911 to December 1915, July 1919 to September 1943. 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.- 32 years, 1,308 second-feet.

Extremes.- Maximum discharge during year, 19,400 second-feet Nov 23 (gage height, 13.85 feet), from rating curve extended above 12,000 second-feet; minimum, 211 second-feet Oct. 24, 25 (gage height, 1.92 feet).

1911-43: 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 except those above 3,000 second-feet, which are fair. No diversion or regulation above station.

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

Rating tables, water year 1942-43 (gage height, in feet, and discharge, in second-feet)

Oct. 1 to Nov. 23				Nov. 24 to Sept. 30			
1.9	205	5.4	2,810	2.4	320	5.4	2,540
2.3	350	6.4	4,200	2.8	480	6.3	3,820
2.7	540	7.7	6,260	3.3	735	7.3	5,510
3.2	820	9.0	8,660	3.9	1,130	8.8	8,290
3.8	1,210	11.0	12,800	4.6	1,700		
4.6	1,880						

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	246	2,620	6,280	7,510	948	1,140	6,720	2,680	2,000	1,120	550	419
2	238	2,050	5,780	4,740	1,420	1,110	4,760	2,480	2,140	1,070	545	407
3	235	1,970	3,540	3,270	1,360	1,070	3,680	2,310	2,670	1,050	545	391
4	232	1,500	2,700	2,540	3,820	1,050	2,810	2,230	2,180	990	520	379
5	235	1,140	2,210	2,620	2,830	990	2,530	2,110	2,040	941	605	391
6	235	1,000	1,910	2,440	6,630	927	2,410	2,640	1,910	948	565	383
7	232	1,100	1,740	2,070	4,610	934	2,350	2,700	1,820	948	525	391
8	229	1,520	2,140	1,870	2,900	1,010	2,400	2,370	1,800	914	502	383
9	226	1,290	3,480	1,790	2,160	976	2,260	2,200	1,800	900	494	383
10	235	1,050	5,580	1,660	2,340	934	2,070	2,060	1,650	849	489	383
11	266	892	3,710	1,500	8,140	907	2,030	1,970	1,500	801	484	379
12	252	796	3,180	1,370	5,780	920	2,410	1,880	1,600	765	489	379
13	226	778	4,740	1,360	4,470	1,060	3,000	1,790	1,840	741	489	375
14	266	1,480	3,880	1,870	3,770	1,060	3,360	1,660	1,690	759	476	363
15	310	2,990	3,130	2,540	3,060	976	3,620	1,580	1,560	730	476	355
16	242	2,300	2,810	2,190	2,490	927	3,240	1,600	1,500	713	471	352
17	223	2,340	2,570	1,750	2,110	881	2,850	1,530	1,610	713	462	355
18	217	1,790	2,200	1,420	2,020	837	2,750	1,530	1,640	718	436	355
19	217	1,450	1,870	1,380	2,020	837	3,180	1,560	1,570	741	431	341
20	217	1,220	1,950	1,590	2,080	783	3,500	1,680	1,490	741	435	344
21	217	1,220	2,080	1,490	2,180	801	3,690	1,630	1,570	718	458	348
22	226	2,620	3,510	1,310	2,060	855	2,800	2,220	1,560	669	476	341
23	226	12,600	3,200	1,180	1,810	907	2,490	3,500	1,490	674	427	338
24	214	7,830	2,880	1,100	1,610	1,070	2,300	2,900	1,380	669	415	338
25	214	4,010	2,670	1,050	1,450	1,440	2,080	2,770	1,290	674	403	344
26	242	4,000	2,150	1,120	1,330	2,300	1,880	2,530	1,220	669	403	355
27	520	8,080	5,440	1,180	1,240	3,930	1,860	2,260	1,170	615	403	359
28	330	4,660	5,350	1,190	1,190	4,060	2,520	2,000	1,150	585	399	327
29	350	7,590	3,850	1,110	-	4,160	2,880	1,840	1,140	570	550	320
30	440	6,390	4,330	1,020	-	3,240	2,630	1,820	1,140	575	605	316
31	1,930	-	7,380	955	-	7,540	-	2,170	-	580	458	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff	
						Inches	Acre-feet
October	9,688	1,930	214	313	1.19	1.38	19,220
November	90,276	12,600	778	3,009	11.5	12.81	179,100
December	108,240	7,380	1,740	3,492	13.3	15.36	214,700
Calendar year 1942	476,276	12,600	214	1,305	4.98	67.60	944,700
January	60,185	7,510	955	1,941	7.41	8.54	119,400
February	77,828	8,140	948	2,780	10.6	11.05	154,400
March	49,632	7,540	783	1,601	6.11	7.05	98,440
April	87,060	6,720	1,860	2,902	11.1	12.36	172,700
May	66,200	3,500	1,530	2,135	8.15	9.40	131,300
June	49,120	2,670	1,140	1,637	6.25	6.97	97,430
July	24,150	1,120	570	779	2.97	3.43	47,900
August	14,985	605	399	483	1.84	2.13	29,720
September	10,894	419	316	363	1.39	1.55	21,610
Water year 1942-43	648,258	12,600	214	1,776	6.78	92.03	1,286,000

Peak discharge.- Nov. 23 (4:30 p.m.) 19,400 sec.-ft.; Nov 27 (3 a.m.) 9,720 sec.-ft.; Nov.29 (4 p.m.) 9,840 sec.-ft.; Feb. 6 (11:30 a.m.) 9,280 sec.-ft.; Feb. 11 (11 a.m.) 9,520 sec.-ft.; Mar. 31 (5 p.m.) 9,460 sec.-ft.

Time basis: Pacific war time. 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 1943. April 1910 to September 1914 at site three-quarters of a mile upstream.

Average discharge.- 17 years (1910-11, 1912-14, 1929-43), 2,191 second-feet.

Extremes.- Maximum discharge during year, 40,300 second-feet Nov. 23 (gage height, 16.53 feet), from rating curve extended above 15,000 second-feet; minimum, 112 second-feet (regulated) Sept. 9 (gage height, 0.93 foot); minimum daily, 141 second-feet Oct. 25.
1910-14, 1929-43: 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, 128 second-feet Oct. 9, 1938.

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 diverted annually from Bull Run 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 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	338	8,780	12,800	17,400	1,810	1,750	13,800	4,570	3,150	1,750	682	548
2	334	5,800	10,700	10,400	2,560	1,680	10,000	3,840	3,420	1,590	642	527
3	336	5,950	6,650	6,780	2,690	1,590	7,600	3,680	4,660	1,320	648	492
4	266	3,900	4,870	5,140	8,050	1,520	6,000	3,490	3,720	1,010	650	602
5	330	2,710	3,820	5,150	6,260	1,450	4,800	3,360	3,090	1,310	669	571
6	326	2,250	3,330	5,070	14,700	1,370	4,300	4,430	2,760	1,230	736	322
7	369	2,730	3,100	4,170	9,860	1,330	4,000	4,780	2,610	1,240	710	490
8	338	3,460	3,860	3,640	6,340	1,450	4,030	3,760	2,510	1,280	506	480
9	329	2,940	6,420	3,310	4,420	1,400	3,900	3,170	2,490	1,320	636	474
10	385	2,280	12,600	3,000	4,220	1,350	3,630	3,250	2,500	1,090	561	464
11	435	1,840	7,830	2,770	15,700	1,300	3,340	3,060	2,210	958	573	443
12	565	1,550	6,130	2,440	11,400	1,320	3,720	2,860	2,100	946	580	361
13	543	1,460	9,140	2,180	8,020	1,620	4,680	2,740	2,370	932	624	510
14	373	2,680	7,230	2,870	6,470	1,720	5,150	2,490	2,430	840	496	462
15	586	8,660	5,440	4,450	5,400	1,590	5,580	2,480	2,290	975	599	377
16	400	5,460	4,940	3,960	4,300	1,500	5,010	2,290	2,210	989	507	489
17	416	6,130	4,240	3,100	3,770	1,380	4,230	2,340	2,470	693	548	480
18	336	4,250	3,670	2,520	3,410	1,300	3,780	2,240	2,550	900	538	336
19	310	3,260	3,120	2,370	3,360	1,280	4,860	2,320	2,240	886	538	491
20	176	2,580	3,330	2,430	3,330	1,180	5,800	2,420	2,030	892	446	431
21	255	2,540	4,250	2,410	3,440	1,200	6,750	2,340	2,440	820	582	422
22	240	5,810	7,060	2,240	3,530	1,260	4,850	3,080	2,600	772	632	410
23	308	28,700	5,920	1,960	2,980	1,370	4,200	5,240	2,530	763	550	415
24	166	18,300	4,990	1,550	f2,680	1,700	3,960	4,280	2,390	752	514	414
25	141	8,151	4,990	1,790	2,320	2,600	3,150	3,750	2,050	677	472	414
26	340	7,180	3,900	1,800	2,090	4,800	3,000	3,480	1,730	833	520	422
27	839	15,700	10,700	2,120	1,930	8,600	2,930	3,350	1,720	738	502	504
28	466	9,140	11,000	2,340	1,840	8,900	3,820	2,890	1,630	688	462	442
29	518	15,400	7,950	2,200	-	9,100	5,190	2,380	1,570	659	688	402
30	605	14,000	8,590	1,910	-	7,000	4,430	2,240	1,600	670	808	441
31	2,690	-	17,300	1,580	-	15,400	-	3,340	-	692	594	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff	
						Inches	Acre-feet
October	14,059	2,690	141	454	1.03	1.19	27,890
November	203,590	28,700	1,460	6,786	15.4	17.21	403,800
December	209,870	17,300	3,100	6,770	15.4	17.74	416,300
Calendar year 1942	894,335	28,700	141	2,450	5.57	75.59	1,774,000
January	115,050	17,400	1,550	3,711	8.43	9.72	228,200
February	146,880	15,700	1,810	5,246	11.9	12.41	291,300
March	91,010	15,400	1,180	2,936	6.67	7.69	180,500
April	150,490	13,800	2,930	5,016	11.4	12.72	298,500
May	99,940	4,780	2,240	3,224	7.33	8.45	198,200
June	74,070	4,660	1,570	2,469	5.61	6.26	146,900
July	30,215	1,750	659	975	2.22	2.55	59,930
August	18,213	808	446	588	1.34	1.54	36,120
September	13,636	602	322	455	1.03	1.15	27,050
Water year 1942-43	1,167,023	28,700	141	3,197	7.27	98.63	2,315,000

f Computed from partly estimated gage-height record.

Note.- No gage-height record Feb. 25 to Apr. 7; discharge computed on basis of records for stations on tributary streams.

Time basis: Pacific war time. 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 1943.

Average discharge.- 18 years (1910-11, 1926-43), 40.1 second-feet.

Extremes.- Maximum discharge during year, 348 second-feet Nov. 23 (gage height, 2.65 feet); minimum, 13 second-feet Oct. 9, 10.
1910-12, 1926-43: 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 for periods of indefinite stage-discharge relation or no gage-height record, which are fair. No diversion or regulation above station.

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	15	51	103	82	a33	36	63	93	105	97	52	32
2	15	53	87	69	a36	35	59	87	101	95	52	31
3	14	37	67	60	a34	35	55	83	97	92	51	30
4	14	27	59	55	a42	35	50	85	89	83	50	30
5	14	24	53	55	a37	34	57	80	93	84	55	29
6	14	22	50	51	a48	33	61	107	97	85	50	28
7	14	25	47	48	a42	33	62	91	99	84	49	28
8	14	32	45	46	a35	38	63	80	117	82	46	28
9	13	25	51	43	31	35	56	78	117	83	45	27
10	14	23	98	41	34	35	53	74	107	77	45	27
11	15	22	64	40	81	34	64	67	99	74	44	27
12	14	a21	59	38	74	33	81	64	133	72	43	27
13	14	a21	64	38	58	33	97	60	a120	70	42	26
14	17	a80	71	52	53	32	110	56	a110	70	41	26
15	16	a110	63	60	49	30	122	54	a100	68	40	26
16	14	a70	61	50	45	30	114	59	a115	66	39	26
17	14	a60	59	42	43	29	105	59	a112	66	38	26
18	14	a42	54	41	43	29	107	64	109	66	37	26
19	14	a30	50	42	43	28	128	70	104	64	38	25
20	14	24	51	40	43	28	114	75	97	e63	37	25
21	14	27	51	39	45	30	103	74	103	e62	40	24
22	15	55	89	37	44	30	82	121	96	e61	40	24
23	15	221	66	37	42	31	76	162	90	e60	36	23
24	15	99	58	36	40	33	71	a140	87	e59	35	23
25	15	60	51	35	37	39	68	a145	86	e59	35	23
26	18	69	47	35	37	55	64	133	86	e58	34	24
27	20	138	104	35	36	70	70	126	89	58	33	24
28	17	74	81	35	36	75	93	114	91	57	32	23
29	26	189	64	33	-	67	89	103	98	55	51	23
30	27	105	81	a33	-	50	84	113	99	54	40	23
31	83	-	116	a32	-	50	-	126	-	54	35	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff Inches	Runoff Acre-feet
October	552	83	13	17.8	2.05	2.36	1,090
November	1,836	221	21	61.2	7.03	7.85	3,640
December	2,084	116	45	67.2	7.72	8.91	4,130
Calendar year 1942	13,615	221	13	37.3	4.29	58.22	27,000
January	1,360	82	32	44.5	5.11	5.90	2,740
February	1,221	81	31	43.6	5.01	5.22	2,420
March	1,185	75	28	38.2	4.39	5.07	2,350
April	2,421	128	50	80.7	9.28	10.35	4,800
May	2,843	162	54	91.7	10.5	12.15	5,640
June	3,046	133	86	102	11.7	13.02	6,040
July	2,176	97	54	70.3	8.08	9.31	4,320
August	1,305	55	32	42.1	4.84	5.58	2,590
September	784	32	23	26.1	3.00	3.35	1,560
Water year 1942-43	20,835	221	13	57.1	6.56	89.07	41,320

a No gage-height record; discharge computed on basis of recorded range in stage, weather records, and records for station below Linney Creek.
e Stage-discharge relation indefinite; discharge computed on basis of weather records and records for station below Linney Creek.
Time basis: Pacific war time. 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 1943.

Average discharge.- 16 years, 198 second-feet.

Extremes.- Maximum discharge during year, 1,660 second-feet Nov. 23 (gage height, 4.10 feet); minimum, 50 second-feet Oct. 25 (gage height, 0.41 foot).
1927-43: 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 1942-43 (gage height, in feet, and discharge, in second-feet)

0.4	49	1.3	206	2.5	680
.6	73	1.6	302	2.8	845
.8	102	1.9	413	3.3	1,140
1.0	136	2.2	536		

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	53	265	796	610	144	190	610	620	511	255	112	84
2	53	224	702	502	159	188	567	595	502	249	113	83
3	53	198	511	425	149	183	515	571	474	246	112	81
4	52	140	425	371	224	180	461	567	437	230	112	80
5	51	115	360	353	193	173	469	549	437	221	125	80
6	52	107	320	327	309	164	486	650	429	215	113	77
7	52	116	288	292	285	162	498	600	421	206	110	76
8	52	168	271	268	236	170	498	545	441	203	107	74
9	52	132	302	252	209	173	469	528	437	206	105	73
10	52	115	449	236	209	168	453	502	402	190	104	73
11	56	105	353	218	511	164	490	469	379	183	102	72
12	54	99	313	209	494	162	580	445	490	178	100	72
13	53	98	409	203	405	166	708	421	a450	171	98	70
14	61	259	390	252	368	162	823	390	a400	168	96	69
15	68	410	353	316	331	153	906	371	a370	164	94	68
16	59	262	342	292	302	149	894	383	a390	159	93	68
17	57	246	334	249	278	144	828	379	a375	153	92	68
18	56	193	316	203	265	140	801	390	360	149	90	69
19	56	166	295	239	258	140	884	409	349	146	92	68
20	54	146	295	236	255	136	856	433	327	142	92	66
21	53	142	309	224	262	138	845	429	345	140	93	66
22	51	223	453	215	258	144	696	571	331	134	93	65
23	61	1,100	417	203	246	149	645	718	309	132	88	64
24	51	912	386	188	236	164	585	680	288	129	86	64
25	50	528	349	180	221	193	540	691	282	127	84	65
26	54	499	309	178	209	299	498	660	275	125	84	69
27	88	872	518	171	206	433	519	610	271	122	83	66
28	65	600	576	162	203	528	630	558	268	120	81	64
29	80	1,060	453	155	-	571	615	515	268	118	112	63
30	94	900	453	146	-	490	595	536	262	118	105	63
31	248	-	713	142	-	562	-	554	-	115	90	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff	
						Inches	Acre-feet
October	1,981	248	50	63.9	1.18	1.36	3,930
November	10,400	1,100	98	347	6.43	7.16	20,630
December	12,760	796	271	412	7.63	8.79	25,310
Calendar year 1942	68,833	1,100	49	189	3.50	47.40	136,500
January	8,017	610	142	259	4.80	5.52	15,900
February	7,425	511	144	265	4.91	5.11	14,730
March	6,948	571	136	224	4.15	4.79	13,780
April	18,964	906	453	632	11.7	13.06	37,610
May	16,339	718	371	527	9.76	11.25	32,410
June	11,280	511	262	376	6.96	7.77	22,370
July	5,214	255	115	168	3.11	3.59	10,340
August	3,061	125	81	98.7	1.83	2.11	6,070
September	2,120	84	63	70.7	1.31	1.46	4,200
Water year 1942-43	104,509	1,100	50	286	5.30	71.97	207,300

a No gage-height record; discharge computed on basis of records for station above Boulder Creek near Brightwood.

Time basis: Pacific war time. 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 1943. October 1912 to March 1913 (gage heights only), at site at fish hatchery below Boulder Creek. August 1913 to September 1914, July 1920 to September 1921, and April 1925 to September 1936 at sites at or near Welches, about 5 miles above present site.

Extremes.- Maximum discharge during year, 6,490 second-feet Nov. 23 (gage height, 5.88 feet), from rating curve extended above 3,600 second-feet; minimum, 71 second-feet Oct. 9, 10, 24-26 (gage height, 0.52 foot).

1913-14, 1920-21, 1925-43: 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 1942-43 (gage height, in feet, and discharge, in second-feet)

Oct. 1 to Nov. 22

0.5	67	1.9	620
.7	107	2.2	810
1.0	195	2.6	1,150
1.3	315	2.9	1,460
1.6	460		

Nov. 23 to Sept. 30

0.6	79	1.6	439	3.0	1,580
.8	121	1.9	610	3.5	2,260
1.0	179	2.2	815	4.1	3,190
1.3	297	2.6	1,150	4.7	4,190

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	78	1,080	2,200	2,530	315	409	2,050	962	766	356	157	126
2	80	768	2,060	1,450	520	399	1,380	906	830	347	157	124
3	78	754	1,230	1,020	481	380	1,110	852	946	347	157	119
4	78	554	922	815	1,390	370	898	838	794	328	154	116
5	76	390	766	815	938	356	845	815	724	315	173	116
6	74	338	662	794	2,420	338	830	1,020	675	306	157	112
7	74	390	598	689	1,350	333	822	1,030	642	293	154	110
8	74	565	773	630	860	366	838	914	636	288	151	107
9	72	455	1,260	616	656	361	794	845	649	288	145	105
10	74	346	1,790	567	828	347	745	787	592	276	143	105
11	87	279	1,120	503	3,220	328	752	766	543	263	140	105
12	87	242	1,010	466	1,880	328	906	731	592	258	137	105
13	78	234	1,520	476	1,430	375	1,100	703	675	246	134	103
14	83	526	1,210	675	1,210	375	1,230	649	586	242	132	100
15	100	1,440	997	898	988	342	1,320	610	538	238	132	98
16	83	842	938	773	830	324	1,240	616	515	230	129	96
17	76	866	860	567	717	310	1,120	592	532	226	126	98
18	74	644	745	461	689	288	1,090	592	543	222	124	100
19	72	510	630	487	710	288	1,200	604	526	218	126	98
20	72	415	662	555	752	271	1,270	636	515	210	129	98
21	72	390	724	520	787	284	1,370	616	555	204	132	98
22	72	850	1,200	460	745	315	1,080	773	543	200	140	96
23	72	4,140	1,080	419	642	333	970	1,130	509	193	129	92
24	71	2,580	979	384	561	409	922	1,010	471	190	124	92
25	71	1,270	914	366	503	543	838	979	444	186	119	92
26	78	1,390	724	375	466	830	766	922	424	179	119	96
27	182	2,850	1,870	394	444	1,270	759	845	404	173	116	98
28	115	1,560	1,780	394	424	1,270	954	766	389	173	114	94
29	115	2,890	1,210	366	-	1,330	1,030	710	380	167	164	92
30	148	2,180	1,460	338	-	1,100	954	703	370	164	176	92
31	761	-	2,560	320	-	2,650	-	801	-	160	137	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff	
						Inches	Acre-feet
October	3,327	761	71	107	1.01	1.17	6,600
November	31,738	4,140	234	1,058	9.98	11.14	62,950
December	36,454	2,560	320	1,176	11.1	12.79	72,310
Calendar year 1942	157,683	4,140	71	432	4.08	55.33	312,800
January	20,143	2,530	320	650	6.13	7.07	39,950
February	26,756	3,220	315	956	9.02	9.39	53,070
March	17,222	2,650	271	556	5.25	6.04	34,160
April	31,183	2,050	745	1,039	9.80	10.94	61,850
May	24,723	1,130	592	798	7.53	8.67	49,040
June	17,308	946	370	577	5.44	6.07	34,330
July	7,486	356	160	241	2.27	2.63	14,850
August	4,327	176	114	140	1.32	1.52	8,580
September	3,083	126	92	103	0.972	1.08	6,120
Water year 1942-43	223,750	4,140	71	613	5.78	78.51	443,800

Time basis: Pacific war time. 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 1943.

Extremes.- Maximum contents during year, 30,690 acre-feet Nov. 23 (elevation, 1,045.28 feet); minimum, 18,990 acre-feet Oct. 26 (elevation, 1,013.31 feet).
1928-43: 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. 26, 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.

Elevation and contents, water year October 1942 to September 1943

Date	Elevation (feet)†	Contents (acre-feet)	Change in contents during month (acre-feet)
Sept.30	1,020.51	21,350	-
Oct. 31	1,041.03	28,910	+7,560
Nov. 30	1,039.97	28,490	-420
Dec. 31	1,041.74	29,200	+710
Calendar year 1942	-	-	+1,950
Jan. 31	-	a27,300	-1,900
Feb. 28	1,037.04	27,340	+40
Mar. 31	1,041.41	29,070	+1,730
Apr. 30	1,037.92	27,680	-1,390
May 31	1,037.77	27,620	-60
June 30	1,036.88	27,270	-350
July 31	1,035.83	26,870	-400
Aug. 31	1,031.39	25,190	-1,680
Sept.30	1,021.59	21,720	-3,470
Water year 1942-43	-	-	+370

† Elevation at midnight.
a No gage-height record; contents computed on basis of records for Bull Run River near Bull Run.
Time basis: Pacific war time. 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 1943. October 1929 to September 1934 at site half a mile downstream.

Average discharge.- 14 years, 548 second-feet.

Extremes.- Maximum discharge during year, 11,400 second-feet Nov. 23 (elevation, 1,045.28 feet); minimum, 71 second-feet Oct. 28-31.
1929-43: 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, 1939.

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 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	98	3,470	2,890	4,220	a330	371	3,950	1,030	840	304	120	123
2	98	2,220	2,290	2,150	a600	354	2,420	925	961	294	122	122
3	98	2,300	1,410	1,330	636	345	1,980	792	1,160	286	139	122
4	98	1,440	993	942	2,410	332	1,360	753	925	272	139	122
5	98	959	768	900	1,710	316	1,110	778	768	247	139	122
6	98	784	648	1,050	3,850	272	1,050	1,210	662	237	139	123
7	100	984	568	857	2,250	266	952	1,150	581	230	139	122
8	98	1,150	648	725	1,310	266	959	916	542	213	120	123
9	98	984	1,490	634	900	277	993	768	496	209	113	122
10	97	732	3,530	562	914	274	959	697	458	204	124	122
11	97	548	1,950	496	3,860	266	848	669	409	186	125	122
12	97	464	1,410	464	2,630	262	925	609	389	177	123	120
13	97	407	2,560	425	1,730	360	1,100	562	458	169	123	120
14	107	1,250	1,840	529	1,310	432	1,210	529	477	157	123	120
15	111	3,130	1,320	1,100	1,010	383	1,250	477	438	153	123	120
16	111	1,850	1,100	1,020	832	354	1,090	516	413	145	123	121
17	95	2,160	976	704	727	334	925	490	415	141	123	120
18	83	1,340	816	548	683	310	848	470	458	137	124	119
19	83	976	676	490	669	304	1,070	466	458	137	123	119
20	83	739	784	503	683	299	1,520	470	484	140	123	119
21	85	676	1,320	490	711	294	1,920	477	490	129	123	119
22	82	2,050	2,270	a420	725	294	1,290	739	516	123	123	122
23	82	8,380	1,690	a370	669	326	1,030	1,240	544	128	123	119
24	82	4,500	1,310	a340	550	403	1,010	916	516	117	123	123
25	82	1,880	1,250	a320	477	792	866	800	464	108	123	133
26	82	1,450	891	a380	419	1,690	739	685	407	111	124	132
27	83	3,660	2,570	a500	407	3,110	683	507	383	118	122	132
28	77	2,000	2,540	a520	401	2,830	850	536	354	113	122	132
29	71	4,230	1,650	a470	-	2,760	1,310	496	326	125	122	126
30	71	3,460	1,920	a400	-	1,810	1,050	522	310	148	122	118
31	570	-	4,980	a360	-	4,710	-	882	-	139	122	-

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, in acre-feet	Adjusted for change in reservoir contents: Runoff in acre-feet	Adjusted: Discharge in second-feet: Mean	Adjusted: Discharge in second-feet: Per square mile	Adjusted: Runoff in inches
October	570	71	107	6,570	+7,560	14,130	230	3.11	3.58
November	8,380	407	2,005	119,300	-420	118,880	1,998	27.0	30.12
December	4,980	568	1,647	101,300	+710	102,010	1,659	22.4	25.82
Calendar year 1942	8,380	71	620	448,990	+1,950	450,940	623	8.42	114.28
January	4,220	320	781	48,040	-1,900	46,140	750	10.1	11.64
February	3,860	330	1,193	66,250	+40	66,290	1,194	16.1	16.77
March	4,710	262	819	50,370	+1,730	52,100	847	11.4	13.14
April	3,950	683	1,242	73,920	-1,390	72,530	1,219	16.5	18.41
May	1,240	466	715	43,990	-60	43,930	714	9.65	11.12
June	1,160	310	537	31,940	-350	31,590	531	7.18	8.01
July	304	108	174	10,700	-400	10,300	168	2.27	2.62
August	139	113	125	7,690	-1,680	6,010	97.7	1.32	1.52
September	133	118	123	7,300	-3,470	3,830	64.4	.870	.97
Water year 1942-43	8,380	71	784	567,370	+370	567,740	784	10.6	143.72

a No gage-height record; discharge computed on basis of records for station near Bull Run.
Time basis: Pacific war time. 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., 1½ 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 1943.

Average discharge.- 36 years (1907-43), 734 second-feet.

Extremes.- Maximum discharge during year, 13,900 second-feet Nov. 23 (gage height, 10.80 feet), from rating curve extended above 7,200 second-feet; minimum, 96 second-feet Oct. 24-26 (gage height, 0.71 foot).

1895-1943: 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 excellent below 4,000 second-feet and fair above. 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 tables, water year 1942-43 (gage height, in feet, and discharge, in second-feet)

Oct. 1 to Nov. 23

0.7	94	2.5	815	6.4	5,050
1.0	160	3.1	1,210	7.6	7,230
1.3	255	3.8	1,780	9.0	10,000
1.6	370	4.6	2,600		
2.0	545	5.4	3,570		

Nov. 24 to Sept. 30

0.8	130	2.2	600	5.0	2,940
1.1	196	2.7	875	6.0	4,390
1.4	280	3.3	1,275	7.0	6,110
1.8	420	4.1	1,950		

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	113	4,250	3,840	5,440	436	460	4,870	1,280	911	324	150	144
2	113	2,750	2,950	2,860	810	444	2,980	1,130	1,110	307	144	142
3	111	2,900	1,810	1,790	863	420	2,380	994	1,300	310	157	138
4	111	1,850	1,300	1,300	2,990	388	1,650	948	1,050	301	157	138
5	111	1,270	1,020	1,260	2,170	376	1,360	980	893	271	163	138
6	111	1,060	857	1,400	4,820	352	1,290	1,450	771	256	154	138
7	111	1,320	749	1,140	2,880	338	1,180	1,350	672	244	152	138
8	111	1,500	961	987	1,710	356	1,200	1,100	610	233	142	140
9	111	1,300	2,040	887	1,200	352	1,210	942	560	242	134	140
10	111	980	4,650	804	1,190	342	1,150	857	505	230	142	138
11	115	750	2,540	716	4,680	328	1,050	793	464	214	146	136
12	113	650	1,820	630	3,170	334	1,110	716	444	206	144	136
13	111	536	3,110	570	2,130	478	1,290	661	536	199	142	136
14	115	1,400	2,290	716	1,650	555	1,390	600	550	189	142	136
15	124	3,700	1,660	1,360	1,340	492	1,400	550	500	184	142	138
16	117	2,280	1,390	1,240	1,130	444	1,230	610	464	179	142	138
17	109	2,710	1,250	917	961	416	1,060	555	500	174	140	134
18	102	1,730	1,010	705	887	388	994	528	528	170	142	134
19	102	1,290	869	646	863	384	1,240	523	532	165	142	134
20	102	1,010	1,020	688	887	366	1,790	536	560	165	142	134
21	102	923	1,600	640	935	366	2,200	523	600	163	146	134
22	98	2,480	2,630	546	923	373	1,490	817	640	150	148	138
23	98	9,930	2,000	482	821	416	1,240	1,300	656	146	142	136
24	96	5,700	1,630	440	710	505	1,180	987	600	152	142	136
25	96	2,540	1,570	420	620	954	994	869	541	144	142	142
26	107	2,020	1,190	492	541	1,970	863	766	487	144	142	144
27	208	4,810	3,460	635	505	3,620	798	672	432	146	140	146
28	122	3,330	3,300	666	487	3,300	1,050	585	396	140	140	146
29	120	5,260	2,220	605	-	3,300	1,520	523	370	144	168	140
30	145	4,530	2,540	523	-	2,200	1,260	560	348	159	161	134
31	942	-	6,110	464	-	5,830	-	954	-	161	146	-

Month	Observed				Change in contents of Lake Ben Morrow Reservoir, in acre-feet	Adjusted for change in reservoir 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	942	96	141	8,640	+7,560	16,200	263	2.58	2.97
November	9,930	536	2,559	152,200	-420	151,780	2,551	25.0	27.89
December	6,110	749	2,109	129,700	+710	130,410	2,121	20.8	23.98
Calendar year 1942	9,930	96	783	566,840	+1,950	568,790	786	7.71	104.52
January	5,440	420	1,031	63,410	-1,900	61,510	1,000	9.80	11.30
February	4,820	436	1,511	83,920	+40	83,960	1,512	14.8	15.41
March	5,830	328	995	61,180	+1,730	62,910	1,023	10.0	11.53
April	4,870	798	1,481	88,100	-1,390	86,710	1,457	14.3	15.95
May	1,450	523	828	50,890	-60	50,830	827	8.11	9.35
June	1,300	348	618	36,750	-350	36,400	612	6.00	6.69
July	324	140	200	12,320	-400	11,920	194	1.90	2.19
August	168	134	146	9,000	-1,680	7,320	119	1.17	1.35
September	146	134	138	8,220	-3,470	4,750	79.8	0.782	0.87
Water year 1942-43	9,930	96	973	704,330	+370	704,700	973	9.54	129.48

Peak discharge.- Nov. 1 (3 a.m.) 6,180 sec.-ft.; Nov. 23 (11:30 a.m.) 13,900 sec.-ft.; Nov. 29 (6 p.m.) 7,650 sec.-ft.; Dec. 31 (10:30 p.m.) 7,060 sec.-ft.; Feb. 6 (12 m.) 6,770 sec.-ft.; Mar. 31 (12:30 p.m.) 7,480 sec.-ft.

Time basis: Pacific war time. 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 1943.
Average discharge.- 24 years (1919-43), 136 second-feet.
Extremes.- Maximum discharge during year, 3,050 second-feet Nov. 23 (gage height, 8.0 feet, from floodmark and trend of recorder graph), from rating curve extended above 600 second-feet; minimum observed, 11 second-feet Oct. 25, 26.
1911-13, 1919-43: 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 except those above 800 second-feet, which are poor. No diversion or regulation above station.
Cooperation.- Water-stage recorder graph furnished by Portland General Electric Co.

Rating tables, water year 1942-43 (gage height, in feet, and discharge, in second-feet)
(Backwater from debris on control Feb. 3-6)

Oct. 1 to Nov. 22

1.9	11	2.6	59	3.8	300
2.0	16	2.9	95	4.2	445
2.2	27	3.2	144	4.6	625
2.4	42	3.5	213		

Nov. 23 to Sept. 30

1.9	14	2.9	91	4.8	600
2.0	19	3.2	131	5.4	910
2.2	30	3.5	188	6.0	1,310
2.4	43	3.9	285	7.0	2,110
2.6	60	4.3	410		

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	h14	618	695	780	106	83	765	272	f141	62	22	24
2	h13	433	496	f470	171	80	516	223	f193	60	22	21
3	h12	398	309	303	173	76	396	193	264	59	23	20
4	h12	249	225	260	621	75	268	180	178	59	22	19
5	f12	163	186	315	396	72	240	195	159	f55	31	18
6	12	150	158	315	894	69	233	315	126	f47	26	18
7	12	210	146	240	536	68	209	255	110	44	23	18
8	12	285	204	200	339	81	225	200	96	42	22	16
9	11	224	466	f175	236	75	206	178	88	43	22	16
10	12	f174	940	158	273	71	189	161	80	40	20	16
11	16	130	452	f141	826	66	178	159	74	38	19	15
12	18	106	351	h133	524	68	204	145	84	37	19	14
13	14	101	552	h124	392	90	238	138	116	35	18	15
14	17	229	369	f158	336	87	245	125	140	35	18	16
15	28	465	278	f265	282	79	245	120	116	34	18	14
16	17	307	233	f186	242	76	209	131	102	33	18	14
17	14	366	206	h141	211	73	180	118	113	32	18	14
18	14	264	175	f115	197	69	178	113	126	30	17	14
19	13	208	146	107	188	68	252	113	134	29	17	14
20	12	161	202	126	186	65	392	116	124	28	17	14
21	12	187	248	f124	193	67	367	108	141	26	20	14
22	12	605	417	f124	182	67	233	265	141	27	23	13
23	12	f1,930	278	106	158	73	206	270	140	25	20	13
24	11	f785	272	98	134	83	184	173	119	24	18	12
25	11	372	248	96	116	152	161	148	106	24	17	12
26	19	450	204	126	f103	335	143	126	95	24	16	14
27	92	916	f740	148	f97	496	148	111	84	24	16	18
28	38	456	548	152	89	508	283	97	75	23	16	16
29	48	886	372	143	-	512	357	89	70	23	46	14
30	79	f663	470	126	-	357	272	103	66	23	42	14
31	557	-	826	113	-	948	-	148	-	22	28	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff Inches	Runoff Acre-feet
October	1,176	557	11	37.9	1.65	1.90	2,330
November	12,491	1,930	101	416	18.1	20.20	24,780
December	11,412	940	146	368	16.0	18.45	22,640
Calendar year 1942	53,098	1,930	11	145	6.30	85.86	105,300
January	6,070	780	96	196	8.52	9.81	12,040
February	8,203	894	89	293	12.7	13.26	16,270
March	5,089	948	65	164	7.13	8.23	10,090
April	7,921	765	143	264	11.5	12.81	15,710
May	5,090	315	89	164	7.13	8.23	10,100
June	3,601	264	66	120	5.22	5.82	7,140
July	1,107	62	22	35.7	1.55	1.79	2,200
August	674	46	16	21.7	.943	1.09	1,340
September	470	24	12	15.7	.683	.76	932
Water year 1942-43	63,304	1,930	11	173	7.52	102.35	125,600

Peak discharge.- Nov. 23 (3 p.m.) 3,050 sec.-ft.; Nov. 27 (1 a.m.) 1,310 sec.-ft.; Nov. 29 (4 p.m.) 1,310 sec.-ft.; Feb. 6 (12 m.) 1,380 sec.-ft.; Mar. 31 (1 p.m.) 1,310 sec.-ft.
f Computed from partly estimated gage-height record.
h Computed from staff-gage reading.
Time basis: Pacific war time. 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 1943.

Extremes.- Maximum discharge during year, 25,900 second-feet Dec. 30 (gage height, 10.70 feet), from rating curve extended above 13,000 second-feet by logarithmic plotting; minimum, 221 second-feet Oct. 8-10 (gage height, 2.07 feet).
1913-14, 1935-43: Maximum discharge, that of Dec. 30, 1942; 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 1942-43 (gage height, in feet, and discharge, in second-feet)

Oct. 1 to Dec. 30						Dec. 30 to Sept. 30					
2.1	230	3.4	1,110	5.5	5,580	2.3	350	3.9	1,460	7.0	8,620
2.4	340	3.8	1,620	6.2	8,230	2.6	500	4.5	2,270	8.0	12,500
2.7	500	4.3	2,500	7.0	12,100	2.9	700	5.2	3,590	9.0	17,100
3.0	715	4.9	3,810			3.3	1,000	6.0	5,550	10.0	22,100

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	234	312	6,620	15,100	1,370	1,080	2,760	1,720	4,930	1,200	482	390
2	230	385	6,110	7,660	1,830	1,050	2,290	1,570	3,900	1,130	470	382
3	230	659	3,760	4,750	1,850	1,020	2,130	1,500	2,910	1,140	464	378
4	227	482	2,680	3,480	3,100	1,010	1,900	1,460	2,350	1,130	458	374
5	227	395	2,130	2,860	2,930	979	2,080	1,410	2,020	1,050	488	370
6	227	332	1,850	2,410	2,290	958	2,100	1,380	1,790	1,020	470	366
7	224	964	1,900	2,080	2,400	1,040	1,950	1,300	1,700	1,010	458	366
8	224	1,960	4,280	1,880	2,140	1,780	1,890	1,210	1,650	1,000	440	362
9	221	890	3,760	1,770	1,790	2,290	1,730	1,160	1,670	958	430	362
10	227	607	3,220	1,670	1,630	1,790	1,610	1,170	1,590	898	425	358
11	268	488	2,440	1,570	1,920	1,530	1,490	1,130	1,460	850	420	362
12	268	440	2,200	1,450	2,020	1,350	1,490	1,080	1,350	794	415	358
13	248	425	2,560	1,380	2,130	1,280	1,650	1,040	1,250	756	410	354
14	251	1,020	2,460	1,440	2,240	1,240	1,830	1,010	1,180	728	405	354
15	268	5,200	2,240	1,450	2,290	1,160	2,040	993	1,120	714	405	346
16	248	1,950	2,400	1,380	2,300	1,110	1,980	972	1,100	686	400	346
17	240	2,090	2,500	1,270	2,290	1,070	1,770	937	1,160	665	395	346
18	234	1,850	2,240	1,160	2,190	1,030	1,670	922	1,250	658	386	346
19	230	1,280	1,950	1,140	2,060	993	1,900	937	1,250	658	386	342
20	230	940	1,860	2,360	1,980	944	2,050	986	1,160	651	386	342
21	230	834	1,810	5,280	2,000	922	2,600	1,020	1,110	637	395	338
22	230	2,280	2,770	5,310	1,960	898	2,220	1,040	1,160	623	430	338
23	230	7,380	3,110	2,950	1,760	874	2,050	1,170	1,190	609	400	338
24	227	8,300	3,710	2,140	1,550	866	1,900	1,350	1,140	581	420	334
25	227	3,380	3,990	1,790	1,390	898	1,760	1,490	1,270	567	395	334
26	230	5,030	2,900	1,650	1,260	1,330	1,610	1,480	1,240	554	382	334
27	308	11,700	12,200	1,730	1,180	1,470	1,520	1,410	1,160	530	378	342
28	293	4,880	10,600	1,790	1,110	1,410	1,740	1,330	1,130	512	378	342
29	268	11,600	5,680	1,740	-	1,770	1,920	1,250	1,160	500	488	338
30	286	8,920	13,400	1,580	-	2,020	1,820	1,360	1,250	494	464	334
31	262	-	22,500	1,420	-	2,480	-	2,760	-	488	405	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff Inches	Runoff Acre-feet
October	7,547	308	221	243	0.620	0.72	14,970
November	84,973	11,700	312	2,832	7.22	8.06	168,500
December	141,830	22,500	1,810	4,575	11.7	13.46	281,300
Calendar year 1942	462,892	22,500	221	1,268	3.23	43.93	918,100
January	85,640	15,100	1,140	2,763	7.05	8.12	169,900
February	54,960	3,100	1,110	1,963	5.01	5.21	109,000
March	39,642	2,480	866	1,279	3.26	3.76	78,630
April	57,450	2,760	1,490	1,915	4.89	5.45	114,000
May	39,547	2,760	922	1,276	3.26	3.75	78,440
June	48,600	4,930	1,100	1,620	4.13	4.61	96,400
July	23,791	1,200	488	767	1.96	2.26	47,190
August	13,128	488	378	423	1.08	1.25	26,040
September	10,576	390	334	353	.901	1.00	20,980
Water year 1942-43	607,684	22,500	221	1,665	4.25	57.65	1,205,000

Peak discharge.- Nov. 23 (8:30 p.m.) 17,100 sec.-ft.; Nov. 27 (2 a.m.) 15,800 sec.-ft.; Nov. 29 (4 a.m. and 6 a.m.) 18,800 sec.-ft.; Dec. 27 (5 p.m.) 17,200 sec.-ft.; Dec. 30 (11 p.m.) 25,900 sec.-ft.; Dec. 31 (7 p.m.) 24,200 sec.-ft.

Time basis: Pacific war time. 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 1943.
Average discharge.- 19 years (1923-26, 1927-43), 2,404 second-feet.
Extremes.- Maximum discharge during year, 53,400 second-feet Dec. 31 (gage height, 16.95 feet), from rating curve extended above 39,000 second-feet; minimum, 532 second-feet Oct. 10 (gage height, 0.84 foot).
1923-43: 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 good. No large diversions above station. Occasional diurnal fluctuation during periods of low flow caused by logging operations upstream.
Cooperation.- Gage-height record collected in cooperation with U. S. Weather Bureau.

Rating tables, water year 1942-43 (gage height, in feet, and discharge, in second-feet)

Oct. 1 to Dec. 30				Dec. 31 to Sept. 30			
0.8	510	5.7	5,570	1.7	760	6.5	7,430
1.2	745	7.2	8,430	2.1	1,030	8.0	10,800
1.7	1,100	8.6	12,000	2.7	1,520	9.5	15,000
2.4	1,660	10.0	17,300	3.4	2,230	11.0	21,800
3.3	2,510	12.0	27,000	4.2	3,310	13.0	31,400
4.4	3,690			5.2	5,010	17.0	53,700

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	565	988	15,400	39,900	3,630	2,730	6,830	4,830	10,100	2,970	1,140	939
2	565	1,220	15,100	21,100	5,010	2,630	6,050	4,330	9,420	2,760	1,120	911
3	565	1,990	9,720	12,100	4,990	2,540	5,770	4,080	8,140	2,660	1,110	890
4	560	1,510	7,230	9,190	7,940	2,460	5,150	3,930	6,830	2,770	1,090	870
5	554	1,230	5,840	7,970	8,140	2,370	5,480	3,680	5,930	2,480	1,150	864
6	554	1,020	5,050	7,000	6,850	2,330	5,570	3,760	5,230	2,370	1,120	868
7	543	1,770	4,840	6,170	7,210	2,680	5,210	3,550	4,780	2,300	1,080	838
8	543	4,480	8,250	5,510	6,470	5,480	5,280	3,240	4,520	2,240	1,040	836
9	538	2,630	8,340	5,060	5,460	6,580	4,920	3,060	4,450	2,180	1,030	825
10	548	1,850	7,690	4,670	4,850	5,300	4,580	3,020	4,250	2,030	1,010	818
11	674	1,480	6,120	4,330	5,480	4,330	4,230	2,910	3,820	1,930	995	812
12	693	1,290	5,400	3,940	5,750	3,760	4,130	2,720	3,520	1,820	981	825
13	614	1,200	5,930	3,690	6,000	3,550	4,470	2,570	3,240	1,730	961	812
14	604	1,870	6,000	3,770	6,180	3,490	4,960	2,450	3,020	1,680	960	806
15	650	6,720	5,500	3,860	6,280	3,160	5,460	2,420	2,810	1,650	946	792
16	604	4,620	5,570	3,690	6,280	2,980	5,390	2,420	2,730	1,600	932	780
17	576	4,890	5,810	3,390	6,260	2,830	4,830	2,310	2,790	1,560	932	786
18	560	4,410	5,380	3,010	6,050	2,690	4,450	2,240	3,060	1,520	918	786
19	554	3,320	4,770	2,950	5,730	2,520	5,100	2,250	3,070	1,490	904	780
20	548	2,560	4,560	5,320	5,480	2,390	5,330	2,370	2,950	1,490	911	773
21	538	2,230	4,540	9,780	5,480	2,310	6,760	2,460	2,740	1,480	925	773
22	538	4,800	5,790	11,200	5,350	2,270	5,950	2,520	2,900	1,430	1,040	766
23	538	12,400	7,550	7,670	4,810	2,200	5,460	2,830	3,010	1,390	974	760
24	543	19,800	8,000	5,950	4,230	2,180	5,150	3,300	2,870	1,350	981	747
25	538	9,020	8,880	5,050	3,710	2,340	4,700	3,660	3,490	1,320	946	747
26	548	10,100	6,700	4,580	3,360	3,360	4,230	3,710	3,490	1,300	918	740
27	e17	27,600	18,300	4,700	3,100	4,040	3,960	3,550	3,130	1,260	897	773
28	790	13,400	23,200	4,920	2,870	3,930	4,870	3,360	2,950	1,230	884	766
29	693	27,400	12,900	4,850	-	4,760	5,590	3,120	2,900	1,190	1,130	760
30	752	23,300	23,700	4,400	-	5,480	5,170	3,250	3,130	1,180	1,180	747
31	693	-	49,800	3,860	-	6,000	-	6,560	-	1,160	1,000	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff Inches	Runoff Acre-feet
October	18,600	817	538	600	0.638	0.74	36,890
November	201,098	27,600	988	6,703	7.12	7.95	398,900
December	311,860	49,800	4,540	10,060	10.7	12.33	618,600
Calendar year 1942	1,091,741	49,800	538	2,991	3.18	43.17	2,165,000
January	223,580	39,900	2,950	7,212	7.66	8.84	443,500
February	152,950	8,140	2,870	5,462	5.80	6.04	303,400
March	105,670	6,580	2,180	3,409	3.62	4.18	209,600
April	155,030	6,830	3,960	5,168	5.49	6.13	307,500
May	100,460	6,560	2,240	3,241	3.44	3.97	199,300
June	125,270	10,100	2,730	4,176	4.44	4.95	248,500
July	55,520	2,970	1,160	1,791	1.90	2.19	110,100
August	31,225	1,180	884	1,007	1.07	1.23	61,930
September	24,182	939	740	806	.857	.96	47,960
Water year 1942-43	1,505,445	49,800	538	4,125	4.38	59.51	2,986,000

Peak discharge.- Nov. 23 (12 p.m.) 29,600 sec.-ft.; Nov. 27 (6:30 a.m.) 32,700 sec.-ft.; Nov. 29 (6 p.m. and 8 p.m.) 43,700 sec.-ft.; Dec. 27 (12 p.m.) 28,900 sec.-ft.; Dec. 31 (1 a.m.) 51,400 sec.-ft.; Dec. 31 (10 p.m.) 53,400 sec.-ft.
e Computed from partly estimated gage-height record.
Time basis: Pacific war time. 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 1943. June 1919 to September 1928 at site 4 miles downstream, published as Willamette River at Eugene; 1894-1943 (records of stage by U. S. Weather Bureau), at site at Eugene.

Average discharge.- 25 years (1912-13, 1919-43), 4,966 second-feet.

Extremes.- Maximum discharge during year, 100,000 second-feet Jan. 1 (gage height, 19.4 feet), from rating curve extended above 61,000 second-feet; minimum, 610 second-feet (regulated) Oct. 19 (gage height, 1.37 feet).

1911-13, 1919-43: Maximum discharge, that of Jan. 1, 1943 (gage height at Eugene, 16.7 feet); minimum, 500 second-feet Aug. 11, 1926.

Maximum stage recorded by U. S. Weather Bureau, 22.0 feet at Eugene, Jan. 25, 1903. Floods in December 1861 and February 1890 reached about the same stage.

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 at Eugene	Discharge (second-feet)
534.....	1920-21	Dec. 30	16.5	74,600
574.....	1922-23	Jan. 7	18.0	98,000
654.....	1926-27	Feb. 21	17.0	99,200

Remarks.- Records good. Slight diurnal fluctuation at low water caused by logging operations in basin of Middle Fork Willamette River. Small diversions above station.

Revisions.- Revised figures of discharge for high-water periods in the water years 1921, 1923, and 1927 are given herein. They supersede those published in Water-Supply Papers 534, 574, 654, and 884.

Day (water year)	Discharge (second-feet)
1920-21	
Dec. 31.....	62,300
1922-23	
Jan. 7.....	74,600
1926-27	
Feb. 21.....	85,700

Month	Maximum	Minimum	Mean	Per square mile	Runoff	
					Inches	Acre-feet
December 1920.....	62,300	7,610	15,250	7.51	8.66	937,500
Calendar year 1920	62,300	693	5,356	2.64	35.91	3,888,000
Water year 1920-21	62,300	780	7,247	3.57	48.46	5,249,000
January 1923.....	74,600	5,780	17,000	8.37	9.66	1,045,000
Water year 1922-23	74,600	680	4,962	2.44	33.18	3,591,000
Calendar year 1923	74,600	900	5,112	2.62	34.18	3,700,000
February 1927.....	85,700	4,060	17,320	8.53	8.88	961,900
Water year 1926-27	85,700	750	6,325	3.12	42.30	4,577,000
Calendar year 1927	85,700	750	6,593	3.25	44.09	4,771,000

Rating tables, water year 1942-43 (gage height, in feet, and discharge, in second-feet)

Oct. 1 to Dec. 30

1.4	630	4.0	4,380	10.0	27,800
1.7	855	5.0	6,930	12.0	38,400
2.1	1,255	6.0	10,100	14.5	53,800
2.6	1,910	7.0	14,000		
3.2	2,840	8.5	20,600		

Dec. 31 to Sept. 30

2.2	990	5.4	7,410	14.8	58,000
2.6	1,480	6.5	11,100	18.0	85,600
3.1	2,200	8.0	17,300	18.7	92,600
3.7	3,250	9.6	24,900		
4.5	4,990	11.8	37,300		

Discharge, in second-feet, of Willamette River at Springfield, Oreg., water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	672	1,260	28,500	92,100	9,630	4,000	16,000	9,010	14,800	4,040	1,400	1,230
2	679	2,110	30,300	58,400	15,500	3,830	13,500	7,680	18,400	3,740	1,400	1,160
3	679	3,220	22,800	34,700	17,000	3,700	12,400	6,950	16,400	3,520	1,360	1,120
4	679	3,310	16,200	24,000	20,100	3,560	10,400	6,360	13,300	3,660	1,380	1,100
5	672	3,010	13,000	20,000	23,800	3,480	10,500	5,960	10,700	3,310	1,430	1,090
6	658	2,240	12,500	17,700	17,700	3,340	10,700	5,960	8,780	3,080	1,440	1,070
7	665	2,050	13,300	15,400	20,100	3,620	9,760	5,650	7,560	2,970	1,360	1,040
8	651	8,030	32,600	13,400	18,000	7,320	9,590	5,120	6,770	2,900	1,320	1,030
9	651	6,130	32,100	11,700	14,400	10,900	9,420	4,730	6,330	2,840	1,280	1,020
10	658	3,890	24,400	9,730	11,900	8,590	9,490	4,490	5,910	2,680	1,260	1,010
11	752	2,890	18,300	8,550	11,200	6,920	8,950	4,400	5,360	2,530	1,250	1,000
12	914	2,370	15,100	7,500	11,900	5,850	8,080	4,060	4,890	2,380	1,220	1,000
13	872	2,100	15,300	6,770	12,100	5,460	7,990	3,810	4,530	2,260	1,210	1,020
14	823	2,380	14,900	6,420	12,100	6,040	7,770	3,660	4,150	2,180	1,200	1,000
15	815	13,100	13,000	6,390	11,700	5,620	7,590	3,620	3,830	2,090	1,180	1,020
16	823	14,400	12,000	6,250	11,300	5,240	7,410	3,790	3,620	2,020	1,170	1,090
17	760	11,800	11,100	5,880	10,700	4,970	6,720	3,680	3,580	1,960	1,150	1,030
18	730	12,200	9,860	5,120	9,940	4,650	6,120	3,480	3,790	1,890	1,140	1,080
19	715	9,020	8,420	4,850	9,120	4,280	6,550	3,340	3,890	1,860	1,100	1,150
20	672	6,260	7,900	10,000	8,460	3,960	6,920	3,380	3,870	1,830	1,110	1,220
21	686	5,130	8,420	23,200	8,110	3,740	9,460	3,440	3,720	1,790	1,140	1,260
22	679	7,420	9,410	37,900	7,860	3,680	9,290	3,440	4,240	1,740	1,230	1,260
23	672	13,500	15,500	21,300	7,180	3,580	8,240	3,880	4,510	1,690	1,250	1,250
24	672	37,400	17,400	14,800	6,310	3,460	7,860	3,980	4,610	1,650	1,180	1,250
25	672	23,800	27,400	12,100	5,620	3,880	7,240	4,350	5,830	1,610	1,180	1,260
26	686	16,900	18,800	10,700	5,060	5,140	6,500	4,510	6,980	1,580	1,140	1,260
27	997	42,800	28,600	12,200	4,680	7,000	6,170	4,330	5,650	1,540	1,100	1,270
28	1,610	28,900	48,000	14,800	4,280	6,550	8,650	4,100	4,850	1,510	1,090	1,310
29	1,200	30,700	32,900	14,900	-	9,280	11,300	3,870	4,400	1,470	1,250	1,280
30	1,090	52,900	42,000	13,500	-	12,900	10,200	3,870	4,280	1,430	1,710	1,150
31	1,040	-	87,000	10,900	-	12,900	-	7,570	-	1,420	1,400	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff	
						Inches	Acre-feet
October	24,544	1,610	651	792	0.390	0.45	48,680
November	371,220	52,900	1,260	12,370	6.09	6.80	736,300
December	687,010	87,000	7,900	22,160	10.9	12.59	1,363,000
Calendar year 1942	2,185,245	87,000	651	5,987	2.95	40.03	4,335,000
January	551,160	92,100	4,850	17,780	8.76	10.10	1,093,000
February	325,750	23,800	4,280	11,630	5.73	5.97	646,100
March	177,240	12,900	3,340	5,717	2.82	3.25	351,600
April	270,770	16,000	6,120	9,026	4.45	4.96	537,100
May	146,170	9,010	3,340	4,715	2.32	2.68	289,900
June	199,530	18,400	3,580	6,651	3.28	3.66	395,800
July	71,170	4,040	1,420	2,296	1.13	1.30	141,200
August	39,030	1,710	1,090	1,259	.620	.72	77,410
September	34,030	1,310	1,000	1,134	.559	.62	67,500
Water year 1942-43	2,897,624	92,100	651	7,939	3.91	53.10	5,748,000

Peak discharge.- Nov. 24 (11:30 a.m.) 45,400 sec.-ft.; Nov. 27 (4 p.m.) 51,100 sec.-ft.; Nov. 30 (6 a.m.) 64,500 sec.-ft.; Dec. 28 (7 a.m.) 52,500 sec.-ft.; Dec. 31 (9 a.m. to 11 a.m.) 93,600 sec.-ft.; Jan. 1 (6 a.m. to 10 a.m.) 100,000 sec.-ft.

Time basis: Pacific war time. 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 1943.
Average discharge.- 48 years (1895-1943), 13,660 second-feet.
Extremes.- Maximum discharge during year, 218,000 second-feet Jan. 2 (gage height, 30.6 feet); minimum, 2,190 second-feet Oct. 11 (gage height, -0.58 foot).
1878-82, 1892-1943: 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 Reservoirs (see pp. 103, 114). 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.
Correction.- The figure of runoff in acre-feet for the water year 1916 is corrected to 12,690,000 acre-feet, superseding figure erroneously published in Water-Supply Paper 444.

Rating table, water year 1942-43 (gage height, in feet, and discharge, in second-feet)

-0.5	2,290	3.4	10,600	12.0	41,900	24.0	117,000
0.0	2,950	5.0	15,600	15.0	55,900	26.0	140,000
1.0	4,600	7.0	22,400	18.0	71,500	28.0	170,000
2.0	6,710	9.0	29,600	21.0	91,000	30.0	206,000

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2,730	3,360	89,300	157,000	31,100	12,600	47,400	22,700	16,300	9,720	4,640	4,230
2	2,710	4,870	92,800	210,000	30,600	11,900	52,800	20,600	24,000	9,900	4,580	3,950
3	2,750	7,590	72,700	155,000	35,700	11,500	48,500	18,300	30,300	9,720	4,620	3,740
4	2,730	10,100	63,100	105,000	40,300	11,000	35,800	17,100	30,900	9,900	4,540	3,660
5	2,710	9,160	47,300	73,600	43,700	10,700	30,100	16,000	27,000	9,810	4,600	3,580
6	2,730	8,050	40,000	57,400	55,200	10,400	28,500	15,400	22,500	8,960	4,700	3,500
7	2,660	6,880	39,900	48,100	63,400	10,100	27,200	15,300	19,100	8,270	4,700	3,490
8	2,630	7,100	44,800	40,600	61,800	11,000	25,100	14,700	16,800	7,960	4,500	3,390
9	2,490	14,700	58,000	34,800	53,900	16,900	24,100	13,500	15,400	7,770	4,360	3,330
10	2,330	13,100	72,200	30,600	42,400	20,200	23,200	12,600	14,500	7,620	4,300	3,300
11	2,250	9,810	66,900	27,100	34,800	17,600	22,500	12,200	13,600	7,250	4,250	3,270
12	2,410	7,940	55,400	24,600	32,900	15,200	21,000	11,800	12,800	6,950	4,120	3,270
13	2,700	6,900	44,700	22,500	32,600	13,700	19,700	11,200	11,900	6,710	4,000	3,270
14	2,680	6,570	41,300	20,900	31,800	13,800	19,500	10,600	11,300	6,470	3,930	3,270
15	2,590	9,190	40,400	20,000	30,800	14,800	19,300	10,300	10,600	6,220	3,930	3,240
16	2,680	23,400	36,300	19,700	29,500	14,000	19,200	10,300	9,990	6,060	3,850	3,260
17	2,630	28,900	33,000	19,000	28,200	13,300	18,600	10,300	9,570	5,910	3,860	3,280
18	2,540	28,300	30,900	17,700	26,900	12,600	17,300	9,960	9,420	5,760	3,800	3,280
19	2,400	28,600	28,500	16,300	25,700	12,000	16,400	9,540	9,780	5,630	3,710	3,280
20	2,390	23,500	25,700	16,600	24,100	11,400	17,400	9,300	9,900	5,570	3,710	3,320
21	2,350	18,000	24,700	26,200	22,900	10,700	18,700	9,330	9,930	5,460	3,690	3,330
22	2,290	15,700	25,600	40,500	22,200	10,300	23,400	9,330	9,870	5,380	3,780	3,360
23	2,290	23,000	28,800	52,100	21,100	10,000	22,500	9,330	10,600	5,300	4,050	3,340
24	2,310	38,500	38,200	51,000	18,800	9,840	20,700	9,720	10,900	5,200	4,030	3,330
25	2,300	56,900	41,700	37,500	16,900	9,660	19,600	10,400	11,000	5,100	3,830	3,320
26	2,270	65,200	50,700	31,200	15,300	10,600	18,000	11,000	12,900	5,040	3,740	3,340
27	2,340	56,900	52,300	31,200	14,200	14,100	16,800	11,200	14,700	4,980	3,680	3,380
28	3,030	64,000	61,500	41,700	13,400	17,700	16,800	10,800	12,800	4,900	3,600	3,410
29	3,880	81,700	77,200	50,000	-	20,500	21,100	10,400	11,500	4,850	3,800	3,490
30	3,410	73,100	98,300	46,200	-	27,500	24,200	10,100	10,600	4,790	4,050	3,420
31	3,280	-	92,000	38,700	-	37,800	-	10,400	-	4,700	4,620	-

Month	Second-feet-days	Maximum	Minimum	Mean	Per square mile	Runoff Inches	Runoff Acre-feet
October	81,490	3,880	2,250	2,629	0.543	0.63	161,600
November	751,020	81,700	3,360	25,030	5.17	5.77	1,490,000
December	1,614,200	98,300	24,700	52,070	10.8	12.40	3,202,000
Calendar year 1942	5,319,930	98,300	2,250	14,580	3.01	40.86	10,550,000
January	1,562,800	210,000	16,300	50,410	10.4	12.01	3,100,000
February	900,200	63,400	13,400	32,150	6.64	6.92	1,786,000
March	443,400	37,800	9,660	14,300	2.95	3.41	879,500
April	735,400	52,800	16,400	24,510	5.06	5.65	1,459,000
May	383,710	22,700	9,300	12,380	2.56	2.95	761,100
June	440,460	30,900	9,420	14,680	3.03	3.38	873,600
July	207,860	9,900	4,700	6,705	1.39	1.60	412,300
August	127,570	4,700	3,600	4,115	.850	.98	253,000
September	102,630	4,230	3,240	3,421	.707	.79	203,600
Water year 1942-43	7,350,740	210,000	2,250	20,140	4.16	56.49	14,580,000

Peak discharge.- Nov. 26 (8 a.m.) 66,500 sec.-ft.; Nov. 29 (3 p.m.) 85,300 sec.-ft.; Dec. 1 (12 p.m.) 105,000 sec.-ft.; Dec. 10 (3:30 p.m.) 73,800 sec.-ft.; Dec. 30 (10 a.m.) 101,000 sec.-ft.; Jan. 2 (8 a.m.) 218,000 sec.-ft.
Time basis: Pacific war time. 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 1943.
Average discharge.- 23 years, 21,860 second-feet.
Extremes.- Maximum discharge during year, 291,000 second-feet Jan. 2 (gage height, 30.6 feet); minimum, 2,920 second-feet Oct. 11, 24, 25 (gage height, -4.26 feet).
1909-16, 1927-43: Maximum discharge observed, 315,000 second-feet Nov. 25, 1909 (gage height, 30.5 feet); minimum discharge, 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 above station for irrigation; 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.
Cooperation.- Gage-height record collected in cooperation with U. S. Weather Bureau.

Rating tables, water year 1942-43 (gage height, in feet, and discharge, in second-feet)

Oct. 1 to Jan. 1

-4.3	2,860	2.0	20,000	15.0	92,400
-3.5	4,120	4.0	28,200	19.0	131,000
-2.5	6,120	6.0	36,900	23.0	179,000
-1.2	9,400	9.0	51,800	27.0	235,000
0.0	13,000	12.0	69,800	31.0	297,000

Jan. 2 to Sept. 30

-3.5	4,200	4.0	29,000
-2.5	6,290	6.0	38,200
-1.2	9,640	9.0	53,200
0.0	13,200	12.0	70,000
2.0	20,400		

Note.- Same as preceding table above 12.4 feet.

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	3,360	7,840	142,000	201,000	47,500	19,500	97,800	35,800	23,500	14,600	6,180	5,970
2	3,380	16,200	145,000	285,000	44,400	18,500	107,000	32,700	30,400	14,000	6,080	5,420
3	3,400	22,300	136,000	247,000	52,200	17,500	87,100	29,200	40,300	13,300	6,020	5,110
4	3,430	22,800	105,000	177,000	59,500	16,800	67,300	26,700	43,900	12,900	5,990	4,880
5	3,430	18,600	80,600	124,000	71,400	16,200	54,500	25,000	39,500	12,600	6,040	4,760
6	3,350	15,000	65,400	90,700	78,800	15,700	48,300	24,200	33,400	12,000	6,270	4,680
7	3,330	12,600	62,200	71,600	116,000	15,200	44,900	24,300	28,400	11,400	6,430	4,580
8	3,260	12,700	71,100	60,200	119,000	16,000	41,800	23,300	24,800	11,000	6,130	4,640
9	3,200	22,300	83,600	51,900	92,200	23,400	40,100	21,600	22,600	10,700	5,880	4,540
10	3,060	23,000	95,300	46,300	70,300	28,300	38,200	19,900	21,200	10,600	5,710	4,480
11	2,970	17,300	102,000	41,400	62,400	26,300	36,300	19,100	19,700	10,200	5,620	4,430
12	3,000	13,800	87,500	37,900	65,300	22,700	34,200	18,500	18,200	9,750	5,470	4,410
13	3,240	11,700	73,500	34,500	61,200	20,600	32,700	17,400	17,100	9,360	5,340	4,430
14	3,560	11,200	69,000	32,200	56,400	21,200	32,700	16,400	16,300	9,140	5,270	4,390
15	3,410	22,900	63,400	31,200	52,700	22,800	32,800	15,600	15,400	8,710	5,150	4,370
16	3,400	41,900	57,800	31,100	49,400	21,700	32,400	15,500	14,500	8,520	5,130	4,330
17	3,490	50,600	52,700	29,900	46,300	20,300	30,900	15,600	13,800	8,280	5,000	4,350
18	3,300	54,800	48,500	27,700	43,800	19,000	28,500	15,000	13,800	8,100	5,000	4,350
19	3,180	49,300	44,300	25,000	41,500	17,700	27,100	14,400	14,800	7,920	4,880	4,310
20	3,090	40,800	40,100	25,400	39,100	16,800	28,700	14,100	14,700	7,760	4,840	4,390
21	3,030	32,300	40,200	39,000	37,100	15,700	35,300	14,100	14,600	7,580	4,860	4,450
22	3,000	31,700	43,100	52,800	35,800	15,100	40,600	14,100	14,700	7,420	4,980	4,500
23	2,970	51,300	54,700	61,500	34,100	14,900	38,500	14,400	15,300	7,250	5,340	4,450
24	2,960	90,600	58,300	64,200	30,700	14,800	35,300	15,700	15,900	7,100	5,510	4,450
25	2,930	115,000	64,700	53,400	27,400	15,100	32,800	16,400	16,100	6,950	5,190	4,450
26	2,990	103,000	68,600	45,000	24,600	17,700	30,300	16,900	18,200	6,880	4,980	4,410
27	3,000	112,000	77,800	46,800	22,500	27,300	27,700	17,000	20,400	6,780	4,860	4,480
28	3,480	131,000	99,400	59,300	20,800	37,700	27,500	16,400	18,600	6,640	4,780	4,450
29	4,860	122,000	117,000	70,800	-	43,800	32,900	15,500	16,600	6,500	4,960	4,540
30	4,840	146,000	134,000	66,500	-	52,500	37,000	14,900	15,300	6,360	5,190	4,540
31	4,410	-	152,000	57,000	-	65,900	-	15,600	-	6,240	6,040	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff	
						Inches	Acre-feet
October	104,310	4,860	2,930	3,365	0.462	0.53	206,900
November	1,422,540	146,000	7,540	47,420	6.51	7.27	2,822,000
December	2,534,800	152,000	40,100	81,770	11.2	12.95	5,028,000
Calendar year 1942	8,589,240	152,000	2,930	23,530	3.23	43.87	17,040,000
January	2,287,300	285,000	25,000	73,780	10.1	11.68	4,537,000
February	1,502,400	119,000	20,800	53,660	7.37	7.68	2,980,000
March	716,700	65,900	14,800	23,120	3.18	3.66	1,422,000
April	1,281,200	107,000	27,100	42,710	5.87	6.55	2,541,000
May	595,300	35,800	14,100	19,200	2.64	3.04	1,181,000
June	632,000	43,900	13,800	21,070	2.89	3.23	1,254,000
July	286,540	14,600	6,240	9,243	1.27	1.46	568,300
August	169,120	6,430	4,780	5,455	.749	.86	335,400
September	137,540	5,970	4,310	4,585	.630	.70	272,800
Water year 1942-43	11,669,750	285,000	2,930	31,970	4.39	59.61	23,150,000

Peak discharge.- Nov. 25 7 a.m. to 8 a.m.) 118,000 sec.-ft.; Nov. 28 (10 a.m.) 134,000 sec.-ft.; Nov. 30 (8 p.m.) 158,000 sec.-ft.; Dec. 2 (9 p.m.) 151,000 sec.-ft.; Jan. 2 (1 p.m.) 291,000 sec.-ft.; Feb. 7 (12 p.m.) 128,000 sec.-ft.
Time basis: Pacific war time. To convert war time to standard time, subtract 1 hour.

Hills Creek near Oakridge, Oreg.

Location.- Staff gage, lat. 43°42', long. 122°24', in NW¼ sec. 36, T. 21 S., R. 3 E., 1½ miles upstream from mouth and 4½ miles southeast of Oakridge.

Drainage area.- 59 square miles.

Records available.- September 1935 to September 1943 (discontinued).

Extremes.- Maximum discharge during year, 4,300 second-feet Dec. 31 (gage height, 9.5 feet, from floodmark), from rating curve extended above 900 second-feet by logarithmic plotting; minimum observed, 20 second-feet Oct. 4-11, 24-26.

1935-43: Maximum discharge, that of Dec. 31, 1942; minimum observed, 12 second-feet Aug. 26 to Sept. 2, 1940.

Remarks.- Records good; they include flow to small diversion about 1,000 feet upstream and return flow from another, half a mile upstream. No regulation. Gage read once daily, twice daily when stage is over 2.0 feet.

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	21	31	815	2,240	201	149	433	285	947	158	47	35
2	21	30	751	1,200	268	144	385	261	755	140	45	33
3	21	78	445	715	280	138	370	249	534	a140	a44	32
4	20	64	352	506	460	d130	326	238	457	a150	a44	30
5	20	51	265	436	427	128	355	225	397	a130	54	30
6	20	35	227	370	355	125	326	210	358	a120	a52	29
7	20	84	240	335	358	135	329	193	316	a115	a49	27
8	20	252	635	290	337	258	290	185	297	a105	a47	27
9	20	121	439	277	277	295	277	181	290	a100	a46	28
10	20	92	379	275	242	249	261	169	261	96	a44	27
11	20	62	280	245	308	212	254	156	229	93	a43	27
12	30	56	268	233	340	199	273	149	a210	85	a41	27
13	30	52	337	227	382	171	303	138	a190	80	a40	27
14	30	168	303	245	415	166	364	132	a170	80	a38	27
15	32	421	287	240	433	154	382	132	a150	78	a37	26
16	30	258	318	227	430	144	337	135	a140	73	d36	26
17	29	318	352	201	433	140	287	128	a140	70	36	26
18	28	245	305	175	397	d130	273	130	a170	70	36	26
19	26	168	249	169	358	123	326	135	a165	68	35	26
20	24	130	245	385	335	117	361	145	a150	68	34	26
21	23	99	222	970	352	113	488	149	145	66	35	24
22	22	361	397	807	329	117	409	149	168	61	43	24
23	21	1,180	352	506	290	113	376	203	185	d60	36	24
24	20	1,440	460	367	247	110	318	240	168	59	40	23
25	20	526	430	303	218	113	295	256	218	55	38	23
26	20	655	324	277	187	273	282	249	185	55	35	22
27	38	1,360	1,560	285	171	238	247	229	173	53	35	24
28	30	711	1,410	282	154	229	310	210	169	53	33	24
29	27	1,260	791	265	-	275	332	193	162	51	68	24
30	32	1,040	1,410	233	-	324	316	214	162	49	43	23
31	27	-	3,290	205	-	373	-	523	-	47	36	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff Inches	Runoff Acre-feet
October	762	38	20	24.6	0.417	0.48	1,510
November	11,348	1,440	30	378	6.41	7.15	22,510
December	18,138	3,290	222	585	9.92	11.43	35,980
Calendar year 1942	65,914	3,290	20	181	3.07	41.53	130,700
January	13,491	2,240	169	435	7.37	8.50	26,760
February	8,984	460	154	321	5.44	5.66	17,820
March	5,585	373	110	180	3.05	3.52	11,080
April	9,885	488	247	330	5.59	6.23	19,610
May	6,191	523	128	200	3.39	3.90	12,280
June	8,061	947	140	269	4.56	5.08	15,990
July	2,628	158	47	84.8	1.44	1.66	5,210
August	1,290	68	33	41.6	.705	.81	2,560
September	797	35	22	26.6	.451	.50	1,580
Water year 1942-43	87,160	3,290	20	239	4.05	54.92	172,900

a No gage-height record; discharge computed on basis of records for Salt and Salmon Creeks near Oakridge.

d Doubtful gage height; discharge computed on basis of records for Salt and Salmon Creeks near Oakridge.

Time basis: Pacific war time. 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 southeast 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 1943.

Average discharge.- 11 years, 267 second-feet.

Extremes.- Maximum discharge during year, 3,720 second-feet Dec. 31 (gage height, 7.15 feet), from rating curve extended above 2,100 second-feet; minimum, 95 second-feet Oct. 9, 10 (gage height, 1.40 feet).
1913-14, 1933-43: Maximum discharge, that of Dec. 31 1942; minimum, 55 second-feet Jan. 8, 1937 (computed on basis of record for Salmon Creek near Oakridge).

Remarks.- Records fair. No diversion above station; slight diurnal fluctuation at times.

Cooperation.- Water-stage recorder inspected by employee of U. S. Forest Service.

Rating tables, water year 1942-43 (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Dec. 30 to Jan. 4)

Oct. 1 to Nov. 29				Nov. 30 to Sept. 30			
1.4	95	3.2	620	1.9	125	3.9	970
1.7	135	3.6	820	2.1	174	4.6	1,280
2.0	200	4.1	1,070	2.4	260	5.5	1,900
2.4	310	4.7	1,420	2.8	390	6.5	2,600
2.8	450	5.7	2,040	3.3	580	7.5	3,400

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	98	157	1,580	2,700	362	299	453	496	1,060	428	180	164
2	98	161	1,470	1,800	428	287	442	468	964	414	180	161
3	98	222	1,080	1,230	422	275	464	464	876	428	177	156
4	97	171	810	925	540	266	442	456	750	432	174	153
5	97	147	684	725	556	254	460	450	679	394	182	151
6	97	132	607	634	508	248	456	460	616	383	177	148
7	97	238	580	568	528	290	453	442	584	383	171	148
8	96	438	947	524	500	428	472	422	584	372	169	146
9	96	271	842	492	446	468	446	414	584	355	166	146
10	99	208	755	460	422	422	425	422	572	334	164	146
11	111	173	652	436	442	386	422	404	528	317	164	146
12	110	159	602	411	456	362	436	383	496	299	161	146
13	102	149	620	394	480	358	468	366	460	281	158	146
14	103	284	602	386	488	344	516	352	439	269	156	143
15	108	640	568	383	492	327	560	352	422	263	156	143
16	102	478	560	372	492	314	564	348	422	251	153	141
17	99	482	548	352	480	305	532	341	439	242	153	141
18	98	430	520	320	460	293	520	338	488	239	151	141
19	98	334	484	330	446	275	594	352	476	239	151	141
20	97	271	476	432	432	263	602	376	442	236	151	141
21	97	245	453	720	428	254	710	390	422	230	158	139
22	97	354	524	790	425	245	602	397	428	224	169	139
23	97	965	548	602	400	236	564	450	436	222	161	136
24	97	1,560	661	508	376	233	532	508	414	213	169	136
25	96	860	710	460	352	251	508	544	460	208	158	136
26	98	912	630	436	334	330	468	540	446	202	156	139
27	122	1,800	1,380	428	320	358	450	528	432	194	151	141
28	110	1,100	1,770	432	308	372	500	512	428	191	153	139
29	114	2,040	1,280	425	-	436	520	448	436	185	199	139
30	116	1,990	2,130	404	-	446	508	496	436	182	191	136
31	110	-	3,420	376	-	439	-	750	-	182	169	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff Inches	Runoff Acre-feet
October	3,155	122	96	102	0.903	1.04	6,260
November	17,371	2,040	132	579	5.12	5.72	34,450
December	28,493	3,420	453	919	8.13	9.38	56,520
Calendar year 1942	115,392	3,420	96	316	2.80	37.98	228,900
January	19,455	2,700	320	628	5.56	6.40	38,590
February	12,323	556	308	440	3.89	4.06	24,440
March	10,064	468	233	325	2.88	3.31	19,960
April	15,089	710	422	503	4.45	4.97	29,930
May	13,669	750	338	441	3.90	4.50	27,110
June	16,219	1,060	414	541	4.79	5.34	32,170
July	8,792	432	182	284	2.51	2.89	17,440
August	5,128	199	151	165	1.46	1.69	10,170
September	4,328	164	136	144	1.27	1.42	8,580
Water year 1942-43	154,086	3,420	96	422	3.73	50.72	305,600

Peak discharge.- Nov. 24 (1 a.m.) 2,220 sec.-ft.; Nov. 27 (8 a.m.) 2,070 sec.-ft.; Nov. 29 (5 p.m.) 3,000 sec.-ft.; Dec. 28 (3 a.m.) 2,000 sec.-ft.; Dec. 31 (12:30 a.m.) 3,680 sec.-ft.; Dec. 31 (12 p.m.) 3,720 sec.-ft.

Time basis: Pacific war time. 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 1943. 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.- 10 years (1933-43), 356 second-feet.
Extremes.- Maximum discharge during year, 5,650 second-feet Dec. 31 (gage height, 7.90 feet), from rating curve extended above 2,500 second-feet; minimum, 111 second-feet Oct. 26 (gage height, 1.14 feet).
1913-19, 1933-43: 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 excellent except those above 2,500 second-feet, which are fair. 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; leakage under gates is about 4 second-feet.
Cooperation.- Water-stage recorder inspected by employee of U. S. Forest Service.

Rating tables, water year 1942-43 (gage height, in feet, and discharge, in second-feet)

Oct. 1 to Dec. 30				Dec. 31 to Sept. 30			
1.1	105	3.0	790	1.3	160	3.6	1,240
1.4	157	3.5	1,130	1.7	244	4.3	1,830
1.7	232	4.2	1,710	2.1	372	5.3	2,770
2.1	355	5.1	2,540	2.5	540	6.4	3,910
2.5	520	6.5	3,990	3.0	815	7.6	5,290

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	118	263	2,310	4,130	468	426	668	651	1,360	406	210	183
2	117	281	2,170	2,550	545	406	651	600	1,340	383	207	179
3	117	348	1,530	1,790	531	395	662	575	1,220	383	204	177
4	117	284	1,150	1,380	1,120	387	625	545	1,030	391	204	174
5	116	238	924	1,160	1,080	372	673	526	894	368	220	174
6	116	210	778	992	936	362	673	540	797	344	210	172
7	114	385	692	854	950	460	651	504	725	334	207	170
8	114	708	892	755	848	961	690	468	673	327	202	168
9	112	457	1,020	695	719	1,010	630	450	640	317	202	166
10	120	355	1,020	651	651	797	590	450	605	304	200	166
11	147	296	868	610	713	656	560	426	550	295	200	166
12	137	275	802	565	755	575	570	402	513	286	197	166
13	123	260	910	536	809	540	630	383	472	276	194	164
14	127	380	938	536	860	508	695	368	446	267	192	164
15	130	790	880	540	901	468	761	376	418	261	190	162
16	123	631	898	526	929	442	719	368	406	256	190	162
17	118	648	917	486	936	426	640	351	410	253	188	162
18	114	570	856	442	908	406	605	344	438	247	185	162
19	114	457	760	430	848	383	707	351	434	244	185	162
20	114	383	724	580	809	365	737	368	418	244	183	162
21	114	369	686	953	809	358	841	380	406	241	190	162
22	114	702	878	1,230	779	351	743	387	426	236	204	160
23	114	1,690	1,000	950	695	337	725	430	434	233	190	158
24	114	2,290	1,080	755	615	334	678	477	414	228	194	158
25	112	1,310	1,080	656	550	365	640	522	508	228	185	156
26	118	1,520	931	605	504	459	585	518	500	222	181	158
27	171	2,850	1,940	590	468	518	555	490	464	220	179	162
28	139	1,840	2,420	580	442	526	684	464	442	217	177	160
29	139	3,940	1,760	565	-	635	761	434	430	214	222	156
30	139	2,840	2,610	526	-	646	713	477	430	212	200	156
31	139	-	5,160	486	-	640	-	964	-	212	188	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff Inches	Runoff Acre-feet
October	3,821	171	112	123	1.05	1.21	7,580
November	27,470	3,940	210	916	7.83	8.73	54,490
December	40,584	5,160	686	1,309	11.2	12.90	80,500
Calendar year 1942	155,399	5,160	112	426	3.64	49.38	308,200
January	28,104	4,130	430	907	7.75	8.93	55,740
February	21,178	1,120	442	756	6.46	6.73	42,010
March	15,514	1,010	334	500	4.27	4.93	30,770
April	20,062	841	555	669	5.72	6.38	39,790
May	14,589	964	344	471	4.03	4.64	28,940
June	18,243	1,360	406	608	5.20	5.80	36,180
July	8,638	406	212	279	2.38	2.75	17,130
August	6,080	222	177	196	1.68	1.93	12,060
September	4,947	183	156	165	1.41	1.57	9,810
Water year 1942-43	209,230	5,160	112	573	4.90	66.50	415,000

Peak discharge.- Nov. 23 (10:30 p.m.) 3,060 sec.-ft.; Nov. 27 (6 a.m. to 7 a.m.) 3,210 sec.-ft.; Nov. 29 (1:30 p.m.) 5,360 sec.-ft.; Dec. 28 (4 a.m.) 2,690 sec.-ft.; Dec. 31 (1 a.m.) 5,030 sec.-ft.; Dec. 31 (6 p.m.) 5,650 sec.-ft.
Time basis: Pacific war time. 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 of gage, 5,410 feet (from topographic map).

Drainage area.- 30 square miles.

Records available.- October 1936 to September 1943.

Extremes.- Maximum discharge during year, 144 second-feet Jan. 2 (gage height, 2.98 feet), from rating curve extended above 80 second-feet; practically no flow Oct. 1 to Nov. 13 (lake level below weir crest).
1936-43: Maximum discharge, that of Jan. 2, 1943; 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 a leakage of about 4 second-feet passes control gates, which were probably closed throughout year. (See miscellaneous measurement, p.229.)

Rating table, water year 1942-43 (gage height, in feet, and discharge, in second-feet)

0.0	0	.6	16.5	2.2	93
.1	1.2	.8	24	2.6	117
.2	3.3	1.1	36	3.0	145
.3	6.2	1.4	50		
.4	9.4	1.8	70		

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1		0	69	137	108	72	59	62	66	73	39	19
2		0	77	142	110	70	58	62	70	73	28	19
3		0	76	139	110	68	58	60	71	74	37	18
4		0	74	137	114	66	58	59	71	74	36	17
5		0	76	137	115	64	58	59	72	74	36	17
6		0	79	134	113	64	58	60	70	73	35	15
7		0	81	130	114	66	58	59	71	72	34	15
8		0	89	127	115	70	58	56	70	72	33	14
9		0	93	124	113	70	58	58	70	71	32	14
10		0	91	120	112	66	58	56	70	70	31	13
11		0	90	118	112	66	56	56	70	68	30	13
12		0	88	115	110	66	56	54	68	66	29	13
13		0	87	112	107	66	55	54	68	65	28	12
14		0.5	86	109	104	68	54	52	68	64	28	12
15		4.7	83	107	101	66	54	53	67	a62	27	11
16		7.4	82	107	98	67	53	54	66	a61	26	12
17		9.0	80	104	97	66	52	52	66	a60	25	11
18		10	77	103	94	64	52	52	68	a59	24	10
19		10	75	101	92	62	55	51	68	a58	23	9.4
20		10	74	107	89	62	57	50	68	a56	22	9.0
21		10	74	117	88	60	60	49	68	a55	22	8.4
22		12	76	119	85	59	60	48	69	a54	22	8.4
23		16	77	116	83	58	61	48	69	a53	22	7.7
24		23	79	113	81	56	62	48	68	a51	22	6.8
25		24	82	112	80	56	62	48	70	50	22	6.2
26		29	82	110	77	57	62	48	70	48	21	5.6
27		37	89	110	74	57	61	48	70	46	20	5.3
28		40	97	112	72	56	62	48	69	45	19	5.0
29		54	97	112	-	58	62	48	70	44	21	4.4
30		62	106	112	-	58	62	51	74	42	21	4.1
31		-	124	110	-	60	-	59	-	41	20	-

Month	Second-feet-days	Maximum	Minimum	Mean	Per square mile	Runoff Inches	Runoff Acre-feet
October	0	0	0	0	0	0	0
November	358.6	62	0	12.0	0.400	0.44	711
December	2,610	124	69	84.2	2.81	3.24	5,180
Calendar year 1942	9,150.5	124	0	25.1	.837	11.35	18,140
January	3,653	142	101	118	3.93	4.53	7,250
February	2,768	115	72	98.9	3.30	3.43	5,490
March	1,968	72	56	63.5	2.12	2.44	3,900
April	1,739	62	52	58.0	1.93	2.16	3,450
May	1,664	62	48	53.7	1.79	2.06	3,300
June	2,073	74	66	69.1	2.30	2.57	4,110
July	1,874	74	41	60.5	2.02	2.32	3,720
August	845	39	19	27.3	.910	1.05	1,680
September	335.3	19	4.1	11.2	.373	.42	665
Water year 1942-43	19,887.9	142	0	54.5	1.82	24.66	39,460

a No gage-height record; discharge interpolated.
Time basis: Pacific war time. To convert war time to standard time, subtract 1 hour.

North Fork of Middle Fork Willamette River near Oakridge, Oreg.

Location.- Water-stage 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 1912 (fragmentary), September 1935 to September 1943. October 1913 to February 1916 at site half a mile upstream, above a small tributary.

Extremes.- Maximum discharge during year, 15,900 second-feet (regulated) Dec. 31 (gage height, 14.24 feet), from rating curve extended above 5,800 second-feet by logarithmic plotting; minimum, 74 second-feet (regulated) Jan. 17 (gage height, 0.44 foot); minimum daily, 114 second-feet Oct. 7-9.

1909-16, 1935-43: Maximum discharge determined, that of Dec. 31, 1942; 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 excellent except those above 7,000 second-feet, which are fair. Tunnel and control gates that were built to divert part of outflow from Waldo Lake into Salmon Creek Basin were not used during year; leakage under gates is about 4 second-feet. Occasional diurnal fluctuation during low-water periods by log pond above station.

Cooperation.- Gage-height record collected in cooperation with U. S. Weather Bureau.

Rating tables, water year 1942-43 (gage height, in feet, and discharge, in second-feet)

Oct. 1 to Dec. 30						Dec. 31 to Sept. 30					
0.7	104	2.0	490	5.0	2,530	0.9	149	2.5	765	6.2	3,800
1.0	159	2.5	750	6.2	3,760	1.2	218	3.1	1,135	8.0	5,950
1.3	231	3.1	1,100	7.8	5,620	1.6	340	4.0	1,790	10.0	8,730
1.6	327	4.0	1,700	10.0	8,640	2.0	500	5.0	2,620	13.0	13,630

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	121	349	4,800	10,900	969	825	2,150	1,350	2,550	726	265	206
2	119	436	4,500	5,660	1,180	795	1,900	1,200	2,660	666	262	203
3	119	605	3,070	3,720	1,120	765	1,760	1,120	2,450	633	257	193
4	118	429	2,230	2,860	2,340	732	1,540	1,060	1,900	633	260	191
5	118	346	1,780	2,490	2,350	704	1,630	1,020	1,560	590	277	188
6	116	279	1,510	2,130	2,090	694	1,570	1,050	1,350	550	274	182
7	114	494	1,370	1,790	2,250	885	1,470	987	1,210	525	262	182
8	114	1,110	1,780	1,540	1,900	2,010	1,550	903	1,130	505	251	179
9	114	722	2,000	1,410	1,580	2,070	1,420	861	1,100	496	245	175
10	118	520	2,110	1,270	1,430	1,570	1,340	843	1,020	464	240	172
11	147	417	1,700	1,200	1,590	1,280	1,240	813	933	443	237	172
12	153	361	1,490	1,090	1,630	1,120	1,210	743	873	419	232	172
13	134	331	1,710	1,040	1,720	1,090	1,320	699	807	411	229	170
14	134	512	1,780	1,090	1,780	1,060	1,440	660	765	399	226	170
15	143	1,320	1,660	1,130	1,840	963	1,550	666	716	383	223	164
16	130	1,080	1,680	1,090	1,850	909	1,470	666	677	375	216	162
17	125	1,240	1,760	951	1,850	849	1,310	616	677	361	218	162
18	121	1,100	1,630	909	1,830	795	1,220	600	710	350	213	162
19	119	860	1,520	867	1,730	748	1,420	555	716	347	210	160
20	119	695	1,450	1,530	1,670	699	1,540	633	716	340	210	160
21	118	651	1,490	2,330	1,680	672	1,900	655	682	340	216	160
22	118	1,570	2,220	2,900	1,630	650	1,590	660	716	326	234	157
23	118	3,280	2,760	2,090	1,450	628	1,420	716	738	316	221	151
24	118	4,710	2,810	1,620	1,270	628	1,350	813	699	312	213	151
25	116	2,640	2,580	1,400	1,120	726	1,240	891	903	305	206	151
26	121	3,500	2,040	1,280	1,000	1,020	1,130	897	903	299	200	151
27	205	7,650	4,760	1,270	951	1,330	1,060	867	801	290	196	155
28	181	4,090	5,550	1,250	861	1,290	1,440	801	726	283	196	155
29	163	8,980	3,720	1,230	-	1,470	1,650	765	694	277	213	151
30	179	6,480	6,440	1,120	-	1,490	1,470	825	813	274	254	151
31	168	-	13,200	1,010	-	1,810	-	1,710	-	271	218	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff Inches	Runoff Acre-feet
October	4,101	205	114	132	0.537	0.62	8,130
November	56,757	8,980	279	1,892	7.69	8.58	112,600
December	89,150	13,200	1,370	2,876	11.7	13.48	176,800
Calendar year 1942	302,973	13,200	114	830	3.37	45.81	600,900
January	62,167	10,900	867	2,005	8.15	9.40	123,300
February	44,661	2,350	861	1,595	6.48	6.75	88,580
March	32,277	2,070	628	1,041	4.23	4.88	64,020
April	44,300	2,150	1,060	1,477	6.00	6.70	87,870
May	26,645	1,710	555	860	3.50	4.03	52,850
June	32,195	2,660	677	1,073	4.36	4.87	63,860
July	12,909	726	271	416	1.69	1.95	25,600
August	7,174	277	196	231	.939	1.08	14,230
September	5,058	206	151	169	.687	.76	10,030
Water year 1942-43	417,394	13,200	114	1,144	4.65	63.10	827,900

Peak discharge.- Nov. 23 (10:30 p.m.) 6,320 sec.-ft.; Nov. 27 (4 a.m.) 9,390 sec.-ft.; Nov. 29 (4 p.m.) 13,600 sec.-ft.; Dec. 31 (5:45 p.m.) 15,900 sec.-ft.

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

Fall Creek above Winberry Creek, near Lowell, Oreg.

Location.- Staff gage, lat. 43°57', long. 122°43', in SE¼ sec. 32, T. 18 S., R. 1 E., 2½ miles upstream from Winberry Creek and 4½ miles northeast of Lowell. Datum of gage is 727.99 feet above mean sea level, datum of 1929.

Drainage area.- 131 square miles.

Records available.- September 1935 to September 1943 (discontinued).

Extremes.- Maximum discharge during year, 12,700 second-feet Dec. 31 (gage height, 11.4 feet, from floodmark), from rating curve extended above 2,300 second-feet; minimum observed, 28 second-feet Oct. 4-9, 20-25.
1935-43: Maximum discharge, that of Dec. 31, 1942; minimum observed, 14 second-feet Dec. 1, 1936.

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

Rating tables, water year 1942-43 (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Aug. 7 to Sept. 30)

Oct. 1 to Dec. 31						Jan. 1 to Sept. 30			
0.8	30	2.0	279	4.8	2,130	0.8	30	2.0	291
1.0	47	2.4	442	5.7	3,180	1.0	47	2.4	455
1.2	73	2.8	630	7.0	5,000	1.2	75	2.8	640
1.4	107	3.4	960	8.5	7,350	1.4	112	3.4	970
1.7	180	4.0	1,400	10.0	10,000	1.7	189	4.0	1,400

Note.- Same as preceding table above 4.0 feet.

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	30	279	2,130	7,690	620	234	1,160	550	1,260	189	62	51
2	30	350	2,390	3,130	1,780	220	862	460	1,490	172	62	48
3	29	503	1,390	1,940	1,240	208	574	386	1,400	195	62	47
4	28	383	960	1,350	3,380	201	730	330	958	178	62	47
5	28	334	790	1,370	2,240	189	740	334	730	145	69	46
6	28	217	690	1,180	1,580	176	655	362	473	140	64	45
7	28	318	870	982	1,700	220	563	299	402	121	62	44
8	28	680	2,570	817	1,360	828	710	265	338	135	62	41
9	28	434	2,350	670	946	558	700	247	299	121	59	40
10	29	230	2,400	610	880	410	773	234	269	117	57	41
11	39	169	1,530	527	1,030	386	650	214	230	110	57	40
12	d50	142	1,380	464	1,100	303	563	195	220	106	56	40
13	34	107	1,690	428	1,160	346	468	189	198	100	52	39
14	35	400	1,300	402	1,100	386	410	195	189	98	51	39
15	43	1,650	1,130	419	1,020	406	366	208	172	96	50	38
16	36	912	1,040	414	910	378	310	280	167	94	50	38
17	d33	1,400	930	334	795	346	299	227	161	d92	50	37
18	d31	1,140	785	284	700	314	299	214	167	d90	50	37
19	29	700	645	287	690	284	338	192	167	87	48	37
20	28	472	670	1,430	620	265	d420	178	164	82	47	36
21	28	434	705	2,120	540	265	700	167	183	78	47	36
22	28	1,170	1,150	1,700	509	276	554	161	261	78	57	36
23	28	1,880	1,290	1,110	394	261	468	156	269	75	52	36
24	28	2,750	1,780	806	370	269	419	145	299	75	50	35
25	28	1,400	1,720	715	310	326	362	140	784	75	48	35
26	36	2,300	1,190	700	291	600	330	135	550	74	47	37
27	210	4,120	2,930	1,220	269	509	322	130	366	72	45	d39
28	147	1,660	3,490	1,020	247	442	685	121	295	70	45	d41
29	66	5,150	1,990	958	-	946	1,030	119	234	66	145	d38
30	89	3,380	5,840	773	-	762	710	251	208	63	89	37
31	73	-	9,100	720	-	2,030	-	850	-	63	52	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff Inches	Runoff Acre-feet
October	1,405	210	28	45.3	0.346	0.40	2,790
November	35,064	5,150	107	1,169	8.92	9.95	69,550
December	58,825	9,100	645	1,898	14.5	16.70	116,700
Calendar year 1942	176,424	9,100	28	483	3.69	50.08	350,000
January	36,570	7,690	284	1,180	9.01	10.38	72,540
February	27,781	3,380	247	992	7.57	7.89	55,100
March	13,346	2,030	178	431	3.29	3.79	26,470
April	17,470	1,160	299	582	4.44	4.96	34,650
May	7,934	850	119	256	1.95	2.25	15,740
June	12,903	1,490	161	430	3.28	3.66	25,590
July	3,257	195	63	105	.802	.92	6,460
August	1,809	145	45	58.4	.446	.51	3,590
September	1,201	51	35	40.0	.305	.34	2,380
Water year 1942-43	217,565	9,100	28	596	4.55	61.75	431,600

d Doubtful gage-height record; discharge computed on basis of records for Fall Creek below Winberry Creek and Little Fall Creek near Fall Creek.

Time basis: Pacific war time. 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., 1½ 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 1943.

Extremes.- Maximum discharge during year, 16,000 second-feet Dec. 31 (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, 31 second-feet Oct. 8-10 (gage height, 0.66 foot).

1935-43: Maximum discharge, that of Dec. 31, 1942; minimum observed, 19 second-feet Dec. 1, 1936.

Remarks.- Records good except those above 4,000 second-feet, which are fair. No diversion above station. Gage read once daily, oftener during periods of high water.

Rating tables, water year 1942-43 (gage height, in feet, and discharge, in second-feet)

Oct. 1 to Dec. 31

0.7	32	2.5	325	6.0	2,150
1.0	45	3.0	495	7.3	3,300
1.3	74	3.6	730	9.0	5,150
1.6	119	4.3	1,050	11.0	7,800
2.0	198	5.0	1,450	14.0	12,900

Jan. 1 to Sept. 30

0.9	36	2.7	350
1.2	59	3.3	560
1.5	95	4.0	880
1.8	143	5.0	1,450
2.2	222		

Note.- Same as preceding table above 5.0 feet.

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	33	d300	3,000	11,800	950	298	d2,000	865	1,730	290	77	59
2	33	432	3,190	5,150	3,030	282	1,250	676	2,190	262	76	54
3	32	562	2,070	2,890	2,390	270	1,230	560	2,210	250	75	52
4	32	442	1,510	1,970	4,670	258	970	474	1,500	236	75	49
5	32	397	1,070	1,950	3,200	245	1,070	429	1,070	209	86	48
6	31	258	1,000	1,580	2,250	234	1,000	492	820	194	77	48
7	31	340	1,160	1,340	2,530	341	905	432	624	182	74	48
8	31	900	4,100	1,130	2,150	1,370	1,020	377	446	178	70	45
9	31	634	4,070	945	1,460	930	1,040	344	412	172	68	45
10	31	337	3,500	845	1,240	649	1,160	318	368	159	67	44
11	43	243	2,140	712	1,420	510	990	305	332	152	64	44
12	58	203	1,980	616	1,490	418	815	278	308	141	61	42
13	42	158	2,190	552	1,670	404	685	265	290	140	61	42
14	38	221	1,820	528	1,560	544	580	252	270	136	60	42
15	48	2,080	1,460	528	1,430	496	506	298	248	131	58	42
16	37	1,460	1,320	506	1,310	492	436	398	229	124	57	41
17	34	1,640	1,090	440	1,160	488	387	368	218	120	55	41
18	33	1,770	980	390	1,050	432	353	310	234	115	54	41
19	32	955	885	365	855	387	474	280	224	112	53	40
20	32	658	818	1,650	760	356	432	260	236	108	52	40
21	31	502	910	2,720	690	350	890	243	260	106	62	40
22	31	1,210	1,430	3,050	604	359	780	227	404	102	85	40
23	31	2,670	1,810	2,000	520	347	644	218	398	98	68	40
24	31	3,800	2,410	1,180	454	347	568	211	387	96	56	38
25	31	2,110	2,970	1,020	404	384	506	200	1,200	92	53	38
26	32	3,180	2,010	990	362	840	457	190	890	92	50	40
27	245	5,520	4,330	1,360	338	685	750	182	616	90	49	47
28	198	2,390	4,910	1,580	312	580	1,340	176	401	87	48	52
29	78	7,550	2,900	1,570	-	980	1,700	165	362	85	255	44
30	116	4,730	7,360	1,280	-	1,320	1,130	238	326	82	101	42
31	68	-	12,900	1,030	-	3,000	-	1,440	-	80	91	-

Month	Second-feet-days	Maximum	Minimum	Mean	Per square mile	Runoff Inches	Runoff Acre-feet
October	1,606	245	31	51.8	0.273	0.31	3,190
November	47,652	7,550	158	1,588	8.36	9.33	94,520
December	83,293	12,900	818	2,687	14.1	16.30	165,200
Calendar year 1942	245,133	12,900	31	672	3.54	47.98	486,200
January	53,667	11,800	365	1,731	9.11	10.50	106,400
February	40,259	4,670	312	1,438	7.57	7.88	79,850
March	18,596	3,000	234	600	3.16	3.64	36,880
April	26,068	2,000	353	869	4.57	5.10	51,710
May	11,471	1,440	165	370	1.95	2.25	22,750
June	19,203	2,210	218	640	3.37	3.76	38,090
July	4,421	290	80	143	.753	.87	8,770
August	2,238	255	48	72.2	.380	.44	4,440
September	1,328	59	38	44.3	.233	.26	2,630
Water year 1942-43	309,802	12,900	31	849	4.47	60.64	614,400

d Doubtful gage-height record; discharge computed on basis of records for Fall Creek above Winberry Creek and Willamette River at Eula.

Time basis: Pacific war time. 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 town of Fall Creek.

Drainage area.- 48 square miles.

Records available.- September 1935 to September 1943.

Extremes.- Maximum discharge during year, 5,000 second-feet Dec. 31 (gage height, 7.60 feet, from floodmark), from rating curve extended above 1,800 second-feet on basis of velocity-area studies; minimum observed, 15 second-feet Oct. 9, 10 (gage height, 1.32 feet).

1935-43: Maximum discharge, that of Dec. 31, 1942; minimum observed, 10 second-feet Dec. 1, 1936, Aug. 26, 27, Aug. 30 to Sept. 1, 1940.

Remarks.- Records good except those above 2,000 second-feet and those for period of no gage-height record which are poor. No regulation or diversion above station. Gage read once daily, oftener during periods of high water or rapidly changing stage.

Rating tables, water year 1942-43 (gage height, in feet, and discharge, in second-feet)

Oct. 1 to Dec. 31

1.3	14	2.5	140	4.7	1,070
1.5	22	2.8	215	5.3	1,620
1.7	34	3.2	340	6.0	2,480
1.9	52	3.6	480	6.9	3,820
2.2	88	4.1	700		

Jan. 1 to Sept. 30

1.3	18	2.2	96
1.5	27	2.5	148
1.7	40	2.8	220
2.0	69	3.2	340

Note.- Same as preceding table above 3.2 feet.

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	17	a120	1,010	3,820	308	129	614	245	257	102	40	31
2	17	a160	937	1,800	798	122	480	215	364	95	39	28
3	17	a220	675	1,110	650	119	424	195	417	92	39	27
4	16	a170	528	870	1,230	112	358	170	347	92	38	26
5	16	a160	452	796	986	109	347	168	269	85	44	26
6	16	a130	442	665	858	102	299	180	215	82	39	26
7	16	a170	480	556	834	137	272	157	185	77	38	24
8	16	a250	930	466	685	240	269	144	157	73	36	24
9	15	a200	870	406	544	178	278	137	144	74	34	24
10	15	a140	986	361	488	152	299	129	133	70	33	23
11	16	a100	768	308	476	133	275	122	124	68	33	22
12	34	a85	680	275	470	124	245	115	119	65	33	23
13	20	a65	816	245	476	148	220	110	114	64	32	23
14	20	a150	690	225	462	163	200	107	107	61	31	22
15	24	a800	680	215	438	155	180	122	101	59	30	22
16	23	a500	600	202	403	152	163	119	96	58	30	22
17	18	a640	536	180	368	144	150	109	92	57	29	22
18	16	a500	466	161	326	137	142	102	99	55	29	22
19	16	a350	406	157	293	127	166	98	88	54	29	21
20	16	215	406	524	263	122	200	93	92	52	29	21
21	16	198	452	610	245	119	251	90	96	51	31	20
22	16	400	560	700	220	115	240	88	124	49	67	21
23	16	578	618	524	202	112	235	85	129	48	34	20
24	16	858	740	406	180	114	212	82	115	47	31	19
25	16	605	1,010	354	166	138	192	79	269	46	28	19
26	16	774	660	340	152	245	175	77	205	46	28	20
27	85	1,630	1,110	375	144	205	178	74	161	45	27	22
28	61	792	1,510	456	137	180	319	72	135	44	27	20
29	a45	1,850	1,060	459	-	312	305	69	124	42	66	20
30	a60	1,320	1,920	396	-	333	287	101	112	42	51	20
31	a50	-	3,820	347	-	504	-	257	-	41	33	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff Inches	Runoff Acre-feet
October	761	85	15	24.5	0.510	0.59	1,510
November	14,130	1,850	65	471	9.81	10.95	28,030
December	26,818	3,820	406	865	18.0	20.78	53,190
Calendar year 1942	76,766	3,820	15	210	4.37	59.49	152,300
January	18,311	3,820	157	591	12.3	14.19	36,320
February	12,802	1,230	137	457	9.52	9.92	25,390
March	5,182	504	102	167	3.48	4.01	10,280
April	7,975	614	142	266	5.54	6.18	15,820
May	3,911	257	69	126	2.62	3.03	7,760
June	4,990	417	88	166	3.46	3.87	9,900
July	1,936	102	41	62.5	1.30	1.50	3,840
August	1,108	67	27	35.5	.744	.86	2,200
September	680	31	19	22.7	.473	.53	1,350
Water year 1942-43	98,604	3,820	15	270	5.62	76.41	195,600

a No gage-height record; discharge computed on basis of records for Fall Creek above Winberry Creek, near Lowell, and below Winberry Creek, near Fall Creek.

Time basis: Pacific war time. 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 1943.

Extremes.- Maximum discharge during year, 6,650 second-feet Dec. 30 (gage height, 11.11 feet), from rating curve extended above 3,400 second-feet; minimum observed, 14 second-feet Oct. 7, 9 (gage height, 1.02 feet).

1935-43: Maximum discharge, that of Dec 30, 1942; minimum, 10 second-feet on several days in 1936, 1938, 1939, and 1940.

Remarks.- Records good except those above 4,000 second-feet, which are fair. No diversion above station; millpond 3 miles above station may cause slight regulation at times.

Rating tables, water year 1942-43 (gage height, in feet, and discharge, in second-feet)

Oct. 1 to Dec. 30

1.0	13	2.4	240	5.1	1,600
1.2	22	2.8	380	6.6	2,600
1.4	38	3.3	595	8.3	3,950
1.7	75	3.8	840	10.0	5,530
2.0	132	4.4	1,180		

Dec. 31 to Sept. 30

1.1	14	2.0	127
1.3	24	2.4	235
1.5	42	2.8	380
1.7	70		

Note.- Same as preceding table above 2.8 feet.

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	16	27	868	3,630	474	a114	640	246	770	85	33	26
2	16	81	851	2,070	1,120	110	500	211	600	78	33	26
3	16	130	590	1,230	815	106	460	188	536	80	32	24
4	15	144	428	884	1,070	102	380	164	392	78	33	23
5	15	100	376	770	922	98	436	151	288	70	36	23
6	15	62	518	655	755	96	452	149	220	66	32	22
7	15	264	898	546	988	116	384	132	183	62	31	22
8	15	284	3,300	456	785	214	368	121	156	64	30	21
9	14	149	1,560	396	604	•211	360	112	137	62	29	20
10	18	96	1,020	344	514	164	348	106	121	58	28	20
11	26	72	745	298	505	137	308	102	110	55	27	20
12	27	58	631	263	492	125	263	96	104	52	26	20
13	19	53	590	235	474	154	223	95	98	51	26	20
14	20	162	496	217	436	202	197	95	93	50	26	20
15	22	878	416	208	396	194	177	104	85	48	25	20
16	18	514	372	194	352	191	159	102	84	47	24	19
17	17	460	322	177	305	174	146	95	80	45	23	20
18	16	582	270	159	263	156	137	87	80	43	23	19
19	16	322	228	156	235	144	159	82	82	42	23	19
20	16	210	240	996	217	129	172	78	80	41	23	18
21	16	174	234	1,980	203	123	266	77	87	40	27	18
22	16	243	405	1,830	185	116	232	73	123	39	34	18
23	16	757	532	840	169	110	217	72	144	38	28	17
24	16	1,000	1,030	554	a156	108	194	68	132	37	26	17
25	17	559	1,210	456	a144	110	185	68	211	36	23	17
26	18	545	760	444	a132	249	172	67	194	36	23	19
27	60	1,170	2,000	608	a126	217	183	66	146	36	22	23
28	52	631	1,740	775	a120	194	336	64	121	35	22	21
29	28	1,520	1,190	725	-	512	330	62	106	34	60	19
30	26	1,130	3,950	604	-	622	291	96	95	33	40	19
31	22	-	4,680	496	-	675	-	400	-	32	29	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff	
						Inches	Acre-feet
October	639	60	14	20.6	0.299	0.34	1,270
November	12,377	1,520	27	413	5.99	6.67	24,550
December	32,450	4,680	228	1,047	15.2	17.49	64,360
Calendar year 1942	63,194	4,680	14	228	3.30	44.83	165,000
January	23,206	3,630	156	749	10.9	12.51	46,030
February	12,957	1,120	120	463	6.71	6.98	25,700
March	5,973	675	96	193	2.80	3.22	11,850
April	8,675	640	137	289	4.19	4.68	17,210
May	3,629	400	62	117	1.70	1.96	7,200
June	5,658	770	80	189	2.74	3.05	11,220
July	1,573	85	32	50.7	.735	.85	3,120
August	897	60	22	28.9	.419	.48	1,780
September	610	26	17	20.3	.294	.33	1,210
Water year 1942-43	108,644	4,680	14	298	4.32	58.56	215,500

Peak discharge.- Nov. 29 (2:30 p.m.) 2,400 sec.-ft.; Dec. 8 (10:30 a.m.) 5,270 sec.-ft.; Dec. 27 (2 p.m.) 2,760 sec.-ft.; Dec. 30 (8 p.m.) 6,650 sec.-ft.; Dec. 31 (5:30 p.m.) 5,060 sec.-ft.; Jan 21 (11 p.m.) 3,120 sec.-ft.

a No gage-height record; discharge computed on basis of records for stations on Row River at Star and near Dorena.

Time basis: Pacific war time. 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. Datum of gage is at mean sea level (levels by Corps of Engineers, U. S. Army). Prior to Feb. 2, 1943, staff gage at same site and datum.

Records available.- October 1942 to September 1943.

Extremes.- Maximum contents observed during year, 34,200 acre-feet June 2 (elevation, 791.95 feet); no storage prior to Oct. 28, 1942.

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 elevations 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. Gage read to tenths once daily.

Cooperation.- Gage readings furnished and recorder inspected by Corps of Engineers, U. S. Army.

Capacity table (elevation, in feet, and contents, in acre-feet)
(Computed by Geological Survey on basis of areas furnished by Corps of Engineers, U. S. Army)

719	0	755	4,760	780	21,550
730	73	760	7,100	785	26,490
740	816	765	9,960	790	31,940
745	1,760	770	13,270	795	37,870
750	3,040	775	17,140		

Contents, in acre-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0	3	12,360	30,700	3,068	11,200	23,650	33,320	34,080	33,300	32,670	31,380
2	0	10	13,270	30,030	4,466	11,310	23,240	33,510	34,090	33,260	32,600	31,340
3	0	14	12,500	27,120	4,598	11,410	23,280	33,540	33,960	33,240	32,560	31,280
4	0	14	11,030	22,970	5,430	11,500	23,470	33,510	33,820	33,220	32,570	31,220
5	0	8	9,590	18,240	5,685	11,570	24,130	33,460	33,690	33,220	32,520	31,170
6	0	6	8,643	13,560	5,566	11,660	24,950	33,450	33,590	33,190	32,470	31,130
7	0	39	9,409	9,111	6,207	11,820	25,620	33,410	33,510	33,180	32,440	31,070
8	0	41	14,140	4,796	6,134	12,300	26,250	33,380	33,450	33,160	32,360	31,020
9	0	17	16,320	3,010	5,502	12,700	26,840	33,350	33,390	33,150	32,290	30,950
10	0	10	15,450	2,229	5,798	12,980	27,380	33,340	33,350	33,150	32,240	30,860
11	0	6	13,340	1,964	6,202	13,230	27,800	33,330	33,330	33,130	32,180	30,810
12	0	5	11,090	1,918	6,295	13,560	27,470	33,320	33,320	33,120	32,120	30,760
13	0	5	8,817	1,918	6,670	13,950	26,840	33,310	33,310	33,110	32,050	30,700
14	0	107	6,433	1,941	7,150	14,430	26,900	33,320	33,290	33,110	32,000	30,570
15	0	691	4,105	1,941	7,470	14,900	27,280	33,340	33,270	33,100	31,930	30,190
16	0	846	3,432	1,941	7,758	15,350	27,600	33,340	33,260	33,090	31,870	30,000
17	0	1,379	2,981	1,872	8,130	15,760	27,870	33,340	33,250	33,080	31,830	29,740
18	0	2,407	2,811	1,759	8,510	16,120	28,160	33,310	33,240	33,060	31,780	29,270
19	0	3,247	2,867	1,941	8,899	16,450	28,480	33,270	33,250	33,050	31,730	28,630
20	0	3,496	2,923	3,825	9,289	16,750	28,850	33,250	33,250	33,040	31,680	27,850
21	0	3,464	2,981	7,470	9,639	17,000	29,390	33,240	33,290	33,020	31,680	26,980
22	0	3,528	3,401	8,527	9,950	17,250	29,880	33,230	33,330	33,010	31,640	26,130
23	0	5,004	4,214	6,533	10,230	17,460	30,240	33,220	33,340	32,980	31,620	25,270
24	0	5,439	5,262	4,105	10,450	17,680	30,340	33,200	33,350	32,950	31,580	24,450
25	0	4,363	5,621	3,187	10,660	17,940	30,530	33,190	33,350	32,930	31,520	23,600
26	0	4,439	5,760	2,867	10,810	18,590	30,880	33,180	33,340	32,900	31,470	22,750
27	0	5,995	7,687	3,127	10,950	19,090	31,280	33,170	33,330	32,870	31,430	21,920
28	1	7,045	9,469	3,217	11,090	19,580	32,030	33,160	33,330	32,830	31,440	21,080
29	1	8,585	10,900	2,895	-	21,220	32,570	33,170	33,330	32,800	31,470	20,430
30	1	10,450	17,480	2,591	-	23,070	32,880	33,310	33,330	32,760	31,450	19,920
31	2	-	26,280	2,280	-	23,740	-	33,690	-	32,710	31,430	-

Monthly elevation and contents, water year October 1942 to September 1943

Date	Elevation (feet)†	Contents (acre-feet)	Change in contents during month (acre-feet)
Sept. 30	-	0	-
Oct. 31	720.5	2	+2
Nov. 30	765.8	10,450	+10,448
Dec. 31	784.8	26,280	+15,830
Jan. 31	747.2	2,280	-24,000
Feb. 28	766.79	11,090	+8,810
Mar. 31	782.29	23,740	+12,650
Apr. 30	790.82	32,880	+9,140
May 31	791.52	33,690	+810
June 30	791.21	33,330	-360
July 31	790.67	32,710	-620
Aug. 31	789.55	31,430	-1,280
Sept. 30	778.21	19,920	-11,510
Water year 1942-43	-	-	+19,920

† Elevation at midnight, determined by interpolation for periods when recorder did not operate, Oct. 28 to Feb. 1, May 14 to June 22, Aug. 4-16.
Time basis: Pacific war time. To convert war time to standard time, subtract 1 hour.

Coast Fork Willamette River near Cottage Grove, Oreg.

Location.- Water-stage recorder, lat. 43°44', long. 123°03', in SW¼NE¼ sec. 21, T. 21 S., R. 3 W., 1 mile downstream from Cottage Grove Reservoir dam and 4½ miles south of Cottage Grove. Datum of gage is 695.07 feet above mean sea level (levels by Corps of Engineers, U. S. Army).

Drainage area.- 108 square miles.

Records available.- January 1939 to September 1943 (records do not include flow in logging flume diverting up to 15 second-feet around gage prior to Aug. 23, 1940).

Extremes.- Maximum discharge during year, 3,340 second-feet (regulated) Jan. 4 (gage height, 10.06 feet); minimum, 16 second-feet Oct. 9 (gage height, 2.30 feet).
1939-43: Maximum discharge recorded, that of Jan. 4, 1943; minimum, 4 second-feet (regulated) Aug. 21, 1941 (gage height, 1.95 feet).

Remarks.- Records good except those for period of no gage-height record, which are fair. No diversion above station. Flow slightly regulated by log pond upstream and since 1941 by Cottage Grove Reservoir (construction completed in 1942).

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	18	28	307	2,810	493	90	884	97	850	120	56	50
2	18	50	528	3,100	756	90	879	170	1,150	105	56	49
3	18	171	1,370	3,190	1,110	88	602	222	1,330	105	57	49
4	18	160	1,330	3,210	1,130	88	426	230	605	104	57	49
5	17	147	1,300	3,130	1,140	88	294	220	465	92	58	49
6	17	83	1,280	2,970	1,140	88	193	202	h319	h86	58	49
7	17	170	1,280	2,780	1,180	90	190	186	264	80	58	49
8	17	416	1,480	2,510	1,160	93	190	168	218	76	58	49
9	16	237	1,480	1,440	1,150	93	193	153	188	76	57	49
10	17	136	1,840	825	600	90	190	145	165	77	57	49
11	25	97	2,060	528	455	65	190	134	148	h68	57	49
12	28	76	1,980	354	595	44	491	126	135	66	57	49
13	24	66	1,880	284	436	44	591	120	129	62	57	93
14	21	118	1,780	252	331	45	242	118	122	62	57	202
15	24	647	1,660	254	334	45	52	128	114	62	57	120
16	22	753	998	252	295	45	52	127	106	62	49	159
17	21	560	559	252	204	45	52	h122	h99	58	47	248
18	19	73	399	249	157	44	52	122	100	h58	47	332
19	19	70	273	138	121	42	53	112	98	55	47	h424
20	19	183	276	154	90	42	53	102	106	55	47	459
21	19	284	278	628	90	41	54	96	106	52	48	459
22	19	284	284	2,180	91	41	54	92	133	49	49	459
23	19	350	295	2,060	91	41	99	89	155	49	49	459
24	19	999	819	1,930	90	42	193	87	h182	49	48	459
25	19	1,380	1,320	1,140	90	42	141	87	215	57	48	459
26	21	1,100	1,300	723	90	50	54	h78	265	54	48	h465
27	50	505	1,360	727	90	49	56	76	225	54	48	465
28	82	425	1,430	1,050	90	49	57	75	188	54	48	455
29	37	1,110	1,460	1,240	-	72	136	75	168	h54	52	345
30	32	708	1,690	1,020	-	75	234	82	h138	54	52	273
31	28	-	2,190	870	-	550	-	270	-	54	50	-

Month	Observed				Change in contents in Cottage Grove Reservoir, in acre-feet	Adjusted for change in reservoir contents			
	Discharge in second-feet			Runoff in acre-feet		Runoff in acre-feet	Discharge in second-feet		Runoff in inches
	Maximum	Minimum	Msan				Mean	Per square mile	
October	82	16	23.9	1,470	+2	1,472	23.9	0.221	0.25
November	1,380	28	380	22,580	+10,448	33,028	555	5.14	5.74
December	2,190	273	1,177	72,370	+15,830	88,200	1,434	13.3	15.33
Calendar year 1942	2,190	16	282	204,030	-	-	-	-	-
January	3,210	138	1,363	83,800	-24,000	59,800	973	9.01	10.39
February	1,180	90	486	26,970	+8,810	35,780	644	5.96	6.21
March	550	41	77.8	4,780	+12,650	17,430	283	2.62	3.02
April	884	52	232	13,780	+9,140	22,920	385	3.56	3.97
May	230	75	133	8,150	+810	8,960	146	1.35	1.56
June	1,330	98	283	16,830	-360	16,470	277	2.56	2.86
July	120	49	68.0	4,180	-620	3,560	57.9	.536	.62
August	58	47	52.7	3,240	-1,280	1,960	31.9	.295	.34
September	465	49	231	13,730	-11,510	2,220	37.3	.345	.38
Water year 1942-43	3,210	16	376	271,880	+19,920	291,800	403	3.73	50.67

h Computed from staff-gage reading.

Note.- No gage-height record (except occasional staff-gage readings) May 15 to July 29, Sept. 13-30; discharge computed on basis of unpublished records for station below Cottage Grove Dam.

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

Coast Fork Willamette River at Saginaw, Oreg.

Location.- Water-stage recorder, lat. 43°50'05", 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 1943 (1924-27 incomplete).

Average discharge.- 17 years (1925-26, 1927-43), 1,151 second-feet.

Extremes.- Maximum discharge during year, 30,600 second-feet Dec. 30 (gage height, 11.92 feet), from rating curve extended above 24,000 second-feet; minimum, 38 second-feet Oct. 9.

1923-43: Maximum discharge, that of Dec. 30, 1942; minimum observed, 7 second-feet July 31, 1928.

Remarks.- Records fair. Small diversions and regulation by log ponds above station; regulation by Cottage Grove Reservoir (see p.103).

Cooperation.- Gage-height record collected in cooperation with U. S. Weather Bureau.

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	54	122	5,590	22,600	3,040	650	4,650	1,690	4,530	546	158	154
2	54	285	6,130	13,300	5,790	634	3,640	1,440	5,260	495	158	137
3	54	910	5,080	9,080	5,260	602	3,140	1,320	4,700	453	149	127
4	56	850	3,810	7,310	6,370	594	2,480	1,100	3,560	460	149	120
5	49	e690	3,270	6,690	6,090	578	2,530	997	2,450	406	154	117
6	47	e460	3,540	6,050	4,890	555	2,570	986	1,750	366	149	113
7	48	e1,300	4,550	5,510	5,970	626	2,190	920	1,270	342	144	110
8	43	h3,270	14,300	4,800	5,100	1,800	2,190	784	1,040	312	137	104
9	44	h1,280	9,930	3,790	4,210	2,280	2,240	714	910	312	137	104
10	47	h730	7,780	2,690	3,310	1,420	2,640	650	802	294	134	99
11	61	h650	6,030	2,140	3,290	1,040	2,430	618	682	278	130	99
12	112	h360	5,310	1,680	3,470	850	2,210	562	626	255	130	96
13	112	324	5,450	1,420	3,470	840	2,120	510	594	239	127	96
14	80	510	4,740	1,270	3,320	986	1,560	495	510	234	127	107
15	77	6,290	4,130	1,220	3,040	964	1,110	540	467	234	124	306
16	83	4,040	3,430	1,180	2,840	953	953	610	446	223	120	158
17	69	3,530	2,620	1,080	2,480	890	793	626	425	213	110	192
18	61	3,250	2,060	975	2,090	830	722	586	439	202	107	336
19	54	1,830	1,540	850	1,830	766	811	532	425	197	104	425
20	53	1,190	1,480	3,540	1,570	698	820	502	453	a192	104	446
21	50	1,050	1,630	8,800	1,510	682	1,640	474	481	187	104	532
22	52	1,940	2,280	11,200	1,420	682	1,410	453	793	178	127	525
23	52	4,800	3,430	6,150	1,160	666	1,270	453	890	168	137	510
24	54	9,760	5,830	4,680	1,030	634	1,280	446	910	163	113	502
25	54	5,290	8,700	3,600	870	682	1,160	432	1,220	163	107	518
26	56	4,820	5,430	3,090	775	1,240	975	412	1,570	163	107	525
27	161	10,900	13,300	3,660	730	1,410	964	392	1,140	163	99	540
28	345	4,700	13,200	4,570	674	1,220	2,140	360	880	158	102	540
29	157	10,700	8,140	4,670	-	2,330	2,680	342	739	154	208	446
30	144	9,590	18,700	4,060	-	3,340	2,240	386	634	158	360	324
31	140	-	26,800	3,400	-	4,080	-	1,670	-	154	218	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff	
						Inches	Acre-feet
October	2,523	345	43	81.4	0.154	0.18	5,000
November	95,421	10,900	122	3,181	6.01	6.71	189,300
December	208,210	26,800	1,480	6,716	12.7	14.64	413,000
Calendar year 1942	560,141	26,800	43	1,535	2.90	39.38	1,111,000
January	155,025	22,600	850	5,001	9.45	10.90	307,500
February	85,599	6,370	674	3,057	5.78	6.02	169,800
March	35,522	4,080	555	1,146	2.17	2.50	70,460
April	57,558	4,650	722	1,919	3.63	4.05	114,200
May	22,002	1,690	342	710	1.34	1.55	43,640
June	40,596	5,260	425	1,353	2.56	2.85	80,520
July	8,064	548	154	260	.491	.57	15,990
August	4,334	360	99	140	.265	.30	8,600
September	8,406	540	96	280	.529	.59	16,680
Water year 1942-43	723,262	26,800	43	1,982	3.75	50.86	1,435,000

Peak discharge.- Nov. 29 (6 p.m.) 19,700 sec.-ft.; Dec. 8 (2 p.m.) 19,400 sec.-ft.; Dec. 27 (8 p.m.) 18,800 sec.-ft.; Dec. 30 (11:30 p.m.) 30,600 sec.-ft.; Dec. 31 (8 p.m.) 27,600 sec.-ft.; Jan. 22 (1 a.m.) 18,600 sec.-ft.

a No gage-height record; discharge interpolated.

e Stage-discharge relation indefinite; discharge computed on basis of records for Coast Fork Willamette River near Cottage Grove and Row River near Dorena.

h Computed from staff-gage reading.

Time basis: Pacific war time. 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 1943.

Extremes.- Maximum discharge during year, 18,500 second-feet Dec. 30 (gage height, 14.00 feet), from rating curve extended above 9,300 second-feet; minimum, 19 second-feet Oct. 9 (gage height, 1.52 feet).
1935-43: Maximum discharge, that of Dec. 30, 1942; minimum, 12 second-feet Sept. 2, 1940.

Remarks.- Records excellent except those above 10,000 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 1942-43 (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Oct. 1-3)

1.5	18	2.6	112	4.5	710	7.5	3,290
1.8	34	3.0	182	5.0	1,005	8.5	4,660
2.0	49	3.5	303	5.5	1,350	10.0	7,650
2.3	76	4.0	477	6.5	2,200	12.0	12,700

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	20	69	2,970	9,570	916	281	2,030	856	3,100	239	57	52
2	20	148	3,070	4,630	2,280	272	1,430	680	2,500	214	57	46
3	21	515	1,980	2,740	1,830	262	1,280	572	2,220	205	57	43
4	21	393	1,310	1,900	3,140	257	992	490	1,510	207	58	41
5	20	278	992	1,670	2,780	247	1,150	433	1,060	174	61	40
6	20	164	922	1,440	2,040	232	1,240	445	782	158	60	38
7	19	896	1,260	1,150	2,410	312	1,020	415	610	148	56	36
8	19	1,570	4,280	998	1,910	1,250	1,070	365	502	137	53	35
9	19	583	3,570	916	1,370	1,290	1,130	330	415	134	52	33
10	21	327	2,870	809	1,110	792	1,420	306	359	122	50	33
11	33	223	2,040	690	1,410	582	1,220	292	312	114	47	33
12	50	178	1,960	582	1,560	473	1,020	259	278	108	47	33
13	38	149	2,270	519	1,750	449	862	244	257	104	44	33
14	30	514	1,850	523	1,720	494	726	232	235	98	42	32
15	33	3,030	1,610	502	1,620	449	645	249	214	94	42	30
16	33	1,680	1,620	461	1,480	441	528	324	195	91	40	30
17	29	1,740	1,400	396	1,320	422	437	336	182	86	39	29
18	26	1,680	1,080	327	1,110	386	396	297	195	84	37	30
19	24	953	826	321	934	349	485	267	186	82	36	29
20	23	601	792	2,020	850	312	563	247	186	79	37	29
21	22	477	850	5,430	826	309	1,050	232	225	75	40	28
22	22	1,420	1,480	4,350	732	327	814	225	386	72	55	27
23	22	2,720	1,820	2,070	586	315	705	230	445	71	51	27
24	23	4,010	2,740	1,290	481	312	675	230	396	70	43	27
25	23	1,940	3,000	972	407	359	615	225	644	67	41	26
26	24	2,280	1,970	928	362	723	554	207	716	65	38	26
27	105	4,540	6,980	1,340	330	776	532	188	494	64	37	28
28	108	2,360	5,360	1,510	300	630	1,270	168	396	62	36	32
29	60	5,350	3,030	1,410	-	948	1,420	158	324	60	93	30
30	78	4,180	9,890	1,240	-	1,390	1,080	222	281	59	126	27
31	52	-	12,900	966	-	1,840	-	1,250	-	58	66	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff	
						Inches	Acre-feet
October	1,058	108	19	34.1	0.162	0.19	2,100
November	44,968	5,350	69	1,499	7.10	7.93	89,190
December	88,692	12,900	792	2,861	13.6	15.63	175,900
Calendar year 1942	252,985	12,900	19	693	3.28	44.61	501,800
January	53,670	9,570	321	1,731	8.20	9.46	106,500
February	37,564	3,140	300	1,342	6.36	6.62	74,510
March	17,481	1,840	232	564	2.67	3.08	34,670
April	28,359	2,030	396	945	4.48	5.00	56,250
May	10,974	1,250	158	354	1.68	1.93	21,770
June	19,605	3,100	182	654	3.10	3.46	38,890
July	3,401	239	58	110	.521	.60	6,750
August	1,598	126	36	51.5	.244	.28	3,170
September	983	52	26	32.8	.155	.17	1,950
Water year 1942-43	308,353	12,900	19	845	4.00	54.35	611,600

Peak discharge.- Nov. 23 (11:30 p.m.) 7,130 sec.-ft.; Nov. 29 (6:30 p.m.) 9,610 sec.-ft.; Dec. 30 (9 p.m.) 18,500 sec.-ft.; Dec. 31 (5 p.m.) 13,900 sec.-ft.; Jan. 21 (5 p.m.) 8,240 sec.-ft.
Time basis: Pacific war time. 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 3½ 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 1943.

Extremes.- Maximum discharge during year, 20,000 second-feet Dec. 30 (gage height, 17.45 feet); minimum, 25 second-feet Oct. 7-9 (gage height, 1.53 feet).
1939-43: Maximum discharge, that of Dec. 30, 1942; minimum, 14 second-feet Aug. 29 to Sept. 2, 1940 (gage height, 1.23 feet).

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

Rating tables, water year 1942-43 (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used July 6-31)

Oct. 1 to Dec. 30

1.5	22	3.0	430	7.5	3,900
1.7	44	3.5	680	9.5	6,150
1.9	74	4.2	1,130	12.0	9,750
2.2	137	5.0	1,710		
2.6	265	6.0	2,520		

Dec. 31 to Sept. 30

1.5	25	3.0	510	7.5	4,100
1.7	55	3.5	790	9.0	5,980
1.9	98	4.2	1,230	11.0	8,900
2.2	182	5.0	1,830	13.0	12,100
2.6	325	6.0	2,650	15.0	15,450

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	30	74	3,630	12,400	1,330	348	2,520	1,170	3,550	301	73	67
2	30	174	3,720	6,320	3,250	330	1,870	922	3,060	263	71	57
3	30	600	2,500	3,610	2,600	317	1,690	766	2,810	248	67	52
4	29	525	1,730	2,530	4,070	305	1,350	648	1,950	252	67	50
5	27	394	1,350	2,210	3,540	293	1,520	566	1,390	221	73	50
6	26	237	1,350	1,920	2,650	278	1,620	598	1,030	201	71	46
7	25	907	1,810	1,560	3,170	374	1,370	545	790	188	71	45
8	25	1,980	5,890	1,330	2,590	1,390	1,420	475	637	173	63	43
9	25	776	4,600	1,200	1,920	1,620	1,500	428	545	170	61	40
10	26	444	3,660	1,040	1,530	1,000	1,820	402	460	158	61	38
11	39	305	2,610	908	1,770	730	1,590	384	406	146	57	40
12	60	234	2,400	754	1,930	582	1,320	334	370	135	57	40
13	52	193	2,710	664	2,090	555	1,110	309	338	132	53	38
14	43	503	2,280	659	2,080	648	928	293	305	127	53	38
15	44	3,940	1,970	620	1,940	610	826	313	270	124	52	37
16	43	2,270	1,930	571	1,760	598	682	392	252	116	50	35
17	37	2,240	1,700	500	1,570	571	566	410	241	111	50	35
18	33	2,230	1,340	410	1,350	510	495	374	248	106	48	37
19	31	1,310	1,030	410	1,140	456	615	334	248	103	46	37
20	30	806	982	2,360	1,030	415	626	313	248	98	46	34
21	27	630	1,110	5,980	980	406	1,270	293	293	98	50	34
22	27	1,640	1,600	5,880	876	410	1,030	276	495	91	67	33
23	27	4,200	2,350	2,770	718	402	902	278	582	89	69	32
24	30	4,950	3,280	1,770	582	388	856	278	571	86	59	32
25	31	2,520	4,180	1,370	490	438	766	278	889	82	53	29
26	33	3,080	2,570	1,310	438	902	688	255	1,000	82	50	29
27	123	6,400	7,510	1,790	402	1,010	670	234	688	82	48	33
28	159	2,930	6,700	2,080	374	808	1,670	217	525	80	46	37
29	88	6,900	3,830	2,010	-	1,390	1,890	208	428	73	119	35
30	96	5,200	10,200	1,760	-	1,970	1,460	248	361	73	173	33
31	74	-	15,400	1,390	-	2,290	-	1,330	-	73	91	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff Inches	Runoff Acre-feet
October	1,400	159	25	45.2	0.167	0.19	2,780
November	88,592	6,900	74	1,953	7.23	8.07	116,200
December	107,922	15,400	982	3,481	12.9	14.87	214,100
Calendar year 1942	313,679	15,400	25	859	3.18	43.20	622,200
January	70,086	12,400	410	2,261	8.37	9.65	139,000
February	48,170	4,070	374	1,720	6.37	6.63	95,540
March	22,344	2,290	278	721	2.67	3.08	44,320
April	36,640	2,520	495	1,221	4.52	5.05	72,670
May	13,871	1,330	208	447	1.66	1.91	27,510
June	24,980	3,550	241	833	3.09	3.44	49,550
July	4,282	301	73	138	.511	.59	8,490
August	2,015	173	46	65.0	.241	.28	4,000
September	1,186	67	29	39.5	.146	.16	2,350
Water year 1942-43	391,488	15,400	25	1,073	3.97	53.92	776,500

Peak discharge.- Nov. 23 (8 p.m.) 10,000 sec.-ft.; Nov. 29 (3 p.m.) 12,600 sec.-ft.; Dec. 27 (6 p.m.) 10,400 sec.-ft.; Dec. 30 (10 p.m.) 20,000 sec.-ft.; Dec. 31 (7 p.m.) 16,200 sec.-ft.; Jan. 21 (6 to 7 p.m.) 9,910 sec.-ft.
Time basis: Pacific war time. 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. 2 W., 5 miles southeast of Cottage Grove.

Drainage area.- 85 square miles.

Records available.- February 1936 to September 1943.

Extremes.- Maximum discharge during year, 7,760 second-feet Dec. 30 (gage height, 9.8 feet, from floodmark), from rating curve extended above 2,100 second-feet; minimum observed, 6.0 second-feet Oct. 5-8.
1936-43: Maximum discharge, that of Dec. 30, 1942; minimum, 3 second-feet Aug. 15 to Sept. 2, 1940.

Remarks.- Records fair. No diversion or regulation above station. Gage read twice daily prior to April, once daily thereafter.

Rating table, water year 1942-43 (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Sept. 9-30)

0.4	5	1.5	225	3.6	1,420
.6	18	1.8	345	4.3	2,020
.8	45	2.1	490	5.0	2,670
1.0	84	2.5	710	6.3	3,920
1.2	131	3.0	1,020	8.0	5,700

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	a6.5	16	955	3,820	470	76	674	256	a1,200	74	18	18
2	a6.5	30	981	1,960	1,510	71	480	211	734	67	19	17
3	a7.0	128	650	1,000	929	67	400	165	617	63	a19	16
4	7.0	137	520	740	1,290	65	300	142	425	a62	a19	16
5	6.0	106	350	617	1,020	63	376	124	309	52	a20	15
6	6.0	116	639	510	505	61	450	116	204	49	a19	14
7	6.0	260	728	420	1,140	159	354	104	171	47	a18	13
8	6.0	430	3,050	354	854	276	336	95	139	42	a17	13
9	7.0	153	1,660	a300	551	260	386	88	116	42	a17	12
10	9.0	93	1,020	232	530	181	470	80	102	a40	a16	12
11	16	76	710	197	520	139	358	76	88	39	a15	11
12	18	50	595	168	495	114	284	67	80	38	a15	a11
13	20	42	540	148	450	114	225	63	76	36	a15	11
14	15	190	435	142	415	171	184	63	67	33	a14	11
15	13	1,330	372	134	368	171	156	67	59	33	14	11
16	13	606	345	126	318	181	134	67	58	30	14	11
17	12	617	292	a110	268	165	111	67	56	29	13	10
18	a10	420	284	97	225	145	106	59	56	28	13	10
19	9.0	309	242	93	197	126	128	56	a58	28	13	a10
20	8.0	214	204	1,290	184	114	162	52	a58	26	a14	9.5
21	8.5	300	211	3,050	171	102	276	49	74	25	16	9.5
22	8.0	450	415	2,380	151	95	a240	49	121	25	19	9.0
23	8.0	1,100	650	a1,300	131	88	218	a48	159	24	18	9.0
24	8.0	1,350	1,220	a700	116	84	187	a45	145	23	15	9.0
25	8.0	595	1,500	430	104	84	178	42	284	a22	15	8.5
26	9.0	932	890	400	93	250	159	a41	225	22	a14	a10
27	30	1,750	2,580	639	84	225	168	39	171	20	13	12
28	49	782	2,110	866	76	184	475	a38	121	19	13	12
29	22	1,930	1,150	830	-	568	400	36	116	18	a30	10
30	20	1,240	4,770	595	-	674	322	76	88	18	42	9.5
31	18	-	5,370	490	-	818	-	480	-	18	32	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff	
						Inches	Acre-feet
October	389.5	49	6.0	12.6	0.148	0.17	773
November	15,752	1,930	16	525	6.18	6.89	31,240
December	35,438	5,370	204	1,143	13.4	15.51	70,290
Calendar year 1942	88,091.5	5,370	6.0	241	2.84	38.54	174,700
January	24,138	3,820	93	779	9.16	10.56	47,880
February	13,165	1,510	76	470	5.53	5.76	26,110
March	5,891	818	61	190	2.24	2.58	11,680
April	8,697	674	106	.290	3.41	3.81	17,250
May	2,961	480	36	95.5	1.12	1.30	5,870
June	6,177	1,200	56	206	2.42	2.70	12,250
July	1,092	74	18	35.2	.414	.48	2,170
August	549	42	13	17.7	.208	.24	1,090
September	350.0	18	8.5	11.7	.138	.15	694
Water year 1942-43	114,599.5	5,370	6.0	314	3.69	50.15	227,300

a No gage-height record; discharge computed on basis of records for Row River at Star and near Dorena.

Time basis: Pacific war time. 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 1943.

Average discharge.- 27 years (1910-14, 1915-16, 1918-21, 1923-25, 1926-43), 1,592 second-feet.

Extremes.- Maximum discharge during year, 11,300 second-feet Dec. 31 (gage height, 7.07 feet), from rating curve extended above 4,300 second-feet; minimum, 810 second-feet Oct. 19, 20, 24, 25 (gage height, 0.87 foot).

1910-43: 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 1942-43 (gage height, in feet, and discharge, in second-feet)

0.8	765	2.8	2,970
1.2	1,070	3.3	3,720
1.6	1,450	3.8	4,550
2.0	1,910	4.6	6,050
2.4	2,420	5.8	8,500

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	851	1,120	4,750	8,540	1,650	1,630	3,140	2,460	2,470	1,780	1,400	1,210
2	851	1,260	4,400	5,530	1,680	1,570	2,660	2,380	2,480	1,750	1,400	1,200
3	844	1,290	3,620	4,210	1,640	1,570	2,760	2,340	2,540	1,740	1,390	1,200
4	844	1,130	3,140	3,580	2,060	1,550	2,520	2,300	2,370	1,720	1,390	1,200
5	844	1,070	2,830	3,260	2,060	1,500	2,450	2,260	2,290	1,680	1,400	1,200
6	844	1,040	2,620	2,970	2,340	1,490	2,390	2,280	2,220	1,660	1,390	1,190
7	837	1,120	2,450	2,770	2,430	1,560	2,370	2,240	2,190	1,640	1,370	1,180
8	830	1,450	2,370	2,610	2,240	1,960	2,450	2,160	2,170	1,630	1,360	1,180
9	830	1,230	2,410	2,480	2,070	1,920	2,360	2,110	2,170	1,620	1,350	1,170
10	837	1,140	2,650	2,380	2,030	1,810	2,240	2,100	2,110	1,590	1,350	1,170
11	851	1,110	2,480	2,280	2,200	1,740	2,160	2,060	2,040	1,570	1,340	1,170
12	844	1,080	2,380	2,160	2,240	1,710	2,240	1,990	1,980	1,550	1,330	1,160
13	824	1,080	2,540	2,080	2,240	1,730	2,410	1,950	1,950	1,540	1,320	1,150
14	830	1,510	2,480	2,100	2,240	1,710	2,590	1,900	1,900	1,530	1,320	1,150
15	830	1,970	2,410	2,100	2,240	1,650	2,700	1,870	1,850	1,520	1,310	1,140
16	824	1,650	2,410	2,030	2,190	1,600	2,620	1,830	1,830	1,500	1,300	1,140
17	817	1,850	2,390	1,930	2,160	1,570	2,480	1,790	1,830	1,500	1,300	1,130
18	817	1,650	2,320	1,840	2,130	1,530	2,430	1,780	1,870	1,500	1,290	1,130
19	810	1,490	2,190	1,800	2,120	1,500	2,580	1,790	1,840	1,490	1,280	1,130
20	810	1,390	2,190	1,930	2,120	1,470	2,840	1,800	1,800	1,480	1,270	1,120
21	817	1,370	2,200	2,030	2,150	1,450	3,220	1,810	1,810	1,480	1,280	1,120
22	817	1,960	2,940	2,210	2,120	1,440	2,900	1,850	1,830	1,470	1,290	1,120
23	817	4,710	3,010	2,060	2,030	1,420	2,730	1,970	1,830	1,460	1,260	1,120
24	810	4,020	2,900	1,930	1,930	1,430	2,620	2,060	1,800	1,450	1,250	1,120
25	810	2,890	2,730	1,860	1,840	1,490	2,510	2,110	1,970	1,440	1,240	1,120
26	824	3,420	2,470	1,850	1,770	1,870	2,410	2,100	1,960	1,440	1,240	1,120
27	872	5,000	4,190	1,860	1,710	2,160	2,370	2,060	1,900	1,430	1,230	1,120
28	830	3,820	4,860	1,840	1,660	2,100	2,520	1,980	1,860	1,420	1,230	1,120
29	837	6,410	3,880	1,790	-	2,150	2,620	1,950	1,840	1,410	1,260	1,120
30	844	5,280	4,320	1,740	-	2,120	2,540	2,010	1,810	1,410	1,230	1,110
31	886	-	8,540	1,680	-	2,030	-	2,370	-	1,410	1,220	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff	
						Inches	Acre-feet
October	25,833	886	810	833	2.41	2.78	51,240
November	65,550	6,410	1,040	2,185	6.33	7.07	130,000
December	97,070	8,540	2,190	3,131	9.08	10.46	192,500
Calendar year 1942	533,514	8,540	810	1,462	4.24	57.50	1,058,000
January	79,430	8,540	1,680	2,562	7.43	8.56	157,500
February	57,290	2,430	1,640	2,046	5.93	6.18	113,600
March	53,250	2,830	1,420	1,718	4.98	5.74	105,600
April	77,030	3,220	2,160	2,568	7.44	8.30	152,800
May	63,660	2,460	1,780	2,054	5.95	6.86	126,300
June	60,510	2,540	1,800	2,017	5.85	6.52	120,000
July	47,810	1,780	1,410	1,542	4.47	5.15	94,830
August	40,590	1,400	1,220	1,309	3.79	4.38	80,510
September	34,510	1,210	1,110	1,150	3.33	3.72	68,450
Water year 1942-43	702,533	8,540	810	1,925	5.58	75.72	1,393,000

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

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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 1943. June 1910 to March 1911 (gage heights only), at site at Martin Rapids.
Average discharge.- 19 years, 3,611 second-feet.
Extremes.- Maximum discharge during year, 48,900 second-feet Jan. 1 (gage height, 14.6 feet), from rating curve extended above 25,000 second-feet; minimum, 1,320 second-feet Oct. 23-26 (gage height, 0.42 foot).
1924-43: Maximum discharge, that of Jan. 1, 1943; 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 except those for periods of no gage-height record, which are fair. No diversion or regulation above station.
Cooperation.- Water-stage recorder inspected by employee of Eugene Water Board.

Rating tables, water year 1942-43 (gage height, in feet, and discharge, in second-feet)

Oct. 1 to Dec. 30				Dec. 31 to Sept. 30			
0.4	1,300	3.6	7,510	0.9	1,730	5.3	12,250
.8	1,760	4.6	10,400	1.5	2,600	7.0	18,200
1.3	2,510	6.0	15,000	2.2	3,840	9.0	26,200
1.9	3,540	7.5	20,700	3.0	5,550	12.0	38,200
2.7	5,200	10.0	30,300	4.0	8,250		

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,350	3,250	17,400	38,000	4,100	3,840	12,400	6,190	8,070	3,800	2,370	2,030
2	1,350	3,870	17,600	21,000	4,400	3,760	9,480	5,720	8,670	3,650	2,340	2,000
3	1,350	4,300	12,100	14,200	4,400	3,670	8,610	5,480	9,210	3,590	2,320	1,970
4	1,340	3,310	9,290	11,900	8,000	3,610	7,290	5,290	7,510	3,500	2,320	1,960
5	1,340	2,740	10,800	9,990	7,800	3,500	7,150	5,080	6,450	3,350	2,380	1,940
6	1,340	2,410	6,980	8,730	11,000	3,410	6,900	5,170	5,820	3,300	2,340	1,930
7	1,340	2,820	6,590	7,540	10,500	3,820	6,500	4,990	5,450	3,240	2,290	1,920
8	1,340	5,130	8,160	6,770	7,600	6,930	6,870	4,680	5,240	3,190	2,260	1,900
9	1,330	3,680	9,380	6,340	5,500	6,470	6,340	4,540	5,200	3,140	2,260	1,900
10	1,360	2,960	10,500	6,240	5,300	5,360	5,940	4,540	4,950	3,050	2,240	1,890
11	1,470	2,560	8,630	5,600	7,800	4,500	5,550	4,370	4,620	2,960	2,230	1,870
12	1,500	2,320	7,750	5,200	8,000	4,100	5,650	4,150	4,390	2,900	2,220	1,870
13	1,390	2,260	9,320	4,990	8,200	4,400	6,190	3,970	4,210	2,830	2,200	1,860
14	1,400	3,360	8,970	5,240	8,100	4,600	6,660	3,860	4,050	2,790	2,180	1,860
15	1,420	8,050	8,130	5,360	8,000	4,200	7,010	3,880	3,880	2,760	2,170	1,850
16	1,380	5,820	8,100	5,100	7,800	4,000	6,630	3,860	3,780	2,730	2,160	1,850
17	1,360	6,930	8,130	4,710	7,400	3,800	6,060	3,710	3,800	2,700	2,160	1,830
18	1,340	5,550	7,510	4,270	7,000	3,700	5,690	3,630	4,090	2,660	2,140	1,820
19	1,340	4,280	6,690	4,150	6,600	3,540	6,500	3,670	4,030	2,660	2,110	1,820
20	1,340	3,900	6,560	6,370	6,500	3,390	7,540	3,760	3,950	2,650	2,110	1,810
21	1,330	3,800	6,820	7,770	6,500	3,330	9,330	3,780	3,860	2,620	2,160	1,810
22	1,330	8,000	10,400	9,390	6,200	3,320	7,710	3,820	4,030	2,580	2,290	1,800
23	1,320	25,000	11,300	7,010	5,790	3,240	7,010	4,110	4,070	2,570	2,140	1,780
24	1,320	19,000	10,800	5,770	5,220	3,300	6,500	4,470	4,010	2,540	2,080	1,780
25	1,320	9,000	10,600	4,700	4,770	3,710	6,120	4,770	5,060	2,500	2,070	1,780
26	1,350	12,900	8,270	4,800	4,430	5,430	5,620	4,750	5,040	2,490	2,060	1,780
27	1,870	26,300	17,600	5,300	4,190	6,470	5,450	4,600	4,490	2,460	2,040	1,810
28	1,610	14,300	21,100	5,100	4,010	5,990	6,600	4,410	4,210	2,420	2,040	1,780
29	1,550	27,800	14,800	4,700	-	6,500	7,430	4,230	4,050	2,410	2,290	1,770
30	1,660	22,200	20,500	4,400	-	6,630	6,710	4,370	3,920	2,400	2,220	1,760
31	1,730	-	39,700	4,200	-	11,200	-	6,770	-	2,380	2,070	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff Inches	Runoff Acre-feet
October	43,770	1,870	1,320	1,412	1.52	1.75	86,820
November	247,800	27,800	2,260	8,260	8.88	9.91	491,500
December	360,480	39,700	6,560	11,630	12.5	14.42	715,000
Calendar year 1942	1,465,250	39,700	1,320	4,014	4.32	58.59	2,906,000
January	244,840	38,000	4,150	7,898	8.49	9.79	485,600
February	185,110	11,000	4,010	6,611	7.11	7.40	367,200
March	143,720	11,200	3,240	4,636	4.98	5.75	285,100
April	209,440	12,400	5,450	6,981	7.51	8.38	415,400
May	140,620	6,770	3,630	4,536	4.88	5.62	278,900
June	150,110	19,210	3,780	5,004	5.38	6.00	297,700
July	88,820	3,800	2,380	2,865	3.08	3.55	176,200
August	68,260	2,380	2,040	2,202	2.37	2.73	135,400
September	55,730	2,030	1,760	1,858	2.00	2.23	110,500
Water year 1942-43	1,938,700	39,700	1,320	5,312	5.71	77.53	3,845,000

Peak discharge.- Nov. 27 (3 a.m.) 33,900 sec.-ft.; Nov. 29 (4 p.m.) 38,700 sec.-ft.; Dec. 27 (5 p.m. to 6 p.m.) 24,300 sec.-ft.; Dec. 31 (1 a.m.) 36,300 sec.-ft.; Jan. 1 (1 a.m.) 48,900 sec.ft.
Note.- No gage-height record Nov. 20-25, Jan. 25 to Feb. 22, Mar. 11-18; discharge computed on basis of maximum stages recorded and records for McKenzie River at McKenzie Bridge and Blue River near Blue River.
Time basis: Pacific war time. 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 1943.

Extremes.- Maximum discharge during year, 8,020 second-feet Dec. 31 (gage height, 8.15 feet), from rating curve extended above 5,500 second-feet; minimum, 17 second-feet Oct. 7-9 (gage height, 1.02 feet).
1935-43: Maximum discharge, that of Dec. 31, 1942; minimum, 13 second-feet Sept. 27, 28, Oct. 1, 2, 1938.

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

Rating tables, water year 1942-43 (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Oct. 1-4, Sept. 11-30)

Oct. 1 to Nov. 22

1.0	14	2.4	650
1.2	49	2.8	995
1.4	108	3.3	1,490
1.7	223	3.8	2,060
2.0	380		

Nov. 23 to Sept. 30

1.0	15	2.0	400	3.8	2,010
1.2	50	2.4	670	4.4	2,710
1.4	112	2.8	1,010	5.5	4,110
1.7	245	3.3	1,480	7.0	6,230

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	18	666	2,350	4,300	330	310	2,290	539	618	180	53	40
2	20	946	2,210	2,080	384	305	1,540	466	814	166	50	36
3	18	878	1,370	1,290	394	295	1,220	430	1,020	162	50	36
4	18	453	938	929	1,360	290	893	389	726	149	48	34
5	18	320	710	830	1,060	280	866	367	553	132	53	34
6	18	256	581	710	1,550	270	774	378	442	128	50	34
7	17	408	518	581	1,370	376	694	356	378	120	48	32
8	17	878	560	512	938	938	718	325	335	116	48	32
9	17	486	950	499	678	742	610	310	305	116	48	32
10	20	330	1,370	492	655	546	539	300	275	109	46	32
11	38	246	1,020	460	1,080	442	506	275	240	102	46	30
12	47	206	911	412	1,080	394	581	245	231	95	44	30
13	27	189	1,480	424	1,080	436	678	226	217	95	44	28
14	32	728	1,310	546	1,070	454	726	212	207	92	44	28
15	41	1,630	1,160	588	1,040	384	726	212	189	92	42	28
16	27	1,120	1,180	525	992	345	610	217	176	92	42	27
17	24	1,460	1,170	436	992	315	506	207	171	92	42	27
18	22	950	1,040	367	983	285	473	203	184	85	40	27
19	21	635	875	335	902	260	581	207	171	81	38	27
20	21	460	911	647	893	240	965	217	171	78	38	27
21	21	464	1,090	863	911	236	1,290	217	171	75	44	27
22	21	1,980	2,570	1,190	814	240	911	222	189	70	64	27
23	20	4,560	2,130	766	655	240	726	260	207	70	44	26
24	20	3,170	1,900	546	525	270	610	275	217	67	42	26
25	20	1,580	1,620	454	442	362	518	280	362	64	38	26
26	24	2,690	1,110	480	384	911	442	260	362	61	38	27
27	108	4,220	3,650	588	350	1,120	436	236	295	61	36	30
28	63	2,000	3,370	581	325	893	648	212	250	58	36	28
29	71	4,160	2,030	512	-	884	734	194	222	56	58	27
30	99	2,610	2,960	418	-	848	632	255	198	56	56	27
31	189	-	6,160	356	-	2,480	-	539	-	53	42	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff Inches	Runoff Acre-feet
October	1,137	189	17	36.7	0.489	0.56	2,260
November	40,679	4,560	189	1,356	18.1	20.17	80,690
December	51,204	6,160	518	1,652	22.0	25.39	101,600
Calendar year 1942	162,185	6,160	17	444	5.92	80.41	321,700
January	23,717	4,300	335	765	10.2	11.76	47,040
February	23,237	1,550	325	830	11.1	11.52	46,090
March	16,391	2,480	236	529	7.05	8.13	32,510
April	23,443	2,290	436	781	10.4	11.62	46,500
May	9,031	539	194	291	3.88	4.48	17,910
June	9,896	1,020	171	330	4.40	4.91	19,630
July	2,973	180	53	95.9	1.28	1.47	5,900
August	1,412	64	36	45.5	.607	.70	2,800
September	892	40	26	29.7	.396	.44	1,770
Water year 1942-43	204,012	6,160	17	559	7.45	101.15	404,700

Peak discharge.- Nov. 23 (4 p.m.) 6,980 sec.-ft.; Nov. 26 (11:45 p.m.) 7,060 sec.-ft.; Nov. 29 (11:30 a.m.) 5,870 sec.-ft.; Dec. 27 (1 p.m.) 5,280 sec.-ft.; Dec. 30 (10 p.m.) 5,430 sec.-ft.; Dec. 31 (9:30 p.m.) 8,020 sec.-ft.
Time basis: Pacific war time. 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 1943.
Extremes.- Maximum discharge during year, 8,160 second-feet Jan. 1 (gage height, 21.3 feet, from floodmark), from rating curve extended above 5,000 second-feet; minimum observed, 22 second-feet Oct. 9 (gage height, 1.12 feet).
1935-43: Maximum discharge, that of Jan. 1, 1943; minimum observed, 11 second-feet Sept. 17, 1938.
Remarks.- Records good. No diversion above station; possibly some regulation caused by log ponds. Gage read once daily during low-water periods, twice daily at other times.

Rating tables, water year 1942-43 (gage height, in feet, and discharge, in second-feet)

Oct. 1 to Nov. 23

1.1	21	3.0	404
1.3	38	4.0	683
1.5	64	5.0	980
1.8	113	6.0	1,300
2.2	203	7.3	1,750
2.6	300		

Nov. 24 to Sept. 30

1.2	27	2.6	289	8.0	1,920
1.4	49	3.0	390	10.0	2,720
1.6	77	4.0	663	13.0	4,080
1.8	112	5.0	950	17.0	6,000
2.2	194	6.0	1,250	21.0	8,000

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	25	298	3,090	7,680	1,310	314	3,390	697	660	179	58	57
2	26	380	3,210	5,510	2,030	296	2,270	596	901	166	74	52
3	25	474	2,330	3,850	1,990	294	1,870	537	1,080	185	65	50
4	24	341	1,760	2,840	2,580	277	1,460	485	857	170	68	47
5	24	330	1,680	2,510	2,510	263	1,420	491	663	153	133	45
6	24	258	1,650	2,130	2,210	270	1,260	472	526	147	84	44
7	25	312	1,900	1,760	2,770	314	1,090	439	447	137	76	43
8	27	619	5,030	1,460	2,400	507	1,030	403	400	143	70	41
9	22	385	4,650	1,260	1,920	380	933	380	359	137	61	38
10	23	282	3,520	1,090	1,620	299	892	362	312	129	66	36
11	48	225	2,710	956	1,570	277	822	342	296	123	65	39
12	51	189	2,190	834	1,440	265	725	324	284	122	61	39
13	34	166	2,160	744	1,320	421	669	306	275	110	59	38
14	39	263	1,870	683	1,200	447	624	302	253	125	57	37
15	63	1,710	1,560	632	1,110	421	593	362	246	110	52	36
16	43	1,190	1,350	596	938	424	540	352	222	107	52	36
17	39	1,340	1,210	531	837	400	491	309	206	101	53	39
18	26	1,440	1,060	458	767	369	450	284	229	98	48	38
19	26	1,080	901	445	713	346	565	275	217	92	44	a36
20	27	797	869	1,160	657	332	557	253	219	91	56	34
21	27	666	927	1,880	613	302	837	246	243	92	52	33
22	27	1,190	1,460	2,800	562	287	708	231	302	87	82	34
23	27	1,750	1,770	1,860	504	282	671	201	255	79	61	33
24	27	3,890	1,870	1,340	453	279	604	208	287	82	56	29
25	27	1,920	2,940	1,170	416	294	559	203	324	76	52	31
26	34	1,720	2,060	1,260	387	576	510	201	292	87	45	34
27	222	4,550	2,780	1,690	367	520	518	192	251	91	45	44
28	290	3,040	4,050	2,230	346	510	770	190	201	84	43	41
29	77	3,830	3,300	2,210	-	1,480	840	179	194	76	153	38
30	77	4,720	4,930	1,940	-	1,810	759	282	187	77	110	32
31	72	-	7,140	1,530	-	2,560	-	573	-	68	80	-

Month	Second-feet-days	Maximum	Minimum	Mean	Per square mile	Runoff Inches	Runoff Acre-feet
October	1,548	290	22	49.9	0.277	0.32	3,070
November	39,355	4,720	166	1,312	7.29	8.13	78,060
December	77,927	7,140	869	2,514	14.0	16.10	154,600
Calendar year 1942	227,731	7,140	22	624	3.47	47.05	451,800
January	57,039	7,680	445	1,840	10.2	11.78	113,100
February	35,540	2,770	346	1,269	7.05	7.34	70,490
March	15,816	2,560	263	510	2.83	3.27	31,370
April	28,427	3,390	450	948	5.27	5.87	56,380
May	10,677	697	179	344	1.91	2.21	21,180
June	11,188	1,080	187	373	2.07	2.31	22,190
July	3,524	185	68	114	.633	.73	6,990
August	2,081	153	43	67.1	.373	.43	4,130
September	1,174	57	29	39.1	.217	.24	2,330
Water year 1942-43	284,296	7,680	22	779	4.33	58.73	563,900

a No gage-height record; discharge interpolated.
Time basis: Pacific war time. 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 1½ 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 1943.
Extremes.- Maximum discharge during year, 4,300 second-feet Jan. 1 (gage height, 18.28 feet); minimum, 12 second-feet Oct. 10.
1935-43: Maximum discharge, that of Jan. 1, 1943; minimum observed, 7 second-feet Sept. 25-27, 1939 (gage height, 0.66 foot).
Remarks.- Records good except those for periods of fragmentary or no gage-height record, which are fair. No diversion above station; slight diurnal fluctuation caused by log pond above Noti.

Rating tables, water year 1942-43 (gage height, in feet, and discharge, in second-feet)

Oct. 1 to Dec. 31				Jan. 1 to Sept. 30			
0.6	12	4.0	310	0.7	16	4.0	330
.8	20	5.5	460	.9	27	5.5	495
1.0	30	7.5	675	1.1	41	7.5	715
1.3	48	10.5	1,100	1.4	64	10.5	1,105
1.6	72	13.0	1,560	1.8	100	13.5	1,700
2.0	118	15.5	2,440	2.3	150	16.0	2,680
2.4	159	17.5	3,610	3.0	220	18.0	4,040
3.0	213						

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	14	88	1,160	3,990	750	199	2,430	195	117	51	26	25
2	15	177	1,250	2,800	994	194	f1,360	180	119	50	30	24
3	15	223	972	1,870	1,170	189	f1,260	171	113	47	30	21
4	13	140	670	1,300	1,120	181	649	163	100	50	30	21
5	14	105	621	1,180	f1,130	176	558	156	90	49	42	20
6	15	68	710	1,060	1,090	169	477	162	83	48	40	20
7	14	70	1,040	848	1,840	176	f414	148	78	45	33	19
8	14	192	2,670	711	f1,570	197	f388	139	76	45	30	20
9	13	156	2,780	616	f1,090	175	351	130	71	50	30	19
10	12	99	1,490	547	f879	162	315	127	67	47	27	17
11	16	69	951	491	f736	154	293	123	67	44	26	16
12	24	57	739	437	f627	150	270	120	65	45	24	30
13	19	50	662	395	556	172	248	118	65	41	24	22
14	19	163	552	367	502	215	235	114	70	40	22	20
15	20	986	484	349	460	198	223	117	67	40	20	20
16	18	728	431	327	428	184	212	114	61	38	23	19
17	17	701	390	310	399	174	201	110	59	36	22	20
18	14	771	358	f279	364	164	193	103	61	35	21	18
19	16	557	328	a350	336	156	204	100	58	37	33	18
20	24	388	313	496	317	150	210	95	58	34	19	20
21	20	296	330	810	297	144	249	90	59	33	19	18
22	16	289	444	767	283	140	221	95	67	33	27	17
23	16	813	543	626	268	135	222	91	68	33	30	16
24	14	1,970	558	506	253	135	219	88	64	33	25	16
25	14	1,010	740	f453	238	145	206	83	80	30	24	16
26	18	704	625	f493	223	f230	195	79	72	35	22	15
27	37	1,680	1,110	838	215	f277	210	80	61	35	21	19
28	61	1,270	1,880	1,300	205	f297	219	80	58	33	20	19
29	31	1,140	1,400	1,420	-	646	216	82	55	32	30	18
30	24	1,620	2,580	1,210	-	843	204	89	51	32	36	18
31	25	-	3,610	905	-	1,430	-	110	-	30	28	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff Inches	Runoff Acre-feet
October	602	61	12	19.4	0.220	0.25	1,190
November	16,582	1,970	50	553	6.28	7.01	32,890
December	32,391	3,610	313	1,045	11.9	13.69	64,250
Calendar year 1942	90,902	3,610	12	249	2.83	38.41	180,300
January	28,051	3,990	279	905	10.3	11.85	55,640
February	18,340	1,640	205	655	7.44	7.75	36,380
March	7,957	1,430	135	257	2.92	3.36	15,780
April	12,652	2,430	193	422	4.80	5.35	25,090
May	3,652	195	79	118	1.34	1.54	7,240
June	2,180	119	51	72.7	.826	.92	4,320
July	1,231	51	30	39.7	.451	.52	2,440
August	834	42	19	26.9	.306	.35	1,650
September	581	30	15	19.4	.220	.25	1,150
Water year 1942-43	125,053	3,990	12	343	3.90	52.84	248,000

Peak discharge.- Nov. 24 (9:30 a.m.) 2,230 sec.-ft.; Dec. 8 (10:30 p.m.) 3,400 sec.-ft.; Dec. 28 (9 a.m.) 2,020 sec.-ft.; Jan. 1 (8 a.m.) 4,300 sec.-ft.; Feb. 7 (7:30 p.m.) 2,100 sec.-ft.; Apr. 1 (7 a.m.) 2,640 sec.-ft.

a No gage-height record; discharge computed on basis of records for Long Tom River at Smithfield and at Monroe and Coyote Creek near Crow.

f Fragmentary gage-height record; discharge computed from partly estimated gage height.

Time basis: Pacific war time. 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 on Long Tom River, 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 1943.

Extremes.- Maximum contents during year, 105,400 acre-feet Jan. 1 (elevation, 373.94 feet); minimum contents not determined (occurred during period of no gage-height record, Oct. 7 to Nov. 3).

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. 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, at midnight, in acre-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	12,870	-	71,760	103,300	79,530	55,370	86,310	104,000	101,600	100,200	90,930	87,740
2	11,780	-	76,870	101,200	81,040	54,950	92,770	103,600	101,200	100,000	90,490	87,660
3	10,700	-	80,480	99,460	81,690	55,070	95,900	103,100	100,900	99,920	90,320	87,490
4	9,580	10,750	82,170	98,450	82,420	53,990	98,260	102,400	100,700	99,920	90,230	87,150
5	8,640	10,410	83,070	97,170	83,640	53,460	99,920	101,900	100,600	99,740	89,970	87,230
6	7,790	9,970	83,560	95,270	84,970	52,990	101,200	100,900	100,700	99,650	89,890	87,150
7	-	10,000	86,390	93,480	86,640	53,230	102,200	100,300	100,600	99,460	89,630	87,150
8	-	9,840	98,450	91,190	88,510	53,640	102,900	100,300	100,600	99,550	89,540	87,150
9	-	9,760	104,000	88,600	88,510	53,930	103,100	100,200	100,600	99,460	89,370	87,060
10	-	9,530	101,200	85,630	87,230	54,050	103,200	100,200	100,400	99,180	89,280	86,980
11	-	9,150	99,000	82,420	85,300	54,110	103,200	100,300	100,500	98,820	89,020	86,890
12	-	8,690	96,440	79,050	82,820	54,170	103,100	100,500	100,600	98,540	88,940	86,890
13	-	8,260	91,720	75,720	80,560	54,650	102,900	100,700	100,700	98,450	88,850	86,810
14	-	8,640	87,230	72,130	78,500	55,070	102,600	101,000	100,800	97,990	88,880	86,810
15	-	10,370	83,730	68,670	76,260	55,430	102,200	101,200	100,800	97,620	88,420	86,730
16	-	13,440	80,000	65,130	73,460	55,970	101,500	101,300	100,900	97,260	88,170	86,640
17	-	16,510	76,180	61,520	69,880	56,280	101,000	101,500	100,900	96,710	88,000	86,560
18	-	19,420	72,060	58,200	66,710	56,460	100,700	101,800	100,900	96,440	87,910	88,390
19	-	21,410	68,250	54,890	63,370	56,520	100,500	101,800	100,800	96,080	87,830	86,310
20	-	22,680	65,400	54,290	60,160	56,520	100,300	101,800	100,800	95,720	87,830	86,220
21	-	23,300	62,770	55,790	58,070	56,580	100,100	101,700	100,900	95,270	87,910	86,050
22	-	23,180	60,480	56,710	57,950	56,710	100,000	101,500	100,700	94,820	87,830	86,050
23	-	24,930	59,010	57,760	57,950	57,080	100,000	101,200	100,500	94,550	87,740	86,050
24	-	29,220	58,450	57,020	57,630	57,450	100,300	101,100	100,500	94,100	87,660	85,970
25	-	34,390	58,320	56,520	57,200	57,880	100,400	100,900	100,500	93,750	87,570	85,970
26	-	39,500	59,010	57,200	56,950	59,010	100,600	100,700	100,400	93,210	87,400	85,890
27	-	45,200	61,780	59,910	56,520	60,030	101,200	100,600	100,300	92,950	87,400	85,800
28	-	51,380	67,400	65,540	56,040	61,330	102,100	100,700	100,300	92,420	87,570	85,630
29	-	58,320	75,420	71,840	-	64,790	102,600	100,600	100,300	92,150	87,910	85,550
30	-	64,920	90,230	76,260	-	69,740	103,800	101,200	100,300	91,720	87,830	85,550
31	-	-	105,000	78,270	-	77,410	-	101,200	-	91,280	87,740	-

Monthly elevation and contents, water year October 1942 to September 1943

Date	Elevation (feet)†	Contents (acre-feet)	Change in contents during month (acre-feet)
Sept. 30	356.78	14,000	-
Oct. 31	-	a8,200	-5,800
Nov. 30	369.00	64,920	+56,720
Dec. 31	373.90	105,000	+40,080
Calendar year 1942	-	-	+51,480
Jan. 31	370.83	78,270	-26,730
Feb. 28	367.62	56,040	-22,230
Mar. 31	370.72	77,410	+21,370
Apr. 30	373.77	103,800	+26,390
May 31	373.50	101,200	-2,600
June 30	373.40	100,300	-900
July 31	372.40	91,280	-9,020
Aug. 31	371.99	87,740	-3,540
Sept. 30	371.73	85,550	-2,190
Water year 1942-43	-	-	+71,550

† Elevation at midnight.
a No gage-height record Oct. 7 to Nov. 3; contents Oct. 31 computed on basis of records of inflow, outflow, and rainfall.
Time basis: Pacific war time. To convert war time to standard time, subtract 1 hour.

Long Tom River at Smithfield, Oreg.

Location.- Water-stage recorder, lat. 44°09'22", long. 123°17'15", in NW¼ sec. 27, T. 16 S., R. 5 W., at road crossing 100 feet downstream from Coyote Creek, 1 mile east of Smithfield, and 2½ miles downstream from Fern Ridge Dam. Datum of gage is 320.91 feet above mean sea level, datum of 1929 (Corps of Engineers, U. S. Army, bench mark).

Drainage area.- 263 square miles.

Records available.- August 1939 to September 1943 (replaced on Oct. 1, 1943, by station on artificial channel, 1,000 feet below Fern Ridge Dam).

Extremes.- Maximum discharge during year, 11,500 second-feet Jan. 1 (gage height, 15.12 feet); minimum not determined (stage below inlet pipes).
1939-43: Maximum discharge, that of Jan. 1, 1943; minimum, 1 second-foot (regulated) Aug. 7, 1941 (gage height, 1.95 feet).

Remarks.- Records good except those for period of shifting control and periods of no gage-height record, which are fair. A few small diversions above station. Fern Ridge Dam, 2½ miles above station, was completed in 1941 and regulated flow beginning Nov. 13, 1941 (see preceding page). An artificial channel for Long Tom River below Fern Ridge Dam was under construction in August and September 1943.

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	e556	a25	170	10,800	1,670	530	190	268	178	30	159	
2	e547	a20	175	8,920	1,810	527	157	414	250	27	153	
3	e534	a25	422	5,670	2,280	524	399	548	292	25	153	
4	e519	a45	638	4,200	2,600	520	455	560	292	40	153	
5	e502	260	1,110	3,340	2,040	519	476	564	190	50	138	
6	e417	316	1,890	3,120	2,230	505	482	646	114	44	50	
7	e314	326	2,210	2,810	2,430	322	468	650	96	28	80	
8	78	333	2,090	2,570	2,410	274	471	315	80	27	a90	
9	25	321	3,550	2,540	2,410	264	476	234	69	33	a65	
10	19	319	5,510	2,510	2,410	260	491	188	52	89	a25	
11	17	317	3,970	2,480	2,350	258	510	156	41	121	13	
12	a17	316	3,120	2,430	2,350	258	528	102	35	142	15	
13	a18	312	3,930	2,410	2,300	264	543	93	33	84	14	
14	a20	327	3,800	2,350	2,000	268	552	76	32	118	a10	
15	a22	380	2,780	2,330	1,980	263	552	72	31	146	98	a10
18	a22	366	2,670	2,280	2,070	234	538	72	35	154	72	
17	a20	396	2,640	2,230	2,230	204	531	70	42	160	a10	
18	h20	410	2,600	2,200	2,160	257	527	64	50	162	a9	
19	a20	522	2,500	2,140	2,140	260	534	64	78	162	a11	
20	h18	610	2,060	2,250	2,070	258	506	68	85	163	15	
21	a17	626	2,030	2,280	1,980	258	475	123	84	162	a12	
22	a17	799	2,060	2,350	748	257	464	154	89	160		
23	a16	1,100	2,010	2,200	520	157	461	193	109	159		
24	a16	1,020	2,060	2,180	514	95	290	201	109	160		
25	a16	326	1,980	2,070	534	92	234	202	114	160		
26	a20	196	2,010	1,460	538	107	231	182	114	159	a11	
27	h27	239	2,210	1,400	537	79	237	74	113	160		
28	a30	148	2,010	1,520	533	76	240	53	90	163		
29	a22	219	1,250	1,490	-	146	241	49	64	161		
30	a20	178	1,430	1,480	-	142	234	58	36	161		
31	a22	-	1,490	1,610	-	214	-	143	-	160		

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff	
						Inches	Acre-feet
October	3,928	556	16	127	-	-	7,790
November	10,797	1,100	20	360	-	-	21,420
December	68,375	5,510	170	2,206	-	-	135,600
Calendar year 1942	188,730	5,510	15	517	1.97	26.69	374,300
January	89,620	10,800	1,400	2,891	-	-	177,800
February	49,844	2,600	514	1,780	-	-	98,860
March	8,392	530	76	271	-	-	16,650
April	12,493	552	157	416	-	-	24,780
May	6,656	650	49	215	-	-	13,200
June	2,997	292	31	99.9	-	-	5,940
July	3,570	153	25	115	-	-	7,080
August	1,455	159	-	46.9	-	-	2,890
September	300	-	-	10	-	-	595
Water year 1942-43	258,427	10,800	-	708	2.69	36.54	512,600

a No gage-height record; discharge computed on basis of discharge measurements made Aug. 10, 19, Sept. 8, weather records, gate openings at Fern Ridge Dam, and records for stations near Noti and at Monroe.
e Shifting-control method used.
h Computed from staff-gage reading.
Time basis: Pacific war time. To convert war time to standard time, subtract 1 hour.

Long Tom River at Monroe, Oreg.

Location.- Staff gage, lat. 44°18'55", long. 123°17'45", in NE¼ sec. 33, T. 14 S., R. 5 W., at Monroe, a quarter of a mile downstream from Shafer Creek. Datum of gage is 262.27 feet above mean sea level, datum of 1929.
Drainage area.- 391 square miles.
Records available.- November 1920 to September 1943 (1925-27 incomplete).
Average discharge.- 20 years (1921-25, 1927-43), 710 second-feet.
Extremes.- Maximum discharge during year, 19,300 second-feet Jan. 2 (gage height, 17.14 feet, from graph based on gage readings), includes some overflow from Willamette River near Junction City; minimum observed, 8 second-feet (regulated) Sept. 11-13.
1929-43: Maximum discharge, that of Jan. 2, 1943; minimum observed, 7 second-feet Sept. 29, Oct. 1, 1939.
Remarks.- Records fair. Gage read once daily, oftener during periods of high water. A few small diversions above station; some fluctuation at low stages owing to pondage at mill dam at Monroe and dam above Cheshire; flow regulated since Nov. 15, 1941 by Fern Ridge Reservoir (see p. 114).
Cooperation.- Gage-height record collected in cooperation with U. S. Weather Bureau.

Rating tables, water year 1942-43 (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Oct. 1-8, Nov. 6 to Dec. 8, Aug. 19 to Sept. 30)

Oct 1 to Dec. 8				Dec. 9 to Sept. 30					
0.6	29	4.0	590	0.3	9	1.7	178	9.5	2,145
.8	52	5.5	945	.4	15	2.3	272	11.5	3,130
1.0	76	7.0	1,350	.6	33	3.0	395	12.8	4,890
1.3	115	9.5	2,195	.8	56	4.0	585	14.0	7,510
1.7	175	11.5	3,280	1.0	82	5.5	900	15.5	11,950
2.3	274	12.6	4,740	1.3	121	7.0	1,320	16.6	16,440
3.0	399								

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	560	36	2,030	13,200	2,680	653	3,180	488	193	64	160	14
2	552	64	1,780	16,400	2,630	641	2,170	477	234	56	157	13
3	544	99	1,390	9,590	2,840	637	1,230	623	320	51	155	13
4	536	97	1,350	6,550	3,410	625	1,160	691	373	46	152	13
5	524	74	1,430	5,180	3,750	621	1,050	683	373	61	160	11
6	512	316	2,100	4,310	3,280	617	1,110	683	208	69	155	11
7	422	381	2,990	3,970	4,100	613	1,030	742	152	66	69	11
8	381	403	4,740	3,650	4,200	448	898	750	132	49	92	9
9	105	439	6,150	3,240	3,720	410	823	418	113	46	100	9
10	52	406	5,730	3,110	3,360	437	775	320	103	44	81	9
11	40	403	6,630	3,010	3,200	388	750	256	92	100	40	8
12	31	388	4,960	2,900	3,010	363	729	221	79	124	23	8
13	31	374	3,970	2,830	2,900	355	725	162	77	149	23	6
14	36	381	4,450	2,770	2,830	391	708	155	77	90	25	14
15	29	605	4,420	2,730	2,640	437	700	135	74	121	18	19
16	31	920	3,350	2,680	2,430	425	696	124	69	149	98	22
17	31	1,180	3,260	2,620	2,400	366	667	121	74	157	90	19
18	29	1,390	3,180	2,540	2,650	316	647	121	79	160	23	17
19	29	1,240	3,080	2,480	2,590	359	651	111	82	160	13	14
20	29	1,140	2,960	2,520	2,520	352	663	113	105	163	11	12
21	27	1,000	2,720	3,210	2,470	345	659	113	108	163	19	13
22	23	1,040	2,690	2,980	2,390	337	643	163	108	160	22	12
23	23	1,500	2,810	3,530	1,060	334	631	184	111	160	17	12
24	25	2,520	2,900	3,320	740	205	627	230	129	157	17	11
25	27	2,360	3,090	3,180	689	160	425	234	129	157	14	12
26	25	1,670	3 020	2,980	685	190	384	234	135	155	13	11
27	29	2,240	3,530	2,550	677	286	363	214	132	163	13	9
28	38	2,090	4,370	3,700	661	275	410	108	129	163	11	12
29	52	1,660	4,050	4,310	-	460	444	92	111	166	13	13
30	38	1,970	4,370	3,430	-	1,030	484	95	90	166	13	13
31	33	-	6,460	2,920	-	2,380	-	108	-	166	14	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff Inches	Runoff Acre-feet
October	4,844	560	23	156	-	-	9,610
November	28,386	2,520	36	946	-	-	56,300
December	109,960	6,630	1,350	3,547	-	-	218,100
Calendar year 1942	298,486	6,630	18	818	2.09	28.39	592,000
January	132,390	16,400	2,480	4,271	-	-	262,600
February	70,512	4,200	661	2,518	-	-	139,900
March	15,456	2,380	160	499	-	-	30,660
April	25,432	3,180	363	848	-	-	50,440
May	9,169	750	92	296	-	-	18,190
June	4,191	373	69	140	-	-	8,310
July	3,701	166	44	119	-	-	7,340
August	1,811	160	11	58.4	-	-	3,590
September	372	22	8	12.4	-	-	738
Water year 1942-43	406,224	16,400	8	1,113	2.85	38.64	805,800

Time basis: Pacific war time. 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 1943.

Extremes.- Maximum discharge during year, 7,370 second-feet Dec. 8 (gage height, 13.60 feet); minimum, 0.6 second-foot Oct. 7-11.

1940-43: Maximum discharge, that of Dec. 8, 1942; no flow at times in August and September 1940.

Remarks.- Records fair. Small diversions above station for irrigation; no regulation.

Rating tables, water year 1942-43 (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Oct. 1-5, Nov. 15-30)

Oct. 1 to Nov. 14

0.3	0.4	.9	14.2
.4	1.0	1.2	27
.5	2.2	1.5	43
.7	7.4	2.3	69

Nov. 15 to Sept. 30

0.4	0.8	1.0	29	3.5	133	10.5	1,140
.5	2.0	1.3	45	5.0	221	11.2	1,610
.6	4.4	1.7	59	6.5	331	11.9	2,860
.7	9.0	2.2	74	8.0	470	12.5	4,150
.8	16	2.8	98	9.5	715	13.0	5,490

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.9	3.6	930	4,710	669	65	1,260	225	72	13	3.7	3.7
2	.9	7.4	876	2,290	834	64	613	159	81	12	3.7	3.2
3	.8	21	768	1,330	1,020	61	650	129	69	12	3.7	2.5
4	.8	34	623	856	925	60	451	108	58	12	3.9	2.2
5	.8	38	540	795	876	58	376	96	48	12	4.2	2.0
6	.8	29	709	703	770	55	341	97	39	10	4.9	1.9
7	.7	18	954	572	960	67	265	86	32	9.7	5.8	1.9
8	.7	106	4,770	452	890	141	238	74	26	9.0	4.4	1.6
9	.6	119	2,660	367	742	134	204	68	22	9.0	3.9	1.8
10	.6	76	1,160	300	603	104	172	63	21	9.0	3.9	1.6
11	.6	52	790	250	455	85	146	60	19	9.0	3.4	1.5
12	.7	33	673	207	359	76	128	56	19	8.1	3.2	1.5
13	.8	21	581	177	289	90	113	54	20	7.6	3.0	1.5
14	.9	69	436	156	244	154	100	52	20	7.6	2.7	1.6
15	1.2	458	341	142	208	171	92	56	19	7.1	2.5	1.9
16	1.2	624	276	131	163	156	84	53	17	7.2	2.5	2.0
17	1.6	596	232	120	162	135	77	46	16	6.7	2.2	1.9
18	1.5	610	197	101	142	120	72	41	17	6.2	2.2	1.8
19	1.2	554	170	90	128	106	78	37	17	5.8	2.2	1.6
20	1.0	419	158	362	116	95	86	34	17	5.8	2.0	1.5
21	1.0	301	190	925	108	88	94	31	17	5.3	2.0	1.4
22	.9	283	247	1,800	100	83	90	30	24	4.9	2.5	1.3
23	.9	362	373	1,020	92	76	87	28	26	4.9	3.0	1.0
24	.9	662	553	681	85	72	88	25	21	4.2	3.4	.9
25	1.2	633	856	498	78	73	79	23	21	4.2	3.0	.8
26	.9	570	834	474	73	130	72	21	22	3.9	2.5	.8
27	1.8	778	1,150	790	70	152	83	20	20	4.2	2.5	.8
28	4.1	768	1,700	1,500	68	138	184	20	17	4.4	2.2	.8
29	5.2	831	1,420	1,480	-	502	308	20	15	4.2	2.7	.9
30	4.1	1,080	4,130	1,050	-	819	241	21	15	3.9	3.9	1.2
31	2.9	-	5,070	760	-	1,180	-	42	-	3.9	5.3	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff	
						Inches	Acre-feet
October	42.1	5.2	0.6	1.36	0.014	0.02	84
November	10,156.0	1,080	3.6	339	3.61	4.02	20,140
December	34,367	5,070	158	1,109	11.8	13.60	68,170
Calendar year 1942	74,146.4	5,070	0.5	203	2.16	29.35	147,100
January	25,129	4,710	90	811	8.63	9.94	49,840
February	11,249	1,020	68	402	4.28	4.45	22,310
March	5,310	1,180	55	171	1.82	2.10	10,530
April	7,072	1,260	72	236	2.51	2.80	14,030
May	1,875	225	20	60.5	0.644	0.74	3,720
June	847	81	15	28.2	.300	.34	1,680
July	226.8	13	3.9	7.32	.078	.09	450
August	101.0	5.8	2.0	3.26	.035	.04	200
September	49.1	3.7	0.8	1.64	.017	.02	97
Water year 1942-43	96,424.0	5,070	0.6	264	2.81	38.16	191,300

Peak discharge.- Dec. 8 (2:30 p.m.) 7,370 sec.-ft.; Dec. 28 (11:30 a.m.) 1,860 sec.-ft.; Dec. 31 (1 a.m.) 5,960 sec.-ft.; Jan. 1 (3 a.m.) 6,110 sec.-ft.; Jan. 22 (3:30 p.m.) 2,120 sec.-ft.; Jan. 28 (8:30 p.m. to 9:30 p.m.) 1,730 sec.-ft.

Time basis: Pacific war time. 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 1943.

Extremes.- Maximum discharge during year, 7,720 second-feet Jan. 1 (gage height, 20.46 feet, from graph based on gage readings); minimum observed, 11 second-feet Sept. 24-26. 1940-43: Maximum discharge, that of Jan. 1, 1943; minimum observed, 9 second-feet Aug. 21, 1941 (gage height, 2.16 feet).

Remarks.- Records good; 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 October to June, once daily July to September. City of Corvallis diverts municipal supply from headwaters; other small diversions above station for irrigation. No regulation.

Rating tables, water year 1942-43 (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Nov. 1-14)

Oct. 1 to Dec. 31						Jan. 1 to Sept. 30					
2.4	12	4.3	161	11.0	1,225	2.6	9	4.3	154	11.0	1,250
2.6	21	5.0	245	14.0	1,880	2.8	18	5.0	241	14.0	1,880
2.9	38	6.0	380	17.0	2,890	3.0	29	6.0	385	17.0	2,890
3.3	66	7.2	560	19.0	4,850	3.3	51	7.2	579	19.0	4,850
3.7	100	9.0	858			3.7	89	9.0	885	20.3	7,330

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	15	76	2,360	7,330	912	265	4,850	272	148	63	24	27
2	15	145	1,970	5,540	1,750	253	2,670	248	156	56	24	22
3	14	173	1,540	2,980	1,930	238	1,780	236	166	56	23	21
4	14	136	1,230	2,070	2,270	232	1,320	225	156	56	24	20
5	14	97	1,280	2,020	2,090	224	1,070	225	138	56	35	18
6	14	78	1,300	1,650	4,140	215	848	242	125	54	35	18
7	13	72	1,960	1,340	5,990	215	729	227	116	51	37	16
8	14	101	4,630	1,120	3,400	264	645	208	108	51	26	16
9	14	106	3,390	934	2,170	223	576	196	103	52	24	14
10	12	88	2,300	797	1,610	202	510	191	97	53	22	14
11	15	71	1,670	691	1,590	192	455	197	95	51	22	15
12	18	61	1,340	603	1,350	188	414	195	97	48	20	16
13	17	56	1,180	539	1,200	205	379	180	99	47	20	16
14	21	227	958	489	1,020	260	352	174	99	44	19	16
15	20	1,100	805	465	873	278	328	185	93	41	22	16
16	18	1,080	695	439	763	262	307	174	87	41	18	15
17	18	1,380	611	401	669	246	290	164	85	40	18	16
18	17	1,260	539	352	593	232	276	155	83	32	18	16
19	16	861	480	334	531	219	310	146	83	35	18	15
20	15	589	476	559	481	207	338	143	83	35	17	16
21	15	470	500	667	446	200	358	140	99	28	18	13
22	15	449	662	588	411	192	319	135	99	27	24	13
23	15	1,910	630	513	373	184	330	129	119	29	29	12
24	15	2,610	727	454	352	202	322	125	116	26	26	11
25	15	1,810	770	436	328	184	299	118	97	25	22	11
26	15	1,920	695	693	307	286	285	110	85	25	20	11
27	20	3,770	2,150	899	293	500	299	108	77	25	18	12
28	30	2,530	2,300	1,580	279	997	293	106	70	27	18	13
29	34	2,650	2,200	1,640	-	1,830	279	106	67	25	20	14
30	30	2,760	4,010	1,370	-	1,820	268	125	62	24	29	13
31	29	-	4,540	1,080	-	4,870	-	150	-	23	39	-

Month	Second-feet-days	Maximum	Minimum	Mean	Per square mile	Runoff Inches	Runoff Acre-feet
October	547	34	12	17.6	0.114	0.13	1,080
November	28,636	3,770	56	955	6.16	6.87	56,800
December	49,918	4,630	476	1,610	10.4	11.98	99,010
Calendar year 1942	154,198	4,630	11	422	2.72	37.00	305,800
January	40,573	7,330	334	1,309	8.45	9.73	80,480
February	38,121	5,990	279	1,361	8.78	9.15	75,610
March	15,885	4,870	184	512	3.30	3.81	31,510
April	21,499	4,850	268	717	4.63	5.16	42,640
May	5,335	272	106	172	1.11	1.28	10,580
June	3,108	166	82	104	.671	.75	6,160
July	1,246	63	23	40.2	.259	.30	2,470
August	729	39	17	23.5	.152	.17	1,450
September	466	27	11	15.5	.100	.11	924
Water year 1942-43	206,063	7,330	11	565	3.65	49.44	408,700

Time basis: Pacific war time. 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 1943.

Extremes.- Maximum discharge during year, 9,400 second-feet Dec. 31 (gage height, 12.10 feet), from rating curve extended above 5,200 second-feet; minimum observed, 24 second-feet Oct. 9, 10 (gage height, 0.78 foot).
1935-43: Maximum discharge, that of Dec. 31, 1942; minimum observed, 13 second-feet (regulated), Sept. 8, 1940.

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

Rating tables, water year 1942-43 (gage height, in feet, and discharge, in second-feet)

Oct. 1 to Nov. 22				Nov. 23 to Sept. 30					
0.8	26	2.3	377	0.7	25	1.9	260	5.0	1,910
1.0	46	2.8	580	.8	36	2.3	410	6.5	3,115
1.3	89	3.4	885	1.0	66	2.8	620	8.0	4,520
1.6	154	4.0	1,270	1.2	101	3.4	910	10.0	6,750
1.9	235	4.8	1,845	1.5	160	4.2	1,370		

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	23	625	2,240	7,330	665	248	2,550	482	506	181	66	55
2	27	725	2,160	3,010	1,240	230	1,690	418	683	173	66	50
3	27	852	1,500	1,850	982	225	1,370	370	1,080	162	68	47
4	26	495	1,110	1,370	2,570	214	1,100	338	765	166	64	44
5	26	369	1,050	1,300	1,800	204	965	306	602	154	92	43
6	25	317	1,090	1,100	1,950	199	840	350	482	146	76	42
7	25	261	1,330	900	2,160	192	720	302	442	138	68	40
8	25	715	2,790	770	1,430	506	701	281	346	132	64	39
9	24	527	1,970	710	1,140	418	620	260	302	140	61	36
10	24	377	1,980	660	932	323	642	242	267	130	58	36
11	36	288	1,510	584	1,110	270	584	248	239	122	56	36
12	69	235	1,360	514	1,090	242	522	222	225	118	55	36
13	46	201	1,710	466	1,100	251	498	214	222	114	55	36
14	36	580	1,420	466	1,060	386	458	204	220	110	53	35
15	62	1,680	1,260	446	965	346	434	225	197	105	52	34
16	44	1,060	1,180	418	865	320	386	254	181	103	50	33
17	34	1,840	1,050	378	800	302	338	230	175	99	49	33
18	31	1,270	900	316	735	281	316	214	197	96	47	33
19	30	863	765	302	647	254	398	202	181	96	46	32
20	28	675	785	1,160	584	239	570	192	199	90	47	30
21	28	544	845	1,190	557	236	943	183	225	88	50	30
22	27	1,420	1,740	1,440	514	242	720	177	274	85	92	29
23	27	3,060	1,520	976	450	242	638	181	254	83	63	29
24	27	3,100	1,530	770	386	245	575	177	260	80	52	28
25	26	1,660	1,960	665	338	295	498	170	281	78	47	28
26	27	1,760	2,410	620	309	490	446	162	350	78	46	27
27	104	4,100	3,030	1,260	284	720	426	156	278	76	44	37
28	128	1,940	3,200	1,460	267	629	506	146	239	74	43	34
29	68	3,980	2,270	1,140	-	1,010	611	142	214	73	83	30
30	106	2,830	4,050	855	-	1,170	530	146	197	71	112	29
31	100	-	7,080	730	-	2,940	-	548		68	66	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff	
						Inches	Acre-feet
October	1,341	128	24	43.3	0.437	0.50	2,660
November	38,349	4,100	201	1,278	12.9	14.41	76,060
December	58,795	7,080	765	1,897	19.2	22.09	116,600
Calendar year 1942	178,331	7,080	24	489	4.94	67.01	353,700
January	35,406	7,380	302	1,142	11.5	13.30	70,230
February	26,930	2,570	267	962	9.72	10.12	53,410
March	13,869	2,940	192	447	4.52	5.21	27,510
April	21,595	2,550	316	720	7.27	8.11	42,830
May	7,742	548	142	250	2.53	2.91	15,360
June	10,083	1,080	175	336	3.39	3.79	20,000
July	3,429	181	68	111	1.12	1.29	6,800
August	1,891	112	43	61.0	.616	.71	3,750
September	1,071	55	27	35.7	.361	.40	2,120
Water year 1942-43	220,501	7,380	24	604	6.10	82.84	437,300

Time basis: Pacific war time. 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. 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 1943.

Extremes.- Maximum discharge during year, 18,400 second-feet Jan. 2, from rating curve extended above 8,400 second-feet; maximum gage height, 25.5 feet Jan. 2, from graph based on gage readings, affected by backwater from Willamette River; minimum discharge observed, 11 second-feet (regulated) Sept. 28 (gage height, 1.02 feet).

1940-43: Maximum discharge, that of Jan. 2, 1943; minimum observed, 9 second-feet (regulated) Sept. 22, 1942 (gage height, 0.96 foot).

Remarks.- Records good except those for periods of shifting control or backwater from Willamette River, which are fair. Gage read twice daily, oftener at high stages. A few small diversions above station for irrigation. Diurnal fluctuations caused by ponds at flour mills near Shedd.

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	24	101	c7,120	c16,000	2,080	400	5,650	1,010	518	244	81	99
2	26	278	c6,550	c16,500	1,910	376	5,470	782	635	229	50	76
3	31	650	5,300	c8,240	2,900	352	4,140	665	874	225	82	74
4	24	841	4,230	c5,250	3,110	332	3,140	575	1,240	206	74	63
5	16	590	3,140	c4,210	3,380	322	2,160	515	982	210	74	53
6	31	435	3,900	3,540	4,500	304	2,150	515	748	191	76	32
7	24	354	4,640	2,530	8,610	280	1,700	525	580	177	92	65
8	29	336	4,810	1,970	6,530	352	1,350	458	478	173	74	44
9	26	703	6,240	1,510	4,520	605	1,290	410	414	164	67	39
10	23	621	6,010	1,270	3,100	515	1,060	388	368	162	72	36
11	24	442	4,660	1,120	2,220	420	955	366	332	152	55	34
12	18	354	3,560	952	1,960	374	844	348	304	143	55	33
13	39	290	3,130	832	1,820	344	750	324	286	141	68	17
14	46	278	2,890	762	1,710	610	695	308	288	143	55	38
15	66	607	2,530	735	1,580	705	632	296	274	129	71	39
16	40	2,040	2,020	708	1,430	625	585	336	248	123	23	39
17	37	2,360	1,770	660	1,270	540	525	358	229	118	59	32
18	66	2,830	1,550	585	1,120	480	470	320	225	109	47	32
19	31	2,960	1,290	500	994	432	455	292	238	106	42	31
20	58	1,950	1,080	860	880	396	540	270	223	109	38	16
21	33	1,140	1,480	3,090	788	362	705	260	248	94	37	30
22	26	1,340	1,630	3,410	750	360	1,190	248	268	92	39	55
23	28	2,980	2,300	3,480	695	354	961	232	332	87	42	31
24	32	5,590	3,040	3,180	610	352	826	238	336	97	81	31
25	35	7,750	3,820	2,200	545	356	720	227	388	86	70	27
26	19	5,680	4,140	1,870	490	440	665	213	440	60	59	30
27	32	5,930	4,640	3,220	462	785	532	206	432	89	36	17
28	40	6,680	5,450	7,990	412	871	1,000	195	366	79	39	27
29	67	6,890	6,960	7,260	-	1,690	1,900	188	312	79	55	36
30	104	6,400	9,920	4,720	-	3,620	1,640	180	274	67	37	36
31	84	-	9,960	3,340	-	4,760	-	217	-	59	110	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff	
						Inches	Acre-feet
October	1,179	104	16	38.0	0.105	0.12	2,340
November	69,400	7,750	101	2,313	6.39	7.13	137,700
December	129,760	9,960	1,080	4,186	11.6	13.33	257,400
Calendar year 1942	357,284	9,960	16	979	2.70	36.69	708,700
January	112,494	16,500	500	3,629	10.0	11.56	223,100
February	60,376	8,610	412	2,156	5.96	6.20	119,800
March	22,714	4,760	280	733	2.02	2.33	45,050
April	44,700	5,650	455	1,490	4.12	4.59	88,660
May	11,465	1,010	180	370	1.02	1.18	22,740
June	12,880	1,240	223	429	1.19	1.32	25,550
July	4,143	244	59	134	.370	.43	8,220
August	1,860	110	23	60.0	.166	.19	3,690
September	1,212	99	16	40.4	.112	.12	2,400
Water year 1942-43	472,183	16,500	16	1,294	3.57	48.50	936,600

c Backwater from Willamette River; discharge computed on basis of one measurement and fall from station to gage on Willamette River at Albany.

Note.- Shifting-control method used Oct. 29 to Nov. 23.

Time basis: Pacific war time. 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 1943. August 1910 to October 1913 at site above Boulder Creek (records not equivalent).
Average discharge.- 16 years (1907-8, 1928-43), 917 second-feet.
Extremes.- Maximum discharge during year, 12,200 second-feet Nov. 23 (gage height, 9.25 feet), from rating curve extended above 7,800 second-feet; minimum, 264 second-feet (regulated) Oct. 25 (gage height, 0.22 foot); minimum daily, 322 second-feet Oct. 25.
1907-9, 1910-11, 1928-43: 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 (regulated) 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 1942-43 (gage height, in feet, and discharge, in second-feet)

Oct. 1 to Nov. 22				Nov. 23 to Sept. 30					
0.6	338	2.4	1,160	0.9	435	2.8	1,430	5.5	4,540
1.1	500	3.2	1,750	1.4	640	3.6	2,120	6.5	6,310
1.7	770			2.0	945	4.5	3,090	7.6	8,520

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	341	700	4,320	8,350	846	978	f3,560	1,750	2,020	1,300	616	516
2	333	847	4,350	4,510	912	950	f2,830	1,660	1,920	1,240	608	514
3	336	891	2,620	3,030	896	928	f2,480	1,590	1,820	1,220	604	506
4	333	643	2,030	2,370	1,260	912	f2,070	1,560	1,610	1,150	604	498
5	333	552	1,710	2,070	1,210	884	f1,950	1,500	1,560	1,080	649	498
6	331	504	1,490	1,790	2,040	862	f1,930	1,540	1,500	1,070	622	494
7	329	532	1,360	1,560	2,030	890	1,880	1,500	1,490	1,070	604	494
8	329	1,040	1,310	1,410	1,650	1,190	1,910	1,390	1,560	1,050	586	494
9	329	781	1,350	1,300	1,400	1,220	1,780	1,350	1,610	1,030	586	494
10	333	648	1,560	1,220	1,340	1,150	1,620	1,320	1,540	989	577	486
11	351	580	1,420	1,160	1,940	1,080	1,560	1,250	1,410	928	564	486
12	343	544	1,330	1,090	1,930	1,060	1,730	1,180	1,320	874	566	486
13	336	532	1,540	1,060	1,760	1,110	2,020	1,120	1,270	835	564	482
14	348	979	1,570	1,090	1,650	1,090	2,320	1,090	1,220	835	559	478
15	346	1,740	1,470	1,130	1,570	1,010	2,550	1,050	1,140	820	559	470
16	333	1,330	1,440	1,120	1,490	950	2,420	1,020	1,150	795	554	470
17	331	1,540	1,450	1,070	1,450	912	2,190	989	1,250	785	546	470
18	326	1,260	1,400	972	1,450	868	2,070	994	1,530	770	538	470
19	326	1,040	1,300	972	1,450	830	2,360	1,040	1,370	790	534	463
20	326	896	1,330	1,040	1,440	800	2,670	1,100	1,250	790	530	463
21	326	869	1,390	1,090	1,460	785	3,040	1,120	1,220	775	550	463
22	324	1,570	2,380	1,220	1,450	775	2,450	1,220	1,210	740	572	463
23	326	7,270	2,390	1,100	1,370	765	2,180	1,600	1,160	725	534	456
24	326	f5,750	2,180	1,020	1,270	780	1,970	1,720	1,160	720	534	460
25	322	f2,970	1,920	967	1,180	857	1,850	1,820	1,730	710	518	460
26	329	f3,250	1,640	994	1,110	1,320	1,660	1,790	1,580	695	518	460
27	398	7,050	4,250	1,030	1,070	2,010	1,610	1,710	1,430	667	518	463
28	364	4,520	4,680	1,010	1,020	2,060	1,840	1,600	1,370	644	514	449
29	359	7,820	3,160	950	-	2,260	1,840	1,490	1,370	636	613	442
30	361	5,320	3,120	896	-	2,050	1,770	1,530	1,350	631	582	438
31	438	-	7,210	857	-	3,220	-	2,180	-	636	534	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff Inches	Runoff Acre-feet
October	10,566	438	322	341	1.52	1.75	20,960
November	63,968	7,820	504	2,132	9.52	10.62	126,900
December	70,670	7,210	1,300	2,280	10.2	11.73	140,200
Calendar year 1942	352,771	7,820	322	966	4.31	58.57	699,800
January	49,448	8,350	857	1,595	7.12	8.21	98,080
February	39,644	2,040	846	1,416	6.32	6.58	78,630
March	36,556	3,220	765	1,179	5.26	6.07	72,510
April	64,110	3,560	1,560	2,137	9.54	10.64	127,200
May	43,793	2,180	989	1,413	6.31	7.27	86,860
June	43,120	2,020	1,140	1,437	6.42	7.16	85,530
July	27,000	1,300	631	871	3.89	4.48	53,550
August	17,561	649	514	566	2.53	2.92	34,830
September	14,288	518	438	476	2.12	2.37	28,340
Water year 1942-43	480,724	8,350	322	1,317	5.88	79.80	953,600

Peak discharge.- Nov. 23 (6 p.m.) 12,200 sec.-ft.; Nov. 27 (3 a.m.) 8,880 sec.-ft.; Nov. 29 (1:30 p.m.) 10,300 sec.-ft.; Dec. 1 (9 p.m.) 5,390 sec.-ft.; Dec. 27 (2:30 p.m.) 5,800 sec.-ft.; Dec. 31 (12 p.m.) 11,900 sec.-ft.
f Computed on basis of partly estimated gage-height record.
Time basis: Pacific war time. 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 1943.

Extremes.- Maximum discharge during year, 28,800 second-feet Nov. 23 (gage height, 15.17 feet), from rating curve extended above 13,000 second-feet; minimum, 410 second-feet (regulated) Oct. 25 (gage height, 2.87 feet); minimum daily, 456 second-feet Oct. 25.
1938-43: Maximum discharge, that of Nov. 23, 1942; minimum, that of Oct. 25, 1942.

Remarks.- Records excellent except those above 13,000 second-feet, which are good. No diversion above station; slight diurnal fluctuation caused by power plant at Idanha.

Rating table, water year 1942-43 (gage height, in feet, and discharge, in second-feet)

3.0	460	5.0	1,940	8.5	8,300
3.4	640	5.7	2,790	10.0	12,100
3.8	890	6.5	4,020	12.4	19,040
4.4	1,340	7.5	6,000		

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	488	2,430	10,100	18,700	1,800	2,030	10,700	3,540	3,730	2,390	1,030	818
2	484	3,090	9,550	10,100	2,190	1,960	7,630	3,300	3,700	2,270	1,010	806
3	476	2,990	6,590	6,680	2,040	1,920	6,330	3,120	3,860	2,220	1,010	786
4	476	1,820	4,800	5,120	3,680	1,870	5,020	3,090	3,260	2,090	1,000	773
5	480	1,380	3,930	4,600	3,440	1,810	4,520	2,930	2,990	1,910	1,090	766
6	472	1,170	3,390	3,970	7,180	1,740	4,380	3,020	2,860	1,880	1,040	760
7	468	1,240	2,950	3,410	6,920	1,630	4,130	2,920	2,820	1,910	988	754
8	464	3,090	2,950	3,020	4,600	2,710	4,240	2,690	2,910	1,850	953	742
9	464	2,070	3,300	2,790	3,570	2,720	3,880	2,570	2,990	1,830	939	736
10	472	1,590	4,420	2,580	3,310	2,480	3,520	2,530	2,870	1,740	939	730
11	516	1,330	3,790	2,420	5,930	2,280	3,330	2,410	2,580	1,610	911	730
12	508	1,170	3,460	2,270	5,640	2,210	3,760	2,270	2,400	1,490	897	736
13	484	1,140	4,660	2,190	4,840	2,390	4,520	2,150	2,280	1,430	897	718
14	504	2,770	4,580	2,370	4,420	2,310	5,140	2,030	2,170	1,450	890	712
15	524	5,820	4,070	2,670	4,090	2,100	5,500	1,940	2,040	1,420	884	706
16	492	3,880	3,930	2,620	3,730	1,940	5,080	1,900	2,120	1,340	877	700
17	480	5,060	3,930	2,360	3,570	1,830	4,400	1,820	2,350	1,320	864	700
18	472	3,470	3,630	2,130	3,650	1,730	4,130	1,830	2,930	1,310	844	694
19	468	2,670	3,260	2,060	3,630	1,660	4,740	1,930	2,620	1,340	832	688
20	468	2,190	3,420	2,400	3,580	1,590	5,460	2,100	2,300	1,350	825	682
21	464	2,240	3,790	2,530	3,650	1,570	6,640	2,150	2,230	1,330	864	682
22	464	5,020	6,700	3,140	3,580	1,600	5,200	2,360	2,220	1,250	953	682
23	460	18,800	6,370	2,600	3,220	1,610	4,500	3,250	2,160	1,240	858	670
24	460	13,500	5,520	2,270	2,880	1,730	4,200	3,380	2,130	1,240	832	670
25	456	6,770	4,980	2,120	2,600	2,120	3,810	3,520	2,990	1,200	812	676
26	472	7,200	3,970	2,310	2,370	3,990	3,390	3,410	2,800	1,200	812	682
27	706	15,600	11,400	2,520	2,230	6,130	3,220	3,190	2,560	1,140	806	700
28	570	8,640	12,000	2,430	2,120	5,700	3,760	2,950	2,450	1,090	799	682
29	536	16,400	7,650	2,230	-	6,070	3,890	2,740	2,490	1,070	981	670
30	570	12,200	7,560	2,020	-	5,220	3,620	2,720	2,480	1,050	960	664
31	1,030	-	16,700	1,860	-	9,750	-	4,000	-	1,070	851	-

Month	Second-feet-days	Maximum	Minimum	Mean	Per square mile	Runoff Inches	Runoff Acre-feet
October	15,848	1,030	456	511	1.17	1.35	31,430
November	156,740	18,800	1,140	5,225	11.9	13.31	310,900
December	177,350	16,700	2,950	5,721	13.1	15.06	351,800
Calendar year 1942	760,051	18,800	456	2,082	4.75	64.55	1,508,000
January	110,490	18,700	1,860	3,564	8.14	9.38	219,200
February	104,460	7,180	1,800	3,731	8.52	8.87	207,200
March	86,600	9,750	1,570	2,794	6.38	7.35	171,800
April	142,640	10,700	3,220	4,755	10.9	12.11	282,900
May	83,760	4,000	1,820	2,702	6.17	7.11	166,100
June	80,290	3,860	2,040	2,676	6.11	6.82	159,300
July	47,030	2,390	1,050	1,517	3.46	3.99	93,280
August	28,248	1,090	799	911	2.08	2.40	56,030
September	21,515	818	664	717	1.64	1.83	42,670
Water year 1942-43	1,054,971	18,800	456	2,890	6.60	89.58	2,093,000

Peak discharge.- Nov. 23 (4:20 p.m.) 28,800 sec.-ft.; Nov. 27 (2:30 a.m.) 20,200 sec.-ft.; Nov. 29 (3 p.m.) 22,900 sec.-ft.; Dec. 27 (3 p.m.) 15,600 sec.-ft.; Jan. 1 (2 a.m.) 24,900 sec.-ft.; Mar. 31 (8 p.m. to 10 p.m.) 13,200 sec.-ft.

Time basis: Pacific war time. 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 1943.
Average discharge.- 27 years (1905-6, 1910-14, 1921-43), 3,177 second-feet.
Extremes.- Maximum discharge during year, 43,800 second-feet Nov. 23 (gage height, 13.56 feet); minimum, 476 second-feet Oct. 22; minimum daily, 500 second-feet Oct. 25.
1905-7, 1910-14, 1921-43: Maximum discharge, 62,900 second-feet Nov. 20, 1921, Jan. 6, 1923 (gage height, 17.5 feet); minimum, 400 second-feet Sept. 29, Oct. 13, 1934; minimum daily, 420 second-feet Sept. 18, 1924.
Remarks.- Records good. Slight regulation of low 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.

Rating tables, water year 1942-43 (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Oct. 1-14, July 23 to Sept. 30)

Oct. 1 to Nov. 23

1.6	500	3.5	2,860	7.0	12,600
2.0	830	4.2	4,270	8.5	18,730
2.4	1,250	5.0	6,220	10.0	25,700
2.9	1,900	6.0	9,170		

Nov. 24 to Sept. 30

1.8	700	4.2	4,430	8.5	18,700
2.3	1,200	5.0	6,350	11.0	30,600
2.8	1,850	6.0	9,170		
3.4	2,810	7.0	12,600		

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	535	6,550	14,200	28,400	2,850	2,620	17,200	5,120	5,140	2,830	1,140	895
2	528	6,060	14,100	15,000	4,540	2,520	12,000	4,660	5,360	2,620	1,110	866
3	521	6,110	9,360	10,100	4,280	2,450	10,100	4,320	6,400	2,620	1,120	847
4	521	3,590	7,030	7,720	8,800	2,390	7,770	4,190	5,070	2,520	1,110	838
5	514	2,590	5,800	7,490	7,300	2,310	6,770	3,970	4,430	2,250	1,220	828
6	514	2,120	5,030	6,690	15,300	2,210	6,430	4,170	4,080	2,180	1,220	818
7	514	2,040	4,660	5,550	13,200	2,230	5,980	4,100	3,820	2,170	1,100	809
8	514	5,050	5,780	4,800	8,560	3,630	6,250	3,700	3,780	2,120	1,060	800
9	514	3,820	6,510	4,360	6,380	3,800	5,820	3,470	3,820	2,100	1,020	790
10	514	2,780	8,470	4,030	5,620	3,350	5,410	3,370	3,650	2,030	1,010	781
11	578	2,260	6,820	3,650	11,300	2,990	4,980	3,280	3,260	1,850	985	781
12	602	1,940	6,080	3,330	10,000	2,760	5,410	2,990	3,010	1,720	975	781
13	563	1,820	8,710	3,140	8,500	3,180	6,200	2,810	2,860	1,630	975	772
14	563	4,140	7,750	3,430	7,550	3,310	6,770	2,660	2,710	1,610	975	754
15	626	11,200	6,690	3,740	6,900	2,920	7,220	2,570	2,540	1,610	955	745
16	563	7,110	6,280	3,700	6,220	2,690	6,560	2,660	2,540	1,540	935	745
17	535	9,430	6,000	3,290	5,820	2,520	5,720	2,560	2,740	1,520	925	736
18	521	6,490	5,360	2,810	5,720	2,360	5,290	2,470	3,630	1,500	905	736
19	514	4,770	4,660	2,710	5,530	2,280	6,080	2,520	3,290	1,520	898	727
20	514	3,760	4,840	3,490	5,380	2,150	7,110	2,690	2,970	1,520	895	718
21	514	3,530	5,750	3,990	5,430	2,120	9,710	2,740	2,950	1,490	935	718
22	507	9,330	9,810	5,460	5,260	2,180	7,550	2,850	2,990	1,430	1,090	718
23	507	28,200	9,590	4,190	4,660	2,200	6,480	4,140	2,970	1,400	975	709
24	507	21,400	8,440	3,490	4,060	2,420	6,080	4,280	2,880	1,380	915	709
25	500	11,000	8,200	3,200	3,550	3,350	5,530	4,410	3,680	1,360	885	709
26	521	11,400	6,300	3,630	3,200	5,800	4,890	4,230	3,610	1,360	866	718
27	890	24,100	15,500	4,390	2,970	9,330	4,500	3,930	3,220	1,280	866	763
28	785	12,700	17,400	4,520	2,790	8,500	5,190	3,570	3,030	1,220	856	736
29	659	24,000	11,700	4,080	-	9,750	5,950	3,280	2,970	1,200	1,100	718
30	740	17,300	12,700	3,490	-	8,200	5,360	3,290	2,950	1,170	1,210	709
31	2,010	-	25,400	3,070	-	16,300	-	5,380	-	1,180	955	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff	
						Inches	Acre-feet
October	18,908	2,010	500	610	0.917	1.06	37,500
November	256,590	28,200	1,820	8,553	12.9	14.35	508,900
December	274,920	25,400	4,660	8,868	13.3	15.37	545,300
Calendar year 1942	1,155,781	28,200	500	3,167	4.76	64.63	2,292,000
January	170,940	28,400	2,710	5,514	8.29	9.56	339,100
February	181,670	15,300	2,790	6,488	9.76	10.16	360,300
March	124,820	16,300	2,120	4,026	6.05	6.98	247,600
April	206,310	17,200	4,500	6,877	10.3	11.54	409,200
May	110,380	5,380	2,470	3,561	5.35	6.17	218,900
June	106,350	6,400	2,540	3,545	5.33	5.95	210,900
July	53,930	2,830	1,170	1,740	2.62	3.02	107,000
August	31,186	1,220	856	1,006	1.51	1.74	61,860
September	22,974	895	709	766	1.15	1.28	45,570
Water year 1942-43	1,558,978	28,400	500	4,271	6.42	87.18	3,092,000

Peak discharge.- Nov. 23 (4 p.m.) 43,800 sec.-ft.; Nov. 27 (3:30 a.m.) 31,700 sec.-ft.; Nov. 29 (4 p.m.) 33,200 sec.-ft.; Jan. 1 (1 a.m.) 39,200 sec.-ft.; Feb. 6 (5 p.m.) 22,500 sec.-ft.; Mar. 31 (7 p.m.) 22,700 sec.-ft.
Time basis: Pacific war time. 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.- 1,700 square miles.

Records available.- July 1905 to July 1906 (gage heights only), October 1907 to September 1916 and October 1939 to September 1943 in reports of Geological Survey. April 1904 to September 1937 (gage heights only, incomplete 1904-7, 1923-28) in reports of U. S. Weather Bureau.

Average discharge.- 13 years (1907-16, 1939-43), 7,409 second-feet.

Extremes.- Maximum discharge during year, 99,300 second-feet Jan. 1 (gage height, 21.24 feet); minimum, 340 second-feet Oct. 9, 10.

1905-6, 1907-16, 1939-43: Maximum discharge observed, 108,000 second-feet during night of Nov. 22, 1909 (gage height, 18.2 feet, site and datum then in use), from poorly defined extension of rating curve above 54,000 second-feet; minimum 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 stage known, 19.5 feet Nov. 21, 1921 (referred to gage at railroad bridge 350 feet downstream, site and datum used prior to Oct. 1, 1940).

Remarks.- Records excellent. Salem Canal diverts from North Santiam River at Stayton for irrigation and power use, most of this water reaching 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 reaching Willamette River at Albany. No regulation.

Cooperation.- Gage-height record collected in cooperation with U. S. Weather Bureau.

Rating tables, water year 1942-43 (gage height, in feet, and discharge, in second-feet)

Oct 1 to Nov. 23					Nov. 24 to Sept. 30						
2.1	365	4.2	2,670	10.5	20,100	1.9	620	5.5	5,400	14.5	42,200
2.4	540	5.0	3,930	12.0	27,400	2.4	920	7.0	7,500	17.0	61,500
2.7	770	6.0	5,800	15.0	46,000	3.0	1,470	8.5	11,800	20.0	87,400
3.1	1,180	7.5	9,270			3.5	2,340	10.0	17,200		
3.6	1,610	9.0	14,000			4.7	3,550	12.0	26,600		

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	420	10,300	38,200	91,900	9,220	5,360	54,200	10,700	10,100	4,450	1,200	1,040
2	414	12,000	42,000	56,800	13,000	5,060	33,500	9,470	10,200	4,080	1,180	913
3	420	16,000	28,500	34,500	15,100	4,810	27,600	8,480	15,200	3,910	1,150	864
4	398	9,650	20,300	24,300	23,500	4,550	20,800	7,920	12,700	4,050	1,130	830
5	382	6,810	17,300	21,200	28,600	4,420	16,900	7,430	9,980	3,540	1,210	765
6	392	5,170	15,600	19,600	32,100	4,200	15,200	7,800	8,350	3,260	1,450	761
7	392	4,410	15,300	15,800	52,700	4,120	13,300	7,800	7,400	3,140	1,280	737
8	387	8,880	21,600	13,200	30,700	7,020	13,300	7,170	6,800	3,040	1,150	714
9	376	9,650	22,600	11,800	20,500	8,840	12,700	6,560	6,480	3,010	1,080	686
10	370	6,870	25,900	10,800	16,200	7,340	12,000	6,210	6,090	2,960	1,040	681
11	392	5,300	21,600	9,760	24,600	6,320	10,900	6,170	5,510	2,720	992	681
12	462	4,330	17,400	8,720	26,900	5,680	10,500	5,710	5,090	2,530	936	681
13	516	3,780	22,600	7,960	22,100	5,860	11,100	5,330	4,950	2,330	920	692
14	492	4,570	22,400	8,050	19,700	7,510	11,700	5,040	4,640	2,230	906	676
15	510	22,900	18,200	8,450	17,700	6,860	12,100	4,880	4,280	2,180	885	676
16	561	20,200	16,400	8,500	15,800	6,170	11,400	5,040	4,000	2,080	864	665
17	480	23,600	15,400	7,600	14,600	5,680	9,980	4,830	4,050	1,980	857	665
18	426	21,000	13,600	6,660	13,700	5,260	8,940	4,520	4,990	1,900	837	665
19	398	14,500	11,600	6,170	12,600	4,860	9,630	4,420	5,220	1,850	811	660
20	404	10,600	11,200	9,470	11,700	4,540	10,900	4,440	4,880	1,800	804	655
21	392	8,770	13,800	14,900	11,300	4,350	19,800	4,520	4,780	1,780	818	650
22	392	17,400	19,100	18,300	11,000	4,340	16,600	4,520	5,130	1,700	952	635
23	387	40,400	26,000	14,700	9,810	4,420	13,200	5,490	5,330	1,630	1,070	625
24	387	79,500	21,400	11,200	8,520	4,520	12,200	6,240	5,440	1,560	906	620
25	387	43,800	25,800	9,580	7,510	5,810	10,800	6,260	5,790	1,520	830	630
26	376	24,900	19,100	10,100	6,720	8,980	9,710	6,170	7,040	1,470	798	686
27	506	67,300	29,000	14,600	6,170	16,900	8,740	5,730	6,090	1,390	779	660
28	1,300	49,300	51,700	18,900	5,680	17,200	10,200	5,310	5,400	1,330	773	660
29	982	45,600	35,300	16,800	-	22,200	13,300	4,880	5,020	1,270	850	650
30	788	64,700	37,800	13,200	-	22,800	11,900	4,790	4,720	1,220	1,370	635
31	1,130	-	61,300	10,600	-	32,600	-	7,810	-	1,190	1,310	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	15,619	1,300	370	504	30,980
November	662,190	79,500	3,780	22,070	1,313,000
December	758,000	61,300	11,200	24,450	1,503,000
Calendar year 1942	2,761,138	79,500	365	7,565	5,476,000
January	533,920	91,900	6,170	17,220	1,059,000
February	487,730	52,700	5,680	17,420	967,400
March	258,580	32,600	4,120	8,341	512,900
April	453,100	54,200	8,740	15,100	898,700
May	191,640	10,700	4,420	6,182	380,100
June	195,680	15,200	4,000	6,523	388,100
July	73,100	4,450	1,190	2,358	145,000
August	31,138	1,450	773	1,004	61,760
September	21,178	1,040	620	706	42,010
Water year 1942-43	3,681,875	91,900	370	10,090	7,302,000

Peak discharge.- Nov. 24 (6 a.m.) 94,600 sec.-ft.; Nov. 27 (2 p.m.) 85,000 sec.-ft.; Nov. 30 (2:30 a.m.) 83,600 sec.-ft.; Jan. 1 (12 m.) 99,300 sec.-ft.; Feb. 7 (4 a.m.) 63,700 sec.-ft.; Apr. 1 (6:30 a.m.) 60,500 sec.-ft.

Time basis: Pacific war time. 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.- 108 equare miles.
Records available.- June 1932 to September 1943. October 1910 to October 1913 (fragmentary), at site below French Creek; records equivalent except for inflow from French Creek.
Average discharge.- 11 years (1932-43), 525 second-feet.
Extremes.- Maximum discharge during year, 10,400 second-feet Nov. 23 (gage height, 10.56 feet), from rating curve extended above 4,700 second-feet; minimum, 97 second-feet Oct. 7-10 (gage height, 0.37 foot).
1932-43: Maximum discharge, that of Nov. 23, 1942; minimum, 87 second-feet Sept. 2, 1940 (gage height, 0.36 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 tables, water year 1942-43 (gage height, in feet, and discharge, in second-feet)

Oct. 1 to Nov. 22				Nov. 23 to Sept. 30					
0.4	100	2.0	509	0.8	141	2.9	925	6.8	4,880
.7	141	2.5	750	1.3	255	3.7	1,450	8.2	6,780
1.1	219	3.0	1,020	1.8	415	4.6	2,260		
1.5	327	3.8	1,550	2.3	625	5.6	3,380		

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	102	780	2,600	4,320	390	499	2,860	892	903	705	297	198
2	102	1,050	2,260	2,240	467	491	2,070	835	850	670	285	194
3	101	838	1,440	1,470	447	479	1,660	810	881	675	282	189
4	101	540	1,080	1,140	810	467	1,280	815	780	607	279	184
5	100	400	898	1,020	790	447	1,180	770	730	535	315	182
6	99	330	770	908	1,980	423	1,170	775	730	558	288	178
7	99	362	670	785	1,750	427	1,120	730	760	584	264	174
8	99	943	648	690	1,140	540	1,140	661	820	566	252	169
9	98	586	715	638	866	580	1,020	634	835	576	248	169
10	101	437	914	598	800	535	903	630	810	523	245	167
11	118	362	825	a558	1,590	503	881	589	695	467	238	167
12	112	321	760	519	1,480	491	1,060	544	630	412	235	165
13	106	315	1,110	511	1,250	531	1,310	511	566	404	235	161
14	115	896	1,080	580	1,140	519	1,510	483	527	431	230	159
15	120	1,560	974	656	1,060	475	1,630	459	515	419	225	157
16	108	1,040	969	643	952	431	1,440	439	584	354	220	155
17	105	1,300	974	a540	886	408	1,220	423	760	350	215	155
18	102	866	886	a470	920	387	1,140	427	952	387	210	155
19	101	680	800	a440	925	373	1,310	467	750	408	208	153
20	101	553	840	a500	920	359	1,420	519	602	419	205	149
21	100	567	914	a530	947	359	1,670	540	562	401	218	149
22	99	1,680	1,570	598	930	373	1,270	666	558	362	250	147
23	99	6,660	1,460	523	840	380	1,130	1,000	535	366	212	143
24	99	3,690	1,270	467	735	431	1,050	956	527	359	205	143
25	99	1,730	1,120	439	643	571	964	1,010	735	352	200	143
26	110	2,390	936	471	569	1,140	855	958	705	348	196	147
27	185	4,230	3,240	531	548	1,700	820	892	656	327	194	151
28	128	2,160	3,070	527	523	1,590	964	815	661	309	191	147
29	128	4,970	1,830	479	--	1,640	969	735	720	300	240	143
30	148	2,590	1,740	435	--	1,340	914	725	750	294	230	141
31	404	-	4,760	401	--	2,710	-	1,030	-	306	208	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff Inches	Runoff Acre-feet
October	3,689	404	98	119	1.10	1.27	7,320
November	45,126	6,660	315	1,504	13.9	15.54	89,510
December	43,123	4,760	648	1,391	12.9	14.85	85,530
Calendar year 1942	192,863	6,660	98	528	4.89	66.41	382,600
January	24,627	4,320	401	794	7.35	8.48	48,850
February	26,338	1,980	390	941	8.71	9.07	52,240
March	21,599	2,710	359	697	6.45	7.44	42,840
April	37,930	2,860	820	1,264	11.7	13.06	75,230
May	21,770	1,030	423	702	6.50	7.50	43,180
June	21,089	952	515	703	6.51	7.26	41,830
July	13,834	705	294	446	4.13	4.76	27,440
August	7,320	315	191	236	2.19	2.52	14,520
September	4,834	198	141	161	1.49	1.66	9,590
Water year 1942-43	271,279	6,660	98	743	6.88	93.41	538,100

Peak discharge.- Nov. 23 (3:00 p.m.) 10,400 sec.-ft.; Nov. 27 (12:30 a.m.) 6,210 sec.-ft.; Nov. 29 (12 m.) 6,980 sec.-ft.; Dec. 27 (1:30 p.m.) 4,620 sec.-ft.; Jan. 1 (12:30 a.m.) 6,040 sec.-ft.; Mar. 31 (7 p.m. to 8 p.m.) 3,660 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. 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 1943. July to September 1924 and July to September 1931 at site 4 miles upstream.

Average discharge.- 12 years, 728 second-feet.

Extremes.- Maximum discharge during year, 19,400 second-feet Nov. 23 (gage height, 14.9 feet), from rating curve extended above 10,000 second-feet; minimum observed, 25 second-feet Oct. 8-10, 22, 25 (gage height, 2.16 feet).
1924, 1931-43: Maximum discharge, that of Nov. 23, 1942; minimum observed, 21 second-feet Sept. 11, 1934, Sept. 27, 28, 1938, Sept. 1, 1940.

Remarks.- Records good except those for periods of considerable fluctuation or doubtful or no gage-height record, which are fair. No regulation or diversion above station. Gage read once daily.

Rating table, water year 1942-43 (gage height, in feet, and discharge, in second-feet)

2.1	20	4.0	398	8.0	4,270
2.3	37	4.5	630	9.0	6,180
2.5	58	5.0	895	10.0	8,200
2.8	92	5.5	1,190	11.0	10,400
3.2	154	6.0	1,620	13.0	14,900
3.6	256	7.0	2,740		

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	29	3,780	5,080	8,550	635	423	6,580	939	1,070	262	72	58
2	28	2,780	3,990	2,870	1,520	402	3,450	646	1,130	256	59	55
3	28	2,110	2,260	1,880	1,520	394	2,510	d760	2,070	262	60	52
4	28	1,170	1,340	1,510	3,920	382	1,580	720	1,910	272	100	48
5	27	1,260	1,180	1,890	3,000	378	1,290	736	961	232	92	45
6	26	780	1,030	1,680	7,140	348	1,210	856	834	210	81	40
7	26	895	928	1,390	5,200	531	1,080	790	685	215	72	42
8	25	1,040	1,720	1,080	2,500	944	1,230	685	640	182	68	39
9	25	1,100	2,420	1,040	1,720	818	1,100	620	625	197	62	37
10	25	862	3,200	928	1,520	625	994	590	536	171	61	36
11	35	635	1,980	840	5,010	512	956	556	480	164	50	36
12	51	522	2,320	741	3,430	436	1,020	471	423	152	56	35
13	37	475	4,470	675	2,540	522	1,080	453	411	149	58	35
14	36	988	2,690	605	2,250	605	1,200	436	390	145	51	35
15	d64	3,970	2,050	670	1,950	512	1,070	419	326	134	52	31
16	47	1,950	1,910	807	1,670	436	1,000	d800	329	126	51	32
17	45	3,300	1,640	640	1,530	419	988	d700	371	123	47	31
18	38	1,950	1,220	489	1,310	367	1,030	a620	531	117	48	30
19	29	1,110	972	484	1,070	367	1,050	a540	580	108	47	31
20	30	868	1,000	961	1,210	359	1,190	a480	565	108	49	29
21	26	812	1,680	906	1,280	371	2,740	427	493	110	52	28
22	25	4,520	4,690	1,240	1,160	411	2,000	432	503	101	85	28
23	26	13,800	2,660	944	934	415	1,210	763	570	96	64	27
24	28	7,600	1,680	685	824	763	1,060	650	512	85	54	26
25	25	2,610	1,950	670	645	1,140	1,100	630	458	93	48	26
26	26	4,600	1,520	934	551	2,180	829	541	419	95	44	28
27	221	8,720	7,700	1,040	489	3,900	758	453	386	90	42	33
28	128	3,280	4,800	1,240	453	2,370	912	444	344	82	43	34
29	84	11,500	2,430	1,040	-	3,460	1,400	415	319	80	86	32
30	98	4,650	3,520	796	-	2,740	1,220	493	272	76	138	32
31	746	-	10,000	730	-	7,600	-	1,480	-	73	69	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff Inches	Runoff Acre-feet
October	2,112	746	25	68.1	0.619	0.71	4,190
November	93,617	13,800	475	3,121	28.4	31.65	185,700
December	86,040	10,000	928	2,775	25.2	29.09	170,700
Calendar year 1942	317,543	13,800	22	870	7.91	107.35	629,900
January	39,955	8,550	484	1,289	11.7	13.51	79,250
February	56,981	7,140	453	2,035	18.5	19.26	113,000
March	35,130	7,600	348	1,133	10.3	11.88	69,680
April	44,837	6,580	758	1,495	13.6	15.15	88,930
May	19,745	1,480	415	637	5.79	6.68	39,160
June	19,143	2,070	272	638	5.80	6.47	37,970
July	4,566	272	73	147	1.34	1.54	9,060
August	1,961	138	42	63.3	.575	.65	3,890
September	1,071	58	26	35.7	.325	.36	2,120
Water year 1942-43	405,158	13,800	25	1,110	10.1	136.97	803,600

a No gage-height record; discharge computed on basis of record for Molalla River above Pine Creek, near Wilhoit.
d Doubtful gage-height record; discharge computed on basis of records for Molalla River above Pine Creek, near Wilhoit.
Time basis: Pacific war time. 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 1943. Records do not include the runoff from 3 square miles between cable and gage.

Extremes.- Maximum discharge during year, 17,000 second-feet Dec. 31 (gage height, 15.75 feet), from rating curve extended above 6,300 second-feet by logarithmic plotting; minimum, 38 second-feet Oct. 9, 10 (gage height, 1.09 feet).

1935-43: Maximum discharge, that of Dec. 31, 1942; minimum, 23 second-feet Dec. 1, 2, 1936 (gage height, 0.98 foot).

Remarks.- Records excellent except those for period of no gage-height record, 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 1942-43 (gage height, in feet, and discharge, in second-feet)

Oct. 1 to Dec. 30								Dec. 31 to Sept. 30			
1.1	39	1.9	137	3.4	660	7.2	3,610	1.4	56	2.3	221
1.3	56	2.3	214	5.0	1,100	8.6	5,220	1.6	82	2.8	385
1.6	92	2.8	385	6.0	2,450	11.1	8,540	1.9	130		

Note.- Same as preceding table above 2.8 feet.

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	42	1,180	3,970	10,300	a780	484	3,700	1,140	1,300	456	111	85
2	44	1,360	3,720	4,480	a1,400	452	2,580	980	2,020	401	113	79
3	42	1,430	2,480	2,760	a1,400	430	2,290	876	2,950	401	111	72
4	41	876	1,760	2,000	a2,800	409	1,740	810	1,900	381	108	69
5	41	615	1,390	1,880	2,540	385	1,620	766	1,410	334	143	68
6	40	474	1,230	1,680	2,810	365	1,440	859	1,160	310	123	68
7	39	580	1,260	1,350	2,800	430	1,270	815	969	292	113	67
8	39	1,470	2,250	1,170	2,080	1,380	1,350	735	854	283	103	64
9	39	998	2,910	1,060	1,520	1,090	1,230	680	760	283	100	63
10	40	690	3,090	980	1,350	820	1,210	655	685	259	97	61
11	67	520	2,230	881	2,050	680	1,100	605	600	244	96	61
12	92	421	2,030	793	2,100	615	1,100	556	556	230	91	61
13	62	377	2,680	760	2,080	705	1,160	510	533	218	88	61
14	60	1,400	2,320	832	1,980	810	1,180	479	506	210	66	60
15	80	3,230	2,040	670	1,860	695	1,180	506	482	199	86	57
16	60	2,170	1,960	810	1,770	625	1,050	546	417	192	82	56
17	51	2,850	1,800	760	1,650	570	908	497	417	184	78	56
18	47	1,970	1,550	620	1,510	510	832	470	479	175	74	56
19	45	1,350	1,290	590	1,340	479	1,080	466	456	170	74	56
20	44	1,000	1,290	1,430	1,240	448	1,400	470	482	166	74	55
21	43	914	1,330	1,980	1,220	443	2,050	461	515	157	88	55
22	42	2,390	2,330	2,500	1,140	452	1,560	474	610	151	132	54
23	42	7,430	2,340	1,630	964	443	1,350	590	570	145	97	52
24	41	6,290	2,550	1,210	815	470	1,210	605	551	140	85	50
25	41	2,910	2,710	1,020	705	635	1,080	610	1,000	134	79	49
26	50	3,900	1,910	1,110	625	1,090	936	560	964	130	76	52
27	192	7,490	4,910	1,380	565	1,720	914	510	755	127	72	60
28	146	3,400	5,340	1,430	520	1,550	1,320	461	645	123	71	58
29	109	8,500	3,390	1,220	-	1,970	1,500	425	565	116	132	56
30	132	5,060	5,260	a1,020	-	1,900	1,290	533	502	115	143	55
31	192	-	10,900	a830	-	3,650	-	1,340	-	113	100	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff	
						Inches	Acre-feet
October	2,045	192	39	66.0	0.379	0.44	4,060
November	73,245	8,500	377	2,442	14.0	15.66	145,300
December	86,220	10,900	1,230	2,781	16.0	18.43	171,000
Calendar year 1942	307,369	10,900	39	842	4.84	65.70	609,700
January	51,336	10,300	590	1,656	9.52	10.97	101,800
February	43,514	2,810	520	1,558	8.95	9.32	86,510
March	26,705	3,650	365	861	4.95	5.71	52,970
April	42,630	3,700	832	1,421	8.17	9.11	84,560
May	19,990	1,340	425	645	3.71	4.27	39,650
June	25,563	2,950	417	852	4.90	5.46	50,680
July	6,839	456	113	221	1.27	1.46	13,560
August	3,026	143	71	97.6	.561	.65	6,000
September	1,816	85	49	60.5	.348	.39	3,600
Water year 1942-43	383,019	10,900	39	1,049	6.03	81.87	759,700

Peak discharge.- Nov. 23 (6 p.m.) 13,500 sec.-ft.; Nov. 27 (2 a.m.) 11,900 sec.-ft.; Nov. 29 (1 p.m.) 12,800 sec.-ft.; Dec. 27 (4 p.m.) 6,970 sec.-ft.; Dec. 30 (9 p.m.) 9,240 sec.-ft.; Dec. 31 (10:15 p.m.) 17,000 sec.-ft.

a No gage-height record; discharge computed on basis of records for South Santiam River at Waterloo and Middle Santiam River near Foster.

Time basis: Pacific war time. 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 1943.
Average discharge.- 21 years (1905-6, 1923-43), 2,705 second-feet.
Extremes.- Maximum discharge during year, 60,700 second-feet Jan. 1 (gage height, 20.09 feet), from rating curve extended above 37,000 second-feet; minimum, 143 second-feet Oct. 9, 10 (gage height, 2.08 feet).
1905-7, 1910-11, 1923-43: 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 good. No diversion or regulation above station.
Cooperation.- Gage-height record collected in cooperation with U. S. Weather Bureau.

Rating tables, water year 1942-43 (gage height, in feet, and discharge, in second-feet)

Oct. 1 to Dec. 31						Jan. 1 to Sept. 30					
2.1	149	3.7	1,450	9.5	16,450	2.2	182	3.7	1,380	9.5	16,100
2.3	222	4.3	2,300	12.0	25,300	2.4	270	4.3	2,220	12.0	25,500
2.6	390	5.0	3,510	15.0	37,200	2.7	450	5.0	3,350	14.0	33,800
2.9	625	6.0	5,800			3.0	675	6.0	5,390	17.0	46,800
3.3	990	7.5	10,010			3.3	945	7.5	9,400		

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	a159	5,550	16,300	44,500	3,530	1,950	19,200	4,040	4,340	1,460	404	372
2	a162	6,020	16,700	20,000	5,910	1,820	11,400	3,490	5,300	1,330	397	330
3	a159	7,060	10,800	15,400	6,000	1,720	9,710	3,130	8,630	1,280	397	313
4	a156	4,010	7,720	8,420	13,700	1,640	7,150	2,870	5,930	1,320	384	302
5	a153	2,820	6,430	7,660	11,000	1,580	6,150	2,690	4,450	1,140	492	297
6	a150	2,180	5,880	7,200	13,700	1,480	5,500	3,010	3,640	1,040	499	286
7	a148	1,900	5,880	5,810	14,800	1,540	4,830	2,900	3,100	985	417	275
8	146	5,380	9,220	4,980	9,520	4,180	4,980	2,640	2,750	945	391	265
9	146	4,120	10,900	4,590	6,830	3,980	4,660	2,390	2,470	975	366	256
10	146	2,840	12,300	4,300	5,740	3,060	4,570	2,240	2,220	907	360	251
11	179	2,150	9,250	3,840	9,960	2,550	4,100	2,250	1,960	841	354	246
12	326	1,750	7,780	3,480	9,620	2,260	3,900	2,070	1,820	796	342	246
13	270	1,570	11,100	3,210	8,480	2,640	4,040	1,920	1,810	760	330	236
14	222	2,580	9,760	3,440	7,770	3,260	4,120	1,780	1,670	734	324	236
15	276	12,600	8,270	3,580	7,170	2,800	4,180	1,790	1,520	700	313	241
16	270	11,300	7,780	3,390	6,580	2,480	3,770	1,850	1,390	675	308	218
17	210	11,500	7,220	2,960	6,280	2,250	3,280	1,710	1,370	643	302	218
18	186	8,270	6,300	2,580	5,760	2,070	2,980	1,600	1,720	619	292	214
19	175	5,900	5,300	2,400	5,160	1,910	3,530	1,550	1,670	595	286	246
20	166	4,340	5,280	5,070	4,790	1,750	4,560	1,550	1,700	580	286	190
21	162	3,630	6,300	6,730	4,590	1,710	8,420	1,540	1,790	550	308	186
22	159	10,100	10,500	9,250	4,340	1,740	6,100	1,510	2,010	528	450	182
23	156	27,600	11,000	6,300	3,790	1,750	5,010	1,820	2,070	513	410	186
24	156	26,400	9,820	4,760	3,280	1,860	4,570	1,910	2,010	506	330	182
25	156	12,200	11,900	4,060	2,850	2,670	4,040	1,910	2,770	485	308	182
26	159	12,600	8,040	4,450	2,550	4,520	3,570	1,790	2,980	450	302	190
27	503	30,400	17,800	6,200	2,320	7,230	3,320	1,610	2,400	443	292	202
28	791	14,300	21,200	6,940	2,100	6,280	4,260	1,480	2,070	430	286	218
29	432	28,500	13,600	5,930	-	7,800	5,390	1,380	1,790	437	417	202
30	439	21,600	17,600	4,790	-	7,610	4,640	1,470	1,610	424	651	190
31	717	-	38,100	3,940	-	16,100	-	4,190	-	410	464	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff Inches	Runoff Acre-feet
October	7,635	791	146	246	0.384	0.44	15,140
November	291,170	30,400	1,570	9,706	15.2	16.92	577,500
December	345,130	38,100	5,280	11,130	17.4	20.06	684,600
Calendar year 1942	1,166,577	38,100	146	3,196	4.99	67.79	2,314,000
January	220,360	44,500	2,400	7,108	11.1	12.81	437,100
February	188,120	14,800	2,100	6,719	10.5	10.93	373,100
March	106,190	16,100	1,480	3,425	5.35	6.17	210,600
April	165,930	19,200	2,980	5,531	8.64	9.64	329,100
May	68,080	4,190	1,380	2,196	3.43	3.96	135,000
June	80,960	8,630	1,370	2,699	4.22	4.70	160,600
July	23,501	1,460	410	758	1.18	1.37	46,610
August	11,462	661	286	370	.578	.67	22,730
September	7,158	372	182	239	.373	.42	14,200
Water year 1942-43	1,515,696	44,500	146	4,153	6.49	88.09	3,006,000

Peak discharge.- Nov. 23 (8:30 p.m.) 52,200 sec.-ft.; Nov. 27 (4:30 a.m.) 46,000 sec.-ft.; Nov. 29 (4 p.m.) 43,900 sec.-ft.; Dec. 27 (6 p.m.) 28,100 sec.-ft.; Jan. 1 (2:30 a.m.) 60,700 sec.-ft.; Mar. 31 (11 p.m.) 25,800 sec.-ft.
a No gage-height record; discharge computed on basis of records for South Santiam River below Cascadia and Middle Fork Santiam River near Foster.
Time basis: Pacific war time. 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 1943.

Average discharge.- 12 years, 1,459 second-feet.

Extremes.- Maximum discharge during year, 33,500 second-feet Dec. 31 (gage height, 18.70 feet), from rating curve extended above 23,000 second-feet; minimum, 70 second-feet Oct. 10 (gage height, 1.42 feet).
1931-43: Maximum discharge, that of Dec. 31, 1942; minimum, 54 second-feet Dec. 1, 1936 (gage height, 1.25 feet).

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

Rating tables, water year 1942-43 (gage height, in feet, and discharge, in second-feet)

Oct. 1 to Nov. 22

1.5	78	3.6	645	7.0	3,370
2.0	146	4.2	970	8.5	5,450
2.5	259	5.0	1,510	10.0	8,300
3.0	405	6.0	2,340		

Nov. 23 to Sept. 30

1.5	94	4.2	990	10.0	6,250
2.0	169	5.0	1,540	12.0	12,750
2.5	284	6.0	2,450	15.0	21,300
3.0	440	7.0	3,550		
3.6	685	8.5	5,580		

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	77	3,980	9,560	20,700	1,420	1,030	10,600	2,040	2,330	730	217	165
2	78	4,440	8,290	8,810	2,500	974	6,090	1,780	3,010	676	215	153
3	77	3,700	4,990	5,310	2,350	924	5,060	1,600	3,710	672	210	146
4	76	2,150	3,570	3,850	7,410	891	3,620	1,480	2,560	654	206	141
5	75	1,550	2,850	3,830	4,860	655	3,130	1,420	1,970	583	271	136
6	74	1,240	2,450	3,380	8,750	825	2,620	1,650	1,660	546	238	132
7	73	1,260	2,270	2,690	6,760	913	2,470	1,560	1,440	514	215	126
8	72	3,230	2,610	2,360	4,220	2,650	2,650	1,360	1,310	499	204	125
9	72	2,070	3,770	2,250	3,060	2,120	2,420	1,270	1,200	503	195	122
10	75	1,480	5,180	2,120	2,840	1,620	2,330	1,220	1,070	462	169	118
11	124	1,150	4,080	1,900	6,710	1,350	2,060	1,240	966	430	183	116
12	169	976	3,720	1,690	7,030	1,230	2,040	1,140	908	412	179	116
13	108	904	6,180	1,640	4,670	1,480	2,240	1,040	886	395	173	115
14	118	2,390	4,920	1,870	4,220	1,580	2,340	974	835	379	169	114
15	165	6,190	4,290	1,930	3,900	1,330	2,370	940	775	363	167	110
16	113	4,120	4,120	1,780	3,610	1,180	2,060	935	730	353	164	109
17	94	5,950	3,800	1,510	3,450	1,080	1,760	891	735	338	160	107
18	86	3,780	3,290	1,300	3,210	996	1,620	855	974	329	153	107
19	83	2,760	2,760	1,200	2,890	935	2,040	850	906	318	151	106
20	80	2,120	3,040	2,810	2,690	870	3,640	860	918	306	151	104
21	79	2,300	3,720	3,110	2,660	870	4,840	845	984	298	167	102
22	78	7,500	7,560	4,030	2,480	924	3,360	860	990	287	233	102
23	77	19,200	5,710	2,700	2,090	946	2,780	1,080	996	276	183	100
24	76	12,000	5,280	2,060	1,760	1,100	2,520	1,060	962	271	162	99
25	75	5,580	5,050	1,760	1,520	1,740	2,230	1,080	1,450	261	153	98
26	91	8,900	3,670	2,080	1,330	3,310	1,910	990	1,360	250	148	104
27	471	17,100	12,200	2,600	1,200	4,840	1,770	908	1,120	243	144	115
28	302	6,920	10,400	2,570	1,100	3,770	2,380	820	968	238	141	111
29	195	17,200	6,180	2,210	-	4,220	2,840	760	870	233	233	104
30	231	9,780	2,070	1,820	-	3,610	2,350	935	790	228	301	101
31	1,120	-	23,400	1,660	-	11,400	-	2,880	-	224	195	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff	
						Inches	Acre-feet
October	4,684	1,120	72	151	0.557	0.64	9,290
November	161,920	19,200	904	5,397	19.9	22.22	321,200
December	177,960	23,400	2,270	5,741	21.2	24.42	353,000
Calendar year 1942	611,191	23,400	72	1,674	6.18	83.87	1,212,000
January	99,430	20,700	1,200	3,207	11.8	13.65	197,200
February	100,690	8,750	1,100	3,596	13.3	13.82	199,700
March	61,563	11,400	825	1,986	7.33	8.45	122,100
April	90,340	10,600	1,620	3,011	11.1	12.40	179,200
May	37,343	2,880	760	1,205	4.45	5.12	74,070
June	39,387	3,710	730	1,313	4.85	5.41	78,120
July	12,271	730	224	396	1.46	1.68	24,340
August	5,870	301	141	189	.697	.81	11,640
September	3,504	165	98	117	.432	.48	6,950
Water year 1942-43	794,982	23,400	72	2,176	8.04	109.10	1,577,000

Peak discharge.- Nov. 23 (5 p.m.) 31,300 sec.-ft.; Nov. 26 (12:30 a.m.) 28,300 sec.-ft.; Nov. 29 (12 m.) 25,600 sec.-ft.; Dec. 27 (1 p.m.) 17,900 sec.-ft.; Dec. 31 (10:30 p.m.) 33,500 sec.-ft.; Mar. 31 (7:30 p.m.) 16,600 sec.-ft.

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

Albany power canal near Lebanon, Oreg.

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 1943. February to December 1919 at site near Albany.

Average discharge.- 17 years, 220 second-feet.

Extremes.- Maximum discharge during year, 346 second-feet Nov. 15 (gage height, 4.15 feet); minimum, 14 second-feet Mar. 9 (gage height, 0.27 foot).
1919, 1926-43: Maximum discharge, that of Nov. 15, 1942; no flow at times.

Remarks.- Records good. 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 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	118	328	230	89	244	269	180	254	282	264	240	227
2	116	284	219	77	258	269	241	249	272	264	239	217
3	116	269	217	74	261	275	239	243	274	261	240	207
4	116	264	221	140	268	273	236	238	246	266	240	204
5	119	270	218	191	255	272	242	253	249	261	247	205
6	116	281	216	225	176	272	254	269	281	258	282	198
7	106	278	216	264	149	273	249	272	277	259	248	189
8	120	292	204	274	234	275	256	269	282	258	244	185
9	121	281	191	273	225	239	261	263	279	258	232	183
10	121	277	229	268	218	256	264	261	276	255	232	180
11	119	272	238	265	232	270	260	272	275	251	230	178
12	208	269	241	264	248	273	258	260	287	255	227	180
13	227	267	250	262	254	277	259	279	284	256	224	174
14	191	270	246	264	251	284	261	278	276	253	220	169
15	201	299	241	265	249	277	264	279	267	252	219	163
16	224	255	247	264	252	263	262	279	265	252	215	164
17	191	253	252	262	259	259	259	278	260	253	211	153
18	174	250	255	a256	258	257	254	278	265	253	211	144
19	153	256	262	a250	256	270	258	276	265	253	209	158
20	149	262	261	246	258	277	265	277	266	253	210	150
21	142	263	264	253	255	277	277	275	267	252	215	138
22	141	288	267	264	254	272	249	266	267	250	238	136
23	136	239	261	250	263	268	251	268	268	254	245	133
24	136	206	259	245	278	269	257	270	270	256	231	138
25	136	230	241	240	281	268	248	271	274	255	217	139
26	137	203	235	239	286	286	258	270	227	245	212	142
27	198	194	203	202	271	281	268	266	269	245	206	153
28	269	189	178	118	271	281	264	264	265	244	204	158
29	258	233	150	182	-	245	268	262	260	244	224	154
30	256	221	140	249	-	210	261	264	260	243	257	151
31	264	-	157	243	-	132	-	284	-	242	243	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	5,079	269	106	164	10,070
November	7,743	328	189	258	15,360
December	7,009	267	140	226	13,900
Calendar year 1942	86,724	328	106	238	172,000
January	6,958	274	74	224	13,800
February	6,964	286	149	249	13,810
March	8,169	286	132	264	16,200
April	7,623	277	180	254	15,120
May	8,307	284	238	268	16,480
June	8,055	287	227	268	15,980
July	7,867	266	242	254	15,600
August	7,092	262	204	229	14,070
September	5,057	227	133	169	10,030
Water year 1942-43	85,923	328	74	235	170,400

a No gage-height record; discharge computed on basis of recorded range in stage and trend of gage-height graph for adjacent days.
Time basis: Pacific war time. 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 1943.

Extremes.- Maximum discharge during year, 4,380 second-feet Nov. 23 (gage height, 11.65 feet); minimum, 9 second-feet Oct. 6-10.
1934-43: Maximum discharge, 5,080 second-feet Dec. 29, 1937; minimum, 7 second-feet Sept. 2-5, 10, 21, 22, 1934.

Remarks.- Records fair except those above 1,500 second-feet, which are poor. No diversion or regulation above station; log ponds upstream cause diurnal fluctuation at times.

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	11	264	844	1,870	301	115	1,740	137	90	40	19	19
2	10	473	748	936	525	110	876	133	117	39	19	18
3	10	371	546	619	549	105	591	122	110	41	19	16
4	10	223	457	508	980	102	457	118	100	39	20	15
5	10	166	414	542	731	97	370	129	91	37	26	14
6	9	149	408	457	2,010	92	325	133	84	36	26	14
7	10	166	668	369	1,380	88	278	118	78	33	22	14
8	10	179	1,500	347	703	85	261	113	73	36	20	13
9	9	162	1,050	278	518	81	228	108	66	41	18	13
10	10	143	832	276	501	78	201	105	62	36	18	13
11	13	127	594	241	1,120	74	187	105	61	33	16	14
12	14	115	525	216	784	74	174	100	61	32	15	14
13	11	115	470	198	552	102	166	96	61	30	14	15
14	22	367	404	185	434	96	151	96	57	29	14	14
15	21	748	356	179	353	92	141	94	51	28	13	13
16	14	654	317	166	322	90	133	91	50	27	13	13
17	11	1,080	280	151	286	86	127	86	50	27	13	14
18	10	668	258	137	253	81	126	84	49	26	12	14
19	10	457	225	135	221	81	149	81	47	26	13	13
20	11	356	266	244	201	77	187	78	49	26	13	13
21	10	325	280	225	187	73	203	73	54	24	22	12
22	10	424	395	194	172	70	183	70	74	24	42	12
23	10	2,630	353	181	162	70	196	69	66	23	22	12
24	10	1,110	344	166	161	86	179	66	56	22	19	12
25	10	594	336	162	139	111	170	62	55	22	16	12
26	12	965	344	221	131	196	159	58	49	23	14	13
27	33	1,690	1,730	291	126	454	166	56	46	22	14	18
28	28	717	948	504	118	728	157	52	45	22	15	13
29	20	1,370	1,060	484	-	828	153	55	43	21	36	12
30	26	948	1,480	376	-	748	149	85	41	20	28	12
31	221	-	1,770	317	-	2,620	-	107	-	19	20	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff Inches	Runoff Acre-feet
October	626	221	9	20.2	0.594	0.68	1,240
November	17,656	2,630	115	589	17.3	19.31	35,020
December	20,202	1,770	225	652	19.2	22.10	40,070
Calendar year 1942	71,202	2,630	9	195	5.74	77.88	141,200
January	11,195	1,870	135	361	10.6	12.25	22,200
February	13,910	2,010	118	497	14.6	15.22	27,590
March	7,790	2,620	70	251	7.38	8.52	15,450
April	8,585	1,740	126	286	8.41	9.39	17,020
May	2,679	137	52	92.9	2.73	3.15	5,710
June	1,936	117	41	64.5	1.90	2.12	3,840
July	904	41	19	29.2	.859	.99	1,790
August	591	42	12	19.1	.562	.65	1,170
September	414	19	12	13.8	.406	.45	821
Water year 1942-43	86,686	2,630	9	237	6.97	94.83	171,900

Peak discharge.- Nov. 23 (11 a.m.) 4,380 sec.-ft.; Nov. 26 (11:30 p.m.) 2,620 sec.-ft; Dec. 27 (10 a.m. to 11 a.m.) 3,490 sec.-ft.; Jan. 1 (2 a.m.) 2,950 sec.-ft.; Feb 6 (4 p.m.) 3,590 sec.-ft. Mar. 31 (4 p.m.) 4,280 sec.-ft.

Time basis: Pacific war time. 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.- 112 square miles.

Records available.- October 1940 to September 1943.

Extremes.- Maximum discharge during year, 7,010 second-feet Nov. 23 (gage height, 14.44 feet, from rating curve extended above 3,400 second-feet; minimum observed, 10 second-feet (regulated) Oct. 9, 10 (gage height, 0.88 foot); minimum daily, 12 second-feet Oct. 9.

1940-43: Maximum discharge, that of Nov. 23, 1942; minimum observed, 9 second-feet Aug. 16, 18, 23, 24, 1941 (gage height, 0.82 foot).

Remarks.- Records fair. Gage read twice daily. Small diversions above station for irrigation. Some diurnal fluctuation in summer caused by log ponds above station.

Rating tables, water year 1942-43 (gage height, in feet, and discharge, in second-feet)

(Shifting-control method used Nov. 15, 17, Sept. 5-30)

Oct. 1 to Nov. 22						Nov. 23 to Sept. 30					
0.9	11	1.9	102	4.0	550	0.9	14	2.3	169	6.2	1,300
1.1	21	2.3	170	5.0	870	1.1	25	2.8	289	7.7	1,945
1.3	35	2.8	265	6.2	1,300	1.3	42	3.4	418	9.5	2,890
1.6	63	3.4	394	7.7	2,010	1.6	76	4.0	560	11.0	3,850
						1.9	119	5.0	870	13.0	5,430

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	21	451	2,550	4,820	940	272	4,360	308	176	80	38	38
2	21	595	2,040	2,780	1,710	260	2,380	287	208	77	39	35
3	21	640	1,530	1,960	1,540	246	1,480	272	200	80	39	34
4	21	349	1,270	1,510	2,710	236	1,120	256	181	79	38	34
5	21	216	a1,220	1,640	2,040	228	919	260	168	72	52	31
6	20	220	1,280	1,300	4,600	214	779	287	152	70	51	31
7	20	271	1,430	1,080	4,130	214	650	254	142	68	45	27
8	13	302	3,620	912	2,330	216	616	236	133	68	39	24
9	12	257	3,450	790	1,610	197	541	224	129	70	38	25
10	17	218	2,500	694	1,350	189	490	218	122	70	38	24
11	19	183	2,130	599	2,510	181	431	210	116	64	38	26
12	27	163	1,580	536	1,940	181	411	212	118	62	36	26
13	14	148	1,260	495	1,450	224	374	195	121	61	33	26
14	32	245	1,030	454	1,150	246	356	191	114	58	32	26
15	35	1,600	919	442	1,030	234	318	197	112	55	31	25
16	29	1,350	786	409	807	218	312	193	103	55	29	24
17	27	2,010	686	372	672	208	291	176	106	53	29	24
18	17	1,470	608	339	605	195	281	168	100	53	29	23
19	21	1,030	553	270	560	189	329	159	97	53	29	27
20	21	744	577	694	495	180	329	154	103	51	29	23
21	21	706	678	591	459	174	403	152	112	49	33	23
22	21	1,040	814	517	418	172	359	147	127	47	77	20
23	27	5,030	754	478	370	165	363	142	161	45	50	14
24	17	3,260	765	427	361	168	350	135	119	45	44	24
25	22	1,720	793	474	337	224	342	127	113	43	33	20
26	22	2,440	748	563	316	278	320	125	104	43	31	21
27	52	4,140	3,500	835	304	821	342	121	97	45	30	26
28	52	2,130	2,600	1,940	286	1,480	320	118	91	44	27	30
29	54	3,540	2,630	1,720	-	2,040	310	113	84	42	61	27
30	32	2,520	3,990	1,070	-	1,900	302	138	82	40	71	20
31	253	-	4,640	852	-	5,410	-	206	-	38	43	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff Inches	Runoff Acre-feet
October	1,002	253	12	32.3	0.288	0.33	1,990
November	38,988	5,030	148	1,300	11.6	12.95	77,330
December	52,931	4,640	553	1,707	15.2	17.58	105,000
Calendar year 1942	164,464	5,030	12	451	4.03	54.62	326,200
January	31,563	4,820	270	1,018	9.09	10.48	62,600
February	37,029	4,600	285	1,322	11.8	12.30	73,450
March	17,160	5,410	165	554	4.95	5.70	34,040
April	20,178	4,360	281	673	6.01	6.70	40,020
May	5,981	308	113	193	1.72	1.99	11,860
June	3,791	208	82	126	1.12	1.26	7,520
July	1,780	80	38	57.4	.512	.59	3,530
August	1,232	77	27	39.7	.354	.41	2,440
September	778	38	14	25.9	.231	.26	1,540
Water year 1942-43	212,413	5,410	12	582	5.20	70.55	421,300

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

Time basis: Pacific war time. 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.- 236 square miles.

Records available.- August 1905 to October 1911, July 1940 to September 1943.

Extremes.- Maximum discharge during year, 14,400 second-feet Apr. 1 (gage height, 29.40 feet), from rating curve extended above 11,000 second-feet; minimum, 25 second-feet Oct. 7, 8 (gage height, 1.84 feet).

1905-11, 1940-43: Maximum discharge, that of Apr. 1, 1943; minimum observed, 23 second-feet Aug. 30 to Sept. 1, 1940, Aug. 12, 1941.

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 1942-43 (gage height, in feet, and discharge, in second-feet)

Oct. 1 to Mar. 31

1.8	23	5.5	384	21.0	3,070
2.0	36	7.0	585	24.0	4,250
2.4	64	9.0	870	27.0	6,960
2.9	102	12.0	1,320	28.0	9,220
3.6	164	15.0	1,810	29.0	12,700
4.5	259	18.0	2,350		

Apr. 1 to Sept. 30

2.0	34	3.2	134	6.5	515
2.3	56	4.0	214	8.5	795
2.7	89	5.0	326	12.0	1,320

Note. Same as preceding table above 12.0 feet.

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	45	683	5,160	10,100	1,600	585	12,500	623	351	a150	58	67
2	36	700	5,070	7,540	2,250	551	6,750	575	339	a148	60	58
3	40	1,370	4,100	5,360	2,960	523	4,510	543	381	a148	61	53
4	37	862	2,860	3,910	3,240	500	2,840	510	345	a150	60	51
5	36	553	2,520	3,090	4,190	478	2,090	489	314	134	70	47
6	37	414	2,500	2,750	4,900	454	1,700	544	290	126	87	48
7	26	441	2,780	2,240	11,600	436	1,450	502	268	120	82	49
8	33	512	5,330	1,900	6,440	436	1,310	464	249	117	70	46
9	37	512	6,060	1,650	4,410	418	1,170	438	237	130	66	42
10	32	432	5,310	1,460	2,980	394	1,050	421	224	128	66	41
11	36	367	4,090	1,300	3,670	376	940	408	215	123	57	41
12	37	317	2,930	1,160	4,910	367	861	397	216	114	60	43
13	48	282	2,670	1,060	3,730	376	788	392	218	110	57	44
14	43	410	2,280	975	2,620	462	733	370	214	105	54	45
15	58	1,640	1,920	920	2,060	457	685	379	205	99	51	43
16	63	2,230	1,670	874	1,750	420	637	360	194	98	49	39
17	52	2,570	1,470	806	1,520	400	602	343	188	94	47	38
18	45	3,060	1,310	724	1,360	379	568	325	195	92	46	41
19	35	2,350	1,190	673	1,230	361	612	312	185	89	46	41
20	40	1,630	1,130	942	1,120	348	649	293	173	85	47	a40
21	39	1,340	1,330	1,410	1,030	336	882	289	194	82	49	40
22	39	1,650	1,590	1,180	944	326	770	281	208	78	76	38
23	41	2,990	1,770	1,040	862	319	740	277	278	78	121	35
24	44	8,420	1,580	930	794	320	770	266	248	74	77	33
25	31	5,890	1,650	888	738	418	700	250	215	71	62	33
26	36	3,920	1,480	990	690	558	669	242	197	70	55	33
27	43	8,070	3,490	1,360	651	1,200	673	236	183	71	51	36
28	86	7,030	7,540	2,320	616	1,960	703	225	174	72	48	44
29	85	5,100	5,530	3,080	-	3,290	656	220	a168	70	58	45
30	64	6,130	7,060	2,500	-	3,580	619	236	a160	67	105	40
31	109	-	7,930	1,920	-	5,970	-	368	-	62	86	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff Inches	Runoff Acre-feet
October	1,432	109	26	46.2	0.196	0.23	2,840
November	72,115	8,460	282	2,404	10.2	11.36	143,000
December	104,090	7,930	1,130	3,358	14.2	16.40	206,500
Calendar year 1942	324,568	8,460	27	889	3.77	51.14	643,800
January	67,054	10,100	673	2,163	9.17	10.57	133,000
February	74,865	11,600	616	2,674	11.3	11.80	148,500
March	26,998	5,970	319	871	3.69	4.25	53,550
April	49,628	12,500	568	1,654	7.01	7.82	98,440
May	11,578	623	220	373	1.58	1.82	22,960
June	7,026	381	160	234	.992	1.11	13,940
July	3,155	150	62	102	.432	.50	6,260
August	1,982	121	46	63.9	.271	.31	3,930
September	1,294	67	33	43.1	.183	.20	2,570
Water year 1942-43	421,217	12,500	26	1,154	4.89	66.37	835,500

Peak discharge.- Nov. 24 (11 a.m.) 10,400 sec.-ft.; Nov. 27 (5 p.m.) 10,800 sec.-ft.; Dec. 28 (6 a.m. to 7 a.m.) 8,460 sec.-ft.; Jan. 1 (2 p.m.) 11,000 sec.-ft.; Feb. 7 (8 a.m.) 14,000 sec.-ft.; Apr. 1 (6 a.m.) 14,400 sec.-ft.

a No gage-height record; discharge computed on basis of records for stations near Hoskins and at Pedee.

Time basis: Pacific war time. 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 1943 in reports of Geological Survey. November 1938 to September 1940 in files of Oregon State engineer.

Extremes.- Maximum discharge during year, 3,880 second-feet Feb. 7 (gage height, 6.95 feet), from rating curve extended above 2,600 second-feet; minimum, 91 second-feet (regulated) Sept. 26; minimum daily, 96 second-feet Sept. 26.

1938-43: Maximum discharge, that of Feb. 7, 1943; 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 fair. 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 at head gates and small power plants above station.

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	174	241	1,400	2,780	660	244	2,460	354	227	209	163	174
2	164	267	1,230	1,870	1,040	230	1,410	322	230	213	159	172
3	184	285	870	1,340	1,030	220	1,200	299	234	197	152	174
4	202	227	714	996	1,120	257	805	285	227	200	148	159
5	197	209	1,060	1,000	1,040	247	716	276	237	193	163	169
6	177	200	1,280	824	2,000	240	595	287	a231	191	178	169
7	174	207	1,340	635	3,060	250	495	274	225	191	174	165
8	174	239	2,640	525	1,980	287	543	255	222	195	165	159
9	167	256	2,010	456	1,320	244	491	244	220	193	163	163
10	177	250	1,250	400	1,080	218	464	234	218	167	155	159
11	202	212	894	358	1,230	200	398	234	211	161	157	157
12	217	195	818	372	910	197	354	225	211	155	159	172
13	190	200	990	354	720	274	325	220	216	176	159	174
14	197	410	736	344	607	322	316	213	204	174	159	172
15	205	888	570	326	531	296	299	209	206	174	161	165
16	195	870	476	312	527	285	301	211	206	163	163	169
17	202	1,220	432	283	483	271	287	204	213	137	152	169
18	207	1,230	428	241	433	260	274	200	220	165	150	176
19	195	852	386	205	402	268	316	197	220	176	152	176
20	184	610	440	588	374	255	354	222	225	182	155	178
21	179	664	620	692	354	255	391	209	230	161	167	165
22	172	1,100	692	525	328	268	301	206	230	153	193	167
23	174	2,190	650	502	301	250	287	209	237	162	162	167
24	184	2,320	736	440	279	250	257	193	225	148	172	150
25	184	1,420	736	390	250	271	234	189	216	152	176	132
26	195	1,480	610	525	266	347	227	200	218	165	163	96
27	214	2,680	1,590	1,120	247	363	287	200	195	167	167	171
28	a216	1,590	1,630	1,920	285	561	412	195	191	163	153	184
29	a218	1,830	1,500	1,780	-	1,060	527	195	184	163	197	161
30	219	1,720	2,310	1,160	-	1,160	398	189	186	163	218	165
31	225	-	2,180	802	-	2,240	-	218	-	163	184	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	5,984	225	167	193	11,870
November	26,062	2,680	195	869	61,690
December	33,218	2,640	386	1,072	65,690
Calendar year 1942	148,423	2,680	158	407	294,400
January	24,065	2,780	205	776	47,730
February	22,857	3,060	247	816	45,340
March	12,090	2,240	197	390	23,980
April	15,724	2,460	227	524	31,190
May	7,168	354	189	231	14,220
June	6,515	237	184	217	12,920
July	5,362	213	137	173	10,640
August	5,159	218	148	166	10,230
September	4,929	184	96	164	9,780
Water year 1942-43	169,133	3,060	96	463	335,500

a No gage-height record; discharge interpolated.
Time basis: Pacific war time. To convert war time to standard time, subtract 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). Prior to June 22, 1943, water-stage recorder 20 feet upstream at same datum.

Records available.- October 1940 to September 1943 in reports of Geological Survey. July 1938 to September 1940 in files of Oregon State engineer.

Extremes.- Maximum discharge during year, 1,110 second-feet Feb. 7 (gage height, 5.53 feet, from floodmark); minimum, 5.1 second-feet Aug. 17.

1938-43: Maximum discharge recorded, that of Feb. 7, 1943; no flow Oct. 2, 1939.

Remarks.- Records good except those for periods of no gage-height record, which are fair. 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 tables, water year 1942-43 (gage height, in feet, and discharge, in second-feet)

Oct. 1 to Nov. 23				Nov. 24 to Sept. 30					
0.8	28	2.2	272	0.5	6	1.7	157	3.6	586
1.0	49	2.7	388	.7	18	2.1	236	4.2	741
1.5	128	3.3	532	1.0	48	2.5	322	5.0	960
1.8	186	4.3	791	1.3	89	3.0	438	5.8	1,190

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	30	110	388	868	232	64	650	143	97	68	62	33
2	45	123	385	524	309	49	351	132	91	74	26	28
3	46	130	324	395	322	55	302	117	89	60	12	31
4	66	89	263	265	318	82	219	108	a90	78	12	23
5	59	66	358	353	293	80	180	103	a94	74	19	138
6	38	62	446	367	538	68	144	110	a87	55	32	143
7	33	65	467	296	a900	91	110	100	a80	45	29	25
8	38	99	632	259	a570	110	125	88	74	61	34	22
9	29	94	570	226	a400	74	110	86	77	58	25	22
10	41	84	344	213	a320	76	100	74	73	29	17	21
11	68	66	256	166	a350	50	88	70	70	38	13	17
12	79	53	215	189	a240	50	89	71	76	27	12	34
13	64	50	268	176	178	97	127	67	91	29	10	35
14	56	178	199	172	150	129	122	67	73	37	11	34
15	58	458	143	166	120	110	115	61	59	32	29	26
16	57	431	112	163	129	114	114	92	77	32	24	23
17	63	532	148	159	172	105	103	70	74	20	10	29
18	82	571	174	a140	165	97	105	54	74	41	8	34
19	72	446	144	a110	152	99	122	55	76	36	10	46
20	45	335	166	a280	141	84	141	64	95	39	9	41
21	52	335	234	329	139	95	161	61	92	23	16	26
22	44	510	268	257	119	99	120	66	88	19	61	27
23	37	780	270	244	100	84	110	114	88	16	45	27
24	44	768	509	236	88	86	88	64	84	14	25	19
25	59	395	358	205	68	99	82	54	77	22	33	12
26	63	376	402	261	80	136	71	54	82	22	20	6
27	62	830	686	479	70	152	110	56	74	22	20	21
28	96	457	526	702	88	217	165	59	63	26	17	42
29	a97	450	498	566	--	395	205	68	54	17	79	25
30	a98	481	768	376	--	450	165	78	50	26	73	28
31	a100	--	720	524	--	650	--	86	--	22	44	--

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	1,811	100	29	58.4	3,590
November	9,424	830	50	314	18,690
December	11,039	768	112	356	21,900
Calendar year 1942	56,569	830	23	155	112,200
January	9,466	868	110	305	18,780
February	6,751	900	68	241	13,390
March	4,147	650	49	134	8,230
April	4,694	650	71	156	9,310
May	2,484	143	54	80.1	4,930
June	2,369	97	50	79.0	4,700
July	1,162	78	14	37.5	2,300
August	827	79	8	26.7	1,640
September	1,038	143	6	34.6	2,060
Water year 1942-43	65,212	900	6	151	109,500

a No gage-height record; discharge computed on basis of records for station at penitentiary annex, near Salem, and unpublished records on Shelton ditch at Salem.

Time basis: Pacific war time. 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 1943.

Extremes.- Maximum discharge during year, 9,380 second-feet Nov. 23 (gage height, 10.97 feet); minimum, 3 second-feet (regulated) Oct. 16; minimum daily, 17 second-feet Sept. 24.

1934-43: 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 good. Occasional slight regulation during summer due to millpond upstream; no diversion above station.

Cooperation.- Gage-height record collected in cooperation with U. S. Weather Bureau.

Rating tables, water year 1942-43 (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Aug. 22 to Sept. 30)

Oct. 1 to Nov. 22

0.6	13	3.0	830
.8	31	4.0	1,440
1.0	63	5.0	2,200
1.3	134	6.5	3,720
1.6	224	8.0	5,430
2.0	365	10.0	8,030
2.5	580		

Nov. 23 to Sept. 30

0.6	15	1.6	229
.8	34	2.0	366
1.0	66	2.5	580
1.3	139		

Note.- Same as preceding table above 2.5 feet.

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	18	604	2,570	5,410	995	281	6,880	336	195	97	33	30
2	20	972	2,470	3,590	2,190	278	3,630	315	268	94	34	28
3	21	951	1,920	2,380	2,090	242	2,190	298	268	90	35	26
4	21	650	1,570	1,860	3,530	223	1,540	278	235	92	35	25
5	20	490	1,360	2,380	2,980	210	1,190	281	217	81	48	24
6	19	483	1,270	1,880	6,810	195	940	329	192	76	66	22
7	19	544	1,770	1,580	5,380	192	790	298	174	70	44	21
8	19	544	3,120	1,210	3,070	186	725	274	162	70	37	20
9	19	472	2,900	984	1,970	174	695	261	151	94	33	18
10	20	389	2,830	825	1,990	168	620	258	139	81	32	18
11	23	331	2,110	695	4,460	162	535	261	134	72	31	19
12	30	288	1,710	590	2,800	162	466	248	131	64	30	18
13	29	284	1,560	530	1,960	198	437	232	136	62	28	19
14	34	1,530	1,230	481	1,480	232	397	223	131	59	27	19
15	47	2,680	1,030	458	1,170	223	362	226	120	55	26	19
16	19	2,350	874	421	962	214	333	214	115	53	25	19
17	20	3,420	760	370	810	198	315	198	117	52	24	20
18	24	2,440	655	326	710	189	301	189	115	48	23	21
19	24	1,740	566	315	620	204	370	177	110	47	23	21
20	22	1,270	630	832	544	201	463	168	120	45	24	21
21	22	1,190	725	720	490	192	522	162	120	44	26	21
22	23	1,630	1,240	585	441	183	437	159	195	44	42	20
23	24	7,520	1,000	522	401	192	620	151	229	42	38	19
24	26	4,950	946	472	359	204	595	145	195	38	30	17
25	27	2,710	924	458	329	287	517	136	159	37	25	19
26	28	3,500	912	825	308	595	454	134	139	40	22	21
27	69	4,500	6,090	1,170	291	1,330	463	128	134	40	21	27
28	84	2,620	4,220	1,880	284	3,470	425	123	123	38	22	24
29	42	2,980	4,770	1,690	-	3,210	397	123	110	37	62	20
30	38	2,470	4,960	1,340	-	3,050	362	159	104	34	66	17
31	320	-	6,170	1,090	-	7,600	-	255	-	33	35	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff Inches	Runoff Acre-feet
October	1,171	320	18	37.8	0.284	0.33	2,320
November	56,502	7,520	284	1,883	14.2	15.80	112,100
December	64,862	6,170	566	2,092	15.7	18.14	128,700
Calendar year 1942	211,202	7,520	13	579	4.35	59.04	419,000
January	37,869	5,410	315	1,222	9.19	10.59	75,110
February	49,424	6,810	284	1,765	13.3	13.82	98,030
March	24,445	7,600	162	789	5.93	6.84	48,490
April	27,991	6,880	301	933	7.02	7.83	55,520
May	6,739	336	123	217	1.63	1.88	13,370
June	4,738	268	104	158	1.19	1.32	9,400
July	1,829	97	33	59.0	.444	.51	3,630
August	1,047	66	21	33.8	.254	.29	2,080
September	633	30	17	21.1	.159	.18	1,260
Water year 1942-43	277,250	7,600	17	760	5.71	77.53	550,000

Time basis: Pacific war time. 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 1943.
Extremes.- Maximum discharge during year, 22,300 second-feet Apr. 1 (gage height, 41.91 feet); minimum, 30 second-feet Sept. 25, 26 (gage height, 1.30 feet).
1940-43: Maximum discharge, that of Apr. 1, 1943; minimum, 18 second-feet Aug. 23, 1941 (gage height, 1.11 feet).
Remarks.- Records 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.

Rating tables, water year 1942-43 (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Jan. 2-6)

Oct. 1 to Nov. 15				Nov. 16 to Sept. 30			
1.4	36	7.0	750	1.3	30	10.0	1,220
1.8	62	10.0	1,250	1.7	54	13.0	1,850
2.3	106	13.0	1,820	2.3	98	17.0	2,830
3.0	179	16.0	2,485	3.0	156	22.0	4,260
4.0	304	20.0	3,600	4.0	253	29.0	6,495
5.0	445			5.5	445	37.0	10,750
				7.5	765	41.0	19,100

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	34	894	7,120	16,800	f3,030	831	21,200	899	494	199	69	77
2	34	899	7,160	13,500	3,900	794	15,700	830	466	191	67	65
3	37	1,860	6,770	9,330	6,830	753	10,200	785	578	196	66	61
4	40	1,330	5,510	7,660	6,120	722	6,910	738	520	208	70	58
5	40	988	4,470	6,370	7,150	690	4,350	709	472	196	75	53
6	37	739	3,980	5,810	7,740	656	3,000	782	429	161	92	51
7	35	876	4,360	4,670	17,700	632	2,380	767	394	152	110	49
8	34	915	6,190	3,620	14,600	616	2,060	717	358	147	84	47
9	34	922	7,890	2,890	9,650	590	1,820	670	331	170	74	45
10	34	774	7,610	2,400	6,780	563	1,680	646	310	191	69	44
11	34	648	6,790	2,040	6,340	538	1,480	661	298	163	62	42
12	36	556	5,490	1,750	7,740	522	1,330	634	294	150	60	42
13	44	488	4,540	1,560	6,880	533	1,200	597	298	141	61	43
14	52	685	3,790	1,430	5,160	616	1,110	562	298	132	59	45
15	62	3,430	3,040	1,340	3,800	640	1,030	557	282	124	58	46
16	80	4,530	2,500	1,300	3,000	614	951	533	266	120	55	42
17	61	5,210	2,120	1,170	2,490	597	897	512	252	118	54	40
18	43	6,290	1,830	1,040	2,130	562	845	494	253	111	53	41
19	43	5,560	1,590	1,130	1,880	550	882	469	240	107	49	41
20	42	3,980	1,470	f1,120	1,690	554	911	438	250	97	50	43
21	40	2,830	1,760	1,890	1,540	531	1,280	422	263	96	51	42
22	37	3,040	2,130	a1,600	1,410	508	1,190	408	272	88	57	39
23	38	5,110	2,740	a1,400	1,280	496	1,150	402	399	86	78	37
24	37	11,300	2,370	a1,250	1,170	498	1,340	377	392	84	77	34
25	38	12,400	2,340	a1,100	1,070	595	1,220	358	348	80	60	31
26	41	8,860	2,140	h1,160	989	904	1,090	338	308	77	55	30
27	45	9,710	4,890	h2,290	926	1,820	1,030	328	274	77	50	34
28	118	11,200	12,800	h3,210	875	3,560	1,040	317	254	79	48	36
29	136	8,630	f13,200	h6,690	-	6,760	978	304	236	78	58	48
30	89	7,880	f17,200	a4,700	-	7,640	926	316	218	76	121	45
31	103	-	15,900	a3,700	-	9,770	-	463	-	72	115	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff Inches	Runoff Acre-feet
October	1,578	136	34	50.9	0.101	0.12	3,130
November	122,534	12,400	488	4,084	8.14	9.08	243,000
December	171,690	17,200	1,470	5,538	11.0	12.72	340,500
Calendar year 1942	528,544	17,200	25	1,448	2.88	39.16	1,048,000
January	115,930	16,800	1,040	3,740	7.45	8.59	229,900
February	132,870	17,700	875	4,745	9.45	9.84	263,500
March	45,655	9,770	496	1,473	2.93	3.38	90,560
April	91,180	21,200	845	3,039	6.05	6.75	180,900
May	17,033	899	304	549	1.09	1.26	33,780
June	10,047	578	218	335	.667	.74	19,930
July	3,967	208	72	128	.255	.29	7,870
August	2,107	121	48	68.0	.135	.16	4,180
September	1,351	77	30	45.0	.090	.10	2,680
Water year 1942-43	715,942	21,200	30	1,961	3.91	53.03	1,420,000

Peak discharge.- Nov. 24 (7 p.m. to 8 p.m.) 4,800 sec.-ft.; Nov. 28 (2 a.m.) 12,100 sec.-ft.; Dec. 28 (3 p.m.) 15,400 sec.-ft.; Jan. 1 (5 p.m. to 6 p.m.) 17,300 sec.-ft.; Feb. 7 (12 m. to 1 p.m.) 20,600 sec.-ft.; Apr. 1 (11:30 a.m.) 22,300 sec.-ft.
a No gage-height record; discharge computed on basis of records for South Yamhill River near Willamina and Willamina Creek near Willamina.
f Computed on basis of partly estimated gage-height record.
h Computed from staff-gage reading.
Time basis: Pacific war time. 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 1943.
Extremes.- Maximum discharge during year, 4,000 second-feet Mar. 31 (gage height, 8.49 feet); minimum, 12 second-feet Oct. 6, 9, 10.
1934-43: Maximum discharge, 5,720 second-feet Dec. 27, 1937 (gage height, 8.83 feet); 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 periods of no gage-height record, which are fair. No regulation or diversion above station.

Rating tables, water year 1942-43 (gage height, in feet, and discharge, in second-feet)

Oct. 1 to Mar. 31

1.3	13	2.6	164	5.0	1,075
1.5	20	3.0	255	6.0	1,670
1.7	33	3.5	415	7.0	2,450
2.0	62	4.0	605	8.0	3,430
2.3	107	4.5	825		

Apr. 1 to Sept. 30

1.3	13.8
1.5	21.3
1.7	33

Note.- Same as preceding table above 1.7 feet.

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	15	156	1,220	2,300	356	a180	2,610	160	102	52	22	20
2	15	248	1,150	1,570	676	a180	1,350	150	136	50	25	20
3	14	212	900	1,120	690	a165	945	140	118	51	26	19
4	14	162	726	900	1,180	a150	704	138	105	50	26	18
5	13	120	601	965	1,180	a140	561	148	97	47	35	18
6	13	125	541	798	1,580	a135	457	162	90	45	34	17
7	13	152	577	672	2,090	a135	394	148	84	44	27	16
8	13	179	1,020	565	a1,200	a135	348	138	81	47	25	16
9	13	150	1,120	485	a750	a130	315	133	76	58	23	15
10	13	121	1,300	422	a750	a125	276	138	74	49	23	15
11	15	100	1,040	366	a1,500	a120	248	131	71	45	22	15
12	15	86	875	324	a1,150	a120	228	129	75	44	21	18
13	15	86	766	294	a900	a130	212	125	75	40	20	16
14	25	366	641	267	758	140	198	121	74	39	20	16
15	19	694	545	261	629	134	185	120	71	38	19	14
16	15	723	464	238	533	134	177	114	66	37	19	14
17	14	1,100	401	218	457	127	168	111	66	35	18	15
18	13	816	348	200	404	123	162	107	65	34	18	16
19	13	645	306	194	359	127	170	102	65	32	18	15
20	13	478	315	248	324	121	214	100	70	31	18	14
21	13	537	315	230	a290	118	207	98	72	30	21	15
22	13	658	404	205	a260	114	187	97	86	30	27	14
23	13	2,760	373	192	a235	114	200	93	86	28	23	13
24	14	1,700	352	183	a220	125	198	88	82	26	20	13
25	13	1,060	327	181	a205	146	185	84	75	26	19	13
26	14	1,310	362	218	a190	273	172	82	67	27	18	14
27	35	1,550	2,140	282	a185	408	185	80	62	28	17	15
28	31	1,080	1,500	541	a180	756	179	78	59	27	17	15
29	24	1,360	2,030	521	-	930	170	76	55	26	44	14
30	27	1,120	2,260	436	-	1,150	166	104	53	25	32	14
31	157	-	2,650	380	-	3,440	-	118	-	22	23	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff Inches	Runoff Acre-feet
October	647	157	13	20.9	0.322	0.37	1,280
November	19,854	2,760	86	662	10.2	11.36	39,380
December	27,569	2,650	306	889	13.7	15.77	54,680
Calendar year 1942	84,842	2,760	11	232	3.57	48.53	168,300
January	15,776	2,300	181	509	7.83	9.03	31,290
February	19,231	2,090	180	687	10.6	11.00	38,140
March	10,325	3,440	114	333	5.12	5.91	20,480
April	11,771	2,610	162	392	6.03	6.73	23,350
May	3,611	162	76	116	1.78	2.07	7,160
June	2,360	136	53	78.7	1.21	1.35	4,680
July	1,163	58	22	37.5	.577	.67	2,310
August	720	44	17	23.2	.357	.41	1,430
September	465	20	13	15.5	.238	.27	922
Water year 1942-43	113,492	3,440	13	311	4.78	64.94	225,100

a No gage-height record; discharge computed on basis of records for South Yamhill River near Willamina.
Time basis: Pacific war time. 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., 1½ miles downstream from Haskins Creek and 1½ 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 1943.

Extremes.- Maximum discharge during year, 2,710 second-feet Dec. 27 (gage height, 6.90 feet); minimum, 7.5 second-feet Sept. 24, 25 (gage height, 0.97 foot).
1940-43: Maximum discharge, 3,830 second-feet Dec. 18, 1941 (gage height, 8.24 feet), affected by release of water from log pond upstream; minimum, 7.5 second-feet Sept. 25, 1942, Sept. 24, 25, 1943.

Remarks.- Records good except those for periods of no gage-height record, which are fair. Occasional diurnal fluctuation 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 1942-43 being 1.50 second-feet.

Rating table, water year 1942-43 (gage height, in feet, and discharge, in second-feet):

1.0	9.0	2.2	194	4.2	965
1.2	24	2.6	301	4.5	1,180
1.4	45	3.0	435	5.0	1,460
1.6	71	3.4	590	5.7	1,840
1.9	125	3.8	765	6.4	2,330

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	10	24	905	1,450	240	145	1,650	115	56	29	16	12
2	10	194	1,040	1,050	502	136	950	105	58	28	16	12
3	10	187	760	770	466	129	644	98	55	29	17	12
4	10	152	606	626	875	123	498	94	58	28	16	11
5	9.7	109	510	639	785	117	414	100	51	27	20	11
6	9.0	101	478	530	2,170	111	342	105	49	25	19	11
7	9.7	132	506	452	1,270	107	301	96	46	25	17	9.7
8	9.7	143	840	393	785	101	267	89	44	27	16	9.7
9	9.7	145	935	342	578	96	245	85	43	34	15	9.0
10	9.7	163	1,100	298	936	92	219	87	41	28	15	9.0
11	12	129	890	264	1,740	91	202	84	45	26	15	9.0
12	16	96	815	240	1,180	92	187	81	46	25	15	9.7
13	12	89	820	222	800	109	175	79	47	23	15	9.7
14	20	529	698	204	618	109	161	76	45	22	14	9.0
15	15	652	578	199	510	a100	147	76	45	22	12	8.5
16	12	668	482	184	435	a96	138	71	42	22	12	8.5
17	11	747	414	170	379	a88	132	70	42	21	12	9.0
18	10	578	348	152	342	a80	125	64	43	21	12	10
19	10	460	304	a150	313	a84	136	55	44	20	12	9.0
20	10	332	326	a200	289	a78	180	53	43	19	12	9.0
21	10	435	348	a185	267	a72	184	53	46	18	14	9.0
22	10	606	522	a170	245	67	165	52	47	18	15	9.0
23	10	2,080	428	a160	224	67	175	50	47	18	15	8.5
24	10	1,130	382	a150	204	71	163	49	45	17	12	8.0
25	10	680	332	a145	187	89	152	46	42	16	12	8.0
26	11	764	416	a180	175	a250	140	45	38	16	12	8.5
27	22	800	1,770	a250	163	a400	138	44	36	17	11	9.7
28	18	626	970	a360	152	833	129	43	33	16	11	9.0
29	17	747	1,210	a340	-	790	121	43	32	17	22	9.0
30	22	639	1,250	a290	-	905	119	64	30	16	15	9.0
31	116	-	1,650	245	-	2,270	-	70	-	15	13	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff Inches	Runoff Acre-feet
October	481.5	116	9.0	15.5	0.323	0.37	955
November	14,207	2,080	89	474	9.88	11.01	28,180
December	22,613	1,770	304	729	15.2	17.52	44,850
Calendar year 1942	65,939.3	2,080	8.0	181	3.77	51.09	130,800
January	11,010	1,450	145	355	7.40	8.53	21,840
February	16,830	2,170	152	601	12.5	13.04	33,380
March	7,898	2,270	57	255	5.31	6.12	15,670
April	8,609	1,660	119	287	5.98	6.67	17,080
May	2,242	115	43	72.3	1.51	1.74	4,450
June	1,340	58	30	44.7	.931	1.04	2,660
July	685	34	15	22.1	.460	.53	1,350
August	450	22	11	14.5	.302	.35	893
September	285.5	12	8.0	9.52	.198	.22	566
Water year 1942-43	86,651.0	2,270	8.0	.237	4.94	67.14	171,900

Peak discharge.- Nov. 23 (10 a.m.) 2,680 sec.-ft.; Dec. 27 (7:30 a.m.) 2,710 sec.-ft.; Feb. 6 (10 a.m.) 2,520 sec.-ft.; Mar. 31 (4:30 p.m.) 2,570 sec.-ft.

a No gage-height record; discharge computed on basis of weather records, recorded range in stage, and records for Willamina Creek near Willamina.

Time basis: Pacific war time. 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 1943.

Average discharge.- 14 years, 25.0 second-feet (adjusted for diversion, 1937-43).

Extremes (not adjusted for diversion).- Maximum discharge during year, 280 second-feet Feb. 6 (gage height, 3.16 feet); minimum, 0.3 second-foot Sept. 8, 30 (gage height, 1.17 feet).

1928-43: 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 periods of no gage-height record, which are fair. Since Sept. 2, 1937, a small amount of water is 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 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.9	18	103	175	30	24	202	17	8.5	3.1	0.9	0.9
2	.9	33	106	147	54	23	144	16	11	2.8	1.0	.9
3	.9	22	91	116	56	22	87	16	9.2	3.1	1.1	.8
4	.9	18	74	103	82	20	70	15	7.9	2.8	1.0	.7
5	.9	11	64	102	90	19	64	16	7.9	2.6	1.7	.7
6	.6	13	53	87	215	18	57	18	7.4	2.6	1.5	.6
7	.8	18	47	77	173	17	51	17	6.9	2.4	1.0	.6
8	.9	16	65	66	121	16	46	16	6.4	3.1	.9	.5
9	1.2	13	77	58	85	16	41	16	6.4	3.7	.8	.6
10	1.5	9.9	94	52	87	15	36	16	6.4	3.1	.8	.6
11	2.2	7.4	88	46	191	14	33	16	5.9	2.6	.8	.7
12	3.5	6.4	85	42	155	15	30	16	5.9	2.4	.8	.8
13	3.0	6.9	87	38	122	18	28	15	5.9	2.2	.6	.7
14	4.2	35	80	35	91	17	26	14	5.9	2.2	.7	.6
15	3.3	66	69	34	78	16	24	14	5.4	2.2	.8	.6
16	2.3	77	61	30	70	16	22	13	5.0	1.9	.8	.7
17	1.9	90	53	29	60	16	21	12	5.0	1.9	.7	.8
18	1.6	74	45	29	56	16	21	11	5.0	1.7	.6	.8
19	1.6	61	39	29	52	16	21	11	5.0	1.6	.6	.7
20	1.6	48	41	36	48	14	26	9.9	5.0	1.6	.6	.7
21	1.6	54	46	29	44	13	26	9.2	5.0	1.5	1.0	.7
22	1.6	66	63	28	41	13	24	8.5	6.4	1.5	1.0	.6
23	1.6	203	52	27	37	12	25	8.5	5.9	1.4	.8	.6
24	1.6	155	45	25	34	16	24	7.9	5.9	1.2	.6	.6
25	1.6	103	41	24	32	23	22	7.4	4.6	1.1	.6	.6
26	1.9	96	48	26	29	40	21	7.4	4.3	1.2	.7	.7
27	4.5	108	160	39	27	57	21	6.9	4.0	1.2	.7	.8
28	3.7	90	120	38	26	85	20	6.9	3.7	1.2	.7	.7
29	3.4	105	136	37	-	74	19	6.4	3.4	1.0	3.4	.7
30	4.5	96	147	33	-	81	19	9.9	3.4	1.0	1.5	.6
31	22	-	187	30	-	226	-	11	-	.9	1.1	-

Month	Observed				Diversion for McMinnville water supply (second-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	22	0.6	2.67	164	0.46	193	3.13	0.549	0.63
November	203	6.4	57.3	3,410	.77	3,456	58.1	10.2	11.37
December	187	39	79.6	4,890	1.10	4,957	80.7	14.2	16.32
Calendar year 1942	203	.6	22.5	16,280	1.34	17,260	23.8	4.18	56.77
January	175	24	53.5	3,290	1.52	3,383	55.0	9.65	11.12
February	215	26	78.1	4,340	1.18	4,405	79.3	13.9	14.48
March	226	12	31.9	1,960	1.77	2,059	33.7	5.91	6.81
April	202	19	42.4	2,520	1.85	2,630	44.2	7.75	8.63
May	18	6.4	12.4	763	2.07	890	14.5	2.54	2.91
June	11	3.4	5.95	354	2.04	475	7.99	1.40	1.56
July	3.7	.9	2.03	125	2.14	256	4.17	.732	.84
August	3.4	.6	.96	59	1.81	170	2.77	.486	.56
September	.9	.5	.69	41	1.25	115	1.94	.340	.38
Water year 1942-43	226	.5	30.3	21,920	1.50	23,000	31.8	5.58	75.61

Note.- No gage-height record Oct. 1-5, Oct. 7 to Nov. 1, Dec. 18-28, Jan. 19; discharge computed on basis of records for North Yamhill River near Pike and Nestucca River near McMinnville.

Time basis: Pacific war time. 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 1943.

Extremes.- Maximum discharge during year, 11,600 second-feet Nov. 23 (gage height, 9.30 feet), from rating curve extended above 4,000 second-feet by velocity-area studies; minimum, 24 second-feet Oct. 10 (gage height, 0.90 foot).
1935-43: Maximum discharge, that of Nov. 23, 1942; minimum, 19 second-feet Aug. 30 to Sept. 2, 1940.

Remarks.- Records excellent except those above 4,000 second-feet, which are fair. No diversion or regulation above station.

Rating tables, water year 1942-43 (gage height, in feet, and discharge, in second-feet)

Oct. 1 to Nov. 22				Nov. 23 to Sept. 30					
0.9	24	2.5	465	0.8	30	2.0	300	4.7	2,530
1.1	45	3.0	760	.9	40	2.5	505	5.6	3,870
1.4	99	3.5	1,170	1.1	66	3.0	770	6.6	5,640
1.7	174	4.0	1,670	1.4	123	3.5	1,170	7.6	7,670
2.0	270	4.5	2,260	1.7	205	4.0	1,670		

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	28	1,340	2,470	5,360	474	332	4,600	722	464	199	60	60
2	28	1,550	2,220	2,680	840	318	2,600	620	555	164	60	55
3	28	1,180	1,460	1,690	784	300	1,970	550	798	196	60	52
4	27	642	1,040	1,240	1,940	290	1,360	496	620	184	60	50
5	27	434	819	1,260	1,490	276	1,060	469	523	164	84	48
6	26	352	692	1,170	4,290	262	889	500	442	151	71	46
7	26	364	668	918	2,770	259	764	478	387	143	65	44
8	26	636	990	777	1,640	359	833	428	351	138	60	41
9	25	495	1,230	722	1,110	347	716	395	324	146	58	40
10	25	388	1,520	662	1,120	318	650	379	296	130	55	40
11	41	316	1,180	600	2,630	293	595	371	268	121	53	39
12	51	270	1,200	536	1,950	286	620	351	276	116	53	39
13	34	246	1,990	518	1,690	351	686	351	262	110	52	39
14	38	1,310	1,480	585	1,510	335	698	343	250	105	51	38
15	64	2,490	1,230	605	1,350	300	698	343	232	101	50	37
16	40	1,640	1,130	555	1,160	276	600	415	217	97	48	36
17	33	2,400	974	482	1,060	262	518	399	244	93	47	36
18	30	1,430	791	415	974	247	487	367	293	90	46	36
19	29	926	656	387	889	238	605	343	282	88	45	36
20	28	666	740	684	847	226	1,230	332	304	84	47	35
21	28	678	958	650	854	229	1,590	314	351	80	53	34
22	28	2,260	2,450	889	777	247	1,050	318	371	79	80	34
23	28	7,680	1,680	650	650	259	918	371	411	76	58	33
24	27	4,230	1,460	532	550	314	812	359	387	72	51	32
25	27	2,030	1,440	492	478	428	698	355	347	71	48	32
26	31	2,350	1,060	770	424	977	605	328	307	71	46	35
27	183	4,230	4,380	966	387	2,010	555	300	276	69	45	48
28	84	2,160	3,680	875	359	2,120	680	272	250	68	44	41
29	71	3,380	2,290	722	-	2,460	896	253	232	65	130	36
30	91	2,730	2,990	590	-	1,780	791	279	217	63	112	34
31	492	-	5,340	505	-	5,820	-	560	-	62	72	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff Inches	Runoff Acre-feet
October	1,744	492	25	56.3	0.586	0.68	3,460
November	50,803	7,680	246	1,693	17.6	19.68	100,800
December	52,208	5,340	656	1,684	17.5	20.23	103,600
Calendar year 1942	194,401	7,680	25	533	5.55	75.32	385,700
January	29,387	5,360	387	948	9.88	11.38	58,290
February	34,997	4,290	359	1,250	13.0	13.56	69,420
March	22,519	5,820	226	726	7.56	8.72	44,670
April	30,794	4,600	487	1,026	10.7	11.93	61,080
May	12,361	722	253	399	4.16	4.79	24,520
June	10,537	798	217	351	3.66	4.08	20,900
July	3,416	199	62	110	1.15	1.32	6,780
August	1,864	130	44	60.1	.626	.72	3,700
September	1,206	60	32	40.2	.419	.47	2,390
Water year 1942-43	251,836	7,680	25	690	7.19	97.56	499,600

Peak discharge.- Nov. 23 (12:30 p.m.) 11,600 sec.-ft.; Nov. 27 (1 a.m.) 5,830 sec.-ft.; Dec. 27 (11 a.m.) 5,990 sec.-ft.; Dec. 31 (11 p.m.) 8,210 sec.-ft.; Feb 6 (12 m.) 6,150 sec.-ft.; Mar. 31 (4 p.m. to 5 p.m.) 7,460 sec.-ft.

Time basis: Pacific war time. 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 1943.

Average discharge.- 15 years, 996 second-feet.

Extremes.- Maximum discharge during year, 19,900 second-feet Nov. 23 (gage height, 13.65 feet); minimum, 57 second-feet Oct. 9, 10 (gage height, 1.88 feet).
1928-43: 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 period of no gage-height record, which are fair. A few small diversions above station for irrigation.

Rating tables, water year 1942-43 (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Jan. 28 to Feb. 4)

Oct. 1 to Nov. 23						Nov. 24 to Sept. 30					
1.9	61	3.0	665	6.4	4,930	1.9	81	3.4	1,070	7.6	7,040
2.0	67	3.4	1,030	7.6	7,040	2.1	139	3.8	1,500	9.0	9,740
2.2	157	3.8	1,440	10.0	11,800	2.4	277	4.4	1,960	11.0	13,940
2.4	256	4.4	2,120			2.7	465	5.2	3,220		
2.7	440	5.2	3,130			3.0	690	6.4	4,960		

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	74	2,740	5,670	14,000	1,530	699	11,500	1,790	930	486	126	170
2	77	2,400	5,770	8,120	2,420	682	5,860	1,490	940	446	129	143
3	79	2,820	4,010	5,400	2,870	634	4,500	1,310	1,410	426	129	133
4	71	1,600	3,060	3,830	4,380	602	3,300	1,140	1,350	452	126	120
5	74	1,080	2,520	3,520	4,250	580	2,620	1,010	1,120	400	151	113
6	69	876	2,300	3,280	8,120	550	2,180	1,060	930	354	183	113
7	74	813	2,270	2,710	10,800	542	1,860	1,040	807	329	155	104
8	71	1,280	3,530	2,270	5,650	595	1,850	940	690	294	147	102
9	66	1,330	4,010	2,040	3,730	642	1,640	843	634	306	136	99
10	69	1,030	4,020	1,850	3,060	595	1,520	798	588	289	129	94
11	79	840	3,280	1,640	5,170	558	1,370	861	528	272	123	91
12	157	690	2,860	1,440	4,580	542	1,290	807	558	261	117	91
13	127	601	3,970	1,320	3,810	602	1,350	843	602	250	113	97
14	106	1,060	3,460	1,360	3,320	682	1,350	816	565	235	110	94
15	119	4,960	2,880	1,390	2,990	610	1,340	843	528	229	110	a92
16	134	3,470	2,570	1,320	2,620	572	1,180	990	493	215	107	a90
17	109	5,320	2,300	1,160	2,370	550	1,020	990	507	210	104	a90
18	90	4,060	1,950	960	2,130	528	930	900	626	196	102	a90
19	84	2,580	1,630	930	1,920	514	1,090	816	642	192	102	a88
20	82	1,840	1,620	1,290	1,770	486	1,430	762	666	192	102	a88
21	79	1,600	1,940	1,530	1,700	479	2,560	699	880	183	107	a88
22	79	3,910	3,210	1,960	1,600	507	1,960	666	990	178	147	a87
23	77	11,900	3,190	1,600	1,380	521	1,680	717	1,090	166	147	a86
24	77	13,200	2,780	1,320	1,170	558	1,560	708	1,070	147	126	a84
25	74	6,160	3,630	1,190	1,030	690	1,390	674	970	147	117	a80
26	82	5,100	2,930	1,590	910	1,140	1,210	650	834	143	107	a80
27	219	11,900	7,890	2,600	625	2,470	1,080	588	726	143	102	a88
28	297	6,340	8,980	3,340	762	3,090	1,290	558	634	143	99	a120
29	189	7,040	5,790	2,960	-	5,180	2,010	514	565	147	143	a100
30	208	6,770	7,040	2,260	-	4,080	1,900	514	521	136	342	a90
31	339	-	9,480	1,800	-	9,340	-	852	-	133	210	-

Month	Second-feet-days	Maximum	Minimum	Mean	Per square mile	Runoff Inches	Runoff Acre-feet
October	3,531	339	66	114	0.353	0.41	7,000
November	116,310	13,200	601	3,844	11.9	13.28	228,700
December	120,540	9,480	1,620	3,888	12.0	13.88	239,100
Calendar year 1942	451,350	13,200	61	1,237	3.83	51.97	895,200
January	82,000	14,000	930	2,645	8.19	9.44	162,600
February	86,807	10,800	762	3,100	9.60	9.99	172,200
March	39,820	9,340	479	1,285	3.98	4.58	78,980
April	65,820	11,500	930	2,194	6.79	7.58	130,600
May	27,189	1,790	514	877	2.72	3.13	53,930
June	23,394	1,410	493	780	2.41	2.69	46,400
July	7,700	486	133	248	.768	.89	15,270
August	4,148	342	99	134	.415	.48	8,230
September	3,005	170	80	100	.310	.35	5,960
Water year 1942-43	579,264	14,000	66	1,587	4.91	66.70	1,149,000

Peak discharge.- Nov. 23 (9 p.m. to 11 p.m.) 19,900 sec.-ft.; Nov. 27 (7 a.m.) 14,500 sec.-ft.; Dec. 27 (6 p.m.) 11,900 sec.-ft.; Jan. 1 (7 a.m.) 16,600 sec.-ft.; Feb. 6 (11 p.m.) 15,000 sec.-ft.; Mar. 31 (11 p.m.) 15,600 sec.-ft.

a No gage-height record; discharge computed on basis of records for station above Pine Creek, near Wilhoit.

Time basis: Pacific war time. 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 1943.

Extremes.- Maximum discharge observed during year, 6,900 second-feet Jan. 1 (gage height, 28.85 feet); minimum observed, 20 second-feet Oct. 8, 9; minimum gage height, 0.81 foot Oct. 9.

1939-43: Maximum discharge observed, that of Jan. 1, 1943; minimum observed, 10 second-feet Aug. 23-26, 1940 (gage height, 0.57 foot).

Remarks.- Records fair. Gage read once daily, twice daily at high stages. Some small diversions for irrigation above station; no regulation.

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	21	1,370	3,640	6,790	1,500	463	5,940	762	380	217	a53	62
2	22	1,050	3,390	5,220	1,540	441	4,430	661	402	202	53	53
3	22	756	2,710	4,070	1,800	420	3,490	623	675	197	55	46
4	23	583	2,240	3,110	2,100	403	2,690	571	612	a220	53	42
5	23	453	1,950	2,620	2,440	385	2,180	542	516	200	64	a40
6	22	457	1,800	2,390	2,840	367	1,830	588	448	177	83	39
7	21	453	1,840	2,070	6,610	359	1,570	558	375	157	69	37
8	20	606	2,760	1,840	5,070	412	1,360	494	333	155	a60	36
9	20	a620	3,400	1,510	3,710	414	1,160	457	298	159	55	32
10	21	a520	2,890	1,120	2,810	380	1,020	429	267	151	50	31
11	25	a420	2,410	991	2,810	357	909	418	250	136	46	31
12	23	a330	2,180	832	2,720	338	826	389	265	130	45	31
13	25	a320	2,160	728	2,290	386	764	370	319	122	41	33
14	26	a550	2,080	680	2,050	497	706	367	285	115	39	32
15	27	a1,400	1,780	623	1,720	455	655	355	256	114	a37	32
16	28	a1,800	1,530	599	1,470	429	602	419	227	105	36	31
17	28	2,210	1,250	a540	1,250	406	561	365	230	97	36	32
18	29	2,470	1,040	a480	1,100	388	510	335	305	93	35	33
19	28	a2,000	903	a460	972	371	557	317	272	89	32	a32
20	27	a1,600	823	588	883	357	624	296	289	85	37	31
21	26	1,340	986	910	812	345	994	287	303	76	40	30
22	25	a1,800	1,240	a1,200	767	338	865	278	350	74	106	29
23	25	3,170	1,440	a950	720	337	794	275	403	71	83	31
24	25	5,480	1,310	a750	636	336	743	254	422	68	54	31
25	26	4,340	1,520	661	579	402	662	239	377	65	42	30
26	28	3,450	1,510	760	541	546	616	223	342	65	38	34
27	d60	5,300	1,860	1,340	507	804	582	209	308	67	33	41
28	d75	4,630	3,060	2,160	488	938	648	200	a275	64	34	56
29	58	3,890	2,740	2,660	-	1,720	840	192	a245	61	a70	49
30	d52	4,170	3,590	2,040	-	2,010	798	212	221	59	148	42
31	d250	-	4,420	1,760	-	2,890	-	375	-	54	63	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff	
						Inches	Acre-feet
October	1,131	250	20	36.5	0.176	0.20	2,240
November	57,538	5,480	320	1,918	9.27	10.34	114,100
December	66,452	4,420	823	2,144	10.4	11.94	131,800
Calendar year 1942	254,565	5,480	19	697	3.37	45.73	504,900
January	52,452	6,790	460	1,692	8.17	9.42	104,000
February	52,735	6,610	488	1,883	9.10	9.47	104,600
March	18,694	2,890	336	603	2.91	3.36	37,080
April	39,926	5,940	510	1,331	6.43	7.17	79,190
May	12,060	762	192	389	1.88	2.17	23,920
June	10,250	675	221	342	1.65	1.84	20,330
July	3,645	220	54	118	.570	.65	7,230
August	1,709	148	32	55.1	.266	.31	3,390
September	1,109	62	29	37.0	.179	.20	2,200
Water year 1942-43	317,701	6,790	20	870	4.20	57.07	630,100

a No gage-height record; discharge computed on basis of records for station at Aurora and Molalla River above Pine Creek, near Wilhoit.

d Doubtful gage-height record; discharge computed on basis of records for Pudding River at Aurora and Molalla River above Pine Creek, near Wilhoit.

Time basis: Pacific war time. 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 1943.

Average discharge.- 15 years, 1,084 second-feet.

Extremes.- Maximum discharge during year, 9,920 second-feet Nov. 27 (gage height, 21.1 feet, from graph based on gage readings); minimum observed, 56 second-feet Oct. 10 (gage height, 0.28 foot).

1928-43: 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. 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 table, water year 1942-43 (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Oct. 1 to Nov. 1, June 23 to Sept. 30)

0.1	49	1.2	177	2.5	408	5.0	960	10.0	2,480	18.0	6,750
.4	77	1.6	241	3.0	509	6.0	1,210	12.0	3,230	21.0	9,800
.8	122	2.0	312	4.0	724	8.0	1,810	15.0	4,635		

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	58	294	7,380	8,920	3,960	852	8,800	1,540	608	414	116	192
2	60	1,150	7,410	9,590	3,780	807	7,330	1,400	656	382	114	148
3	62	1,520	6,770	8,850	3,870	765	7,090	1,210	724	363	112	125
4	64	1,560	6,000	7,560	3,930	731	6,680	1,100	985	342	112	114
5	63	1,180	5,330	6,620	4,220	702	5,930	1,000	943	361	121	108
6	62	888	4,890	6,020	4,450	673	5,240	965	835	342	128	103
7	59	733	4,770	5,400	9,230	645	4,620	995	733	299	143	97
8	59	720	4,800	4,830	8,370	636	3,950	936	645	271	142	95
9	58	893	5,520	4,300	7,950	698	3,240	852	580	260	130	92
10	56	912	5,550	3,660	6,980	698	2,560	788	526	256	120	88
11	58	793	5,250	2,940	6,380	649	2,010	756	482	253	117	85
12	63	680	4,960	2,270	6,160	614	1,680	729	458	234	108	84
13	83	597	4,740	1,800	5,610	601	1,490	689	480	226	103	84
14	102	576	4,610	1,520	5,070	702	1,360	662	540	216	99	86
15	85	1,390	4,320	1,390	4,610	835	1,240	645	522	202	99	87
16	86	2,670	3,930	1,340	4,080	779	1,150	647	478	190	97	86
17	108	3,160	3,440	1,250	3,440	733	1,060	693	448	186	95	84
18	85	3,730	2,850	1,120	2,770	700	980	649	476	176	92	84
19	73	3,850	2,280	992	2,210	667	936	597	534	161	91	83
20	69	3,450	1,860	985	1,830	636	1,000	564	526	159	88	83
21	66	2,850	1,830	1,590	1,610	612	1,320	538	513	152	97	84
22	65	2,560	2,020	1,790	1,490	595	1,640	517	587	142	96	83
23	65	3,510	2,620	1,830	1,350	585	1,480	601	687	136	183	81
24	65	6,660	2,730	1,680	1,220	582	1,360	488	811	134	202	78
25	65	7,200	3,040	1,500	1,120	593	1,250	464	845	128	123	75
26	68	6,480	3,210	1,470	1,030	676	1,140	434	742	125	105	74
27	69	8,700	4,110	1,930	953	1,000	1,070	412	643	127	96	74
28	105	8,600	6,140	4,140	898	1,500	1,060	392	555	127	91	76
29	174	7,720	6,240	6,300	-	2,930	1,280	377	496	126	100	90
30	143	7,900	7,160	5,510	-	4,120	1,640	371	446	123	194	97
31	125	-	7,570	4,780	-	4,780	-	420	-	120	200	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff Inches	Runoff Acre-feet
October	2,420	174	56	78.1	0.158	0.18	4,800
November	92,926	8,700	294	3,098	6.28	7.01	184,300
December	143,340	7,570	1,830	4,624	9.38	10.81	284,300
Calendar year 1942	459,992	8,700	54	1,260	2.56	34.70	912,300
January	113,877	9,590	985	3,673	7.45	8.59	225,900
February	108,571	9,230	898	3,878	7.87	8.19	215,300
March	32,096	4,780	582	1,035	2.10	2.42	63,660
April	81,386	8,600	936	2,713	5.50	6.14	161,400
May	22,331	1,540	371	720	1.46	1.68	44,290
June	18,504	985	446	617	1.25	1.40	36,700
July	6,733	414	120	217	.440	.51	13,350
August	3,714	202	88	120	.243	.28	7,370
September	2,820	192	74	94.0	.191	.21	5,590
Water year 1942-43	628,718	9,590	- 56	1,723	3.49	47.42	1,247,000

Time basis: Pacific war time. 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 1943 in reports of Geological Survey. January to December 1936 in files of State engineer.

Extremes.- Maximum discharge during year, 4,410 second-feet Nov. 23 (gage height, 12.70 feet); minimum observed, 8.0 second-feet Oct. 6-9.
1936, 1940-43: Maximum discharge, that of Nov. 23, 1942; minimum observed, 6.8 second-feet Sept. 25, 1942.

Remarks.- Records fair. Gage read twice daily Oct. 1 to Apr. 1, once daily Apr. 2 to Sept. 30. Small diversions above station for irrigation. Some diurnal fluctuation caused by mills at Scotts Mills.

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	8.6	98	986	2,080	344	154	1,940	350	149	89	22	26
2	8.9	211	890	1,340	685	136	1,220	297	158	80	22	20
3	9.2	319	666	973	602	114	1,020	249	216	78	22	19
4	8.9	271	504	775	1,020	109	916	223	199	75	21	18
5	8.6	203	444	743	877	103	736	218	176	70	28	17
6	8.3	177	465	628	2,380	98	549	211	158	66	31	16
7	8.0	175	501	534	1,880	95	462	190	116	59	25	15
8	8.0	245	685	432	1,140	98	480	173	112	55	22	14
9	8.0	216	772	347	778	95	398	158	105	59	20	13
10	8.3	167	682	305	682	92	280	149	98	54	19	12
11	12	147	570	277	1,050	95	180	143	69	52	19	11
12	23	127	516	246	868	100	178	134	94	51	18	12
13	22	116	711	218	720	145	178	132	111	47	17	12
14	12	175	570	194	599	140	176	130	90	44	16	11
15	d25	692	555	194	498	132	176	124	83	40	16	11
16	d18	663	540	182	441	120	173	147	73	39	15	11
17	d14	1,160	350	171	386	114	171	156	82	37	14	11
18	12	843	302	158	333	109	171	136	98	36	14	11
19	11	521	249	145	305	105	204	116	86	35	13	11
20	11	465	254	202	288	102	254	112	96	31	14	11
21	11	411	308	251	283	96	286	107	116	31	15	11
22	11	870	358	244	249	102	308	103	130	30	37	10
23	9.2	2,760	350	231	223	109	314	98	167	28	27	9.6
24	6.9	1,900	267	216	209	124	302	90	344	27	20	9.0
25	10	1,020	277	214	182	132	280	83	199	24	20	8.2
26	53	1,150	389	386	180	209	262	78	178	22	19	9.0
27	60	1,770	1,370	682	171	270	244	74	147	26	18	15
28	44	1,150	1,270	832	160	672	262	70	124	24	17	18
29	25	1,390	1,070	618	-	1,050	420	64	109	22	40	15
30	24	1,080	1,440	468	-	1,030	356	69	96	22	36	12
31	47	-	2,060	375	-	2,420	-	114	-	22	35	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff Inches	Runoff Acre-feet
October	547.9	60	8.0	17.7	0.277	0.32	1,090
November	20,492	2,760	98	683	10.7	11.91	40,650
December	20,371	2,060	249	657	10.3	11.84	40,410
Calendar year 1942	79,638.9	2,760	6.8	218	3.41	46.28	158,000
January	14,661	2,080	145	473	7.39	8.52	29,080
February	17,533	2,380	160	626	9.78	10.19	34,780
March	8,470	2,420	92	273	4.27	4.92	16,800
April	12,896	1,940	171	430	6.72	7.49	25,580
May	4,498	350	64	145	2.27	2.61	8,920
June	3,999	344	73	133	2.08	2.32	7,930
July	1,375	89	22	44.4	.694	.80	2,730
August	671	40	13	21.6	.338	.39	1,330
September	398.8	26	8.2	13.3	.208	.23	791
Water year 1942-43	105,912.7	2,760	8.0	290	4.53	61.54	210,100

d Gage-height doubtful; discharge computed on basis of records for Molalla River above Pine Creek, near Wilhcit.

Time basis: Pacific war time. 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.- 45 square miles at measuring section at Gaston.

Records available.- October 1940 to September 1943.

Extremes.- Maximum discharge during year, 2,670 second-feet Feb. 6 (gage height, 10.4 feet, from graph based on gage readings); minimum observed, 12 second-feet Sept. 15, 16, 23-26.

1940-43: 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, that of Sept. 15, 16, 23-26, 1943.

Remarks.- Records good. Gage read twice daily. Slight diurnal fluctuation caused by log ponds upstream. Small diversions above station for irrigation.

Rating tables, water year 1942-43 (gage height, in feet, and discharge, in second-feet)

Oct. 1 to Nov. 22

0.7	13	1.6	68	3.5	362
.9	20	2.0	110	4.2	499
1.1	31	2.4	168	5.0	665
1.3	45	2.9	252		

Nov. 23 to Sept. 30

0.6	13	1.8	100	5.0	670
.8	21	2.2	152	6.5	1,001
1.0	32	2.7	234	8.0	1,425
1.2	46	3.3	341	9.5	2,100
1.5	71	4.0	473		

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	15	252	921	1,790	178	162	1,910	117	82	42	21	19
2	15	310	1,010	1,160	376	152	1,050	110	83	38	21	17
3	15	347	658	787	334	149	626	106	74	38	22	17
4	15	223	492	582	778	138	452	101	71	38	21	16
5	14	170	420	568	785	126	370	104	66	36	24	16
6	14	149	376	456	2,020	121	325	112	62	35	27	16
7	15	171	382	389	1,390	118	292	100	59	33	24	15
8	15	170	709	330	724	115	265	96	56	34	22	15
9	14	152	602	294	500	110	241	92	52	45	20	14
10	14	123	948	269	481	104	220	92	52	36	20	14
11	16	105	682	242	1,870	102	203	88	52	33	19	14
12	23	88	554	220	1,400	102	190	88	54	33	19	14
13	19	77	666	207	844	121	178	90	52	31	19	15
14	23	302	550	200	610	118	166	84	51	30	18	14
15	24	875	458	200	477	112	154	84	49	30	19	13
16	19	621	391	194	418	109	143	77	49	28	17	12
17	17	751	345	173	352	107	137	76	46	26	17	13
18	15	543	303	149	327	99	130	73	49	27	15	14
19	15	455	276	146	316	96	142	71	54	26	18	14
20	15	328	269	189	301	93	173	67	46	25	19	13
21	15	347	301	170	282	90	194	65	52	24	19	13
22	15	642	469	150	262	88	179	69	71	24	21	13
23	14	2,290	386	137	241	88	197	64	67	24	21	12
24	15	1,460	328	130	220	95	194	62	60	24	19	12
25	15	774	283	129	202	143	178	61	54	22	17	12
26	15	682	274	174	190	256	155	57	49	23	17	12
27	33	972	1,560	195	178	399	146	56	47	24	16	14
28	26	656	1,300	301	170	785	140	66	45	23	16	14
29	22	967	1,280	276	-	803	129	53	43	22	26	13
30	23	836	1,250	217	-	798	126	77	40	21	26	13
31	235	-	2,080	194	-	2,010	-	94	-	22	19	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff	
						Inches	Acre-feet
October	760	235	14	24.5	0.544	0.63	1,510
November	15,838	2,290	77	528	11.7	13.09	31,410
December	20,523	2,080	269	662	14.7	16.96	40,710
Calendar year 1942	68,424	2,290	14	187	4.16	56.56	135,700
January	10,618	1,790	129	343	7.62	8.78	21,060
February	16,226	2,020	170	580	12.9	13.41	32,180
March	7,909	2,010	88	255	5.67	6.54	15,690
April	9,005	1,910	126	300	6.67	7.44	17,860
May	2,554	117	53	82.4	1.83	2.11	5,070
June	1,689	83	40	56.3	1.25	1.40	3,350
July	917	45	21	29.6	.658	.76	1,820
August	619	27	15	20.0	.444	.51	1,230
September	423	19	12	14.1	.313	.35	830
Water year 1942-43	87,081	2,290	12	239	5.31	71.98	172,700

Time basis: Pacific war time. 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). Prior to Sept. 20, 1943, chain gage at same site and datum.
Drainage area.- 133 square miles.
Records available.- October 1940 to September 1943.
Extremes.- Maximum discharge during year, 4,590 second-feet Apr. 1 (gage height, 12.7 feet, from floodmark); minimum observed, 8 second-feet Oct. 9.
1940-43: Maximum discharge, 5,360 second-feet Dec. 19, 1941 (gage height, 12.90 feet); minimum observed, 4 second-feet Aug. 21, 1941.
Remarks.- Records good except those below 50 second-feet and those for January and February, which are fair. Gage read once daily, twice daily at high stages. Diversions above station for irrigation, chiefly in Wapato Lake area. Diurnal fluctuation caused by dam below Gaston.

Rating tables, water year 1942-43 (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Oct. 1-30, Jan. 4 to Feb. 5)

Oct. 1 to Mar. 31

0.3	7.5	1.6	85	7.0	560	11.4	1,990
.5	13.5	2.0	117	9.0	771	11.8	2,590
.7	23	2.6	167	10.0	916	12.2	3,300
.9	34	3.6	252	10.6	1,060	12.7	4,590
1.2	54	5.0	375	11.0	1,460		

Apr. 1 to Sept. 30

0.3	10	1.2	55	3.6	249
.5	18	1.6	81	5.0	375
.7	28	2.0	111	7.0	560
.9	38	2.6	159		

Note.- Same as preceding table above 7.0 feet.

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	12	362	1,520	3,410	532	324	4,140	219	138	49	22	26
2	26	344	2,120	2,670	612	300	2,750	208	123	46	21	25
3	23	536	1,660	2,020	761	290	1,720	193	115	49	24	20
4	22	425	1,140	1,280	880	264	1,140	182	103	56	30	14
5	19	353	973	1,140	1,250	248	937	181	94	64	31	15
6	18	260	924	973	2,130	240	824	208	87	42	40	16
7	14	308	875	880	3,640	235	725	182	73	46	31	18
8	14	312	1,280	797	2,160	223	649	164	77	49	29	15
9	8	299	1,410	720	1,340	213	577	149	80	81	32	13
10	9	237	1,610	644	1,140	206	511	144	70	66	29	14
11	12	180	1,460	579	2,670	197	452	144	67	50	26	12
12	22	158	1,100	527	3,300	194	413	139	78	49	23	11
13	26	133	1,100	479	2,130	222	375	147	81	38	23	13
14	20	286	1,060	448	1,540	209	344	137	81	30	20	13
15	37	911	971	431	1,080	206	321	133	84	30	26	15
16	26	924	891	416	944	196	303	131	74	29	20	15
17	24	1,160	824	382	790	196	276	126	61	29	20	14
18	13	1,090	736	341	784	186	260	121	78	29	18	15
19	11	1,030	661	326	686	177	265	119	83	30	20	16
20	12	886	599	344	679	171	256	109	80	28	27	16
21	12	797	656	375	629	165	334	107	74	26	23	17
22	13	984	730	348	591	156	332	102	127	26	24	18
23	15	2,280	790	321	543	158	321	103	103	26	28	17
24	14	3,750	716	290	484	188	341	99	92	24	27	16
25	14	2,130	664	295	440	235	323	88	80	24	23	16
26	14	1,440	589	314	402	330	298	84	73	27	23	16
27	16	2,280	1,320	370	368	g518	276	84	64	27	18	17
28	44	1,780	3,100	587	344	g838	262	84	60	33	18	16
29	58	1,580	2,670	742	-	1,620	244	81	55	27	22	15
30	40	1,740	3,060	670	-	1,360	224	92	49	26	44	16
31	214	-	3,010	593	-	3,010	-	145	-	19	29	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff Inches	Runoff Acre-feet
October	822	214	8	26.5	0.199	0.23	1,630
November	28,955	3,750	133	965	7.26	8.10	57,430
December	40,209	3,100	589	1,297	9.75	11.24	79,750
Calendar year 1942	130,833.8	3,750	8	358	2.69	36.60	259,500
January	23,712	3,410	290	765	5.75	6.63	47,030
February	32,849	3,640	344	1,173	8.82	9.19	65,160
March	12,945	3,010	156	418	3.14	3.62	25,680
April	20,193	4,140	224	673	5.06	5.65	40,050
May	4,204	219	81	136	1.02	1.18	8,340
June	2,504	138	49	83.5	.628	.70	4,970
July	1,165	81	19	37.6	.283	.33	2,310
August	791	44	18	25.5	.192	.22	1,570
September	480	26	11	16.0	.120	.13	952
Water year 1942-43	168,829	4,140	8	463	3.48	47.22	334,900

Time basis: Pacific war time. 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 gage at Farmington is 100.42 feet above mean sea level, datum of 1929; datum of gage at Scholls is 100.45 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 1943.

Extremes.- Maximum discharge observed during year, 12,100 second-feet Apr. 2 (gage height, 32.89 feet); minimum observed, 45 second-feet Sept. 12, 13, 16.

1939-43: 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, 34 second-feet Aug. 22, 1941.

Maximum stage known, about 37 feet at Farmington, Dec. 22 or 23, 1933.

Remarks.- Records fair. Gage read twice daily. For gage heights above 8.5 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 below station. Slight regulation by log ponds and dam below Gaston have little effect at this station; considerable pondage between this station and one near Willamette. Some diversions by pumping for irrigation above station, chiefly at Wapato Lake, near Gaston.

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	58	242	6,040	10,800	2,820	1,170	7,800	801	441	181	72	123
2	59	748	5,900	11,400	2,780	993	11,900	800	435	171	72	102
3	63	713	5,840	10,500	2,760	908	10,800	744	405	171	74	89
4	67	900	5,650	8,730	2,940	829	8,410	704	388	171	82	83
5	66	761	5,420	7,200	3,110	790	6,840	676	357	181	97	75
6	64	586	5,040	6,270	3,640	731	5,540	656	322	168	101	68
7	62	490	4,800	5,980	5,530	695	5,400	698	302	150	126	65
8	59	510	4,920	5,730	8,710	672	4,880	668	279	143	121	59
9	58	508	4,920	5,350	8,140	655	4,100	618	266	153	104	55
10	56	478	4,970	4,610	7,380	626	3,610	578	252	193	93	52
11	56	412	5,060	3,810	7,270	581	2,940	556	238	204	84	49
12	64	400	5,010	3,320	8,320	556	2,510	546	238	179	75	46
13	70	304	4,720	2,620	9,580	556	1,850	534	258	168	71	45
14	79	287	4,430	2,560	8,620	600	1,410	540	272	150	73	46
15	78	750	4,380	2,170	7,210	610	1,180	522	277	135	71	46
16	83	1,500	4,020	1,810	6,520	565	1,100	522	269	133	66	46
17	89	1,980	3,690	1,560	5,540	546	1,090	510	248	133	65	46
18	78	2,370	3,420	1,280	5,200	526	991	477	244	126	59	49
19	59	2,620	3,060	1,090	4,670	508	955	462	269	119	55	53
20	53	2,690	2,760	1,050	3,750	492	946	428	287	120	52	55
21	53	2,660	2,430	1,330	3,190	475	978	406	308	107	72	55
22	53	2,670	2,240	1,310	2,860	450	1,090	406	322	97	75	55
23	59	3,360	2,160	1,140	2,730	435	1,060	395	398	93	78	55
24	60	4,180	2,210	1,030	2,300	428	1,080	378	385	86	87	53
25	66	4,950	2,180	931	2,070	429	1,070	350	344	84	90	53
26	67	5,950	2,090	982	1,570	540	992	330	301	86	79	51
27	75	6,620	3,200	1,310	1,320	914	929	322	270	84	73	50
28	78	6,620	4,550	2,300	1,170	1,670	887	311	235	86	67	53
29	98	6,460	5,390	3,230	-	3,010	887	305	210	98	79	55
30	106	6,250	9,080	3,240	-	3,570	838	307	194	89	86	55
31	121	-	10,100	3,040	-	5,100	-	347	-	83	129	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff Inches	Runoff Acre-feet
October	2,157	121	53	69.6	0.123	0.14	4,280
November	68,969	6,620	242	2,299	4.05	4.52	136,800
December	139,680	10,100	2,090	4,506	7.93	9.15	277,100
Calendar year 1942	445,609	10,100	45	1,221	2.15	29.18	883,900
January	117,683	11,400	931	3,796	6.68	7.71	233,400
February	131,700	9,580	1,170	4,704	8.28	8.62	261,200
March	30,630	5,100	428	988	1.74	2.01	60,750
April	94,063	11,900	838	3,135	5.52	6.16	186,600
May	15,897	801	305	513	.903	1.04	31,530
June	9,014	441	194	300	.528	.59	17,880
July	4,141	204	83	134	.236	.27	8,210
August	2,538	129	55	81.9	.144	.17	5,030
September	1,787	123	45	59.6	.105	.12	3,540
Water year 1942-43	618,259	11,900	45	1,694	2.98	40.50	1,226,000

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

Tualatin River near Willamette, Oreg.

Location.- Water-stage recorder, lat. 45°21'06", 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 1943.

Average discharge.- 15 years, 1,358 second-feet (including flow of Oswego Canal).

Extremes (river only).- Maximum discharge during year, 11,500 second-feet Jan. 8 (gage height, 12.62 feet); minimum observed, 9 second-feet Oct. 1-3.

1928-43: 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 (see p.156) diverts water 4½ miles above station for recreational use in Oswego Lake and development of power between outlet of 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 tables, water year 1942-43 (gage height, in feet, and discharge, in second-feet)

Oct. 1 to Jan. 3

1.6	12	2.5	139	4.3	860	9.0	5,110
1.8	26	2.8	219	5.0	1,290	10.5	7,390
2.0	48	3.2	346	6.0	2,020	11.5	9,240
2.2	79	3.7	555	7.5	3,370	12.6	11,500

Jan. 4 to Sept. 30

1.4	6.0	2.2	88
1.6	17	2.5	146
1.8	34	2.8	221
2.0	58	3.2	346

Note.- Same as preceding table above 3.2 feet.

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	9	228	6,960	9,480	3,350	1,360	7,370	893	402	218	43	75
2	10	470	6,800	10,900	3,360	1,260	7,960	849	461	205	40	69
3	10	630	6,430	11,500	3,430	1,160	9,900	810	456	197	38	55
4	10	766	6,060	11,000	3,560	1,080	10,500	766	431	194	37	46
5	10	844	5,800	9,980	3,710	1,040	9,560	720	398	197	45	41
6	11	710	5,680	8,810	4,550	981	8,260	700	375	197	52	35
7	11	591	5,690	9,680	6,080	921	7,140	700	343	184	61	35
8	11	555	5,960	7,000	6,370	882	6,180	705	315	176	72	30
9	12	550	5,940	6,200	7,250	849	5,320	665	293	131	72	25
10	13	524	5,710	5,510	7,760	816	4,490	625	277	37	61	20
11	13	470	5,470	4,820	8,320	783	3,710	596	271	66	55	19
12	13	394	5,210	4,130	8,410	750	3,060	573	259	125	48	18
13	13	350	5,100	3,560	8,620	605	2,480	560	268	127	42	17
14	20	375	4,890	3,080	9,160	690	1,960	560	283	117	36	17
15	28	680	4,660	2,660	8,930	735	1,600	555	290	108	34	16
16	31	1,420	4,410	2,280	8,170	710	1,380	546	290	97	31	13
17	38	2,260	4,140	1,950	7,370	690	1,240	542	293	92	29	13
18	40	2,750	3,820	1,690	6,580	591	1,140	524	286	92	26	13
19	35	2,900	3,500	1,460	5,750	578	1,070	488	286	86	24	13
20	27	2,920	3,180	1,400	4,920	582	1,050	465	306	77	24	14
21	23	2,950	2,920	1,480	4,240	573	1,060	444	326	74	26	15
22	20	3,150	2,710	1,530	3,640	555	1,130	435	343	69	30	16
23	20	4,580	2,560	1,480	3,160	537	1,170	426	375	61	34	16
24	20	5,380	2,490	1,360	2,740	524	1,150	410	410	58	35	17
25	18	5,140	2,500	1,250	2,350	524	1,130	386	390	50	38	17
26	19	5,690	2,460	1,200	1,970	586	1,100	364	353	49	37	18
27	21	7,050	4,180	1,370	1,680	882	1,040	353	312	49	34	19
28	22	7,030	5,760	2,430	1,490	1,630	993	339	280	49	30	18
29	27	7,150	6,120	3,790	-	3,210	969	326	250	52	37	16
30	56	7,080	7,250	3,920	-	4,020	939	332	227	52	46	18
31	130	-	7,990	3,610	-	6,270	-	353	-	45	57	-

Month	Observed				Diversion by Oswego Canal in 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	130	9	23.9	1,470	3,820	5,290	86.0	0.121	0.14
November	7,150	228	2,520	149,900	1,790	151,690	2,549	3.59	4.00
December	7,990	2,460	4,915	302,200	8,140	310,340	5,047	7.11	8.20
Calendar year 1942	7,990	8.4	1,311	949,307	50,250	999,557	1,381	1.95	26.39
January	11,500	1,200	4,532	278,700	9,630	288,330	4,689	6.60	7.61
February	9,160	1,490	5,247	291,400	4,650	296,050	5,431	7.51	7.82
March	6,270	524	1,173	72,150	4,530	76,680	1,247	1.76	2.03
April	10,500	939	3,535	210,300	7,350	217,650	3,658	5.15	5.75
May	893	320	549	33,740	3,190	36,930	601	.846	.98
June	461	227	328	19,540	2,500	22,040	370	.521	.58
July	218	37	107	6,610	3,590	10,200	166	.234	.27
August	72	24	41.1	2,530	4,090	6,620	108	.152	.18
September	75	13	25.1	1,500	3,890	5,390	90.6	.128	.14
Water year 1942-43	11,500	9	1,892	1,370,040	57,170	1,427,210	1,971	2.78	37.70

Time basis: Pacific war time. 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. 28, 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 1943.

Extremes.- Maximum discharge during year, 1,530 second-feet Nov. 23 (gage height, 14.11 feet); minimum, 1.5 second-feet Sept. 17, 28 (gage height, 1.80 feet).
1940-43: Maximum discharge, 1,610 second-feet Jan. 18, 1941 (gage height, 14.31 feet); minimum, 1.2 second-feet Aug. 22, 1941 (gage height, 1.73 feet).

Remarks.- Records fair. Small diversions by pumping above station for irrigation. Water supply for Hillsboro is diverted from Gein Creek above station; some diurnal fluctuation caused by log ponds above station.

Rating tables, water year 1942-43 (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Oct. 15-27, July 13 to Sept. 30)

Oct. 1 to Nov. 14

2.9	49	4.0	158
3.2	78	4.6	218
3.5	108		

Note.- Same as following table below 2.9 feet.

Nov. 15 to Sept. 30

1.8	1.8	2.5	18	4.0	178	11.0	1,020
1.9	2.5	2.7	32	4.6	247	14.0	1,515
2.0	3.6	2.9	49	5.8	372		
2.1	4.9	3.2	79	7.5	570		
2.3	8.8	3.5	117	9.0	750		

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	4.6	83	638	1,120	149	116	1,400	86	46	22	5.8	8.6
2	6.0	103	683	872	212	109	859	81	44	23	7.1	8.1
3	6.4	124	512	668	228	103	568	78	40	24	9.4	6.6
4	6.2	84	401	523	443	98	410	75	35	25	9.1	4.0
5	6.0	70	341	480	521	95	327	76	34	23	10	4.1
6	4.6	60	308	388	f1,180	92	269	79	34	22	15	5.0
7	2.4	71	318	327	1,090	89	235	69	34	20	11	7.8
8	3.4	73	539	281	671	86	210	63	34	21	9.8	7.1
9	4.0	68	517	246	469	81	186	61	32	30	8.8	6.2
10	4.5	57	587	216	505	79	170	61	31	24	8.3	6.0
11	6.2	50	516	197	1,320	76	159	61	31	22	6.9	2.1
12	12	44	469	180	1,070	76	146	61	32	19	4.9	3.3
13	9.4	40	500	167	728	79	135	61	34	13	4.9	5.0
14	11	219	454	160	559	74	125	59	33	14	5.2	7.4
15	12	541	400	154	440	74	117	59	31	17	7.1	6.6
16	6.2	406	348	142	368	72	109	55	26	18	6.6	6.1
17	5.8	544	307	132	310	70	103	54	28	17	6.6	1.9
18	5.8	424	269	a115	275	67	99	52	31	16	6.6	3.7
19	5.8	374	238	a110	255	65	99	50	37	13	7.1	4.1
20	5.5	260	225	f126	237	63	116	48	34	9.4	6.0	4.1
21	5.5	308	234	a120	220	61	127	48	34	8.3	4.6	5.0
22	5.5	473	324	a113	202	59	118	46	51	9.8	6.1	5.0
23	5.6	1,200	292	a107	164	58	124	45	44	11	6.6	4.9
24	5.6	1,060	259	a103	167	58	125	42	36	8.6	6.2	5.0
25	5.6	608	233	a100	153	74	117	38	34	10	6.4	4.9
26	5.6	535	217	a130	144	121	109	38	34	10	8.1	5.4
27	9.1	691	1,030	138	135	204	105	40	31	11	7.4	5.2
28	13	526	986	209	126	467	99	39	29	10	7.1	1.8
29	8.8	595	923	209	-	584	90	37	26	10	12	2.3
30	8.3	524	975	177	-	574	86	47	22	8.6	16	2.2
31	66	-	1,120	160	-	1,250	-	59	-	5.5	9.8	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff Inches	Runoff Acre-feet
October	266.4	66	2.4	8.59	0.195	0.23	528
November	10,213	1,200	40	340	7.73	8.63	20,260
December	15,163	1,120	217	489	11.1	12.82	30,080
Calendar year 1942	47,566.0	1,200	2.0	130	2.95	40.21	94,340
January	8,170	1,120	100	264	6.00	6.91	16,200
February	12,361	1,320	126	441	10.0	10.45	24,520
March	5,174	1,250	58	167	3.80	4.37	10,260
April	6,942	1,400	86	231	5.25	5.87	13,770
May	1,768	86	37	57.0	1.30	1.49	3,510
June	1,022	51	22	34.1	.775	.86	2,030
July	495.2	30	5.5	16.0	.364	.42	982
August	246.5	16	4.6	7.95	.181	.21	489
September	149.5	8.6	1.8	4.98	.113	.13	297
Water year 1942-43	61,972.6	1,400	1.8	170	3.86	52.39	122,900

Peak discharge.- Nov. 23 (7:30 p.m.) 1,530 sec.-ft.; Dec. 27 (4 p.m.) 1,400 sec.-ft.; Jan. 1 (2:30 p.m.) 1,240 sec.-ft.; Feb. 6 (clock stopped) 1,500 sec.-ft.; Feb. 11 (4:30 p.m.) 1,460 sec.-ft.; Apr. 1 (4 a.m.) 1,510 sec.-ft.

a No gage-height record; discharge computed on basis of records for Tualatin River at Gaston and Gales Creek near Forest Grove.

f Computed from partly estimated gage-height record.

Time basis: Pacific war time. 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., E. 5 W., half a mile downstream from Beaver Creek and 4½ miles northwest of Gales Creek post office. Datum of gage is 449.5 feet above mean sea level (from river-profile survey).

Drainage area.- 33 square miles.

Records available.- September 1935 to September 1943.

Extremes.- Maximum discharge during year, 1,890 second-feet Nov. 23 (gage height, 5.85 feet, from graph based on gage readings); minimum observed, 7.1 second-feet Oct. 8 (gage height, 1.17 feet).

1935-43: Maximum discharge, 3,540 second-feet Dec. 27, 1937 (gage height, 8.10 feet, from floodmark); minimum observed, 3.4 second-feet (regulated) Sept. 28, 1939.

Remarks.- Records good. No diversion above station; diurnal fluctuation at times caused by log pond 3 miles above station. Gage read once daily, twice daily at high stages.

Rating tables, water year 1942-43 (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Oct. 1-30)

Oct. 1 to Nov. 22

1.1	6.4	1.6	31	2.3	113
1.2	10	1.8	47	2.7	195
1.4	19	2.0	70	3.2	355

Nov. 23 to Sept. 30

1.1	5.5	2.0	70	3.9	655
1.2	8.5	2.3	120	4.5	1,005
1.4	18	2.6	185	5.2	1,460
1.6	27	3.0	290		
1.8	45	3.4	425		

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	9.6	73	344	915	120	99	1,340	82	45	23	13	12
2	8.9	105	429	694	192	95	789	79	42	23	14	12
3	7.8	111	360	492	192	87	483	76	39	25	15	11
4	7.8	70	302	344	357	84	360	73	39	23	14	11
5	7.8	66	260	326	530	80	272	73	37	22	16	11
6	9.6	69	215	272	1,380	76	242	73	34	21	16	10
7	7.5	63	195	245	897	73	210	69	33	21	14	9.9
8	7.1	57	255	220	519	70	185	65	33	20	14	9.9
9	7.5	48	290	195	371	67	167	62	29	26	13	8.5
10	7.8	46	371	176	528	66	149	65	30	22	13	8.5
11	8.2	42	364	160	1,330	64	136	61	31	22	12	11
12	10	38	344	147	897	62	124	58	31	21	12	9.9
13	8.6	38	382	134	630	67	116	58	32	20	12	8.2
14	17	150	357	122	483	65	107	58	32	19	12	8.8
15	12	352	311	116	378	61	102	57	29	19	11	7.6
16	9.6	367	272	113	320	60	95	53	29	18	11	8.2
17	8.6	375	240	102	275	57	90	52	29	18	11	8.5
18	7.8	278	210	95	232	55	85	50	29	18	11	11
19	7.8	222	183	92	225	53	88	49	32	18	11	9.9
20	7.5	185	176	132	210	52	111	47	29	14	11	8.5
21	9.6	265	178	102	195	51	128	50	33	16	12	8.5
22	7.8	320	238	88	171	45	124	45	39	16	15	8.5
23	7.5	1,410	250	82	162	47	126	43	33	16	14	7.6
24	8.2	903	235	82	147	44	128	37	35	15	12	11
25	7.5	483	208	79	140	57	120	38	31	14	13	7.9
26	9.6	405	215	106	120	92	107	38	29	15	12	8.5
27	18	368	818	122	116	220	106	38	27	16	11	8.5
28	10	347	813	171	104	542	99	36	26	15	11	9.2
29	12	350	765	169	-	510	92	37	25	14	21	8.2
30	14	308	699	144	-	496	88	47	25	14	12	8.5
31	120	-	921	130	-	1,230	-	56	-	a14	14	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff Inches	Runoff Acre-feet
October	402.7	120	7.1	13.0	0.394	0.45	799
November	7,914	1,410	38	264	8.00	8.92	15,700
December	11,200	921	176	361	10.9	12.62	22,210
Calendar year 1942	40,257.9	1,410	5.9	110	3.33	45.36	79,850
January	6,367	915	79	205	6.21	7.18	12,630
February	11,221	1,380	104	401	12.2	12.65	22,260
March	4,727	1,230	44	152	4.61	5.33	9,380
April	6,369	1,340	85	212	6.42	7.18	12,630
May	1,725	82	36	55.6	1.68	1.94	3,420
June	967	45	25	32.2	.976	1.09	1,920
July	578	26	14	18.6	.564	.65	1,150
August	403	21	11	13.0	.394	.45	799
September	281.8	12	7.6	9.39	.285	.32	559
Water year 1942-43	52,155.5	1,410	7.1	143	4.33	58.78	103,500

a No gage-height record; discharge computed on basis of records for station near Forest Grove.
Time basis: Pacific war time. 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 2½ 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 1943.
Extremes.- Maximum discharge during year, 2,730 second-feet Nov. 23 (gage height, 6.45 feet); minimum, 9 second-feet Sept. 14 (gage height, 1.69 feet).
1940-43: Maximum discharge, 3,580 second-feet Dec. 19, 1941; maximum gage height, that of Nov. 23, 1943; minimum discharge, 9 second-feet Aug. 20, 1941, Sept. 24, 1942, Sept. 14, 1943.
Remarks.- Records good. Small diversions above station for irrigation. Diurnal fluctuation at low stages caused by log ponds above station.

Rating tables, water year 1942-43 (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Oct. 14-27, Aug. 29 to Sept. 26)

Oct. 1 to Nov. 23						Nov. 24 to Sept. 30					
1.7	11	2.4	101	3.8	560	1.7	12	2.4	119	3.8	620
1.8	18	2.7	172	4.3	850	1.8	22	2.7	190	4.3	940
2.0	37	3.0	260	4.9	1,300	2.0	46	3.0	270	4.8	1,340
2.2	65	3.4	390	5.8	2,080	2.2	79	3.4	420	5.6	2,060

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	15	103	758	1,630	246	192	2,060	134	67	38	19	16
2	14	172	814	1,250	340	180	1,180	128	64	37	19	14
3	14	175	662	891	376	172	776	123	59	36	20	12
4	14	118	550	722	620	163	600	119	59	34	20	12
5	13	88	485	650	734	155	490	119	56	33	23	13
6	12	79	425	535	2,090	148	396	123	52	32	25	12
7	12	84	455	465	1,530	143	344	106	51	32	21	11
8	13	77	644	408	940	139	294	106	48	34	20	11
9	12	68	656	364	674	134	264	102	45	42	19	11
10	13	59	734	324	902	130	240	102	45	34	18	11
11	14	53	686	291	2,100	126	222	100	45	31	18	11
12	19	47	632	264	1,430	128	205	98	46	32	17	11
13	15	50	662	249	1,030	130	192	98	48	30	17	11
14	21	340	610	235	794	126	182	94	49	29	16	11
15	20	580	535	228	656	123	172	94	46	29	16	11
16	15	556	460	215	565	119	165	88	43	29	15	11
17	13	660	400	198	480	117	158	85	45	26	15	13
18	12	520	348	185	425	115	148	81	46	25	14	14
19	12	414	304	182	388	115	148	79	52	25	15	13
20	12	317	300	210	360	111	175	77	48	24	16	13
21	12	414	312	200	328	106	205	79	59	23	18	13
22	12	570	475	a170	300	96	192	76	76	23	20	12
23	12	2,020	440	a155	276	100	202	72	65	23	21	12
24	12	1,400	400	a155	255	106	195	64	62	22	18	11
25	12	821	356	a150	235	115	182	64	54	21	16	11
26	12	746	348	a190	220	202	175	62	49	22	15	12
27	18	776	1,600	235	208	356	165	59	45	23	15	13
28	22	650	1,490	348	200	796	160	59	42	23	15	13
29	18	632	1,560	352	-	863	148	56	40	20	24	12
30	20	575	1,480	297	-	867	141	70	38	19	22	12
31	113	-	1,650	264	-	1,990	-	81	-	18	17	-

Month	Second-feet-days	Maximum	Minimum	Mean	Per square mile	Runoff Inches	Runoff Acre-feet
October	548	113	12	17.7	0.268	0.31	1,090
November	13,164	2,020	47	439	6.65	7.42	26,110
December	21,231	1,650	300	685	10.4	11.96	42,110
Calendar year 1942	67,928	2,020	10	186	2.82	38.28	134,700
January	12,012	1,630	150	387	5.86	6.77	23,830
February	18,702	2,100	200	668	10.1	10.54	37,090
March	8,363	1,990	96	270	4.09	4.71	16,590
April	10,176	2,060	141	339	5.14	5.73	20,180
May	2,798	134	56	90.3	1.37	1.58	5,550
June	1,544	76	38	51.5	.780	.87	3,060
July	869	42	18	28.0	.424	.49	1,720
August	564	25	14	18.2	.276	.32	1,120
September	363	16	11	12.1	.183	.20	720
Water year 1942-43	90,334	2,100	11	247	3.74	50.90	179,200

Peak discharge.- Nov. 23 (2 p.m.) 2,730 sec.-ft.; Dec. 27 (2:30 p.m. to 3 p.m.) 1,960 sec.-ft.; Dec. 29 (1:30 p.m.) 2,020 sec.-ft.; Feb. 6 (2:30 p.m.) 2,490 sec.-ft.; Feb. 11 (8 a.m. to 10 a.m.) 2,260 sec.-ft.; Apr. 1 (1:30 a.m. to 3 a.m.) 2,520 sec.-ft.
a No gage-height record; discharge computed on basis of records for station near Gales Creek.
Time basis: Pacific war time. To convert war time to standard time, subtract 1 hour.

West Fork Dairy Creek at Banks, Oreg.

Location.- Water-stage recorder, lat. 45°37'25", long. 123°06'50", in SE¼ sec. 25, T. 2 N., R. 4 W., at highway bridge at Banks. Datum of gage is 183.65 feet above mean sea level, datum of 1929.

Drainage area.- 49.2 square miles.

Records available.- October 1940 to September 1943 (discontinued).

Extremes.- Maximum discharge during year, 915 second-feet Feb. 7 (gage height, 12.2 feet, from floodmark); minimum, 2.7 second-feet Oct. 21.

1940-43: Maximum discharge, 1,100 second-feet Dec. 19, 20, 1941 including flow through break in dike above station; maximum gage height, that of Feb. 7, 1943; minimum discharge, 2.1 second-feet Sept. 25, 1942.

Remarks.- Records fair. Many small diversions above station for irrigation; no regulation.

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	4.1	24	250	731	157	87	873	62	29	14	6.1	5.8
2	4.4	22	332	716	180	81	a800	57	27	14	6.3	5.0
3	4.1	34	320	579	214	76	a580	55	27	13	6.7	4.7
4	4.3	16	278	468	264	73	426	52	25	13	6.9	4.2
5	4.1	14	248	391	332	69	322	52	23	12	7.4	4.5
6	3.8	11	236	314	488	65	257	59	22	12	10	4.5
7	3.6	11	250	262	a780	63	220	51	21	11	8.2	4.2
8	3.6	11	374	225	a620	60	195	47	20	12	7.4	4.0
9	3.4	10	385	196	532	a58	169	44	19	15	6.9	3.7
10	3.3	9	347	170	428	a56	151	43	18	13	6.5	3.6
11	3.8	8	318	148	630	a54	136	42	19	12	6.5	3.7
12	4.8	7	284	130	a740	a52	123	42	20	12	6.3	3.7
13	4.6	7	267	118	a660	a55	112	42	21	11	5.9	3.8
14	4.7	32	240	109	513	51	102	a42	21	10	5.7	3.7
15	5.7	156	212	103	384	49	95	a39	21	9.8	5.6	3.5
16	4.6	106	187	97	312	47	88	h37	19	9.6	5.1	3.5
17	5.1	187	165	87	263	46	82	a35	19	9.4	5.0	3.8
18	3.6	138	144	76	226	44	77	a33	19	8.9	5.1	4.4
19	3.4	115	129	73	201	43	77	a32	23	8.7	5.4	4.4
20	3.3	85	122	85	182	41	82	a31	23	8.2	6.1	4.1
21	3.0	97	125	84	165	40	94	a33	25	8.0	6.7	4.0
22	4.1	158	169	78	151	40	87	a31	40	7.6	8.5	3.8
23	3.4	354	182	70	138	40	87	h30	28	7.4	9.5	3.7
24	3.3	532	174	64	125	40	84	a28	24	7.2	8.1	3.5
25	3.5	399	159	63	114	43	78	a27	21	6.9	6.9	3.5
26	3.4	293	145	71	106	66	74	a27	19	7.0	5.9	3.6
27	4.7	347	384	100	99	131	72	a26	18	7.6	5.3	4.0
28	6.4	306	731	187	93	259	73	25	17	7.4	4.8	4.4
29	5.7	274	636	245	-	391	69	24	15	7.0	7.4	4.2
30	5.7	236	738	212	-	401	64	28	14	6.7	11	4.1
31	12	-	738	178	-	639	-	36	-	6.1	7.2	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff Inches	Runoff Acre-feet
October	137.5	12	3.0	4.44	0.090	0.10	273
November	3,999	532	7	133	2.70	3.02	7,930
December	9,269	738	122	299	6.08	7.01	18,380
Calendar year 1942	31,815.8	738	2.6	87.2	1.77	24.06	63,100
January	6,430	731	63	207	4.21	4.86	12,750
February	9,097	780	93	325	6.61	6.88	18,040
March	3,260	639	40	105	2.13	2.46	6,470
April	5,749	873	64	192	3.90	4.35	11,400
May	1,212	62	24	39.1	.795	.92	2,400
June	657	40	14	21.9	.445	.50	1,300
July	307.5	15	6.1	9.92	.202	.23	610
August	210.4	11	4.8	6.79	.138	.16	417
September	121.6	5.8	3.5	4.05	.082	.09	241
Water year 1942-43	40,450.0	873	3.0	111	2.26	30.58	80,210

Peak discharge.- Dec. 28 (2 p.m. to 5 p.m.) 765 sec.-ft.; Dec. 30 (8:30 p.m.) 773 sec.-ft.; Jan. 1 (10 p.m.) 765 sec.-ft.; Feb. 7 (10:35 a.m.) 915 sec.-ft.; Feb. 12 (12 m.) 765 sec.-ft.; Apr. 1 (8 p.m. to 4 p.m.) 876 sec.-ft.

a No gage-height record; discharge computed on basis of records for Gales Creek near Gales Creek and near Forest Grove.

h Computed from staff-gage reading.

Time basis: Pacific war time. 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 1943.

Extremes.- Maximum discharge during year, 1,140 second-feet Mar. 31 (gage height, 12.48 feet); minimum, 10 second-feet Oct. 6, 9, 10, 17-25, Sept. 9, 10, 14-16, 22-24.
1940-43: Maximum discharge, that of Mar. 31, 1943; minimum, 9 second-feet Aug. 17-22, 1941.

Remarks.- Records good except those for periods of shifting control or no gage-height record, which are 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 above station for irrigation. Diurnal fluctuation at low stages caused by log pond upstream.

Rating table, water year 1942-43, except for periods of shifting control (gage height, in feet, and discharge, in second-feet)

0.7	10	2.9	77	9.0	498
1.0	16	3.8	117	11.0	709
1.3	24	4.8	172	12.3	1,060
1.7	36	6.0	250		
2.2	52	7.5	366		

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	11	44	269	638	155	98	1,010	78	50	31	17	13
2	12	51	314	573	179	95	701	74	46	30	17	12
3	11	54	300	475	188	91	492	71	45	30	17	12
4	11	38	266	417	246	89	382	70	42	29	17	11
5	11	36	235	385	326	85	324	75	41	28	18	12
6	10	30	218	331	638	81	272	77	40	27	19	11
7	11	30	238	296	726	79	240	69	39	25	18	11
8	11	29	310	266	502	76	208	66	38	27	17	11
9	10	26	310	240	366	73	183	64	36	31	16	11
10	10	25	308	218	362	71	161	64	36	27	16	11
11	12	24	311	200	704	69	148	63	36	26	15	11
12	13	22	293	185	634	68	133	62	37	26	15	11
13	12	23	280	171	504	72	125	62	37	24	15	11
14	16	96	260	160	411	67	112	59	37	23	14	11
15	14	194	232	158	341	65	106	59	36	a23	14	10
16	11	181	207	150	288	a63	95	57	34	a22	14	10
17	10	237	185	137	249	a61	91	55	37	22	13	11
18	10	205	165	a127	217	a59	88	54	36	21	13	12
19	10	174	147	124	197	a58	88	53	40	a21	14	11
20	10	138	146	133	183	a57	96	51	38	21	14	11
21	10	154	138	129	173	a56	98	52	46	20	14	11
22	10	188	179	124	161	55	89	50	52	20	17	10
23	10	519	173	116	146	54	94	49	46	19	16	10
24	11	507	176	110	134	55	89	47	41	a18	14	11
25	11	349	163	110	124	56	87	46	38	a17	14	11
26	12	307	151	118	116	74	85	45	37	a18	13	11
27	15	322	481	142	110	123	84	44	34	a19	13	12
28	14	286	544	191	104	301	89	44	33	a18	12	12
29	13	274	561	202	-	376	83	44	32	a18	15	11
30	15	242	675	182	-	445	79	49	31	a17	17	11
31	45	-	592	164	-	1,000	-	53	-	17	14	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff: Inches	Runoff: Acre-feet
October	392	45	10	12.6	0.293	0.34	778
November	4,804	519	22	160	3.72	4.15	9,530
December	8,827	675	138	285	6.63	7.63	17,510
Calendar year 1942	35,161	863	10	96.3	2.24	30.42	69,730
January	6,972	638	110	225	5.23	6.03	13,830
February	8,554	726	104	306	7.12	7.40	16,970
March	4,072	1,000	54	131	3.05	3.52	8,080
April	5,932	1,010	79	198	4.60	5.13	11,770
May	1,806	78	44	58.3	1.36	1.56	3,580
June	1,171	52	31	39.0	.907	1.01	2,320
July	715	31	17	23.1	.537	.62	1,420
August	471	19	12	15.2	.353	.41	934
September	334	13	10	11.1	.258	.29	662
Water year 1942-43	44,050	1,010	10	121	2.81	38.09	87,380

Peak discharge.- Nov. 23 (5:30 p.m.) 659 sec.-ft.; Dec. 30 (12 m.) 702 sec.-ft.; Jan. 1 (3 a.m.) 655 sec.-ft.; Feb. 6 (10 p.m.) 690 sec.-ft.; Feb. 11 (12 m.) 731 sec.-ft.; Mar. 31 (3 p.m. to 11 p.m.) 1,140 sec.-ft.

a No gage-height record; discharge computed on basis of records for West Fork Dairy Creek at Banks and McKay Creek at North Plains.

Note.- Shifting-control method used Oct. 1-30, Jan. 2 to Feb. 6, Apr. 2-15, July 21 to Sept. 30.

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

McKay Creek near North Plains, Oreg.

Location.- Water-stage recorder, lat. 45°37'35", long. 123°58'25", in SE¼ sec. 30, T. 2 N., R. 2 W., at bridge 2½ miles north of North Plains. Datum of gage is 172.82 feet above mean sea level, datum of 1929.

Drainage area.- 27.6 square miles.

Records available.- October 1940 to September 1943 (discontinued).

Extremes.- Maximum discharge during year, 1,100 second-feet Mar. 31 (gage height, 9.80 feet); minimum, 2.6 second-feet Sept. 16 (gage height, 0.45 foot).
1940-43: Maximum discharge, that of Mar. 31, 1943; minimum, 1.8 second-feet Aug. 12, 1941 (gage height, 0.46 foot).

Remarks.- Records fair. No known diversions above station; no regulation.

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	3.6	16	f227	544	91	33	891	34	18	9.2	4.2	a4.3
2	3.7	15	288	429	110	31	535	31	17	9.0	4.3	f4.0
3	3.7	19	243	309	138	30	317	30	16	9.0	4.6	3.8
4	3.7	11	186	240	196	30	214	29	14	8.6	4.6	3.7
5	3.7	8.6	148	f219	284	28	158	31	13	7.8	5.1	3.7
6	3.5	6.7	134	f188	624	26	119	38	13	7.3	5.9	3.5
7	3.7	8.5	146	162	698	25	98	32	12	6.9	5.1	3.4
8	3.6	8.5	390	136	396	23	84	32	12	7.3	a4.9	3.2
9	3.5	7.1	420	113	265	22	70	31	11	10	a4.7	3.2
10	3.5	5.4	352	94	222	20	62	30	10	8.6	a4.5	3.2
11	3.8	5.1	277	80	606	a19	55	29	11	7.9	4.4	3.1
12	5.7	4.7	213	68	515	20	50	27	12	8.0	4.5	3.1
13	4.4	4.6	166	60	331	23	46	29	12	7.3	4.3	3.1
14	6.3	28	134	55	228	21	43	29	12	6.9	3.7	3.1
15	5.9	86	f116	55	165	20	41	27	11	7.1	3.6	2.9
16	4.0	90	100	53	132	18	38	25	10	6.8	3.4	2.8
17	3.5	181	84	46	106	18	34	23	12	6.4	3.3	3.2
18	3.3	148	73	a42	86	18	32	21	12	6.0	3.3	a3.5
19	3.2	130	67	40	73	17	34	20	15	5.8	a3.4	a3.4
20	3.2	86	66	49	66	17	37	20	15	5.5	a3.6	a3.2
21	3.2	90	64	48	61	16	40	20	18	a5.4	3.8	a3.0
22	3.2	170	f94	46	56	16	36	19	17	a5.3	5.7	a2.9
23	3.2	473	102	40	51	16	40	18	15	6.2	5.1	a2.8
24	3.2	496	102	36	46	16	39	16	13	4.9	4.3	a2.8
25	f4.0	302	88	33	a42	18	38	15	12	4.7	3.8	a2.8
26	4.3	175	78	38	38	28	36	15	12	4.9	3.7	a3.0
27	5.1	233	532	52	37	61	36	15	10	5.5	3.6	a3.2
28	5.2	268	556	124	35	272	40	14	a9.7	5.1	f3.5	a3.3
29	4.7	241	466	156	-	402	38	14	a9.4	4.9	a6.0	a3.1
30	5.4	216	630	126	-	459	33	17	9.2	4.6	a6.0	a3.0
31	12	-	482	103	-	965	-	20	-	f4.0	a5.0	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff Inches	Runoff Acre-feet
October	133.0	12	3.2	4.29	0.155	0.18	264
November	3,533.2	496	4.6	118	4.28	4.76	7,010
December	7,024	630	64	227	8.22	9.46	13,950
Calendar year 1942	21,899.6	630	2.6	60.0	2.17	29.50	43,440
January	3,784	544	33	122	4.42	5.10	7,510
February	5,688	698	35	203	7.36	7.66	11,280
March	2,728	965	16	88.0	3.19	3.68	5,410
April	3,332	891	32	111	4.02	4.49	6,610
May	751	38	14	24.2	.877	1.01	1,490
June	383.3	18	9.2	12.8	.464	.52	760
July	205.9	10	4.0	6.64	.241	.28	408
August	134.9	6.0	3.3	4.35	.158	.18	268
September	97.3	4.3	2.8	3.24	.117	.13	193
Water year 1942-43	27,794.6	965	2.8	76.1	2.76	37.45	55,130

Peak discharge.- Nov. 23 (8 p.m.) 855 sec.-ft.; Dec. 27 (5 p.m.) 774 sec.-ft.; Dec. 30 (11 p.m.) 656 sec.-ft.; Feb. 6 (12 p.m.) 950 sec.-ft.; Feb. 11 (6 p.m.) 762 sec.-ft.; Mar. 31 (3 p.m.) 1,100 sec.-ft.

a No gage-height record; discharge computed on basis of records for West Fork Dairy Creek at Banks and East Fork Dairy Creek at Mountaindale.

f Computed on basis of partly estimated gage-height record.

Time basis: Pacific war time. 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 1943.

Average discharge.- 15 years, 62.9 second-feet.

Extremes.- Maximum discharge during year, 382 second-feet Jan. 3 (gage height, 11.50 feet), from rating curve extended above 230 second-feet; minimum, 0.9 second-foot Oct. 30 to Nov. 7, Nov. 12, 13 (head gate closed).

1928-43: 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 except those below 4 second-feet and those for periods of backwater from Oswego Lake or no gage-height record, which are fair. Oswego Canal diverts water from Tualatin River in NW¼ sec. 20, but diversion dam is in NE¼ sec. 33, about 3 miles downstream.

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	58	c0.9	71	327	114	48	a200	67	45	36	66	a72
2	58	c.9	68	366	114	46	210	66	48	36	66	a71
3	60	.9	66	381	116	44	236	64	48	34	65	a70
4	62	.9	179	370	120	42	242	61	48	34	65	a68
5	64	.9	205	341	126	41	230	59	46	35	66	a67
6	65	.9	202	306	163	39	212	58	45	35	67	a66
7	65	.9	94	273	218	37	194	58	43	33	68	a66
8	66	1.0	20	248	104	36	180	58	41	32	69	a65
9	66	1.0	19	224	28	36	166	57	40	33	69	a65
10	65	1.1	18	198	31	34	151	56	40	53	68	h64
11	64	1.4	105	172	36	33	135	55	39	69	67	f64
12	64	1.2	185	146	35	32	120	55	37	74	66	64
13	65	1.0	180	122	38	49	f111	54	38	74	65	64
14	66	2.2	173	106	47	70	f98	54	39	73	65	64
15	68	2.3	164	93	31	72	90	53	39	71	65	64
16	68	25	154	81	16	71	85	54	39	71	65	64
17	68	47	a145	70	14	71	81	53	40	71	a65	64
18	68	50	a135	62	13	75	77	52	40	71	a65	64
19	68	50	a125	55	86	88	75	50	39	70	a65	65
20	68	50	a115	53	170	88	74	48	40	69	a65	65
21	66	52	a105	57	145	87	74	47	42	68	a66	66
22	66	55	95	58	122	87	76	46	42	68	a66	66
23	66	70	89	57	107	86	78	46	45	67	a67	65
24	66	63	88	54	93	86	78	46	47	67	a67	65
25	66	61	88	50	81	88	77	45	46	67	a67	64
26	66	70	87	49	68	94	75	43	44	67	a67	64
27	65	76	155	56	58	104	73	42	42	66	a67	63
28	65	72	212	93	52		71	41	41	66	a66	63
29	66	74	224	133	-	a150	70	40	38	66	a67	64
30	c37	71	258	134	-		69	40	37	67	a68	64
31	c0.9	-	282	122	-		-	42	-	67	a70	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	1,925.9	68	0.9	62.1	3,820
November	903.5	76	.9	30.1	1,790
December	4,106	282	18	132	8,140
Calendar year 1942	25,335.4	262	.9	69.4	50,250
January	4,857	381	49	157	9,630
February	2,346	218	13	83.8	4,650
March	2,284	150	32	73.7	4,530
April	3,708	242	69	124	7,350
May	1,610	67	40	51.9	3,190
June	1,258	48	37	41.9	2,500
July	1,810	74	32	58.4	3,590
August	2,060	70	65	66.5	4,090
September	1,960	72	63	65.3	3,890
Water year 1942-43	28,828.4	381	.9	79.0	57,170

a No gage-height record; discharge computed on basis of recorded range in stage and records for Tualatin River near Willamette.
c Backwater from Oswego Lake; discharge extrapolated.
f Computed on basis of partly estimated gage-height record.
h Computed from staff-gage reading.
Time basis: Pacific war time. 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 1943.

Average discharge.- 23 years, 445 second-feet.

Extremes.- Maximum discharge during year, 4,520 second-feet Nov. 23 (gage height, 6.90 feet), from rating curve extended above 1,700 second-feet; minimum, 200 second-feet Oct. 9, 10.

1920-43: 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 11 discharge measurements furnished by Portland General Electric Co.

Rating table, water year 1942-43 (gage height, in feet, and discharge, in second-feet)

1.5	205	2.8	680	4.7	1,940
1.8	290	3.1	830	5.5	2,750
2.2	425	3.5	1,050		
2.5	545	4.0	1,370		

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	205	355	1,410	2,440	a340	418	1,760	1,020	1,010	558	281	260
2	205	408	1,380	1,590	a370	400	1,400	a960	934	537	281	257
3	205	418	1,020	1,210	362	390	1,210	929	863	a520	278	254
4	205	317	836	1,020	497	383	1,040	907	795	a500	278	254
5	205	272	705	912	493	372	978	868	765	a490	302	254
6	202	251	630	785	960	358	934	874	770	a480	287	a254
7	202	250	558	695	995	352	895	858	790	445	281	a252
8	202	425	537	630	815	369	890	785	841	433	278	a252
9	202	320	537	581	710	372	858	765	880	429	275	a252
10	202	275	599	537	680	369	805	750	863	404	272	a250
11	212	257	541	501	1,060	358	775	720	800	390	269	a250
12	212	242	505	473	995	362	815	676	765	380	269	a250
13	208	239	541	449	863	380	929	644	780	369	266	a248
14	212	442	537	445	785	380	1,080	622	735	362	266	a248
15	212	320	517	457	725	362	1,220	586	690	352	266	a248
16	208	529	505	453	685	352	1,260	558	700	344	263	a246
17	205	626	513	429	630	344	1,220	545	750	334	263	a246
18	205	489	497	380	594	341	1,190	550	896	330	263	a246
19	205	411	477	a390	563	338	1,300	576	800	324	263	a246
20	202	366	501	a420	541	330	1,420	617	735	320	263	a246
21	202	355	533	a410	537	327	1,660	635	685	314	269	a245
22	205	596	902	a420	529	327	1,340	695	666	311	275	a245
23	205	2,670	907	a400	521	324	1,220	880	635	308	266	a245
24	205	2,090	836	a370	505	330	1,150	956	604	302	263	a244
25	205	1,110	765	a370	481	352	1,050	1,050	622	299	260	a244
26	210	1,110	658	a375	461	541	51	1,080	626	296	257	a244
27	248	2,120	1,450	a380	445	907	1,590	1,060	586	293	257	a243
28	222	1,290	1,750	a390	429	978	1,040	990	572	293	257	a243
29	220	1,870	1,260	a380	-	1,090	1,030	924	568	290	296	a243
30	222	1,600	1,200	a360	-	1,000	978	918	568	287	278	a242
31	275	-	2,340	a340	-	a1,400	-	1,100	-	284	266	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff	
						Inches	Acre-feet
October	6,535	275	202	211	1.60	1.84	12,960
November	22,533	2,670	239	751	5.69	6.35	44,690
December	25,947	2,340	477	837	6.34	7.31	51,470
Calendar year 1942	143,176	2,670	184	392	2.97	40.32	284,000
January	18,992	2,440	340	613	4.64	5.35	37,670
February	17,571	1,060	340	628	4.76	4.95	34,850
March	14,906	1,400	324	481	3.64	4.20	29,570
April	33,989	1,760	775	1,133	8.58	9.58	67,420
May	25,096	1,100	545	810	6.14	7.07	49,780
June	22,294	1,010	568	743	5.63	6.28	44,220
July	11,578	558	284	373	2.83	3.26	22,960
August	8,408	302	257	271	2.05	2.37	16,680
September	7,451	260	242	248	1.88	2.10	14,780
Water year 1942-43	215,302	2,670	202	590	4.48	60.66	427,000

Peak discharge.- Nov. 23 (7 p.m.) 4,520 sec.-ft.; Nov. 27 (4 a.m.) 2,710 sec.-ft.; Nov. 29 (4:30 p.m.) 2,450 sec.-ft.; Dec. 27 (12 p.m.) 2,190 sec.-ft.; Jan. 1 (1:30 a.m.) 3,080 sec.-ft.; Mar. 31 (clock stopped) 1,990 sec.-ft.

a No gage-height record; discharge computed on basis of records for station above Three Lynx Creek and Oak Grove Fork above power plant intake.

Time basis: Pacific war time. 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 1943.

Average discharge.- 24 years, 1,825 second-feet.

Extremes.- Maximum discharge during year, 26,700 second-feet Nov. 23 (gage height, 16.26 feet), from rating curve extended above 11,000 second-feet; minimum, about 395 second-feet (regulated) Sept. 21 (stage below inlet pipe); minimum daily, 566 second-feet Oct. 10.

1911-13, 1921-43: 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 Aug. 10, 16, 1924, Sept. 20, 1936; minimum daily, 536 second-feet Oct. 22, 1930.

Remarks.- Records good except those above 12,000 second-feet or those for periods of fragmentary 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; no regulation.

Cooperation.- Water-stage recorder graph and 11 discharge measurements furnished by Portland General Electric Co.

Rating tables, water year 1942-43 (gage height, in feet, and discharge, in second-feet)

Oct. 1 to Nov. 22		Nov. 23 to Sept. 30			
0.8	580	1.1	680	5.0	4,560
1.3	800	1.6	970	6.0	5,260
1.9	1,160	2.2	1,440	7.5	9,510
2.5	1,670	3.0	2,180	9.0	13,460
3.4	2,610	4.0	3,240	11.0	19,360
4.3	3,720				

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	612	1,870	6,730	12,900	1,580	1,850	10,200	3,660	3,520	1,860	900	816
2	f596	2,340	6,550	7,300	2,100	1,800	6,990	3,480	3,360	1,800	949	816
3	f588	2,390	4,700	5,100	2,100	1,700	5,630	3,350	3,320	1,780	900	816
4	f608	1,570	3,700	4,060	3,700	1,650	4,460	3,280	3,030	1,640	942	804
5	f573	1,220	3,170	3,740	3,600	1,600	4,070	3,170	2,920	1,660	1,000	f775
6	f558	1,060	2,790	3,350	6,800	1,550	3,850	3,240	2,890	1,640	970	828
7	f576	1,060	2,500	2,990	6,200	1,500	3,660	3,200	2,900	1,550	970	790
8	f584	1,850	2,420	2,690	4,300	1,650	3,660	2,960	2,960	1,500	864	770
9	f573	1,480	2,630	2,480	3,300	1,700	3,470	2,820	3,010	1,500	963	775
10	f566	1,220	3,340	2,360	2,900	1,650	3,230	2,810	2,910	1,430	894	780
11	624	1,080	3,010	2,210	6,000	1,600	3,040	2,740	2,710	1,230	900	770
12	620	984	2,790	2,110	5,600	1,550	3,340	2,580	2,590	1,400	907	775
13	f596	960	3,400	2,010	4,800	1,700	3,940	2,490	2,610	1,300	907	775
14	f612	2,590	3,440	2,110	4,300	1,900	4,520	2,390	2,470	1,220	876	770
15	636	5,020	3,200	2,360	3,900	1,850	4,970	2,300	2,330	1,250	f874	760
16	f604	3,210	3,120	2,380	3,500	1,760	4,780	2,230	2,300	1,180	876	775
17	f592	3,990	2,900	2,130	3,100	1,640	4,350	2,180	2,450	1,180	864	755
18	f576	2,840	2,700	1,970	2,900	1,550	4,120	2,150	2,720	1,050	834	780
19	f600	2,180	2,400	1,980	2,700	1,490	4,540	2,200	2,530	1,180	870	f704
20	f584	1,740	2,400	2,130	2,700	1,460	5,210	2,360	2,360	1,130	852	771
21	f592	1,650	2,700	2,060	2,700	1,370	6,590	2,390	2,340	1,100	852	f748
22	f580	3,570	4,600	2,100	2,800	1,480	5,080	2,570	2,240	1,090	913	750
23	f596	f17,500	4,910	2,060	2,650	1,450	4,480	3,260	2,170	1,030	870	755
24	f608	f11,400	4,200	1,770	2,400	1,530	4,170	3,470	2,090	1,040	840	765
25	f584	5,250	3,950	1,790	2,250	1,750	3,830	3,650	2,050	973	816	750
26	f612	4,790	3,260	1,790	2,100	3,460	3,480	3,680	2,010	1,000	816	740
27	830	10,900	8,910	1,880	2,000	5,560	3,340	3,500	1,880	984	816	755
28	687	6,130	9,880	1,900	1,850	5,630	3,760	3,260	1,940	991	804	750
29	678	9,210	6,240	1,800	-	6,410	3,870	3,090	1,900	942	944	735
30	687	8,030	5,900	1,670	-	5,120	3,680	3,040	1,900	949	1,000	755
31	920	-	11,500	1,500	-	10,200	-	3,740	-	963	840	

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff	
						Inches	Acre-feet
October	19,282	920	566	622	1.27	1.47	38,250
November	119,084	17,500	960	3,969	8.13	9.08	236,200
December	134,240	11,500	2,400	4,330	8.87	10.23	266,300
Calendar year 1942	641,400	17,500	566	1,757	3.60	48.89	1,272,000
January	88,680	12,900	1,500	2,861	5.86	6.76	175,900
February	94,830	6,800	1,580	3,387	6.94	7.23	188,100
March	77,110	10,200	1,370	2,487	5.10	5.88	152,900
April	134,310	10,200	3,040	4,477	9.17	10.24	266,400
May	91,240	3,740	2,150	2,943	6.03	6.95	181,000
June	76,410	3,520	1,880	2,547	5.22	5.82	151,600
July	39,542	1,860	942	1,276	2.61	3.01	78,430
August	27,623	1,000	804	891	1.83	2.11	54,790
September	23,088	828	704	770	1.58	1.76	45,790
Water year 1942-43	925,439	17,500	566	2,535	5.19	70.54	1,836,000

Peak discharge.- Nov. 23 (3 p.m.) 26,700 sec.-ft.; Nov. 27 (4 a.m.) 13,900 sec.-ft.; Nov. 29 (6 p.m.) 12,800 sec.-ft.; Dec. 27 (12 p.m.) 13,200 sec.-ft.; Jan. 1 (1:30 a.m.) 17,500 sec.-ft.; Mar. 31 (8 p.m.) 13,600 sec.-ft.

f Fragmentary gage-height record; discharge computed from partly estimated gage heights.

Note.- No gage-height record Dec. 17-22, Feb. 2 to Mar. 15; discharge computed on basis of records for station near Cazadero.

Time basis: Pacific war time. 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 1943.

Average discharge.- 34 years, 2,577 second-feet.

Extremes.- Maximum discharge during year, 42,600 second-feet Nov. 23 (elevation, 551.79 feet), from rating curve extended above 24,000 second-feet; minimum, 579 second-feet (regulated) Oct. 10; minimum daily, 638 second-feet Oct. 25.

1909-43: 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, caused by shut-down in power plant at Three Lynx (elevation, 532.03 feet); minimum daily, 587 second-feet Aug. 17, 1930.

Remarks.- Records fair. Some diurnal fluctuation during low water due to Oak Grove power plant. No diversion or regulation.

Cooperation.- Water-stage recorder graph and 11 discharge measurements furnished by Portland General Electric Co.

Rating table, water year 1942-43 (gage height, in feet, and discharge, in second-feet)

532.8	615	539.0	7,090
533.4	900	540.5	10,070
534.1	1,340	542.0	13,600
535.0	2,050	544.0	18,700
536.0	3,010	547.0	27,200
537.5	4,760		

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	669	3,650	9,920	20,600	2,390	2,670	14,600	5,050	4,450	2,300	1,160	1,060
2	664	3,570	10,000	11,300	3,130	2,500	9,630	4,620	4,310	2,240	1,210	1,030
3	674	3,920	7,090	7,970	3,160	2,410	7,740	4,370	4,530	2,240	1,190	1,000
4	674	2,580	5,570	6,400	5,500	2,340	6,390	4,230	4,090	2,160	1,200	1,010
5	656	1,950	4,620	6,000	5,300	2,280	5,700	4,100	3,820	2,130	1,300	875
6	664	1,670	4,030	5,400	10,000	2,220	5,340	4,270	3,660	2,100	1,280	1,080
7	651	1,660	3,630	4,580	9,060	2,140	5,080	4,320	3,680	2,010	1,240	966
8	660	2,760	4,090	4,060	6,340	2,370	5,080	3,980	3,660	1,980	1,140	960
9	651	2,370	4,870	3,750	4,860	2,410	4,820	3,760	3,720	2,000	1,260	966
10	646	1,920	6,020	3,480	4,300	2,340	4,500	3,680	3,570	1,840	1,140	972
11	760	1,650	5,050	3,250	8,720	2,270	4,150	3,640	3,320	1,580	1,170	972
12	750	1,470	4,490	3,030	8,280	2,240	4,420	3,440	3,230	1,790	1,130	955
13	700	1,400	5,750	2,950	7,070	2,400	5,200	3,320	3,290	1,640	1,150	966
14	710	2,950	5,660	3,170	6,340	2,560	5,970	3,220	3,170	1,580	1,110	966
15	780	8,050	5,050	3,580	5,700	2,450	6,500	3,130	2,980	1,560	1,070	950
16	710	5,040	4,820	3,540	5,080	2,260	6,240	3,110	2,910	1,500	1,120	977
17	678	6,610	4,630	3,180	4,580	2,150	5,580	3,010	3,070	1,490	1,070	960
18	646	4,610	4,150	2,840	4,240	2,060	5,280	2,940	3,420	1,340	1,070	966
19	664	3,340	3,670	2,830	4,120	1,960	5,890	2,960	3,210	1,500	1,090	911
20	669	2,710	3,640	3,260	4,100	1,910	6,500	3,080	3,030	1,400	1,070	988
21	664	2,570	4,100	3,230	4,120	1,850	8,070	3,100	3,190	1,380	1,000	950
22	651	5,590	6,490	3,210	4,220	1,900	6,650	3,260	3,110	1,350	1,190	955
23	646	26,500	6,900	3,020	3,890	1,920	5,960	4,220	3,000	1,310	1,120	955
24	660	17,400	6,150	2,670	3,560	2,020	5,570	4,420	2,830	1,300	1,050	955
25	638	8,100	6,150	2,620	3,250	2,300	5,080	4,610	2,710	1,260	1,050	960
26	664	7,820	4,890	2,660	3,030	3,680	4,580	4,580	2,630	1,320	1,020	982
27	1,100	11,600	12,600	2,920	2,860	6,970	4,350	4,350	2,420	1,270	1,010	1,010
28	875	9,670	14,600	3,010	2,660	7,670	5,150	4,030	2,500	1,250	1,010	994
29	850	13,800	9,250	2,830	-	8,760	5,630	3,760	2,380	1,240	1,270	972
30	885	12,000	9,190	2,610	-	7,250	5,200	3,700	2,350	1,220	1,420	960
31	1,360	-	16,400	2,350	-	14,600	-	4,610	-	1,210	1,120	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff Inches	Runoff Acre-feet
October	22,669	1,360	638	731	1.10	1.27	44,960
November	179,150	26,500	1,400	5,972	8.98	10.02	355,300
December	203,470	16,400	3,530	6,564	9.87	11.38	403,600
Calendar year 1942	930,119	26,500	638	2,548	3.83	52.01	1,845,000
January	136,300	20,600	2,350	4,397	6.61	7.62	270,300
February	139,860	10,000	2,390	4,995	7.51	7.82	277,400
March	104,860	14,600	1,850	3,383	5.09	5.86	208,090
April	180,850	14,600	4,150	6,028	9.06	10.11	358,700
May	116,870	5,050	2,940	3,835	5.77	6.65	235,800
June	98,240	4,530	2,350	3,275	4.92	5.49	194,900
July	50,490	2,300	1,210	1,629	2.45	2.82	100,100
August	35,430	1,420	1,000	1,143	1.72	1.98	70,270
September	29,223	1,080	875	974	1.46	1.63	57,960
Water year 1942-43	1,299,412	26,500	638	5,560	5.35	72.65	2,577,000

Peak discharge.- Nov. 23 (4 p.m.) 42,600 sec.-ft.; Nov. 27 (3 a.m.) 22,800 sec.-ft.; Nov. 29 (7 p.m.) 18,600 sec.-ft.; Dec. 27 (5 p.m.) 18,900 sec.-ft.; Jan. 1 (2:30 a.m.) 27,300 sec.-ft.; Mar. 31 (6:30 p.m.) 20,800 sec.-ft.

Time basis: Pacific war time. 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 1943. 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.- 19 years (1924-43), 460 second-feet.

Extremes.- Maximum discharge during year, 1,660 second-feet Nov. 23 (gage height, 3.69 feet); minimum, 261 second-feet Oct. 24-26 (gage height, 1.69 feet).

1909-43: 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 11 discharge measurements furnished by Portland General Electric Co.

Rating table, water year 1942-43 (gage height, in feet, and discharge, in second-feet)

1.7	265	2.5	665
1.9	350	3.0	1,020
2.2	495	3.5	1,470

Discharge, in second-feet, water year October 1942 to Septembsr 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	269	368	1,130	1,070	400	485	1,090	1,060	1,060	611	420	382
2	269	336	1,050	956	430	480	1,040	1,040	1,030	600	420	382
3	269	364	860	846	420	475	932	1,020	996	594	415	382
4	269	318	764	784	485	470	853	1,000	964	588	415	382
5	269	301	695	744	465	460	839	988	956	572	430	382
6	269	289	647	695	629	460	825	1,010	948	561	415	382
7	269	297	600	647	617	455	825	1,040	948	650	410	377
8	269	346	578	617	566	455	826	996	956	539	405	377
9	269	305	566	600	528	455	804	948	972	528	396	377
10	269	289	641	572	517	450	784	932	948	517	395	377
11	273	277	688	550	707	450	784	916	916	506	395	377
12	273	269	566	528	751	445	832	884	908	495	390	372
13	269	265	578	512	695	450	916	839	964	485	386	372
14	277	386	572	506	659	455	1,010	811	900	475	386	372
15	273	528	556	522	641	445	1,120	784	839	470	382	368
16	269	425	544	528	623	435	1,150	764	818	465	382	368
17	269	425	539	506	600	430	1,140	744	818	455	382	368
18	269	988	534	460	583	420	1,140	725	839	455	377	368
19	269	350	512	480	566	415	1,200	732	804	450	377	368
20	269	332	522	485	561	410	1,280	751	770	440	382	364
21	265	328	534	480	561	405	1,420	758	758	440	382	364
22	265	386	689	470	556	405	1,250	784	732	440	386	364
23	265	1,080	707	455	550	405	1,190	1,020	713	435	382	364
24	261	1,140	677	435	534	400	1,120	1,060	683	435	382	359
25	261	732	647	430	517	420	1,050	1,100	671	430	382	359
26	269	725	600	425	512	506	980	1,140	653	430	382	359
27	297	1,130	825	425	500	641	972	1,140	635	425	382	359
28	273	892	1,030	420	495	725	1,080	1,100	629	425	382	359
29	285	1,260	884	410	-	825	1,100	1,050	629	425	415	354
30	273	1,210	839	405	-	777	1,050	1,040	623	420	400	354
31	323	-	1,090	400	-	980	-	1,100	-	420	386	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff	
						Inches	Acre-feet
October	8,437	323	261	272	2.16	2.49	16,730
November	16,391	1,260	265	546	4.33	4.84	32,510
December	21,564	1,130	512	696	5.52	6.36	42,770
Calendar year 1942	148,004	1,260	261	405	3.21	43.68	293,500
January	17,363	1,070	400	560	4.44	5.12	34,440
February	15,668	751	400	560	4.44	4.62	31,080
March	15,489	980	400	500	3.97	4.57	30,720
April	30,601	1,420	784	1,020	8.10	9.03	60,700
May	29,276	1,140	725	944	7.49	8.64	58,070
June	25,080	1,060	623	836	6.63	7.40	49,750
July	15,081	611	420	486	3.86	4.45	29,910
August	12,220	430	377	394	3.13	3.61	24,240
September	11,092	382	354	370	2.94	3.27	22,000
Water year 1942-43	218,262	1,420	261	598	4.75	64.40	432,900

Time basis: Pacific war time. 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 1943.
Extremes.- Maximum discharge during year, 1,770 second-feet Nov. 23 (gage height, 11.76 feet); minimum, 0.6 second-foot Oct. 17.
1940-43: Maximum discharge, that of Nov. 23, 1942; minimum, 0.2 second-foot Aug. 14-16, 18-22, 1940, Aug. 2, 21, 22, 1941.
Remarks.- Records good. Small diversions above station for irrigation; no regulation.

Rating tables, water year 1942-43 (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Aug. 18-25)

Oct. 1 to Nov. 22				Nov. 23 to Sept. 30					
0.8	0.45	2.2	52	0.9	1.3	1.9	39.7	5.0	314
1.0	2.0	2.7	79	1.0	2.3	2.2	54	6.0	452
1.2	7.9	3.3	118	1.2	8.9	2.7	82	7.0	617
1.4	15.5	4.0	175	1.4	19.0	3.3	125	8.5	920
1.6	25.8	5.0	280	1.6	27.8	4.0	192	10.0	1,280
1.9	37.3	6.4	452						

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.8	50	380	678	89	16	550	45	11	8.9	1.9	2.1
2	.7	34	270	664	250	14	254	36	11	8.1	2.0	1.9
3	.7	42	168	335	230	12	170	32	14	7.7	2.1	1.8
4	.8	35	126	199	367	12	112	28	10	8.5	2.0	1.8
5	1.0	32	140	392	234	11	89	29	8.1	6.6	3.1	1.7
6	.9	37	144	237	789	10	69	32	7.3	5.8	3.4	1.7
7	.8	42	230	149	672	9.9	58	29	6.6	5.4	2.8	1.6
8	.8	52	532	107	315	9.9	50	26	6.2	5.4	2.2	1.3
9	.8	50	396	83	193	8.9	43	23	5.4	5.4	2.2	1.3
10	.8	37	280	56	184	8.1	39	20	5.4	5.0	2.2	1.5
11	.9	29	179	54	415	8.1	33	23	5.4	4.5	2.0	1.6
12	1.8	22	135	46	236	8.5	29	19	5.4	4.2	1.9	1.7
13	1.2	19	123	41	146	13	26	18	6.6	3.9	1.8	1.7
14	1.4	51	92	40	104	20	24	16	8.1	3.6	1.8	1.7
15	1.5	218	76	41	80	18	21	15	8.1	3.6	1.7	1.5
16	.8	205	64	38	65	15	19	14	6.6	3.6	1.7	1.4
17	.6	447	56	33	54	13	16	12	11	3.1	1.7	1.6
18	.8	224	48	f28	46	12	16	10	16	2.8	1.6	1.7
19	.8	131	42	26	40	15	18	9.4	15	2.8	1.8	1.6
20	.8	89	49	41	36	13	25	8.9	20	2.3	1.6	1.6
21	.9	126	54	43	34	12	27	8.5	75	2.2	1.8	1.7
22	1.0	297	84	f41	30	12	22	8.1	78	2.2	1.9	1.5
23	1.1	1,310	72	f40	27	12	22	7.7	62	2.2	1.8	1.4
24	1.0	632	78	f35	25	11	25	7.3	44	2.1	1.7	1.3
25	.8	285	95	f36	22	12	20	6.6	33	2.0	1.5	1.2
26	1.0	438	96	41	19	19	22	6.2	27	2.0	1.8	1.6
27	3.0	810	943	107	18	60	20	5.8	19	2.1	1.6	1.6
28	2.7	315	508	330	17	263	35	5.4	15	2.1	1.6	1.6
29	2.0	533	528	263	-	472	50	5.0	12	2.0	3.1	1.6
30	2.0	377	544	145	-	336	42	6.6	9.4	2.0	3.4	1.5
31	7.8	-	442	104	-	986	-	8.1	-	1.9	3.1	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff Inches	Runoff Acre-feet
October	42.0	7.8	0.6	1.35	0.048	0.06	83
November	6,969	1,310	19	232	8.23	9.19	13,820
December	6,974	943	42	225	7.98	9.20	13,830
Calendar year 1942	22,624.6	1,310	.6	62.0	2.20	29.84	44,880
January	4,483	678	26	145	5.14	5.91	8,890
February	4,737	789	17	169	5.99	6.25	9,400
March	2,442.4	986	8.1	78.8	2.79	3.22	4,840
April	1,946	550	16	64.9	2.30	2.57	3,860
May	520.6	45	5.0	16.8	.596	.69	1,030
June	561.6	78	5.4	18.7	.663	.74	1,110
July	124	8.9	1.9	4.00	.142	.16	246
August	64.8	3.4	1.5	2.09	.074	.09	129
September	47.8	2.1	1.2	1.59	.056	.06	95
Water year 1942-43	28,912.2	1,310	.6	79.2	2.81	38.14	57,330

f Computed on basis of partly estimated gage-height record.
Time basis: Pacific war time. 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 1943. July 1909 to June 1910 at site 1,000 feet upstream from Swift Creek.
Average discharge.- 19 years (1924-43), 2,706 second-feet.
Extremes.- Maximum discharge during year, 30,300 second-feet Nov. 23 (gage height, 12.56 feet, from high-water mark in gage well); minimum, 578 second-feet Oct. 25, 26 (gage height, 3.05 feet).
1910-12, 1924-43: 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, 1931 (gage height, 0.01 foot, datum then in use).
Remarks.- Records good except those for periods of no gage-height record, which are fair. No diversion or regulation.

Rating tables, water year 1942-43 (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used May 13 to Aug. 14)

Oct. 1 to Nov. 22				Nov. 23 to Sept. 30			
3.2	668	5.5	3,330	3.2	715	6.0	4,500
3.5	874	6.0	4,290	3.5	940	7.0	6,900
3.8	1,120	6.5	5,410	3.8	1,200	8.0	10,000
4.1	1,410	7.0	6,710	4.1	1,510	9.0	13,800
4.5	1,860	7.5	8,160	4.5	1,990	10.0	18,000
5.0	2,520	8.0	9,750	5.0	2,700	11.0	22,400
				5.5	3,540	12.0	27,300

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	662	2,890	6,110	5,740	1,560	2,000	12,600	4,710	5,040	3,190	1,180	924
2	644	3,100	5,980	5,040	1,860	1,950	11,900	4,690	4,600	3,020	1,160	924
3	638	3,510	5,150	4,400	1,800	1,900	10,000	4,500	4,200	2,860	1,160	900
4	638	2,520	4,500	3,910	2,330	1,850	8,370	4,500	4,000	2,700	1,130	900
5	638	1,980	4,000	3,630	2,330	1,800	6,900	4,400	4,000	2,480	1,170	900
6	631	1,800	3,630	3,280	4,000	1,750	5,980	4,300	4,400	2,480	1,210	884
7	625	1,740	3,360	2,940	3,360	1,750	5,500	4,100	4,400	2,480	1,140	876
8	619	1,740	3,100	2,780	2,860	1,650	5,380	3,910	4,600	2,330	1,110	852
9	613	1,580	5,100	2,620	2,480	1,650	5,150	3,820	4,820	2,400	1,080	852
10	619	1,500	3,630	2,480	2,550	1,650	4,820	3,820	4,600	2,260	1,070	845
11	631	1,400	3,450	2,330	3,000	1,650	4,600	3,630	4,100	2,060	1,060	838
12	625	1,350	3,360	2,190	4,300	1,700	4,930	3,450	3,820	1,860	1,050	830
13	613	1,500	4,400	2,190	4,100	1,800	5,860	3,280	3,540	1,800	1,050	830
14	644	5,000	4,500	2,330	3,800	1,800	6,900	3,100	3,360	1,800	1,030	822
15	656	9,400	4,300	2,780	3,600	1,700	7,760	2,940	3,280	1,740	1,020	815
16	619	7,000	4,200	2,700	3,300	1,600	7,470	2,860	3,360	1,680	1,010	808
17	613	5,200	4,200	2,400	3,100	1,550	6,900	2,860	3,820	1,680	1,000	800
18	601	4,600	3,910	2,190	2,900	1,550	6,240	2,860	4,000	1,680	988	800
19	596	3,800	3,630	2,330	2,800	1,550	6,630	3,020	3,720	1,680	980	792
20	590	3,000	3,910	2,400	2,700	1,560	7,470	3,360	3,540	1,620	972	792
21	590	3,300	4,400	2,330	2,800	1,560	8,060	3,450	3,360	1,560	1,000	800
22	601	5,000	5,860	2,120	2,800	1,560	7,180	4,000	3,280	1,510	1,240	792
23	607	23,000	5,500	2,060	2,700	1,680	6,630	4,820	3,190	1,510	1,060	778
24	596	16,700	4,930	1,920	2,600	1,920	5,980	5,380	3,020	1,460	988	764
25	578	9,020	4,300	1,920	2,400	2,620	5,380	5,980	2,860	1,400	964	771
26	607	6,630	3,910	1,860	2,300	4,240	4,930	5,980	2,860	1,350	948	800
27	726	5,860	4,400	1,860	2,200	10,100	4,600	5,620	2,940	1,350	940	800
28	674	5,040	4,820	1,860	2,100	16,700	4,710	5,040	2,940	1,290	932	771
29	668	5,860	4,500	1,740	-	13,000	4,820	4,710	3,100	1,240	980	757
30	726	6,240	4,300	1,620	-	9,350	4,710	4,500	3,190	1,210	988	750
31	3,000	-	5,740	1,560	-	10,000	-	5,150	-	1,190	940	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff Inches	Runoff Acre-feet
October	21,888	3,000	578	706	1.47	1.69	43,410
November	151,260	23,000	1,350	5,042	10.5	11.70	300,000
December	135,080	6,110	3,100	4,357	9.06	10.44	267,900
Calendar year 1942	832,372	23,000	578	2,280	4.74	64.35	1,651,000
January	81,510	5,740	1,560	2,629	5.47	6.30	161,700
February	78,630	4,300	1,560	2,808	5.84	6.08	156,000
March	107,140	16,700	1,550	3,456	7.19	8.28	212,500
April	198,360	12,600	4,600	6,612	13.7	15.34	393,400
May	128,650	5,980	2,860	4,150	8.63	9.95	256,200
June	111,940	5,040	2,860	3,731	7.76	8.65	222,000
July	58,870	3,190	1,190	1,899	3.95	4.55	116,800
August	32,550	1,240	932	1,050	2.18	2.52	64,560
September	24,767	924	750	826	1.72	1.91	49,120
Water year 1942-43	1,130,645	23,000	578	3,098	6.44	87.41	2,243,000

Peak discharge.- Nov. 23 (from high-water mark in gage well) 30,300 sec.-ft.; Mar. 28 (9:50 a.m., 1 p.m.) 18,800 sec.-ft.; Apr. 1 (11 a.m.) 13,400 sec.-ft.
Note.- No gage-height record Nov. 10-23, Feb. 11 to Mar. 19; discharge computed on basis of records for Toutle River near Silver Lake and Cowlitz River near Mayfield.
Time basis: Pacific war time. 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 1943. July to November 1909 at site 3 miles upstream.

Average discharge.- 20 years (1923-43), 4,429 second-feet, adjusted for storage since March 1931.

Extremes (regulated).- Maximum and minimum discharge for the water years 1936, 1937, 1940 to 1943 are contained in the following table:

Water year	Maximum			Minimum		
	Date	Discharge (sec.-ft.)	Gage height (feet)	Date	Discharge (sec.-ft.)	Gage height (feet)
1935-36	Jan. 12	†34,100	15.65	July 26	†620	1.61
1936-37	Apr. 14	49,100	18.56	Sept.12	†90	†.95
1939-40	Feb. 6	36,900	15.80	Dec. 3	†527	1.07
1940-41	Nov. 29	29,200	13.90	June 16	††642	1.15
1941-42	Dec. 19	40,600	17.40	Sept.14	†462	1.03
1942-43	Nov. 23	57,600	21.66	Sept. 6	‡419	.87

† Revised figure superseding that published in previous water-supply paper.
†† Discharge may have been less sometime during period of doubtful gage-height record, Aug. 29-31.
‡ Discharge may have been less sometime during period of no gage-height record.

1909, 1922-43: 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 June 30, 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. 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.

Revisions.- Revised figures of discharge for water years 1936, 1937, 1940, 1941, and 1942, superseding those published in Water-Supply Papers 814, 834, 904, 934, and 964, are given herewith.

Discharge, in second-feet, 1935-37, 1939-43

1935-36

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	3,240	1,880	†2,700	2,960	3,000	†8,300	3,860	5,080	4,460	2,570	1,330	2,080
2	3,180	1,860	3,240	3,250	†2,170	7,480	3,520	5,500	4,260	2,380	†1,420	1,890
3	3,200	†1,530	2,710	3,620	3,270	7,850	3,130	†6,440	4,350	2,190	1,610	2,290
4	3,210	1,770	2,080	3,210	3,470	6,730	2,850	8,470	4,810	985	1,690	1,930
5	3,240	2,010	1,990	†2,320	3,540	5,730	†3,030	11,000	3,660	†1,800	1,690	1,830
6	†2,200	1,830	2,380	3,010	3,530	5,540	2,850	9,950	4,450	3,030	1,750	†1,690
7	2,930	1,710	3,030	10,400	3,500	5,030	2,810	8,420	†9,450	2,160	1,600	1,410
8	3,140	1,380	†3,140	10,200	3,570	†5,810	2,930	6,500	11,300	2,070	1,410	1,790
9	3,300	1,700	3,290	11,800	†2,390	7,390	2,620	6,200	8,830	2,450	†1,210	2,460
10	3,470	†1,650	3,500	16,000	3,180	5,990	3,180	†6,220	7,390	2,750	2,130	2,400
11	3,390	1,870	3,500	23,400	3,480	5,330	3,310	7,150	6,570	2,580	1,930	2,420
12	3,490	1,830	3,540	†25,700	3,450	5,720	†4,460	7,900	6,130	†1,530	1,940	2,060
13	†1,840	1,940	3,570	23,600	3,290	5,810	4,670	7,690	5,260	2,620	1,950	†1,610
14	2,790	2,250	3,570	15,000	3,540	6,010	5,300	8,490	†5,030	2,530	1,810	2,300
15	2,830	2,250	†3,350	11,600	3,360	†5,860	5,410	7,900	5,450	2,350	1,770	2,220
16	2,970	2,360	3,320	9,520	†2,320	5,310	7,390	9,120	5,700	1,910	†1,610	2,110
17	3,090	†1,640	3,490	7,920	3,110	4,970	7,440	†7,280	5,380	1,690	2,580	2,420
18	3,310	2,190	3,500	6,710	3,570	4,700	8,300	6,460	4,720	1,820	2,520	2,080
19	3,250	2,170	3,540	†6,500	3,540	4,070	†7,710	6,520	3,930	†1,300	1,990	1,830
20	†2,510	1,790	3,500	8,060	3,710	4,280	6,990	7,580	3,830	2,220	2,060	†2,170
21	3,010	1,920	3,610	6,930	3,430	4,320	7,260	7,990	†3,980	2,430	1,920	2,690
22	3,410	1,770	†3,110	5,970	3,350	†4,050	7,530	7,100	3,660	2,230	2,050	2,690
23	2,940	2,100	3,240	5,520	†2,730	3,620	6,820	6,690	3,700	2,180	†1,730	3,010
24	2,810	†1,730	2,110	4,920	3,290	3,740	6,970	†6,320	3,350	2,130	1,770	3,080
25	2,770	2,710	2,020	4,600	3,360	3,410	7,080	6,420	3,340	1,570	1,850	3,310
26	2,470	3,200	2,850	†3,960	3,580	4,120	†6,650	6,500	3,170	†1,060	1,690	3,410
27	†1,530	3,320	3,320	3,830	6,220	7,900	6,090	7,370	1,870	2,130	1,640	†2,560
28	2,510	3,170	3,300	3,670	12,900	6,690	5,610	6,690	†1,730	2,510	1,760	2,960
29	3,060	3,210	†2,690	3,470	9,570	†4,840	5,260	5,990	2,500	2,470	1,800	3,170
30	2,360	3,290	3,270	3,020	-	4,100	5,330	5,210	2,850	2,040	†1,340	3,300
31	1,850	-	3,410	3,540	-	4,070	-	†4,320	-	2,760	1,870	-

† Sunday.

Discharge, in second-feet, of Lewis River at Ariel, Wash., 1935-37, 1939-43--Continued

1936-37

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	3,560	†937	1,040	3,410	3,130	3,140	10,800	5,660	5,620	5,280	†f910	2,020
2	3,530	1,370	1,060	3,450	3,130	2,970	8,420	†5,790	6,810	4,700	f1,800	1,900
3	3,530	1,310	1,120	†3,400	3,130	2,450	7,480	8,510	7,900	4,480	f1,860	2,320
4	†3,380	1,260	1,240	3,310	3,120	2,600	†7,320	9,340	7,000	†3,910	†1,700	2,630
5	3,350	1,060	1,020	3,450	3,120	2,410	7,190	9,150	6,530	3,700	1,640	†1,560
6	3,410	1,140	†961	3,410	3,110	2,010	7,170	7,450	†6,420	2,600	1,640	1,680
7	3,410	1,020	2,560	3,380	†3,020	†1,360	5,990	7,380	6,490	3,160	1,240	2,910
8	3,400	†757	2,840	3,360	3,020	2,260	6,300	7,650	5,020	2,840	†945	3,160
9	3,360	1,140	2,870	3,310	3,010	2,390	6,300	†7,540	5,660	2,980	1,710	2,780
10	3,300	1,090	2,880	†3,390	2,970	2,350	8,010	8,360	5,260	2,380	1,660	3,440
11	†3,140	1,000	2,870	3,270	3,020	2,390	†8,300	10,600	4,030	†2,060	1,540	3,350
12	3,140	1,360	2,830	3,260	3,030	2,280	8,060	9,860	3,440	3,000	1,560	†1,880
13	3,260	1,180	†2,320	3,340	3,030	1,910	21,100	9,820	†3,930	2,260	1,450	3,260
14	3,200	1,110	2,750	3,320	†2,990	†2,010	34,000	9,590	3,040	2,140	1,240	3,170
15	2,590	†864	2,850	3,230	3,030	7,830	31,100	8,980	4,580	2,270	†1,070	3,340
16	2,450	1,100	2,840	3,340	3,050	6,800	19,100	†8,240	5,490	2,340	1,660	3,340
17	2,010	1,040	2,850	†2,720	3,030	6,160	12,900	7,640	6,760	2,060	1,720	2,820
18	†1,540	985	2,940	3,210	3,030	5,770	†10,700	6,760	10,600	†1,670	1,610	2,860
19	2,380	1,150	2,990	b3,000	3,060	5,540	8,620	7,000	12,100	2,080	1,710	†1,790
20	2,540	949	†2,970	b3,000	3,060	5,380	8,240	6,330	†17,500	2,080	1,560	2,740
21	2,490	854	2,950	b3,090	†2,830	†4,240	8,920	6,240	18,600	1,860	1,480	2,320
22	2,300	†794	2,950	b2,960	2,580	5,450	7,980	6,860	14,300	1,620	†1,380	2,000
23	2,180	1,100	3,070	b2,910	2,900	4,380	7,860	†6,490	12,300	1,780	1,660	2,460
24	2,220	1,030	2,780	†b2,910	2,900	4,350	7,150	6,380	10,200	1,560	1,620	2,460
25	†2,000	1,010	2,120	b2,910	2,940	4,030	†6,660	6,700	8,520	†1,420	2,300	2,120
26	2,270	859	2,640	3,240	3,130	4,100	6,860	6,640	7,780	1,750	1,720	†1,960
27	2,150	1,240	†2,580	3,240	3,120	4,170	6,500	6,500	†7,040	1,620	1,800	2,540
28	2,140	1,230	3,230	3,150	†3,130	†3,790	6,080	6,400	6,280	1,420	2,120	2,400
29	2,290	†961	3,410	3,150	-	3,930	5,670	6,060	6,260	1,840	†1,560	2,530
30	2,380	1,000	3,320	3,150	-	4,460	5,360	†5,370	5,270	1,940	2,080	2,680
31	1,690	-	3,470	†3,130	-	8,900	-	5,580	-	1,500	1,800	-

† Sunday.
b Stage-discharge relation affected by ice.
f Computed on basis of gage heights partly estimated from power output record.

1939-40

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	†2,590	2,130	1,900	9,110	3,190	16,900	8,580	8,580	2,060	1,130	655	†1,390
2	2,660	2,570	1,560	9,340	3,230	21,100	7,680	7,090	†1,760	940	1,040	1,250
3	2,640	2,770	†1,010	9,180	2,580	†14,400	6,600	6,000	2,500	805	1,350	989
4	2,590	2,640	1,720	8,610	†1,490	11,700	5,970	6,230	2,020	754	†1,310	1,040
5	2,460	†2,560	1,890	7,760	3,000	9,770	5,670	†7,730	1,850	741	1,310	892
6	2,970	2,890	1,900	7,400	25,300	8,260	4,640	6,940	2,030	940	1,220	967
7	3,140	2,450	1,780	†6,580	22,300	11,700	†5,600	6,350	1,910	†1,420	1,020	1,020
8	†2,490	2,220	1,740	5,360	16,700	12,800	5,760	5,830	1,750	1,140	794	†1,180
9	3,030	2,520	2,130	4,630	17,300	9,560	7,770	5,130	†946	764	832	1,380
10	3,070	2,560	†1,490	4,950	20,400	†8,510	7,240	4,810	2,030	704	808	1,020
11	2,940	3,070	1,950	4,000	†14,200	7,130	6,400	5,200	1,800	716	†800	1,100
12	2,500	†2,860	2,270	3,750	10,600	6,810	5,800	†4,080	1,780	768	1,280	1,050
13	2,340	2,900	2,440	3,540	10,700	5,200	5,770	4,280	1,550	726	1,010	962
14	2,220	3,170	2,490	†3,270	9,600	4,940	†5,390	3,880	1,580	†749	922	1,420
15	†1,880	2,590	3,230	3,850	7,790	5,020	4,780	3,250	1,660	1,230	811	†1,490
16	2,960	1,940	3,380	3,280	7,640	5,550	4,490	3,200	†1,050	1,190	1,010	1,070
17	2,480	1,990	†18,700	3,290	8,640	†4,870	4,150	3,690	1,660	1,130	858	1,470
18	2,170	1,930	16,900	3,250	†7,720	4,840	3,990	3,510	1,490	880	†1,410	1,450
19	2,090	†1,870	12,600	3,460	7,200	4,170	3,270	†2,370	1,440	933	1,200	1,270
20	2,000	2,450	10,900	3,390	6,170	4,190	2,750	3,210	1,340	726	1,140	1,270
21	1,960	3,010	9,600	†2,310	4,580	4,160	†2,880	3,500	1,410	†1,370	913	1,330
22	†2,000	2,030	6,880	3,440	5,240	4,110	3,280	3,460	1,400	1,080	962	†2,090
23	2,770	2,650	7,490	3,360	4,720	4,060	3,070	3,280	†1,150	806	956	1,420
24	2,290	2,330	†6,070	3,760	4,510	†4,390	2,670	3,180	1,620	736	804	1,480
25	2,380	2,300	5,160	3,440	†10,000	4,220	2,970	2,820	1,360	671	†837	1,540
26	2,410	†1,380	4,300	3,760	12,500	6,990	3,080	†2,540	1,280	764	1,540	1,460
27	2,450	2,020	4,030	2,860	11,500	11,400	3,140	3,000	1,400	921	1,250	1,230
28	1,940	2,110	4,040	†1,900	16,100	12,000	†3,530	2,870	1,370	†784	1,100	1,170
29	†1,280	1,960	5,480	3,280	17,000	11,100	3,430	2,720	918	1,060	1,010	†1,220
30	2,410	1,840	7,990	3,260	-	11,000	4,770	2,090	†820	654	962	1,800
31	2,140	-	†7,460	3,210	-	†10,400	-	2,640	-	692	1,170	-

† Sunday.

Discharge, in second-feet, of Lewis River at Ariel, Wash., 1935-37, 1939-43--Continued

1940-41

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2,210	2,070	†7,570	4,280	5,540	1,730	2,890	1,960	†2,400	1,630	799	a2,100
2	2,720	1,630	6,240	3,950	†5,700	†4,530	2,240	2,140	2,970	1,660	823	a2,600
3	2,480	†1,820	5,860	3,740	4,930	3,950	1,960	1,670	2,650	1,940	†1,170	a3,200
4	2,160	3,190	5,510	3,340	4,730	3,870	2,100	†1,650	2,480	985	864	a3,700
5	1,660	3,030	6,840	†3,550	4,370	3,520	1,500	2,980	2,120	1,650	1,030	a3,620
6	†1,070	2,300	7,060	3,850	4,310	3,300	†1,560	3,580	2,000	†1,220	906	a3,680
7	1,250	2,070	6,200	3,650	3,980	3,070	1,700	3,050	1,660	1,380	895	†a3,700
8	2,310	1,850	†5,610	3,230	3,510	3,030	2,640	2,890	†1,180	1,350	944	a3,300
9	2,350	1,980	4,860	3,170	†3,830	†2,790	2,980	2,760	2,240	1,380	950	a2,850
10	1,920	†2,100	4,410	3,070	3,760	2,790	3,110	2,600	2,050	1,370	†730	a2,300
11	2,250	2,730	3,940	3,070	4,000	2,730	3,050	†2,330	1,860	1,320	1,060	a1,900
12	2,160	2,420	3,870	†2,910	3,690	2,290	2,770	2,640	1,820	1,010	848	a2,050
13	†2,500	2,270	3,420	3,620	3,270	2,880	†2,650	2,640	1,720	†780	879	a3,450
14	3,020	2,420	3,290	3,090	3,220	2,670	2,920	2,560	1,470	1,190	985	†3,260
15	2,540	2,470	†2,980	3,490	2,980	1,580	2,840	2,360	†1,150	1,260	1,060	3,700
16	2,020	2,720	3,490	4,760	†3,010	†2,120	2,630	2,370	1,840	1,100	828	3,730
17	1,960	†2,320	3,280	9,530	2,660	3,380	2,440	7,690	2,020	967	†785	3,490
18	1,820	3,200	3,340	15,900	3,210	3,390	2,070	†7,030	1,970	848	1,150	3,250
19	1,540	3,120	3,190	†12,100	2,170	2,800	2,080	5,720	1,920	814	1,340	3,470
20	†1,860	2,950	4,910	9,120	2,940	2,780	†2,100	5,210	2,020	†814	1,210	3,350
21	2,090	1,980	7,080	7,710	2,480	2,860	3,150	4,660	2,400	859	1,330	†3,190
22	2,500	3,100	†6,670	6,600	1,900	2,280	3,220	4,140	†1,500	944	1,280	3,360
23	2,510	3,510	6,140	5,840	†2,190	†1,760	3,030	3,640	2,100	776	973	2,880
24	2,220	†2,070	6,240	5,580	3,340	3,080	2,260	4,010	1,950	1,010	†1,520	d2,150
25	2,780	3,240	7,160	7,670	2,730	3,370	1,790	†2,780	1,860	939	1,560	d2,500
26	2,360	2,910	7,190	†8,080	2,800	3,070	1,480	3,040	1,790	748	1,400	d2,550
27	†1,810	2,250	7,410	6,830	2,920	2,530	†1,510	3,200	1,850	†885	1,590	d2,250
28	3,170	3,240	6,450	6,230	2,680	2,330	2,220	3,310	1,300	1,900	1,690	†1,540
29	3,120	21,100	†5,990	5,560	-	1,870	1,890	3,280	†1,250	912	d1,850	2,270
30	2,930	10,400	5,870	5,150	-	†1,640	2,090	2,390	1,450	912	d1,750	3,050
31	2,370	-	4,660	5,350	-	2,720	-	2,610	-	991	†d1,650	-

† Sunday.
a No gage-height record; discharge computed on basis of power output.
d Doubtful gage-height record; discharge computed on basis of power output.

1941-42

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	3,340	3,620	3,610	a3,900	†2,590	†3,410	3,670	4,390	3,650	2,990	1,290	1,220
2	2,630	†3,520	14,600	3,770	3,350	3,470	3,650	4,300	3,410	3,440	†1,310	1,180
3	2,600	3,720	18,900	3,600	3,340	3,730	3,610	†4,330	3,380	3,120	1,430	1,180
4	2,500	3,890	13,800	†3,730	9,950	3,780	3,530	3,920	2,860	1,290	1,390	1,510
5	†2,370	3,810	11,800	3,850	9,230	3,690	†2,560	3,660	3,130	†1,160	1,480	1,000
6	3,080	3,790	12,200	3,810	8,000	3,810	3,450	3,450	3,740	2,090	1,460	†673
7	2,980	3,840	†9,960	3,830	7,180	3,770	3,280	3,610	†3,380	2,210	1,450	608
8	2,680	3,820	8,200	3,840	†7,450	†3,080	2,950	3,650	3,470	1,770	1,300	1,270
9	2,450	†3,320	7,250	3,520	7,930	3,410	2,940	3,950	3,540	1,710	†1,160	985
10	2,870	3,560	6,180	3,730	7,810	3,570	2,860	†3,570	4,940	1,670	1,190	1,010
11	2,570	3,580	5,370	†2,820	6,770	3,500	3,280	3,810	5,200	955	1,130	796
12	†2,490	3,710	4,690	3,430	6,140	3,620	†2,620	3,480	4,550	†708	1,200	738
13	2,800	3,650	4,290	a3,580	5,420	3,490	3,280	3,180	4,190	1,310	1,200	†763
14	3,110	3,540	†4,080	a3,670	4,790	3,540	3,340	3,150	†3,920	1,230	1,250	1,120
15	3,790	3,580	5,300	3,760	†4,310	†3,450	3,280	3,120	5,780	1,130	1,170	1,410
16	4,190	†4,830	10,000	3,670	4,030	4,230	3,270	3,360	5,640	1,020	†1,140	913
17	3,750	8,710	9,740	3,600	3,770	3,610	3,710	†2,520	5,860	2,060	1,280	1,240
18	3,300	7,050	15,900	†a3,150	3,450	3,620	4,150	3,220	5,140	2,020	1,170	1,000
19	†3,350	5,390	37,600	a3,380	3,340	3,710	†3,280	3,520	4,710	†1,840	1,170	1,140
20	3,690	5,310	26,000	a3,640	3,310	3,730	4,370	3,490	4,260	1,700	1,200	†1,320
21	3,620	4,810	†18,100	3,500	2,870	3,650	3,280	2,820	†4,210	1,740	1,170	1,590
22	3,460	4,160	a15,000	3,500	†3,010	†2,700	4,220	2,940	3,730	1,730	1,060	1,260
23	3,120	†3,710	a15,500	3,500	3,130	3,380	4,340	4,430	3,690	1,430	†a808	1,380
24	3,070	3,670	a12,000	3,440	3,440	3,640	3,660	†4,050	3,540	1,650	a1,220	1,500
25	3,080	3,680	a9,000	†2,630	3,640	3,670	3,690	4,340	3,520	1,320	1,180	1,550
26	†2,520	3,680	a7,000	3,150	3,670	3,740	†3,770	5,160	3,770	†1,860	1,250	1,310
27	3,160	3,780	a6,000	3,180	3,760	3,690	3,410	5,620	3,310	1,250	992	†1,460
28	3,710	3,790	†a5,800	3,270	3,770	3,710	3,640	5,770	†2,530	1,400	1,220	1,440
29	3,490	3,700	5,460	3,410	-	†3,030	3,030	5,010	3,180	1,570	1,020	1,200
30	3,880	†3,140	4,590	3,350	-	3,500	3,520	4,250	3,340	1,480	†885	1,580
31	3,850	-	a4,150	3,380	-	3,580	-	†4,200	-	1,280	1,370	-

† Sunday.
a No gage-height record: discharge computed on basis of power output and spillway discharge.

Discharge, in second-feet, of Lewis River at Ariel, Wash., 1935-37, 1939-43--Continued

1942-43

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,400	†2,080	13,000	12,800	3,780	3,720	25,700	6,440	6,430	3,780	†a550	1,930
2	1,430	3,070	12,400	10,100	3,880	3,800	20,700	†6,110	5,700	3,690	1,840	1,110
3	1,290	3,050	9,800	†8,290	3,850	3,820	16,900	5,830	5,450	3,420	1,740	1,730
4	†1,170	3,000	8,040	6,900	3,870	3,300	†13,500	6,230	4,990	3,170	1,610	1,320
5	1,480	3,100	7,080	6,440	3,500	3,720	10,100	f5,970	4,810	†2,910	1,110	†549
6	1,530	4,300	†6,140	5,710	14,300	3,730	8,960	5,690	†5,180	f3,490	1,110	458
7	1,560	4,810	6,030	5,020	†10,000	†3,580	8,140	5,690	5,480	3,430	1,010	1,470
8	1,480	†4,680	6,260	4,670	7,330	3,460	7,800	5,230	5,400	a3,360	†580	1,820
9	1,430	4,080	7,240	4,360	5,740	3,650	7,540	†f5,050	5,660	3,300	1,360	2,090
10	1,420	3,830	10,500	†4,200	6,520	3,650	6,870	5,060	5,730	2,830	1,370	2,000
11	†1,660	3,800	8,660	3,930	14,000	3,730	†6,420	4,620	4,990	†1,920	1,140	1,240
12	1,650	3,780	7,550	3,670	12,200	3,780	6,760	4,470	4,500	2,580	1,550	†1,150
13	1,590	3,810	†11,100	3,850	9,970	3,710	7,920	f4,360	†4,080	2,060	1,510	1,560
14	1,550	3,920	9,430	3,790	†8,570	†3,500	9,480	f3,960	4,200	1,910	740	1,630
15	1,500	†13,200	8,470	4,570	7,310	3,480	10,300	f3,850	f3,710	2,000	†610	1,740
16	1,470	9,770	7,810	4,740	6,390	3,600	9,870	†3,880	f3,890	1,900	a1,230	2,310
17	1,240	10,000	7,230	†4,300	5,440	3,740	8,980	3,730	4,660	1,820	1,790	2,520
18	†1,760	7,880	6,540	3,730	5,420	3,760	†7,960	3,660	4,840	†940	1,700	2,700
19	1,680	6,610	5,720	3,780	5,230	3,710	8,700	3,330	4,510	1,850	2,350	†1,540
20	1,520	4,690	†6,320	3,870	6,140	3,510	10,100	3,330	†4,340	1,800	1,820	1,700
21	1,450	6,410	7,740	3,660	†5,420	†3,140	11,500	3,500	4,690	1,930	988	2,490
22	1,460	†10,100	11,900	3,250	5,380	3,470	10,100	4,820	f3,800	2,010	†644	2,360
23	1,450	44,900	9,900	3,530	4,860	3,800	9,240	†6,010	f3,820	1,650	895	2,080
24	1,190	29,200	8,670	†3,480	4,750	3,680	8,330	7,160	4,040	1,160	1,770	2,700
25	†1,220	14,400	7,480	3,640	4,260	3,630	†7,340	6,350	3,900	†840	1,690	2,550
26	1,870	12,100	6,510	3,810	3,870	3,550	6,500	7,230	a3,150	2,030	1,700	†1,840
27	1,780	12,100	†8,960	3,800	3,870	5,720	6,060	6,530	†a2,720	1,850	1,460	2,440
28	1,760	10,100	10,900	3,860	†3,820	†26,500	6,350	5,990	3,770	2,060	1,030	2,490
29	1,690	†13,200	9,500	3,910	-	21,300	6,860	5,650	3,560	1,570	†1,180	2,280
30	1,720	13,500	9,320	3,930	-	15,800	6,790	†5,310	3,670	1,890	1,060	2,530
31	2,740	-	13,300	†3,900	-	22,900	-	6,430	-	a1,260	1,870	-

† Sunday.
a No gage-height record; discharge computed on basis of power output and spillway discharge.
f Computed on basis of partly estimated gage-height record.

Monthly discharge, in second-feet, 1935-37, 1939-43

Month	Observed				Change in contents in Lake Merwin Reservoir in 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 1935	3,490	1,530	2,881	177,100	-102,300	74,800	1,217	1.66	1.92
November	3,320	1,380	2,134	127,000	-400	126,600	2,128	2.91	3.25
December	3,610	1,990	3,125	192,100	+34,200	226,300	3,680	5.03	5.80
Calendar year 1935	16,200	266	3,896	2,821,000	-178,000	2,643,000	3,650	4.99	67.61
January 1936	25,700	2,320	8,200	504,200	+180,000	684,200	11,130	15.2	17.55
February	12,900	2,170	3,911	225,000	+200	225,200	3,915	5.36	5.78
March	8,300	3,410	5,440	334,800	+400	335,200	5,452	7.46	8.60
April	8,300	2,620	5,212	310,100	+200	310,300	5,215	7.13	7.96
May	11,000	4,320	7,112	437,300	-400	436,900	7,105	9.72	11.21
June	11,300	1,730	4,837	287,800	+5,600	293,400	4,931	6.75	7.53
July	3,030	985	2,134	131,200	-3,300	127,900	2,080	2.85	3.28
August	2,580	1,210	1,787	109,900	-31,200	78,700	1,280	1.75	2.02
September	3,410	1,410	2,372	141,200	-83,600	57,600	968	1.32	1.48
Water year 1935-36	25,700	985	4,102	2,978,000	-600	2,977,000	4,101	5.61	76.38
October 1936	3,560	1,540	2,729	167,800	-111,900	55,900	909	1.24	1.43
November	1,370	757	1,063	63,270	-13,800	49,470	831	1.14	1.27
December	3,470	961	2,526	155,300	+182,100	337,400	5,487	7.51	8.65
Calendar year 1936	25,700	757	3,950	2,868,000	+124,300	2,992,000	4,122	5.64	76.76
January 1937	3,450	2,720	3,206	197,200	-95,500	101,700	1,654	2.26	2.61
February	3,130	2,580	3,022	167,800	-7,100	160,700	2,894	3.96	4.12
March	8,900	1,360	3,929	241,600	+159,500	401,100	6,523	8.92	10.29
April	34,000	5,360	10,200	607,200	-1,400	605,800	10,180	13.9	15.54
May	10,600	5,370	7,447	457,900	0	457,900	7,447	10.2	11.75
June	18,600	3,040	7,691	457,600	+13,600	471,200	7,919	10.8	12.09
July	5,280	1,420	2,461	151,300	+1,800	153,100	2,490	3.41	3.93
August	2,300	910	1,605	98,670	-19,700	78,970	1,284	1.76	2.03
September	3,440	1,560	2,847	151,600	-89,400	62,200	1,045	1.43	1.60
Water year 1936-37	34,000	757	4,030	2,917,000	+18,200	2,935,000	4,056	5.55	75.31
Calendar year 1937	51,400	910	5,384	3,897,000	+55,930	3,953,000	5,461	7.47	101.39

Monthly discharge, in second-feet, of Lewis River at Ariel, Wash., 1935-37, 1939-43--Continued

Month	Observed				Change in contents in Lake Merwin Reservoir in 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 1939	3,140	1,280	2,427	149,300	-75,300	74,000	1,203	1.65	1.90
November	3,170	1,380	2,360	142,200	-58,400	83,800	1,408	1.93	2.15
December	18,700	1,010	5,177	318,300	+216,100	534,400	8,691	11.9	13.71
Calendar year 1939	19,200	705	3,824	2,768,000	+600	2,769,000	3,825	5.23	70.87
January 1940	9,340	1,900	4,599	282,800	-21,300	261,500	4,253	5.82	6.71
February	25,300	1,490	10,070	579,000	+20,300	599,300	10,420	14.3	15.37
March	21,100	4,060	8,427	518,200	+400	518,600	8,434	11.5	13.30
April	8,580	2,670	4,837	287,800	+13,600	301,400	5,065	6.93	7.73
May	8,580	2,090	4,305	264,700	-9,700	255,000	4,147	5.67	6.54
June	2,500	820	1,564	93,090	-1,000	92,090	1,548	2.12	2.36
July	1,420	654	901	55,390	+12,500	67,890	1,104	1.51	1.74
August	1,540	655	1,041	64,030	-2,400	61,630	1,002	1.37	1.58
September	2,090	892	1,281	76,200	-17,300	58,900	990	1.35	1.51
Water year 1939-40	25,300	654	3,900	2,831,000	+77,500	2,909,000	4,006	5.48	74.60
October 1940	3,170	1,070	2,247	138,200	-39,800	98,400	1,600	2.19	2.52
November	21,100	1,630	3,415	203,200	+44,100	247,300	4,156	5.69	6.35
December	7,670	2,980	5,378	330,700	0	330,700	5,378	7.36	8.48
Calendar year 1940	25,300	654	3,996	2,893,000	-600	2,893,000	3,985	5.45	74.19
January 1941	15,900	2,910	5,614	345,200	+400	345,600	5,621	7.69	8.87
February	5,700	1,900	3,459	192,100	-4,300	187,800	3,382	4.63	4.82
March	4,530	1,580	2,797	172,000	+2,300	174,300	2,835	3.88	4.47
April	3,220	1,480	2,362	140,600	+15,000	155,600	2,615	3.58	3.99
May	7,690	1,650	3,319	204,100	+2,400	206,500	3,358	4.59	5.29
June	2,970	1,150	1,900	113,000	-800	112,200	1,886	2.58	2.88
July	1,940	748	1,118	68,720	+800	69,520	1,131	1.55	1.79
August	1,850	730	1,163	71,500	-15,000	56,500	919	1.26	1.45
September	3,730	1,540	2,948	175,400	-23,200	152,200	2,558	3.50	3.90
Water year 1940-41	21,100	730	2,976	2,155,000	-18,100	2,137,000	2,951	4.04	54.81
October 1941	4,190	2,370	3,145	193,400	+4,900	198,300	3,225	4.41	5.09
November	8,710	3,140	4,145	246,700	+24,100	270,800	4,551	6.23	6.95
December	37,600	3,610	10,710	658,700	+1,200	659,900	10,730	14.7	16.93
Calendar year 1941	37,600	730	3,565	2,581,000	+7,800	2,589,000	3,576	4.89	66.43
January 1942	3,900	2,630	3,501	215,300	-19,500	195,800	3,184	4.36	5.02
February	9,950	2,590	4,980	276,600	+7,800	284,400	5,121	7.01	7.29
March	4,230	2,700	3,565	219,200	-3,500	215,700	3,508	4.80	5.53
April	4,370	2,550	3,454	205,500	+23,600	229,100	3,850	5.27	5.88
May	5,770	2,520	5,880	238,600	0	238,600	3,880	5.31	6.12
June	5,860	2,530	3,986	237,200	-4,800	232,400	3,906	5.34	5.96
July	3,440	708	1,682	103,400	+4,400	107,800	1,753	2.40	2.77
August	1,480	808	1,211	74,470	+400	74,870	1,218	1.67	1.92
September	1,590	608	1,178	70,110	-20,500	49,610	834	1.14	1.27
Water year 1941-42	37,600	608	3,783	2,739,000	+18,100	2,757,000	3,809	5.21	70.73
October 1942	2,740	1,170	1,553	95,480	-26,100	69,380	1,128	1.54	1.78
November	44,900	2,080	8,982	534,500	+42,200	576,700	9,692	13.3	14.79
December	13,300	5,720	8,694	534,500	0	534,500	8,693	11.9	13.71
Calendar year 1942	44,900	608	3,874	2,805,000	+4,000	2,809,000	3,880	5.31	72.04
January 1943	12,800	3,250	4,822	296,500	-11,400	285,100	4,637	6.34	7.31
February	14,300	3,500	6,381	354,400	+11,400	365,800	6,587	9.01	9.38
March	26,500	3,140	6,014	359,800	-800	369,000	6,001	8.21	9.46
April	25,700	6,060	9,726	578,700	+800	579,500	9,739	13.3	14.86
May	7,830	3,330	5,208	320,300	+3,600	323,900	5,268	7.21	8.31
June	6,430	2,720	4,522	269,100	+3,200	272,300	4,576	6.26	6.98
July	3,780	840	2,271	139,700	-4,000	135,700	2,207	3.02	3.48
August	2,350	550	1,329	81,730	-8,000	73,730	1,199	1.64	1.89
September	2,700	458	1,875	111,600	-54,800	56,800	955	1.31	1.48
Water year 1942-43	44,900	458	5,092	3,686,000	-43,900	3,642,000	5,031	6.88	93.41

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

East 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., opposite mouth of 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 1943.

Average discharge.- 14 years, 716 second-feet.

Extremes.- Maximum discharge during year, 12,800 second-feet Nov. 23 (gage height, 11.17 feet); minimum not determined (probably occurred during period of no gage-height record, Sept. 17-30.

1929-43: 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 1942-43 (gage height, in feet, and discharge, in second-feet)

0.2	44	1.3	187	3.6	1,010	8.0	6,230
0.4	59	1.6	254	4.0	1,320	9.0	8,080
0.6	79	2.0	363	5.0	2,100	10.0	10,100
0.8	104	2.5	535	6.0	3,160	11.0	12,400
1.0	133	3.0	751	7.0	4,570		

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	70	2,190	2,640	3,220	575	479	6,050	824	516	242	95	77
2	62	2,120	2,530	2,380	1,100	444	3,690	728	497	230	98	71
3	59	1,880	1,920	1,800	1,190	427	2,640	659	596	235	99	68
4	61	1,280	1,560	1,460	3,350	404	1,920	596	535	223	91	65
5	57	928	1,280	1,360	2,430	378	1,530	659	461	200	107	68
6	55	928	1,100	1,220	5,080	354	1,250	824	410	187	101	62
7	56	1,220	1,100	1,070	3,420	345	1,130	775	372	178	91	59
8	55	1,250	1,800	928	2,240	327	1,130	728	342	179	89	53
9	53	1,100	2,570	824	1,640	311	982	659	316	215	81	52
10	55	875	3,550	751	1,770	297	849	638	295	185	81	53
11	66	704	2,480	659	4,890	295	799	596	276	168	81	55
12	61	596	2,010	596	3,550	319	824	555	266	163	81	55
13	56	575	2,530	575	2,640	616	901	516	276	152	77	57
14	65	1,800	2,060	775	2,060	535	875	479	266	147	75	56
15	92	2,980	1,640	1,280	1,600	479	799	461	244	145	a72	51
18	63	2,430	1,390	1,040	1,320	444	704	479	228	136	a70	48
17	54	3,040	1,190	775	1,100	420	616	444	300	132	a68	a50
18	51	2,240	1,010	638	982	404	575	424	274	127	66	a50
19	53	1,840	849	575	955	391	659	401	287	122	68	a50
20	53	1,390	955	659	955	378	977	394	322	120	71	a50
21	54	1,360	1,010	675	955	378	1,190	378	461	115	78	a45
22	54	2,560	2,280	516	875	388	982	444	461	114	111	a45
23	57	10,200	1,720	461	751	427	901	516	535	108	84	a45
24	57	5,580	1,460	424	682	535	799	461	479	105	69	a45
25	60	2,900	1,250	404	596	824	728	420	427	101	65	a45
26	74	2,330	1,070	575	555	1,540	638	382	378	104	65	a45
27	254	3,100	2,700	728	516	3,760	596	345	339	108	62	a45
28	140	2,330	3,100	982	497	4,570	704	316	305	101	60	a45
29	157	2,980	2,800	849	-	3,550	982	300	276	99	150	a45
30	172	2,860	2,690	728	-	2,740	875	348	259	94	133	a45
31	2,210	-	3,220	616	-	6,670	-	596	-	91	90	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff Inches	Runoff Acre-feet
October	4,486	2,210	51	145	1.16	1.33	8,900
November	67,566	10,200	575	2,252	18.0	20.10	134,000
December	59,464	3,550	849	1,918	15.3	17.69	117,900
Calendar year 1942	270,766	10,200	51	742	5.94	80.56	537,000
January	29,443	3,220	404	950	7.60	8.76	58,400
February	48,274	5,080	497	1,724	13.8	14.36	95,750
March	33,429	6,670	295	1,078	8.62	9.95	66,310
April	37,295	6,050	575	1,243	9.94	11.10	73,970
May	16,345	824	300	527	4.22	4.86	32,420
June	10,999	596	228	367	2.94	3.27	21,820
July	4,626	242	91	149	1.19	1.38	9,180
August	2,629	150	60	84.8	.678	.78	5,210
September	1,600	77	45	53.3	.426	.48	3,170
Water year 1942-43	316,156	10,200	45	866	6.93	94.06	627,000

Peak discharge.- Nov. 23 (1 p.m.) 12,800 sec.-ft.; Feb. 6 (2 p.m.) 6,230 sec.-ft.; Feb. 11 (9:30 a.m.) 5,540 sec.-ft.; Mar. 28 (11 a.m.) 5,370 sec.-ft.; Mar. 31 (2 p.m.) 7,890 sec.-ft.; Apr. 1 (5:30 a.m.) 7,130 sec.-ft.

a No gage-height record; discharge computed on basis of records for Wind River near Carson.

Time basis: Pacific war time. 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 1943. July 1911 to December 1919 at site 1 mile upstream, published as Cowlitz River at Lewis, Wash.

Average discharge.- 22 years, 1,556 second-feet.

Extremes.- Maximum discharge during year, 20,300 second-feet Nov. 23 (gage height, 11.26 feet), from rating curve extended above 12,600 second-feet; minimum, 196 second-feet Oct. 13, 17-19 (gage height, 2.90 feet).
1911-19, 1929-43: 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 except those for period Oct. 1 to Nov. 24, which are good. No diversion or regulation.

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	307	1,840	2,590	1,570	645	890	2,740	1,840	3,560	4,380	1,190	604
2	257	1,380	2,220	1,420	670	850	3,090	1,870	2,910	4,280	1,130	618
3	290	1,620	1,960	1,290	658	842	3,000	1,940	2,560	4,280	1,060	584
4	273	1,290	1,720	1,160	695	834	2,320	2,080	2,480	3,660	993	584
5	321	1,050	1,520	1,080	705	795	1,940	2,080	2,910	3,280	1,040	584
6	334	895	1,420	1,030	810	765	1,740	1,940	3,660	3,460	1,040	597
7	299	780	1,340	972	788	742	1,720	1,860	3,960	3,460	932	618
8	307	740	1,290	944	735	712	1,800	1,720	4,720	3,180	834	590
9	303	689	1,240	916	698	705	1,760	1,740	5,300	3,760	850	570
10	307	645	1,420	895	698	675	1,730	1,760	4,600	3,090	842	570
11	241	621	1,420	868	780	668	1,600	1,660	3,370	2,400	834	570
12	211	609	1,420	881	924	668	2,080	1,540	3,000	1,870	874	564
13	211	658	2,220	868	1,000	668	3,280	1,460	2,910	1,940	890	558
14	303	1,690	2,220	1,290	1,030	655	4,380	1,390	2,910	2,320	882	551
15	269	2,440	2,290	1,840	1,050	632	4,940	1,360	2,910	1,940	858	538
16	222	1,780	2,290	1,620	1,060	625	4,490	1,330	3,280	2,010	866	507
17	218	1,470	2,290	1,340	1,060	625	3,660	1,360	5,300	2,160	810	471
18	226	1,240	1,960	1,160	1,100	639	3,090	1,490	4,720	2,160	765	453
19	218	1,060	1,720	1,120	1,150	632	3,560	1,800	3,860	2,480	698	442
20	233	895	1,620	1,070	1,250	632	3,560	2,240	3,180	2,480	639	513
21	265	995	1,570	995	1,330	611	3,180	2,240	3,090	2,320	632	513
22	312	2,350	1,720	916	1,320	570	2,650	4,220	3,090	2,240	632	483
23	316	14,600	1,620	861	1,240	570	2,320	6,200	2,740	2,160	590	471
24	269	7,140	1,470	832	1,140	660	2,010	5,680	2,560	1,940	611	465
25	269	3,750	1,340	806	1,060	858	1,810	6,200	2,560	1,810	639	501
26	265	2,590	1,200	786	993	1,270	1,630	5,800	2,910	1,760	653	489
27	277	2,080	1,200	754	932	2,820	1,530	4,940	3,280	1,560	668	430
28	214	1,780	1,290	734	916	4,720	1,580	4,060	3,760	1,400	660	402
29	226	3,160	1,240	708	-	3,560	1,720	3,660	4,280	1,340	660	402
30	253	3,180	1,200	670	-	2,560	1,740	3,280	4,490	1,350	611	413
31	2,210	-	1,620	652	-	2,320	-	3,860	-	1,320	611	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff	
						Inches	Acre-feet
October	10,226	2,210	211	330	1.15	1.33	20,280
November	65,017	14,600	609	2,167	7.55	8.43	129,000
December	61,640	2,590	1,200	1,666	6.80	6.69	102,400
Calendar year 1942	450,921	14,600	211	1,235	4.30	58.44	894,400
January	32,108	1,840	652	1,036	3.61	4.16	63,690
February	26,437	1,330	645	944	3.29	3.43	52,440
March	34,771	4,720	570	1,122	3.91	4.51	68,970
April	76,650	4,940	1,530	2,556	8.90	9.93	152,000
May	84,600	6,200	1,330	2,729	9.51	10.96	167,800
June	104,860	5,300	2,480	3,495	12.2	13.59	208,000
July	77,790	4,380	1,320	2,509	8.74	10.08	154,300
August	24,994	1,190	590	806	2.81	3.24	49,570
September	15,655	618	402	522	1.82	2.03	31,050
Water year 1942-43	604,748	14,600	211	1,657	5.77	78.38	1,200,000

Peak discharge.- Nov. 23 (2:30 p.m.) 20,300 sec.-ft.; Mar. 28 (8:10 a.m., 11:30 a.m.) 5,300 sec.-ft.; May 23 (1 a.m.) 6,890 sec.-ft.; June 17 (3:30 p.m.) 6,200 sec.-ft.
Note.- Shifting-control method used Nov. 25 to Sept. 30.
Time basis: Pacific war time. 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°38'50", in NE¼ sec. 24, T. 12 N., R. 1 E., 1 mile upstream from Mill Creek, 2 miles downstream from Winston Creek, and 2¼ 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 1943. August 1910 to November 1911 at site 2¼ miles upstream, published as Cowlitz River at Mayfield.

Extremes.- Maximum discharge during year, 42,600 second-feet Nov. 24 (gage height, 21.50 feet); minimum, 880 second-feet Oct. 20, 21 (gage height, 7.54 feet).
1910-11, 1934-43: Maximum discharge, that of Nov. 24, 1942; 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. No diversion or regulation.

Rating tables, water year 1942-43 (gage height, in feet, and discharge, in second-feet)

Oct. 1 to Nov. 24						Nov. 25 to Sept. 30			
7.6	940	9.0	2,810	13.0	11,600	7.9	1,120	11.0	6,420
7.8	1,150	9.5	3,640	14.0	14,600	8.3	1,600	12.0	8,800
8.0	1,380	10.0	4,520	16.0	21,200	8.6	2,000	13.0	11,500
8.3	1,700	11.0	6,520	18.0	28,700	9.0	2,610	15.0	17,500
8.6	2,190	12.0	8,920	20.0	36,500	9.5	3,450	17.0	24,500
						10.0	4,370		

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,180	10,100	15,500	12,500	3,610	5,290	18,500	7,430	9,850	8,800	3,160	1,700
2	1,160	6,050	14,600	11,000	4,330	5,070	19,300	7,400	8,850	8,580	3,020	1,730
3	1,050	6,830	12,600	9,630	4,500	4,870	18,600	7,330	7,880	8,250	2,920	1,730
4	1,060	6,500	10,700	8,420	6,070	4,690	15,800	7,400	7,220	8,320	2,770	1,650
5	1,050	5,040	9,320	7,690	6,460	4,460	13,200	7,640	7,170	7,330	2,670	1,640
6	1,050	4,210	8,200	7,010	10,200	4,260	11,200	7,640	8,050	6,940	2,740	1,610
7	1,060	3,810	7,430	6,350	10,300	4,100	10,000	7,220	8,930	7,120	2,670	1,600
8	1,040	3,520	7,220	5,900	8,500	3,950	9,660	6,780	9,480	6,940	2,510	1,590
9	1,010	3,420	7,450	5,560	7,190	3,790	9,480	6,440	10,600	6,820	2,340	1,560
10	1,030	3,130	10,200	5,330	6,730	3,630	8,800	6,420	10,900	7,120	2,310	1,540
11	1,050	2,920	10,300	5,130	10,200	3,520	8,150	6,310	9,580	6,110	2,280	1,520
12	1,020	2,780	9,610	4,930	12,100	3,580	8,220	6,020	8,380	5,350	2,230	1,520
13	950	2,780	11,600	4,810	11,600	3,680	10,000	5,810	7,790	4,770	2,240	1,510
14	990	4,480	13,000	5,430	11,100	3,700	13,100	5,520	7,400	4,810	2,240	1,500
15	1,120	11,600	12,400	8,180	10,600	3,520	15,000	5,270	7,260	4,890	2,230	1,470
16	1,070	10,700	11,900	9,090	10,000	3,450	15,300	5,150	7,280	4,640	2,170	1,450
17	960	9,050	11,800	7,790	9,500	3,330	13,900	4,950	8,350	4,620	2,140	1,400
18	920	7,430	10,900	6,600	9,140	3,210	12,100	4,950	10,800	4,670	2,070	1,390
19	900	6,390	9,550	6,180	8,980	3,140	11,900	5,230	9,740	4,810	1,990	1,310
20	890	5,490	8,980	5,960	8,960	3,020	13,000	5,900	8,830	5,070	1,920	1,300
21	890	5,490	9,110	5,660	9,010	2,940	13,200	6,550	7,950	4,910	1,850	1,370
22	920	8,040	9,610	5,230	8,880	2,940	11,600	7,330	7,830	4,670	1,870	1,410
23	960	25,100	9,580	4,850	8,300	3,020	10,500	11,600	7,640	4,560	1,820	1,350
24	980	39,500	8,780	4,500	7,500	3,360	9,740	13,000	7,150	4,480	1,740	1,310
25	920	27,000	8,180	4,280	6,800	4,430	8,720	13,500	6,780	4,220	1,690	1,290
26	930	18,100	7,240	4,350	6,240	5,480	7,910	14,000	6,730	4,050	1,690	1,340
27	1,200	15,700	7,790	4,370	5,900	12,200	7,240	12,800	6,980	3,920	1,700	1,350
28	1,300	12,700	9,350	4,500	5,560	20,400	7,220	11,200	7,430	3,650	1,730	1,250
29	1,230	12,600	9,370	4,280	-	21,900	7,590	9,980	8,050	3,400	1,800	1,190
30	1,230	16,700	9,240	3,940	-	17,100	7,450	9,220	8,620	3,280	1,860	1,160
31	5,230	-	11,600	3,680	-	16,600	-	9,370	-	3,210	1,760	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff Inches	Runoff Acre-feet
October	36,350	5,230	890	1,173	0.838	0.97	72,100
November	297,160	39,500	2,780	9,905	7.08	7.89	589,400
December	313,110	15,500	7,220	10,100	7.21	8.32	621,000
Calendar year 1942	1,816,190	39,500	890	4,976	3.55	48.24	3,602,000
January	193,130	12,500	3,680	6,230	4.45	5.13	383,100
February	228,260	12,100	3,610	8,152	5.82	6.06	452,700
March	188,630	21,900	2,940	6,085	4.35	5.01	374,100
April	346,380	19,300	7,220	11,550	8.25	9.20	687,000
May	245,340	14,000	4,930	7,914	5.65	6.52	486,600
June	249,500	10,900	6,730	8,317	5.94	6.63	494,900
July	170,290	8,800	3,210	5,493	3.92	4.52	337,800
August	68,130	3,160	1,690	2,198	1.57	1.81	135,100
September	43,740	1,730	1,160	1,458	1.04	1.16	86,760
Water year 1942-43	2,380,020	39,500	890	6,521	4.66	63.22	4,721,000

Peak discharge.- Nov. 24 (12:45 a.m.) 42,600 sec.-ft.; Nov. 30 (8:30 a.m. to 9:30 a.m.) 17,400 sec.-ft.; Mar. 28 (11:10 p.m.) 24,200 sec.-ft.
Time basis: Pacific war time. 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 1943.

Average discharge.- 16 years (1927-43), 8,443 second-feet.

Extremes.- Maximum discharge during year, 60,500 second-feet Nov. 24 (gage height, 20.10 feet), minimum, 1,320 second-feet Oct. 20-22, 26 (gage height, 6.01 feet).
1926-43: 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. No diversion or regulation.

Rating tables, water year 1942-43 (gage height, in feet, and discharge, in second-feet)

Oct. 1 to Nov. 24				Nov. 25 to Sept. 30			
6.1	1,460	10.0	10,100	6.1	1,620	10.0	9,700
6.5	2,130	12.0	17,200	6.5	2,240	12.0	16,400
7.0	2,990	14.0	26,100	7.0	3,060	14.0	25,200
8.0	4,920	17.0	41,600	8.0	4,880	17.0	41,400
9.0	7,290	20.0	59,800	9.0	7,070		

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,560	16,400	24,100	22,100	6,530	7,240	34,900	10,000	11,900	10,200	3,640	2,270
2	1,600	10,500	23,400	18,800	8,330	6,880	32,400	9,790	11,100	10,000	3,500	2,260
3	1,520	11,000	19,900	16,000	9,390	6,550	30,100	9,590	10,300	9,730	3,420	2,290
4	1,490	10,800	16,900	13,700	11,300	6,320	24,600	9,480	9,250	9,670	3,260	2,190
5	1,490	8,440	14,700	12,500	12,900	6,070	20,200	9,760	8,900	8,740	3,210	2,160
6	1,460	6,780	12,900	11,500	24,600	5,770	16,900	10,100	9,420	8,070	3,280	2,130
7	1,460	6,190	11,900	10,300	23,700	5,510	14,800	9,670	10,400	8,120	3,210	2,080
8	1,460	5,540	12,900	9,480	17,000	5,340	14,000	9,060	10,900	8,100	3,030	2,080
9	1,430	5,270	13,200	8,840	13,300	5,120	13,400	8,570	11,900	7,860	2,840	2,050
10	1,440	4,730	17,400	8,360	12,900	4,880	12,500	8,440	12,700	8,230	2,770	2,020
11	1,510	4,300	17,300	7,970	22,300	4,700	11,500	8,460	11,500	7,380	2,700	1,980
12	1,520	4,000	15,500	7,580	23,600	4,700	11,100	8,100	10,000	6,510	2,660	1,980
13	1,440	3,890	17,500	7,310	20,200	4,840	12,400	7,840	9,390	5,660	2,660	1,980
14	1,440	7,440	19,100	7,710	18,200	5,040	15,500	7,560	8,870	5,510	2,660	1,950
15	1,540	21,000	18,000	10,100	16,700	4,820	18,200	7,310	8,650	5,740	2,640	1,920
16	1,570	20,600	16,800	12,100	15,400	4,720	18,900	7,190	8,490	5,360	2,590	1,900
17	1,480	18,900	16,100	10,800	14,300	4,550	17,600	6,740	9,590	5,320	2,560	1,890
18	1,380	15,400	15,000	9,060	13,400	4,400	15,300	6,530	12,200	5,340	2,530	1,880
19	1,350	12,100	13,200	8,550	12,800	4,340	14,800	6,620	11,800	5,430	2,460	1,850
20	1,330	9,860	12,400	8,360	12,400	4,200	16,200	7,120	10,900	5,700	2,400	1,780
21	1,330	9,440	13,500	7,890	12,300	4,020	17,000	7,890	9,960	5,640	2,370	1,830
22	1,320	14,000	14,800	7,440	12,000	3,930	15,500	8,460	9,670	5,410	2,460	1,880
23	1,330	38,000	15,000	6,830	12,000	3,970	14,200	11,800	9,730	5,160	2,400	1,840
24	1,360	58,300	13,500	6,390	10,300	4,320	13,800	14,800	9,110	5,080	2,270	1,900
25	1,360	44,300	12,900	6,050	9,360	5,600	12,300	15,200	8,570	4,960	2,190	1,770
26	1,350	28,700	11,300	6,280	8,600	7,120	11,200	16,000	8,170	4,570	2,180	1,770
27	1,650	25,800	15,000	7,740	8,040	17,600	10,200	15,100	8,560	4,530	2,180	1,840
28	1,990	21,000	17,800	10,700	7,610	36,500	9,930	13,400	8,760	4,240	2,180	1,820
29	1,760	19,300	20,000	10,600		37,700	10,500	11,900	9,280	3,950	2,290	1,710
30	1,810	23,700	19,900	8,120	-	29,900	10,200	11,200	9,930	3,770	2,670	1,660
31	5,700	-	21,400	7,120	-	31,300	-	11,300	-	3,660	2,420	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff Inches	Runoff Acre-feet
October	50,430	5,700	1,320	1,627	0.726	0.84	100,000
November	485,580	58,300	3,890	16,190	7.23	8.06	963,100
December	501,400	24,100	11,300	16,170	7.22	8.32	994,500
Calendar year 1942	2,698,900	58,300	1,320	7,394	3.30	44.82	5,353,000
January	306,280	22,100	6,050	9,880	4.41	5.09	607,500
February	389,460	24,600	6,530	13,910	6.21	6.47	772,500
March	287,950	37,700	3,930	9,289	4.15	4.78	571,100
April	490,130	34,900	9,930	16,340	7.29	8.14	972,200
May	304,980	16,000	6,530	9,838	4.39	5.06	604,900
June	299,700	12,700	8,170	9,990	4.46	4.98	594,400
July	197,560	10,200	3,680	6,373	2.85	3.28	391,900
August	83,630	3,640	2,180	2,698	1.20	1.39	165,900
September	58,540	2,290	1,660	1,951	.871	.97	116,100
Water year 1942-43	3,455,640	58,300	1,320	9,468	4.23	57.38	6,854,000

Peak discharge.- Nov. 24 (9 a.m. to 10:45 a.m.) 60,500 sec.-ft.; Nov. 30 (4 p.m.) 25,000 sec.-ft.; Feb. 6 (7 p.m.) 30,400 sec.-ft.; Feb. 11 (8 p.m.) 25,200 sec.-ft.; Mar. 28 (11 p.m.) 41,800 sec.-ft.; Apr. 1 (1:30 p.m. to 3 p.m.) 36,000 sec.-ft.
Time basis: Pacific war time. 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 1943.

Average discharge.- 15 years (1910-11, 1929-43), 1,258 second-feet.

Extremes.- Maximum discharge during year, 13,200 second-feet Nov. 23 (gage height, 10.2 feet, from high-water mark in gage well); minimum, 237 second-feet Oct. 25 (gage height, 2.55 feet).

1910-12, 1929-43: 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, that of Oct. 25, 1942.

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

Rating table, water year 1942-43 (gage height, in feet, and discharge, in second-feet)

2.6	247	4.0	935	6.0	3,550
2.9	326	4.4	1,320	7.0	5,400
3.3	486	5.0	2,050	8.0	7,540
3.6	650	5.5	2,750	10.1	12,600

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	308	1,210	2,180	1,670	720	994	4,600	2,750	2,600	2,120	790	486
2	288	991	2,050	1,550	760	969	4,500	2,700	2,320	1,980	780	516
3	291	1,260	1,790	1,410	770	952	4,200	2,600	2,050	1,920	770	486
4	296	911	1,610	1,320	780	935	3,500	2,600	1,980	1,860	750	486
5	299	740	1,450	1,230	f803	887	3,150	2,550	2,120	1,670	790	486
6	299	656	1,350	1,150	f986	848	2,800	2,450	2,460	1,670	810	477
7	291	603	1,250	1,080	f960	848	2,500	2,350	2,530	1,670	750	477
8	286	591	1,200	1,050	911	818	2,300	2,250	2,680	1,610	730	458
9	291	547	1,160	1,010	855	788	2,200	2,200	2,900	1,610	720	449
10	291	511	1,310	986	855	761	2,000	2,200	2,820	1,550	710	445
11	291	491	1,310	952	986	747	1,900	2,100	2,460	1,410	700	440
12	280	481	1,300	944	1,170	733	2,100	2,050	2,250	1,230	660	440
13	278	516	1,610	1,040	1,290	733	3,300	1,950	2,050	1,200	660	436
14	278	1,590	1,790	1,550	1,360	707	3,900	1,850	1,980	1,240	670	427
15	283	1,900	1,790	1,900	1,360	688	4,400	1,750	1,980	1,190	680	423
16	270	1,700	1,860	1,650	1,340	675	4,600	1,700	2,050	1,200	640	411
17	263	1,400	1,920	1,400	1,310	669	4,100	1,650	2,530	1,200	660	411
18	256	1,150	1,790	1,300	1,320	644	3,500	1,650	2,680	1,200	650	398
19	256	1,000	1,610	1,250	1,350	632	3,700	1,700	2,390	1,200	640	387
20	254	890	1,610	1,200	1,400	615	4,000	1,920	2,180	1,150	620	415
21	258	830	1,550	1,100	1,450	615	3,700	1,920	2,050	1,100	600	427
22	268	770	1,670	1,050	1,450	615	3,500	2,180	1,980	1,100	600	411
23	268	10,500	1,550	920	1,360	620	3,300	2,980	1,860	1,100	590	390
24	258	6,800	1,490	890	1,280	656	3,100	3,380	1,790	1,050	550	390
25	239	3,890	1,380	900	1,180	770	2,900	3,800	1,730	980	510	394
26	249	2,820	1,260	920	1,110	1,500	2,800	3,890	1,730	950	500	402
27	302	2,320	1,380	940	1,070	3,300	2,700	3,460	1,790	940	496	394
28	286	1,920	1,490	900	1,040	5,400	2,750	3,060	1,860	890	496	368
29	286	2,120	1,430	820	-	4,600	2,800	2,750	1,980	850	521	364
30	288	2,390	1,400	760	-	4,000	2,750	2,530	2,050	820	521	357
31	895	-	1,670	740	-	4,400	-	2,680	-	810	496	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff Inches	Runoff Acre-feet
October	9,246	895	239	298	0.923	1.06	18,340
November	53,498	10,500	481	1,783	5.52	6.16	106,100
December	48,210	2,180	1,160	1,555	4.81	5.55	95,620
Calendar year 1942	372,835	10,500	239	1,021	3.16	42.92	739,500
January	36,582	1,900	740	1,148	3.55	4.10	70,580
February	31,226	1,450	720	1,115	3.45	3.60	61,940
March	42,119	5,400	615	1,359	4.21	4.85	83,540
April	97,550	4,600	1,900	3,252	10.1	11.23	193,500
May	75,600	3,890	1,650	2,439	7.55	8.70	150,000
June	65,830	2,900	1,730	2,194	6.79	7.58	130,600
July	40,470	2,120	810	1,305	4.04	4.66	80,270
August	20,060	810	496	647	2.00	2.31	39,790
September	12,851	516	357	428	1.33	1.48	25,490
Water year 1942-43	532,242	10,500	239	1,458	4.51	61.28	1,056,000

f Computed on basis of partly estimated gage-height record.

Note.- No gage-height record Nov. 15-24, Jan. 15 to Feb. 4, Mar. 25 to May 19, and July 16 to Aug. 26; discharge computed on basis of records for Cowlitz River at Packwood and near Mayfield, Tilton River near Cinebar, and Lewis River near Cougar.

Time basis: Pacific war time. 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 2½ 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 1943.

Extremes.- Maximum discharge during year, 9,850 second-feet Nov. 23 (gage height, 12.21 feet), from rating curve extended above 2,400 second-feet; minimum, 70 second-feet Sept. 24-26 (gage height, 3.58 feet).
1941-43: Maximum discharge, that of Nov. 23, 1942; minimum, 70 second-feet Aug. 20-22, 1941, Sept. 24-26, 1943 (gage height, 3.58 feet)

Remarks.- Records excellent except those for October, which are fair. No diversion or regulation.

Rating table, water year 1942-43, except period of doubtful gage-height record
(gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Oct. 1-13, 17-30)

3.7	86	4.5	257	6.0	970	8.0	2,840
3.9	118	4.7	323	6.5	1,340	9.0	4,190
4.1	156	5.0	440	7.0	1,770	10.0	5,760
4.3	202	5.5	675	7.5	2,270	11.0	7,520

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	100	2,150	2,600	2,780	496	708	4,790	719	670	248	113	96
2	95	1,340	2,600	2,110	815	675	3,900	665	605	237	115	113
3	92	1,590	2,060	1,720	875	645	3,160	625	566	234	115	104
4	94	1,460	1,680	1,460	2,020	615	2,320	600	514	242	111	96
5	88	1,040	1,420	1,260	1,860	575	1,820	645	479	225	115	94
6	83	845	1,220	1,110	3,810	542	1,540	785	479	215	129	96
7	80	785	1,080	1,000	2,840	510	1,340	714	440	205	120	90
8	79	758	1,110	905	2,010	492	1,340	650	415	202	116	86
9	78	730	1,440	875	1,540	466	1,220	605	395	248	113	80
10	83	660	3,160	875	1,500	440	1,080	595	372	215	108	78
11	92	600	2,600	845	3,330	436	970	570	353	223	106	76
12	90	561	2,220	785	3,760	537	1,000	552	411	215	103	78
13	86	570	3,480	758	3,090	615	1,150	547	383	202	100	78
14	d95	2,080	2,900	815	2,720	620	1,150	528	353	195	96	75
15	d115	3,160	2,380	1,500	2,440	566	1,080	524	330	190	96	75
16	d105	2,220	2,060	1,260	2,220	637	970	533	309	180	94	73
17	101	1,910	1,820	1,000	2,010	510	815	496	395	174	92	75
18	90	1,500	1,500	815	1,910	488	758	470	383	169	92	76
19	86	1,260	1,260	785	1,820	479	875	453	372	163	94	75
20	83	1,040	1,340	730	1,720	457	1,080	462	380	160	94	78
21	82	1,190	1,640	665	1,640	449	1,300	470	364	156	96	83
22	80	2,750	2,160	610	1,500	449	1,080	867	368	150	118	78
23	79	7,800	1,860	566	1,260	510	1,080	1,000	383	150	108	73
24	79	5,090	1,590	524	1,110	787	1,080	815	380	144	96	71
25	78	2,960	1,380	514	938	1,340	938	714	356	136	94	70
26	88	2,220	1,180	566	845	1,730	815	635	330	125	92	72
27	180	2,380	1,510	590	785	3,900	730	570	309	125	89	80
28	169	1,910	2,220	635	758	4,640	785	510	292	123	95	78
29	215	2,540	2,060	605	-	3,420	815	479	276	120	106	73
30	205	2,840	2,060	547	-	2,720	758	501	260	116	113	71
31	3,220	-	3,480	506	-	3,600	-	758	-	115	103	-

Month	Second-feet-days	Maximum	Minimum	Mean	Per square mile	Runoff Inches	Runoff Acre-feet
October	6,290	3,220	78	203	1.28	1.48	12,480
November	57,939	7,800	561	1,931	12.2	13.64	114,900
December	61,070	3,480	1,080	1,970	12.5	14.37	121,100
Calendar year 1942	271,330	7,800	78	743	4.70	63.89	538,100
January	29,716	2,780	506	959	6.07	6.99	58,940
February	51,622	3,810	496	1,844	11.7	12.15	102,400
March	54,488	4,640	436	1,112	7.04	8.11	68,350
April	41,739	4,790	730	1,391	8.80	9.82	82,790
May	19,057	1,000	453	615	3.89	4.49	37,800
June	11,922	670	260	397	2.51	2.81	23,650
July	5,602	248	115	181	1.15	1.32	11,110
August	3,232	129	89	104	.658	.76	6,410
September	2,441	113	70	81.4	.515	.57	4,840
Water year 1942-43	325,088	7,800	70	891	5.64	76.51	644,800

Peak discharge.- Oct. 31 (5 p.m.) 5,590 sec.-ft.; Nov. 23 (2 p.m.) 9,850 sec.-ft.; Feb. 6 (11:15 a.m.) 4,640 sec.-ft.; Feb 12 (12:15 a.m.) 4,190 sec.-ft.; Mar. 28 (7:40 a.m. to 9 a.m.) 5,110 sec.-ft.; Apr. 1 (1:45 p.m.) 5,110 sec.-ft.

d Doubtful gage-height record; discharge computed on basis of records for South Fork Toutle River near Toutle.

Time basis: Pacific war time. 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°43'30", 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 1923, September 1929 to September 1943. September 1909 to August 1912 at site 2 miles downstream, published as Toutle River near Castle Rock.
Average discharge.- 19 years (1909-11, 1919-21, 1922-23, 1929-43), 1,955 second-feet.
Extremes.- Maximum discharge during year, 20,500 second-feet Nov. 23 (gage height, 13.94 feet); minimum, 308 second-feet Oct. 25, 26 (gage height, 1.65 feet).
1909-12, 1919-23, 1929-43: 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 (gage height, 1.67 feet).
Remarks.- Records good. No diversion or regulation.

Rating tables, water year 1942-43 (gage height, in feet, and discharge, in second-feet)

Oct. 1 to Nov. 23

1.8	365	3.0	1,120	6.0	5,750
2.0	460	3.5	1,580	7.0	7,800
2.2	560	4.0	2,100	9.0	11,200
2.5	740	4.5	2,720	11.0	14,800
2.7	880	5.0	3,540	13.0	18,700

Nov. 24 to Sept. 30

1.7	350	4.0	2,200
1.9	445	4.5	2,890
2.1	560	5.0	3,700
2.5	820	6.0	5,640
3.0	1,190	8.0	9,360
3.5	1,640	10.0	12,700

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	370	3,620	5,440	5,040	1,540	1,540	10,000	1,960	1,850	1,450	584	506
2	365	2,390	5,240	4,160	2,330	1,450	8,280	1,850	1,740	1,360	578	542
3	349	2,950	4,250	3,440	2,200	1,400	6,610	1,800	1,960	1,360	578	506
4	353	2,450	3,530	2,960	2,890	1,320	4,940	1,740	1,690	1,360	560	472
5	345	1,940	3,040	2,890	2,960	1,270	3,970	1,800	1,590	1,230	578	478
6	333	1,730	2,740	2,670	6,820	1,230	3,360	1,900	1,590	1,190	632	450
7	329	1,630	2,600	2,400	4,940	1,230	3,040	1,900	1,590	1,190	584	440
8	325	1,530	2,820	2,260	3,530	1,190	2,960	1,740	1,640	1,150	554	425
9	318	1,390	3,120	2,140	2,820	1,110	2,740	1,690	1,690	1,190	524	415
10	314	1,260	4,540	2,020	3,590	1,110	2,530	1,690	1,640	1,150	512	405
11	383	1,160	3,970	1,900	5,840	1,070	2,330	1,740	1,500	1,030	509	400
12	357	1,060	3,620	1,850	5,240	1,070	2,330	1,690	1,400	960	494	400
13	333	1,120	3,970	1,800	4,640	1,150	2,530	1,690	1,360	925	484	395
14	353	3,850	3,790	2,020	4,160	1,150	2,820	1,640	1,320	925	472	386
15	406	7,220	3,530	2,530	3,790	1,070	2,820	1,590	1,270	890	467	382
16	353	4,830	3,200	2,260	3,440	1,070	2,670	1,640	1,270	855	456	372
17	329	4,480	2,960	1,960	3,200	1,070	2,460	1,540	1,640	855	445	377
18	318	3,450	2,670	1,740	3,040	1,030	2,260	1,450	1,690	855	440	377
19	314	2,808	2,400	1,800	2,890	1,030	2,530	1,400	1,640	820	440	368
20	314	2,330	2,740	1,740	2,740	995	2,820	1,400	1,640	820	440	377
21	314	2,520	2,820	1,640	2,670	995	2,820	1,450	1,590	813	467	395
22	314	3,640	3,530	1,540	2,530	960	2,460	1,590	1,690	786	608	372
23	314	15,200	3,040	1,500	2,260	995	2,670	1,900	1,800	757	500	364
24	311	12,900	2,960	1,360	2,080	1,110	2,600	1,900	1,690	729	456	354
25	308	7,270	2,670	1,360	1,900	1,360	2,400	2,020	1,540	701	435	354
26	329	4,940	2,460	1,640	1,740	2,090	2,200	1,960	1,450	694	425	372
27	652	5,640	3,700	1,960	1,690	5,790	2,020	1,850	1,450	680	420	400
28	550	4,540	4,060	2,260	1,590	12,200	2,140	1,690	1,450	650	415	377
29	490	4,940	4,440	2,080	-	8,640	2,140	1,590	1,450	626	703	359
30	550	5,640	4,440	1,740	-	5,840	2,020	1,640	1,450	614	743	350
31	3,260	-	5,840	1,590	-	8,820	-	1,960	-	602	560	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff Inches	Runoff Acre-feet
October	14,253	3,260	308	460	0.970	1.12	28,270
November	120,420	15,200	1,060	4,014	8.47	9.45	238,800
December	110,130	5,840	2,400	3,553	7.50	8.64	218,400
Calendar year 1942	600,199	15,200	308	1,644	3.47	47.09	1,190,000
January	68,250	5,040	1,360	2,202	4.65	5.35	135,400
February	89,060	6,820	1,540	3,181	6.71	6.99	176,600
March	72,355	12,200	960	2,334	4.92	5.68	143,500
April	97,470	10,000	2,020	3,249	6.85	7.65	193,300
May	53,400	2,020	1,400	1,723	3.64	4.19	105,900
June	47,270	1,960	1,270	1,576	3.32	3.71	93,760
July	29,216	1,450	602	942	1.99	2.29	57,950
August	16,054	743	415	518	1.09	1.26	31,840
September	12,170	542	350	406	.857	.95	24,140
Water year 1942-43	730,048	15,200	308	2,000	4.22	57.28	1,448,000

Peak discharge.- Nov. 23 (5 p.m.) 20,500 sec.-ft.; Mar. 28 (10 a.m.) 14,200 sec.-ft.; Mar. 31 (10 p.m.) 9,700 sec.-ft.; Apr. 1 (6:30 a.m.) 10,700 sec.-ft.; Apr. 2 (2:45 p.m.) 8,640 sec.-ft.
Time basis: Pacific war time. 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 1943.

Extremes.- Maximum discharge during year, 6,490 second-feet Nov. 23 (elevation, 457.32 feet); minimum, 74 second-feet Oct. 9, 10 (elevation, 451.60 feet).
1939-43: Maximum discharge, 6,770 second-feet Dec. 19, 1941; maximum elevation, that of Nov. 23, 1942; minimum discharge, 68 second-feet Aug. 18, 19, 1940 (elevation, 451.46 feet).

Remarks.- Records good. No diversion or regulation.

Rating tables, water year 1942-43 (elevation, in feet, and discharge, in second-feet)

Oct. 1 to Nov. 23				Nov. 24 to Sept. 30			
451.8	111	454.0	1,440	451.8	80	453.5	890
452.0	160	454.5	2,020	452.0	125	454.0	1,330
452.5	331	455.0	2,690	452.2	135	454.5	1,890
453.0	586	456.0	4,220	452.5	290	455.0	2,560
453.5	950	457.0	5,950	453.0	540	456.0	4,070

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	95	1,240	1,600	1,650	375	366	3,440	564	492	255	120	122
2	91	1,150	1,540	1,360	712	348	2,700	522	458	244	120	122
3	88	1,360	1,270	1,110	656	330	2,080	492	540	258	122	112
4	88	1,000	1,080	962	1,030	318	1,600	480	447	262	120	105
5	86	682	922	890	1,030	298	1,250	498	415	227	128	105
6	82	605	796	834	2,220	283	1,050	546	395	216	164	98
7	81	569	754	726	1,650	272	922	552	380	210	128	94
8	77	523	842	670	1,160	262	930	492	375	206	120	90
9	74	469	922	642	898	252	834	469	356	230	115	88
10	77	413	1,300	614	983	238	768	480	339	216	110	86
11	107	371	1,180	582	1,710	230	705	486	318	199	108	86
12	93	344	1,100	540	1,600	230	719	469	298	192	102	86
13	84	366	1,240	546	1,430	276	810	447	302	182	102	86
14	95	1,790	1,160	628	1,310	262	690	420	286	176	100	84
15	111	2,620	1,080	782	1,190	238	866	415	269	170	98	82
16	91	1,780	986	712	1,080	227	789	410	262	164	94	80
17	88	1,600	914	582	1,000	224	705	375	357	158	94	80
18	79	1,270	796	528	938	216	642	362	318	155	92	86
19	79	977	712	486	906	216	768	357	348	146	92	82
20	79	737	842	474	866	213	922	362	348	143	94	84
21	79	890	938	425	850	213	930	370	352	143	108	90
22	81	1,420	1,300	395	789	210	768	464	380	140	173	84
23	82	4,940	1,110	362	684	220	866	458	474	134	118	80
24	79	3,180	1,010	330	594	272	818	458	420	131	105	80
25	77	1,890	906	330	516	395	747	469	380	128	100	78
26	91	1,430	768	415	464	829	663	442	339	128	96	82
27	195	1,600	1,180	534	425	2,180	594	405	318	131	94	98
28	137	1,310	1,430	642	390	4,070	621	366	294	125	90	84
29	129	1,540	1,430	558	-	2,560	635	339	280	125	211	80
30	160	1,600	1,410	447	-	1,830	576	375	269	120	202	78
31	1,300	-	1,770	390	-	2,700	-	558	-	118	137	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff	
						Inches	Acre-feet
October	4,155	1,300	74	134	1.14	1.31	8,240
November	39,666	4,940	344	1,322	11.2	12.50	78,680
December	34,288	1,770	712	1,106	9.37	10.81	68,010
Calendar year 1942	184,009	4,940	74	504	4.27	57.98	365,000
January	20,146	1,650	330	650	5.51	6.35	39,960
February	27,456	2,220	575	981	8.31	8.65	54,460
March	20,778	4,070	210	670	5.68	6.55	41,210
April	30,608	5,440	576	1,020	8.64	9.65	60,710
May	13,902	564	339	448	3.80	4.38	27,570
June	10,819	540	262	361	3.06	3.41	21,460
July	6,432	262	118	175	1.48	1.71	10,770
August	3,657	211	90	118	1.00	1.15	7,250
September	2,692	122	78	89.7	.760	.85	5,340
Water year 1942-43	213,599	4,940	74	585	4.96	67.32	425,700

Peak discharge.- Nov. 23 (1:40 p.m.) 6,490 sec.-ft.; Mar. 28 (8:40 a.m.) 5,070 sec.-ft.; Apr. 1 (9 a.m.) 5,750 sec.-ft.
Time basis: Pacific war time. 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 1943.

Extremes.- Maximum discharge during year, 5,030 second-feet Nov. 23 (gage height, 9.81 feet); minimum, 26 second-feet Sept. 24, 25, 30 (gage height, 2.09 feet).

1940-43: Maximum discharge, that of Nov. 23, 1942; minimum, that of Sept. 24, 25 30, 1943.

Maximum stage known, 17.2 feet in December 1933, from information by local residents.

Remarks.- Records excellent except those above 1,500 second-feet, which are good, and those for period of ice effect, which are fair. No diversion or regulation.

Rating table, water year 1942-43, except period of ice effect
(gage height, in feet, and discharge, in second-feet)

2.3	52	3.7	360	7.0	2,280
2.5	82	4.3	574	8.0	3,160
2.9	156	5.0	910	9.0	4,150
3.3	248	6.0	1,520		

Discharge, in second-feet water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	47	938	1,520	1,480	264	240	2,360	204	211	69	44	39
2	55	949	1,420	1,110	574	228	1,730	195	195	69	44	44
3	40	820	1,140	856	579	213	1,230	181	175	60	46	38
4	37	616	938	683	1,320	204	938	173	164	74	44	37
5	33	478	779	616	1,260	192	754	201	152	66	49	37
6	33	450	683	534	3,480	179	595	223	146	63	76	33
7	38	399	660	478	1,890	175	515	192	136	62	51	32
8	34	373	965	418	1,220	166	456	175	130	68	46	29
9	33	327	1,490	382	883	188	422	166	123	94	43	29
10	34	288	1,960	348	1,390	154	370	169	119	77	40	29
11	44	261	1,380	318	2,200	154	333	158	117	72	39	31
12	40	236	*1,260	293	1,840	166	304	156	126	71	38	31
13	37	235	1,290	277	1,380	216	279	150	126	63	37	29
14	90	882	1,020	266	1,080	211	261	148	113	60	35	28
15	71	1,110	830	285	883	201	243	150	108	59	34	27
16	51	965	683	256	730	201	228	140	101	56	34	28
17	42	1,200	574	228	638	181	216	132	106	55	33	29
18	39	992	496	b210	574	173	211	126	99	53	33	31
19	38	830	428	b200	534	166	243	121	101	52	33	29
20	37	638	460	b190	496	156	276	121	104	51	34	32
21	35	1,060	534	b180	453	150	360	123	110	49	44	35
22	34	1,520	938	b170	415	148	336	260	110	49	62	29
23	35	4,040	660	b160	376	158	345	221	99	47	52	27
24	34	2,280	595	b160	339	281	336	173	94	46	40	26
25	33	1,380	534	171	313	347	301	154	87	46	37	26
26	39	1,290	478	216	288	450	271	144	82	46	34	27
27	107	1,260	886	288	269	938	251	136	79	47	33	31
28	77	1,050	1,020	386	253	1,350	271	128	76	46	32	29
29	89	1,450	1,290	339	-	1,020	238	132	71	44	56	28
30	136	1,380	1,520	*290	-	1,050	221	177	69	42	51	27
31	2,310	-	2,200	258	-	1,760	-	292	-	43	42	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff Inches	Runoff Acre-feet
October	3,802	2,310	33	123	1.86	2.14	7,540
November	29,697	4,040	235	990	15.0	16.73	58,900
December	30,631	2,200	428	988	15.0	17.26	60,760
Calendar year 1942	121,843	4,040	31	334	5.06	68.64	241,700
January	12,046	1,480	160	389	5.89	6.79	23,890
February	25,921	3,480	253	926	14.0	14.61	51,410
March	11,386	1,760	148	367	5.56	6.42	22,580
April	14,894	2,360	211	496	7.52	8.39	29,540
May	5,221	292	121	168	2.55	2.94	10,360
June	3,529	211	69	118	1.79	1.99	7,000
July	1,819	94	42	58.7	.889	1.02	3,610
August	1,316	76	32	42.5	.644	.74	2,610
September	927	44	26	30.9	.468	.52	1,840
Water year 1942-43	141,189	4,040	26	387	5.86	79.55	280,000

Peak discharge.- Oct. 31 (2:45 p.m.) 3,750 sec.-ft.; Nov. 23 (11:45 a.m.) 5,030 sec.-ft.; Feb. 6 (7:30 a.m.) 4,370 sec.-ft.

* Winter discharge measurement made on this day.

b Stage-discharge relation affected by ice.

Time basis: Pacific war time. 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, 2½ 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 1943. March 1916 to September 1917 (gage heights only) at site 3 miles upstream. August 1927 to December 1933 at site 1 mile upstream.

Extremes.- Maximum discharge during year, 2,540 second-feet Nov. 23 (gage height, 10.15 feet); minimum, 5.6 second-feet Sept. 24-26 (gage height, 0.73 foot).

1927-43: 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. No diversion or regulation above station.

Rating table, water year 1942-43 (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Aug. 1-5)

0.7	5.2	2.6	63	6.0	720
1.0	10.0	3.0	97	7.0	1,050
1.4	18.5	3.5	161	8.0	1,450
1.8	29	4.0	230	9.0	1,920
2.2	44	5.0	450		

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	7.4	430	505	795	279	58	1,370	81	76	31	12	15
2	7.1	397	512	609	699	54	828	72	82	30	13	14
3	7.6	348	425	468	528	51	532	66	72	32	13	12
4	7.4	248	352	352	917	50	370	62	64	32	12	11
5	6.9	184	330	385	719	48	277	69	59	28	18	11
6	6.3	174	287	323	1,690	46	214	114	54	26	19	10
7	6.3	168	445	263	831	44	174	95	50	24	15	9.1
8	6.3	143	666	216	558	43	166	81	48	26	13	8.2
9	6.2	125	696	179	400	42	174	73	44	38	12	7.6
10	6.8	105	735	151	760	40	151	78	42	32	11	7.2
11	9.5	88	478	134	1,170	40	132	76	42	29	11	7.4
12	11	76	430	120	732	41	119	69	45	30	11	7.4
13	9.1	84	415	109	490	49	110	65	56	26	10	7.2
14	15	884	317	102	348	55	100	62	50	22	9.6	6.9
15	22	876	258	112	265	56	91	67	47	22	9.1	6.5
16	14	648	212	101	212	61	84	66	42	20	8.9	6.5
17	9.8	729	176	87	172	54	77	59	49	19	8.6	6.6
18	8.2	542	150	76	147	51	77	55	46	18	8.4	6.8
19	7.6	455	134	103	131	58	106	52	41	17	8.0	6.6
20	7.1	315	195	256	119	54	125	50	46	16	8.0	6.8
21	6.9	463	237	173	106	51	161	50	48	15	10	7.2
22	6.6	545	442	140	96	50	134	58	68	15	12	6.8
23	6.6	1,840	317	125	87	52	244	62	52	14	12	6.3
24	6.6	867	334	113	80	87	219	51	53	13	11	5.8
25	6.5	548	370	121	72	115	172	47	47	13	9.6	5.6
26	10	455	293	398	68	200	143	45	44	13	8.6	6.3
27	36	432	585	675	64	526	124	44	41	13	7.9	8.6
28	26	334	580	651	61	1,140	110	41	38	13	7.7	8.2
29	24	538	949	512	-	603	100	41	36	13	44	7.4
30	39	498	942	348	-	615	89	57	33	12	33	6.8
31	679	-	1,200	258	-	1,140	-	120	-	12	19	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff	
						Inches	Acre-feet
October	1,028.8	679	6.2	33.2	1.04	1.20	2,040
November	13,539	1,840	76	451	14.1	15.73	26,850
December	13,967	1,200	134	451	14.1	16.23	27,700
Calendar year 1942	55,821.1	1,840	5.9	153	4.78	64.88	110,700
January	8,355	795	76	270	8.44	9.71	16,570
February	11,801	1,690	61	421	13.2	13.72	23,410
March	5,674	1,140	40	180	5.62	6.48	11,060
April	6,773	1,370	77	226	7.06	7.87	13,450
May	2,028	120	41	65.4	2.04	2.36	4,020
June	1,517	82	33	50.6	1.58	1.76	3,010
July	664	38	12	21.4	.669	.77	1,320
August	405.4	44	7.7	13.1	.409	.47	804
September	242.8	15	5.6	8.09	.253	.28	482
Water year 1942-43	65,895.0	1,840	5.6	181	5.66	76.58	130,700

Peak discharge.- Nov. 14 (7 p.m.) 2,130 sec.-ft.; Nov. 23 (12:30 p.m.) 2,540 sec.-ft.; Dec. 31 (3 a.m.) 1,500 sec.-ft.; Feb. 6 (4 a.m.) 2,250 sec.-ft.; Feb. 10 (10 p.m.) 1,450 sec.-ft.; Apr. 1 (4:30 a.m.) 1,780 sec.-ft.

Time basis: Pacific war time. 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 1943.

Extremes.- Maximum discharge during year, 25,800 second-feet Apr. 1 (gage height, 15.36 feet); minimum, 104 second-feet Oct. 8, 10, 25 (gage height, 1.53 feet).
1939-43: Maximum discharge, 31,100 second-feet Dec. 19, 1941 (gage height, 17.13 feet); minimum, 85 second-feet Aug. 20, 21, 1940 (gage height, 1.38 feet).

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

Rating table, water year 1942-43 (gage height, in feet, and discharge, in second-feet)

1.5	95	2.6	590	4.0	1,630	7.0	5,300	11.0	14,100
1.8	191	3.0	855	5.0	2,590	8.0	7,150	13.0	19,300
2.2	362	3.5	1,220	6.0	3,780	9.0	9,290	16.0	27,600

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	121	4,050	7,940	17,200	3,490	1,220	24,600	1,540	897	383	184	202
2	121	4,070	9,160	14,600	5,840	1,140	19,900	1,440	890	378	184	210
3	115	4,730	8,980	11,100	7,250	1,080	13,100	1,350	834	367	184	188
4	112	3,340	7,660	8,370	10,600	1,020	8,540	1,250	778	372	184	174
5	112	2,710	6,310	6,830	11,900	995	6,290	1,240	726	357	202	163
6	112	2,280	5,250	5,770	21,400	939	4,870	1,350	674	338	218	156
7	110	2,210	5,030	4,750	21,200	897	3,960	1,380	642	324	218	153
8	110	1,900	6,830	4,050	16,300	855	3,420	1,310	596	324	214	143
9	107	1,690	9,140	3,520	9,760	820	3,040	1,200	578	348	199	134
10	110	1,450	11,300	3,090	8,810	778	2,730	1,180	542	357	191	130
11	121	1,270	9,980	2,740	17,500	752	2,410	1,160	530	343	184	127
12	137	1,100	8,190	2,440	18,000	740	2,150	1,140	536	338	174	124
13	137	1,090	7,370	2,200	13,300	806	1,940	1,120	590	319	170	124
14	160	6,210	6,130	2,010	9,000	862	1,780	1,080	578	301	160	118
15	214	11,200	5,150	1,930	6,660	897	1,630	1,080	566	292	153	115
16	195	10,000	4,320	1,840	5,200	911	1,500	1,060	536	274	150	115
17	166	9,890	3,700	1,660	4,260	869	1,400	1,010	524	262	143	115
18	153	9,730	3,220	1,450	3,620	841	1,330	960	518	258	140	118
19	146	8,300	2,830	1,370	3,140	855	1,390	911	506	254	137	118
20	134	6,600	2,780	1,800	2,790	855	1,700	862	512	241	137	115
21	124	5,770	3,150	1,690	2,500	827	2,150	834	542	225	146	115
22	121	6,810	4,890	1,510	2,250	792	2,100	862	622	221	163	115
23	115	19,400	4,470	1,380	2,010	785	2,380	669	636	214	188	115
24	115	18,800	4,300	a1,340	1,820	883	2,600	792	629	206	166	112
25	112	14,700	4,380	a1,300	1,650	1,160	2,470	746	566	199	160	107
26	124	10,100	4,130	a3,100	1,500	1,800	2,230	714	536	195	153	110
27	188	8,720	8,360	a4,000	1,400	4,060	2,000	581	488	191	153	118
28	241	7,750	12,000	4,970	1,310	11,400	1,890	655	453	191	146	118
29	225	7,920	13,000	5,930	-	12,500	1,830	642	431	191	225	115
30	283	7,770	14,600	5,110	-	11,600	1,670	674	404	191	301	112
31	3,000	-	18,900	4,060	-	18,200	-	904	-	188	229	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff Inches	Runoff Acre-feet
October	7,341	3,000	107	237	0.355	0.41	14,560
November	201,560	19,400	1,090	6,719	10.1	11.24	399,800
December	223,450	18,900	2,780	7,208	10.8	12.46	443,200
Calendar year 1942	865,531	19,400	98	2,371	3.55	48.26	1,717,000
January	133,110	17,200	1,300	4,294	6.44	7.42	264,000
February	214,450	21,400	1,310	7,659	11.50	11.96	425,400
March	82,139	18,200	740	2,650	3.97	4.58	162,900
April	129,000	24,600	1,330	4,300	6.45	7.19	255,900
May	31,996	1,540	642	1,032	1.55	1.78	63,460
June	17,860	897	404	595	.892	1.00	35,420
July	8,642	383	188	279	.418	.48	17,140
August	5,556	301	137	179	.268	.31	11,020
September	3,979	210	107	133	.199	.22	7,890
Water year 1942-43	1,059,083	24,600	107	2,902	4.35	59.05	2,100,600

Peak discharge.- Nov. 23 (2 p.m.) 22,800 sec.-ft.; Dec. 31 (5 a.m.) 20,000 sec.-ft.; Jan. 1 (2 a.m.) 18,600 sec.-ft.; Feb. 6 (2 p.m.) 23,500 sec.-ft.; Feb. 12 (3 a.m.) 18,900 sec.-ft.; Apr. 1 (6:30 a.m.) 25,800 sec.-ft.

a No gage-height record; discharge computed on basis of Youngs River near Astoria and Wilson River near Tillamook.

Time basis: Pacific war time. 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.- 162 square miles.

Records available.- July 1931 to September 1943. December 1914 to November 1916 (incomplete) at site three-quarters of a mile downstream.

Average discharge.- 12 years (1931-43), 1,201 second-feet.

Extremes.- Maximum discharge during year, 17,800 second-feet Nov. 23 (gage height, 14.78 feet); minimum, 74 second-feet Sept. 24, 25.

1914-16, 1931-43: 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, 59 second-feet Sept. 22, 1938.

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

Rating tables, water year 1942-43 (gage height, in feet, and discharge, in second-feet)

Oct. 1 to Nov. 23

1.2	80	3.0	830	8.0	6,300
1.5	143	3.6	1,280	9.0	7,750
1.8	229	4.3	1,920	10.5	10,020
2.2	375	5.2	2,840	13.0	14,300
2.6	580	6.4	4,210		

Nov. 24 to Sept. 30

1.1	68	2.5	545
1.4	133	3.0	840
1.7	215	3.6	1,290
2.1	360	4.3	1,920

Note.- Same as preceding table above 4.3 feet.

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	85	2,920	4,260	7,380	1,190	330	11,700	650	697	244	126	119
2	84	3,510	4,460	4,920	2,630	495	6,170	600	703	234	126	115
3	79	3,800	3,310	3,490	2,520	475	4,020	562	638	250	126	108
4	79	2,340	2,580	2,690	4,670	455	2,860	530	589	241	124	106
5	77	1,740	2,120	2,520	4,080	452	2,180	578	530	226	138	103
6	76	1,530	1,790	2,280	10,300	414	1,700	650	480	215	153	101
7	77	1,500	1,870	1,930	6,260	396	1,440	606	445	212	133	97
8	76	1,330	2,910	1,650	3,580	384	1,310	567	418	213	124	92
9	76	1,180	3,860	1,440	2,490	364	1,210	540	396	264	119	90
10	82	1,030	5,310	1,270	3,400	352	1,100	540	372	228	113	90
11	96	900	3,830	1,110	10,800	344	996	525	364	212	112	90
12	100	791	3,150	988	6,610	364	910	505	360	206	110	90
13	93	804	3,770	903	4,070	490	834	485	336	191	110	88
14	161	3,400	2,980	834	3,000	465	763	470	328	185	108	86
15	186	5,730	2,340	834	2,370	445	709	470	320	180	106	84
16	126	3,750	1,910	769	1,920	432	661	450	297	174	106	84
17	106	3,710	1,600	697	1,620	409	611	427	297	156	103	84
18	98	3,120	1,360	633	1,440	396	589	404	286	163	101	86
19	94	2,650	1,180	616	1,330	404	673	392	282	161	103	84
20	91	2,130	1,290	973	1,200	388	989	376	305	156	106	82
21	89	2,280	1,380	827	1,100	380	1,570	364	312	153	115	82
22	87	3,780	3,300	721	995	388	1,460	432	418	150	138	80
23	85	14,000	2,420	661	882	418	1,420	414	404	148	131	76
24	85	7,740	1,990	622	782	562	1,390	376	368	140	115	74
25	84	4,270	1,760	628	709	1,060	1,210	356	332	140	108	74
26	100	3,510	1,610	1,320	650	2,010	1,030	332	312	140	103	82
27	195	4,030	5,820	1,680	611	3,910	924	324	290	140	101	90
28	172	3,120	5,400	2,090	567	7,330	847	312	272	138	99	84
29	181	3,950	4,380	1,850	-	4,960	775	312	258	133	172	82
30	280	3,860	5,210	1,480	-	3,870	703	414	247	131	177	80
31	3,290	-	9,160	1,240	-	10,300	-	788	-	128	133	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff Inches	Runoff Acre-feet
October	6,590	3,290	76	213	1.34	1.54	13,070
November	98,405	14,000	791	3,280	20.6	23.02	195,200
December	98,510	9,160	1,180	3,178	20.0	23.04	195,400
Calendar year 1942	383,162	14,000	76	1,050	6.60	89.62	760,000
January	51,046	7,380	616	1,647	10.4	11.94	101,200
February	81,776	10,800	567	2,921	18.4	19.13	162,200
March	43,622	10,300	344	1,407	8.86	10.20	86,320
April	52,743	11,700	389	1,758	11.1	12.34	104,600
May	14,751	788	312	476	2.99	3.45	29,260
June	11,676	703	247	389	2.45	2.73	23,160
July	5,666	264	128	183	1.15	1.33	11,240
August	3,741	177	99	121	.761	.88	7,420
September	2,683	119	74	89.4	.562	.63	5,320
Water year 1942-43	471,209	14,000	74	1,291	8.12	110.23	934,600

Peak discharge.- Nov. 23 (12 m.) 17,800 sec.-ft.; Dec. 31 (5 a.m.) 10,000 sec.-ft.; Feb. 6 (11 a.m.) 12,700 sec.-ft.; Feb. 11 (12 m.) 11,800 sec.-ft.; Apr. 1 (4 a.m.) 14,200 sec.-ft.

Time basis: Pacific war time. 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.- 152 square miles.

Records available.- July 1931 to September 1943.

Average discharge.- 12 years, 968 second-feet.

Extremes.- Maximum discharge during year, 12,200 second-feet Nov. 23 (gage height, 9.44 feet); minimum, 75 second-feet Sept. 24 (gage height, 0.45 foot).

1931-43: 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 1942-43 (gage height, in feet, and discharge, in second-feet)

0.4	65	1.4	360	2.6	1,100	4.0	2,640	7.0	7,480
.7	132	1.8	550	3.0	1,480	5.0	4,100	8.1	9,530
1.0	220	2.2	800	3.5	2,020	6.0	5,710		

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	96	1,860	3,740	6,810	1,070	a470	8,500	580	568	244	135	107
2	94	2,090	4,080	4,620	2,770	a440	4,970	539	658	238	135	105
3	92	2,310	3,120	3,320	2,510	427	3,360	506	610	247	140	100
4	89	1,620	2,430	2,560	4,540	414	2,500	480	556	241	138	96
5	87	1,210	2,030	2,740	3,770	396	1,960	528	506	226	163	96
6	87	1,130	1,730	2,510	8,130	380	1,550	696	465	217	178	96
7	87	1,200	1,840	2,080	5,340	372	1,310	628	436	211	143	92
8	85	1,140	3,130	1,720	3,280	360	1,200	574	409	217	138	89
9	85	1,030	3,740	1,450	2,300	348	1,190	539	384	257	127	87
10	94	900	5,080	1,240	2,820	340	1,050	544	364	226	127	87
11	112	780	3,590	1,080	7,390	336	945	534	352	211	122	89
12	110	683	2,770	968	5,030	356	856	495	352	205	122	89
13	96	683	2,710	870	3,320	495	787	470	348	199	120	89
14	149	2,500	2,240	800	2,460	475	735	460	332	190	114	87
15	143	4,200	1,830	814	1,950	465	683	455	320	187	110	83
16	107	3,300	1,520	735	1,590	460	628	436	299	184	110	81
17	96	3,480	1,300	658	a1,400	432	586	409	299	178	105	85
18	92	2,950	1,130	592	a1,220	422	562	392	288	175	103	89
19	87	2,470	990	580	a1,100	450	652	376	288	169	103	85
20	87	1,950	1,110	892	a1,020	427	787	364	302	166	103	83
21	85	1,960	1,250	761	a930	418	968	356	316	163	110	83
22	85	2,560	2,000	670	a840	414	908	436	396	160	127	81
23	83	9,490	1,740	610	a770	422	990	422	392	157	117	79
24	83	6,400	1,550	574	a700	528	952	372	344	152	105	77
25	81	3,800	1,420	580	a650	761	885	352	316	149	100	77
26	96	3,240	1,330	1,040	a600	1,340	794	340	299	149	98	89
27	202	3,960	4,870	1,310	a550	2,640	754	328	282	152	98	96
28	160	3,030	4,220	1,770	a500	5,070	716	316	271	146	98	89
29	160	3,830	4,330	1,590	-	4,160	670	316	260	143	196	85
30	219	3,770	5,210	1,280	-	3,520	616	404	254	140	160	83
31	2,050	-	8,300	1,080	-	9,060	-	709	-	135	120	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff Inches	Runoff Acre-feet
October	5,279	2,050	81	170	1.19	1.37	10,470
November	79,526	9,490	683	2,651	18.5	20.68	157,700
December	86,330	8,300	990	2,785	19.5	22.45	171,200
Calendar year 1942	321,928	9,490	81	882	6.17	83.73	638,500
January	48,304	6,810	574	1,558	10.9	12.56	95,810
February	68,550	8,130	500	2,448	17.1	17.83	136,000
March	36,598	9,060	336	1,181	8.26	9.52	72,590
April	43,064	8,500	562	1,435	10.0	11.20	85,420
May	14,356	709	316	463	3.24	3.73	28,470
June	11,266	650	254	376	2.63	2.93	22,350
July	5,834	257	135	188	1.31	1.52	11,570
August	3,865	196	98	125	.874	1.01	7,670
September	2,654	107	77	88.5	.619	.69	5,260
Water year 1942-43	405,626	9,490	77	1,111	7.77	105.49	804,500

Peak discharge.- Nov. 23 (2 p.m.) 12,200 sec.-ft.; Dec. 27 (11:30 a.m.) 6,310 sec.-ft.; Dec. 31 (7 a.m.) 8,580 sec.-ft.; Dec. 31 (11 p.m.) 8,410 sec.-ft.; Feb. 11 (11 a.m.) 8,500 sec.-ft.; Apr. 1 (12:30 a.m.) 10,400 sec.-ft.

a No gage-height record; discharge computed on basis of records for Wilson River near Tillamook.

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

Nestucca River near McMinnville, Oreg.

Location.- Water-stage recorder, lat. 45°19'30", long. 123°27'00", in SW¼ sec. 8, T. 3 S., R. 6 W., half a mile downstream from dam at outlet of Meadow Lake and 13 miles northwest of McMinnville.

Drainage area.- 12 square miles.

Records available.- October 1928 to September 1943.

Average discharge.- 15 years, 44.2 second-feet.

Extremes.- Maximum discharge during year, 700 second-feet Nov. 23 (gage height, 3.80 feet); minimum, 2.1 second-feet Sept. 25-27 (gage height, 0.42 foot).
1928-43: Maximum discharge, 1,480 second-feet Dec. 22, 1933, Dec. 27, 1937 (gage height, 5.1 feet), from rating curve extended above 800 second-feet; minimum, 1.0 second-foot Oct. 11, 1929.

Remarks.- Records good except those for periods of no gage-height record, which are fair. No diversion above station. Flow slightly regulated by dam at outlet of Meadow Lake.

Rating tables, water year 1942-43 (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Aug. 29 to Sept. 10)

Oct. 1 to Mar. 25						Apr. 13 to Sept. 30			
0.4	1.9	1.3	26	2.8	238	0.4	1.8	1.0	15.0
.6	4.1	1.6	47	3.2	380	.6	4.9	1.3	30
.8	7.7	2.0	86	3.7	640	.8	9.2	1.6	53
1.0	12.7	2.4	146						

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2.3	61	178	502	49	a34	a450	34	26	10	4.9	5.1
2	2.3	58	187	281	82	32	a260	31	29	9.7	4.7	4.9
3	2.3	76	148	180	90	30	a170	29	27	9.5	4.7	4.7
4	2.3	59	118	138	138	29	a120	27	24	9.5	4.7	4.4
5	2.3	45	96	141	156	28	a95	29	22	9.5	5.1	4.0
6	2.3	40	84	123	440	26	a86	34	20	9.2	5.1	4.0
7	2.3	49	72	105	367	25	a77	32	18	8.7	5.1	3.9
8	2.3	51	98	90	189	24	a69	29	17	8.7	5.1	3.5
9	2.3	46	131	75	151	24	a61	27	15	10	5.1	3.4
10	2.4	38	183	66	116	22	a54	27	15	10	5.1	3.4
11	2.4	31	161	58	312	21	a48	26	14	10	5.1	3.4
12	2.3	25	141	52	278	24	a45	26	14	9.5	5.1	3.2
13	2.3	22	143	49	183	31	42	26	15	9.2	5.1	3.2
14	2.3	67	129	45	a140	33	39	25	15	8.3	4.7	3.2
15	2.5	185	113	45	a120	30	36	24	15	8.0	4.7	3.1
16	3.4	156	96	43	a102	27	34	23	14	8.0	4.6	2.9
17	3.0	178	84	38	a90	25	32	22	13	7.6	4.4	2.9
18	3.1	159	72	33	a80	24	31	21	13	7.4	4.2	2.9
19	3.1	136	62	32	a73	25	36	20	13	7.1	4.0	2.9
20	3.3	102	62	45	a67	24	46	19	14	6.5	3.9	2.8
21	3.1	98	73	50	a61	22	56	19	15	6.1	3.9	2.6
22	3.1	115	100	45	a56	22	48	19	17	5.9	4.0	2.6
23	3.0	330	99	37	a51	22	47	19	18	5.7	4.2	2.5
24	2.8	398	90	36	a47	27	48	17	17	5.5	4.2	2.4
25	2.7	201	80	37	a44	37	43	16	15	5.3	4.0	2.2
26	2.8	154	73	45	a41	a60	39	16	14	5.1	4.0	2.2
27	3.1	206	286	53	a38	a90	39	15	13	4.9	3.9	2.2
28	3.1	165	294	61	a36	a150	39	15	12	5.1	3.9	2.2
29	4.0	185	235	62	-	a170	35	14	11	5.1	4.6	2.4
30	5.2	183	308	56	-	a170	35	18	10	5.1	5.1	2.4
31	27	-	602	50	-	a400	-	28	-	5.1	5.1	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff Inches	Runoff Acre-feet
October	110.7	27	2.3	3.57	0.298	0.34	220
November	3,620	398	22	121	10.1	11.22	7,180
December	4,598	602	62	148	12.3	14.25	9,120
Calendar year 1942	15,302.3	602	2.3	41.9	3.49	47.41	30,350
January	2,674	502	32	86.3	7.19	8.29	5,300
February	3,577	440	36	128	10.7	11.09	7,090
March	1,708	400	21	55.1	4.59	5.29	3,390
April	2,261	450	31	75.4	6.28	7.01	4,480
May	727	34	14	23.5	1.96	2.25	1,440
June	495	29	10	16.5	1.38	1.53	982
July	235.3	10	4.9	7.59	.632	.73	467
August	142.3	5.1	3.9	4.59	.382	.44	282
September	95.5	5.1	2.2	3.18	.265	.30	189
Water year 1942-43	20,243.8	602	2.2	55.5	4.62	62.74	40,140

a No gage-height record; discharge computed on basis of records for North Yamhill River near Pike and Haskins Creek near McMinnville.

Time basis: Pacific war time. 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 1943.

Average discharge.- 23 years (1906-11, 1925-43), 1,606 second-feet.

Extremes.- Maximum discharge during year, 26,500 second-feet Nov. 23 (gage height, 22.46 feet), minimum, 84 second-feet Oct. 25, 26.

1905-12, 1924-43: 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 excellent except those above 10,000 second-feet, which are fair. No diversion above station. Some diurnal fluctuation caused by log pond at Valsetz.

Rating tables, water year 1942-43 (gage height, in feet, and discharge, in second-feet)

Oct. 1 to Nov. 23

2.4	84	5.0	1,080	12.0	7,730
2.7	142	6.0	1,680	15.0	12,300
3.0	212	7.0	2,360	19.0	19,400
3.5	372	8.5	3,520		
4.0	575	10.0	5,100		

Nov. 24 to Dec. 31

2.4	96	4.0	630	8.5	3,530
2.7	162	5.0	1,130	10.0	5,100
3.0	246	6.0	1,715	12.0	7,730
3.5	418	7.0	2,400	16.0	14,000

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	98	2,680	6,350	13,200	1,960	644	16,100	850	760	344	157	183
2	98	4,510	5,630	7,520	3,960	572	8,040	800	975	330	155	170
3	91	3,970	3,950	4,780	4,030	540	4,710	750	1,080	348	160	160
4	89	2,200	3,130	3,580	8,040	519	3,320	702	985	330	155	152
5	88	1,560	2,760	4,170	5,950	490	2,590	765	875	307	199	148
6	86	1,380	2,810	3,580	13,700	466	2,080	910	785	294	246	143
7	88	1,640	4,250	2,870	10,900	454	1,810	820	706	280	180	140
8	88	1,570	8,540	2,370	5,660	450	1,690	765	639	284	165	136
9	88	1,350	7,180	1,990	3,700	434	1,610	720	562	351	155	131
10	89	1,150	6,670	1,700	3,280	418	1,480	730	527	324	152	127
11	117	987	4,710	1,490	9,040	403	1,330	720	502	287	143	125
12	134	860	3,710	1,310	6,570	399	1,210	684	490	268	140	127
13	106	825	3,760	1,190	4,170	532	1,100	639	498	258	138	129
14	140	2,650	3,080	1,080	3,110	562	1,010	626	466	243	136	123
15	190	6,080	2,570	1,060	2,550	540	935	626	438	237	134	114
16	125	5,400	2,180	985	2,150	519	880	594	407	234	134	112
17	106	6,090	1,860	895	1,840	482	815	558	403	219	129	114
18	97	5,580	1,610	805	1,630	450	785	536	391	216	125	114
19	93	3,560	1,420	765	1,450	462	930	506	384	213	123	112
20	91	2,610	1,880	1,490	1,310	438	1,120	486	430	208	125	112
21	88	2,300	1,960	1,500	1,200	422	1,330	466	446	205	145	102
22	88	3,390	3,510	1,330	1,100	414	1,170	482	603	194	303	100
23	86	19,400	2,920	1,160	1,000	442	1,280	482	680	188	234	100
24	86	11,000	2,610	1,060	915	515	1,250	430	567	185	170	96
25	84	5,380	2,410	1,060	845	970	1,160	403	511	180	155	92
26	93	6,720	2,270	2,070	780	2,130	1,060	388	466	183	143	110
27	220	11,500	11,700	2,480	725	4,410	1,070	373	430	178	138	143
28	223	5,880	8,110	3,520	668	8,240	995	355	399	172	136	125
29	173	10,500	7,680	3,420	-	8,040	990	355	376	167	294	102
30	192	7,910	10,400	2,680	-	6,170	910	544	362	165	317	104
31	1,660	-	13,700	2,160	-	19,200	-	925	-	162	210	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff Inches	Runoff Acre-feet
October	5,095	1,660	84	164	0.812	0.94	10,110
November	142,632	19,400	825	4,754	23.5	26.26	282,900
December	145,120	13,700	1,420	4,681	23.2	26.72	287,800
Calendar year 1942	527,148	19,400	84	1,444	7.15	97.05	1,046,000
January	79,270	13,200	765	2,557	12.7	14.59	157,200
February	102,253	13,700	688	3,652	18.1	18.83	202,800
March	60,727	19,200	399	1,959	9.70	11.18	120,500
April	64,760	16,100	785	2,159	10.7	11.92	128,400
May	18,990	925	355	613	3.03	3.50	37,670
June	17,143	1,080	362	571	2.83	3.16	34,000
July	7,554	351	162	244	1.21	1.39	14,980
August	5,296	317	123	171	.847	.98	10,500
September	3,746	183	92	125	.619	.69	7,430
Water year 1942-43	662,586	19,400	84	1,788	8.85	120.16	1,294,000

Peak discharge.- Nov. 23 (1:30 p.m.) 26,500 sec.-ft.; Nov. 27 (1 a.m.) 16,200 sec.-ft.; Dec. 27 (11 a.m.) 16,900 sec.-ft.; Jan. 1 (1a.m. to 2a.m.) 16,100 sec.-ft.; Feb. 6 (5 p.m.) 18,100 sec.-ft.; Mar. 31 (6 p.m.) 23,400 sec.-ft.

Time basis: Pacific war time. 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 1943.

Extremes.- Maximum discharge during year, 22,900 second-feet Jan. 1 (gage height, 19.98 feet), from rating curve extended above 12,000 second-feet; minimum, 78 second-feet Oct. 10 (gage height, 1.58 feet).

1939-43: Maximum discharge, that of Jan. 1, 1943; minimum, 62 second-feet Sept. 1, 1940 (gage height, 1.43 feet).

Remarks.- Records excellent except those above 14,000 second-feet and those for period of no gage-height record, which are fair. No regulation; a few small diversions above station for irrigation.

Rating table, water year 1942-43 (gage height, in feet, and discharge, in second-feet)

1.5	72	3.5	815	8.0	4,200
1.7	108	4.0	1,090	9.0	5,270
2.0	186	4.5	1,390	10.0	6,460
2.3	275	5.0	1,710	12.0	9,300
2.6	390	6.0	2,400	14.0	12,440
3.0	570	7.0	3,240	17.0	17,570

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	93	934	6,530	19,400	2,750	841	14,300	956	571	261	136	131
2	95	1,500	6,250	11,600	4,020	805	7,830	896	780	254	136	119
3	93	1,800	4,590	7,770	4,470	775	5,160	846	868	257	141	a114
4	91	946	3,630	5,580	5,400	745	3,850	805	735	261	147	a110
5	89	715	3,450	5,720	5,010	715	3,100	810	635	241	182	a108
6	86	552	4,280	5,020	9,950	695	2,530	846	557	232	210	a107
7	84	506	6,480	3,930	15,500	710	2,200	775	511	225	173	a105
8	83	775	10,200	3,200	8,250	805	2,050	730	475	222	a159	h103
9	83	775	7,970	2,700	5,510	690	1,900	695	444	254	a147	a102
10	83	695	5,540	2,330	4,350	640	1,760	680	410	241	a140	a101
11	95	488	4,230	2,070	5,090	610	1,610	675	394	219	a132	a100
12	128	406	3,530	1,840	4,490	595	1,460	645	386	210	a129	a103
13	119	370	3,380	1,660	3,580	690	1,340	630	394	206	a127	a106
14	111	2,000	2,910	1,520	2,970	795	1,240	610	386	197	a123	a100
15	128	6,690	2,480	1,450	2,540	825	1,160	610	366	191	h121	a96
16	119	4,040	2,190	1,370	2,240	775	1,090	585	343	188	a120	a94
17	103	5,410	1,940	1,270	1,990	735	1,020	557	335	185	a116	93
18	97	4,270	1,770	a1,200	1,790	695	973	539	335	179	a114	95
19	91	2,980	1,600	a1,130	1,620	670	1,070	520	324	170	a114	93
20	89	2,180	1,660	a3,100	1,490	625	1,200	506	328	167	a115	89
21	89	1,760	1,810	a3,200	1,370	600	1,620	497	332	164	a130	86
22	89	1,810	2,720	a2,700	1,280	575	1,450	493	390	161	a200	84
23	89	9,500	2,860	a1,900	1,190	562	1,420	484	423	161	173	81
24	87	10,100	2,890	a1,700	1,110	557	1,340	462	374	155	141	81
25	87	4,880	3,590	1,680	1,030	630	1,250	444	347	150	128	79
26	91	5,300	3,050	2,670	978	1,090	1,140	427	324	153	123	83
27	176	12,500	10,400	4,140	929	2,410	1,150	415	299	163	119	99
28	274	6,140	10,200	5,770	885	4,780	1,100	406	288	153	116	103
29	188	9,070	8,450	5,380	-	7,140	1,080	394	274	150	173	97
30	141	8,340	14,900	4,170	-	6,150	1,010	484	268	147	203	91
31	203	-	17,600	3,270	-	16,100	-	635	-	141	153	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff	
						Inches	Acre-feet
October	3,474	274	83	112	0.335	0.39	6,890
November	107,342	12,500	370	3,578	10.7	11.95	212,900
December	163,090	17,600	1,600	5,261	15.8	18.16	323,500
Calendar year 1942	523,456	17,600	83	1,434	4.29	58.29	1,038,000
January	120,440	19,400	1,130	3,885	11.6	13.41	238,800
February	101,782	15,500	885	3,635	10.9	11.33	201,900
March	55,030	16,100	557	1,775	5.31	6.13	109,200
April	69,403	14,300	973	2,313	6.93	7.73	137,700
May	19,057	956	394	615	1.84	2.12	37,800
June	12,896	868	268	430	1.29	1.44	25,580
July	6,048	261	141	195	.584	.67	12,000
August	4,441	210	114	143	.428	.49	8,810
September	2,953	131	79	98.4	.295	.33	5,860
Water year 1942-43	665,956	19,400	79	1,825	5.46	74.15	1,321,000

Peak discharge.- Nov. 23 (8:30 p.m.) 17,900 sec.-ft.; Nov. 27 (5 a.m.) 16,200 sec.-ft.; Dec. 27 (5 p.m.) 15,300 sec.-ft.; Jan. 1 (4 a.m.) 22,900 sec.-ft.; Feb. 7 (1 a.m.) 20,800 sec.-ft.; Mar. 31 (6:30 p.m.) 19,800 sec.-ft.

a No gage-height record; discharge computed on basis of recorded range in stage and records for Siletz River at Siletz.

h Computed from staff-gage readings.

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

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 1943.

Average discharge.- 12 years, 202 second-feet.

Extremes.- Maximum discharge during year, 3,570 second-feet Jan. 1 (gage height, 7.67 feet), from rating curve extended above 2,400 second-feet; minimum daily, 10 second-feet Oct. 1-9.

1931-43: 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, 5.5 second-feet Sept. 30 to Oct. 4, 1939.

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

Rating table, water year 1942-43 (gage height, in feet, and discharge, in second-feet)

0.5	8.3	2.0	185	4.5	1,230
.7	15	2.5	316	5.4	1,790
1.0	33	3.0	485	6.4	2,510
1.3	64	3.5	700	7.5	3,420
1.6	107	4.0	950		

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	10	33	1,220	3,380	525	141	2,220	157	a82	38	18	17
2	10	62	1,180	2,300	565	134	1,580	149	a92	37	17	17
3	10	124	1,040	1,520	673	128	1,040	139	a104	35	17	16
4	10	181	835	1,110	730	122	740	132	a110	34	17	15
5	10	157	696	980	780	117	565	128	a104	34	19	15
6	10	130	619	a820	940	114	463	126	a92	32	20	15
7	10	112	673	a660	1,800	112	388	122	a84	32	21	14
8	10	116	1,270	a560	1,620	117	349	116	a78	30	20	14
9	10	128	1,800	a470	1,130	116	313	109	a73	30	20	14
10	11	121	1,400	a410	860	109	282	104	67	29	19	13
11	11	104	1,070	a360	686	104	255	101	63	28	18	13
12	12	88	895	a320	601	99	232	97	59	28	18	13
13	12	78	780	a290	545	104	214	93	57	27	17	13
14	13	120	705	a270	485	117	197	91	56	26	17	13
15	14	437	624	250	430	126	183	90	53	25	16	13
16	14	696	525	237	381	124	172	87	51	25	16	12
17	14	770	455	224	343	121	161	84	50	24	15	12
18	14	765	392	202	307	116	153	81	49	24	15	12
19	13	700	343	185	279	110	157	74	48	23	15	12
20	13	557	316	247	255	104	165	a72	47	22	14	12
21	12	434	319	444	234	99	192	a70	48	22	15	12
22	12	372	378	501	214	96	209	a70	49	21	16	12
23	12	616	a480	437	199	91	214	a69	53	20	17	12
24	12	1,670	a540	365	185	90	214	a68	54	20	17	12
25	12	1,360	a640	316	174	91	202	a66	54	19	17	11
26	12	1,010	a720	313	163	119	185	a64	51	19	17	11
27	15	1,390	a800	434	155	187	185	a63	48	19	16	12
28	18	1,460	a1,100	668	147	296	181	a62	45	19	15	12
29	21	1,180	a1,200	845	-	481	174	a62	42	19	17	12
30	22	1,210	a1,800	780	-	696	165	a64	40	18	17	12
31	24	-	2,750	628	-	1,220	-	a72	-	18	18	-

Month	Second-feet-days	Maximum	Minimum	Mean	Per square mile	Runoff Inches	Runoff Acre-feet
October	403	24	10	13.0	0.260	0.30	799
November	16,181	1,670	33	539	10.8	12.04	32,090
December	27,565	2,750	316	889	17.8	20.50	54,670
Calendar year 1942	80,665	2,750	10	221	4.42	60.02	160,000
January	20,526	3,380	185	662	13.2	15.27	40,710
February	15,406	1,800	147	550	11.0	11.46	30,560
March	5,801	1,220	90	187	3.74	4.31	11,510
April	11,750	2,220	153	392	7.84	8.74	23,310
May	2,882	157	62	93.0	1.86	2.14	5,720
June	1,903	110	40	63.4	1.27	1.42	3,770
July	797	38	18	25.7	.514	.59	1,580
August	531	21	14	17.1	.342	.39	1,050
September	393	17	11	13.1	.262	.29	780
Water year 1942-43	104,138	3,380	10	285	5.70	77.45	206,500

Peak discharge.- Nov. 24 (2 p.m.) 1,960 sec.-ft.; Nov. 27 (11 p.m.) 1,680 sec.-ft.; Dec. 9 (10 a.m.) 1,900 sec.-ft.; Jan. 1 (8 a.m.) 3,570 sec.-ft.; Feb. 7 (5 p.m.) 2,090 sec.-ft.; Apr. 1 (9 a.m.) 2,360 sec.-ft.

a No gage-height record; discharge computed on basis of recorded range in stage, weather records, and records for Long Tom River near Noti and Alsea River near Tidewater.

Time basis: Pacific war time. 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 1943.
Extremes.- Maximum discharge during year, 29,900 second-feet Dec. 31 (gage height, 18.96 feet), from rating curve extended above 10,000 second-feet; minimum, 39 second-feet Oct. 8-10 (gage height, 0.90 foot).
1910-11, 1939-43: Maximum discharge, that of Dec. 31, 1942; 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 tables, water year 1942-43 (gage height, in feet, and discharge, in second-feet)

Oct. 1 to Dec. 30						Dec. 31 to Sept. 30					
0.9	39	2.5	535	6.0	3,120	0.9	44	2.5	550	7.6	4,930
1.1	67	3.0	775	7.0	4,130	1.1	77	3.0	790	9.2	7,220
1.4	133	3.5	1,050	8.5	6,010	1.4	145	4.0	1,400	11.0	10,400
1.7	220	4.0	1,380	10.0	8,270	1.7	235	5.0	2,220	13.5	15,600
2.0	330	5.0	2,180	13.0	13,900	2.0	340	6.2	3,350	16.5	23,000

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	40	197	7,560	15,500	a4,500	812	1,960	1,560	3,340	312	104	81
2	40	199	7,100	9,580	a4,500	785	1,720	1,320	3,060	294	104	77
3	41	394	4,020	5,510	a5,800	765	1,720	1,200	2,610	288	102	73
4	41	342	2,780	3,950	7,300	750	1,530	1,080	1,930	294	102	72
5	41	248	2,140	3,310	5,350	720	2,430	991	1,620	270	104	68
6	41	187	1,830	2,770	3,560	690	2,540	967	1,330	256	104	66
7	40	798	1,750	2,290	3,870	840	2,070	889	1,150	242	97	64
8	40	2,370	3,680	2,000	3,340	2,080	1,880	796	1,010	235	95	61
9	39	785	4,460	1,840	2,510	3,070	1,620	745	900	229	93	61
10	41	454	4,210	1,650	2,020	2,000	1,490	720	796	216	89	59
11	54	330	3,280	1,460	1,830	1,500	1,340	675	715	203	89	64
12	71	262	2,970	1,280	1,980	1,230	1,260	626	650	197	85	68
13	69	230	3,670	1,170	2,460	1,100	1,270	582	595	188	83	66
14	56	349	3,520	1,160	2,730	1,100	1,300	546	541	179	81	63
15	65	2,860	3,080	1,150	2,890	1,010	1,340	541	496	173	79	59
16	64	1,780	3,180	1,070	2,890	944	1,250	528	460	170	77	59
17	56	1,640	a2,800	973	2,800	900	1,110	492	440	165	75	58
18	51	2,550	a2,400	a900	2,570	834	1,020	460	432	159	73	58
19	49	1,440	a2,100	a800	2,310	765	1,130	452	420	151	72	58
20	46	908	a1,900	a2,500	2,110	715	1,240	460	404	151	73	58
21	45	735	a2,200	a13,500	2,100	685	2,200	474	396	145	75	56
22	45	2,170	a3,500	a11,000	1,960	660	1,840	469	424	138	87	56
23	45	5,620	a5,000	a6,000	1,630	636	1,540	514	412	135	89	53
24	45	7,900	a9,000	a4,000	1,370	618	1,340	559	380	130	81	52
25	45	3,320	a6,000	a3,300	1,170	636	1,190	586	528	125	83	48
26	46	4,490	a8,000	a3,000	1,030	928	1,040	572	505	120	75	48
27	76	13,000	11,100	a4,000	938	1,070	997	536	420	118	72	52
28	130	5,980	10,300	a6,800	867	967	1,420	505	376	118	70	53
29	93	13,900	6,080	a6,500	-	1,530	2,200	460	348	113	91	53
30	99	9,510	12,100	a5,600	-	2,000	1,780	510	336	111	128	52
31	88	-	22,400	a4,900	-	1,870	-	1,710	-	106	93	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff	
						Inches	Acre-feet
October	1,742	130	39	56.2	0.124	0.14	3,460
November	34,848	13,900	97	2,828	6.23	6.95	168,300
December	164,110	22,400	1,750	5,294	11.7	13.44	325,500
Calendar year 1942	470,813	22,400	39	1,290	2.84	38.57	933,800
January	129,463	15,500	800	4,176	9.20	10.61	256,800
February	78,435	7,300	867	2,801	6.17	6.43	155,600
March	34,210	3,070	618	1,104	2.43	2.80	67,850
April	46,817	2,540	997	1,561	3.44	3.84	92,860
May	22,525	1,710	452	727	1.60	1.85	44,680
June	27,024	3,340	336	901	1.98	2.21	53,600
July	5,731	312	106	185	.407	.47	11,370
August	2,725	128	70	87.9	.194	.22	5,400
September	1,816	81	48	60.5	.133	.15	3,600
Water year 1942-43	599,446	22,400	39	1,642	3.62	49.11	1,189,000

Peak discharge.- Nov. 23 (9 p.m.) 14,800 sec.-ft.; Nov. 27 (7:30 a.m.) 17,100 sec.-ft.; Nov. 29 (3:30 p.m.) 25,500 sec.-ft.; Dec. 1 (7:30 p.m.) 12,000 sec.-ft.; Dec. 27 (6 p.m.) 14,500 sec.-ft.; Dec. 31 (1:30 a.m.) 29,900 sec.-ft.
a No gage-height record; discharge computed on basis of records for South Umpqua River near Brockway and Umpqua River near Elkton.
Time basis: Pacific war time. To convert war time to standard time, subtract 1 hour.

South Umpqua River near Brockway, Oreg.

Location.- Chain 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).

Drainage area.- 1,640 square miles.

Records available.- December 1905 to June 1912, October 1923 to September 1926, January 1942 to September 1943.

Extremes.- Maximum discharge observed during year, 70,000 second-feet Dec. 31 (gage height, 28.5 feet), from rating curve extended above 16,000 second-feet; minimum observed, 87 second-feet Oct. 1 (gage height, 3.05 feet).

1905-12, 1923-26, 1942-43: 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 31.8 feet, present site and datum (discharge, about 78,000 second-feet). The flood of February 1890 reached a stage just 2 feet higher, according to John Lander, who lived nearby at time of both floods (discharge, about 85,000 second-feet).

Remarks.- Records good. 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 1942-43 (gage height, in feet, and discharge, in second-feet)

3.0	80	5.0	800	9.0	6,160	20.0	37,800
3.3	125	5.5	1,160	10.0	8,340	24.0	52,200
3.6	180	6.0	1,590	12.0	13,300	27.0	63,900
4.0	300	7.0	2,770	14.0	18,740		
4.5	520	8.0	4,260	17.0	27,800		

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	87	168	15,400	41,100	10,400	1,890	5,320	3,080	4,280	576	188	d190
2	90	d350	11,500	30,400	9,540	1,810	4,470	2,700	5,760	545	185	d170
3	93	d700	8,020	19,000	12,500	1,760	4,180	2,500	d5,000	500	190	d155
4	93	d700	6,610	15,600	16,600	1,740	4,230	2,180	3,620	d520	188	d146
5	90	d500	d5,500	11,600	14,300	1,710	5,230	1,970	2,820	d480	178	d138
6	93	d400	7,230	8,550	10,200	1,650	4,850	1,940	a2,300	452	172	d130
7	91	592	18,100	6,610	17,000	1,670	4,380	1,780	2,060	d420	168	d120
8	90	2,980	37,900	5,860	17,900	1,800	4,680	1,620	1,760	a400	168	d115
9	88	1,820	24,700	5,150	9,160	4,470	3,660	1,500	1,600	a380	164	d115
10	90	1,180	15,400	4,110	7,390	5,940	3,480	1,310	1,450	a360	164	d110
11	d120	734	10,200	3,740	6,820	3,240	3,240	1,330	1,280	a350	162	d114
12	d150	515	6,910	3,500	5,820	2,640	2,980	1,240	1,170	344	158	d120
13	d160	384	7,630	3,180	5,260	2,410	2,780	1,180	1,070	332	151	d123
14	d140	402	7,190	3,080	6,140	2,470	2,650	1,100	968	328	142	d118
15	d150	2,080	6,180	2,820	6,180	2,520	2,640	1,080	898	320	137	d114
16	d150	6,550	5,520	2,510	5,960	2,460	2,520	1,100	870	312	134	d111
17	d135	5,080	5,210	2,340	5,760	2,340	2,330	1,070	835	293	134	d109
18	123	6,860	4,540	2,280	5,320	2,190	2,120	982	828	290	128	d108
19	122	6,570	3,800	2,130	4,740	2,010	2,050	926	835	282	128	d106
20	d115	3,410	3,040	4,400	4,090	1,840	2,080	891	740	268	137	d105
21	d110	2,300	4,880	39,400	4,010	1,730	2,910	898	686	256	d136	d104
22	d105	2,480	4,340	44,500	3,950	1,670	3,850	891	728	244	d145	d103
23	d104	7,630	10,700	21,900	3,790	d1,550	2,960	891	877	238	d155	d101
24	d103	24,000	17,900	9,880	3,650	1,510	2,540	905	1,320	235	d148	d100
25	d102	7,430	18,000	7,560	2,870	1,670	2,240	933	1,520	226	d152	d98
26	d105	16,400	14,700	6,360	2,500	2,060	2,030	912	968	217	d145	d96
27	142	26,600	23,000	7,300	2,250	2,550	1,860	877	828	211	d137	d96
28	d250	17,300	34,400	10,800	2,050	2,500	2,280	870	794	205	130	d100
29	d220	14,600	25,200	14,600	-	3,000	3,180	828	782	198	d150	d100
30	d210	25,100	37,800	14,400	-	5,760	3,360	794	625	192	d250	d98
31	d180	-	61,400	12,500	-	4,880	-	1,080	-	190	d230	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff Inches	Runoff Acre-feet
October	3,901	250	87	126	0.077	0.09	7,740
November	185,815	26,600	168	6,194	3.78	4.21	368,600
December	462,900	61,400	3,040	14,930	9.10	10.50	918,100
Calendar year	-	-	-	-	-	-	-
January	367,160	44,500	2,130	11,840	7.22	8.33	728,300
February	206,150	17,900	2,050	7,362	4.49	4.67	408,900
March	77,440	5,940	1,510	2,498	1.52	1.76	153,600
April	96,880	5,320	1,860	3,229	1.97	2.20	192,200
May	41,358	3,080	794	1,334	.813	.94	82,050
June	49,272	5,760	625	1,642	1.00	1.12	97,730
July	10,164	576	190	328	.200	.23	20,160
August	4,948	250	128	160	.098	.11	9,810
September	3,513	190	96	117	.071	.08	6,970
Water year 1942-43	1,509,501	61,400	87	4,136	2.52	34.24	2,994,000

a No gage-height record; discharge computed on basis of records for South Umpqua River at Tiller and Umpqua River near Elkton.

d Gage-height record doubtful; discharge computed on basis of records for South Umpqua River at Tiller and Umpqua River near Elkton.

Time basis: Pacific war time. 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 1943 (incomplete prior to November 1908).

Average discharge.- 38 years, 7,089 second-feet.

Extremes.- Maximum discharge during year, 172,000 second-feet Dec. 31 (gage height, 41.1 feet), from rating curve extended above 50,000 second-feet; minimum observed, 818 second-feet Oct. 7-11 (gage height, 1.06 feet).

1905-43: Maximum discharge, 172,000 second-feet Feb. 21, 1927, Dec. 31, 1942, from rating curve extended above 50,000 second-feet; maximum gage height, that of 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 caused 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 1942-43 (gage height, in feet, and discharge, in second-feet)

1.0	770	4.0	4,340	11.0	23,800	33.0	128,000
1.5	1,220	5.0	6,130	13.0	31,500	40.0	166,000
2.0	1,730	6.0	8,300	16.0	44,000		
2.5	2,300	7.0	10,900	19.0	57,300		
3.0	2,930	9.0	17,000	25.0	86,000		

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	834	1,120	41,000	141,000	19,000	5,370	19,600	10,100	14,500	3,530	1,580	1,470
2	834	1,090	48,400	89,000	19,000	5,190	16,400	8,920	23,100	3,320	1,580	1,390
3	834	1,290	32,700	53,000	26,100	5,100	14,200	7,830	18,300	3,180	1,560	1,350
4	834	2,850	21,400	38,900	22,400	4,920	12,700	7,270	14,500	3,100	1,560	1,300
5	834	3,050	16,700	28,400	46,200	4,840	12,100	6,640	10,600	3,090	1,560	1,250
6	834	2,700	17,700	23,800	29,200	4,760	15,400	6,330	9,170	2,900	1,560	1,260
7	818	2,320	21,700	20,000	28,000	4,670	14,500	6,230	7,830	2,770	1,540	1,260
8	818	7,520	60,100	17,000	29,600	5,370	12,700	5,840	6,950	2,650	1,520	1,240
9	818	10,900	78,100	14,200	23,800	12,100	11,800	5,370	6,230	2,600	1,500	1,230
10	818	5,740	44,900	13,000	19,000	13,300	11,200	5,120	5,840	2,570	1,480	1,210
11	818	3,530	29,900	11,200	15,800	9,690	10,400	5,010	5,370	2,470	1,450	1,190
12	842	2,660	22,400	10,100	14,500	7,830	9,430	4,840	5,010	2,360	1,420	1,180
13	904	2,770	19,300	8,920	14,500	6,840	8,660	4,580	4,670	2,380	1,400	1,180
14	967	2,040	20,300	8,060	15,800	6,840	8,300	4,340	4,420	2,180	1,400	1,180
15	931	4,340	16,400	7,940	15,800	7,160	8,180	4,260	4,180	2,140	1,390	1,180
16	940	20,000	15,800	7,720	15,400	6,840	8,180	4,260	3,960	2,070	1,360	1,180
17	985	14,500	15,800	7,270	14,800	6,430	7,720	4,180	3,740	2,050	1,350	1,160
18	931	16,100	14,500	6,640	14,200	6,130	7,060	4,030	3,670	2,000	1,340	1,160
19	922	17,700	13,000	5,930	13,000	5,740	6,740	3,880	3,670	1,950	1,320	1,160
20	904	10,900	11,200	9,430	11,800	5,370	7,600	3,810	3,740	1,930	1,300	1,140
21	886	7,270	10,600	55,300	10,900	5,010	9,040	3,810	3,670	1,900	1,300	1,110
22	868	5,930	11,800	102,000	10,600	4,840	11,500	3,810	3,670	1,860	1,300	1,100
23	850	14,200	25,700	45,800	9,960	4,760	9,960	3,810	3,880	1,820	1,350	1,100
24	850	53,700	29,200	26,600	8,660	4,580	9,040	3,960	4,030	1,780	1,380	1,090
25	850	33,900	58,200	19,600	7,830	4,500	7,940	4,180	4,030	1,750	1,330	1,100
26	859	19,600	38,900	16,100	6,840	5,010	7,380	4,420	4,840	1,710	1,350	1,100
27	904	51,000	48,400	15,100	6,230	8,180	7,060	4,420	4,840	1,700	1,320	1,100
28	949	49,700	85,000	23,100	5,740	8,060	7,490	4,260	4,260	1,680	1,310	1,120
29	1,220	38,000	54,600	26,100	-	8,660	9,690	4,180	3,810	1,640	1,350	1,120
30	1,190	82,500	65,700	30,700	-	17,700	11,500	4,030	3,600	1,610	1,370	1,120
31	1,150	-	160,000	24,900	-	17,300	-	4,260	-	1,600	1,750	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff Inches	Runoff Acre-feet
October	27,996	1,220	818	903	0.245	0.28	55,530
November	488,920	82,500	1,090	16,300	4.43	4.94	969,800
December	1,149,400	160,000	10,600	37,080	10.1	11.62	2,280,000
Calendar year 1942	3,183,653	160,000	818	8,722	2.37	32.18	6,315,000
January	909,210	141,000	5,930	29,330	7.97	9.19	1,803,000
February	474,660	46,200	5,740	16,950	4.61	4.80	941,500
March	223,090	17,700	4,500	7,196	1.96	2.25	442,500
April	313,470	19,600	6,740	10,450	2.84	3.17	621,800
May	158,050	10,100	3,810	5,098	1.39	1.60	313,500
June	200,080	23,100	3,600	6,669	1.81	2.02	396,900
July	70,290	3,530	1,600	2,267	.616	.71	139,400
August	44,280	1,750	1,300	1,428	.388	.45	87,830
September	35,760	1,470	1,090	1,192	.324	.36	70,930
Water year 1942-43	4,095,206	160,000	818	11,220	3.05	41.39	8,125,000

Time basis: Pacific war time. 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 1943.

Average discharge.- 13 years (1929-31, 1932-43), 92.9 second-feet.

Extremes.- Maximum discharge during year, 3,850 second-feet Jan. 21 (gage height, 9.5 feet, from graph based on gage readings), from rating curve extended above 1,130 second-feet; minimum observed, 9.0 second-feet Oct. 5, 6 (gage height, 1.78 feet).

1926-43: 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.

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)
754.....	1933	Jan. 2	7.80	2,680
769.....	1934	Jan. 23	4.2	640
794.....	1935	Jan. 7	4.20	640

Remarks.- Records good except those above 1,500 second-feet, which are fair. Staff gage read once daily. Small diversions above station for irrigation.

Revisions.- Revised figures of discharge for high-water periods in the water years 1933 to 1936 are given herewith. They supersede those published in Water-Supply Papers 754, 769, 794, and 814.

Day (water year)	Discharge (second-feet)	Day (water year)	Discharge (second-feet)	Day (water year)	Discharge (second-feet)
1932-33		1933-34		1935-36	
Dec. 19.....	640	Jan. 23.....	504	Dec. 12.....	436
26.....	445			Jan. 2.....	628
Jan. 2.....	2,680	1934-35		4.....	915
3.....	512	Dec. 20.....	520	5.....	572
Mar. 2.....	680	22.....	520	9.....	734
3.....	445	24.....	445	10.....	668
12.....	466	26.....	524	11.....	1,220
		Jan. 7.....	640	12.....	778
1933-34		27.....	391		
Jan. 14.....	410	Apr. 16.....	391		

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	9.8	15	252	g1,650	296	114	143	91	199	30	15	13
2	9.8	20	219	g940	344	110	134	84	112	29	15	13
3	9.4	23	156	614	302	103	129	78	107	28	15	13
4	9.4	33	129	486	534	101	120	74	93	28	15	13
5	9.0	26	134	387	400	99	221	70	80	28	13	12
6	9.0	21	139	293	356	99	189	74	74	27	15	12
7	9.4	62	146	278	482	112	181	67	64	26	15	12
8	9.4	132	g1,340	238	407	173	168	64	61	25	15	11
9	9.8	43	g630	221	326	199	181	62	56	25	15	11
10	13	31	340	194	296	150	173	60	50	24	15	11
11	17	23	304	178	278	126	156	66	49	23	14	12
12	19	20	264	168	272	120	143	54	49	23	14	15
13	15	21	255	156	296	116	129	52	46	23	14	13
14	17	36	230	138	290	120	116	55	43	22	13	12
15	18	258	208	136	293	112	105	58	39	22	13	12
16	15	136	192	120	296	105	97	56	39	21	13	11
17	14	161	179	105	284	99	91	52	36	21	13	11
18	13	281	156	95	266	95	88	50	36	19	12	11
19	13	141	136	99	249	90	86	50	35	19	12	11
20	13	76	166	g1,290	235	86	95	48	35	19	12	11
21	13	59	146	3,190	227	82	99	46	38	17	13	11
22	13	71	224	g1,340	221	80	90	43	41	17	13	11
23	13	281	400	435	197	77	82	41	36	17	13	11
24	13	404	840	394	173	75	78	39	36	16	13	11
25	14	328	750	332	160	75	75	39	42	16	13	11
26	17	460	510	314	138	134	72	38	38	16	12	11
27	20	400	g1,590	394	129	114	74	38	36	16	12	12
28	21	252	g1,240	368	120	93	107	36	35	15	13	12
29	19	750	630	120	-	249	103	41	35	15	16	12
30	16	352	g1,440	125	-	178	99	46	33	15	16	11
31	17	-	g2,130	326	-	150	-	74	-	14	15	-

g From graph based on once-daily gage readings.

Monthly discharge, in second-feet, of Cow Creek near Azalea, Oreg., 1932-36, 1942-43

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff	
						Inches	Acre-feet
October 1932	336	17	9	10.8	0.142	0.16	664
November	1,389	432	10	46.3	.609	.68	2,760
December	4,264	640	22	138	1.82	2.09	8,460
Calendar year	-	-	-	-	-	-	-
January 1933	6,171	2,680	46	199	2.62	3.02	12,240
February	4,591	316	69	164	2.16	2.25	9,110
March	9,008	680	172	291	3.83	4.41	17,870
April	6,023	410	132	201	2.64	2.95	12,000
May	5,220	299	97	168	2.21	2.55	10,300
June	1,501	92	26	50.0	.658	.73	2,980
July	540	28	12	17.4	.229	.26	1,070
August	525	12	10	10.5	.138	.16	646
September	338	14	10	11.3	.149	.17	672
Water year 1932-33	39,706	2,680	9	109	1.43	19.43	78,770
October 1933	464	44	11	15.0	.197	.23	920
November	466	22	14	15.5	.204	.25	924
December	2,140	285	19	69.0	.908	1.05	4,240
Calendar year 1933	36,787	2,680	10	101	1.33	18.00	72,970
January 1934	3,953	504	45	128	1.68	1.93	7,840
February	1,235	67	30	44.1	.580	.60	2,450
March	1,086	114	22	35.0	.461	.53	2,150
April	1,519	175	24	50.6	.666	.74	3,010
May	687	34	16	22.2	.292	.34	1,360
June	536	37	12	17.9	.236	.26	1,060
July	288	11	8	9.3	.122	.14	571
August	191	9	4	6.2	.082	.09	379
September	175	12	4	5.8	.076	.09	347
Water year 1933-34	12,740	504	4	34.9	.459	0.25	25,250
October 1934	650	97	8	21.0	.276	.32	1,290
November	2,841	316	21	94.7	1.25	1.40	5,640
December	6,465	524	49	209	2.75	3.26	12,820
Calendar year 1934	19,626	504	4	53.8	.708	9.60	38,920
January 1935	6,361	640	76	205	2.70	3.11	12,620
February	4,248	299	83	152	2.00	2.08	8,430
March	4,457	317	94	144	1.89	2.18	8,840
April	5,207	391	100	174	2.29	2.55	10,330
May	1,905	168	33	61.5	.809	.93	3,780
June	660	35	15	22.0	.289	.32	1,310
July	434	36	10	14.0	.184	.21	861
August	314	37	8	10.1	.133	.15	623
September	264	18	7	8.8	.116	.13	624
Water year 1934-35	33,806	640	7	92.6	1.22	16.54	67,070
October 1935	399	37	7	12.9	.170	.20	791
November	675	47	14	22.5	.296	.33	1,340
December	2,292	436	14	73.9	.972	1.12	4,550
Calendar year 1935	27,216	640	7	74.6	.982	13.31	54,000
January 1936	14,464	2,440	102	467	6.14	7.08	28,690
February	6,560	720	66	192	2.53	2.73	11,030
March	3,556	262	62	115	1.51	1.74	7,050
April	2,639	150	49	88.0	1.16	1.29	5,230
May	1,452	94	29	46.8	.616	.71	2,880
June	791	36	16	26.4	.347	.39	1,570
July	406	24	10	13.2	.174	.20	809
August	264	9	8	8.5	.112	.13	524
September	265	11	8	8.8	.116	.13	526
Water year 1935-36	32,765	2,440	7	89.3	1.18	16.05	64,990
Calendar year 1936	30,365	2,440	7	83.0	1.09	14.87	60,230
October 1942	430.0	21	9.0	13.9	.183	.21	853
November	4,916	750	16	164	2.16	2.41	9,750
December	15,475	2,130	129	499	6.57	7.57	30,690
Calendar year 1942	47,584.3	2,130	8.5	130	1.71	23.30	94,390
January 1943	15,124	3,190	95	488	6.42	7.40	30,000
February	7,857	534	120	281	3.70	3.84	15,580
March	3,635	249	75	117	1.54	1.78	7,210
April	3,624	221	72	121	1.59	1.77	7,190
May	1,736	91	36	56.0	.737	.85	3,440
June	1,673	199	33	55.8	.734	.82	3,320
July	656	30	14	21.2	.279	.32	1,300
August	429	16	12	13.8	.182	.21	851
September	353	15	11	11.8	.155	.17	700
Water year 1942-43	55,908	3,190	9.0	153	2.01	27.36	110,900

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

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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 1943.

Average discharge.- 16 years, 363 second-feet.

Extremes.- Maximum discharge during year, 988 second-feet June 1 (gage height, 2.03 feet), from rating curve extended above 700 second-feet; minimum, 265 second-feet Oct. 9 (gage height, 0.78 foot).

1927-43: 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 January to June, which are fair. No diversion above station. Flow slightly regulated by Diamond Lake.

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	281	285	672	864				710	943	593	446	410
2	277	292	647	793				704	907	587	441	410
3	277	296	569	724				704	848	587	441	405
4	273	289	523	672				717	816	575	436	405
5	273	285	496	629				800	758	563	436	400
6	273	285	490	581			a534	800	744	557	432	400
7	269	308	475	545				793	737	551	432	396
8	269	349	501	523				772	724	551	428	396
9	269	304	506	512				772	744	540	428	396
10	273	300	490					772	744	534	428	392
11	273	296	461					765	744	523	428	392
12	277	292	436				540	758	744	512	423	392
13	277	289	432				557	744	710	506	423	392
14	273	300	423				587	730	698	496	423	392
15	277	320	410				629	717	684	490	418	392
16	277	312	400		a387	a415	672	704	678	485	418	392
17	273	304	392				684	691	684	480	418	392
18	273	308	383				704	659	710	475	414	387
19	273	312	379				779	653	710	475	410	387
20	273	292	379	a414			800	665	698	475	410	387
21	269	300	379				824	672	684	475	410	383
22	269	328	392				793	698	672	470	414	383
23	269	370	405				779	717	653	470	414	383
24	269	436	418				751	765	641	466	418	379
25	269	374	423				744	800	641	461	414	379
26	269	387	414				717	816	623	461	410	379
27	277	512	506				710	832	617	456	410	379
28	273	428	534				724	808	575	451	410	374
29	273	608	506		-		717	793	581	446	423	374
30	273	684	575		-		710	808	599	446	414	374
31	277	-	816		-		-	916	-	446	410	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff	
						Inches	Acre-feet
October	8,467	281	269	273	1.56	1.80	16,790
November	10,445	684	285	348	1.99	2.22	20,720
December	14,832	816	379	478	2.73	3.15	29,420
Calendar year 1942	124,409	816	264	341	1.95	26.43	246,800
January	14,951	864	-	482	2.75	3.18	29,650
February	10,836	-	-	387	2.21	2.30	21,490
March	12,865	-	-	415	2.37	2.73	25,520
April	19,295	824	-	643	3.67	4.10	38,270
May	23,255	916	653	750	4.29	4.94	46,130
June	21,311	943	575	710	4.06	4.53	42,270
July	15,603	593	446	503	2.87	3.32	30,950
August	13,080	446	410	422	2.41	2.78	25,940
September	11,702	410	374	390	2.23	2.49	23,210
Water year 1942-43	176,642	943	269	484	2.77	37.54	350,400

a No gage-height record; discharge computed on basis of records for station at Tokatee Falls.
Time basis: Pacific war time. 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 1943.

Average discharge.- 18 years (1925-43), 863 second-feet.

Extremes.- Maximum discharge during year, 5,080 second-feet Dec. 31 (gage height, 5.90 feet), from rating curve extended above 1,900 second-feet by logarithmic plotting; minimum, 560 second-feet Oct. 9, 26 (gage height, 0.80 foot).
1908-9, 1914-17, 1924-43: Maximum discharge, that of Dec. 31, 1942; minimum, 475 second-feet Nov. 27-29, Dec. 12, 14, 1931.

Remarks.- Records excellent except those for periods of doubtful or no gage-height record, which are fair. No diversion above station; regulation at Diamond Lake has little effect.

Rating table, water year 1942-43 (gage height, in feet, and discharge, in second-feet)

0.8	560	3.0	2,170
1.1	720	4.0	3,060
1.6	1,040	5.6	4,740
2.3	1,580		

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	585	632	2,690	3,920	1,080	1,060	a1,800	1,710	2,360	1,310	928	842
2	580	654	2,470	2,990	1,080	1,050	a1,600	1,680	2,220	1,280	921	835
3	580	660	1,980	2,480	1,080	d1,050	a1,500	1,680	2,010	1,300	914	829
4	575	621	1,690	2,190	d1,320	d1,040	a1,400	1,690	1,880	1,270	914	829
5	575	600	1,510	1,940	1,270	d1,030	a1,600	1,740	1,770	1,230	914	d823
6	575	595	1,390	1,760	1,220	d1,030	a1,750	1,740	1,730	1,210	907	d817
7	570	837	1,300	1,640	1,230	1,200	a1,700	1,690	1,700	1,200	900	d817
8	570	907	1,320	1,520	1,190	1,660	a1,650	1,640	1,680	1,200	894	811
9	570	692	1,360	1,440	1,140	1,650	a1,600	1,640	1,690	1,170	887	805
10	580	648	1,330	1,380	1,110	1,470	a1,580	1,640	1,670	1,150	887	805
11	595	626	1,240	1,320	1,090	1,360	a1,540	1,600	1,630	1,130	880	d805
12	585	616	1,200	1,260	1,080	1,310	a1,500	1,560	1,590	1,110	874	d805
13	575	621	1,240	1,230	1,110	1,280	a1,610	1,520	1,530	1,090	874	d805
14	590	767	1,240	1,230	1,150	1,240	a1,720	1,490	1,480	1,080	868	805
15	585	848	1,200	1,220	1,190	1,190	1,840	1,470	1,440	1,060	868	805
16	575	748	1,240	1,200	1,240	1,160	1,860	1,440	1,440	1,050	861	d799
17	575	742	1,270	1,150	1,280	1,140	1,820	1,400	1,450	1,040	861	d799
18	570	742	1,230	1,050	1,290	1,100	1,810	1,370	1,500	1,030	854	d793
19	570	704	1,180	1,110	1,290	a1,080	1,990	1,380	1,480	1,030	854	d793
20	570	670	1,180	1,160	1,300	a1,060	2,020	1,410	1,440	1,030	854	d787
21	565	698	1,170	1,480	1,350	a1,040	2,100	1,430	1,430	1,020	868	787
22	565	1,030	1,400	1,480	1,350	a1,030	1,980	1,470	1,410	1,010	874	787
23	565	1,560	1,470	1,360	1,280	a1,020	1,940	1,540	1,390	1,000	861	781
24	565	1,720	1,640	1,250	1,220	a1,010	1,850	1,640	1,360	984	880	775
25	565	1,230	1,620	1,210	1,170	a1,030	1,800	1,720	1,370	977	848	d775
26	575	1,480	1,440	1,190	1,130	a1,280	1,720	1,730	1,320	970	842	d770
27	600	2,440	2,300	1,180	1,100	a1,470	1,690	1,720	1,320	963	835	d770
28	575	1,850	2,460	1,170	1,080	a1,400	1,760	1,680	1,280	949	835	d764
29	590	3,260	2,060	1,170	-	a1,520	1,760	1,640	1,290	942	900	d764
30	585	2,710	2,830	1,130	-	a1,630	1,740	1,720	1,340	942	868	d758
31	590	-	4,680	1,100	-	a1,860	-	2,190	-	935	848	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff Inches	Runoff Acre-feet
October	17,890	600	565	577	1.71	1.97	35,480
November	31,908	3,260	595	1,064	3.16	3.52	63,290
December	52,230	4,680	1,170	1,685	5.00	5.76	103,600
Calendar year 1942	330,902	4,680	565	907	2.69	36.51	656,300
January	46,910	3,920	1,050	1,513	4.49	5.18	93,040
February	33,420	1,350	1,080	1,194	3.54	3.69	66,290
March	38,250	1,660	1,010	1,234	3.66	4.22	75,870
April	52,230	2,100	1,400	1,741	5.17	5.76	103,600
May	49,970	2,190	1,370	1,612	4.78	5.51	99,110
June	47,200	2,360	1,280	1,573	4.67	5.21	93,620
July	33,662	1,310	935	1,086	3.22	3.71	66,770
August	27,173	928	835	877	2.60	3.00	53,900
September	23,940	842	758	798	2.37	2.64	47,480
Water year 1942-43	454,783	4,680	565	1,246	3.70	50.17	902,000

Peak discharge.- Nov. 23 (7:30 p.m.) 2,280 sec.-ft.; Nov. 27 (5:30 a.m.) 2,700 sec.-ft.; Nov. 29 (2 p.m.) 4,070 sec.-ft.; Dec. 1 (3:30 p.m.) 3,090 sec.-ft.; Dec. 31 (2 p.m.) 5,080 sec.-ft.

a No gage-height record; discharge computed on basis of records for stations below Lake Creek and above Rock Creek, near Glide.

d Doubtful gage-height record; discharge computed on basis of partly estimated gage-height record.

Time basis: Pacific war time. 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 1943.
Average discharge.- 19 years, 2,300 second-feet.
Extremes.- Maximum discharge during year, 53,900 second-feet Dec. 30 (gage height, 19.97 feet), from rating curve extended above 18,000 second-feet; minimum, 643 second-feet Oct. 9 (gage height, 2.17 feet).
1924-43: 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).
Remarks.- Records good except those for period of ground-water inflow to well, Feb. 14 to Apr. 9, which are fair. No diversion above station; regulation at Diamond Lake has little effect.

Rating table, water year 1942-43 (gage height, in feet, and discharge, in second-feet)

2.2	655	3.6	1,620	6.0	4,530	11.0	16,700
2.5	805	4.0	1,980	7.0	6,420	13.0	23,500
2.8	1,000	4.5	2,490	8.0	8,630	16.0	35,400
3.2	1,300	5.0	3,060	9.5	12,300	19.0	49,100

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	673	951	14,900	28,800	4,940	2,370	7,210	4,210	11,400	2,070	1,190	1,059
2	673	1,200	14,200	16,400	5,540	2,330	5,660	3,760	9,250	1,980	1,170	1,030
3	668	1,860	8,730	10,800	5,660	2,300	5,130	3,560	7,450	1,940	1,160	1,010
4	664	1,540	6,100	8,580	10,300	2,290	4,550	3,430	5,760	1,980	1,160	993
5	664	1,270	4,820	7,870	9,470	2,250	4,990	3,290	4,750	1,840	1,160	986
6	660	1,050	4,240	7,150	7,720	2,210	5,180	3,280	4,070	1,800	1,150	979
7	655	3,300	4,400	6,590	8,060	2,380	4,750	3,180	3,700	1,760	1,130	972
8	651	6,220	8,540	6,020	7,170	4,700	4,480	2,950	3,470	1,720	1,120	965
9	647	2,350	9,990	5,600	6,230	6,670	4,290	2,840	3,320	1,690	1,110	951
10	660	1,560	9,250	5,170	5,600	4,650	4,190	2,830	3,180	1,640	1,100	951
11	715	1,280	7,080	4,720	5,410	3,690	3,900	2,720	2,930	1,590	1,090	951
12	740	1,140	5,760	4,240	5,540	3,180	3,720	2,600	2,780	1,550	1,090	951
13	705	1,090	6,550	3,960	5,860	2,920	3,840	2,500	2,620	1,520	1,080	944
14	700	1,760	6,760	3,840	6,040	2,930	4,000	2,390	2,480	1,480	1,070	937
15	740	8,630	5,740	3,810	6,000	2,780	4,210	2,350	2,360	1,450	1,060	937
16	705	4,820	5,840	3,620	5,920	2,630	4,110	2,290	2,290	1,440	1,060	930
17	682	5,010	5,980	3,390	5,880	2,540	3,800	2,210	2,290	1,400	1,060	924
18	668	4,920	5,320	3,070	5,680	2,440	3,590	2,160	2,340	1,390	1,050	917
19	664	3,360	4,530	2,950	5,200	2,320	4,100	2,130	2,330	1,380	1,050	917
20	660	2,370	4,390	5,420	4,800	2,200	4,320	2,200	2,260	1,360	1,040	910
21	660	1,970	4,840	14,400	4,700	2,100	6,630	2,260	2,200	1,340	1,040	904
22	655	6,060	7,280	12,600	4,550	2,040	5,520	2,260	2,310	1,320	1,090	904
23	655	14,400	8,380	7,920	3,980	2,000	4,900	2,440	2,340	1,510	1,070	898
24	655	15,200	9,960	6,520	3,460	1,950	4,500	2,660	2,220	1,290	1,100	884
25	651	7,210	10,600	5,780	3,110	1,990	4,100	2,830	2,660	1,260	1,090	884
26	664	9,540	7,320	5,280	2,780	3,040	3,690	2,840	2,820	1,240	1,050	884
27	823	23,800	20,800	5,540	2,600	3,700	3,520	2,780	2,440	1,240	1,030	884
28	924	10,900	20,000	5,920	2,460	3,310	4,130	2,700	2,250	1,240	1,020	891
29	817	24,300	11,800	5,880	-	4,200	5,180	2,590	2,140	1,220	1,110	884
30	872	17,100	28,300	5,980	-	5,600	4,720	2,680	2,150	1,200	1,250	878
31	817	-	45,200	5,350	-	6,040	-	6,340	-	1,200	1,090	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff Inches	Runoff Acre-feet
October	21,787	924	647	703	0.793	0.91	43,210
November	186,161	24,300	951	6,205	7.00	7.81	369,200
December	317,600	45,200	4,240	10,250	11.6	13.33	630,000
Calendar year 1942	1,096,566	45,200	647	3,004	3.39	46.03	2,175,000
January	223,110	28,800	2,950	7,197	8.12	9.37	442,500
February	154,660	10,300	2,460	5,524	6.23	6.49	306,800
March	95,750	6,670	1,950	3,089	3.49	4.02	189,900
April	136,910	7,210	3,520	4,564	5.15	5.75	271,600
May	89,260	6,340	2,130	2,879	3.25	3.75	177,000
June	104,560	11,400	2,140	3,485	3.93	4.39	207,400
July	46,840	2,070	1,200	1,511	1.71	1.97	92,910
August	34,040	1,250	1,020	1,098	1.24	1.43	67,520
September	28,100	1,050	878	937	1.06	1.18	55,740
Water year 1942-43	1,458,778	45,200	647	3,942	4.45	60.40	2,854,000

Peak discharge.- Nov. 23 (8 p.m.) 33,500 sec.-ft.; Nov. 27 (3 a.m.) 30,900 sec.-ft.; Nov. 29 (3:30 p.m.) 42,300 sec.-ft.; Dec. 1 (7 p.m.) 23,000 sec.-ft.; Dec. 27 (8 p.m.) 29,300 sec.-ft.; Dec. 30 (11 p.m.) 53,900 sec.-ft.
Time basis: Pacific war time. 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 1943.

Average discharge.- 16 years (1926-29, 1930-43), 47.1 second-feet.

Extremes.- Maximum discharge during year, 336 second-feet Jan. 1 (gage height, 2.8 feet), from rating curve extended above 120 second-feet; minimum, 0.8 second-foot (regulated) Oct. 8; minimum daily, 11 second-feet Oct. 8.
1922-25, 1926-43: Maximum discharge observed, that of Jan. 1, 1943; no flow (result of regulation) Aug. 25-27, 1931.

Remarks.- Records fair except those for period Dec. 31 to Jan. 6, which are poor. Flow regulated by gates and fish racks at lake outlet, and at times by collection of moss on racks. No diversion above station.

Rating table, water year 1942-43 (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Oct. 1-17, Sept. 13-30)

0.7	13.1	1.1	42	1.6	103	2.2	205
.9	25	1.3	64	1.9	151	2.5	268

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	17	21	109	a250	a63	40	69	93	104	55	39	37
2	16	22	106	a210	a62	40	66	89	102	53	39	37
3	16	24	99	a180	a62	39	68	88	112	53	38	37
4	16	25	92	a155	a89	38	66	110	112	53	38	37
5	15	25	96	a140	a89	38	68	154	105	53	38	37
6	15	25	109	a125	a85	38	66	148	116	53	38	35
7	15	32	120	112	a80	41	64	142	115	53	37	33
8	11	36	153	103	a77	46	65	139	106	53	37	33
9	16	36	144	95	a74	48	64	134	112	52	37	33
10	16	37	126	88	a70	46	63	151	109	51	36	33
11	17	38	112	81	a67	45	61	128	109	50	36	33
12	17	38	103	77	a64	44	61	126	110	50	36	33
13	17	38	93	72	a52	45	60	124	103	49	37	35
14	18	46	85	68	a60	51	58	121	103	46	36	36
15	18	56	77	65	a57	52	58	118	102	46	36	34
16	18	56	72	63	a55	a50	60	116	100	46	36	32
17	19	60	58	a62	54	a48	60	115	100	46	35	31
18	20	68	64	a61	52	a47	63	94	99	45	34	31
19	20	69	61	a60	51	h46	75	94	97	44	34	31
20	20	36	62	63	50	a45	85	86	95	43	34	31
21	20	68	63	95	48	a44	93	49	100	43	34	31
22	19	71	80	97	45	a43	92	96	97	42	34	29
23	19	75	85	a96	45	43	93	84	96	42	34	27
24	18	82	100	a94	44	42	92	92	96	44	36	28
25	18	82	97	93	43	42	92	88	96	42	35	31
26	20	88	103	a88	42	48	89	90	95	42	35	29
27	21	76	142	a82	41	50	90	97	82	41	34	28
28	20	46	156	a76	41	48	99	87	51	40	34	28
29	16	71	151	a72	-	58	99	90	53	40	36	31
30	21	88	166	a68	-	66	96	93	56	40	36	28
31	21	-	a250	a64	-	72	-	102	-	40	36	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff	
						Inches	Acre-feet
October	550	21	11	17.7	0.311	0.36	1,090
November	1,535	88	21	51.2	.898	1.00	3,040
December	3,326	230	61	107	1.88	2.17	6,600
Calendar year 1942	16,087	230	1	44.1	.774	10.49	31,900
January	3,055	250	60	98.5	1.73	1.99	6,060
February	1,672	89	41	59.7	1.05	1.09	3,320
March	1,443	72	38	46.5	.815	.94	2,860
April	2,235	99	58	74.5	1.31	1.46	4,450
May	3,318	154	49	107	1.88	2.16	6,580
June	2,933	116	51	97.8	1.72	1.91	5,820
July	1,450	55	40	46.8	.821	.95	2,880
August	1,115	39	34	36.0	.632	.73	2,210
September	969	37	27	32.3	.567	.63	1,920
Water year 1942-43	23,601	250	11	64.7	1.14	15.39	46,810

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. 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 1943.

Average discharge.- 15 years (1928-43), 143 second-feet.

Extremes.- Maximum discharge during year, 451 second-feet Jan. 1 (gage height, 2.17 feet), from rating curve extended above 260 second-feet; minimum, 118 second-feet Oct. 1-10, 12-14, 16-18 (gage height, 0.80 foot).

1927-43: Maximum discharge, that of Jan. 1, 1943; 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 1942-43 (gage height, in feet, and discharge, in second-feet)

0.7	105	1.6	284
.9	133	1.9	368
1.1	167	2.1	429
1.3	209		

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	118	126	253	423				248	331	216	169	156
2	118	127	246	362				246	295	211	169	156
3	118	127	207	317				250	271	219	167	156
4	118	124	189	271				253	258	211	165	156
5	118	122	179	261			a208	250	253	207	165	154
6	118	121	171	240				250	246	209	165	154
7	118	138	167	228				246	246	211	163	154
8	118	151	163	219				243	248	209	163	154
9	118	128	163	211				243	258	200	162	153
10	120	124	162	205				243	256	a202	162	153
11	120	122	158				207	238	246	a202	162	153
12	120	122	156				214	236	238	a200	162	153
13	118	122	156				223	233	233	a197	162	153
14	120	139	154				228	231	226	a194	162	153
15	120	141	153				253	228	223	a191	162	153
16	118	130	153		a171	a181	261	223	223	a188	160	153
17	118	128	153				258	221	228	a185	160	153
18	120	127	153				261	221	238	a185	160	153
19	120	126	151				292	221	231	a185	160	153
20	120	124	151				292	223	221	a185	160	151
21	120	126	149	a175			300	226	219	a183	158	151
22	120	138	158				279	228	216	a181	158	153
23	120	172	156				276	240	211	a179	158	153
24	120	211	163				266	253	211	a177	158	153
25	120	158	160				263	261	211	a176	156	153
26	122	158	158				256	261	205	a173	156	153
27	124	250	207				250	256	207	171	156	151
28	121	194	236				258	253	209	171	156	151
29	122	271	211		-		258	250	214	171	165	151
30	122	268	238		-		253	256	223	171	158	151
31	121	-	410		-		-	317	-	169	156	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff Inches	Runoff Acre-feet
October	3,708	124	118	120	3.00	3.45	7,350
November	4,515	271	121	150	3.75	4.20	8,960
December	5,684	410	149	183	4.58	5.28	11,270
Calendar year 1942	51,867	410	118	142	3.56	48.22	102,900
January	6,412	423	-	207	5.18	5.96	12,720
February	4,788	-	-	171	4.28	4.45	9,500
March	5,611	-	-	181	4.52	5.22	11,130
April	7,238	300	-	241	6.02	6.73	14,360
May	7,548	317	221	243	6.08	7.02	14,970
June	7,095	331	205	236	5.90	6.60	14,070
July	5,928	219	169	191	4.78	5.51	11,760
August	4,995	169	156	161	4.02	4.64	9,910
September	4,594	156	151	153	3.82	4.27	9,110
Water year 1942-43	68,116	423	118	187	4.68	63.33	135,100

a No gage-height record; discharge computed on basis of North Umpqua River above Toketee Falls and Rogue River above Prospect.

Time basis: Pacific war time. 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 1943. September 1916 to September 1926 at site 1½ miles upstream.
Average discharge.- 24 years (1916-26, 1929-43), 716 second-feet.
Extremes.- Maximum discharge during year, 16,500 second-feet Dec. 8 (gage height, 15.05 feet), from rating curve extended above 1,800 second-feet on basis of former curves defined to 10,000 second-feet; minimum, 18 second-feet Oct. 9.
1916-26, 1928-43: 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 except those above 2,000 second-feet, which are fair. No regulation above station. Small diversions for irrigation.

Rating tables, water year 1942-43 (gage height, in feet, and discharge, in second-feet)

Oct. 1 to Dec. 7						Dec. 8 to Sept. 30					
1.1	16	2.4	280	5.2	2,330	1.1	22	2.4	341	5.2	2,410
1.3	35	2.8	470	6.4	3,600	1.3	40	2.8	550	6.4	3,690
1.5	59	3.2	720	8.0	5,590	1.5	67	3.2	785	8.0	5,720
1.8	110	3.7	1,130			1.8	127	3.7	1,120	10.0	8,500
2.1	182	4.4	1,610			2.1	218	4.4	1,680	12.5	12,300

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	23	44	2,530	7,320	1,560	244	3,260	683	798	191	55	39
2	22	110	2,370	5,170	2,140	225	2,280	605	713	175	56	36
3	22	494	1,760	3,140	1,990	215	1,920	550	611	169	55	34
4	21	273	1,390	2,260	2,170	201	1,450	495	534	169	56	33
5	20	212	1,230	2,320	2,000	187	1,170	446	451	151	69	33
6	20	158	1,630	1,980	1,720	181	967	430	389	143	69	32
7	19	1,550	3,660	1,570	2,840	280	844	389	346	132	58	31
8	19	1,630	11,800	1,250	2,230	478	948	351	310	122	52	30
9	19	688	5,950	1,060	1,690	701	1,130	332	284	122	51	30
10	21	385	3,440	908	1,340	495	1,130	305	255	120	48	29
11	38	266	2,280	773	1,130	389	1,020	288	236	111	47	28
12	37	209	1,750	671	1,020	336	882	271	222	104	45	28
13	34	179	1,630	568	994	370	773	255	211	100	44	28
14	32	3,620	1,310	534	987	635	677	248	191	98	42	28
15	51	5,550	1,040	490	928	572	594	269	181	96	40	28
16	40	3,060	882	456	844	522	534	255	169	92	40	27
17	34	2,790	743	414	743	473	478	229	157	86	40	27
18	30	2,960	817	379	663	430	440	211	151	82	40	26
19	27	2,030	534	351	578	384	544	198	149	79	39	25
20	25	1,340	635	2,730	522	351	837	187	143	77	39	24
21	24	983	641	11,200	473	332	1,130	181	151	74	40	24
22	23	1,480	2,160	6,920	425	314	856	175	296	72	44	24
23	22	5,400	2,210	3,100	384	296	1,180	166	611	72	41	23
24	22	4,950	5,040	1,870	346	284	1,070	160	440	67	40	22
25	21	2,490	5,330	1,370	314	276	882	154	384	66	38	22
26	22	2,970	3,030	1,450	292	1,160	743	149	336	62	37	22
27	37	5,170	10,400	2,580	276	1,060	749	146	296	61	36	24
28	104	2,660	6,640	3,240	255	870	792	143	263	61	34	26
29	72	3,280	4,690	3,150	-	2,340	856	140	240	58	46	24
30	56	3,080	12,100	3,380	-	2,670	779	154	215	58	48	24
31	49	-	10,300	2,180	-	5,110	-	425	-	56	42	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff	
						Inches	Acre-feet
October	1,006	104	19	32.5	0.192	0.22	2,000
November	60,011	5,550	44	2,000	11.8	13.21	119,000
December	109,742	12,100	534	3,540	20.9	24.15	217,700
Calendar year 1942	341,683	12,100	19	936	5.54	75.19	677,700
January	74,804	11,200	351	2,413	14.3	16.46	148,400
February	30,844	2,840	256	1,102	6.52	6.79	61,180
March	22,381	5,110	181	722	4.27	4.93	44,390
April	30,915	3,260	440	1,030	6.09	6.80	61,320
May	8,980	683	140	290	1.72	1.98	17,810
June	9,733	798	143	324	1.92	2.14	19,310
July	3,125	191	55	101	.598	.69	6,200
August	1,431	69	34	46.2	.273	.31	2,840
September	831	39	22	27.7	.164	.18	1,650
Water year 1942-43	353,803	12,100	19	969	5.73	77.86	701,800

Peak discharge.- Nov. 14 (9 p.m.) 11,100 sec.-ft.; Nov. 23 (4:30 p.m.) 12,200 sec.-ft.; Dec. 8 (10:15 p.m.) 16,500 sec.-ft.; Dec. 27 (12 m.) 14,100 sec.-ft.; Dec. 30 (7:30 p.m.) 14,300 sec.-ft.; Jan. 21 (1 p.m.) 14,200 sec.-ft.
Time basis: Pacific war time. 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 SE 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 1943.
Average discharge.- 13 years, 748 second-feet.
Extremes.- Maximum discharge during year, 21,400 second-feet Dec. 31 (gage height, 22.23 feet), from rating curve extended above 9,000 second-feet; minimum, 14 second-feet Sept. 26, 27.
1930-43: 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 Oct. 31, 1924.
Remarks.- Records good. Log ponds above station cause diurnal fluctuation at times. No diversion above station.

Rating tables, water year 1942-43 (gage height, in feet, and discharge, in second-feet)

Oct. 1 to Nov. 29				Nov. 30 to Sept. 30			
2.0	15	6.0	665	2.0	17	7.0	1,100
2.2	22	7.0	1,060	2.2	25	8.0	1,600
2.5	36	8.0	1,540	2.5	39	9.5	2,450
3.0	71	9.5	2,440	3.0	75	11.0	3,600
3.5	124	11.0	3,660	3.5	127	12.5	5,000
4.0	195	12.5	5,000	4.0	202	14.5	7,310
5.0	393			5.0	406	17.0	10,800
				6.0	680	20.0	16,200

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	18	44	3,000	10,900	2,090	285	1,720	365	560	144	44	36
2	18	77	2,930	7,870	3,080	275	1,460	337	840	134	45	33
3	18	302	2,330	4,850	3,300	261	1,460	314	924	127	46	30
4	17	350	1,760	3,100	4,100	231	1,260	291	684	137	44	27
5	16	314	1,680	2,740	3,810	242	1,040	269	528	121	51	26
6	16	207	2,640	2,460	2,680	233	900	237	430	112	50	25
7	15	671	4,590	1,980	3,960	278	760	261	361	104	45	25
8	15	910	15,300	1,570	3,480	374	888	238	316	100	41	24
9	15	475	8,730	1,270	2,680	520	1,160	224	279	102	38	23
10	16	333	4,600	1,060	2,170	404	1,160	207	249	100	36	23
11	19	243	2,740	876	1,840	343	992	197	227	93	56	21
12	26	189	1,920	748	1,620	312	848	188	209	86	34	21
13	28	156	1,540	647	1,440	324	692	180	194	82	34	21
14	25	361	1,220	578	1,250	674	602	177	179	79	32	21
15	28	3,450	996	536	1,040	836	528	202	166	78	31	20
16	31	2,770	856	608	912	728	470	199	156	74	30	19
17	25	2,000	724	485	776	638	423	180	147	72	30	19
18	26	2,660	659	418	665	545	388	166	141	68	29	18
19	19	2,020	569	394	605	482	394	167	143	65	29	18
20	18	1,290	641	1,360	530	442	376	151	140	64	28	18
21	17	894	659	10,200	492	411	460	144	137	60	29	17
22	17	704	665	8,940	468	363	432	139	160	57	30	16
23	16	1,310	848	4,150	423	357	432	134	213	37	32	16
24	16	4,100	3,830	2,390	388	337	399	127	242	56	30	15
25	16	2,300	6,660	1,740	357	331	374	131	236	54	28	15
26	16	1,690	3,470	1,580	333	868	346	116	271	54	27	15
27	25	4,760	7,030	2,260	316	856	359	113	225	52	25	15
28	134	3,140	7,100	3,920	301	724	385	110	194	50	25	15
29	86	4,800	4,780	4,240	-	2,340	413	105	172	49	41	17
30	65	5,620	11,800	5,140	-	3,220	388	114	158	46	77	16
31	52	-	16,600	3,040	-	2,290	-	216	-	45	47	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff Inches	Runoff Acre-feet
October	869	134	15	28.0	0.092	0.11	1,720
November	48,120	5,620	44	1,604	5.26	5.87	95,440
December	122,767	16,600	569	3,960	13.0	14.97	243,500
Calendar year 1942	324,654	16,600	15	889	2.91	39.60	643,900
January	91,950	10,900	394	2,966	9.72	11.21	182,400
February	45,098	4,100	301	1,611	5.28	5.50	89,450
March	20,541	3,220	233	663	2.17	2.50	40,740
April	21,509	1,720	346	717	2.35	2.62	42,660
May	6,029	365	105	194	.636	.74	11,960
June	8,881	924	137	296	.970	1.08	17,620
July	2,522	144	45	81.4	.267	.31	5,000
August	1,146	77	25	37.0	.121	.14	2,270
September	625	36	15	20.8	.068	.08	1,240
Water year 1942-43	370,057	16,600	15	1,014	3.32	45.13	734,000

Peak discharge.- Nov. 29 (9:30 p.m.) 9,290 sec.-ft.; Dec. 8 (2:30 p.m.) 20,800 sec.-ft.; Dec. 25 (1:30 a.m.) 9,050 sec.-ft.; Dec. 27 (6 p.m.) 8,740 sec.-ft.; Dec. 31 (1 a.m.) 21,400 sec.-ft.; Jan. 21 (3:30 p.m.) 13,200 sec.-ft.
Time basis: Pacific war time. 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 1943. October 1928 to September 1930 at site 3½ miles downstream.

Average discharge.- 14 years (1929-43), 905 second-feet.

Extremes.- Maximum discharge during year, 10,200 second-feet Dec. 31 (gage height, 38.3 feet, determined by extending recorder graph above 38.06 feet, at which water-stage recorder float was caught), from rating curve extended above 5,500 second-feet; minimum, 30 second-feet Sept. 20.

1928-43: Maximum discharge, 10,400 second-feet Jan. 3, 1933; maximum gage height, that of Dec. 31, 1942; minimum discharge, 14 second-feet Sept. 3, 1938.

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 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	a37	164	5,760	8,820	2,960	593	3,750	681	1,550	258	102	88
2	a35	657	4,420	7,600	8,100	577	3,060	622	2,500	224	102	75
3	a33	1,080	3,530	6,810	3,820	561	2,730	580	2,190	240	83	70
4	49	823	2,680	5,230	4,440	529	2,400	539	1,550	260	78	66
5	40	738	2,780	4,420	5,650	529	1,920	498	1,120	237	106	64
6	40	561	3,610	4,020	4,420	498	1,560	515	896	214	106	61
7	40	880	5,130	3,230	4,570	498	1,330	501	752	200	85	56
8	39	1,660	7,640	2,440	4,860	545	1,260	450	662	193	78	58
9	39	1,420	8,060	1,900	4,290	609	1,330	420	590	197	75	56
10	40	721	6,920	1,540	3,640	498	1,300	393	531	192	75	59
11	41	613	5,340	1,330	3,180	453	1,220	368	483	181	72	142
12	44	408	3,730	1,080	2,860	438	1,120	349	442	170	71	67
13	46	350	2,880	995	2,560	438	1,010	339	414	163	73	58
14	54	561	2,280	857	2,260	755	928	329	371	148	75	44
15	66	2,970	1,810	738	2,070	809	855	354	277	130	124	38
16	81	4,260	1,480	705	1,790	730	784	375	301	147	132	35
17	69	3,100	1,250	689	1,640	655	726	340	295	142	67	34
18	57	3,640	1,140	609	1,420	583	673	309	301	132	58	32
19	52	3,390	995	609	1,340	529	676	291	300	128	54	31
20	50	2,370	1,010	1,200	1,250	490	675	278	314	121	55	31
21	49	1,540	1,190	5,240	1,160	460	959	267	333	132	60	32
22	48	1,400	1,190	6,960	1,030	435	937	258	417	123	67	33
23	45	2,010	1,360	5,760	925	410	852	246	464	120	72	33
24	64	5,190	2,280	3,870	823	387	857	234	411	114	64	33
25	50	4,420	5,200	2,610	738	386	774	224	412	123	58	34
26	44	3,030	4,350	2,070	689	880	692	218	476	113	58	34
27	56	4,600	5,380	2,540	641	1,250	721	213	394	108	54	35
28	244	4,860	6,850	3,610	625	964	779	192	340	107	46	35
29	203	4,600	5,940	4,260	-	2,160	780	203	304	104	72	36
30	136	7,120	7,060	4,890	-	4,140	745	213	285	103	154	38
31	102	-	9,630	4,110	-	3,840	-	595	-	104	114	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff	
						Inches	Acre-feet
October	1,995	244	35	64.4	0.233	0.27	3,960
November	69,036	7,120	164	2,301	8.34	9.50	136,900
December	122,875	9,630	995	3,964	14.4	16.66	243,700
Calendar year 1942	386,923	9,630	32	1,060	3.84	52.13	767,400
January	100,542	8,820	609	3,243	11.7	13.55	199,400
February	68,751	5,650	625	2,455	8.89	9.26	136,400
March	26,629	4,140	386	859	3.11	3.59	52,820
April	37,483	3,760	673	1,249	4.53	5.05	74,350
May	11,394	581	192	368	1.33	1.54	22,600
June	19,675	2,500	277	656	2.38	2.65	39,020
July	4,928	260	103	159	.576	.66	9,770
August	2,490	154	46	80.3	.291	.34	4,940
September	1,508	142	31	50.3	.182	.20	2,990
Water year 1942-43	467,306	9,630	31	1,280	4.64	62.97	926,800

Peak discharge.- Nov. 24 (6 p.m.) 5,720 sec.-ft.; Nov. 30 (8 a.m.) 7,400 sec.-ft.; Dec. 8 (10 p.m.) 8,940 sec.-ft.; Dec. 28 (10:30 p.m.) 7,000 sec.-ft.; Dec. 31 (5 a.m.) 10,200 sec.-ft.; Jan. 22 (9 a.m.) 7,200 sec.-ft.

a No gage-height record; discharge computed on basis of records for South Fork at Powers and Middle Fork near Myrtle Point.

Time basis: Pacific war time. 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. 3 E., 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.- 118 square miles.
Records available.- January 1930 to September 1943.
Average discharge.- 13 years, 463 second-feet.
Extremes.- Maximum discharge during year, 4,430 second-feet Nov. 29 (gage height, 7.84 feet), from rating curve extended above 2,000 second-feet; minimum, 232 second-feet Oct. 7-10, 22-26 (gage height, 1.10 feet).
1930-43: Maximum discharge, that of Nov. 29, 1942; minimum daily, 180 second-feet (estimated) Jan. 7, 1937 (gage height affected by ice).
Revisions.- The maximum discharge for the water year 1933 has been revised to 4,290 second-feet June 9, 1933 (gage height, 7.68 feet), superseding figure published in Water-Supply Paper 754.
Remarks.- Records good except those for periods of no gage-height record, which are fair. No diversion or regulation above station.
Cooperation.- Water-stage recorder inspected by employee of The California Oregon Power Co.

Rating tables, water year 1942-43 (gage height, in feet, and discharge, in second-feet)

Oct. 1 to Nov. 29				Nov. 30 to Sept. 30			
1.1	232	2.8	880	1.5	350	4.0	1,550
1.4	305	3.6	1,310	2.0	530	5.0	2,180
1.8	430	4.6	1,910	2.6	795	6.0	2,910
2.2	590	5.8	2,750	3.3	1,145		

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	236	332	1,900	2,670	429	494	754	925	1,920	669	426	387
2	236	326	1,820	1,670	440	494	772	915	1,530	646	426	384
3	236	377	1,150	1,260	422	498	822	985	1,270	651	422	380
4	236	286	895	1,060	518	506	804	995	1,160	628	422	377
5	236	268	768	930	506	506	905	955	1,080	606	422	377
6	234	259	678	826	478	506	955	940	1,040	592	418	374
7	234	410	602	759	502	570	935	925	1,040	584	415	374
8	234	820	526	710	478	895	975	880	1,040	574	412	374
9	234	377	602	669	454	1,130	880	900	1,060	558	408	371
10	239	314	546	638	436	870	808	940	1,020	542	408	374
11	256	292	514	610	429	768	790	865	960	534	408	387
12	245	283	478	a580	429	710	865	826	915	522	404	374
13	239	286	510	a560	426	682	1,020	800	860	510	401	371
14	250	444	498	a580	432	646	1,180	768	813	506	401	371
15	245	710	474	a590	446	602	1,310	746	790	498	398	368
16	239	423	486	a560	466	574	1,290	714	786	490	394	365
17	236	377	514	a520	486	550	1,200	705	808	482	394	365
18	236	353	506	a450	510	526	1,170	723	822	478	394	365
19	234	320	490	a470	530	514	1,370	768	795	478	390	365
20	234	305	478	a480	538	498	1,260	831	746	482	390	365
21	234	314	466	a620	584	494	1,360	865	759	470	404	365
22	232	698	a540	732	624	486	1,160	890	746	462	415	362
23	232	1,110	a600	a640	597	478	1,110	1,020	728	474	398	362
24	232	1,650	a780	a560	566	482	1,050	1,100	700	454	415	362
25	232	835	a700	550	538	502	980	1,160	700	443	394	359
26	239	805	a600	558	518	710	895	1,130	669	440	390	359
27	283	2,230	a1,300	506	506	754	915	1,100	664	436	387	362
28	250	1,350	a1,600	482	494	768	995	1,060	660	432	387	359
29	254	2,740	a1,100	474	-	930	990	1,010	674	429	429	359
30	256	2,210	a1,700	454	-	845	960	1,110	750	426	401	359
31	259	-	3,230	436	-	777	-	1,860	-	426	390	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff Inches	Runoff Acre-feet
October	7,472	283	232	241	2.04	2.35	14,820
November	21,504	2,740	259	717	6.08	6.78	42,650
December	27,051	3,230	466	873	7.40	8.53	53,650
Calendar year 1942	172,648	3,230	232	473	4.01	54.40	342,400
January	22,604	2,670	436	729	6.18	7.12	44,830
February	13,782	624	422	492	4.17	4.34	27,340
March	19,765	1,130	478	638	5.41	6.23	39,200
April	30,480	1,370	754	1,016	8.61	9.61	60,460
May	29,411	1,860	705	949	8.04	9.27	58,340
June	27,505	1,920	660	917	7.77	8.67	54,560
July	15,922	669	426	514	4.36	5.02	31,580
August	12,563	429	387	405	3.43	3.96	24,920
September	11,076	387	359	369	3.13	3.49	21,970
Water year 1942-43	239,135	3,230	232	655	5.55	75.37	474,300

Peak discharge.- Nov. 24 (12:30 a.m.) 2,540 sec.-ft.; Nov. 27 (11:30 a.m.) 2,780 sec.-ft.; Nov. 29 (7:30 p.m.) 4,430 sec.-ft.; Dec. 1 (9 p.m.) 3,030 sec.-ft.; Dec. 31 (7:30 p.m.) 3,570 sec.-ft.; May 31 (11:30 a.m.) 2,030 sec.-ft.
a No gage-height record; discharge computed on basis of records for station above Prospect.
Time basis: Pacific war time. 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., 1½ 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 1943.
Average discharge.- 21 years (1910-11, 1923-43), 711 second-feet.
Extremes.- Maximum discharge during year, 8,690 second-feet Nov. 29 (gage height, 7.20 feet), from rating curve extended above 5,000 second-feet; minimum, 299 second-feet Oct. 3-10, 23, 24 (gage height, 1.34 feet).
1907-12, 1923-43: 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 except those for period of no gage-height record, which are fair. No diversion or regulation above station.
Cooperation.- Water-stage recorder graph furnished by The California Oregon Power Co.

Rating table, water year 1942-43 (gage height, in feet, and discharge, in second-feet)

1.3	285	2.5	1,000	4.1	2,940
1.5	360	2.8	1,290	5.0	4,340
1.8	500	3.2	1,730	6.0	6,080
2.2	765	3.6	2,230	7.0	8,200

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	302	414	3,970	6,220	744	936	1,320	1,480	3,210	928	660	512
2	302	418	3,920	3,800	758	936	1,350	1,420	2,660	888	560	506
3	299	542	2,500	2,620	737	936	1,460	1,520	2,150	880	554	506
4	299	396	1,870	2,090	1,210	944	1,400	1,530	1,910	872	554	500
5	299	364	1,580	1,750	1,220	944	1,890	1,470	1,790	832	560	500
6	299	348	1,370	1,480	1,060	944	1,710	1,420	1,650	818	554	494
7	299	504	1,200	1,310	1,060	1,090	1,620	1,460	1,600	802	554	494
8	299	1,360	1,040	1,210	1,020	1,830	1,690	1,300	1,570	788	548	494
9	299	592	1,150	1,150	952	2,430	1,500	1,310	1,580	772	542	489
10	302	462	1,110	1,070	888	1,770	1,360	1,360	1,500	744	536	484
11	336	414	1,040	1,010	840	1,480	1,300	1,250	1,400	737	536	500
12	324	392	984	960	818	1,310	1,420	1,190	1,330	716	530	494
13	313	392	1,050	928	825	1,240	1,670	1,140	1,250	702	524	484
14	320	638	1,080	952	864	1,190	1,950	1,090	1,180	688	518	478
15	328	1,400	1,050	968	904	1,090	2,160	1,060	1,120	674	518	472
16	310	765	1,100	952	1,030	1,000	2,150	1,020	1,110	667	518	472
17	310	653	1,190	904	1,110	944	1,970	984	1,120	660	512	472
18	306	612	1,140	772	1,190	888	1,900	992	1,150	653	506	467
19	306	530	1,100	a800	1,250	840	2,240	1,050	a1,150	646	500	467
20	302	478	1,070	a840	1,280	810	2,070	1,150	a1,100	667	512	467
21	302	472	1,040	a1,100	1,370	795	2,330	1,200	a1,020	639	524	467
22	302	980	1,230	1,440	1,420	788	1,950	1,200	a1,030	625	554	462
23	299	2,180	1,380	1,190	1,320	772	1,830	1,390	a1,000	646	524	462
24	299	3,330	1,860	1,020	1,200	772	1,710	1,520	a980	598	542	462
25	302	1,590	1,730	976	1,080	802	1,570	1,620	984	606	524	462
26	302	1,620	1,360	960	1,030	1,210	1,420	1,580	936	692	512	462
27	376	4,310	2,900	896	984	1,340	1,400	1,530	920	586	512	462
28	340	2,680	3,760	832	952	1,320	1,570	1,490	912	580	512	462
29	336	5,380	2,540	818	-	1,660	1,590	1,420	920	573	573	462
30	340	4,960	3,420	802	-	1,530	1,530	1,500	1,030	573	548	456
31	332	-	7,620	751	-	1,370	-	2,820	-	566	524	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff Inches	Runoff Acre-feet
October	9,684	376	299	312	0.940	1.08	19,210
November	39,176	5,380	348	1,306	3.93	4.39	77,700
December	59,354	7,620	984	1,915	5.77	6.65	117,700
Calendar year 1942	294,222	7,620	299	806	2.43	32.95	583,600
January	42,551	6,220	751	1,373	4.14	4.77	84,400
February	29,116	1,420	737	1,040	3.13	3.26	57,750
March	35,911	2,430	772	1,158	3.49	4.02	71,230
April	50,730	2,330	1,300	1,691	5.09	5.68	100,500
May	42,466	2,820	984	1,370	4.13	4.76	84,230
June	41,262	3,210	912	1,376	4.14	4.62	81,840
July	21,718	928	566	701	2.11	2.43	43,080
August	16,545	573	500	534	1.61	1.85	32,820
September	14,371	512	456	479	1.44	1.61	28,500
Water year 1942-43	402,884	7,620	299	1,104	3.33	45.12	799,100

Peak discharge.- Nov. 24 (1 a.m.) 4,980 sec.-ft.; Nov. 27 (12 m.) 4,850 sec.-ft.; Nov. 29 (8 p.m.) 8,690 sec.-ft.; Dec. 1 (10 p.m.) 5,760 sec.-ft.; Dec. 27 (8 p.m.) 4,400 sec.-ft.; Dec. 31 (7 p.m.) 8,110 sec.-ft.
a No gage-height record; discharge computed on basis of records for stations above Bybee Creek and below South Fork, near Prospect.
Time basis: Pacific war time. 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 1943.
Average discharge.- 14 years, 1,570 second-feet.
Extremes.- Maximum discharge during year, 16,100 second-feet Nov. 29 (gage height, 10.5 feet), from rating curve extended above 5,700 second-feet; minimum, 520 second-feet (regulated) Oct. 21 (gage height, 0.00 foot); minimum daily, 790 second-feet Oct. 7, 22, 24-26.
1929-43: Maximum discharge, that of Nov. 29, 1942; 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 Dec. 30, 31, and those above 6,000 second-feet, 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 tables, water year 1942-43 (gage height, in feet, and discharge, in second-feet)

Oct. 1 to Dec. 31						Jan. 1 to Sept. 30					
0.4	745	2.0	2,030	4.0	4,570	1.2	1,120	3.4	3,380	7.0	9,000
.7	950	2.5	2,560	5.0	6,070	1.6	1,440	4.2	4,500	9.0	12,750
1.0	1,160	3.0	3,180	6.4	8,280	2.0	1,800	5.0	5,700		
1.5	1,570	3.6	3,860			2.6	2,420	6.0	7,300		

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	838	971	7,780	12,800	2,320	2,200	2,940	3,040	6,420	2,070	1,380	1,260
2	810	1,010	7,640	8,690	2,420	2,170	2,890	2,920	5,010	2,010	1,380	1,250
3	797	1,220	5,080	6,310	2,330	2,160	3,040	3,040	4,200	1,960	1,390	1,260
4	810	992	4,000	5,200	3,560	2,150	2,980	3,060	3,790	1,930	1,360	a1,250
5	797	915	3,410	4,480	3,640	2,160	3,210	2,960	3,600	1,870	1,370	a1,240
6	804	901	3,040	4,020	3,170	2,140	3,390	2,880	6,330	1,850	1,370	a1,230
7	790	1,090	2,780	3,640	3,170	2,280	3,280	2,860	3,210	1,840	1,380	a1,220
8	804	2,350	2,750	3,350	2,940	3,300	3,420	2,690	3,120	1,820	1,360	a1,210
9	797	1,370	2,950	3,120	2,710	4,600	3,130	2,650	3,240	1,800	1,340	a1,200
10	824	1,130	3,020	3,000	2,530	3,610	2,890	2,750	3,130	1,770	1,350	1,200
11	894	1,010	2,780	2,860	2,440	3,160	2,760	2,570	2,950	1,740	1,340	1,240
12	866	978	2,600	2,710	2,340	2,920	2,900	2,480	2,830	1,680	1,330	1,220
13	831	950	2,630	2,580	2,330	2,770	3,180	2,410	2,640	1,660	1,310	1,190
14	824	1,200	2,680	2,540	2,340	2,720	3,560	2,340	2,530	1,640	1,290	1,180
15	845	2,570	2,580	2,530	2,440	2,560	3,890	2,310	2,450	1,620	1,300	1,180
16	838	1,620	2,570	2,520	2,550	2,390	3,930	2,230	2,430	1,590	1,260	1,180
17	810	1,540	2,640	2,430	2,620	2,340	3,610	2,180	2,430	1,580	1,280	1,170
18	810	1,620	2,610	2,230	2,720	2,170	3,500	2,170	2,500	1,560	1,270	1,170
19	804	1,400	2,520	2,280	2,750	2,130	4,020	2,210	2,490	1,540	1,260	1,170
20	804	1,220	2,480	2,300	2,740	2,060	3,780	2,350	2,330	1,560	1,290	1,160
21	797	1,150	2,470	3,000	2,830	2,030	4,380	2,450	2,330	1,520	1,260	1,140
22	790	1,640	2,660	4,030	2,930	1,990	3,780	2,440	2,360	1,490	1,330	1,150
23	797	3,310	3,220	3,300	2,820	1,940	3,560	2,720	2,280	1,480	1,280	1,140
24	790	6,060	4,140	2,900	2,640	1,950	3,410	2,930	2,220	1,480	1,300	1,140
25	790	3,130	4,200	2,720	2,480	1,970	3,160	3,100	2,270	1,450	1,270	1,140
26	790	3,200	3,500	2,640	2,410	2,660	2,930	3,060	2,140	1,440	a1,250	1,140
27	915	8,220	6,000	2,580	2,320	2,760	2,890	2,980	2,090	1,430	a1,230	1,140
28	873	5,380	7,530	2,480	2,240	2,780	3,180	2,930	2,060	1,420	1,210	1,140
29	873	9,960	6,600	2,480	-	3,350	3,180	2,810	2,070	1,410	1,300	1,120
30	866	9,270	a6,800	2,550	-	3,300	3,080	2,880	2,190	1,410	1,300	1,130
31	866	-	a15,000	2,380	-	3,020	-	5,600	-	1,380	1,260	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff Inches	Runoff Acre-feet
October	25,544	915	790	824	1.28	1.48	50,670
November	77,377	9,960	901	2,579	4.01	4.48	153,500
December	129,660	15,000	2,470	4,183	6.51	7.50	257,200
Calendar year 1942	658,552	15,000	790	1,804	2.81	38.10	1,306,000
January	110,650	12,800	2,230	3,569	5.55	6.40	219,500
February	74,730	3,640	2,240	2,669	4.16	4.32	148,200
March	79,740	4,600	1,940	2,572	4.00	4.61	158,200
April	99,850	4,380	2,760	3,328	5.18	5.78	198,000
May	86,000	5,600	2,170	2,774	4.31	4.97	170,600
June	86,640	6,420	2,060	2,888	4.49	5.01	171,800
July	51,000	2,070	1,380	1,645	2.56	2.95	101,200
August	40,600	1,390	1,210	1,310	2.04	2.35	80,539
September	35,560	1,260	1,120	1,185	1.84	2.06	70,530
Water year 1942-43	897,351	15,000	790	2,458	3.82	51.91	1,780,000

a No gage-height record; discharge computed on basis of records for station above Prospect and at Dodge Bridge near Eagle Point.
Time basis: Pacific war time. To convert war time to standard time, subtract 1 hour.

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 1943.

Extremes.- Maximum discharge during year, 25,800 second-feet Dec. 31 (gage height, 9.52 feet), from rating curve extended above 10,500 second-feet; minimum, 597 second-feet (regulated) Oct. 1 (gage height, 1.07 feet); minimum daily, 852 second-feet Oct. 1.
1938-43: Maximum discharge, that of Dec. 31, 1942; 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 excellent except those above 12,000 second-feet, which are fair. 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 1942-43 (gage height, in feet, and discharge, in second-feet)

Oct. 1 to Dec. 31						Jan. 1 to Sept. 30			
1.2	840	3.0	3,640	6.0	12,160	1.5	1,270	4.8	8,150
1.5	1,200	3.5	4,730	7.5	17,710	1.9	1,850	6.0	12,160
1.8	1,600	4.0	5,950	9.0	23,650	2.4	2,650	7.6	17,710
2.2	2,200	4.5	7,290			3.0	3,760	9.0	23,650
2.6	2,880	5.0	8,760			3.8	5,520		

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	852	1,070	9,590	21,800	4,360	3,050	3,940	3,840	6,970	2,370	1,510	1,380
2	864	1,210	11,300	16,700	4,640	3,000	3,880	3,660	6,180	2,320	1,540	1,350
3	864	1,410	7,090	11,500	4,420	2,960	4,090	3,700	5,000	2,260	1,510	1,350
4	876	1,290	5,380	8,920	8,450	2,950	3,940	3,700	4,470	2,210	1,510	1,380
5	864	1,140	4,500	7,740	8,100	2,910	4,450	3,580	4,360	2,160	1,520	1,350
6	888	1,090	4,150	6,480	6,500	2,840	4,670	3,500	3,960	2,100	1,490	1,340
7	864	1,320	4,060	5,690	7,240	3,000	4,380	3,460	3,780	2,080	1,480	1,330
8	876	2,830	7,400	5,160	6,400	4,230	4,490	3,290	3,660	2,030	1,470	1,340
9	852	1,880	6,630	4,750	5,380	6,300	4,170	3,200	3,760	2,000	1,440	1,330
10	900	1,420	5,900	4,450	4,710	4,980	3,860	3,260	3,600	1,970	1,420	1,350
11	1,010	1,250	4,980	4,190	4,360	4,280	3,660	3,130	3,430	1,910	1,440	1,400
12	972	1,160	4,430	3,900	4,150	3,880	3,680	2,980	3,310	1,880	1,450	1,420
13	948	1,140	4,570	3,660	4,280	3,680	3,880	2,870	3,130	1,840	1,420	1,410
14	960	1,340	4,670	3,560	4,400	3,740	4,190	2,790	2,980	1,800	1,420	1,420
15	984	4,210	4,150	3,500	4,530	3,500	4,490	2,750	2,840	1,790	1,420	1,380
16	948	3,060	4,060	3,410	4,620	3,220	4,560	2,680	2,790	1,780	1,420	1,340
17	936	3,460	4,000	3,280	4,670	3,180	4,300	2,640	2,770	1,740	1,420	1,310
18	936	5,100	3,720	2,930	4,670	2,980	4,110	2,580	2,820	1,720	1,410	1,300
19	912	2,860	3,440	2,930	4,600	2,860	4,580	2,580	2,800	1,740	1,410	1,330
20	924	2,060	3,440	4,160	4,420	2,760	4,420	2,700	2,650	1,730	1,400	1,310
21	912	1,740	3,420	11,900	4,450	2,720	5,050	2,800	2,680	1,700	1,410	1,300
22	936	2,060	4,880	11,200	4,510	2,620	4,560	2,770	2,740	1,680	1,470	1,280
23	912	5,680	6,790	7,430	4,250	2,680	4,250	3,000	2,630	1,670	1,410	1,280
24	936	9,890	10,000	5,710	3,940	2,530	4,090	3,220	2,560	1,660	1,420	1,270
25	912	4,840	9,650	4,960	3,620	2,550	3,820	3,350	2,630	1,610	1,420	1,260
26	948	4,640	7,230	4,750	3,430	3,110	3,560	3,350	2,500	1,600	1,370	1,260
27	1,040	12,100	13,800	5,210	3,260	3,540	3,600	3,280	2,430	1,580	1,350	1,280
28	1,080	8,090	15,400	5,230	3,160	3,450	3,960	3,200	2,370	1,560	1,370	1,270
29	1,020	12,900	10,600	5,660	-	4,600	4,040	3,090	2,380	1,550	1,420	1,270
30	1,040	15,000	14,700	6,400	-	4,800	3,840	3,070	2,500	1,560	1,470	1,240
31	1,020	-	23,900	4,870	-	4,170	-	3,330	-	1,520	1,380	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	28,966	1,080	852	934	57,450
November	117,240	15,000	1,070	3,908	232,500
December	227,730	23,900	3,420	7,346	451,700
Calendar year 1942	940,176	23,900	840	2,576	1,865,000
January	202,030	21,800	2,930	6,517	400,700
February	135,600	8,450	3,160	4,843	269,000
March	106,940	6,300	2,530	3,450	212,100
April	124,410	5,050	3,500	4,147	246,800
May	99,330	5,330	2,580	3,204	197,000
June	100,680	6,970	2,370	3,356	199,700
July	57,120	2,370	1,520	1,843	113,300
August	44,590	1,540	1,350	1,439	88,440
September	39,810	1,420	1,240	1,327	78,960
Water year 1942-43	1,284,446	23,900	852	3,519	2,548,000

Peak discharge.- Nov. 30 (1 a.m.) 20,100 sec.-ft.; Dec. 2 (2:30 a.m.) 14,200 sec.-ft.; Dec. 27 (8 p.m. to 9 p.m.) 18,100 sec.-ft.; Dec. 31 (4:30 a.m.) 25,800 sec.-ft.; Jan. 1 (4 p.m.) 23,000 sec.-ft.; Jan. 21 (6 p.m. to 7 p.m.) 15,600 sec.-ft.

Time basis: Pacific war time. 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 1943.

Average discharge.- 38 years, 2,747 second-feet.

Extremes.- Maximum discharge during year, 40,500 second-feet Dec. 31 (gage height, 14.30 feet); minimum, 664 second-feet (regulated) Oct. 8 (gage height, 0.14 foot); minimum daily, 918 second-feet Oct. 8.

1905-43: 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 excellent. 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 1942-43 (gage height, in feet, and discharge, in second-feet)

0.5	910	3.0	3,880	8.5	18,200
1.0	1,320	4.0	5,720	10.0	23,500
1.5	1,820	5.0	7,920	12.0	31,100
2.0	2,420	6.0	10,400		
2.5	3,100	7.0	13,300		

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	926	1,100	11,200	31,600	6,290	3,750	4,960	5,050	7,280	2,480	1,550	1,440
2	950	1,260	14,100	24,500	6,590	3,670	4,700	4,610	7,300	2,360	1,570	1,430
3	942	1,460	8,810	14,500	6,180	3,590	5,020	4,500	5,820	2,290	1,560	1,420
4	934	1,490	6,640	11,000	10,300	3,540	4,840	4,480	5,170	2,250	1,530	1,410
5	942	1,280	5,580	9,530	11,000	3,480	5,320	4,320	5,050	2,170	1,560	1,390
6	950	1,180	5,600	7,900	8,500	3,380	5,720	4,240	4,590	2,150	1,550	1,380
7	934	1,390	5,580	6,940	10,400	3,500	5,380	4,120	4,300	2,110	1,540	1,360
8	918	3,030	9,230	6,270	9,380	4,710	5,480	3,860	4,170	2,080	1,510	1,360
9	950	2,290	8,930	5,680	7,580	7,320	5,260	3,700	4,270	2,040	1,520	1,360
10	934	1,600	7,600	5,320	6,550	6,010	4,840	3,740	4,050	1,980	1,500	1,360
11	1,060	1,360	6,240	4,960	5,890	5,210	4,610	3,590	3,850	1,960	1,490	1,400
12	1,060	1,280	5,480	4,620	5,380	4,700	4,520	3,400	3,660	1,930	1,470	1,450
13	1,060	1,230	5,480	4,300	5,480	4,390	4,680	3,260	3,500	1,900	1,450	1,450
14	1,050	1,350	5,500	4,170	5,660	4,620	5,020	3,100	3,240	1,850	1,440	1,450
15	1,090	4,630	4,980	4,100	5,780	4,340	5,360	3,060	3,090	1,810	1,430	1,410
16	1,060	3,950	4,770	4,000	5,760	3,930	5,420	3,030	2,950	1,790	1,420	1,370
17	1,010	4,430	4,680	3,800	5,910	3,820	5,150	2,950	2,890	1,780	1,410	1,360
18	1,010	7,900	4,410	3,370	5,890	3,610	5,020	2,850	2,900	1,720	1,410	1,350
19	1,010	4,170	4,050	3,300	5,800	3,420	5,280	2,830	2,920	1,720	1,400	1,370
20	1,030	2,640	4,100	7,760	5,680	3,300	5,360	2,890	2,810	1,750	1,390	1,360
21	1,010	2,120	4,240	31,500	5,660	3,260	5,930	2,950	2,760	1,730	1,410	1,350
22	1,010	2,150	5,490	19,900	5,720	3,120	5,540	2,900	2,930	1,690	1,470	1,350
23	1,010	4,680	8,880	12,000	5,460	3,070	5,110	3,060	2,790	1,690	1,470	1,330
24	990	12,400	13,200	9,030	5,040	3,020	4,960	3,300	2,810	1,690	1,460	1,320
25	998	6,420	15,000	7,440	4,620	2,960	4,590	3,460	2,860	1,650	1,470	1,320
26	998	4,810	9,180	7,250	4,340	3,460	4,270	3,450	2,750	1,640	1,430	1,310
27	1,090	15,100	20,900	7,510	4,080	4,200	4,140	3,320	2,600	1,620	1,400	1,350
28	1,170	10,700	23,000	8,960	3,850	4,020	4,790	3,300	2,520	1,600	1,400	1,340
29	1,090	15,900	14,300	8,520	-	5,960	5,020	3,190	2,480	1,580	1,440	1,330
30	1,130	22,400	18,100	10,800	-	6,610	4,620	3,070	2,580	1,590	1,540	1,320
31	1,090	-	35,800	7,280	-	5,320	-	4,930	-	1,570	1,480	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	31,406	1,170	918	1,013	62,290
November	145,700	22,400	1,100	4,857	289,000
December	301,050	35,800	4,050	9,711	597,100
Calendar year 1942	1,178,280	35,800	902	3,228	2,337,000
January	297,810	31,600	3,300	9,607	590,700
February	178,770	11,000	3,850	6,385	354,600
March	129,290	7,320	2,960	4,171	256,400
April	150,910	5,930	4,140	5,030	299,300
May	110,500	5,050	2,830	3,565	219,200
June	110,900	7,300	2,480	3,697	220,000
July	58,170	2,480	1,570	1,876	115,400
August	45,670	1,570	1,390	1,473	90,590
September	41,180	1,450	1,310	1,373	81,680
Water year 1942-43	1,601,356	35,800	918	4,387	3,176,000

Time basis: Pacific war time. 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 1943.

Extremes.- Maximum discharge during year, 54,400 second-feet Jan. 21 (gage height, 19.83 feet), from rating curve extended above 23,000 second-feet; minimum, 790 second-feet Oct. 1, 2, 15 (gage height, 0.70 foot).

1939-43: Maximum discharge, that of Jan. 21, 1943; 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 excellent. 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 tables, water year 1942-43 (gage height, in feet, and discharge, in second-feet)

Oct. 1 to Dec. 31

0.7	790	3.6	4,370	11.0	22,100
1.2	1,210	4.6	6,100	13.0	28,300
1.6	1,640	6.0	8,980	16.0	38,900
2.2	2,360	7.5	12,500	19.0	50,800
2.8	3,160	9.0	16,400		

Jan. 1 to Sept. 30

1.1	1,210	3.6	4,500
1.6	1,710	4.6	6,250
2.2	2,420	6.0	9,050
2.8	3,250	7.5	12,500

Note.- Same as preceding table above 7.5 feet.

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	804	1,080	12,000	35,500	7,640	4,100	5,260	5,030	7,100	2,380	1,380	1,310
2	811	1,240	14,200	29,700	7,660	4,000	4,960	4,600	7,460	2,220	1,390	1,300
3	832	1,410	9,720	17,100	7,360	3,920	5,110	4,390	5,930	2,150	1,400	1,300
4	839	1,700	7,230	12,800	10,800	3,860	5,100	4,390	5,230	2,120	1,410	1,290
5	839	1,390	5,970	11,100	12,600	3,810	5,490	4,290	5,150	2,060	1,410	1,290
6	832	1,270	5,840	9,230	9,620	3,720	5,940	4,180	4,640	2,030	1,400	1,270
7	832	1,340	6,210	8,040	11,100	3,780	5,580	4,080	4,260	1,950	1,400	1,250
8	818	2,830	13,700	7,180	10,600	4,740	5,600	3,860	4,050	1,950	1,390	1,240
9	818	2,740	12,000	6,550	8,630	7,200	5,550	3,660	4,180	1,930	1,330	1,230
10	832	1,810	9,490	6,030	7,400	6,400	5,080	3,610	3,960	1,860	1,340	1,230
11	892	1,510	7,600	5,640	6,650	5,490	4,840	3,540	3,730	1,850	1,330	1,250
12	988	1,350	6,410	5,230	6,140	4,940	4,690	3,310	3,540	1,830	1,310	1,300
13	1,140	1,320	6,180	4,910	6,110	4,650	4,770	3,160	3,400	1,780	1,310	1,310
14	1,440	1,430	6,140	4,690	6,270	4,670	5,040	3,040	3,130	1,720	1,290	1,310
15	1,080	4,350	5,600	4,600	6,400	4,620	5,350	2,970	2,990	1,690	1,290	1,300
16	1,100	4,550	5,300	4,450	6,380	4,260	5,460	2,970	2,850	1,670	1,280	1,280
17	1,060	4,810	5,130	4,230	6,380	4,070	4,910	2,900	2,750	1,620	1,280	1,260
18	1,020	9,050	4,860	3,860	6,340	3,940	5,030	2,790	2,760	1,590	1,270	1,260
19	1,000	5,130	4,470	3,640	6,230	3,690	5,160	2,750	2,810	1,610	1,260	1,240
20	1,010	3,170	4,390	6,870	6,120	3,580	5,460	2,640	2,710	1,610	1,260	1,250
21	1,010	2,460	4,710	41,500	6,050	3,420	5,760	2,820	2,620	1,590	1,270	1,240
22	1,000	2,310	5,280	28,400	6,070	3,360	5,640	2,820	2,820	1,560	1,300	1,230
23	996	4,340	10,800	14,900	5,870	3,280	5,100	2,900	2,710	1,540	1,330	1,230
24	1,010	13,700	15,400	11,200	5,400	3,200	4,980	3,180	2,740	1,540	1,310	1,230
25	972	7,570	18,500	8,840	5,010	3,180	4,580	3,320	2,830	1,510	1,340	1,220
26	996	5,180	11,000	8,460	4,700	3,540	4,340	3,370	2,780	1,480	1,300	1,230
27	1,050	15,200	24,500	8,690	4,480	4,420	4,150	3,250	2,560	1,470	1,270	1,220
28	1,190	12,200	27,600	10,900	4,180	4,160	4,620	3,240	2,430	1,460	1,250	1,220
29	1,130	14,400	17,400	10,300	-	5,480	5,030	3,160	2,410	1,420	1,270	1,220
30	1,140	24,500	21,500	13,100	-	7,280	4,650	3,060	2,430	1,410	1,380	1,230
31	1,110	-	46,900	8,990	-	5,730	-	4,550	-	1,400	1,360	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	30,591	1,440	804	987	60,680
November	153,340	24,500	1,080	5,178	308,100
December	356,030	46,900	4,390	11,490	706,200
Calendar year 1942	1,266,645	46,900	769	3,470	2,512,000
January	356,630	41,500	3,640	11,500	707,400
February	198,210	12,600	4,180	7,079	393,100
March	136,680	7,280	3,180	4,409	271,100
April	153,230	5,940	4,150	5,108	303,900
May	107,830	5,030	2,640	3,478	213,900
June	108,960	7,460	2,410	3,632	216,100
July	53,990	2,380	1,400	1,742	107,100
August	41,110	1,410	1,250	1,326	81,540
September	37,740	1,310	1,220	1,258	74,860
Water year 1942-43	1,736,341	46,900	804	4,757	3,444,000

Peak discharge.- Nov. 30 (3:30 a.m., 6 a.m. to 8 a.m.) 29,600 sec.-ft.; Dec. 25 (7:30 a.m.) 23,200 sec.-ft.; Dec. 28 (12:30 a.m.) 33,000 sec.-ft.; Dec. 31 (9 a.m.) 54,100 sec.-ft.; Jan. 1 (11:30 p.m.) 41,500 sec.-ft.; Jan. 21 (3:30 p.m.) 54,400 sec.-ft.

Time basis: Pacific war time. 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 1943. Maximum contents observed during year, 8,017 acre-feet June 1 (elevation, 4,827.19 feet); minimum observed, 594 acre-feet Oct. 5 (elevation, 4,804.52 feet). Maximum contents observed during period 1915-43, 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 1943. Maximum contents observed during year, 8,436 acre-feet Mar. 29, Apr. 5 (elevation, 2,173.9 feet); minimum observed, 466 acre-feet Oct. 6, 19 (elevation, 2,103.0 feet). Maximum contents during period 1924-43, 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 one to seven times weekly by employee of Talent Irrigation District.

Monthly gage height and contents, water year October 1942 to September 1943

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	4,804.58	606	-	2,106.2	575	-
Oct. 31	4,808.34	1,524	+918	-	a529	-46
Nov. 30	4,812.28	2,656	+1,132	2,139.8	2,814	+2,285
Dec. 31	4,815.82	3,780	+1,124	-	a6,319	+3,505
Calendar year 1942	-	-	+612	-	-	+391
Jan. 31	4,817.98	4,511	+731	2,162.2	5,982	-337
Feb. 28	4,819.69	5,110	+599	-	a7,094	+1,112
Mar. 31	4,821.62	5,816	+706	2,173.3	8,294	+1,200
Apr. 30	4,826.51	7,528	+1,512	2,173.4	8,318	+24
May 31	4,827.10	7,979	+651	2,168.3	7,179	-1,139
June 30	4,827.00	7,937	-42	2,167.0	6,907	-272
July 31	4,823.48	6,525	-1,412	2,143.2	3,224	-3,683
Aug. 31	-	a5,213	-1,312	2,124.7	1,514	-1,710
Sept. 30	-	a5,071	-142	-	a481	-1,033
Water year 1942-43	-	-	+4,465	-	-	-94

a Interpolated.

South Fork Rogue River above Imnaha Creek, near Prospect, Oreg.

Location.- Water-stage recorder, lat. 42°42', long. 122°27', 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 1943.
Average discharge.- 12 years, 125 second-feet.
Extremes.- Maximum discharge during year, 2,170 second-feet Dec. 1 (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, 41 second-feet Oct. 21-26 (gage height, 1.00 foot).
1931-43: Maximum discharge, that of Dec. 1, 1942; minimum, 27 second-feet Oct. 1-21, 1931.
Remarks.- Records good. No diversion or regulation above station.
Cooperation.- Water-stage recorder graph furnished by The California Oregon Power Co.

Rating tables, water year 1942-43 (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used July 24 to Sept. 30)

Oct. 1 to Nov. 29

1.0	41	1.9	157	3.3	500
1.2	58	2.2	215	3.8	700
1.4	81	2.5	275	4.4	1,060
1.6	109	2.9	375	5.0	1,510

Nov. 29 to Sept. 30

1.7	78	3.9	605
2.0	121	4.6	975
2.4	191	5.3	1,440
2.8	273	6.0	1,980
3.3	400		

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	43	47	902	1,560	189	170	220	280	682	199	114	88
2	43	52	715	344	185	167	224	271	474	189	114	86
3	43	70	385	597	180	167	255	260	379	183	112	85
4	43	53	287	474	253	165	255	280	355	176	112	85
5	43	48	238	388	255	165	273	269	338	168	112	85
6	42	47	206	332	234	163	284	271	310	168	110	84
7	42	77	182	298	226	172	282	264	294	159	108	81
8	42	161	168	278	214	256	308	247	291	166	106	81
9	42	85	185	258	202	328	273	247	308	151	105	81
10	43	64	216	240	195	273	253	255	298	146	103	81
11	49	55	183	226	189	249	245	238	284	144	102	88
12	48	54	165	212	185	232	260	226	269	142	99	85
13	46	53	167	204	183	228	280	218	249	140	98	82
14	44	68	161	199	182	218	310	210	234	137	98	81
15	44	104	149	197	178	206	335	208	224	135	96	81
16	44	82	144	191	178	197	332	202	220	135	96	79
17	43	80	140	185	176	191	315	197	224	132	96	79
18	43	77	137	b174	180	183	315	191	234	131	96	79
19	42	71	132	172	183	178	362	195	230	127	95	78
20	42	67	131	187	183	172	340	206	216	127	95	77
21	41	65	127	315	189	170	457	216	220	124	95	77
22	41	79	146	328	197	167	355	220	256	121	96	77
23	41	136	168	278	193	163	345	253	226	120	95	75
24	41	462	234	249	187	161	320	275	220	118	95	75
25	41	241	216	236	183	159	303	284	228	118	95	75
26	41	197	206	224	180	216	278	278	212	118	93	75
27	45	783	435	218	176	224	282	269	202	116	92	75
28	46	486	537	210	172	224	308	260	197	116	92	75
29	45	1,180	376	206	-	253	298	245	199	116	96	75
30	47	730	722	202	-	245	289	266	214	116	95	74
31	45	-	1,920	193	-	226	-	705	-	115	91	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff Inches	Runoff Acre-feet
October	1,345	49	41	43.4	0.835	0.96	2,670
November	5,774	1,180	47	192	3.69	4.13	11,450
December	10,080	1,920	127	325	6.25	7.21	19,990
Calendar year 1942	49,188	1,920	41	135	2.60	35.17	97,570
January	9,875	1,560	172	319	6.13	7.06	19,590
February	5,427	255	172	194	3.73	3.88	10,760
March	6,268	328	159	202	3.88	4.48	12,430
April	3,958	457	220	299	5.75	6.41	17,770
May	8,026	705	191	259	4.98	5.74	15,920
June	8,267	682	197	276	5.31	5.91	16,400
July	4,340	199	115	140	2.69	3.10	8,610
August	3,102	114	91	100	1.92	2.22	6,150
September	2,399	88	74	80.0	1.54	1.72	4,760
Water year 1942-43	73,861	1,920	41	202	3.88	52.82	146,500

Peak discharge.- Nov. 27 (12 m.) 1,300 sec.-ft.; Nov. 29 (5 p.m.) 2,000 sec.-ft.; Dec. 1 (8 p.m.) 2,170 sec.-ft.; Dec. 31 (4 a.m.) 2,150 sec.-ft.; Dec. 31 (4:30 p.m.) 1,960 sec.-ft.; Jan. 1 (10 a.m.) 1,770 sec.-ft.
b Stage-discharge relation affected by ice.
Time basis: Pacific war time. To convert war time to standard time, subtract 1 hour.

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Imnaha Creek near Prospect, Oreg.

Location.- Staff gage, lat. 42°42', long. 122°27', 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 1943.

Average discharge.- 12 years, 41.4 second-feet.

Extremes.- Maximum discharge observed during year, 410 second-feet Nov. 29 or Dec. 1 (gage height, 2.60 feet, from floodmark), from rating curve extended above 110 second-feet on basis of former curve defined to 250 second-feet by measurements; peak stage and discharge Dec. 31 probably about the same; minimum daily, 17 second-feet Oct. 1.
1931-43: Maximum discharge observed, that of Nov. 29 or Dec. 1, 1942; minimum observed, 11 second-feet Dec. 14, 1931 (gage height, 0.46 foot).

Remarks.- Records fair for October, July to September; poor for period November to June. 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 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	17	21	310	330	72	68	86	91	180	59	34	28
2	18	23	190	260	71	67	86	91	145	57	33	28
3	18	29	130	220	70	66	90	91	131	55	33	28
4	18	22	98	195	103	66	91	94	115	54	32	28
5	18	20	82	180	106	66	95	92	102	53	32	28
6	18	20	72	165	98	65	98	88	94	52	32	28
7	18	34	64	155	92	65	96	82	92	51	32	28
8	18	70	60	140	86	110	101	76	96	50	32	28
9	18	40	66	132	83	124	96	74	100	50	31	28
10	19	28	76	110	80	108	91	76	93	49	31	28
11	23	23	72	102	76	97	86	74	88	49	31	30
12	22	22	68	97	74	95	88	72	84	48	31	28
13	20	22	66	95	73	94	90	70	80	48	31	28
14	19	29	68	94	73	90	94	66	76	47	30	27
15	19	40	66	87	71	86	98	63	74	47	30	27
16	19	31	64	82	70	82	96	60	73	46	29	26
17	19	29	62	78	69	80	94	58	74	45	29	26
18	18	28	61	74	68	78	100	57	76	44	30	26
19	18	24	60	73	69	74	110	58	79	43	28	26
20	18	23	59	80	73	70	106	59	76	42	29	26
21	18	23	58	147	76	68	140	62	71	41	29	26
22	18	28	65	150	82	67	103	62	72	40	29	26
23	18	45	74	133	81	66	97	64	76	40	28	26
24	18	150	88	118	78	65	93	68	70	39	28	26
25	18	57	84	105	75	64	90	69	72	39	28	26
26	18	44	80	97	73	84	88	66	68	38	28	26
27	21	270	170	91	71	85	88	64	65	38	28	26
28	19	180	190	88	70	86	96	62	62	37	28	26
29	19	360	130	82	-	95	93	59	60	37	29	26
30	19	270	210	78	-	91	92	64	64	36	30	26
31	19	-	360	75	-	89	-	180	-	35	29	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff Inches	Runoff Acre-feet
October	580	23	17	18.7	0.719	0.83	1,150
November	2,005	360	20	66.8	2.57	2.87	3,980
December	3,303	360	58	107	4.12	4.72	6,550
Calendar year 1942	17,624	360	17	48.3	1.86	25.21	34,950
January	3,913	330	73	126	4.85	5.60	7,760
February	2,183	106	68	78.0	3.00	3.12	4,330
March	2,511	124	64	81.0	3.12	3.59	4,980
April	2,872	140	86	95.7	3.68	4.11	5,700
May	2,312	180	57	74.6	2.87	3.31	4,590
June	2,608	180	60	86.9	3.34	3.73	5,170
July	1,409	59	35	45.5	1.75	2.02	2,790
August	934	34	28	30.1	1.16	1.34	1,850
September	810	30	26	27.0	1.04	1.16	1,610
Water year 1942-43	25,440	360	17	69.7	2.68	36.40	50,460

Time basis: Pacific war time. 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 1943.

Average discharge.- 11 years, 101 second-feet.

Extremes.- Maximum daily discharge during year, 155 second-feet Jan. 8, 15; no flow at times.

1932-43: 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 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 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	60	67	151	143	154	154	153	154	150	153	137	109
2	61	72	149	142	154	154	153	153	152	153	139	106
3	60	92	148	141	154	153	153	154	153	152	137	105
4	59	72	147	140	154	154	152	154	152	76	134	104
5	60	67	147	141	154	154	152	154	151	50	135	103
6	58	63	147	154	152	154	154	153	153	152	133	102
7	58	97	148	154	154	154	152	154	153	153	133	102
8	58	136	148	155	154	154	152	154	152	151	129	100
9	58	107	148	153	153	154	152	154	151	153	127	100
10	59	83	148	154	153	153	153	154	153	151	125	99
11	69	74	149	154	154	153	152	146	154	153	125	109
12	67	71	151	154	154	152	154	154	153	153	125	105
13	60	69	152	154	154	154	152	152	152	153	124	101
14	62	88	150	154	153	153	154	152	153	152	121	99
15	62	131	151	155	154	152	152	151	152	153	120	97
16	60	101	149	153	154	152	152	149	153	149	120	97
17	59	105	149	154	154	152	153	152	153	152	118	97
18	58	102	151	153	154	154	153	151	153	150	116	97
19	59	92	151	152	154	152	152	152	153	150	115	95
20	58	85	150	152	154	154	154	152	152	151	115	95
21	58	81	149	152	154	152	154	151	152	148	117	95
22	58	97	151	152	154	152	154	150	152	146	121	92
23	58	137	151	154	153	151	153	153	152	148	116	95
24	57	141	151	153	153	152	153	151	151	148	115	92
25	58	152	150	154	154	153	153	150	153	148	115	92
26	57	154	150	154	154	154	154	150	152	147	111	91
27	64	148	150	154	154	154	152	151	152	144	110	92
28	60	142	150	154	154	154	154	151	152	143	108	91
29	63	91	150	154	-	152	154	151	153	141	121	92
30	64	68	151	153	-	152	154	151	152	139	116	88
31	60	-	143	154	-	154	-	152	-	137	109	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	1,862	69	57	60.1	3,690
November	2,984	154	63	99.5	5,920
December	4,630	152	143	149	9,180
Calendar year 1942	42,570	154	57	117	84,440
January	4,700	155	140	152	9,320
February	4,305	154	152	154	8,540
March	4,746	154	151	153	9,410
April	4,589	154	152	153	9,100
May	4,710	154	146	152	9,340
June	4,569	154	150	152	9,060
July	4,449	153	50	144	8,820
August	3,787	139	108	122	7,510
September	2,942	109	88	98.1	5,840
Water year 1942-43	48,273	155	50	132	95,730

Time basis: Pacific war time. 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 4½ 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 1943 (include flow of Middle Fork power canal).

Average discharge.- 18 years, 170 second-feet.

Extremes.- Maximum combined discharge of river and canal during year, 2,760 second-feet Nov. 29 (river gage height, 5.15 feet), from rating curve extended above 110 second-feet on basis of study of flow in river and Middle Fork power canal; minimum, 97 second-feet Oct. 5-10, 17-26.

1925-43: Maximum discharge, that of Nov. 29. 1942; minimum, 72 second-feet Aug. 24 to Sept. 5, 1931.

Remarks.- Records good except those above 500 second-feet, which are poor. Flow regulated 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.

Combined discharge, in second-feet, of Middle Fork Rogue River and Middle Fork power canal, near Prospect, Oreg., water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	100	125	891	965	213	188	236	283	823	254	176	148
2	99	126	656	782	213	188	241	283	508	250	174	147
3	99	140	415	561	208	186	265	292	415	248	173	149
4	99	111	331	445	316	185	267	294	361	238	173	147
5	99	107	288	380	307	185	285	283	335	233	170	146
6	99	105	265	335	292	185	288	278	321	233	170	144
7	98	156	241	307	290	188	288	270	315	233	168	144
8	98	237	239	268	273	292	290	260	324	231	168	145
9	98	139	263	265	258	333	261	265	359	227	166	144
10	102	121	263	255	246	290	247	267	340	220	164	1.4
11	113	115	246	242	236	281	244	251	327	218	163	148
12	107	111	236	230	231	266	257	241	309	212	162	145
13	100	112	248	223	231	261	279	233	297	206	161	143
14	101	171	244	219	236	247	306	227	274	203	160	141
15	101	211	239	215	240	231	330	222	271	201	159	141
16	99	155	236	210	245	222	328	217	276	198	158	140
17	98	151	234	204	251	214	310	211	294	196	157	141
18	98	152	230	191	256	206	315	213	323	194	156	140
19	98	137	221	197	258	200	351	222	303	191	155	139
20	97	126	221	208	262	196	332	242	271	189	155	139
21	97	125	214	313	264	192	382	249	278	187	159	138
22	98	173	234	312	258	190	330	269	274	185	158	137
23	98	321	253	277	261	185	337	306	268	185	157	137
24	98	536	312	268	249	184	314	327	260	181	155	138
25	97	305	303	252	237	180	299	331	253	180	154	138
26	99	302	295	244	201	223	273	321	245	177	152	136
27	107	685	464	237	194	225	270	315	245	174	152	138
28	103	431	554	226	191	230	296	312	250	173	151	136
29	104	1,280	447	227	-	263	282	298	255	170	162	136
30	103	807	534	223	-	251	288	338	252	169	152	136
31	102	-	1,150	215	-	242	-	829	-	172	148	-

Month	Second-feet-days	Maximum	Minimum	Mean	Per square mile	Runoff Inches	Runoff Acre-feet
October	3,109	113	97	100	1.75	2.03	6,170
November	7,773	1,280	105	259	4.54	5.07	15,420
December	10,965	1,150	214	354	6.21	7.15	21,750
Calendar year 1942	67,891	1,280	97	186	3.26	44.29	134,600
January	9,486	965	191	306	5.37	6.19	18,820
February	6,927	316	191	247	4.33	4.52	13,740
March	6,911	333	180	223	3.91	4.51	13,710
April	8,791	382	236	293	5.14	5.74	17,440
May	8,949	829	211	289	5.07	5.84	17,750
June	9,616	823	245	321	5.63	6.27	19,070
July	5,328	254	169	204	3.58	4.13	12,550
August	4,988	176	148	161	2.82	3.25	9,890
September	4,244	149	136	141	2.47	2.77	8,420
Water year 1942-43	88,087	1,280	97	241	4.23	57.47	174,700

Peak discharge.- Nov. 27 (10 a.m.) 944 sec.-ft.; Nov. 29 (2 p.m.) 2,760 sec.-ft.; Dec. 1 (5 p.m.) 1,410 sec.-ft.; Dec. 31 (5 p.m. to 8 p.m.) 1,270 sec.-ft.; Jan. 1 (6:30 a.m.) 1,200 sec.-ft.; May 31 (12 p.m.) 961 sec.-ft.

Time basis: Pacific war time. 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 1943.

Average discharge.- 12 years, 105 second-feet.

Extremes.- Maximum discharge during year, 152 second-feet May 19 (gage height, 3.05 feet); no flow at times.
1931-43: Maximum discharge, 196 second-feet Feb. 3, 1935 (gage height, 3.50 feet); no flow at times.

Remarks.- Records excellent except those for periods of no gage-height record, which are fair. 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 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	99	114	f46	a54	145	0	143	138	145	130	144	127
2	98	112	26	a40	145	0	143	138	143	131	141	119
3	98	114	64	a68	144	0	143	139	142	131	138	124
4	98	109	133	104	146	0	143	138	141	131	138	127
5	98	106	129	131	145	0	143	138	141	131	138	130
6	98	104	129	131	145	0	143	138	142	131	139	129
7	97	118	134	131	145	0	143	138	142	131	139	132
8	97	118	134	131	145	0	143	138	142	131	142	140
9	97	124	134	131	145	0	142	138	142	131	145	139
10	101	119	134	131	146	77	142	140	142	131	146	139
11	110	114	134	130	147	147	142	141	142	131	146	142
12	105	110	134	130	147	147	143	141	142	132	147	140
13	99	110	134	130	147	147	142	140	142	132	147	138
14	100	128	134	130	147	145	142	140	142	131	147	136
15	99	124	134	130	147	144	142	140	142	131	147	136
16	98	137	134	130	145	144	140	141	142	132	146	136
17	97	138	134	130	144	144	140	141	67	132	146	137
18	97	138	134	135	144	142	139	141	2	132	146	136
19	97	133	134	142	144	142	137	146	2	133	146	135
20	96	124	134	142	145	142	134	146	2	133	146	135
21	96	123	134	113	145	142	133	149	72	132	147	135
22	97	136	134	95	144	142	139	150	124	131	147	134
23	97	136	134	85	144	142	139	150	126	131	147	134
24	97	70	136	111	144	142	138	148	131	131	146	135
25	96	129	136	140	144	137	137	146	131	131	146	135
26	98	130	136	139	54	134	136	145	131	131	145	134
27	105	75	135	141	0	134	136	145	131	131	104	135
28	101	27	124	144	0	134	137	145	131	131	137	134
29	102	a26	134	145	-	134	137	145	131	131	133	134
30	101	a26	134	145	-	137	138	145	130	131	127	133
31	100	-	76	145	-	142	-	145	-	136	127	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	3,069	110	96	99.0	6,090
November	3,272	138	28	109	6,490
December	3,816	136	26	123	7,570
Calendar year 1942	45,596	155	1	125	90,440
January	3,782	145	40	122	7,500
February	3,683	147	0	132	7,310
March	3,041	147	0	98.1	6,030
April	4,199	143	133	140	8,330
May	4,413	150	138	142	8,750
June	3,585	145	2	120	7,110
July	4,075	136	130	131	8,080
August	4,380	147	104	141	8,690
September	4,020	142	119	134	7,970
Water year 1942-43	45,335	150	0	124	89,920

a No gage-height record; discharge computed on basis of records for Middle Fork Rogue River near Prospect and Main power canal below all feeders near Prospect.
f Computed from partly estimated gage-height record.
Time basis: Pacific war time. 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 1943. Prior to October 1928 in NE¼ sec. 34, T. 32 S., R. 3 E.

Average discharge.- 18 years, 103 second-feet.

Extremes.- Maximum discharge during year, 1,880 second-feet probably Nov. 29 (gage height, 5.1 feet, from floodmark), from rating curve extended above 350 second-feet; minimum daily, 50 second-feet Oct. 9, 23-25.
1925-43: Maximum discharge observed, that of Nov. 29, 1942; 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 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	51	69	690	†926	148	143	160	190	480	170	99	85
2	†51	65	570	680	146	143	†190	180	415	†164	96	85
3	52	87	410	480	144	141	198	188	355	150	98	†85
4	52	66	†304	410	212	142	193	190	†318	158	96	84
5	†52	†57	270	350	† 215	†143	220	184	290	152	98	83
6	52	58	240	310	194	144	232	173	260	148	†98	83
7	51	86	210	270	194	149	228	†181	240	145	98	82
8	51	220	185	†244	182	280	240	†158	250	144	98	82
9	†50	110	210	230	178	350	†200	160	260	†143	97	82
10	53	80	200	210	170	270	180	170	240	139	97	†82
11	60	70	†188	195	162	220	175	168	†232	137	95	83
12	56	66	180	185	†156	†190	189	160	225	132	96	81
13	54	†63	210	178	154	181	215	156	215	128	†95	80
14	55	80	200	175	150	176	240	†152	207	126	95	79
15	†55	180	192	†177	170	168	255	148	198	122	94	79
16	53	125	195	175	175	160	†250	143	195	†120	93	78
17	52	107	202	168	180	153	233	142	200	118	92	†77
18	52	104	190	160	185	148	230	143	†210	117	91	78
19	52	90	185	163	†190	†145	270	144	230	115	90	77
20	52	†79	†182	180	200	140	250	148	210	117	†88	77
21	51	78	178	230	208	138	330	†152	215	114	90	76
22	51	160	210	†220	210	135	270	153	212	110	92	75
23	†50	360	250	200	200	130	†256	179	200	†111	91	75
24	50	540	290	178	183	129	230	210	192	108	90	†73
25	50	260	†262	170	170	133	205	230	†184	109	89	74
26	51	270	230	165	†164	†200	190	220	180	106	87	74
27	60	†704	450	†160	156	210	190	210	175	104	†86	74
28	57	430	560	158	148	209	210	†208	168	103	85	74
29	56	890	375	†156	-	250	218	200	172	102	90	73
30	†54	650	520	152	-	230	†205	210	190	†101	92	73
31	56	-	1,190	150	-	200	-	450	-	99	88	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff Inches	Runoff Acre-feet
October	1,642	60	50	53.0	1.32	1.53	3,260
November	6,204	890	57	207	5.18	5.77	12,310
December	9,728	1,190	178	314	7.85	9.04	19,300
Calendar year 1942	43,525	1,190	50	119	2.98	40.48	86,360
January	7,815	926	150	252	6.30	7.27	15,500
February	4,954	215	144	177	4.42	4.61	9,830
March	5.550	350	129	179	4.48	5.16	11,010
April	6,672	330	175	222	5.55	6.20	13,230
May	5;702	450	142	184	4.60	5.30	11,310
June	7,118	480	168	237	5.92	6.62	14,120
Jnly	3,923	170	99	127	3.18	3.65	7,780
August	2,889	99	85	93.2	2.33	2.69	5,730
September	2,363	85	73	78.8	1.97	2.20	4,690
Water year 1942-43	64,560	1,190	50	177	4.42	50.04	128,100

† Staff-gage reading on this day.
Time basis: Pacific war time. 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 1943.

Average discharge.- 11 years, 63.4 second-feet.

Extremes.- Maximum discharge during year, 98 second-feet Nov. 7 (gage height, 3.17 feet); minimum, 3 second-feet Mar. 25-31.
1931-43: Maximum discharge, 116 second-feet Nov. 6, 1932; no flow for part of day Sept. 24, 25, 1932.

Remarks.- Records excellent except those below 40 second feet which are fair. 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 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	50	67	69	74	86	8	18	17	53	54	92	84
2	51	62	68	73	86	7	18	17	52	54	92	83
3	51	84	67	71	91	7	18	17	52	54	92	83
4	50	62	73	71	92	7	18	17	51	54	92	82
5	51	54	93	70	85	7	18	17	51	54	93	82
6	50	56	93	70	85	7	18	17	51	54	93	80
7	50	84	91	69	85	7	18	17	51	54	92	79
8	50	83	89	69	85	7	18	17	51	54	92	79
9	50	86	90	68	84	5	18	17	51	54	92	78
10	52	77	89	69	84	5	18	17	51	54	92	77
11	59	68	89	69	83	4	18	17	51	54	91	80
12	54	65	89	69	85	4	18	17	51	63	91	79
13	52	63	89	68	85	4	18	17	51	82	91	79
14	53	79	88	68	85	4	18	17	51	89	88	77
15	53	86	88	68	87	4	17	17	51	92	87	77
16	51	84	88	68	89	4	17	17	25	92	88	76
17	50	85	88	67	89	4	17	17	6	92	86	76
18	50	90	88	83	89	4	17	17	6	92	86	77
19	50	91	88	94	89	4	18	17	6	92	85	76
20	50	83	88	92	89	4	18	16	5	92	85	76
21	50	80	88	92	89	4	18	16	32	92	86	76
22	50	88	88	92	89	4	17	16	55	92	88	74
23	49	88	88	92	89	4	17	17	54	92	87	76
24	49	88	88	92	53	4	17	17	54	92	86	76
25	49	86	87	91	20	4	17	17	55	92	86	75
26	50	86	87	91	10	4	17	48	55	92	85	75
27	58	86	82	91	9	3	17	70	55	92	84	74
28	54	84	76	91	8	3	18	71	54	92	83	74
29	55	85	74	89	-	4	17	71	54	92	88	73
30	54	70	76	87	-	3	17	71	54	92	89	73
31	56	-	76	87	-	10	-	62	-	93	85	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	1,601	59	49	51.6	3,180
November	2,350	91	54	78.3	4,660
December	2,615	93	67	84.4	5,190
Calendar year 1942	26,472	93	7	72.5	52,510
January	2,445	94	67	78.9	4,850
February	2,100	92	8	75.0	4,170
March	154	10	3	5.0	305
April	528	18	17	17.6	1,050
May	815	71	16	26.3	1,620
June	1,339	55	5	44.6	2,660
July	2,393	93	54	77.2	4,750
August	2,747	93	83	88.6	5,450
September	2,326	84	73	77.5	4,610
Water year 1942-43	21,413	94	3	58.7	42,500

Time basis: Pacific war time. 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 1943.

Average discharge.- 11 years (1932-43), 262 second-feet.

Extremes.- Maximum discharge during year, 413 second-feet Feb. 4; maximum gage height, 4.13 feet Sept. 11; no flow June 18, 19.
1931-43: Maximum discharge, 423 second-feet June 22, 1936; no flow at times.

Remarks.- Records good except those below 200 second-feet, which are 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 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	214	241	108	104	395	31	127	272	324	336	385	336
2	214	236	109	101	395	30	127	272	320	336	380	325
3	212	277	134	127	401	30	128	274	319	336	376	327
4	211	222	189	162	403	30	128	276	319	259	376	330
5	211	216	212	179	397	30	128	274	319	219	376	336
6	209	208	209	184	395	30	127	272	319	336	375	334
7	209	287	212	183	395	30	127	272	319	336	371	337
8	209	319	211	222	394	88	127	272	319	336	371	337
9	208	309	212	368	394	155	126	272	320	336	376	336
10	215	264	258	366	394	238	126	274	320	336	375	337
11	246	238	401	364	394	311	126	268	320	336	373	329
12	226	225	399	366	395	226	125	277	320	344	373	329
13	212	219	399	366	394	116	125	277	320	370	371	327
14	212	274	397	368	394	114	124	276	320	375	368	324
15	216	319	397	366	397	216	208	276	320	380	366	322
16	208	303	397	364	397	304	277	276	295	380	370	322
17	204	308	397	364	397	304	279	276	147	380	364	322
18	204	309	397	373	399	243	277	276	4	380	363	319
19	202	293	397	403	399	304	276	277	11	380	364	317
20	201	266	395	403	399	180	271	262	25	382	364	317
21	198	259	395	375	397	112	271	284	189	378	358	316
22	197	303	397	344	397	225	276	284	327	378	361	314
23	197	305	397	341	397	303	277	285	330	378	358	314
24	196	184	399	366	266	303	274	285	295	378	358	317
25	196	211	399	397	154	303	272	287	274	378	359	317
26	198	212	399	395	78	281	272	317	274	378	359	316
27	222	160	375	397	32	111	272	342	274	376	306	316
28	207	127	188	401	31	110	274	342	272	375	344	312
29	211	106	191	401	-	113	272	341	287	373	351	311
30	208	81	193	397	-	112	274	342	337	375	342	306
31	205	-	155	395	-	117	-	334	-	378	337	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	6,478	246	196	209	12,850
November	7,281	319	81	243	14,440
December	9,318	401	108	301	18,480
Calendar year 1942	102,520	401	33	281	203,400
January	9,942	403	101	321	19,720
February	9,680	403	31	346	19,200
March	5,100	311	30	165	10,120
April	6,093	279	124	203	12,090
May	8,934	342	268	288	17,720
June	8,139	337	4	271	16,140
July	11,018	382	219	355	21,850
August	11,270	385	306	364	22,350
September	9,702	337	306	323	19,240
Water year 1942-43	102,955	403	4	282	204,200

Time basis: Pacific war time. 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 1943. August 1922 to March 1925, at site at Butte Falls.

Average discharge.- 27 years (1910-11, 1917-43), 157 second-feet.

Extremes.- Maximum discharge during year, 2,280 second-feet Dec. 31 (gage height, 4.02 feet), from rating curve extended above 1,600 second-feet; minimum, 63 second-feet Oct. 1-9, 17-26 (gage height, 0.52 foot).

1910-11, 1915, 1917-43: 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 fair. Diversions above station for irrigation and, since 1927, for Medford municipal supply, from which, beginning in 1942, water was furnished to Camp White, a U. S. Army post near Eagle Point. No regulation.

Rating table, water year 1942-43 (gage height, in feet, and discharge, in second-feet)

0.5	59	1.1	219	1.8	575	2.9	1,330
.7	101	1.3	299	2.1	770	3.5	1,810
.9	154	1.5	400	2.5	1,050		

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	65	68	601	1,730	395	270	316	318	295	192	116	104
2	65	72	724	1,450	422	261	313	295	318	188	114	101
3	65	94	515	1,050	389	257	313	282	295	179	111	101
4	65	85	422	a860	640	249	309	278	304	163	111	101
5	65	80	363	h731	724	246	313	270	313	157	111	101
6	65	76	328	a640	634	234	313	270	282	148	111	99
7	65	101	295	a550	666	238	299	257	265	143	108	99
8	65	126	333	a480	601	295	323	242	257	140	106	99
9	65	94	444	a430	521	368	299	234	249	134	106	99
10	67	83	461	a380	467	328	291	223	238	134	106	99
11	70	78	411	a350	433	299	278	219	230	132	106	106
12	70	76	368	h328	395	286	270	212	223	132	106	99
13	68	74	352	a300	384	286	261	205	219	129	106	99
14	67	87	328	a270	379	309	257	202	209	126	106	99
15	68	205	309	a250	389	282	257	216	195	126	106	99
16	67	170	286	a225	422	265	257	209	182	126	106	99
17	65	199	270	a220	433	257	249	202	173	126	106	99
18	65	278	257	216	438	249	242	192	173	124	106	99
19	65	179	242	238	426	242	270	185	170	124	106	99
20	63	137	246	276	416	238	257	176	170	124	106	99
21	63	121	242	617	411	234	295	170	185	124	108	96
22	63	118	282	847	406	234	274	166	199	121	108	96
23	63	157	358	686	379	227	274	163	202	121	108	96
24	63	291	497	557	358	223	265	160	202	121	106	96
25	63	227	575	467	328	219	261	157	212	118	106	96
26	65	219	533	433	304	253	253	157	205	118	106	96
27	68	400	966	406	291	238	253	157	195	116	101	96
28	68	368	1,130	395	278	234	313	154	195	116	101	96
29	68	594	868	411	-	342	299	151	216	116	106	96
30	68	705	1,240	461	-	347	299	163	209	116	104	96
31	68	-	1,840	400	-	328	-	249	-	114	104	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	2,040	70	63	65.8	4,050
November	5,562	705	68	185	11,030
December	16,086	1,840	242	519	31,910
Calendar year 1942	61,245	1,840	61	168	121,500
January	16,856	1,730	216	544	33,430
February	12,331	724	278	440	24,460
March	8,338	368	219	269	16,540
April	8,475	323	242	282	16,810
May	6,534	318	151	211	12,960
June	6,780	318	170	226	13,450
July	4,148	192	114	134	8,230
August	3,318	116	101	107	6,580
September	2,960	106	96	98.7	5,870
Water year 1942-43	93,428	1,840	63	256	185,300

Peak discharge.- Nov. 29 (11 p.m.) 924 sec.-ft.; Dec. 27 (10 p.m. to 11 p.m.) 1,180 sec.-ft. Dec. 28 (8:30 a.m. to 9:30 a.m.) 1,200 sec.ft.; Dec. 31 (2:30 a.m.) 2,280 sec.-ft.; Jan. 1 (4 p.m.) 1,920 sec.-ft.; Jan. 21 (4 p.m.) 1,070 sec.-ft.

a No gage-height record; discharge computed on basis of records for South and North Forks Little Butte Creek near Lake Creek, Oreg.

h Computed from staff-gage reading.

Time basis: Pacific war time. 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 1943. November 1910 to April 1913 at site in sec. 11, T. 37 S., R. 2 E., 5 miles above Lake Creek.

Average discharge.- 23 years (1911-12, 1921-43), 95.8 second-feet.

Extremes.- Maximum discharge during year, 2,870 second-feet Jan. 21 (gage height, 5.77 feet, from floodmark), from rating curve extended above 400 second-feet by logarithmic plotting; minimum, 13 second-feet Oct. 8-10.

1910-13, 1921-43: Maximum discharge, that of Jan. 21, 1943; minimum, 2 second-feet Aug. 10, 1931 (gage height, 0.97 foot).

Remarks.- Records good except those for periods of shifting control, which are fair, and those for periods of no gage-height record or above 1,000 second-feet, which are poor. Diversions above station for irrigation.

Rating tables, water year 1942-43, except periods of shifting control (gage height, in feet, and discharge, in second-feet)

Oct. 1 to Mar. 28				Mar. 29 to Sept. 30			
1.4	12	2.4	276	1.3	20	2.1	213
1.6	33	2.7	415	1.5	41	2.4	335
1.8	70	3.0	575	1.7	84	2.7	485
2.0	128	3.5	895	1.9	144	3.0	660
2.2	198						

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	16	19	536	937	236	187	344	376	220		a26	25
2	16	21	548	665	264	176	344	326	206		a26	24
3	15	39	380	504	228	173	366	313	224		a25	23
4	15	29	285	440	385	169	353	300	224		25	23
5	16	26	236	390	337	166	390	287	220		26	23
6	16	25	228	324	293	162	385	291	196		26	23
7	16	33	217	280	400	173	376	266	175		26	23
8	15	62	221	252	333	240	452	243	161		26	23
9	14	35	256	225	268	310	405	228	147		25	22
10	16	29	240	206	244	285	366	220	131		24	22
11	21	27	191	187	232	264	344	206	122		24	24
12	20	25	173	169	221	248	331	192	115		23	25
13	19	25	169	159	228	244	335	182	109		24	25
14	19	33	155	138	236	244	344	175	104		23	25
15	19	131	135	a120	248	221	358	188	92		23	23
16	18	100	125	a105	268	198	353	185	87	a34	23	23
17	17	122	116	a95	298	194	344	168	82		23	24
18	17	221	106	a91	306	176	335	154	79		22	25
19	17	94	94	h100	298	166	380	144	79		22	25
20	17	55	103	a120	289	155	353	141	74		22	24
21	17	46	100	a1,200	289	152	395	138	84		23	24
22	16	46	142	a1,000	298	148	344	134	92		25	25
23	16	84	169	a450	272	142	348	134	79		24	23
24	17	272	370	a340	264	138	322	134	79		24	23
25	16	176	347	a300	236	138	309	131	92		24	22
26	16	200	388	a280	221	194	283	128	79		23	22
27	19	659	806	a260	206	198	279	118	69		23	23
28	19	425	812	a250	191	206	376	115	64		23	23
29	19	979	509	a270	-	505	335	109	a60		26	23
30	19	702	650	a310	-	415	358	112	a62		26	23
31	19	-	902	252	-	366	-	168	-		25	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	532	21	14	17.2	1,060
November	4,743	979	19	158	9,410
December	9,712	902	94	313	19,260
Calendar year 1942	51,019	1,080	14	140	101,200
January	10,419	1,200	91	336	20,670
February	7,589	400	191	271	15,050
March	6,753	505	136	218	13,390
April	10,607	452	279	354	21,040
May	6,006	376	109	194	11,910
June	3,607	224	60	120	7,150
July	1,054	-	-	34.0	2,090
August	750	26	22	24.2	1,490
September	705	25	22	23.5	1,400
Water year 1942-43	62,477	1,200	14	171	123,900

Peak discharge.- Nov. 29 (2:30 p.m.) 1,540 sec.-ft.; Dec. 27 (1:30 p.m.) 1,120 sec.-ft.; Dec. 28 (6 a.m.) 1,130 sec.-ft.; Dec. 30 (9:30 p.m.) 1,230 sec.-ft.; Jan. 1 (11:30 a.m.) 1,390 sec.-ft.; Jan. 21, 2,870 sec.-ft.

a No gage-height record; discharge computed on basis of records for South Fork Big Butte Creek at Butte Falls and North Fork Little Butte Creek near Lake Creek.

h Computed from staff-gage reading.

Note.- Shifting-control method used Oct. 1 to Jan. 19, Aug. 27 to Sept. 30.

Time basis: Pacific war time. 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 1943.

Average discharge.- 28 years (1915-43), 31.9 second-feet.

Extremes.- Maximum discharge during year, 122 second-feet July 31 (gage height, 1.57 feet); minimum recorded, 0.6 second-foot Oct. 11-16.
1914-43: Maximum discharge, 158 second-feet July 10, 1930; no flow at times.

Remarks.- Records good. 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 1942-43 (gage height, in feet, and discharge, in second-feet)

0.0	0.6	0.4	4.6	0.9	28
.1	1.1	.5	7.2	1.1	48
.2	1.9	.6	10.6	1.3	74
.3	3.1	.7	15	1.5	108

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	29	1.6	9.6	19	21	23	30	48	101	63	120	56
2	30	1.9	9.9	19	21	24	31	48	112	63	120	49
3	30	2.3	9.9	20	21	24	31	48	112	67	120	44
4	31	2.1	10	20	22	24	31	48	108	79	120	44
5	14	2.0	11	20	21	24	31	48	92	74	118	44
6	7.0	1.9	12	20	21	a24	32	48	87	82	114	45
7	7.0	2.5	12	20	21	24	32	48	88	87	106	45
8	4.5	2.7	12	20	21	24	33	48	92	87	106	52
9	.9	2.9	13	20	21	25	34	52	97	87	101	60
10	.8	2.7	13	20	21	25	34	59	101	92	85	59
11	.7	2.9	13	20	21	25	34	73	101	95	85	59
12	.6	3.1	13	20	21	25	35	79	101	95	85	58
13	.6	3.3	13	20	22	26	36	73	99	95	85	53
14	.6	3.4	13	20	22	27	37	55	95	101	85	52
15	.6	4.5	14	20	22	27	38	54	94	112	90	52
16	.6	4.5	14	20	22	27	40	59	92	110	90	52
17	a.6	4.5	14	20	22	27	41	67	90	103	84	52
18	a.6	4.5	14	20	22	27	41	71	90	103	74	46
19	a.7	4.5	14	21	22	27	42	a67	90	103	70	44
20	a.7	4.5	14	21	22	27	44	a63	90	103	70	44
21	a.7	4.6	14	21	22	27	44	a58	90	104	70	44
22	.7	4.8	14	21	22	27	45	a54	90	108	68	44
23	.7	5.0	15	21	22	27	46	50	90	108	67	44
24	.7	6.0	15	21	22	27	46	50	85	108	60	44
25	.8	5.8	15	21	22	28	46	50	84	108	59	44
26	.9	6.2	16	21	22	29	46	60	84	108	60	44
27	1.0	7.0	16	21	22	29	46	77	84	106	67	44
28	1.2	6.7	16	21	22	30	47	77	71	108	67	44
29	1.3	8.6	16	21	-	30	47	73	63	116	67	44
30	1.4	8.9	18	21	-	30	48	71	63	116	59	44
31	1.4	-	19	21	-	30	-	79	-	120	55	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	171.3	31	0.6	5.53	340
November	125.9	8.9	1.6	4.20	250
December	422.4	19	9.6	13.6	838
Calendar year 1942	10,480.2	120	.6	28.7	20,790
January	631	21	19	20.4	1,250
February	605	22	21	21.6	1,200
March	820	30	23	26.5	1,630
April	1,168	48	30	38.9	2,320
May	1,855	79	48	59.8	3,680
June	2,736	112	63	91.2	5,430
July	3,011	120	63	97.1	5,970
August	2,627	120	55	84.7	5,210
September	1,450	60	44	48.3	2,880
Water year 1942-43	15,622.6	120	.6	42.8	31,000

a No gage-height record; discharge interpolated.
Time basis: Pacific war time. 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 1943 in reports of Geological Survey; September 1911 to March 1913 and May 1922 to September 1936 in reports of State engineer.

Average discharge.- 17 years (1911-12, 1922-23, 1928-43), 65.2 second-feet.

Extremes.- Maximum discharge during year, 403 second-feet Nov. 29 (gage height, 2.58 feet), from rating curve extended above 150 second-feet by velocity-area studies; minimum, 21 second-feet Oct. 9, 10.

1911-13, 1922-28, 1931-43: 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 except those above 200 second-feet, which are fair. 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 tables, water year 1942-43 (gage height, in feet, and discharge, in second-feet)

Oct. 1 to Nov. 29				Nov. 30 to Sept. 30			
1.4	19	2.0	104	1.8	56	2.2	160
1.6	31	2.2	185	1.9	75	2.4	245
1.8	57			2.0	98		

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	50	23	98	214	80	69	77	104	153	101	150	86
2	51	25	96	176	98	67	77	101	153	101	147	80
3	50	31	75	140	86	67	82	98	168	101	147	75
4	50	26	66	130	140	66	80	96	168	121	147	75
5	41	25	62	118	118	66	82	98	153	112	144	73
6	27	25	62	101	107	66	80	98	140	118	137	71
7	27	32	62	93	98	67	82	93	140	124	134	71
8	26	35	69	86	107	75	98	91	137	124	134	75
9	21	27	69	82	96	80	91	91	140	124	130	89
10	22	25	80	80	91	73	89	98	144	127	121	91
11	22	25	71	75	91	71	86	107	144	130	118	93
12	22	25	67	73	89	71	86	112	140	130	118	91
13	21	25	67	71	91	73	86	107	137	127	115	86
14	21	29	66	71	93	77	89	93	134	137	115	82
15	21	48	62	69	96	73	91	96	130	150	118	82
16	21	46	60	69	98	71	91	98	127	147	121	82
17	21	52	60	67	101	71	91	107	127	140	118	82
18	21	63	56	67	98	71	91	107	127	134	107	80
19	21	39	55	64	96	69	98	107	127	134	101	73
20	21	33	56	77	93	67	101	93	127	134	98	73
21	21	32	56	196	91	67	110	86	130	134	98	71
22	21	32	73	118	89	67	98	84	127	140	98	71
23	21	47	75	93	82	67	104	82	127	140	98	71
24	21	73	107	84	80	66	98	82	127	140	93	71
25	21	48	104	86	75	66	98	82	124	140	91	71
26	22	54	110	86	73	69	96	86	121	140	91	71
27	22	90	150	91	71	69	98	101	121	140	96	71
28	22	63	160	91	69	69	115	104	110	140	96	73
29	23	182	118	98	-	96	107	101	104	147	98	73
30	23	98	144	101	-	80	107	101	101	147	91	75
31	23	-	188	82	-	77	-	115	-	147	86	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	817	51	21	26.4	1,620
November	1,378	182	23	45.9	2,730
December	2,664	188	55	85.9	5,280
Calendar year 1942	24,010	188	21	65.8	47,610
January	3,049	214	64	98.4	6,050
February	2,597	140	69	92.8	5,150
March	2,203	96	66	71.1	4,370
April	2,779	115	77	92.6	5,510
May	3,019	115	82	97.4	5,990
June	4,008	168	101	134	7,950
July	4,071	150	101	131	8,070
August	3,566	150	86	115	7,060
September	2,328	93	71	77.6	4,620
Water year 1942-43	32,469	214	21	89.0	64,390

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

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 North and South Canals and Eagle Point Canal are partly estimated.

Records for these canals, published as a group, are available from April 1929 to September 1943; 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 1942 to September 1943

Month	Hanley South Canal	Hanley North Canal	Rogue River Valley Canal below junction of intakes	Eagle Point Canal
October.....	a102	a102	555	a238
November.....	-	-	0	-
December.....	-	-	0	-
January.....	-	-	0	-
February.....	-	-	0	-
March.....	-	-	0	-
April.....	b35	c74	2,940	d258
May.....	339	442	6,130	706
June.....	381	657	6,380	895
July.....	401	569	8,170	1,080
August.....	414	515	6,760	1,150
September....	402	477	4,330	1,130
Water year 1942-43....	-	-	35,265	-

a Period Oct. 1-10.
b Period Apr. 27-30.
c Period Apr. 23-30.
d Period Apr. 14-30.
Note.- Probably some flow in canals during periods of no record.
Time basis: Pacific war time. 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 SE¼ 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 1943.

Average discharge.- 10 years (1924-28, 1929-30, 1933-35, 1940-43), 22.4 second-feet.

Extremes.- Maximum discharge during year, 1,600 second-feet Jan. 21 (gage height, 6.00 feet), by computation of flow over dam; no flow at times.
1920-43: Maximum discharge, 5,260 second-feet Feb. 20, 1927, by computation of flow over dam; no flow at times.

Remarks.- Records good except those for period of shifting control, which are fair, those above 600 second-feet and those for periods of no gage-height record, 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 1942-43, except periods of shifting control (gage height, in feet, and discharge in second-feet)

Oct. 1 to Jan. 20

0.0	0	0.6	3.8	1.8	108
.1	.1	.7	6.3	2.1	153
.2	.2	.8	10	2.4	204
.3	.4	1.0	23	2.8	288
.4	.9	1.2	41		
.5	2.0	1.5	72		

Jan. 21 to Sept. 28

0.0	0	1.0	21	2.3	240
.2	.3	1.2	36	2.8	385
.4	1.3	1.4	56	3.3	550
.6	3.8	1.7	100	3.8	725
.8	10	2.0	165		

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	6.8	0		188	204	79	61	64	1.6	2.4	36	14
2	3.0	0		247	90	78	41	55	.5	14	36	12
3	14	0		178	47	69	61	47	.5	24	35	9.6
4	12	0		97	64	66	67	40	.5	24	36	9.3
5	6.3	0		68	181	50	78	33	.5	24	37	8.9
6	.3	0		83	284	43	78	30	.5	25	37	9.3
7	.1	0		100	313	54	71	19	.5	26	38	12
8	0	0		45	313	48	68	12	.5	29	38	16
9	0	0		34	307	47	66	8.9	.4	30	37	16
10	0	0		37	204	50	66	6.0	.4	30	36	16
11	0	0	a0.2	37	106	27	68	4.3	.5	30	35	16
12	0	0		37	82	1.9	63	1.8	.4	30	34	16
13	0	0		37	129	1.8	58	1.1	.4	31	33	16
14	0	0		37	149	10	56	1.0	.4	31	31	16
15	0	0		27	58	19	55	1.0	.4	32	31	16
16	0	0		a2.0	.7	24	52	1.1	.5	33	30	16
17	0	0		a2.0	.6	40	48	1.1	2.8	33	27	16
18	0	0		a2.0	28	1.4	45	1.1	7.8	33	27	15
19	0	0		2.0	167	.9	46	.9	7.4	33	25	14
20	0	0		9.3	202	.5	44	.8	7.0	32	23	14
21	0	0		507	172	.5	41	.8	6.7	34	20	14
22	0	0	.5	632	196	.4	39	.7	7.0	34	17	14
23	0	0	.5	415	151	.5	34	2.3	4.0	33	17	13
24	0	0	.6	400	110	.5	33	7.8	2.2	33	17	12
25	0	0	7.6	388	93	.5	31	7.8	.5	33	17	10
26	0		91	382	95	4.2	23	8.5	.4	33	17	10
27	0		196	370	51	1.2	16	9.6	.4	33	17	4.5
28	0	a.1	270	358	50	15	29	9.6	.4	33	17	.2
29	0		290	304		206	40	9.3	.4	34	17	a.1
30	0		279	254	-	192	40	9.3	.4	36	16	a.1
31	0	-	177	219	-	144	-	4.3	-	36	14	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	42.5	14	0	1.37	84
November	.5	-	0	.02	1.0
December	1,316.4	290	-	42.5	2,610
Calendar year 1942	10,337.1	309	0	28.3	20,500
January	5,498.3	632	2.0	177	10,910
February	3,847.3	313	.6	137	7,630
March	1,275.3	206	.4	41.1	2,530
April	1,518	78	16	50.6	3,010
May	399.1	64	.7	12.9	792
June	55.9	7.8	.4	1.86	111
July	918.4	36	2.4	29.6	1,820
August	848	38	14	27.4	1,680
September	356.0	16	.1	11.9	706
Water year 1942-43	16,075.7	632	0	44.0	31,880

a No gage-height record; discharge is leakage from Emigrant Gap Reservoir and is computed on basis of reservoir stage.
Note.- Shifting-control method used July 16 to Sept. 27.
Time basis: Pacific war time. To convert war time to standard time, subtract 1 hour.

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 1943 (incomplete prior to April 1927).

Average discharge.- 22 years (1920-26, 1927-43), 79.7 second-feet.

Extremes.- Maximum discharge during year, 6,760 second-feet Jan. 21 (gage height, 7.20 feet); minimum recorded, 6.7 second-feet Oct. 8.
1915-43: 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.

Remarks.- Records fair except 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.

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	22	21	246	915	610	a245	282	252	f211	h31	a18	a18
2	22	22	244	930	a580	a235	218	211	f211	a30	h17	h17
3	14	35	182	598	a520	a228	252	196	f199	h28	a17	h17
4	14	40	146	436	712	a220	248	185	a160	a25	h17	a17
5	a14	32	141	348	637	f214	282	185	a140	a22	a18	a16
6	a13	30	254	309	664	205	286	188	a127	h19	h19	h15
7	f13	46	179	303	907	214	263	174	h117	a18	a19	h14
8	f7.3	67	169	290	778	259	263	a120	a112	a17	a20	a14
9	7.3	49	199	212	670	248	263	a90	a108	h17	h20	a15
10	7.9	37	202	212	a600	237	252	a70	h104	a20	a20	a13
11	8.5	34	160	202	a540	228	248	a52	a103	a22	h19	a13
12	11	31	144	192	a520	f169	248	a40	a102	h24	a19	a13
13	16	31	148	182	a515	174	224	a32	a100	a20	h19	a14
14	22	37	139	179	a510	188	234	a27	h99	h17	a16	a16
15	22	150	128	167	a505	177	244	a24	h33	a17	a18	a14
16	22	96	122	150	a500	185	218	a23	a32	a18	h17	a14
17	20	124	113	130	a490	208	202	a22	h31	h19	a16	a17
18	18	227	105	f105	a470	169	f196	a21	a32	a19	h15	18
19	18	107	98	119	f468	a147	a210	a20	a33	a18	a16	17
20	17	76	122	983	493	a132	a350	a20	a34	a17	h17	15
21	17	66	115	3,720	463	a124	f214	a21	h35	h16	h19	16
22	17	68	160	2,040	473	a116	205	a23	a51	a18	a19	18
23	17	111	222	1,230	f444	a110	a205	a25	a66	h19	h19	17
24	17	174	460	976	a400	a108	a200	a26	h82	a18	h22	15
25	17	126	610	955	a350	a110	a195	h24	a76	h17	a21	15
26	17	138	536	894	a310	f169	a190	a23	a69	a17	h20	14
27	18	337	1,140	865	a280	a160	a210	a22	a62	h17	h19	15
28	20	235	908	920	a265	a140	211	h20	h56	h19	a20	15
29	21	734	761	927	-	360	205	a19	a47	a19	h22	13
30	22	413	803	1,040	-	449	202	a30	h38	h19	a21	10
31	22	-	938	648	-	340	-	a80	-	a19	h20	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	514.0	22	7.3	16.6	1,020
November	3,694	734	21	123	7,330
December	9,894	1,140	98	319	19,620
Calendar year 1942	51,041.6	1,140	7.3	140	101,200
January	21,167	3,720	105	683	41,980
February	14,664	907	265	524	29,090
March	6,268	449	108	202	12,430
April	7,020	350	190	234	13,920
May	2,265	252	19	73.1	4,490
June	2,670	211	31	89.0	5,300
July	616	31	16	19.9	1,220
August	581	22	15	18.7	1,150
September	453	18	10	15.1	899
Water year 1942-43	69,806.0	3,720	7.3	191	138,400

Peak discharge.- Nov. 29 (8 p.m.) 1,400 sec.-ft.; Dec. 26 (11 p.m.) 1,470 sec.-ft.; Dec. 31 (3 a.m.) 1,[illegible] sec.-ft.; Jan. 1 (8:30 p.m.) 1,370 sec.-ft.; Jan. 21 (8:30 a.m.) 6,760 sec.-ft.; Jan. 30 (3 a.m.) 1,540 sec.-ft.

a No gage-height record; discharge computed on basis of records for Applegate River near Ruch and Illinois River at Kerby.
f Computed from partly estimated gage-height record.
h Computed from staff-gage reading.
Time basis: Pacific war time. 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 for all canals except East lateral partly interpolated.

Records of these canals, published as a group, are available from April 1929 to September 1943; 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 1942 to September 1943

Month	Ashland lateral	East lateral	Talent lateral	Phoenix Canal	Bear Creek Canal
October	a60	81	135	b350	0
November	-	-	0	-	0
December	-	-	0	-	0
January	-	-	0	-	0
February	-	-	0	-	0
March	-	c1,240	0	-	0
April	d10	e543	426	f143	0
May	435	1,720	1,710	776	482
June	392	1,460	1,780	828	723
July	1,180	3,210	2,650	962	760
August	1,120	2,710	2,380	780	663
September	830	1,410	925	820	596
Water year 1942-43	-	-	10,006	-	3,324

a Period Oct. 1-5.
b Period Oct. 1-20.
c Period Mar. 11-29.
d Period Apr. 13-30.
e Period Apr. 8-30.
f Period Apr. 13-30.
Note.- Not much flow during periods of no record.
Time basis: Pacific war time. 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.

Records available.- December 1938 to September 1943.

Extremes.- Maximum discharge during year, 7,980 second-feet Dec. 31 (gage height, 12.85 feet); minimum, 33 second-feet Oct. 1, 2 (gage height, 0.98 foot).

1938-43: Maximum discharge, that of Dec. 31, 1942; minimum, 20 second-feet Sept. 23-25, 1939.

Remarks.- Records excellent except those above 2,500 second-feet, which are 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 tables, water year 1942-43 (gage height, in feet, and discharge, in second-feet)

Oct. 1 to Dec. 30				Dec. 31 to Sept. 30					
1.0	35	3.5	690	1.0	35	3.0	470	7.5	3,440
1.3	63	4.0	955	1.3	61	3.5	665	9.0	4,640
1.6	108	5.0	1,600	1.6	103	4.0	920	10.4	5,820
2.0	187	6.0	2,300	2.0	180	5.0	1,570		
2.5	320	7.7	3,600	2.5	310	6.0	2,300		
3.0	485								

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	33	43	1,100	4,180	920	544	775	629	740	156	71	51
2	33	47	1,030	2,660	860	533	780	604	568	152	76	50
3	35	80	710	1,900	790	522	832	634	470	144	73	49
4	35	60	564	1,550	956	512	800	624	424	140	71	46
5	35	50	492	1,310	956	494	1,250	584	391	136	68	46
6	36	49	471	1,100	909	491	1,050	548	367	130	68	46
7	35	90	446	962	998	576	950	526	349	127	68	47
8	35	271	600	848	914	795	882	502	373	121	68	48
9	34	103	596	770	826	800	775	502	373	119	66	47
10	37	73	548	706	760	854	706	512	346	119	65	46
11	49	63	488	652	710	765	670	480	316	117	63	45
12	46	60	474	604	674	683	688	452	301	110	61	44
13	44	59	540	572	660	674	795	432	283	105	60	44
14	42	325	506	552	670	629	926	410	268	101	57	44
15	47	541	488	536	692	572	914	394	255	97	57	42
16	45	264	528	512	725	536	810	382	242	95	57	41
17	42	335	548	491	755	512	745	367	238	92	53	41
18	41	443	516	456	760	480	750	361	230	89	55	43
19	40	248	482	452	755	460	816	361	222	90	58	43
20	41	178	499	879	755	442	854	376	215	90	57	41
21	39	153	482	5,790	790	428	1,020	391	215	84	57	41
22	37	335	714	3,650	821	418	790	404	218	84	58	41
23	37	1,550	828	2,080	755	404	870	463	202	86	56	39
24	37	1,340	1,420	1,500	701	400	765	480	198	81	59	39
25	37	580	1,350	1,270	652	410	701	470	205	79	57	38
26	37	829	1,080	1,130	612	1,100	638	435	190	77	53	41
27	38	1,920	2,920	1,070	584	848	660	410	178	73	53	40
28	43	1,070	2,740	1,050	560	750	745	391	170	72	51	40
29	44	1,640	1,730	1,110	-	1,010	665	364	178	71	52	39
30	48	1,410	3,700	1,180	-	865	656	404	172	69	51	38
31	45	-	5,880	1,030	-	790	-	596	-	71	51	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	1,227	49	33	39.6	2,430
November	14,209	1,920	43	474	28,180
December	34,470	5,880	446	1,112	68,370
Calendar year 1942	164,055	5,880	33	449	325,400
January	42,552	5,790	452	1,373	84,400
February	21,520	998	560	769	42,680
March	19,297	1,100	400	622	38,280
April	24,278	1,250	638	809	48,150
May	14,488	634	361	467	28,740
June	8,897	740	170	297	17,650
July	3,177	156	69	102	6,300
August	1,870	76	51	60.3	3,710
September	1,300	51	38	43.3	2,580
Water year 1942-43	187,285	5,880	33	513	371,500

Peak discharge.- Dec. 27 (5:30 p.m.) 4,450 sec.-ft.; Dec. 31 (1:30 a.m.) 7,980 sec.-ft.; Jan. 21 (6:30 a.m.) 7,440 sec.-ft.

Time basis: Pacific war time. 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).
Records available.- June 1911 to September 1914, September 1925 to September 1943.
Average discharge.- 20 years (1911-14, 1925-26, 1927-43), 349 second-feet.
Extremes.- Maximum discharge during year, 10,000 second-feet Jan. 21 (gage height, 9.5 feet), from rating curve extended above 4,000 second-feet by logarithmic plotting; minimum, 27 second-feet Oct. 1 (gage height, 0.27 foot).
1911-14, 1925-43: 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 above 4,000 second-feet and those for periods of no gage-height record, which are fair. Diversions above station for irrigation.

Rating tables, water year 1942-43 (gage height, in feet, and discharge, in second-feet)

Oct. 1 to Dec. 30

0.3	30	1.2	256	3.0	1,380
.4	42	1.5	337	3.5	1,830
.5	56	1.8	540	4.5	2,860
.7	101	2.2	760		
.9	154	2.6	1,060		

Note.- Same as following table above 4.5 feet.

Dec. 31 to Sept. 30

-0.1	38	1.0	297	4.0	2,360
.0	50	1.3	425	5.0	3,420
.1	63	1.7	620	6.0	4,670
.2	79	2.1	840	8.0	7,600
.4	118	2.5	1,090		
.7	195	3.0	1,470		

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	28	53	1,080	4,320	1,040	575	790	636	730	159	63	h45
2	28	55	1,040	2,770	973	560	785	610	610	149	68	49
3	28	94	734	1,990	894	555	829	636	475	141	68	h44
4	28	78	578	1,620	1,010	545	807	636	430	139	63	h40
5	29	66	502	1,370	1,020	520	1,170	605	398	136	63	h40
6	30	62	496	1,170	973	510	1,020	560	371	a130	65	h38
7	30	80	460	1,040	1,040	585	930	550	a360	a125	65	h38
8	31	285	643	942	986	796	876	510	a389	a120	66	h38
9	38	126	649	870	900	812	790	510	389	a118	62	h38
10	35	90	595	807	840	846	724	525	354	a118	62	h37
11	48	78	524	758	785	785	686	480	a320	a114	62	h36
12	47	74	490	708	746	702	702	456	a300	a105	60	h34
13	44	70	568	664	724	680	785	430	a285	a100	60	h34
14	41	238	529	642	730	653	894	412	a270	a97	55	h36
15	45	651	502	626	752	585	900	407	a255	a93	54	h34
16	45	289	529	600	780	555	818	407	a240	a90	53	h34
17	45	341	562	570	796	525	752	402	a235	a87	51	h36
18	40	524	534	530	802	500	746	380	a230	a84	54	h38
19	38	276	485	530	796	480	812	371	a220	a84	55	h38
20	47	195	507	1,050	785	461	796	367	a210	a83	54	h36
21	47	163	490	7,460	812	448	1,020	384	a210	77	53	h38
22	44	285	682	4,480	840	438	796	394	a205	79	53	h40
23	44	1,460	845	2,300	785	425	852	452	a190	83	h48	h38
24	42	1,420	1,450	1,600	736	420	768	470	a185	79	h50	h36
25	42	595	1,510	1,310	686	425	714	461	189	77	h48	h32
26	42	645	1,140	1,180	648	1,010	648	434	181	76	h46	a31
27	44	2,010	2,910	1,120	610	858	658	412	173	71	h45	h30
28	50	1,050	3,050	1,120	590	763	752	394	167	66	h44	h30
29	53	1,590	1,900	1,210	-	973	675	a365	167	66	h45	h30
30	60	1,350	3,460	1,570	-	882	653	a405	167	63	h45	h32
31	56	-	6,990	1,170	-	802	-	575	-	63	h45	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	1,269	60	28	40.9	2,520
November	14,293	2,010	53	476	28,350
December	36,434	6,990	460	1,175	72,270
Calendar year 1942	172,407	6,990	28	472	342,000
January	47,897	7,460	530	1,545	95,000
February	23,079	1,040	590	824	45,780
March	19,674	1,010	420	635	39,020
April	24,148	1,170	648	805	47,900
May	14,636	636	365	472	29,030
June	8,905	730	167	297	17,660
July	3,072	159	63	99.1	6,090
August	1,725	68	44	55.6	3,420
September	1,100	49	30	36.7	2,180
Water year 1942-43	196,232	7,460	28	538	389,200

Peak discharge.- Nov. 23 (10 p.m.) 3,820 sec.-ft.; Nov. 27 (1 a.m.) 2,530 sec.-ft.; Nov. 29 (6:30 p.m.) 2,600 sec.-ft.; Dec. 27 (7 p.m.) 4,810 sec.-ft.; Dec. 31 (3 a.m.) 9,470 sec.-ft.; Jan. 21 (8 a.m.) 10,000 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. 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.
Records available.- October 1938 to September 1943.
Extremes.- Maximum discharge during year, 15,100 second-feet Jan. 21 (gage height, 11.87 feet), from rating curve extended above 4,300 second-feet; minimum, 20 second-feet Aug. 25 (gage height, 0.65 foot)
1938-43: Maximum discharge, that of Jan. 21, 1943; minimum, 8 second-feet Sept. 7, 12, 13, 1939.
Remarks.- Records excellent except those above 5,000 second-feet, which are fair. 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 tables, water year 1942-43 (gage height, in feet, and discharge, in second-feet)

Oct. 1 to Jan. 20

0.9	32	2.5	441	5.7	3,520
1.1	52	3.0	710	7.0	5,390
1.3	80	3.5	1,050	8.5	8,010
1.6	138	4.0	1,490	10.0	11,000
2.0	248	4.7	2,260		

Jan. 21 to Sept. 30

0.7	23	2.0	253
.9	39	2.5	449
1.1	61	3.0	720
1.3	90	4.0	1,490
1.6	147		

Note.- Same as preceding table above 4.0 feet.

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	34	56	1,140	5,030	1,580	696	917	793	800	156	39	23
2	32	57	1,220	3,600	1,430	684	910	738	708	141	41	24
3	32	95	856	2,800	1,280	666	966	768	566	126	43	22
4	32	97	686	2,090	1,400	654	931	762	519	116	42	23
5	31	80	595	1,700	1,420	627	1,370	714	478	115	42	24
6	32	76	595	1,410	1,320	622	1,220	672	440	116	44	22
7	33	90	551	1,220	1,440	684	1,110	649	417	120	46	22
8	34	301	710	1,100	1,350	917	1,050	610	408	118	45	23
9	35	167	752	990	1,210	945	945	594	454	116	46	22
10	35	112	698	905	1,120	973	878	600	403	115	43	24
11	39	97	622	835	1,040	910	819	561	374	102	44	26
12	48	88	576	776	980	812	826	519	342	100	39	25
13	53	85	639	722	952	793	917	468	322	92	38	24
14	53	136	612	692	952	774	1,050	459	308	86	38	25
15	55	785	573	668	966	696	1,090	440	290	76	36	24
16	57	345	600	639	994	654	987	421	276	72	34	25
17	52	385	634	606	1,020	632	910	403	256	68	34	26
18	52	617	600	546	1,020	600	897	378	250	68	34	26
19	48	364	546	556	994	566	987	369	244	64	35	24
20	50	262	562	1,490	987	545	910	365	235	61	31	22
21	52	217	562	10,800	1,010	524	1,240	386	232	56	31	22
22	50	279	688	6,440	1,040	508	959	395	235	53	31	23
23	50	1,210	919	3,550	980	498	1,020	454	217	53	33	23
24	48	1,860	1,500	2,360	910	488	917	493	209	53	30	22
25	45	704	1,780	1,910	838	493	864	478	223	51	26	22
26	44	566	1,330	1,720	793	1,150	786	459	215	50	23	22
27	46	2,310	3,180	1,640	756	980	780	426	198	47	24	22
28	50	1,230	3,760	1,690	720	671	897	408	185	41	24	22
29	52	1,670	2,340	1,830	-	1,150	819	382	180	41	25	22
30	58	1,670	3,560	2,150	-	1,040	793	386	175	39	25	22
31	57	-	7,770	1,800	-	938	-	594	-	39	23	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	1,369	58	31	44.8	2,760
November	16,013	2,310	56	534	31,760
December	41,158	7,770	546	1,328	81,640
Calendar year 1942	201,199	7,770	24	551	399,100
January	64,065	10,800	546	2,067	127,100
February	30,502	1,580	720	1,089	60,500
March	23,090	1,150	488	745	45,800
April	28,765	1,370	760	959	57,050
May	16,164	793	365	521	32,060
June	10,159	800	175	339	20,150
July	2,553	156	39	82.4	5,060
August	1,039	46	23	35.1	2,160
September	696	26	22	23.3	1,380
Water year 1942-43	235,645	10,800	22	646	467,400

Peak discharge.- Nov. 23 (11:30 p.m.) 4,060 sec.-ft.; Nov. 27 (3:30 a.m.) 2,830 sec.-ft.; Nov. 29 (9 p.m.) 2,970 sec.-ft.; Dec. 27 (8 p.m.) 5,450 sec.-ft.; Dec. 31 (5 a.m.) 10,200 sec.-ft.; Jan. 21 (8:30 a.m.) 15,100 sec.-ft.
Time basis: Pacific war time. 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).

Records available.- October 1938 to September 1943.

Extremes.- Maximum discharge observed during year, 22,200 second-feet Jan. 21 (gage height, 16.10 feet), from rating curve extended above 9,500 second-feet by logarithmic plotting; minimum observed, 24 second-feet Oct. 4.

1938-43: Maximum discharge observed, that of Jan. 21, 1943; minimum observed, 3.0 second-feet Sept. 12-15, 18-25, 1939.

Remarks.- Records good. Many diversions above station for irrigation and mining. Two irrigation ditches on left bank divert about 17 second-feet around station. Gage read once daily Oct. 1-31, Apr. 1 to Sept. 30, twice daily Nov. 1 to Mar. 31.

Rating tables, water year 1942-43 (gage height, in feet, and discharge, in second-feet)

Oct. 1 to Jan. 20						Jan. 21 to Sept. 30					
1.3	24	2.8	306	6.0	2,920	1.2	23	3.0	595	7.0	4,200
1.5	35	3.2	480	7.0	4,480	1.5	42	3.7	790	8.5	6,450
1.8	64	3.7	760	8.5	6,450	1.8	70	4.4	1,290	10.5	10,000
2.2	129	4.3	1,160	10.0	9,100	2.2	131	5.2	2,040	13.5	16,200
2.5	204	5.0	1,820	12.0	13,000	2.5	206	6.0	2,920		

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	26	96	1,860	8,130	2,680	981	1,310	1,010	967	195	39	31
2	26	96	2,040	6,260	2,500	946	1,350	939	932	181	38	30
3	25	125	1,460	4,130	2,170	911	1,330	960	803	153	31	32
4	24	176	1,150	3,290	2,330	925	1,270	939	713	133	30	31
5	37	147	984	2,850	2,390	883	1,870	904	647	116	30	31
6	37	129	1,130	2,390	2,160	848	1,590	790	583	112	28	33
7	35	151	1,180	2,050	2,420	897	1,440	777	550	102	30	29
8	35	398	3,440	1,840	2,280	1,150	1,360	764	490	106	33	30
9	37	314	2,420	1,640	2,060	1,240	1,270	713	506	101	31	30
10	38	220	1,840	1,420	1,830	1,230	1,160	695	470	107	31	28
11	37	187	1,460	1,290	1,700	1,220	1,060	653	435	96	31	30
12	41	166	1,220	1,160	1,590	1,080	1,050	600	386	92	36	31
13	55	156	1,170	1,080	1,520	1,050	1,120	572	359	80	38	30
14	64	190	1,130	997	1,480	1,060	1,270	550	338	69	33	31
15	70	1,640	1,020	952	1,500	967	1,310	495	317	61	30	28
16	82	724	978	919	1,550	911	1,210	475	301	59	31	30
17	86	1,280	958	880	1,510	869	1,120	390	271	71	28	29
18	87	2,230	938	796	1,470	816	1,090	425	247	70	28	30
19	90	1,080	874	772	1,430	777	1,220	435	254	75	30	29
20	93	724	874	3,480	1,420	744	1,120	405	237	66	28	26
21	88	520	926	16,200	1,420	719	1,530	420	225	67	30	25
22	86	500	1,010	11,600	1,450	689	1,250	356	218	54	31	27
23	81	1,240	1,900	5,700	1,390	653	1,360	430	215	52	30	29
24	78	3,540	3,050	3,850	1,290	641	1,200	485	218	50	31	51
25	75	1,460	3,630	3,140	1,210	665	1,090	475	264	48	29	31
26	72	1,050	2,530	2,800	1,140	1,200	995	445	279	47	28	33
27	75	3,960	4,840	2,740	1,060	1,340	1,010	425	251	45	30	45
28	81	2,320	7,130	3,440	1,010	1,150	1,140	405	231	47	27	44
29	84	2,390	4,030	3,330	-	1,530	1,020	386	225	44	29	43
30	87	2,910	5,910	4,050	-	1,570	981	377	206	42	30	30
31	96	-	12,800	3,160	-	1,390	-	677	-	41	31	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	1,928	96	24	62.2	3,820
November	30,119	3,960	96	1,004	59,740
December	75,862	12,800	874	2,448	150,500
Calendar year 1942	295,163	12,800	21	809	585,500
January	106,336	16,200	772	3,430	210,900
February	47,960	2,680	1,010	1,713	95,130
March	31,052	1,570	641	1,002	61,590
April	37,096	1,870	981	1,237	73,580
May	18,402	1,010	377	594	36,500
June	12,138	967	206	405	24,080
July	2,582	195	41	83.3	5,120
August	960	39	27	31.0	1,900
September	957	51	25	31.9	1,900
Water year 1942-43	365,412	16,200	24	1,001	724,800

Time basis: Pacific war time. 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 1943.
Average discharge.- 17 years, 1,089 second-feet.
Extremes.- Maximum discharge during year, 28,900 second-feet Dec. 31 (gage height, 21.23 feet), from rating table extended above 3,500 second-feet; minimum observed, 32 second-feet Oct. 5-7.
1926-43: 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 Oct. 1 to Jan. 22 and those for period of shifting control, which are fair. Diversions above station for irrigation.

Rating tables, water year 1942-43 (gage height, in feet, and discharge, in second-feet) (Shifting-control method used Sept. 16-30).

Oct. 1 to Dec. 30						Dec. 31 to Sept. 30					
-0.7	32	1.0	440	7.0	4,620	0.3	35	2.0	615	9.0	6,950
- .5	64	1.8	745	9.0	6,950	.5	72	2.8	1,000	12.0	11,350
- .3	101	2.5	1,240	12.0	11,350	.7	120	4.0	1,600	15.0	16,500
0.0	166	4.0	1,980	15.0	16,500	1.0	215	5.5	3,120	18.0	22,200
0.4	265	5.5	3,200	18.0	22,200	1.4	360	7.0	4,620		

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	a34	a68	4,210	12,500	2,800	670	3,170	1,140	2,130	222	70	49
2	h34	a72	4,430	9,130	2,770	840	2,440	1,060	1,730	208	70	51
3	a33	h103	2,840	5,480	2,470	830	2,140	1,000	1,130	204	66	47
4	a33	a95	2,110	4,110	3,720	805	1,820	950	890	204	68	42
5	a32	a90	1,880	3,530	3,580	785	1,940	900	780	187	74	42
6	h32	a88	2,610	2,840	2,810	780	1,780	855	669	184	70	42
7	a32	a400	3,530	2,340	3,550	990	1,620	810	592	165	64	44
8	a34	1,850	10,600	1,990	3,220	1,980	1,570	765	543	156	64	38
9	a40	660	7,470	1,730	2,590	1,740	1,460	732	459	153	59	38
10	h35	422	4,680	1,530	2,280	1,700	1,340	700	452	150	59	37
11	a50	323	3,210	1,380	2,040	1,510	1,240	664	428	138	57	37
12	a49	270	2,610	1,220	1,910	1,330	1,190	638	404	135	55	40
13	h46	250	2,980	1,140	1,880	1,250	1,170	620	400	129	51	40
14	a45	1,720	2,430	1,030	1,880	1,620	1,190	579	376	118	49	37
15	a50	6,290	2,040	980	1,850	1,440	1,190	570	328	108	49	37
16	a50	3,600	1,800	885	1,800	1,310	1,130	566	310	100	49	37
17	h50	6,360	1,660	815	1,730	1,230	1,040	530	296	95	47	35
18	a48	7,210	1,490	736	1,650	1,150	900	494	288	90	46	37
19	a47	3,500	1,350	700	1,540	1,070	975	472	282	86	44	38
20	a62	2,050	1,800	8,460	1,450	1,010	1,270	440	260	86	42	38
21	h62	1,520	2,260	21,700	1,420	960	2,730	440	268	86	44	33
22	a58	3,580	4,130	11,900	1,360	895	1,970	436	306	79	46	33
23	a57	6,970	6,760	5,760	1,280	830	2,020	440	324	86	47	33
24	a52	7,280	8,620	3,930	1,180	780	1,710	444	292	84	47	33
25	a51	3,370	7,010	3,130	1,100	770	1,450	436	310	81	47	33
26	h50	3,410	5,050	3,010	1,040	1,700	1,280	416	299	81	47	33
27	a52	10,500	14,000	3,990	965	1,660	1,270	400	268	79	44	35
28	a58	4,350	11,200	5,050	900	1,380	1,370	376	250	74	42	35
29	a64	5,060	6,850	4,930	-	2,290	1,310	372	236	72	46	37
30	a72	4,870	18,300	5,560	-	2,860	1,220	404	240	70	47	37
31	a70	-	21,200	3,680	-	3,620	-	950	-	70	49	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	1,482	72	32	47.8	2,940
November	86,331	10,500	68	2,878	171,200
December	171,310	21,200	1,350	5,526	339,800
Calendar year 1942	541,551	21,200	32	1,484	1,074,000
January	135,166	21,700	700	4,360	268,100
February	56,715	3,720	900	2,026	112,500
March	41,985	3,620	770	1,354	83,280
April	46,925	3,170	900	1,564	93,070
May	19,589	1,140	372	632	38,850
June	15,540	2,130	236	518	30,820
July	3,780	222	70	122	7,500
August	1,659	74	42	53.5	3,290
September	1,148	51	33	38.3	2,280
Water year 1942-43	581,630	21,700	32	1,594	1,154,000

Peak discharge.- Nov. 23 (9:30 p.m.) 15,500 sec.-ft.; Nov. 27 (2 a.m.) 16,000 sec.-ft.; Dec. 27 (4:30 p.m.) 18,400 sec.-ft.; Dec. 31 (3 a.m.) 28,900 sec.-ft.; Jan. 20 (6 p.m.) 18,200 sec.-ft.; Jan. 21 (10 a.m.) 26,100 sec.-ft.

a No gage-height record; discharge computed on basis of Applegate River near Ruch and Bear Creek at Medford.

h Computed from staff-gage reading.

Time basis: Pacific war time. 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 periodically since 1932. Results of previous discharge measurements have been published in Water-Supply Papers 834, 864, 884, 904, 934, and 964.

Discharge measurements, in second-feet, of springs in Walla Walla River Basin, Oreg.-Wash., during water year October 1942 to September 1943†

Springs of the inner zone

Nicholas Spring, Oreg., NE¼NE¼ sec. 24, T. 6 N., R. 35 E., 150 feet above confluence of spring channel and Walla Walla River

Date	Discharge	Date	Discharge	Date	Discharge	Date	Discharge
Oct. 12	0.24	Feb. 19	1.30	May 13	1.95		
Nov. 10	.46	Mar. 20	1.10	June 22	1.52		
Jan. 16	1.59	Apr. 22	1.88	Sept.22	.58		

Big Spring Branch (west prong), Oreg., SE¼NE¼ sec. 24, T. 6 N., R. 35 E., at Ballou residence, 75 feet above bridge on county road

Oct. 12	5.33	Jan. 16	10.8	Apr. 21	11.4	Sept.22	4.15
Nov. 10	6.70	Feb. 19	8.75	May 12	13.3		
Dec. 15	9.47	Mar. 20	9.48	June 21	17.8		

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

Oct. 12	1.97	Jan. 16	4.05	Apr. 21	3.32	Sept.22	1.66
Nov. 10	3.02	Feb. 19	3.53	May 12	3.58		
Dec. 15	3.37	Mar. 21	3.36	June 21	4.29		

Engle Spring, Oreg., NW¼SE¼ sec. 23, T. 6 N., R. 35 E., at diversion dam

Oct. 12	3.00	Jan. 17	3.00	Apr. 22	3.08	Sept.25	2.35
Nov. 10	3.58	Feb. 22	2.68	May 12	3.64		
Dec. 15	2.96	Mar. 21	2.72	June 22	3.19		

Downing Spring, Oreg., SE¼SW¼ sec. 23, T. 6 N., R. 35 E., at weir, 200 feet below spring orifice

Oct. 12	1.83	Jan. 14	2.46	Apr. 21	1.50	Sept.24	1.74
Nov. 10	1.83	Feb. 19	2.09	May 12	2.27		
Dec. 15	2.18	Mar. 20	1.58	June 21	3.67		

Haun Spring, Oreg., NW¼SE¼ sec. 23, T. 6 N., R. 35 E., at Haun farm, 50 feet above highway crossing

Oct. 12	1.30	Jan. 15	1.47	Apr. 21	1.38	Sept.22	1.39
Nov. 10	1.45	Feb. 19	1.34	May 12	1.52		
Dec. 15	1.78	Mar. 20	1.52	June 21	2.10		

Springs of the intermediate and outer zones

McEvoy Spring, Wash., SE¼NW¼ sec. 10, T. 6 N., R. 35 E., at McEvoy farm and 200 feet above Walla Walla Valley Railway

Oct. 10	3.75	Feb. 20	3.11	May 13	2.91		
Nov. 10	3.81	Mar. 20	3.38	June 22	4.60		
Jan. 16	3.08	Apr. 22	2.37	Sept.24	3.95		

† Measurements by the Oregon State Water Resources Department.

[1] Piper, A. M., Robinson, T. W., and Thomas, H. E., Ground water in the Walla Walla Basin, Oregon-Washington: 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 1942 to September 1943--Continued

Springs of the intermediate and outer zones--Continued

Lewis Spring, Oreg., NW¼NW¼ sec. 23, T. 6 N., R. 35 E., below road crossing

Date	Discharge	Date	Discharge	Date	Discharge	Date	Discharge
Oct. 12	2.15	Jan. 5	2.09	Apr. 21	1.83	Sept.22	2.05
Nov. 10	1.97	Feb. 19	2.16	May 12	1.92		
Dec. 15	2.33	Mar. 20	2.04	June 21	2.41		

Unnamed spring, Wash., NW¼NE¼ sec. 16, T. 6 N., R. 35 E., at a small diversion structure

Oct. 10	2.47	Feb. 20	3.06	May 13	2.86		
Nov. 10	2.71	Mar. 20	2.63	June 22	3.28		
Jan. 15	3.15	Apr. 22	2.16	Sept.24	2.39		

East Mud Creek (west prong), Oreg., SW¼SW¼ sec. 22, T. 6 N., R. 35 E., at weir

Oct. 10	1.96	Jan. 16	1.96	Apr. 22	1.92	Sept.25	2.40
Nov. 9	2.82	Feb. 20	1.90	May 13	‡3.81		
Dec. 15	2.92	Mar. 21	1.48	June 22	3.80		

‡ Irrigation waste water entering spring channel above measuring section.

East Mud Creek (east prong), Oreg., SE¼SW¼ sec. 22, T. 6 N., R. 35 E., in diversion ditch, 150 feet below diversion dam

Oct. 10	1.11	Jan. 16	0.99	Apr. 22	0.49	Sept.24	1.25
Nov. 9	1.24	Feb. 20	1.06	May 13	1.28		
Dec. 15	1.64	Mar. 21	.75	June 22	1.57		

East Mud Creek (branch of), Oreg., SW¼SW¼ sec. 16, T. 6 N., R. 35 E., near Lockwood dwelling

Oct. 10	1.52	Jan. 15	4.96	Apr. 22	1.95	Sept.24	1.90
Nov. 10	3.31	Feb. 20	3.71	May 13	4.06		
Dec. 15	4.46	Mar. 20	2.89	June 22	5.06		

South Mud Creek, Oreg., SE¼NW¼ sec. 28, T. 6 N., R. 35 E., at Von der Ahe farm

Oct. 10	1.55	Jan. 16	1.20	Apr. 17	1.24	Sept.25	1.78
Nov. 9	2.99	Feb. 20	1.00	May 14	2.83		
Dec. 15	1.76	Mar. 21	1.09	June 22	3.63		

Johnson Creek, Oreg., SE¼NW¼ sec. 29, T. 6 N., R. 35 E., at two weirs

Oct. 10	2.79	Jan. 14	3.22	Apr. 21	3.76	Sept.24	3.11
Nov. 9	2.79	Feb. 19	2.19	May 11	‡5.91		
Dec. 15	2.49	Mar. 20	1.92	June 21	4.56		

‡ Irrigation waste water entering spring channel above measuring section.

Dugger Creek, Oreg., NW¼NW¼ sec. 32, T. 6 N., R. 35 E., at two weirs

Oct. 10	5.72	Jan. 14	-	Apr. 17	5.98	Sept.24	6.70
Nov. 9	9.97	Feb. 19	4.7	May 12	7.54		
Dec. 15	7.54	Mar. 20	5.21	June 21	8.82		

Schwartz Spring Branch (south prong), Oreg., SW¼SE¼ sec. 23, T. 6 N., R. 34 E., at weirs

Oct. 10	2.59	Jan. 14	6.88	Apr. 21	4.39	Sept.25	2.91
Nov. 9	3.15	Feb. 20	4.53	May 14	6.21		
Dec. 15	5.73	Mar. 20	4.26	June 21	7.87		

Schwartz Spring Branch (north prong), Oreg., NE¼SW¼ sec. 23, T. 6 N., R. 34 E., in ditch diverting from spring

Oct. 10	3.88	Jan. 14	4.81	Apr. 21	3.75	Sept.25	3.69
Nov. 9	4.02	Feb. 20	3.84	May 14	4.52		
Dec. 15	5.39	Mar. 20	4.43	June 21	4.26		

South Mud Creek, Oreg., SW¼SE¼ sec. 13, T. 6 N. R. 34 E., at Krumbaugh farm

Oct. 10	5.58	Jan. 15	5.47	Apr. 21	5.22	Sept.25	4.56
Nov. 10	5.26	Feb. 20	4.51	May 14	5.87		
Dec. 15	4.82	Mar. 20	4.24	June 21	5.21		

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 1942 to September 1943

Columbia River main stem, Oreg.-Wash.

Date	Stream	Tributary to or diverting from—	Locality	Discharge (sec.-ft.)
July 2	Columbia River.....	Pacific Ocean.....	At Pacific Highway bridges across Columbia slough, Oregon slough, and main channel of Columbia River between Portland, Oreg. and Vancouver, Wash.	a515,600

a Includes Columbia slough, 130 second-feet, and Oregon slough, 108,300 second-feet.

Walla Walla River Basin, Oreg.- Wash.

Sept. 7	Walla Walla River....	Columbia River.....	NE¼SW¼ sec. 18, T. 5 N., R. 36 E., above power plant, 1,800 feet upstream from Couse Creek, near Milton, Oreg.	14.5
Oct. 19	Couse Creek.....	Walla Walla River..	SW¼SW¼ sec. 18, T. 5 N., R. 36 E., near mouth.	0
Sept. 7	....do.....	....do.....	....do.....	b.03
Oct. 20	Pine Creek.....	....do.....	NE¼ sec. 22, T. 4 N., R. 35 E., at highway bridge, at Weston, Oreg.	Trace
Sept.10	....do.....	....do.....	....do.....	b.02
Oct. 20	Dry Creek.....	....do.....	SE¼ sec. 35, T. 5 N., R. 35 E., at road crossing 3/4 mile south of Blue Mountain and 3½ miles northeast of Weston, Oreg.	Trace
Sept. 7	....do.....	....do.....	....do.....	b.6
Dec. 29	Touchet River.....	....do.....	Sec. 7, T. 9 N., R. 37 E., just downstream from road bridge, 1/8 mile south of Bolles, Wash.	627
Feb. 26	....do.....	....do.....	....do.....	392
26	....do.....	....do.....	....do.....	390
Apr. 8	....do.....	....do.....	....do.....	872
May 5	....do.....	....do.....	....do.....	413
June 16	....do.....	....do.....	....do.....	163
Aug. 19	....do.....	....do.....	....do.....	29.9
Dec. 28	Wolf Creek.....	East Fork Touchet River.	SW¼ sec. 23, T. 9 N., R. 39 E., 500 feet downstream from Robinson Creek, near Dayton, Wash.	117
Feb. 27	....do.....	....do.....	....do.....	80.6
Apr. 8	....do.....	....do.....	....do.....	167
May 6	....do.....	....do.....	....do.....	96.1
June 16	....do.....	....do.....	....do.....	57.6
Aug. 19	....do.....	....do.....	....do.....	21.5
Dec. 29	South Fork Touchet River.	Touchet River.....	Sec. 31, T. 10 N., R. 39 E., just upstream from mouth, near Dayton, Wash.	142
Feb. 26	....do.....	....do.....	....do.....	68.1
Apr. 8	....do.....	....do.....	....do.....	151
May 6	....do.....	....do.....	....do.....	73.8
June 16	....do.....	....do.....	....do.....	32.6
Aug. 19	....do.....	....do.....	....do.....	1.97
Dec. 28	Patit Creek.....	....do.....	Sec. 30, T. 10 N., R. 39 E., 400 feet upstream from mouth, at Dayton, Wash.	106
Feb. 26	....do.....	....do.....	....do.....	45.0
Apr. 8	....do.....	....do.....	....do.....	178
May 6	....do.....	....do.....	....do.....	32.8
June 16	....do.....	....do.....	....do.....	5.28

b Estimated.

Willow Creek Basin, Oreg.

Feb. 16	Willow Creek.....	Columbia River.....	NW¼NW¼ sec. 35, T. 2 S., R. 26 E., above Hinton Creek, at Heppner.	74.3
Aug. 9	....do.....	....do.....	....do.....	.78
Feb. 16	Hinton Creek.....	Willow Creek.....	SW¼SW¼ sec. 26, T. 2 S., R. 26 E., near intersection of K and Elder Streets in Heppner.	19.3
Aug. 9	....do.....	....do.....	....do.....	.46
Feb. 15	Rhea Creek.....	....do.....	SE¼SE¼ sec. 35, T. 3 S., R. 25 E., 1½ miles upstream from McKinney Creek and 8 miles southwest of Heppner.	107
15	....do.....	....do.....	....do.....	100
Aug. 9	....do.....	....do.....	....do.....	2.90

Deschutes River Basin, Oreg.

Oct. 16	Rock Creek.....	Cultus River in Crane Prairie Reservoir.	Sec. 6, T. 21 S., R. 8 E., above Cold Creek.	19.5
29	....do.....	....do.....	....do.....	13.3
16	Cold Creek.....	Rock Creek.....	Mouth, sec. 6, T. 21 S., R. 8 E.	1.5
29	....do.....	....do.....	....do.....	1.5
May 19	North Fork Davis Creek.	Davis Creek.....	SW¼ sec. 7, T. 22 S., R. 8 E., near Lapine.	79.6
Oct. 19	Indian Creek.....	Fall River.....	SE¼ sec. 36, T. 20 S., R. 9 E., near Fall River hatchery.	.2

Miscellaneous discharge measurements in Pacific slope basins in Oregon and lower Columbia River Basin during water year October 1942 to September 1943--Continued

Deschutes River Basin, Oreg.--Continued

Date	Stream	Tributary to or diverting from--	Locality	Discharge (sec.-ft.)
Oct. 22	Beaver Creek.....	Crooked River.....	NE¼ sec. 26, T. 16 S., R. 23 E., ½ mile above Congleton Ranch and 3 miles northeast of Paulina.	c3.28
22	North Fork.....	Beaver Creek.....	SE¼ sec. 21, T. 16 S., R. 25 E., 1¼ miles south of Powell Ranch and 13 miles northeast of Paulina.	c1.54
22	North Fork Crooked River.	Crooked River.....	SW¼ sec. 21, T. 14 S., R. 22 E., 3/4 mile upstream from Deep Creek and 15 miles northeast of Paulina.	c8.67

c At gaging station maintained by U. S. Bureau of Reclamation.

Wind River Basin, Wash.

Oct. 15	Little Wind River....	Wind River.....	SW¼SW¼ sec. 22, T. 3 N., R. 8 E., just upstream from mouth, near Carson.	2.35
Dec. 16	....do.....	....do.....	....do.....	76.5
Mar. 22	....do.....	....do.....	....do.....	32.7

Sandy River Basin, Oreg.

Aug. 13	South Fork Bull Run River.	Bull Run River.....	Mouth, SW¼ sec. 30, T. 1 S., R. 6 E., 6 miles northeast of Bull Run.	17.0

Washougal River Basin, Wash.

Oct. 14	Little Washougal River.	Washougal River....	SW¼ sec. 32, T. 2 N., R. 4 E., 300 feet upstream from mouth, near Washougal.	10.4
14	Lacamas Creek.....	....do.....	SW¼ sec. 7, T. 2 N., R. 3 E., just upstream from mouth of Fifth Plain Creek, near Camas.	3.83
14	....do.....	....do.....	Sec. 20, T. 2 N., R. 3 E., at bridge near Camas.	10.4
14	Fifth Plain Creek....	Lacamas Creek.....	SW¼ sec. 7, T. 2 N., R. 3 E., at road bridge near mouth, near Camas.	2.78

Willamette River Basin, Oreg.

Oct. 23	Leakage through tunnel from Waldo Lake.	Black Creek.....	Outlet of unused tunnel from Klovdahl Bay on west side of Waldo Lake.	4.30
May 8	Leaburg power canal.	McKenzie River.....	One mile below diversion dam of City of Eugene and 3 miles northeast of Leaburg.	1,230
8	Eugene power canal.	....do.....	SE¼ sec. 22, T. 17 S., R. 1 W., 1½ miles below intake.	1,010
Oct. 21	Calapooya River.....	Willamette River...	Mouth, below power canal, at Albany.	152
May 25	....do.....	....do.....	....do.....	448
Sept. 13	....do.....	....do.....	....do.....	208
Mar. 31	Pringle Creek.....	....do.....	SE¼ sec. 27, T. 7 S., R. 3 W., on Mission Street, at Salem.	762
Oct. 7	South Fork Silver Creek.	Silver Creek.....	Sec. 14, T. 8 S., R. 1 E., above Silver Falls.	1.6
Aug. 10	Mill Creek.....	Pudding River.....	Mouth, at Aurora.....	8.3

Salmon Creek Basin, Wash.

Oct. 13	Salmon Creek.....	Columbia River.....	NE¼ sec. 12, T. 3 N., R. 2 E., at county road crossing, near Battle Ground.	4.07
13	....do.....	....do.....	NE¼SW¼ sec. 15, T. 3 N., R. 2 E., 100 feet upstream from Weaver Creek, near Vancouver.	5.82
13	....do.....	....do.....	SW¼SE¼ sec. 26, T. 3 N., R. 1 E., just upstream from Pacific Highway, near Vancouver.	17.4
13	....do.....	....do.....	SE¼NE¼ sec. 28, T. 3 N., R. 1 E., ¼ mile upstream from Cougar Canyon Creek, near Vancouver.	19.2
13	Muddy Creek.....	Salmon Creek.....	SE¼ sec. 12, T. 3 N., R. 2 E., ½ mile upstream from confluence with Salmon Creek, near Battle Ground.	1.06
13	Weaver Creek.....	....do.....	Sec. 15, T. 3 N., R. 2 E., at mouth, near Brush Prairie.	.97
13	Unnamed.....	....do.....	NE¼NW¼ sec. 29, T. 3 N., R. 2 E., just upstream from bridge, 0.4 mile upstream from mouth, near Brush Prairie.	2.14
13	Mill Creek.....	....do.....	SW¼SE¼ sec. 24, T. 3 N., R. 1 E., at bridge at mouth, near Vancouver.	.60

Lewis River Basin, Wash.

Oct. 12	Cedar Creek.....	Lewis River.....	NE¼SW¼ sec. 11, T. 5 N., R. 2 E., just upstream from bridge, at Dayton.	10.5
12	....do.....	....do.....	NW¼NE¼ sec. 8, T. 5 N., R. 2 E., at road crossing, near Etna.	12.3

Miscellaneous discharge measurements in Pacific slope basins in Oregon and lower Columbia River Basin during water year October 1942 to September 1943--Continued

Cowlitz River Basin, Wash.

Date	Stream	Tributary to or diverting from--	Locality	Discharge (sec.-ft.)
Aug. 7	Olequa Creek.....	Cowlitz River.....	NW¼SW¼ sec. 33, T. 12 N., R. 2 W., at Winlock.	5.74
7	....do.....	....do.....	SW¼SW¼ sec. 29, T. 11 N., R. 2 W., just upstream from Stillwater Creek, at Vader.	9.32
7	Stillwater Creek.....	Olequa Creek.....	W½ sec. 30, T. 11 N., R. 2 W., at bridge, one mile west of Vader.	8.80
Feb. 24	Outlet Creek.....	Toutle River.....	NW¼ sec. 30, T. 10 N., R. 1 E., at road crossing, near Silver Lake.	227
Mar. 19	....do.....	....do.....	....do.....	79.4
May 7	....do.....	....do.....	....do.....	89.2
June 22	....do.....	....do.....	....do.....	26.1

Rogue River Basin, Oreg.

May 9	Cool Creek.....	Mill Creek.....	Sec. 32, T. 32 S., R. 3 E., at Prospect.	13.1
9	Sheep Creek.....	....do.....	Sec. 29, T. 32 S., R. 3 E., above main power canal, at Prospect.	d13.1
9	....do.....	....do.....	Sec. 29, T. 32 S., R. 3 E., at Crater Lake highway crossing.	8.7
9	....do.....	....do.....	Sec. 29, T. 32 S., R. 3 E., 400 feet below Crater Lake highway crossing.	b2.5
10	Power canal headrace..	Rogue River.....	600 feet above forebay of The California Oregon Power Co.'s power plant near Prospect.	e974
Oct. 11	Big Draw Creek.....	South Fork Little Butte Creek.	About sec. 4, T. 38 S., R. 4 E., at crossing on Ashland-Fish Lake Road.	1.5
11	Daley Creek.....	Big Draw Creek.....	Sec. 33, T. 37 S., R. 4 E., at Dead Indian Road crossing.	.3
11	Pole Bridge Creek.....	....do.....	SE¼ sec. 28, T. 37 S., R. 4 E., at Dead Indian Road crossing.	.1
11	Dead Indian Creek.....	South Fork Little Butte Creek.	SW¼ sec. 15, T. 38 S., R. 3 E., at Dead Indian Road crossing.	.75
July 13	Indian Creek.....	Rogue River.....	Sec. 29, T. 36 S., R. 14 W., 500 feet above intake of Wedderburn Water Co.	4.19

b Estimated.
d Reported that surface flow started about Feb. 1 and at some subsequent time was so high that water ran down highway toward Prospect.
e Output of power plants, in kilowatts: Plant 1, 4,600; plant 2, 35,500.

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