UNITED STATES DEPARTMENT OF THE INTERIOR
HAROLD L. ICKES, Secretary
GEOLOGICAL SURVEY
W. E. WRATHER, Director

Water-Supply Paper 1014

SURFACE WATER SUPPLY *of the* UNITED STATES

1944

PART 14

PACIFIC SLOPE BASINS IN OREGON AND LOWER COLUMBIA RIVER BASIN

Prepared by
Water Resources Branch
Division of Surface Water

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

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ILLUSTRATION

SURFACE WATER SUPPLY OF PACIFIC SLOPE BASINS IN OREGON AND LOWER COLUMBIA RIVER BASIN, 1944

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, 1944. The work was begun in 1888 in connection with special studies relating to irrigation. Measurements of the flow of streams and of the stage and contents of lakes and reservoirs have been made at about 10,000 gaging stations in the 48 States and also at many in the Territories of Alaska and Hawaii. In July 1944, 5,340 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.

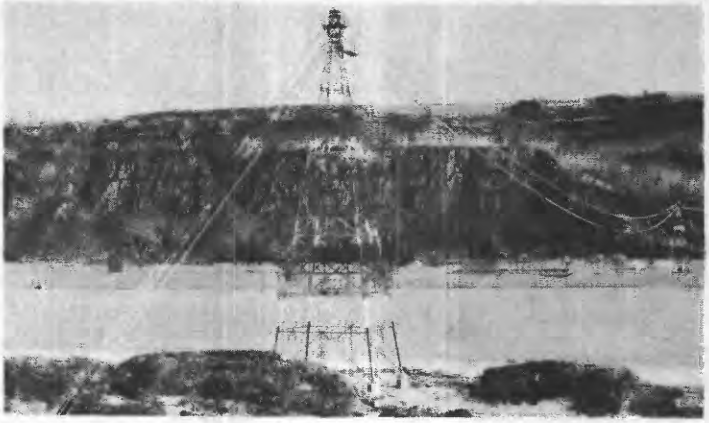
Rating tables giving the discharge for any stage are prepared from the discharge measurements. The application of the daily mean gage height to those rating tables gives the daily mean discharge, from which the monthly and the yearly mean discharge are computed. If the stage-discharge relation is subject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

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

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

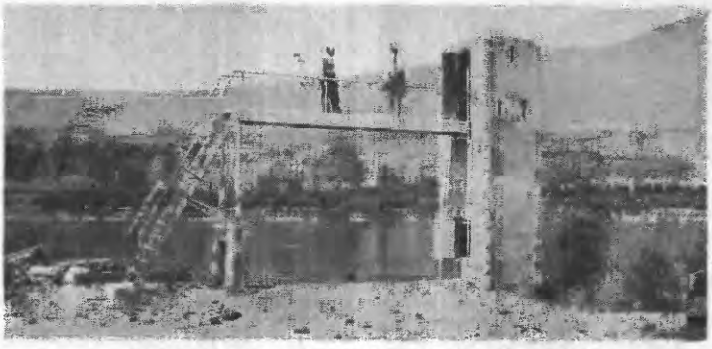
For most of the gaging stations on streams in the area covered by this report the data presented comprise a description of the station, a table showing the daily discharge of the stream, and a table of monthly and yearly discharge and runoff. Skeleton rating

5×7



WSP 137
4½ × 7

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



Not the same
WSP #91
4½ × 8
but similar

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

C. WILLAMETTE RIVER AT ALBANY, OREG.

FIGURE 1.—GAGING-STATION STRUCTURES.

Not in album
Use - WSP #70
4 × 6½

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

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

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

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

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

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 or reservoirs or for other changes incident to use and control. Evaporation from a reservoir is not included in the adjustments for changes in reservoir contents, unless its inclusion is indicated. Figures of second-feet per square mile and runoff in inches are also omitted if the drainage area includes large noncontributing areas or if the average annual rainfall over the drainage area is less than 20 inches.

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

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

PUBLICATIONS

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

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

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

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

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

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

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

East of the Mississippi River:
Albany, N. Y., 528 Federal Building.
Asheville, N. C., 220 Post Office Building.
Atlanta, Ga., 410 Grand Theater Building.
Augusta, Maine, Statehouse.
Baton Rouge, La., 124 Geology Building, Louisiana State University.
Boston, Mass., 939 Post Office Building.
Charleston, W. Va., 408 Union Building.
Charlottesville, Va., House G, Dawson Row, University of Virginia.
Chattanooga, Tenn., 442 Post Office Building.
College Park, Md., 105 Engineering Building, University of Maryland.
Columbia, S. C., 207 Creason Building.
Columbus, Ohio, 404 Engineering Experiment Station, Ohio State University.
Harrisburg, Pa., 490 Education Building.
Hartford, Conn., 203 Federal Building.
Indianapolis, Ind., 205 Underwriters Building.
Jackson, Miss., 208 Millsaps Building.
Knoxville, Tenn., 337 Post Office Building.
Louisville, Ky., 531 Federal Building.
Madison, Wis., 666 State Office Building.
Montgomery, Ala., 507 Post Office Building.
Morgantown, W. Va., 406 Mineral Industries Building.
New Philadelphia, Ohio, Muskingum Watershed Conservancy District Building.
Ocala, Fla, 304 Post Office Building.
Pittsburgh, Pa., 515 Plaza Building.
Raleigh, N. C., 242 Education Building.
St. Paul, Minn., 1427 New Post Office Building.
Trenton, N. J., 228 Federal Building.
Urbana, Ill., 14 Post Office Annex, Elm Street.
Washington, D. C., Federal Works Agency Building.
Williamsburg, Ky., Kentucky Highway Building.

West of the Mississippi River:
Albuquerque, N. Mex., 723 North Second Street.
Austin, Tex., 302 West Fifteenth Street.
Bismarck, N. Dak., 1301 State Capitol.
Boise, Idaho, 429 Federal Building.
Denver, Colo., 310 Denham Building.
Fort Smith, Ark., 6 Post Office Building.
Helena, Mont., 408 Federal Building.
Honclulu, Hawaii, 225 Federal Building.
Idaho Falls, Idaho, 204 Federal Building.
Iowa City, Iowa, 508 Hydraulic Laboratory, University of Iowa.
Lincoln, Nebr., 349 Statehouse.
Los Angeles, Calif. 429-F United States Post Office and Courthouse.
Oklahoma City, Okla., 535 State Capitol.
Pierre, S. Dak., City Hall.
Portland, Oreg., 606 Post Office Building.
Rolla, Mo., Missouri Geological Survey Building, Missouri School of Minss 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.

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

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

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

Report	Character of data	Year
10th A, pt. 2	Descriptive information only.	
11th A, pt. 2	Monthly discharge and descriptive information.....	1884 to September 1890.
12th A, pt. 2	....do.....	1884 to June 30, 1891.
13th A, pt. 3	....do.....	1884-92.
14th A, pt. 2	Monthly discharge.....	1888-93.
B 131.....	Descriptions, measurements, gage heights, and ratings.....	1893-94.
16th A, pt. 2	Descriptive information only.	
B 140.....	Descriptions, measurements, gage heights, ratings, and monthly discharge.	1895.
W 11.....	Gage heights.....	1896.
18th A, pt. 4	Descriptions, measurements, ratings, and monthly discharge...	1895-96.
W 15.....	Descriptions, measurements, and gage heights of streams east of the Mississippi River, and Missouri River and tributaries above Kansas River.	1897.
W 16.....	Descriptions, measurements, and gage heights of streams west of the Mississippi River, except Missouri River and tributaries above Kansas River.	1897.
19th A, pt. 4	Descriptions, measurements, ratings, and monthly discharge.	1897.
W 27.....	Measurements, ratings, and gage heights of streams east of the Mississippi River, and Missouri River and tributaries.	1898.
W 28.....	Measurements, ratings, and gage heights of streams west of the Mississippi River, except Missouri River and tributaries.	1898.
20th A, pt. 4	Monthly discharge.....	1898.
W 35 to 39...	Descriptions, measurements, gage heights, and ratings.....	1899.
21st A, pt. 4	Monthly discharge.....	1899.
W 47 to 52...	Descriptions, measurements, gage heights, and ratings.....	1900.
22d A, pt. 4.	Monthly discharge.....	1900.
W 65, 66.....	Descriptions, measurements, gage heights, and ratings.....	1901.
W 75.....	Monthly discharge.....	1901.

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

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

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

Numbers of water-supply papers containing results of stream measurements, 1899-1944

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

Year	1	2	3	4	5	6	7	8	9	10	11	12	13	14
1899 a...	35	b35, 36	36	36	36	c36, 37	37	37	d37, 38	38, e39	38, f39	38	38	38
1900 g...	47, h48	48	48, 149	49	49	49, j50	50	50	50	51	51	51	51	51
1901.....	65, 75	65, 75	65, 75	65, 75	k65, 66, 75	66, 75	k65, 66, 75	66, 75	66, 75	66, 75	66, 75	66, 75	66, 75	66, 75
1902.....	82	b82, 83	83	m82, 83	k83, 85	84	k83, 84	84	85	85	85	85	85	85
1903.....	97	b97, 98	98	97	k98, 99, n100	99	k98, 99	99	100	100	100	100	100	100
1904.....	o124, p125, q126	q126, 127	128	129	k128, 130	130, r131	k128, 131	132	133	133, s134	134	135	135	135
1905.....	o165, p166, q167	q167, 168	169	170	171	172	k169, 173	174	175, t177	176, s177	177	178	178	u177, 178
1906.....	o201, p202, q203	q203, 204	205	206	207	208	k205, 209	210	211, t213	212, s213	213	214	214	214
1907-8...	241	242	243	244	245	246	247	248	249	250, s251	251	252	252	252
1909.....	261	262	263	264	265	266	267	268	269	270, s271	271	272	272	272
1910.....	281	282	283	284	285	286	287	288	289	290	291	292	292	292
1911.....	301	302	303	304	305	306	307	308	309	310	311	312	312	312
1912.....	321	322	323	324	325	326	327	328	329	330	331	332-A	332-B	332-C
1913.....	351	352	353	354	355	356	357	358	359	360	361	362-A	362-B	362-C
1914.....	381	382	383	384	385	386	387	388	389	390	391	392	393	394
1915.....	401	402	403	404	405	406	407	408	409	410	411	412	413	414
1916.....	431	432	433	434	435	436	437	438	439	440	441	442	443	444
1917.....	451	452	453	454	455	456	457	458	459	460	461	462	463	464
1918.....	471	472	473	474	475	476	477	478	479	480	481	482	483	484
1919-20...	501	502	503	504	505	506	507	508	509	510	511	512	513	514
1921.....	521	522	523	524	525	526	527	528	529	530	531	532	533	534
1922.....	541	542	543	544	545	546	547	548	549	550	551	552	553	554
1923.....	561	562	563	564	565	566	567	568	569	570	571	572	573	574
1924.....	581	582	583	584	585	586	587	588	589	590	591	592	593	594
1925.....	601	602	603	604	605	606	607	608	609	610	611	612	613	614
1926.....	621	622	623	624	625	626	627	628	629	630	631	632	633	634
1927.....	641	642	643	644	645	646	647	648	649	650	651	652	653	654
1928.....	661	662	663	664	665	666	667	668	669	670	671	672	673	674
1929.....	681	682	683	684	685	686	687	688	689	690	691	692	693	694
1930.....	696	697	698	699	700	701	702	703	704	705	706	707	708	709
1931.....	711	712	713	714	715	716	717	718	719	720	721	722	723	724
1932.....	726	727	728	729	730	731	732	733	734	735	736	737	738	739
1933.....	741	742	743	744	745	746	747	748	749	750	751	752	753	754
1934.....	756	757	758	759	760	761	762	763	764	765	766	767	768	769
1935.....	781	782	783	784	785	786	787	788	789	790	791	792	793	794
1936.....	801	802	803	804	805	806	807	808	809	810	811	812	813	814
1937.....	821	822	823	824	825	826	827	828	829	830	831	832	833	834
1938.....	851	852	853	854	855	856	857	858	859	860	861	862	863	864
1939.....	871	872	873	874	875	876	877	878	879	880	881	882	883	884
1940.....	891	892	893	894	895	896	897	898	899	900	901	902	903	904
1941.....	921	922	923	924	925	926	927	928	929	930	931	932	933	934
1942.....	951	952	953	954	955	956	957	958	959	960	961	962	963	964
1943.....	971	972	973	974	975	976	977	978	979	980	981	982	983	984
1944.....	1001	1002	1003	1004	1005	1006	1007	1008	1009	1010	1011	1012	1013	1014

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 contained in Water-Supply Paper 52. Monthly discharge for 1900 in 22d Annual Report, part 4.
h Wissahickon and Schuylkill Rivers to James River.
i Scioto River.
j Loup, Platte, and Elkhorn Rivers and tributaries below Platte River.
k Tributaries of Mississippi River from east.
m Lake Ontario and tributaries to St. Lawrence River proper.
n Hudson Bay only.
o New England rivers only.
p Hudson River to Delaware River, inclusive.
q Susquehanna River to Yadkin River, inclusive.
r Platte and Kansas Rivers.
s The Great Basin in California, except Truckee and Carson River Basins.
t Below mouth of Gila River.
u Rogue, Umpqua, and Siletz Rivers only.

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

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

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

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

State reports containing compilations of records of discharge

State	Period	Report	Issued by
Alabama	1895-1915	Bull. 17, Water powers of Alabama	Geological Survey of Alabama.
Arkansas	1857-1928	Stream-gaging Rept. 1	Arkansas Geological Survey.
Colorado	1881-1935	Water resources of Colorado, Appendix 2, Data on stream-gaging stations of Colorado.[1]	State Planning Commission, Water Conservation Board, State engineer.
Do	1881-1938	Water resources of Colorado, Appendix 3, vols. 1 and 2, Stream-flow data of Colorado.	Do.
Connecticut	1900-1927	Bull. 44, Water resources of Connecticut	State Geological and Natural History Survey.
Do	1912-33	5th biennial report[2]	State Water Commission.
Georgia	1895-1906	Bull. 16, Water powers of Georgia	Geological Survey of Georgia.
Do	1907-19	Bull. 38, Water powers of Georgia	Do.
Illinois	1908-11	Water resources of Illinois	Rivers and Lakes Commission.
Do	1900-1934	Stream-flow data of Illinois	Division of Waterways.
Indiana	1923-27	Pub. 72, Surface water supply of Indiana	Department of Conservation.
Do	1927-30	Pub. 112, Surface water supply of Indiana.	Do.
Iowa	1873-1932	Stream-flow records of Iowa	State Planning Board.
Do	1873-1940	Water-Supply Bull. 1, Summaries of yearly and flood flow relating to Iowa streams.	Iowa Geological Survey.
Do	1941-42	Water-Supply Bull. 2, Surface water resources of Iowa.	Do.

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

State reports containing compilations of records of discharge--Continued

State	Period	Report	Issued by
Kansas	1895-1919	Surface waters of Kansas	Kansas Water Commission.
Do	1919-24	....do	Do.
Do	1924-28	Report of Division of Water Resources	State Board of Agriculture.
Do	1928-35	Stream-flow data of Kansas	Do.
Do	1935-39	....do	Do.
Do	1939-41	....do	Do.
Kentucky	1910-20	Surface waters of Kentucky	Kentucky Geological Survey.
Louisiana	1903-38	Geol. Bull. 16, Surface water supply of Louisiana.	Department of Conservation.
Maine	1887-1920	1st annual report[2]	Maine Water Power Commission.
Maryland	1929-37	Flow data and draft storage curves for major streams in Maryland.	State Planning Commission and Water Resources Commission.
Do	1892-1943	Bull. 1, Summary of records of surface waters of Maryland and the Potomac River Basin.	Department of Geology, Mines, and Water Resources.
Minnesota	1909-12	Water-resources investigation of Minnesota.	State Drainage Commission.
Missouri	1857-1926	Vol. 20, 2d series, Water resources of Missouri.	Missouri Bureau of Geology and Mines.
Do	1927-39	Vol. 26, 2d series, Surface waters of Missouri.	Missouri Geological Survey and Water Resources.
Montana	1889-1911	5th biennial report	Office of the State Engineer.
Do	1881-1938	Special Rept. 10, vols. 1-4, Water resources of Montana.	Montana Agricultural Experiment Station.
Nebraska	1894-1914	1st hydrographic report	Bureau of Water Power, Irrigation, and Drainage.
Do	1914-28	2d hydrographic report	Do.
New Hampshire	1889-1922	Annual and statistical report, vol. 12[2]	Public Service Commission.
New Jersey	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.
Do	1934-40	Special Rept. 9, Surface water supply of New Jersey.	Do.
New Mexico	1888-1925	Surface water supply of New Mexico	Office of the State Engineer.
North Carolina	1889-1923	Bull. 34, Discharge records of North Carolina streams.[3]	Department of Conservation and Development.
Do	1889-1936	Bull. 39, Discharge records of North Carolina streams.[4]	Do.
North Dakota	1919-21	Report to Governor of North Dakota on flood control.	State chief engineer.
Do	1882-1938	Surface water in North Dakota	State Planning Board.
Do	1882-1944	Supplement B, 4th biennial report	State Water Conservation Commission.
Ohio	1898-1921	Bull. 73, Ohio stream flow	Engineering Experiment Station, Ohio State University.
Do	1902-39	Bull. 200, Compilation of stream-flow records of Ohio.	Department of Agriculture, Division of Conservation and Natural Resources.
Do	1898-1939	Bull. 111, Ohio stream-drainage areas and flow-duration tables.	Engineering Experiment Station, Ohio State University.
Oregon	1878-1914	Bull. 4, Water resources of the State of Oregon.	Office of the State Engineer.
Do	1914-24	Bull. 7, Water resources of the State of Oregon.	Do.
Do	1924-30	Bull. 8, Water resources of the State of Oregon.	Do.
Do	1930-36	Bull. 9, Water resources of the State of Oregon.	Do.
Pennsylvania	1890-1911	Report of the Water Supply Commission of Pennsylvania.	Water Supply Commission of Pennsylvania.
Do	1928-32	Stream-flow records of Pennsylvania	Department of Forests and Waters.
Rhode Island	1929-41	7th annual report	Department of Public Works.
Tennessee	1874-1924	Bull. 34, Water resources of Tennessee	Department of Education.
Do	1920-30	Bull. 40, Surface waters of Tennessee[5]	Do.
Utah	1889-1905	5th biennial report	Office of the State Engineer.
Do	1906-10	7th biennial report	Do.
Do	1911-16	10th biennial report	Do.
Virginia	1895-1927	Bull. 31, Water resources of Virginia	Virginia Geological Survey.
Do	1927-42	Bull. 4, Surface water supply of Virginia (Potomac, Rappahannock, and York River Basins).	Virginia Conservation Commission.
Do	1927-42	Bull. 5, Surface water supply of Virginia (James River Basin).	Do.
Do	1927-42	Bull. 6, Surface water supply of Virginia (Roanoke and Chowan River Basins).	Do.
Do	1927-42	Bull. 7, Surface water supply of Virginia (New, Tennessee, and Big Sandy River Basins).	Do.
Washington	1878-1933	Bull. 5, Monthly and yearly summaries of hydrometric data.	Department of Conservation and Development.
Wisconsin	1888-1914	1st report of Railroad Commission of Wisconsin to Legislature on water powers.	Railroad Commission of Wisconsin.
Do	1914-23	2d report of Railroad Commission of Wisconsin to Legislature on water powers.	Do.

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

Note.- In addition to the records contained in the reports listed above, the following States have issued annual or biennial reports in which are contained records of discharge: California, Colorado, Connecticut, Idaho, Indiana, 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.
967-A	Floods of September 1939 in Colorado River Basin below Boulder Dam.
967-B	Flood of July 5, 1939, in eastern Kentucky.

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 1943 to September 1944 by agencies other than the Geological Survey. These records 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
Althouse Creek.....	Sec. 9, T. 40 S., R. 7 W., above Carter Gulch, near Holland, Oreg.	1943-44	Oregon State engineer.
Beaver Creek.....	NE¼ sec. 26, T. 16 S., R. 23 E., ½ mile above Congleton Ranch and 3 miles northeast of Paulina, Oreg.	1942-44	Bureau of Reclamation.
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.	1942-44	Do.
Big Butte Creek, North Fork.	SW¼ sec. 2, T. 35 S., R. 2 E., 1 mile north of Butte Falls, Oreg.	1928-44	Oregon State engineer.
Big Butte Springs.....	Sec. 17, T. 35 S., R. 3 E., 6 miles east of Butte Falls, Oreg.	1930-44	Do.
Big Marsh Creek.....	NE¼ sec. 20, T. 24 S., R. 7 E., at Hoey Ranch, near Crescent, Oreg.	1924, 1928-44*	Do.
Brown Creek.....	SW¼SW¼ sec. 29, T. 21 S., R. 8 E., near Lapine, Oreg.	1938-44*	Do.
Butter Creek.....	SE¼ sec. 22, T. 2 N., R. 27 E., at Foley Bridge, 15 miles southwest of Hermiston, Oreg.	1933-44	Do.
Do.....	SE¼ sec. 22, T. 1 N., R. 28 E., 1 mile above Vey Ranch, Oreg.	1921-44	Do.
Camas Creek.....	SE¼ sec. 4, T. 5 S., R. 32 E., 200 feet above Cable Creek, near Ukiah, Oreg.	1932-44*	Do.
Charlton Creek.....	Sec. 1, T. 21 S., R. 7 E., near Lapine, Oreg.	1924, 1938-44	Oregon State engineer.

* 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
Clear Creek	SE¼SE¼ sec. 32, T. 4 S., R. 9 E., at outlet of Clear Lake.	1942-44	Bureau of Reclamation.
Crooked River, North Fork	SW¼ sec. 21, T. 14 S., R. 22 E., ¾ mile above Deep Creek and 15 miles north of Paulina.	1941-44	Do.
Cultus Creek	Sec. 19, T. 20 S., R. 8 E., above Crane Prairie, near Lapine, Oreg.	1938-44*	Oregon State engineer.
Davis Creek	NE¼NE¼ sec. 9, T. 22 S., R. 8 E., near Lapine, Oreg.	1924, 1938-44	Do.
Deer Creek	Sec. 36, T. 20 S., R. 7 E., near Lapine, Oreg.	1938-44*	Do.
Do	SW¼NE¼ sec. 18, T. 38 S., R. 6 W., below confluence of North and South Forks.	1941-44	Do.
Deschutes River	NW¼NW¼ sec. 28, T. 21 S., R. 8 E., below Sheep Springs, near Lapine, Oreg.	1938-44	Do.
Do	SW¼ sec. 9, T. 19 S., R. 11 E., below Benham Falls, near Bend, Oreg.	1943-44	Do.
Do	SW¼ sec. 27, T. 18 S., R. 11 E., above Lava Island, near Bend, Oreg.	1943-44*	Do.
Do	SW¼ sec. 4, T. 19 S., R. 11 E., ½ mile above Dillon Falls, at Ryan Ranch, near Bend, Oreg.	1943-44	Do.
Do	Near center of sec. 7, T. 18 S., R. 12 E., ¼ mile above head of mill pond, near Bend, Oreg.	1943-44*	Do.
Do	NE¼ sec. 14, T. 15 S., R. 12 E., 1,500 feet above dam at Cline Falls, Oreg.	1928-44*	Do.
Emigrant Creek	NE¼SW¼ sec. 12, T. 39 S., R. 1 E., below Walker Creek, near Ashland, Oreg.	1943-44	Oregon State engineer.
Evans Creek	Sec. 20, T. 34 S., R. 2 W., 3 miles above West Fork and 2 miles northeast of Wimer, Oreg.	1941-44	Do.
Do	NE¼ sec. 34, T. 34 S., R. 3 W., at Bybee Springs, near Wimer, Oreg.	1940-44*	Do.
Fish Lake Dam, tunnel at	SW¼ sec. 3, T. 37 S., R. 4 E., 18 miles east of Lake Creek, Oreg.	1929-44	Do.
Grave Creek	NW¼SW¼ sec. 5, T. 34 S., R. 4 W., at Pease Bridge, near Grants Pass, Oreg.	1940-44	Do.
Do	NW¼SW¼ sec. 7, T. 34 S., R. 5 W., 1½ miles west of Placer, Oreg.	1929-30, 1932-44	Do.
Illinois River, East Fork	NW¼NE¼ sec. 15, T. 41 S., R. 8 W., 3 miles south of Takilma, Oreg.	1926-32, 1940-44	Do.
Illinois River, West Fork	NE¼SW¼ sec. 26, T. 40 S., R. 9 W., 3 miles south of O'Brien, Oreg.	1930, 1943-44	Do.
Jumpoff Joe Creek	SW¼ sec. 32, T. 34 S., R. 5 W., 7 miles northwest of Merlin, Oreg.	1929-44*	Do.
Little Butte Creek	SE¼ sec. 19, T. 36 S., R. 2 E., at Lake Creek, Oreg.	1922-24, 1927-44	Do.
Little Butte Creek, North Fork	Sec. 21, T. 36 S., R. 2 E., above Rogue River Valley Canal intake, near Lake Creek, Oreg.	1931-44*	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.	1931-44*	Do.
Little Deschutes River	SE¼ sec. 30, T. 20 S., R. 11 E., 4 miles above mouth, at Johnson Ranch, near Bend, Oreg.	1943-44*	Do.
Little Walla Walla River	George St., in Milton, Oreg.	1916, 1932-44	Oregon State engineer.
Long Gulch	SW¼SE¼ sec. 10, T. 41 S., R. 8 W., near Basye Ranch, 2½ miles south of Takilma, Oreg.	1940-44	Do.
Ochoco Creek	NE¼ sec. 6, T. 15 S., R. 17 E., below Ochoco Reservoir, 6 miles east of Prineville, Oreg.	1919-44	Do.
Ochoco Reservoir	SW¼ sec. 5, T. 15 S., R. 17 E., 6 miles east of Prineville, Oreg.	1918-44	Do.
Ochoco Springs	NE¼ sec. 6, T. 15 S., R. 17 E., 6 miles east of Prineville, Oreg.	1920-44	Do.
Rancheria Creek	SE¼ sec. 17, T. 35 S., R. 3 E., 10 miles northeast of Lake Creek, Oreg.	1935-44	Do.
Slate Creek	SW¼SW¼ sec. 10, T. 37 S., R. 7 W., above diversion dam, near Wonder, Oreg.	1943-44*	Do.
Sucker Creek	SW¼ sec. 30, T. 39 S., R. 6 W., below Grayback Creek, 10 miles southeast of Kerby, Oreg.	1940-44	Do.
White River	NE¼ sec. 11, T. 5 S., R. 10 E., 500 feet below Crane Creek and about 1 mile east of abandoned Keep sawmill site.	1941-44	Bureau of Reclamation.

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

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

COOPERATION

In Oregon the work was done under cooperative agreements with the State of Oregon, Charles E. Stricklin, State engineer; Umatilla County Court; and the cities of McMinnville and Portland. In Washington the work was done under cooperative agreements with the State Department of Conservation and Development, Ed Davis, director, and Charles J. Bartholet, supervisor of hydraulics; Columbia County; and Walla Walla County.

Financial assistance was furnished by the Corps of Engineers, U. S. Army, for the operation of 33 gaging stations in Oregon and 4 in Washington.

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

Oregon: Counties of Crook, Deschutes, Jackson, Jefferson, Josephine, Klamath, and Umatilla; city of Grants Pass; The California Oregon Power Co., 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. Paulsen, assistant chief hydraulic engineer, and Rudolph G. Kasel, chief of the division of surface water. The data for the gaging stations were collected and prepared for publication under supervision of district engineers as follows: In Oregon, G. H. Canfield, the work being done in collaboration with Charles E. Stricklin, State engineer; in Washington, F. M. Veatch.

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

COLUMBIA RIVER MAIN STEM

Columbia River near The Dalles, Oreg.

Location.- Water-stage recorder, lat. 45°39', long. 120°58', in NE¼ sec. 20, T. 2 N., R. 15 E., just upstream from Celilo Falls, 3 miles downstream from Deschutes River, and 11 miles east of The Dalles. Datum of gage is at mean sea level, datum of 1929.
Drainage area.- 237,000 square miles.
Records available.- June 1878 to September 1944. 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.- 66 years, 194,600 second-feet.
Extremes.- Maximum discharge during year, 327,000 second-feet June 19 (elevation, 137.18 feet); minimum, 62,500 second-feet Feb. 21, 22 (elevation, 128.31 feet).
1858-1944: 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 except those for Dec. 17-21, July 30 to Aug. 6, which are good. Storage and diversions for irrigation are only a small part of total runoff. Some regulation by Franklin D. Roosevelt Lake above Grand Coulee Dam during year, but the contents in the lake on Sept. 30, 1944, was the same as that on Sept. 30, 1943 (9,671,600 acre-feet).
Cooperation.- Recorder inspected and staff gage read once or twice daily by Corps of Engineers, U. S. Army.

Rating table, water year 1943-44 (gage height, in feet, and discharge, in second-feet)

128.3	62,300	133	181,000
129	76,500	134	213,000
130	99,000	135	247,000
131	124,000	136	283,000
132	151,000	136	320,000

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	80,100	91,300	76,300	71,000	79,900	66,600	76,100	116,000	241,000	254,000	h135,000	101,000
2	81,200	91,300	80,400	68,200	80,800	65,000	79,300	130,000	259,000	244,000	h140,000	99,500
3	83,700	89,900	82,300	72,700	83,700	66,600	81,200	138,000	269,000	231,000	h140,000	96,400
4	85,200	89,700	87,200	74,600	85,400	71,200	84,300	142,000	276,000	228,000	h140,000	96,800
5	85,600	92,200	87,000	73,600	85,000	78,400	86,300	139,000	274,000	223,000	h137,000	96,800
6	83,700	96,100	88,300	73,100	85,900	79,900	91,300	138,000	272,000	215,000	131,000	97,400
7	82,800	100,000	89,000	75,200	88,100	82,300	101,000	141,000	274,000	208,000	131,000	92,000
8	83,700	104,000	86,300	74,600	92,000	87,600	106,000	151,000	280,000	198,000	127,000	95,200
9	83,900	104,000	83,200	70,400	94,800	86,500	105,000	164,000	278,000	191,000	123,000	95,700
10	85,400	101,000	77,800	72,100	94,500	85,200	102,000	170,000	282,000	187,000	124,000	95,700
11	84,800	98,500	77,600	72,500	91,800	92,900	101,000	169,000	289,000	179,000	120,000	94,800
12	85,900	97,300	78,000	72,500	86,700	97,100	97,100	163,000	302,000	172,000	118,000	92,900
13	85,200	95,400	78,600	75,000	77,800	90,600	94,300	163,000	300,000	161,000	118,000	90,800
14	85,900	93,600	76,700	76,700	74,000	85,200	105,000	164,000	304,000	148,000	118,000	90,200
15	87,600	90,600	74,800	78,200	70,200	81,200	117,000	167,000	314,000	140,000	116,000	89,200
16	88,800	87,400	72,100	85,400	67,600	75,700	115,000	176,000	315,000	148,000	117,000	87,000
17	88,600	84,800	70,400	85,400	67,200	74,600	111,000	189,000	314,000	159,000	122,000	87,200
18	92,000	81,000	70,200	83,900	66,400	74,400	107,000	200,000	321,000	155,000	128,000	87,900
19	92,200	80,600	70,200	84,100	64,000	76,100	99,000	204,000	326,000	149,000	131,000	88,300
20	90,400	79,500	70,200	84,100	63,600	83,900	92,500	201,000	321,000	148,000	132,000	91,100
21	91,100	81,200	70,200	83,000	62,900	86,700	90,600	199,000	314,000	145,000	131,000	93,800
22	92,500	87,600	74,400	81,500	62,700	83,400	91,100	191,000	308,000	143,000	129,000	94,100
23	91,500	88,100	74,400	79,300	64,200	79,900	93,800	187,000	297,000	140,000	126,000	94,300
24	92,000	84,500	74,400	80,400	66,400	80,600	96,800	190,000	297,000	137,000	123,000	90,800
25	93,600	83,400	74,800	78,000	70,800	79,000	98,800	191,000	298,000	136,000	120,000	89,000
26	94,500	79,700	74,800	80,800	71,900	80,400	100,000	190,000	289,000	135,000	117,000	90,600
27	91,100	76,500	72,500	82,800	69,200	81,000	105,000	191,000	283,000	136,000	113,000	89,700
28	93,400	78,400	72,700	82,600	69,000	80,800	108,000	193,000	275,000	135,000	110,000	89,900
29	92,900	77,300	74,400	82,600	68,000	79,300	108,000	201,000	268,000	135,000	106,000	89,200
30	93,400	74,600	74,400	80,400	-	73,600	107,000	212,000	260,000	136,000	103,000	90,600
31	92,200	-	72,900	78,800	-	73,600	-	230,000	-	h137,000	99,700	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff	
						Inches	Acre-feet
October	2,734,900	94,500	80,100	88,220	0.372	0.43	5,425,000
November	2,659,500	104,000	74,600	88,650	.374	.42	5,275,000
December	2,386,500	89,000	70,200	76,980	.325	.37	4,734,000
Calendar year 1943	75,075,400	541,000	70,200	205,700	.868	11.79	148,900,000
January	2,413,500	85,400	68,200	77,850	.328	.38	4,787,000
February	2,204,500	94,800	62,700	76,020	.321	.35	4,373,000
March	2,479,300	97,100	65,000	79,980	.337	.39	4,918,000
April	2,950,500	117,000	76,100	98,350	.415	.46	5,852,000
May	5,400,000	230,000	116,000	174,200	.735	.85	10,710,000
June	8,700,000	326,000	241,000	290,000	1.22	1.37	17,260,000
July	5,253,000	254,000	135,000	169,500	.715	.82	10,420,000
August	3,825,700	140,000	99,700	123,400	.521	.60	7,588,000
September	2,767,900	101,000	87,000	92,260	.389	.43	5,490,000
Water year 1943-44	43,775,300	326,000	62,700	119,600	.505	6.87	86,830,000

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 1944.

Average discharge.- 20 years (1908-15, 1931-44), 163 second-feet.

Extremes.- Maximum discharge during year, 549 second-feet Mar. 9 (gage height, 2.35 feet); minimum, 87 second-feet Sept. 12, 13 (gage height, 1.17 feet).

1906-17, 1931-44: 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. No diversion or regulation above station.

Rating table, water year 1943-44 (gage height, in feet, and discharge, in second-feet)

1.2	91	1.6	175
1.3	106	1.8	244
1.4	126	2.1	366

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	96	110	118	110	108	108	225	278	210	110	94	91
2	97	108	128	108	110	108	262	240	197	110	94	92
3	100	110	157	106	126	106	339	233	197	110	94	a91
4	100	178	162	104	135	110	381	257	178	110	94	a90
5	102	142	144	106	147	108	329	292	170	106	94	a90
6	102	124	133	106	244	104	275	310	165	106	94	a90
7	102	116	133	106	229	104	240	292	162	106	94	a89
8	100	114	133	104	184	122	229	287	162	104	94	89
9	100	112	124	106	159	348	203	270	157	104	92	89
10	102	110	122	106	144	392	187	236	152	104	91	89
11	131	110	120	106	138	233	200	233	147	104	91	89
12	108	108	118	104	131	184	253	229	142	104	91	87
13	106	108	114	103	128	157	253	253	138	100	91	87
14	104	110	112	103	128	142	240	287	138	102	94	89
15	103	108	110	103	122	133	236	296	135	102	92	89
16	106	108	110	103	126	133	229	283	140	100	91	100
17	110	108	108	104	122	172	210	262	144	98	91	94
18	106	108	108	103	120	214	190	244	138	98	91	96
19	104	108	108	103	118	217	187	225	133	100	91	91
20	103	106	108	103	118	190	197	206	131	100	91	91
21	114	106	108	103	118	167	197	197	128	96	91	91
22	110	106	108	102	118	159	240	194	128	96	91	96
23	108	106	108	106	118	194	329	187	124	96	91	92
24	116	106	110	110	122	214	370	181	120	96	91	92
25	120	104	112	108	120	190	306	172	120	96	91	94
26	114	104	108	106	120	167	275	172	118	94	91	94
27	112	104	106	104	116	149	275	178	118	94	90	94
28	110	104	104	104	114	147	296	187	114	94	90	a94
29	118	103	106	106	112	157	320	194	112	94	90	a98
30	138	112	106	106	-	184	320	203	112	94	90	a98
31	116	-	104	106	-	221	-	197	-	94	90	-

Month	Second-feet-days	Maximum	Minimum	Mean	Per square mile	Runoff Inches	Runoff Acre-feet
October	3,358	138	96	108	1.71	1.98	6,660
November	3,361	178	103	112	1.78	1.98	6,670
December	3,650	162	104	118	1.87	2.15	7,240
Calendar year 1943	69,048	564	95	189	3.00	40.76	137,000
January	3,258	110	102	105	1.67	1.92	6,460
February	3,895	244	108	134	2.13	2.30	7,730
March	5,334	392	104	172	2.73	3.15	10,580
April	7,793	381	187	260	4.13	4.60	15,460
May	7,275	310	172	235	3.73	4.29	14,430
June	4,330	210	112	144	2.29	2.56	8,590
July	3,122	110	94	101	1.60	1.84	6,190
August	2,845	94	90	91.8	1.46	1.68	5,640
September	2,756	100	87	91.9	1.46	1.63	5,470
Water year 1943-44	50,977	392	87	139	2.21	30.08	101,100

a No gage-height record; discharge computed on basis of records for South Fork Walla Walla River below Pacific Power & Light Co.'s plant, 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, 1¼ 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 1944, in reports of Geological Survey. Records for stations at other sites within a distance of 2 miles downstream having same annual runoff, as follows: November 1903 to May 1906, in reports of Geological Survey; December 1929 to March 1931 and July 1931 to September 1936, in reports of State engineer; October 1936 to September 1940, in files of State engineer.

Average discharge.- 14 years (1904-5, 1930-31, 1932-44), 162 second-feet.

Extremes.- Maximum discharge during year, 764 second-feet Mar. 9 (gage height, 3.13 feet); minimum, 46 second-feet (regulated) July 19; minimum daily, 82 second-feet Sept. 10, 11. 1903-6, 1929-44: Maximum discharge not determined, probably occurred during floods of May 30, 31, 1906, or Mar. 31, 1931; maximum daily discharge, 3,000 second-feet Mar. 31, 1931, estimated by Oregon State engineer; minimum, 1 second-foot (regulated) June 23, 1940; minimum daily, 64 second-feet Oct. 14, 1930.

Remarks.- Records good except those for Oct. 1 to Mar. 10, which are fair. Small diversions above station for irrigation. Water diverted for power-plant operation is returned to river 100 yards upstream. Some diurnal fluctuation caused by power plant above station.

Rating tables, water year 1943-44 (gage height, in feet, and discharge, in second-feet)

Oct. 1 to Mar. 9				Mar. 10 to Sept. 30			
0.e	88	1.8	270	1.2	91	1.9	263
1.0	115	2.1	360	1.4	131	2.2	360
1.2	146	2.5	500	1.6	178	2.5	465
1.5	200						

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	91	111	116	112	102	126	254	292	204	102	87	89
2	91	109	122	111	105	124	279	263	191	102	87	89
3	89	108	148	108	120	127	337	257	194	102	89	87
4	91	160	154	107	132	133	367	269	178	102	91	86
5	92	140	144	107	140	135	330	295	171	102	93	86
6	93	120	133	104	235	136	289	311	164	100	93	86
7	91	111	132	101	244	144	263	298	156	100	91	84
8	91	108	130	101	200	179	254	282	156	100	89	84
9	89	107	124	101	170	526	232	273	154	100	87	84
10	93	105	121	100	151	477	221	254	147	97	87	82
11	112	104	116	100	146	308	226	241	142	97	89	82
12	102	102	115	98	138	260	269	244	138	97	89	84
13	98	102	112	98	135	221	276	254	133	99	89	86
14	94	101	111	100	133	191	279	279	131	97	95	86
15	96	102	108	100	126	178	276	282	131	95	91	86
16	96	101	107	100	132	173	269	273	133	93	89	97
17	100	101	105	102	130	212	251	257	136	93	89	99
18	100	101	104	101	128	260	232	241	133	93	89	99
19	97	101	104	100	127	257	226	226	127	97	89	95
20	98	102	104	100	127	238	238	212	123	100	89	91
21	108	102	104	100	127	210	257	207	120	97	87	91
22	105	102	102	100	126	196	305	201	120	97	87	97
23	104	102	100	107	124	221	364	194	118	97	87	93
24	109	101	104	107	128	241	381	186	116	95	87	91
25	111	98	102	114	130	224	330	178	114	93	87	91
26	105	98	102	108	135	201	292	178	110	91	87	89
27	102	98	104	105	130	183	289	181	112	91	86	89
28	101	100	104	105	128	176	305	183	106	89	86	89
29	102	100	105	104	130	183	324	186	102	91	86	93
30	135	108	105	104	-	210	324	194	102	91	86	93
31	115	-	104	102	-	241	-	188	-	89	87	-

Month	Second-feet-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	3,101	135	89	100	6,150
November	3,205	160	98	107	6,360
December	3,546	154	100	114	7,030
Calendar year 1943	69,449	568	64	190	137,700
January	3,207	114	98	103	6,360
February	4,079	244	102	141	8,090
March	6,691	526	124	216	13,270
April	8,539	381	221	285	16,940
May	7,379	311	178	238	14,640
June	4,162	204	102	139	8,260
July	2,989	102	89	96.4	5,930
August	2,745	95	86	88.5	5,440
September	2,678	99	82	89.3	5,310
Water year 1943-44	52,321	526	82	143	103,800

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 1944.

Extremes.- Maximum discharge during year, 575 second-feet Mar. 9 (gage height, 5.55 feet); no flow at times.
1941-44: Maximum discharge, 1,340 second-feet June 26, 1942 (gage height, 5.02 feet), from rating curve extended above 500 second-feet; no flow at times each year.

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

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1			0		0	38	141	196	16	1.0		
2			0		0	36	150	165	16	.5		
3			4.5		0	41	181	148	14	.5		
4			26		0	49	223	129	11	0		
5			22		15	44	217	132	7.0	0		
6			14		116	56	193	143	6.0	0		
7			25		157	51	168	141	5.0	0		
8			24		113	85	165	134	5.0	0		
9			19		92	420	152	129	4.5	0		
10			15		74	366	145	119	4.5	0		
11			8.0		65	233	148	106	4.5	0		
12			5.0		54	199	162	78	4.0	0		
13			3.5		45	158	172	64	4.0	0		
14			2.5		44	123	187	77	3.5	0		
15			1.0		35	108	199	82	3.0	0		
16			0		38	98	193	80	2.5	0		
17			0		39	129	172	66	2.5	0		
18			0		36	165	155	55	2.5	0		
19			0		34	165	143	44	2.0	0		
20			0		32	150	152	35	2.0	0		
21			0		30	136	168	31	2.0	0		
22			0		28	121	211	27	2.0	0		
23			0		27	132	259	26	2.0	0		
24			0		33	150	289	22	1.5	0		
25			1.0		35	145	259	12	1.5	0		
26			3.0		49	138	229	8	1.5	0		
27			0		42	106	214	7	1.5	0		
28			0		41	95	211	6	1.5	0		
29			0		42	96	217	6	1.0	0		
30			0		-	112	217	6	1.0	0		
31			0		-	132	-	6	-	0		

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	0	0	0	0	0
November	0	0	0	0	0
December	173.5	26	0	5.60	344
Calendar year 1943	45,742.5	733	0	125	90,730
January	0	0	0	0	0
February	1,316	157	0	45.4	2,610
March	4,079	420	36	132	8,090
April	5,692	289	141	190	11,290
May	2,280	196	6	73.5	4,520
June	135.0	16	1.0	4.50	268
July	2.0	1.0	0	.06	4.0
August	0	0	0	0	0
September	0	0	0	0	0
Water year 1943-44	13,677.5	420	0	37.4	27,130

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 1944 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.- 14 years, 41.8 second-feet.

Extremes.- Maximum discharge during year, 938 second-feet Mar. 9 (gage height, 5.18 feet), from rating curve extended above 110 second-feet by logarithmic plotting; minimum, 1.8 second-feet Sept. 12-15.

1929-44: Maximum daily discharge observed, 970 second-feet Feb. 28, 1940, probably exceeded by flood of Mar. 31, 1931, when gage was washed out; minimum, 1 second-foot Aug. 8-19, 1936, Aug. 7-11, 1940.

Remarks.- Records fair except those for September, which are poor. Diversions above station for irrigation of about 220 acres. No regulation.

Rating tables, water year 1943-44 (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Mar. 10 to Apr. 22, Sept. 2-30)

Oct. 1 to Mar. 9				Mar. 10 to Sept. 30			
2.4	6.0	3.0	56	2.7	2.0	3.4	88
2.5	10.2	3.2	89	2.8	7.3	3.7	170
2.6	16	3.5	165	2.9	15.5	4.0	270
2.7	23	3.8	260	3.0	25	4.4	440
2.8	32	4.2	415	3.2	49		

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	5.5	23	17	15	15	29	81	133	54	5.2	3.1	2.0
2	5.5	21	23	15	17	29	86	108	48	6.7	3.1	2.0
3	5.5	19	59	f14	27	32	130	93	44	6.2	2.0	2.5
4	5.5	39	58	f14	34	38	173	88	39	6.2	2.0	3.6
5	5.8	38	53	f14	40	36	f161	93	34	6.2	2.5	3.1
6	6.0	28	47	f12	98	35	f130	106	32	6.2	2.5	2.5
7	6.0	23	41	f11	93	40	f108	106	29	6.2	2.5	2.5
8	6.0	20	39	11	71	74	98	103	27	6.2	2.0	2.5
9	6.0	19	36	11	59	402	88	98	28	5.7	2.0	2.5
10	6.4	17	32	10	50	465	77	84	27	5.2	2.0	2.5
11	9.4	16	28	9.8	44	194	64	73	23	4.6	2.0	2.5
12	13	15	26	9.4	41	127	75	68	21	4.6	2.0	2.0
13	10	15	24	9.4	39	81	88	66	19	4.6	2.0	1.8
14	9.4	14	22	10	34	58	98	77	18	4.6	2.0	1.8
15	9.8	14	19	9.4	33	48	106	88	17	5.7	2.5	2.0
16	10	14	17	10	33	42	106	93	17	5.7	3.1	2.0
17	10	13	17	11	32	f81	86	86	23	5.2	2.5	2.5
18	11	13	16	12	31	135	70	73	21	4.1	2.5	3.6
19	10	13	15	12	29	119	64	66	18	3.6	2.5	4.1
20	9.8	12	15	13	29	93	66	59	18	3.6	2.5	4.6
21	13	12	14	12	29	68	88	54	17	3.6	2.0	4.1
22	15	12	14	12	29	56	206	51	17	4.6	2.0	5.2
23	14	12	14	14	29	73	282	46	17	4.6	2.0	4.6
24	14	12	14	18	33	98	286	44	14	4.6	2.0	4.1
25	15	11	15	16	34	79	f232	42	13	4.1	2.0	3.6
26	15	11	15	15	35	59	f185	40	11	3.6	2.0	4.1
27	14	11	14	14	34	46	f158	41	9.8	3.6	2.0	4.1
28	13	11	14	14	33	42	150	46	8.9	3.6	2.0	3.6
29	13	11	14	14	32	42	156	52	7.3	3.6	2.0	4.1
30	36	12	14	15	-	52	153	56	5.7	3.6	2.0	5.2
31	27	-	14	15	-	70	-	51	-	3.6	2.0	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	349.6	36	5.5	11.3	693
November	501	39	11	16.7	994
December	760	59	14	24.5	1,510
Calendar year 1943	21,188.2	482	3.4	58.0	42,030
January	392.0	18	9.4	12.6	778
February	1,137	98	15	39.2	2,260
March	2,843	465	29	91.7	5,640
April	3,851	286	64	128	7,640
May	2,284	133	40	73.7	4,530
June	677.7	54	5.7	22.6	1,340
July	148.4	6.2	3.6	4.79	294
August	69.3	3.1	2.0	2.24	137
September	95.3	5.2	1.8	3.18	189
Water year 1943-44	13,108.3	465	1.8	35.8	26,000

f Computed from partly estimated gage-height record.
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 1944.

Extremes.- Maximum discharge during year, 721 second-feet (regulated) Mar. 9 (gage height, 16.12 feet); minimum, 22 second-feet (regulated) Aug. 30.
1913-17, 1938, 1939-44: Maximum discharge observed, 1,120 second-feet May 13, 1917 (gage height, 4.09 feet, site and datum then in use); minimum observed, 16 second-feet Oct. 11-15, 1939.

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

Rating tables, water year 1943-44, except period of shifting control
(gage height, in feet, and discharge, in second-feet)

Oct. 1 to Mar. 8		Mar. 9 to Sept. 30			
14.1	25	14.3	45	15.3	304
14.3	47	14.5	81	15.6	433
14.5	81	14.7	124	16.0	647
14.7	126	15.0	202		
15.0	216				

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	26	63	56	37	36	50	143	129	72	31	25	28
2	26	55	79	37	38	47	153	111	68	30	25	27
3	26	50	126	35	50	50	188	102	68	29	25	26
4	26	124	134	34	58	55	211	100	62	29	25	25
5	27	116	126	34	77	55	182	106	58	29	25	24
6	27	89	104	34	200	53	153	117	55	28	24	24
7	27	73	89	33	186	55	134	115	53	28	24	24
8	26	61	79	32	134	81	129	113	53	28	24	24
9	26	58	68	32	104	423	117	109	53	28	24	24
10	27	52	60	31	85	468	113	98	50	28	24	25
11	64	47	56	30	77	233	115	89	46	27	24	25
12	36	43	52	30	66	166	134	83	45	27	24	26
13	29	41	47	30	64	129	151	83	43	27	24	27
14	28	40	43	30	63	102	174	94	43	26	25	29
15	29	38	42	30	56	87	182	102	43	26	25	39
16	30	36	40	30	58	81	171	96	46	25	25	55
17	35	37	38	32	55	113	151	87	46	25	25	36
18	34	35	38	30	53	156	134	81	45	25	24	33
19	31	34	37	30	52	171	122	75	43	25	24	29
20	36	34	36	30	53	158	124	70	42	27	24	28
21	58	34	35	30	55	129	124	66	42	25	23	28
22	64	33	34	30	55	115	161	75	42	24	23	28
23	56	33	34	40	55	143	211	77	39	24	24	27
24	56	32	36	42	60	153	227	66	36	24	24	26
25	56	31	41	40	58	138	199	60	36	24	24	26
26	49	31	37	38	58	115	174	58	35	24	25	25
27	43	30	35	37	55	94	158	58	36	27	25	25
28	40	31	35	37	53	85	151	60	34	33	25	26
29	41	31	35	37	52	87	146	62	33	25	24	33
30	102	38	34	36	-	106	141	68	31	25	27	30
31	75	-	34	36	-	134	-	64	-	25	31	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	1,256	102	26	40.5	2,490
November	1,450	124	30	48.3	2,880
December	1,740	134	34	56.1	3,450
Calendar year 1943	34,666	601	26	95.0	66,750
January	1,044	42	30	33.7	2,070
February	2,066	200	36	71.2	4,100
March	4,032	468	47	130	8,000
April	4,673	227	113	156	9,270
May	2,674	129	58	86.3	5,300
June	1,398	72	31	46.6	2,770
July	828	31	24	26.7	1,640
August	764	31	23	24.6	1,520
September	851	55	24	28.4	1,690
Water year 1943-44	22,776	468	23	62.2	45,180

Note.- Shifting-control method used July 3 to Sept. 30.
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.- 90 (revised) square miles.

Records available.- April 1941 to September 1944.

Extremes (regulated).- Maximum discharge during year, 766 second-feet Mar. 9 (gage height, 2.83 feet); minimum, 0.6 second-foot Sept. 16 (gage height, 0.89 foot).
1941-44: Maximum discharge, that of Mar. 9, 1944; maximum gage height, 2.86 feet Jan. 1, 1943; minimum discharge, that of Sept. 16, 1944.

Remarks.- Records good except those for period of no gage-height record, which are fair. Some regulation at Yellowhawk Creek and Garrison Creek diversions 0.9 mile above station. These creeks divert 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 and Garrison Creek diversions.

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	5.9	25	9.9	14	20	47	125	133	14	1.8	2.5	1.4
2	6.4	21	20	14	20	45	129	117	13	1.9	2.8	1.4
3	5.3	20	68	14	26	47	168	94	13	2.3	2.5	1.4
4	4.8	74	101	14	43	52	197	75	11	3.1	2.3	1.4
5	4.8	94	113	14	57	54	187	55	11	3.1	2.8	1.4
6	5.9	80	94	14	163	54	163	61	9.5	2.8	3.8	1.8
7	5.3	63	80	14	193	61	133	57	9.0	1.9	5.5	1.9
8	3.9	54	63	14	150	88	117	49	9.0	1.8	3.1	2.1
9	3.0	43	50	13	123	396	109	47	10	1.9	4.1	2.8
10	4.8	32	45	13	91	618	97	39	9.5	2.1	2.5	2.8
11	15	28	41	13	75	348	97	33	9.0	1.8	2.1	2.3
12	24	21	35	13	64	247	105	29	8.5	1.4	1.9	3.1
13	7.0	14	26	13	61	212	141	28	8.0	1.8	2.8	3.1
14	5.9	12	a24	13	61	125	163	32	5.9	1.8	4.1	2.3
15	7.0	12	a23	14	54	72	163	36	5.5	1.6	3.6	2.5
16	7.7	12	a22	14	54	59	168	30	6.7	1.5	3.3	.8
17	8.4	11	a20	13	52	f66	150	29	8.0	1.5	2.8	1.4
18	8.4	8.4	a18	12	48	f125	125	28	7.1	1.3	2.8	1.4
19	7.7	8.4	17	12	35	f182	113	27	5.9	1.8	2.3	1.5
20	7.7	8.4	16	12	28	187	137	24	5.1	3.8	2.1	1.8
21	27	8.4	15	12	29	154	146	25	4.4	2.8	2.3	1.5
22	63	7.7	15	12	26	121	177	27	5.5	2.8	2.5	1.4
23	55	7.7	15	12	26	141	258	28	4.1	3.6	2.3	1.5
24	48	7.7	15	25	40	158	264	24	3.3	3.6	2.3	1.4
25	38	7.7	24	25	54	146	247	21	3.1	3.1	2.5	1.6
26	34	7.7	28	24	63	121	207	15	3.1	2.8	2.8	2.5
27	32	7.7	20	24	50	91	177	14	2.8	2.5	2.3	4.1
28	25	7.7	18	25	50	78	158	14	2.3	2.1	2.5	6.3
29	20	7.7	18	24	50	61	150	13	2.1	1.9	2.1	7.1
30	43	7.7	15	21	-	75	141	11	1.8	2.3	1.8	9.5
31	30	-	14	20	-	97	-	13	-	2.5	1.8	-

Month	Observed				Yellowhawk Creek and Garrison Creek diversions (acre-feet)	Adjusted for diversion	
	Discharge in second-feet			Runoff in acre-feet		Runoff in acre-feet	Mean (second-feet)
	Maximum	Minimum	Mean				
October	63	3.0	18.2	1,120	1,770	2,890	47.0
November	94	7.7	24.0	1,430	2,400	3,830	64.4
December	113	9.9	34.9	2,150	2,670	4,820	78.4
Calendar year 1943	679	1.7	74.4	53,900	32,740	86,650	120
January	25	12	15.8	974	2,280	3,250	52.9
February	193	20	62.3	3,580	2,400	5,980	104
March	618	45	140	8,580	3,270	11,850	193
April	264	97	157	9,350	3,090	12,440	209
May	133	11	39.6	2,440	3,430	5,870	95.5
June	14	1.8	7.04	419	2,260	2,680	45.0
July	3.8	1.3	2.29	141	1,040	1,180	19.2
August	5.5	1.8	2.74	168	880	1,050	17.1
September	9.5	.8	2.52	150	994	1,140	19.2
Water year 1943-44	618	.8	42.0	30,500	26,480	56,980	78.5

a No gage-height record; discharge interpolated.
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.

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., a 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 1944.

Extremes.- Maximum discharge during year, 579 second-feet Mar. 9 (elevation, 1,742.90 feet, from high-water mark in gage well), from rating curve extended above 200 second-feet; minimum, 0.2 second-foot Aug. 21.
1939-44: Maximum discharge, that of Mar. 9, 1944; minimum discharge observed, 0.1 second-foot Oct. 14, 1939, but may have been less during period of no gage-height record Oct. 1-11, 1939.

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

Rating tables, water year 1943-44, except periods of ice effect (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Mar. 16 to May 10)

Oct. 1-29		Oct. 30 to Sept. 30					
40.6	1.1	40.6	0.4	41.1	16	42.0	189
40.7	2.1	40.7	1.4	41.2	24	42.3	311
40.8	4.3	40.8	2.9	41.4	44	42.6	442
40.9	7.7	41.0	9.3	41.7	96		

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1.1	5.4	*2.7	3.6	3.6	a12	25	21	2.7	1.0	0.7	0.6
2	1.1	4.3	*3.0	3.6	3.8	a12	25	16	2.5	1.0	.7	.7
3	1.2	3.8	5.4	3.6	5.8	a15	29	13	2.4	1.0	.7	.6
4	1.2	9.3	15	3.6	7.8	a14	32	11	2.1	1.0	.8	.5
5	1.3	9.3	19	3.4	13	a14	27	9.8	1.9	.9	.7	.5
6	1.5	6.9	14	3.2	33	14	21	8.8	1.8	.8	.7	.5
7	1.5	5.1	11	b3.1	27	14	17	7.3	1.8	.8	.7	.5
8	1.4	4.3	8.8	b3.0	20	f39	17	6.5	1.9	.9	.8	.4
9	1.4	3.8	a7.5	2.9	16	f354	15	5.5	2.1	.9	.7	.4
10	1.7	3.2	a6.0	2.5	14	f157	15	5.8	1.9	.9	.7	.5
11	4.0	3.0	a5.0	b2.5	12	77	18	a5.0	1.6	.8	.6	.4
12	2.4	2.7	a4.5	2.5	9.3	51	20	a4.5	1.5	.8	.5	.4
13	1.8	2.5	a4.0	2.4	8.8	35	23	a4.0	1.4	.8	.6	.5
14	1.6	2.5	a3.5	2.1	8.3	28	27	a3.5	1.4	.8	.7	.6
15	1.8	2.2	a3.3	2.2	7.3	20	31	a4.0	1.2	.8	.6	.7
16	1.8	2.1	a3.2	2.2	8.3	20	32	a3.5	1.9	.8	.5	1.5
17	2.6	2.1	a3.0	2.5	8.3	29	28	2.9	2.1	.7	.5	1.4
18	2.0	1.9	a3.0	2.5	9.3	40	23	2.9	1.8	.7	.5	1.5
19	1.7	1.9	a3.0	2.5	8.3	43	21	2.4	1.6	.7	.5	1.1
20	1.6	1.8	a3.0	2.5	8.8	38	26	2.2	1.6	.7	.5	.9
21	4.6	1.8	a3.0	2.5	8.8	30	34	2.2	1.6	.6	.4	1.0
22	6.1	1.6	3.0	2.2	7.8	26	55	2.2	1.9	.6	.4	1.2
23	5.8	1.8	3.0	3.2	8.8	31	68	2.7	1.6	.6	.4	1.0
24	5.2	1.8	3.2	4.1	11	31	65	2.5	1.5	.6	.4	.9
25	5.2	1.8	4.1	3.8	12	28	57	2.2	1.4	.6	.5	.9
26	4.3	1.8	3.6	3.8	*14	25	46	2.1	1.4	.6	.5	.9
27	4.0	1.8	3.6	b3.7	12	21	40	1.9	1.6	.5	.5	.9
28	3.5	1.8	3.4	b3.7	a12	18	35	1.9	1.2	.5	.4	1.0
29	3.3	1.8	a3.4	b3.6	a13	16	31	1.9	1.1	.5	.4	1.5
30	7.8	2.1	3.4	b3.6	-	18	26	2.2	1.0	.5	.4	1.5
31	6.9	-	3.4	3.6	-	23	-	2.2	-	.7	.4	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff	
						Inches	Acre-feet
October	91.4	7.8	1.1	2.95	0.174	0.20	181
November	96.2	9.3	1.6	3.21	.189	.21	191
December	165.0	19	2.7	5.32	.313	.36	327
Calendar year 1943	4,874.2	191	.9	13.4	.788	10.65	9,660
January	94.2	4.1	2.1	3.04	.179	.21	187
February	332.1	33	3.6	11.5	.676	.73	659
March	1,293	354	12	41.7	2.45	2.83	2,560
April	929	68	15	31.0	1.82	2.03	1,840
May	164.6	21	1.9	5.31	.312	.36	326
June	51.5	2.7	1.0	1.72	.101	.11	102
July	23.1	1.0	.5	.75	.044	.05	46
August	17.4	.8	.4	.56	.033	.04	35
September	25.0	1.5	.4	.83	.049	.05	50
Water year 1943-44	3,282.5	354	.4	8.97	.528	7.18	6,500

* Winter discharge measurement made on this day.
a No gage-height record; discharge computed on basis of records for East Fork Touchet River near Dayton.
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.

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 1944.

Extremes (regulated).- Maximum discharge during year, 86 second-feet Mar. 11 (gage height, 1.64 feet); minimum, 8.4 second-feet July 28, 29, 30 (gage height, 0.77 foot). 1941-44: Maximum discharge not determined, occurred June 7, 1941 (gage height, 4.00 feet); minimum, 2.4 second-feet Sept. 16, 1941 (gage height, 0.50 foot), but may have been less during period of ice effect Jan. 1-24, 1942.

Remarks.- Records good except those for Feb. 6-25, which are fair. Yellqwhawk Creek diverts flood waters from Mill Creek, which is subject to regulation at flood-control dam on Mill Creek. Many small diversions above station for irrigation. City of Walla Walla diverts water from Mill Creek for municipal supply.

Rating table, water year 1943-44 (gage height, in feet, and discharge, in second-feet)

0.8	9.3
1.0	19
1.2	34
1.4	53
1.6	79

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	14	53	50	39	38	36	53	45	56	22	12	15
2	14	46	50	41	38	34	54	44	53	22	12	15
3	14	43	44	38	38	35	55	41	53	22	12	15
4	14	47	38	37	37	40	55	45	48	23	12	13
5	14	36	39	34	38	39	48	55	44	22	12	12
6	15	29	37	24	41	38	41	58	41	19	15	12
7	15	30	33	17	39	36	43	58	38	20	15	12
8	15	31	38	14	28	40	48	63	40	19	13	12
9	15	32	41	24	28	50	44	65	41	18	14	10
10	16	33	39	32	28	72	42	61	38	18	11	12
11	35	35	38	36	29	63	45	56	34	16	10	12
12	25	36	38	32	29	55	48	55	32	16	11	9.3
13	19	38	41	32	29	55	42	54	32	16	14	10
14	16	38	42	32	30	51	48	55	31	15	16	14
15	18	36	40	32	30	56	50	63	30	15	16	14
16	22	36	38	32	32	56	49	60	33	14	14	28
17	24	36	36	33	33	63	46	55	38	15	13	20
18	26	37	38	33	32	57	43	52	36	13	13	18
19	23	36	38	33	42	49	44	45	32	12	13	15
20	24	36	38	33	51	45	43	40	32	16	13	13
21	34	35	38	33	51	40	43	38	32	12	12	14
22	22	34	38	33	53	43	46	40	33	12	12	15
23	18	34	38	39	51	50	51	45	28	12	12	12
24	21	33	38	41	45	53	51	38	26	12	12	10
25	29	33	39	38	39	50	44	38	28	11	14	10
26	28	32	35	38	40	44	49	44	26	11	13	10
27	25	32	38	37	38	43	42	43	29	10	13	9.6
28	28	32	38	36	37	42	45	45	26	10	12	10
29	32	32	38	37	36	42	47	47	24	10	12	13
30	69	37	38	38	-	48	45	53	22	11	12	13
31	61	-	38	38	-	52	-	51	-	12	12	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	745	69	14	24.0	1,480
November	1,075	53	29	35.9	2,140
December	1,212	50	33	39.1	2,400
Calendar year 1943	13,845	127	10	37.9	27,480
January	1,036	41	14	33.4	2,050
February	1,080	53	28	37.2	2,140
March	1,477	72	34	47.6	2,930
April	1,404	55	41	46.8	2,780
May	1,552	65	38	50.1	3,080
June	1,056	56	22	35.2	2,090
July	476	23	10	15.4	944
August	397	16	10	12.8	787
September	397.9	28	9.3	13.3	789
Water year 1943-44	11,910.9	72	9.3	32.5	23,610

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 1944.

Extremes (regulated).- Maximum discharge during year, 17 second-feet Oct. 21 (gage height, 2.16 feet); minimum, 1.0 second-foot Oct. 23, 24, Mar. 9 (gage height, 1.66 feet).
1941-44: Maximum discharge, 32 second-feet Jan. 15, 1943; no flow May 10, 1941.

Remarks.- Records excellent except those for periods of shifting-control or ice effect, which are good. Regulation at Mill Creek flood-control dam, 0.8 mile upstream. Yellowhawk and Garrison Creeks divert water to reduce flood peaks in city of Walla Walla and for irrigation during irrigation seasons.

Rating table, water year 1943-44, except period of ice effect or shifting control (gage height, in feet, and discharge, in second-feet)

1.7	1.4
1.8	3.0
1.9	5.5
2.0	9.1
2.1	14

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	3.9	6.1	7.5	4.1	4.4	3.4	6.8	5.5	3.6	1.6	1.6	1.5
2	3.9	4.9	7.2	4.1	4.4	3.4	7.2	5.5	3.9	1.4	1.6	1.5
3	3.9	4.4	5.5	4.1	4.6	3.6	7.2	4.1	3.9	1.4	1.6	1.4
4	3.4	5.2	4.1	3.9	4.6	4.4	6.1	4.1	4.1	1.4	1.4	1.4
5	3.4	3.9	4.6	3.6	4.6	4.4	4.9	6.5	4.1	1.5	1.6	1.5
6	3.9	3.9	4.1	3.6	5.2	4.1	4.4	7.2	3.9	1.4	1.6	1.4
7	3.9	3.4	3.4	3.2	4.1	3.9	3.9	7.2	3.9	1.4	1.6	1.4
8	3.6	3.4	4.1	3.2	3.6	4.4	4.4	7.9	3.9	1.4	1.4	1.4
9	3.9	3.6	4.9	3.2	3.6	6.1	4.1	7.9	4.1	1.5	1.5	1.4
10	4.6	3.9	4.1	3.0	3.6	9.5	3.9	7.2	3.9	1.8	1.4	1.4
11	7.2	3.9	4.1	b3.4	4.6	7.9	4.4	7.2	3.9	1.9	1.4	1.4
12	6.5	4.1	3.9	b3.4	4.6	6.1	5.5	7.2	3.4	1.9	1.4	1.4
13	6.1	4.6	4.6	3.6	4.1	6.1	4.6	7.2	3.4	1.6	1.4	1.3
14	5.5	4.6	4.6	3.6	4.1	6.1	5.5	6.5	3.4	1.8	1.9	1.3
15	6.1	4.6	4.4	3.6	3.9	6.5	5.5	7.2	3.4	1.6	1.6	1.4
16	6.5	4.6	4.1	3.6	4.4	6.1	5.2	6.8	3.4	1.5	1.6	2.1
17	6.9	4.6	3.9	3.6	4.1	7.2	4.1	6.5	3.2	1.4	1.5	3.9
18	6.8	4.6	3.9	3.4	3.9	6.8	3.9	6.1	2.6	1.4	1.5	4.1
19	6.1	4.1	4.1	3.4	5.2	4.9	4.4	6.1	2.2	1.6	1.4	3.6
20	6.5	4.1	3.9	3.4	6.1	5.2	4.6	5.5	1.9	1.8	1.4	3.2
21	7.9	4.1	3.9	3.4	6.5	4.4	4.6	4.9	1.5	1.4	1.5	3.9
22	3.4	4.4	3.9	3.4	6.5	4.6	5.2	4.6	1.3	1.4	1.5	4.9
23	1.9	4.4	3.9	4.4	6.1	6.1	6.1	5.8	1.2	1.4	1.4	6.1
24	2.2	4.1	3.9	4.6	5.2	6.8	6.5	5.2	1.1	1.4	1.5	6.8
25	3.4	4.4	4.1	4.6	*3.9	6.1	5.5	4.9	1.1	1.4	1.6	6.8
26	2.6	4.6	3.6	4.1	*4.1	5.5	4.9	4.6	1.3	1.3	1.6	6.8
27	2.1	4.4	4.1	3.6	3.6	5.2	5.2	4.1	1.8	1.2	1.5	6.8
28	2.2	4.4	4.1	3.6	3.6	4.9	5.2	3.0	1.8	1.4	1.4	6.8
29	3.4	4.4	4.1	3.9	3.6	4.9	5.5	3.0	1.8	1.4	1.5	7.9
30	8.7	*4.4	3.9	4.4	-	5.5	5.5	3.0	1.8	1.6	1.5	8.7
31	7.2	-	3.9	4.4	-	6.8	-	3.2	-	1.6	1.5	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	147.5	8.7	1.9	4.76	293
November	130.1	6.1	3.4	4.34	258
December	134.4	7.5	3.4	4.34	267
Calendar year 1943	2,651.8	22	1.3	7.27	5,260
January	115.4	4.6	3.0	3.72	229
February	130.8	6.5	3.6	4.51	259
March	170.9	9.5	3.4	5.51	339
April	154.8	7.2	3.9	5.16	307
May	175.7	7.9	3.0	5.67	348
June	84.8	4.1	1.1	2.83	168
July	46.8	1.9	1.2	1.51	93
August	46.9	1.9	1.4	1.51	93
September	103.5	8.7	1.3	3.45	205
Water year 1943-44	1,441.6	9.5	1.1	3.94	2,860

* Winter discharge measurement made on this day.
b Stage-discharge relation affected by ice.
Note.- Shifting-control method used Jan. 13 to Mar. 9.
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 (river-profile survey).

Records available.- April 1941 to September 1944.

Extremes.- Maximum discharge during year, 357 second-feet Mar. 9 (gage height, 3.45 feet); minimum, 29 second-feet Sept. 9, 12, 13, 14 (gage height, 2.06 feet).
1941-44: Maximum discharge not determined, probably occurred during period of faulty gage-height record Apr. 1-4, 1943; minimum, that of Sept. 9, 12, 13, 14, 1944.

Remarks.- Records excellent except those for periods of ice effect, which are fair. No regulation. Small diversions above gage for irrigation during summer months.

Rating table, water year 1943-44, except periods of ice effect (gage height, in feet, and discharge, in second-feet)

2.1	34	2.7	136
2.3	60	2.9	182
2.5	95	3.2	268

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	37	51	82	57	51	67	123	136	79	44	34	34
2	36	48	75	57	54	65	128	126	75	43	34	36
3	36	51	99	53	57	67	143	119	77	43	34	34
4	34	82	*140	56	57	70	165	115	70	43	34	32
5	34	84	128	53	67	70	163	119	67	42	32	32
6	36	68	109	51	138	68	149	123	64	42	32	31
7	34	62	99	b51	134	68	138	121	62	42	32	31
8	34	59	90	b50	119	82	136	119	62	42	32	30
9	36	54	77	b49	107	227	130	121	64	40	32	30
10	38	53	70	b48	92	275	123	113	60	42	34	30
11	70	53	67	b48	88	211	128	107	57	40	32	30
12	53	51	64	b48	79	175	143	103	56	39	32	30
13	44	50	62	47	75	147	145	101	57	40	34	31
14	42	50	59	47	77	126	143	103	56	39	34	34
15	40	48	56	47	70	111	140	105	54	39	34	36
16	44	48	56	47	72	109	134	103	57	39	34	42
17	47	48	54	53	68	119	126	97	60	39	34	39
18	48	48	56	48	67	117	121	92	60	37	34	39
19	44	47	56	48	65	126	117	88	57	37	34	38
20	44	47	54	48	64	117	123	84	57	37	34	36
21	54	47	54	48	67	109	121	81	54	36	34	36
22	57	47	54	48	65	103	130	81	54	34	32	36
23	53	47	53	56	65	109	143	82	53	34	32	36
24	54	46	54	56	68	109	163	81	50	34	32	36
25	56	46	64	54	67	105	158	77	48	34	32	36
26	51	46	56	53	68	101	147	74	48	34	32	34
27	48	46	53	b53	64	92	140	70	48	34	32	34
28	47	46	53	b52	67	90	143	70	47	34	32	34
29	48	46	53	b52	*68	94	145	70	46	34	32	40
30	68	62	51	b51	-	105	145	77	44	34	31	39
31	54	-	51	51	-	119	-	75	-	34	32	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	1,421	70	34	45.8	2,820
November	1,581	84	46	52.7	3,140
December	2,149	140	51	69.3	4,260
Calendar year 1943	44,169	502	32	121	87,630
January	1,580	57	47	51.0	3,130
February	2,200	138	51	75.9	4,360
March	3,553	275	65	115	7,050
April	4,153	165	117	138	8,240
May	3,033	136	70	97.8	6,020
June	1,743	79	44	58.1	3,460
July	1,185	44	34	38.2	2,350
August	1,019	34	31	32.9	2,020
September	1,036	42	30	34.5	2,050
Water year 1943-44	24,653	275	30	67.4	48,900

* 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.

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 1944.

Extremes.- Maximum discharge observed during year, 1,910 second-feet Mar. 10 (gage height, 6.80 feet); minimum, 6.4 second-feet Sept. 13, 14 (gage height, 1.45 feet).
1941-44: 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, that of Sept. 13, 14, 1944.

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

Rating tables, water year 1943-44, except period of ice effect (gage height, in feet, and discharge, in second-feet)

Oct. 1 to Feb. 5				Feb. 6 to Sept. 30					
1.8	22	2.9	126	1.7	16	2.7	110	4.5	661
2.0	34	3.2	176	1.9	27	3.0	162	5.0	896
2.2	49	3.5	243	2.1	41	3.5	282	5.5	1,14e
2.4	66	4.0	405	2.4	71	4.0	452	6.4	1,660
2.6	87								

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	24	89	66	76	87	134	238	251	99	31	11	10
2	26	80	98	103	77	131	246	236	107	30	14	9.6
3	25	73	97	98	92	141	262	209	103	31	15	12
4	26	77	164	74	138	168	303	191	102	29	14	15
5	26	126	276	72	109	149	331	184	91	29	13	15
6	26	129	216	82	309	149	306	184	83	28	14	13
7	28	111	190	83	389	154	276	189	72	26	13	12
8	29	98	165	62	309	168	260	182	68	26	13	9.6
9	29	89	145	b61	262	558	254	180	71	26	14	8.8
10	29	86	130	b61	221	g1,510	233	178	71	27	13	8.8
11	33	83	120	b60	186	g729	226	166	66	25	13	8.8
12	59	76	105	b60	180	g512	246	149	55	24	11	8.4
13	70	74	98	b59	156	g407	285	140	51	23	9.6	7.3
14	52	71	92	b65	158	303	315	136	54	22	9.2	7.0
15	47	69	88	b69	149	274	318	140	54	21	9.6	10
16	47	67	85	70	136	251	315	140	56	20	12	15
17	50	66	84	70	149	312	288	136	59	19	14	18
18	49	65	83	72	140	358	260	126	66	19	12	23
19	56	64	82	70	136	325	241	118	68	19	10	25
20	53	64	81	68	128	331	254	110	63	17	8.8	25
21	54	63	81	68	126	294	288	103	60	16	9.6	24
22	69	63	80	67	128	260	322	99	67	15	9.2	21
23	89	63	80	69	128	249	385	100	58	15	9.2	25
24	79	62	80	84	129	285	396	103	52	14	8.4	24
25	72	62	95	93	*138	265	422	102	47	14	8.4	24
26	73	62	85	85	133	246	368	92	43	14	8.8	22
27	69	61	78	77	134	221	325	83	40	14	11	21
28	65	60	74	63	*129	195	297	77	40	13	12	19
29	63	60	73	64	140	193	276	72	40	11	11	19
30	78	*60	73	64	-	197	265	75	34	11	9.2	22
31	113	-	73	75	-	214	-	90	-	11	9.2	-

Month	Second-feet-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	1,608	113	24	51.9	3,190
November	2,272	129	60	75.7	4,510
December	3,337	276	66	108	6,620
Calendar year 1943	75,422	1,620	17	207	149,600
January	2,244	103	59	72.4	4,450
February	4,696	389	77	162	9,310
March	9,683	1,510	131	312	19,210
April	8,801	422	226	293	17,460
May	4,341	251	72	140	8,610
June	1,940	107	34	64.7	3,850
July	640	31	11	20.6	1,270
August	349.2	15	8.4	11.3	693
September	482.3	25	7.0	16.1	957
Water year 1943-44	40,393.5	1,510	7.0	110	80,130

* Winter discharge measurement made on this day.
b Stage-discharge relation affected by ice.
g Computed from graph based on gage readings.
Note.- No gage-height record Nov. 19-27, Dec. 7-12, 15-31; discharge computed on basis of weather records and records for East Fork Touchet River near Dayton.
Time basis: Pacific war time. To convert war time to standard time, subtract 1 hour.

Umatilla Rivsr 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, 2½ miles upstream from Meacham Creek, and 2⅞ 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 1944. April 1933 to June 1939 at site 1 mile downstream.

Average discharge.- 11 years, 193 second-feet.

Extremes.- Maximum discharge during year, 2,020 second-feet Mar. 9 (gage height, 5.65 feet), from rating curve extended above 1,200 second-feet; minimum, 34 second-feet Sept. 9 (gage height, 1.79 feet).
1933-44: 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 ice effect or no gage-height record, which are poor. No diversion or regulation above station.

Rating tables, water year 1943-44, except periods of ice effect
(gage height, in feet, and discharge, in second-feet)

Oct. 1 to Mar. 9				Mar. 10 to Sept. 30			
2.0	47	3.2	320	1.8	35	2.9	255
2.2	64	3.5	450	2.0	56	3.2	370
2.4	90	3.9	655	2.2	83	3.5	505
2.6	126	4.3	900	2.4	120	4.0	745
2.9	210	4.8	1,280	2.6	167	4.5	1,060

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	44	a66	55	62	63	103	456	482	201	56	41	45
2	44	61	73	62	70	100	523	402	181	56	40	45
3	45	60	136	61	98	104	680	370	216	56	40	43
4	45	110	138	60	122	112	745	379	184	55	40	41
5	46	120	134	60	163	112	660	424	167	55	39	39
6	46	96	116	58	460	110	536	460	154	52	39	38
7	46	82	106	56	415	134	456	438	144	52	40	38
8	47	74	116	55	280	274	428	406	144	52	41	39
9	46	69	112	54	210	1,260	370	379	142	50	40	37
10	49	64	103	54	166	1,110	338	334	129	50	40	37
11	60	61	95	b53	148	564	362	306	120	50	40	38
12	56	60	86	53	134	438	492	290	114	50	40	37
13	53	60	80	53	128	338	546	294	106	49	41	37
14	51	58	75	53	122	255	572	318	100	49	46	40
15	50	57	69	53	110	219	559	330	95	49	44	41
16	51	55	65	53	116	207	518	310	97	48	43	48
17	57	54	64	54	108	394	442	286	100	47	43	46
18	54	54	62	53	108	550	374	262	96	47	43	50
19	53	53	60	53	106	518	346	240	88	48	42	47
20	53	53	61	53	108	438	366	219	82	50	43	44
21	68	53	60	53	112	336	428	207	80	47	42	44
22	64	53	60	53	106	290	625	195	83	46	43	52
23	61	53	60	59	108	330	775	184	77	44	43	46
24	63	52	61	63	124	379	799	170	72	44	42	45
25	61	52	66	61	122	334	645	157	70	44	43	43
26	60	51	65	60	120	272	536	152	69	44	43	43
27	56	51	64	59	110	255	518	154	68	43	43	43
28	a55	51	63	b59	108	201	546	164	64	42	43	42
29	a56	51	62	b60	110	225	572	175	62	41	41	48
30	a60	52	62	b61	-	310	559	187	59	41	41	48
31	a68	-	61	62	-	420	-	181	-	41	41	-

Month	Second-feet-days	Maximum	Minimum	Mean	Per square mile	Runoff Inches	Runoff Acre-feet
October	1,668	68	44	53.8	0.43	0.50	3,310
November	1,886	120	51	62.9	.50	.56	3,740
December	2,490	138	55	80.3	.64	.74	4,940
Calendar year 1943	96,066	1,370	44	263	2.10	28.58	190,500
January	1,763	63	53	56.9	.46	.52	3,500
February	4,255	460	63	147	1.18	1.27	8,440
March	10,694	1,260	100	345	2.76	3.13	21,210
April	15,772	799	338	526	4.21	4.69	31,280
May	8,855	482	152	286	2.29	2.63	17,560
June	3,366	216	59	112	.90	1.00	6,680
July	1,498	56	41	48.3	.39	.45	2,970
August	1,290	46	39	41.6	.33	.38	2,560
September	1,284	52	37	42.8	.34	.38	2,550
Water year 1943-44	54,821	1,260	37	150	1.20	16.30	108,700

a No gage-height record; discharge computed on basis of records for stations at Pendleton and Yoakum.
b Stage-discharge relation affected by ice.
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, 2½ miles upstream from McKay Creek. Datum of gage is 1,062.54 feet above mean sea level, datum of 1929. Temporary water-stage recorder 600 feet upstream at different datum used in low-water periods.

Drainage area.- 637 square miles.

Records available.- February 1891 to July 1892, May 1903 to June 1905, October 1934 to September 1944. May 1921 to September 1934 at site about 2½ miles downstream.

Average discharge.- 21 years (1923-44), 439 second-feet.

Extremes.- Maximum discharge during year, 5,880 second-feet Mar. 10 (gage height, 5.16 feet); minimum, 22 second-feet July 29, 30, Aug. 12, 13.
1891-92, 1903-5, 1921-44: Maximum discharge, 13,500 second-feet Apr. 1, 1931 (gage height, 8.8 feet, site and datum then in use), computed on basis of records for Umatilla River at Umatilla and near Yoakum and Birch Creek at Rieth; minimum, 7 second-feet Aug. 14, 1924.
Flood of May 30-31, 1906, reached a stage of 11.0 feet, present site and datum (discharge not determined but somewhat greater than that of Apr. 1, 1931).

Remarks.- Records good. Records based on auxiliary water-stage recorder 600 feet upstream except for Feb. 7 to May 27. Small diversions above station for irrigation. No regulation.

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	39	96	78	109	102	297	1,130	1,130	271	62	26	24
2	40	91	88	111	106	281	1,220	934	275	61	26	30
3	39	88	143	107	122	313	1,560	806	291	58	26	31
4	41	107	200	106	179	356	1,850	758	288	60	27	31
5	42	170	228	102	222	390	1,700	758	254	60	27	30
6	44	163	228	102	550	385	1,330	822	231	55	25	28
7	44	142	216	99	876	410	1,050	798	207	51	24	27
8	40	132	213	94	743	558	938	736	202	50	28	27
9	41	120	225	92	580	f2,390	820	687	204	50	29	27
	42	113	219	91	450	4,470	719	617	192	47	27	26
11	49	107	205	b89	385	2,040	683	562	169	44	26	25
12	56	104	189	b86	348	1,280	827	508	154	42	24	26
13	57	97	175	86	317	890	986	490	145	41	22	25
14	53	94	161	86	313	647	1,140	508	137	41	26	26
15	54	91	153	85	281	536	1,180	526	126	40	30	27
16	56	89	142	83	285	460	1,180	502	124	37	29	34
17	59	88	134	83	309	647	1,050	470	139	37	27	39
18	67	85	126	85	297	1,260	890	425	135	36	26	42
19	65	83	122	83	289	1,260	807	386	126	35	27	44
20	63	81	122	82	273	1,080	855	350	115	37	28	40
21	76	81	115	82	269	827	1,090	313	106	37	27	48
22	88	80	111	82	265	695	1,790	291	113	34	27	44
23	83	80	109	86	249	695	2,160	284	104	31	27	46
24	81	80	107	102	265	876	2,300	267	93	31	25	44
25	81	78	111	104	293	848	2,130	249	87	31	25	41
26	80	77	113	106	309	719	1,690	234	84	30	27	40
27	77	76	113	102	309	596	1,440	219	80	28	27	39
28	73	76	111	97	289	520	1,350	212	77	27	25	38
29	74	76	111	102	305	536	1,350	223	72	24	24	41
30	89	a77	109	102	-	701	1,300	239	65	22	24	46
31	100	-	107	102	-	978	-	254	-	24	24	-

Month	Second-feet-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	1,893	100	39	61.1	3,750
November	2,922	170	76	97.4	5,800
December	4,584	228	78	148	9,090
Calendar year 1943	219,161	3,630	35	600	434,700
January	2,926	111	82	94.4	5,800
February	9,580	876	102	330	19,000
March	27,941	4,470	281	901	55,420
April	38,515	2,300	683	1,284	76,390
May	15,558	1,130	212	502	30,860
June	4,666	291	65	156	9,250
July	1,263	62	22	40.7	2,510
August	812	30	22	26.2	1,610
September	1,036	48	24	34.5	2,050
Water year 1943-44	111,696	4,470	22	305	221,500

a No gage-height record; discharge interpolated.
b Stage-discharge relation affected by ice.
f Computed from partly estimated gage-height record.
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. 2 N., R. 30 E., at highway bridge, half a mile northeast of Yoakum station and 2⅛ 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 1944. June 1915 to September 1934 at site 5 miles upstream, above Furnish Reservoir.

Average discharge.- 41 years, 656 second-feet.

Extremes.- Maximum discharge during year, 5,010 second-feet Mar. 10 (gage height, 6.55 feet); minimum, 46 second-feet Sept. 21 (gage height, 0.70 foot).
1903-44: 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. Diversions above station for irrigation. Flow regulated to some extent by mills at Pendleton, and since 1927 by McKay Reservoir.

Rating table, water year 1943-44
(gage height, in feet, and discharge, in second-feet)

0.8	62	1.7	330	4.0	1,930
.9	81	2.0	465	5.0	2,980
1.0	103	2.4	686	6.0	4,240
1.2	156	2.9	1,010		
1.4	218	3.4	1,390		

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	52	134	108	142	131	370	1,290	1,400	490	384	a425	192
2	54	128	118	142	131	362	1,390	1,210	450	379	425	202
3	54	123	145	139	139	379	1,630	1,080	450	318	420	205
4	56	131	228	136	165	430	1,910	1,010	460	208	420	205
5	56	177	264	134	239	485	1,860	1,000	420	196	420	208
6	57	199	272	134	458	460	1,600	1,030	392	192	402	205
7	60	180	264	131	836	470	1,330	1,010	379	189	272	196
8	59	171	257	123	771	564	1,200	934	415	186	246	183
9	57	162	272	120	643	1,860	1,080	842	425	402	242	174
10	57	148	268	118	515	4,280	954	771	420	435	239	159
11	59	142	257	a117	445	2,340	894	703	402	440	225	156
12	64	139	239	a116	402	1,560	1,040	631	338	261	202	150
13	72	136	225	116	374	1,210	1,240	559	314	268	199	153
14	70	131	208	113	374	916	1,370	548	299	303	199	156
15	70	123	196	113	350	784	1,410	554	291	310	291	162
16	73	123	189	113	342	715	1,440	520	326	310	330	85
17	79	a120	180	113	366	823	1,320	485	346	334	322	66
18	85	118	168	113	358	1,380	1,160	445	346	415	318	60
19	90	118	162	113	354	1,460	1,040	406	338	435	318	57
20	90	116	156	113	342	1,330	1,130	379	330	445	318	54
21	103	116	148	113	334	1,100	1,360	350	322	435	314	54
22	113	113	145	113	330	920	2,080	326	346	430	307	99
23	118	113	145	113	318	868	2,400	350	374	430	287	68
24	113	113	145	126	322	1,030	2,500	342	392	a430	283	62
25	108	113	145	134	362	1,060	2,400	362	392	a430	280	56
26	110	110	150	134	358	927	2,300	420	392	430	299	51
27	110	108	150	128	370	778	2,100	425	392	425	303	48
28	103	108	145	123	a365	661	1,910	440	397	425	303	48
29	106	106	145	123	a375	637	1,730	450	392	425	295	48
30	116	106	142	126	-	790	1,550	465	388	435	287	52
31	136	-	142	128	-	1,070	-	495	-	a430	183	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	2,550	136	52	82.3	5,060
November	3,925	199	106	131	7,790
December	5,778	272	108	186	11,460
Calendar year 1943	312,800	3,880	51	857	620,400
January	3,820	142	113	123	7,580
February	10,869	836	131	375	21,560
March	32,009	4,280	362	1,033	63,490
April	46,618	2,500	894	1,554	92,470
May	19,942	1,400	326	643	39,550
June	11,418	490	291	381	22,650
July	11,135	445	186	359	22,090
August	9,374	425	183	302	18,590
September	3,614	208	48	120	7,170
Water year 1943-44	161,052	4,280	48	440	319,500

a No gage-height record; discharge computed on basis of records for stations at Pendleton and above Meacham Creek, near Gibbon.
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 1944.

Average discharge.- 41 years, 493 second-feet.

Extremes.- Maximum discharge during year, 3,910 second-feet Mar. 11 (gage height, 5.57 feet); minimum, 7 second-feet (regulated) Sept. 11; minimum daily, 13 second-feet May 17, 18.

1903-44: Maximum discharge observed, 19,600 second-feet May 31, 1906 (gage height, 11.0 feet); no flow at times.

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

Rating tables, water year 1943-44 (gage height, in feet, and discharge, in second-feet)

Oct. 1 to Feb. 7				Feb. 8 to Sept. 30					
2.4	34	2.9	165	2.2	18	2.7	103	3.7	800
2.5	49	3.0	210	2.3	28	2.8	138	4.0	1,150
2.6	69	3.2	330	2.4	40	3.0	230	4.3	1,550
2.7	94	3.4	490	2.5	56	3.2	360	4.7	2,200
2.8	126			2.6	76	3.4	515	5.1	2,950

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	43	291	138	113	86	248	910	888	17	15	15	16
2	36	284	134	113	104	236	1,010	695	38	23	15	16
3	38	284	134	110	97	230	1,200	600	20	62	15	16
4	34	284	142	116	97	254	1,450	420	15	185	16	16
5	34	284	149	113	104	339	1,540	339	17	25	17	16
6	40	317	170	107	107	325	1,320	297	17	15	21	16
7	53	248	174	104	437	318	1,060	290	15	15	129	16
8	55	206	165	97	676	353	877	278	36	15	64	16
9	67	178	153	104	583	808	768	200	36	14	26	16
10	76	170	153	107	459	2,910	549	131	38	25	17	16
11	65	161	157	100	360	2,800	420	95	50	16	16	38
12	63	157	146	110	318	1,510	412	60	70	15	15	205
13	84	157	138	161	278	1,140	592	34	46	15	15	123
14	89	157	138	138	260	888	737	16	26	15	15	16
15	86	153	130	107	254	716	790	38	23	16	15	16
16	89	149	126	104	225	574	833	17	22	16	15	16
17	86	146	123	110	220	540	800	13	21	16	15	16
18	84	146	120	107	236	888	657	13	20	15	15	16
19	89	146	120	107	236	1,180	491	25	17	17	15	19
20	92	146	120	107	225	1,100	491	15	17	15	16	16
21	104	149	120	107	215	855	648	14	22	14	17	16
22	107	146	120	100	215	676	1,100	14	27	14	17	16
23	177	142	120	100	200	592	1,620	14	21	14	17	16
24	291	142	116	110	190	666	1,810	14	18	17	17	16
25	291	134	110	104	200	737	1,860	15	17	16	17	16
26	278	138	113	104	225	676	1,800	16	22	16	17	16
27	291	134	113	100	242	549	1,610	17	24	17	16	16
28	284	142	116	100	236	483	1,440	16	28	16	16	16
29	278	138	110	89	230	420	1,240	15	23	15	16	16
30	278	134	113	94	-	459	1,080	14	16	15	16	16
31	278	-	113	104	-	666	-	14	-	15	16	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	3,960	291	34	128	7,850
November	5,463	317	134	182	10,840
December	4,094	174	110	132	8,120
Calendar year 1943	244,561	3,740	14	670	485,100
January	3,347	161	89	108	6,640
February	7,315	676	86	252	14,510
March	24,136	2,910	230	779	47,870
April	31,105	1,860	412	1,037	61,700
May	4,627	888	13	149	9,180
June	779	70	15	26.0	1,550
July	719	185	14	23.2	1,430
August	669	129	15	21.6	1,330
September	800	205	15	26.7	1,590
Water year 1943-44	87,014	2,910	13	238	172,600

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, 1,322 feet) of McKay Reservoir, and 6 miles northeast of Pilot Rock. Datum of gage is 1,335.85 feet above mean sea level, datum of 1929 (Pacific Power & Light Co. bench mark).

Drainage area.- 178 square miles.

Records available.- May to August 1921, October 1926 to September 1944 (1927-29 incomplete).

Average discharge.- 16 years (1926-27, 1929-44), 86.2 second-feet.

Extremes.- Maximum discharge during year, 1,860 second-feet Mar. 9 (gage height, 5.18 feet), from rating curve extended above 570 second-feet; minimum daily, 0.3 second-foot Sept. 6-20.

1921, 1926-44: Maximum discharge, 6,000 second-feet Apr. 1, 1931 (gage height, 10.4 feet, site and datum then in use); no flow at times.

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

Rating tables, water year 1943-44 (gage-height, in feet, and discharge, in second-feet)

Oct. 1 to Mar. 9						Mar. 9 to Sept. 30					
1.3	3.6	1.8	29	2.6	162	0.9	0.8	1.5	22	2.6	203
1.4	6.6	2.0	50	2.8	217	1.0	2.1	1.6	30	2.8	280
1.5	10.5	2.2	78	3.1	322	1.1	4.0	1.8	50	3.1	410
1.6	15.5	2.4	115			1.2	6.9	2.0	77	3.4	565
						1.3	10.6	2.2	109	3.8	815
						1.4	16	2.4	149	4.2	1,090

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	3.0	19	12	20	16	97	276	210	24	5.4	h0.6	a0.4
2	2.8	18	13	21	17	101	292	180	24	4.9	a.6	h.4
3	2.6	17	51	21	25	122	334	154	24	3.6	a.6	a.4
4	2.6	21	59	19	66	133	352	138	21	3.0	a.6	a.4
5	2.3	29	70	19	101	133	347	128	19	2.7	a.6	a.4
6	2.3	28	66	19	311	135	300	122	15	2.5	a.5	a.3
7	2.6	26	60	17	256	167	236	113	13	2.3	a.5	a.3
8	2.6	24	68	15	188	256	218	104	13	2.1	a.5	h.3
9	2.8	22	76	16	147	1,140	188	99	15	1.4	a.5	a.3
10	3.0	20	69	15	119	f1,090	164	92	15	1.6	h.5	a.3
11	3.2	19	59	14	107	f577	164	83	14	1.2	a.5	a.3
12	3.6	18	51	16	95	425	194	74	13	.9	a.4	a.3
13	4.2	17	44	14	92	292	225	66	12	.7	a.4	a.3
14	4.2	17	39	13	90	207	276	60	11	a.6	h.4	a.3
15	4.5	16	35	13	83	172	308	53	10	a.5	a.4	a.3
16	4.8	16	31	14	101	164	320	47	9.9	a.5	a.4	a.3
17	5.4	15	28	14	122	312	292	43	11	a.4	h.4	a.3
18	5.4	14	26	14	119	406	248	40	11	a.4	a.4	a.3
19	5.4	14	25	14	107	383	233	36	8.4	1.3	a.4	a.3
20	6.0	14	23	14	95	308	296	33	6.0	2.0	a.4	a.3
21	6.6	14	23	14	92	240	581	30	6.0	2.0	a.4	10
22	7.4	13	22	14	85	200	867	29	6.3	1.7	a.4	6.3
23	7.8	13	21	14	76	233	867	28	6.6	1.2	a.4	3.8
24	8.2	13	21	16	83	260	756	28	6.3	.9	a.4	3.2
25	9.7	13	21	17	92	222	619	24	6.3	.8	a.4	2.7
26	9.7	12	21	16	103	183	470	22	6.0	.7	a.4	2.5
27	9.7	12	21	14	101	147	388	21	6.3	a.7	a.4	2.5
28	10	12	21	15	101	132	324	20	7.3	a.7	a.4	2.3
29	10	12	21	17	103	141	284	18	6.3	a.6	a.4	2.3
30	14	12	21	17	-	186	248	20	5.7	a.6	a.4	3.2
31	18	-	20	17	-	244	-	22	-	a.6	a.4	-

Month	Second-feet-days	Maximum	Minimum	Mean	Runoff in acre-feet
Octcber	184.4	18	2.3	5.95	366
November	510	29	12	17.0	1,010
December	1,138	76	12	36.7	2,260
Calendar year 1943	43,218.6	1,150	1.9	118	85,730
January	493	21	13	15.9	978
February	3,093	311	16	107	6,130
March	8,608	1,140	97	284	17,470
April	10,667	867	164	356	21,160
May	2,137	210	18	68.9	4,240
June	352.4	24	5.7	11.7	699
July	48.5	5.4	.4	1.56	96
August	14.0	.6	.4	.45	28
September	45.3	10	.3	1.51	90
Water year 1943-44	27,490.6	1,140	.3	75.1	54,530

a No gage-height record; discharge interpolated or extrapolated.
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.

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 1944.

Extremes.- Maximum contents observed during year, 71,690 acre-feet Apr. 25 (elevation, 1,320.3 feet); minimum observed, 13,700 acre-feet Sept. 16 (elevation, 1,246.0 feet). 1930-44: 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 1943 to September 1944

Date	Elevation (feet)	Contents (acre-feet)	Change in contents during month (acre-feet)
Oct. 1	1,269.5	26,520	+330
Nov. 1	1,270.0	26,850	+7,040
Dec. 1	1,280.5	33,890	+1,810
Calendar year		-	-14,140
Jan. 1	1,283.0	35,700	+1,100
Feb. 1	1,284.5	36,800	+2,330
Mar. 1	1,287.5	39,130	+15,030
Apr. 1	1,304.5	54,160	+17,140
May 1	1,320.0	71,300	-3,000
June 1	1,317.5	68,300	-13,140
July 1	1,305.5	55,160	-20,910
Aug. 1	1,281.0	34,250	-15,850
Sept. 1	1,255.5	18,400	-4,700
Oct. 1	1,246.0	13,700	-
Water year 1943-44	-	-	12,820

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 1944 (diversions by irrigation canal at gage not included since 1932).

Average discharge.- 23 years (1919-23, 1924-27, 1928-44), 91.0 second-feet (unadjusted).

Extremes.- Maximum discharge during year, 662 second-feet (regulated) Apr. 27 (gage height, 1.83 feet); no flow during most of period Oct. 1 to Mar. 31.
1918-44: 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 fair. Diversions above station for irrigation. Flow completely regulated since 1927 by McKay Reservoir.

Rating table, water year 1943-44 (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Aug. 3 to Sept. 15)

0.1	3.0	0.5	52	1.2	277
.2	10.5	.6	73	1.4	380
.3	21	.8	127	1.6	505
.4	35	1.0	194		

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1							f6.8	146	190	301	f416	156
2							6.8	180	159	301	404	166
3							6.8	180	159	188	398	170
4							6.8	180	159	133	392	170
5							6.8	173	159	133	392	166
6							6.8	159	159	133	317	166
7							7.5	156	194	133	206	153
8							7.5	118	217	133	206	146
9							7.5	83	221	392	210	137
10							7.5	80	221	386	206	127
11							7.5	80	206	335	184	127
12							7.5	44	156	210	166	127
13							7.5	12	156	242	166	127
14							8.2	10	153	277	203	130
15							8.2	9.8	170	273	287	90
16							8.2	9.8	217	273	282	f2.4
17							9.0	9.8	217	f347	282	-
18							9.8	9.0	217	f392	277	-
19							8.2	8.2	214	f410	277	-
20							6.0	7.5	214	422	273	-
21							6.0	7.5	214	416	268	-
22							6.0	38	251	f422	264	-
23							9.0	76	277	f422	246	-
24							9.0	76	306	416	246	-
25							f252	162	306	410	246	-
26							g544	206	306	f410	268	-
27							f544	221	306	f398	264	-
28							416	225	301	f398	259	-
29							228	225	296	f410	259	-
30							146	225	296	a413	231	-
31							-	229	-	416	146	-

Month	Second-feet-days	Maximum	Minimum	Mean	Runoff in acre-feet
October					
November					
December					
Calendar year					
January	-	-	-	-	-
February	-	-	-	-	-
March	-	-	-	-	-
April	2,310.9	544	6.0	77.0	4,580
May	3,345.6	229	7.5	108	6,640
June	6,617	306	153	221	13,120
July	9,945	422	133	321	19,730
August	8,241	416	146	266	16,350
September 1-16	2,160.4	170	2.4	135	4,290
The period	32,619.9	-	-	-	64,710

a No gage-height record; discharge interpolated.
f Computed from partly estimated gage-height record.
g Computed from graph based on gage readings.
Note.- Probably little or no flow during periods October to March, Sept. 17-30.
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 and April 1927 to September 1944 (incomplete prior to October 1929).

Average discharge.- 15 years (1929-44), 36.6 second-feet.

Extremes.- Maximum discharge during year, 485 second-feet Apr. 24 (gage height, 3.54 feet); minimum, 0.1 second-foot at times in October, June to September.
1921-23, 1927-44: Maximum discharge, 1,640 second-feet Jan. 29, 1928 (gage height, 6.00 feet, site and datum then in use), from rating curve extended above 300 second-feet; no flow at times.

Remarks.- Records good Dec. 1 to May 17, fair for other periods. Several small diversions above station for irrigation.

Rating tables, water year 1943-44 (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Oct. 5 to Nov. 21, Mar. 9, June 30 to July 11, Aug. 12-22)

Oct. 1 to Mar. 9				Mar. 10 to Sept. 30					
0.5	0.1	1.0	9.5	0.4	0.1	1.0	11	2.0	117
.6	1.2	1.1	14	.5	.3	1.1	16	2.3	170
.7	2.5	1.2	20	.6	1.3	1.2	22	2.6	233
.8	4.3	1.4	37	.7	3.0	1.4	39	3.0	334
.9	6.5	1.6	58	.8	5.3	1.6	61	3.4	444
				.9	8.0	1.8	86		

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	a0.3	19	18	19	15	39	100	176	8.0	0.2	0.2	0.1
2	a.3	19	18	19	16	39	117	149	4.3	.2	.1	.2
3	a.3	18	21	18	16	42	162	119	5.1	.2	.2	.2
4	a.3	18	22	17	18	45	188	106	7.7	.2	.2	.2
5	h.3	19	24	18	18	46	190	96	7.7	.2	.2	.1
6	a.3	20	23	18	19	46	170	98	3.7	.2	.2	.1
7	a.2	20	22	16	24	47	146	89	2.3	.2	.2	.1
8	a.2	20	24	15	29	54	136	81	7.2	.2	.2	.1
9	a.2	19	25	15	31	168	122	76	5.6	.2	.2	.1
10	a.1	19	24	14	28	337	106	63	5.4	.2	.2	.1
11	.1	19	23	11	29	233	101	48	7.5	.2	.2	.1
12	2.1	18	23	14	30	174	122	33	5.6	.2	.2	.1
13	7.1	18	22	14	30	142	127	26	3.0	.2	.2	.1
14	7.1	18	22	14	32	96	127	24	.2	.2	.1	.1
15	8.0	18	22	14	32	104	119	18	.2	.2	.1	.1
16	8.3	19	21	14	32	103	119	12	.2	.2	.1	.2
17	8.3	a20	20	15	33	109	115	11	.2	.1	.2	.2
18	9.5	20	19	15	34	142	112	6.6	.1	.1	.2	.2
19	11	20	19	15	35	151	111	.4	.1	.1	.2	.2
20	a12	20	19	15	35	141	126	.3	.2	.2	.2	.2
21	14	20	18	14	34	124	178	.2	.2	.2	.2	14
22	14	20	18	15	35	107	303	.2	.2	.1	.2	1.0
23	a14	20	18	15	35	100	394	.2	.2	.1	.1	.1
24	a15	20	18	16	34	96	453	.2	.2	.1	.1	.1
25	a15	19	19	16	35	90	410	2.5	.2	.1	.1	.1
26	a15	19	19	16	36	86	324	5.2	.1	.1	.1	.1
27	a16	19	19	14	37	68	272	3.4	.1	.1	.1	.1
28	16	19	19	12	38	60	247	8.9	.2	.1	.1	.1
29	16	19	19	14	38	57	231	8.6	.1	.1	.1	.1
30	20	17	18	14	-	57	200	8.6	.2	.1	.1	.1
31	a20	-	18	14	-	81	-	6.9	-	.1	.1	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	251.0	20	0.1	8.10	498
November	573	20	17	19.1	1,140
December	634	25	18	20.5	1,260
Calendar year 1943	25,279.3	436	.1	69.3	50,160
January	470	19	11	15.2	932
February	858	38	15	29.6	1,700
March	3,184	337	39	103	6,320
April	5,628	453	100	188	11,160
May	1,277.2	176	.2	41.2	2,530
June	76.0	8.0	.1	2.53	151
July	4.9	.2	.1	.16	9.7
August	4.9	.2	.1	.16	9.7
September	18.6	14	.1	.62	37
Water year 1943-44	12,979.6	453	.1	35.5	25,750

a No gage-height record; discharge interpolated.
h Computed from staff-gage reading.
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. Brownell 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 1926 to September 1944; records for some of the canals published separately prior to 1926.

Diversions, in acre-feet, water year October 1943 to September 1944

Month	Furnish Canal	Umatilla project feed canal	Western Land Canal	Allen Canal	Maxwell Canal	West Division main canal	Brownell Canal
October	0	-	-	701	1,070	7,600	0
November	0	a5,700	-	89	-	0	0
December	0	10,060	-	92	-	0	0
January	0	6,620	-	92	-	0	0
February	0	11,630	-	115	-	0	0
March	0	12,590	-	123	-	2,400	0
April	4,640	8,430	8,660	994	1,680	10,290	853
May	8,300	7,640	11,550	1,100	3,870	9,860	1,130
June	8,530	-	11,460	1,210	2,610	9,750	1,050
July	7,140	-	11,270	1,390	1,270	10,550	984
August	6,130	-	9,900	1,270	1,700	10,970	1,170
September	4,090	-	b40	1,450	1,630	7,710	952
Water year 1943-44	38,830	-	-	8,626	-	69,130	6,139

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

a Nov. 4-30.

b Sept. 1-5.

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.
Drainage area.- [illegible] square miles.
Records available.- October 1926 to September 1944. October 1916 to September 1917 (gage heights only) and March 1925 to September 1926, at site below outlet of Prairie power canal.
Average discharge.- 19 years, 105 second-feet, including flow of Prairie power canal.
Extremes.- Maximum discharge during year, 414 second-feet June 16 (gage height, 3.23 feet), from rating curve extended above 80 second-feet; minimum, 5.5 second-feet Feb. 13, 19 (gage height, 1.30 feet).
1926-44: 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 except those for periods of ice effect or no gage-height record and those above 150 second-feet, which are poor. Diversions above station for irrigation and power (see p. 39) for records for Prairie power canal at Prairie City).

Rating table, water year 1943-44, except periods of ice effect
(gage height, in feet, and discharge, in second-feet)
(Shifting-control method used July 28 to Sept. 30)

1.4	10	1.7	35	2.2	115
1.5	16.5	1.8	47	2.4	160
1.6	25	2.0	77	2.7	238

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	12	22	15		27	13	29	69	61	15	14	
2	11	19	13		20	13	35	65	63	17	14	
3	11	32	14		23	14	46	57	77	20	14	
4	12	27	15		22	14	57	50	64	21	14	
5	11	35			22	13	58	48	46	21	15	
6	11	22			33	14	50	58	43	21	13	
7	11	19		16	29	14	45	58	35	22	13	
8	11	17			20	23	47	53	61	22	13	
9	11	24			16	82	41	48	88	23	12	11
10	10	51			18	89	35	43	55	25	11	
11	16	40			15	50	36	40	45	20	10	
12	17	33			12	41	42	35	36	17	10	
13	18	31			9.5	29	43	33	30	15	10	
14	15	29		*9.0	15	24	45	38	32	13	11	
15	14	26		9.0	b13	28	41	44	56	13	14	
16	15	25		9.0	14	34	37	42	236	11	16	
17	14	24	16	9.0	13	34	34	45	202	11	22	13
18	13	24		8.5	10	32	27	41	122	11	21	16
19	13	23		8.5	11	32	28	37	90	12	13	17
20	15	22		8.5	b11	28	39	38	81	14	10	13
21	21	19		8.5	13	23	39	33	93	13	16	12
22	18	16		9.0	13	23	36	26	130	10	16	12
23	15	16		9.0	11	24	41	19	88	10	17	11
24	19	16		9.5	13	24	63	18	66	10	11	34
25	23	19		9.0	13	22	66	17	42	9.5	11	40
26	26	19		b8.5	14	19	63	16	40	9.0	11	12
27	24	20		b10	15	16	66	15	30	9.5	10	11
28	19	17		b10	13	16	79	14	22	11	9.5	10
29	14	16		b11	13	18	81	25	18	12	8.0	10
30	15	15		11	-	21	77	31	16	13	8	10
31	23	-		24	-	23	-	37	-	12	8	-

Month	River only				River and Prairie power canal			
	Maximum	Minimum	Mean	Runoff in acre-feet	Maximum	Minimum	Mean	Runoff in acre-feet
October	26	10	15.4	948	98	50	79.2	4,870
November	51	15	23.9	1,420	124	87	96.8	5,760
December	-	-	15.8	970	-	-	87.1	5,350
Calendar year 1943	702	7	98.8	71,500	784	36	166	119,800
January	-	-	12.5	772	-	-	76.0	4,680
February	33	9.5	16.3	935	102	66	86.5	4,980
March	89	13	27.4	1,690	162	85	100	6,150
April	81	27	47.5	2,830	155	101	121	7,230
May	69	14	38.5	2,370	140	60	101	6,200
June	236	16	68.9	4,100	311	41	134	7,980
July	25	9.0	14.9	918	62	28	46.2	2,840
August	22	8	12.8	784	40	9	24.6	1,520
September	40	-	13.2	787	57	-	39.5	2,350
Water year 1943-44	236	-	25.5	18,520	311	-	82.5	59,910

* Winter discharge measurement made on this day.
b Stage-discharge relation affected by ice.
Note.- No gage-height record Dec. 5 to Jan. 13, May 2-29, Aug. 30 to Sept. 16; discharge computed on basis of recorded range in stage and records for John Day River at Picture Gorge, near Dayville, Prairie power canal at Prairie City, and Strawberry Creek near Prairie City.
Time basis: Pacific war time. 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 1944.

Average discharge.- 18 years, 381 second-feet.

Extremes.- Maximum discharge during year, 1,030 second-feet Mar. 10 (gage height, 6.09 feet); minimum, 15 second-feet Aug. 30 (gage height, 1.32 feet).
1926-44: 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 except those for periods of ice effect, which are fair. Many diversions above station for irrigation.

Rating table, water year 1943-44, except periods of ice effect
(gage height, in feet, and discharge, in second-feet)

1.3	13	2.1	91	4.0	418
1.4	21	2.4	125	4.5	538
1.5	30	2.8	178	5.1	705
1.7	49	3.2	246	5.6	860
1.9	69	3.6	328		

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	66	260	228	219	224	235	441	678	268	167	23	19
2	65	248	237	223	242	232	490	628	311	154	23	19
3	66	242	250	208	244	232	572	567	335	140	25	19
4	68	288	254	164	268	239	666	503	339	120	22	21
5	71	350	248	186	262	242	702	464	303	118	21	23
6	77	326	226	208	280	241	669	455	260	121	21	23
7	79	299	223	192	328	237	614	471	237	111	22	23
8	83	282	239	b194	318	241	590	483	233	100	24	22
9	84	274	228	b192	292	377	574	481	324	91	27	22
10	87	266	194	b200	260	860	536	450	427	e1	26	24
11	105	260	205	219	250	604	503	418	393	79	26	24
12	135	254	b210	221	246	506	513	384	350	83	25	22
13	145	248	b197	214	232	457	536	346	303	82	24	22
14	156	242	205	208	232	361	556	318	270	78	25	21
15	163	239	208	208	241	339	556	315	264	70	24	21
16	165	235	199	210	237	384	536	326	524	67	21	21
17	174	232	202	*210	241	486	513	311	708	65	19	23
18	175	230	210	210	233	518	488	299	639	56	18	26
19	175	230	214	207	221	513	474	286	561	56	18	28
20	180	235	217	200	214	481	493	262	498	55	19	28
21	197	237	217	199	215	443	506	242	516	54	19	27
22	210	233	223	202	235	416	500	232	609	56	20	30
23	217	232	226	208	228	404	518	232	569	53	19	34
24	226	230	232	221	228	413	587	215	493	49	19	35
25	224	226	232	221	235	402	669	205	436	47	21	36
26	230	223	232	196	237	384	657	191	390	46	20	37
27	230	217	221	154	235	363	634	174	354	44	19	37
28	246	215	210	b147	230	343	631	156	299	38	19	37
29	258	221	217	b161	239	346	651	145	254	33	18	35
30	268	221	217	b175	-	361	675	151	208	24	16	37
31	272	-	217	199	-	400	-	212	-	21	19	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	4,897	272	65	158	9,710
November	7,495	350	215	250	14,870
December	6,838	254	194	221	13,560
Calendar year 1943	281,964	3,210	58	773	559,300
January	6,176	223	147	199	12,250
February	7,147	328	214	246	14,180
March	12,060	860	232	389	23,920
April	17,050	702	441	568	33,820
May	10,600	678	145	342	21,020
June	11,675	708	208	389	23,160
July	2,359	167	21	76.1	4,680
August	662	27	16	21.4	1,310
September	796	37	19	26.5	1,580
Water year 1943-44	87,755	860	16	240	174,100

Peak discharge.- Mar. 10 (8:30 a.m.) 1,030 sec.-ft.; June 16 (9 p.m.) 798 sec.-ft.; June 17 (5 p.m.) 768 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.

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 1944 in reports of Geological Survey. March 1925 to September 1926 and October 1929 to September 1936 in reports of State engineer.

Average discharge.- 16 years (1925-26, 1929-44), 1,449 second-feet.

Extremes.- Maximum discharge during year, 7,200 second-feet Mar. 10 (gage height, 8.92 feet); minimum, 68 second-feet Sept. 1 (gage height, 0.25 foot).
1929-44: 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 1943-44 (gage height, in feet, and discharge, in second-feet)

Oct. 1 to Jan. 6		Jan. 7 to Sept. 30					
1.1	175	0.2	63	2.1	435	5.0	2,200
1.5	265	.5	91	2.5	600	6.0	3,170
2.0	425	.9	137	3.0	840	7.4	4,860
2.5	630	1.3	204	3.5	1,120		
3.0	870	1.7	305	4.2	1,570		

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	185	657	528	554	447	551	2,180	3,160	1,250	609	109	68
2	191	598	558	567	487	539	2,510	2,810	1,310	543	104	70
3	189	554	608	528	519	515	2,970	2,500	1,260	511	95	71
4	185	594	652	376	591	547	3,370	2,330	1,400	483	93	75
5	183	702	670	386	750	573	3,430	2,300	1,240	455	93	81
6	189	900	639	386	690	582	3,260	2,450	1,110	428	92	85
7	193	805	520	322	928	568	2,810	2,740	1,000	414	98	82
8	199	698	500	347	961	573	2,530	2,790	961	382	95	82
9	211	630	562	313	790	899	2,440	2,640	1,010	359	94	80
10	218	616	472	379	686	4,830	2,160	2,450	1,380	341	93	78
11	220	603	352	365	573	2,650	1,990	2,200	1,360	326	92	76
12	240	585	343	491	600	1,870	2,160	2,010	1,220	317	91	76
13	289	576	390	471	560	1,580	2,430	1,880	1,090	311	92	75
14	325	562	325	475	515	1,230	2,430	1,850	994	294	a91	74
15	334	549	422	471	535	966	2,410	1,920	934	273	h90	76
16	340	524	453	471	568	1,040	2,350	2,010	961	252	87	77
17	349	512	453	475	573	1,440	2,160	1,890	1,410	232	87	79
18	355	536	520	475	555	2,330	1,970	1,760	1,560	222	84	83
19	362	540	520	471	519	2,240	1,880	1,650	1,470	211	83	94
20	376	536	544	447	515	2,030	1,890	1,540	1,370	202	82	104
21	439	544	567	414	483	1,660	2,050	1,400	1,220	191	81	105
22	476	549	576	447	515	1,440	2,520	1,340	1,240	189	79	106
23	504	544	598	451	527	1,370	2,700	1,290	1,400	185	78	105
24	554	532	612	487	519	1,640	3,100	1,240	1,280	176	76	111
25	544	524	612	499	547	1,600	4,020	1,160	1,130	169	72	118
26	540	512	594	483	560	1,370	3,530	1,070	1,020	159	74	114
27	576	504	528	372	551	1,250	3,100	1,010	956	159	76	110
28	576	468	492	289	519	1,080	3,050	983	890	159	76	106
29	580	442	524	297	551	1,110	3,160	1,020	815	135	73	104
30	630	520	496	326	-	1,290	3,250	1,100	705	131	74	103
31	644	-	496	421	-	1,750	-	1,160	-	117	72	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	11,199	644	183	361	22,210
November	17,416	900	442	581	34,540
December	16,126	670	325	520	31,990
Calendar year 1943	1,059,023	13,700	181	2,901	2,101,000
January	13,256	567	289	428	26,290
February	17,134	961	447	591	33,980
March	43,113	4,830	515	1,391	85,510
April	79,810	4,020	1,880	2,660	158,300
May	57,653	3,160	983	1,860	114,400
June	34,946	1,560	705	1,165	69,310
July	8,935	609	117	288	17,720
August	2,676	109	72	86.3	5,310
September	2,668	118	68	88.9	5,290
Water year 1943-44	304,932	4,830	68	833	604,800

a No gage-height record; discharge interpolated.
h Computed from staff-gage reading.
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 1944.

Average discharge.- 39 years, 1,906 second-feet.

Extremes.- Maximum discharge during year, 6,610 second-feet Mar. 11 (gage height, 5.50 feet); minimum, 55 second-feet Sept. 16, 17 (gage height, 1.06 feet).

1904-44: Maximum discharge, 24,900 second-feet Mar. 20, 1932 (gage height, 10.6 feet), from rating curve extended above 14,000 second-feet; minimum, 4 second-feet Aug. 31, 1931 (gage height, 0.68 foot).

Maximum stage known, 12.8 feet, probably occurred in 1894 (discharge, 33,000 second-feet, estimated).

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

Rating table, water year 1943-44, except periods of ice effect
(gage height, in feet, and discharge, in second-feet)

1.1	65	1.8	375	3.5	2,260
1.2	93	2.2	665	4.0	3,130
1.3	126	2.6	1,050	4.5	4,140
1.5	210	3.0	1,530		

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	201	609	482	525	414	609	1,540	3,300	1,060	724	153	68
2	201	625	518	525	447	617	2,080	3,220	1,140	657	142	68
3	201	649	555	548	503	625	2,490	2,900	1,200	593	138	65
4	210	625	601	*570	540	633	2,890	2,590	1,260	540	134	65
5	215	578	617	555	585	609	3,380	2,390	1,270	496	126	65
6	215	578	633	b489	617	633	3,520	2,280	1,290	475	113	65
7	210	665	641	b408	759	641	3,380	2,340	1,140	447	100	65
8	210	850	625	401	733	657	2,960	2,620	1,020	427	93	65
9	220	777	562	333	973	682	2,640	2,780	962	414	93	63
10	225	690	503	b401	940	1,290	2,540	2,660	951	401	93	68
11	230	641	532	b649	804	4,070	2,310	2,500	1,040	369	103	73
12	240	625	532	548	724	3,170	2,100	2,280	1,390	345	100	73
13	250	617	414	510	633	2,200	2,130	2,080	1,240	321	93	71
14	255	601	b363	b518	665	1,860	2,450	1,920	1,130	304	87	71
15	266	593	b375	525	633	1,540	2,490	1,840	1,030	304	87	60
16	310	585	369	585	593	1,240	2,490	1,840	984	288	90	58
17	345	578	427	540	609	1,140	2,450	1,940	973	282	90	60
18	351	562	447	525	641	1,330	2,290	1,900	1,080	271	90	65
19	357	548	482	525	641	2,080	2,100	1,760	1,520	250	87	65
20	375	562	548	525	625	2,440	1,980	1,650	1,500	230	85	73
21	427	570	532	518	601	2,290	1,890	1,540	1,400	235	85	76
22	427	570	562	510	593	1,940	2,010	1,430	1,240	225	82	82
23	454	570	570	503	562	1,650	2,290	1,330	1,180	206	76	87
24	518	578	578	496	585	1,500	2,800	1,290	1,270	196	76	106
25	532	570	593	503	609	1,540	3,070	1,230	1,330	196	73	119
26	548	562	601	532	609	1,790	4,100	1,160	1,170	192	73	116
27	555	555	601	548	625	1,570	3,700	1,090	1,050	178	71	116
28	548	548	601	540	625	1,400	3,240	995	973	170	65	119
29	570	532	578	475	625	1,280	3,110	951	890	161	60	130
30	578	518	518	363	-	1,160	3,170	930	804	153	60	126
31	578	-	525	339	-	1,230	-	984	-	153	60	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	10,822	578	201	349	21,470
November	18,131	850	518	604	35,960
December	16,485	641	363	532	32,700
Calendar year 1943	1,164,801	14,100	201	3,191	2,310,000
January	15,532	649	333	501	30,810
February	18,513	973	414	638	36,720
March	45,416	4,070	609	1,465	90,080
April	79,590	4,100	1,540	2,653	157,900
May	59,720	3,300	930	1,926	118,500
June	34,487	1,520	804	1,150	68,400
July	10,203	724	153	329	20,240
August	2,878	153	60	92.8	5,710
September	2,403	130	58	80.1	4,770
Water year 1943-44	314,180	4,100	58	858	623,300

* 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.

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 1944.

Average discharge.- 19 years, 46.9 second-feet.

Extremes.- Maximum discharge observed during year, 78 second-feet Apr. 13; maximum gage height, 2.80 feet; no flow at times.
1925-44: Maximum discharge, 93 second-feet Jan. 21, 1943 (gage height, 2.90 feet); no flow at times.

Remarks.- Records 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 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	38	73	74	73	73	72	73	71	67	13	25	1
2	42	73	73	73	73	72	73	71	70	24	24	1
3	42	73	73	66	73	72	73	71	72	33	26	6
4	47	73	73	33	73	73	73	72	63	33	25	17
5	49	73	70	73	72	72	73	72	62	30	23	17
6	50	73	68	71	69	73	73	72	63	30	20	17
7	51	73	73	49	73	73	73	72	62	30	20	17
8	49	73	73	55	72	73	73	72	71	30	20	18
9	51	73	58	58	73	74	72	72	66	30	20	18
10	56	73	63	73	58	73	75	72	69	37	12	22
11	68	73	69	68	73	73	75	69	69	39	7	22
12	69	73	67	73	72	72	76	65	67	39	3	22
13	68	73	66	73	72	71	77	67	64	34	3	22
14	69	73	68	71	72	71	77	66	69	34	7	23
15	69	73	69	73	54	73	77	66	73	39	7	28
16	71	74	73	73	72	73	75	66	75	39	7	28
17	71	74	73	73	72	73	74	59	76	39	a4	30
18	71	74	73	72	72	73	74	57	69	37	a4	36
19	72	73	73	70	70	73	74	55	69	35	20	40
20	73	73	73	70	55	73	74	48	71	34	21	42
21	74	73	73	70	72	73	74	51	73	34	a14	43
22	72	73	73	70	70	73	74	54	72	29	a12	45
23	73	73	73	72	69	73	74	58	69	29	a9	45
24	75	73	73	73	72	73	74	56	66	32	14	a18
25	72	73	74	73	73	73	73	57	69	30	6	a10
26	72	72	73	44	73	73	73	53	69	30	6	38
27	72	67	68	36	72	72	73	50	66	30	6	42
28	73	73	72	35	73	72	73	46	51	29	1	42
29	72	73	74	36	70	72	74	45	30	25	1	42
30	73	74	73	43	-	73	72	57	25	21	1	42
31	73	-	73	72	-	73	-	72	-	21	1	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	1,977	75	38	63.8	3,920
November	2,187	74	67	72.9	4,340
December	2,201	74	58	71.0	4,370
Calendar year 1943	24,359	85	8	66.7	48,310
January	1,964	73	33	63.4	3,900
February	2,037	73	54	70.2	4,040
March	2,252	74	71	72.6	4,470
April	2,218	77	72	73.9	4,400
May	1,934	72	45	62.4	3,840
June	1,957	73	25	65.2	3,880
July	969	39	13	31.3	1,920
August	369	26	1	11.9	732
September	794	45	1	26.5	1,570
Water year 1943-44	20,859	77	1	57.0	41,380

a No gage-height record; discharge computed on basis of observer's notes and records for John Day River at Prairie City.
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 1944.

Average discharge.- 14 years, 11.2 second-feet.

Extremes.- Maximum discharge during year, 47 second-feet June 2; maximum gage height, 1.85 feet, occurred sometime during period Mar. 5-30, affected by ice; minimum discharge, 2.0 second-feet Feb. 23, 24, 27 (gage height, 1.03 feet).
1930-44: Maximum discharge, 150 second-feet June 9, 1933 (gage height, 2.44 feet), from rating curve extended above 85 second-feet; minimum, 1.4 second-feet several days in 1931, 1934, 1935, 1937, and Nov. 19, 1939.

Remarks.- Records good except those for period of shifting control, which are fair, and those for periods of no gage-height record, which are poor. No diversion above station; some natural regulation by Strawberry Lake.

Rating table, water year 1943-44, except periods of ice effect or shifting control
(gage height, in feet, and discharge, in second-feet)

1.1	3.6	1.5	25
1.2	6.8	1.6	33
1.3	11	1.7	42
1.4	17		

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	3.9	3.3	3.6		2.4	2.2	2.4	7.6	46	25	7.2	4.5
2	3.9	3.3	3.6		2.4	2.2	2.6	8.0	46	25	7.2	4.5
3	3.9	3.6	3.6		2.4	2.2	2.8	8.5	43	23	7.2	4.2
4	3.9	4.8	3.6		2.4	2.2	3.6	9.8	39	22	6.8	4.2
5	3.9	4.2	3.3		2.4		3.6	12	36	20	6.8	4.2
6	3.9	3.9	3.6		2.4		3.6	15	32	19	6.8	4.2
7	3.6	4.2	3.6	a2.7	2.4		3.6	16	30	18	6.4	3.9
8	3.6	3.9	3.6		2.4		3.3	16	30	16	6.1	3.9
9	3.6	4.2	3.3		2.4		3.3	16	31	16	6.1	3.9
10	3.6	4.2	3.3		b2.4		3.3	16	33	16	6.1	3.9
11	3.6	4.2	3.3		2.4		3.6	16	36	15	5.7	3.9
12	3.3	4.2	3.3		2.2		3.6	17	37	14	5.7	3.6
13	3.3	4.2	3.3		b2.2		3.6	19	38	14	5.7	3.6
14	3.3	4.2	3.1	*2.6	2.2		3.3	22	39	14	5.7	3.6
15	3.3	4.2		2.6	2.2		3.3	26	38	13	5.4	3.6
16	3.3	4.2		2.6	2.2		3.3	29	37	12	5.4	3.6
17	3.3	4.2		2.6	2.2	a2.5	3.3	30	36	12	5.4	3.3
18	3.3	4.2		2.6	2.2		3.3	32	36	12	5.1	3.3
19	3.3	3.9		2.4	2.2		3.3	32	36	12	5.1	3.3
20	3.3	3.9		2.4	b2.2		3.3	31	35	11	5.1	3.3
21	3.3	3.9		2.4	2.2		3.3	31	33	11	5.1	3.3
22	3.3	3.9		2.4	2.2		3.3	30	33	10	5.1	3.3
23	3.3	3.6	a2.9	2.6	2.0		3.9	29	32	9.8	5.1	3.1
24	3.9	3.6		2.6	2.0		4.8	28	32	9.4	5.1	3.1
25	3.6	3.6		2.4	2.2		4.8	26	32	9.4	5.1	3.1
26	3.6	3.6		b2.4	2.2		4.8	25	32	8.9	4.8	3.1
27	3.6	3.6		b2.4	2.0		5.1	27	30	8.9	4.8	3.1
28	3.6	3.6		b2.4	2.2		5.4	30	30	8.5	4.8	3.1
29	3.6	3.6		b2.4	2.2		6.8	34	29	8.0	4.5	3.1
30	3.6	3.6		2.4	-		7.2	39	27	7.6	4.5	3.1
31	3.3	-		2.4	-	2.2	-	44	-	7.2	4.5	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	109.8	3.9	3.3	3.54	218
November	117.6	4.8	3.3	3.92	233
December	97.4	3.6	-	3.14	193
Calendar year 1943	6,394.8	79	-	17.5	12,690
January	79.7	-	-	2.57	158
February	65.4	2.4	2.0	2.26	130
March	76.0	-	-	2.45	151
April	115.4	7.2	2.4	3.85	229
May	721.9	44	7.6	23.3	1,430
June	1,044	46	27	34.8	2,070
July	427.7	25	7.2	13.8	848
August	174.4	7.2	4.5	5.63	346
September	107.9	4.5	3.1	3.60	214
Water year 1943-44	3,137.2	46	-	8.57	6,220

* Winter discharge measurement made on this day.
a No gage-height record; discharge computed on basis of recorded range in stage, weather records, and records for John Day River at Prairie City.
b Stage-discharge relation affected by ice.
Note.- Shifting-control method used May 31 to Sept. 30.
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 1944.

Average discharge.- 15 years, 333 second-feet.

Extremes.- Maximum discharge during year, 1,220 second-feet May 7 (gage height, 5.10 feet); minimum recorded, 32 second-feet Sept. 14, but may have been less during period of ice effect Dec. 10 to Feb. 24.

1929-44: 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 no gage-height record, which are fair, and those for period of ice effect, which are poor. Several small diversions above station for irrigation and mining cause diurnal fluctuation at low flow.

Rating table, water year 1943-44, except period of ice effect
(gage height, in feet, and discharge, in second-feet)

1.9	31	3.2	290
2.1	49	3.6	445
2.3	77	4.0	625
2.6	131	4.5	875
2.9	200	5.0	1,160

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	57	84	94			79	206	725	598	217	59	40
2	54	76	91			76	252	643	530	203	59	46
3	53	98	94			77	341	634	612	192	59	47
4	52	170	96			80	421	695	530	182	59	43
5	52	225	89			79	433	842	472	180	58	40
6	57	148	53			77	377	1,040	441	166	56	40
7	61	103	76			76	345	1,140	433	157	53	39
8	59	101	122			84	337	1,050	445	148	52	38
9	56	103	59			146	290	974	598	144	53	37
10	58	99				150	255	858	562	142	62	37
11	66	96				170	274	790	517	142	57	37
12	79	94				150	373	750	468	133	52	35
13	71	92		(*)	b100	131	345	770	421	122	48	36
14	66	84				123	308	831	393	116	48	37
15	62	86		b70		131	284	a870	383	110	48	40
16	61	108				142	258	a830	476	105	47	49
17	65	96				146	228	a780	535	99	46	52
18	68	91		(*)		164	228	a710	494	94	45	58
19	70	89				164	240	a650	437	91	43	53
20	71	96				150	264	a610	401	96	44	49
21	82	96	b80			a140	271	a570	389	89	43	53
22	91	87				a135	308	a540	481	82	41	68
23	86	82				a135	401	a510	445	79	44	64
24	87	77				a145	643	a500	389	76	43	52
25	112	79			86	a130	562	a480	353	89	42	47
26	122	50			82	h120	499	a470	337	79	41	44
27	107	52			80	a95	544	a460	308	72	42	44
28	114	91			77	a95	625	486	280	71	40	44
29	112	99			77	a110	775	522	255	74	37	43
30	120	91			-	a130	836	571	237	71	39	47
31	103	-			-	a160	-	580	-	64	39	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	2,374	122	52	76.6	4,710
November	2,943	225	50	98.1	5,840
December	1,734	122	-	55.9	3,440
Calendar year 1943	217,199	3,850	-	595	430,800
January	1,120	-	-	36.1	2,220
February	1,602	-	-	55.2	3,180
March	3,790	170	76	122	7,520
April	11,523	836	206	384	22,860
May	21,881	1,140	460	706	43,400
June	13,222	612	237	441	26,230
July	3,685	217	64	119	7,310
August	1,499	62	37	48.4	2,970
September	1,359	68	35	45.3	2,700
Water year 1943-44	66,732	1,140	-	182	132,400

* Winter discharge measurement made on this day.

a No gage-height record; discharge computed on basis of weather records, recorded range in stage, and records for North Fork John Day River at Monument 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.

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 1944.

Average discharge.- 18 years (1925-27, 1928-44), 996 second-feet.

Extremes.- Maximum discharge during year, 6,730 second-feet Mar. 10 (gage height, 8.06 feet); minimum, 42 second-feet Dec. 11, 12 (gage height, 1.32 feet).
1925-44: Maximum discharge, 22,000 second-feet Mar. 18, 1932 (gage height, 14.8 feet), from rating curve extended above 9,000 second-feet; minimum, 6 second-feet sometime during Nov. 2-13, 1936, when recorder was not operating.

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

Rating table, water year 1943-44 (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Oct. 1-9)

1.4	52	2.2	240	3.7	1,160
1.6	85	2.5	370	4.2	1,630
1.8	127	2.8	525	4.9	2,370
2.0	175	3.2	785	5.8	3,330

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	101	240	208	a280	202	256	1,700	2,140	918	343	99	58
2	99	202	226	a290	219	240	1,930	1,880	911	325	93	61
3	97	196	244	a230	240	260	2,450	1,710	932	307	91	67
4	95	252	256	a150	410	268	2,530	1,650	918	294	91	76
5	95	420	264	a170	348	284	2,450	1,750	806	280	99	74
6	95	430	196	a140	450	276	2,140	1,970	729	272	95	71
7	99	366	145	a160	644	268	1,830	2,150	689	252	87	66
8	114	248	193	a120	425	316	1,710	2,100	676	233	85	62
9	116	240	222	a110	375	1,690	1,570	1,940	778	226	81	60
10	116	240	127	a160	260	3,380	1,360	1,760	978	219	83	60
11	123	233	58	a180	289	1,320	1,310	1,580	827	216	89	56
12	129	226	62	205	272	1,060	1,590	1,460	743	219	89	56
13	145	226	81	196	216	820	1,670	1,400	682	202	81	55
14	143	216	107	199	236	567	1,660	1,480	618	187	78	55
15	134	199	148	205	276	525	1,630	1,590	592	175	76	60
16	132	184	190	205	276	644	1,550	1,550	598	168	76	62
17	136	212	187	208	260	1,110	1,380	1,420	785	160	74	74
18	143	216	205	202	236	1,630	1,270	1,330	792	152	72	85
19	143	216	222	196	244	1,510	1,210	1,230	750	148	69	93
20	150	208	244	187	212	1,190	1,320	1,130	663	148	66	91
21	175	222	a250	181	244	940	1,470	1,060	618	145	64	89
22	193	222	a260	178	248	855	2,100	1,020	644	138	64	93
23	208	208	a260	202	240	911	2,040	970	729	127	62	105
24	222	202	a260	216	260	1,160	2,730	904	644	123	61	107
25	208	196	a260	222	260	948	3,090	841	567	118	64	93
26	236	193	a250	184	264	806	2,450	786	525	123	64	85
27	240	170	a240	150	240	689	2,190	757	492	114	62	81
28	222	141	a230	138	256	630	2,230	778	450	114	61	78
29	240	193	a250	136	248	722	2,340	834	415	112	61	78
30	256	212	a230	141	-	978	2,360	890	375	109	60	83
31	272	--	a230	178	-	1,400	-	940	-	103	56	-

Month	Second-feet-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	4,877	272	95	157	9,670
November	6,929	430	141	231	13,740
December	6,305	264	58	203	12,510
Calendar year 1943	669,421	10,500	58	1,834	1,328,000
January	5,719	290	110	184	11,340
February	8,350	644	202	288	16,560
March	27,653	3,380	240	892	54,850
April	57,260	3,090	1,210	1,909	113,600
May	42,999	2,150	757	1,387	85,290
June	20,844	978	375	695	41,340
July	5,852	343	103	189	11,610
August	2,353	99	56	75.9	4,670
September	2,234	107	55	74.5	4,430
Water year 1943-44	191,375	3,380	55	523	379,600

a No gage-height record; discharge computed on basis of records for John Day River at Picture Gorge, near Dayville, and at Service Creek.
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 1944.

Average discharge.- 15 years, 199 second-feet.

Extremes.- Maximum discharge during year, 730 second-feet Mar. 9 (gage height, 4.35 feet); minimum, 9.0 second-feet Jan. 4 (gage height, 1.58 feet).
1929-44: Maximum discharge, 4,000 second-feet Mar. 19, 1932 (gage height, 7.78 feet), from rating curve extended above 1,600 second-feet; minimum, 1.0 second-foot Dec. 10, 1932.

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

Rating tables, water year 1943-44, except periods of ice effect
(gage height, in feet, and discharge, in second-feet)

Oct. 1 to Mar. 8				Mar. 9 to Sept. 30					
1.7	14	2.8	153	1.5	10	2.3	68	3.5	340
1.9	25	3.1	225	1.7	15	2.5	97	3.9	500
2.1	42	3.5	340	1.9	27	2.8	153	4.1	595
2.3	66	3.9	510	2.1	44	3.1	225		
2.5	96								

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	28	60	57	62	54	66	347	455	233	74	21	13
2	27	52	65	58	54	53	399	403	220	68	20	17
3	25	56	73	39	61	67	482	375	236	65	21	18
4	27	91	74	14	63	63	522	379	209	63	30	18
5	28	127	66	25	70	67	504	411	187	64	28	17
6	28	93	34	b38	90	65	431	478	173	63	23	17
7	31	70	43	b38	107	62	368	518	162	56	21	15
8	31	63	76	34	100	96	361	486	168	53	20	14
9	30	61	28	36	80	342	331	431	192	52	20	14
10	31	60	14	b49	73	384	292	383	182	52	22	12
11	35	57	19	b53	70	230	283	350	164	51	21	13
12	41	57	43	b53	62	189	325	325	151	47	20	13
13	40	56	52	*b50	54	162	337	328	139	44	18	13
14	37	52	b53	b56	62	102	347	350	129	42	18	12
15	36	51	b52	b57	67	116	361	391	133	40	17	12
16	35	50	b51	b53	62	139	340	364	149	37	17	15
17	38	51	b65	b53	63	217	304	331	168	35	16	18
18	39	52	76	*b53	52	292	277	313	175	33	15	21
19	42	53	72	b52	58	274	274	298	156	33	14	23
20	43	56	70	b52	48	225	334	277	137	34	13	24
21	48	58	72	50	61	185	387	269	131	33	13	23
22	60	56	69	49	60	171	443	260	160	31	13	24
23	58	53	67	51	57	173	447	247	157	29	13	26
24	60	52	70	51	66	202	585	228	139	28	14	24
25	66	51	66	52	63	182	580	212	122	26	13	21
26	66	50	63	b40	66	162	482	199	112	26	13	20
27	60	40	56	b31	53	135	447	199	106	24	14	19
28	65	52	36	b27	66	137	473	215	97	25	13	19
29	66	54	42	b31	53	160	504	228	88	24	13	20
30	77	53	56	b39	-	209	504	233	81	22	12	23
31	74	-	60	56	-	263	-	233	-	21	12	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	1,372	77	25	44.3	2,720
November	1,787	127	40	59.6	3,540
December	1,740	76	14	56.1	3,450
Calendar year 1943	131,394	2,010	14	360	260,600
January	1,402	62	14	45.2	2,780
February	1,895	107	48	65.3	3,760
March	5,190	384	53	167	10,290
April	12,071	585	274	402	23,940
May	10,169	518	199	328	20,170
June	4,655	236	81	155	9,230
July	1,295	74	21	41.8	2,570
August	538	30	12	17.4	1,070
September	538	26	12	17.9	1,070
Water year 1943-44	42,652	585	12	117	84,590

* 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.

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 1944.

Average discharge.- 14 years, 20.1 second-feet.

Extremes.- Maximum discharge during year, 416 second-feet Mar. 9 (gage height, 3.32 feet); no flow at times.
1930-44: Maximum discharge, 800 second-feet Mar. 18, 1932, from rating curve extended above 180 second-feet; maximum gage height observed, 5.37 feet Feb. 21, 1943, affected by ice; no flow at times.

Remarks.- Records fair except those for Mar. 13-31 and those for periods of ice effect, which are poor. Several diversions above station for irrigation.

Rating table, water year 1943-44, except periods of ice effect (gage height, in feet, and discharge, in second-feet)

0.4	0	0.9	5.1	1.9	85
.5	.1	1.0	8.0	2.2	132
.6	.6	1.2	17	2.5	194
.7	1.6	1.4	32	2.8	269
.8	3.0	1.6	51		

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0	1.5	1.9	2.0	b1.1	2.0	19	52	4.9	0.4		
2	0	1.5	1.9	2.2	b1.4	2.0	19	45	5.1	.3		
3	0	1.5	2.6	1.7	3.0	2.4	23	39	6.3	.2		
4	0	3.0	2.7	.9	5.4	2.7	28	36	4.9	.2		
5	0	4.3	1.9	.6	10	2.9	31	34	3.8	.2		
6	0	3.4	2.4	.7	136	3.4	29	34	3.2	.1		
7	0	2.6	1.3	b.3	88	4.3	26	34	2.6	.1		
8	0	2.0	b1.5	b.5	52	8.5	30	32	3.4	.1		
9	0	2.0	b.9	b.5	36	247	29	30	6.8	.1		
10	0	1.7	b.5	b.6	29	184	25	26	4.7	.1		
11	.1	1.7	b.6	b.6	21	57	25	23	3.6	.1		
12	.1	1.7	b.5	1.0	15	36	28	20	2.7	0		
13	0	1.6	b.6	1.2	12	21	30	18	2.4	0		
14	0	1.5	b.7	1.3	8.8	19	33	16	2.0	0		
15	.1	1.4	b1.2	1.4	6.8	18	33	15	1.9	0		
16	.1	1.4	b1.1	1.4	6.0	36	33	13	2.6	0		
17	.1	1.4	b1.3	1.5	5.1	53	30	13	2.6	0		
18	0	1.4	b1.7	1.6	5.7	36	28	14	2.4	0		
19	0	1.5	b1.7	1.6	4.9	29	29	12	4.7	0		
20	.1	1.5	1.9	1.6	4.7	16	29	10	4.3	0		
21	.1	1.6	2.0	1.4	4.0	12	30	8.4	3.0	0		
22	.1	1.6	2.4	1.3	3.6	11	30	8.0	4.3	0		
23	.2	1.6	2.6	1.5	4.0	11	31	8.0	4.0	0		
24	.2	1.5	2.4	1.7	3.8	9.6	60	7.7	3.0	0		
25	.3	1.6	4.3	b1.5	3.4	9.6	93	6.8	2.4	0		
26	.3	1.3	4.0	b.6	4.0	7.7	71	6.0	2.0	0		
27	.4	1.0	4.0	b.7	3.8	8.0	56	5.1	1.5	0		
28	.6	1.4	2.4	b.5	2.9	7.7	56	4.5	1.2	0		
29	.8	2.0	1.9	b.5	2.4	10	57	3.8	.8	0		
30	1.3	1.9	1.9	b.6	-	15	56	4.0	.5	0		
31	1.5	-	1.7	b.8	-	16	-	4.5	-	0		

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	6.4	1.5	0	0.21	13
November	54.1	4.3	1.0	1.80	107
December	58.5	4.3	.5	1.89	116
Calendar year 1943	14,708.9	220	0	40.3	29,170
January	34.3	2.2	.3	1.11	68
February	483.8	136	1.1	16.7	960
March	897.8	247	2.0	29.0	1,780
April	1,097	93	19	36.6	2,180
May	582.8	52	3.8	18.8	1,160
June	97.6	6.8	.5	3.25	194
July	1.9	.4	0	.06	3.8
August	0	0	0	0	0
September	0	0	0	0	0
Water year 1943-44	3,314.2	247	0	9.06	6,580

Peak discharge.- Feb. 6 (4 p.m.) 179 sec.-ft.; Mar 9 (4:30 p.m.) 416 sec.-ft.
b Stage-discharge relation affected by ice.
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.

Records available.- November 1937 to September 1944.

Extremes.- Maximum discharge during year, 300 second-feet Oct. 1 (gage height, 2.20 feet); minimum, 79 second-feet July 4 (gage height, 1.33 feet).
1937-44: Maximum discharge, 362 second-feet Aug. 31, Sept. 1, 1943 (gage height, 2.42 feet); minimum, 43 second-feet Dec. 27, 1941 (gage height, 1.12 feet).

Remarks.- Records excellent except those for Dec. 12 to Apr. 15, which are fair. No diversion or regulation above station.

Rating table, water year 1943-44 (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Dec. 5-29, Mar. 12 to Apr. 25)

1.3	73	1.9	219
1.5	117	2.2	300
1.7	167		

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	300	238	188				99	90	88	81	92	88
2	297	235	188				99	90	88	81	90	88
3	295	243	188				99	90	88	81	90	88
4	292	262	188				99	90	88	79	90	88
5	289	241	165				99	90	86	81	90	88
6	286	232	177			a108	96	90	86	81	88	88
7	286	230	180				96	90	86	81	88	88
8	281	227	180				96	90	86	81	88	88
9	278	224	177				96	90	86	81	88	88
10	276	224	175				96	90	86	81	88	88
11	281	222	175				99	92	86	81	88	88
12	273	219	175			106	99	92	86	81	88	88
13	270	214	175			106	99	92	86	81	88	88
14	268	214	172			103	99	92	86	81	88	88
15	265	211	170			103	99	92	86	81	88	88
16	262	209	170	a147	a125	103	94	92	86	81	88	88
17	262	211	170			103	94	92	86	81	88	88
18	260	211	170			103	92	92	84	81	88	88
19	260	209	170			103	92	92	84	81	88	88
20	268	211	167			101	92	90	84	81	90	88
21	268	203	167			99	92	90	84	81	90	88
22	262	201	164			99	92	90	84	81	90	88
23	260	198	164			101	94	90	84	81	90	86
24	265	196	167			99	94	90	81	81	90	86
25	260	193	167			99	92	90	81	81	90	86
26	254	190	162			99	90	90	81	81	90	86
27	254	188	162			96	90	90	81	84	90	86
28	257	188	162			96	90	88	81	88	88	86
29	249	185	160			96	90	88	81	84	88	86
30	246	188	a160		-	96	90	88	81	84	88	86
31	241	-	a160		-	99	-	88	-	a88	88	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	8,365	300	241	270	16,590
November	6,417	262	185	214	12,730
December	5,335	188	160	172	10,580
Calendar year 1943	70,299	359	77	193	139,400
January	4,557	-	-	a147	9,040
February	3,625	-	-	a125	7,190
March	3,198	-	96	103	6,340
April	2,848	99	90	94.9	5,650
May	2,800	92	88	90.3	5,550
June	2,541	88	81	84.7	5,040
July	2,532	88	79	81.7	5,020
August	2,756	92	88	88.9	5,470
September	2,624	88	86	87.5	5,200
Water year 1943-44	47,598	300	79	130	94,400

a No gage-height record; discharge computed on basis of records for Cultus River above Cultus Creek, near Lapine.
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 1944.

Average discharge.- 23 years (1914-15, 1922-44), 186 second-feet.

Extremes (regulated).- Maximum discharge during year, 850 second-feet Nov. 10 (gage height, 2.85 feet); minimum, 4 second-feet Mar. 13, 14 (gage height, 0.24 foot).
1914-17, 1922-44: Maximum discharge, that of Nov. 10, 1943; minimum, 2 second-feet Dec. 21, 1940, Nov. 1, 1942.

Remarks.- Records excellent except those below 90 second-feet, which are fair. No diversion above station; flow regulated since Nov. 4, 1922, by Crane Prairie Reservoir (see p. 54).

Rating tables, water year 1943-44 (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Mar. 17-30)

Oct. 1 to Nov. 9						Nov. 10 to Sept. 30					
0.3	6.3	0.8	66	1.8	342	0.3	6.3	0.8	71	1.8	355
.4	14	1.0	104	2.2	505	.4	14	1.0	110	2.2	520
.5	24	1.2	151	2.6	705	.5	24	1.2	157	2.6	705
.6	36	1.5	258			.6	37	1.5	245		

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	424	7	224	203	197	96	9	138	236	371	363	383
2	392	93	224	203	162	96	9	28	236	371	371	383
3	392	313	224	203	102	96	9	66	236	379	375	383
4	388	408	224	203	102	96	9	66	236	387	343	379
5	388	500	224	203	102	96	9	66	230	387	319	387
6	388	536	227	203	102	96	9	67	230	387	319	387
7	388	570	227	203	100	96	9	73	230	383	319	387
8	384	645	227	203	100	96	9	73	230	383	315	383
9	384	722	227	203	98	96	9	73	230	383	315	383
10	384	749	227	203	98	96	9	73	230	379	319	383
11	350	367	227	203	98	96	9	73	236	379	323	379
12	288	280	227	203	98	96	9	73	256	379	323	371
13	288	280	227	203	98	73	9	142	256	383	323	371
14	288	276	221	203	98	6	9	174	256	383	319	375
15	288	276	209	203	98	9	9	194	252	379	331	383
16	264	276	209	200	96	9	9	227	221	371	403	347
17	238	256	177	200	96	9	9	227	168	371	403	284
18	238	245	150	200	96	9	9	227	144	367	407	276
19	238	239	137	200	96	9	9	227	108	367	419	280
20	238	224	137	200	96	9	9	227	106	375	431	270
21	238	224	134	200	96	9	9	227	94	375	443	256
22	251	224	147	200	96	9	9	227	57	371	443	239
23	261	224	157	200	96	9	9	227	57	371	443	206
24	261	224	168	200	96	9	9	227	86	371	439	182
25	261	224	171	200	96	9	9	227	152	367	423	174
26	261	224	171	200	96	9	9	233	171	367	423	171
27	145	224	188	200	96	9	9	236	197	363	419	165
28	8	224	203	200	96	9	9	236	245	363	403	165
29	8	224	203	200	96	9	9	236	256	363	387	163
30	7	224	203	197	-	9	9	236	323	363	383	163
31	7	-	203	197	-	9	-		-	359	383	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	8,338	424	7	269	16,540
November	9,502	749	7	317	18,850
December	6,124	227	134	198	12,150
Calendar year 1943	55,737	749	7	153	110,600
January	6,239	203	197	201	12,370
February	2,997	197	96	103	5,940
March	1,384	96	6	44.6	2,750
April	270	9	9	9.0	536
May	5,062	236	28	163	10,040
June	5,965	323	57	199	11,830
July	11,597	387	359	374	23,000
August	11,629	443	315	375	23,070
September	9,058	387	163	302	17,970
Water year 1943-44	78,165	749	6	214	155,000

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, 1938-44) and 9 miles west of Lapine.

Records available.- June 1938 to September 1944.

Extremes.- Maximum discharge during year, 1,600 second-feet Nov. 11 (gage height, 6.42 feet); minimum, 109 second-feet (regulated) Dec. 7 (gage height, 1.78 feet); minimum daily, 301 second-feet Oct. 28.
1938-44: Maximum discharge, that of Nov. 11, 1943; minimum, that of Dec. 7, 1943; minimum daily, 267 second-feet Apr. 6, 1943.

Remarks.- Records excellent except those for Oct. 15-31, which are good. Flow regulated by Crane Prairie Reservoir and since Dec. 24, 1942, by Wickiup Reservoir (see p. 54).

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,090	712	927	867	844	724	360	542	840	923	911	919
2	1,100	701	927	867	844	724	366	572	840	915	907	919
3	1,100	943	927	855	753	724	371	620	840	919	907	915
4	1,100	1,140	927	851	731	724	368	620	840	955	875	915
5	1,100	1,220	927	867	738	720	368	620	840	951	847	915
6	1,080	1,290	764	859	760	724	371	627	844	959	851	915
7	1,090	1,320	660	855	746	720	363	641	847	979	847	915
8	1,080	1,380	879	855	742	720	368	641	847	971	851	923
9	1,100	1,460	779	855	727	753	371	641	847	983	847	923
10	1,100	1,540	1,230	855	724	753	374	641	847	999	844	923
11	1,100	1,500	1,090	851	720	731	377	641	847	999	844	927
12	1,110	1,140	947	851	720	727	366	641	851	1,000	844	927
13	1,130	1,020	704	851	720	720	368	724	851	995	836	927
14	1,100	1,000	701	847	727	634	371	832	844	995	836	935
15	1,070	1,000	908	847	724	620	374	806	847	967	847	935
16	1,220	999	1,170	847	731	624	368	764	813	959	967	895
17	1,250	991	933	847	731	627	366	787	753	951	951	802
18	1,200	967	828	844	727	624	368	817	709	955	963	813
19	1,150	967	794	844	727	624	371	817	691	951	979	775
20	1,040	951	787	851	727	616	366	817	691	947	987	749
21	1,140	939	787	851	731	484	360	817	680	935	991	757
22	1,140	931	790	861	727	377	363	821	620	943	987	760
23	1,120	927	809	859	724	374	366	825	620	939	975	757
24	1,100	923	828	855	727	371	368	825	638	943	967	757
25	1,150	923	832	851	724	363	385	825	709	939	935	709
26	1,070	923	825	847	724	371	407	828	709	943	943	673
27	926	923	828	844	720	368	410	836	746	939	943	680
28	301	923	855	840	724	368	410	836	802	927	935	673
29	746	923	859	840	720	374	460	836	787	911	916	669
30	1,260	923	859	836	-	371	542	836	840	915	915	669
31	838	-	859	836	-	363	-	840	-	919	911	-

Month	Second-feet-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	33,111	1,260	301	1,068	65,670
November	31,499	1,540	701	1,050	62,480
December	26,940	1,230	660	869	53,430
Calendar year 1943	298,764	1,540	267	819	592,600
January	26,376	867	836	851	52,320
February	21,384	844	720	737	42,410
March	18,017	753	363	581	35,740
April	11,446	542	360	382	22,700
May	22,936	840	542	740	45,490
June	23,480	851	620	783	46,570
July	29,526	1,000	911	952	58,560
August	28,158	991	836	908	55,850
September	24,971	935	669	832	49,530
Water year 1943-44	297,844	1,540	301	814	590,800

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 1944.

Average discharge.- 21 years (1923-44), 706 second-feet.

Extremes (regulated).- Maximum discharge during year, 1,440 second-feet Nov. 11 (gage height, 2.90 feet); minimum, 268 second-feet Oct. 29 (gage height, 0.65 foot); minimum daily, 333 second-feet Oct. 28.

1915-17, 1922-44: Maximum discharge, 1,450 second-feet Sept. 10, 11, 1943 (gage height, 2.91 feet); minimum, 235 second-feet (revised) Apr. 8, 1943 (gage height, 0.53 foot); minimum daily, 290 second-feet Apr. 6, 8, 9, 1943.

Revisions.- The minimum discharge for the water year 1943 has been revised to 235 second-feet (regulated) Apr. 8, 1943 (gage height, 0.53 foot), superseding figures published in Water-Supply Paper 984.

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

Rating table, water year 1943-44 (gage height, in feet, and discharge, in second-feet)

0.9	342	2.0	865
1.1	406	2.4	1,120
1.4	540	2.8	1,380
1.7	695		

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,130	722	907	865	841	717	351	550	817	895	907	907
2	1,130	712	907	871	847	717	354	560	817	895	901	907
3	1,130	889	907	859	772	717	360	625	817	895	895	907
4	1,130	1,090	907	859	739	717	360	625	817	931	877	907
5	1,130	1,150	907	859	744	712	357	625	817	931	847	907
6	1,120	1,200	805	853	756	712	363	625	817	937	847	907
7	1,110	1,240	640	847	750	712	354	640	823	955	847	907
8	1,110	1,270	859	847	756	712	357	640	823	955	847	907
9	1,110	1,330	783	847	739	739	360	640	823	967	847	907
10	1,120	1,390	1,090	847	728	750	363	640	823	985	847	907
11	1,120	1,390	1,080	841	728	722	366	640	823	979	853	907
12	1,120	1,130	943	841	728	722	357	640	817	973	853	913
13	1,130	992	739	841	728	717	357	684	817	973	853	913
14	1,120	973	695	841	728	668	360	817	817	979	853	913
15	1,070	973	823	841	728	625	363	794	823	967	853	a907
16	1,170	973	1,120	841	728	625	363	756	794	949	967	a850
17	1,230	967	955	835	728	630	357	766	739	943	949	a800
18	1,180	943	829	829	728	630	357	805	706	949	955	a800
19	1,150	943	794	829	728	625	360	805	684	949	979	a780
20	1,070	937	794	829	728	625	360	805	684	943	973	a755
21	1,120	925	794	829	728	500	351	805	678	937	979	a755
22	1,140	919	794	829	728	363	357	805	625	937	979	a755
23	1,120	913	805	835	728	363	360	811	625	937	967	a755
24	1,120	913	794	829	728	354	360	811	620	937	967	a755
25	1,120	913	835	829	722	351	369	811	700	937	937	a730
26	1,100	907	823	829	722	354	396	817	700	937	937	684
27	1,020	907	823	829	722	354	396	817	728	937	937	684
28	333	907	853	829	722	354	399	823	783	925	931	684
29	465	907	859	829	717	357	426	823	778	907	919	678
30	1,230	907	859	835	-	357	550	817	805	907	913	678
31	871	-	859	835	-	354	-	823	-	907	913	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	33,219	1,230	333	1,072	65,890
November	30,332	1,390	712	1,011	60,160
December	26,582	1,120	640	857	52,720
Calendar year 1943	297,718	1,430	271	816	590,500
January	26,059	871	829	841	51,690
February	21,469	847	717	740	42,580
March	17,855	750	351	576	35,410
April	11,143	550	351	371	22,100
May	22,645	823	550	730	44,920
June	22,940	823	620	765	45,500
July	29,155	985	895	940	57,830
August	28,129	979	847	907	55,790
September	24,766	913	678	826	49,120
Water year 1943-44	294,294	1,390	333	804	583,700

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

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, 1⅛ miles downstream from dam site for proposed Benham Falls Reservoir, and 10 miles southwest of Bend. Altitude of gage, 4,144 feet (from river-profile map).

Records available.- March 1909 to September 1913, August 1920 to September 1921, February 1924 to September 1944. July 1906 to February 1909 and April to September 1914 at West Ranch, 7 miles upstream.

Average discharge.- 27 years (1906-13, 1924-44), 1,316 second-feet.

Extremes.- Maximum discharge during year, 2,010 second-feet Nov. 12, date based on unpublished record for station below Benham Falls (gage height, 2.51 feet, from recorded range in stage); minimum, 910 second-feet Mar. 28-31 (gage height, 0.55 foot). 1906-13, 1920-21, 1924-44: 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 periods of no gage-height record, which are fair. Small diversions above station for irrigation. Some regulation since 1922 by Crane Prairie and Crescent Lake Reservoirs, and since December 1942 by Wickiup Reservoir (see p. 54).

Rating tables, water year 1943-44 (gage height, in feet, and discharge, in second-feet)

Oct. 1 to Nov. 12		Nov. 13 to Sept. 30	
1.1	1,170	0.6	930
1.5	1,370	.9	1,060
2.0	1,650	1.3	1,250
2.5	2,000	1.7	1,460
		2.2	1,780

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,670	1,530	1,410	1,350	1,280	1,190	914	1,080	1,440	1,350	1,470	1,360
2	1,640	1,310	1,410	1,350	1,290	1,190	926	1,080	1,450	1,440	1,470	1,350
3	1,610	1,290	1,420	1,350	1,290	1,180	950	1,110	1,460	1,450	1,470	1,350
4	1,610	1,380	1,420	1,330	1,250	1,200	982	1,170	1,460	1,460	1,460	1,350
5	1,600	1,500	1,420	1,350	1,230	1,200	974	1,170	1,450	1,480	1,440	1,350
6	1,590	1,620	1,400	1,350	1,240	1,190	974	1,160	1,450	1,480	1,400	1,340
7	1,580	1,700	1,320	1,330	1,260	1,180	962	1,170	1,440	1,480	1,390	1,340
8	1,570	1,750	1,180	1,320	1,270	1,200	954	1,180	1,420	1,500	1,380	1,340
9	1,570	1,790	1,300	1,330	1,270	1,240	946	1,190	1,440	1,500	1,380	1,340
10	1,570	1,830	1,300	1,330	1,260	1,300	942	1,200	1,440	1,510	1,380	1,340
11	1,570	1,860	1,460	1,320	1,250	1,320	954	1,210	1,450	1,540	1,380	1,340
12	1,570	1,910	1,530	1,320	1,240	1,320	958	1,220	1,450	1,540	1,370	1,340
13	1,570	1,800	1,450	1,320	1,230	1,320	946	1,220	1,440	1,540	1,360	1,340
14	1,580	1,630	1,300	1,320	1,230	1,290	962	1,280	1,440	1,540	1,360	1,330
15	1,590	1,550	1,250	1,320	1,220	1,210	962	1,360	1,440	1,540	1,360	1,330
16	1,580	1,510	1,300	1,320	1,220	1,180	958	1,330	1,460	1,510	1,360	1,340
17	1,590	1,500	1,460	h1,320	1,220	1,200	950	1,310	1,440	1,500	1,430	1,320
18	1,650	1,490	1,450	1,320	1,210	1,210	938	1,320	1,400	1,490	1,440	1,240
19	1,650	1,480	1,420	1,320	1,210	1,210	938	1,340	1,380	1,510	1,440	1,220
20	1,640	1,470	1,370	1,320	1,210	1,220	926	1,340	1,360	1,500	1,430	1,200
21	1,600	1,460	1,310	1,310	1,210	1,200	918	1,340	1,360	1,500	1,420	1,180
22	1,570	1,460	1,310	1,310	1,210	1,080	914	1,340	1,320	1,490	1,420	1,170
23	1,620	1,450	1,310	1,310	1,210	950	914	1,330	1,250	1,480	1,420	1,160
24	1,630	1,440	1,330	1,310	1,200	938	914	1,340	1,240	1,470	1,410	1,160
25	1,630	1,430	1,340	1,310	1,200	938	918	1,340	1,230	1,470	1,410	1,160
26	1,630	1,420	1,330	1,300	1,200	934	950	1,340	1,260	1,470	1,380	1,130
27	1,640	1,410	1,320	1,300	1,200	926	974	1,340	1,260	1,480	1,380	1,080
28	1,620	1,410	1,320	1,290	1,200	914	974	1,360	1,280	1,490	1,380	1,070
29	1,180	1,410	1,330	1,280	1,200	910	966	1,400	1,320	1,490	1,380	1,060
30	1,140	1,410	1,340	1,280	-	910	997	1,410	1,320	1,490	1,360	1,060
31	1,540	-	1,340	1,280	-	910	-	1,430	-	1,480	1,360	-

Month	Second-feet-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	48,800	1,670	1,140	1,574	96,790
November	46,200	1,910	1,290	1,540	91,640
December	42,150	1,530	1,180	1,360	83,600
Calendar year 1943	537,270	2,090	970	1,472	1,066,000
January	40,870	1,350	1,280	1,318	81,060
February	35,710	1,290	1,200	1,231	70,830
March	35,160	1,320	910	1,134	69,740
April	28,435	997	914	948	56,400
May	39,410	1,430	1,080	1,271	78,170
June	41,550	1,460	1,230	1,385	82,410
July	46,170	1,540	1,350	1,489	91,580
August	43,490	1,470	1,360	1,403	86,260
September	37,690	1,360	1,060	1,256	74,760
Water year 1943-44	485,635	1,910	910	1,327	963,200

h Computed from staff-gage reading.

Note.- No gage-height record Oct. 13 to Nov. 22, Dec. 8 to Jan. 16, Jan. 18 to Feb. 21; discharge computed on basis of unpublished records at Ryan Ranch and below Benham Falls.

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 1944.

Average discharge.- 18 years, 1,055 second-feet.

Extremes.- Maximum discharge during year, 1,880 second-feet, Nov. 12, 13; maximum gage height, 1.75 feet Nov. 12; minimum discharge, 828 second-feet Apr. 24, 25 (gage height, 0.52 foot).
1926-44: Maximum discharge, that of Nov. 12, 13, 1943; minimum, 568 second-feet sometime during 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. 61). Flow regulated by Crescent Lake, Crane Prairie, and Wickiup Reservoirs (see p. 54).

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,460	1,420	1,340	1,250	1,190	1,100	867	952	1,280	1,170	1,340	1,200
2	1,430	1,220	1,330	1,250	1,200	1,100	874	960	1,270	1,260	1,340	1,190
3	1,400	1,190	1,330	1,260	1,210	1,110	896	976	1,280	1,290	1,330	1,190
4	1,400	1,320	1,350	1,220	1,160	1,120	912	1,020	1,290	1,300	1,330	1,190
5	1,390	1,450	1,380	1,240	1,140	1,130	928	1,030	1,280	1,320	1,310	1,190
6	1,380	1,560	1,360	1,240	1,170	1,120	928	1,020	1,280	1,320	1,260	1,190
7	1,380	1,640	1,280	1,210	1,180	1,110	920	1,020	1,270	1,330	1,240	1,200
8	1,370	1,710	1,150	1,210	1,210	1,120	904	1,020	1,320	1,340	1,240	1,190
9	1,360	1,760	1,210	1,210	1,200	1,160	896	1,020	1,270	1,340	1,230	1,190
10	1,360	1,790	1,220	1,210	1,180	1,230	896	1,030	1,270	1,340	1,220	1,180
11	1,360	1,830	1,350	1,210	1,180	1,260	896	1,050	1,280	1,370	1,220	1,190
12	1,370	1,870	1,460	1,220	1,160	1,250	904	1,060	1,260	1,380	1,210	1,180
13	1,370	1,810	1,400	1,210	1,150	1,240	888	1,060	1,250	1,380	1,210	1,180
14	1,390	1,620	1,210	1,210	1,150	1,230	904	1,070	1,250	1,380	1,200	1,180
15	1,410	1,520	1,150	1,210	1,150	1,160	904	1,170	1,240	1,380	1,200	1,180
16	1,390	1,490	1,200	1,210	1,140	1,120	904	1,160	1,260	1,370	1,200	1,180
17	1,410	1,480	1,420	1,210	1,140	1,140	896	1,120	1,250	1,340	1,240	1,180
18	1,460	1,460	1,430	1,210	1,130	1,140	874	1,130	1,220	1,340	1,270	1,100
19	1,480	1,450	1,280	1,200	1,130	1,150	874	1,150	1,200	1,350	1,260	1,080
20	1,480	1,430	1,210	1,180	1,140	1,150	867	1,150	1,190	1,350	1,250	1,070
21	1,460	1,420	1,200	1,170	1,130	1,150	860	1,150	1,180	1,350	1,260	1,050
22	1,420	1,410	1,200	1,180	1,140	1,060	848	1,140	1,150	1,340	1,260	1,040
23	1,470	1,410	1,200	1,200	1,110	904	841	1,140	1,080	1,340	1,260	1,030
24	1,500	1,400	1,210	1,210	1,080	854	828	1,140	1,060	1,340	1,250	1,030
25	1,500	1,380	1,230	1,210	1,090	841	828	1,150	1,050	1,330	1,240	1,040
26	1,500	1,370	1,230	1,200	1,090	841	860	1,150	1,070	1,330	1,240	1,020
27	1,520	1,370	1,200	1,200	1,090	867	867	1,160	1,070	1,330	1,230	960
28	1,510	1,360	1,190	1,190	1,080	867	860	1,180	1,060	1,340	1,230	944
29	1,070	1,360	1,220	1,180	1,080	860	848	1,250	1,090	1,340	1,220	936
30	945	1,350	1,240	1,180	-	860	860	1,330	1,150	1,340	1,200	928
31	1,400	-	1,240	1,180	-	867	-	1,320	-	1,340	1,200	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
Octcber	43,345	1,520	945	1,398	85,970
November	44,850	1,870	1,190	1,495	88,960
December	39,420	1,460	1,150	1,272	78,190
Calendar year 1943	486,775	1,870	905	1,334	965,500
January	37,470	1,260	1,170	1,209	74,320
February	33,200	1,210	1,080	1,145	65,850
March	33,111	1,260	841	1,068	65,670
April	26,432	928	828	881	52,430
May	34,278	1,330	952	1,106	67,990
June	36,170	1,320	1,050	1,206	71,740
July	41,370	1,380	1,170	1,335	82,060
August	38,690	1,340	1,200	1,248	76,740
September	33,408	1,200	928	1,114	66,260
Water year 1943-44	441,744	1,870	828	1,207	876,200

Note.- No gage-height record Dec. 6-30, Jan. 4-13, June 20-29; discharge computed on basis of unpublished record for station above Lava Island.
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 1944.

Average discharge.- 30 years, 641 second-feet.

Extremes.- Maximum discharge during year, 1,490 second-feet Dec. 12 (gage height, 3.50 feet); minimum, 8 second-feet Aug. 6, 7 (gage height, 0.88 foot).
1914-44: 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. Five large canals divert water above station for irrigation (see p. 61). Flow regulated by hydroelectric plant at Bend, since 1922 by Crescent Lake and Crane Prairie Reservoirs, and since December 1942 by Wickiup Reservoir (see p. 54).

Rating table, water year 1943-44 (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Oct. 1-31, May 20 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	3.4	1,390

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	329	1,030	1,220	1,300	1,180	1,090	798	154	135	96	19	103
2	324	848	1,060	1,290	1,190	1,100	789	135	108	138	14	100
3	322	806	1,100	1,280	a1,200	1,120	806	144	124	90	11	100
4	293	908	1,110	1,250	a1,180	1,120	806	141	127	93	10	100
5	284	1,060	1,210	1,270	1,150	1,130	823	124	124	110	19	103
6	293	1,190	1,350	1,280	1,170	1,120	823	113	124	116	9	100
7	319	1,250	1,300	1,270	1,190	1,110	715	110	119	113	8	96
8	334	1,300	1,150	1,270	1,220	1,130	558	110	a162	110	12	98
9	345	1,330	a1,220	1,270	1,200	1,160	411	130	a121	113	19	100
10	356	1,350	a1,230	1,270	1,170	1,230	345	110	135	108	14	96
11	388	1,380	1,360	1,270	a1,170	1,090	308	124	141	124	19	100
12	417	1,420	1,430	1,270	1,160	882	334	141	130	113	18	103
13	459	1,400	1,420	1,260	1,150	857	270	116	121	103	16	100
14	517	1,280	1,280	1,240	a1,060	857	239	127	116	106	12	103
15	565	1,290	1,120	1,240	a862	1,020	231	239	116	106	14	98
16	608	1,270	1,180	1,140	a753	1,110	210	147	157	98	15	119
17	615	1,270	1,390	891	a737	1,100	192	127	223	35	51	124
18	683	1,270	1,440	874	a715	1,090	163	124	214	22	84	116
19	739	1,250	1,310	874	739	1,090	163	121	214	47	61	130
20	780	1,200	1,260	916	908	1,120	157	121	206	21	100	127
21	780	1,180	1,240	1,090	1,130	1,130	154	110	203	21	113	144
22	723	1,180	1,120	1,190	1,120	1,070	144	108	199	19	113	144
23	814	1,170	806	1,240	1,120	874	135	100	147	21	113	144
24	916	1,170	832	1,240	1,090	832	130	98	141	14	106	150
25	916	1,170	848	1,240	1,090	789	119	119	127	18	106	154
26	961	1,170	857	1,250	1,100	798	124	108	130	14	103	157
27	1,060	1,160	952	1,250	1,080	823	135	113	96	14	119	147
28	1,070	1,170	1,170	1,240	1,070	840	113	121	110	25	110	133
29	666	1,170	1,240	1,220	1,080	823	119	180	98	20	106	138
30	429	1,190	1,280	1,210	-	823	113	218	98	18	100	135
31	925	-	1,280	1,210	-	806	-	a154	-	21	103	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	18,230	1,070	284	588	36,160
November	35,832	1,420	806	1,194	71,070
December	36,765	1,440	806	1,186	72,920
Calendar year 1943	261,062	1,440	133	715	517,800
January	37,105	1,300	874	1,197	73,600
February	30,984	1,220	715	1,068	61,460
March	31,134	1,230	789	1,004	61,750
April	10,427	823	113	348	20,680
May	4,087	239	98	132	8,110
June	4,266	223	96	142	8,460
July	2,067	138	14	66.7	4,100
August	1,737	119	8	56.0	3,450
September	3,562	157	96	119	7,070
Water year 1943-44	216,196	1,440	8	591	428,800

a No gage-height record; discharge computed on basis of records for station below Lava Island, near Bend, and diversions from Deschutes River near Bend.
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 1944.

Average discharge.- 21 years, 4,157 second-feet.

Extremes.- Maximum discharge during year, 6,590 second-feet Mar. 11 (gage height, 3.71 feet); minimum, 3,120 second-feet Aug. 18 (gage height, 1.55 feet).
1923-44: Maximum discharge, 13,300 second-feet Jan. 1, 1943 (gage height, 6.89 feet); minimum, 2,940 second-feet (regulated) Sept. 20, 1942 (gage height, 1.41 feet).

Remarks.- Records excellent except those for periods of no gage-height record, which are good. Large diversions in upper river basin for irrigation.

Rating table, water year 1943-44 (gage height, in feet, and discharge, in second-feet)

1.5	3,060	2.7	4,850
1.8	3,470	3.0	5,350
2.1	3,910	3.3	5,860
2.4	4,370	3.6	6,390

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	3,740	4,470	4,710	4,830	4,690	4,480	4,830	3,670	3,580	3,370	3,220	3,250
2	3,740	4,470	4,710	4,870	4,670	4,500	4,960	3,680	3,510	3,340	3,220	3,250
3	3,730	4,400	4,690	4,790	4,690	4,510	5,010	3,660	3,440	3,360	3,220	3,250
4	3,740	4,850	4,770	4,690	4,690	4,590	5,200	3,610	3,440	3,320	3,220	3,260
5	3,670	5,080	4,790	4,710	4,660	4,590	5,250	3,610	3,460	3,320	3,220	3,260
6	3,670	4,830	4,900	4,720	4,750	4,580	5,130	3,580	3,440	3,320	a3,220	3,260
7	3,680	4,880	4,950	4,690	4,770	4,580	4,910	3,580	3,440	3,330	a3,220	3,260
8	3,740	4,930	4,820	4,670	5,260	4,580	4,630	3,540	3,440	3,330	3,220	3,250
9	3,760	4,960	4,660	4,690	5,060	4,670	4,430	3,530	3,470	3,320	3,200	3,250
10	3,790	4,980	4,770	4,690	4,800	5,490	4,230	3,510	3,470	3,320	3,200	3,250
11	3,820	4,980	4,740	4,660	4,740	6,280	4,100	3,470	3,510	3,320	3,220	3,250
12	3,820	5,010	4,870	4,750	4,710	5,250	4,080	3,480	3,510	3,340	3,220	3,250
13	a3,820	5,030	4,950	4,740	4,710	4,900	4,180	3,500	3,470	3,330	3,200	3,260
14	a3,830	4,910	4,870	4,690	4,690	4,740	4,150	3,470	3,410	3,320	3,190	3,260
15	a3,860	4,820	4,670	4,670	4,560	4,660	4,060	3,510	3,410	3,300	3,180	3,260
16	a3,900	4,800	4,640	4,690	4,420	4,820	4,030	3,580	3,440	3,300	3,180	3,290
17	a3,950	4,750	4,740	4,470	4,320	4,770	3,980	3,540	3,570	3,320	3,180	3,300
18	a4,000	4,750	4,930	4,350	4,260	5,030	3,920	3,470	3,720	3,300	3,160	3,340
19	a4,040	4,770	4,880	4,370	4,270	5,490	3,900	3,410	3,720	3,290	3,200	3,300
20	a4,120	4,770	4,770	4,370	4,270	5,490	3,850	3,410	3,720	3,290	3,220	3,320
21	a4,260	4,720	4,720	4,480	4,510	5,160	3,760	3,400	3,700	3,370	3,230	3,330
22	a4,280	4,690	4,710	4,670	4,590	4,910	3,730	3,410	3,720	3,320	3,260	3,360
23	4,290	4,690	4,450	4,770	4,610	4,740	3,670	3,400	3,680	3,290	3,260	3,340
24	4,510	4,670	4,290	4,740	4,590	4,590	3,670	3,370	3,620	3,260	3,250	3,340
25	4,530	4,690	4,340	4,710	4,560	4,640	3,700	3,370	3,600	3,260	3,260	3,340
26	4,530	4,690	4,340	4,690	4,580	4,640	3,800	3,390	3,570	3,250	3,260	3,330
27	4,580	4,690	4,390	4,660	4,560	4,550	3,740	3,400	3,530	3,250	3,260	3,330
28	4,660	4,670	4,550	4,630	4,560	4,510	3,730	3,440	3,440	3,250	3,270	3,320
29	4,590	4,690	4,710	4,610	4,480	4,470	3,680	3,470	3,400	3,230	3,260	3,320
30	4,150	4,720	4,750	4,630	-	4,430	3,680	3,650	3,410	3,220	3,260	3,320
31	4,040	-	4,770	4,670	-	4,560	-	3,580	-	3,220	3,250	-

Month	Second-feet-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	124,840	4,660	3,670	4,027	247,600
November	143,360	5,080	4,400	4,779	284,400
December	145,850	4,950	4,290	4,705	289,300
Calendar year 1943	1,887,640	12,400	3,670	5,172	3,744,000
January	144,370	4,870	4,350	4,657	286,400
February	134,030	5,260	4,260	4,622	265,800
March	149,200	6,280	4,430	4,813	295,900
April	125,990	5,250	3,670	4,200	249,900
May	108,590	3,680	3,370	3,503	215,400
June	105,840	3,720	3,400	3,528	209,900
July	102,360	3,370	3,220	3,302	203,000
August	99,930	3,270	3,160	3,224	198,200
September	98,700	3,360	3,250	3,290	195,800
Water year 1943-44	1,483,060	6,280	3,160	4,052	2,942,000

a No gage-height record; discharge computed on basis of weather records, recorded range in stage, and records for station at Moody, near Biggs.
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 1944. October 1897 to December 1899 at site near Moro, 10 miles above mouth.
Average discharge.- 39 years (1898-99, 1906-44), 5,734 second-feet.
Extremes.- Maximum discharge during year, 7,490 second-feet Mar. 12 (gage height, 3.41 feet); minimum, 3,470 second-feet Aug. 20 (gage height, 2.18 feet).
1897-99, 1906-44: Maximum discharge, 43,600 second-feet Jan. 7, 1923 (gage height, 10.2 feet), from rating curve extended above 15,000 second-feet; minimum, 3,380 second-feet Sept. 16-19, 1931 (gage height, 2.06 feet).
Remarks.- Records good except those for periods of no gage-height record, which are fair. Many diversions in upper river basin for irrigation; diversion for North Unit project near Madras, under construction, not used in 1944. Some winter and spring runoff stored in Crane Prairie, Wickiup, Crescent Lake, and Ochoco Reservoirs.
Cooperation.- Water-stage recorder inspected by agent of Eastern Oregon Land Co.

Rating table, water year 1943-44 (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used June 1 to Sept. 30)

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

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	4,290	4,840	5,480	5,380	5,260	5,110	a5,400	4,690	4,410	3,850	3,530	3,560
2	4,290	5,200	5,540	5,570	5,290	5,080	a5,700	4,690	4,430	3,810	3,530	3,580
3	4,290	5,140	5,670	5,540	5,290	5,110	a5,800	4,660	4,320	3,780	3,530	3,560
4	4,290	5,260	5,960	5,350	5,290	5,140	a6,000	4,610	4,210	3,780	3,530	3,560
5	4,270	6,510	6,030	5,260	5,350	5,200	a6,100	4,610	4,160	3,730	3,530	3,560
6	4,240	6,170	5,830	5,350	5,570	5,200	a6,200	4,660	4,160	3,710	3,530	3,560
7	4,240	5,830	5,930	5,290	5,860	5,170	a6,100	4,690	4,110	3,710	3,530	3,560
8	4,270	5,770	5,860	5,200	5,830	5,170	5,830	4,660	4,110	3,710	3,530	3,560
9	4,320	5,770	5,640	5,170	6,340	5,320	a5,500	4,610	4,110	3,730	3,560	3,530
10	4,320	5,730	5,510	5,260	5,800	5,770	a5,300	4,550	4,110	3,710	3,530	3,560
11	4,350	5,770	5,540	5,260	5,570	a7,400	a5,100	4,520	4,080	3,710	3,530	3,530
12	4,430	5,770	5,510	5,260	5,540	a7,000	a5,100	4,490	4,110	3,710	3,530	3,530
13	4,430	5,770	5,640	5,350	5,480	a6,200	5,080	4,460	4,110	3,710	3,530	3,530
14	4,430	5,770	5,670	5,320	5,480	a5,700	5,200	4,430	4,080	3,730	3,510	3,560
15	4,460	5,570	5,540	5,260	5,410	5,410	5,080	4,460	3,980	3,710	3,510	3,580
16	4,520	5,510	5,290	5,260	5,230	5,380	4,990	4,490	4,050	3,690	3,510	3,580
17	4,580	5,480	5,320	5,290	5,110	5,540	4,930	4,520	4,110	3,690	3,510	3,600
18	4,610	5,480	5,410	5,020	5,050	5,570	4,840	4,460	4,210	3,690	3,510	3,670
19	4,640	5,480	5,570	4,960	4,990	5,960	4,780	4,380	4,270	3,670	3,510	3,690
20	4,780	5,510	5,480	4,990	5,020	a6,400	4,720	4,290	4,270	3,670	3,510	3,670
21	4,960	5,540	5,350	4,990	5,020	a6,000	4,640	4,270	4,270	3,690	3,510	3,670
22	4,990	5,440	5,320	5,110	5,260	a5,700	4,580	4,290	4,240	3,760	3,530	3,690
23	4,990	5,410	5,290	5,290	5,260	a5,400	4,550	4,290	4,240	3,670	3,560	3,690
24	5,170	5,380	4,960	5,350	5,260	a5,200	4,640	4,270	4,180	3,640	3,560	3,640
25	5,510	5,350	4,960	5,320	5,260	a5,300	4,640	4,210	4,130	3,640	3,560	3,640
26	5,380	5,380	4,990	5,260	5,230	a5,400	4,640	4,180	4,110	3,620	3,560	3,640
27	5,290	5,380	4,960	5,230	5,230	a5,300	4,660	4,180	4,050	3,600	3,560	3,640
28	5,320	5,350	5,020	5,200	5,200	a5,300	4,640	4,180	3,980	3,580	3,560	3,640
29	5,380	5,350	5,200	5,170	5,200	a5,200	4,640	4,270	3,880	3,580	3,580	3,640
30	5,260	5,380	5,260	5,170	-	a5,200	4,660	4,290	3,850	3,560	3,560	3,620
31	4,780	-	5,320	5,200	-	a5,200	-	4,350	-	3,560	3,560	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	145,080	5,510	4,240	4,680	287,800
November	166,290	6,510	4,840	5,543	329,800
December	169,050	6,030	4,960	5,453	335,300
Calendar year 1943	2,527,110	29,300	4,240	6,924	5,012,000
January	162,630	5,570	4,960	5,246	322,600
February	155,680	6,340	4,990	5,368	308,800
March	172,030	7,400	5,080	5,549	341,200
April	154,040	6,200	4,550	5,135	305,500
May	137,710	4,690	4,180	4,442	273,100
June	124,280	4,430	3,850	4,143	246,500
July	114,400	3,850	3,560	3,690	226,900
August	109,590	3,580	3,510	3,535	217,400
September	108,040	3,690	3,530	3,601	214,300
Water year 1943-44	1,718,820	7,400	3,510	4,696	3,409,000

a No gage-height record; discharge computed on basis of recorded range in stage and records for station near Madras.
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 1944. Maximum contents observed during year, 49,850 acre-feet Apr. 29, 30 (elevation, 4,443.87 feet); minimum, 13 acre-feet Sept. 30. Maximum contents observed during period 1922-44, 60,500 acre-feet June 5-7, 1943 (elevation, 4,446.0 feet); no usable contents at times.

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

Wickiup Reservoir.- Staff gage, lat. 43°41', long. 121°41', at dam on Deschutes River in NE¼ sec. 7, T. 22 S., R. 9 E., 9 miles west of Lapine. Temporary gage established for use during construction of dam reads elevation above mean sea level (levels by Bureau of Reclamation). Records available, December 1942, when storage began, to September 1944. Maximum contents observed during year, 18,160 acre-feet July 5, 6 (elevation, 4,293.10 feet); no storage in most of period November to March.

Reservoir is formed by rock-faced earth-fill dam completed by Bureau of Reclamation prior to 1943 except for outlet works, reservoir dike, spillway, and timber removal, on which work is continuing. Ultimate capacity, about 180,000 acre-feet (final capacity table not yet available). Water stored is intended for irrigation near Madras (diversion canals not completed in 1944). Gage read twice daily.

Crescent Lake Reservoir.- Staff gage, lat. 43°30', long. 121°58', at head of spillway on dam at lake outlet in sec. 11, T. 24 S., R. 6 E., and auxiliary staff gage at boat dock 100 yards south, 14 miles west of Crescent. Datum of gage is 4,826.0 feet above mean sea level (levels of Deschutes County Municipal Improvement District). Records available, August 1922 to September 1944. Maximum contents observed during year, 54,660 acre-feet Mar. 11 (elevation, 4,840.95 feet); minimum observed, 25,100 acre-feet Sept. 23 (elevation, 4,833.06 feet). Maximum contents observed during period 1922-44, 72,460 acre-feet July 15, 1923 (elevation, 4,845.55 feet); minimum observed, 9,640 acre-feet Oct. 21, 1931 (elevation, 4,828.75 feet).

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

Elevation and contents, water year October 1943 to September 1944

Date	Crane Prairie Reservoir			Crescent Lake 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	4,443.08	46,150	-	4,837.18	40,350	-
Oct. 31	4,443.29	47,120	+970	4,838.22	44,270	+3,920
Nov. 30	4,442.49	43,440	-3,680	-	a48,120	+3,850
Dec. 31	4,442.55	43,720	+280	-	a50,180	+2,060
Calendar year 1943	-	-	+17,310	-	-	+22,250
Jan. 31	-	a45,060	+1,340	-	a52,300	+2,120
Feb. 29	-	a46,150	+1,090	-	a54,290	+1,990
Mar. 31	4,443.33	47,310	+1,160	-	a54,040	-250
Apr. 30	4,443.87	49,850	+2,540	-	a53,540	-500
May 31	4,442.32	42,680	-7,170	-	a53,330	-210
June 30	4,441.20	37,730	-4,950	-	a47,990	-5,340
July 31	4,437.16	21,600	-16,130	4,836.22	36,760	-11,230
Aug. 31	4,432.78	7,444	-14,156	-	a28,590	-8,170
Sept.30	4,427.19	13	-7,431	4,833.20	25,600	-2,990
Water year 1943-44	-	-	-46,137	-	-	-14,750

Date	Wickiup Reservoir		
Sept.30	4,280.05	4,802	-
Oct. 31	-	a180	-4,622
Nov. 30	-	0	-180
Dec. 31	-	0	0
Calendar year 1943	-	-	-1,537
Jan. 31	-	0	0
Feb. 29	-	0	0
Mar. 31	4,280.25	4,949	+4,948
Apr. 30	4,292.48	17,350	+12,402
May 31	4,292.83	17,810	+460
June 30	4,292.86	17,850	+40
July 31	4,292.26	17,070	-780
Aug. 31	4,291.95	16,660	-410
Sept.30	4,291.46	16,030	-630
Water year 1943-44	-	-	+11,228

† Time of day variable.
a No gage-height record; contents interpolated or extrapolated.
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 1944.

Extremes.- Maximum discharge during year, 85 second-feet Oct. 1-7 (gage height, 0.85 foot); minimum, 44 second-feet May 15-25.
1923-25, 1937-44: 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. No diversion or regulation above station.

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	85	80	70	66	60	58	51	46	50	55	51	53
2	85	80	70	66	60	58	51	48	50	55	51	53
3	85	80	70	64	60	58	51	48	50	55	51	53
4	85	78	70	64	60	58	51	48	50	55	51	53
5	85	78	70	64	60	58	51	48	50	55	51	53
6	85	78	70	64	58	58	51	48	50	55	51	53
7	85	76	70	64	58	58	51	48	50	55	51	53
8	83	76	70	64	58	56	51	48	50	55	51	53
9	83	76	70	64	58	56	51	48	50	55	51	51
10	83	74	70	62	58	56	51	48	50	55	51	51
11	80	74	70	62	58	56	51	48	50	55	51	51
12	80	72	70	62	58	55	51	48	50	55	50	51
13	80	72	68	62	58	55	51	46	50	55	51	51
14	80	72	68	62	58	55	51	46	50	55	51	51
15	80	72	68	62	58	55	51	44	50	55	51	51
16	80	72	68	62	58	55	51	44	51	53	51	51
17	80	72	68	60	58	55	51	44	51	53	51	51
18	80	72	68	60	58	55	50	44	51	53	53	51
19	80	72	68	60	58	55	50	44	51	53	53	51
20	83	72	68	60	58	55	50	44	51	53	53	50
21	83	72	68	60	58	55	50	44	51	53	53	50
22	80	72	68	60	58	53	50	44	51	53	53	50
23	80	72	68	60	58	53	50	44	51	53	53	50
24	80	72	68	60	58	53	48	44	53	53	53	50
25	83	72	66	60	58	53	48	44	53	53	53	50
26	83	72	66	60	58	51	48	46	53	53	53	50
27	80	72	66	60	58	51	48	46	53	53	53	50
28	80	72	66	60	58	51	48	46	53	53	53	50
29	80	72	66	60	58	51	48	46	53	51	53	50
30	80	70	66	60	-	51	46	48	53	51	53	50
31	80	-	66	60	-	51	-	50	-	51	53	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	2,536	85	80	81.8	5,030
November	2,216	80	70	73.9	4,400
December	2,118	70	66	68.3	4,200
Calendar year 1943	28,005	116	-	76.7	55,560
January	1,914	66	60	61.7	3,800
February	1,692	60	58	58.3	3,360
March	1,698	58	51	54.8	3,370
April	1,501	51	46	50.0	2,980
May	1,432	50	44	46.2	2,840
June	1,529	53	50	51.0	3,030
July	1,667	55	51	53.8	3,310
August	1,608	53	50	51.9	3,190
September	1,535	53	50	51.2	3,040
Water year 1943-44	21,446	85	44	58.6	42,550

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 1944.

Extremes.- Maximum discharge during year, 39 second-feet Oct. 1-5 (gage height, 1.90 feet); minimum, 8.0 second-feet Sept. 20-22 (gage height, 1.59 feet).
1922-25, 1937-44: Maximum discharge observed, 47 second-feet July 14-16, 1938, Sept. 10, 1943; practically no flow Nov. 14, 1941.

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

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	38	34	27	27				c20	19	20	19	14
2	39	34	27	27					19	20	19	14
3	39	34	28	27					19	20	19	14
4	39	34	29						19	20	18	14
5	39	34	29						20	20	18	14
6	38	33	29			a21			20	20	18	14
7	38	33	29						20	20	16	14
8	38	32	28						20	20	16	13
9	38	32	28						20	20	16	13
10	38	31	28					c20	20	20	15	13
11	37	31	28						22	20	15	12
12	37	a31	28						22	20	14	11
13	37	a30	a28			20			23	20	14	11
14	37	a30	a28			20			23	20	14	11
15	37	a30	a28			20			23	20	14	10
16	35	a29	a28		a24	20	c19		23	22	14	9.0
17	35	29	a27	a26		20			23	22	14	8.5
18	35	29	a27			19			23	23	14	8.5
19	35	29	a27			18		20	23	22	14	8.5
20	35	29	a27			18		20	23	22	13	8.0
21	35	29	27			18		20	22	20	13	8.0
22	35	29	27			18		20	22	20	14	8.5
23	35	a29	27			17		20	22	20	14	9.0
24	35	a29	27			17		19	22	20	14	8.5
25	35	a29	27			18		19	22	20	14	9.0
26	35	29	27			18		19	22	20	14	9.0
27	35	29	27			18		20	22	20	15	9.0
28	35	28	27			c18		20	22	20	16	10
29	34	28	27			c18		20	22	20	15	9.0
30	34	27	28		-	c18		20	22	20	16	9.0
31	34	-	28		-	c18	-	19	-	20	16	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	1,126	39	34	36.3	2,230
November	914	34	27	30.5	1,810
December	857	29	27	27.6	1,700
Calendar year 1943	11,756	-	-	32.2	23,310
January	809	27	-	26.1	1,600
February	696	-	-	24.0	1,380
March	603	-	17	19.5	1,200
April	570	-	-	19.0	1,130
May	616	-	-	19.9	1,220
June	644	23	19	21.5	1,280
July	631	23	20	20.4	1,250
August	475	19	13	15.3	942
September	323.5	14	8.0	10.8	642
Water year 1943-44	8,264.5	39	8.0	22.6	16,380

a No gage-height record; discharge interpolated.
c Backwater from Crane Prairie Reservoir; discharge interpolated on basis of discharge measurement on May 1.

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, 3½ miles north of Crescent Lake and 14 miles northwest of Crescent. Datum of gage is 4,778.83 feet above mean sea level, datum of 1929.

Drainage area.- 39 square miles.

Records available.- August 1911 to August 1914 (incomplete), December 1923 to June 1924, May 1933 to September 1944.

Average discharge.- 11 years (1933-44), 65.9 second-feet.

Extremes.- Maximum discharge during year, 193 second-feet Nov. 5 (gage height, 0.94 foot); minimum, 20 second-feet Aug. 24, 25 (gage height, 0.23 foot).
1911-14, 1923-24, 1933-44: Maximum discharge, 390 second-feet June 14, 1912, Jan. 4, 1936; minimum, 12 second-feet sometime during Sept. 7-30, 1934.

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

Rating table, water year 1943-44 (gage height, in feet, and discharge, in second-feet)

0.2	18	0.6	78
.3	25	.7	108
.4	37	.8	141
.5	54	.9	177

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	56	90	71	73	71	61	59	68	99	68	35	24
2	56	87	73	87	73	61	59	66	99	64	35	22
3	56	99	73	84	73	64	56	66	102	61	33	21
4	56	145	76	81	76	68	56	66	99	61	33	21
5	56	170	76	90	81	71	56	68	96	59	33	22
6	52	159	73	93	81	68	56	71	93	56	32	22
7	54	145	73	87	78	68	56	73	93	54	31	22
8	54	138	73	84	84	68	64	76	96	52	30	23
9	54	131	66	81	90	73	64	81	90	54	29	23
10	56	124	64	78	81	73	64	81	90	52	29	23
11	73	118	64	76	81	68	66	81	93	52	29	25
12	64	111	61	73	76	78	66	81	93	52	29	30
13	64	105	61	71	78	71	71	81	90	49	29	30
14	64	99	59	68	81	66	76	81	87	47	26	29
15	64	96	59	68	78	64	78	81	84	47	26	27
16	61	90	59	68	81	64	78	81	84	46	26	27
17	64	87	59	68	78	61	76	84	84	46	25	29
18	64	84	56	68	76	61	73	84	87	46	24	27
19	61	84	56	66	73	71	71	84	87	46	24	27
20	68	87	59	66	71	76	73	84	84	46	23	26
21	81	84	59	64	66	66	73	87	84	44	23	26
22	78	81	59	64	64	66	68	87	81	42	23	26
23	84	78	56	66	64	73	68	84	78	40	23	26
24	102	76	61	30	61	78	71	81	78	40	22	26
25	105	73	68	56	64	76	68	81	78	39	21	26
26	102	71	68	78	68	81	71	78	76	39	21	27
27	99	68	66	76	64	66	68	78	73	37	22	26
28	102	68	64	73	64	64	68	78	71	40	22	27
29	105	68	64	68	64	64	68	81	71	39	22	26
30	102	71	64	68	-	61	68	84	71	39	22	27
31	96	-	66	66	-	59	-	90	-	35	22	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff Inches	Runoff Acre-feet
October	2,253	105	52	72.7	1.86	2.15	4,470
November	2,987	170	68	99.6	2.55	2.85	5,920
December	2,006	76	56	64.7	1.66	1.91	3,980
Calendar year 1943	34,499	300	25	94.5	2.42	32.89	68,420
January	2,239	93	30	72.2	1.85	2.14	4,440
February	2,140	90	61	73.8	1.89	2.04	4,240
March	2,109	81	59	68.0	1.74	2.01	4,180
April	2,009	78	56	67.0	1.72	1.92	3,980
May	2,447	90	66	78.9	2.02	2.33	4,850
June	2,591	102	71	86.4	2.22	2.47	5,140
July	1,492	68	35	48.1	1.23	1.42	2,960
August	824	35	21	26.6	.682	.79	1,630
September	763	30	21	25.4	.651	.73	1,510
Water year 1943-44	23,860	170	21	65.2	1.67	22.76	47,300

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 1944 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, 193 second-feet Oct. 11 (gage height, 1.70 feet); minimum, 126 second-feet (regulated) Sept. 24; minimum daily, 134 second-feet Sept. 25. 1938-44: Maximum discharge, 194 second-feet sometime during Jan. 8 to Apr. 21, 1943, and on Sept. 15, 1943, probably caused by release of water from fish hatchery; minimum, 68 second-feet (regulated) Apr. 6, 1942.

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

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

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	180	172	172	171	156	a168	165	162	160		151	146
2	181	172	172	171	156	a168	165	162	160		151	144
3	181	174	174	169	160	a169	165	162	160	a147	149	144
4	180	176	174	167	162	a169	165	162	158		149	146
5	178	174	172	165	163	a169	163	158	158		147	144
6	178	172	172	163	163	a169	163	160	156	146	147	144
7	178	174	174	162	163	a169	163	160	153	146	146	144
8	178	174	176	a162	163	a169	163	160	153	146	146	144
9	178	174	174	a162	163	a169	162	162	153	149	146	144
10	178	176	174	a162	165	169	162	160	154	149	144	144
11	178	176	172	a162	165	169	160	160	153	149	144	144
12	176	176	172	a162	165	167	160	163	153	151	144	144
13	178	178	174	a162	167	165	160	162	154	153	144	142
14	178	178	172	a163	167	165	160	162	154	153	140	142
15	176	178	172	a163	167	165	160	162	154	154	140	142
16	174	178	171	a163	167	165	160	162	154	153	140	140
17	176	178	172	a163	167	165	160	162	154	151	140	142
18	176	176	172	a163	a167	165	160	160	153	154	140	140
19	176	176	a172	163	a167	165	160	160		154	139	139
20	176	176	a172	160	a167	165	158	158		153	139	140
21	176	176	a172	158	a167	165	158	160		153	140	140
22	176	176	a172	156	a167	165	158	160		154	140	137
23	176	176	a172	156	a167	165	158	158		153	140	137
24	176	174	a172	154	a167	165	160	158	a150	154	142	137
25	176	174	a172	154	a168	165	160	160		153	142	134
26	174	174	a172	154	a168	165	160	158		151	144	135
27	174	172	a172	156	a168	167	160	160		154	144	135
28	174	172	172	156	a168	167	160	162		153	146	137
29	174	174	172	156	a168	167	160	160		153	146	135
30	174	174	171	156	-	167	162	162		151	146	135
31	174	-	171	156	-	167	-	162	-	153	146	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	5,478	181	174	177	10,870
November	5,250	178	172	175	10,410
December	5,345	176	171	172	10,600
Calendar year 1943	53,493	181	-	147	106,100
January	4,990	171	154	161	9,900
February	4,788	168	156	165	9,500
March	5,169	169	165	167	10,250
April	4,830	165	158	161	9,580
May	4,979	163	158	161	9,880
June	4,594	160	-	153	9,110
July	4,678	154	-	151	9,280
August	4,462	151	139	144	8,850
September	4,221	146	134	141	8,370
Water year 1943-44	58,784	181	134	161	116,600

a No gage-height record; discharge interpolated.
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 1944.

Average discharge.- 20 years (1924-44), 149 second-feet.

Extremes.- Maximum discharge during year, 298 second-feet June 19 (gage height, 3.79 feet); minimum, 38 second-feet Sept. 30 (gage height, 1.48 feet).
1910-13, 1918, 1920, 1924-44: Maximum discharge, 985 second-feet Apr. 22, 1943 (gage height, 7.00 feet); minimum, 8 second-feet Sept. 2, 3, 1931 (gage height, 0.71 foot).

Remarks.- Records good except those for periods of shifting control or no gage-height record, which are fair, and those for periods of ice effect, which are poor. Small diversions above tation for irrigation. Flow regulated since August 1922 by Crescent Lake Reservoir (see p. 54).

Rating table, water year 1943-44, except periods of ice effect or shifting control
(gage height, in feet, and discharge, in second-feet)

1.5	40	2.4	131
1.7	58	3.0	199
2.0	88	3.7	286

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	83	a115	97			72	179	173	281	203	240	134
2	81	a110	107			72	192	175	294	206	239	133
3	77	a115	107			74	201	180	294	205	237	133
4	71	a135	114			74	211	176	290	204	233	133
5	68	*201	112			80	210	174	281	205	229	131
6	67	237	96			*86	198	174	265	205	223	129
7	64	241	93			95	193	176	252	201	218	126
8	66	219	90			110	185	186	256	197	217	122
9	69	181	86			131	182	197	268	217	213	126
10	69	162	86			115	180	206	273	231	209	124
11	70	148	86			105	182	213	278	231	206	123
12	78	133	84			110	189	205	272	229	201	123
13	88	123	83			115	193	198	261	227	199	117
14	83	117	81	(*)		125	194	191	256	219	197	120
15	75	112	81	76	74	140	193	181	272	213	195	128
16	74	107	82			154	188	179	282	209	194	104
17	73	105	82			161	182	179	294	209	192	95
18	74	102	82			171	176	179	294	207	162	95
19	78	106	83			186	172	177	295	219	145	94
20	85	113	83			179	171	173	283	230	143	94
21	111	120	83			161	168	167	252	227	142	94
22	112	122	83			150	165	162	230	219	141	93
23	126	117	84			151	164	162	213	211	139	92
24	154	108	84			160	174	171	194	207	138	91
25	165	102	85			165	192	171	181	211	142	76
26	162	100	84			158	192	166	173	217	143	53
27	148	97	82			145	182	209	167	217	142	46
28	139	95	81			140	175	235	162	247	140	43
29	130	*96	80			138	173	245	158	283	138	40
30	122	96	*80		-	144	172	264	186	264	135	38
31	a120	-	80		-	157	-	269	-	a250	138	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	2,982	165	64	96.2	5,910
November	3,935	241	95	131	7,800
December	2,721	114	80	87.8	5,400
Calendar year 1943	101,676	971	64	279	201,700
January	2,356	-	-	76.0	4,670
February	2,146	-	-	74.0	4,260
March	4,024	186	72	130	7,980
April	5,528	211	164	184	10,960
May	5,911	269	162	191	11,720
June	7,457	295	158	249	14,790
July	6,820	283	197	220	13,530
August	5,630	240	135	182	11,170
September	3,050	134	38	102	6,050
Water year 1943-44	52,560	295	38	144	104,200

* Winter discharge measurement made on this day.
a No gage-height record; discharge computed on basis of records for Tumalo Creek near Bend.
Note.- Stage-discharge relation affected by ice Dec. 8-14, Dec. 16 to Mar. 8, Mar. 10-14.
Shifting-control method used Mar. 9, Mar. 15 to June 18.
Time basis: Pacific war time. To convert war time to standard time, subtract 1 hour.

Crescent Creek at Crescent Lake, near Crescent, Oreg.

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

Records available.- January 1911 to July 1915, July 1927 to September 1928 (incomplete), October 1928 to September 1944.

Average discharge.- 19 years (1911-14, 1928-44), 35.7 second-feet.

Extremes (regulated).- Maximum discharge during year, 203 second-feet July 26 (gage height, 2.50 feet); minimum daily, 2.3 second-feet Sept. 23.
1911-15, 1927-44: Maximum discharge, 313 second-feet July 9, 1929, Aug. 9, 1936; no flow at times.

Remarks.- Records good except those for Oct. 1 to Mar. 7, Sept. 24-30, which are poor. Flow regulated since 1922 by Crescent Lake Reservoir (see p. 54), storage being released Mar. 8 to Sept. 23 for diversion below station through Deschutes County Municipal Improvement District Canal at Bend. No diversion above station.

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	h9.5								140	161	194	110
2		a5.4							140	161	191	109
3									140	160	a189	108
4									140	159	a187	106
5		h5.5				a9.6		a37	140	159	a184	104
6									148	159	a182	104
7									161	173	180	106
8						h22			160	195	178	110
9									160	195	177	107
10		a5.5		a6.9			a38	31	159	195	175	106
11								24	159	194	173	104
12					a8.6			24	159	193	171	103
13		h5.5						24	159	193	169	102
14						a40		24	159	191	166	83
15								24	159	190	165	59
16	a4.4		a6.4					24	158	189	143	59
17								24	157	186	110	59
18								24	157	185	109	59
19								24	135	184	108	59
20						h40	38	24	94	182	108	a58
21		a6.0		h7.4			37	a24	94	181	108	a57
22							37	31	94	181	108	a57
23					h9.3		37	41	94	178	109	37
24							37	41	94	178	112	
25						a40	37	76	94	177	111	
26				a7.7	a9.4		37	142	93	185	111	a2.3
27							a37	142	93	202	110	
28							a37	141	114	199	108	
29		h6.4					a37	141	161	198	108	
30		a6.4	h6.4		-	h39	a37	140	161	198	111	
31		-	a6.4		-	a39	-	140	-	196	110	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	141.5	-	-	4.56	281
November	173.9	-	-	5.80	345
December	198.4	-	-	6.40	394
Calendar year 1943	12,582.9	187	-	34.5	24,970
January	222.4	-	-	7.17	441
February	254.9	-	-	8.79	506
March	1,007.2	-	-	32.5	2,000
April	1,130	-	-	37.7	2,240
May	1,663	142	24	53.6	3,300
June	4,076	161	93	136	8,080
July	5,677	202	159	183	11,260
August	4,465	194	108	144	8,860
September	1,982.1	110	-	66.1	3,930
Water year 1943-44	20,991.4	202	-	57.4	41,640

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

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

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

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

Records of monthly discharge of these canals, published as a group, are available from October 1926 to September 1944; records for each canal published separately prior to 1926.

Diversions, in acre-feet, water year October 1943 to September 1944

Month	Arnold Canal	Central Oregon Canal	Deschutes County Municipal Improvement District Canal	North Canal	Swalley Canal	Total
October	4,850	21,540	3,500	19,770	4,420	54,080
November	266	7,020	0	10,030	690	18,006
December	341	4,040	0	1,900	204	6,485
January	103	1,880	0	1,350	143	3,476
February	377	1,790	0	2,370	375	4,912
March	220	1,550	0	1,380	232	3,382
April	642	13,300	0	12,810	3,570	30,325
May	4,950	27,740	500	24,780	5,820	63,590
June	5,360	27,200	4,200	24,560	6,590	67,910
July	4,210	32,330	8,010	29,970	7,000	81,520
August	4,300	30,820	7,510	28,450	6,980	78,060
September	3,920	26,620	3,990	23,850	5,560	63,940
Water year 1943-44	29,542	195,830	27,510	181,220	41,584	475,686

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 1944.

Average discharge.- 29 years (1913-21, 1923-44), 77.7 second-feet, excluding Columbia Southern Canal.

Extremes.- Maximum discharge during year, 308 second-feet Nov. 4; maximum gage height, 4.37 feet Jan. 11, affected by ice; minimum discharge, 15 second-feet (regulated) July 14 or 15; minimum daily, 21 second-feet Aug. 3.
1906-8, 1911-44: Maximum discharge, 1,420 second-feet about Jan. 6, 1923, from rating curve extended above 200 second-feet; maximum gage height, 5.3 feet Jan. 16, 1930, affected by ice; minimum discharge, 1 second-foot June 28 to July 3, 1940.

Remarks.- Records good except those for periods of no gage-height record, which are fair, 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 excellent. Records of daily discharge do not include diversion by Columbia Southern Canal.

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	28	43	72	78		63	72	88	111	107	a25	
2	28	44	72	76		63	76	90	79	74	a22	
3	28	66	98			63	85	92	61	38	a21	
4	26	173	90		a70	63	88	103	61	37	a22	
5	27	113	79			61	78	124	71	41	a24	
6	28	88	87			63	78	126	78	42	a25	
7	30	102	78			63	76	100	87	42	a24	
8	28	94	*76		*64	63	76	102	83	41	a56	
9	28	90	76		63	92	74	90	72	36	a53	
10	29	87	b77		66	98	74	122	88	34	a60	
11	35	85	b78		64	76	76	109	107	32	a70	
12	25	83	b76		66	69	74	103	98	40	a70	a48
13	23	81	b76		66	66	74	103	76	31	a65	
14	23	79	b77		66	85	72	124	64	a22	a60	
15	23	78	78		68	83	69	149	69	a32	a55	
16	38	78	b78	b70	68	68	68	122	66	32	a55	
17	40	76	78		68	69	66	126	44	38	a55	
18	40	78	78		69	68	63	119	41	33	55	
19	38	81	78		66	68	63	119	44	54	55	
20	42	87	78		69	66	61	128	47	41	55	
21	42	81	78		69	64	60	134	42	36	54	
22	41	78	76		68	66	61	119	48	30	52	
23	42	76	76		68	68	69	98	50	29	52	48
24	55	74	78		66	66	71	90	78	28	52	48
25	54	72	78		69	66	66	102	128	29	52	48
26	47	72	76		68	66	68	128	128	29	51	47
27	45	72	76		69	66	69	142	102	30	50	47
28	52	72	76		64	66	76	142	92	33	50	48
29	26	72	76		64	69	83	151	90	29	50	50
30	22	72	76		-	69	88	117	98	30	50	51
31	24	-	76		-	71	-	117	-	27	48	-

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	1,057	55	22	34.1	2,100	2,450	4,550
November	2,447	173	43	81.6	4,850	377	5,230
December	2,422	98	72	78.1	4,800	0	4,800
Calendar year 1943	35,070	505	11	96.1	69,570	21,900	91,470
January	2,184	-	-	70.5	4,330	0	4,330
February	1,958	-	-	67.5	3,880	0	3,880
March	2,147	98	61	69.3	4,260	0	4,260
April	2,174	88	60	72.5	4,310	0	4,310
May	3,579	151	88	115	7,100	712	7,810
June	2,303	128	41	76.8	4,570	2,780	7,350
July	1,177	107	22	38.0	2,330	2,380	4,710
August	1,488	70	21	48.0	2,950	498	3,450
September	1,443	-	-	48.1	2,860	0	2,860
Water year 1943-44	24,379	173	21	66.6	48,340	9,200	57,540

* Winter discharge measurement made on this day.
a No gage-height record; discharge computed on basis of records for Squaw 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.

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 1944. July 1906 to May 1913 at site 700 feet downstream, below intake of McCallister ditch.

Average discharge.- 32 years (1906-18, 1919-21, 1925-44), 101 second-feet.

Extremes.- Maximum discharge during year, 722 second-feet Nov. 4 (gage height, 3.87 feet); minimum recorded, 33 second-feet Sept. 3, 4 (gage height, 1.57 feet).
1906-44: 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 except those for periods of ice effect and those for Aug. 23 to Sept. 30, which are poor. A canal near mouth of Pole Creek, a tributary above station, diverts entire flow of that creek for irrigation near Sisters.

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	70	59	62	53		43	49	58	161	148	73	67
2	72	61	71	49		46	50	60	128	126	71	50
3	76	99	85	47		44	58	64	109	121	67	34
4	74	451	71	55	b53	44	58	75	105	119	67	37
5	72	233	62	*55		43	52	98	109	116	75	53
6	64	138	*62			44	53	116	114	126	77	60
7	68	107	64		49	45	50	121	119	116	67	62
8	74	94	60		*49	46	50	119	114	109	64	62
9	70	87	52		46	119	46	102	100	102	58	64
10	66	85	b53		44	91	49	87	107	105	69	58
11	86	83	b54		50	69	49	79	140	114	87	53
12	a68	79	b50		b56	58	46	79	146	121	87	55
13	66	77	b50		b53	47	44	87	136	109	81	
14	66	75	b51		52	44	44	107	126	105	73	
15	66	75	b51		52	55	42	119	131	107	65	
16	66	75	b51		55	49	42	100	119	109	67	
17	66	73	b51		47	49	37	105	96	109	67	
18	64	75	b52		50	47	37	100	91	114	67	
19	64	79	b52	b52	49	44	39	105	100	138	64	
20	68	83	b52		55	42	37	111	100	121	62	a48
21	62	75	52		52	39	a36	111	98	102	65	
22	64	71	52		47	39	a37	96	109	94	65	
23	68	69	52		46	46	a42	85	123	91	64	
24	104	65	57		47	40	a45	85	146	91	58	
25	88	62	52		49	40	a43	89	161	96	52	
26	74	62	55		47	37	a44	109	169	100	58	
27	72	64	62		49	43	a45	128	136	109	69	
28	78	62	52		*47	47	a50	158	131	121	69	
29	72	62	55		44	50	55	182	138	114	62	
30	66	62	49		-	50	58	177	161	98	65	
31	62	-	57		-	50	-	191	-	79	64	

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	2,196	104	62	70.8	4,360
November	2,842	451	59	94.7	5,640
December	1,751	85	49	56.5	3,470
Calendar year 1943	43,030	451	45	118	85,350
January	1,611	-	-	52.0	3,200
February	1,453	-	-	50.1	2,880
March	1,548	119	37	49.9	3,070
April	1,387	58	36	46.2	2,750
May	3,303	191	58	107	6,550
June	3,723	169	91	124	7,380
July	3,430	148	79	111	6,800
August	2,099	87	52	67.7	4,160
September	1,519	67	-	50.6	3,010
Water year 1943-44	26,862	451	-	73.4	53,270

* 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.
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 1944.

Extremes.- Maximum discharge during year, 2,040 second-feet Mar. 10, from rating curve extended above 900 second-feet; maximum gage height, 4.74 feet Feb. 6 (ice jam); minimum daily discharge, 6 second-feet Sept. 10-12.
1908-11, 1939-44: Maximum discharge recorded, 5,700 second-feet Mar. 27, 1943 (gage height, 6.43 feet), from rating curve extended above 2,600 second-feet; minimum, 4.4 second-feet July 12, 1940.

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

Rating table, water year 1943-44, except periods of ice effect
(gage height, in feet, and discharge, in second-feet)

1.2	16	1.7	88	2.7	385
1.3	25	1.9	132	3.0	545
1.4	37	2.1	181	3.4	845
1.5	51	2.4	267	3.8	1,300

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	24	70	80	80	60	96	827	295	53	24	15	9
2	25	72	82	80	65	96	898	258	66	23	15	9
3	25	66	88	70	80	96	1,070	227	60	22	19	9
4	27	86	94	65	150	105	1,050	202	51	22	21	9
5	35	101	96	60	250	103	856	189	41	27	20	9
6	36	90	75	55	600	98	707	176	36	38	17	8
7	35	82	70	52	746	105	557	164	30	33	16	8
8	35	86	65	50	264	300	528	151	26	29	16	7
9	35	80	60	52	194	1,220	430	142	31	29	15	7
10	35	74	55	55	156	1,190	405	132	63	30	15	6
11	36	74	55	55	130	630	410	120	70	27	15	6
12	36	74	55	55	120	462	581	114	48	24	16	6
13	36	74	55	56	114	372	479	98	38	20	15	7
14	37	72	56	60	105	281	457	88	35	19	14	7
15	37	70	60	65	103	224	479	78	36	20	12	7
16	36	68	65	70	101	321	405	74	63	19	14	7
17	38	70	75	70	98	773	350	72	96	18	13	8
18	40	72	85	70	96	950	333	76	101	18	12	9
19	43	74	95	70	92	876	314	78	116	20	11	10
20	41	78	101	70	94	515	298	60	123	24	10	10
21	50	94	101	65	90	410	264	50	105	29	9	10
22	54	101	101	70	94	372	252	45	142	29	8	12
23	56	90	98	70	92	425	302	47	101	23	7	14
24	56	82	92	70	92	512	415	48	80	20	7	14
25	60	78	90	65	94	420	385	47	65	27	7	15
26	66	76	85	60	96	310	337	45	48	20	7	15
27	61	74	80	52	92	264	329	44	44	18	7	16
28	78	72	78	47	90	248	345	38	37	20	7	17
29	84	76	78	*47	96	310	345	33	31	56	8	19
30	80	78	78	55	-	557	325	33	24	18	9	20
31	76	-	80	60	-	791	-	47	-	16	9	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	1,413	84	24	45.6	2,800
November	2,354	101	66	78.5	4,670
December	2,428	101	55	78.3	4,320
Calendar year 1943	186,632	5,320	12	509	368,200
January	1,921	80	47	62.0	3,810
February	4,454	746	60	154	8,830
March	13,432	1,220	96	433	26,640
April	14,733	1,070	252	491	29,220
May	3,271	295	33	106	6,490
June	1,860	142	24	62.0	3,690
July	762	56	16	24.6	1,510
August	386	20	7	12.5	766
September	310	20	6	10.3	615
Water year 1943-44	47,324	1,220	6	129	93,860

* Winter discharge measurement made in this day.
Note.- No gage-height record Aug. 7 to Sept. 30; discharge computed on basis of weather records and records for station near Prineville. Stage-discharge relation affected by ice Dec. 6-19, Dec. 26 to Feb. 6.
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 1944. 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, 2,290 second-feet Mar. 10 (gage height, 4.64 feet); minimum, 4.3 second-feet Sept. 9-11 (gage height, 1.16 feet).
1908-12, 1913-14, 1940-44: Maximum discharge observed, 9,080 second-feet Mar. 1, 2, 1910 (gage height, 9.4 feet, former site and datum), from rating curve extended above 1,000 second-feet; no flow at times in 1940. Maximum discharge in recent years, 6,300 second-feet Mar. 28, 1943 (gage height, 7.07 feet).
Remarks.- Records good except those for periods of ice effect or no gage-height record, which are poor. Diversions above station for irrigation; no regulation.

Rating table, water year 1943-44, except period of ice effect
(gage height, in feet, and discharge, in second-feet)
(Shifting-control method used July 20 to Sept. 30)

1.1	4	2.0	100	3.5	970
1.2	7	2.3	181	3.9	1,390
1.4	19	2.6	313	4.3	1,860
1.6	39	2.9	500		
1.8	65	3.2	715		

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	21	81	84	86	b75	105	854	336	36	35	22	7.0
2	22	76	86	80	b80	102	872	298	45	27	21	7.0
3	20	76	92	65	b85	102	1,060	253	61	18	19	7.0
4	21	76	95	60	b85	107	1,120	218	65	15	18	6.4
5	20	85	100	55	b135	114	1,050	200	57	17	18	6.4
6	21	98	80	50	b200	112	946	185	49	17	17	6.1
7	27	90	70	55	802	107	685	171	41	17	15	5.2
8	31	85	65	55	454	126	598	155	39	25	15	4.9
9	34	85	60	55	249	852	549	146	38	27	14	4.6
10	34	83	58	60	192	1,840	460	139	36	25	14	4.3
11	35	78	60	60	155	872	440	126	37	24	14	4.6
12	34	78	60	60	136	598	542	118	61	25	15	4.9
13	34	79	60	65	126	466	577	109	54	23	14	5.2
14	35	78	63	70	121	342	514	98	43	20	12	5.2
15	41	78	66	76	112	249	514	87	38	18	10	5.5
16	39	76	75	76	114	249	500	76	58	16	16	5.5
17	41	76	85	76	112	551	433	67	89	16	15	6.0
18	43	76	95	76	109	1,000	376	64	100	16	12	7.0
19	43	81	105	76	105	1,040	364	62	116	19	9.5	8.0
20	45	85	110	76	100	755	353	67	116	214	9.0	9.0
21	49	87	115	74	100	507	319	61	133	37	8.5	9.0
22	51	98	115	74	100	420	282	51	114	27	7.5	9.0
23	57	102	110	74	105	408	293	45	141	27	4.9	10
24	57	96	105	74	100	535	370	44	112	28	5.2	11
25	62	90	105	74	100	514	473	37	89	24	5.2	12
26	62	85	95	60	105	395	395	41	78	22	5.2	13
27	73	84	85	50	102	313	347	36	62	25	4.9	13
28	87	82	86	40	98	277	353	35	49	18	4.9	14
29	92	80	85	*b47	98	277	364	32	44	18	5.2	16
30	94	80	85	b60	-	433	353	32	37	31	6.1	16
31	89	-	86	b70	-	722	-	30	-	31	6.4	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	1,414	94	20	45.6	2,800
November	2,504	102	76	83.5	4,970
December	2,638	115	58	85.1	5,230
Calendar year 1943	219,436.7	5,780	5.5	601	435,200
January	2,028	85	40	65.4	4,020
February	4,455	802	75	153	8,840
March	14,490	1,840	102	467	28,740
April	16,256	1,120	282	542	32,240
May	3,419	336	30	110	6,780
June	2,038	141	36	67.9	4,040
July	902	214	16	29.1	1,790
August	363.5	22	4.9	11.7	721
September	242.8	16	4.3	8.09	482
Water year 1943-44	50,750.3	1,840	4.3	139	100,700

* Winter discharge measurement made on this day.
b Stage-discharge relation affected by ice.
Note.- No gage-height record Nov. 27 to Jan. 28, Sept. 14-24; discharge computed on basis of weather records, recorded range in stage, and records for Crooked River near Post and John Day River at Service Creek.
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 1944.

Average discharge.- 27 years, 1,432 second-feet.

Extremes.- Maximum discharge observed during year, 3,220 second-feet Mar. 11 (gage height, 3.00 feet); minimum observed, 1,190 second-feet July 11, 13-16, Aug. 7, 12, 13, 15 (gage height, 0.58 foot).
1919-44: Maximum discharge observed, 8,260 second-feet Mar. 30, 31, 1943 (gage height, 6.70 feet); minimum, 970 second-feet July 12 to Sept. 5, 1921.

Remarks.- Records good. Gage read once 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.

Rating table, water year 1943-44 (gage height, in feet, and discharge, in second-feet)

0.6	1,200	1.8	2,060
1.0	1,450	2.3	2,510
1.4	1,740	2.9	3,110

Dimcharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,270	1,440	1,380	1,340	1,320	1,340	1,920	1,480	1,200	1,240	1,200	1,200
2	1,270	1,420	1,380	1,340	1,320	1,340	2,050	1,480	1,200	1,220	1,200	1,200
3	1,270	1,410	1,380	1,320	1,320	1,340	2,150	1,450	1,220	1,220	1,200	1,200
4	1,270	1,410	1,380	1,320	1,320	1,370	2,380	1,410	1,250	1,200	1,200	1,200
5	1,270	1,410	1,380	1,300	1,320	1,360	2,310	1,380	1,220	1,200	1,200	1,210
6	1,270	1,410	1,390	1,270	1,320	1,360	2,280	1,370	1,250	1,200	1,200	1,210
7	1,280	1,410	1,390	1,260	1,370	1,360	1,990	1,360	1,260	1,200	1,200	1,200
8	1,310	1,440	1,390	1,280	2,060	1,360	1,930	1,310	1,260	1,200	1,200	1,200
9	1,320	1,440	1,340	1,280	1,740	1,360	1,800	1,310	1,260	1,200	1,200	1,200
10	1,320	1,440	1,340	1,300	1,520	2,240	1,770	1,280	1,260	1,200	1,200	1,200
11	1,320	1,410	1,310	1,300	1,450	3,060	1,660	1,270	1,250	1,190	1,200	1,200
12	1,320	1,410	1,320	1,300	1,390	2,170	1,650	1,270	1,250	1,200	1,190	1,200
13	1,320	1,410	1,320	1,300	1,390	1,920	1,690	1,270	1,250	1,190	1,190	1,200
14	1,320	1,410	1,320	1,300	1,380	1,770	1,800	1,270	1,250	1,190	1,200	1,210
15	1,340	1,390	1,310	1,300	1,380	1,680	1,720	1,260	1,240	1,190	1,190	1,220
16	1,340	1,390	1,310	1,300	1,360	1,590	1,710	1,260	1,240	1,190	1,200	1,220
17	1,340	1,380	1,310	1,320	1,340	1,520	1,710	1,260	1,330	1,200	1,200	1,260
18	1,340	1,380	1,310	1,320	1,340	1,850	1,660	1,260	1,380	1,200	1,200	1,270
19	1,340	1,380	1,310	1,320	1,340	2,230	1,660	1,220	1,410	1,200	1,200	1,270
20	1,340	1,380	1,310	1,320	1,340	2,200	1,630	1,220	1,410	1,210	1,200	1,270
21	1,370	1,380	1,320	1,320	1,360	1,960	1,590	1,210	1,410	1,410	1,200	1,270
22	1,370	1,380	1,320	1,320	1,360	1,730	1,520	1,210	1,410	1,280	1,200	1,270
23	1,370	1,380	1,320	1,340	1,540	1,660	1,510	1,210	1,410	1,250	1,200	1,270
24	1,440	1,380	1,320	1,330	1,340	1,600	1,510	1,210	1,380	1,210	1,200	1,270
25	1,420	1,380	1,320	1,320	1,340	1,740	1,520	1,210	1,380	1,200	1,200	1,270
26	1,450	1,380	1,320	1,310	1,340	1,740	1,650	1,210	1,360	1,200	1,200	1,270
27	1,440	1,380	1,330	1,300	1,340	1,660	1,590	1,210	1,310	1,200	1,200	1,270
28	1,450	1,380	1,340	1,280	1,340	1,580	1,520	1,210	1,310	1,200	1,200	1,270
29	1,450	1,380	1,340	1,260	1,340	1,520	1,510	1,200	1,260	1,200	1,200	1,250
30	1,450	1,380	1,340	1,280	-	1,520	1,510	1,210	1,250	1,200	1,200	1,260
31	1,440	-	1,340	1,280	-	1,590	-	1,200	-	1,200	1,200	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	41,820	1,450	1,270	1,349	82,950
November	41,970	1,440	1,380	1,399	83,250
December	41,490	1,390	1,310	1,338	82,290
Calendar year 1943	724,600	3,100	1,240	1,985	1,437,000
January	40,430	1,340	1,260	1,304	80,190
Fsbruary	40,420	2,060	1,320	1,394	80,170
March	52,720	3,060	1,340	1,701	104,600
April	52,900	2,380	1,510	1,763	104,900
May	39,680	1,480	1,200	1,280	78,700
June	38,870	1,410	1,200	1,296	77,100
July	37,590	1,410	1,190	1,213	74,560
August	37,170	1,200	1,190	1,199	73,730
September	37,010	1,270	1,200	1,234	73,410
Water year 1943-44	502,070	3,060	1,190	1,372	995,800

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 northeast of Grandview.

Records available.- October 1921 to September 1944.

Average discharge.- 23 years, 1,407 second-feet.

Extremes.- Maximum discharge observed during year, 1,890 second-feet Nov. 4 (gage height, 0.88 foot); minimum observed, 1,180 second-feet Aug. 1-11, Aug. 14 to Sept. 30.
1921-44: Maximum discharge, 5,780 second-feet Jan. 7, 1923 (gage height, 3.32 feet), from rating curve extended above 2,200 second-feet; minimum, 1,080 second-feet Feb. 17, 1932, Oct. 2-31, Nov. 6, 7, 10-14, 1942.

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

Rating table, water year 1943-44 (gage height, in feet, and discharge, in second-feet)

0.2	1,100
.4	1,310
.6	1,540
.8	1,790
1.0	2,060

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,290	1,310	1,290	1,310	1,200	1,200	1,220	1,220	1,310	1,270	1,180	1,180
2	1,290	1,330	1,290	1,290	1,200	1,200	1,220	1,220	1,290	1,270	1,180	1,180
3	1,290	1,380	1,330	1,240	1,200	1,200	1,220	1,220	1,270	1,270	1,180	1,180
4	1,290	1,890	1,420	1,200	1,200	1,200	1,220	1,240	1,270	1,270	1,180	1,180
5	1,290	1,540	1,350	1,200	1,220	1,200	1,220	1,240	1,270	1,270	1,180	1,180
6	1,290	1,470	1,330	1,200	1,330	1,200	1,220	1,240	1,270	1,270	1,180	1,180
7	1,290	1,350	1,310	1,200	1,240	1,200	1,220	1,240	1,270	1,270	1,190	1,180
8	1,290	1,330	1,310	1,200	1,240	1,200	1,220	1,240	1,270	1,270	1,180	1,180
9	1,290	1,330	1,310	1,200	1,220	1,200	1,220	1,240	1,270	1,270	1,180	1,180
10	1,290	1,310	1,290	1,220	1,220	1,200	1,220	1,240	1,270	1,240	1,180	1,180
11	1,350	1,310	1,290	1,240	1,220	1,200	1,240	1,240	1,270	1,240	1,180	1,180
12	1,310	1,310	1,290	1,240	1,220	1,200	1,240	1,240	1,270	1,220	1,200	1,180
13	1,310	1,310	1,270	1,240	1,220	1,200	1,240	1,240	1,270	1,220	1,200	1,180
14	1,290	1,310	1,270	1,240	1,220	1,200	1,240	1,270	1,270	1,200	1,180	1,180
15	1,290	1,310	1,270	1,240	1,200	1,200	1,240	1,290	1,270	1,200	1,180	1,180
16	1,290	1,310	1,270	1,240	1,200	1,200	1,240	1,290	1,310	1,200	1,180	1,180
17	1,310	1,310	1,270	1,240	1,200	1,200	1,240	1,290	1,270	1,200	1,180	1,180
18	1,310	1,310	1,270	1,240	1,200	1,200	1,240	1,270	1,270	1,200	1,180	1,180
19	1,310	1,310	1,270	1,240	1,200	1,200	1,240	1,270	1,270	1,240	1,180	1,180
20	1,310	1,310	1,270	1,240	1,200	1,200	1,220	1,270	1,270	1,220	1,180	1,180
21	1,310	1,310	1,270	1,220	1,200	1,200	1,220	1,270	1,270	1,200	1,180	1,180
22	1,310	1,310	1,270	1,220	1,200	1,200	1,220	1,270	1,270	1,200	1,180	1,180
23	1,310	1,290	1,270	1,220	1,200	1,200	1,220	1,240	1,270	1,200	1,180	1,180
24	1,400	1,270	1,270	1,220	1,200	1,200	1,220	1,240	1,270	1,200	1,180	1,180
25	1,380	1,270	1,270	1,220	1,200	1,200	1,220	1,220	1,270	1,200	1,180	1,180
26	1,350	1,270	1,270	1,200	1,200	1,200	1,220	1,220	1,270	1,200	1,180	1,180
27	1,350	1,270	1,240	1,200	1,200	1,200	1,220	1,220	1,270	1,200	1,180	1,180
28	1,330	1,270	1,240	1,200	1,200	1,200	1,220	1,220	1,270	1,200	1,180	1,180
29	1,330	1,270	1,240	1,200	1,200	1,220	1,220	1,220	1,270	1,200	1,180	1,180
30	1,310	1,270	1,240	1,200	-	1,220	1,220	1,270	1,270	1,200	1,180	1,180
31	1,310	-	1,240	1,200	-	1,220	-	1,350	-	1,200	1,180	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	40,670	1,400	1,290	1,312	80,670
November	40,140	1,890	1,270	1,338	79,620
December	39,790	1,420	1,240	1,284	78,920
Calendar year 1943	552,430	4,620	1,240	1,514	1,096,000
January	37,960	1,310	1,200	1,225	75,290
February	35,150	1,330	1,200	1,212	69,720
March	37,260	1,220	1,200	1,202	73,900
April	36,780	1,240	1,220	1,226	72,950
May	38,750	1,350	1,220	1,250	76,860
June	38,200	1,310	1,270	1,273	75,770
July	38,010	1,270	1,200	1,226	75,390
August	36,630	1,290	1,180	1,182	72,650
September	35,400	1,180	1,180	1,180	70,210
Water year 1943-44	454,740	1,890	1,180	1,242	902,000

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 1944.

Average discharge.- 28 years (1915-18, 1919-44), 48.3 second-feet.

Extremes.- Maximum discharge during year, 69 second-feet (regulated) Apr. 14 (gage height, 1.54 feet); minimum, 6.2 second-feet (regulated) Sept. 2; minimum daily, 9.2 second-feet Sept. 1.

1911-13, 1915-44: 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, 1943.

Remarks.- Records good. No diversion above station; occasional regulation by Suttle Lake.

Rating tables, water year 1943-44 (gage height, in feet, and discharge, in second-feet)

Oct. 1-7		Oct. 8 to Sept. 30			
0.8	20	0.5	10	1.0	30
1.0	29	.6	13	1.2	43
1.2	41	.8	20	1.4	58

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	21	28	33	32	32	32	36	42	44	32	26	9.2
2	22	43	32	34	32	31	36	42	44	32	26	10
3	22	49	37	33	32	33	37	42	44	28	26	18
4	21	52	41	32	32	35	37	43	42	32	26	14
5	20	46	40	33	34	35	37	43	42	32	26	12
6	20	37	40	32	33	35	38	43	43	33	24	10
7	39	36	38	32	32	41	40	44	42	32	24	11
8	46	42	37	32	35	47	42	45	42	31	24	23
9	38	44	36	32	35	45	43	46	41	31	24	22
10	31	39	35	32	35	42	44	48	41	30	22	22
11	26	37	35	32	36	40	44	49	40	30	24	24
12	24	36	34	32	36	37	44	51	39	30	24	22
13	24	40	34	31	34	37	45	52	37	29	24	19
14	32	40	34	36	34	37	51	50	37	28	24	20
15	38	37	32	50	34	36	56	50	37	28	24	20
16	34	34	32	52	34	35	50	49	37	28	24	20
17	32	32	31	47	34	36	49	50	37	28	25	22
18	31	32	31	42	36	35	47	49	36	30	21	23
19	29	31	30	39	38	35	48	49	37	30	22	24
20	30	28	29	37	37	35	50	49	36	31	22	24
21	26	24	28	35	37	35	49	48	36	30	24	24
22	24	21	28	34	36	34	46	49	36	29	26	24
23	26	22	28	35	35	35	46	49	35	29	21	24
24	29	22	28	35	34	35	50	49	35	28	19	24
25	29	24	31	34	34	35	47	49	34	28	21	24
26	29	28	31	34	35	35	46	48	34	28	21	24
27	30	35	29	33	34	35	45	48	34	28	26	24
28	30	37	28	32	34	35	44	46	33	28	28	24
29	30	38	28	32	33	36	44	45	33	26	26	24
30	30	34	28	32	-	36	43	44	31	26	21	24
31	29	-	28	32	-	36	-	44	-	26	13	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	891	46	20	28.7	1,770
November	1,048	52	21	34.9	2,080
December	1,006	41	28	32.5	2,000
Calendar year 1943	19,323	238	14	52.9	38,340
January	1,090	52	31	35.2	2,160
February	997	38	32	34.4	1,980
March	1,126	47	31	36.3	2,230
April	1,334	56	36	44.5	2,650
May	1,455	52	42	46.9	2,890
June	1,138	44	31	37.9	2,260
July	911	33	26	29.4	1,810
August	728	28	13	23.5	1,440
September	609.2	24	9.2	20.3	1,210
Water year 1943-44	12,333.2	56	9.2	33.7	24,480

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 1944.

Average discharge.- 27 years, 404 second-feet.

Extremes.- Maximum discharge during year, 745 second-feet Nov. 4 (gage height, 2.98 feet); minimum, 32 second-feet June 29, July 1 (gage height, -0.23 foot); minimum daily, 84 second-feet Sept. 12, 13.
1917-44: Maximum discharge, 13,300 second-feet Jan. 6, 1923 (gage height, about 13.3 feet), from rating curve extended above 5,000 second-feet; minimum, 10 second-feet (regulated), Dec. 11-14, 1919, Aug. 9, 1931; minimum daily, 71 second-feet Aug. 31, 1941.

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

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

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	123	210	263	229	200	221	348	504	428	164	107	94
2	123	203	266	275	191	218	365	488	420	156	106	98
3	125	229	556	234	198	215	416	480	382	151	106	93
4	127	477	600	208	196	215	468	480	348	146	106	91
5	128	556	508	229	232	215	480	516	334	145	104	90
6	128	404	428	210	569	208	476	548	307	141	103	88
7	126	337	390	196	516	205	456	552	300	141	104	88
8	130	294	386	196	424	218	448	544	297	139	103	87
9	128	275	348	186	379	337	424	528	291	138	102	87
10	131	260	317	200	344	492	420	484	282	135	102	87
11	148	252	297	198	330	396	444	456	275	131	106	85
12	149	246	291	210	304	358	480	456	266	131	106	84
13	138	234	282	205	300	323	448	444	254	131	103	84
14	135	229	272	198	300	288	448	436	246	131	106	93
15	135	224	260	200	272	304	436	492	243	130	101	107
16	139	218	252	221	282	294	412	464	252	128	99	100
17	138	215	249	226	288	317	390	440	272	122	98	108
18	142	213	243	221	275	340	379	420	252	120	98	114
19	139	218	237	210	275	344	376	404	246	118	97	108
20	151	221	234	208	266	327	368	379	237	118	96	102
21	198	243	226	205	263	310	348	376	226	116	97	102
22	198	226	224	200	252	297	344	386	224	115	95	102
23	191	215	221	218	240	337	362	404	213	115	95	98
24	285	210	226	237	249	365	456	396	208	112	95	94
25	327	205	243	224	243	340	420	390	200	115	97	94
26	249	203	226	213	240	320	408	372	198	112	97	94
27	229	200	215	205	229	307	393	358	193	110	96	92
28	221	200	208	191	226	300	424	372	186	110	97	92
29	226	203	208	193	224	300	480	376	176	108	95	101
30	260	218	203	193	-	300	528	365	176	109	91	109
31	232	-	200	193	-	327	-	354	-	107	92	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	5,289	327	123	171	10,490
November	7,638	556	200	255	15,150
December	9,079	600	200	293	18,010
Calendar year 1943	219,881	3,620	123	602	436,100
January	6,532	275	186	211	12,960
February	8,307	569	191	286	16,480
March	9,338	492	205	301	18,520
April	12,645	528	344	422	25,080
May	13,664	552	354	441	27,100
June	7,932	428	176	264	15,730
July	3,945	164	107	127	7,820
August	3,100	107	91	100	6,150
September	2,866	114	84	95.5	5,680
Water year 1943-44	90,335	600	84	247	179,200

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 1944 (1920-28 incomplete). October 1909 to December 1910 at site 1 mile upstream.

Average discharge.- 27 years (1909-20, 1928-44), 807 second-feet.

Extremes.- Maximum discharge during year, 1,220 second-feet May 8 (gage height, 4.23 feet); minimum, 272 second-feet Sept. 11, 12 (gage height, 2.81 feet).
1909-44: 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 shifting-control, which are fair, and those for periods of ice effect or no gage-height record, which are poor. All low-water flow of Hellroaring Creek, a tributary of Big Muddy River, is diverted for irrigation. No regulation.

Rating table, water year 1943-44, except periods of ice effect and shifting control (gage height, in feet, and discharge, in second-feet)

Oct. 1 to Mar. 9				Mar. 10 to Sept. 30			
3.0	299	3.6	689	2.8	268	3.4	570
3.2	415	3.8	845	3.0	354	3.7	775
3.4	546			3.2	455	4.0	1,010

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	403	373	421	385	330	316	552	835	866	499	345	305
2	409	385	409	385	330	316	590	820	805	477	345	284
3	409	415	682	379	330	321	649	835	740	455	336	297
4	409	567	727	b370	330	321	726	906	705	445	340	301
5	403	588	588	b370	480	316	754	1,040	691	460	369	301
6	391	479	519	b360	620	299	747	1,150	698	445	359	305
7	379	434	499	b370	540	316	712	1,170	691	429	332	309
8	373	421	486	379	500	333	684	1,180	663	419	322	309
9	361	403	428	373	450	621	663	1,110	642	419	322	301
10	373	397	403	373	430	635	677	978	670	419	359	297
11	441	385	#b391	379	410	546	698	898	712	419	350	288
12	373	379	b390	379	400	522	740	842	705	419	359	301
13	349	373	b380	b370	400	472	677	805	642	408	350	305
14	333	361	b370	b370	390	482	649	850	596	403	314	297
15	338	361	b360	379	370	466	635	1,090	590	408	318	293
16	338	361	b360	385	380	472	609	1,120	616	398	314	309
17	338	361	b360	391	390	522	590	1,050	691	408	318	314
18	338	367	b360	373	390	540	570	986	649	413	305	293
19	333	367	b390	349	380	534	570	938	628	424	297	284
20	338	373	b380	344	370	516	564	882	602	419	301	354
21	361	379	b370	344	360	494	546	874	596	398	309	369
22	367	373	b370	338	350	488	570	828	583	403	301	332
23	361	367	397	355	350	488	628	790	583	408	305	318
24	574	361	415	355	#349	488	698	768	590	408	297	309
25	616	355	421	349	327	472	670	740	583	413	301	305
26	479	349	385	344	338	460	656	733	564	419	309	301
27	441	349	379	338	516	445	656	775	522	445	314	297
28	428	355	379	338	333	450	719	890	510	439	301	293
29	415	355	373	338	321	450	812	962	522	408	301	297
30	409	379	379	338	-	472	882	906	522	383	309	288
31	385	-	379	330	-	522	-	882	-	350	309	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff Inches	Runoff Acre-feet
October	12,265	616	333	396	1.10	1.27	24,330
November	11,772	588	349	392	1.09	1.22	23,350
December	13,150	727	360	424	1.18	1.36	26,080
Calendar year 1943	321,693	3,140	333	881	2.45	33.24	638,200
January	11,230	391	330	362	1.01	1.16	22,270
February	11,264	620	316	388	1.08	1.16	22,340
March	14,095	635	299	455	1.26	1.46	27,960
April	19,893	882	546	663	1.84	2.06	39,460
May	28,633	1,180	733	924	2.57	2.96	56,790
June	19,177	866	510	639	1.78	1.98	38,040
July	13,060	499	350	421	1.17	1.35	25,900
August	10,011	369	297	323	.897	1.03	19,860
September	9,156	369	284	305	.847	.95	18,160
Water year 1943-44	173,706	1,180	284	475	1.32	17.96	344,500

\# Winter discharge measurement made on this day.
b Stage-discharge relation affected by ice.
Note.- No gage-height record Jan. 31 to Feb. 23; discharge computed on basis of records for station near Pitt. Shifting-control method used Dec. 23 to Mar. 9.
To convert M. S. T. time to standard tim. 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., 3⅔ 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 1944. July 1909 to January 1912, at site 7 miles upstream, published as Klickitat River at Klickitat. October 1928 to September 1935, 3⅔ miles upstream, published as Klickitat River at Pitt.

Average discharge.- 18 years (1909-11, 1928-44), 1,435 second-feet.

Extremes.- Maximum discharge during year, 2,150 second-feet Feb. 6 (gage height, 5.08 feet); minimum, 515 second-feet Sept. 25, 26, 28, 30.
1909-12, 1928-44: Maximum discharge observed, 21,000 second-feet Dec. 22, 1933 (gage height, 12.5 feet, site and datum then in use), from rating curve extended above 3,000 second-feet; minimum discharge, 466 second-feet Feb. 4, 1937 (gage height, 3.32 feet).

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

Rating table, water year 1943-44, except period of shifting control
(gage height, in feet, and discharge, in second-feet)

3.5	560	4.3	1,200
3.7	690	4.6	1,530
4.0	920	5.0	2,020

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	776	760	832	732	746	760	983	1,210	1,180	760	555	566
2	784	768	753	776	732	753	1,010	1,170	1,110	739	555	550
3	784	808	983	732	739	760	1,060	1,160	1,060	718	560	535
4	784	947	1,280	697	732	768	1,140	1,210	1,000	711	560	550
5	768	1,060	1,120	704	981	760	1,200	1,310	974	711	566	550
6	760	929	983	718	1,830	746	1,180	1,480	974	718	590	555
7	753	864	956	676	1,590	739	1,150	1,530	965	704	578	566
8	753	832	938	697	1,220	753	1,130	1,530	947	690	555	566
9	746	816	880	690	1,090	983	1,080	1,480	912	683	555	572
10	746	808	832	683	1,020	1,420	1,060	1,360	929	704	560	566
11	824	800	800	690	983	1,180	1,080	1,230	956	690	602	555
12	768	784	808	704	929	1,090	1,180	1,170	974	676	590	555
13	725	776	792	697	920	1,020	1,120	1,110	929	655	602	566
14	718	768	776	697	920	938	1,070	1,130	888	648	560	550
15	718	760	753	711	872	956	1,060	1,300	880	655	550	535
16	718	768	739	832	888	947	1,030	1,480	896	634	550	540
17	725	768	739	1,070	896	974	992	1,420	974	634	555	545
18	725	776	732	904	880	1,010	974	1,360	947	641	555	550
19	725	776	760	848	888	1,010	947	1,310	904	655	535	530
20	739	784	753	800	840	992	947	1,240	904	641	530	530
21	776	792	739	776	840	956	920	1,200	880	620	540	614
22	784	784	732	753	816	938	929	1,170	864	614	550	572
23	784	776	739	904	792	938	983	1,110	872	608	545	550
24	1,010	760	760	856	800	a921	1,060	1,060	872	620	540	535
25	1,160	753	808	808	800	904	1,060	1,050	864	614	540	535
26	929	746	784	776	792	888	1,040	1,020	856	634	545	530
27	856	746	746	718	776	888	1,020	1,030	824	641	560	530
28	824	746	739	697	776	872	1,060	1,110	776	676	560	520
29	800	746	718	711	784	872	1,140	1,230	792	634	545	525
30	800	776	683	711	-	888	1,240	1,190	784	614	550	515
31	784	-	683	732	-	938	-	1,160	-	584	560	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff Inches	Runoff Acre-feet
October	24,546	1,160	718	792	0.677	0.78	48,690
November	23,977	1,060	746	799	.683	.76	47,560
December	25,340	1,280	683	817	.698	.81	50,260
Calendar year 1943	709,877	10,200	683	1,945	1.66	22.56	1,408,000
January	23,500	1,070	676	758	.648	.75	46,610
February	26,872	1,830	732	927	.792	.86	53,300
March	28,562	1,420	739	921	.787	.91	56,650
April	31,845	1,240	920	1,062	.908	1.01	63,160
May	38,520	1,530	1,020	1,243	1.06	1.22	76,400
June	27,687	1,180	776	923	.789	.88	54,920
July	20,526	760	584	662	.566	.65	40,710
August	17,298	602	530	558	.477	.55	34,310
September	16,458	614	515	549	.469	.52	32,640
Water year 1943-44	305,131	1,830	515	834	.713	9.69	605,200

a No gage-height record; discharge interpolated.
Note.- Shifting-control method used May 21 to Sept. 30.
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 1944.
Average discharge.- 31 years, 1,036 second-feet (including flow of Pacific Power & Light Co.'s conduit).
Extremes.- Maximum discharge during year (river only), 3,870 second-feet Nov. 4 (gage height, 4.99 feet); minimum, 28 second-feet (regulated) June 28, July 1 (gage height, 1.09 feet); minimum daily (including discharge of Pacific Power & Light Co.'s conduit), 209 second-feet Aug. 22.
1913-44: Maximum discharge, 34,000 second-feet Jan. 6, 1923 (gage height, 11.1 feet), no diversion by power conduit; minimum, 3 second-feet Aug. 9, 1926 (gage height, 1.45 feet); minimum daily (including discharge of Pacific Power & Light Co.'s conduit), 165 second-feet Aug. 5, 1941.
Remarks.- Records good. Diversions above station for irrigation. Daily discharge regulated by pondage at sawmill at Dee and by Pacific Power & Light Co.'s conduit, which diverts water around gage.
Cooperation.- Water-stage recorder inspected by employees of Pacific Power & Light Co.

Rating table, water year 1943-44 (gage height, in feet, and discharge, in second-feet)

1.1	29	2.1	184	3.4	1,000
1.4	53	2.4	286	3.8	1,530
1.6	77	2.7	425	4.2	2,190
1.8	110	3.0	620	4.6	2,990

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	51	303	736	251	163	116	333	420	731	33	35	44
2	52	267	1,290	544	148	110	356	356	524	35	36	41
3	75	511	2,050	333	153	106	425	337	356	38	38	42
4	56	2,530	1,560	267	175	96	518	360	267	43	38	44
5	51	2,100	1,010	241	469	144	524	443	202	42	37	43
6	49	1,060	754	189	2,250	84	443	492	163	36	38	43
7	49	918	636	169	1,310	88	668	455	138	41	37	44
8	48	578	592	148	870	120	860	449	106	32	35	44
9	48	479	485	136	676	1,160	810	455	92	35	36	45
10	56	400	425	129	550	1,050	810	346	99	37	38	47
11	284	346	374	118	485	606	870	303	126	43	39	48
12	84	303	324	136	405	479	956	290	104	42	40	47
13	54	267	286	106	379	374	945	320	62	42	39	50
14	54	379	252	103	384	294	967	324	46	41	39	52
15	49	214	217	193	315	263	1,020	511	37	42	38	50
16	49	195	198	333	320	248	934	420	82	42	38	55
17	62	183	183	471	294	320	870	342	158	42	39	56
18	74	175	169	405	294	311	820	333	99	43	40	54
19	58	169	155	342	275	324	850	271	88	46	41	46
20	185	205	145	320	241	267	840	214	64	42	53	51
21	438	231	133	290	228	224	772	217	48	37	44	57
22	564	169	138	256	202	202	772	231	44	35	44	51
23	400	155	120	508	177	589	820	278	51	37	38	50
24	1,100	141	180	498	180	537	789	278	48	37	36	62
25	882	129	328	405	163	415	486	211	71	36	37	51
26	524	118	217	337	161	346	410	189	71	37	38	51
27	415	112	177	282	145	290	384	224	37	36	43	45
28	369	120	166	248	138	252	437	331	37	36	42	40
29	346	118	141	214	129	252	530	256	50	35	41	61
30	511	420	125	189	-	267	530	217	51	35	41	54
31	579	-	120	186	-	328	-	186	-	35	41	-

Month	Observed				Pacific Power & Light Co.'s conduit near Hood River (acre-feet)	River and conduit combined			
	Discharge in second-feet			Runoff in acre-feet		Runoff in acre-feet	Discharge in second-feet		Runoff in inches
	Maximum	Minimum	Mean				Mean	Per square mile	
October	1,100	48	246	15,110	26,530	41,640	677		
November	2,530	112	443	26,370	27,680	54,050	908		
December	2,050	120	441	27,150	29,310	56,460	918		
Calendar year 1943	5,650	47	846	612,400	323,810	936,210	1,293		
January	544	103	269	16,560	29,400	45,960	747		
February	2,250	129	403	23,160	27,380	50,540	879		
March	1,160	84	331	20,350	29,330	49,680	808		
April	1,020	333	692	41,150	12,360	53,510	899		
May	511	186	324	19,950	29,720	49,670	808		
June	731	37	135	8,040	28,130	36,170	608		
July	46	32	38.5	2,370	19,320	21,690	353		
August	53	35	39.3	2,420	12,350	14,770	240		
September	62	40	48.9	2,910	15,170	18,080	304		
Water year 1943-44	2,530	32	283	205,540	286,680	492,220	678		

Peak discharge (river only).- Nov. 4 (9 a.m.) 3,870 sec.-ft.; Nov. 4 (12 p.m.) 2,970 sec.-ft.; Dec. 3 (12:30 a.m.) 2,860 sec.-ft.; Feb. 6 (10 a.m.) 3,390 sec.-ft.
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 1944.

Average discharge.- 12 years (1932-44), 498 second-feet.

Extremes.- Maximum discharge during year, 2,720 second-feet Nov. 4, Feb. 6 (gage height, 6.00 feet); minimum, 112 second-feet Sept. 10-12 (gage height, 1.65 feet).
1913-15, 1932-44: Maximum discharge, 12,900 second-feet Dec. 22, 1933 (gage height, 12.4 feet), from rating curve extended above 5,000 second-feet; minimum, 93 second-feet Aug. 22, 1941 (gage height, 1.37 feet).

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

Rating table, water year 1943-44 (gage height, in feet, and discharge, in second-feet)

1.6	105	2.5	320	3.8	970
1.9	153	2.9	470	4.5	1,440
2.2	225	3.3	670	5.4	2,170

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	157	372	736	356	300	252	454	502	784	219	139	143
2	161	369	1,300	488	294	249	474	462	595	205	136	125
3	161	497	1,550	383	290	246	515	462	488	203	138	120
4	159	2,100	1,250	348	313	246	590	488	434	203	139	120
5	165	1,640	910	327	648	246	590	555	398	203	148	120
6	157	958	706	304	1,930	237	525	575	372	205	150	120
7	161	682	600	290	1,210	240	506	555	355	195	136	120
8	159	545	570	277	874	297	515	530	330	190	134	118
9	157	462	474	265	688	1,180	470	550	317	183	133	118
10	171	414	426	261	565	928	479	474	327	185	141	116
11	297	376	386	258	506	648	520	450	330	183	150	114
12	192	344	362	255	446	530	570	438	300	187	141	114
13	178	324	338	246	422	458	585	442	281	183	144	120
14	169	304	317	249	418	406	600	450	265	175	136	139
15	173	290	297	330	372	380	642	560	255	175	131	117
16	171	277	284	418	380	376	575	492	294	180	130	157
17	190	274	274	545	362	422	525	450	344	178	130	178
18	190	261	265	466	355	414	492	442	304	178	130	144
19	190	255	258	442	334	422	525	410	304	183	126	126
20	246	284	252	426	317	386	502	380	287	175	125	133
21	418	277	243	402	310	358	458	383	274	167	123	141
22	488	261	237	383	297	355	446	402	265	161	123	141
23	376	252	237	565	284	700	502	462	261	167	123	126
24	754	243	281	560	284	575	626	462	265	165	123	125
25	682	234	366	484	281	497	550	418	277	167	123	123
26	492	228	313	438	281	454	506	402	261	159	123	123
27	434	228	287	398	268	414	488	430	234	153	123	122
28	406	231	271	369	265	394	535	442	228	157	123	128
29	438	228	261	348	258	394	585	410	231	153	120	200
30	525	576	249	324	-	414	570	380	237	148	118	165
31	438	-	246	313	-	454	-	380	-	141	123	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	9,055	754	157	292	17,960
November	13,786	2,100	228	460	27,340
December	14,546	1,550	237	469	28,850
Calendar year 1943	222,595	3,630	144	610	441,500
January	11,518	565	246	372	22,850
February	13,552	1,930	258	467	26,880
March	13,572	1,180	237	438	26,920
April	15,920	646	446	531	31,580
May	14,238	575	380	459	28,240
June	9,897	784	228	330	19,630
July	5,526	219	141	178	10,960
August	4,082	150	118	132	8,100
September	3,956	200	114	132	7,850
Water year 1943-44	129,648	2,100	114	354	257,200

Peak discharge.- Nov. 4 (6:30 a.m.) 2,720 sec.-ft.; Nov. 4 (9:30 p.m.) 2,400 sec.-ft.; Dec. 2 (8:30 p.m.) 2,140 sec.-ft.; Feb. 6 (8:30 a.m.) 2,720 sec.-ft.
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 1944. October 1913 to September 1914 and January 1916 to July 1922 at site in tailrace of former plant.

Average discharge.- 22 years (1922-44), 358 second-feet.

Extremes.- Maximum daily discharge during year, 489 second-feet May 30; no flow Apr. 8-23 and at other times when power plant was occasionally shut down.
1913-14, 1916-44: Maximum discharge observed, 510 second-feet Dec. 30, 1932; no flow at times.

Remarks.- Records good. Discharge Oct. 1 to Apr. 7 determined from hourly readings of Venturi meter checked by occasional discharge measurements; discharge Apr. 24 to Sept. 30 computed from relation between flow in conduit and output of power plant, based on discharge measurements. Pacific Power & Light Co.'s conduit diverts from Hood River in SE¼ sec. 11, T. 2 N., R. 10 E., just below Neal Creek. Water is diverted around station on Hood River near town of Hood River and returned to river in NE¼ sec. 36, T. 3 N., R. 10 E.

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

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	332	480	471	480	480	480	480	486	483	425	210	233
2	350	480	463	470	480	480	480	485	483	383	196	205
3	338	480	444	470	480	480	480	486	485	366	197	176
4	366	433	460	470	480	480	480	487	487	354	202	174
5	383	459	460	475	480	440	480	486	488	362	218	179
6	383	470	480	480	404	480	480	486	488	375	245	192
7	350	277	480	480	461	460	160	487	487	344	197	194
8	383	480	480	480	480	480	0	474	488	330	196	189
9	384	480	480	478	480	460	0	485	487	314	190	199
10	422	480	480	480	480	467	0	485	487	310	208	175
11	465	480	480	480	480	480	0	486	486	314	290	176
12	463	480	480	480	480	480	0	487	481	315	246	179
13	470	480	480	480	480	480	0	485	477	304	252	189
14	460	320	480	480	480	480	0	486	465	293	223	234
15	469	480	480	480	480	480	0	484	454	294	198	208
16	474	480	480	480	458	480	0	484	464	295	192	312
17	455	480	480	480	480	480	0	484	481	290	187	349
18	468	480	480	480	480	480	0	483	480	300	190	302
19	465	480	480	480	480	480	0	483	481	330	183	269
20	473	480	480	480	480	480	0	486	479	337	164	266
21	469	475	480	480	480	480	0	485	472	312	169	298
22	470	480	480	480	480	480	0	486	467	273	165	326
23	470	480	480	480	480	480	0	486	464	276	200	289
24	465	480	480	480	480	480	302	486	472	281	197	273
25	469	480	480	480	480	480	481	485	481	322	182	291
26	480	480	480	480	480	480	483	486	477	301	192	293
27	480	480	480	480	480	480	482	487	452	272	201	305
28	480	480	480	480	480	480	482	423	430	282	187	313
29	480	480	480	480	480	480	476	488	413	293	179	435
30	480	480	480	480	-	480	485	489	441	266	178	427
31	280	-	480	480	-	480	-	488	-	227	194	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	13,376	480	280	431	26,530
November	13,954	480	277	465	27,680
December	14,778	480	444	477	29,310
Calendar year 1943	163,253	480	236	447	323,800
January	14,823	480	460	478	29,400
February	13,803	480	404	476	27,380
March	14,787	480	440	477	29,330
April	6,231	485	0	208	12,360
May	14,984	489	423	483	29,720
June	14,180	488	413	473	28,130
July	9,740	425	227	314	19,320
August	6,228	290	164	201	12,350
September	7,650	435	174	255	15,170
Water year 1943-44	144,534	489	0	395	286,700

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 1944. October 1912 to February 1913 at site at Condit Dam, 1 mile upstream.

Average discharge.- 24 years (1915-30, 1935-44), 1,016 second-feet.

Extremes.- Maximum discharge recorded during year, 1,720 second-feet (regulated) Dec. 3 (gage height, 5.10 feet); minimum recorded, 73 second-feet (regulated) Oct. 13, 21 (gage height, 1.78 feet); minimum daily, 270 second-feet (regulated) Aug. 20. 1915-30, 1935-44: 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 except those for period of no gage-height record, which are fair. Many diversions near Trout Lake for irrigation. Flow regulated by power plant.

Rating table, water year 1943-44 (gage height, in feet, and discharge, in second-feet)

2.6	224
3.0	356
3.5	565
4.0	855
4.5	1,210

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	580	716	780	700	644	674	752	998	719	548	476	420
2	854	698	800	†603	612	664	†734	844	772	†431	485	472
3	†346	756	1,030	680	662	638	795	830	754	516	475	†350
4	799	840	1,220	616	718	675	809	784	†547	538	602	442
5	629	950	†1,090	610	694	†692	924	816	880	666	371	486
6	598	830	913	605	†1,180	622	852	840	636	538	†394	414
7	623	†730	872	616	1,270	620	877	†880	632	524	556	438
8	662	660	838	587	1,250	692	913	1,010	630	586	465	400
9	758	720	804	†560	1,060	857	†746	912	660	†350	478	466
10	†356	680	780	570	972	932	810	902	634	643	452	†332
11	698	620	704	604	867	920	854	850	†590	527	468	401
12	646	620	†602	586	817	†868	882	828	636	544	391	460
13	640	610	778	592	†872	728	864	822	631	500	†486	354
14	606	†650	711	626	810	746	819	†766	606	507	498	432
15	640	540	625	634	796	802	804	872	587	434	465	383
16	782	580	634	†614	754	822	†838	873	618	†478	484	425
17	†460	560	635	759	818	720	786	890	677	619	452	†399
18	656	540	638	736	760	710	792	850	†532	500	422	432
19	634	540	†616	731	749	†828	840	809	738	512	559	437
20	682	540	640	746	†730	792	786	694	684	514	†270	465
21	639	†530	576	732	751	828	748	†742	660	627	453	492
22	803	540	588	690	744	758	758	845	672	358	546	481
23	730	530	570	†644	730	698	†776	680	636	†438	429	490
24	†952	530	654	795	724	756	840	690	612	581	470	†456
25	814	510	728	718	744	730	888	775	†486	503	467	466
26	814	520	†708	704	722	†790	841	668	728	490	482	474
27	726	520	610	704	†644	669	839	649	570	468	†290	476
28	858	†500	637	722	729	699	818	†699	602	612	522	470
29	723	520	623	614	678	673	833	678	558	326	441	462
30	738	550	616	†608	-	722	†840	654	586	†631	357	444
31	†602	-	556	656	-	678	-	760	-	420	467	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	21,048	952	346	679	41,750
November	18,700	950	500	623	37,090
December	22,578	1,220	558	728	44,780
Calendar year 1943	456,940	4,900	346	1,257	910,400
January	20,362	795	560	657	40,390
February	23,501	1,270	612	810	46,610
March	22,993	932	620	742	45,610
April	24,658	924	734	822	48,910
May	24,910	1,010	649	804	49,410
June	19,273	880	486	642	38,250
July	15,929	666	326	514	31,690
August	14,153	602	270	457	28,070
September	13,119	492	332	437	26,020
Water year 1943-44	241,224	1,270	270	659	478,500

† Sunday.

Note.- No gage-height record Nov. 4 to Dec. 2; discharge computed on basis of estimates made by plant superintendent from his records of power output.

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 2¼ 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 1944 (includes flow of Little Wind River).

Extremes.- Maximum discharge during year, 4,910 second-feet probably Feb. 6 (gage height, 10.18 feet, from recorded range in stage); minimum, 144 second-feet Sept. 12 (gage height, 2.64 feet).
1934-44: Maximum discharge, 16,700 second-feet Dec. 29, 1937 (gage height, 17.30 feet), from rating curve extended above 5,000 second-feet on basis of velocity-area studies; minimum, 136 second-feet Nov. 29, Dec. 1, 1936 (gage height, 2.21 feet).

Remarks.- Records good except those below 500 second-feet, which are fair, and those for period of no gage-height record, which are poor. Flow occasionally affected by pondage at Forest Service power plant on Trout Creek. No diversion.

Rating table, water year 1943-44 (gage height, in feet, and discharge, in second-feet)

2.7	151	4.0	402	7.0	1,670
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		

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	Juns	July	Aug.	Sept.
1	178	430	1,210	900	550	535	795	830	846	273	172	155
2	175	430	2,000	1,500	550	520	795	778	850	263	178	155
3	175	550	3,350	1,250	600	520	850	742	708	263	180	154
4	174	2,110	2,720	1,000	900	535	910	742	638	254	181	151
5	174	2,350	1,950	900	2,000	520	910	760	585	254	178	152
6	174	1,550	1,490	750	3,600	505	870	778	535	254	178	151
7	172	1,160	1,210	650	2,400	505	870	760	505	244	178	150
8	171	950	1,070	600	1,900	535	930	742	490	244	181	150
9	170	795	930	550	1,500	1,570	890	795	475	244	178	149
10	167	708	850	500	1,200	1,780	850	742	416	235	175	147
11	270	620	778	500	1,100	1,310	890	708	416	235	174	146
12	259	550	725	600	950	1,090	970	672	402	226	170	146
13	209	505	655	550	850	970	1,050	672	389	226	168	147
14	198	475	620	600	800	870	1,180	655	389	226	167	156
15	192	445	568	800	900	812	1,400	725	364	226	168	152
16	188	416	535	1,000	750	760	1,430	708	389	218	167	163
17	199	402	505	1,200	750	742	1,280	638	445	218	165	192
18	218	389	490	1,100	800	742	1,160	602	402	218	164	177
19	244	376	475	1,000	750	742	1,140	568	376	218	164	184
20	273	402	445	900	700	725	1,160	550	351	209	163	185
21	406	389	445	800	700	690	1,070	550	339	209	161	180
22	638	364	416	750	672	655	1,010	550	339	209	160	226
23	535	351	420	950	655	910	1,010	585	327	206	160	190
24	2,200	339	550	950	655	950	1,050	655	316	204	161	172
25	2,090	327	1,000	950	638	950	1,010	638	304	201	160	165
26	1,090	327	900	800	620	830	950	585	294	199	160	160
27	795	327	800	700	585	795	910	568	294	198	158	159
28	638	316	700	650	568	742	890	568	283	195	156	159
29	550	316	600	600	550	742	890	535	283	190	155	193
30	535	620	550	550	-	760	870	505	273	163	154	187
31	475	-	550	500	-	778	-	505	-	164	154	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff Inches	Runoff Acre-feet
October	13,932	2,200	167	449	2.00	2.30	27,630
November	19,289	2,350	316	643	2.86	3.19	38,260
December	29,507	3,350	416	952	4.23	4.88	58,530
Calendar year 1943	400,660	8,680	167	1,098	4.88	66.22	794,600
January	24,950	1,500	500	805	3.58	4.12	49,490
February	29,093	3,600	550	1,003	4.46	4.81	57,710
March	24,990	1,780	505	806	3.58	4.13	49,570
April	29,990	1,430	795	1,000	4.44	4.96	59,480
May	20,411	830	505	658	2.92	3.37	40,480
June	13,023	850	273	434	1.93	2.15	25,830
July	6,886	273	163	222	.987	1.14	13,660
August	5,188	181	154	167	.742	.86	10,290
September	4,933	226	146	164	.729	.82	9,780
Water year 1943-44	222,192	3,600	146	607	2.70	36.73	440,700

Note.- No gage-height record Dec. 23 to Feb. 21; discharge computed on basis of recorded range in stage and 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 1944. 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.- 33 years, 1,297 second-feet.

Extremes.- Maximum discharge during year, 6,830 second-feet Nov. 4 (gage height, 8.03 feet); minimum, 276 second-feet Sept. 10, 11 (gage height, 2.27 feet).
1911-44: Maximum discharge, 29,200 second-feet Jan. 6, 1923 (gage height, 17.5 feet, site and datum then in use), by computation of flow over dam; minimum, 205 second-feet Sept. 21-24, 1940.

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

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

Rating table, water year 1943-44 (gage height, in feet, and discharge, in second-feet)

2.3	285	4.2	1,360
2.7	435	5.0	2,080
3.1	625	5.8	3,070
3.6	920	7.0	4,980

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	320	819	831	830	664	652	1,440	1,700	1,950	647	383	383
2	324	777	2,220	1,340	680	636	1,660	1,560	1,790	595	375	334
3	327	1,040	3,300	997	713	630	1,960	1,550	1,530	585	379	306
4	324	4,920	2,940	849	741	636	2,070	1,700	1,370	590	387	296
5	330	3,800	2,050	789	1,710	664	1,960	1,840	1,250	595	391	299
6	316	2,190	1,570	713	4,980	652	1,740	1,840	1,140	585	391	302
7	324	1,570	1,380	669	3,130	652	1,580	1,730	1,080	560	371	299
8	313	1,250	1,520	636	2,050	881	1,570	1,650	1,030	550	371	292
9	310	1,070	1,300	605	1,620	3,400	1,540	1,660	997	565	359	296
10	324	934	1,140	590	1,340	3,110	1,600	1,460	983	540	363	288
11	512	843	1.040	580	1,220	1,890	1,760	1,380	927	525	383	282
12	395	777	934	686	1,070	1,480	1,980	1,360	862	525	363	285
13	344	718	862	642	1,020	1,230	1,970	1,370	843	512	367	299
14	320	669	807	636	1,070	1,070	2,000	1,380	795	502	344	407
15	327	625	753	735	955	990	2,050	1,630	771	512	327	371
16	338	600	718	941	1,020	934	1,880	1,460	874	502	320	507
17	355	580	686	1,120	997	1,020	1,690	1,360	1,140	494	320	580
18	383	570	664	1,020	976	1,070	1,530	1,300	976	498	334	494
19	367	560	636	914	907	1,190	1,600	1,230	976	512	320	367
20	502	600	615	843	849	1,140	1,520	1,140	907	494	313	352
21	969	615	590	777	813	1,020	1,380	1,190	855	471	313	431
22	1,140	545	570	735	759	990	1,300	1,480	837	431	310	458
23	941	520	560	969	718	1,680	1,470	1,830	825	435	313	359
24	1,890	498	610	1,070	735	1,680	1,900	1,770	807	444	320	330
25	1,460	484	771	969	730	1,380	1,730	1,650	801	462	316	320
26	1,010	476	747	862	783	1,250	1,620	1,550	777	440	313	313
27	862	466	669	789	724	1,120	1,580	1,520	702	431	313	306
28	783	476	625	741	708	1,080	1,740	1,460	691	431	316	299
29	813	462	595	702	686	1,130	1,890	1,350	686	423	299	448
30	1,150	610	575	686	-	1,270	1,900	1,230	691	403	302	435
31	976	-	565	652	-	1,440	-	1,190	-	383	313	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff	
						Inches	Acre-feet
October	19,049	1,890	310	614	2.34	2.70	37,780
November	30,064	4,920	462	1,002	3.82	4.27	59,630
December	32,843	3,300	560	1,059	4.04	4.66	65,140
Calendar year 1943	522,010	8,140	310	1,430	5.46	74.11	1,035,000
January	25,087	1,340	580	809	3.09	3.56	49,760
February	34,368	4,980	664	1,185	4.52	4.88	68,170
March	37,967	3,400	630	1,225	4.68	5.39	75,310
April	51,610	2,070	1,300	1,720	6.56	7.33	102,400
May	46,520	1,840	1,140	1,501	5.73	6.60	92,270
June	29,863	1,950	686	995	3.80	4.24	59,230
July	15,642	647	383	505	1.93	2.22	31,030
August	10,589	391	299	342	1.31	1.50	21,000
September	10,738	580	282	358	1.37	1.52	21,300
Water year 1943-44	344,340	4,980	282	941	3.59	48.87	683,000

Peak discharge.- Nov. 4 (11 a.m.) 6,830 sec.-ft.; Feb. 6 (11 a.m.) 6,360 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 1944. April 1910 to September 1914 at site three-quarters of a mile upstream.

Average discharge.- 18 years (1910-11, 1912-14, 1929-44), 2,156 second-feet.

Extremes.- Maximum discharge during year, 13,500 second-feet Feb. 6 (gage height, 9.74 feet); minimum, 122 second-feet (regulated) Sept. 3, 12 (gage height, 0.97 foot); minimum daily, 162 second-feet Sept. 10.

1910-14, 1929-44: 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. 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 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	385	1,670	1,590	1,210	1,110	1,100	2,320	2,680	3,460	832	432	628
2	382	1,430	4,520	2,580	1,090	1,080	2,210	2,470	3,310	574	450	676
3	436	1,950	7,370	2,040	1,230	1,140	3,130	2,390	2,630	779	480	174
4	399	8,690	4,600	1,620	1,380	1,110	3,310	2,510	1,980	680	595	250
5	443	8,220	3,950	1,450	3,130	672	3,290	2,720	2,040	838	603	355
6	388	4,540	2,950	1,280	10,400	1,320	3,040	2,680	1,710	721	226	373
7	421	2,990	2,440	1,190	6,320	1,100	2,590	2,550	1,610	732	458	376
8	427	2,410	2,720	1,050	3,840	1,430	2,670	2,460	1,500	710	430	500
9	412	1,910	2,220	854	2,890	5,950	2,440	2,440	1,420	454	460	521
10	406	1,660	1,930	1,080	2,310	6,380	2,880	2,220	1,260	788	545	162
11	741	1,250	1,920	956	2,110	3,650	3,080	2,070	1,250	637	699	311
12	510	1,260	1,240	1,250	1,830	2,550	3,730	2,000	1,260	626	528	372
13	488	1,260	1,540	1,210	1,480	2,340	3,820	1,990	1,190	652	182	383
14	452	880	1,240	1,260	1,900	1,860	3,900	1,840	1,110	611	390	580
15	473	988	1,200	1,330	1,620	1,670	4,030	2,410	1,060	780	426	657
16	453	916	1,120	1,760	1,720	1,580	3,620	2,130	1,080	400	380	772
17	478	932	994	2,030	1,720	1,650	3,120	1,980	1,820	660	485	699
18	590	808	1,020	2,100	1,740	1,900	2,780	1,920	1,380	610	520	694
19	480	832	852	1,800	1,720	1,630	3,010	1,710	1,580	606	455	548
20	839	1,010	922	1,550	1,240	2,080	2,880	1,740	1,470	634	208	435
21	1,530	806	863	1,400	1,610	1,740	2,530	1,340	1,390	672	396	682
22	2,150	836	857	1,370	1,230	1,640	2,270	2,220	1,300	676	372	948
23	1,660	756	825	1,450	1,210	2,610	2,240	2,680	1,230	242	399	545
24	4,850	820	802	2,170	1,230	3,150	3,250	2,870	1,140	562	377	168
25	4,420	606	1,200	1,870	1,320	2,560	3,020	2,550	933	585	642	372
26	2,480	676	1,440	1,560	1,410	2,010	2,740	2,290	1,130	591	444	412
27	1,980	756	1,230	1,460	1,060	2,220	2,610	2,230	1,000	546	196	406
28	1,510	535	1,050	1,460	1,350	1,890	2,840	2,020	963	584	353	468
29	1,440	690	938	1,220	1,210	1,920	3,080	1,860	908	626	374	728
30	2,150	888	890	844	-	2,050	3,010	1,620	966	282	356	810
31	1,870	-	962	1,180	-	2,280	-	1,780	-	504	384	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff: Inches	Runoff: Acre-feet
October	35,643	4,850	382	1,150	2.61	3.01	70,700
November	52,975	8,690	535	1,766	4.01	4.48	105,100
December	57,395	7,370	802	1,851	4.21	4.85	113,800
Calendar year 1943	885,517	17,400	322	2,426	5.51	74.83	1,756,000
January	45,584	2,580	844	1,470	3.34	3.85	90,410
February	62,410	10,400	1,060	2,152	4.89	5.28	123,800
March	66,262	6,380	672	2,137	4.86	5.60	131,400
April	89,440	4,030	2,210	2,981	6.78	7.56	177,400
May	68,370	2,870	1,340	2,205	5.01	5.78	135,600
June	45,080	3,460	908	1,503	3.42	3.81	89,410
July	19,194	838	242	619	1.41	1.62	38,070
August	13,245	899	182	427	.970	1.12	26,270
September	15,005	948	162	500	1.14	1.27	29,760
Water year 1943-44	570,603	10,400	162	1,559	3.54	48.23	1,132,000

Peak discharge.- Nov. 4 (12 m.) 13,300 sec.-ft.; Dec. 2 (10 p.m.) 12,000 sec.-ft.; Feb. 6 (12 m.) 13,500 sec.-ft.

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 1944.

Average discharge.- 19 years (1910-11, 1926-44), 39.9 second-feet.

Extremes.- Maximum discharge during year, 213 second-feet Nov. 4 (gage height, 2.06 feet); minimum, 18 second-feet Sept. 9-13, 25-28.
1910-12, 1926-44: 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. No diversion or regulation above station.

Rating table, water year 1943-44, except periods of ice effect
(gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Oct. 1 to Jan. 5)

0.4	18	1.0	64
.6	29	1.3	97
.8	45	1.6	136

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	23	31	40	35	21	21	37	63	102	37	26	27
2	23	33	80	33	22	21	43	61	77	36	25	22
3	22	46	90	30	22	21	50	67	71	35	24	20
4	23	140	66	b26	22	21	51	73	66	35	24	20
5	23	74	50	26	62	21	49	81	63	35	24	19
6	23	50	43	b24	95	21	44	80	63	35	23	19
7	23	42	48	24	50	22	41	78	59	34	23	19
8	23	39	55	24	38	28	39	74	63	35	a23	19
9	23	37	41	24	33	72	37	74	60	34	a23	18
10	25	35	39	24	30	46	39	62	57	32	a23	18
11	44	35	37	24	29	32	47	62	56	32	a23	18
12	24	34	35	25	28	28	42	65	53	31	a23	18
13	24	33	34	24	27	27	38	66	52	30	a23	21
14	22	32	33	24	27	25	35	69	50	30	a23	43
15	24	31	31	25	26	24	35	89	48	30	a22	23
16	23	31	31	27	25	26	32	71	71	29	a22	35
17	27	31	31	28	24	37	31	68	70	28	a22	34
18	23	31	31	24	24	34	32	65	55	28	22	26
19	25	31	31	24	23	34	34	65	56	28	21	22
20	37	36	30	24	23	30	31	61	50	28	21	21
21	41	32	30	23	22	27	30	65	48	27	20	24
22	32	29	29	23	22	26	35	66	48	26	20	22
23	29	28	29	28	21	30	51	69	46	26	20	20
24	78	26	36	25	21	28	53	75	43	26	21	19
25	46	26	34	23	21	26	43	69	42	26	21	18
26	40	25	31	23	21	26	43	70	41	26	20	18
27	37	26	30	22	21	26	52	76	41	26	20	18
28	38	27	30	b22	21	26	64	76	39	25	19	19
29	49	27	29	b21	21	27	73	73	38	25	19	26
30	43	46	28	21	-	30	72	71	38	25	19	21
31	34	-	28	21	-	35	-	70	-	25	20	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff Inches	Runoff Acre-feet
October	971	78	22	31.3	3.60	4.15	1,930
November	1,144	140	25	38.1	4.38	4.89	2,270
December	1,210	90	28	39.0	4.48	5.17	2,400
Calendar year 1943	19,688	162	22	53.9	6.20	84.16	39,060
January	771	35	21	24.9	2.86	3.30	1,530
February	842	95	21	29.0	3.33	3.60	1,670
March	898	72	21	29.0	3.33	3.84	1,780
April	1,303	73	30	43.4	4.99	5.57	2,580
May	2,174	89	61	70.1	8.06	9.29	4,310
June	1,666	102	38	55.5	6.38	7.12	3,300
July	925	37	25	29.8	3.43	3.95	1,830
August	679	26	19	21.9	2.52	2.90	1,350
September	667	43	18	22.2	2.55	2.85	1,320
Water year 1943-44	13,250	140	18	36.2	4.16	56.63	26,270

Peak discharge.- Nov. 4 (6 a.m.) 213 sec.-ft.; June 1 (8 a.m.) 121 sec.-ft.
a No gage-height record; discharge computed on basis of recorded range in stage and record for station below Linney Creek.
b Stage-discharge relation affected by ice.
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 1944.

Average discharge.- 17 years, 195 second-feet.

Extremes.- Maximum discharge during year, 691 second-feet Nov. 4 (gage height, 2.52 feet); minimum, 51 second-feet Sept. 9-13 (gage height, 0.42 foot).
1927-44: 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 1943-44 (gage height, in feet, and discharge, in second-feet)

0.4	49	1.3	206
.6	73	1.6	302
.8	102	1.9	413
1.0	136	2.2	536

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	a61	113	138	138	102	102	224	371	324	116	74	69
2	a60	112	280	146	102	100	262	360	275	115	77	63
3	a60	144	356	123	105	100	309	368	249	112	74	59
4	60	505	327	110	104	99	353	386	227	110	74	57
5	61	409	252	115	214	99	353	405	209	108	72	54
6	a60	265	215	102	457	96	334	405	198	107	72	53
7	a59	212	209	104	334	99	320	398	193	105	72	53
8	58	178	249	99	262	118	306	386	198	110	72	52
9	60	162	193	98	221	283	292	390	190	108	70	52
10	a66	149	178	99	193	255	302	349	180	100	69	51
11	105	138	166	98	178	183	342	334	a173	98	66	51
12	73	131	157	99	164	162	342	334	a166	98	65	51
13	69	123	149	94	157	146	316	327	162	96	65	52
14	64	118	142	94	153	134	306	309	157	94	65	83
15	68	113	132	99	140	131	306	304	155	93	64	69
16	66	110	129	108	140	136	282	320	185	92	63	94
17	77	107	125	134	132	166	265	295	215	90	63	98
18	76	107	122	118	129	175	258	285	175	87	64	83
19	76	107	120	112	125	183	265	275	175	87	63	64
20	96	116	118	107	120	164	249	255	159	87	60	60
21	144	116	115	105	118	155	227	265	151	84	60	61
22	127	105	113	104	115	151	233	302	149	84	60	65
23	108	100	112	123	110	198	295	353	142	84	60	57
24	277	98	123	120	112	188	371	313	134	83	60	56
25	173	94	136	112	108	168	313	288	132	83	60	53
26	138	93	123	105	108	159	302	271	131	81	60	53
27	127	93	115	99	105	151	313	268	127	79	59	53
28	123	94	112	94	105	153	353	262	123	77	58	52
29	134	93	108	96	102	159	390	255	122	77	57	76
30	159	136	105	99	-	171	398	242	120	77	56	69
31	127	-	105	100	-	203	-	242	-	76	56	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff Inches	Runoff Acre-feet
October	3,012	277	58	97.2	1.80	2.07	5,970
November	4,441	505	93	148	2.74	3.06	8,810
December	5,024	356	105	162	3.00	3.46	9,960
Calendar year 1943	91,845	906	58	252	4.67	63.25	182,200
January	3,354	146	94	108	2.00	2.31	6,650
February	4,515	457	102	156	2.89	3.11	8,960
March	4,787	283	96	154	2.85	3.30	9,490
April	9,181	398	224	306	5.67	6.32	18,210
May	9,977	405	242	322	5.96	6.87	19,790
June	5,296	324	120	177	3.28	3.65	10,500
July	2,898	116	76	93.5	1.73	2.00	5,750
August	2,010	77	56	64.8	1.20	1.38	3,990
September	1,863	98	51	62.1	1.15	1.28	3,700
Water year 1943-44	56,358	505	51	154	2.85	38.81	111,800

a No gage-height record; discharge computed on basis of recorded range in stage and records for stations near Government Camp and 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 1944. 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, 2,840 second-feet Nov. 4 (gage height, 3.88 feet); minimum, 65 second-feet Sept. 9, 10 (gage height, 0.57 foot).
1913-14, 1920-21, 1925-44: 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 table, water year 1943-44 (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used May 26 to June 8)

Oct. 1 to June 8				June 9 to Sept. 30			
0.6	79	1.9	610	0.5	52	1.1	203
.8	121	2.2	815	.7	92	1.3	276
1.0	179	2.6	1,150	.9	142	1.4	318
1.3	297	3.0	1,580				
1.6	439	3.3	1,980				

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	90	271	293	320	210	218	549	623	668	168	99	85
2	90	246	1,010	567	214	214	630	580	610	162	104	85
3	92	351	1,220	399	230	210	731	580	509	159	99	77
4	92	1,980	1,100	315	234	214	759	616	444	154	102	72
5	92	1,310	752	284	670	222	724	662	404	151	99	70
6	90	731	561	246	1,790	226	636	662	366	148	99	68
7	88	520	481	234	1,030	230	586	623	333	148	99	66
8	88	414	538	218	696	333	573	598	324	151	102	66
9	88	347	450	207	538	1,250	561	623	314	159	99	65
10	94	310	394	204	450	1,010	580	549	293	142	97	65
11	164	280	351	200	409	630	642	520	276	137	94	66
12	121	254	320	214	361	487	724	520	268	134	90	66
13	105	234	297	207	342	460	717	515	261	134	90	68
14	100	218	276	204	356	351	745	492	253	129	90	102
15	100	207	258	226	320	328	759	573	246	126	90	106
16	105	196	242	306	347	315	703	526	265	124	88	148
17	110	193	234	404	342	356	630	481	327	124	88	174
18	124	190	222	366	320	389	567	466	276	121	90	145
19	116	186	214	310	302	429	586	439	268	119	88	104
20	173	200	210	284	280	404	561	414	246	119	85	90
21	361	210	204	258	267	366	503	434	224	114	83	99
22	429	186	200	242	246	347	476	561	220	114	81	109
23	347	176	196	333	230	714	549	738	210	114	79	90
24	731	167	214	380	238	668	710	642	200	111	79	83
25	498	157	288	333	242	515	630	573	197	111	81	79
26	342	154	276	288	254	444	592	509	193	109	81	77
27	293	151	238	254	242	399	580	487	190	106	77	77
28	263	157	222	234	234	389	649	460	184	104	74	77
29	276	154	207	222	226	424	703	424	174	102	74	114
30	414	226	200	218	-	492	696	394	171	102	70	121
31	338	-	193	210	-	555	-	384	-	102	72	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff Inches	Runoff Acre-feet
October	6,414	731	88	207	1.95	2.25	12,720
November	10,376	1,980	151	346	3.26	3.64	20,580
December	11,861	1,220	193	383	3.61	4.16	23,530
Calendar year 1943	180,882	3,220	88	496	4.68	63.46	358,800
January	8,687	567	200	280	2.64	3.05	17,230
February	11,620	1,790	210	401	3.78	4.08	23,050
March	13,589	1,250	210	438	4.13	4.77	26,950
April	19,051	759	476	635	5.99	6.68	37,790
May	16,668	738	384	538	5.08	5.85	33,060
June	8,914	668	171	297	2.80	3.13	17,680
July	3,998	168	102	129	1.22	1.40	7,930
August	2,743	104	70	88.5	.835	.96	5,440
September	2,714	174	65	90.5	.854	.95	5,380
Water year 1943-44	116,635	1,980	65	319	3.01	40.92	231,300

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, 8⅝ miles northeast of Bull Run. Datum of gage is at mean sea level (levels by Portland Water Bureau).

Records available.- October 1928 to September 1944.

Extremes.- Maximum contents during year, 28,820 acre-feet Feb. 6 (elevation, 1,040.80 feet); minimum, 18,210 acre-feet Sept. 15, 16 (elevation, 1,010.84 feet).
1928-44: 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 1943 to September 1944

Date	Elevation (feet)†	Contents (acre-feet)	Change in contents during month (acre-feet)
Sept. 30	1,021.59	21,720	-
Oct. 31	1,037.31	27,440	+5,720
Nov. 30	1,037.12	27,370	-70
Dec. 31	1,036.70	27,200	-170
Calendar year 1943	-	-	-2,000
Jan. 31	1,036.75	27,220	+20
Feb. 29	1,036.72	27,210	-10
Mar. 31	1,037.20	27,400	+190
Apr. 30	1,037.49	27,510	+110
May 31	1,037.05	27,340	-170
June 30	1,036.66	27,190	-150
July 31	1,029.29	24,420	-2,770
Aug. 31	1,016.85	20,130	-4,290
Sept. 30	1,015.23	19,600	-530
Water year 1943-44	-	-	-2,120

† Elevation at midnight.
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 8⅛ 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 1944. October 1929 to September 1934 at site half a mile downstream.

Average discharge.- 15 years, 538 second-feet (adjusted).

Extremes.- Maximum discharge during year, 4,170 second-feet Feb. 6 (elevation, 1,040.80 feet); minimum, 25 second-feet Oct. 22, 23.
1929-44: 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 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	118	510	630	427	235	213	496	634	1,210	182	143	119
2	118	451	1,930	874	255	205	574	548	1,110	174	146	103
3	118	607	2,360	607	294	196	711	532	739	164	142	106
4	117	2,700	1,790	470	354	196	760	555	594	160	142	116
5	117	2,340	1,140	392	1,430	200	771	594	496	151	142	138
6	117	1,320	760	338	3,330	210	676	600	419	140	142	151
7	117	824	620	277	1,710	215	600	568	364	136	133	146
8	117	607	693	260	984	373	627	536	332	132	127	140
9	117	490	568	225	721	1,740	607	562	299	170	130	134
10	117	404	464	220	548	1,670	704	519	277	147	134	134
11	117	332	395	215	477	925	776	470	255	137	140	133
12	117	299	343	335	407	655	1,010	432	240	146	132	133
13	120	266	304	332	365	503	1,060	425	230	159	127	129
14	117	235	266	321	371	413	1,060	413	228	159	127	106
15	117	205	233	425	338	363	1,100	451	215	159	127	96
16	117	192	220	683	335	338	925	464	240	159	129	96
17	117	185	205	840	338	338	784	416	419	159	125	98
18	117	174	192	725	332	371	662	395	371	171	118	98
19	117	164	169	565	316	401	742	383	407	169	121	98
20	118	178	169	477	299	401	732	360	395	157	125	98
21	119	192	164	413	255	365	627	338	341	157	125	89
22	71	174	160	360	245	341	562	395	316	151	125	74
23	100	156	156	484	243	680	581	555	294	145	128	74
24	1,980	147	182	594	235	792	760	735	272	145	124	74
25	1,750	132	371	522	255	588	784	634	255	145	124	74
26	950	124	371	428	235	510	700	542	240	153	124	83
27	644	120	288	371	235	464	641	484	230	156	124	89
28	503	128	245	321	235	425	697	444	213	164	124	89
29	477	136	228	332	230	410	732	401	200	170	129	77
30	669	282	210	250	-	419	725	360	192	161	146	72
31	641	-	200	235	-	484	-	346	-	148	140	-

Month	Observed: Discharge in second-feet: Maximum	Observed: Discharge in second-feet: Minimum	Observed: Discharge in second-feet: Mean	Observed: Runoff in acre-feet	Change in contents of Lake Ben Morrow Reservoir (acre-feet)	Adjusted for change in reservoir contents: Runoff in acre-feet	Adjusted for change in reservoir contents: Discharge in second-feet: Mean	Adjusted for change in reservoir contents: Discharge in second-feet: Per square mile	Adjusted for change in reservoir contents: Runoff in inches
October	1,980	71	331	20,330	+5,720	26,050	424	5.73	6.61
November	2,700	120	469	27,920	-70	27,850	468	6.32	7.05
December	2,360	156	517	31,790	-170	31,620	514	6.95	8.01
Calendar year 1943	4,710	71	580	420,240	-2,000	418,240	578	7.81	105.87
January	874	215	430	26,420	+20	26,440	430	5.81	6.70
February	3,330	230	537	30,920	-10	30,910	537	7.26	7.83
March	1,740	196	497	30,550	+190	30,740	500	6.76	7.79
April	1,100	496	740	44,010	+110	44,120	741	10.0	11.16
May	735	338	487	29,930	-170	29,760	484	6.54	7.54
June	1,210	192	380	22,600	-150	22,450	377	5.09	5.68
July	182	132	156	9,570	-2,770	6,800	111	1.50	1.73
August	146	118	131	8,060	-4,290	3,770	61.3	.828	.95
September	151	72	106	6,280	-530	5,750	96.6	1.31	1.46
Water year 1943-44	3,330	71	397	288,380	-2,120	286,260	394	5.32	72.51

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., 1¼ 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 1944.
Average discharge.- 37 years (1907-44), 727 second-feet (adjusted, 1929-44).
Extremes.- Maximum discharge during year, 4,980 second-feet Feb. 6 (gage height, 6.36 feet); minimum, 114 second-feet Sept. 26 (gage height, 0.71 foot).
1895-1944: Maximum discharge, 20,600 second-feet Mar. 31, 1931 (gage height, 13.8 feet), by computation of flow over dam; minimum, 63 second-feet Aug. 13-16, 1926.
Remarks.- Records good. No diversion above station. Flow regulated by Bull Run Lake and Lake Ben Morrow Reservoir; adjustment applied only for storage in Lake Ben Morrow Reservoir; flow from Bull Run Lake is not artificially regulated by reaches river through surface and underground channels.
Cooperation.- Water-stage recorder inspected by Portland Water Bureau.

Rating table, water year 1943-44 (gage height, in feet, and discharge, in second-feet)

0.7	112	1.9	460	4.0	1,860
1.0	172	2.3	650	4.8	2,700
1.3	250	2.7	875	5.7	3,920
1.6	345	3.3	1,280		

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	132	615	720	524	310	295	615	710	1,290	191	157	152
2	132	546	2,240	1,050	334	277	716	625	1,230	182	159	126
3	132	760	2,840	760	380	271	863	600	857	172	159	121
4	132	3,230	2,140	590	444	268	929	620	672	168	157	128
5	134	2,760	1,370	500	1,510	286	935	661	550	163	157	144
6	134	1,570	968	420	3,900	295	804	656	474	152	154	157
7	134	1,060	798	376	2,010	295	727	615	416	150	150	157
8	134	776	887	328	1,240	468	760	580	380	146	148	154
9	134	610	710	314	899	2,030	766	625	356	171	150	146
10	138	496	590	283	700	2,060	863	570	320	159	152	146
11	172	424	505	286	600	1,180	974	514	301	148	157	146
12	146	362	440	444	510	851	1,270	474	280	150	148	146
13	146	324	380	420	464	661	1,330	469	274	172	144	144
14	140	298	352	404	505	536	1,340	440	265	174	144	142
15	142	268	324	553	440	460	1,380	492	244	172	144	126
16	140	244	289	839	469	412	1,180	492	280	174	144	157
17	152	239	274	1,010	464	444	994	444	482	172	142	191
18	154	228	268	851	460	464	857	432	408	179	136	157
19	154	214	239	678	448	505	974	412	474	179	136	140
20	234	242	228	555	404	492	923	380	448	168	140	136
21	404	250	217	478	376	436	782	366	388	168	140	150
22	523	219	206	420	342	412	694	456	352	163	140	136
23	440	201	204	595	314	826	727	640	324	157	142	123
24	2,460	191	236	732	307	954	942	851	298	157	140	117
25	2,120	179	448	630	317	744	923	700	274	157	140	116
26	1,180	174	452	532	366	650	821	580	259	163	140	117
27	810	165	370	456	345	575	766	510	244	174	140	125
28	610	177	317	408	328	528	815	460	230	174	140	119
29	585	174	289	370	310	505	839	412	212	177	142	174
30	821	305	268	338	-	523	815	380	201	174	157	179
31	766	-	259	310	-	595	-	370	-	161	157	-

Month	Observed: Discharge in second-feet: Maximum	Minimum	Mean	Observed: Runoff in acre-feet	Change in contents of Lake Ben Morrow Reservoir, (acre-feet)	Adjusted for change in reservoir contents: Runoff in acre-feet	Discharge in second-feet: Mean	Per square mile	Runoff in inches
October	2,460	132	440	27,040	+5,720	32,760	533	5.23	6.03
November	3,230	165	577	34,320	-70	34,250	576	5.65	6.30
December	2,840	204	640	39,330	-170	39,160	637	6.25	7.21
Calendar year 1943	5,830	132	711	514,480	-2,000	512,480	708	6.94	94.18
January	1,050	283	531	32,640	+20	32,660	531	5.21	6.01
February	3,900	307	672	38,670	-10	38,660	672	6.59	7.11
March	2,060	268	623	38,280	+190	38,470	626	6.14	7.08
April	1,380	615	911	54,200	+110	54,310	913	8.95	9.99
May	851	366	533	32,800	-170	32,630	531	5.21	6.01
June	1,290	201	426	25,350	-150	25,200	424	4.16	4.64
July	191	146	167	10,250	-2,770	7,480	122	1.20	1.38
August	159	136	147	9,040	-4,290	4,750	77.3	.758	.87
September	191	116	142	8,470	-530	7,940	133	1.30	1.45
Water year 1943-44	3,900	116	483	350,390	-2,120	348,270	480	4.71	64.08

Peak discharge.- Nov. 4 (10 a.m.) 4,200 sec.-ft.; Dec. 2 (9 p.m.) 4,420 sec.-ft.; Feb. 6 (9:30 a.m.) 4,980 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 1944.

Average discharge.- 25 years (1919-44), 134 second-feet.

Extremes.- Maximum discharge during year, 1,000 second-feet Dec. 2 (gage height, 5.55 feet); minimum, 10 second-feet Sept. 9-13.
1911-13, 1919-44: Maximum discharge, 3,950 second-feet Nov. 20, 1921 (gage height, 9.18 feet), from rating curve extended above 2,000 second-feet; minimum, 8 second-feet Aug. 20, Sept. 16, 17, 1940.

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

Cooperation.- Water-stage recorder graph furnished by Portland General Electric Co.

Rating table, water year 1943-44 (gage height, in feet, and discharge, in second-feet)

1.8	10	2.4	43	3.5	198
1.9	14	2.6	60	3.9	285
2.0	19	2.9	91	4.3	410
2.2	30	3.2	131	4.9	645

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	14	98	97	85	60	69	116	140	200	37	16	30
2	13	96	368	116	67	66	143	125	148	36	16	20
3	13	148	336	86	77	64	132	134	110	35	16	15
4	13	641	294	76	82	64	136	148	91	33	15	14
5	13	504	188	68	318	67	184	158	78	32	16	13
6	13	270	124	60	636	64	152	146	70	31	15	12
7	12	173	126	56	288	67	140	133	63	30	16	12
8	12	126	163	52	184	103	150	122	59	34	16	11
9	12	99	116	49	134	502	150	131	56	32	16	11
10	13	81	98	45	107	387	188	110	50	29	15	10
11	42	72	86	48	97	221	213	106	46	27	14	10
12	29	62	75	91	84	161	275	98	46	28	14	10
13	25	56	67	75	80	128	255	101	49	27	14	12
14	20	50	61	71	91	98	240	97	46	25	14	39
15	21	45	56	108	84	87	248	116	43	24	13	26
16	22	43	51	140	95	80	200	104	62	23	13	58
17	33	41	49	148	98	93	173	93	116	22	13	112
18	43	40	46	110	103	96	154	95	82	22	15	70
19	38	40	43	91	99	106	188	91	106	21	14	41
20	106	49	41	80	92	97	161	78	88	21	13	33
21	258	50	40	72	87	88	136	79	76	20	13	78
22	285	43	39	65	79	88	125	116	71	20	12	77
23	243	39	40	97	74	145	140	171	66	20	12	49
24	438	36	49	104	73	148	184	195	58	19	12	39
25	290	34	75	96	74	128	158	133	54	18	13	33
26	167	33	68	87	82	116	145	107	51	18	12	29
27	119	32	55	79	80	106	145	93	48	17	12	26
28	93	35	43	71	77	102	161	84	44	16	12	25
29	111	32	45	65	74	97	171	75	41	16	12	81
30	163	40	42	60	-	99	175	69	39	16	12	91
31	124	-	41	56	-	111	-	68	-	16	12	-

Month	Second-feet-days	Maximum	Minimum	Mean	Per square mile	Runoff Inches	Runoff Acre-feet
October	2,798	438	12	90.3	3.93	4.52	5,550
November	3,106	641	32	104	4.52	5.02	6,160
December	3,029	368	39	97.7	4.25	4.90	6,010
Calendar year 1943	47,158	948	12	129	5.61	76.24	93,540
January	2,507	148	45	80.9	3.52	4.05	4,970
February	3,576	636	60	123	5.35	5.78	7,090
March	3,848	502	64	124	5.39	6.22	7,630
April	5,238	275	116	175	7.61	8.47	10,390
May	3,516	195	68	113	4.91	5.69	6,970
June	2,157	200	39	71.9	3.13	3.49	4,280
July	765	37	16	24.7	1.07	1.24	1,520
August	427	16	12	13.8	.600	.69	847
September	1,087	112	10	36.2	1.57	1.76	2,160
Water year 1943-44	32,054	641	10	87.6	3.81	51.83	63,580

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 1944.

Average discharge.- 10 years, 994 second-feet.

Extremes.- Maximum discharge during year, 7,950 second-feet Nov. 4 (gage height, 6.8 feet, from water-stage recorder graph extended through a short period of faulty operation); minimum, 235 second-feet Sept. 11-13 (gage height, 2.05 feet).
1913-14, 1935-44: Maximum discharge, 25,900 second-feet Dec. 30, 1942 (gage height, 10.70 feet), from rating curve extended above 13,000 second-feet; minimum, 201 second-feet Nov. 27 to Dec. 2, 1936 (gage height, 1.53 feet).

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

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

Rating tables, water year 1943-44 (gage height, in feet, and discharge, in second-feet)

Oct. 1 to Nov. 4						Nov. 5 to Sept. 30					
2.2	310	3.2	930	4.7	2,600	2.0	218	2.9	605	4.2	1,820
2.5	440	3.7	1,270	5.3	3,810	2.2	288	3.3	868	4.7	2,600
2.8	630	4.2	1,820	6.1	5,830	2.5	408	3.7	1,230	5.3	3,810

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	330	770	520	671	628	515	815	1,260	800	404	292	296
2	330	679	530	1,380	1,080	504	853	1,160	765	391	299	277
3	330	1,150	713	1,050	1,050	515	980	1,120	884	379	292	259
4	330	5,830	738	822	1,020	541	986	1,160	772	374	288	256
5	330	3,660	785	758	1,970	562	959	1,330	706	366	284	249
6	330	2,110	688	706	2,250	556	893	1,430	675	362	284	245
7	334	1,520	628	657	1,900	589	822	1,380	651	358	281	242
8	330	1,180	605	628	1,610	765	838	1,300	628	354	277	242
9	326	968	567	605	1,430	1,780	807	1,180	622	350	277	238
10	330	830	535	594	1,230	2,080	800	1,040	594	342	274	238
11	415	738	509	567	1,090	1,570	959	934	589	338	274	238
12	382	675	494	657	959	1,280	1,110	884	573	334	270	235
13	350	628	476	807	884	1,090	1,150	822	546	330	266	238
14	338	594	457	822	853	934	1,320	830	520	330	266	245
15	338	562	443	779	785	845	1,410	860	509	326	263	245
16	338	530	434	758	765	779	1,320	815	515	322	263	245
17	374	515	426	845	752	772	1,190	807	509	318	263	288
18	395	504	421	792	732	779	1,080	800	515	315	263	296
19	366	504	417	725	706	785	1,080	765	535	a340	259	266
20	468	541	417	694	669	779	1,060	738	541	a325	259	259
21	874	562	408	657	651	719	1,020	732	583	a315	256	270
22	818	525	404	628	617	706	968	713	541	a310	256	284
23	819	499	400	785	589	1,010	1,080	688	509	a308	256	259
24	1,280	480	412	950	567	1,560	1,350	646	490	a307	256	252
25	1,360	466	583	884	556	1,250	1,330	622	476	a306	256	249
26	1,130	452	617	792	556	1,060	1,280	617	461	303	256	245
27	898	443	556	719	541	925	1,260	682	443	299	252	245
28	961	430	515	663	541	845	1,320	765	430	311	252	245
29	986	426	485	622	525	815	1,360	786	417	299	249	252
30	1,080	457	466	594	-	815	1,340	772	412	292	249	281
31	914	-	452	578	-	822	-	772	-	288	256	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff: Inches	Runoff: Acre-feet
October	18,184	1,360	326	587	1.50	1.73	36,070
November	29,228	5,830	426	974	2.48	2.77	57,970
December	16,101	785	400	519	1.32	1.53	31,940
Calendar year 1943	436,847	15,100	326	1,197	3.05	41.44	866,600
January	23,189	1,380	567	748	1.91	2.20	45,990
February	27,506	2,250	525	948	2.42	2.61	54,560
March	28,547	2,080	504	921	2.35	2.71	56,620
April	32,710	1,410	800	1,090	2.78	3.10	64,880
May	28,409	1,430	617	916	2.34	2.70	56,350
June	17,211	884	412	574	1.46	1.63	34,140
July	10,296	404	288	332	.847	.98	20,420
August	8,288	299	249	267	.681	.79	16,440
September	7,679	296	235	256	.653	.73	15,230
Water year 1943-44	247,348	5,830	235	676	1.72	23.48	490,600

a No gage-height record; discharge computed on basis of records for station at Eula.
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 1944.

Average discharge.- 20 years (1923-26, 1927-44), 2,372 second-feet.

Extremes.- Maximum discharge during year, 17,900 second-feet Nov. 4 (gage height, 10.10 feet); minimum, 503 second-feet Sept. 12, 13 (gage height, 1.26 feet).
1923-44: 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 table, water year 1943-44 (gage height, in feet, and discharge, in second-feet)

1.2	470	4.0	3,010
1.6	695	4.8	4,300
2.1	1,030	5.8	6,090
2.7	1,520	7.0	8,450
3.3	2,120	8.4	12,000

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	728	1,810	1,350	1,450	1,530	1,520	2,340	3,600	2,090	1,040	689	635
2	728	1,610	1,400	2,880	2,280	1,480	2,420	3,310	2,040	1,010	708	659
3	734	2,260	2,100	2,450	2,350	1,480	2,650	3,130	2,150	981	702	602
4	740	11,900	2,160	2,060	2,400	1,520	2,770	3,200	1,990	960	689	574
5	734	9,450	2,270	2,020	4,750	1,560	2,760	3,550	1,820	946	671	564
6	734	5,950	2,010	1,990	5,910	1,550	2,590	3,820	1,740	932	683	547
7	740	4,230	1,800	1,810	5,340	1,620	2,400	3,680	1,670	911	671	536
8	740	3,250	1,730	1,700	4,440	2,000	2,470	3,470	1,640	890	659	525
9	728	2,730	1,630	1,620	3,890	4,300	2,470	3,220	1,640	890	647	520
10	728	2,370	1,520	1,570	3,340	5,620	2,450	2,900	1,560	870	641	514
11	967	2,130	1,450	1,480	2,980	4,330	2,800	2,610	1,540	858	624	508
12	967	1,930	1,380	1,610	2,650	3,520	3,450	2,480	1,500	851	618	503
13	818	1,770	1,320	1,840	2,450	3,000	3,450	2,340	1,430	844	613	503
14	773	1,660	1,270	1,870	2,410	2,610	3,770	2,310	1,360	832	613	520
15	760	1,560	1,220	1,800	2,290	2,370	4,130	2,370	1,320	818	608	542
16	766	1,480	1,190	1,790	2,240	2,210	3,990	2,310	1,330	806	602	547
17	870	1,410	1,170	1,940	2,230	2,140	3,630	2,240	1,380	799	596	708
18	974	1,360	1,140	1,900	2,160	2,130	3,260	2,270	1,400	786	596	799
19	864	1,360	1,120	1,780	2,080	2,210	3,240	2,190	1,450	844	591	671
20	1,050	1,410	1,100	1,690	1,960	2,160	3,190	2,100	1,480	812	591	591
21	2,020	1,470	1,090	1,630	1,870	2,050	3,040	2,030	1,530	780	580	586
22	1,990	1,360	1,050	1,560	1,760	2,030	2,870	2,010	1,450	754	574	630
23	1,870	1,300	1,040	1,800	1,660	2,740	3,000	1,970	1,360	740	574	580
24	3,000	1,240	1,060	2,180	1,610	4,370	3,660	1,860	1,300	740	574	558
25	3,010	1,190	1,450	2,110	1,590	3,470	3,660	1,770	1,250	728	580	547
26	2,610	1,160	1,560	1,960	1,610	2,970	3,550	1,740	1,210	721	580	536
27	2,000	1,120	1,420	1,770	1,580	2,610	3,500	1,820	1,160	714	574	530
28	2,000	1,100	1,320	1,650	1,590	2,410	3,630	2,010	1,120	728	574	525
29	2,020	1,090	1,260	1,570	1,550	2,330	3,770	2,050	1,090	721	564	530
30	2,560	1,120	1,200	1,500	-	2,340	3,790	2,030	1,060	702	552	602
31	2,130	-	1,180	1,470	-	2,360	-	1,990	-	695	547	-

Month	Second-feet-days	Maximum	Minimum	Mean	Per square mile	Runoff Inches	Runoff Acre-feet
October	41,353	3,010	728	1,334	1.42	1.63	82,020
November	73,780	11,900	1,090	2,459	2.61	2.92	146,300
December	43,960	2,270	1,040	1,418	1.51	1.74	87,190
Calendar year 1943	1,132,980	39,900	728	3,104	3.30	44.78	2,247,000
January	56,450	2,880	1,450	1,821	1.94	2.23	112,000
February	74,510	5,910	1,530	2,569	2.73	2.94	147,900
March	79,010	5,620	1,480	2,549	2.71	3.12	156,700
April	94,700	4,130	2,340	3,157	3.35	3.74	187,800
May	78,380	3,820	1,740	2,528	2.69	3.10	155,500
June	45,060	2,150	1,060	1,502	1.60	1.78	89,380
July	25,703	1,040	695	829	.881	1.02	50,980
August	19,085	708	547	616	.655	.75	37,850
September	17,192	799	503	573	.609	.68	34,100
Water year 1943-44	649,183	11,900	503	1,774	1.89	25.65	1,288,000

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 1944. June 1919 to September 1928 at site 4 miles downstream, published as Willamette River at Eugene; 1894 to 1944 (records of stage by U. S. Weather Bureau) at site at Eugene.

Average discharge.- 26 years (1912-13, 1919-44), 4,902 second-feet.

Extremes.- Maximum discharge during year, 34,600 second-feet Nov. 4 (gage height, 11.35 feet); minimum, 650 second-feet (regulated) Sept. 11 (gage height, 1.95 feet).

1911-13, 1919-44: Maximum discharge, 100,000 second-feet Jan. 1, 1943 (gage height, 19.4 feet), from rating curve extended above 61,000 second-feet; minimum, 500 second-feet Aug. 11, 1926.

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

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

Rating table, water year 1943-44 (gage height, in feet, and discharge, in second-feet)

1.9	590	3.3	2,570	6.4	10,740
2.1	830	4.0	3,850	7.4	14,750
2.4	1,220	4.6	5,240	8.6	20,000
2.8	1,790	5.4	7,410	9.5	24,400

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,120	3,310	2,220	2,570	3,160	2,930	3,930	5,830	2,820	1,370	818	710
2	1,100	2,930	2,590	5,720	5,910	2,810	3,890	5,340	2,840	1,350	895	818
3	1,090	3,570	3,460	6,140	6,750	2,790	4,000	4,890	3,020	1,290	806	770
4	1,090	17,600	4,210	4,680	6,860	3,020	4,100	4,700	3,090	1,250	818	734
5	1,080	24,400	5,390	4,680	9,550	3,220	4,130	4,870	2,770	1,220	818	710
6	1,080	13,100	4,370	5,390	14,100	3,270	3,810	5,140	2,550	1,190	830	710
7	1,080	8,780	3,670	4,630	12,700	3,230	3,570	5,040	2,410	1,170	830	698
8	1,080	6,610	3,290	4,040	13,000	3,770	3,690	4,750	2,300	1,140	818	686
9	1,080	5,340	3,090	3,650	10,500	6,410	3,980	4,510	2,270	1,130	806	686
10	1,080	4,700	2,860	3,440	9,320	11,200	3,910	4,190	2,190	1,100	770	686
11	1,170	4,280	2,640	3,110	7,680	8,750	5,190	3,870	2,140	1,060	758	674
12	1,540	3,890	2,470	3,090	6,550	6,950	7,860	3,710	1,980	1,040	746	686
13	1,320	3,650	2,330	3,350	5,980	5,750	7,710	3,500	1,940	1,020	746	722
14	1,190	3,380	2,190	3,380	5,910	4,850	9,390	3,350	1,880	1,010	734	1,100
15	1,160	3,040	2,110	3,230	5,750	4,240	11,300	3,480	1,780	986	734	1,490
16	1,130	2,430	2,020	3,110	5,120	3,830	11,400	3,420	1,780	973	722	1,600
17	1,230	2,230	1,910	3,310	5,570	3,590	10,400	3,270	1,860	960	722	2,230
18	1,640	2,130	1,820	3,440	5,420	3,500	8,850	3,330	1,860	947	722	2,960
19	1,420	2,150	1,790	3,140	5,190	3,590	8,490	3,180	2,040	960	722	1,670
20	1,580	2,110	1,740	3,000	4,630	3,730	8,850	3,020	2,150	1,010	710	1,040
21	3,430	2,280	1,670	2,820	4,170	3,500	8,360	2,930	2,190	960	710	921
22	4,680	2,190	1,640	2,690	3,770	3,360	7,290	2,860	2,120	908	722	960
23	4,730	2,040	1,600	3,330	3,460	4,520	6,660	2,890	1,960	895	698	960
24	6,920	1,940	1,680	5,390	3,220	10,300	7,900	2,760	1,840	882	722	882
25	6,610	1,850	2,910	5,540	3,180	8,140	8,270	2,600	1,740	869	710	830
26	5,720	1,760	4,080	4,820	3,200	6,420	7,680	2,510	1,640	869	722	818
27	4,040	1,670	3,440	4,060	3,220	5,420	7,210	2,510	1,570	856	698	806
28	3,400	1,640	2,910	3,590	3,200	4,750	6,980	2,660	1,510	843	698	782
29	3,330	1,600	2,620	3,290	3,070	4,370	6,610	2,720	1,440	843	698	758
30	3,980	1,660	2,410	3,070	-	4,190	6,250	2,720	1,400	830	686	806
31	3,930	-	2,270	2,880	-	4,080	-	2,660	-	830	686	-

Month	Second-feet-days	Maximum	Minimum	Mean	Per square mile	Runoff Inches	Runoff Acre-feet
October	75,030	6,920	1,080	2,420	1.19	1.37	148,800
November	138,260	24,400	1,600	4,609	2.27	2.53	274,200
December	83,400	5,390	1,600	2,690	1.33	1.53	165,400
Calendar year 1943	2,111,540	92,100	1,000	5,785	2.85	38.69	4,188,000
January	118,580	6,140	2,570	3,825	1.88	2.17	235,200
February	180,140	14,100	3,070	6,212	3.06	3.30	357,300
March	150,480	11,200	2,790	4,854	2.39	2.76	298,500
April	201,660	11,400	3,570	6,722	3.31	3.69	400,000
May	113,210	5,830	2,510	3,652	1.80	2.07	224,500
June	63,080	3,090	1,400	2,103	1.04	1.16	125,100
July	31,761	1,370	830	1,025	.505	.58	63,000
August	23,275	895	686	751	.370	.43	46,170
September	29,903	2,960	674	997	.491	.55	59,310
Water year 1943-44	1,208,779	24,400	674	3,303	1.63	22.14	2,397,000

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 1944.
Average discharge.- 49 years (1895-1944), 13,550 second-feet.
Extremes.- Maximum discharge during year, 46,300 second-feet Nov. 6 (gage height, 12.97 feet); minimum, 2,110 second-feet Sept. 12 (gage height, -0.82 foot).
1878-82, 1892-1944: 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. 99,110). Albany power canal diverts water from South Santiam River into Willamette River above station; small diversions for irrigation.
Cooperation.- Gage-height record collected in cooperation with U. S. Weather Bureau.

Rating tables, water year 1943-44 (gage height, in feet, and discharge, in second-feet)

Oct. 1 to June 5				June 6 to Sept. 30	
0.1	3,090	5.0	15,600	-0.8	2,130
1.0	4,600	7.0	22,400	0.0	3,140
2.0	6,710	9.0	29,600	1.0	4,810
3.0	9,420	11.0	37,500	2.0	6,800
4.0	12,500	12.6	44,600		

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	3,320	10,300	5,950	7,990	8,960	8,130	9,750	14,400	6,110	4,110	2,690	2,260
2	3,260	9,300	7,720	12,500	10,800	7,750	a9,520	13,300	6,610	4,040	2,690	2,310
3	3,240	8,980	10,000	18,000	14,600	7,690	9,280	12,300	6,760	3,940	2,700	2,450
4	3,210	11,900	15,600	16,900	15,700	8,270	9,510	11,500	6,950	3,890	2,730	2,450
5	3,200	28,300	19,100	14,400	16,100	8,870	9,630	11,200	6,850	3,770	2,650	2,360
6	3,180	44,400	19,500	13,600	22,000	9,010	9,630	11,300	6,460	3,740	2,660	2,320
7	3,140	33,500	16,300	13,400	30,600	8,930	9,070	a11,400	6,240	3,690	2,650	2,270
8	3,150	23,400	13,800	12,200	30,800	8,930	8,750	11,400	6,000	3,610	2,650	2,240
9	3,150	18,300	12,200	11,100	27,100	10,300	9,100	10,900	5,780	3,560	2,620	2,210
10	3,160	15,300	10,700	10,000	26,100	16,000	9,390	10,500	5,680	3,480	2,600	2,180
11	3,210	13,500	9,420	9,660	23,100	22,300	9,540	10,000	5,500	3,430	2,560	2,160
12	3,360	12,500	8,640	9,510	20,000	18,800	12,400	9,390	5,320	3,390	2,520	2,130
13	3,860	11,600	7,770	9,450	17,500	15,600	15,900	8,930	5,150	3,310	2,490	2,150
14	3,650	10,900	7,380	9,220	16,100	13,400	17,300	8,610	5,060	3,240	2,450	2,190
15	3,470	10,300	7,020	9,280	15,800	11,700	20,600	8,240	4,900	3,170	2,440	2,400
16	3,380	9,630	6,710	9,330	15,000	10,600	24,200	8,190	4,790	3,140	2,440	2,900
17	3,440	8,840	6,470	9,480	14,400	9,750	25,200	8,240	4,830	3,110	2,440	3,140
18	3,630	8,350	6,200	10,300	14,400	9,190	23,300	7,880	5,020	3,100	2,450	3,720
19	4,100	8,190	6,020	10,300	14,000	8,980	20,700	7,830	5,020	3,080	2,440	4,540
20	4,020	8,240	5,890	9,540	13,400	9,010	20,500	7,720	5,230	3,120	2,430	3,800
21	4,410	8,300	5,740	8,900	12,000	9,160	20,900	7,360	5,480	3,180	2,410	3,140
22	8,020	8,380	5,550	8,440	11,100	8,700	19,600	7,020	5,500	3,080	2,360	2,860
23	11,100	7,300	5,400	9,600	10,200	8,470	17,700	6,900	5,320	3,000	2,330	2,810
24	12,300	6,900	5,420	13,100	9,420	10,400	16,900	6,930	5,080	2,930	2,360	2,770
25	17,300	6,520	6,400	15,800	8,930	17,600	18,200	6,710	4,850	2,930	2,380	2,810
26	16,900	5,890	10,400	15,500	8,810	16,100	18,200	6,380	4,650	2,870	2,380	2,550
27	14,500	5,630	12,000	13,800	8,870	13,600	17,100	a6,320	4,560	2,840	2,360	2,470
28	11,500	5,300	10,800	12,200	8,700	12,100	16,200	a6,260	4,420	2,780	2,330	2,420
29	10,200	5,160	9,390	10,900	8,490	11,000	15,700	6,200	4,300	2,740	2,300	2,410
30	9,450	5,360	8,380	9,690	-	10,300	15,200	6,200	4,200	2,730	2,260	2,460
31	10,700	-	7,770	9,040	-	9,930	-	6,170	-	2,700	2,250	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff Inches	Runoff Acre-feet
October	194,510	17,300	3,140	6,275	1.30	1.49	385,800
November	370,470	44,400	5,160	12,350	2.55	2.85	734,800
December	289,640	19,500	5,400	9,343	1.93	2.23	574,500
Calendar year 1943	5,758,650	210,000	3,140	15,780	3.26	44.26	11,420,000
January	353,130	18,000	7,990	11,390	2.35	2.71	700,400
February	452,980	30,800	8,490	15,620	3.23	3.48	898,500
March	350,570	22,300	7,690	11,310	2.34	2.69	695,300
April	458,970	25,200	8,750	15,300	3.16	3.53	910,400
May	275,680	14,400	6,170	8,893	1.84	2.12	546,800
June	162,620	6,950	4,200	5,421	1.12	1.25	322,600
July	101,700	4,110	2,700	3,281	.678	.78	201,700
August	77,020	2,730	2,250	2,485	.513	.59	152,800
September	78,680	4,540	2,130	2,623	.542	.60	156,100
Water year 1943-44	3,165,970	44,400	2,130	8,650	1.79	24.32	6,280,000

a No gage-height record; discharge computed on basis of records for Willamette River at Springfield and at Salem and Santiam River at Jefferson.
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 1944.

Average discharge.- 24 years, 21,550 second-feet.

Extremes.- Maximum discharge during year, 67,300 second-feet Nov. 6 (gage height, 10.24 feet); minimum, 2,700 second-feet Sept. 12 (gage height, -4.23 feet).

1909-16, 1927-44: 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 (see pp. 99,110).

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

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	4,430	17,100	11,500	13,500	15,300	13,800	17,100	23,900	10,400	6,290	3,670	2,820
2	4,300	15,500	16,300	23,900	17,000	13,200	16,700	22,200	12,700	6,220	3,640	2,820
3	4,280	14,800	26,100	31,700	21,000	13,200	16,700	20,300	13,000	5,990	3,640	2,900
4	4,300	19,200	40,100	28,600	23,400	14,600	17,100	18,900	12,700	5,860	3,670	3,080
5	4,280	53,000	45,200	24,300	25,400	15,100	17,400	18,400	12,400	5,730	3,600	2,970
6	4,260	62,800	41,200	21,300	38,300	15,200	17,400	18,600	11,500	5,600	3,570	2,860
7	4,180	56,100	32,600	20,300	55,500	15,000	16,400	18,600	10,700	5,490	3,550	2,820
8	4,160	40,100	26,500	18,500	53,500	15,900	15,800	18,100	10,100	5,380	3,530	2,800
9	4,150	30,900	22,400	17,000	46,600	22,000	16,200	17,200	9,750	5,360	3,500	2,760
10	4,160	24,600	19,700	15,800	42,400	34,500	16,700	16,900	9,440	5,230	3,450	2,760
11	4,240	21,300	17,400	15,200	38,000	39,000	17,500	16,100	9,140	5,130	3,360	2,750
12	4,370	19,000	15,800	16,400	33,100	33,500	21,700	15,300	8,870	5,000	3,310	2,730
13	4,980	17,400	14,500	17,200	28,600	27,400	27,600	14,700	8,550	4,980	3,240	2,730
14	5,060	16,000	13,400	16,300	26,400	23,000	31,200	14,200	8,310	4,900	3,190	2,750
15	4,740	15,100	12,600	16,400	25,300	20,100	35,000	13,800	8,050	4,820	3,100	2,830
16	4,580	14,200	12,000	17,200	23,900	18,000	39,600	14,500	7,730	4,660	3,080	3,300
17	4,620	13,200	11,400	17,800	23,500	16,500	41,500	14,200	7,760	4,520	3,070	3,760
18	4,800	12,500	10,800	19,600	23,100	15,800	38,300	13,400	8,150	4,430	3,040	4,070
19	5,510	12,200	10,600	19,300	22,900	15,400	34,400	13,200	8,230	4,370	3,040	5,170
20	5,820	12,200	10,100	17,700	21,900	15,700	34,400	12,800	8,500	4,390	2,960	5,490
21	6,470	12,300	9,840	16,300	20,100	15,600	34,300	12,200	9,120	4,470	2,930	4,450
22	13,800	12,300	9,440	15,200	18,500	14,700	32,400	11,700	9,040	4,370	2,890	4,070
23	21,100	11,600	9,200	17,600	17,000	14,500	29,400	11,700	8,680	4,330	2,900	4,040
24	25,200	10,500	9,200	26,100	15,800	19,600	28,400	11,900	8,230	4,160	2,900	3,890
25	41,200	10,300	11,000	27,800	15,000	27,000	29,600	12,000	7,840	4,060	2,930	3,620
26	35,800	9,470	15,400	26,700	15,000	25,400	29,400	11,600	7,500	4,040	2,910	3,370
27	26,900	9,040	17,500	23,500	15,100	22,200	27,900	11,100	7,280	3,910	2,940	3,220
28	20,700	8,630	16,500	20,700	14,900	19,900	26,500	10,900	7,020	3,880	2,930	3,160
29	17,400	8,310	14,800	18,600	14,500	18,200	25,900	11,000	6,760	3,810	2,840	3,130
30	16,300	8,500	13,400	16,800	-	17,400	25,100	10,800	6,520	3,790	2,820	3,280
31	17,400	-	12,600	15,600	-	17,100	-	10,600	-	3,700	2,820	-

Month	Second-feet-days	Maximum	Minimum	Mean	Per square mile	Runoff Inches	Runoff Acre-feet
October	333,490	41,200	4,150	10,760	1.48	1.70	661,500
November	588,150	62,800	8,310	19,600	2.69	3.00	1,167,000
December	549,080	45,200	9,200	17,710	2.43	2.80	1,089,000
Calendar year 1943	9,078,820	285,000	4,150	24,870	3.42	46.36	18,010,000
January	612,900	31,700	13,500	19,770	2.72	3.13	1,216,000
February	751,000	55,500	14,500	25,900	3.56	3.84	1,490,000
March	608,500	39,000	13,200	19,630	2.70	3.11	1,207,000
April	777,600	41,500	15,800	25,920	3.56	3.97	1,542,000
May	460,800	23,900	10,600	14,860	2.04	2.35	914,000
June	273,970	13,000	6,520	9,132	1.25	1.40	543,400
July	148,870	6,290	3,700	4,802	.660	.76	295,300
August	99,020	3,670	2,820	3,194	.439	.51	196,400
September	100,400	5,490	2,730	3,347	.460	.51	199,100
Water year 1943-44	5,303,780	62,800	2,730	14,490	1.99	27.08	10,520,000

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 1944.

Average discharge.- 12 years, 264 second-feet.

Extremes.- 1942-43: Maximum discharge during water year, 3,800 second-feet (revised) Dec. 31 (gage height, 7.15 feet), from rating curve extended above 1,700 second-feet; minimum, 95 second-feet Oct. 9, 10 (gage height, 1.40 feet).
1943-44: Maximum discharge during water year, 1,620 second-feet Nov. 4 (gage height, 4.65 feet, from floodmark in well); minimum, 81 second-feet Sept. 11-13 (gage height, 1.73 feet).
1913-14, 1933-44: Maximum discharge, that of Dec. 31, 1942; minimum, 55 second-feet Jan. 8, 1937 (computed on basis of record for Solomon Creek near Oakridge).

Remarks.- Records fair for water year 1942-43, good for water year 1943-44, except those for periods of no gage-height record, which are poor. No diversion above station; slight diurnal fluctuation at times.

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

Revisions.- Revised figures of discharge for the water year 1942-43 are given herein, superseding those published in Water-Supply Paper 984.

Rating tables, water years 1942-44 (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Nov. 30 to Dec. 30, 1942)

Oct. 1 to Dec. 30, 1942				Dec. 31, 1942, to Sept. 30, 1944					
1.4	95	3.2	620	1.7	74	2.6	310	4.2	1,340
1.7	135	3.6	820	1.9	120	2.9	420	4.8	1,740
2.0	200	4.1	1,070	2.1	170	3.3	620	5.8	2,580
2.4	310	4.7	1,420	2.3	220	3.7	885	7.0	3,660
2.8	450	5.7	2,040						

Discharge, in second-feet, 1942-44

1942-43

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	98	157	1,590	2,790	352	289	456	510	1,290	424	175	160
2	98	161	1,470	1,830	424	277	442	475	1,160	408	175	158
3	98	222	1,080	1,280	416	265	470	470	1,040	424	172	152
4	97	171	795	998	565	256	442	460	864	429	170	150
5	97	147	665	829	587	244	465	452	759	384	178	148
6	97	132	584	693	525	238	460	465	668	373	172	145
7	97	238	557	604	550	280	456	442	626	373	168	145
8	96	438	920	545	515	424	480	416	626	362	165	142
9	96	271	825	505	447	475	447	408	626	345	162	142
10	99	208	740	465	416	416	420	416	609	324	160	142
11	111	173	630	434	442	376	416	396	550	307	160	142
12	110	159	580	404	460	352	434	373	510	289	158	142
13	102	149	598	384	490	348	475	356	465	271	155	142
14	103	284	580	376	500	334	535	342	438	259	152	140
15	108	640	544	373	505	317	592	342	416	253	152	140
16	102	478	534	362	505	304	598	338	416	241	150	138
17	99	482	522	342	490	295	555	331	438	232	150	138
18	98	430	494	310	465	283	540	328	500	229	148	138
19	98	334	458	320	447	265	638	342	485	229	148	138
20	97	271	450	429	429	253	650	366	442	226	148	138
21	97	245	426	822	424	244	808	380	416	220	155	135
22	97	354	498	922	420	235	650	388	424	215	165	135
23	97	965	522	650	392	226	598	452	434	212	158	132
24	97	1,560	640	525	366	223	555	525	408	205	165	132
25	96	860	695	465	342	241	525	570	465	200	155	132
26	98	912	606	434	324	320	475	565	447	195	152	135
27	122	1,800	1,380	424	310	348	452	550	429	188	148	138
28	110	1,100	1,790	429	298	362	515	530	424	185	150	135
29	114	2,040	1,410	420	-	434	540	500	434	180	192	135
30	116	1,980	2,190	398	-	447	525	510	434	178	185	132
31	110	-	3,500	366	-	438	-	864	-	178	165	-

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.) 2,990 sec.-ft.; Dec. 28 (3 a.m.) 2,000 sec.-ft.; Dec. 31 (12:30 a.m.) 3,660 sec.-ft.; Dec. 31 (12 m.) 3,800 sec.-ft.

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Discharge, in second-feet, of Salt Creek near Oakridge, Oreg., 1942-44--Continued

1943-44

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	132	230	178	180	175	175	298	470	392	160	110	110
2	132	220	185	235	220	175	314	447	362	155	115	108
3	132	280	208	212	210	175	345	434	366	150	110	94
4	131	1,100	215	198	230	180	359	456	334	148	108	92
5	131	900	215	202	450	180	356	510	314	142	108	87
6	131	530	202	198	580	180	338	570	310	140	108	87
7	130	416	195	190	520	190	324	555	304	140	108	85
8	130	356	198	182	450	210	331	525	301	140	106	85
9	129	307	188	180	400	560	328	490	298	140	103	83
10	129	265	182	175	360	620	331	442	277	136	101	83
11	160	241	178	172	320	500	376	416	301	132	98	83
12	150	226	175	175	300	410	408	388	277	128	96	83
13	145	212	172	178	290	350	412	373	247	128	96	85
14	142	202	168	178	280	300	412	384	226	126	96	87
15	140	195	165	178	270	280	412	396	218	122	96	89
16	138	190	162	175	265	270	400	384	229	120	94	92
17	170	185	160	178	260	260	373	376	235	120	94	115
18	160	182	160	170	250	250	356	373	229	120	94	115
19	150	185	160	168	240	250	356	373	226	122	94	101
20	180	195	158	170	230	240	348	362	220	122	94	92
21	240	195	155	172	220	229	342	359	232	120	92	92
22	220	185	152	178	210	229	334	352	215	118	92	89
23	210	180	152	185	200	338	366	338	205	118	92	87
24	270	175	160	190	195	447	456	320	200	115	92	85
25	290	170	185	190	190	376	456	310	195	113	92	83
26	250	168	182	185	185	338	442	320	188	113	92	85
27	220	165	178	180	180	310	442	352	180	110	92	83
28	230	162	170	163	180	292	456	380	172	115	89	83
29	240	162	168	158	175	283	465	404	168	113	89	83
30	300	170	162	156	-	286	485	396	165	110	87	94
31	260	-	160	154	-	289	-	373	-	108	87	-

Note.- No gage-height record Oct. 2 to Nov. 5, Jan. 23 to Mar. 20; discharge computed on basis of records for Middle Fork Willamette River above Salt Creek, near Oakridge, and Salmon Creek near Oakridge.

Monthly discharge, in second-feet, 1942-44

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff	
						Inches	Acre-feet
October 1942	3,155	122	96	102	0.903	1.04	6,260
November	17,361	2,040	132	579	5.12	5.71	34,440
December	28,273	3,500	426	912	8.07	9.31	56,086
Calendar year 1942	115,162	3,500	96	31.6	2.80	37.90	228,400
January 1943	20,126	2,790	310	649	5.74	6.62	39,920
February	12,406	587	298	443	3.92	4.08	24,610
March	9,809	475	223	316	2.80	3.23	19,460
April	15,614	808	416	520	4.60	5.14	30,970
May	13,862	864	328	447	3.96	4.56	27,490
June	17,243	1,290	408	575	5.09	5.67	34,200
July	8,538	429	178	275	2.43	2.81	16,930
August	5,008	192	148	162	1.43	1.65	9,930
September	4,221	160	132	141	1.25	1.39	8,370
Water year 1942-43	155,616	3,500	96	42.6	3.77	51.21	308,700
October 1943	5,572	300	129	180	1.59	1.83	11,050
November	8,349	1,100	162	278	2.46	2.75	16,560
December	5,448	215	152	176	1.56	1.79	10,810
Calendar year 1943	126,196	2,790	129	346	3.06	41.52	250,300
January 1944	5,605	235	154	181	1.60	1.84	11,120
February	8,035	580	175	277	2.45	2.64	15,940
March	9,172	620	175	296	2.62	3.02	18,190
April	11,421	485	298	381	3.37	3.76	22,650
May	12,628	570	310	407	3.60	4.16	25,050
June	7,586	392	165	253	2.24	2.50	15,050
July	3,942	160	108	127	1.12	1.30	7,820
August	3,025	115	87	97.6	.864	1.00	6,000
September	2,720	115	83	90.7	.803	.90	5,400
Water year 1943-44	83,503	1,100	83	228	2.02	27.49	165,600

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 1944. 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.- 11 years (1933-44), 349 second-feet.
Extremes.- Maximum discharge during year, 2,140 second-feet Nov. 4 (gage height, 4.64 feet); minimum, 108 second-feet Sept. 12, 13 (gage height, 1.15 feet).
1913-19, 1933-44: Maximum discharge, 6,400 second-feet Jan. 12, 1918, from rating curve extended above 1,600 second-feet; minimum, 63 second-feet Jan. 8, 1937 (gage height, 0.87 foot).
Remarks.- Records good except those for period of no gage-height record, which are poor. 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 1943-44 (gage height, in feet, and discharge, in second-feet)

Oct. 1 to Nov. 3		Nov. 4 to Sept. 30			
1.3	150	1.1	100	2.3	450
1.5	192	1.3	133	2.7	640
1.7	244	1.6	205	3.3	985
1.9	304	1.9	300	4.0	1,520
2.1	372				

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	154	273			205	217	356	585	335	186	133	133
2	154	253			247	214	378	536	328	181	133	122
3	154	334			256	214	418	518	328	176	133	117
4	152	1,520			272	214	434	540	307	171	131	115
5	150	1,250			597	214	426	610	290	168	131	114
6	150	778			734	214	398	640	279	166	131	112
7	152	580			670	226	378	610	276	166	129	110
8	150	459			570	262	390	565	272	164	128	110
9	148	390			500	668	374	526	272	161	128	109
10	150	342		a240	438	794	378	468	256	159	126	109
11	200	310			390	635	438	426	250	154	124	109
12	170	286			352	526	495	406	241	154	124	108
13	158	265			332	454	508	378	232	152	122	109
14	156	250			324	394	536	382	223	152	122	112
15	156	235			307	360	565	394	223	150	122	112
16	156	226	a230		304	335	540	378	229	148	120	122
17	185	217			296	328	508	378	238	146	120	161
18	177	211			290	324	472	366	241	148	120	154
19	166	211		223	276	328	468	352	235	156	120	128
20	210	220		217	262	318	454	338	247	148	119	119
21	292	217		211	256	304	434	335	265	144	119	117
22	267	205		208	244	304	418	328	250	141	119	115
23	264	a200		229	235	408	454	318	235	141	119	114
24	330	a190		241	241	531	565	300	229	139	119	112
25	354	a185		235	226	450	555	293	220	139	119	110
26	311	a180		229	226	402	545	293	214	137	119	110
27	267	a177		217	223	363	545	310	208	135	117	109
28	273	a174		208	223	346	575	324	200	137	115	109
29	288	a174		202	220	338	610	332	192	135	114	112
30	354	a190		197	-	342	615	328	189	133	114	117
31	307	-		194	-	352	-	321	-	131	114	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff Inches	Runoff Acre-feet
October	6,555	354	148	211	1.80	2.08	13,000
November	10,502	1,520	174	350	2.99	3.34	20,830
December	7,130	-	-	230	1.97	2.27	14,140
Calendar year 1943	161,542	4,130	148	443	3.79	51.35	320,400
January	7,131	-	-	230	1.97	2.27	14,140
February	9,716	734	205	335	2.86	3.09	19,270
March	11,379	794	214	367	3.14	3.62	22,570
April	14,230	615	356	474	4.05	4.52	28,220
May	12,878	640	293	415	3.55	4.09	25,540
June	7,504	335	189	250	2.14	2.39	14,880
July	4,718	186	131	152	1.30	1.50	9,360
August	3,804	133	114	123	1.05	1.21	7,550
September	3,510	161	108	117	1.00	1.12	6,960
Water year 1943-44	99,057	1,520	108	271	2.32	31.50	196,500

a No gage-height record; discharge computed on basis of records for Salt Creek near Oakridge and North Fork of Middle Fork Willamette River near Oakridge.
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 1944.

Extremes.- Maximum discharge during year, 32 second-feet Apr. 24, 25 (gage height, 1.00 foot); practically no flow Aug. 27 to Sept. 30 (lake level below weir crest).
1936-44: Maximum discharge, 144 second-feet Jan. 2, 1943 (gage height, 2.98 feet), from rating curve extended above 80 second-feet; no flow at times.

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

Rating table, water year 1943-44 (gage height, in feet, and discharge, in second-feet)

0.0	0	0.4	9.4
.1	1.2	.6	16.5
.2	3.3	.8	24
.3	6.2	1.0	32

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	3.6	9.8			9.4		21	30	28	24	9.8	
2	3.0	9.4			10		21	29	29	23	9.4	
3	2.6	11			10		21	28	30	22	8.6	
4	2.3	20			11		21	28	29	22	8.4	
5	1.9	24					21	28	29	21	7.7	
6	1.7	24					20	27	28	21	7.1	
7	1.5	23					20	27	28	20	6.5	
8	1.3	22					22	27	28	19	5.9	
9	1.2	22					23	28	29	19	5.6	
10	1.2	21					23	28	29	18	5.0	
11	2.3	21					23	28	29	17	4.4	
12	2.3	21					24	27	29	17	4.1	
13	1.9	20					25	27	28	16	3.6	
14	1.7	20					27	27	27	16	2.8	
15	1.5	19	a10	a14		a20	28	27	27	15	2.5	
16	1.5	19			a14		29	27	28	15	2.1	
17	1.7	18					29	27	28	14	1.7	
18	1.7	18					29	27	29	14	1.5	
19	1.5	18					29	27	29	14	1.2	
20	2.3	18					30	27	29	14	1.0	
21	4.4	18					30	27	30	13	.8	
22	5.6	18					29	27	29	13	.7	
23	6.8	17					29	27	28	12	.4	
24	8.4	16					31	27	28	12	.2	
25	9.0	16					32	26	28	11	.1	
26	9.0	15					32	26	27	10	.1	
27	8.4	15					31	26	26	10	0	
28	9.0	14					31	26	26	13	0	
29	9.8	14					31	26	25	12	0	
30	11	a14			-	22	30	26	24	11	0	
31	10	-			-	22	-	27	-	10	0	

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff Inches	Runoff Acre-feet
October	130.0	11	1.2	4.19	0.140	0.16	258
November	535.2	24	9.4	17.8	.593	.66	1,060
December	310	-	-	a10.0	.333	.38	615
Calendar year 1943	17,894.5	142	1.2	49.0	1.63	22.18	35,500
January	434	-	-	a14.0	.467	.54	861
February	390.4	-	-	13.5	.450	.48	774
March	624	-	-	20.1	.670	.77	1,240
April	792	32	20	26.4	.880	.98	1,570
May	842	30	26	27.2	.907	1.04	1,670
June	841	30	24	28.0	.933	1.04	1,670
July	488	24	10	15.7	.523	.60	968
August	101.2	9.8	0	3.26	.109	.13	201
September	0	0	0	0	0	0	0
Water year 1943-44	5,487.8	32	0	15.0	.500	6.78	10,890

a No gage-height record; discharge computed on basis of weather records, recorded range in stage, and records for Odell Creek near Crescent.
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 1944. October 1913 to February 1916 at site half a mile upstream, above a small tributary.
Extremes.- Maximum discharge during year, 5,590 second-feet (regulated) Nov. 4 (gage height, 7.72 feet); minimum, 66 second-feet (regulated) Jan. 30 (gage height, 0.49 foot); minimum daily, 111 second-feet Aug. 21, 30, 31, Sept. 11, 12.
1909-16, 1935-44: Maximum discharge determined, 15,900 second-feet (regulated) Dec. 31, 1942 (gage height, 14.24 feet), from rating curve extended above 5,800 second-feet by logarithmic plotting. Flood of Nov. 22, 1909, reached a stage of 12.4 feet, site and datum then in use (discharge not determined); minimum discharge, 26 second-feet (regulated) Oct. 14, 1939.
Remarks.- Records good except those for days of no gage-height record, 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 table, water year 1943-44 (gage height, in feet, and discharge, in second-feet)

0.7	103	2.5	765
.9	146	3.0	1,070
1.2	220	3.7	1,550
1.6	340	4.7	2,350
2.0	500	6.1	3,690

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	146	46S	364	431	439	411	682	f1,020	500	254	151	133
2	144	423	427	704	555	399	721	a9S0	496	24S	153	139
3	144	650	699	600	590	403	795	a970	505	242	148	128
4	144	3,670	710	520	622	407	831	a990	468	240	146	124
5	142	3,020	699	520	1,2S0	419	S07	a1,100	439	230	146	120
6	139	1,820	600	505	1,770	419	754	a1,150	411	225	14S	116
7	139	1,260	545	460	1,640	451	710	a1,0S0	391	222	146	116
8	139	969	510	427	1,330	535	743	h945	375	220	144	116
9	135	825	464	411	1,120	1,320	732	a840	379	218	142	116
10	137	704	427	391	951	1,540	726	a750	36S	212	139	114
11	230	622	415	383	S67	1,1S0	849	a6S0	350	205	135	111
12	212	555	3S7	411	765	963	1,020	a640	336	200	131	111
13	168	500	375	423	710	e37	1,010	a600	326	198	131	114
14	153	460	358	427	704	74S	1,080	a620	312	195	12S	118
15	14S	419	336	427	655	694	1,210	h644	308	192	128	126
16	14S	403	330	443	650	63S	1,150	a610	312	18S	126	133
17	190	383	312	500	63S	622	1,040	a580	333	185	124	200
18	216	36S	305	4S2	606	611	957	a5S0	350	180	124	220
19	1S0	364	302	f46S	580	f644	957	a560	364	202	124	168
20	260	375	293	h451	540	f616	933	a550	391	190	124	142
21	535	372	2S1	h435	510	565	S97	a540	379	1S0	111	135
22	530	347	27S	a419	496	565	855	h530	354	175	120	139
23	535	333	272	eh475	464	819	S91	a500	336	172	120	131
24	S19	316	290	f540	447	1,080	1,040	a450	319	16S	120	124
25	S07	305	3S7	515	443	S79	1,010	a410	295	165	120	122
26	655	299	399	4S2	451	765	987	a400	299	163	120	120
27	510	2S7	361	447	443	699	9S7	a430	284	160	11S	118
28	496	27S	336	431	431	660	1,020	a480	275	163	116	116
29	491	275	316	415	419	650	1,080	a475	269	163	114	120
30	6SS	296	305	399	-	660	1,080	f468	260	156	111	135
31	550	-	305	391	-	672	-	460	-	153	111	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff Inches	Runoff Acre-feet
October	9,932	S19	135	320	1.30	1.50	19,700
November	21,366	3,670	275	712	2.S9	3.23	42,380
December	12,38S	710	272	400	1.63	1.87	24,570
Calendar year 1943	311,072	10,900	135	852	3.46	47.02	617,000
January	14,333	704	383	462	1.88	2.17	28,430
February	21,116	1,770	419	72S	2.96	3.19	41,880
March	21,891	1,540	399	706	2.S7	3.31	43,420
April	27,584	1,210	682	91S	3.73	4.17	54,650
May	21,032	1,150	400	67S	2.76	3.1S	41,720
June	10,784	505	260	359	1.46	1.63	21,390
July	6,064	254	153	196	.797	.92	12,030
August	4,019	153	111	130	.528	.61	7,970
September	3,927	220	111	131	.533	.59	7,790
Water year 1943-44	174,406	3,670	111	477	1.94	26.37	345,900

a No gage-height record; discharge computed on basis of records for Middle Fork Willamette River at Eula and Salmon Creek near Oakridge.
e Gage reading not representative of mean for day; discharge computed on basis of records for Middle Fork Willamette River at Eula and Salmon Creek near Oakridge.
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.

Fall Creek below Winberry Creek, near Fall Creek, Oreg.

Location.- Staff gage, lat. 43°57', long. 122°47', near center of sec. 2, T. 19 S., R. 1 W., 1⅛ miles downstream from Winberry Creek and 2⅛ 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 1944.

Extremes.- Maximum discharge observed during year, 7,520 second-feet Nov. 4 (gage height, 10.8 feet), from rating curve extended above 4,000 second-feet by logarithmic plotting; minimum observed, 24 second-feet Sept. 12 (gage height, 0.78 foot).
1935-44: Maximum discharge, 16,000 second-feet Dec. 31, 1942 (gage height, 15.5 feet, from graph based on gage readings), from rating curve extended above 4,000 second-feet by logarithmic plotting; minimum observed, 19 second-feet Dec. 1, 1936.

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

Rating table, water year 1943-44 (gage height, in feet, and discharge, in second-feet)

0.7	18	1.9	161	4.0	880
.9	33	2.2	222	4.8	1,330
1.1	50	2.6	320	5.6	1,870
1.3	70	3.0	450	6.6	2,640
1.6	110	3.5	640	8.0	4,000

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	39	275	310	288	268	344	429	499	222	90	50	31
2	39	222	282	760	584	320	401	450	204	87	50	66
3	41	556	632	462	616	320	387	394	260	85	54	39
4	41	4,030	536	344	703	323	356	359	240	82	52	35
5	40	2,640	667	418	1,590	362	374	350	204	80	52	33
6	39	1,250	471	457	1,900	362	332	335	182	80	52	31
7	41	870	380	401	1,490	a390	341	315	165	77	52	29
8	41	536	320	332	1,100	540	415	298	157	76	50	28
9	39	443	285	300	1,170	1,550	429	298	154	72	48	27
10	39	329	248	280	955	1,460	450	265	143	72	48	25
11	59	290	218	245	850	950	492	236	136	68	46	25
12	116	248	200	275	620	694	520	285	129	66	45	24
13	57	222	196	245	528	584	1,140	255	123	63	43	27
14	46	196	176	224	572	499	1,340	240	120	63	41	34
15	43	184	161	213	568	415	1,930	250	123	63	40	36
16	48	170	148	204	568	359	2,010	236	116	61	39	39
17	120	161	143	243	667	344	1,220	238	138	61	39	250
18	157	157	136	234	616	323	1,190	272	140	59	41	190
19	75	163	133	213	588	380	1,220	240	240	63	41	d64
20	90	150	128	200	536	401	1,330	220	211	61	39	46
21	721	178	123	190	488	384	1,090	207	165	60	38	41
22	1,330	156	120	172	412	374	1,010	209	154	57	36	41
23	658	143	116	323	362	1,270	980	255	143	55	35	39
24	965	133	128	580	320	2,010	980	224	133	55	37	36
25	810	126	209	560	350	1,150	965	204	123	54	36	33
26	520	121	443	422	401	835	900	192	116	54	35	31
27	326	113	326	353	432	690	870	200	107	54	34	30
28	282	110	278	305	418	596	765	186	98	54	33	29
29	218	104	240	280	374	560	672	174	95	54	31	32
30	485	136	207	250	-	524	576	167	95	50	29	41
31	362	-	200	236	-	492	-	172	-	50	28	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff Inches	Runoff Acre-feet
October	7,887	1,330	39	254	1.34	1.54	15,640
November	14,412	4,030	104	480	2.53	2.82	28,590
December	8,162	667	116	263	1.38	1.60	16,190
Calendar year 1943	207,712	11,800	38	569	2.99	40.66	411,900
January	10,029	760	172	324	1.71	1.96	19,890
February	20,046	1,900	268	691	3.64	3.92	39,760
March	19,805	2,010	320	639	3.36	3.88	39,280
April	25,114	2,010	333	837	4.41	4.92	49,810
May	8,225	499	167	265	1.39	1.61	16,310
June	4,636	260	95	155	.816	.91	9,200
July	2,025	90	50	65.3	.344	.40	4,020
August	1,294	54	28	41.7	.219	.25	2,570
September	1,432	250	24	47.7	.251	.28	2,840
Water year 1943-44	123,067	4,030	24	336	1.77	24.09	244,100

a No gage-height record; discharge computed on basis of records for Middle Fork Willamette River at Eula.
d Doubtful gage height; discharge computed on basis of records for Middle Fork 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 Fall Creek.

Drainage area.- 48 square miles.

Records available.- September 1935 to September 1944.

Extremes.- Maximum discharge during year, 1,850 second-feet Nov. 4 (gage height, 5.50 feet, from graph based on gage readings); minimum observed, 14 second-feet Sept. 8-13. 1935-44: Maximum discharge, 5,000 second-feet Dec. 31, 1942 (gage height, 7.60 feet, from floodmark), from rating curve extended above 1,800 second-feet by velocity-area studies; minimum observed, 10 second-feet Dec. 1, 1936, Aug. 26, 27, Aug. 30 to Sept. 1, 1940.

Remarks.- Records good. Gage read twice daily Oct. 11 to Apr. 30, once daily at other times. No regulation or diversion above station.

Rating table, water year 1943-44 (gage height, in feet, and discharge, in second-feet)

1.1	12	2.1	84	3.7	520
1.3	19	2.3	115	4.2	750
1.5	28	2.6	170	4.8	1,150
1.7	41	2.9	245		
1.9	60	3.3	375		

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	19	101	139	130	130	132	130	172	72	39	23	19
2	19	88	145	212	160	127	124	164	78	38	23	d24
3	19	166	198	168	190	129	117	156	80	38	22	19
4	19	1,180	218	146	202	130	117	139	72	37	22	18
5	19	618	190	150	480	132	118	132	66	36	22	16
6	18	400	156	143	600	137	110	127	62	35	22	15
7	18	290	136	129	476	139	104	118	61	34	22	15
8	18	212	125	124	392	152	a126	113	59	33	21	14
9	18	172	112	110	396	375	130	116	57	33	21	14
10	18	168	104	113	326	347	134	107	56	32	21	14
11	49	130	96	107	278	272	198	110	55	32	21	14
12	30	117	88	109	238	218	232	107	53	31	20	14
13	23	107	84	104	212	198	281	98	53	30	20	14
14	21	98	80	94	228	170	372	104	52	30	19	16
15	21	88	76	96	208	156	476	110	51	30	19	17
16	21	83	72	94	215	145	476	94	51	29	19	18
17	50	80	70	124	212	136	466	101	55	29	19	48
18	42	78	66	110	212	127	382	94	d57	29	19	47
19	29	a80	64	102	205	141	400	88	d75	30	19	26
20	71	a74	63	96	188	130	386	83	d65	29	18	20
21	272	a83	61	92	178	120	350	80	55	27	18	18
22	396	72	59	86	160	117	302	83	53	26	18	19
23	275	68	58	137	152	299	278	83	51	26	18	17
24	358	66	62	188	145	322	302	79	47	26	18	17
25	242	63	152	168	145	248	287	75	47	26	18	16
26	180	61	148	152	152	210	272	72	46	25	18	16
27	158	59	124	132	152	188	228	68	43	24	d17	15
28	117	57	107	122	148	166	235	67	40	24	17	15
29	104	56	96	113	141	154	212	d65	39	24	16	16
30	130	68	88	105	-	145	192	64	39	24	16	20
31	110	-	84	102	-	137	-	70	-	23	16	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff Inches	Runoff Acre-feet
October	2,884	396	18	93.0	1.94	2.23	5,720
November	4,983	1,180	56	166	3.46	3.86	9,880
December	3,321	218	58	107	2.23	2.57	6,590
Calendar year 1943	68,083	3,820	18	187	3.90	52.75	135,000
January	3,858	212	86	124	2.58	2.99	7,650
February	6,921	600	130	239	4.98	5.36	13,730
March	5,599	375	117	181	3.77	4.34	11,110
April	7,537	476	104	251	5.23	5.84	14,950
May	3,138	172	64	101	2.10	2.43	6,220
June	1,690	80	39	56.3	1.17	1.31	3,350
July	929	39	23	30.0	.625	.72	1,840
August	602	23	16	19.4	.404	.47	1,190
September	571	48	14	19.0	.396	.44	1,130
Water year 1943-44	42,033	1,180	14	115	2.40	32.56	83,360

a No gage-height record; discharge computed on basis of records for Middle Fork Willamette River at Eula.
d Doubtful gage-height record; discharge computed on basis of records for Middle Fork Willamette River at Eula.

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 1944.

Extremes.- Maximum discharge during year, 2,210 second-feet Nov. 4 (gage height, 6.04 feet); minimum observed, 12 second-feet Sept. 8-12.
1935-44: Maximum discharge, 6,650 second-feet Dec. 30, 1942 (gage height, 11.11 feet), from rating curve extended above 3,400 second-feet; minimum, 10 second-feet on several days in 1936, 1938, 1939, 1940.

Remarks.- Records good. No diversion above station; millpond 3 miles above station may cause slight regulation at times.

Rating table, water year 1943-44 (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Sept. 30)

1.0	11	2.0	127	3.7	790
1.2	18	2.3	205	4.2	1,060
1.4	32	2.6	305	4.8	1,420
1.6	55	2.9	420		
1.8	87	3.3	595		

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	18	72	106	105	192	112	102	167	66	36	19	16
2	18	68	95	340	348	106	96	151	75	34	19	17
3	18	327	87	235	384	114	93	139	114	33	19	15
4	18	1,400	165	169	330	146	89	127	93	32	19	14
5	18	715	183	232	464	177	85	119	78	32	19	14
6	17	384	134	252	505	172	80	110	68	31	20	13
7	17	252	108	199	436	167	78	102	64	30	19	13
8	17	180	98	159	400	172	114	98	61	30	18	12
9	17	146	85	137	496	284	132	98	58	30	18	12
10	18	123	78	125	432	316	121	93	54	29	18	12
11	61	106	73	110	333	252	303	104	52	28	17	12
12	30	93	67	108	263	205	404	95	50	27	17	12
13	22	84	62	104	223	172	428	87	48	26	16	13
14	20	77	60	96	220	146	582	84	47	26	16	14
15	21	72	58	91	208	132	582	98	46	26	16	14
16	22	67	55	87	202	121	523	85	45	26	16	14
17	39	64	52	114	249	112	464	89	45	25	16	32
18	34	64	51	106	235	106	380	87	47	24	17	37
19	26	64	50	98	211	114	396	78	72	24	16	23
20	56	70	48	91	188	108	424	75	58	23	16	18
21	188	64	46	84	172	98	400	72	56	23	16	17
22	264	58	45	82	151	95	336	70	51	23	15	17
23	238	54	43	197	137	208	312	70	47	22	16	16
24	336	51	52	280	127	308	420	66	45	22	16	16
25	364	48	164	252	127	232	420	62	42	21	16	15
26	191	47	154	199	129	185	352	61	41	20	15	15
27	121	46	116	159	127	161	302	60	39	20	15	15
28	93	45	96	134	127	141	256	56	37	19	14	15
29	82	46	82	119	119	127	217	56	36	19	14	18
30	100	73	73	108	-	116	191	56	36	19	13	33
31	84	-	73	102	-	108	-	61	-	19	14	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff Inches	Runoff Acre-feet
October	2,568	364	17	82.8	1.20	1.38	5,090
November	4,960	1,400	45	165	2.39	2.67	9,840
December	2,659	183	43	85.8	1.24	1.43	5,270
Calendar year 1943	73,365	3,630	17	201	2.91	39.54	145,500
January	4,674	340	82	151	2.19	2.52	9,270
February	7,535	505	119	260	3.77	4.06	14,950
March	5,013	316	95	162	2.35	2.70	9,940
April	8,682	582	78	289	4.19	4.68	17,220
May	2,776	167	56	89.5	1.30	1.50	5,510
June	1,671	114	36	55.7	.807	.90	3,310
July	799	36	19	25.8	.374	.43	1,580
August	515	20	13	16.6	.241	.28	1,020
September	504	37	12	16.8	.243	.27	1,000
Water year 1943-44	42,356	1,400	12	116	1.68	22.82	84,000

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. Gage readings are elevations above mean sea level (surveys by Corps of Engineers, U. S. Army).

Records available.- October 1942 to September 1944.

Extremes.- Maximum contents observed during year, 33,390 acre-feet May 11, 12 (elevation, 791.26 feet); minimum observed, 646 acre-feet Jan. 26 (elevation, 738.74 feet).
1942-44: Maximum contents observed, 34,200 acre-feet June 2, 1943 (elevation, 791.95 feet); minimum since first filling, that of Jan. 26, 1944.

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. Daily contents computed from reservoir elevation at midnight.

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

Contents, in acre-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	19,420	5,676	927	943	1,025	8,175	20,120	31,940	33,260	33,150	32,940	32,050
2	18,900	5,141	935	991	1,423	8,476	20,340	32,170	33,300	33,130	32,910	32,010
3	18,390	5,080	864	896	1,675	8,776	20,540	32,440	33,340	33,120	32,890	31,970
4	17,880	7,907	944	840	1,763	9,135	20,750	32,710	33,340	33,120	32,860	31,950
5	17,370	9,005	977	938	2,094	9,572	20,920	32,940	33,310	33,120	32,830	31,930
6	16,870	9,182	882	1,075	2,402	10,010	21,090	33,150	33,290	33,120	32,820	31,910
7	16,370	9,017	864	1,079	3,010	10,430	21,260	33,290	33,280	33,110	32,800	31,860
8	15,860	8,643	883	1,008	3,509	10,850	21,590	33,320	33,250	33,110	32,780	31,810
9	15,350	7,996	869	866	3,781	11,500	21,910	33,340	33,250	33,110	32,750	31,770
10	14,870	6,782	872	849	4,177	12,260	22,210	33,340	33,230	33,110	32,720	31,720
11	14,480	5,350	874	883	4,602	12,870	23,070	33,390	33,220	33,110	32,700	31,680
12	14,010	3,859	863	880	4,370	13,440	24,020	33,380	33,200	33,110	32,660	31,550
13	13,520	2,454	838	810	3,828	13,840	25,100	33,370	33,190	33,100	32,630	30,850
14	13,040	1,153	816	734	3,314	14,210	26,070	33,370	33,190	33,100	32,590	29,330
15	12,550	765	764	699	3,068	14,540	26,540	33,340	33,190	33,100	32,560	27,460
16	12,100	757	837	704	3,169	14,830	27,080	33,330	33,190	33,100	32,520	25,250
17	11,640	814	867	699	3,274	15,100	27,600	33,340	33,200	33,100	32,490	21,920
18	11,220	822	891	692	3,612	15,350	28,010	33,330	33,240	33,090	32,470	19,370
19	10,620	789	915	681	3,949	15,620	28,430	33,320	33,260	33,090	32,430	19,030
20	10,100	790	933	690	4,355	15,850	28,550	33,300	33,260	33,080	32,400	18,830
21	9,712	801	944	704	4,870	16,070	28,740	33,300	33,260	33,080	32,360	18,640
22	9,523	783	951	730	5,297	16,280	29,340	33,300	33,240	33,060	32,340	18,440
23	9,445	758	904	768	5,699	16,800	29,700	33,290	33,220	33,060	32,320	18,240
24	9,385	727	858	831	6,033	17,440	29,860	33,270	33,200	33,050	32,280	18,030
25	9,457	717	899	681	6,403	17,980	29,690	33,260	33,200	33,050	32,260	17,820
26	9,135	720	822	716	6,787	18,410	30,410	33,250	33,190	33,050	32,220	17,620
27	8,643	717	816	758	7,155	18,780	30,550	33,240	33,180	33,040	32,200	17,490
28	8,068	717	883	757	7,529	19,100	30,810	33,240	33,170	33,020	32,170	17,390
29	7,465	737	911	796	7,863	19,400	31,240	33,240	33,160	33,010	32,130	17,350
30	6,920	788	866	814	-	19,660	31,640	33,240	33,160	32,980	32,100	17,040
31	6,280	-	867	852	-	19,910	-	33,250	-	32,970	32,070	-

Note.- Contents, Oct. 14-23, Nov. 15, 16, 19-30, Dec. 15, 16, Jan. 13-30, Feb. 15, determined by interpolation from once-daily gage readings.

Monthly elevation and contents, water year October 1943 to September 1944

Date	Elevation (feet)†	Contents (acre-feet)	Change in contents during month (acre-feet)
Sept.30	778.21	19,920	-
Oct. 31	758.39	6,280	-13,640
Nov. 30	739.81	788	-5,492
Dec. 31	740.34	867	+79
Calendar year 1943...	-	-	-25,413
Jan. 31	740.24	852	-15
Feb. 29	761.42	7,863	+7,011
Mar. 31	778.20	19,910	+12,047
Apr. 30	789.74	31,640	+11,730
May 31	791.14	33,250	+1,610
June 30	791.06	33,160	-90
July 31	790.90	32,970	-190
Aug. 31	790.11	32,070	-900
Sept.30	774.87	17,040	-15,030
Water year 1943-44...	-	-	-2,880

† Elevation at midnight.
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). Station equipment razed in June 1944.

Drainage area.- 108 square miles.

Records available.- January 1939 to September 1944 (records do not include flow in logging flume diverting up to 15 second-feet around gage prior to Aug. 23, 1940), when station was discontinued.

Extremes.- Maximum discharge during year, 1,950 second-feet (regulated) Sept. 17 (gage height, 7.21 feet on gage 0.8 mile upstream); minimum, 4 second-feet (regulated) Mar. 2 (gage height, 1.95 feet).
1939-44: Maximum discharge recorded, 3,340 second-feet (regulated) Jan. 4, 1943 (gage height, 10.06 feet); minimum, 4 second-feet (regulated) Aug. 21, 1941, Mar. 2, 1944 (gage height, 1.95 feet).

Remarks.- Records good. 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 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	269	403	54	112	159	5	27	63	75	39	26	26
2	268	363	110	408	291	5	23	91	86	34	26	26
3	268	415	148	395	355	21	23	37	106	33	26	26
4	268	468	183	283	297	22	23	34	115	32	26	26
5	268	468	245	289	444	22	23	33	104	32	26	26
6	265	460	240	295	507	23	23	44	90	31	26	26
7	265	454	171	295	293	24	23	54	80	31	26	26
8	262	446	127	284	294	24	23	94	72	30	26	26
9	260	534	128	289	556	20	23	117	71	29	26	26
10	260	761	106	192	386	22	23	115	66	28	26	26
11	260	834	99	151	252	23	28	129	62	28	26	26
12	258	884	99	166	479	23	28	136	56	27	26	73
13	265	861	97	192	608	23	29	121	55	25	26	382
14	268	781	90	176	597	23	238	112	54	23	26	810
15	268	317	82	152	435	23	534	144	53	23	26	965
16	265	69	58	129	243	21	429	121	53	23	26	1,150
17	265	52	54	150	260	26	373	117	53	22	26	1,760
18	262	81	54	144	154	26	331	112	53	23	26	1,300
19	350	89	56	144	123	26	350	102	78	22	26	191
20	403	86	56	108	74	26	502	94	74	21	26	112
21	406	86	56	115	13	26	422	89	71	20	26	112
22	409	84	56	107	11	26	145	89	70	19	26	112
23	409	84	81	207	10	27	240	89	62	19	26	112
24	409	84	101	290	27	27	453	80	56	19	26	112
25	409	71	196	410	9	26	587	76	50	19	26	110
26	406	62	262	250	7	26	103	74	47	18	26	110
27	403	62	159	225	6	26	286	72	44	17	26	70
28	409	56	101	200	6	26	211	69	42	17	26	52
29	406	52	101	183	5	26	67	68	42	17	26	52
30	406	53	127	151	-	26	45	66	40	17	26	185
31	406	-	102	121	-	26	-	80	-	19	26	-

Month	Observed				Change in contents in Cottage Grove Reservoir (acre-feet)	Adjusted for change in contents			
	Discharge in second-feet			Runoff in acre-feet		Runoff in acre-feet	Discharge in second-feet		Runoff in inches
	Maximum	Minimum	Mean				Mean	Per square mile	
October	409	258	322	19,820	-13,640	6,180	101	0.935	1.06
November	884	52	317	18,880	-5,492	13,388	225	2.08	2.32
December	262	54	116	7,140	+79	7,219	117	1.08	1.24
Calendar year 1943	3,210	41	306	221,300	-25,413	195,887	271	2.51	33.99
January	410	107	213	13,120	-15	13,105	213	1.97	2.27
February	608	5	238	13,690	+7,011	20,701	360	3.33	3.59
March	27	5	23.1	1,420	+12,047	13,467	219	2.03	2.34
April	587	23	188	11,180	+11,730	22,910	385	3.56	3.97
May	144	33	87.8	5,400	+1,610	7,010	114	1.06	1.22
June	115	40	66.0	3,930	-90	3,840	64.5	.597	.67
July	39	17	24.4	1,500	-190	1,310	21.3	.197	.23
August	26	26	26.0	1,600	-900	700	11.4	.106	.12
September	1,760	26	269	15,980	-15,030	950	16.0	.148	.17
Water year 1943-44	1,760	5	157	113,660	-2,880	110,780	153	1.42	19.22

Note.- Discharge for Jan. 24-27, June 13 to Sept. 30, computed from records of stage and stage-discharge relation at station 0.8 mile upstream.
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 1944 (1924-27 incomplete).

Average discharge.- 18 years (1925-26, 1927-44), 1,118 second-feet.

Extremes.- Maximum discharge during year, 14,600 second-feet Nov. 4 (gage height, 8.15 feet); minimum, 45 second-feet Sept. 8, 10, 12.
1923-44: Maximum discharge, 30,600 second-feet Dec. 30, 1942 (gage height, 11.92 feet); 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. 99).

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

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	306	920	412	481	840	555	739	942	354	158	73	56
2	300	811	548	1,830	2,090	518	730	890	373	149	73	64
3	300	1,250	739	1,640	2,330	555	714	793	570	137	78	69
4	300	7,910	830	1,150	2,180	634	674	739	602	134	78	67
5	300	4,780	1,240	1,280	3,830	714	650	730	460	134	75	56
6	300	2,600	986	1,500	4,040	706	586	714	399	127	75	57
7	300	1,800	775	1,270	3,040	714	555	626	336	124	78	56
8	300	1,370	642	1,110	2,360	1,020	602	610	318	124	75	52
9	300	1,160	618	975	2,800	2,460	784	610	294	120	73	52
10	300	1,240	570	870	2,380	2,780	784	594	278	117	73	51
11	324	1,290	439	714	1,850	1,940	1,510	578	261	113	73	54
12	373	1,270	392	730	1,720	1,450	2,190	578	234	110	71	54
13	354	1,220	354	820	1,620	1,140	2,210	525	228	104	69	406
14	342	1,130	330	775	1,600	870	2,910	510	218	102	69	766
15	324	684	312	698	1,480	766	3,360	570	213	99	64	953
16	324	306	272	650	1,240	666	3,200	510	202	93	64	1,150
17	342	266	244	682	1,450	626	2,910	495	202	90	71	1,780
18	386	272	234	658	1,350	618	2,380	502	213	90	73	1,650
19	432	300	228	618	1,220	642	2,360	467	263	93	71	306
20	594	289	223	562	1,030	650	2,620	418	324	88	69	202
21	1,200	324	218	540	830	594	2,500	386	324	85	64	192
22	1,450	289	213	502	706	578	1,930	386	278	80	67	278
23	1,320	272	223	775	634	1,230	1,850	386	255	75	64	197
24	2,110	266	266	1,540	602	2,770	2,310	373	228	75	58	173
25	2,190	244	714	1,640	586	1,880	2,410	348	213	78	58	154
26	1,390	218	1,130	1,240	602	1,420	1,830	330	197	73	58	137
27	986	213	811	953	602	1,160	1,880	324	178	71	58	137
28	880	208	626	870	618	1,020	1,720	324	173	71	57	104
29	820	202	525	739	586	953	1,350	318	163	69	52	107
30	1,110	228	481	666	-	860	1,110	312	158	67	51	261
31	1,030	-	439	618	-	784	-	312	-	67	52	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff	
						Inches	Acre-feet
October	21,287	2,190	300	687	1.30	1.50	42,220
November	33,332	7,910	202	1,111	2.10	2.34	66,110
December	16,034	1,240	213	517	.977	1.13	31,800
Calendar year 1943	487,761	22,600	96	1,336	2.53	34.30	967,500
January	29,096	1,830	481	939	1.78	2.05	57,710
February	46,216	4,040	586	1,594	3.01	3.25	91,670
March	33,273	2,780	518	1,073	2.03	2.34	66,000
April	51,358	3,360	555	1,712	3.24	3.61	101,900
May	16,200	942	312	523	.989	1.14	32,130
June	8,529	602	158	284	.537	.60	16,920
July	3,117	158	67	101	.191	.22	6,180
August	2,084	78	51	67.2	.127	.15	4,130
September	9,641	1,780	51	321	.607	.68	19,120
Water year 1943-44	270,167	7,910	51	738	1.40	19.01	535,900

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 1944.

Extremes.- Maximum discharge during year, 7,160 second-feet Nov. 4 (gage height, 9.78 feet); minimum, 16 second-feet Sept. 11, 12 (gage height, 1.48 feet).
1935-44: Maximum discharge, 18,500 second-feet Dec. 30, 1942 (gage height, 14.00 feet), from rating curve extended above 9,300 second-feet; minimum, 12 second-feet Sept. 2, 1940.

Remarks.- Records excellent except those below 50 second-feet, which are good. No diversion above station; possibly slight regulation at times by log ponds.

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

Rating table, water year 1943-44 (gage height, in feet, and discharge, in second-feet)

1.5	17	2.9	162	5.0	1,000
1.7	28	3.2	225	5.7	1,500
2.0	49	3.6	333	6.5	2,200
2.3	76	4.0	477	7.5	3,290
2.6	112	4.5	710	8.5	4,660

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	27	259	216	259	367	292	457	586	178	69	34	22
2	27	201	225	904	1,020	272	457	494	186	65	35	33
3	27	508	336	610	1,070	289	465	469	315	64	38	29
4	26	3,990	414	426	940	339	422	453	283	62	35	24
5	26	2,250	541	494	2,380	411	382	469	221	59	34	22
6	24	1,090	359	596	2,020	396	324	418	182	58	35	20
7	24	660	281	457	1,440	426	292	362	158	56	34	18
8	26	449	267	382	1,100	738	349	321	144	55	33	18
9	25	330	244	333	1,120	1,990	426	300	136	54	33	18
10	26	265	214	309	979	1,920	445	270	124	51	31	17
11	44	218	188	270	787	1,180	837	252	112	49	30	16
12	58	186	164	318	630	820	1,210	252	109	49	28	18
13	40	157	146	396	532	630	1,210	232	99	48	28	18
14	32	141	132	346	528	498	1,440	230	95	47	27	20
15	31	127	121	292	528	418	1,530	257	92	47	27	27
16	32	115	112	262	511	365	1,410	230	89	46	27	32
17	47	108	103	309	610	359	1,250	223	88	44	26	61
18	69	102	99	283	596	372	1,020	227	95	43	27	78
19	50	108	94	244	532	404	1,090	207	136	43	27	52
20	75	112	92	230	461	390	1,160	188	180	43	26	36
21	437	142	87	207	415	349	1,100	180	157	41	25	65
22	534	118	85	186	359	349	934	180	130	40	24	104
23	492	104	82	316	321	1,080	928	186	112	40	24	51
24	1,000	95	91	620	306	1,900	1,010	178	100	40	23	37
25	1,020	88	296	537	303	1,180	992	160	94	40	23	30
26	554	84	422	426	318	838	922	155	85	38	23	27
27	306	80	288	346	321	660	910	157	79	38	23	26
28	242	78	232	295	324	582	874	162	76	38	22	24
29	210	76	192	265	303	545	809	157	73	36	20	26
30	541	95	166	249	-	537	700	144	69	35	20	47
31	368	-	149	265	-	498	-	142	-	35	19	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff	
						Inches	Acre-feet
October	6,440	1,020	24	208	0.986	1.14	12,770
November	12,336	3,990	76	411	1.95	2.17	24,470
December	6,436	541	82	208	.986	1.13	12,770
Calendar year 1943	198,847	9,570	24	545	2.58	35.04	394,500
January	11,432	904	186	369	1.75	2.01	22,680
February	21,121	2,380	303	728	3.45	3.72	41,890
March	21,027	1,990	272	678	3.21	3.71	41,710
April	25,355	1,530	292	845	4.00	4.47	50,290
May	8,241	586	142	266	1.26	1.45	16,350
June	3,997	315	69	133	.630	.70	7,930
July	1,473	69	35	47.5	.225	.26	2,920
August	861	38	19	27.8	.132	.15	1,710
September	1,016	104	16	33.9	.161	.18	2,020
Water year 1943-44	119,736	3,990	16	327	1.55	21.09	237,500

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 3⅛ miles northwest of Dorena. Datum of gage is 685.24 feet above mean sea level, datum of 1929 (levels by Corps of Engineers, U. S. Army).

Drainage area.- 270 square miles.

Records available.- January 1939 to September 1944.

Extremes.- Maximum discharge during year, 9,040 second-feet Nov. 4 (gage height, 11.09 feet); minimum, 20 second-feet Sept. 11 (gage height, 1.41 feet).
1939-44: Maximum discharge, 20,000 second-feet Dec. 30, 1942 (gage height, 17.45 feet); minimum, 14 second-feet Aug. 29 to Sept. 2, 1940 (gage height, 1.23 feet).

Remarks.- Records good except those for July 21 to Aug. 28, which are fair. No diversion or regulation above station.

Rating tables, water year 1943-44 (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used July 29 to Sept. 9)

Oct. 1 to Nov. 4

1.5	25	2.6	325	5.0	1,830
1.7	55	3.0	510	6.0	2,650
1.9	98	3.5	790	7.5	4,100
2.2	182	4.2	1,250	9.0	5,980

Nov. 5 to Sept. 30

1.4	19	1.7	56
1.5	29	1.9	98

Note.- Same as preceding table above 1.9 feet.

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	30	321	241	257	469	410	571	742	214	93	42	28
2	30	245	259	1,130	1,360	384	560	632	221	89	42	40
3	32	662	366	832	1,430	392	560	582	348	84	48	39
4	30	5,090	492	576	1,300	438	515	555	352	82	41	31
5	28	2,940	676	676	2,810	520	475	566	266	80	41	27
6	26	1,450	456	856	2,610	520	410	520	221	75	41	26
7	25	902	356	648	1,950	545	374	495	204	73	42	25
8	29	604	338	525	1,530	876	438	406	185	71	41	24
9	29	446	309	451	1,630	2,190	550	379	179	69	39	23
10	30	356	266	415	1,440	2,350	571	352	164	66	39	22
11	46	297	238	366	1,140	1,480	1,140	334	152	62	39	21
12	73	248	211	402	908	1,070	1,650	330	144	60	37	22
13	50	211	188	485	742	814	1,610	301	135	60	36	23
14	38	198	173	433	754	648	1,970	289	130	58	36	26
15	35	182	158	374	760	545	2,070	338	124	56	34	35
16	38	167	146	338	742	475	1,990	297	121	56	35	37
17	59	152	135	384	922	456	1,800	285	121	54	35	67
18	96	146	130	370	882	465	1,460	297	130	54	36	116
19	67	149	124	317	790	500	1,520	270	173	53	35	71
20	101	152	119	289	682	495	1,610	241	214	53	35	47
21	558	185	114	263	604	442	1,530	231	201	52	34	53
22	648	161	108	241	520	428	1,300	231	167	48	31	135
23	588	144	106	388	456	1,230	1,240	238	149	47	31	64
24	1,260	130	116	870	428	2,370	1,390	224	135	47	30	47
25	1,240	121	343	784	424	1,520	1,380	211	124	47	29	39
26	694	116	566	620	456	1,090	1,260	201	116	44	28	34
27	392	111	392	490	470	870	1,190	204	108	44	28	31
28	293	106	309	415	465	742	1,120	208	101	44	27	30
29	252	103	255	370	433	694	1,030	198	98	44	25	34
30	620	121	224	334	-	664	876	185	93	42	24	53
31	446	-	204	338	-	626	-	182	-	42	25	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff	
						Inches	Acre-feet
October	7,883	1,260	25	254	0.941	1.09	15,640
November	16,216	5,090	103	541	2.00	2.23	32,160
December	8,118	676	106	262	.970	1.12	16,100
Calendar year 1943	255,791	12,400	25	701	2.60	35.23	507,300
January	15,237	1,130	241	492	1.82	2.10	30,220
February	29,107	2,810	424	1,004	3.72	4.01	57,730
March	26,249	2,370	384	847	3.14	3.62	52,060
April	34,160	2,070	374	1,139	4.22	4.71	67,760
May	10,524	742	182	339	1.26	1.45	20,870
June	5,090	352	93	170	.630	.70	10,100
July	1,849	93	42	59.6	.221	.25	3,670
August	1,084	46	24	35.0	.130	.15	2,150
September	1,270	135	21	42.3	.157	.17	2,520
Water year 1943-44	156,787	5,090	21	428	1.59	21.60	311,000

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 1944.

Extremes.- Maximum discharge during year, 2,760 second-feet Nov. 4 (gage height, 5.1 feet, from graph based on gage readings); minimum observed, 5.0 second-feet Sept. 9-12. 1936-44: Maximum discharge, 7,760 second-feet Dec. 30, 1942 (gage height, 9.8 feet, from floodmark), from rating curve extended above 2,100 second-feet; minimum, 3 second-feet Aug. 15 to Sept. 2, 1940.

Remarks.- Records fair. Gage read once daily, twice daily at medium and high stages. No diversion or regulation above station.

Rating table, water year 1943-44 (gage height, in feet, and discharge, in second-feet)

0.4	3.5	1.0	79	2.1	485
.5	8.5	1.2	127	2.5	710
.6	16	1.5	217	3.0	1,020
.8	40	1.8	340	3.6	1,420

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	9.2	64	102	184	120	88	110	143	54	23	12	a7.0
2	9.2	110	117	367	313	84	102	127	62	22	11	d8.0
3	a9.2	287	97	258	455	79	93	117	71	22	a11	a7.0
4	8.5	1,460	d190	184	376	97	86	107	71	a21	11	6.5
5	8.5	830	d210	236	425	138	81	97	66	21	10	6.0
6	a8.5	367	138	367	445	151	d78	90	62	20	a11	a6.0
7	8.5	243	102	270	529	154	a90	86	54	20	10	6.0
8	8.5	181	84	a200	430	a160	a110	79	47	a19	10	5.5
9	12	122	71	a150	507	385	a150	75	44	19	9.2	5.0
10	a14	107	58	a130	420	410	a160	71	40	18	9.2	a5.0
11	16	75	51	a110	308	a380	573	77	37	18	8.5	a5.0
12	20	62	51	a110	254	344	465	71	34	17	8.5	a5.0
13	14	54	47	a105	194	266	529	64	33	a16	a8.0	a6.0
14	10	a49	44	88	204	197	606	54	32	16	8.0	a7.0
15	a9	44	40	79	197	154	668	58	32	16	a8.0	a9
16	12	40	39	75	204	110	639	62	32	16	8.0	a10
17	13	40	37	102	266	100	562	66	30	16	a8.0	a11
18	18	37	a36	97	262	93	445	62	30	16	8.0	a15
19	16	37	34	86	217	97	425	56	53	15	a8.0	10
20	40	36	33	75	191	102	d460	54	62	14	a7.5	a9.0
21	149	34	29	66	175	93	d430	51	54	14	7.5	8.5
22	254	34	27	62	143	93	d390	47	47	14	a7.5	8.0
23	295	33	26	107	122	214	d370	44	40	a14	7.5	7.5
24	362	32	a33	254	112	405	d440	42	36	14	a7.5	a7.5
25	415	29	a100	304	104	291	d430	42	33	13	7.5	7.0
26	217	26	a175	191	a108	214	340	47	32	13	7.5	7.0
27	122	26	a125	160	112	191	270	51	29	13	7.0	6.5
28	84	25	97	132	102	163	239	53	29	12	a7.0	6.5
29	88	24	79	120	97	143	a200	53	26	12	7.0	7.5
30	79	40	66	102	-	130	163	37	24	a12	6.5	10
31	71	-	93	90	-	120	-	45	-	12	6.5	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff	
						Inches	Acre-feet
October	2,400.1	415	8.5	77.4	0.911	1.05	4,760
November	4,548	1,460	24	152	1.79	1.99	9,020
December	2,431	210	26	78.4	.922	1.06	4,820
Calendar year 1943	72,399.1	3,820	8.5	198	2.33	31.68	143,600
January	4,861	367	62	157	1.85	2.13	9,640
February	7,392	529	97	255	3.00	3.23	14,660
March	5,646	410	79	182	2.14	2.47	11,200
April	9,704	668	78	323	3.80	4.25	19,250
May	2,128	143	37	68.6	.807	.93	4,220
June	1,296	71	24	43.2	.508	.57	2,570
July	508	23	12	16.4	.193	.22	1,010
August	263.9	12	6.5	8.51	.100	.12	523
September	225.0	15	5.0	7.50	.088	.10	446
Water year 1943-44	41,403.0	1,460	5.0	113	1.33	18.12	82,120

a No gage-height record; discharge computed on basis of records for Row River near Dorena.
d Doubtful gage-height record; discharge computed on basis of records for Row River 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 1944.

Average discharge.- 28 years (1910-14, 1915-16, 1918-21, 1923-25, 1926-44), 1,580 second-feet.

Extremes.- Maximum discharge during year, 4,240 second-feet Nov. 4 (gage height, 3.62 feet); minimum, 872 second-feet Sept. 23-29 (gage height, 0.93 foot).
1910-44: 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 excellent. No diversion or regulation above station.

Rating table, water year 1943-44 (gage height, in feet, and discharge, in second-feet)

0.9	850	2.0	1,950
1.2	1,090	2.4	2,450
1.6	1,490	2.9	3,120

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,130	1,330	1,400	1,360	1,220	1,170	1,330	1,580	1,310	1,130	997	918
2	1,130	1,310	1,480	1,500	1,230	1,160	1,360	1,530	1,290	1,130	989	910
3	1,130	1,560	1,880	1,370	1,230	1,160	1,410	1,520	1,300	1,130	981	910
4	1,130	3,180	1,880	1,330	1,250	1,150	1,420	1,540	1,270	1,120	961	902
5	1,130	2,580	1,750	1,300	1,520	1,140	1,410	1,620	1,250	1,110	981	902
6	1,120	2,070	1,600	1,270	2,000	1,140	1,380	1,620	1,240	1,100	973	902
7	1,120	1,850	1,540	1,250	1,840	1,140	1,360	1,580	1,230	1,090	973	902
8	1,120	1,720	1,500	1,240	1,670	1,150	1,370	1,560	1,230	1,090	965	895
9	1,110	1,640	1,460	1,220	1,570	1,560	1,350	1,540	1,220	1,080	965	888
10	1,110	1,590	1,420	1,210	1,490	1,570	1,360	1,490	1,210	1,070	957	888
11	1,140	1,540	1,390	1,200	1,460	1,410	1,410	1,470	1,200	1,060	957	888
12	1,120	1,510	1,360	1,200	1,410	1,360	1,440	1,460	1,190	1,060	857	888
13	1,110	1,490	1,340	1,190	1,400	1,330	1,470	1,440	1,180	1,060	949	888
14	1,100	1,450	1,320	1,200	1,400	1,300	1,510	1,440	1,170	1,050	949	895
15	1,100	1,420	1,300	1,210	1,360	1,280	1,580	1,450	1,170	1,050	949	888
16	1,090	1,380	1,280	1,220	1,360	1,260	1,570	1,440	1,170	1,040	941	895
17	1,120	1,360	1,280	1,270	1,330	1,280	1,530	1,410	1,180	1,040	941	910
18	1,090	1,340	1,270	1,260	1,320	1,280	1,510	1,410	1,170	1,040	941	910
19	1,100	1,330	1,260	1,250	1,310	1,300	1,520	1,380	1,180	1,040	933	888
20	1,160	1,330	1,240	1,230	1,290	1,280	1,510	1,360	1,180	1,030	933	880
21	1,270	1,310	1,230	1,220	1,280	1,250	1,480	1,340	1,170	1,030	933	888
22	1,300	1,290	1,210	1,220	1,260	1,240	1,460	1,330	1,160	1,030	933	888
23	1,320	1,270	1,200	1,350	1,250	1,370	1,520	1,330	1,160	1,020	925	880
24	1,580	1,260	1,210	1,330	1,240	1,390	1,610	1,310	1,150	1,020	925	872
25	1,560	1,250	1,260	1,300	1,230	1,360	1,570	1,300	1,150	1,010	925	872
26	1,390	1,240	1,220	1,280	1,220	1,340	1,540	1,290	1,150	1,010	925	872
27	1,340	1,230	1,200	1,260	1,200	1,310	1,570	1,290	1,150	1,000	918	872
28	1,340	1,220	1,180	1,240	1,190	1,290	1,610	1,290	1,140	1,000	918	872
29	1,360	1,210	1,170	1,230	1,180	1,290	1,640	1,280	1,140	997	918	888
30	1,440	1,310	1,160	1,220	-	1,300	1,630	1,260	1,140	997	910	888
31	1,370	-	1,170	1,210	-	1,320	-	1,270	-	989	910	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff Inches	Runoff Acre-feet
October	37,630	1,580	1,090	1,214	3.52	4.06	74,640
November	45,570	3,180	1,210	1,519	4.40	4.91	90,390
December	42,160	1,880	1,160	1,360	3.94	4.54	83,620
Calendar year 1943	639,440	8,540	1,090	1,752	5.08	68.92	1,268,000
January	39,140	1,500	1,190	1,263	3.66	4.22	77,630
February	39,710	2,000	1,180	1,369	3.97	4.28	78,760
March	39,880	1,570	1,140	1,286	3.73	4.30	79,100
April	44,430	1,640	1,330	1,481	4.29	4.79	88,130
May	44,130	1,620	1,260	1,424	4.13	4.76	87,530
June	35,650	1,310	1,140	1,195	3.46	3.86	71,110
July	32,623	1,130	989	1,052	3.05	3.52	64,710
August	29,352	997	910	947	2.74	3.16	58,220
September	26,739	918	872	891	2.58	2.88	53,040
Water year 1943-44	457,214	3,180	872	1,249	3.62	49.28	906,900

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

McKenzie River near Vida, Oreg.

Location.- Water-stage recorder, lat. 44°07', long. 122°28', in NE¼ sec. 5, T. 17 S., R. 3 E., 1 mile upstream from head of Martin Rapids and 5 miles east of Vida. Datum of gage is 855.56 feet above mean sea level, datum of 1929.

Drainage area.- 930 square miles.

Records available.- September 1924 to September 1944. June 1910 to March 1911 (gage heights only) at site at Martin Rapids.

Average discharge.- 20 years, 3,566 second-feet.

Extremes.- Maximum discharge during year, 20,800 second-feet Nov. 4 (gage height, 7.65 feet); minimum, 1,310 second-feet Sept. 11, 12 (gage height, 0.60 foot).

1924-44: Maximum discharge, 48,900 second-feet Jan. 1, 1943 (gage height, 14.6 feet) from rating curve extended above 25,000 second-feet; minimum, 1,260 second-feet Nov. 7, 1930, Sept. 17, Oct. 4, 8, 9, 1931 (gage height, 0.36 foot).

Flood of Jan. 6, 1923, reached a stage of 17.25 feet (discharge, 60,000 second-feet, estimated).

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

Cooperation.- Water-stage recorder inspected by employee of Eugene Water Board.

Rating table, water year 1943-44 (gage height, in feet, and discharge, in second-feet)

0.6	1,310	2.0	3,450	4.0	8,250
1.0	1,810	2.5	4,430	5.0	11,250
1.5	2,560	3.0	5,550	6.0	14,700

Disoharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,690	2,850	3,300	3,200	2,480	2,350	3,260	4,270	2,970	1,950	1,530	1,430
2	1,690	2,680	3,360	4,490	2,800	2,320	3,360	3,970	2,870	1,920	1,560	1,420
3	1,680	3,770	5,240	3,640	2,880	2,300	3,580	3,830	3,060	1,890	1,530	1,380
4	1,680	14,700	5,080	3,190	3,060	2,320	3,620	3,890	2,880	1,870	1,510	1,360
5	1,670	10,600	4,680	3,010	5,320	2,340	3,540	4,130	2,710	1,850	1,500	1,350
6	1,650	6,770	3,930	2,830	7,680	2,320	3,360	4,210	2,590	1,820	1,510	1,350
7	1,650	5,080	3,510	2,680	6,470	2,370	3,240	4,050	2,510	1,810	1,500	1,330
8	1,650	4,270	3,340	2,590	5,150	2,640	3,430	3,870	2,460	1,800	1,480	1,330
9	1,640	3,790	3,120	2,510	4,510	6,100	3,370	3,750	2,480	1,780	1,480	1,330
10	1,650	3,450	2,950	2,450	3,970	6,140	3,360	3,510	2,380	1,770	1,470	1,320
11	1,910	3,210	2,830	2,380	3,660	4,640	3,750	3,300	2,350	1,760	1,470	1,320
12	1,800	3,040	2,730	2,430	3,410	3,970	4,110	3,280	2,290	1,730	1,470	1,320
13	1,710	2,880	2,630	2,450	3,240	3,530	4,270	3,150	2,220	1,720	1,440	1,330
14	1,670	2,760	2,540	2,430	3,260	3,210	4,840	3,130	2,180	1,710	1,440	1,360
15	1,670	2,660	2,480	2,460	3,120	3,040	5,820	3,210	2,160	1,690	1,440	1,360
16	1,680	2,560	2,420	2,560	3,060	2,900	5,380	3,130	2,210	1,680	1,430	1,390
17	1,880	2,500	2,370	2,870	2,990	2,900	4,770	3,080	2,370	1,670	1,430	1,560
18	1,840	2,450	2,320	2,850	2,940	2,920	4,330	3,130	2,290	1,670	1,430	1,640
19	1,760	2,430	2,300	2,700	2,870	2,970	4,330	3,010	2,370	1,740	1,430	1,450
20	2,150	2,450	2,240	2,610	2,780	2,920	4,290	2,880	2,500	1,680	1,420	1,380
21	3,510	2,480	2,200	2,540	2,730	2,800	4,070	2,820	2,510	1,640	1,420	1,410
22	3,990	2,340	2,160	2,480	2,640	2,750	3,850	2,830	2,370	1,630	1,410	1,420
23	3,780	2,270	2,140	3,080	2,560	3,860	4,110	2,870	2,290	1,600	1,410	1,370
24	5,330	2,220	2,200	3,320	2,530	4,560	4,680	2,760	2,220	1,600	1,410	1,360
25	4,750	2,180	2,710	3,080	2,500	3,790	4,430	2,700	2,160	1,590	1,410	1,350
26	3,700	2,150	2,660	2,880	2,540	3,430	4,310	2,630	2,120	1,580	1,390	1,330
27	3,130	2,100	2,460	2,730	2,500	3,220	4,350	2,660	2,080	1,580	1,390	1,320
28	2,990	2,090	2,370	2,610	2,460	3,130	4,580	2,730	2,030	1,580	1,380	1,320
29	2,900	2,060	2,300	2,530	2,400	3,150	4,680	2,680	2,010	1,560	1,370	1,360
30	3,560	2,420	2,240	2,460	-	3,210	4,560	2,610	1,980	1,550	1,360	1,420
31	3,150	-	2,200	2,430	-	3,280	-	2,610	-	1,540	1,360	-

Month	Seoond-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff	
						Inches	Acre-feet
October	75,510	5,330	1,640	2,436	2.62	3.02	149,800
November	107,150	14,700	2,060	3,572	3.84	4.28	212,500
December	89,010	5,240	2,140	2,871	3.09	3.56	176,500
Calendar year 1943	1,558,320	38,000	1,640	4,269	4.59	62.31	3,091,000
January	86,450	4,490	2,380	2,789	3.00	3.46	171,500
February	98,510	7,680	2,400	3,397	3.65	3.94	195,400
March	101,380	6,140	2,300	3,270	3.52	4.05	201,100
April	123,630	5,820	3,240	4,121	4.43	4.94	245,200
May	100,680	4,270	2,610	3,248	3.49	4.03	199,700
June	71,620	3,060	1,980	2,387	2.57	2.66	142,100
July	52,960	1,950	1,540	1,708	1.84	2.12	105,000
August	44,780	1,560	1,360	1,445	1.55	1.79	88,820
September	41,390	1,640	1,320	1,380	1.48	1.66	82,100
Water year 1943-44	993,070	14,700	1,320	2,713	2.92	39.71	1,969,000

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 1944.

Extremes.- Maximum discharge during year, 3,900 second-feet Nov. 4 (gage height, 5.34 feet); minimum daily, 18 second-feet Sept. 10-12.
1935-44: Maximum discharge, 8,020 second-feet Dec. 31, 1942 (gage height, 8.15 feet), from rating curve extended above 5,500 second-feet; minimum, 13 second-feet Sept. 27, 28, Oct. 1, 2, 1938.

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

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	26	245	412	564	217	153	335	412	194	56	44	28
2	24	212	565	758	275	153	372	362	180	53	56	35
3	24	466	1,020	473	300	153	400	335	223	53	40	28
4	24	2,600	884	350	350	162	389	345	189	50	38	24
5	24	1,510	678	295	1,020	180	362	372	153	48	38	21
6	24	848	473	250	1,510	189	325	362	132	48	36	20
7	24	544	372	222	1,010	207	295	325	112	48	36	20
8	24	378	330	207	694	310	310	290	105	48	34	20
9	24	285	275	189	525	1,240	306	265	98	48	34	20
10	24	226	245	176	418	992	310	231	88	46	33	18
11	70	180	217	158	362	602	372	207	78	46	32	18
12	36	153	198	180	320	448	436	203	72	46	31	18
13	27	128	180	194	290	362	466	194	70	44	31	19
14	26	112	166	203	285	310	567	189	61	42	30	21
15	24	98	153	226	260	270	726	189	61	42	29	23
16	26	88	141	260	250	250	640	180	64	42	28	35
17	42	81	132	330	236	265	525	176	75	44	28	50
18	42	75	124	310	226	275	454	184	75	46	28	90
19	36	72	116	270	217	280	460	162	109	53	27	60
20	140	78	109	240	203	260	454	147	149	44	27	40
21	406	72	105	222	194	240	418	137	141	42	26	41
22	546	64	102	207	180	226	389	145	109	40	25	45
23	661	58	95	372	171	382	460	158	95	40	25	37
24	1,220	53	112	389	166	460	518	149	81	40	24	31
25	857	50	231	335	166	350	454	137	75	40	24	28
26	473	48	198	290	171	310	442	128	87	40	23	26
27	330	46	176	255	171	275	473	128	61	40	23	24
28	270	44	162	226	171	265	524	128	58	38	22	23
29	265	44	149	212	162	290	532	116	56	38	22	30
30	394	190	141	198	-	320	480	102	53	38	21	60
31	315	-	137	189	-	340	-	112	-	38	21	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff Inches	Runoff Acre-feet
October	6,448	1,220	24	208	2.77	3.20	12,790
November	9,048	2,600	44	302	4.03	4.49	17,950
December	8,398	1,020	95	271	3.61	4.16	16,660
Calendar year 1943	134,886	4,300	24	370	4.93	66.88	267,600
January	8,750	758	158	282	3.76	4.34	17,360
February	10,520	1,510	162	363	4.84	5.22	20,870
March	10,519	1,240	153	339	4.52	5.22	20,860
April	13,193	726	295	440	5.87	6.54	26,170
May	6,570	412	102	212	2.83	3.26	13,030
June	3,084	223	53	103	1.37	1.53	6,120
July	1,381	56	38	44.5	.593	.68	2,740
August	936	56	21	30.2	.403	.46	1,860
September	953	90	18	31.8	.424	.47	1,890
Water year 1943-44	79,800	2,600	18	218	2.91	39.67	158,300

Note.- No gage-height record Aug. 10 to Sept. 4, Sept. 13-30; discharge computed on basis of weather records, recorded range in stage, and records for McKenzie River near Vida and South Santiam River near Cascadia.
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 1944.

Extremes.- Maximum discharge during year, 2,760 second-feet Nov. 4 (gage height, 10.1 feet, from graph based on gage readings); minimum observed, 18 second-feet Sept. 11 (gage height, 1.03 feet).

1935-44: Maximum discharge, 8,160 second-feet Jan. 1, 1943 (gage height, 21.3 feet, from floodmark), from rating curve extended above 5,000 second-feet; minimum observed, 11 second-feet Sept. 17, 1938.

Remarks.- Records good except those below 50 second-feet, which are fair. Gage read once daily during low-water periods, twice daily at other times. No diversion above station; some regulation at low flow caused by log ponds.

Rating table, water year 1943-44 (gage height, in feet, and discharge, in second-feet)

1.0	17	2.1	172	5.0	950
1.2	29	2.4	241	6.0	1,250
1.4	49	2.8	339	7.6	1,780
1.6	77	3.3	469		
1.8	112	4.0	663		

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	31	203	316	582	424	377	306	411	203	82	35	24
2	33	168	322	857	458	356	294	385	176	79	31	29
3	37	309	456	688	562	382	277	359	174	76	32	28
4	36	1,700	722	568	593	387	263	339	155	74	35	24
5	34	1,800	756	568	1,300	385	272	316	151	72	29	28
6	34	1,020	627	472	1,690	393	263	302	143	70	36	23
7	34	688	461	442	1,560	395	251	289	123	68	35	20
8	34	531	413	398	1,320	390	306	279	122	68	32	22
9	33	374	306	369	1,250	793	299	287	125	64	39	21
10	a33	342	319	367	1,110	779	326	267	122	62	28	19
11	91	294	294	332	974	635	646	299	116	64	35	18
12	61	270	251	349	840	537	727	253	116	62	26	22
13	45	239	251	324	736	466	767	349	114	64	25	21
14	42	212	243	309	756	424	1,060	a300	108	64	25	24
15	47	196	217	346	685	395	1,360	270	108	62	27	23
16	50	203	210	319	680	372	1,420	229	105	52	31	26
17	98	185	206	421	753	349	1,300	229	133	57	24	40
18	92	176	199	377	759	334	1,100	236	127	52	33	49
19	61	190	196	356	744	349	1,120	215	137	59	20	41
20	155	170	183	329	669	314	1,120	196	190	58	30	29
21	367	194	166	309	635	294	995	181	155	57	25	28
22	585	166	155	287	540	284	863	190	129	42	33	34
23	380	153	170	531	496	545	779	187	114	41	25	34
24	983	151	164	708	466	518	753	174	108	42	30	28
25	796	149	840	660	442	585	694	168	103	47	31	27
26	437	149	694	559	461	367	627	166	101	47	23	26
27	304	135	504	491	a450	393	565	155	94	42	27	31
28	241	137	421	434	426	369	515	145	92	44	23	27
29	196	176	354	395	398	349	491	153	89	33	27	29
30	224	212	329	372	-	334	450	141	101	37	22	70
31	212	-	304	326	-	316	-	159	-	36	22	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff	
						Inches	Acre-feet
October	5,806	983	31	187	1.04	1.20	11,520
November	10,892	1,800	135	363	2.02	2.25	21,600
December	11,049	840	155	356	1.98	2.28	21,920
Calendar year 1943	193,213	7,680	29	529	2.94	39.91	383,200
January	13,845	857	287	447	2.48	2.86	27,460
February	22,177	1,690	398	765	4.25	4.58	43,990
March	13,166	793	284	425	2.36	2.72	26,110
April	20,209	1,420	251	674	3.74	4.18	40,080
May	7,629	411	141	246	1.37	1.58	15,130
June	3,834	203	89	128	.711	.79	7,600
July	1,777	82	33	57.3	.318	.37	3,520
August	896	39	20	28.9	.161	.19	1,780
September	865	70	18	28.8	.160	.18	1,720
Water year 1943-44	112,145	1,800	18	306	1.70	23.18	222,400

a No gage-height record; discharge computed on basis of records for McKenzie River near Vida and Blue River near Blue River.

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 1944.

Extremes.- Maximum discharge during year, 899 second-feet Dec. 5 (gage height, 9.03 feet); minimum, 10 second-feet Sept. 10-12 (gage height, 0.53 foot).
1935-44: Maximum discharge 4,300 second-feet Jan. 1, 1943 (gage height, 18.28 feet); minimum observed, 7 second-feet Sept. 25-27, 1939 (gage height, 0.66 foot).

Remarks.- Records good except those for Oct. 12 to Nov. 12, which are fair. No diversion above station; slight diurnal fluctuation caused by log pond above Noti.

Rating table, water year 1943-44 (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Oct. 20 to Nov. 12)

0.5	9.5	1.4	64	4.0	340
.7	16	1.8	102	5.0	440
.9	27	2.3	153	6.5	605
1.1	41	3.0	232	8.0	770

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	17	68	264	202	204	145	103	141	90	40	20	14
2	18	66	282	454	268	140	101	137	85	38	19	14
3	16	95	450	425	258	180	102	134	97	38	20	12
4	18	453	660	321	264	258	101	126	81	38	20	12
5	18	626	759	294	316	276	112	118	73	38	20	14
6	18	341	460	312	455	254	104	111	66	34	18	13
7	17	246	332	259	549	228	100	107	62	33	20	12
8	16	185	277	239	460	208	105	105	61	33	19	13
9	16	149	220	225	431	248	100	107	59	30	19	12
10	17	122	194	197	385	268	97	105	57	31	18	11
11	33	112	171	183	342	248	127	104	55	30	17	10
12	f28	104	155	183	305	222	171	102	54	30	15	11
13	f22	97	142	f177	278	199	173	98	54	30	14	12
14	f21	91	131	165	276	182	317	95	54	28	16	15
15	f19	86	125	171	254	167	433	104	54	25	16	15
16	f20	80	116	173	238	156	425	98	52	26	15	14
17	f21	76	109	200	244	148	349	95	54	28	15	13
18	f39	77	105	206	230	142	296	95	52	26	17	16
19	f29	94	102	189	232	140	287	92	52	23	16	16
20	52	96	100	183	213	136	356	86	50	28	14	15
21	f118	104	95	170	205	128	323	81	50	27	14	15
22	f157	93	92	161	195	125	269	81	49	26	14	17
23	137	83	91	281	180	144	250	80	47	21	14	16
24	572	78	109	449	171	145	260	79	44	24	15	13
25	550	74	331	372	161	133	226	76	44	23	15	14
26	234	73	351	306	173	129	224	73	46	21	15	14
27	148	73	265	265	162	128	197	70	44	20	14	13
28	110	71	214	233	164	121	173	67	42	19	14	12
29	90	73	179	207	153	119	166	67	40	19	14	13
30	90	142	161	192	-	117	152	66	38	17	14	16
31	75	-	145	178	-	116	-	68	-	20	14	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff	
						Inches	Acre-feet
October	2,736	572	16	88.3	1.00	1.16	5,430
November	4,128	626	66	138	1.57	1.74	8,190
December	7,187	759	91	232	2.64	3.04	14,260
Calendar year 1943	89,529	3,990	15	245	2.78	37.83	177,600
January	7,572	454	161	244	2.77	3.20	15,020
February	7,766	549	153	268	3.05	3.28	15,400
March	5,350	276	116	173	1.97	2.26	10,610
April	6,199	433	97	207	2.35	2.62	12,300
May	2,968	141	66	95.7	1.09	1.25	5,890
June	1,706	90	38	56.9	.647	.72	3,380
July	864	40	17	27.9	.317	.37	1,710
August	505	20	14	16.3	.185	.21	1,000
September	407	17	10	13.6	.155	.17	807
Water year 1943-44	47,388	759	10	129	1.47	20.02	94,000

f Computed from partly estimated gage-height record.
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 across Long Tom River and Coyote Creek, 4½ miles northeast of Elmira. Datum of gage is at mean sea level (levels by Corps of Engineers, U. S. Army).

Drainage area.- 252 square miles.

Records available.- October 1941 to September 1944.

Extremes.- Maximum contents during year, 90,840 acre-feet Oct. 24 (elevation, 372.35 feet); minimum, 3,220 acre-feet Nov. 29, Dec. 11, 12, 17, Jan. 12 (elevation, 349.95 feet).

1941-44: Maximum contents, 105,400 acre-feet Jan. 1, 1943 (elevation, 373.74 feet); minimum since first filling in 1942, that of Nov. 29, Dec. 11, 12, 17, 1943, Jan. 12, 1944.

Remarks.- Reservoir is formed by earth-fill dam with concrete outlet and spillway, completed in 1941 by Corps of Engineers, U. S. Army; storage began Nov. 13, 1941. Capacity, 101,200 acre-feet between elevations 340 feet (sill of outlet gate) and 373.5 feet (maximum operating pool level); dead storage, 23 acre-feet below elevation 340 feet. Reservoir used for flood control and improvement of navigation. Daily contents computed from elevations at midnight. Capacity table computed by Geological Survey on basis of areas furnished by Corps of Engineers, U. S. Army.

Cooperation.- Water-stage recorder inspected by employees of Corps of Engineers, U. S. Army.

Contents, in acre-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	85,550	74,130	4,090	3,540	3,920	15,730	35,760	50,470	56,830	58,450	56,340	53,810
2	85,470	70,460	3,930	4,230	4,650	16,740	36,020	50,750	57,140	58,380	56,220	53,700
3	85,470	67,050	4,000	4,600	5,650	17,430	36,360	50,870	57,320	58,380	56,100	53,640
4	85,380	65,190	4,480	4,230	6,460	18,500	36,570	50,980	57,510	58,380	56,040	53,580
5	85,220	63,370	5,190	4,040	7,040	19,560	36,830	51,150	57,700	58,320	55,970	53,580
6	85,220	61,130	5,440	3,780	7,870	20,560	37,220	51,260	57,760	58,260	55,910	53,520
7	85,220	58,510	4,780	3,400	9,180	21,500	37,570	51,430	57,760	58,200	55,850	53,460
8	85,220	55,550	3,900	3,530	10,640	22,470	37,830	51,600	57,820	58,130	55,850	53,340
9	85,220	52,350	3,600	3,660	11,520	23,680	38,100	51,780	57,950	58,070	55,730	53,230
10	85,380	48,860	3,340	3,400	11,700	24,640	38,370	52,180	57,950	58,010	55,670	53,170
11	85,300	45,150	3,220	3,240	11,440	25,590	39,090	52,530	57,950	57,880	55,610	53,050
12	85,220	41,380	3,380	3,620	10,830	26,480	39,920	52,870	57,950	57,760	55,550	52,930
13	85,300	37,610	3,470	3,620	10,060	27,200	41,000	53,230	58,070	57,630	55,430	52,870
14	85,220	33,780	3,470	3,470	9,200	27,850	42,490	53,580	58,130	57,700	55,310	52,870
15	85,220	29,980	3,340	3,550	8,290	28,410	44,330	53,810	58,180	57,570	55,250	52,870
16	85,220	26,180	3,240	3,660	7,810	28,970	46,290	54,050	58,260	57,450	55,130	52,760
17	85,470	22,130	3,310	3,540	7,840	29,550	47,990	54,350	58,320	57,390	55,010	52,640
18	85,470	18,400	3,370	3,410	7,840	29,980	49,410	54,590	58,380	57,320	54,890	52,470
19	85,890	14,580	3,440	3,370	8,420	30,380	50,810	54,890	58,380	57,260	54,770	52,470
20	86,390	10,740	3,480	3,360	9,430	30,830	51,260	55,070	58,450	57,200	54,710	52,410
21	86,980	8,110	3,500	3,360	10,320	31,280	51,320	55,250	58,450	57,140	54,650	52,990
22	87,570	6,930	3,520	3,370	11,160	31,770	51,260	55,430	58,450	57,140	54,590	52,930
23	89,110	4,590	3,560	3,890	11,860	32,240	51,200	55,550	58,510	57,140	54,530	52,930
24	90,580	3,970	4,410	4,190	12,550	32,750	50,920	55,730	58,570	57,080	54,410	52,930
25	90,150	3,440	5,260	4,240	13,220	33,300	50,580	55,850	58,640	57,020	54,350	52,870
26	88,680	3,270	5,830	3,990	13,840	33,700	50,360	56,040	58,640	56,950	54,240	52,820
27	86,560	3,260	5,710	3,590	14,510	34,020	50,360	56,160	58,570	56,770	54,230	52,760
28	84,300	3,240	5,170	3,460	15,130	34,350	50,250	56,220	58,640	56,650	54,110	52,700
29	82,090	3,230	4,420	3,620	15,730	34,720	50,130	56,340	58,570	56,520	54,110	52,760
30	79,760	4,360	3,820	3,580	-	35,090	50,130	56,460	58,510	56,460	53,990	52,640
31	77,330	-	3,390	3,630	-	35,430	-	56,890	-	56,400	53,930	-

Monthly elevation and contents, water year October 1943 to September 1944

Date	Elevation (feet)†	Contents (acre-feet)	Change in contents during month (acre-feet)
Sept.30	371.73	85,550	-
Oct. 31	370.71	77,330	-8,220
Nov. 30	h351.00	4,360	-72,970
Dec. 31	h350.11	3,390	-970
Calendar year 1943	-	-	-101,610
Jan. 31	h350.34	3,630	+240
Feb. 29	357.51	15,730	+12,100
Mar. 31	363.59	35,430	+19,700
Apr. 30	366.61	50,130	+14,700
May 31	367.76	56,890	+6,760
June 30	368.02	58,510	+1,620
July 31	367.68	56,400	-2,110
Aug. 31	367.27	53,930	-2,470
Sept.30	367.05	52,640	-1,290
Water year 1943-44	-	-	-32,910

† Elevation at midnight.
h Elevation interpolated from daily staff-gage readings at 7:30 a.m.
Time basis: Pacific war time. To convert war time to standard time, subtract 1 hour.

Long Tom River below Fern Ridge Dam, near Smithfield, Oreg.

Location.- Water-stage recorder and masonry control, lat. 44°07'25", long. 123°18'00", in NW¼ sec. 4, T. 17 S., R. 5 W., 1,000 feet downstream from Fern Ridge Dam, which impounds runoff of Long Tom River and Coyote Creek, and 2½ miles south of Smithfield. Datum of gage is 332.00 feet above mean sea level, datum of 1929 (levels by Corps of Engineers, U. S. Army).

Drainage area.- 252 square miles.

Records available.- October 1943 to September 1944. August 1939 to September 1943 at site 2½ miles downstream, below Coyote Creek.

Extremes (regulated).- Maximum discharge during year, 2,060 second-feet Nov. 10, 13, 14, 18 (gage height, 5.46 feet); no flow from 8 p.m. June 11 to 8 a.m. June 12.

Remarks.- Records good except those for periods of no gage-height record and those below 100 second-feet prior to July 27, which are poor; records of diversion to Coyote Creek poor. A few small diversions above station; several second-feet diverted around station to Coyote Creek channel through 24-inch concrete pipe 600 feet long, several hundred feet upstream, record of which is based on discharge measurements and once-daily gage readings on Coyote Creek channel. Fern Ridge Dam, 1,000 feet above station, was completed in 1941, and has regulated flow since Nov. 13, 1941 (see preceding page). An artificial channel for Long Tom River below Fern Ridge Dam was constructed during period August to October 1943.

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1		a1,780	303	630	466	18	18	38	14	h14	12	13
2		f1,940	540	645	525	18	18	34	14	h14	12	13
3		1,920	670	784	426	18	18	104	14	h14	12	13
4		1,920	935	905	455	18	18	111	14	h14	12	12
5		1,890	1,160	887	615	18	18	37	14	h14	12	12
6		1,870	1,200	881	823	18	18	37	14	h14	13	11
7		1,860	1,170	806	681	18	18	36	a14	h14	13	11
8		1,840	1,070	577	757	18	18	35	a14	h14	13	12
9		1,840	610	466	1,010	18	18	22	a14	h14	13	12
10		1,920	525	640	1,080	18	18	14	h14	h14	13	13
11		1,980	303	545	1,080	19	18	14	h11	h14	13	13
12	a8	1,990	250	435	1,080	19	18	14	h9	h14	13	14
13		2,030	289	366	1,070	20	18	14	h14	h14	13	13
14		2,040	286	374	1,040	20	17	14	h14	h14	13	13
15		2,030	286	378	1,030	20	17	14	h14	h14	13	13
16		2,010	210	378	834	20	17	14	h14	h13	13	13
17		1,990	155	480	565	20	16	14	h14	hI2	13	13
18		2,020	155	520	525	20	17	14	h14	h12	13	13
19		2,000	155	435	258	20	116	14	h14	f13	13	13
20		2,010	155	370	19	20	503	14	h14	13	13	13
21		1,590	155	370	19	19	630	h14	h14	13	13	14
22		587	155	366	19	19	630	14	h14	13	13	14
23		1,240	155	495	19	19	630	14	h14	13	13	13
24	a160	410	155	840	18	19	a630	14	h14	13	13	13
25	a990	362	475	905	18	19	a630	14	h14	13	13	13
26	h1,340	198	740	905	18	19	a510	14	h14	13	13	13
27	h1,340	120	790	887	18	19	a340	14	h14	13	13	13
28	h1,350	122	779	526	18	19	a340	h14	h14	13	13	13
29	h1,350	100	757	417	18	19	a350	14	h14	13	13	14
30	h1,340	83	655	440	-	19	205	14	h14	13	13	13
31	h1,320	-	430	408	-	19	-	14	-	12	13	-

Month	Observed				Diversion to Coyote Creek channel (acre-feet)	Adjusted for diversion			
	Discharge in second-feet			Runoff in acre-feet		Runoff in acre-feet	Discharge in second-feet		Runoff in inches
	Maximum	Minimum	Mean				Mean	Per square mile	
October	1,350	-	302	18,590	294	18,880	307	-	-
November	2,040	83	1,456	86,660	399	87,060	1,463	-	-
December	1,200	155	506	31,090	607	31,700	515	-	-
Calendar year	-	-	-	-	-	-	-	-	-
January	905	366	583	35,820	708	36,530	594	-	-
February	1,080	18	499	28,730	440	29,170	507	-	-
March	20	18	18.9	1,160	159	1,320	215	-	-
April	630	16	194	11,570	345	11,920	200	-	-
May	111	14	24.6	1,510	288	1,800	29.3	-	-
June	14	9	13.7	817	169	986	16.6	-	-
July	14	12	13.4	823	125	948	15.4	-	-
August	13	12	12.8	789	145	934	15.2	-	-
September	14	11	12.9	766	224	990	16.6	-	-
Water year 1943-44	2,040	-	301	218,300	3,903	222,200	306	1.21	16.54

a No gage-height record; discharge computed on basis of operation record for Fern Ridge Reservoir, field estimates Oct. 2, 17, and records for stations near Noti and at Monroe.
f Computed on basis of partly estimated gage-height record.
h Computed on basis of 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 1944 (1925-27 incomplete).

Average discharge.- 21 years (1921-25, 1927-44), 696 second-feet.

Extremes.- Maximum discharge observed during year, 2,610 second-feet (regulated) Nov. 5 (gage height, 10.78 feet); minimum daily, 10 second-feet Oct. 2.
1929-44: Maximum discharge, 19,300 second-feet Jan. 2, 1943 (gage height, 17.14 feet, from graph based on gage readings), includes some overflow from Willamette River near Junction City); minimum observed, 7 second-feet Sept. 29, Oct. 1, 1939.

Remarks.- Records fair except those for June 24 to Sept. 30, which are poor. Gage read once daily, oftener during periods of high water. A few small diversions above station; some fluctuation at low flow owing to pondage at mill dam at Monroe and dam above Cheshire; flow regulated by Fern Ridge Reservoir since Nov. 15, 1941 (see p. 110). Staff gage destroyed Aug. 5 by construction for channel improvement which continued through September 1944.

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

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	13	1,380	306	637	585	141	82	359	56			
2	10	1,550	566	1,180	891	135	82	152	61			
3	21	1,970	856	1,260	1,000	138	82	146	61			
4	18	2,110	1,290	1,330	918	208	79	250	61			
5	17	2,610	1,800	1,270	887	337	74	211	54			
6	15	2,500	1,810	1,230	1,150	246	72	135	51	28		
7	21	2,240	1,620	1,210	1,500	202	72	129	49			
8	18	2,080	1,460	1,090	1,310	193	79	127	46			
9	20	1,980	1,200	731	1,390	202	79	127	44			
10	20	1,940	867	693	1,560	275	77	95	44			
11	20	1,980	706	825	1,550	259	79	79	42			
12	28	2,030	452	773	1,450	211	157	77	40			
13	22	2,050	437	689	1,340	187	193	74	31			
14	19	2,060	433	617	1,310	162	410	69	40			
15	17	2,080	422	585	1,320	146	460	79	40			
16	19	2,080	410	609	1,300	135	528	77	33	25	20	21
17	24	2,050	303	609	1,030	129	429	69	42			
18	28	2,030	256	731	744	121	320	69	40			
19	26	2,100	253	727	756	118	262	69	37			
20	28	2,090	253	609	370	111	441	61	35			
21	55	2,090	246	547	250	108	852	56	33			
22	70	1,560	240	528	214	100	923	56	35			
23	86	923	240	625	184	105	856	56	33			
24	193	1,100	264	1,020	169	129	847	54				
25	645	404	490	1,380	157	121	825	54		22		
26	1,200	386	1,170	1,330	155	118	808	51	31			
27	1,400	218	1,300	1,210	149	108	661	49				
28	1,420	178	1,120	1,060	149	100	539	46				
29	1,390	172	1,000	675	149	95	517	46				
30	1,380	178	918	617	-	90	433	44				
31	1,400	-	847	609	-	90	-	44	-			-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff Inches	Runoff Acre-feet
October	9,643	1,420	10	311	-	-	19,130
November	48,119	2,610	172	1,604	-	-	95,440
December	23,535	1,810	240	759	-	-	46,680
Calendar year 1943	344,331	16,400	8	943	2.41	32.75	683,000
January	27,006	1,380	528	871	-	-	53,570
February	23,937	1,560	149	825	-	-	47,480
March	4,820	337	90	155	-	-	9,560
April	11,318	923	72	377	-	-	22,450
May	3,010	359	44	97.1	-	-	5,970
June	1,225	61	-	40.8	-	-	2,430
July	772	-	-	24.9	-	-	1,530
August	620	-	-	20.0	-	-	1,230
September	630	-	-	21.0	-	-	1,250
Water year 1943-44	154,635	2,610	10	422	1.08	14.71	306,700

Note.- No gage-height record Aug. 5-27. Stage-discharge relation affected by construction work June 20, June 24 to Sept. 30; discharge computed on basis of weather records, 3 discharge measurements, and records for station below Fern Ridge Dam, near Smithfield.
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. 16 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 1944.

Extremes.- Maximum discharge during year, 623 second-feet Feb. 9; maximum gage height, 9.11 feet Dec. 5; minimum discharge, 0.1 second-foot Sept. 12-14, 16, 17.
1940-44: Maximum discharge, 7,370 second-feet Dec. 8, 1942 (gage height, 13.60 feet); no flow at times in August and September 1940.

Remarks.- Records fair. Small diversions above station for irrigation; no regulation.

Rating tables, water year 1943-44 (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Oct. 23 to Jan. 23)

Oct. 1 to Jan. 23

0.4	0.8	0.8	16
.5	2.0	1.0	29
.6	4.4	1.3	45
.7	9.0		

Note.- Same as following table above 1.3 feet.

Jan. 24 to Sept. 30

0.2	0.09	1.0	30	4.6	196
.3	.25	1.3	45	6.0	291
.4	.8	1.8	62	7.5	417
.6	5.0	2.6	90	9.0	619
.8	17	3.5	133		

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1.3	13	112	153	162	72	42	70	20	7.1	1.5	0.4
2	1.3	7.6	146	320	329	69	40	65	22	7.1	1.5	.3
3	1.2	27	141	297	366	75	38	60	22	6.6	1.5	.3
4	1.2	147	329	229	325	142	36	56	20	6.0	1.6	.3
5	1.3	333	524	248	316	173	34	51	18	6.0	1.6	.2
6	1.4	319	432	308	406	155	32	47	16	5.5	1.6	.2
7	1.3	194	278	260	502	140	32	43	14	5.5	1.6	.2
8	1.3	126	191	214	520	132	36	39	14	5.5	1.4	.2
9	1.3	96	144	179	599	160	38	38	13	5.0	1.1	.2
10	1.3	79	116	170	511	156	34	36	12	4.6	1.2	.2
11	1.3	68	98	150	416	136	73	40	12	4.6	1.2	.2
12	2.0	60	86	153	325	126	148	44	11	4.2	.9	.2
13	2.5	54	75	132	263	113	144	38	10	3.9	.8	.1
14	2.5	47	70	118	252	97	235	33	10	3.9	.7	.2
15	2.2	40	65	114	225	88	302	43	10	3.6	.8	.2
16	2.0	40	60	113	186	80	366	42	10	3.3	.7	.2
17	2.2	30	55	130	183	75	325	34	10	3.3	.6	.2
18	3.4	27	51	130	167	71	242	36	11	3.0	.6	.2
19	4.4	37	48	116	169	67	227	32	14	3.0	.7	.2
20	4.9	48	46	107	144	66	292	26	14	2.8	.7	.3
21	8.1	49	42	99	134	61	255	23	13	2.8	.7	.6
22	18	42	38	92	121	57	196	22	12	2.8	.7	.8
23	36	34	34	202	108	65	168	22	12	2.5	.7	.9
24	73	27	40	357	98	78	185	22	11	2.5	.6	.6
25	165	21	283	353	92	69	160	20	10	2.3	.6	.4
26	166	16	377	283	92	61	134	19	9.7	2.1	.6	.4
27	91	12	261	227	88	57	122	19	9.2	1.9	.6	.4
28	60	10	180	188	87	53	102	18	8.6	1.9	.6	.3
29	43	9.0	138	159	80	49	87	18	8.1	1.6	.6	.3
30	31	46	115	140	-	47	78	18	7.6	1.6	.5	.3
31	23	-	100	125	-	44	-	18	-	1.5	.4	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff Inches	Runoff Acre-feet
October	754.4	166	1.2	24.3	0.259	0.30	1,500
November	2,058.6	333	7.6	68.6	.730	.81	4,080
December	4,675	524	34	151	1.61	1.85	9,270
Calendar year 1943	59,346.9	4,710	.8	163	1.73	23.48	117,700
January	5,866	357	92	189	2.01	2.32	11,640
February	7,266	599	80	251	2.67	2.87	14,410
March	2,834	173	44	91.4	.972	1.12	5,620
April	4,203	366	32	140	1.49	1.66	8,340
May	1,092	70	18	35.2	.374	.43	2,170
June	384.2	22	7.6	12.8	.136	.15	762
July	118.0	7.1	1.5	3.81	.041	.05	234
August	28.9	1.6	.4	.93	.0099	.01	57
September	9.5	.9	.1	.32	.0034	.004	19
Water year 1943-44	29,289.6	599	.1	80.0	.851	11.57	58,100

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 1⅛ miles south of station).

Records available.- October 1940 to September 1944.

Extremes.- Maximum discharge observed during year, 2,430 second-feet Dec. 4 (gage height, 15.51 feet); minimum observed, 6 second-feet Sept. 12, 13.
1940-44: Maximum discharge, 7,720 second-feet Jan. 1, 1943 (gage height, 20.46 feet; from graph based on gage readings); minimum observed, that of Sept. 12, 13, 1944.

Remarks.- Records fair; they include flow of Evergreen Creek at road crossing 1⅛ miles south, with which overflow from Marys River may at times be mingled. Gage read twice daily except Oct. 1-11, July 9 to Sept. 30, when it was read once daily. City of Corvallis diverts municipal supply from headwaters; other small diversions above station for irrigation. No regulation.

Rating tables, water year 1943-44 (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Oct. 21 to Dec. 5)

Oct. 1 to Dec. 5		Dec. 4 to Sept. 30					
2.6	9	2.5	5	4.3	161	12.0	1,500
2.8	18	2.7	12	5.0	250	14.0	1,970
3.0	29	3.0	33	6.0	395	15.5	2,420
3.2	43	3.3	58	8.0	735		
		3.7	96	10.0	1,100		

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	12	113	443	550	414	277	261	314	140	46	15	9
2	12	102	510	1,450	443	263	249	292	165	46	15	9
3	12	154	1,040	968	446	446	234	268	147	44	14	10
4	13	591	2,400	739	435	633	224	247	127	44	15	9
5	12	810	1,850	628	533	553	211	232	114	43	14	10
6	13	560	1,250	511	757	495	206	216	104	41	14	9
7	12	398	901	441	830	472	203	204	96	39	15	8
8	11	302	674	392	796	449	221	193	92	37	14	8
9	11	244	524	359	757	526	221	193	88	34	15	8
10	14	205	437	338	623	529	206	190	84	35	16	8
11	23	178	377	317	550	495	224	183	80	35	14	7
12	27	156	332	365	478	457	281	177	77	35	14	6
13	32	140	298	335	440	414	309	163	84	25	12	6
14	23	128	272	313	454	377	550	153	74	27	11	8
15	22	117	250	417	414	346	630	165	76	24	10	8
16	21	108	234	421	405	322	631	153	74	23	10	10
17	21	102	214	582	459	303	642	150	78	26	10	10
18	28	101	203	560	453	282	599	147	76	26	9	12
19	33	117	192	494	494	279	635	138	71	20	12	17
20	43	143	181	437	465	271	832	129	69	22	9	13
21	152	128	169	395	456	247	802	125	65	20	10	16
22	231	117	163	362	411	232	695	124	62	21	11	22
23	176	108	156	683	372	312	659	127	62	19	9	16
24	896	99	183	809	347	332	611	125	60	18	8	12
25	735	92	484	739	334	302	574	125	58	17	11	10
26	349	87	495	654	347	317	518	108	56	21	10	9
27	216	85	401	567	329	346	467	101	54	16	10	14
28	159	82	346	495	313	332	414	100	52	16	11	8
29	126	79	306	441	295	317	374	97	49	14	10	8
30	121	296	274	395	-	300	342	94	45	14	9	15
31	121	-	258	365	-	278	-	102	-	15	10	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff	
						Inches	Acre-feet
October	3,677	896	11	119	0.768	0.88	7,290
November	5,942	810	79	198	1.28	1.43	11,790
December	15,817	2,400	156	510	3.29	3.80	31,370
Calendar year 1943	152,398	7,330	11	418	2.70	36.57	302,300
January	16,522	1,450	313	533	3.44	3.96	32,770
February	13,850	830	295	478	3.08	3.32	27,470
March	11,504	633	232	371	2.39	2.76	22,820
April	13,025	832	203	434	2.80	3.13	25,830
May	5,135	314	94	166	1.07	1.23	10,190
June	2,479	165	45	82.6	.533	.59	4,920
July	863	46	14	27.8	.179	.21	1,710
August	367	16	8	11.8	.076	.09	720
September	315	22	6	10.5	.068	.08	625
Water year 1943-44	89,496	2,400	6	245	1.58	21.48	177,500

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 1944.

Extremes.- Maximum discharge during year, 3,420 second-feet Nov. 4 (gage height, 6.85 feet); minimum observed, 20 second-feet Sept. 11, 12 (gage height, 0.63 foot).
1935-44: Maximum discharge, 9,400 second-feet Dec. 31, 1942 (gage height, 12.10 feet), from rating curve extended above 5,200 second-feet); minimum observed, 13 second-feet (regulated) Sept. 8, 1940.

Remarks.- Records good. Gage read once daily, oftener during periods of high water. No 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 1943-44 (gage height, in feet, and discharge, in second-feet)

Oct. 1 to Nov. 4						Nov. 5 to Sept. 30					
0.7	25	1.5	160	3.4	910	0.6	18	1.2	97	2.8	620
.8	36	1.9	260	4.2	1,370	.7	26	1.5	155	3.4	910
1.0	66	2.3	410	5.3	2,140	.8	36	1.9	256	4.2	1,370
1.2	101	2.8	620			1.0	64	2.3	405		

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	28	214	494	445	235	223	297	393	200	77	36	25
2	28	192	485	835	318	218	290	345	182	74	36	39
3	28	316	730	620	349	216	294	314	186	74	36	29
4	27	2,150	815	445	389	218	276	300	177	70	35	26
5	27	1,380	740	405	916	276	297	304	159	67	35	25
6	26	830	539	385	1,400	290	256	290	147	67	35	24
7	26	638	425	311	1,030	280	244	263	134	66	35	24
8	25	477	373	276	820	318	290	238	126	62	35	23
9	25	377	322	256	760	855	311	244	123	62	34	22
10	25	318	287	244	652	921	297	221	117	61	33	21
11	49	273	256	221	557	629	357	213	110	60	32	20
12	73	238	232	226	477	486	593	213	106	58	31	20
13	42	213	216	216	429	413	584	200	102	56	30	21
14	32	193	203	208	421	345	795	184	102	55	30	25
15	32	182	188	216	386	308	1,050	216	101	54	30	27
16	39	173	177	221	357	273	954	193	102	52	29	28
17	46	159	168	311	369	263	840	179	124	50	29	54
18	88	151	164	297	365	259	692	182	113	49	30	95
19	53	155	155	259	365	266	710	170	116	54	29	61
20	101	157	151	235	341	273	720	159	155	50	28	39
21	466	175	144	216	318	244	647	151	123	49	27	31
22	665	149	138	200	290	235	584	151	111	48	27	37
23	426	138	134	405	266	373	566	151	104	45	26	35
24	1,020	130	177	503	253	683	584	149	99	44	27	29
25	810	126	461	429	259	485	530	142	95	44	26	27
26	514	123	385	365	273	397	469	136	90	42	26	26
27	346	117	287	311	256	365	494	132	85	41	26	25
28	264	113	242	276	256	329	503	128	82	40	25	24
29	217	110	221	250	247	322	494	124	78	39	24	25
30	346	226	200	235	-	322	445	115	78	37	24	75
31	267	-	216	223	-	314	-	115	-	37	24	-

Month	Second-feet-days	Maximum	Minimum	Mean	Per square mile	Runoff	
						Inches	Acre-feet
October	6,161	1,020	25	199	2.01	2.31	12,220
November	10,193	2,150	110	340	3.43	3.83	20,220
December	9,725	815	134	314	3.17	3.65	19,290
Calendar year 1943	148,095	7,360	25	406	4.10	55.63	293,700
January	10,045	835	200	324	3.27	3.77	19,920
February	15,373	1,400	235	461	4.66	5.02	26,520
March	11,398	921	216	368	3.72	4.28	22,610
April	15,463	1,050	244	515	5.20	5.81	30,670
May	6,315	393	115	204	2.06	2.37	12,530
June	3,624	200	78	121	1.22	1.36	7,190
July	1,684	77	37	54.3	.548	.63	3,340
August	930	36	24	30.0	.303	.35	1,840
September	982	95	20	32.7	.330	.37	1,950
Water year 1943-44	89,693	2,150	20	246	2.48	33.75	178,300

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. 4 W., half a mile downstream from Oak Creek, 1½ miles southwest of Albany, and 3 miles upstream from mouth. Datum of gage is 180.37 feet above mean sea level, datum of 1929.

Drainage area.- 362 square miles.

Records available.- October 1940 to September 1944.

Extremes.- Maximum discharge during year, 2,920 second-feet Nov. 6 (gage height, 11.0 feet, from graph based on gage readings); minimum observed, 8 second-feet (regulated) Sept. 12 (gage height, 0.92 foot); minimum daily, 12 second-feet Sept. 11.
1940-44: Maximum discharge, 18,400 second-feet Jan. 2, 1943; maximum gage height, 25.5 feet, from graph based on gage readings, affected by backwater from Willamette River; minimum discharge observed, that of Sept. 12, 1944; minimum daily discharge, 12 second-feet Aug. 26, 1941, Sept. 11, 1944.

Remarks.- Records good. Gage read twice daily, oftener at high stages. A few small diversions above station for irrigation. Diurnal fluctuation caused by ponds at flour mills near Shedd.

Rating table, water year 1943-44 (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Oct. 22 to Dec. 5)

1.0	10	2.3	115	5.0	690
1.2	17	2.6	166	6.0	970
1.4	26	3.0	240	7.0	1,300
1.7	45	3.5	340	9.0	2,070
2.0	74	4.0	440	10.7	2,840

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	33	370	310	570	540	414	420	565	150	94	27	22
2	32	322	605	1,830	1,200	380	398	495	213	94	31	18
3	30	314	710	1,990	1,380	376	390	448	240	61	30	20
4	17	674	1,280	1,180	1,260	498	358	410	234	106	33	12
5	27	1,860	2,320	883	1,170	735	372	390	225	48	32	23
6	36	2,020	1,860	829	2,020	645	376	382	200	80	36	26
7	34	1,780	1,040	680	2,810	545	352	356	191	82	19	18
8	31	991	796	575	2,520	622	344	340	173	75	31	22
9	30	712	695	500	2,280	910	376	316	159	74	35	20
10	28	578	580	515	2,300	1,320	392	312	155	51	28	19
11	18	468	502	535	1,480	1,180	426	302	152	78	31	12
12	27	415	435	678	1,100	638	994	300	128	70	28	15
13	38	366	408	695	895	682	1,250	292	138	65	34	20
14	76	318	376	550	892	580	1,490	264	131	57	17	22
15	59	302	348	510	940	508	1,590	264	126	53	26	15
16	37	274	328	600	750	445	1,850	286	128	60	27	13
17	43	252	308	670	862	416	1,960	274	125	29	25	17
18	32	238	288	755	862	394	1,640	252	134	79	28	13
19	75	246	260	625	964	380	1,270	244	134	57	25	27
20	89	288	268	525	788	426	1,720	232	131	44	24	73
21	90	418	258	465	690	404	1,630	206	170	44	15	74
22	350	334	240	434	612	364	1,100	208	161	42	24	53
23	665	266	229	975	538	400	892	202	146	53	21	27
24	708	242	232	1,790	482	832	886	197	141	25	24	45
25	1,460	215	592	1,420	455	892	898	195	120	70	25	16
26	1,460	200	1,340	1,000	500	685	814	184	100	47	24	32
27	782	193	916	745	522	595	705	180	121	38	23	33
28	498	179	625	625	498	525	670	188	115	39	14	25
29	384	168	510	548	462	470	635	134	102	34	22	26
30	338	193	430	480	-	450	600	166	94	42	24	33
31	402	-	392	450	-	436	-	153	-	21	24	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff: Inches	Runoff: Acre-feet
October	7,929	1,460	17	256	0.707	0.81	15,730
November	15,999	2,820	166	533	1.47	1.64	31,730
December	19,484	2,320	229	629	1.74	2.00	38,650
Calendar year 1943	315,256	16,500	16	864	2.39	32.37	625,300
January	24,660	1,990	434	795	2.20	2.53	48,910
February	31,772	2,810	455	1,096	3.03	3.26	63,020
March	18,347	1,320	364	592	1.64	1.88	36,390
April	26,828	1,960	344	894	2.47	2.76	53,210
May	8,737	565	134	282	.779	.90	17,360
June	4,539	240	94	151	.417	.47	9,000
July	1,812	106	21	58.5	.162	.19	3,590
August	807	36	14	26.0	.072	.08	1,600
September	791	74	12	26.4	.073	.08	1,570
Water year 1943-44	161,705	2,820	12	442	1.22	16.60	320,700

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 1944. August 1910 to October 1913 at site above Boulder Creek (records not equivalent).

Average discharge.- 17 years (1907-8, 1928-44), 903 second-feet.

Extremes.- Maximum discharge during year, 3,840 second-feet Nov. 4 (gage height, 5.05 feet); minimum, 299 second-feet (regulated) Aug. 1 (gage height, 0.42 foot); minimum daily, 331 second-feet Sept. 11, 12, 28.
1907-9, 1910-11, 1928-44: 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 table, water year 1943-44 (gage height, in feet, and discharge, in second-feet)

0.6	338	2.7	1,360
1.1	508	3.4	1,930
1.5	685	4.3	2,850
2.0	945		

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	430	775	896	765	626	529	825	1,080	923	521	380	360
2	430	735	984	967	636	533	879	1,030	862	496	389	346
3	430	940	1,450	820	636	542	967	1,010	846	488	377	341
4	426	2,850	1,610	755	654	546	1,030	1,060	790	484	377	338
5	430	2,390	1,360	720	884	550	1,030	1,160	750	476	377	341
6	420	1,640	1,150	685	1,410	542	984	1,110	720	476	377	338
7	423	1,290	1,040	654	1,300	546	950	1,080	705	464	371	336
8	423	1,100	978	640	1,130	590	950	1,050	695	464	374	336
9	423	989	890	622	1,030	989	906	1,030	685	457	371	333
10	423	901	830	608	928	1,130	896	945	667	449	371	333
11	480	840	790	600	868	972	934	890	662	445	380	331
12	438	800	755	631	810	884	956	879	644	445	380	331
13	426	760	720	626	790	820	978	868	613	438	374	333
14	420	720	695	622	780	760	1,010	879	595	430	362	360
15	426	685	672	644	730	730	1,070	994	582	438	360	346
16	430	649	662	667	725	710	1,030	923	618	434	357	371
17	468	640	644	765	690	730	972	896	676	430	357	386
18	449	640	636	745	676	740	945	906	631	434	354	395
19	441	636	622	720	654	760	956	857	649	449	352	360
20	546	649	608	698	631	740	934	815	631	430	349	346
21	755	636	595	676	618	715	896	800	626	420	346	398
22	790	608	586	662	600	705	868	815	604	406	346	389
23	785	586	577	810	590	840	928	820	595	409	346	354
24	1,300	568	600	795	586	868	1,080	795	590	409	343	343
25	1,160	554	672	750	577	810	1,030	770	586	409	343	338
26	928	546	626	720	577	780	989	750	577	406	346	336
27	840	542	604	680	564	745	989	805	546	402	352	333
28	857	537	586	658	554	735	1,030	840	533	406	346	331
29	820	533	572	640	542	735	1,080	830	533	398	338	362
30	934	760	564	631	-	750	1,100	790	542	389	338	377
31	840	-	550	613	-	790	-	795	-	380	341	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff Inches	Runoff Acre-feet
October	18,791	1,300	420	606	2.71	3.12	37,270
November	26,499	2,850	533	883	3.94	4.40	52,560
December	24,524	1,610	550	791	3.53	4.07	48,640
Calendar year 1943	405,334	8,350	420	1,111	4.96	67.29	804,000
January	21,586	967	600	696	3.11	3.58	42,820
February	21,796	1,410	542	752	3.36	3.62	43,230
March	22,816	1,130	529	736	3.29	3.79	45,250
April	29,192	1,100	825	973	4.34	4.85	57,900
May	28,212	1,110	750	910	4.06	4.68	55,960
June	19,676	923	533	656	2.93	3.27	39,030
July	13,582	521	380	438	1.96	2.25	26,940
August	11,174	389	338	360	1.61	1.86	22,160
September	10,522	398	331	351	1.57	1.75	20,870
Water year 1943-44	248,370	2,850	331	679	3.03	41.24	492,600

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 1944.

Extremes.- Maximum discharge during year, 10,900 second-feet Nov. 4 (gage height, 9.53 feet); minimum, 476 second-feet Sept. 11, 12 (gage height, 3.04 feet); minimum daily, 480 second-feet Sept. 12.

1938-44: Maximum discharge, 28,800 second-feet Nov. 23, 1942 (gage height, 15.17 feet), from rating curve extended above 13,000 second-feet; minimum, 410 second-feet (regulated) Oct. 25, 1942 (gage height, 2.87 feet); minimum daily, 432 second-feet Sept. 1, 1940.

Remarks.- Records good. No diversion above station; slight diurnal fluctuation caused by power plant at Idanha.

Rating table, water year 1943-44 (gage height, in feet, and discharge, in second-feet)

3.0	460	4.4	1,340	6.5	4,020
3.4	640	5.0	1,940	7.5	6,000
3.8	890	5.7	2,790	8.2	7,580

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	658	1,680	2,250	1,790	1,270	1,040	1,810	2,220	1,930	918	590	545
2	652	1,550	2,740	2,620	1,320	1,020	1,970	2,050	1,740	870	625	528
3	652	2,090	4,880	1,970	1,370	1,020	2,220	1,970	1,660	858	590	516
4	646	7,650	5,000	1,690	1,480	1,040	2,300	2,060	1,530	838	585	508
5	646	6,070	3,660	1,540	2,430	1,060	2,270	2,330	1,460	825	585	504
6	640	3,860	2,820	1,420	4,600	1,060	2,090	2,410	1,400	825	590	504
7	635	2,860	2,370	1,330	3,680	1,080	1,960	2,270	1,380	799	580	500
8	640	2,300	2,120	1,280	2,860	1,270	1,960	2,130	1,330	786	575	496
9	635	2,000	1,850	1,210	2,420	3,420	1,850	2,100	1,290	773	575	496
10	640	1,760	1,700	1,170	2,100	3,460	1,840	1,850	1,280	754	570	492
11	786	1,620	1,590	1,160	1,910	2,510	1,950	1,730	1,280	748	575	484
12	706	1,510	1,480	1,260	1,740	2,100	2,050	1,700	1,250	742	570	480
13	670	1,390	1,390	1,290	1,650	1,810	2,120	1,680	1,160	724	570	484
14	652	1,320	1,350	1,320	1,620	1,640	2,250	1,720	1,110	712	555	555
15	664	1,270	1,280	1,460	1,520	1,510	2,470	2,120	1,080	706	545	545
16	676	1,200	1,240	1,620	1,480	1,450	2,340	1,920	1,120	700	540	580
17	748	1,160	1,200	1,960	1,410	1,500	2,150	1,780	1,240	694	540	670
18	736	1,120	1,160	1,860	1,360	1,520	2,030	1,780	1,160	694	536	730
19	718	1,120	1,130	1,690	1,320	1,580	2,050	1,650	1,200	712	532	595
20	988	1,160	1,090	1,560	1,280	1,520	2,030	1,550	1,220	688	532	560
21	1,790	1,130	1,060	1,480	1,240	1,450	1,920	1,520	1,160	664	528	605
22	1,970	1,080	1,040	1,410	1,200	1,410	1,830	1,540	1,100	646	524	640
23	1,810	1,040	1,020	1,820	1,170	1,950	2,020	1,600	1,070	640	524	570
24	5,020	1,010	1,070	1,830	1,160	2,100	2,340	1,570	1,070	640	524	545
25	3,970	974	1,320	1,690	1,150	1,810	2,170	1,510	1,050	640	524	532
26	2,520	953	1,240	1,550	1,150	1,660	2,050	1,480	1,020	635	524	524
27	2,110	939	1,160	1,460	1,110	1,540	2,050	1,610	960	630	524	516
28	1,970	918	1,090	1,370	1,090	1,510	2,190	1,690	946	625	520	512
29	1,870	918	1,050	1,290	1,060	1,530	2,350	1,640	939	620	512	575
30	2,240	1,620	1,020	1,270	-	1,630	2,360	1,550	946	610	512	670
31	1,940	-	1,030	1,240	-	1,750	-	1,530	-	590	512	-

Month	Second-feet-days	Maximum	Minimum	Mean	Per square mile	Runoff Inches	Runoff Acre-feet
October	40,998	5,020	635	1,323	3.02	3.48	81,320
November	55,272	7,650	918	1,842	4.21	4.69	109,600
December	54,400	5,000	1,020	1,755	4.01	4.62	107,900
Calendar year 1943	855,703	18,700	635	2,344	5.35	72.65	1,697,000
January	47,610	2,620	1,160	1,536	3.51	4.04	94,430
February	49,150	4,600	1,060	1,695	3.87	4.17	97,490
March	50,950	3,460	1,020	1,644	3.75	4.33	101,100
April	62,990	2,470	1,810	2,100	4.79	5.35	124,900
May	56,260	2,410	1,480	1,815	4.14	4.78	111,600
June	37,071	1,930	939	1,236	2.82	3.15	73,530
July	22,306	918	590	720	1.64	1.89	44,240
August	17,088	625	512	551	1.26	1.45	33,890
September	16,461	730	480	549	1.25	1.40	32,650
Water year 1943-44	510,556	7,650	480	1,395	3.18	43.36	1,013,000

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 Mar. 1907, October 1910 to September 1914, September 1921 to September 1944.

Average discharge.- 28 years (1905-6, 1910-14, 1921-44), 3,138 second-feet.

Extremes.- Maximum discharge during year, 18,200 second-feet Nov. 4 (gage height, 8.58 feet); minimum, 475 second-feet Sept. 11; minimum daily, 517 second-feet Sept. 10-12. 1905-7, 1910-14, 1921-44: 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.

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	700	2,640	4,170	2,440	1,840	1,570	2,920	3,390	2,970	1,170	684	598
2	692	2,340	4,890	4,480	2,040	1,530	3,030	3,080	2,950	1,110	736	612
3	700	3,120	8,650	3,180	2,200	1,520	3,390	2,900	2,690	1,080	700	560
4	692	11,900	8,560	2,590	2,360	1,540	3,450	2,990	2,440	1,060	700	552
5	700	10,000	6,180	2,340	4,320	1,640	3,470	3,290	2,210	1,010	700	545
6	676	6,250	4,520	2,140	8,470	1,650	3,080	3,410	2,060	996	709	545
7	676	4,520	3,650	1,900	6,530	1,650	2,900	3,140	1,960	985	700	545
8	684	3,590	3,220	1,790	4,910	2,060	2,990	2,940	1,860	975	676	538
9	676	2,990	2,810	1,700	4,010	6,720	2,950	2,970	1,790	985	660	531
10	692	2,590	2,500	1,640	3,330	6,740	2,950	2,670	1,720	935	652	517
11	885	2,310	2,290	1,560	3,010	4,480	3,330	2,490	1,700	925	652	517
12	885	2,120	2,120	1,970	2,670	3,510	3,740	2,420	1,600	905	652	517
13	772	1,920	1,960	2,030	2,470	2,950	3,840	2,410	1,500	895	636	538
14	745	1,790	1,850	2,030	2,540	2,570	4,320	2,410	1,440	866	628	620
15	736	1,700	1,740	2,090	2,360	2,340	4,520	2,990	1,380	856	598	692
16	772	1,580	1,640	2,410	2,370	2,200	4,230	2,860	1,360	847	590	718
17	876	1,520	1,560	3,080	2,310	2,230	3,820	2,570	1,640	838	590	895
18	996	1,470	1,500	3,030	2,230	2,280	3,470	2,500	1,520	847	590	1,140
19	895	1,450	1,450	2,610	2,140	2,360	3,650	2,340	1,600	856	575	856
20	1,330	1,490	1,400	2,340	2,020	2,340	3,630	2,200	1,880	838	568	718
21	3,150	1,480	1,340	2,150	1,920	2,170	3,330	2,100	1,670	818	568	709
22	4,170	1,390	1,310	2,000	1,810	2,090	3,080	2,180	1,570	790	568	905
23	3,280	1,320	1,270	2,670	1,710	3,250	3,280	2,330	1,490	772	568	736
24	9,020	1,270	1,330	3,080	1,680	3,840	3,860	2,390	1,450	772	568	668
25	7,520	1,210	2,020	2,790	1,670	3,090	3,700	2,310	1,400	772	560	628
26	4,390	1,180	1,910	2,500	1,770	2,760	3,410	2,210	1,360	754	560	612
27	3,330	1,130	1,720	2,280	1,710	2,560	3,390	2,230	1,270	745	545	598
28	2,970	1,110	1,580	2,100	1,670	2,420	3,650	2,360	1,220	745	552	568
29	2,710	1,100	1,490	1,970	1,600	2,470	3,840	2,260	1,190	736	538	620
30	3,490	2,090	1,430	1,850	-	2,620	3,720	2,090	1,190	709	538	955
31	3,080	-	1,390	1,770	-	2,830	-	2,000	-	692	545	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff Inches	Runoff Acre-feet
October	62,890	9,020	676	2,029	3.05	3.52	124,700
November	80,570	11,900	1,100	2,686	4.04	4.51	159,800
December	83,450	8,650	1,270	2,692	4.05	4.67	165,500
Calendar year 1943	1,235,470	28,400	676	3,385	5.09	69.10	2,450,000
January	72,510	4,480	1,560	2,339	3.52	4.06	143,800
February	79,670	8,470	1,600	2,747	4.13	4.46	158,000
March	83,970	6,740	1,520	2,709	4.07	4.70	166,600
April	104,940	4,520	2,900	3,498	5.26	5.87	208,100
May	80,430	3,410	2,000	2,595	3.90	4.50	159,500
June	52,080	2,970	1,190	1,736	2.61	2.91	103,300
July	27,284	1,170	692	880	1.32	1.53	54,120
August	19,106	736	538	616	.926	1.07	37,900
September	19,753	1,140	517	658	.989	1.10	39,180
Water year 1943-44	766,653	11,900	517	2,095	3.15	42.90	1,520,000

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.- 1,790 square miles.

Records available.- July 1905 to July 1906 (gage heights only), October 1907 to September 1916, and October 1939 to September 1944 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.- 14 years (1907-16, 1939-44), 7,183 second-feet.

Extremes.- Maximum discharge during year, 39,400 second-feet Nov. 4 (gage height, 14.10 feet); minimum, 283 second-feet Sept. 11, 12 (gage height, 1.28 feet).

1905-6, 1907-16, 1939-44: 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 in use 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 1943-44 (gage height, in feet, and discharge, in second-feet)

Oct. 1 to Nov. 4				Nov. 5 to Sept. 30					
1.8	570	3.3	1,780	1.3	290	3.5	1,990	9.3	14,400
2.2	785	4.0	2,580	1.6	410	4.3	2,970	10.8	20,700
2.7	1,170			2.0	615	5.2	4,350	12.8	31,100
Note.- Same as following table above 4.0 feet.				2.4	885	6.4	6,540		
				2.9	1,350	7.8	9,760		

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	625	5,260	6,460	3,830	4,040	3,680	5,960	7,150	3,830	1,490	510	350
2	620	4,550	7,470	10,400	4,840	3,520	5,920	6,440	5,450	1,430	490	370
3	610	5,490	16,300	8,600	5,420	3,480	6,400	5,900	4,860	1,330	516	370
4	605	18,700	18,300	6,660	5,880	3,540	6,540	5,770	4,570	1,270	516	334
5	615	30,600	15,300	5,790	8,810	3,800	6,740	6,060	4,040	1,220	495	326
6	605	17,600	10,600	5,080	20,100	3,920	6,190	6,340	3,610	1,170	495	322
7	585	11,500	8,280	4,500	20,900	3,910	5,710	5,980	3,300	1,120	490	318
8	580	8,690	7,110	4,080	14,200	4,370	5,730	5,470	3,080	1,060	490	314
9	590	7,020	6,190	3,750	11,800	10,400	6,170	5,350	2,900	1,040	490	306
10	590	5,920	5,400	3,620	9,550	17,900	6,070	5,220	2,710	1,010	490	294
11	620	5,240	4,860	3,460	8,240	11,800	7,360	4,710	2,540	925	465	294
12	773	4,520	4,380	4,020	7,210	8,960	9,980	4,570	2,450	893	460	310
13	811	4,070	4,020	4,320	6,480	7,380	10,300	4,490	2,320	870	450	294
14	720	3,680	3,670	4,160	6,520	6,260	11,800	4,300	2,200	848	428	306
15	676	3,400	3,430	4,200	6,240	5,510	12,500	4,690	2,070	825	455	370
16	660	3,110	3,210	4,780	5,940	4,990	12,800	5,040	1,990	810	455	394
17	731	2,930	2,970	5,640	6,380	4,710	11,400	4,800	2,260	768	432	485
18	984	2,800	2,810	6,580	6,060	4,720	9,660	4,350	2,340	754	428	832
19	1,070	2,750	2,680	5,710	6,090	4,880	9,500	4,080	2,460	740	402	1,190
20	1,100	2,830	2,540	5,060	5,450	5,180	9,980	3,800	2,840	761	398	789
21	3,970	2,960	2,420	4,570	4,130	4,690	8,990	3,520	2,900	714	378	694
22	10,200	2,680	2,320	4,210	4,660	4,370	8,030	3,540	2,580	694	378	893
23	8,170	2,480	2,240	5,680	4,280	5,440	7,670	3,730	2,360	657	374	862
24	17,700	2,360	2,270	3,260	4,000	10,100	8,500	4,050	2,180	651	386	682
25	20,400	2,220	3,660	7,320	4,040	8,030	8,720	4,020	2,070	639	362	593
26	11,200	2,120	4,660	6,360	4,280	6,800	7,850	3,730	1,990	615	354	522
27	7,620	1,990	3,960	5,580	4,320	6,280	7,470	3,600	1,840	604	342	485
28	6,210	1,900	3,480	5,040	4,160	5,770	7,600	3,700	1,720	566	322	465
29	5,270	1,850	3,120	4,550	3,940	5,580	7,920	3,600	1,620	538	346	480
30	6,260	2,100	2,990	4,210	-	5,660	7,710	3,340	1,560	510	334	651
31	6,190	-	2,750	3,940	-	5,960	-	3,140	-	527	334	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	117,360	30,400	580	3,786	232,800
November	173,320	30,600	1,850	5,777	343,800
December	169,750	18,300	2,240	5,476	336,700
Calendar year 1943	2,706,496	91,900	580	7,415	5,368,000
January	163,960	10,400	3,460	5,289	325,200
February	208,960	20,900	3,940	7,206	414,500
March	191,590	17,900	3,480	6,180	380,000
April	247,170	12,800	5,710	8,239	490,300
May	144,180	7,150	3,140	4,651	286,000
June	82,640	5,450	1,560	2,755	163,900
July	27,049	1,490	510	873	53,650
August	13,265	516	322	428	26,310
September	14,895	1,190	294	496	29,540
Water year 1943-44	1,554,139	30,600	294	4,246	3,083,000

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, 1¼ 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 square miles.

Records available.- June 1932 to September 1944. October 1910 to October 1913 (fragmentary) at site below French Creek; records equivalent except for inflow from French Creek.

Average discharge.- 12 years (1932-44), 510 second-feet.

Extremes.- Maximum discharge during year, 4,150 second-feet Nov. 4 (gage height, 6.24 feet); minimum, 92 second-feet Sept. 11-13 (gage height, 0.45 foot).
1932-44: Maximum discharge, 10,400 second-feet Nov. 23, 1942 (gage height, 10.56 feet), from rating curve extended above 4,700 second-feet; minimum, 87 second-feet Sept. 2, 1940 (gage height, 0.36 foot).

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

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

Rating table, water year 1943-44 (gage height, in feet, and discharge, in second-feet)

0.5	97	1.8	415	3.6	1,370
1.1	205	2.3	625	4.4	2,060
1.4	285	2.9	925	5.0	2,690

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	139	373	553	444	291	235	451	558	540	250	130	105
2	137	352	902	638	309	230	479	515	447	230	149	104
3	136	503	1,660	471	327	230	535	499	398	222	130	102
4	136	2,740	1,600	394	345	232	558	531	362	216	127	101
5	134	1,500	1,040	356	607	235	540	625	348	212	125	99
6	132	925	765	324	625	240	491	643	348	212	125	98
7	130	680	620	303	908	242	463	589	356	205	122	97
8	130	535	531	288	695	300	459	553	339	198	122	96
9	130	455	471	276	594	943	435	527	315	189	123	96
10	132	404	423	267	511	881	427	455	333	184	120	95
11	187	366	387	264	455	620	447	408	356	180	119	94
12	157	345	359	300	412	507	455	398	345	178	116	94
13	145	324	339	312	387	431	467	390	294	174	116	95
14	139	303	324	318	376	387	519	435	279	169	116	141
15	143	288	306	348	348	356	598	594	273	167	115	113
16	145	276	294	412	342	345	562	495	285	163	113	130
17	167	267	279	511	327	356	507	455	303	159	113	165
18	157	261	270	463	315	356	479	455	279	159	112	161
19	163	258	261	408	303	362	495	408	309	159	112	127
20	238	267	252	373	297	352	487	380	327	155	110	117
21	390	261	245	345	285	333	455	387	303	151	108	127
22	376	248	240	330	270	327	447	362	285	147	107	134
23	373	240	235	431	264	507	511	356	279	145	107	117
24	1,240	230	252	435	261	540	580	352	294	143	107	112
25	958	225	303	398	255	431	535	339	291	141	108	108
26	612	218	282	362	255	390	519	345	279	137	107	104
27	511	212	264	339	252	362	515	419	252	134	105	102
28	479	210	252	318	250	356	544	463	252	130	104	102
29	463	212	242	303	240	370	584	471	252	128	102	119
30	519	413	235	291	-	404	602	431	264	127	99	132
31	435	-	235	282	-	435	-	419	-	127	101	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff Inches	Runoff Acre-feet
October	9,333	1,240	130	301	2.79	3.21	18,510
November	13,891	2,740	210	463	4.29	4.78	27,550
December	14,421	1,660	235	465	4.31	4.97	28,600
Calendar year 1943	216,986	4,320	130	594	5.50	74.71	430,400
January	11,304	638	264	365	3.38	3.89	22,420
February	11,106	908	240	383	3.55	3.82	22,030
March	12,295	943	230	397	3.68	4.23	24,390
April	15,146	602	427	505	4.68	5.22	30,040
May	14,257	643	339	460	4.26	4.91	28,280
June	9,587	540	252	320	2.96	3.30	19,020
July	5,290	250	127	171	1.58	1.82	10,490
August	3,570	149	99	115	1.06	1.23	7,080
September	3,387	165	94	113	1.05	1.17	6,720
Water year 1943-44	123,587	2,740	94	338	3.13	42.55	245,100

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 1944. July to September 1924 and July to September 1931 at site 4 miles upstream.

Average discharge.- 13 years, 710 second-feet.

Extremes.- Maximum discharge during year, 7,990 second-feet Nov. 4 (gage height, 9.9 feet, from graph based on gage readings); minimum observed, 25 second-feet Oct. 7; minimum gage height observed, 2.13 feet Sept. 11, 13.
1924, 1931-44: Maximum discharge, 19,400 second-feet Nov. 23, 1942 (gage height, 14.9 feet), from rating curve extended above 10,000 second-feet; minimum observed, 21 second-feet Sept. 11, 1934, Sept. 27, 28, 1938, Sept. 1, 1940.

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

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	32	565	1,440	824	398	333	725	763	1,020	130	47	32
2	30	411	1,520	1,330	512	337	741	655	807	130	47	33
3	27	730	3,360	868	605	319	812	600	758	126	48	34
4	27	5,170	3,400	736	650	291	768	640	575	120	48	32
5	26	3,000	1,810	620	2,000	340	736	700	508	122	47	30
6	26	1,520	1,070	575	4,040	378	705	741	432	117	46	31
7	25	1,020	939	471	2,110	423	695	560	378	108	46	29
8	26	725	812	355	1,320	556	660	541	333	98	46	28
9	26	536	675	344	1,110	4,310	645	595	272	97	45	27
10	26	508	570	329	834	2,450	763	462	266	95	43	28
11	114	432	480	288	710	1,370	928	453	212	90	41	26
12	91	367	436	363	620	950	1,030	449	223	87	40	27
13	71	322	382	625	615	700	1,100	462	226	85	36	26
14	60	288	337	575	610	605	1,170	444	194	74	37	39
15	43	250	278	565	580	517	1,110	650	185	76	36	71
16	44	235	285	774	556	480	1,030	560	173	72	37	106
17	118	221	288	1,170	546	466	928	498	226	70	35	134
18	150	202	253	1,000	560	484	785	458	204	70	37	262
19	100	202	250	829	512	546	950	427	250	69	36	131
20	189	221	226	580	508	484	934	363	480	66	34	92
21	1,180	210	215	489	453	449	878	371	333	62	32	84
22	1,870	192	221	432	402	423	868	386	282	62	32	68
23	1,620	175	212	546	367	1,080	846	423	247	60	30	70
24	3,840	169	d280	768	352	1,080	966	531	223	61	33	73
25	2,450	160	d600	670	359	802	890	503	194	58	32	66
26	1,810	152	d500	625	378	695	846	440	182	55	32	52
27	1,160	145	436	522	359	610	763	411	158	52	29	48
28	620	140	386	475	363	620	978	378	152	50	31	45
29	556	136	322	432	367	625	956	352	149	48	31	122
30	851	474	d300	386	-	650	884	305	133	50	29	189
31	630	-	d270	326	-	796	-	253	-	49	30	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff Inches	Runoff Acre-feet
October	17,838	3,840	25	575	5.23	6.03	35,380
November	18,878	5,170	136	629	5.72	6.38	37,440
December	22,553	3,400	212	728	6.62	7.62	44,730
Calendar year 1943	282,658	8,550	25	774	7.04	95.55	560,600
January	18,892	1,330	288	609	5.54	6.39	37,470
February	22,796	4,040	352	786	7.15	7.71	45,220
March	24,169	4,310	291	780	7.09	8.17	47,940
April	26,090	1,170	645	870	7.91	8.82	51,750
May	15,374	763	253	496	4.51	5.20	30,490
June	9,775	1,020	133	326	2.96	3.30	19,390
July	2,509	130	48	80.9	.735	.85	4,980
August	1,173	48	29	37.8	.344	.40	2,330
September	2,035	262	26	67.8	.616	.69	4,040
Water year 1943-44	182,082	5,170	25	497	4.52	61.56	361,200

d Doubtful gage-height record; discharge computed on basis of records for Santiam River at Mehama and 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 1944. Records do not include the runoff from 3 square miles between cable and gage.

Extremes.- Maximum discharge during year, 5,850 second-feet Nov. 4 (gage height, 9.10 feet); minimum, 40 second-feet Sept. 12, 13 (gage height, 1.29 feet).
1935-44: Maximum discharge, 17,000 second-feet Dec. 31, 1942 (gage height, 15.75 feet), from rating curve extended above 6,300 second-feet by logarithmic plotting; minimum, 23 second-feet Dec. 1, 2, 1936 (gage height, 0.98 foot).

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

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

Rating tables, water year 1943-44 (gage height, in feet, and discharge, in second-feet)

Oct. 1 to Nov. 4				Nov. 5 to Sept. 30			
1.3	45	3.0	470	1.3	41	2.0	145
1.5	68	3.5	710	1.5	63	2.3	215
1.7	97	4.2	1,100	1.7	91	2.6	310
2.0	149	5.0	1,630	Note.- Same as preceding table above 2.6 feet.			
2.3	221	6.0	2,450				
2.6	310	7.4	3,830				

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	54	461	695	696	357	373	690	820	502	162	70	63
2	52	401	834	1,310	448	349	725	740	474	156	73	72
3	52	725	1,430	837	520	349	804	705	520	151	70	56
4	52	3,880	1,310	635	585	357	815	730	466	147	68	51
5	49	2,890	1,080	524	1,670	401	820	810	413	137	67	50
6	48	1,690	815	448	2,610	448	725	804	369	130	67	47
7	48	1,120	665	393	1,920	484	670	740	349	126	68	46
8	48	820	615	357	1,340	665	690	675	320	124	66	44
9	48	660	520	331	1,120	1,800	700	675	306	124	65	43
10	50	538	466	310	903	1,890	735	600	282	110	62	42
11	113	461	413	296	793	1,280	1,020	551	263	106	61	41
12	99	397	369	310	690	974	1,260	560	248	103	59	41
13	69	353	334	310	625	788	1,230	575	236	98	57	44
14	61	317	310	310	650	665	1,340	551	230	96	57	52
15	66	289	289	334	605	580	1,620	570	221	93	56	63
16	74	263	272	357	600	528	1,480	524	224	93	55	88
17	116	251	254	474	590	520	1,200	497	272	90	53	151
18	140	242	242	466	546	515	1,020	515	240	86	53	224
19	97	236	233	409	515	590	1,040	470	272	90	52	119
20	198	251	218	373	474	570	992	430	393	88	52	85
21	788	248	207	338	434	524	898	409	306	84	51	101
22	969	218	197	317	397	520	815	425	278	80	50	110
23	760	202	192	575	373	1,180	870	488	254	80	50	78
24	1,810	192	207	690	373	1,410	930	474	233	79	50	64
25	1,550	182	397	585	377	1,020	842	438	221	76	50	57
26	876	173	397	502	438	820	793	417	205	72	49	55
27	615	166	324	434	461	740	832	421	194	71	48	51
28	492	162	289	389	438	690	914	443	182	70	47	49
29	474	160	269	353	397	680	964	397	175	68	46	75
30	715	328	245	331	-	705	925	361	168	67	45	151
31	560	-	233	320	-	705	-	365	-	67	45	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff Inches	Runoff Acre-feet
October	11,143	1,810	48	359	2.06	2.38	22,100
November	18,276	3,880	160	609	3.50	3.91	36,250
December	14,321	1,430	192	462	2.66	3.06	28,410
Calendar year 1943	265,249	10,300	48	727	4.18	56.69	526,100
January	14,314	1,310	296	462	2.66	3.06	28,390
February	21,249	2,610	357	733	4.21	4.54	42,150
March	23,120	1,890	349	746	4.29	4.94	45,860
April	28,359	1,620	670	945	5.43	6.06	56,250
May	17,180	820	361	554	3.18	3.67	34,080
June	8,816	520	185	294	1.69	1.88	17,490
July	3,124	162	67	101	.580	.67	6,200
August	1,762	73	45	56.8	.326	.38	3,490
September	2,213	224	41	73.8	.424	.47	4,390
Water year 1943-44	163,877	3,880	41	448	2.57	35.02	325,100

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 1944.

Average discharge.- 22 years (1905-6, 1923-44), 2,660 second-feet.

Extremes.- Maximum discharge during year, 24,600 second-feet Nov. 4 (gage height, 11.78 feet); minimum, 133 second-feet Sept. 12, 13 (gage height, 2.08 feet).
1905-7, 1910-11, 1923-44: Maximum discharge, 70,000 second-feet Mar. 31, 1931 (gage height, 22.0 feet), from rating curve extended above 37,000 second-feet; minimum, 96 second-feet Sept. 1, 2, 1940 (gage height, 1.98 feet).

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

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

Rating tables, water year 1943-44 (gage height, in feet, and discharge, in second-feet)

Oct. 1 to Nov. 4

2.2	182	3.3	945	6.0	5,390
2.4	270	3.7	1,380	7.5	9,400
2.7	450	4.3	2,220	8.7	13,300
3.0	675	5.0	3,350		

Nov. 5 to Sept. 30

2.1	139
2.3	218
2.5	324
2.7	450

Note.- Same as preceding table above 2.7 feet.

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	186	1,890	3,060	1,930	1,410	1,420	2,500	2,880	1,670	580	243	164
2	182	1,630	3,250	5,210	1,820	1,330	2,510	2,560	1,940	542	253	238
3	182	2,360	6,810	3,510	2,080	1,310	2,740	2,370	1,860	528	248	214
4	175	13,200	6,220	2,640	2,400	1,360	2,770	2,360	1,700	513	243	184
5	172	11,600	5,050	2,220	5,330	1,550	2,800	2,530	1,480	499	238	171
6	175	6,700	3,670	1,920	10,900	1,650	2,450	2,550	1,330	478	238	164
7	175	4,570	2,910	1,640	8,000	1,680	2,260	2,320	1,200	457	243	164
8	179	3,400	2,530	1,510	5,480	2,240	2,420	2,100	1,120	450	238	153
9	172	2,720	2,200	1,380	4,570	6,600	2,640	2,140	1,060	457	233	150
10	172	2,260	1,920	1,360	3,730	7,170	2,710	1,950	995	443	228	139
11	222	1,920	1,680	1,260	3,230	4,760	3,490	1,790	916	410	228	139
12	424	1,640	1,520	1,390	2,790	3,620	4,400	1,770	869	404	218	139
13	292	1,480	1,380	1,500	2,510	2,960	4,340	1,770	841	404	213	139
14	232	1,310	1,260	1,410	2,560	2,480	4,900	1,650	814	391	214	161
15	214	1,190	1,180	1,480	2,390	2,200	5,910	1,790	787	372	214	205
16	251	1,100	1,120	1,710	2,320	2,000	5,740	1,750	769	354	196	243
17	313	1,040	1,040	2,220	2,420	1,910	4,850	1,540	926	348	201	378
18	528	1,000	995	2,360	2,280	1,920	4,060	1,550	878	348	201	734
19	404	975	945	1,940	2,180	2,060	4,140	1,470	965	348	192	528
20	535	1,020	907	1,700	1,980	2,070	4,140	1,330	1,200	348	192	330
21	3,210	1,040	860	1,540	1,850	1,840	3,750	1,240	1,080	336	188	318
22	5,410	907	832	1,410	1,680	1,770	3,350	1,240	955	324	179	437
23	3,390	850	787	2,040	1,550	2,910	3,350	1,480	869	313	175	348
24	8,920	796	832	2,960	1,460	4,740	3,670	1,560	832	302	171	258
25	7,150	760	1,520	2,550	1,540	3,490	3,390	1,510	769	302	175	218
26	3,940	718	1,740	2,200	1,650	2,900	3,100	1,380	743	290	171	209
27	2,750	684	1,420	1,890	1,680	2,660	3,060	1,360	692	285	171	192
28	2,240	667	1,230	1,650	1,630	2,420	3,210	1,370	667	279	168	188
29	1,910	659	1,100	1,510	1,520	2,400	3,330	1,260	619	263	161	201
30	2,610	978	1,020	1,390	-	2,530	3,180	1,140	595	263	161	513
31	2,300	-	955	1,310	-	2,560	-	1,100	-	253	161	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff	
						Inches	Acre-feet
October	49,015	8,920	172	1,581	2.47	2.85	97,220
November	71,064	13,200	659	2,369	3.70	4.13	141,000
December	61,943	6,810	787	1,998	3.12	3.60	122,900
Calendar year 1943	1,053,783	44,500	172	2,887	4.51	61.25	2,090,000
January	60,740	5,210	1,260	1,959	3.06	3.53	120,500
February	84,940	10,900	1,410	2,929	4.58	4.94	168,500
March	82,510	7,170	1,310	2,662	4.16	4.79	163,700
April	105,160	5,910	2,260	3,505	5.48	6.11	208,600
May	54,810	2,880	1,100	1,768	2.76	3.18	108,700
June	31,141	1,940	595	1,038	1.62	1.81	61,770
July	11,884	580	253	383	.598	.69	23,570
August	6,360	253	161	205	.320	.37	12,610
September	7,619	734	139	254	.397	.44	15,110
Water year 1943-44	627,186	13,200	139	1,714	2.68	36.44	1,244,000

Peak discharge.- Nov. 4 (2 p.m.) 24,600 sec.-ft.; Feb. 6 (4 p.m.) 13,000 sec.-ft.
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 1944.

Average discharge.- 13 years, 1,417 second-feet.

Extremes.- Maximum discharge during year, 14,800 second-feet Nov. 4 (gage height, 12.79 feet); minimum, 76 second-feet Sept. 11-13 (gage height, 1.40 feet).
1931-44: Maximum discharge, 33,500 second-feet Dec. 31, 1942 (gage height, 18.70 feet), from rating curve extended above 23,000 second-feet; minimum, 54 second-feet Dec. 1, 1936 (gage height, 1.25 feet).

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

Rating tables, water year 1943-44 (gage height, in feet, and discharge, in second-feet)

Oct. 1 to Nov. 4

1.5	94	3.6	685	7.0	3,550
2.0	169	4.2	990	8.5	5,580
2.5	284	5.0	1,540	10.0	8,250
3.0	440	6.0	2,450		

Nov. 5 to Sept. 30

1.4	76	2.6	302
1.8	129	3.0	434
2.2	202	3.6	685

Note.- Same as preceding table above 3.6 feet.

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	98	957	1,990	1,530	800	685	1,350	1,490	1,190	302	134	113
2	96	835	2,740	2,690	1,010	658	1,420	1,320	1,150	291	137	120
3	95	1,380	4,270	1,640	1,130	649	1,570	1,240	1,070	280	134	101
4	94	8,600	3,830	1,240	1,360	672	1,550	1,270	962	271	131	95
5	94	5,200	2,740	1,070	3,620	740	1,500	1,390	850	264	128	90
6	93	3,110	1,930	930	6,430	765	1,330	1,360	765	253	128	87
7	92	2,150	1,520	830	4,120	800	1,220	1,210	694	246	126	85
8	92	1,600	1,320	775	2,820	1,220	1,360	1,100	649	241	124	83
9	91	1,290	1,120	721	2,220	4,700	1,400	1,130	608	236	123	80
10	92	1,090	996	694	1,770	3,730	1,510	996	559	222	120	79
11	188	946	891	667	1,520	2,370	1,860	940	522	217	117	78
12	193	840	820	880	1,330	1,770	2,050	918	487	209	114	76
13	132	755	750	886	1,230	1,440	2,070	908	471	202	113	80
14	116	690	698	850	1,240	1,230	2,430	875	449	200	111	103
15	116	626	654	924	1,130	1,080	2,850	952	430	196	110	124
16	125	586	608	1,070	1,100	990	2,560	880	430	188	107	152
17	185	550	568	1,500	1,050	990	2,170	820	502	184	104	266
18	250	522	546	1,380	1,010	996	1,870	805	464	180	104	381
19	191	514	516	1,130	979	1,050	2,000	750	568	180	103	202
20	630	538	490	984	918	996	1,960	698	622	174	100	142
21	2,390	522	464	880	860	902	1,760	662	542	169	99	165
22	3,270	467	441	810	795	875	1,600	721	494	163	97	206
23	2,410	438	430	1,260	745	1,760	1,720	850	449	159	96	147
24	5,560	409	460	1,520	735	1,990	1,900	908	427	158	96	126
25	3,690	388	850	1,270	745	1,500	1,720	865	398	156	95	114
26	1,960	374	795	1,090	790	1,320	1,600	800	374	150	94	108
27	1,400	361	667	957	785	1,230	1,610	765	358	147	92	103
28	1,180	351	600	870	750	1,160	1,760	785	342	143	92	99
29	1,050	342	550	800	721	1,230	1,810	708	326	140	90	149
30	1,370	959	514	750	-	1,360	1,700	649	311	135	87	345
31	1,170	-	498	721	-	1,400	-	636	-	134	86	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff	
						Inches	Acre-feet
October	28,513	5,560	91	920	3.39	3.91	56,550
November	37,390	8,600	342	1,246	4.60	5.13	74,160
December	35,268	4,270	430	1,138	4.20	4.84	69,950
Calendar year 1943	551,569	20,700	91	1,511	5.58	75.70	1,094,000
January	33,319	2,690	667	1,075	3.97	4.57	66,090
February	43,713	6,430	721	1,507	5.56	6.00	86,700
March	42,258	4,700	649	1,363	5.03	5.80	83,820
April	53,210	2,850	1,220	1,774	6.55	7.30	105,500
May	29,401	1,490	636	948	3.50	4.03	58,320
June	17,463	1,190	311	582	2.15	2.40	34,640
July	6,190	302	134	200	.738	.85	12,280
August	3,392	137	86	109	.402	.47	6,730
September	4,099	381	76	137	.506	.56	8,130
Water year 1943-44	334,216	8,600	76	913	3.37	45.86	662,900

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 1944. February to December 1919 at site near Albany.

Average discharge.- 18 years, 220 second-feet.

Extremes.- Maximum discharge during year, 332 second-feet Mar. 9 (gage height, 4.07 feet); minimum, 42 second-feet Aug. 8 (gage height, 0.89 foot).
1919, 1926-44: Maximum discharge, 346 second-feet Nov. 15, 1942 (gage height, 4.15 feet); 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 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	138	278	278	260	253	263	266	281	223	211	155	127
2	143	274	262	263	259	263	266	279	233	205	155	152
3	145	277	273	251	249	262	276	271	233	203	156	179
4	141	295	258	258	261	263	284	267	215	204	154	162
5	136	271	253	279	286	265	282	273	194	201	153	135
6	136	255	256	275	294	266	283	272	194	199	155	132
7	136	264	269	273	261	268	278	266	194	199	154	128
8	136	254	268	271	264	274	269	266	191	200	142	116
9	135	256	263	269	258	302	275	270	188	201	146	107
10	134	195	259	266	247	302	273	271	186	198	143	104
11	144	203	258	265	248	285	281	266	184	189	141	103
12	182	269	254	269	249	278	274	263	183	191	137	105
13	183	263	248	271	244	274	249	261	180	186	137	106
14	174	259	249	269	254	266	258	259	179	180	133	110
15	166	255	246	270	268	272	266	263	184	179	132	124
16	162	252	244	275	269	278	265	263	196	177	130	154
17	175	254	258	273	273	275	266	262	199	175	141	192
18	191	260	266	266	258	264	270	258	199	175	152	236
19	193	259	263	263	242	276	267	253	199	174	146	236
20	193	259	260	259	237	277	272	248	205	175	150	205
21	265	264	258	254	253	273	270	246	206	175	142	193
22	282	258	255	253	268	289	261	253	203	174	143	221
23	250	249	254	241	265	281	259	277	199	174	137	212
24	247	243	253	243	264	289	266	238	198	170	139	183
25	240	241	274	241	264	260	260	234	194	165	148	161
26	228	234	284	251	266	254	261	231	203	158	145	151
27	248	228	281	259	266	259	267	224	215	161	142	142
28	265	233	278	258	265	264	281	226	214	157	131	129
29	273	231	274	255	264	264	281	228	214	152	118	131
30	280	239	268	251	-	264	285	220	215	155	115	195
31	282	-	265	249	-	265	-	214	-	154	126	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	6,003	282	134	194	11,910
November	7,572	295	195	252	15,020
December	8,129	284	244	262	16,120
Calendar year 1943	87,796	295	74	241	174,100
January	8,100	279	241	261	16,070
February	7,549	294	237	260	14,970
March	8,415	302	254	271	16,690
April	8,111	285	249	270	16,090
May	7,903	281	214	255	15,680
June	6,020	233	179	201	11,940
July	5,617	211	152	181	11,140
August	4,398	156	115	142	8,720
September	4,631	236	103	154	9,190
Water year 1943-44	82,448	302	103	225	163,600

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 1944.

Average discharge.- 10 years, 180 second-feet.

Extremes.- Maximum discharge during year, 1,950 second-feet Dec. 2 (gage height, 7.41 feet); minimum, 8 second-feet Sept. 9-11.
1934-44: Maximum discharge, 5,080 second-feet Dec. 29, 1937; minimum, 7 second-feet Sept. 2-5, 10, 21, 22, 1934.

Remarks.- Records fair. No diversion or regulation above station; log ponds upstream cause diurnal fluctuation at times.

Rating table, water year 1943-44 (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Oct. 1 to Dec. 2)

0.9	8	2.0	135	4.0	720
1.1	21	2.5	257	5.0	1,060
1.4	48	3.0	399	6.0	1,420
1.6	71	3.5	555	6.4	1,570

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	11	120	376	318	174	114	116	120	198	33	15	11
2	11	143	1,050	454	174	109	109	111	135	32	15	10
3	12	192	1,550	354	181	211	102	106	106	31	15	10
4	12	773	1,390	284	254	218	98	99	94	30	15	9
5	13	515	819	236	494	218	93	93	84	29	15	9
6	13	347	536	198	832	204	92	88	78	28	15	9
7	12	280	387	171	631	208	98	84	72	27	15	9
8	12	230	306	153	463	214	122	81	69	27	17	9
9	12	196	249	139	363	466	111	88	64	27	16	8
10	21	166	216	127	301	429	108	80	61	27	14	8
11	61	143	191	139	262	340	120	78	58	25	14	8
12	28	124	167	221	228	281	129	76	57	24	13	9
13	22	111	144	221	216	236	208	71	56	24	13	12
14	19	102	131	179	218	206	332	70	54	23	13	16
15	18	94	122	239	194	179	375	74	50	23	13	12
16	18	88	111	241	206	159	366	67	50	23	13	15
17	47	88	106	318	194	146	326	74	50	22	13	20
18	46	90	99	287	208	131	292	69	48	21	14	18
19	62	90	93	247	201	127	337	65	47	23	12	13
20	120	96	90	216	191	116	393	61	46	23	12	12
21	183	84	86	188	184	108	346	59	44	22	12	12
22	225	79	81	171	164	102	298	63	43	20	12	12
23	192	74	83	372	150	252	262	64	41	20	12	10
24	741	72	122	387	144	204	236	65	39	20	13	10
25	437	69	224	340	148	181	214	58	39	19	14	9
26	278	66	174	295	157	181	191	55	38	18	14	9
27	205	67	148	249	135	169	169	52	36	17	12	9
28	166	65	133	218	127	155	153	49	36	16	12	9
29	155	65	122	194	122	146	139	48	34	15	10	18
30	141	302	113	167	-	133	129	46	34	16	10	20
31	127	-	116	155	-	126	-	56	-	17	10	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff Inches	Runoff Acre-feet
October	3,420	741	11	110	3.24	3.74	6,780
November	4,931	773	65	164	4.82	5.39	9,780
December	9,535	1,550	81	308	9.06	10.43	18,910
Calendar year 1943	66,088	2,620	11	181	5.32	72.30	131,100
January	7,478	454	127	241	7.09	8.18	14,830
February	7,316	832	122	252	7.41	8.00	14,510
March	6,069	466	102	196	5.76	6.64	12,040
April	6,064	393	92	202	5.94	6.63	12,030
May	2,270	120	46	73.2	2.15	2.48	4,500
June	1,861	198	34	62.0	1.82	2.04	3,690
July	722	33	15	23.3	.685	.79	1,430
August	413	17	10	13.3	.391	.45	819
September	345	20	8	11.5	.338	.38	684
Water year 1943-44	50,424	1,550	8	138	4.06	55.15	100,000

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 1944.

Extremes.- Maximum discharge observed during year, 3,960 second-feet Dec. 4 (gage height, 10.76 feet); minimum observed, 7 second-feet (regulated) Sept. 12 (gage height, 0.98 foot).

1940-44: Maximum discharge, 7,010 second-feet Nov. 23, 1942 (gage height, 14.44 feet), from rating curve extended above 3,400 second-feet; minimum observed, that of Sept. 12, 1944.

Remarks.- Records fair. Gage read twice daily. Small diversions above station for irrigation. Some diurnal fluctuation in summer caused by log ponds above station.

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	24	208	622	514	379	275	257	288	291	67	30	29
2	25	228	1,060	995	414	268	246	277	252	64	30	21
3	25	327	2,690	752	437	457	233	252	192	63	25	11
4	26	970	3,090	618	514	469	227	238	174	63	27	15
5	25	995	1,940	542	755	457	217	225	157	61	22	20
6	24	685	1,230	469	1,220	440	211	211	150	59	24	16
7	22	552	916	425	1,180	431	207	201	139	55	22	11
8	21	437	710	374	945	437	255	196	132	56	17	10
9	23	.363	601	347	776	772	242	201	126	52	20	10
10	27	326	499	328	685	762	227	190	119	49	21	9
11	97	272	466	336	594	671	261	183	111	50	19	11
12	97	233	405	524	534	573	255	174	106	47	15	7
13	41	205	358	463	493	505	334	166	110	49	20	11
14	37	183	321	445	493	457	598	174	106	47	19	14
15	33	168	298	552	431	405	797	179	104	44	20	20
16	33	159	279	542	448	352	699	161	104	42	19	17
17	48	152	255	660	411	326	632	163	105	36	20	14
18	101	168	242	643	416	303	573	157	102	37	19	29
19	101	192	231	570	425	288	671	147	98	39	20	21
20	214	172	219	499	416	275	783	141	94	37	18	9
21	300	159	209	451	393	244	692	143	91	43	17	24
22	418	147	199	431	360	246	615	141	89	41	17	28
23	308	139	196	878	331	496	542	145	87	41	17	27
24	1,000	134	238	888	318	419	528	136	82	41	16	14
25	700	127	559	758	308	360	499	127	78	37	20	11
26	442	126	451	674	339	358	460	126	78	32	20	12
27	356	120	393	576	306	344	414	122	74	37	13	11
28	270	119	336	511	298	331	363	119	73	35	17	11
29	252	117	310	463	284	310	339	114	71	31	16	18
30	252	379	279	414	-	286	313	d110	69	29	14	42
31	228	-	266	371	-	268	-	d194	-	31	21	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff	
						Inches	Acre-feet
October	5,570	1,000	21	180	1.61	1.85	11,050
November	8,562	995	117	285	2.54	2.84	16,980
December	19,868	3,090	196	641	5.72	6.60	39,410
Calendar year 1943	153,492	5,410	14	421	3.75	50.98	304,400
January	17,013	995	328	549	4.90	5.65	33,740
February	14,903	1,220	284	514	4.59	4.95	29,560
March	12,565	772	244	405	3.62	4.17	24,920
April	12,690	797	207	423	3.78	4.21	25,170
May	5,401	288	110	174	1.55	1.79	10,710
June	3,564	291	69	119	1.06	1.18	7,070
July	1,415	67	29	45.6	.407	.47	2,810
August	615	30	13	19.8	.177	.20	1,220
September	503	42	7	16.8	.150	.17	998
Water year 1943-44	102,669	3,090	7	281	2.51	34.08	203,600

d Doubtful gage-height record; discharge computed on basis of records for station 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 1944.

Extremes.- Maximum discharge during year, 5,900 second-feet Dec. 5 (gage height, 26.23 feet); minimum, 21 second-feet Sept. 10 (gage height, 1.78 feet).
1905-11, 1940-44: Maximum discharge, 14,400 second-feet Apr. 1, 1943 (gage height, 29.40 feet); minimum, that of Sept. 10, 1944.
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.

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	36	271	1,050	807	822	535	521	591	326	106	48	28
2	38	260	1,220	1,880	972	508	498	546	516	103	48	32
3	39	401	3,010	1,720	974	705	472	507	390	101	47	38
4	41	894	4,820	1,320	992	1,020	451	473	332	99	44	30
5	40	1,830	5,420	1,150	1,330	921	432	444	293	95	49	33
6	41	1,260	3,440	976	1,940	866	415	416	272	92	52	28
7	40	900	2,030	838	2,430	832	420	394	252	90	49	26
8	37	701	1,490	752	1,990	753	481	375	236	85	52	29
9	35	574	1,200	680	1,740	1,250	493	374	222	76	47	30
10	38	484	1,010	641	1,470	1,560	455	381	207	76	49	25
11	69	433	876	614	1,280	1,310	476	357	197	74	48	24
12	138	382	771	1,220	1,150	1,140	607	344	188	71	44	26
13	83	336	687	1,250	1,050	998	617	325	188	70	40	26
14	66	309	616	1,030	1,050	880	1,070	307	187	69	39	28
15	60	283	561	1,130	958	795	1,290	304	180	66	38	33
16	56	272	511	1,320	891	731	1,360	a325	174	63	39	42
17	59	259	470	1,340	908	683	1,240	a300	175	63	40	42
18	114	264	438	1,340	848	637	1,140	a305	176	58	38	49
19	125	298	418	1,200	904	600	1,110	a285	166	58	40	51
20	155	309	388	1,060	825	592	1,470	a260	158	59	40	44
21	337	327	363	938	810	540	1,360	a255	149	67	38	41
22	598	294	343	846	750	506	1,200	246	146	63	36	42
23	585	273	327	1,390	694	693	1,100	248	142	59	35	47
24	1,030	258	354	2,170	655	880	1,130	255	136	55	35	42
25	1,840	244	787	1,720	638	740	1,040	243	131	53	37	30
26	1,020	230	904	1,430	662	700	920	227	129	52	40	34
27	640	221	714	1,240	620	694	843	217	124	53	42	31
28	467	221	617	1,100	596	644	760	207	119	48	37	30
29	366	213	549	978	565	616	691	201	122	45	35	31
30	338	378	498	880	-	585	638	196	106	44	32	38
31	309	-	466	795	-	550	-	193	-	44	32	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff	
						Inches	Acre-feet
October	8,840	1,840	35	285	1.21	1.39	17,530
November	13,379	1,830	213	446	1.89	2.11	26,540
December	36,348	5,420	327	1,173	4.97	5.73	72,100
Calendar year 1943	302,147	12,500	33	828	3.51	47.61	599,300
January	35,755	2,170	614	1,153	4.89	5.63	70,920
February	30,514	2,430	565	1,052	4.46	4.81	60,520
March	24,464	1,560	506	789	3.34	3.86	48,520
April	24,700	1,470	415	823	3.49	3.89	48,990
May	10,101	591	193	326	1.38	1.59	20,040
June	6,139	516	106	205	.869	.97	12,180
July	2,157	106	44	69.6	.295	.34	4,280
August	1,290	52	32	41.6	.176	.20	2,560
September	1,030	51	24	34.3	.145	.16	2,040
Water year 1943-44	194,717	5,420	24	532	2.25	30.68	386,200

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 1944 in reports of Geological Survey. November 1938 to September 1940 in files of Oregon State engineer.

Extremes.- Maximum discharge during year, 1,410 second-feet Jan. 23 (gage height, 4.08 feet); minimum, 128 second-feet (regulated) Aug. 15; minimum daily, 146 second-feet Aug. 16.

1938-44: Maximum discharge, 3,880 second-feet Feb. 7, 1943 (gage height, 6.95 feet), from rating curve extended above 2,600 second-feet; minimum, 44 second-feet July 13, 1939.

Maximum discharge known, 8,320 second-feet Dec. 29, 1937, computed by velocity-area method on basis of discharge measurement of 7,300 second-feet made that day.

Remarks.- Records good. 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 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	167	220	328	539	412	285	218	247	237	186	193	189
2	165	234	331	756	472	271	213	240	242	186	204	204
3	174	290	468	543	531	344	211	230	225	178	200	216
4	174	475	1,220	464	475	374	209	222	222	178	186	222
5	165	503	895	440	575	391	204	213	218	178	182	204
6	161	377	666	394	761	334	200	209	211	176	202	195
7	155	316	583	363	689	316	209	200	209	178	200	189
8	157	279	503	344	603	322	266	197	209	189	180	178
9	157	257	436	322	631	495	266	202	218	197	174	186
10	165	234	398	328	531	433	260	204	206	184	172	209
11	178	220	363	350	487	380	328	204	204	182	178	193
12	200	209	340	591	447	347	430	202	204	186	169	189
13	195	197	316	468	422	328	468	200	204	178	167	211
14	197	189	301	405	468	313	507	193	209	167	184	211
15	195	178	290	495	433	293	464	197	204	167	148	240
16	202	174	276	503	433	282	416	195	204	167	146	244
17	209	169	263	543	461	274	447	191	222	172	161	257
18	222	176	257	464	464	263	398	191	222	161	167	247
19	209	200	257	412	491	271	433	191	222	176	184	186
20	250	230	250	380	416	271	535	189	222	176	182	161
21	319	220	237	360	394	252	430	184	222	182	189	174
22	350	193	234	347	360	244	377	182	222	167	178	182
23	344	178	234	960	331	290	357	186	218	169	176	163
24	790	167	263	1,040	322	299	380	184	211	159	178	167
25	684	159	499	694	331	271	377	180	209	157	186	159
26	398	153	468	579	377	257	334	178	204	152	186	189
27	299	211	370	503	331	265	313	169	202	155	209	186
28	250	230	331	450	322	240	287	167	193	182	209	189
29	234	237	310	416	301	232	274	165	193	186	191	167
30	263	299	293	391	-	230	260	163	189	211	184	189
31	240	-	293	367	-	222	-	165	-	206	182	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	7,868	790	155	254	15,610
November	7,174	503	153	239	14,230
December	12,273	1,220	234	396	24,340
Calendar year 1943	131,184	3,060	96	359	260,200
January	15,211	1,040	322	491	30,170
February	13,271	761	301	458	26,320
March	9,379	495	222	303	18,600
April	10,071	535	200	336	19,980
May	6,040	247	163	195	11,980
June	6,377	242	189	213	12,650
July	5,488	211	152	177	10,890
August	5,647	209	146	182	11,200
September	5,896	257	159	197	11,690
Water year 1943-44	104,695	1,220	146	286	207,700

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).

Records available.- October 1940 to September 1944 in reports of Geological Survey. July 1938 to September 1940 in files of Oregon State engineer.

Extremes.- Maximum discharge during year, 587 second-feet Jan. 24; maximum gage height, 3.85 feet Dec. 4, caused by drift jam below gage; minimum discharge, 6 second-feet Aug. 16.

1938-44: Maximum discharge recorded, 1,110 second-feet Feb. 7, 1943 (gage height, 5.53 feet, from floodmark); no flow Oct. 2, 1939.

Remarks.- Records good except those for period of no gage-height record, which are poor. Salem power canal diverts water into Mill Creek near Stayton; several diversions from Mill Creek, including Shelton flood bypass 1¼ miles upstream, and 19th Street power diversion 220 feet upstream. Diurnal fluctuation caused by power plants above station.

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	26	88	147	241	177	122	77	91	67	54	42	45
2	30	92	153	371	215	115	92	89	94	53	55	58
3	42	126	f196	260	238	151	70	80	76	50	50	93
4	39	208	435	212	212	254	64	71	95	49	39	115
5	27	223	392	194	247	260	58	66	78	36	32	71
6	25	171	285	169	337	161	41	61	60	31	55	52
7	21	167	243	161	302	137	27	99	58	29	67	46
8	18	130	210	149	263	141	102	61	52	31	32	38
9	23	103	185	155	276	210	120	135	70	71	29	45
10		95	175	153	234	196	103	141	54	50	27	77
11		80	165	151	217	167	128	60	71	32	33	60
12	a45	71	165	256	198	171	177	58	64	33	28	40
13		67	143	215	202	149	196	54	60	30	68	60
14		56	122	181	217	132	212	71	48	20	55	66
15		47	120	215	196	120	198	58	50	20	24	77
16	68	39	110	238	194	115	206	54	58	37	19	88
17	78	32	105	238	206	110	196	50	73	23	32	114
18	92	36	107	212	202	107	173	49	105	20	31	97
19	86	56	114	183	219	124	175	49	84	22	48	52
20	108	74	105	167	202	114	223	48	77	21	56	28
21	167	89	94	161	181	100	185	61	71	36	64	36
22	181	60	88	157	161	92	163	39	78	26	33	37
23	177	37	86	384	153	114	171	39	71	39	42	35
24	337	33	115	463	147	120	163	37	63	22	33	52
25	315	39	217	315	149	110	153	31	92	18	47	32
26	189	29	227	254	169	114	141	21	70	20	44	48
27	130	58	171	212	165	97	130	29	56	19	72	45
28	107	102	145	198	153	89	114	56	52	35	71	49
29	97	97	133	183	139	84	108	56	50	31	47	34
30	103	124	119	181	-	83	117	73	46	82	46	46
31	107	-	130	171	-	77	-	25	-	68	45	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	2,863	337	18	92.4	5,680
November	2,629	223	29	87.6	5,210
December	5,202	435	86	168	10,320
Calendar year 1943	43,632	900	6	120	86,550
January	6,800	463	149	219	13,490
February	5,971	337	139	206	11,840
March	4,136	260	77	133	8,200
April	4,083	223	27	136	8,100
May	1,912	141	21	61.7	3,790
June	2,043	105	46	68.1	4,050
July	1,108	82	18	35.7	2,200
August	1,366	72	19	44.1	2,710
September	1,736	115	28	57.9	3,440
Water year 1943-44	39,849	463	18	109	79,030

a No gage-height record; discharge computed on basis of records for Mill Creek at penitentiary annex, near Salem, and unpublished record for Shelton ditch near Salem.

f Computed from partly estimated gage-height record.

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 1944.

Extremes.- Maximum discharge during year, 4,930 second-feet Oct. 24 (gage height, 7.58 feet); minimum daily, 10 second-feet Sept. 11-12.
1934-44: 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 table, water year 1943-44 (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Oct. 1, Aug. 6 to Sept. 30)

0.5	9	1.2	112	3.0	830
.6	15	1.4	168	3.6	1,170
.7	23	1.6	229	4.2	1,580
.8	34	1.9	329	5.0	2,200
.9	48	2.2	445	6.0	3,170
1.0	66	2.6	630	7.0	4,270

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	17	304	858	1,110	640	355	348	322	624	59	23	11
2	18	322	1,790	1,900	740	340	326	298	468	59	21	12
3	18	504	3,380	1,190	780	605	308	274	348	59	21	13
4	18	1,510	4,000	962	924	620	294	258	294	57	21	13
5	19	1,460	2,330	820	1,090	610	271	242	251	55	21	12
6	21	1,090	1,560	680	1,740	580	264	223	220	53	21	11
7	23	868	1,150	590	1,540	580	278	210	201	50	21	11
8	21	705	912	517	1,260	600	366	198	186	50	24	11
9	21	566	730	472	1,070	1,080	463	214	168	50	31	11
10	22	476	615	433	896	924	397	210	154	47	24	11
11	168	405	522	445	795	760	433	192	142	44	21	10
12	79	351	458	755	680	725	433	186	136	41	20	10
13	50	315	397	650	615	820	610	168	136	41	19	11
14	44	287	359	785	710	548	924	159	131	40	19	13
15	40	261	322	912	595	494	1,030	165	123	38	17	21
16	41	239	298	995	675	441	1,000	154	120	37	17	28
17	99	223	278	1,330	685	401	907	151	128	35	16	45
18	120	217	261	1,070	715	366	810	148	131	34	16	37
19	168	229	245	918	700	370	940	136	134	37	17	26
20	245	281	229	780	640	362	990	128	110	40	16	21
21	690	245	217	685	610	322	852	128	104	35	15	19
22	846	210	201	625	540	301	755	165	102	34	13	17
23	660	198	198	1,140	494	660	705	165	90	33	13	17
24	3,380	186	311	1,160	458	558	650	162	83	30	13	16
25	1,680	204	715	1,050	429	504	566	148	79	27	14	16
26	924	165	530	929	476	508	508	142	76	26	16	14
27	655	162	441	805	429	481	454	134	74	24	17	14
28	490	189	386	710	405	445	409	128	70	22	17	13
29	409	156	355	620	386	421	374	123	66	22	14	16
30	421	636	322	544	-	393	344	117	61	21	13	50
31	348	-	333	490	-	370	-	123	-	23	12	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff	
						Inches	Acre-feet
October	11,755	3,380	17	379	2.85	3.29	23,320
November	12,964	1,510	156	432	3.25	3.63	25,710
December	24,703	4,000	198	797	5.99	6.91	49,000
Calendar year 1943	204,137	7,600	17	559	4.20	57.09	404,900
January	26,072	1,900	433	841	6.32	7.29	51,710
February	21,717	1,740	386	749	5.63	6.07	43,080
March	16,344	1,080	301	527	3.96	4.57	32,420
April	17,009	1,030	264	567	4.26	4.76	33,740
May	5,571	322	117	180	1.35	1.56	11,050
June	5,010	624	61	167	1.26	1.40	9,940
July	1,223	59	21	39.5	.297	.34	2,430
August	563	31	12	18.2	.137	.16	1,120
September	530	50	10	17.7	.133	.15	1,050
Water year 1943-44	143,461	4,000	10	392	2.95	40.13	284,600

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 1¼ 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 1944.

Extremes.- Maximum discharge during year, 8,370 second-feet Dec. 5 (gage height, 32.16 feet); minimum, 18 second-feet Sept. 14 (gage height, 1.10 feet).
1940-44: Maximum discharge, 22,300 second-feet Apr. 1, 1943 (gage height, 41.91 feet); minimum, 18 second-feet Aug. 23, 1941, Sept. 14, 1944.

Remarks.- Records 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 table, water year 1943-44 (gage height, in feet, and discharge, in second-feet)

1.1	18	3.0	160	9.0	1,060	22.0	4,310
1.3	30	4.0	255	11.0	1,470	26.0	5,620
1.6	49	5.0	380	13.0	1,905	30.0	7,220
1.9	70	6.0	520	16.0	2,630	32.0	8,270
2.4	109	7.5	770	19.0	3,440		

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	41	602	1,540	1,120	1,260	936	837	820	447	130	57	27
2	38	541	1,770	3,690	1,680	870	788	754	1,030	127	57	27
3	38	725	4,950	3,980	1,820	1,210	734	696	694	125	51	32
4	39	1,370	7,120	2,950	1,950	1,960	694	646	562	119	50	35
5	42	3,090	8,150	2,360	2,380	2,000	668	598	485	118	52	32
6	41	2,540	6,350	1,910	3,190	1,840	619	565	430	112	52	29
7	43	1,900	4,030	1,610	4,160	1,610	619	534	384	105	53	24
8	42	1,510	2,700	1,410	3,570	1,590	693	505	354	100	50	22
9	41	1,200	2,020	1,230	3,070	1,970	868	491	328	100	54	22
10	39	1,010	1,630	1,130	2,570	2,610	880	526	298	98	65	22
11	50	856	1,370	1,040	2,180	2,170	829	492	274	88	60	22
12	241	748	1,180	1,400	1,890	1,850	1,070	474	260	85	52	20
13	131	661	1,040	2,000	1,650	1,600	1,030	450	249	83	47	21
14	99	602	916	1,900	1,660	1,400	1,930	422	253	82	46	21
15	87	544	831	2,070	1,640	1,250	2,350	486	239	79	43	23
16	75	500	756	2,550	1,500	1,120	2,510	429	230	76	38	48
17	77	474	693	2,820	1,690	1,030	2,310	395	238	76	37	59
18	162	453	642	2,920	1,590	944	2,010	395	249	72	39	85
19	195	471	630	2,430	1,810	880	1,810	374	243	71	37	74
20	272	493	574	2,040	1,630	894	2,350	350	223	78	39	58
21	499	565	534	1,750	1,570	813	2,190	325	205	87	40	49
22	1,180	486	507	1,530	1,410	747	1,880	341	195	76	36	47
23	1,210	444	485	1,950	1,260	974	1,680	387	189	72	31	45
24	1,810	428	541	3,000	1,150	1,430	1,740	372	182	72	30	43
25	4,920	398	1,300	3,110	1,110	1,200	1,680	351	174	66	31	40
26	3,080	380	1,610	2,680	1,140	1,180	1,430	323	165	61	34	36
27	1,560	360	1,300	2,210	1,130	1,220	1,270	303	157	58	38	33
28	1,060	355	1,100	1,860	1,060	1,120	1,120	281	153	57	44	30
29	808	342	942	1,620	1,000	1,040	992	274	145	56	36	33
30	748	477	838	1,430	-	970	902	265	137	56	33	36
31	702	-	768	1,290	-	904	-	253	-	52	28	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff Inches	Runoff Acre-feet
October	19,370	4,920	38	625	1.25	1.44	38,420
November	24,525	3,090	342	818	1.63	1.82	48,640
December	58,817	8,150	485	1,897	3.78	4.36	116,700
Calendar year 1943	522,852	21,200	30	1,432	2.85	38.73	1,037,000
January	64,990	3,980	1,040	2,096	4.18	4.81	128,900
February	53,720	4,160	1,000	1,852	3.69	3.98	106,600
March	41,332	2,610	747	1,333	2.66	3.06	81,980
April	40,373	2,510	619	1,346	2.68	2.99	80,080
May	13,817	820	253	446	.888	1.02	27,410
June	9,172	1,030	137	306	.610	.68	18,190
July	2,636	130	52	85.0	.169	.20	5,230
August	1,360	57	28	43.9	.087	.10	2,700
September	1,095	85	20	36.5	.073	.08	2,170
Water year 1943-44	331,207	8,150	20	905	1.80	24.54	657,000

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 NE¼ 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 1944.

Average discharge.- 10 years, 216 second-feet.

Extremes.- Maximum discharge during year, 2,020 second-feet Dec. 2 (gage height, 6.48 feet); minimum, 10 second-feet Sept. 11, 12.
1934-44: 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 below 20 second-feet, which are fair. No regulation or diversion above station.

Rating table, water year 1943-44 (gage height, in feet, and discharge, in second-feet)

1.2	11.5	2.2	90	3.6	450
1.4	17	2.4	125	4.0	605
1.6	26	2.7	185	4.5	825
1.8	41	3.0	255	5.0	1,080
2.0	62	3.3	345	5.5	1,350

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	14	82	230	266	225	181	179	170	174	40	23	15
2	14	88	1,010	468	230	177	170	162	134	39	20	14
3	15	131	1,330	359	225	242	160	152	114	39	21	13
4	15	474	1,340	309	303	250	152	142	102	38	21	13
5	17	412	835	273	443	248	144	136	92	37	20	12
6	16	309	577	238	748	240	140	129	84	35	20	12
7	14	242	443	218	617	250	144	123	80	35	20	12
8	14	200	352	200	513	258	168	120	76	35	25	12
9	14	170	288	187	432	422	185	129	72	35	24	11
10	19	150	250	174	366	394	164	123	71	33	20	11
11	62	133	218	179	324	345	183	118	66	32	18	11
12	28	120	196	252	288	309	192	109	66	31	17	11
13	24	111	177	225	270	273	259	102	68	31	17	12
14	20	102	162	225	300	242	418	98	66	30	17	16
15	19	95	150	279	264	225	443	114	63	28	16	15
16	18	88	140	333	288	209	436	100	62	28	16	21
17	37	86	133	373	279	194	394	98	70	28	16	28
18	39	84	127	336	306	181	352	93	62	25	17	20
19	56	86	121	303	300	181	404	88	60	31	16	15
20	72	93	114	276	282	172	426	84	56	35	15	15
21	146	82	111	248	264	160	384	84	54	29	14	14
22	172	78	105	235	238	156	339	92	54	27	14	15
23	140	74	105	342	223	255	330	90	52	25	14	14
24	771	71	162	390	218	216	309	92	50	25	15	13
25	340	67	297	370	212	209	276	84	49	25	16	12
26	194	65	225	333	228	232	252	80	48	23	17	12
27	140	65	198	297	214	236	232	75	47	22	15	12
28	114	63	177	270	203	218	212	71	45	21	14	12
29	102	63	162	242	194	209	198	70	42	20	13	19
30	104	163	150	225	-	198	183	67	41	20	13	28
31	92	-	148	212	-	189	-	71	-	23	13	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff Inches	Runoff Acre-feet
October	2,842	771	14	91.7	1.41	1.63	5,640
November	4,047	474	63	135	2.08	2.32	8,030
December	10,033	1,340	105	324	4.98	5.74	19,900
Calendar year 1943	82,344	3,440	13	226	3.48	47.13	163,300
January	8,637	468	174	279	4.29	4.94	17,130
February	8,997	748	194	310	4.77	5.15	17,850
March	7,270	422	156	235	3.62	4.16	14,420
April	7,828	443	140	261	4.02	4.48	15,530
May	3,266	170	67	105	1.62	1.87	6,480
June	2,120	174	41	70.7	1.09	1.21	4,200
July	925	40	20	29.8	.458	.53	1,830
August	537	25	13	17.3	.266	.31	1,070
September	440	28	11	14.7	.226	.25	873
Water year 1943-44	56,942	1,340	11	156	2.40	32.59	113,000

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., 1⅛ 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 1944.

Extremes.- Maximum discharge during year, 1,680 second-feet Dec. 2 (gage height, 5.44 feet); minimum, 4.2 second-feet (regulated) Sept. 11; minimum daily, 6.0 second-feet Sept. 10, 11.
1940-44: Maximum discharge, 3,830 second-feet Dec. 18, 1941 (gage height, 8.24 feet), affected by release of water from log pond upstream; minimum, that of Sept. 11, 1944.

Remarks.- Records good. Occasional diurnal fluctuations caused by small dams upstream; no seasonal regulation. Water supply for city of McMinnville is diverted from Haskins Creek above station, mean annual diversion in water year 1943-44 being 1.72 second-feet.

Rating table, water year 1943-44 (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used July 19 to Sept. 28)

1.0	9.0	1.8	105	3.2	510
1.1	16	2.0	147	3.7	720
1.2	24	2.2	194	4.2	965
1.4	45	2.5	272	4.6	1,180
1.6	71	2.8	365		

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	8.5	60	187	279	184	111	105	109	174	28	14	9.0
2	9.0	57	867	407	187	109	101	101	119	27	12	8.0
3	9.7	81	1,110	292	189	209	96	94	94	27	12	7.5
4	9.0	316	905	242	227	204	92	85	82	26	12	7.0
5	10	256	518	209	349	187	89	71	73	25	12	7.0
6	9.7	194	358	180	622	175	87	68	65	24	12	6.5
7	8.5	154	275	158	463	177	92	64	61	24	12	7.0
8	8.5	121	224	145	390	182	107	64	57	24	14	6.5
9	9.0	101	187	134	326	326	105	67	52	26	15	6.5
10	12	89	161	125	275	295	100	64	50	23	12	6.0
11	35	79	143	156	250	253	121	63	47	22	12	6.0
12	17	71	127	298	222	219	132	61	46	22	11	6.5
13	14	65	115	235	212	189	163	57	47	21	10	8.5
14	12	61	105	250	214	170	222	53	47	21	10	12
15	12	57	96	295	189	154	269	64	46	20	10	9.7
16	12	53	91	313	196	143	261	56	46	20	11	15
17	22	52	84	365	182	132	235	55	51	19	10	26
18	22	52	81	310	187	123	214	52	47	18	11	14
19	27	53	77	267	175	121	245	50	44	19	10	11
20	34	65	73	232	165	113	258	47	44	22	9.7	10
21	68	56	70	202	158	105	235	51	42	18	9.0	9.7
22	91	51	67	199	143	101	212	58	41	17	9.0	9.7
23	91	49	67	320	134	180	209	56	37	17	9.7	9.0
24	530	46	184	278	134	143	194	55	35	16	10	8.5
25	261	45	227	248	129	134	175	52	34	15	11	8.5
26	168	44	168	222	132	136	161	51	34	15	11	8.0
27	129	43	143	196	125	132	145	47	32	14	9.7	8.0
28	107	42	125	180	125	125	132	46	29	13	8.5	8.5
29	96	43	113	163	119	121	123	46	27	12	8.0	26
30	89	178	103	152	-	117	115	45	27	13	7.5	29
31	81	-	111	140	-	111	-	55	-	14	8.0	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff	
						Inches	Acre-feet
October	2,011.9	530	8.5	64.9	1.35	1.56	3,990
November	2,634	316	42	87.8	1.83	2.04	5,220
December	7,162	1,110	67	231	4.81	5.55	14,210
Calendar year 1943	61,157.4	2,270	8.0	168	3.50	47.39	121,300
January	7,192	407	125	232	4.83	5.57	14,270
February	6,403	622	119	221	4.60	4.96	12,700
March	4,997	326	101	161	3.35	3.87	9,910
April	4,795	269	87	160	3.33	3.72	9,510
May	1,907	109	45	61.5	1.28	1.48	3,780
June	1,630	174	27	54.3	1.13	1.26	3,230
July	622	28	12	20.1	.419	.48	1,230
August	333.1	15	7.5	10.7	.223	.26	661
September	314.6	29	6.0	10.5	.219	.24	624
Water year 1943-44	40,001.6	1,110	6.0	109	2.27	30.99	79,340

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 1944.

Average discharge.- 15 years, 24.6 second-feet (adjusted for diversion, 1937-44).

Extremes (not adjusted for diversion).- Maximum discharge during year, 179 second-feet Dec. 2 (gage height, 2.72 feet); minimum, 0.2 second-foot Aug. 29, 30, Sept. 24-27 (gage height, 1.16 feet).
1928-44: 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. Since Sept. 2, 1937, a small amount of water has been diverted at a point 800 feet upstream into a 12-inch steel pipe, which delivers it into intake of McMinnville water-supply pipe line below reservoir. No regulation.

Cooperation.- Water-stage recorder inspected by employees of city of McMinnville.

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.4	4.6	24	31	27	19	19	19	29	4.1	1.2	0.9
2	.6	5.9	99	46	27	19	18	18	19	3.8	.9	.8
3	.8	6.9	156	34	27	28	17	17	16	3.8	.9	1.3
4	.7	38	128	30	32	28	16	16	14	3.5	.9	1.2
5	.9	32	67	27	46	28	16	16	12	3.5	.9	1.0
6	.7	23	50	23	61	27	16	15	11	3.2	.8	.9
7	.6	17	43	22	61	27	16	14	10	3.2	.8	.8
8	.5	14	35	20	55	30	18	14	10	3.2	1.5	.8
9	.6	12	30	19	49	49	19	15	8.6	3.2	1.5	.6
10	1.4	11	25	18	42	46	17	14	8.0	2.6	.9	.6
11	4.6	9.2	23	20	38	40	21	14	7.4	2.6	.7	.6
12	1.6	7.9	20	31	33	35	22	14	8.6	2.6	.8	.7
13	1.2	7.4	19	27	33	31	26	13	8.0	2.6	.9	2.0
14	1.0	6.4	17	30	34	29	32	12	8.0	2.4	.8	3.8
15	1.0	5.9	16	35	31	27	37	14	8.0	2.2	.6	2.4
16	.9	5.4	15	36	32	24	37	13	8.0	2.0	.9	3.5
17	2.6	5.0	14	46	30	23	35	13	9.3	1.9	1.3	4.9
18	2.2	5.9	14	42	31	22	32	12	8.6	1.7	1.3	1.7
19	2.6	5.9	13	37	30	22	37	12	8.0	2.4	1.2	1.2
20	4.6	7.4	11	32	28	20	38	11	7.4	2.6	.8	.9
21	11	5.9	11	29	27	19	35	10	7.4	2.2	.6	.9
22	12	5.4	11	29	25	19	32	11	6.9	1.9	1.0	.9
23	9.2	5.0	11	41	23	30	31	11	6.9	1.7	1.0	.8
24	58	4.6	19	41	23	25	30	11	6.0	1.7	1.2	.5
25	30	4.6	29	37	23	23	27	10	5.6	1.5	1.2	.4
26	17	4.3	21	33	23	23	25	8.6	5.6	1.5	1.5	.3
27	11	4.3	19	30	23	23	23	8.0	5.2	1.2	1.2	.8
28	7.9	4.3	17	29	22	22	22	8.0	5.2	1.0	1.0	1.3
29	6.9	4.6	16	26	20	21	21	8.0	4.5	.9	.7	6.0
30	6.4	24	15	24	-	20	19	7.4	4.5	1.0	.3	5.2
31	5.4	-	16	23	-	19	-	11	-	1.3	.7	-

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	Msan				Mean	Per square mile	
October	58	0.4	6.59	405	1.13	474	7.72	1.35	1.56
November	38	4.3	9.93	591	1.72	694	11.6	2.04	2.28
December	156	11	32.4	1,990	1.63	2,090	34.0	5.96	6.87
Calendar year 1943	226	.4	22.7	16,440	1.68	17,650	24.4	4.28	58.00
January	46	18	30.6	1,880	2.02	2,004	32.6	5.72	6.60
February	61	20	33.0	1,900	1.99	2,014	35.0	6.14	6.62
March	49	19	26.4	1,620	2.05	1,746	28.4	4.98	5.74
April	38	16	25.1	1,500	1.88	1,612	27.0	4.74	5.29
May	19	7.4	12.6	774	1.83	887	14.4	2.53	2.92
June	29	4.5	9.22	549	1.98	667	11.2	1.96	2.19
July	4.1	.9	2.35	145	2.03	270	4.38	.768	.89
August	1.5	.3	.97	60	1.49	151	2.46	.432	.50
September	6.0	.3	1.59	95	.91	149	2.50	.439	.49
Water year 1943-44	156	.3	15.8	11,510	1.72	12,760	17.5	3.07	41.95

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 1944.

Extremes.- Maximum discharge during year, 3,400 second-feet Oct. 24 (gage height, 5.30 feet); minimum, 24 second-feet Sept. 11 (gage height, 0.65 foot).
1935-44: Maximum discharge, 11,600 second-feet Nov. 23, 1942 (gage height, 9.30 feet), from rating curve extended above 4,000 second-feet by velocity-area studies; minimum, 19 second-feet Aug. 30 to Sept. 2, 1940.

Remarks.- Records good except those for Mar. 27 to Sept. 30, which are fair. No diversion or regulation above station.

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	33	332	640	661	300	196	415	478	702	119	47	39
2	33	307	834	1,060	359	190	451	415	560	114	46	42
3	33	424	1,330	656	399	193	514	391	474	105	45	33
4	33	1,850	1,770	500	428	196	518	403	391	99	45	31
5	32	1,460	1,090	415	744	211	500	446	332	95	44	29
6	32	896	710	347	1,760	226	433	428	286	92	47	28
7	31	635	570	307	1,180	235	395	391	253	90	47	28
8	30	487	510	279	770	363	403	359	241	86	47	27
9	30	399	438	256	590	1,430	379	371	217	92	46	26
10	34	335	383	238	487	1,130	399	324	196	84	44	25
11	110	296	339	232	424	710	482	321	178	82	42	24
12	63	259	304	351	375	541	560	307	164	80	40	25
13	55	235	276	328	343	446	605	296	159	77	39	27
14	50	217	253	321	339	375	645	286	146	77	39	34
15	47	196	235	367	310	332	704	399	138	76	38	38
16	52	184	220	403	314	307	635	355	143	66	38	55
17	88	175	205	532	307	321	565	310	181	62	37	97
18	116	167	190	478	307	324	518	290	181	59	38	126
19	90	167	181	403	293	359	570	268	343	56	37	66
20	192	211	170	351	272	347	575	247	620	56	36	47
21	662	184	162	310	259	321	546	247	420	56	35	52
22	847	167	153	286	241	314	505	256	324	55	35	53
23	651	156	146	496	226	518	546	276	268	53	35	42
24	2,850	146	190	541	220	550	590	286	232	52	35	37
25	1,840	138	391	460	214	460	546	276	208	51	35	34
26	819	130	321	399	226	407	510	259	187	52	34	32
27	541	123	268	343	214	363	510	250	167	51	33	30
28	411	119	238	310	214	343	580	244	151	48	32	30
29	383	116	217	282	205	351	590	226	136	47	30	38
30	442	532	199	259	-	387	541	205	127	45	29	92
31	383	-	190	247	-	415	-	208	-	46	28	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff	
						Inches	Acre-feet
October	11,013	2,850	30	355	3.70	4.27	21,840
November	11,043	1,850	116	368	3.83	4.28	21,900
December	13,103	1,770	146	423	4.41	5.08	25,990
Calendar year 1943	182,240	5,820	30	499	5.20	70.60	361,500
January	12,418	1,060	232	401	4.18	4.81	24,630
February	12,320	1,760	205	425	4.43	4.77	24,440
March	12,861	1,430	190	415	4.32	4.98	25,510
April	15,730	704	379	524	5.46	6.09	31,200
May	9,818	478	205	317	3.30	3.80	19,470
June	8,125	702	127	271	2.82	3.15	16,120
July	2,223	119	45	71.7	.747	.86	4,410
August	1,203	47	28	38.8	.404	.47	2,390
September	1,287	126	24	42.9	.447	.50	2,550
Water year 1943-44	111,144	2,850	24	304	3.17	43.06	220,400

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 1¼ 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 1944.

Average discharge.- 16 years, 974 second-feet.

Extremes.- Maximum discharge during year not determined, occurred during period of no gage-height record; minimum, 52 second-feet Sept. 9-14 (gage height, 1.80 feet). 1928-44: Maximum discharge, 22,300 second-feet Mar. 31, 1931 (gage height, 14.7 feet), from rating curve extended above 16,000 second-feet; minimum, 25 second-feet Sept. 14, 1938; minimum daily, 38 second-feet Sept. 7, 1935.

Remarks.- Records excellent except those for periods of no gage-height record, which are poor. A few small diversions above station for irrigation.

Rating tables, water year 1943-44 (gage height, in feet, and discharge, in second-feet)

Nov. 13 to Feb. 6				Feb. 7 to Sept. 30					
2.4	277	3.8	1,500	1.8	52	2.5	364	3.8	1,520
2.7	465	4.2	1,960	1.9	75	2.8	579	4.3	2,100
3.0	690	4.8	2,700	2.1	147	3.1	832	5.0	2,960
3.4	1,070	5.5	3,630	2.3	245	3.4	1,110		

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1		a620	980	664	642	579		a1,000	603	251	94	59
2		a560	920	1,960	753	549		904	814	240	88	73
3		a760	1,920	1,460	861	541		832	676	224	85	73
4		a3,600	3,250	1,100	890	533		788	611	214	81	68
5		a3,200	2,040	920	1,210	564		832	533	203	81	64
6		a1,900	1,800	762	2,910	579		832	481	193	81	61
7		a1,300	1,380	658	2,820	579		762	424	188	81	57
8		a1,000	1,200	588	2,040	702		710	404	184	85	57
9		a860	1,010	542	1,620	1,930		702	384	184	88	54
10		a720	870	514	1,290	2,710		676	345	175	91	54
11		a640	762	479	1,130	1,920		627	314	161	85	52
12		a560	666	674	996	1,480		611	291	152	81	54
13		507	595	708	904	1,190		587	279	147	78	54
14		458	542	690	904	987		556	279	143	75	59
15	a668	413	507	744	832	868	a1,100	668	256	135	75	73
16		387	472	843	797	770		693	251	131	73	94
17		361	439	1,050	850	744		619	327	131	73	175
18		342	406	1,080	859	744		603	333	123	75	262
19		348	387	950	877	806		564	511	111	75	209
20		394	368	834	823	868		526	814	111	73	143
21		406	342	726	779	797		489	788	111	70	143
22		361	323	650	710	753		489	635	107	68	179
23		335	306	1,180	643	1,030		503	549	101	68	135
24		318	312	1,780	595	1,500		526	467	104	68	111
25		294	580	1,530	595	h1,330		526	411	104	68	104
26		283	618	1,260	627	h1,140		496	377	104	68	94
27		272	528	1,050	627	h1,060		474	339	101	64	88
28		266	479	890	627	h1,020		453	308	97	61	85
29		261	439	780	619	h968		424	279	97	59	104
30		478	413	690	-	h941		398	262	94	57	152
31	-	-	394	634	-	h931	-	364	-	94	57	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff	
						Inches	Acre-feet
October	20,708	-	-	668	2.07	2.38	41,070
November	22,204	3,600	261	740	2.29	2.56	44,040
December	25,848	3,250	306	834	2.58	2.98	51,270
Calendar year 1943	408,643	14,000	80	1,120	3.47	47.05	810,600
January	28,390	1,960	479	916	2.84	3.27	56,310
February	29,830	2,910	595	1,029	3.19	3.43	59,170
March	31,113	2,710	533	1,004	3.11	3.58	61,710
April	33,000	-	-	1,100	3.41	3.80	65,450
May	19,234	1,000	364	620	1.92	2.21	38,150
June	13,345	814	251	445	1.38	1.54	26,470
July	4,615	251	94	146	.452	.52	8,960
August	2,326	94	57	75.0	.232	.27	4,610
September	2,990	262	52	99.7	.309	.34	5,930
Water year 1943-44	233,503	-	52	638	1.98	26.88	463,100

a No gage-height record; discharge computed on basis of records for Molalla River above Pine Creek, near Wilhoit, and Pudding River at Aurora.
h Computed from staff-gage reading.
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 1944.

Extremes.- Maximum discharge observed during year, 1,870 second-feet Dec. 4 (gage height, 15.90 feet); minimum observed, 9 second-feet Sept. 13 (gage height, 0.49 foot).
1939-44: Maximum discharge observed, 6,900 second-feet Jan. 1, 1943 (gage height, 28.85 feet); minimum observed, that of Sept. 13, 1944.

Remarks.- Records fair. Gage read twice daily Oct. 1 to May 10, once daily May 11 to Sept. 30. Some small diversions for irrigation above station; no regulation.

Rating tables, water year 1943-44 (gage height, in feet, and discharge, in second-feet)

Oct. 1 to Dec. 6

1.7	36	3.9	174	8.5	742
2.1	55	4.7	252	10.0	952
2.6	81	5.7	367	12.0	1,240
3.2	119	7.0	536	16.0	1,880

Dec. 7 to Sept. 30

0.5	9	1.9	67	6.5	543
0.7	13	2.5	103	8.0	768
0.9	19	3.2	153	10.0	1,080
1.2	31	4.0	229	13.0	1,590
1.5	46	5.0	343		

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	38	476	592	546	672	529	470	521	230	a84	24	11
2	40	446	658	1,070	726	491	457	470	357	83	24	16
3	39	562	1,060	1,040	816	523	444	438	469	79	21	23
4	40	840	1,650	896	818	558	434	399	299	76	22	17
5	43	1,250	1,850	776	935	586	418	374	258	71	21	16
6	42	1,080	1,560	722	1,410	606	387	348	224	69	21	13
7	45	896	1,370	633	1,580	579	369	324	203	67	23	12
8	46	762	1,150	588	1,370	588	425	302	195	62	24	11
9	42	644	947	549	1,260	920	409	319	187	61	24	11
10	44	567	816	523	1,080	1,300	395	323	171	61	21	11
11	56	507	732	491	963	1,090	465	300	a160	55	21	10
12	112	455	652	672	861	951	670	302	148	52	18	10
13	80	409	602	700	788	802	726	275	137	51	16	9
14	68	374	540	658	810	708	890	260	135	42	15	12
15	68	347	509	684	810	660	973	263	130	41	15	20
16	71	320	463	735	765	585	999	283	128	42	16	24
17	87	304	428	816	813	543	1,010	272	156	39	16	40
18	169	292	392	789	807	521	954	259	153	38	15	52
19	117	300	382	730	839	521	991	237	152	38	17	48
20	129	319	364	669	798	526	1,030	229	185	37	17	36
21	494	345	341	615	756	473	967	216	157	36	17	70
22	868	298	321	580	696	437	877	200	136	35	17	76
23	798	275	307	898	663	564	823	229	134	33	14	41
24	1,150	259	361	1,450	594	712	815	234	119	31	14	28
25	1,460	243	592	1,360	606	648	867	211	115	30	14	21
26	1,210	225	644	1,120	628	596	790	197	111	29	15	19
27	862	221	573	973	621	588	729	184	102	26	16	18
28	672	213	508	893	597	526	676	170	96	23	14	16
29	533	207	466	776	558	507	630	165	89	23	14	19
30	584	307	439	717	-	498	580	160	88	22	13	21
31	540	-	416	660	-	486	-	153	-	22	11	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff: Inches	Runoff: Acre-feet
October	10,567	1,460	38	341	1.65	1.90	20,960
November	13,743	1,250	207	458	2.21	2.47	27,260
December	21,685	1,850	307	700	3.38	3.90	43,010
Calendar year 1943	238,575	6,790	29	654	3.16	42.86	473,200
January	24,329	1,450	491	785	3.79	4.37	48,260
February	24,640	1,580	558	850	4.11	4.43	48,870
March	19,622	1,300	437	633	3.06	3.53	38,920
April	20,670	1,030	369	689	3.33	3.71	41,000
May	8,617	521	153	278	1.34	1.55	17,090
June	5,224	469	88	174	.841	.94	10,360
July	1,458	84	22	47.0	.227	.26	2,890
August	550	24	11	17.7	.086	.10	1,090
September	731	76	9	24.4	.118	.13	1,450
Water year 1943-44	151,836	1,850	9	415	2.00	27.29	301,200

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

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 1944.

Average discharge.- 16 years, 1,060 second-feet.

Extremes.- Maximum discharge observed during year, 3,240 second-feet Dec. 6 (gage height, 12.02 feet); minimum observed, 40 second-feet Sept. 13 (gage height, 0.17 foot).
1928-44: 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 Aug. 5, once daily thereafter. Small diversions above station; slight regulation at times in summer by mills on tributaries.

Rating table, water year 1943-44 (gage height, in feet, and discharge, in second-feet)

0.2	42	1.6	215	5.0	960
.4	55	2.0	285	6.0	1,230
.7	82	2.5	380	8.0	1,830
1.0	120	3.0	482	10.0	2,480
1.3	166	4.0	710	12.0	3,230

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	86	860	547	660	1,100	885	765	920	269	153	60	45
2	82	792	895	1,340	1,200	825	745	835	412	148	63	44
3	82	775	1,110	2,060	1,380	812	725	760	521	147	61	44
4	82	960	2,080	1,830	1,600	955	710	693	490	141	61	48
5	81	1,810	3,110	1,580	1,560	1,010	686	648	457	132	58	52
6	80	2,040	3,190	1,360	1,860	1,040	657	606	404	129	58	53
7	80	1,780	2,770	1,170	2,680	1,010	620	567	368	120	59	45
8	80	1,470	2,250	1,040	2,590	987	601	529	333	119	60	45
9	78	1,220	1,830	935	2,350	1,130	760	505	316	117	62	43
10	78	1,040	1,480	862	2,140	1,850	640	516	299	114	61	43
11	84	910	1,240	830	1,860	1,980	652	521	278	112	60	41
12	103	815	1,090	930	1,640	1,730	875	501	256	103	58	41
13	150	730	976	1,350	1,460	1,480	1,110	484	242	98	55	40
14	141	657	882	1,300	1,350	1,270	1,330	448	232	96	52	41
15	122	604	805	1,220	1,370	1,120	1,540	436	229	93	51	41
16	114	556	745	1,410	1,310	1,010	1,620	450	225	89	49	49
17	126	521	686	1,450	1,300	930	1,670	453	234	86	49	63
18	150	495	633	1,670	1,330	880	1,650	416	265	86	50	73
19	218	486	599	1,540	1,430	845	1,550	420	267	82	50	96
20	225	495	569	1,330	1,430	868	1,610	400	249	82	52	96
21	285	538	543	1,190	1,330	845	1,630	378	285	80	52	85
22	802	567	507	1,080	1,230	770	1,510	352	276	78	52	79
23	1,320	516	484	1,180	1,110	740	1,370	349	246	76	50	80
24	1,440	478	474	2,730	1,010	998	1,300	360	229	76	49	79
25	2,160	446	525	3,010	960	1,120	1,340	364	206	74	49	76
26	2,360	422	963	2,540	976	1,040	1,400	343	198	68	52	65
27	1,940	398	987	2,080	1,010	963	1,280	318	192	67	51	60
28	1,430	384	885	1,740	987	910	1,170	303	182	66	50	57
29	1,070	372	790	1,480	950	852	1,080	289	174	63	48	57
30	900	376	715	1,290	-	815	998	276	166	61	52	73
31	910	-	662	1,170	-	785	-	267	-	60	46	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff	
						Inches	Acre-feet
October	16,859	2,360	78	544	1.10	1.27	33,440
November	23,513	2,040	372	784	1.59	1.77	46,640
December	35,022	3,190	474	1,130	2.29	2.64	69,470
Calendar year 1943	465,426	9,590	74	1,275	2.59	35.10	923,100
January	45,357	3,010	660	1,463	2.97	3.42	89,960
February	42,503	2,680	950	1,466	2.97	3.21	84,300
March	32,445	1,980	740	1,047	2.12	2.45	64,350
April	33,594	1,670	601	1,120	2.27	2.53	66,630
May	14,707	920	267	474	.961	1.11	29,170
June	8,500	521	166	283	.574	.64	16,860
July	3,016	153	60	97.3	.197	.23	5,980
August	1,680	63	46	54.2	.110	.13	3,330
September	1,754	96	40	58.5	.119	.13	3,480
Water year 1943-44	258,950	3,190	40	708	1.44	19.53	513,600

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 1944 in reports of Geological Survey. January to December 1936 in files of State engineer.

Extremes.- Maximum discharge observed during year, 1,380 second-feet Dec. 4 (gage height, 6.60 feet); minimum observed, 5 second-feet Sept. 7-12.
1936, 1940-44: Maximum discharge, 4,410 second-feet Nov. 23, 1942 (gage height, 12.70 feet); minimum observed, that of Sept. 7-12, 1944.

Remarks.- Records good except those for periods of sudden change in discharge, which are fair. Gage read twice daily Oct. 3 to Mar. 31, once daily for rest of year. Small diversions above station for irrigation. Some diurnal fluctuation caused by mills at Scotts Mills.

Rating tables, water year 1943-44 (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Aug. 1 to Sept. 7)

Oct. 1-23				Oct. 24 to Sept. 30					
1.8	9	2.5	70	1.7	4.5	2.4	53	3.9	441
1.9	15	2.8	116	1.8	7.8	2.6	79	4.4	611
2.0	22	3.1	180	1.9	12.5	2.9	136	5.2	885
2.1	31	3.5	280	2.0	19	3.2	217	6.3	1,270
2.3	49			2.2	34	3.5	310		

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	12	156	247	235	177	114	166	200	95	37	12	8
2	11	141	358	516	200	110	166	174	127	33	12	9
3	11	220	499	375	229	123	164	156	114	31	12	9
4	11	560	1,270	294	220	144	161	151	97	30	13	8
5	11	652	774	253	250	129	158	146	92	29	12	6
6	10	492	563	211	529	151	146	136	85	28	12	6
7	10	385	431	183	506	141	146	123	78	26	11	5
8	10	269	362	161	431	177	148	108	73	25	11	5
9	10	220	269	146	382	362	136	121	71	25	11	5
10	11	183	232	138	304	448	127	112	66	23	11	5
11	22	158	194	132	288	269	172	104	58	22	10	5
12	36	136	172	194	238	269	217	99	54	22	9	5
13	26	118	154	172	211	259	272	103	52	22	9	6
14	23	106	141	177	223	223	345	101	51	21	9	8
15	23	99	129	202	200	194	365	101	49	21	9	12
16	28	89	114	241	194	172	401	99	48	19	8	12
17	35	85	104	323	205	164	382	89	68	18	8	20
18	57	85	97	259	205	164	362	85	55	16	9	24
19	43	82	89	223	211	172	342	82	52	16	10	19
20	62	81	85	200	200	161	355	79	59	16	9	14
21	251	92	81	177	194	148	323	73	65	16	8	11
22	441	89	76	169	172	141	310	72	63	15	9	20
23	267	82	73	438	156	220	297	73	58	15	9	16
24	1,200	76	82	591	144	253	294	72	51	15	8	14
25	1,220	73	188	375	141	235	320	69	48	14	9	10
26	502	71	141	300	132	232	278	63	47	14	8	9
27	323	68	127	256	141	214	259	60	43	12	8	9
28	211	65	118	226	136	177	238	59	39	12	7	9
29	172	63	106	194	127	151	217	57	38	12	7	11
30	186	95	99	172	-	127	208	54	35	12	6	15
31	177	-	95	161	-	172	-	50	-	12	6	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff Inches	Runoff Acre-feet
October	5,411	1,220	10	175	2.73	3.14	10,730
November	5,091	652	63	170	2.66	2.96	10,100
December	7,470	1,270	73	241	3.77	4.34	14,820
Calendar year 1943	82,473.8	2,420	8.2	226	3.53	47.91	163,600
January	7,694	591	132	248	3.88	4.47	15,260
February	6,746	529	127	233	3.64	3.92	13,380
March	6,016	448	110	194	3.03	3.50	11,930
April	7,475	401	127	249	3.89	4.34	14,830
May	3,071	200	50	99.1	1.55	1.78	6,090
June	1,930	127	35	64.3	1.00	1.12	3,830
July	629	37	12	20.3	.317	.37	1,250
August	292	13	6	9.42	.147	.17	579
September	315	24	5	10.5	.164	.18	625
Water year 1943-44	52,140	1,270	5	142	2.22	30.29	103,400

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°19'05", in W½ sec. 34, T. 1 S., R. 4 W., 1.5 miles west of Gaston. Prior to May 20, 1942, water-stage recorder, 1.7 miles downstream and at different datum.

Drainage area.- 45 square miles at measuring section at Gaston.

Records available.- October 1940 to September 1944.

Extremes.- Maximum discharge during year, 1,800 second-feet Dec. 3 (gage height, 8.9 feet, from graph based on gage readings); minimum observed, 11 second-feet Sept. 8-13. 1940-44: 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. 8-13, 1944.

Remarks.- Records good. Staff gage read twice daily. Slight diurnal fluctuation caused by log ponds upstream. Small diversions above station for irrigation.

Rating tables, water year 1943-44 (gage height, in feet, and discharge, in second-feet)

Oct. 1 to Dec. 3						Dec. 4 to Sept. 30					
0.6	13	1.8	100	5.0	670	0.3	11	1.5	82	4.0	497
.8	21	2.2	152	6.5	1,001	.5	17	1.8	114	5.0	697
1.0	32	2.7	234	8.5	1,620	.7	25	2.2	172	6.0	897
1.2	46	3.3	341			.9	36	2.7	256	7.0	1,125
1.5	71	4.0	473			1.2	57	3.3	364		

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	13	54	220	227	178	120	132	119	125	31	19	15
2	13	54	483	451	204	115	114	116	115	30	17	13
3	14	86	1,590	303	222	207	107	110	90	30	17	13
4	13	327	1,090	245	242	210	104	103	78	29	17	12
5	14	339	529	214	357	217	99	103	69	28	17	12
6	15	412	350	188	779	191	96	92	64	31	18	11
7	13	162	290	170	474	194	101	88	61	26	18	12
8	13	129	249	154	357	212	116	86	58	31	19	11
9	13	111	217	142	306	379	112	90	52	31	19	11
10	15	94	194	134	267	335	108	89	51	26	18	11
11	38	88	175	129	245	267	114	81	48	26	17	11
12	24	76	159	274	220	227	150	77	48	25	16	11
13	19	73	146	251	207	201	166	78	50	25	15	11
14	19	66	134	267	217	183	190	75	47	25	15	20
15	17	62	124	310	198	167	305	85	47	23	15	17
16	17	57	119	357	201	154	287	76	46	23	16	19
17	27	58	112	353	191	145	260	74	51	23	15	25
18	30	56	108	310	191	137	227	71	46	23	16	19
19	31	59	104	278	182	132	256	72	43	23	15	18
20	30	65	98	238	172	126	274	72	46	27	14	16
21	78	57	92	210	166	119	240	62	41	23	14	15
22	119	57	86	194	150	114	214	66	41	23	14	15
23	91	51	88	294	140	227	214	64	39	22	14	14
24	310	49	120	281	136	188	201	64	38	21	15	13
25	273	49	310	260	132	175	180	59	35	21	14	13
26	144	48	233	231	142	172	169	58	33	20	15	12
27	98	46	182	215	130	169	156	55	34	20	15	12
28	78	48	156	190	133	158	143	51	32	19	14	12
29	66	47	137	175	129	148	134	53	31	18	14	16
30	69	137	126	161	-	139	127	53	31	19	12	41
31	59	-	121	150	-	130	-	55	-	19	13	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff Inches	Runoff Acre-feet
October	1,773	310	13	57.2	1.27	1.47	3,520
November	3,017	412	46	101	2.24	2.49	5,980
December	8,142	1,590	86	263	5.84	6.73	16,150
Calendar year 1943	62,892	2,020	12	172	3.82	51.99	124,700
January	7,356	451	129	237	5.27	6.08	14,590
February	6,668	779	129	230	5.11	5.51	13,230
March	5,658	379	114	183	4.07	4.68	11,220
April	5,096	305	96	170	3.78	4.21	10,110
May	2,397	119	51	77.3	1.72	1.98	4,750
June	1,590	125	31	53.0	1.18	1.31	3,150
July	761	31	18	24.5	.544	.63	1,510
August	487	19	12	15.7	.349	.40	966
September	451	41	11	15.0	.333	.37	895
Water year 1943-44	43,396	1,590	11	119	2.64	35.86	86,070

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 1⅛ miles south of Dilley. Datum of gage is 151.10 feet above mean sea level, datum of 1929.

Drainage area.- 133 square miles.

Records available.- October 1940 to September 1944.

Extremes.- Maximum discharge during year, 2,430 second-feet Dec. 3 (gage height, 11.7 feet, from graph based on gage readings); minimum observed, 10 second-feet Sept. 12, 13 (gage height, 0.30 foot).

1940-44: Maximum discharge, 5,360 second-feet Dec. 19, 1941 (gage height, 12.90 feet, from floodmark); minimum observed, 4 second-feet Aug. 21, 1941.

Remarks.- Records good except those below 40 second-feet, 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 1943-44 (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Nov. 4-12)

Oct. 1 to Feb. 7						Feb. 8 to Sept. 30					
0.4	14	2.0	111	9.0	771	0.3	10	1.6	89	7.0	556
.7	28	2.6	159	10.0	916	.5	17	2.0	121	9.0	790
.9	38	3.6	249	11.0	1,460	.7	26	2.6	169	10.1	1,020
1.2	55	5.0	375	11.4	1,990	.9	37	3.6	250		
1.6	81	7.0	560			1.2	57	5.0	376		

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	16	83	374	314	331	227	219	225	142	41	20	11
2	16	79	507	695	430	217	209	215	186	38	20	16
3	17	136	1,740	693	450	315	203	206	139	40	19	14
4	18	325	1,990	580	478	443	193	187	117	40	17	12
5	18	538	1,140	502	624	430	182	172	104	36	20	12
6	20	451	904	436	904	416	175	171	102	35	20	12
7	20	326	737	368	1,020	392	179	161	91	32	20	12
8	16	256	607	329	913	416	215	151	85	28	20	12
9	15	199	493	298	805	536	198	158	81	35	23	11
10	16	168	413	282	689	687	188	163	76	35	22	11
11	28	144	360	262	603	592	182	148	72	35	19	11
12	45	109	318	480	535	504	281	148	69	32	18	10
13	38	101	280	600	480	439	255	140	70	30	19	10
14	30	85	251	557	485	387	430	131	67	30	17	12
15	17	95	232	624	427	347	498	120	65	28	17	21
16	20	89	213	733	398	318	549	125	65	26	18	18
17	24	91	191	737	397	293	513	119	74	24	17	24
18	47	97	165	708	366	272	475	119	73	24	19	30
19	36	106	152	629	368	257	428	118	64	20	18	25
20	38	102	147	554	334	248	518	113	87	35	17	19
21	70	97	d142	481	341	220	473	105	74	30	16	16
22	154	92	d140	426	307	217	425	104	70	26	14	22
23	145	83	147	584	282	354	376	103	48	26	12	20
24	430	79	172	626	265	358	405	100	51	24	15	18
25	591	78	455	598	257	322	360	89	49	21	15	15
26	315	74	386	554	268	300	336	92	48	19	18	15
27	187	73	310	487	253	297	311	90	41	19	17	13
28	129	72	261	429	252	273	279	86	40	19	15	13
29	102	70	227	387	242	252	257	86	39	19	15	24
30	114	119	206	349	-	243	239	82	40	19	13	91
31	97	-	280	324	-	230	-	79	-	20	11	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff Inches	Runoff Acre-feet
October	2,829	591	15	91.3	0.686	0.79	5,610
November	4,417	538	70	147	1.11	1.24	8,760
December	13,940	1,990	140	450	3.38	3.90	27,650
Calendar year 1943	120,029	4,140	11	329	2.47	33.58	238,100
January	15,626	737	262	504	3.79	4.37	30,990
February	13,504	1,020	242	466	3.50	3.78	26,780
March	10,802	687	217	348	2.62	3.02	21,430
April	9,551	549	175	318	2.39	2.67	18,940
May	4,105	225	79	132	.992	1.15	8,140
June	2,329	186	39	77.6	.583	.65	4,620
July	886	41	19	28.6	.215	.25	1,760
August	541	23	11	17.5	.132	.15	1,070
September	550	91	10	18.3	.138	.15	1,090
Water year 1943-44	79,080	1,990	10	216	1.62	22.12	156,800

d Gage height doubtful; discharge computed on basis of records for Tualatin River at Gaston and Scoggin Creek near Gaston.

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 each gage is 100.42 feet above mean sea level, datum of 1929. All discharge measurements made at Farmington.

Drainage area.- 568 square miles.

Records available.- October 1939 to September 1944.

Extremes.- Maximum discharge observed during year, 3,520 second-feet Feb. 8; maximum gage height observed, 19.18 feet Feb. 9, 10; minimum discharge observed, 28 second-feet Sept. 13, 14.

1939-44: 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, that of Sept. 13, 14, 1944.

Maximum stage known, about 37 feet at Farmington, Dec. 22 or 23, 1933.

Remarks.- Records fair. Gages 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 downstream. Slight regulation by log ponds and dam below Gaston have little effect at this station; considerable pondage between this station and the one near Willamette. Some diversions by pumping for irrigation above station, chiefly at Wapato Lake, near Gaston.

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	58	249	331	552	1,180	829	727	783	256	131	58	35
2	59	233	575	1,090	1,390	786	698	719	367	135	57	32
3	60	230	941	1,620	1,770	820	671	669	406	133	62	36
4	59	286	1,990	1,800	2,000	1,440	634	607	341	133	59	41
5	64	564	2,490	1,740	2,260	1,650	596	570	296	135	58	41
6	65	863	2,820	1,600	2,710	1,630	558	538	263	125	59	34
7	66	843	2,880	1,380	3,260	1,490	534	512	246	118	62	32
8	69	677	2,730	1,180	3,440	1,450	549	468	232	114	66	33
9	68	522	2,530	1,070	3,290	1,450	612	457	221	118	66	33
10	64	422	2,170	950	3,020	1,620	586	457	212	122	73	34
11	71	364	1,420	912	2,790	1,680	550	461	206	119	75	32
12	82	321	1,100	1,080	2,460	1,660	663	440	199	118	73	30
13	125	274	924	1,740	2,360	1,490	872	430	191	113	62	28
14	111	250	808	1,810	2,120	1,350	988	406	196	109	58	28
15	99	238	679	1,730	1,850	1,220	1,180	384	197	109	52	32
16	87	242	607	1,720	1,590	1,090	1,350	405	195	100	49	45
17	87	240	555	1,950	1,450	994	1,380	397	202	96	48	60
18	91	232	491	2,010	1,380	940	1,390	376	209	84	52	68
19	116	248	461	2,020	1,290	880	1,340	364	221	80	52	80
20	126	257	447	1,940	1,260	846	1,340	344	206	78	52	72
21	136	275	433	1,710	1,180	812	1,400	326	206	90	51	74
22	164	285	429	1,460	1,130	752	1,340	318	195	104	57	78
23	268	273	404	1,520	1,050	736	1,250	315	186	90	46	78
24	406	246	410	1,790	976	928	1,170	308	163	91	38	90
25	749	232	464	2,270	912	956	1,180	295	157	81	45	74
26	1,030	221	758	2,130	879	904	1,140	288	150	76	48	60
27	741	208	795	1,940	862	880	1,090	280	147	68	52	50
28	450	199	695	1,740	846	872	1,040	262	145	68	55	48
29	328	199	612	1,540	852	820	922	252	139	60	46	50
30	272	210	550	1,380	-	804	954	244	134	59	43	68
31	256	-	510	1,240	-	761	-	240	-	59	38	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff Inches	Runoff Acre-feet
October	6,427	1,030	58	207	0.364	0.42	12,750
November	9,903	863	199	330	.581	.65	19,640
December	33,009	2,880	331	1,065	1.88	2.16	65,470
Calendar year 1943	456,792	11,900	45	1,251	2.20	29.92	906,000
January	48,614	2,270	552	1,568	2.76	3.18	96,420
February	51,557	3,440	846	1,778	3.13	3.38	102,300
March	34,569	1,680	736	1,115	1.96	2.26	68,570
April	28,704	1,400	534	957	1.68	1.88	56,930
May	12,915	783	240	417	.734	.85	25,620
June	6,484	406	134	216	.380	.42	12,860
July	3,116	135	59	101	.178	.20	6,180
August	1,712	75	38	55.2	.097	.11	3,400
September	1,496	90	28	49.9	.088	.10	2,970
Water year 1943-44	238,506	3,440	28	652	1.15	15.61	473,100

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°21'05", long. 122°40'35", in SW¼ sec. 34, T. 2 S. R. 1 E., 300 feet upstream from county bridge and 1 mile northwest of Willamette. Datum of gage is 85.61 feet above mean sea level, datum of 1929 (levels by Corps of Engineers, U. S. Army).

Drainage area.- 710 square miles.

Records available.- July 1928 to September 1944.

Average discharge.- 16 years, 1,321 second-feet (including flow of Oswego Canal).

Extremes (river only).- Maximum discharge during year, 3,230 second-feet Feb. 9 (gage height, 7.36 feet); minimum, 6 second-feet Sept. 6-12, 15-17.

1928-44: 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 except those below 20 second-feet, which are good. Oswego Canal (see p. 150) diverts water 4½ miles above station for recreational use in Oswego Lake and for development of power between outlet of that lake and Willamette River, to which water is returned. Several small diversions above station for irrigation. Some regulation during low-water season by flashboards on crest of diversion dam of Oswego Canal.

Revisions.- Revised figures of discharge, in second-feet, for the water year 1943, superseding those published in Water-Supply Paper 984, are given herewith:

Jan. 7 7,780

	Observed		Diversion by Oswego Canal in acre-feet	Adjusted for diversion			
	Mean	Runoff in acre-feet		Runoff in acre-feet	Mean	Mean per square mile	Runoff in inches
January.....	4,471	274,900	9,630	284,530	4,628	6.52	7.52
Water year 1942-43...	1,887	1,366,240	57,170	1,423,410	1,966	2.77	37.61

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	20	241	210	605	1,350	939	832	910	274	48	13	8
2	22	280	407	957	1,420	898	794	844	299	69	13	8
3	23	296	705	1,540	1,680	933	761	794	382	77	13	8
4	24	364	1,610	1,900	1,930	1,260	730	740	382	78	13	8
5	25	528	2,400	1,960	2,120	1,720	690	695	350	83	12	7
6	27	866	2,740	1,840	2,570	1,850	665	650	312	78	12	6
7	27	937	2,890	1,640	3,010	1,780	635	615	280	69	13	6
8	27	888	2,870	1,420	3,170	1,680	635	586	259	65	14	6
9	28	730	2,660	1,220	3,230	1,650	660	560	244	64	15	6
10	31	600	2,260	1,080	3,200	1,730	685	550	238	64	15	6
11	40	501	1,730	987	3,100	1,850	675	555	218	64	15	7
12	37	426	1,280	1,120	2,910	1,870	795	542	213	42	15	6
13	55	373	999	1,500	2,670	1,780	871	514	202	43	13	7
14	71	332	832	1,840	2,350	1,630	1,050	492	199	43	11	8
15	64	293	715	1,950	2,050	1,460	1,200	474	199	38	11	6
16	54	283	645	2,050	1,800	1,300	1,370	451	202	36	10	6
17	50	277	591	2,150	1,640	1,190	1,490	465	213	33	10	7
18	53	271	537	2,200	1,560	1,100	1,540	452	216	31	10	8
19	59	274	478	2,210	1,500	1,030	1,540	426	224	30	10	10
20	86	286	448	2,140	1,460	969	1,540	410	224	24	9	10
21	117	302	426	1,990	1,400	921	1,560	390	216	21	11	14
22	140	306	422	1,790	1,340	876	1,540	375	216	23	10	29
23	186	286	410	1,730	1,260	860	1,420	360	210	29	10	33
24	422	236	410	1,960	1,160	915	1,350	357	189	29	8	36
25	615	213	461	2,160	1,090	1,060	1,340	353	176	24	10	35
26	910	197	615	2,240	1,040	1,050	1,320	339	164	20	10	26
27	854	186	794	2,200	1,010	993	1,250	322	131	18	10	18
28	582	179	750	2,070	993	957	1,170	309	48	17	8	12
29	332	174	660	1,860	969	927	1,080	293	45	16	8	13
30	286	184	591	1,650	-	893	987	277	41	15	8	30
31	244	-	546	1,460	-	860	-	271	-	14	8	-

Month	Observed				Diversion by Oswego Canal in acre-feet	Adjusted for diversion			
	Disoharge 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.....	910	20	179	11,030	4,450	15,480	252	0.355	0.41
November.....	987	174	379	22,540	1,120	23,660	398	.561	.63
December.....	2,890	210	1,067	65,640	5,790	71,430	1,162	1.64	1.89
Calendar year 1943	11,500	13	1,398	1,012,000	54,780	1,066,780	1,474	2.08	28.20
Jannary.....	2,240	605	1,725	106,100	6,470	112,570	1,831	2.58	2.97
February.....	3,230	969	1,896	109,100	5,860	114,960	1,999	2.82	3.04
March.....	1,870	860	1,256	77,220	4,840	82,060	1,335	1.88	2.17
April.....	1,560	635	1,070	63,680	4,410	68,090	1,144	1.61	1.80
May.....	910	271	496	30,490	3,050	33,540	545	.768	.89
June.....	382	41	219	13,020	2,390	15,410	259	.365	.41
July.....	83	14	42.1	2,590	4,270	6,860	112	.158	.18
August.....	15	8	11.2	690	3,770	4,460	72.5	.102	.12
September.....	36	6	13.0	774	3,450	4,224	71.0	.100	.11
Water year 1943-44	3,230	6	693	502,900	49,870	552,770	761	1.07	14.62

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. 26, T. 1 S., R. 4 W., 500 feet upstream from highway bridge, 1¼ 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 1944.

Extremes.- Maximum discharge during year, 941 second-feet Dec. 3 (gage height, 10.47 feet); minimum, 1.2 second-feet Oct. 7, 8.
1940-44: Maximum discharge, 1,610 second-feet Jan. 18, 1941 (gage height, 14.31 feet); minimum, that of Oct. 7, 8, 1943.

Remarks.- Records fair. Small diversions by pumping above station for irrigation. Water supply for Hillsboro is diverted from Sein Creek above station; some diurnal fluctuation caused by log ponds above station.

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	Jnly	Aug.	Sept.
1	2.9	23	103	126	115	79	75	73	61	17	8.4	2.3
2	2.8	24	303	288	131	77	74	73	48	18	7.7	3.9
3	3.9	40	881	230	137	120	72	70	38	17	5.3	1.7
4	5.2	164	754	183	157	146	69	67	37	17	3.4	1.7
5	5.5	142	406	148	238	136	66	64	32	13	6.6	2.0
6	5.6	100	273	122	486	123	65	59	33	10	7.7	2.6
7	4.8	83	215	103	385	122	65	54	31	9.7	7.4	2.3
8	1.7	66	164	93	297	122	76	56	30	12	8.0	2.4
9	1.9	55	129	86	250	229	66	58	28	17	8.0	1.9
10	4.0	49	109	85	215	230	63	57	27	14	4.0	1.7
11	14	45	96	82	188	202	67	55	25	13	3.7	2.0
12	11	40	89	188	164	168	80	52	23	12	4.8	1.5
13	8.3	38	81	192	148	144	85	50	22	12	5.1	2.1
14	7.1	34	75	194	143	125	116	48	22	12	4.8	3.7
15	6.4	31	71	226	120	113	162	52	23	9.4	4.6	2.7
16	6.4	30	67	271	120	104	164	45	23	6.4	5.3	2.2
17	8.8	28	63	271	115	99	143	45	28	6.4	4.9	6.8
18	12	28	59	240	113	94	133	45	28	6.4	6.2	9.1
19	11	29	57	209	109	92	136	44	26	8.2	6.0	6.8
20	9.4	33	55	178	105	87	152	42	26	16	5.3	4.2
21	26	31	52	150	107	83	134	41	24	12	4.6	3.5
22	39	28	49	126	99	78	116	40	24	10	3.9	8.5
23	32	26	48	231	93	125	110	37	23	9.7	1.7	6.4
24	223	24	62	215	89	105	108	34	22	7.7	1.7	5.3
25	110	24	126	195	85	97	101	34	21	5.7	3.3	4.5
26	59	23	98	177	85	95	96	36	19	5.8	5.3	3.3
27	42	23	90	160	82	92	91	33	15	6.0	3.3	1.9
28	33	22	78	133	86	87	86	33	14	6.0	3.5	2.5
29	28	23	72	117	83	82	80	33	15	6.6	4.4	6.4
30	29	64	68	110	-	79	75	32	16	8.2	3.5	23
31	26	-	65	103	-	77	-	33	-	e.0	1.6	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff: Inches	Runoff: Acre-feet
October	779.7	223	1.7	25.2	0.573	0.66	1,550
November	1,370	164	22	45.7	1.04	1.16	2,720
December	4,858	881	48	157	3.57	4.11	9,640
Calendar year 1943	43,335.9	1,400	1.7	119	2.70	36.64	85,970
January	5,222	288	82	168	3.82	4.41	10,360
February	4,545	486	82	157	3.57	3.84	9,010
March	3,614	230	77	117	2.66	3.05	7,170
April	2,926	164	63	97.5	2.22	2.47	5,800
May	1,495	73	32	48.2	1.10	1.26	2,970
June	804	61	14	26.8	.609	.68	1,590
July	332.2	18	5.7	10.7	.243	.28	659
August	164.2	e.4	1.6	4.97	.113	.13	306
September	128.9	23	1.5	4.30	.098	.11	256
Water year 1943-44	26,229.0	881	1.5	71.7	1.63	22.16	52,030

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., R. 5 W., half a mile downstream from Beaver Creek and 4½ miles northwest of Gales Creek post office. Datum of gage is 448.88 feet above mean sea level, unadjusted.

Drainage area.- 33 square miles.

Records available.- September 1935 to September 1944.

Extremes.- Maximum discharge observed during year, 565 second-feet Dec. 3 (gage height, 3.72 feet); minimum daily, 3.1 second-feet Sept. 24.
1935-44: Maximum discharge, 3,540 second-feet Dec. 27, 1937 (gage height, 8.10 feet, from floodmark); minimum daily, that of Sept. 24, 1944.

Remarks.- Records good except those for periods of no gage-height record, which are fair. Gage read once daily, twice daily at high stages. No diversion above station; diurnal fluctuation caused at times by log pond 3 miles above station.

Rating tables, water year 1943-44 (gage height, in feet, and discharge, in second-feet)

Oct. 1 to Dec. 2				Dec. 3 to Sept. 30					
1.1	5.5	1.6	27	1.0	3.5	1.8	44	2.8	235
1.2	8.5	1.8	45	1.2	7.5	2.0	70	3.1	320
1.4	16	2.0	70	1.4	15	2.2	102	3.4	425
Note.- Same as following table above 2.0 feet.				1.6	26	2.5	162	3.8	605

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	7.9	21	82	126	124	80	99	78	49	18	10	7.2
2	7.9	27	185	260	124	76	92	70	36	15	8.9	7.5
3	8.5	47	565	215	138	120	88	69	32	17	11	7.0
4	8.5	144	483	176	164	138	80	69	32	17	10	7.5
5	8.5	118	314	147	188	132	79	64	29	16	10	4.8
6	8.5	94	222	120	474	122	76	62	29	16	9.6	6.5
7	7.9	84	180	113	371	124	79	57	28	15	9.6	6.0
8	7.9	66	136	99	284	120	92	56	26	15	11	6.0
9	8.2	57	116	94	235	a180	82	60	26	15	10	6.5
10	8.8	a51	95	87	198	171	84	56	25	14	9.6	5.5
11	18	45	92	80	171	167	82	55	25	13	9.6	5.2
12	14	41	82	169	153	149	111	51	24	13	9.2	5.5
13	11	35	70	158	138	136	128	50	25	13	8.2	6.5
14	9.2	35	67	200	140	122	128	49	25	13	7.2	7.0
15	9.9	34	60	215	132	113	169	54	24	e16	6.5	7.2
16	9.2	32	56	248	149	107	169	49	24	12	11	7.5
17	14	32	55	245	136	99	158	46	29	11	7.8	13
18	18	30	52	210	134	92	153	44	25	11	8.9	9.6
19	15	33	49	185	124	92	144	43	24	13	7.8	8.2
20	16	32	48	162	118	85	149	40	24	15	8.6	7.5
21	35	30	44	149	116	80	144	40	22	12	6.0	8.2
22	53	27	43	128	109	79	134	40	21	13	7.0	7.5
23	33	27	42	202	102	130	124	39	21	12	7.5	7.8
24	222	27	56	275	97	116	120	38	21	12	7.5	3.1
25	95	25	99	242	92	116	111	34	20	12	7.8	8.6
26	62	24	82	215	113	122	106	34	20	11	8.9	6.2
27	43	23	72	185	85	120	99	34	19	10	7.2	8.2
28	35	23	64	162	88	120	92	32	19	10	7.0	6.5
29	33	23	62	144	84	116	87	32	18	10	6.8	12
30	33	84	59	128	-	109	82	31	18	10	6.8	8.2
31	30	-	56	118	-	102	-	a37	-	10	6.8	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff: Inches	Runoff: Acre-feet
October	890.9	222	7.9	28.7	0.870	1.00	1,770
November	1,371	144	21	45.7	1.38	1.55	2,720
December	3,688	565	42	119	3.61	4.16	7,320
Calendar year 1943	38,588.7	1,380	7.6	106	3.21	43.50	76,560
January	5,257	275	80	170	5.15	5.92	10,430
February	4,581	474	84	158	4.79	5.16	9,090
March	3,635	180	76	117	3.55	4.10	7,210
April	3,341	169	76	111	3.36	3.77	6,630
May	1,513	78	31	48.8	1.48	1.71	3,000
June	760	49	18	25.3	.767	.86	1,510
July	410	18	10	13.2	.400	.46	813
August	263.8	11	6.0	8.51	.258	.30	523
September	218.0	13	3.1	7.27	.220	.25	432
Water year 1943-44	25,928.7	565	3.1	70.8	2.15	29.24	51,450

a No gage-height record; discharge computed on basis of records for station near Forest Grove.
e Gage reading not representative of average for day; 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 2⅛ miles southeast of village of Gales Creek and 4⅝ 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 1944.

Extremes.- Maximum discharge during year, 1,060 second-feet Dec. 4 (gage height, 4.51 feet); minimum, 6.0 second-feet (regulated) Sept. 25 (gage height, 1.59 feet).
1940-44: Maximum discharge, 3,580 second-feet Dec. 19, 1941; maximum gage height, 6.45 feet Nov. 23, 1942; minimum discharge, that of Sept. 25, 1944.

Remarks.- Records fair. Small diversions above station for irrigation; some diurnal fluctuation at low flow caused by log ponds above station.

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	12	42	137	250	224	135	149	124	73	26	14	11
2	12	46	482	478	241	135	142	118	59	25	13	11
3	13	72	996	379	250	244	135	113	53	26	14	10
4	14	210	876	305	285	253	131	107	50	25	15	8.9
5	14	185	550	256	386	229	124	101	47	25	16	8.0
6	13	146	375	221	799	218	120	99	44	24	14	7.5
7	13	119	286	194	655	215	129	91	42	22	15	8.0
8	13	98	227	176	505	210	140	93	41	19	16	8.0
9	13	85	189	161	399	291	129	91	40	20	16	7.0
10	16	76	164	154	330	278	126	91	38	20	15	7.5
11	30	70	144	166	291	262	142	89	37	19	13	7.5
12	24	62	131	322	256	241	166	86	37	18	13	8.0
13	20	57	115	302	241	215	186	80	40	18	12	10
14	18	54	107	337	247	199	210	78	40	16	12	15
15	16	51	101	391	218	184	259	87	38	21	12	12
16	16	49	91	442	227	171	265	77	40	15	12	14
17	23	48	87	433	218	161	247	73	42	15	12	19
18	24	48	82	363	218	151	229	71	40	15	13	19
19	26	49	80	316	207	151	238	66	37	18	12	14
20	30	57	77	278	199	144	238	64	36	25	15	13
21	49	49	73	247	194	135	218	63	33	19	8.9	14
22	74	46	73	232	178	133	207	63	33	17	14	14
23	62	43	71	415	166	207	204	61	32	16	11	17
24	287	42	102	460	161	186	194	59	31	15	12	10
25	151	41	156	407	154	178	176	56	31	15	12	7.0
26	88	41	126	348	156	186	166	53	29	14	13	11
27	65	41	115	298	149	184	156	50	29	14	12	10
28	54	40	107	262	149	176	147	50	27	12	11	11
29	48	41	99	235	142	171	140	48	26	12	10	21
30	49	136	95	213	-	164	133	48	26	12	8.9	24
31	45	-	99	197	-	156	-	54	-	14	8.9	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff	
						Inches	Acre-feet
October	1,332	287	12	43.0	0.652	0.75	2,640
November	2,144	210	40	71.5	1.08	1.21	4,250
December	6,412	996	71	207	3.14	3.61	12,720
Calendar year 1943	65,279	2,100	11	179	2.71	36.78	129,500
January	9,238	478	154	298	4.52	5.21	18,320
February	7,845	799	142	271	4.11	4.42	15,560
March	5,963	291	133	192	2.91	3.36	11,830
April	5,246	265	120	175	2.65	2.96	10,410
May	2,404	124	48	77.5	1.17	1.35	4,770
June	1,171	73	26	39.0	.591	.66	2,320
July	572	26	12	18.5	.280	.32	1,130
August	395.7	16	8.9	12.8	.194	.22	785
September	357.4	24	7.0	11.9	.180	.20	709
Water year 1943-44	43,080.1	996	7.0	118	1.79	24.27	85,440

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 1944.

Extremes.- Maximum discharge during year, 349 second-feet Dec. 4 (gage height, 7.29 feet); minimum, 7 second-feet Sept. 10-12 (gage height, 0.52 foot).
1940-44: Maximum discharge, 1,140 second-feet Mar. 31, 1943 (gage height, 12.48 feet); minimum, that of Sept. 10-12, 1944.

Remarks.- Records good. Records include measured or estimated discharge of two small streams which flow through dam site and enter creek from left bank about a mile below station. Probably some pumping above station for irrigation. Diurnal fluctuation at low flow caused by log pond upstream.

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	11	22	40	94	113	87	81	79	47	20	13	9
2	11	23	60	219	116	85	79	75	39	20	13	10
3	11	30	214	184	122	130	75	72	35	19	12	9
4	11	60	315	155	128	146	73	69	34	19	13	9
5	12	68	209	134	162	149	69	65	31	18	12	9
6	12	57	158	115	308	140	69	63	30	18	12	8
7	11	47	130	101	323	134	69	59	29	18	12	8
8	11	38	112	92	263	127	75	60	29	18	13	8
9	11	33	94	86	216	140	66	60	28	18	13	8
10	12	30	84	82	178	125	64	56	27	16	13	8
11	18	28	78	82	156	122	74	57	26	16	12	7
12	14	27	73	120	138	121	83	54	26	16	11	7
13	14	26	67	117	132	114	87	52	26	16	11	8
14	13	25	64	121	137	104	91	51	28	15	11	10
15	13	24	61	128	120	99	100	59	26	15	11	12
16	13	23	59	133	120	95	99	51	27	15	11	14
17	18	23	56	138	113	91	100	48	32	15	11	14
18	19	23	55	128	115	87	97	46	28	14	11	13
19	16	25	54	122	112	87	106	45	26	14	11	10
20	15	31	54	116	110	83	103	44	32	16	11	10
21	26	27	52	108	112	78	95	43	26	15	10	32
22	36	24	50	101	105	75	93	43	25	14	10	21
23	24	23	50	167	98	88	93	41	24	14	10	12
24	122	22	57	204	96	83	102	41	22	14	11	11
25	60	22	61	191	94	83	104	38	22	14	11	10
26	34	22	56	170	100	86	98	38	21	14	11	9
27	25	22	54	149	a97	89	96	36	21	13	10	9
28	21	22	52	132	a93	88	91	35	21	13	10	9
29	22	22	50	120	89	88	87	33	20	13	9	13
30	28	42	49	110	-	87	85	34	20	13	9	17
31	24	-	50	102	-	85	-	37	-	13	9	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff	
						Inches	Acre-feet
October	688	122	11	22.2	0.516	0.60	1,360
November	911	68	22	30.4	.707	.79	1,810
December	2,618	315	40	84.5	1.97	2.26	5,190
Calendar year 1943	34,244	1,010	10	93.8	2.18	29.62	67,930
January	4,021	219	82	130	3.02	3.48	7,980
February	4,066	323	89	140	3.26	3.52	8,060
March	3,196	149	75	103	2.40	2.76	6,340
April	2,602	106	64	86.7	2.02	2.25	5,160
May	1,584	79	33	51.1	1.19	1.37	3,140
June	828	47	20	27.6	.642	.72	1,640
July	486	20	13	15.7	.365	.42	964
August	347	13	9	11.2	.260	.30	688
September	334	32	7	11.1	.258	.29	662
Water year 1943-44	21,681	323	7	59.2	1.38	18.76	42,990

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 1944.

Average discharge.- 16 years, 63.3 second-feet.

Extremes.- Maximum discharge during year, 150 second-feet Dec. 7 (gage height, 7.13 feet); minimum, 0.4 second-foot Nov. 5, 6 (head gate closed).
1928-44: Maximum discharge, 6,000 second-feet Dec. 23, 1933 (gage height, 16.1 feet, site and datum then in use), computed from slope, area, and lake spillway data; practically no flow at times.

Remarks.- Records good. Oswego Canal diverts water from Tualatin River in NW¼ sec. 20, but diversion dam is in NE¼ sec. 33, about 3 miles downstream.

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	64	57	68	81	87	70	63	69	40	67	66	54
2	65	1.0	79	91	88	68	62	67	41	69	65	53
3	65	.5	90	107	97	68	60	64	45	69	64	52
4	65	.5	117	118	104	78	59	61	45	69	64	52
5	65	.5	138	120	109	94	58	58	44	69	64	53
6	65	.5	147	117	123	98	57	57	41	69	63	52
7	64	.5	147	111	139	96	57	55	39	68	64	52
8	64	.5	146	104	145	92	56	53	38	68	64	51
9	65	.5	138	100	147	92	57	52	37	68	64	50
10	65	.5	125	95	145	94	58	51	37	68	65	50
11	66	.5	112	93	142	98	58	51	37	68	65	50
12	66	.5	100	97	135	99	61	51	37	70	65	49
13	68	.5	91	107	125	96	68	50	36	72	65	48
14	69	a.5	87	116	114	90	75	49	36	71	64	47
15	69	a.5	84	119	105	86	80	48	36	71	63	47
16	68	a.5	81	118	98	81	87	47	36	71	62	47
17	68	.5	79	110	92	77	91	48	37	71	61	52
18	69	.5	77	112	90	74	92	47	38	70	60	57
19	69	.5	76	111	89	71	92	46	38	69	60	60
20	71	.5	74	108	88	69	92	46	39	69	60	64
21	74	.5	74	104	86	67	92	45	38	69	59	67
22	75	.5	74	98	84	66	91	44	38	71	59	71
23	78	32	73	99	81	65	88	44	38	73	59	72
24	88	69	74	103	78	68	86	44	37	73	58	72
25	93	68	75	109	75	72	86	43	36	72	57	71
26	99	66	82	112	74	72	85	43	35	71	57	70
27	96	66	87	111	73	70	82	42	36	70	57	68
28	88	66	86	107	72	69	80	41	49	69	58	68
29	79	66	82	102	71	68	76	41	57	68	57	68
30	73	66	80	95	-	67	73	40	63	67	56	71
31	70	-	77	89	-	65	-	40	-	66	55	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	2,243	99	64	72.4	4,450
November	567.0	69	.5	18.9	1,120
December	2,920	147	68	94.2	5,790
Calendar year 1943	27,623.0	381	.5	75.7	54,780
January	3,264	120	81	105	6,470
February	2,956	147	71	102	5,860
March	2,440	99	65	78.7	4,840
April	2,222	92	56	74.1	4,410
May	1,537	69	40	49.6	3,050
June	1,204	63	35	40.1	2,390
July	2,155	73	66	69.5	4,270
August	1,900	66	55	61.3	3,770
September	1,738	72	47	57.9	3,450
Water year 1943-44	25,146.0	147	.5	68.7	49,870

a No gage-height record; discharge interpolated.
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 1944.
Average discharge.- 24 years, 440 second-feet.
Extremes.- Maximum discharge during year, 1,160 second-feet Nov. 4 (gage height, 3.68 feet); minimum, 210 second-feet Aug. 29-31, Sept. 3-11, 26-28 (gage height, 1.46 feet).
1920-44: 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 tables, water year 1943-44 (gage height, in feet, and discharge, in second-feet)

Oct. 1 to Nov. 4				Nov. 5 to Sept. 30			
1.6	230	2.5	545	1.4	195	2.5	565
1.9	320	2.8	680	1.6	245	2.8	695
2.2	425	3.2	885	1.9	340	3.1	840
				2.2	445		

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	a242	311	497	417	333	293	364	477	400	254	225	215
2	a242	308	525	493	336	290	375	465	382	251	235	212
3	a242	390	695	414	340	290	400	465	361	251	225	210
4	242	876	790	386	340	290	424	485	340	248	225	210
5	242	840	636	368	378	287	442	513	326	245	222	210
6	242	601	545	354	581	281	438	537	316	242	222	212
7	239	505	501	340	537	281	438	525	305	240	222	212
8	239	445	481	333	481	290	442	517	308	240	225	212
9	239	410	445	326	449	417	428	517	305	238	228	212
10	242	389	420	322	420	420	424	489	296	235	222	212
11	284	375	403	319	406	378	449	469	290	232	220	212
12	251	361	389	322	392	358	453	465	287	230	220	212
13	245	350	378	319	386	344	449	461	284	230	220	215
14	242	340	364	322	382	330	449	449	281	230	218	230
15	245	333	354	336	364	322	465	501	281	228	218	222
16	248	326	344	354	361	322	434	473	293	228	218	232
17	260	319	336	396	350	336	420	445	316	228	218	248
18	257	319	333	375	344	344	410	431	308	225	218	242
19	251	319	326	361	336	358	414	417	308	228	215	225
20	281	330	322	354	330	347	406	403	305	228	215	220
21	344	330	319	347	326	333	392	396	290	225	215	222
22	372	319	316	344	319	330	389	400	284	225	215	222
23	330	312	312	417	316	417	414	389	281	225	215	218
24	550	305	330	403	316	400	469	382	272	225	215	212
25	493	299	368	386	312	375	434	364	269	225	215	212
26	383	296	340	368	312	358	424	354	266	225	215	212
27	344	293	326	358	305	347	420	354	263	225	212	212
28	330	293	319	347	302	340	431	358	260	222	212	212
29	330	293	312	340	299	340	465	350	257	222	212	220
30	362	449	308	336	-	340	489	340	257	222	210	225
31	330	-	308	330	-	354	-	340	-	222	210	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff Inches	Runoff Acre-feet
October	9,143	550	239	295	2.23	2.58	18,130
November	11,636	876	293	388	2.94	3.28	23,080
December	12,642	790	308	408	3.09	3.56	25,080
Calendar year 1943	193,708	2,440	239	531	4.02	54.58	384,200
January	11,187	493	319	361	2.73	3.15	22,190
February	10,653	561	299	367	2.78	3.00	21,130
March	10,512	420	281	339	2.57	2.96	20,850
April	12,851	489	364	428	3.24	3.62	25,490
May	13,531	537	340	436	3.30	3.81	26,840
June	8,991	400	257	300	2.27	2.53	17,830
July	7,194	254	222	232	1.76	2.03	14,270
August	6,777	235	210	219	1.66	1.91	13,440
September	6,542	248	210	218	1.65	1.84	12,980
Water year 1943-44	121,659	876	210	332	2.52	34.27	241,300

a No gage-height record; discharge computed on basis of records for Oak Grove Fork above powerplant 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 1944.
Average discharge.- 25 years, 1,804 second-feet.
Extremes.- Maximum discharge during year, 6,360 second-feet Nov. 4 (gage height, 6.05 feet); minimum, about 430 second-feet (regulated) Sept. 8 (stage below inlet pipe); minimum daily, 566 second-feet Sept. 8.
1911-13, 1921-44: 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 fair to May 17, poor thereafter. 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 table, water year 1943-44 (gage height, in feet, and discharge, in second-feet)

0.8	550	3.0	2,180
1.2	725	4.0	3,240
1.6	970	5.0	4,560
2.2	1,440		

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	736	1,370	2,120	1,660	1,200	1,060	1,550	2,050	1,730	820	680	639
2	730	1,280	2,250	2,460	1,260	1,040	1,650	1,920	1,800	798	736	634
3	725	1,660	3,400	2,030	1,300	1,000	1,840	1,900	1,580	810	695	630
4	725	4,530	3,890	1,710	1,340	1,000	1,960	1,940	1,380	758	685	598
5	720	4,160	3,030	1,550	1,740	935	2,060	2,100	1,480	816	700	602
6	736	2,910	2,480	1,440	3,540	1,080	1,980	2,220	1,350	786	666	614
7	695	2,220	2,100	1,340	3,350	991	1,830	2,090	1,320	780	666	630
8	725	1,930	1,940	1,250	2,620	1,080	1,830	2,120	1,270	792	675	566
9	720	1,670	1,750	1,180	2,220	2,070	1,710	2,060	1,220	800	670	610
10	710	1,530	1,590	1,210	1,920	2,600	1,790	1,940	1,140	770	670	582
11	888	1,410	1,480	1,140	1,790	2,060	1,780	1,830	1,120	770	662	602
12	764	1,300	1,370	1,210	1,640	1,730	1,900	1,780	1,090	760	662	598
13	742	1,220	1,360	1,210	1,480	1,680	1,900	1,760	1,070	750	634	598
14	730	1,150	1,300	1,250	1,620	1,450	1,940	1,730	1,060	750	652	639
15	725	1,180	1,200	1,380	1,430	1,380	2,050	2,140	1,020	750	652	662
16	742	1,070	1,180	1,520	1,420	1,340	2,010	2,060	1,090	720	630	710
17	764	1,090	1,120	1,940	1,380	1,340	1,870	1,980	1,150	740	639	747
18	804	1,030	1,100	1,870	1,340	1,370	1,770	1,830	1,090	730	644	769
19	752	1,050	1,060	1,720	1,290	1,420	1,770	1,650	1,180	730	644	675
20	907	1,060	1,070	1,580	1,180	1,530	1,740	1,560	1,180	730	610	644
21	1,380	1,070	1,040	1,510	1,280	1,340	1,680	1,500	1,120	730	622	666
22	1,770	1,020	1,010	1,410	1,170	1,320	1,570	1,660	1,090	730	626	670
23	1,490	991	991	1,670	1,150	1,770	1,680	1,700	1,030	730	614	630
24	3,780	956	1,030	1,900	1,160	1,890	1,930	1,680	990	720	618	606
25	3,290	907	1,360	1,690	1,140	1,800	1,920	1,590	960	740	610	618
26	2,140	914	1,310	1,560	1,200	1,630	1,840	1,500	980	740	639	606
27	1,740	907	1,280	1,420	1,030	1,530	1,820	1,450	942	740	598	610
28	1,550	888	1,140	1,360	1,200	1,400	1,840	1,420	920	720	614	610
29	1,510	894	1,090	1,290	1,070	1,380	2,010	1,520	880	720	614	639
30	1,680	1,560	1,070	1,170	-	1,420	2,110	1,350	850	680	610	675
31	1,460	-	1,060	1,240	-	1,500	-	1,420	-	700	614	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff Inches	Runoff Acre-feet
October	36,830	3,780	695	1,188	2.43	2.81	73,050
November	44,927	4,530	888	1,498	3.07	3.42	89,110
December	49,171	3,890	991	1,586	3.25	3.75	97,530
Calendar year 1943	783,761	12,900	695	2,147	4.40	59.74	1,555,000
January	46,900	2,460	1,140	1,513	3.10	3.57	93,020
February	45,460	3,540	1,030	1,568	3.21	3.46	90,170
March	45,136	2,600	935	1,456	2.98	3.44	89,530
April	55,330	2,110	1,550	1,844	3.78	4.22	109,700
May	55,450	2,220	1,350	1,789	3.67	4.23	110,000
June	35,082	1,800	850	1,169	2.40	2.67	69,580
July	23,310	820	680	752	1.54	1.78	46,230
August	20,051	736	598	647	1.33	1.53	39,770
September	19,079	769	566	636	1.30	1.45	37,840
Water year 1943-44	476,726	4,530	566	1,303	2.67	36.33	945,500

Note.- Stage fell below inlet owing to regulation Oct. 7, 10, Aug. 2 to Sept. 14, Sept. 20, 21, 23-29; discharge computed from partly estimated gage height. Gage-height record doubtful May 18, 19, 23-28, June 6-8, 11, and lacking because of inlet being closed June 20-26, June 28 to July 1, July 9 to Aug. 1; discharge computed on basis of records for stations at Big Bottom and near Gazadero.
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 1944.
Average discharge.- 35 years, 2,553 second-feet.
Extremes.- Maximum discharge during year, 9,150 second-feet Nov. 4 (elevation, 540.07 feet); minimum, 476 second-feet (regulated) Sept. 8; minimum daily, 640 second-feet Sept. 8.
1909-44: 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 except those for periods of no gage-height record, which are poor. Some diurnal fluctuation during low flow 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 tables, water year 1943-44 (elevation, in feet, and discharge, in second-feet)

Oct. 1 to Dec. 3				Dec. 4 to Sept. 30			
533.3	850	536.5	3,540	533.0	640	535.5	2,500
534.0	1,270	537.5	4,760	533.5	900	536.5	3,540
534.7	1,800	538.7	6,580	534.0	1,220	537.5	4,760
535.5	2,510			534.7	1,760	538.1	5,630

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	911	1,960	a2,600	a2,500	1,570	1,360	2,340	2,770	2,300	1,050	762	710
2	865	1,800	2,760	a3,800	1,620	1,350	2,410	2,560	2,330	1,020	840	730
3	865	2,250	4,660	a3,200	1,680	1,340	2,800	2,490	2,150	1,030	784	676
4	890	6,520	5,630	2,510	1,730	1,360	2,970	2,570	1,850	960	762	649
5	880	6,520	4,230	2,070	2,500	1,300	2,980	2,800	1,920	1,010	774	676
6	890	4,270	3,340	1,890	5,640	1,450	2,760	2,920	1,700	978	735	654
7	865	3,190	2,840	1,710	5,070	1,390	2,570	2,770	1,660	960	725	667
8	875	2,650	2,680	1,610	3,780	1,650	2,550	2,760	1,640	966	735	640
9	875	2,300	2,390	1,500	3,130	3,620	2,350	2,720	1,580	984	735	676
10	900	2,140	2,170	1,500	2,680	4,440	2,420	2,500	1,500	936	720	649
11	1,110	1,910	2,010	1,420	2,420	3,320	2,490	2,400	1,440	930	715	649
12	988	1,780	1,810	1,610	2,190	2,690	2,730	2,320	1,380	912	700	649
13	928	1,660	1,770	1,600	2,010	2,440	2,770	2,270	1,370	894	680	667
14	928	1,580	1,740	1,610	2,170	2,110	2,960	2,220	1,320	884	705	768
15	922	1,540	1,570	1,710	1,960	1,980	3,090	2,680	1,280	884	700	730
16	950	1,460	a1,500	1,960	1,980	1,880	3,040	2,600	1,320	834	685	918
17	999	a1,470	a1,450	2,550	1,970	1,900	2,800	2,380	1,510	872	690	1,000
18	1,090	a1,350	a1,400	2,510	1,870	1,950	2,590	2,260	1,440	840	690	1,050
19	994	1,380	1,350	2,240	1,810	2,120	2,570	2,170	1,570	856	695	840
20	1,220	1,450	1,340	2,100	1,650	2,180	2,510	2,070	1,560	845	685	746
21	1,990	1,420	1,290	1,950	1,740	2,010	2,370	1,980	1,440	845	695	790
22	2,580	a1,390	a1,260	1,880	1,580	1,950	2,230	2,090	1,390	850	695	812
23	2,160	a1,350	a1,240	2,260	1,500	2,730	2,350	2,190	1,320	796	695	725
24	5,730	a1,300	a1,280	2,690	1,500	3,080	2,690	2,140	1,260	828	690	676
25	a5,100	a1,230	a1,700	2,370	1,480	2,680	2,650	2,030	1,190	823	695	685
26	a3,500	a1,240	a1,640	2,140	1,560	2,330	2,520	1,960	1,200	812	700	662
27	a2,600	a1,240	a1,520	1,980	1,420	2,320	2,480	1,930	1,160	806	667	658
28	a2,300	a1,220	1,410	1,830	1,550	2,120	2,590	1,880	1,120	796	685	654
29	a2,200	a1,200	1,380	1,750	1,400	2,120	2,800	1,980	1,100	790	680	740
30	a2,400	a1,900	a1,330	1,580	-	2,180	2,860	1,730	1,080	746	672	823
31	a2,100	-	a1,300	1,640	-	2,320	-	1,800	-	774	672	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff: Inches	Runoff: Acre-feet
October	51,605	5,730	865	1,665	2.50	2.89	102,400
November	62,670	6,520	1,200	2,089	3.14	3.50	124,300
December	64,590	5,630	1,240	2,084	3.13	3.61	128,100
Calendar year 1943	1,072,988	20,600	865	2,940	4.42	59.98	2,128,000
January	63,470	3,800	1,420	2,047	3.08	3.55	125,900
February	63,160	5,640	1,400	2,178	3.28	3.53	125,300
March	67,670	4,440	1,300	2,183	3.28	3.78	134,200
April	79,240	3,090	2,230	2,641	3.97	4.43	157,200
May	71,940	2,920	1,730	2,321	3.49	4.02	142,700
June	45,080	2,330	1,080	1,503	2.26	2.52	89,410
July	27,511	1,050	746	887	1.33	1.54	54,570
August	22,063	840	667	712	1.07	1.23	43,760
September	21,969	1,050	640	732	1.10	1.23	43,570
Water year 1943-44	640,968	6,520	640	1,751	2.63	35.83	1,271,000

a No gage-height record; discharge computed on basis of records for stations at Big Bottom and above Three Lynx Creek.
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 1944. 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.- 20 years (1924-44), 453 second-feet (19 years, 456 second feet; figure published in Water-Supply Paper 984 in error).

Extremes.- Maximum discharge during year, 713 second-feet Nov. 4 (gage height, 2.58 feet); minimum, 305 second-feet Sept. 5-7, 27, 28 (gage height, 1.80 feet).
1909-44: 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 good. 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 1943-44 (gage height, in feet, and discharge, in second-feet)

1.8	305
2.0	395
2.2	495
2.4	605
2.5	665

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	350	390	416	410	350	354	440	544	495	350	328	318
2	350	382	465	435	350	350	460	539	485	350	336	314
3	350	410	550	398	350	350	485	539	470	346	328	310
4	350	647	588	382	350	350	506	550	455	341	323	310
5	350	600	534	377	415	350	512	566	445	341	323	310
6	346	517	485	372	578	346	506	572	435	341	323	305
7	341	470	475	368	544	346	500	566	425	336	323	305
8	341	440	475	364	495	350	500	561	425	332	318	310
9	341	425	450	364	465	430	490	561	420	332	318	310
10	346	410	440	364	435	440	490	550	410	332	314	310
11	372	405	430	359	430	405	517	539	405	328	310	310
12	350	395	420	359	415	395	534	534	395	323	310	314
13	346	390	410	359	410	386	517	539	395	323	310	314
14	346	386	405	359	410	377	517	528	390	325	310	323
15	346	377	395	359	395	372	528	550	382	323	310	314
16	346	377	390	364	390	372	517	539	386	323	310	341
17	354	372	386	382	386	382	506	539	395	323	314	346
18	350	372	382	372	386	395	490	528	390	323	314	332
19	350	372	382	364	382	410	490	517	390	323	314	318
20	377	377	377	364	377	405	490	506	377	325	318	314
21	425	377	372	359	372	390	480	495	372	318	318	318
22	410	372	372	359	372	390	475	506	372	318	318	314
23	400	368	372	382	364	440	490	522	368	318	314	310
24	523	359	382	382	364	435	544	517	364	318	314	310
25	465	359	405	372	364	420	528	495	359	318	314	310
26	420	354	386	364	364	405	512	480	359	318	314	310
27	405	354	377	359	359	400	506	475	359	318	314	305
28	390	354	372	354	359	395	512	475	354	318	314	305
29	410	354	364	350	354	395	528	470	354	318	314	314
30	430	420	364	350	-	405	544	460	350	318	314	314
31	400	-	359	350	-	425	-	455	-	318	314	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff: Inches	Runoff: Acre-feet
October	11,679	522	341	377	2.99	3.45	23,160
November	12,185	647	354	406	3.22	3.60	24,170
December	12,974	588	359	419	3.33	3.83	25,730
Calendar year 1943	208,708	1,420	341	572	4.54	61.59	414,000
January	11,453	435	350	369	2.93	3.38	22,720
February	11,585	578	350	399	3.17	3.42	22,980
March	12,065	440	346	389	3.09	3.56	23,930
April	15,114	544	440	504	4.00	4.46	29,980
May	16,217	572	455	523	4.15	4.79	32,170
June	11,981	495	350	399	3.17	3.54	23,760
July	10,134	350	318	327	2.60	2.99	20,100
August	9,816	336	310	317	2.52	2.90	19,470
September	9,438	346	305	315	2.50	2.79	18,720
Water year 1943-44	144,641	647	305	395	3.13	42.71	286,900

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 1944.

Extremes.- Maximum discharge during year, 260 second-feet Feb. 6 (gage height, 4.79 feet); minimum, 0.6 second-foot July 30 (gage height, 0.79 foot).
1940-44: Maximum discharge, 1,770 second-feet Nov. 23, 1942 (gage height, 11.76 feet); minimum, 0.2 second-foot Aug. 14-16, 18-22, 1940, Aug. 2, 21, 22, 1941.

Remarks.- Records good except those below 10 second-feet and those for periods of no gage-height record, which are fair. Small diversions above station for irrigation; no regulation.

Rating tables, water year 1943-44 (gage height, in feet, and discharge, in second-feet)

Oct. 1-23		Oct. 24 to Sept. 30					
0.9	1.3	0.8	0.6	1.3	11.4	2.6	74
1.0	2.3	0.9	1.2	1.4	19.2	3.0	98
1.1	5.0	1.0	2.1	1.6	23.4	3.5	134
1.2	8.9	1.1	4.4	1.9	38	4.0	177
1.3	14.0	1.2	7.8	2.2	53	4.5	228
1.4	19.0						

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1.6	a10	8.2	47	23	30	20	14	5.1	1.5	1.0	1.2
2	1.5	a9.0	9.2	95	28	26	17	12	6.1	1.6	1.0	1.3
3	1.7	a15	40	a75	46	32	15	10	5.1	1.6	1.0	1.2
4	1.6	a44	166	a65	55	40	13	9.2	4.2	1.5	1.3	1.2
5	1.6	a45	a100	a47	99	58	12	8.2	3.7	1.5	1.3	1.1
6	1.5	a34	a60	39	216	53	11	7.8	3.5	1.6	1.4	1.1
7	1.4	a27	a43	32	146	46	11	6.8	3.5	1.5	1.4	1.1
8	1.5	a23	a36	26	99	54	14	6.8	3.2	1.3	1.3	1.2
9	1.7	19	a27	a22	72	103	18	7.1	3.0	1.5	1.3	1.2
10	1.9	15	a23	a19	54	90	14	7.1	2.3	1.6	1.3	1.1
11	3.4	12	a20	a18	48	73	18	6.8	2.0	1.5	1.1	1.1
12	2.1	10	18	a31	40	59	32	6.8	2.0	1.6	1.2	1.1
13	2.1	8.5	15	a27	36	47	52	6.4	1.9	1.6	1.2	1.2
14	1.9	7.8	13	a45	52	36	69	6.1	2.0	1.6	1.2	1.8
15	1.8	6.8	11	94	43	30	68	6.4	2.0	1.5	1.2	1.6
16	1.9	6.4	10	90	50	26	78	6.1	2.6	1.6	1.2	2.6
17	3.4	6.1	8.9	99	54	23	68	5.1	2.8	1.5	1.2	3.5
18	3.4	6.1	8.2	76	66	20	56	5.1	2.8	1.4	1.5	1.7
19	3.4	6.1	7.8	62	70	21	60	5.1	3.2	1.3	1.3	1.7
20	5.0	8.9	7.5	50	58	24	58	4.7	3.0	1.0	1.2	1.6
21	13	11	7.1	42	52	18	46	4.4	2.6	.9	1.2	1.9
22	16	8.9	6.4	36	40	17	38	5.1	2.6	.8	1.3	2.1
23	11	7.5	6.4	68	32	44	32	5.8	2.1	.8	1.2	1.6
24	59	6.8	9.6	79	30	44	38	5.4	2.1	.8	1.3	1.5
25	42	6.1	17	66	30	41	48	4.7	1.9	1.0	1.4	1.4
26	a25	5.8	15	56	51	42	36	4.4	1.8	1.0	1.4	1.4
27	a18	5.8	12	46	42	45	28	4.2	1.7	.9	1.2	1.5
28	a14	5.4	11	38	42	36	23	3.5	1.7	.8	1.1	1.5
29	a12	5.4	9.6	31	36	32	18	3.5	1.6	.7	1.1	2.8
30	a14	6.8	8.9	26	-	27	16	3.7	1.6	.7	1.0	3.5
31	a12	-	8.9	22	-	23	-	3.7	-	.8	1.1	-

Month	Second-feet-days	Maximum	Minimum	Mean	Per square mile	Runoff Inches	Runoff Acre-feet
October	280.4	59	1.4	9.05	0.321	0.37	556
November	389.2	45	5.4	13.0	.461	.51	772
December	743.7	166	6.4	24.0	.851	.98	1,480
Calendar year 1943	16,340.5	986	1.2	44.7	1.59	21.55	32,410
January	1,569	99	18	50.6	1.79	2.07	3,110
February	1,710	216	23	59.0	2.09	2.26	3,390
March	1,260	103	17	40.6	1.44	1.66	2,500
April	1,027	78	11	34.2	1.21	1.35	2,040
May	196.0	14	3.5	6.32	.224	.26	389
June	83.7	6.1	1.6	2.79	.099	.11	166
July	39.0	1.6	.7	1.26	.045	.05	77
August	37.9	1.5	1.0	1.22	.043	.05	75
September	48.8	3.5	1.1	1.63	.058	.06	97
Water year 1943-44	7,384.7	216	.7	20.2	.716	9.73	14,650

a No gage-height record; discharge computed on basis of recorded range in stage and records for Molalla River above Pine Creek, near Wilhoit.
Time basis: Pacific war time. To convert war time to standard time, subtract 1 hour.

Salmon Creek near Battle Ground, Wash.

Location.- Staff gage, lat. 45°46'25", long. 122°26'35", in NE¼SW¼ sec. 4, T. 3 N., R. 3 E., 100 feet upstream from county highway bridge, 150 feet downstream from Rock Creek, and 4 miles east of Battle Ground.

Drainage area.- 18.3 square miles.

Records available.- October 1943 to September 1944.

Extremes.- Maximum discharge observed during period, 283 second-feet Feb. 6 (gage height, 1.66 feet, from graph based on gage readings), from rating curve extended above 76 second-feet; minimum not determined, probably occurred sometime Sept. 8-11 when water was below gage.

Remarks.- Records good except those for periods of no gage-height record, which are fair. Gage read once daily Oct. 28, Feb. 21 to Mar. 14, June 12 to Sept. 30; twice daily Oct. 29 to Feb. 20, Mar. 15 to June 3. No diversion or regulation.

Rating table, Oct. 28, 1943, to Sept. 30, 1944 (gage height, in feet, and discharge, in second-feet)

0.0	2.2	0.8	63
.2	4.4	1.0	106
.4	10	1.3	181
.6	28		

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	-	13	24	47	34	45	34	40	91	12	4.8	4.4
2	-	13	106	80	36	40	31	36	80	10	4.4	3.4
3	-	17	209	69	49	59	28	31	55	10	4.2	2.4
4	-	67	195	57	61	51	26	28	a45	10	4.2	2.8
5	-	53	124	49	170	49	25	26	a40	9.6	4.2	2.2
6	-	36	93	38	224	43	24	24	a35	8.8	4.2	2.2
7	-	27	84	34	149	40	24	23	a30	8.8	6.6	2.8
8	-	21	82	28	115	37	32	25	a25	9.6	4.4	a2.1
9	-	17	71	27	93	82	32	31	a20	8.8	4.2	a2.0
10	-	15	61	26	76	78	31	26	a19	8.1	4.2	a1.8
11	-	14	51	26	67	71	37	24	a18	8.1	3.9	a1.8
12	-	13	42	49	53	61	59	24	17	8.1	3.7	2.4
13	-	10	37	40	55	55	102	23	17	7.3	3.7	4.4
14	-	10	34	38	84	51	108	22	16	6.5	3.0	6.1
15	-	10	28	43	76	40	104	34	15	6.5	2.8	3.6
16	-	9.6	25	43	95	37	104	24	40	8.8	3.2	6.1
17	-	9.6	24	55	80	32	97	23	34	7.3	3.7	6.1
18	-	9.6	22	47	97	30	86	24	22	5.7	3.7	4.2
19	-	9.6	20	43	102	34	88	21	26	6.5	3.4	3.4
20	-	15	20	40	88	31	93	18	24	6.5	3.2	3.9
21	-	10	17	37	74	27	80	18	22	6.5	3.0	15
22	-	10	16	31	63	26	69	24	20	6.5	3.0	15
23	-	9.6	16	47	55	67	61	23	17	6.1	3.4	3.9
24	-	9.2	26	55	47	69	106	21	17	6.1	3.7	3.2
25	-	8.8	40	51	45	61	108	17	15	5.7	3.9	3.0
26	-	8.8	37	45	63	65	88	17	16	5.2	3.7	3.9
27	-	8.4	31	40	65	59	74	16	15	4.8	2.6	3.4
28	8.1	8.8	28	37	61	51	61	15	12	4.4	3.0	3.4
29	12	8.8	26	30	55	43	53	15	13	4.4	2.8	8.1
30	22	13	24	28	-	43	47	14	12	4.8	a2.1	6.1
31	16	-	26	26	-	40	-	13	-	5.2	3.7	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff Inches	Runoff Acre-feet
October 28-31	58.1	-	-	-	-	-	115
November	484.8	67	8.4	16.2	0.885	0.99	962
December	1,639	209	16	52.9	2.89	3.33	3,250
Calendar year	-	-	-	-	-	-	-
January	1,306	80	26	42.1	2.30	2.65	2,590
February	2,332	224	34	80.4	4.39	4.74	4,630
March	1,517	82	26	48.9	2.67	3.08	3,010
April	1,912	108	24	63.7	3.48	3.89	3,790
May	720	40	13	23.2	1.27	1.46	1,430
June	827	91	12	27.6	1.51	1.68	1,640
July	226.7	12	4.4	7.31	.399	.46	450
August	114.5	6.5	2.1	3.69	.202	.23	227
September	123.3	15	1.8	4.11	.225	.25	245
The period	-	-	-	-	-	-	22,340

a No gage-height record; discharge computed on basis of observer's notes and records for East Fork Lewis River near Heisson.

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 1944. July 1909 to June 1910 at site 1,000 feet upstream from Swift Creek.
Average discharge.- 20 years (1924-44), 2,661 second-feet.
Extremes.- Maximum discharge during year, 8,690 second-feet Dec. 3 (gage height, 7.61 feet); minimum, 576 second-feet Sept. 11, 12 (gage height, 3.01 feet).
1910-12, 1924-44: 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 excellent except those for period of shifting control, which are good, and those for period of no gage-height record, which are fair. No diversion or regulation.

Rating tables, water year 1943-44, except period of shifting control
(gage height, in feet, and discharge, in second-feet)

Oct. 1 to Dec. 3						Dec. 4 to Sept. 30			
3.2	715	4.5	1,990	6.5	5,620	3.2	685	5.0	2,610
3.5	940	5.0	2,700	7.0	6,900	3.5	895	5.5	3,430
3.8	1,200	5.5	3,540	7.5	8,370	3.8	1,150	6.0	4,400
4.1	1,510	6.0	4,500			4.1	1,450	7.0	6,830
						4.5	1,920		

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	736	1,400	2,120	2,180	1,860	1,340	1,800	3,080	3,340	1,060	724	655
2	736	1,460	3,990	2,610	1,800	1,330	1,920	3,000	3,000	1,030	718	649
3	736	1,800	7,760	2,250	1,920	1,340	2,250	2,920	2,610	1,000	718	620
4	736	4,080	6,160	2,050	2,120	1,340	2,540	3,080	2,390	992	724	614
5	743	4,000	4,500	1,980	a2,500	1,310	2,610	3,430	2,250	975	724	614
6	729	3,100	3,610	1,860	a7,200	1,270	2,540	3,700	2,180	975	730	608
7	736	2,620	3,160	1,800	a6,800	1,260	2,680	3,700	2,120	951	718	608
8	729	2,330	2,920	1,680	a5,500	1,450	2,760	3,700	2,050	959	718	603
9	722	2,120	2,540	1,620	a4,200	3,990	2,610	3,520	1,860	935	724	598
10	750	1,920	2,320	1,560	a3,500	3,700	2,610	3,160	1,860	919	718	592
11	1,160	1,800	2,120	1,500	a3,100	3,000	2,610	2,920	1,920	911	724	586
12	892	1,680	1,980	1,740	a2,800	2,680	2,920	2,680	1,800	888	698	592
13	800	1,560	1,860	1,620	a2,500	2,460	3,000	2,680	1,680	880	698	614
14	750	1,510	1,740	1,740	a2,400	2,250	3,080	2,760	1,560	872	685	698
15	750	1,460	1,620	2,120	a2,200	2,180	3,250	3,520	1,500	865	679	661
16	743	1,400	1,560	3,000	a2,100	2,050	3,160	3,520	1,560	858	673	750
17	830	1,350	1,500	3,520	a2,000	2,050	2,920	3,160	1,740	842	673	757
18	862	1,350	1,450	3,520	a2,000	2,050	2,760	2,920	1,620	835	673	704
19	878	1,300	1,400	3,160	a1,900	1,980	2,920	2,680	1,500	835	661	649
20	878	1,400	1,320	2,920	1,800	1,920	2,920	2,540	1,450	835	655	724
21	1,230	1,350	1,270	2,680	1,740	1,800	2,680	2,540	1,400	820	649	764
22	1,620	1,260	1,250	2,540	1,680	1,800	2,680	2,460	1,340	799	649	778
23	1,350	1,220	1,240	2,920	1,620	2,180	2,840	2,460	1,310	778	649	679
24	3,250	1,170	1,720	2,840	1,620	1,980	3,160	2,610	1,290	785	655	643
25	3,470	1,150	2,540	2,610	1,560	1,860	3,080	2,390	1,260	792	655	625
26	2,260	1,130	1,980	2,460	1,560	1,860	2,920	2,390	1,230	771	661	614
27	1,860	1,110	1,800	2,320	1,500	1,740	2,920	2,540	1,160	764	649	608
28	1,680	1,100	1,740	2,180	1,450	1,680	3,080	2,760	1,120	764	637	598
29	1,620	1,100	1,680	2,050	1,400	1,680	3,250	2,680	1,100	757	625	704
30	1,620	1,700	1,620	1,920	-	1,740	3,250	2,540	1,100	750	620	698
31	1,510	-	1,560	1,860	-	1,800	-	2,460	-	737	625	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff	
						Inches	Acre-feet
October	37,352	3,470	722	1,205	2.51	2.89	74,090
November	51,930	4,080	1,100	1,731	3.60	4.02	103,000
December	74,030	7,760	1,240	2,388	4.96	5.72	146,800
Calendar year 1943	985,729	16,700	722	2,701	5.62	76.21	1,955,000
January	70,810	3,520	1,500	2,284	4.75	5.47	140,400
February	74,330	7,200	1,400	2,563	5.33	5.75	147,400
March	61,070	3,990	1,260	1,970	4.10	4.72	121,100
April	83,720	3,250	1,800	2,791	5.80	6.47	166,100
May	90,500	3,700	2,390	2,919	6.07	7.00	179,500
June	52,300	3,340	1,100	1,743	3.62	4.04	103,700
July	26,934	1,060	737	869	1.81	2.08	53,420
August	21,109	730	620	681	1.42	1.63	41,870
September	19,607	778	586	654	1.36	1.52	38,890
Water year 1943-44	663,692	7,760	586	1,813	3.77	51.31	1,316,000

a No gage-height record; discharge computed on basis of records for Cispus River near Randle.
Note.- Shifting-control method used Dec. 4 to Feb. 4.
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 1944. July to November 1909 at site 3 miles upstream.

Average discharge.- 21 years (1923-44), 4,357 second-feet, adjusted for storage since March 1931.

Extremes (regulated).- Maximum discharge during year, 18,700 second-feet Feb. 6 (gage height, 10.93 feet); minimum recorded, 490 second-feet Aug. 20 (gage height, 1.00 foot); discharge may have been less during some period of doubtful or no gage-height record.
1909, 1922-44: Maximum discharge, 129,000 second-feet Dec. 22, 1933 (gage height, 35.0 feet, from floodmarks), from rating curve extended above 22,000 second-feet and from spillway-gate openings; no flow at times on June 30 and July 1-3, 6-9, 1931 (caused by regulation during construction of Ariel Dam); minimum daily discharge, 1 second-foot July 6, 1931.

Remarks.- Records good except those below 750 second-feet and those for periods of no gage-height record, which are fair. No diversions. Flow regulated by Lake Merwin Reservoir on Lewis River, lat. 45°57'30", long. 122°33'10", in SW¼ sec. 34, T. 6 N., R. 2 E., at Ariel, completed in 1931; usable storage, 246,000 acre-feet between elevations 165 feet (set by Federal Power Commission) and 235 feet (spillway crest) above mean sea level. Water is used for power.

Cooperation.- Gage-height record collected in cooperation with Pacific Power & Light Co.

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2,590	3,350	3,570	3,380	3,920	3,800	3,320	4,270	5,040	1,860	976	982
2	2,430	3,320	3,680	†3,050	3,920	3,790	†2,910	4,060	4,990	†997	922	984
3	†1,930	3,680	3,560	3,450	3,900	3,780	3,070	3,980	3,870	625	730	†556
4	2,410	3,490	3,360	3,630	3,900	3,800	3,060	4,090	†3,740	542	890	623
5	2,690	3,770	†3,400	3,650	3,840	†3,790	3,120	4,180	3,570	1,200	960	893
6	2,590	3,790	3,540	3,620	†7,590	3,810	3,370	4,650	3,550	1,300	†750	809
7	2,360	†3,710	3,780	3,620	10,400	3,770	3,320	†4,590	3,580	1,480	900	834
8	2,150	3,560	3,700	3,580	7,960	3,740	3,360	4,860	3,600	1,040	830	792
9	1,890	3,730	3,720	†2,930	6,540	3,730	†2,820	4,400	2,950	†594	930	1,080
10	†1,340	3,560	3,740	3,390	5,450	3,800	2,940	4,050	2,680	1,130	930	†527
11	1,860	3,750	3,780	3,750	4,950	3,800	3,220	3,980	†1,840	1,240	1,050	1,290
12	1,970	3,800	†3,660	3,800	4,330	†3,780	3,120	3,560	2,850	1,150	900	1,300
13	1,400	3,800	3,590	3,780	†4,200	3,780	3,280	3,400	2,680	1,140	†520	1,110
14	1,260	†3,400	3,770	3,740	4,060	3,780	3,100	†2,680	2,480	1,090	898	1,060
15	1,130	3,370	3,770	3,780	3,900	3,660	3,190	3,920	2,590	838	873	1,500
16	932	3,790	3,730	†3,100	3,910	3,670	†2,320	4,440	2,780	†536	891	1,430
17	†770	3,780	3,680	3,480	3,880	3,670	2,800	3,920	2,000	1,140	953	†909
18	1,540	3,790	3,680	3,680	3,880	3,550	3,480	3,780	†658	1,080	891	1,440
19	1,290	3,540	†3,580	3,640	3,890	†3,330	4,510	3,650	2,040	1,040	673	1,810
20	1,430	3,300	3,580	3,710	†3,850	3,420	5,350	3,540	2,280	838	†515	1,900
21	1,340	†3,670	3,660	3,820	3,810	3,720	4,790	†2,410	1,970	1,050	998	1,810
22	1,680	3,400	3,610	3,820	3,840	3,650	4,220	3,410	1,720	1,440	910	2,050
23	3,230	3,570	3,580	†3,190	3,860	3,660	†4,570	3,630	1,500	†520	1,010	2,160
24	†2,830	3,650	3,200	3,550	3,880	3,590	5,400	3,390	1,480	1,340	910	†2,150
25	3,160	3,630	1,950	3,820	3,870	3,620	4,720	3,030	†553	930	793	2,040
26	3,360	3,450	†1,400	3,830	3,850	†3,600	4,680	3,490	2,020	1,160	606	2,160
27	3,380	3,610	3,060	3,860	†3,850	3,470	4,590	3,170	2,060	950	†527	1,800
28	2,930	†3,350	3,670	3,890	3,840	3,510	4,520	†3,250	2,020	890	830	1,460
29	2,990	3,400	3,600	3,920	3,800	3,610	4,590	3,520	2,500	1,430	770	1,670
30	2,700	3,610	3,600	†3,790	-	3,550	†4,680	3,050	2,360	†500	930	2,340
31	†2,890	-	3,600	3,660	-	3,530	-	3,400	-	900	988	-

Month	Observed: Discharge in second-feet: Maximum	Minimum	Mean	Observed: Runoff in acre-feet	Change in contents in Lake Merwin Reservoir (acre-feet)	Adjusted for change in reservoir contents: Runoff in acre-feet	Discharge in second-feet: Mean	Per square mile	Runoff in inches
October	3,380	770	2,144	131,800	-5,600	126,200	2,052	2.81	3.24
November	3,800	3,300	3,587	213,500	-42,700	170,800	2,870	3.93	4.38
December	3,780	1,400	3,477	213,800	+61,500	275,300	4,477	6.12	7.06
Calendar year 1943	26,500	458	4,255	3,081,000	-46,800	3,034,000	4,191	5.73	77.81
January	3,920	2,930	3,610	222,000	+29,100	251,100	4,084	5.59	6.44
February	10,400	3,800	4,582	263,500	-12,300	251,200	4,367	5.97	6.44
March	3,810	3,330	3,666	225,400	-13,000	212,400	3,454	4.73	5.45
April	5,400	2,320	3,747	223,000	+47,000	270,000	4,538	6.21	6.93
May	4,860	2,410	3,734	229,600	+1,600	231,200	3,760	5.14	5.93
June	5,040	553	2,598	154,600	-8,300	146,300	2,459	3.36	3.75
July	1,860	500	1,031	63,410	+6,700	70,110	1,140	1.56	1.80
August	1,050	515	847	52,070	+800	52,870	860	1.18	1.36
September	2,340	527	1,382	82,250	-26,000	56,250	945	1.29	1.44
Water year 1943-44	10,400	500	2,858	2,075,000	+38,800	2,114,000	2,912	3.98	54.22

† Sunday.

Note.- No gage height Dec. 25, 26, Jan. 9, 14-17, July 23-28, Aug. 4-12 and doubtful gage-height record July 30; discharge computed on basis of power output. Fragmentary gage-height record Nov. 19, 20, 22, 26, 28, 29, Dec. 1, 4-6, 9-24, Dec. 27 to Jan. 8, Jan. 10, 13, 18, Feb. 12, July 22, 29, Aug. 3, 13; 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.

East Fork Lewis River near Heisson, Wash.

Location.- Water-stage recorder, lat. 45°50', long. 122°28', in NE¼ sec. 17, T. 4 N., R. 3 E., just upstream from Basket Creek, 1½ miles northeast of Heisson and 20 miles upstream from mouth. Datum of gage is 366.8 feet above mean sea level (from river-profile surveys).

Drainage area.- 125 square miles.

Records available.- September 1929 to September 1944.

Average discharge.- 15 years, 699 second-feet.

Extremes.- Maximum discharge during year, 4,730 second-feet Feb. 6 (gage height, 7.09 feet); minimum, 43 second-feet Sept. 11 (gage height, 0.18 foot).
1929-44: 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 or shifting control, which are fair. No diversion or regulation.

Rating table, water year 1943-44, except during period of shifting control
(gage height, in feet, and discharge, in second-feet)

0.4	59	1.6	254	4.0	1,320
.6	79	2.0	363	5.0	2,100
.8	104	2.5	535	6.0	3,160
1.0	133	3.0	751	7.0	4,570
1.3	187	3.5	1,010		

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	a45	369	688	731	424	410	616	596	1,570	179	85	84
2	a45	366	2,230	1,280	414	394	659	535	1,280	176	78	67
3	a45	479	3,420	901	479	444	704	497	875	164	78	57
4	a45	1,490	2,640	704	659	444	659	497	682	159	84	53
5	a45	1,680	1,720	616	1,620	427	575	479	575	154	76	50
6	a45	1,100	1,190	516	3,460	414	516	444	497	154	79	47
7	a45	775	982	479	2,060	410	497	414	444	147	78	47
8	a45	596	875	427	1,420	596	596	410	401	140	80	47
9	a45	497	728	401	1,070	2,290	555	516	366	136	74	46
10	a45	427	659	372	875	1,770	596	444	333	130	72	45
11	a140	372	575	366	775	1,130	659	410	311	126	66	45
12	a130	336	516	497	659	875	849	388	297	126	64	45
13	a80	305	479	444	638	728	1,130	385	295	124	63	59
14	a65	282	427	461	659	616	1,160	369	274	118	64	77
15	a60	259	394	630	575	555	1,220	420	256	115	62	68
16	a55	244	366	849	682	516	1,160	372	326	114	64	122
17	a65	240	342	1,070	638	516	1,040	348	461	110	61	182
18	176	226	322	901	704	516	955	357	369	101	66	123
19	209	217	305	728	659	575	1,070	330	357	99	62	84
20	233	249	292	616	616	535	1,100	311	322	104	59	91
21	635	226	276	555	575	479	955	313	300	103	57	133
22	799	206	266	497	516	461	849	351	287	99	57	157
23	575	198	266	682	479	921	849	417	269	98	58	108
24	1,980	189	384	682	497	875	1,010	516	249	96	63	85
25	1,730	179	751	638	479	728	955	479	235	99	64	75
26	842	176	616	575	535	704	875	420	226	91	66	70
27	555	178	516	516	479	659	824	375	217	87	60	66
28	414	179	444	479	461	638	824	348	202	81	57	64
29	407	174	407	444	427	638	751	319	189	80	54	173
30	444	408	372	410	-	638	682	295	181	81	49	147
31	414	-	375	385	-	638	-	289	-	89	49	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff	
						Inches	Acre-feet
October	10,458	1,980	45	337	2.70	3.11	20,740
November	12,622	1,680	174	421	3.37	3.76	25,040
December	23,823	3,420	266	768	6.14	7.09	47,250
Calendar year 1943	231,543	6,670	45	634	5.07	68.90	459,300
January	18,852	1,280	366	608	4.86	5.61	37,390
February	23,534	3,460	414	812	6.50	7.00	46,680
March	21,540	2,290	394	695	5.56	6.41	42,720
April	24,890	1,220	497	830	6.64	7.41	49,370
May	12,644	596	289	408	3.26	3.76	25,080
June	12,646	1,570	181	422	3.38	3.76	25,080
July	3,680	179	80	119	.952	1.09	7,300
August	2,049	85	49	66.1	.529	.61	4,060
September	2,517	182	45	83.9	.671	.75	4,990
Water year 1943-44	169,255	3,460	45	462	3.70	50.36	335,700

a No gage-height record; discharge computed on basis of records for Wind River near Carson.
Note.- Shifting-control method used Sept. 18-30.
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 1944. July 1911 to December 1919 at site 1 mile upstream, published as Cowlitz River at Lewis.

Average discharge.- 23 years, 1,531 second-feet.

Extremes.- Maximum discharge during year, 14,100 second-feet Dec. 3 (gage height, 10.04 feet); minimum, 300 second-feet Oct. 20.
1911-19, 1929-44: Maximum discharge, 36,600 second-feet Dec. 21, 1933 (gage height, 13.0 feet), from rating curve extended above 12,600 second-feet; minimum, 160 second-feet Nov. 21, 1929 (gage height, 2.10 feet).

Remarks.- Records fair. No diversion or regulation.

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	424	436	698	705	604	419	923	1,570	2,440	1,200	568	523
2	436	419	1,370	788	611	413	1,010	1,520	2,150	1,060	580	490
3	419	483	9,940	750	660	413	1,290	1,570	1,900	1,040	574	512
4	390	1,280	3,760	705	682	407	1,620	1,780	1,780	1,020	592	540
5	363	1,400	2,320	675	793	407	1,620	2,290	1,960	1,070	563	586
6	402	975	1,660	625	3,030	396	1,470	2,590	2,150	1,040	540	604
7	442	795	1,420	611	2,240	396	1,340	2,440	2,150	930	523	609
8	419	682	1,350	590	1,640	477	1,240	2,440	1,780	958	506	598
9	385	618	1,130	558	1,330	2,690	1,160	2,150	2,080	951	485	592
10	402	577	1,050	538	1,120	2,440	1,120	1,780	2,440	972	512	598
11	679	544	958	532	993	1,720	1,080	1,570	2,440	972	551	546
12	424	532	882	618	890	1,420	1,110	1,470	2,080	902	563	574
13	363	519	826	632	826	1,200	1,070	1,570	1,720	846	557	580
14	321	495	780	646	765	1,100	1,050	2,020	1,620	860	506	598
15	352	483	742	682	712	1,020	1,020	3,000	1,670	860	490	568
16	363	471	705	898	705	980	988	2,590	1,780	860	453	728
17	342	501	675	1,130	653	972	958	2,220	1,780	846	474	586
18	336	525	639	1,220	625	972	937	2,150	1,720	867	453	523
19	310	495	611	1,150	590	958	930	1,960	1,670	853	411	479
20	305	501	597	1,050	570	923	930	1,840	1,620	812	421	898
21	342	495	570	958	544	888	909	1,900	1,670	780	458	760
22	380	477	551	866	519	874	980	1,670	1,620	747	447	676
23	347	459	544	898	507	916	1,160	1,620	1,620	728	453	609
24	540	430	660	858	501	874	1,380	1,720	1,620	728	437	552
25	795	407	882	810	477	853	1,290	1,620	1,570	714	421	528
26	577	396	765	750	465	832	1,240	1,840	1,470	740	468	517
27	525	396	728	705	453	806	1,240	2,360	1,340	766	551	506
28	519	396	698	675	448	792	1,420	3,000	1,380	734	490	501
29	532	424	660	646	430	806	1,720	2,840	1,420	695	506	639
30	570	618	632	625	-	839	1,780	2,670	1,420	615	534	551
31	477	-	618	611	-	895	-	2,440	-	568	534	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff	
						Inches	Acre-feet
October	13,481	795	305	435	1.52	1.75	26,740
November	17,229	1,400	396	574	2.00	2.23	34,170
December	39,421	9,940	544	1,272	4.43	5.11	78,190
Calendar year 1943	547,996	9,940	305	1,501	5.23	71.02	1,087,000
January	23,505	1,220	532	758	2.64	3.05	46,620
February	24,383	3,030	430	841	2.93	3.16	48,360
March	29,098	2,690	396	939	3.27	3.77	57,720
April	35,985	1,780	909	1,200	4.18	4.66	71,380
May	64,200	3,000	1,470	2,071	7.22	8.32	127,300
June	54,060	2,440	1,340	1,802	6.28	7.01	107,200
July	26,734	1,200	568	862	3.00	3.46	53,030
August	15,621	592	411	504	1.76	2.02	30,980
September	17,571	898	479	586	2.04	2.28	34,850
Water year 1943-44	361,288	9,940	305	987	3.44	46.82	716,500

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°36'50", in NE¼ sec. 24, T. 12 N., R. 1 E., 1 mile upstream from Mill Creek, 2 miles downstream from Winston Creek, and 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 1944. August 1910 to November 1911 at site 2½ miles upstream, published as Cowlitz River at Mayfield.

Average discharge.- 10 years, 5,208 second-feet.

Extremes.- Maximum discharge during year, 22,500 second-feet Dec. 4 (gage height, 16.42 feet); minimum, 1,100 second-feet Sept. 12 (gage height, 7.76 feet).
1910-11, 1934-44: Maximum discharge, 42,600 second-feet Nov. 24, 1942 (gage height, 21.50 feet); minimum, 766 second-feet Nov. 30, Dec. 1, 1936 (gage height, 7.18 feet).
Flood of December 1933 is known to have exceeded that of Nov. 24, 1942.

Remarks.- Records excellent. No diversion or regulation.

Rating tables, water year 1943-44 (gage height, in feet, and discharge, in second-feet)

Oct. 1 to Dec. 3

7.9	1,120	9.5	3,450	13.0	11,500
8.3	1,600	10.0	4,370	15.0	17,500
8.6	2,000	11.0	6,420	16.0	21,000
9.0	2,610	12.0	8,800		

Dec. 4 to Sept. 30

7.8	1,140	9.0	2,660
8.2	1,580	9.5	3,470
8.6	2,080	10.0	4,370

Note.- Same as preceding table above 10.0 feet.

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,160	2,070	2,590	3,300	3,160	2,690	3,690	6,400	6,710	3,220	1,600	1,420
2	1,160	1,970	4,160	5,170	3,230	2,600	3,800	5,900	6,760	2,940	1,560	1,380
3	1,190	2,200	15,300	4,560	3,330	2,620	4,220	5,620	5,940	2,680	1,580	1,240
4	1,200	3,720	19,700	4,020	3,450	2,620	5,090	5,770	5,370	2,600	1,590	1,220
5	1,190	6,350	12,100	3,710	4,500	2,640	5,920	6,510	5,110	2,560	1,600	1,240
6	1,150	5,500	8,350	3,420	9,020	2,600	5,830	7,640	5,150	2,570	1,600	1,250
7	1,150	4,310	6,850	3,180	10,900	2,500	5,710	7,910	5,330	2,520	1,560	1,270
8	1,210	3,650	6,240	3,050	8,680	2,580	5,540	7,790	5,230	2,360	1,520	1,270
9	1,190	3,200	5,540	2,940	7,240	6,030	5,190	7,830	4,750	2,350	1,470	1,230
10	1,200	2,890	4,910	2,800	6,220	10,200	4,910	6,920	5,050	2,300	1,430	1,210
11	1,480	2,660	4,460	2,760	5,580	8,120	4,790	5,960	5,390	2,330	1,500	1,210
12	1,830	2,480	4,080	3,680	5,030	6,820	5,350	5,370	5,310	2,320	1,530	1,200
13	1,500	2,340	3,760	3,770	4,710	5,660	5,520	5,090	4,770	2,250	1,570	1,270
14	1,300	2,230	3,490	3,570	4,600	4,990	5,560	5,250	4,240	2,120	1,580	1,370
15	1,230	2,130	3,280	3,590	4,180	4,580	5,410	6,760	3,980	2,140	1,440	1,480
16	1,290	2,040	3,080	4,070	4,260	4,280	5,330	8,120	4,000	2,140	1,420	1,600
17	1,460	2,040	2,920	5,110	4,090	4,110	5,030	7,150	4,460	2,090	1,350	2,330
18	1,540	2,040	2,780	6,000	3,950	4,040	4,750	6,380	4,350	2,090	1,370	2,030
19	1,400	2,000	2,660	5,640	3,770	4,070	4,670	5,960	4,280	2,120	1,360	1,680
20	1,280	1,940	2,540	5,150	3,560	3,950	4,670	5,520	4,310	2,110	1,270	1,700
21	1,410	1,900	2,440	4,690	3,400	3,730	4,410	5,310	4,130	2,050	1,270	2,660
22	2,070	1,860	2,360	4,350	3,230	3,560	4,220	5,540	4,070	1,980	1,270	2,500
23	1,990	1,800	2,320	4,870	3,100	3,950	4,390	5,290	3,950	1,920	1,280	2,110
24	2,140	1,740	2,660	5,150	3,100	4,050	5,270	5,730	3,930	1,880	1,310	1,820
25	3,540	1,680	4,480	4,810	3,080	3,770	5,790	5,710	3,890	1,910	1,280	1,660
26	3,200	1,640	4,370	4,370	3,100	3,730	5,500	5,350	3,800	1,880	1,270	1,580
27	2,550	1,600	3,780	4,020	2,970	3,590	5,290	5,620	3,520	1,910	1,310	1,500
28	2,230	1,570	3,440	3,750	2,840	3,400	5,390	6,940	3,280	1,940	1,330	1,470
29	2,180	1,560	3,200	3,540	2,780	3,330	6,000	7,450	3,280	1,880	1,320	1,510
30	2,290	1,830	3,020	3,350	-	3,400	6,550	7,030	3,320	1,820	1,270	1,800
31	2,260	-	2,910	3,200	-	3,590	-	6,600	-	1,720	1,330	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff Inches	Runoff Acre-feet
October	51,970	3,540	1,150	1,676	1.20	1.38	103,100
November	74,940	6,350	1,560	2,498	1.78	1.99	148,600
December	153,770	19,700	2,320	4,960	3.54	4.08	305,000
Calendar year 1943	2,014,080	21,900	1,150	5,518	3.94	53.49	3,995,000
January	125,590	6,000	2,760	4,051	2.89	3.34	249,100
February	131,060	10,900	2,780	4,519	3.23	3.48	260,000
March	127,600	10,200	2,500	4,116	2.94	3.39	253,100
April	153,790	6,550	3,690	5,126	3.66	4.09	305,000
May	196,420	8,120	5,090	6,336	4.53	5.22	389,600
June	137,660	6,760	3,280	4,589	3.28	3.66	273,000
July	68,700	3,220	1,720	2,216	1.58	1.82	136,300
August	44,140	1,600	1,270	1,424	1.02	1.17	87,550
September	47,210	2,660	1,200	1,574	1.12	1.25	93,640
Water year 1943-44	1,312,850	19,700	1,150	3,587	2.56	34.87	2,604,000

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 1944.

Average discharge.- 17 years (1927-44), 8,259 second-feet.

Extremes.- Maximum discharge during year, 37,100 second-feet Dec. 4 (gage height, 16.24 feet); minimum, 1,490 second-feet Sept. 11, 12, 13 (gage height, 5.98 feet).
1926-44: Maximum discharge observed, 139,000 second-feet Dec. 23, 1933 (gage height, 31.6 feet, present datum), from rating curve extended above 65,000 second-feet; minimum discharge, 998 second-feet Nov. 7, 8, 1935.

Remarks.- Records excellent except those above 20,000 second-feet, which are good. No diversion or regulation.

Rating table, water year 1943-44 (gage height, in feet, and discharge, in second-feet)

6.1	1,670	8.0	5,010	12.0	16,400
6.5	2,290	9.0	7,190	14.0	25,200
7.0	3,130	10.0	9,750	16.0	35,800

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,700	3,170	4,230	5,640	5,250	4,440	5,420	8,590	8,850	4,040	2,100	1,820
2	1,700	2,990	5,910	11,400	5,420	4,250	5,460	7,950	9,500	3,710	2,030	1,900
3	1,700	2,290	25,300	9,470	5,760	4,950	5,840	7,500	8,280	3,380	2,020	1,740
4	1,720	5,500	33,700	7,770	6,040	5,400	6,680	7,450	7,430	3,260	2,050	1,640
5	1,720	9,170	20,400	6,840	7,120	5,340	7,620	7,980	6,840	3,130	2,050	1,640
6	1,720	8,510	13,500	6,150	15,000	5,130	7,790	9,150	6,730	3,110	2,050	1,640
7	1,670	6,710	10,900	5,570	18,200	4,770	7,720	9,720	6,820	3,130	2,030	1,640
8	1,720	5,570	10,100	5,230	14,500	4,690	7,860	9,640	6,840	2,940	2,000	1,660
9	1,730	4,770	8,900	4,970	11,700	8,440	7,530	9,890	6,210	2,890	1,970	1,620
10	1,740	4,290	7,860	4,650	9,890	14,700	7,010	9,250	6,210	2,880	1,920	1,580
11	1,910	3,890	7,100	4,480	8,850	12,600	6,840	8,040	6,620	2,820	1,910	1,560
12	2,420	3,620	6,460	6,960	8,010	10,200	8,140	7,330	6,750	2,840	1,960	1,550
13	2,270	3,380	5,910	7,600	7,380	8,770	9,120	6,820	6,280	2,760	1,970	1,620
14	1,940	3,220	5,440	6,870	7,650	7,720	9,440	6,680	5,590	2,650	2,020	1,910
15	1,860	3,060	5,070	6,800	6,960	7,010	9,150	7,960	5,150	2,600	1,920	2,000
16	1,880	2,940	4,750	7,960	6,800	6,520	9,060	10,000	5,030	2,590	1,860	2,100
17	2,030	2,930	4,440	9,120	6,890	6,210	8,380	9,250	5,800	2,550	1,790	2,860
18	2,340	2,960	4,210	9,830	6,660	5,990	7,690	8,280	5,800	2,520	1,790	2,790
19	2,150	2,890	4,000	9,120	6,890	5,990	7,550	7,770	5,590	2,520	1,800	2,340
20	2,000	2,840	3,810	8,260	6,320	5,910	7,910	7,240	5,550	2,570	1,730	2,110
21	2,070	2,790	3,650	7,530	5,950	5,550	7,310	6,800	5,270	2,480	1,680	2,790
22	3,030	2,720	3,510	6,890	5,500	5,320	6,800	7,360	5,190	2,450	1,680	3,690
23	3,130	2,640	3,450	9,120	5,130	5,930	6,730	7,170	4,990	2,370	1,700	2,880
24	3,790	2,570	3,890	10,600	5,010	6,280	7,430	7,450	4,910	2,320	1,680	2,500
25	6,460	2,500	6,750	9,280	5,110	5,910	8,800	7,600	4,890	2,340	1,700	2,240
26	5,500	2,430	7,480	8,080	5,290	5,690	8,180	7,100	4,730	2,320	1,680	2,100
27	4,170	2,390	6,300	7,190	5,110	5,710	7,740	7,100	4,520	2,310	1,670	2,000
28	3,490	2,370	5,590	6,500	4,810	5,360	7,570	8,080	4,150	2,320	1,700	1,940
29	3,260	2,340	5,090	6,020	4,670	5,170	7,960	9,060	4,040	2,340	1,700	2,150
30	3,650	2,930	4,710	5,610	-	5,130	8,620	8,750	4,020	2,270	1,660	2,570
31	3,510	-	4,520	5,320	-	5,290	-	8,240	-	2,230	1,670	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff	
						Inches	Acre-feet
October	79,980	6,460	1,670	2,580	1.15	1.33	158,600
November	110,380	9,170	2,290	3,679	1.64	1.83	218,900
December	246,930	33,700	3,450	7,965	3.56	4.10	489,800
Calendar year 1943	2,855,520	37,700	1,660	7,823	3.49	47.42	5,664,000
January	226,830	11,400	4,480	7,317	3.27	3.77	449,900
February	217,870	18,200	4,670	7,513	3.35	3.62	432,100
March	200,370	14,700	4,250	6,464	2.89	3.33	397,400
April	229,350	9,440	5,420	7,645	3.41	3.81	454,900
May	251,210	10,000	6,680	8,104	3.62	4.17	498,300
June	178,580	9,500	4,020	5,953	2.66	2.96	354,200
July	84,640	4,040	2,230	2,730	1.22	1.41	167,900
August	57,490	2,100	1,660	1,855	.828	.95	114,000
September	62,580	3,690	1,550	2,086	.931	1.04	124,100
Water year 1943-44	1,946,210	33,700	1,550	5,318	2.37	32.32	3,860,000

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 1944.

Average discharge.- 16 years (1910-11, 1929-44), 1,227 second-feet.

Extremes.- Maximum discharge during year, 2,460 second-feet Dec. 3 (gage height, 5.29 feet); minimum not determined, but may have occurred during period of no gage-height record Sept. 25-30.

1910-12, 1929-44: Maximum discharge, 20,000 second-feet Dec. 22, 1933 (gage height, 12.7 feet), from rating curve extended above 8,000 second-feet; minimum, 183 second-feet Dec. 30, 1936; minimum gage height, 2.55 feet Oct. 25, 1942.

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

Rating tables, water year 1943-44 (gage height, in feet, and discharge, in second-feet)

Oct. 1 to May 5				May 6 to Sept. 30					
2.9	326	4.0	935	2.7	304	3.6	655	5.0	2,050
3.3	486	4.4	1,320	3.0	386	4.0	935	5.5	2,750
3.6	650	5.0	2,050	3.3	500	4.4	1,320		

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	357	501	615	638	558	458	840	1,670	1,610	711	393	371
2	360	496	658	761	558	454	950	1,610	1,530	632	393	345
3	364	564	1,790	669	597	454	1,150	1,610	1,350	615	403	342
4	371	863	1,980	620	586	449	1,410	1,730	1,260	604	406	351
5	368	1,120	1,510	609	626	449	1,500	2,050	1,240	609	420	351
6	364	919	1,250	564	1,720	427	1,430	2,250	1,250	609	420	356
7	371	796	1,140	542	1,670	427	1,390	2,180	1,250	578	400	356
8	360	720	1,090	526	1,420	468	1,300	2,180	1,170	567	383	356
9	357	675	978	511	1,210	1,220	1,200	2,050	1,080	557	377	342
10	364	638	911	496	1,060	1,450	1,150	1,730	1,150	557	420	337
11	496	615	840	481	1,010	1,180	1,140	1,550	1,220	562	424	337
12	411	591	781	516	927	1,050	1,200	1,430	1,160	547	413	334
13	371	569	727	511	887	935	1,150	1,390	1,020	533	424	345
14	353	547	688	531	833	887	1,110	1,500	942	528	380	351
15	357	521	650	558	761	848	1,100	2,050	912	538	371	334
16	357	511	620	638	761	818	1,060	1,980	942	528	359	400
17	375	506	597	833	707	840	1,010	1,790	1,040	428	365	420
18	368	506	574	833	675	863	978	1,610	1,030	533	365	383
19	350	491	547	788	644	887	969	1,540	1,010	538	345	351
20	346	496	526	747	609	855	952	1,430	978	519	340	462
21	383	486	511	713	603	803	911	1,440	960	500	348	500
22	423	472	496	682	569	774	935	1,380	935	471	340	443
23	398	463	481	781	552	811	1,070	1,310	935	475	326	396
24	781	449	580	761	552	761	1,360	1,280	919	492	332	362
25	994	440	788	720	526	740	1,360	1,220	927	505	329	a350
26	700	432	682	675	516	727	1,330	1,240	896	496	351	a340
27	603	423	632	626	486	682	1,350	1,430	777	496	351	a340
28	564	419	603	603	491	675	1,480	1,670	744	492	351	a330
29	552	415	580	586	472	682	1,870	1,730	750	475	342	a400
30	564	536	558	569	-	727	1,790	1,610	757	450	356	a390
31	526	-	542	558	-	796	-	1,530	-	406	362	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff	
						Inches	Acre-feet
October	13,908	994	346	449	1.39	1.60	27,590
November	17,180	1,120	415	573	1.77	1.98	34,080
December	24,925	1,980	481	804	2.49	2.87	49,440
Calendar year 1943	477,301	5,400	346	1,308	4.05	54.96	946,800
January	19,646	833	481	634	1.96	2.26	38,970
February	22,586	1,720	472	779	2.41	2.60	44,800
March	23,597	1,450	427	761	2.36	2.72	46,800
April	36,247	1,790	840	1,208	3.74	4.17	71,890
May	51,170	2,250	1,220	1,651	5.11	5.89	101,500
June	31,764	1,610	744	1,059	3.28	3.66	63,000
July	16,651	711	406	537	1.66	1.92	33,030
August	11,589	424	326	374	1.16	1.33	22,990
September	11,075	500	330	369	1.14	1.28	21,970
Water year 1943-44	280,338	2,250	326	766	2.37	32.28	556,100

a No gage-height record; discharge computed on basis of records for 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 1944.

Extremes.- Maximum discharge during year, 9,050 second-feet Dec. 3 (gage height, 11.78 feet), from rating curve extended above 2,400 second-feet; minimum, 66 second-feet Sept. 11, 12.

1941-44: Maximum discharge, 9,850 second-feet Nov. 23, 1942 (gage height, 12.21 feet), from rating curve extended above 2,400 second-feet; minimum, that of Sept. 11, 12, 1944.

Remarks.- Records excellent except those above 4,000 second-feet, which are good. No diversion or regulation.

Rating tables, water year 1943-44 (gage height, in feet, and discharge, in second-feet)

Oct. 1 to Dec. 2				Dec. 3 to Sept. 30					
3.5	60	4.5	257	3.7	81	4.7	314	7.0	1,770
3.7	86	4.7	323	3.9	114	5.0	422	8.0	2,840
3.9	118	5.0	440	4.1	152	5.5	660	9.0	4,190
4.1	156	5.5	675	4.3	198	6.0	970	10.0	5,760
4.3	202	6.0	970	4.5	252	6.5	1,340	11.0	7,520

Note.- Same as following table above 6.0 feet.

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	71	248	675	856	569	472	590	638	602	196	100	112
2	68	273	2,380	1,640	605	451	600	574	605	188	99	107
3	70	457	7,160	1,180	666	459	660	530	507	184	100	89
4	71	1,520	3,580	970	750	459	702	512	463	179	102	81
5	79	1,770	1,960	840	1,440	476	690	516	422	174	99	76
6	79	1,110	1,380	720	3,520	476	616	498	392	174	99	74
7	73	785	1,180	638	2,220	455	720	476	362	172	99	72
8	70	605	1,080	595	1,590	530	810	472	355	165	102	70
9	71	496	905	559	1,260	2,940	780	564	331	159	102	69
10	79	428	810	512	1,040	2,420	750	516	308	156	100	68
11	225	372	702	512	938	1,540	750	467	292	150	94	66
12	169	330	616	1,080	810	1,180	970	434	279	148	91	66
13	125	296	554	1,080	780	970	1,080	442	285	146	91	79
14	110	276	512	970	720	840	1,150	414	270	142	94	175
15	111	254	467	970	654	750	1,150	548	255	138	91	148
16	178	237	430	1,260	780	672	1,150	507	261	136	89	302
17	212	267	399	1,680	750	638	1,040	503	317	130	87	362
18	263	263	373	1,910	720	605	938	426	298	127	86	288
19	197	231	359	1,500	702	605	938	411	352	123	84	216
20	165	223	341	1,220	649	569	970	380	362	123	83	371
21	285	210	324	1,000	605	530	872	377	314	121	80	403
22	970	202	314	872	559	512	810	422	292	119	78	377
23	533	195	311	1,180	569	750	810	606	273	118	78	288
24	648	200	544	1,260	564	750	905	1,000	255	116	81	235
25	785	183	1,540	1,110	564	672	905	872	244	116	86	203
26	519	176	1,180	970	564	672	840	702	235	112	91	179
27	387	180	938	840	540	622	780	600	224	109	87	163
28	309	183	780	750	516	574	780	526	216	106	80	156
29	299	176	660	672	494	559	750	476	206	104	78	198
30	327	365	585	616	-	585	720	434	198	102	74	216
31	273	-	559	569	-	605	-	414	-	102	76	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff	
						Inches	Acre-feet
October	7,821	970	68	252	1.59	1.84	15,510
November	12,511	1,770	176	417	2.64	2.94	24,820
December	33,598	7,160	311	1,084	6.86	7.91	66,640
Calendar year 1943	253,719	7,160	68	695	4.40	59.71	503,300
January	30,531	1,910	512	985	6.23	7.19	60,560
February	26,138	3,520	494	901	5.70	6.15	51,840
March	24,338	2,940	451	785	4.97	5.73	48,270
April	25,226	1,150	590	841	5.32	5.94	50,040
May	16,257	1,000	377	524	3.32	3.83	32,250
June	9,775	605	198	326	2.06	2.30	19,390
July	4,335	196	102	140	.886	1.02	8,600
August	2,781	102	74	89.7	.568	.65	5,520
September	5,309	403	66	177	1.12	1.25	10,530
Water year 1943-44	198,620	7,160	66	543	3.44	46.75	394,000

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 South Fork 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 1944. September 1909 to August 1912 at site 2 miles downstream, published as Toutle River near Castle Rock.

Average discharge.- 20 years (1909-11, 1919-21, 1922-23, 1929-44), 1,919 second-feet.

Extremes.- Maximum discharge during year, 12,300 second-feet Dec. 3 (gage height, 9.80 feet); minimum, 272 second-feet Sept. 10-12 (gage height, 1.58 feet).
1909-12, 1919-23, 1929-44: 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 table, water year 1943-44 (gage height, in feet, and discharge, in second-feet)

1.7	325	3.0	1,190	5.0	3,700
1.9	430	3.5	1,640	6.0	5,620
2.1	550	4.0	2,200	8.0	9,360
2.5	820	4.5	2,890		

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	325	1,020	1,590	1,900	1,440	1,140	1,340	1,650	2,230	757	370	408
2	325	995	2,130	3,260	1,520	1,090	1,360	1,540	2,130	736	365	386
3	316	1,210	9,300	2,340	1,600	1,250	1,500	1,470	1,760	694	370	320
4	316	2,470	6,940	1,960	1,670	1,290	1,640	1,480	1,590	667	386	302
5	330	2,800	3,880	1,750	1,880	1,310	1,630	1,600	1,480	648	370	298
6	325	2,150	2,900	1,570	4,210	1,290	1,540	1,660	1,400	634	370	289
7	316	1,750	2,570	1,450	3,600	1,240	1,590	1,640	1,350	622	370	284
8	316	1,490	2,610	1,380	2,890	1,280	1,620	1,650	1,300	596	375	280
9	325	1,310	2,240	1,320	2,450	2,800	1,530	1,780	1,220	582	370	276
10	345	1,190	2,010	1,220	2,130	3,120	1,480	1,640	1,210	570	365	272
11	651	1,090	1,820	1,210	1,950	2,460	1,490	1,480	1,220	550	355	272
12	563	1,010	1,670	2,070	1,770	2,130	2,020	1,390	1,170	550	345	272
13	454	946	1,540	1,860	1,680	1,850	2,190	1,340	1,130	544	345	302
14	408	904	1,420	1,810	1,710	1,680	2,300	1,320	1,060	520	340	514
15	419	855	1,330	1,850	1,560	1,550	2,240	1,690	995	514	330	436
16	478	820	1,260	2,190	1,670	1,480	2,190	1,660	1,000	502	325	632
17	634	855	1,190	2,530	1,670	1,430	1,980	1,500	1,370	484	325	a570
18	654	827	1,130	2,300	1,640	1,380	1,820	1,400	1,200	478	325	a630
19	544	785	1,090	2,060	1,580	1,470	1,980	1,320	1,170	472	320	436
20	514	799	1,050	1,850	1,490	1,390	2,120	1,250	1,080	465	312	454
21	830	771	995	1,690	1,410	1,290	1,890	1,260	1,030	460	307	752
22	1,180	743	974	1,610	1,320	1,250	1,770	1,510	1,000	442	302	939
23	995	708	960	2,940	1,250	1,520	1,740	1,600	967	424	302	622
24	2,110	687	1,300	2,820	1,270	1,460	1,880	1,610	939	424	307	514
25	2,700	660	2,090	2,430	1,270	1,390	1,960	1,520	911	436	312	460
26	1,720	641	1,750	2,100	1,340	1,390	1,780	1,450	883	414	316	424
27	1,330	634	1,510	1,860	1,300	1,410	1,690	1,490	848	397	307	402
28	1,130	641	1,360	1,700	1,240	1,340	1,690	1,590	813	392	298	402
29	1,140	628	1,260	1,580	1,190	1,310	1,720	1,500	792	386	294	712
30	1,330	1,300	1,190	1,480	-	1,310	1,740	1,400	778	375	289	736
31	1,150	-	1,190	1,400	-	1,350	-	1,340	-	380	289	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff Inches	Runoff Acre-feet
October	24,173	2,700	316	780	1.65	1.90	47,950
November	32,689	2,800	628	1,090	2.30	2.56	64,840
December	64,249	9,300	960	2,073	4.37	5.04	127,400
Calendar year 1943	606,356	12,200	316	1,661	3.50	47.57	1,203,000
January	59,490	3,260	1,210	1,919	4.05	4.67	118,000
February	51,700	4,210	1,190	1,783	3.76	4.06	102,500
March	47,650	3,120	1,090	1,537	3.24	3.74	94,510
April	53,420	2,300	1,340	1,781	3.76	4.19	106,000
May	46,730	1,780	1,250	1,507	3.18	3.67	92,690
June	36,026	2,230	778	1,201	2.53	2.83	71,460
July	16,116	757	375	520	1.10	1.26	31,970
August	10,366	386	289	334	.705	.81	20,540
September	13,896	939	272	463	.977	1.09	27,560
Water year 1943-44	456,495	9,300	272	1,247	2.63	35.82	905,400

a No gage-height record; discharge computed on basis of recorded range in stage and records for Lewis River near Cougar.
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 1944.

Extremes.- Maximum discharge during year, 4,560 second-feet Dec. 3 (elevation, 456.34 feet; minimum, 67 second-feet Sept. 9-13.
1939-44: Maximum discharge, 6,770 second-feet Dec. 19, 1941; maximum elevation, 457.32 feet Nov. 23, 1942; minimum discharge, that of Sept. 9-13, 1944.

Remarks.- Records good. No diversion or regulation.

Rating tables, water year 1943-44 (elevation, in feet, and discharge, in second-feet)
(Shifting-control method used Dec. 4 to May 12)

Oct. 1 to May 12						May 13 to Sept. 30			
451.7	60	452.5	290	454.5	1,890	451.8	68	453.0	445
451.8	80	453.0	540	455.0	2,560	452.0	99	453.5	795
452.0	125	453.5	890	456.0	4,070	452.2	140	454.0	1,270
452.2	185	454.0	1,330			452.5	222		

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	76	330	628	712	442	294	380	486	747	152	92	114
2	74	330	1,060	1,250	469	283	395	436	670	154	89	96
3	74	430	3,500	890	540	362	452	410	524	150	89	81
4	74	1,110	2,280	712	614	375	492	410	451	145	94	76
5	78	1,060	1,340	670	726	370	464	442	385	140	89	72
6	78	789	1,000	510	1,640	362	425	452	355	138	90	71
7	76	607	898	458	1,280	344	452	430	322	138	89	69
8	74	486	842	420	994	380	464	425	300	131	92	68
9	74	420	698	390	789	1,100	447	480	276	131	90	67
10	82	370	621	357	670	1,090	420	415	261	127	89	67
11	213	326	540	352	600	850	436	362	243	122	85	67
12	146	294	480	642	522	698	649	334	232	125	81	67
13	118	269	430	564	498	576	733	327	236	122	81	75
14	105	252	395	594	480	504	761	314	216	116	82	138
15	115	241	370	677	430	452	761	463	203	112	81	103
16	134	227	344	962	469	430	740	412	219	110	81	180
17	179	238	318	1,050	452	415	656	355	350	107	79	197
18	173	220	302	914	447	390	582	322	273	105	81	136
19	155	210	286	754	420	415	677	309	257	105	79	108
20	143	216	272	642	395	380	761	273	232	107	78	118
21	303	199	258	564	370	352	670	288	219	105	76	256
22	447	185	252	528	348	344	600	355	213	103	76	283
23	352	179	248	1,060	326	516	588	396	200	99	76	167
24	1,120	173	442	986	330	447	614	423	194	99	76	138
25	1,250	167	761	761	330	400	614	385	186	101	78	120
26	747	164	621	698	357	400	552	360	178	97	78	110
27	522	161	516	600	348	405	522	350	175	94	76	105
28	410	158	447	528	334	385	534	345	169	92	74	103
29	430	161	395	474	314	380	540	318	162	89	72	160
30	452	618	362	436	-	380	534	292	157	89	72	169
31	380	-	362	405	-	380	-	276	-	94	71	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff	
						Inches	Acre-feet
October	8,654	1,250	74	279	2.36	2.73	17,160
November	10,590	1,110	158	353	2.99	3.34	21,000
December	21,268	3,500	248	686	5.81	6.70	42,180
Calendar year 1943	176,002	4,070	74	482	4.08	55.47	349,100
January	20,560	1,250	352	663	5.62	6.48	40,780
February	15,934	1,640	314	549	4.65	5.02	31,600
March	14,459	1,100	283	466	3.95	4.56	28,680
April	16,915	761	380	564	4.78	5.33	33,550
May	11,645	486	273	376	3.19	3.67	23,100
June	8,606	747	157	287	2.43	2.71	17,070
July	3,599	154	89	116	.983	1.13	7,140
August	2,536	94	71	81.8	.693	.80	5,030
September	3,581	283	67	119	1.01	1.13	7,100
Water year 1943-44	138,346	3,500	67	378	3.20	43.60	274,400

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 1944.

Extremes.- Maximum discharge during year, 5,030 second-feet Dec. 3 (gage height, 9.82 feet); minimum, 25 second-feet Oct. 1, 2, Sept. 11.

1940-44: Maximum discharge, that of Nov. 23, 1942 and Dec. 3, 1943; minimum, that of Oct. 1, 2, 1943 and Sept. 11, 1944.

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 fair. No diversion or regulation.

Rating tables, water year 1943-44 (gage height, in feet, and discharge, in second-feet)

Oct. 1 to Dec. 2				Dec. 3 to Sept. 30					
2.1	27	3.3	248	2.1	29	3.3	254	6.0	1,520
2.3	52	3.7	360	2.3	54	3.7	372	7.0	2,280
2.5	82	4.3	574	2.5	84	4.3	585	8.0	3,160
2.9	156	5.0	910	2.9	158	5.0	910	9.0	4,150

Note.- Same as following table above 5.0 feet.

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	25	123	307	428	285	271	231	213	220	73	45	51
2	25	142	2,500	566	268	276	216	198	162	70	42	36
3	27	179	3,880	442	265	353	203	187	142	68	44	31
4	28	886	1,780	385	344	347	194	176	132	67	46	30
5	33	706	1,020	344	659	338	182	167	123	65	44	28
6	32	460	710	305	1,230	308	180	160	117	65	42	28
7	27	345	566	276	805	308	220	154	114	64	42	28
8	26	274	467	265	625	314	356	158	110	60	44	28
9	28	230	388	246	510	1,290	308	185	105	60	44	27
10	37	204	335	226	436	882	282	173	99	58	44	26
11	90	179	296	256	402	645	308	152	96	58	40	25
12	44	164	271	474	344	510	388	150	96	58	39	26
13	49	148	246	405	360	432	446	140	105	68	39	62
14	42	138	226	510	415	375	492	132	96	55	37	84
15	62	130	210	654	341	335	605	180	92	53	37	54
16	59	123	196	1,020	398	302	625	156	92	53	39	143
17	99	148	185	910	350	276	547	144	108	51	37	152
18	84	134	173	755	415	257	492	138	105	48	36	82
19	68	126	167	625	388	254	547	134	170	50	35	62
20	63	125	158	528	363	231	547	125	115	55	34	152
21	146	113	152	450	347	213	474	130	103	51	33	115
22	293	110	150	408	311	237	422	140	98	49	31	91
23	204	106	146	625	285	528	395	160	92	48	31	74
24	383	101	341	585	332	369	375	165	87	49	34	64
25	313	99	730	528	329	338	353	144	84	48	36	58
26	211	97	446	464	353	360	314	134	81	46	37	54
27	164	96	356	408	317	329	285	125	79	45	36	51
28	140	97	302	363	317	299	260	119	76	44	34	50
29	150	97	268	329	294	279	244	114	73	42	31	225
30	156	306	244	299	-	262	228	110	71	42	30	150
31	130	-	238	276	-	246	-	119	-	48	34	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff Inches	Runoff Acre-feet
October	3,249	383	25	105	1.59	1.83	6,440
November	6,186	886	96	206	3.12	3.49	12,270
December	17,454	3,880	146	563	8.53	9.84	34,620
Calendar year 1943	103,948	3,880	25	285	4.32	58.58	206,200
January	14,355	1,020	226	463	7.02	8.09	28,470
February	12,088	1,230	265	417	6.32	6.81	23,980
March	11,764	1,290	213	379	5.74	6.63	23,330
April	10,719	625	180	357	5.41	6.04	21,260
May	4,682	213	110	151	2.29	2.64	9,290
June	3,243	220	71	108	1.64	1.83	6,430
July	1,701	73	42	54.9	.832	.96	3,370
August	1,177	46	30	38.0	.576	.66	2,330
September	2,087	225	25	69.6	1.05	1.18	4,140
Water year 1943-44	88,705	3,880	25	242	3.67	50.00	175,900

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 1944. March 1916 to September 1917 (gage heights only) at site 3 miles upstream. August 1927 to December 1933 at site 1 mile upstream.

Average discharge.- 10 years (1934-44), 157 second-feet.

Extremes.- Maximum discharge during year, 2,740 second-feet Dec. 2 (gage height, 10.50 feet); minimum, 4.4 second-feet Sept. 11, 12 (gage height, 0.68 foot).
1927-44: 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 1943-44 (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used June 2 to Sept. 30)

0.6	4.0	1.6	24	3.0	97	6.0	720
.8	6.6	1.9	32	3.5	151	7.0	1,050
1.0	10	2.2	44	4.0	230	8.0	1,450
1.3	16	2.6	63	5.0	450	8.5	1,670

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	6.3	98	239	391	131	105	109	78	163	20	9.1	7.9
2	6.0	107	1,340	578	125	100	95	71	110	19	8.6	6.8
3	6.2	124	1,690	354	125	127	85	65	82	18	8.4	6.2
4	6.2	556	837	261	170	138	79	59	72	17	8.7	5.6
5	7.1	528	475	217	315	154	76	56	62	17	8.7	5.2
6	7.1	345	306	167	555	141	74	53	56	17	8.6	5.0
7	6.6	235	239	140	388	137	95	51	52	17	8.6	4.8
8	6.2	166	207	127	271	144	160	53	49	16	10	4.8
9	6.0	130	155	115	204	498	212	69	45	15	9.3	4.7
10	8.2	109	131	102	163	359	158	64	41	14	8.6	4.6
11	62	90	115	118	146	254	159	53	39	14	8.0	4.4
12	32	78	103	261	126	192	210	50	39	15	7.7	4.6
13	20	69	90	192	129	154	285	47	42	14	7.6	5.3
14	16	62	83	404	166	131	315	45	39	13	7.4	12
15	18	56	76	522	130	115	341	52	35	12	7.2	13
16	24	51	69	600	227	104	321	52	34	12	6.9	22
17	80	70	65	572	205	95	263	51	41	12	6.8	35
18	65	66	61	380	232	85	216	48	44	11	6.6	24
19	102	61	56	271	200	105	393	47	38	11	6.2	14
20	66	63	54	205	182	105	357	43	33	12	6.0	15
21	159	56	51	160	160	88	263	45	31	12	5.9	14
22	234	51	49	151	136	87	205	62	30	11	5.8	12
23	149	49	49	271	120	337	172	62	28	11	5.8	10
24	660	46	157	298	124	243	172	62	26	10	5.9	8.6
25	430	44	258	261	131	219	149	53	26	10	6.2	7.6
26	243	42	168	210	172	246	126	50	24	10	6.0	7.1
27	173	42	135	170	139	223	113	46	24	9.5	6.8	6.6
28	120	41	115	144	127	187	100	44	22	8.9	6.3	6.8
29	120	41	100	126	117	158	92	42	20	8.7	6.2	8.6
30	135	280	89	113	-	137	85	40	20	8.6	5.5	23
31	115	-	100	102	-	124	-	40	-	9.3	5.6	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff Inches	Runoff Acre-feet
October	3,088.9	660	6.0	99.6	3.11	3.59	6,130
November	3,756	556	41	125	3.91	4.37	7,450
December	7,662	1,690	49	247	7.72	8.90	15,200
Calendar year 1943	51,867.1	1,690	5.6	142	4.44	60.28	102,900
January	7,983	600	102	258	8.06	9.28	15,830
February	5,416	555	117	187	5.84	6.29	10,740
March	5,292	498	85	171	5.34	6.15	10,500
April	5,480	393	74	183	5.72	6.37	10,870
May	1,653	78	40	53.3	1.67	1.92	3,280
June	1,367	163	20	45.6	1.42	1.59	2,710
July	405.0	20	8.6	13.1	.409	.47	803
August	225.0	10	5.5	7.26	.227	.26	446
September	309.2	35	4.4	10.3	.322	.36	613
Water year 1943-44	42,637.1	1,690	4.4	116	3.62	49.55	84,570

Peak discharge.- Oct. 24 (2 p.m.) 1,140 sec.-ft.; Nov. 4 (7 a.m.) 786 sec.-ft.; Dec. 2 (7 p.m.) 2,740 sec.-ft.; Dec. 3 (9 a.m.) 2,160 sec.-ft.; Jan. 2 (1 a.m.) 831 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 1944.

Extremes.- Maximum discharge during year, 16,000 second-feet Dec. 3 (gage height, 11.80 feet); minimum, 78 second-feet Sept. 11-13 (gage height, 1.45 feet).
1939-44: Maximum discharge, 31,100 second-feet Dec. 19, 1941 (gage height, 17.13 feet); minimum, that of Sept. 11-13, 1944.

Remarks.- Records good. No known diversion or regulation.

Rating table, water year 1943-44 (gage height, in feet, and discharge, in second-feet)

1.4	65	3.0	895	7.0	5,140
1.6	119	3.5	1,260	8.0	6,850
1.8	190	4.0	1,660	9.5	10,100
2.2	380	5.0	2,620	11.5	15,200
2.6	625	6.0	3,760		

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	102	1,050	2,520	3,020	2,290	1,790	2,230	1,450	930	302	a155	110
2	102	1,110	7,250	6,120	2,330	1,690	2,100	1,340	1,040	298	a145	104
3	104	1,470	15,500	6,090	2,400	1,730	1,850	1,240	951	293	a144	96
4	104	3,760	14,100	4,930	2,620	2,270	1,680	1,160	839	283	a144	93
5	107	4,670	10,100	4,030	3,440	2,740	1,560	1,100	755	278	a144	88
6	110	4,110	6,550	3,350	6,160	2,780	1,480	1,040	703	273	a144	85
7	110	3,280	4,690	2,850	6,570	2,660	1,510	972	651	269	a146	90
8	107	2,520	3,720	2,480	5,680	2,630	1,760	951	625	269	149	88
9	107	2,000	3,050	2,200	4,590	4,070	2,290	1,020	586	255	149	85
10	126	1,640	2,540	1,980	3,790	4,250	2,050	1,070	554	232	145	82
11	283	1,420	2,200	1,860	3,270	3,750	1,940	986	521	224	139	80
12	380	1,230	1,920	2,560	2,870	3,320	2,270	944	508	219	136	78
13	278	1,100	1,700	2,860	2,570	2,930	2,640	888	508	215	132	82
14	260	1,010	1,540	3,530	2,800	2,560	3,330	839	502	211	126	96
15	237	916	1,480	4,200	2,800	2,280	3,650	881	495	211	119	119
16	224	846	1,290	5,810	2,930	2,020	3,940	923	489	203	116	156
17	307	867	1,220	6,260	3,160	1,880	3,820	895	514	198	113	215
18	418	853	1,140	5,450	3,170	1,790	3,530	825	528	190	113	241
19	625	825	1,070	4,550	3,080	1,670	3,560	790	528	182	113	198
20	625	825	1,010	3,840	2,900	1,700	3,790	755	534	190	113	182
21	909	776	958	3,280	2,780	1,600	3,420	736	495	190	107	179
22	1,730	736	909	2,900	2,460	1,510	3,040	804	453	186	104	163
23	1,520	710	867	3,860	2,210	2,290	2,800	853	435	182	104	152
24	4,360	670	1,170	5,260	2,170	2,410	2,620	853	413	179	104	145
25	3,990	644	2,540	5,810	2,010	2,390	2,480	797	391	175	107	142
26	2,970	612	2,460	5,080	2,210	2,650	2,210	748	369	163	110	132
27	1,910	599	2,180	4,230	2,130	3,070	2,000	710	359	160	116	119
28	1,420	586	1,910	3,570	2,010	3,190	1,830	677	343	a159	113	110
29	1,220	580	1,710	3,060	1,900	2,990	1,660	644	327	a155	110	175
30	1,240	1,750	1,550	2,660	-	2,740	1,560	618	317	a152	104	264
31	1,120	-	1,510	2,360	-	2,470	-	606	-	a152	102	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff Inches	Runoff Acre-feet
October	27,105	4,360	102	874	1.31	1.51	53,760
November	43,165	4,670	580	1,439	2.16	2.41	85,620
December	102,354	15,500	867	3,302	4.95	5.71	203,000
Calendar year 1943	799,356	24,600	102	2,190	3.23	44.57	1,586,000
January	120,040	6,260	1,860	3,872	5.81	6.69	238,100
February	89,300	6,570	1,900	3,079	4.62	4.98	177,100
March	77,820	4,250	1,510	2,510	3.76	4.34	154,400
April	74,600	3,940	1,480	2,487	3.73	4.16	148,000
May	28,115	1,450	606	907	1.36	1.57	55,770
June	16,663	1,040	317	555	.832	.93	33,050
July	6,648	302	152	214	.321	.37	13,190
August	3,866	155	102	125	.187	.22	7,670
September	3,949	264	78	132	.198	.22	7,830
Water year 1943-44	593,625	15,500	78	1,622	2.43	33.11	1,177,000

a No gage-height record; discharge computed on basis of recorded range in stage and records for Youngs River near Astoria.
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.- 159 square miles (revised).

Records available.- July 1931 to September 1944. December 1914 to November 1916 (incomplete) at site three-quarters of a mile downstream.

Average discharge.- 13 years (1931-44), 1,168 second-feet.

Extremes.- Maximum discharge during year, 11,900 second-feet Dec. 2 (gage height, 11.65 feet); minimum, 55 second-feet Sept. 10-12 (gage height, 1.01 feet).
1914-16, 1931-44: 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, that of Sept. 10-12, 1944.

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

Rating tables, water year 1943-44 (gage height, in feet, and discharge, in second-feet)

Oct. 1 to Dec. 1				Dec. 2 to Sept. 30					
1.1	68	3.0	840	1.0	53	2.5	555	6.6	4,450
1.4	133	3.6	1,290	1.2	90	3.0	870	8.3	6,720
1.7	215	4.4	1,920	1.4	138	3.6	1,330	10.6	10,200
2.1	360	5.5	3,170	1.7	225	4.4	2,040		
2.5	545			2.1	375	5.4	3,070		

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	78	515	2,130	2,050	926	670	765	594	958	180	108	76
2	76	578	6,300	3,540	1,110	646	718	545	814	177	104	70
3	76	903	10,200	2,280	1,170	779	682	505	658	171	102	67
4	78	3,090	6,090	1,680	1,680	842	634	478	566	168	102	65
5	82	2,920	3,510	1,370	2,760	870	594	460	555	165	102	62
6	82	2,020	2,370	1,140	5,160	863	572	438	464	157	99	60
7	76	1,460	1,800	975	3,470	884	700	420	428	157	99	58
8	74	1,120	1,470	863	2,370	1,150	926	420	407	152	102	58
9	74	917	1,200	779	1,800	3,070	1,190	469	379	152	102	56
10	88	769	1,030	718	1,460	2,570	1,120	446	355	146	99	55
11	304	673	912	718	1,270	1,850	1,110	415	343	141	92	55
12	228	600	800	1,460	1,090	1,450	1,240	395	327	136	92	55
13	174	540	718	1,410	1,030	1,200	1,430	375	323	136	a90	76
14	143	495	664	1,670	1,110	1,030	1,750	359	307	133	a88	95
15	131	455	604	1,910	996	891	2,070	399	295	130	a86	90
16	131	432	560	2,460	1,070	793	2,040	383	292	126	84	141
17	197	450	530	2,550	1,110	724	1,780	367	303	123	82	188
18	215	418	496	2,110	1,160	670	1,550	355	292	118	82	136
19	293	400	469	1,680	1,070	676	1,720	347	288	118	80	104
20	328	400	446	1,390	1,000	652	1,900	335	264	136	78	99
21	630	380	428	1,180	926	588	1,650	327	253	123	74	99
22	1,100	360	407	1,050	835	599	1,410	359	246	118	70	102
23	945	348	399	1,900	758	1,510	1,270	403	236	116	70	95
24	2,520	328	776	2,190	758	1,350	1,180	428	225	111	70	86
25	2,250	320	1,800	1,900	765	1,150	1,050	407	216	111	74	80
26	1,280	309	1,370	1,590	870	1,090	940	383	213	108	80	74
27	910	309	1,090	1,350	807	1,030	842	355	206	108	76	72
28	697	293	905	1,160	758	968	765	339	194	106	72	72
29	633	286	779	1,010	718	933	700	327	188	102	68	312
30	633	1,430	700	891	-	891	652	315	182	102	65	363
31	562	-	700	807	-	842	-	315	-	106	67	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff Inches	Runoff Acre-feet
October	15,088	2,520	74	487	3.06	3.53	29,930
November	23,518	3,090	286	784	4.93	5.50	46,650
December	51,653	10,200	399	1,666	10.5	12.08	102,500
Calendar year 1943	357,963	11,700	74	981	6.17	83.74	710,000
January	47,781	3,540	718	1,541	9.69	11.18	94,770
February	40,007	5,160	718	1,380	8.68	9.36	79,350
March	33,231	3,070	588	1,072	6.74	7.77	65,910
April	34,950	2,070	572	1,165	7.33	8.17	69,320
May	12,463	594	315	402	2.53	2.92	24,720
June	10,777	958	182	359	2.26	2.52	21,380
July	4,123	180	102	133	.836	.97	8,200
August	2,659	108	65	85.8	.54	.62	5,270
September	3,021	363	55	101	.635	.71	5,990
Water year 1943-44	279,281	10,200	55	763	4.80	65.33	554,000

a No gage-height record; discharge interpolated.
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 1944.

Average discharge.- 13 years, 944 second-feet.

Extremes.- Maximum discharge during year, 8,690 second-feet Dec. 2 (gage height, 7.66 feet); minimum, 62 second-feet Sept. 10-12 (gage height, 0.40 foot).
1931-44: 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 tables, water year 1943-44 (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Oct. 1-23)

Oct. 1 to Dec. 1				Dec. 2 to Sept. 30					
0.4	65	1.8	550	0.4	62	1.8	575	4.6	3,500
.6	107	2.2	800	.6	105	2.2	815	5.6	5,050
.8	160	2.6	1,100	.8	158	2.6	1,120	6.9	7,300
1.1	250	3.2	1,690	1.1	255	3.2	1,690		
1.4	360	3.8	2,380	1.4	375	3.9	2,510		

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	79	470	1,490	1,340	776	654	678	608	1,680	210	122	96
2	79	490	4,460	2,590	815	636	642	564	1,190	204	115	82
3	78	616	7,300	1,800	836	782	597	531	892	198	115	76
4	81	2,280	5,130	1,360	1,110	796	570	500	738	194	115	72
5	87	2,370	3,060	1,130	1,880	836	536	480	642	191	112	68
6	83	1,720	2,030	945	3,520	822	520	455	570	185	112	66
7	77	1,250	1,560	829	2,650	836	580	435	515	182	112	66
8	71	982	1,260	750	1,920	908	708	440	475	179	118	66
9	69	814	1,060	684	1,510	1,830	900	515	450	182	118	64
10	86	702	908	636	1,240	1,800	808	480	416	176	108	62
11	140	610	808	642	1,120	1,380	815	440	393	170	100	62
12	157	544	732	976	968	1,150	922	420	370	167	98	64
13	124	490	666	885	915	976	1,140	398	370	164	96	78
14	107	455	614	1,000	1,040	864	1,620	384	352	161	96	112
15	105	422	575	1,140	945	770	1,950	416	334	152	94	103
16	100	400	531	1,400	1,090	708	1,930	398	326	152	94	167
17	190	404	500	1,830	1,080	660	1,710	388	344	147	91	234
18	202	380	480	1,640	1,120	614	1,500	370	330	141	94	152
19	257	376	450	1,340	1,050	624	1,540	362	344	147	89	112
20	260	376	430	1,130	968	602	1,600	344	302	158	87	103
21	652	352	406	968	908	553	1,390	348	283	144	82	96
22	856	332	393	900	815	548	1,220	411	276	138	82	100
23	728	316	384	1,290	750	1,180	1,120	460	266	133	82	89
24	2,430	306	696	1,360	750	1,020	1,080	480	255	130	84	82
25	1,880	296	1,560	1,300	763	922	968	435	248	128	89	78
26	1,100	285	1,140	1,160	843	945	871	411	244	125	94	76
27	800	288	922	1,020	776	922	796	384	234	122	87	72
28	634	282	796	908	738	864	732	366	227	120	82	72
29	592	282	702	808	702	822	690	348	220	118	78	203
30	598	1,010	642	744	-	770	642	334	214	118	72	320
31	517	-	648	684	-	732	-	362	-	125	76	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff Inches	Runoff Acre-feet
October	13,220	2,430	69	426	2.98	3.44	26,220
November	19,900	2,370	282	663	4.64	5.18	39,470
December	42,333	7,300	384	1,366	9.55	11.01	83,970
Calendar year 1943	309,944	9,060	69	849	5.94	80.62	614,800
January	35,189	2,590	636	1,135	7.94	9.15	69,800
February	33,598	3,520	702	1,159	8.10	8.74	66,640
March	27,526	1,830	548	888	6.21	7.16	54,600
April	30,775	1,950	520	1,026	7.17	8.00	61,040
May	13,267	608	334	428	2.99	3.45	26,310
June	13,500	1,680	214	450	3.15	3.51	26,780
July	4,861	210	118	157	1.10	1.26	9,640
August	2,994	122	72	96.6	.676	.78	5,940
September	3,093	320	62	103	.720	.80	6,130
Water year 1943-44	240,256	7,300	62	656	4.59	62.48	476,500

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 1944 (discontinued).

Average discharge.- 16 years, 43.5 second-feet.

Extremes.- Maximum discharge during year, 404 second-feet Dec. 3 (gage height, 3.21 feet); minimum, 2.1 second-feet Oct. 3; minimum gage height, 0.41 foot Sept. 11-13.
1928-44: 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 above 70 second-feet, those for periods of no gage-height record, and those for Sept. 29, 30, which are poor. No diversion above station. Flow slightly regulated by dam at outlet of Meadow Lake.

Rating tables, water year 1943-44 (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Sept. 29, 30)

Oct. 1 to Dec. 3						Dec. 4 to Sept. 30			
0.4	1.8	1.3	30	2.6	200	0.4	2.5	1.6	53
.6	4.9	1.6	53	3.0	315	.6	5.5	1.9	83
.8	9.2	1.9	83	3.2	400	.8	10.0	2.2	125
1.0	15.0	2.2	125			1.0	16.5	2.6	200
						1.3	32	3.0	315

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2.4	22	75	63	47	37	36	33	45	8.5	4.1	3.0
2	2.4	20	175	112	54	36	33	31	36	8.2	4.1	3.0
3	2.2	26	386	94	54	47	31	28	30	8.0	4.1	3.0
4	2.4	85	290	74	61	54	30	27	25	8.0	4.1	3.0
5	2.5	106	173	61	93	55	28	26	23	7.8	4.1	2.9
6	2.8	81	115	51	162	55	28	24	21	7.5	4.1	2.9
7	2.5	61	85	44	155	56	30	23	19	7.3	4.0	2.9
8	2.5	50	65	39	119	62	38	22	18	7.3	4.1	2.9
9	2.5	40	54	36	96	94	39	25	17	7.3	4.3	2.8
10	2.8	34	46	34	80	102	36	26	16	7.1	4.3	2.8
11	4.9	29	40	36	71	88	38	24	15	7.1	4.3	2.8
12	6.1	26	36	63	63	72	44	23	15	6.9	4.3	2.6
13	6.5	23	33	62	59	60	48	21	15	6.9	4.1	2.8
14	6.5	22	30	65	68	52	73	20	14	6.9	3.8	2.9
15	6.1	20	28	78	63	47	89	23	14	6.5	3.7	3.0
16	5.9	18	26	85	64	42	89	22	13	6.1	3.7	3.5
17	6.3	17	24	96	64	39	80	21	14	6.1	3.5	4.8
18	6.5	17	24	87	64	36	69	20	14	6.1	3.5	5.2
19	7.4	17	22	74	63	36	74	20	13	5.9	3.5	5.2
20	9.0	19	20	63	58	35	85	19	12	5.9	3.4	5.0
21	18	19	20	55	54	31	79	18	12	5.9	3.4	4.8
22	38	17	20	49	49	31	69	19	12	5.9	3.4	4.5
23	39	16	20	74	44	58	64	22	11	5.9	3.3	4.5
24	156	15	31	81	44	57	61	24	11	5.7	3.3	4.3
25	134	14	64	72	44	51	55	23	10	5.5	3.3	4.0
26	71	14	55	64	45	47	48	21	10	5.2	3.3	3.8
27	47	13	45	58	42	46	44	20	10	5.2	3.4	3.7
28	36	13	39	52	41	43	40	19	10	5.0	3.4	3.4
29	30	13	35	47	40	41	37	18	9.2	4.8	3.4	4.1
30	27	38	32	43	-	40	35	18	8.8	4.3	3.2	5.2
31	25	-	32	39	-	37	-	18	-	4.1	3.0	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff: Inches	Runoff: Acre-feet
October	711.2	156	2.2	22.9	1.91	2.20	1,410
November	905	106	13	30.2	2.52	2.80	1,800
December	2,140	386	20	69.0	5.75	6.63	4,240
Calendar year 1943	15,671.3	502	2.2	42.9	3.57	48.56	31,070
January	1,951	112	34	62.9	5.24	6.05	3,870
February	1,961	162	40	67.6	5.63	6.08	3,890
March	1,587	102	31	51.2	4.27	4.92	3,150
April	1,550	89	28	51.7	4.31	4.80	3,070
May	698	33	18	22.5	1.88	2.16	1,380
June	493.0	45	8.8	16.4	1.37	1.53	978
July	198.9	8.5	4.1	6.42	.535	.62	395
August	115.5	4.3	3.0	3.73	.311	.36	229
September	109.3	5.2	2.6	3.64	.303	.34	217
Water year 1943-44	12,419.9	386	2.2	33.9	2.82	38.49	24,630

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 1944.

Average discharge.- 24 years (1906-11, 1925-44), 1,581 second-feet.

Extremes.- Maximum discharge during year, 12,800 second-feet Oct. 24 (gage height, 15.27 feet); minimum, 74 second-feet Sept. 10-12 (gage height, 2.27 feet).

1905-12, 1924-44: Maximum discharge, 34,600 second-feet Nov. 22, 1909, from rating curve extended above 19,000 second-feet; minimum observed, 51 second-feet Dec. 6, 7, 1929.

Maximum discharge known, 40,800 second-feet Nov. 20, 1921 (gage height, 31.6 feet, site and datum then in use), from rating curve extended above 19,000 second-feet.

Remarks.- Records good. No diversion above station. Some diurnal fluctuation caused by log pond at Valsetz.

Rating tables, water year 1943-44 (gage height, in feet, and discharge, in second-feet)

Oct. 1-24				Oct. 25 to Sept. 30					
4.6	920	8.5	3,530	2.4	96	4.0	630	8.5	3,910
5.2	1,240	10.0	5,100	2.6	138	4.6	920	10.0	5,430
6.0	1,715	12.0	7,730	2.8	188	5.2	1,270	12.0	7,790
7.0	2,400	14.0	10,700	3.1	277	6.0	1,780	13.5	9,950
				3.5	418	7.0	2,540		

Note.- Same as following table below 4.6 feet.

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	100	1,000	1,960	2,540	*1,310	885	825	860	2,050	234	131	94
2	100	1,040	5,020	3,680	1,510	850	780	795	1,640	228	125	96
3	100	1,460	9,890	2,690	1,640	1,290	745	725	1,200	225	125	87
4	102	5,170	8,340	2,080	2,150	1,420	730	680	953	219	125	85
5	110	4,240	5,230	1,740	3,940	1,440	688	644	820	213	123	82
6	112	2,890	3,450	1,450	5,970	1,380	648	612	720	205	118	78
7	104	2,200	2,560	1,270	4,600	1,380	702	572	639	199	118	78
8	98	1,750	2,030	1,120	3,230	1,530	926	549	594	196	123	76
9	100	1,460	1,670	1,020	2,520	3,840	964	585	549	196	134	75
10	127	1,250	1,420	953	2,010	3,360	942	554	515	194	118	74
11	594	1,080	1,260	964	1,740	2,500	986	523	478	191	112	74
12	320	953	1,110	1,520	1,490	1,980	1,030	502	454	185	108	74
13	246	855	986	1,360	1,380	1,660	1,350	474	450	180	104	83
14	210	780	895	1,420	1,520	1,410	1,980	446	426	178	102	100
15	199	725	825	1,670	1,360	1,250	2,420	474	395	172	100	96
16	191	670	765	1,980	1,490	1,110	2,480	470	399	170	98	138
17	384	666	711	2,420	1,530	997	2,280	490	395	167	98	162
18	438	662	666	2,160	1,620	905	2,010	490	376	162	98	162
19	554	666	630	1,840	1,560	905	2,320	454	366	165	98	120
20	380	775	598	1,570	1,460	870	2,700	418	344	167	96	96
21	1,940	684	567	1,360	1,370	790	2,370	407	327	160	94	96
22	2,480	621	536	1,230	1,220	745	2,020	454	317	150	92	102
23	2,020	580	540	2,010	1,100	1,640	1,790	478	307	145	91	96
24	9,030	544	764	2,360	1,050	1,550	1,650	502	300	145	94	85
25	5,340	519	1,650	2,180	1,040	1,340	1,520	462	284	143	100	83
26	2,930	494	1,420	1,920	1,130	1,280	1,350	434	280	140	102	80
27	2,000	494	1,190	1,670	1,020	1,170	1,230	399	262	136	100	80
28	1,530	482	1,010	1,460	986	1,080	1,100	376	262	131	94	78
29	1,350	474	910	1,300	948	1,010	1,010	362	255	131	89	100
30	1,280	1,340	825	1,160	-	942	936	348	246	125	87	222
31	1,100	-	825	1,050	-	880	-	395	-	129	87	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff	
						Inches	Acre-feet
October	35,569	9,030	98	1,147	5.68	6.55	70,550
November	36,524	5,170	474	1,217	6.02	6.72	72,440
December	60,253	9,890	536	1,944	9.62	11.09	119,500
Calendar year 1943	492,085	19,200	92	1,348	6.67	90.60	976,000
January	53,147	3,680	953	1,714	8.49	9.78	105,400
February	55,894	5,970	948	1,858	9.20	9.92	106,900
March	45,389	3,840	745	1,400	6.93	7.99	86,060
April	42,482	2,700	648	1,416	7.01	7.82	84,260
May	15,934	860	348	514	2.54	2.93	31,600
June	16,603	2,050	246	553	2.74	3.06	32,930
July	5,381	234	125	174	.861	.99	10,670
August	3,284	134	87	106	.525	.60	6,510
September	2,952	222	74	98.4	.487	.54	5,860
Water year 1943-44	369,412	9,890	74	1,009	5.00	67.99	732,700

Peak discharge.- Oct. 24 (2 p.m.) 12,800 sec.-ft.; Dec. 3 (12:30 a.m.) 12,100 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 1944.

Extremes.- Maximum discharge during year, 8,890 second-feet Oct. 24 (gage height, 11.72 feet); minimum, 72 second-feet Sept. 11, 12 (gage height, 1.51 feet).
1939-44: Maximum discharge, 22,900 second-feet Jan. 1, 1943 (gage height, 19.98 feet), from rating curve extended above 12,000 second-feet; minimum, 62 second-feet Sept. 1, 1940 (gage height, 1.43 feet).

Remarks.- Records good except those for periods of no gage-height record, which are fair. No regulation; a few small diversions above station for irrigation.

Rating table, water year 1943-44 (gage height, in feet, and discharge, in second-feet)

1.5	70	3.0	580	6.0	2,400
1.7	108	3.5	830	7.0	3,240
2.0	191	4.0	1,110	8.0	4,200
2.3	288	4.5	1,410	9.0	5,270
2.6	402	5.0	1,730	10.5	7,150

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	84	655	2,280	2,660	1,180	1,220	a920	984	765	225	130	91
2	84	655	3,020	4,860	1,310	1,180	a880	929	730	222	130	95
3	85	1,010	5,580	3,130	1,410	1,400	a840	874	695	219	130	91
4	89	3,990	6,920	2,260	1,500	2,110	a800	820	610	213	130	89
5	91	3,260	5,190	1,890	1,910	2,310	a760	780	529	206	130	85
6	93	2,100	3,250	1,600	2,610	2,190	a740	755	479	203	128	82
7	89	1,610	2,380	1,410	3,200	2,000	a760	720	440	197	126	78
8	84	1,290	1,950	1,280	2,660	1,870	a780	695	410	194	128	77
9	84	1,080	1,640	1,180	2,360	1,870	a800	710	394	194	128	77
10	95	946	1,430	1,100	2,120	2,050	h780	675	374	188	123	75
11	257	846	1,270	1,030	1,920	2,050	h1,110	645	358	185	118	73
12	238	770	1,150	1,020	1,740	1,960	a1,400	625	343	185	110	72
13	161	695	1,030	968	1,610	1,840	a1,900	595	354	176	108	77
14	130	670	951	940	1,590	1,740	a2,400	566	351	173	106	91
15	120	615	890	1,160	1,610	1,670	a2,900	600	332	167	104	98
16	116	575	830	1,240	1,570	1,610	a2,600	571	324	164	100	110
17	191	562	785	1,710	1,640	1,550	h2,280	571	332	161	100	120
18	238	557	745	1,670	1,680	1,480	a2,180	571	320	158	102	130
19	194	575	715	1,440	1,720	1,420	a2,350	a540	313	158	104	116
20	324	675	680	1,280	1,680	1,370	2,560	a510	302	170	100	102
21	1,010	635	650	1,160	1,630	1,330	2,310	h479	295	170	95	93
22	1,550	566	620	1,070	1,540	1,280	1,980	a480	292	158	93	95
23	1,090	534	600	1,590	1,430	1,250	1,780	a470	285	150	91	104
24	6,620	506	700	2,200	1,360	1,280	1,690	a460	271	144	95	93
25	3,660	484	1,320	2,230	1,300	1,310	1,550	a450	264	141	100	87
26	1,720	466	1,400	1,930	1,290	1,320	1,450	436	257	139	104	84
27	1,150	453	1,140	1,680	1,300	a1,290	1,330	410	251	136	102	80
28	885	440	978	1,540	1,290	a1,200	1,220	390	241	133	95	78
29	790	431	868	1,380	1,260	a1,100	1,120	374	238	130	89	106
30	820	1,410	795	1,280	-	a1,040	1,050	362	232	128	87	203
31	730	-	775	1,180	-	a980	-	386	-	128	85	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff Inches	Runoff Acre-feet
October	22,872	6,620	84	738	2.21	2.55	45,370
November	29,061	3,990	431	969	2.90	3.24	57,640
December	52,532	6,920	600	1,695	5.07	5.85	104,200
Calendar year 1943	496,515	19,400	79	1,360	4.07	55.29	985,000
January	51,068	4,860	940	1,647	4.93	5.69	101,300
February	49,420	3,200	1,180	1,704	5.10	5.50	98,020
March	48,270	2,310	980	1,557	4.66	5.37	95,740
April	45,220	2,900	740	1,507	4.51	5.04	89,690
May	18,433	984	362	595	1.78	2.05	36,560
June	11,381	765	232	379	1.13	1.27	22,570
July	5,315	225	128	171	.512	.59	10,540
August	3,371	130	85	109	.326	.38	6,690
September	2,852	203	72	95.1	.285	.32	5,660
Water year 1943-44	339,795	6,920	72	928	2.78	37.85	674,000

Peak discharge.- Oct. 24 (2 p.m.) 8,890 sec.-ft.; Dec. 4 (4 p.m.) 8,070 sec.-ft.
a No gage-height record; discharge computed on basis of records for Siletz River at Siletz and Lake Creek below Triangle Lake.
h Computed from staff-gage reading.
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 1944.

Average discharge.- 13 years, 196 second-feet.

Extremes.- Maximum discharge during year, 650 second-feet Dec. 5 (gage height, 3.39 feet); minimum, 2.7 second-feet Aug. 1, caused by closure of temporary dam at lake outlet; minimum daily, 7.9 second-feet Sept. 11, 12.
1931-44: 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, that of Aug. 1, 1944; minimum daily, 5.5 feet Sept. 30 to Oct. 3, 1939.

Remarks.- Records good except those for July 1 to Sept. 30, which are poor. No diversion above station. Temporary dam at lake outlet in use Aug. 1 to Sept. 30.

Rating table, water year 1943-44 (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used June 16 to Sept. 30)

0.5	8.3	1.3	64	2.6	346
.7	15	1.6	107	3.0	485
.9	26	1.9	163	3.3	610
1.1	42	2.2	234		

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	12	107	147	165	161	147	107	137	64	28	e.3	9
2	14	99	234	359	185	139	104	128	73	27	9.2	9
3	15	104	356	455	209	161	101	121	80	26	10	9
4	14	196	529	388	229	224	97	121	81	26	10	8
5	12	392	628	316	282	274	94	119	78	26	10	8
6	11	381	588	265	395	271	93	114	72	25	10	8
7	12	296	441	229	466	247	94	109	67	24	10	8
8	12	232	337	204	448	229	101	105	62	23	10	8.1
9	12	185	271	185	402	244	105	102	58	23	10	8.1
10	13	157	226	172	349	287	104	101	54	22	11	8.1
11	16	137	197	163	307	290	109	99	51	21	11	7.9
12	18	122	174	159	274	268	124	97	49	21	11	7.9
13	20	112	159	153	244	239	161	93	47	19	10	8.6
14	20	102	145	147	234	214	244	90	46	18	10	8.6
15	19	96	135	147	229	195	356	90	44	18	9	8.6
16	18	90	126	151	224	176	385	88	42	18	9	8.9
17	20	84	117	163	229	165	356	87	42	17	10	11
18	20	81	114	185	234	155	313	87	42	17	10	10
19	22	81	107	190	234	149	296	84	41	18	10	10
20	27	87	104	178	222	143	319	80	40	19	10	10
21	45	91	99	163	209	135	334	74	39	18	9	10
22	88	90	94	153	197	126	304	73	38	18	9	9.8
23	143	84	91	170	181	132	274	72	38	17	9	9.8
24	340	80	96	214	170	139	252	70	37	17	9	9.8
25	537	76	130	255	163	137	237	68	36	17	10	9.8
26	489	72	176	252	167	132	216	65	34	16	9	9.8
27	319	69	183	229	165	130	195	62	33	16	9	9.5
28	216	68	163	204	161	126	172	60	32	15	9	9.5
29	163	67	145	183	155	121	159	58	31	15	9	9.8
30	137	85	130	167	-	116	147	56	29	15	e	10
31	121	-	122	155	-	112	-	57	-	13	8	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff Inches	Runoff Acre-feet
October	2,925	537	11	94.4	1.89	2.18	5,800
November	3,923	392	67	131	2.62	2.92	7,780
December	6,564	628	91	212	4.24	4.88	13,020
Calendar year 1943	73,401	3,380	11	201	4.02	54.59	145,600
January	6,519	455	147	210	4.20	4.85	12,930
February	7,125	466	155	246	4.92	5.30	14,130
March	5,623	290	112	181	3.62	4.18	11,150
April	5,953	385	93	198	3.96	4.43	11,810
May	2,767	137	56	89.3	1.79	2.06	5,490
June	1,480	81	29	49.3	.986	1.10	2,940
July	613	28	13	19.8	.396	.46	1,220
Augnst	296.5	11	8.0	9.56	.191	.22	588
September	272.6	11	7.9	9.09	.182	.20	541
Water year 1943-44	44,061.1	628	7.9	120	2.40	32.78	87,400

Note.- No gage-height record Aug. 12 to Sept. 7; discharge computed on basis of records for Long Tom River at 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 1944.

Extremes.- Maximum discharge during year, 12,200 second-feet Nov. 4 (gage height, 11.94 feet); minimum, 35 second-feet Sept. 12, 13 (gage height, 0.84 foot).
1910-11, 1939-44: Maximum discharge, 29,900 second-feet Dec. 31, 1942 (gage height, 18.96 feet), from rating curve extended above 10,000 second-feet; minimum observed, 20 second-feet Sept. 3, 4, 1911.

Remarks.- Records good. Small diversions above station for irrigation; no regulation.

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

Rating table, water year 1943-44 (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Aug. 1 to Sept. 30)

0.8	33	1.5	173	2.9	740	6.0	3,150
.9	44	1.7	235	3.5	1,080	7.0	4,200
1.1	77	2.0	340	4.1	1,470	8.5	6,150
1.3	120	2.4	505	5.0	2,220	9.3	7,380

Disoharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	52	384	242	456	541	590	730	1,340	429	170	72	46
2	50	294	256	1,230	1,260	554	745	1,200	424	159	75	64
3	50	770	352	922	1,300	568	775	1,140	590	153	77	56
4	50	7,300	482	665	1,440	685	750	1,120	510	145	72	48
5	50	3,470	690	765	4,830	878	690	1,170	436	142	70	44
6	48	1,710	514	1,140	3,510	884	631	1,190	392	136	70	42
7	48	1,090	420	812	2,410	985	586	1,090	368	130	68	42
8	47	765	368	650	2,100	1,620	622	997	340	125	63	40
9	46	608	330	559	2,260	4,010	608	889	322	122	61	38
10	46	496	302	505	1,850	3,830	608	785	305	120	59	37
11	66	416	280	456	1,490	2,450	1,030	705	284	118	58	36
12	102	360	263	478	1,220	1,800	1,410	655	270	113	56	36
13	72	316	242	622	1,040	1,400	1,620	604	256	106	53	35
14	58	284	229	618	1,040	1,160	2,180	595	242	106	53	37
15	56	263	213	550	1,030	965	3,000	618	238	102	53	41
16	56	242	206	523	991	872	2,650	572	246	99	52	42
17	73	229	194	564	1,060	856	2,190	568	235	97	52	48
18	122	219	188	546	973	906	1,740	577	242	95	52	61
19	97	219	182	492	916	864	1,960	518	284	95	52	56
20	121	238	176	464	845	840	2,120	492	284	93	50	48
21	452	294	167	440	785	740	1,930	462	312	89	48	44
22	496	256	165	412	710	685	1,640	460	312	85	47	43
23	452	232	156	568	650	933	1,620	432	277	83	47	42
24	785	213	165	973	608	1,850	1,940	404	260	81	47	a41
25	1,050	197	336	856	586	1,390	1,840	380	242	79	46	a40
26	878	185	456	710	600	1,120	1,650	376	225	77	46	a39
27	469	176	368	604	590	950	1,520	388	209	75	44	a38
28	440	170	312	523	608	823	1,610	456	200	81	44	a37
29	436	167	280	469	608	765	1,580	452	185	81	43	a42
30	740	182	260	444	-	760	1,470	428	176	75	42	53
31	528	-	246	444	-	750		424	-	73	41	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff Inches	Runoff Acre-feet
October	8,036	1,050	46	259	0.570	0.66	15,940
November	21,765	7,300	167	726	1.60	1.78	43,170
December	9,040	690	156	292	.643	.74	17,930
Calendar year 1943	387,587	15,500	46	1,062	2.34	31.76	768,800
January	19,460	1,230	412	628	1.38	1.60	38,640
February	37,661	4,830	541	1,306	2.88	3.10	75,140
March	37,523	4,010	554	1,210	2.67	3.07	74,430
April	43,445	3,000	586	1,448	3.19	3.56	86,170
May	21,507	1,340	376	694	1.53	1.76	42,660
June	9,094	590	176	303	.667	.74	18,040
July	3,309	170	73	107	.236	.27	6,560
August	1,713	77	41	55.3	.122	.14	3,400
September	1,316	64	35	43.9	.0967	.11	2,610
Water year 1943-44	214,109	7,300	35	585	1.29	17.53	424,700

Peak discharge.- Nov. 4 (2:30 p.m.) 12,200 sec.-ft.; Feb. 5 (12:30 p.m.) 7,640 sec.-ft.
a No gage-height record; discharge computed on basis of weather records and records for station near Brockway.
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 1928, January 1942 to September 1944.

Extremes.- Maximum discharge during year, 14,600 second-feet Nov. 4 (gage height, 12.5 feet, from graph based on gage readings); minimum observed, 56 second-feet Sept. 15, 16 (gage height, 2.88 feet).

1905-12, 1923-26, 1942-44: 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). Flood of February 1890 reached a stage just 2 feet higher, according to John Lander, who lived nearby at the time of both floods (discharge, about 85,000 second-feet).

Remarks.- Records fair. Gage read twice daily. Many small diversions above station for irrigation; no regulation.

Cooperation.- Gage-height record furnished by Bureau of Reclamation.

Rating table, water year 1943-44 (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Aug. 11 to Sept. 30)

2.7	50	4.2	380	7.0	2,770
3.0	80	4.6	570	8.0	4,260
3.3	125	5.0	800	9.0	6,160
3.6	180	5.5	1,160	10.0	8,340
3.9	265	6.0	1,590	11.0	10,800

Disoharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	97	912	480	835	1,450	1,660	1,540	2,560	652	316	132	72
2	91	704	603	1,620	3,080	1,590	1,490	2,260	674	293	132	69
3	91	1,210	614	2,760	3,620	1,710	1,480	2,070	728	290	128	68
4	90	9,240	764	2,290	3,800	2,440	1,760	1,940	1,020	272	132	83
5	94	10,800	1,870	2,510	7,360	4,740	1,390	1,890	814	265	132	88
6	103	4,960	1,800	3,660	8,520	5,060	1,280	1,880	d740	262	132	81
7	103	2,940	1,370	3,110	6,120	4,400	1,100	1,810	a670	250	131	76
8	98	2,080	982	2,390	5,360	4,960	1,070	1,680	a620	247	127	70
9	100	1,680	905	1,820	6,280	6,300	1,190	1,540	a580	238	125	67
10	100	1,270	835	1,660	6,460	9,500	1,160	1,410	560	223	119	63
11	d115	1,020	752	1,540	5,040	6,570	d1,500	1,280	500	211	112	62
12	d170	884	686	1,240	4,010	4,920	2,540	1,180	470	211	112	60
13	d160	746	647	1,300	3,290	3,960	d3,000	989	452	208	111	60
14	153	686	620	1,630	3,010	3,220	3,580	989	416	198	106	59
15	117	620	540	1,650	3,100	2,760	4,430	1,020	407	192	102	57
16	119	565	510	1,470	2,840	2,350	5,060	1,020	402	185	100	56
17	122	530	490	1,450	2,770	2,130	4,630	975	402	176	92	65
18	164	500	456	1,490	2,980	2,070	3,910	982	402	176	91	69
19	166	490	443	1,420	3,030	2,060	3,720	968	466	172	91	79
20	200	510	452	1,180	2,680	2,060	4,980	870	692	166	91	94
21	d400	746	434	1,170	2,510	1,830	4,790	814	680	158	87	93
22	495	740	416	1,100	2,210	1,650	4,110	782	625	156	84	88
23	505	636	398	1,220	1,980	1,640	3,660	758	576	151	83	81
24	1,010	581	412	3,410	1,780	3,010	4,030	716	515	153	80	78
25	2,900	525	642	3,760	1,650	3,380	4,120	669	475	151	83	76
26	2,560	475	2,010	3,040	1,630	2,410	3,790	642	438	144	80	72
27	1,790	434	1,690	2,480	1,690	2,240	3,360	614	402	142	80	70
28	898	430	1,330	2,010	1,700	1,970	3,180	603	372	a140	83	68
29	877	407	1,080	1,740	1,670	1,760	2,960	680	352	135	78	69
30	884	402	926	1,520	-	1,660	2,760	664	340	135	78	76
31	1,200	-	770	1,430	-	1,590	-	664	-	134	73	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff	
						Inches	Acre-feet
October	15,972	2,900	90	515	0.314	0.36	31,680
November	47,723	10,800	402	1,591	.970	1.08	94,660
December	25,927	2,010	398	836	.510	.59	51,430
Calendar year 1943	946,507	44,500	90	2,593	1.58	21.47	1,877,000
January	59,905	3,760	835	1,932	1.18	1.36	118,800
February	101,620	8,520	1,450	3,504	2.14	2.30	201,600
March	97,600	9,500	1,590	3,148	1.92	2.21	193,600
April	87,570	5,060	1,070	2,919	1.78	1.99	173,700
May	36,919	2,560	603	1,191	.726	.84	73,230
June	16,442	1,020	340	548	.334	.37	32,610
July	6,150	316	134	198	.121	.14	12,200
August	3,187	132	73	103	.063	.07	6,320
September	2,169	94	56	72.3	.044	.05	4,300
Water year 1943-44	501,184	10,800	56	1,369	.835	11.36	994,100

a No gage-height record; discharge computed on basis of records for station at Tiller.
d Gage height doubtful; discharge computed on basis of records for station at Tiller.
Time basis: Pacific war time. To convert war time to standard time, subtract 1 hour.

UMPQUA RIVER BASIN

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 1944 (incomplete prior to November 1908).

Average discharge.- 39 years, 7,020 second-feet.

Extremes.- Maximum discharge during year, 52,000 second-feet Nov. 5 (gage height, 18.0 feet, from graph based on gage readings); minimum observed, 824 second-feet Sept. 12-17 (gage height, 1.08 feet).

1905-44: Maximum discharge, 172,000 second-feet Feb. 21, 1927, Dec. 31, 1942, from rating curve extended above 50,000 second-feet; maximum gage height, 41.1 feet Dec. 31, 1942; minimum discharge observed, 640 second-feet July 18, 1926 (gage height, 0.71 foot).

Maximum stage known, 45.5 feet sometime in 1861.

Remarks.- Records good. Gage read twice daily. Some diversions for irrigation from streams in South Umpqua River Basin, but low flow probably only slightly affected. Slight fluctuation 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 1943-44 (gage height, in feet, and discharge, in second-feet)

1.0	760	4.0	4,330	11.0	23,400
1.5	1,190	5.0	6,060	13.0	30,700
2.0	1,710	6.0	8,200	16.0	43,100
2.5	2,290	7.0	10,700		
3.0	2,920	9.0	16,500		

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,070	4,030	2,130	3,010	4,180	4,490	4,810	7,520	2,880	1,660	1,080	872
2	1,060	3,420	2,700	4,570	8,440	4,410	4,650	6,980	3,010	1,560	1,070	872
3	1,060	3,100	2,930	10,400	11,500	4,330	4,650	6,260	3,080	1,540	1,080	888
4	1,060	13,000	3,600	7,970	11,500	5,780	4,650	5,870	3,880	1,500	1,090	904
5	1,060	41,400	4,650	6,870	13,200	9,920	4,650	5,680	3,600	1,470	1,080	888
6	1,060	16,800	5,780	10,700	25,500	10,400	4,330	5,780	3,180	1,450	1,060	880
7	1,040	10,700	4,810	9,670	20,900	9,420	4,100	5,680	2,840	1,420	1,060	872
8	1,030	7,740	4,100	7,300	15,900	8,800	3,960	5,410	2,720	1,390	1,050	864
9	1,050	5,780	3,670	5,960	15,900	11,200	4,260	5,150	2,580	1,370	1,040	856
10	1,020	4,810	3,360	5,240	16,500	22,300	4,330	4,900	2,510	1,350	1,010	848
11	1,050	4,180	3,040	4,900	13,700	17,500	4,410	4,570	2,400	1,340	1,010	840
12	1,070	3,740	2,860	4,410	11,000	12,600	7,970	4,330	2,280	1,320	992	824
13	1,230	3,350	2,710	4,260	9,040	10,200	9,040	4,100	2,190	1,280	965	824
14	1,190	3,060	2,620	4,650	8,080	8,320	11,000	3,880	2,120	1,260	947	824
15	1,150	2,860	2,400	4,810	7,970	7,080	13,400	3,880	2,050	1,240	929	824
16	1,160	2,650	2,250	4,570	7,630	6,260	15,600	3,880	1,990	1,230	920	824
17	1,150	2,490	2,190	4,330	7,520	5,680	14,000	3,740	1,990	1,210	920	840
18	1,180	2,390	2,110	4,490	7,970	5,500	12,000	3,670	2,040	1,210	920	896
19	1,280	2,300	2,040	4,570	7,740	5,320	11,000	3,670	2,000	1,190	920	947
20	1,360	2,310	2,010	4,180	7,190	5,320	12,900	3,460	2,180	1,190	912	992
21	1,490	2,280	1,990	3,960	6,660	5,150	13,400	3,240	2,360	1,190	904	1,070
22	3,350	2,800	1,970	3,740	6,160	4,810	12,000	3,170	2,470	1,170	904	1,040
23	4,730	2,650	1,900	3,600	5,590	4,730	10,400	3,130	2,340	1,170	904	983
24	7,300	2,410	1,890	6,260	5,150	7,860	11,200	3,050	2,150	1,150	904	965
25	7,860	2,270	2,010	10,200	4,810	13,400	11,800	2,910	2,040	1,140	904	947
26	8,440	2,130	3,670	8,560	4,650	10,700	11,000	2,780	1,950	1,120	888	938
27	6,160	2,040	5,060	7,080	4,730	7,970	9,920	2,690	1,880	1,120	888	920
28	4,260	1,980	4,410	5,870	4,650	6,060	9,040	2,720	1,810	1,100	888	920
29	3,530	1,910	3,810	4,980	4,650	5,410	8,560	2,860	1,730	1,110	880	938
30	3,460	1,970	3,310	4,570	-	5,150	8,080	2,920	1,680	1,120	872	938
31	4,410	-	3,060	4,260	-	4,980	-	2,880	-	1,080	872	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff	
						Inches	Acre-feet
October	77,310	8,440	1,020	2,494	0.678	0.78	153,300
November	162,540	41,400	1,910	5,418	1.47	1.64	322,400
December	94,940	6,780	1,890	3,063	.832	.96	188,300
Calendar year 1943	2,763,680	141,000	1,020	7,572	2.06	27.93	5,481,000
January	179,940	10,700	3,010	5,805	1.58	1.82	356,900
February	278,410	25,500	4,180	9,600	2.61	2.81	552,200
March	251,050	22,300	4,330	8,098	2.20	2.54	498,000
April	261,110	15,600	3,960	8,704	2.37	2.64	517,900
May	130,760	7,520	2,690	4,218	1.15	1.32	259,400
June	71,920	3,880	1,680	2,397	.651	.73	142,700
July	39,650	1,660	1,080	1,279	.348	.40	78,640
August	29,863	1,090	872	963	.262	.30	59,230
September	27,038	1,070	824	901	.245	.27	53,630
Water year 1943-44	1,604,531	41,400	824	4,384	1.19	16.21	3,183,000

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 1944.

Average discharge.- 14 years (1929-31, 1932-44), 89.9 second-feet.

Extremes.- Maximum discharge observed during year, 381 second-feet Nov. 4 (gage height, 3.54 feet); minimum observed, 5.7 second-feet Sept. 10, 11 (gage height, 1.67 feet). 1926-44: Maximum discharge observed, 3,850 second-feet Feb. 6, 1938 (gage height, 9.6 feet), Jan. 21, 1943 (gage height, 9.5 feet), from rating curve extended above 1,130 second-feet; minimum observed, 4 second-feet Sept. 9-19, 1929, Aug. 26-28, 1931, Aug. 21 to Sept. 6, 1934.

Remarks.- Records good except those for periods of shifting control, which are fair. Staff gage read once daily. Small diversions above station for irrigation.

Rating table, water year 1943-44, except periods of shifting control
(gage height, in feet, and discharge, in second-feet)

1.6	3.5	2.0	25	2.8	168
1.7	6.7	2.2	49	3.0	221
1.8	11	2.4	80	3.3	308
1.9	17	2.6	120	3.6	400

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	11	31	24	32	64	62	77	86	32	17	11	9.7
2	11	33	25	95	90	61	75	77	35	17	10	9.3
3	11	64	35	80	143	77	74	74	46	16	10	9.3
4	11	381	49	77	194	163	70	69	35	16	10	8.4
5	11	194	46	72	249	148	66	64	31	15	11	8.4
6	11	72	35	67	184	141	61	61	30	15	11	7.6
7	11	52	32	58	143	134	62	58	30	15	11	7.6
8	11	39	32	49	194	168	61	55	29	14	11	6.7
9	9.7	35	31	46	281	296	58	52	27	14	10	6.4
10	11	32	29	43	194	269	61	52	26	14	9.7	5.7
11	13	30	29	41	143	205	112	50	24	13	9.3	5.7
12	13	29	28	39	120	168	93	49	23	13	9.3	6.1
13	12	27	28	43	105	138	110	46	23	13	9.3	7.6
14	12	25	26	46	112	112	120	45	22	13	8.4	8.4
15	12	25	25	48	114	96	143	49	22	13	8.0	9.3
16	15	24	23	50	110	91	160	50	23	12	8.0	11
17	16	23	23	56	95	88	143	49	25	12	8.0	11
18	17	23	23	49	90	99	129	46	29	12	8.4	11
19	16	38	22	46	84	97	163	42	35	12	8.4	10
20	22	33	22	45	80	93	189	38	31	11	8.4	9.3
21	45	32	22	43	77	86	168	36	28	11	8.4	8.4
22	27	30	21	41	72	80	158	35	25	11	8.0	8.0
23	33	28	21	67	66	91	153	35	23	10	8.0	8.0
24	78	25	24	103	62	99	168	34	22	11	8.0	7.6
25	116	25	45	88	60	103	148	32	21	11	7.6	7.1
26	64	24	39	74	64	90	138	31	21	11	7.6	6.7
27	36	23	33	64	67	82	134	30	20	10	7.6	6.7
28	34	22	30	56	64	77	126	30	19	10	6.7	6.7
29	33	22	28	54	62	74	112	29	18	9.7	6.4	7.1
30	55	23	25	52	-	72	97	28	18	11	6.7	12
31	38	-	29	52	-	77	-	31	-	11	8.4	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff Inches	Runoff Acre-feet
October	815.7	116	9.7	26.3	0.346	0.40	1,620
November	1,464	381	22	48.8	.642	.72	2,900
December	904	49	21	29.2	.384	.44	1,790
Calendar year 1943	38,270.7	3,190	9.7	105	1.38	18.72	75,900
January	1,776	103	32	57.3	.754	.87	3,520
February	3,363	261	60	116	1.53	1.65	6,670
March	3,636	296	61	117	1.54	1.78	7,210
April	3,428	189	58	114	1.50	1.68	6,800
May	1,463	86	28	47.2	.621	.72	2,900
June	793	46	18	26.4	.347	.39	1,570
July	393.7	17	9.7	12.7	.167	.19	781
August	273.6	11	6.4	8.83	.116	.13	543
September	246.8	12	5.7	8.23	.108	.12	490
Water year 1943-44	18,556.8	381	5.7	50.7	.667	9.09	36,790

Note.- Shifting-control method used Oct. 1-24, Sept. 20-30.
Time basis: Pacific war time. To convert war time to standard time, subtract 1 hour.

North Umpqua River below Lake Creek, Oreg.

Location.- Water-stage recorder, lat. 43°19', long. 122°11', in NW¼ sec. 13, T. 26 S., R. 5 E., 200 yards downstream from Lake Creek and 30 miles southwest of Crescent. Altitude of gage, 4,090 feet (from river-profile map).

Drainage area.- 175 square miles.

Records available.- October 1927 to September 1944.

Average discharge.- 17 years, 364 second-feet.

Extremes.- Maximum discharge during year, 629 second-feet Nov. 4 (gage height, 1.54 feet); minimum, 292 second-feet Sept. 4-10 (gage height, 0.85 foot).
1927-44: Maximum discharge, 1,190 second-feet June 9, 1933 (gage height, 2.34 feet), from rating curve extended above 700 second-feet; minimum, 206 second-feet Dec. 9, 1931.

Remarks.- Records good except those for period of no gage-height record, which are fair. No diversion above station. Flow slightly regulated by Diamond Lake.

Rating table, water year 1943-44 (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Oct. 1 to Nov. 3)

0.8	273
1.0	353
1.2	441
1.4	545
1.5	605

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	366	423	432	406			366	428	436	379	332	304
2	366	423	436	410			370	428	441	374	332	300
3	362	446	441	379			379	436	436	374	332	296
4	370	599	436	383			379	451	428	370	332	296
5	366	545	428	414			379	456	418	370	332	296
6	366	501	423	410			379	466	418	366	328	296
7	366	480	423	405			379	480	414	366	328	296
8	362	470	423	405			383	480	414	366	328	296
9	370	461	418	405			379	475	414	366	328	296
10	383	456	418				383	461	414	362	328	296
11	a400	451	423				383	451	414	362	324	300
12	396	446	423				383	441	410	362	324	300
13	392	441	423				383	441	410	353	324	300
14	387	441	418				383	441	405	353	324	300
15	387	436	418		a355	a355	383	436	405	353	324	300
16	387	436	418				383	441	405	349	324	300
17	387	432	414				379	441	405	349	324	304
18	387	432	414				383	441	405	349	324	304
19	387	432	414				383	436	405	353	324	304
20	396	432	414	a390			374	432	405	349	320	304
21	410	432	414				374	432	405	345	320	304
22	405	432	410				383	432	396	345	320	300
23	405	428	410				392	428	392	341	316	300
24	428	423	410				396	423	387	341	316	300
25	428	423	410				392	418	387	337	316	300
26	423	418	410				396	418	387	337	312	300
27	436	418	410				410	423	387	345	312	300
28	436	418	410				414	432	383	345	308	296
29	436	428	405				414	441	383	341	308	300
30	436	432	400		-	366	428	441	383	332	308	304
31	432	-	400		-	366	-	441	-	332	308	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff Inches	Runoff Acre-feet
October	12,258	436	362	395	2.26	2.61	24,310
November	13,435	599	418	448	2.56	2.86	26,650
December	12,946	441	400	418	2.39	2.75	25,680
Calendar year 1943	181,537	943	362	497	2.84	38.59	360,100
January	12,196	414	-	393	2.25	2.59	24,190
February	10,295	-	-	a355	2.03	2.19	20,420
March	11,027	-	-	a356	2.03	2.34	21,870
April	11,592	428	366	386	2.21	2.46	22,990
May	13,691	480	418	442	2.53	2.91	27,160
June	12,192	441	383	406	2.32	2.59	24,180
July	10,966	379	332	354	2.02	2.33	21,750
August	9,980	332	308	322	1.84	2.12	19,800
September	8,992	304	296	300	1.71	1.91	17,840
Water year 1943-44	139,570	599	296	381	2.18	29.66	276,800

a No gage-height record; discharge computed on basis of recorded range in stage and records for station at Toketee 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 1944.

Average discharge.- 19 years (1925-44), 862 second-feet.

Extremes.- Maximum discharge during year, 2,280 second-feet Nov. 4 (gage height, 3.13 feet); minimum, 575 second-feet Sept. 26-29 (gage height, 0.83 foot).
1908-9, 1914-17, 1924-44: Maximum discharge, 5,080 second-feet Dec. 31, 1942 (gage height, 5.90 feet), from rating curve extended above 1,900 second-feet by logarithmic plotting; minimum, 475 second-feet Nov. 27-29, Dec. 12, 14, 1931.

Remarks.- Records good. No diversion above station; regulation at Diamond Lake has little effect.

Rating table, water year 1943-44 (gage height, in feet, and discharge, in second-feet)

0.8	560
1.1	720
1.6	1,040
2.3	1,580
2.6	1,820

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	d760	842	829	d825	799	748	880	1,160	991	753	682	632
2	753	829	848	829	823	748	907	1,140	998	748	682	616
3	753	984	887	775	829	748	949	1,150	1,000	748	676	605
4	758	1,840	887	770	835	753	963	1,190	956	742	670	600
5	758	1,430	d860	817	1,050	748	956	1,240	928	736	670	600
6	d755	1,150	d835	793	1,150	742	942	1,300	914	731	665	600
7	d755	1,050	823	787	1,110	764	935	1,310	900	731	660	595
8	d755	984	823	787	1,050	781	942	1,280	894	731	660	595
9	763	949	811	775	1,000	1,180	921	1,240	880	731	654	595
10	781	921	805	775	949	1,200	928	1,170	868	726	654	590
11	829	900	811	770	894	1,050	963	1,140	874	720	648	590
12	799	887	805	787	854	984	963	1,110	861	714	648	590
13	d785	868	805	787	854	935	984	1,080	842	709	648	590
14	775	854	799	787	864	887	991	1,080	835	709	648	590
15	770	848	799	787	823	880	1,010	1,080	835	709	643	590
16	770	842	793	793	829	868	998	1,060	842	704	643	595
17	817	829	793	811	811	868	977	1,060	829	704	638	610
18	d790	829	793	799	805	874	970	1,050	829	704	638	600
19	781	835	d790	799	799	880	984	1,030	829	709	632	595
20	848	854	d785	799	787	861	963	1,020	835	698	632	590
21	880	842	d780	793	793	854	956	1,010	854	692	632	610
22	887	823	770	793	781	842	963	1,000	823	692	626	595
23	d890	817	770	829	764	900	1,010	977	817	687	626	590
24	914	811	787	823	775	942	1,070	956	799	687	626	580
25	963	805	805	811	764	900	1,050	949	793	682	626	580
26	880	799	787	793	764	880	1,050	949	787	682	626	580
27	868	799	781	770	753	861	1,070	970	781	692	626	575
28	907	793	781	775	764	854	1,100	998	770	709	621	575
29	900	799	775	770	753	854	1,140	1,000	764	687	621	585
30	921	823	775	793	-	861	1,160	998	758	682	621	595
31	861	-	781	775	-	874	-	998	-	676	626	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff Inches	Runoff Acre-feet
October	25,416	963	753	820	2.43	2.80	50,410
November	27,636	1,840	793	921	2.73	3.05	54,820
December	24,973	887	770	806	2.39	2.76	49,530
Calendar year 1943	430,780	3,920	753	1,180	3.50	47.53	864,400
January	24,577	829	770	792	2.35	2.71	48,750
February	24,816	1,150	753	856	2.54	2.74	49,220
March	27,121	1,200	742	875	2.60	2.99	53,790
April	29,695	1,160	880	990	2.94	3.28	58,900
May	33,695	1,310	949	1,087	3.23	3.72	66,830
June	25,686	1,000	758	856	2.54	2.83	50,950
July	22,025	753	676	710	2.11	2.43	43,690
August	19,968	682	621	644	1.91	2.20	39,610
September	17,833	632	575	594	1.76	1.97	35,370
Water year 1943-44	303,441	1,840	575	829	2.46	33.48	601,900

Peak discharge.- Nov. 4 (12:30 p.m.) 2,280 sec.-ft.; Mar. 9 (6 p.m.) 1,340 sec.-ft.
d Doubtful gage-height record; discharge computed on basis of records for stations below Lake Creek and above Rock Creek, near Glide.
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 1944.

Average discharge.- 20 years, 2,276 second-feet.

Extremes.- Maximum discharge during year, 25,600 second-feet Nov. 4 (gage height, 13.58 feet); minimum, 690 second-feet Sept. 28, 29 (gage height, 2.22 feet).
1924-44: 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. No diversion above station; regulation at Diamond Lake has little effect.

Rating table, water year 1943-44 (gage height, in feet, and discharge, in second-feet)

2.2	680	4.0	2,040	8.0	8,630
2.5	845	4.5	2,540	9.5	12,400
2.8	1,040	5.0	3,120	11.0	16,700
3.2	1,340	6.0	4,540		
3.6	1,680	7.0	6,420		

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	912	1,730	1,570	1,870	1,730	1,570	2,090	3,050	1,800	1,090	851	791
2	899	1,520	1,520	3,870	3,340	1,530	2,110	2,780	1,750	1,080	893	780
3	893	2,740	2,050	2,810	3,220	1,560	2,230	2,700	2,180	1,060	869	746
4	887	16,300	2,190	2,170	3,300	1,680	2,220	2,770	1,960	1,050	851	730
5	893	8,060	2,360	2,210	7,390	1,800	2,140	2,880	1,760	1,040	845	725
6	887	4,340	1,960	2,490	7,150	1,790	2,000	2,980	1,660	1,030	845	715
7	887	3,100	1,720	2,100	5,280	1,870	1,900	2,890	1,590	1,010	833	710
8	887	2,470	1,600	1,880	4,220	2,740	1,980	2,740	1,530	1,000	827	705
9	887	2,120	1,490	1,730	3,900	6,610	2,020	2,550	1,490	1,010	815	705
10	905	1,900	1,420	1,650	3,430	6,970	2,060	2,350	1,450	991	809	705
11	1,040	1,730	1,370	1,540	2,990	4,430	2,690	2,200	1,420	977	803	700
12	1,030	1,620	1,320	1,650	2,580	3,430	3,320	2,120	1,380	957	797	695
13	950	1,510	1,280	2,080	2,380	2,840	3,280	2,010	1,340	950	791	700
14	924	1,440	1,240	2,120	2,340	2,440	4,160	2,010	1,310	938	791	710
15	918	1,390	1,210	1,970	2,240	2,250	4,850	2,070	1,290	938	785	710
16	918	1,330	1,180	1,930	2,170	2,080	4,410	1,970	1,320	924	785	715
17	991	1,300	1,160	2,160	2,200	2,060	3,710	1,950	1,290	918	780	768
18	1,050	1,280	1,150	2,120	2,140	2,120	3,200	1,940	1,290	912	780	803
19	991	1,280	1,140	1,910	2,080	2,120	3,300	1,870	1,380	924	774	758
20	1,170	1,360	1,140	1,820	1,980	2,020	3,580	1,820	1,400	912	774	730
21	2,330	1,440	1,120	1,720	1,930	1,900	3,510	1,790	1,470	899	768	736
22	2,460	1,340	1,110	1,640	1,820	1,850	3,200	1,750	1,410	887	768	791
23	2,190	1,280	1,100	1,960	1,720	3,430	3,260	1,710	1,320	881	758	741
24	3,590	1,240	1,120	2,550	1,660	4,200	3,580	1,640	1,260	881	758	715
25	3,580	1,190	1,720	2,330	1,640	3,240	3,460	1,570	1,230	869	758	705
26	2,870	1,170	1,990	2,070	1,650	2,670	3,320	1,570	1,200	863	752	695
27	2,000	1,140	1,690	1,880	1,610	2,370	3,280	1,620	1,170	869	752	695
28	1,940	1,130	1,510	1,720	1,630	2,180	3,440	1,820	1,140	931	746	690
29	2,000	1,130	1,400	1,630	1,600	2,130	3,420	1,770	1,120	887	741	705
30	2,470	1,210	1,330	1,580	-	2,150	3,250	1,720	1,100	863	736	797
31	2,050	-	1,310	1,550	-	2,150	-	1,720	-	857	741	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff	
						Inches	Acre-feet
October	46,399	3,590	887	1,497	1.69	1.95	92,030
November	70,790	16,300	1,130	2,360	2.66	2.97	140,400
December	45,460	2,360	1,100	1,466	1.65	1.91	90,170
Calendar year 1943	1,075,879	28,800	878	2,948	3.33	45.18	2,134,000
January	62,710	3,870	1,540	2,023	2.28	2.63	124,400
February	81,320	7,390	1,600	2,804	3.16	3.41	161,300
March	82,180	6,970	1,530	2,651	2.99	3.45	163,000
April	90,970	4,850	1,900	3,032	3.42	3.82	180,400
May	66,330	3,050	1,570	2,140	2.42	2.78	131,600
June	43,010	2,180	1,100	1,434	1.62	1.81	85,310
July	29,398	1,090	857	948	1.07	1.23	58,310
August	24,576	893	736	793	.895	1.03	48,750
September	21,871	803	690	729	.823	.92	43,380
Water year 1943-44	665,014	16,300	690	1,817	2.05	27.91	1,319,000

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 1944.

Average discharge.- 17 years (1926-29, 1930-44), 47.4 second-feet.

Extremes.- Maximum discharge during year, 104 second-feet (regulated) Oct. 26 (gage height, 1.65 feet); minimum, 2.3 second-feet (regulated) May 1; minimum daily, 16 second-feet Sept. 15, 22-30.
1922-25, 1926-44: Maximum discharge observed, 336 second-feet Jan. 1, 1943 (gage height, 2.8 feet), from rating curve extended above 120 second-feet; no flow (result of regulation) Aug. 25-27, 1931.

Remarks.- Records good except those above 60 or below 20 second-feet, which are fair. 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 1943-44 (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Oct. 1 to Dec. 31)

0.7	13	1.1	42
.8	18	1.3	64
.9	25	1.6	103

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	20	77	77	72	a65	44	51	64	51	46	37	20
2	18	75	79	75	65	45	50	66	53	46	37	18
3	22	77	76	75	66	45	50	66	53	46	36	18
4	25	90	75	75	68	48	50	68	52	46	36	17
5	26	92	74	76	70	49	50	57	52	46	36	17
6	27	90	74	77	70	49	50	53	52	45	36	17
7	21	86	72	76	69	50	50	48	51	45	35	17
8	25	82	71	76	70	50	51	43	51	44	36	17
9	41	81	71	75	70	53	51	43	51	44	35	17
10	50	80	76	74	52	53	51	36	51	44	35	18
11	51	77	80	74	36	53	51	41	51	43	35	17
12	50	76	79	72	36	53	50	42	51	42	35	17
13	49	75	76	71	37	53	51	43	51	42	35	17
14	49	74	75	71	38	53	54	42	51	41	34	17
15	48	71	74	71	39	53	55	38	51	40	34	16
16	48	70	74	70	39	52	55	48	51	40	33	17
17	48	69	72	70	40	51	55	49	51	40	33	17
18	48	68	71	70	41	51	55	53	51	39	33	17
19	48	68	71	69	42	51	50	50	51	39	32	17
20	53	68	70	68	42	52	44	49	51	39	32	17
21	56	66	70	66	42	52	52	49	52	39	31	17
22	57	66	69	68	42	51	57	50	52	39	31	16
23	61	65	69	a68	42	52	57	49	51	38	31	16
24	65	65	69	a68	42	52	60	49	51	38	31	16
25	64	64	72	a67	42	52	61	50	51	37	31	16
26	78	62	71	a67	43	52	65	50	51	37	31	a16
27	88	62	70	a66	44	52	71	50	50	37	31	a16
28	84	68	70	a66	44	52	71	52	50	38	31	a16
29	82	77	69	a66	45	51	70	50	49	38	30	a16
30	81	76	69	a65	-	51	70	51	48	37	30	a16
31	80	-	69	a65	-	51	-	51	-	37	25	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff	
						Inches	Acre-feet
October	1,563	88	18	50.4	0.884	1.02	3,100
November	2,217	92	62	73.9	1.30	1.45	4,400
December	2,254	80	69	72.7	1.28	1.47	4,470
Calendar year 1943	24,224	250	18	66.4	1.16	15.80	48,050
January	2,189	77	65	70.6	1.24	1.43	4,340
February	1,441	70	36	49.7	.872	.94	2,860
March	1,576	53	44	50.8	.891	1.03	3,130
April	1,658	71	44	55.3	.970	1.08	3,290
May	1,550	68	36	50.0	.877	1.01	3,070
June	1,532	53	48	51.1	.896	1.00	3,040
July	1,272	46	37	41.0	.719	.83	2,520
August	1,028	37	25	33.2	.582	.67	2,040
September	506	20	16	16.9	.296	.33	1,000
Water year 1943-44	18,786	92	16	51.3	.900	12.26	37,260

a No gage-height record; discharge computed on basis of weather records.
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 1944.

Average discharge.- 16 years (1928-44), 144 second-feet.

Extremes.- Maximum discharge during year, 253 second-feet Nov. 4 (gage height, 1.48 feet); minimum, 124 second-feet Sept. 26, 27 (gage height, 0.84 foot).
1927-44: Maximum discharge, 451 second-feet Jan. 1, 1943 (gage height, 2.17 feet), from rating curve extended above 260 second-feet; minimum, 91 second-feet Nov. 4-6, 27, Dec. 12, 29, 1931, Jan. 3, 1932.

Remarks.- Records good except those for Feb. 12 to Mar. 30, Sept. 1-30, which are fair. No diversion or regulation above station.

Rating table, water year 1943-44 (gage height, in feet, and discharge, in second-feet).

0.8	118
.9	133
1.0	149
1.2	187
1.4	233

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	151	160	160	158	156		156	173	181	149	141	133
2	151	160	160	158	154		158	173	177	147	141	132
3	151	173	160	154	156		162	175	173	146	139	130
4	151	226	162	156	156		163	179	169	146	139	128
5	151	189	160	158	162		163	187	167	146	139	128
6	153	173	158	158	160		163	198	167	146	139	128
7	153	167	158	156	160		163	198	167	146	138	128
8	153	165	158	156	160		163	198	165	146	138	127
9	154	163	158	156	158		163	196	163	146	138	127
10	154	163	158	156	156		163	189	165	144	138	127
11	163	163	158	156	156		163	185	165	144	136	127
12	158	162	156	156	a156		163	181	163	144	136	127
13	158	162	156	156	a156		163	181	162	144	135	128
14	158	160	156	156	a156		162	183	160	144	135	127
15	156	160	156	156	a156		162	186	162	144	135	127
16	156	160	156	156	a156	a157	160	179	163	144	133	127
17	162	160	156	156	a155		160	179	158	144	133	128
18	158	160	156	154	a155		160	177	158	144	133	127
19	158	160	156	154	a155		162	177	160	144	133	126
20	162	165	156	154	a154		162	177	160	144	133	126
21	162	163	156	154	a154		160	175	163	143	133	127
22	162	162	156	164	a154		160	171	160	143	133	126
23	163	160	156	156	a154		163	167	158	143	132	126
24	171	160	158	156	a154		165	167	158	141	132	126
25	171	160	158	154	a154		163	167	156	141	132	126
26	163	160	156	154	a154		163	167	156	141	132	124
27	162	160	156	154	a154		163	171	154	144	132	124
28	165	160	156	154	a154		167	179	153	146	132	126
29	163	160	156	154	a154		171	181	153	143	132	127
30	163	160	156	154	-		173	177	151	141	132	128
31	160	-	156	154	-	156	-	185	-	139	132	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff Inches	Runoff Acre-feet
October	4,916	171	151	159	3.98	4.57	9,750
November	4,956	226	160	165	4.12	4.61	9,830
December	4,874	162	156	157	3.92	4.53	9,670
Calendar year 1943	68,955	423	151	189	4.72	64.11	136,800
January	4,818	158	154	155	3.88	4.48	9,560
February	4,519	162	154	156	3.90	4.20	8,960
March	4,866	-	-	157	3.92	4.52	9,650
April	4,882	173	156	163	4.08	4.54	9,680
May	5,577	198	167	180	4.50	5.19	11,060
June	4,867	181	151	162	4.05	4.53	9,650
July	4,467	149	139	144	3.60	4.15	8,860
August	4,186	141	132	135	3.38	3.89	8,300
September	3,818	133	124	127	3.18	3.55	7,570
Water year 1943-44	56,746	226	124	155	3.88	52.76	112,500

a No gage-height record; discharge computed on basis of recorded range in stage and records for North Umpqua River at Toketee Falls.
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 1944. September 1916 to September 1926 at site 1⅛ miles upstream.

Average discharge.- 25 years (1916-26, 1929-44), 707 second-feet.

Extremes.- Maximum discharge during year, 9,670 second-feet Nov. 4 (gage height, 10.78 feet), from rating curve extended above 2,200 second-feet on basis of former curves defined to 10,000 second-feet; minimum, 21 second-feet Sept. 11-16, 25-29 (gage height, 1.00 foot).

1916-26, 1928-44: Maximum discharge, 25,300 second-feet Oct. 31, 1924 (gage height, 17.5 feet, site and datum then in use), from rating curve extended above 12,000 second-feet; minimum, 12 second-feet Sept. 22-25, 27-30, 1939.

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

Rating tables, water year 1943-44 (gage height, in feet, and discharge, in second-feet)

Oct. 1 to Nov. 3

1.1	22	2.1	218
1.3	40	2.4	341
1.5	67	2.8	550
1.8	127	3.2	785

Note.- Same as following table above 3.2 feet.

Nov. 4 to Sept. 30

1.0	21	2.1	235	4.4	1,680
1.2	43	2.4	355	5.2	2,410
1.4	70	2.8	555	6.4	3,690
1.6	104	3.2	785	7.6	5,200
1.8	150	3.7	1,120	9.3	7,520

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	24	284	792	1,280	1,180	660	396	511	260	106	46	38
2	24	255	632	2,030	1,860	621	382	455	437	102	46	37
3	24	3,110	621	1,320	1,770	928	368	400	1,160	99	46	33
4	24	7,530	1,240	960	1,520	2,080	355	360	798	97	46	30
5	23	3,210	1,330	1,140	1,490	2,000	342	324	577	93	47	29
6	22	1,640	869	1,130	1,490	1,410	310	298	460	91	46	28
7	22	1,080	701	928	1,330	1,190	286	274	373	88	44	27
8	22	792	582	767	1,490	1,370	328	252	324	86	43	26
9	22	621	485	654	2,480	2,310	373	246	290	86	43	24
10	23	506	420	599	1,850	2,260	332	232	256	83	42	23
11	64	425	364	516	1,360	1,530	328	242	229	80	41	22
12	64	360	319	506	1,070	1,130	319	246	211	76	39	22
13	41	314	286	544	896	915	368	238	199	75	37	22
14	35	278	252	767	915	761	743	220	184	72	37	22
15	32	259	242	725	928	648	1,160	256	175	70	37	21
16	31	223	220	665	908	577	1,280	270	168	69	36	22
17	48	208	211	922	1,170	577	1,200	396	162	67	36	27
18	76	202	193	818	1,110	616	1,000	506	162	66	33	28
19	58	211	187	683	994	689	1,070	373	187	63	33	26
20	71	455	178	594	863	695	1,270	314	196	63	32	25
21	404	435	168	506	773	621	1,240	274	175	60	31	24
22	653	332	160	445	665	555	1,060	252	165	59	30	22
23	831	282	155	1,000	599	560	922	242	152	57	30	22
24	4,450	249	206	1,920	533	743	1,050	217	145	56	31	22
25	2,350	226	934	1,510	511	683	1,060	202	140	55	31	22
26	1,040	211	876	1,100	550	594	948	187	130	55	31	21
27	653	196	632	856	566	516	856	175	125	55	30	21
28	473	184	495	719	677	460	761	170	121	51	30	21
29	379	184	410	622	671	420	665	160	112	50	30	24
30	399	648	346	560	-	415	582	158	110	48	29	30
31	336	-	319	528	-	410	-	175	-	46	29	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff Inches	Runoff Acre-feet
October	12,718	4,450	22	410	2.43	2.80	25,230
November	24,900	7,530	184	830	4.91	5.48	49,390
December	14,845	1,330	155	479	2.83	3.27	29,440
Calendar year 1943	235,507	11,200	22	645	3.82	51.63	467,200
January	27,314	2,030	445	881	5.21	6.01	54,180
February	32,219	2,480	511	1,111	6.57	7.09	63,910
March	28,944	2,310	410	934	5.53	6.37	57,410
April	21,354	1,280	286	712	4.21	4.70	42,360
May	8,625	511	158	278	1.64	1.90	17,110
June	8,183	1,160	110	273	1.62	1.80	16,230
July	2,224	106	46	71.7	.424	.49	4,410
August	1,142	47	29	36.8	.218	.25	2,270
September	761	38	21	25.4	.150	.17	1,510
Water year 1943-44	183,229	7,530	21	501	2.96	40.33	363,400

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 S½ sec. 26, T. 29 S., R. 12 W., a third of a mile downstream from Indian Creek and 3¾ miles southeast of Myrtle Point. Datum of gage is 41.20 feet above mean sea level, datum of 1929.

Drainage area.- 305 square miles.

Records available.- October 1930 to September 1944.

Average discharge.- 14 years, 729 second-feet.

Extremes.- Maximum discharge during year, 9,320 second-feet Nov. 4 (gage height, 15.97 feet); minimum, 13 second-feet Sept. 28, 29 (gage height, 1.86 feet).
1930-44: 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 table, water year 1943-44 (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Sept. 22-27)

1.9	14	3.0	75	5.0	406	9.5	2,450
2.1	21	3.4	115	6.0	680	11.0	3,600
2.3	29	3.8	169	7.0	1,100	12.5	5,000
2.6	45	4.4	277	8.0	1,600	14.0	6,670

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	16	220	318	365	592	692	401	536	157	107	35	18
2	15	197	287	1,050	1,440	840	370	482	183	101	34	21
3	15	1,100	279	1,070	1,460	1,200	346	452	348	94	34	22
4	15	6,600	619	800	1,310	2,820	331	372	365	92	34	20
5	15	3,830	1,060	780	1,560	3,380	308	357	299	92	34	18
6	15	1,770	692	928	1,820	2,340	285	335	251	87	34	17
7	14	1,120	542	800	1,800	1,760	279	305	220	84	34	16
8	14	736	452	665	1,600	1,620	273	285	199	79	31	16
9	14	569	381	578	2,290	1,830	331	295	187	79	30	15
10	15	468	335	510	2,210	1,930	293	277	174	76	29	15
11	22	392	299	455	1,640	1,580	275	259	158	72	28	14
12	52	339	269	418	1,250	1,240	277	251	150	69	27	14
13	38	297	244	394	972	1,000	363	234	140	66	27	14
14	27	263	222	450	1,150	800	792	224	135	64	25	14
15	24	240	206	420	1,540	674	1,160	263	128	60	25	15
16	23	222	197	390	1,420	593	1,660	238	125	60	25	15
17	39	199	183	488	2,020	536	1,810	246	119	58	25	17
18	77	182	172	512	1,790	505	1,460	299	125	56	24	27
19	51	187	168	472	1,620	510	1,460	253	190	52	23	28
20	45	236	162	430	1,320	525	2,100	225	303	52	23	22
21	182	279	148	392	1,110	478	1,950	209	259	51	22	19
22	350	229	143	357	900	438	1,560	197	222	50	21	17
23	365	204	139	482	728	604	1,260	199	188	48	21	16
24	1,270	185	172	1,780	611	1,090	1,420	185	172	46	21	16
25	1,450	171	855	1,840	584	972	1,750	171	160	44	21	15
26	590	160	1,180	1,320	677	800	1,470	163	148	43	21	15
27	365	154	824	952	740	647	1,160	157	137	41	21	14
28	263	146	587	736	832	575	912	151	127	40	20	14
29	213	144	470	620	812	510	732	143	117	38	19	14
30	277	187	401	530	-	470	629	141	113	38	18	27
31	259	-	350	478	-	430	-	141	-	36	17	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff Inches	Runoff Acre-feet
October	6,130	1,450	14	198	0.649	0.75	12,160
November	21,026	6,600	144	701	2.30	2.56	41,700
December	12,356	1,180	139	399	1.31	1.51	24,510
Calendar year 1943	237,813	10,900	14	652	2.14	29.00	471,700
January	21,462	1,840	357	692	2.27	2.62	42,570
February	37,818	2,290	584	1,304	4.28	4.61	75,010
March	33,589	3,380	430	1,084	3.55	4.10	66,620
April	27,417	2,100	273	914	3.00	3.34	54,380
May	8,045	536	141	260	.852	.98	15,960
June	5,599	365	113	187	.613	.68	11,110
July	1,975	107	36	63.7	.209	.24	3,920
August	803	35	17	25.9	.085	.10	1,590
September	525	28	14	17.5	.057	.06	1,040
Water year 1943-44	176,745	6,600	14	483	1.58	21.55	350,600

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 1944. October 1928 to September 1930 at site 3½ miles downstream.

Average discharge.- 15 years (1929-44), 888 second-feet.

Extremes.- Maximum discharge during year, 7,210 second-feet Nov. 5 (gage height, 31.33 feet); minimum not determined.
1928-44: Maximum discharge, 10,400 second-feet Jan. 3, 1933; maximum gage height, 38.3 feet Dec. 31, 1942; minimum, 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 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	39	360	916	424	657	950	525	774	308	132	61	
2	39	316	823	939	1,370	888	494	699	386	128	60	
3	43	689	1,260	1,440	1,600	934	468	643	724	126	61	
4	39	4,060	1,650	1,060	1,540	2,000	445	587	672	128	59	
5	37	6,850	2,190	939	1,770	3,130	433	547	486	123	58	
6	52	4,730	1,720	1,110	2,380	2,900	409	507	397	a118	55	
7	49	2,760	1,250	959	2,930	2,180	408	475	348	a115	52	
8	40	1,760	1,010	860	2,740	1,700	415	445	310	a112	51	
9	39	1,280	840	772	2,540	1,650	499	439	199	a111	50	
10	37	1,030	721	705	2,490	2,000	478	434	261	a109	49	
11	40	843	646	646	2,200	1,980	436	410	263	a105	54	
12	73	644	577	606	1,690	1,670	440	400	223	a100	63	
13	74	633	521	569	1,390	1,310	483	386	193	a96	58	
14	63	577	468	545	1,320	1,070	1,130	359	215	a94	55	a31
15	54	529	428	498	1,560	936	1,620	386	211	a92	54	
16	50	483	398	464	1,520	861	2,140	372	209	a90	51	
17	73	453	372	504	1,670	783	2,300	376	212	a88	49	
18	164	408	357	649	1,730	724	1,940	483	201	a86	48	
19	136	411	343	569	1,800	667	1,780	397	215	a84	49	
20	110	438	329	521	1,670	699	2,390	351	241	a82	46	
21	580	553	312	490	1,470	616	2,950	320	213	a80	45	
22	724	476	298	460	1,280	555	2,450	304	155	a78	43	
23	854	423	288	529	1,110	611	1,850	301	181	a76	42	
24	1,430	381	284	1,650	990	1,170	1,740	291	177	a74	42	
25	2,900	365	501	2,220	916	993	1,940	249	159	a73	40	
26	1,490	343	928	1,720	925	873	1,690	259	150	a71	40	
27	733	326	670	1,280	990	788	1,400	241	154	a69	40	
28	508	312	545	1,020	1,010	707	1,140	251	147	67	39	h28
29	370	315	472	882	995	651	970	217	139	65	38	h29
30	464	460	430	772	-	600	868	241	137	63	a31	a38
31	432	-	402	676	-	555	-	213	-	61	a31	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff Inches	Runoff Acre-feet
October	11,736	2,900	37	379	1.37	1.58	23,280
November	33,198	6,850	312	1,107	4.01	4.47	65,850
December	21,949	2,190	284	708	2.57	2.96	43,540
Calendar year 1943	340,283	8,820	31	932	3.38	45.85	675,000
January	26,478	2,220	424	854	3.09	3.57	52,520
February	46,253	2,930	657	1,595	5.78	6.23	91,740
March	37,141	3,130	555	1,198	4.34	5.00	73,670
April	36,231	2,950	408	1,208	4.38	4.88	71,860
May	12,357	774	213	399	1.45	1.67	24,510
June	7,886	724	137	263	.953	1.06	15,640
July	2,896	132	61	93.4	.338	.39	5,740
August	1,514	63	31	48.8	.177	.20	3,000
September	932	-	-	31.1	.113	.13	1,850
Water year 1943-44	238,571	6,850	-	652	2.36	32.14	473,200

a No gage-height record; discharge computed on basis of records for stations on South Fork at Powers and Middle Fork near Myrtle Point.
h Computed from staff-gage reading.
Time basis: Pacific war time. To convert war time to standard time, subtract 1 hour.

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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 1944.

Average discharge.- 14 years, 462 second-feet.

Extremes.- Maximum discharge during year, 2,280 second-feet Nov. 4 (gage height, 5.15 feet); minimum, 260 second-feet Sept. 28 (gage height, 1.18 feet).
1930-44: Maximum discharge, 4,430 second-feet Nov. 29, 1942 (gage height, 7.84 feet), from rating curve extended above 2,000 second-feet; minimum daily, 180 second-feet (estimated) Jan. 7, 1937 (gage height affected by ice).

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

Cooperation.- Water-stage recorder inspected by employee of The California Oregon Power Co.

Rating table, water year 1943-44 (gage height, in feet, and discharge, in second-feet)

1.2	265	3.0	990
1.6	380	3.6	1,310
2.0	530	4.1	1,610
2.5	750		

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	356	408	436	404	384	359	530	750	660	371	299	299
2	356	401	418	408	418	359	592	741	664	365	308	282
3	356	605	474	377	436	362	646	777	714	359	308	278
4	356	1,610	474	418	418	368	660	831	633	356	299	275
5	356	960	443	415	498	359	646	945	602	353	296	272
6	356	669	422	443	628	350	624	1,020	588	347	293	272
7	356	562	412	368	615	371	592	1,000	570	341	293	270
8	356	518	412	368	570	380	588	950	550	341	293	270
9	356	486	401	365	534	687	554	865	538	341	293	270
10	359	462	394	362	494	714	562	795	522	338	290	270
11	426	450	390	359	470	579	615	754	518	350	290	268
12	371	440	387	377	450	526	615	723	494	332	290	265
13	362	426	384	368	443	498	606	700	474	329	288	268
14	359	418	377	368	443	466	574	732	462	326	288	268
15	356	408	374	368	422	458	562	764	466	323	288	268
16	356	404	374	368	418	466	534	718	470	317	285	272
17	380	404	374	384	404	498	514	723	450	317	285	280
18	384	404	377	374	401	526	502	696	458	314	282	275
19	371	415	384	374	398	526	526	678	462	314	282	270
20	450	466	387	374	390	498	510	674	458	314	282	268
21	498	436	377	374	390	482	490	674	510	311	282	272
22	440	415	374	374	384	474	494	633	454	308	280	270
23	432	401	371	401	377	490	558	602	429	308	280	265
24	558	394	390	387	377	486	592	579	422	305	278	265
25	597	390	408	377	374	462	542	574	412	314	278	265
26	482	387	380	371	371	443	542	597	404	305	275	262
27	436	380	377	368	368	436	558	660	394	317	275	262
28	470	377	374	365	368	436	642	804	387	353	275	262
29	466	380	371	365	362	446	705	736	377	311	272	270
30	498	432	368	365	-	474	741	692	374	305	272	288
31	429	-	368	362	-	506	-	692	-	299	282	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff Inches	Runoff Acre-feet
October	12,684	597	356	409	3.47	4.00	25,160
November	14,908	1,610	377	497	4.21	4.70	29,570
December	12,252	474	368	395	3.35	3.86	24,300
Calendar year 1943	222,952	2,670	356	611	5.18	70.27	442,200
January	11,751	443	359	379	3.21	3.70	23,310
February	12,605	628	362	435	3.69	3.97	25,000
March	14,485	714	350	467	3.96	4.57	28,730
April	17,416	741	490	581	4.92	5.49	34,540
May	23,079	1,020	574	744	6.31	7.27	45,780
June	14,916	714	374	497	4.21	4.70	29,590
July	10,184	371	299	329	2.79	3.21	20,200
August	8,881	308	272	286	2.42	2.80	17,620
September	8,141	299	262	271	2.30	2.57	16,150
Water year 1943-44	161,302	1,610	262	441	3.74	50.84	320,000

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 1944.

Average discharge.- 22 years (1910-11, 1923-44), 709 second-feet.

Extremes.- Maximum discharge during year, 3,760 second-feet Nov. 4 (gage height, 4.64 feet); minimum, 334 second-feet Sept. 27-29 (gage height, 1.41 feet).
1907-12, 1923-44: 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 excellent. No diversion or regulation above station.

Cooperation.- Water-stage recorder graph furnished by The California Oregon Power Co.

Rating table, water year 1943-44 (gage height, in feet, and discharge, in second-feet)

1.4	330	2.2	770	3.2	1,730
1.6	415	2.5	1,000	3.6	2,230
1.9	570	2.8	1,290	4.0	2,790

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	470	576	644	582	582	540	880	1,300	936	486	402	388
2	470	558	612	714	679	534	984	1,240	904	480	410	370
3	470	766	679	594	735	522	1,090	1,270	1,020	475	415	358
4	470	2,710	700	558	735	534	1,080	1,350	912	470	402	354
5	465	1,710	686	576	960	528	1,040	1,520	848	465	392	354
6	465	1,080	637	600	1,250	510	984	1,670	812	460	388	350
7	460	888	618	552	1,210	540	936	1,630	791	451	384	346
8	460	784	606	546	1,140	588	936	1,520	763	451	379	342
9	460	728	582	540	1,100	1,150	864	1,360	735	456	379	342
10	465	686	570	534	944	1,410	864	1,220	714	451	374	342
11	558	651	564	528	856	1,120	1,000	1,140	707	456	379	342
12	495	630	552	546	791	984	1,040	1,060	672	438	374	338
13	475	612	546	546	763	904	1,040	1,010	651	433	370	338
14	465	594	540	540	749	819	1,020	1,040	630	428	370	342
15	465	582	528	534	686	791	1,040	1,100	637	424	370	342
16	470	570	522	534	679	784	968	1,030	644	424	370	346
17	495	564	516	576	651	833	896	1,030	618	420	370	354
18	505	558	522	582	630	904	864	992	618	415	362	358
19	490	576	528	582	624	920	888	952	637	415	362	346
20	582	658	534	582	606	864	872	952	618	410	358	342
21	700	644	528	588	606	819	826	952	693	406	358	342
22	606	600	516	594	594	791	819	896	624	402	358	342
23	594	576	510	679	576	805	920	840	588	397	354	342
24	798	558	522	665	570	833	1,040	805	570	397	354	338
25	920	552	588	624	564	784	952	791	558	420	354	338
26	728	546	540	600	564	749	936	812	546	397	358	338
27	612	540	534	588	552	721	952	880	534	415	358	334
28	644	534	528	558	564	707	1,120	1,110	516	460	354	334
29	630	534	516	558	546	721	1,240	1,030	505	420	354	338
30	735	606	510	564	-	763	1,280	968	495	406	350	370
31	612	-	505	552	-	833	-	952	-	397	366	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff Inches	Runoff Acre-feet
October	17,234	920	460	556	1.67	1.93	34,180
November	22,171	2,710	534	739	2.23	2.48	43,980
December	17,483	700	505	564	1.70	1.96	34,680
Calendar year 1943	351,558	6,220	456	963	2.90	39.37	697,300
January	17,916	714	528	578	1.74	2.01	35,540
February	21,506	1,250	546	742	2.23	2.41	42,660
March	24,305	1,410	510	784	2.36	2.72	48,210
April	29,371	1,280	819	979	2.95	3.29	58,260
May	34,422	1,670	791	1,110	3.34	3.86	68,280
June	20,496	1,020	495	683	2.06	2.30	40,650
July	13,424	485	397	433	1.30	1.50	26,630
August	11,528	415	350	372	1.12	1.29	22,870
September	10,410	388	334	347	1.05	1.17	20,650
Water year 1943-44	240,266	2,710	334	656	1.98	26.92	476,600

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 1944.

Average discharge.- 15 years, 1,561 second-feet.

Extremes.- Maximum discharge during year, 4,980 second-feet Nov. 4 (gage height, 4.52 feet, from floodmark); minimum, 608 second-feet (regulated) Sept. 21, 29 (gage height, 0.35 foot); minimum daily, 863 second-feet Sept. 25, 28.
1929-44: Maximum discharge, 16,100 second-feet Nov. 29, 1942 (gage height, 10.5 feet), from rating curve extended above 5,700 second-feet; minimum gage height and minimum daily discharge not determined, as stage falls too low at times to be recorded.

Remarks.- Records good except those for Nov. 4, 5, and those for periods of no gage-height record, which are fair. Small diversions above station for irrigation. Considerable diurnal fluctuation caused by power plant 4 miles above station.

Cooperation.- Water-stage recorder graph furnished by The California Oregon Power Co.

Rating table, water year 1943-44 (gage height, in feet, and discharge, in second-feet)

0.8	850	2.5	2,310
1.2	1,120	3.0	2,880
1.6	1,440	3.8	3,920
2.0	1,800		

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,140	1,300	1,340	1,300	1,240	1,260	1,680	2,480	2,070	1,260	1,030	967
2	1,140	1,260	1,300	1,560	1,340	1,240	1,780	2,400	2,030	1,220	1,040	941
3	1,140	1,430	1,380	1,380	a1,420	1,260	1,960	2,440	2,310	1,220	a1,080	934
4	1,110	f3,860	1,420	a1,230	f1,480	1,300	1,960	2,540	2,050	1,200	1,080	934
5	1,120	f3,000	1,420	a1,280	a2,300	1,300	1,900	2,740	1,920	1,180	1,030	882
6	1,140	2,050	1,360	a1,300	a2,200	1,260	1,850	3,010	1,860	1,170	1,040	896
7	f1,120	1,730	1,340	a1,250	a2,000	1,260	1,760	3,000	1,820	1,180	1,000	915
8	a1,120	1,580	1,320	a1,210	a1,900	1,380	1,780	2,880	1,770	1,170	1,010	902
9	1,120	1,500	1,300	a1,180	a1,800	2,080	1,710	2,640	1,720	1,180	1,000	908
10	1,130	1,410	1,250	a1,170	1,850	2,540	1,700	2,430	1,680	1,150	994	902
11	1,260	1,380	1,220	a1,170	1,770	2,720	1,900	2,280	1,680	1,150	994	902
12	1,190	1,320	1,220	a1,210	1,650	1,980	1,970	2,170	1,630	1,140	967	902
13	1,140	1,260	1,200	a1,230	1,590	1,840	2,030	2,080	1,580	1,120	967	902
14	a1,140	1,230	1,190	a1,250	1,580	1,730	2,060	2,130	1,550	1,110	967	a900
15	a1,140	1,220	1,180	a1,220	1,510	1,660	2,170	2,180	1,580	1,140	954	902
16	1,140	1,200	1,140	1,270	1,480	1,640	2,070	2,080	1,600	1,080	967	889
17	1,180	1,180	1,180	1,260	1,440	1,660	1,970	2,090	1,550	1,080	960	922
18	1,220	1,200	1,150	1,270	1,400	1,750	1,880	2,040	1,510	1,070	948	896
19	1,180	1,250	1,160	a1,280	1,390	1,750	1,960	1,980	1,560	1,070	928	896
20	1,300	1,340	1,180	a1,270	1,370	1,690	1,930	1,980	1,550	1,070	928	896
21	1,500	1,380	1,160	a1,270	1,350	1,620	1,850	1,990	1,660	1,060	915	882
22	f1,380	1,320	1,150	1,260	1,330	1,580	1,790	1,910	1,570	1,060	a910	896
23	a1,340	1,280	1,160	a1,400	1,300	1,630	1,940	1,810	1,480	1,060	a905	889
24	a1,500	1,230	1,170	a1,450	1,290	1,730	2,190	1,750	1,450	1,060	a900	870
25	a1,700	1,220	1,300	a1,400	1,280	1,640	2,050	1,750	1,400	1,080	a895	863
26	a1,600	1,220	1,220	a1,350	1,300	1,610	2,030	1,780	1,420	1,040	915	870
27	h1,370	1,220	1,200	a1,300	1,260	1,520	2,040	1,920	1,370	1,020	915	876
28	a1,380	1,200	1,200	f1,270	1,280	1,500	2,260	2,220	1,320	1,150	902	863
29	a1,400	1,200	1,180	1,230	1,260	1,500	2,360	2,300	1,300	1,070	896	870
30	1,510	1,280	1,180	1,220	-	1,550	2,420	2,130	1,260	1,040	896	954
31	1,380	-	1,180	1,210	-	1,650	-	2,090	-	1,030	908	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff Inches	Runoff Acre-feet
October	39,230	1,700	1,110	1,265	1.97	2.27	77,810
November	44,250	3,860	1,180	1,475	2.29	2.56	87,770
December	38,350	1,420	1,140	1,237	1.92	2.22	76,070
Calendar year 1943	786,600	12,800	1,110	2,155	3.35	45.50	1,560,000
January	39,650	1,560	1,170	1,279	1.99	2.29	78,640
February	44,360	2,300	1,240	1,530	2.38	2.57	87,990
March	50,830	2,720	1,240	1,640	2.55	2.94	100,800
April	58,950	2,420	1,680	1,965	3.06	3.41	116,900
May	69,220	3,010	1,750	2,233	3.47	4.00	137,300
June	49,250	2,310	1,260	1,642	2.55	2.85	97,690
July	34,630	1,260	1,020	1,117	1.74	2.00	68,690
August	29,841	1,080	895	963	1.50	1.73	59,190
September	27,021	967	863	901	1.40	1.56	53,600
Water year 1943-44	525,582	3,860	863	1,436	2.23	30.40	1,042,000

a No gage-height record; discharge computed on basis of records for stations above Prospect and at Dodge Bridge, near Eagle Point.
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.

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 1944.

Extremes.- Maximum discharge during year, 7,770 second-feet Nov. 4 (gage height, 4.67 feet); minimum, 644 second-feet (regulated) Sept. 11, 28, 29 (gage height, 0.98 foot); minimum daily, 890 second-feet Sept. 9-13, 27, 28.
1938-44: Maximum discharge, 25,800 second-feet Dec. 31, 1942 (gage height, 9.52 feet), from rating curve extended above 10,500 second-feet; minimum, 611 second-feet (regulated) Aug. 6, 14, 29, Sept. 9, 1940 (gage height, 0.99 foot); minimum daily, 830 second-feet Sept. 1, 1940.

Remarks.- Records good. Many small diversions above station for irrigation; most of flow of Big Butte Creek is diverted near Butte Falls. Some diurnal fluctuation caused by power plant about 30 miles upstream.

Rating table, water year 1943-44 (gage height, in feet, and discharge, in second-feet)

1.2	890	2.4	2,650
1.5	1,270	3.0	3,760
1.9	1,850	3.6	5,050

Disoharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,240	1,660	1,620	1,900	1,730	1,820	2,210	3,350	2,400	1,400	1,090	986
2	1,240	1,550	1,580	3,280	2,060	1,760	2,290	3,220	2,290	1,370	1,100	1,010
3	1,270	1,610	1,660	2,350	2,270	1,840	2,460	3,140	2,630	1,350	1,140	962
4	1,260	5,040	1,790	1,910	2,370	2,430	2,510	3,160	2,430	1,330	1,130	962
5	1,240	4,640	1,980	2,600	4,940	2,530	2,460	3,330	2,240	1,330	1,110	926
6	1,260	2,800	1,790	2,460	4,340	2,400	2,370	3,560	2,140	1,300	1,100	914
7	1,240	2,290	1,680	2,080	3,600	2,260	2,270	3,560	2,080	1,270	1,100	902
8	1,230	2,020	1,640	1,860	3,480	2,530	2,350	3,430	2,030	1,270	1,050	902
9	1,230	1,880	1,600	1,760	3,900	3,900	2,270	3,180	1,970	1,300	1,060	890
10	1,260	1,740	1,540	1,780	3,220	4,730	2,190	2,960	1,920	1,270	1,050	890
11	1,350	1,700	1,510	1,680	2,840	3,760	2,550	2,770	1,900	1,270	1,040	890
12	1,370	1,620	1,510	1,680	2,560	3,240	3,000	2,680	1,850	1,240	1,040	890
13	1,280	1,580	1,490	1,740	2,400	2,870	3,200	2,550	1,790	1,220	1,010	890
14	1,270	1,520	1,470	1,760	2,370	2,630	3,330	2,560	1,740	1,190	1,010	902
15	1,270	1,520	1,450	1,730	2,290	2,480	3,820	2,630	1,780	1,150	1,010	902
16	1,240	1,520	1,420	1,720	2,160	2,370	3,640	2,530	1,820	1,170	1,010	938
17	1,350	1,510	1,420	1,760	2,180	2,370	3,290	2,500	1,790	1,170	974	962
18	1,410	1,490	1,410	1,780	2,060	2,480	2,960	2,480	1,740	1,140	974	974
19	1,380	1,520	1,410	1,700	2,050	2,500	3,140	2,370	1,820	1,140	974	914
20	1,490	1,610	1,410	1,670	2,000	2,430	3,310	2,350	1,800	1,110	974	926
21	1,860	1,790	1,420	1,660	1,960	2,320	3,090	2,340	1,910	1,110	974	926
22	1,720	1,660	1,380	1,600	1,880	2,210	2,870	2,300	1,900	1,110	962	914
23	1,680	1,580	1,350	2,100	1,850	2,240	2,930	2,160	1,730	1,100	962	902
24	1,970	1,550	1,370	2,430	1,780	2,600	3,620	2,060	1,670	1,090	950	914
25	2,180	1,480	1,820	2,130	1,760	2,430	3,350	2,030	1,610	1,110	950	902
26	2,110	1,510	1,720	1,960	1,780	2,290	3,220	2,030	1,610	1,100	962	914
27	1,760	1,450	1,560	1,820	1,740	2,160	3,140	2,100	1,550	1,080	950	890
28	1,760	1,420	1,510	1,730	1,860	2,060	3,330	2,460	1,490	1,140	950	890
29	1,790	1,440	1,450	1,670	1,900	2,030	3,330	2,510	1,450	1,140	938	902
30	1,940	1,520	1,420	1,670	-	2,050	3,330	2,420	1,410	1,130	962	1,020
31	1,790	-	1,440	1,660	-	2,130	-	2,350	-	1,080	926	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	46,440	2,180	1,230	1,498	92,110
November	56,220	5,040	1,420	1,874	111,500
December	47,820	1,980	1,350	1,543	94,850
Calendar year 1943	1,060,990	21,800	1,230	2,907	2,104,000
January	59,630	5,280	1,600	1,924	118,300
February	71,230	4,940	1,730	2,456	141,300
March	77,850	4,730	1,760	2,511	154,400
April	87,830	3,820	2,190	2,928	174,200
May	83,070	3,560	2,030	2,680	164,800
June	56,490	2,400	1,410	1,883	112,000
July	37,180	1,400	1,080	1,199	73,750
August	31,432	1,140	926	1,014	62,340
September	27,706	1,020	890	924	54,950
Water year 1943-44	682,898	5,040	890	1,866	1,354,000

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 1944.
Average discharge.- 39 years, 2,730 second-feet.
Extremes.- Maximum discharge during year, 8,060 second-feet Nov. 5 (gage height, 5.06 feet); minimum, 694 second-feet (regulated) Sept. 26, 27 (gage height, 0.19 foot); minimum daily, 950 second-feet Sept. 26.
1905-44: 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 except those for period of no gage-height record, which are fair. Many diversions above station for irrigation. Diurnal fluctuation caused by power plant just above station.
Cooperation.- Water-stage recorder inspected by employees of The California Oregon Power Co.

Rating table, water year 1943-44 (gage height, in feet, and discharge, in second-feet)

0.5	910	2.5	3,100
1.0	1,320	3.0	3,880
1.5	1,820	4.0	5,720
2.0	2,420	4.3	6,350

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	e1,310	1,780	1,760	1,830	1,920	2,140	2,460	3,960	2,460	1,420	1,140	1,070
2	f1,310	1,750	1,750	3,980	2,280	2,030	2,550	3,750	2,340	1,410	1,180	1,090
3	f1,320	1,740	1,810	2,970	2,520	2,090	2,690	3,660	2,750	1,370	1,190	1,050
4	f1,310	4,340	1,930	2,240	2,790	2,930	2,790	3,660	2,630	1,360	1,170	1,040
5	e1,300	5,850	2,360	3,040	6,280	3,560	2,750	3,720	2,370	1,340	1,130	1,030
6	e1,320	3,260	2,030	3,480	5,260	2,970	2,630	3,950	2,220	1,330	1,160	1,010
7	e1,300	2,580	1,920	2,500	4,190	2,720	2,510	3,950	2,160	1,320	1,160	1,010
8	e1,300	2,250	1,850	2,170	4,070	3,020	2,550	3,750	2,080	1,300	1,130	1,010
9	e1,300	2,060	1,800	2,050	4,790	4,150	2,550	3,530	2,030	1,300	1,120	990
10	e1,340	1,940	1,730	2,080	3,850	5,780	2,430	3,250	1,960	1,300	1,120	974
11	e1,370	1,890	1,710	1,970	3,360	4,570	2,810	3,030	1,950	1,300	1,080	982
12	f1,410	1,820	1,660	1,860	2,990	3,880	3,700	2,890	1,900	1,300	1,080	966
13	1,390	1,780	1,640	1,890	2,740	3,580	3,620	2,760	1,830	1,230	1,090	974
14	1,380	1,720	1,610	1,920	2,670	3,040	3,930	2,690	1,780	1,230	1,040	974
15	1,380	1,690	1,590	1,860	2,640	2,820	4,530	2,760	1,780	1,230	1,050	990
16	1,370	1,670	1,580	1,900	2,460	2,670	4,500	2,690	1,900	1,210	1,040	1,010
17	1,470	1,650	1,570	1,930	2,510	2,620	4,150	2,620	1,860	1,210	1,040	1,050
18	1,550	1,640	1,570	1,950	2,390	2,720	3,580	2,670	1,800	1,210	1,040	1,040
19	1,530	1,650	1,610	1,900	2,460	2,780	3,880	2,540	1,940	1,210	1,040	1,040
20	1,580	1,730	1,580	1,850	2,390	2,740	4,430	2,470	1,940	1,180	1,040	1,010
21	2,080	1,960	1,570	1,840	2,330	2,560	4,080	2,430	2,100	1,180	1,040	1,010
22	1,920	1,830	1,530	1,820	2,210	2,450	3,590	2,370	2,110	1,170	1,020	1,010
23	1,860	1,740	1,530	2,110	2,120	2,450	3,480	2,260	1,910	1,170	1,020	1,020
24	2,060	1,710	1,520	3,130	2,050	2,860	4,980	2,160	1,810	1,160	1,010	1,010
25	2,500	1,660	1,880	2,580	2,010	2,690	4,270	2,080	1,730	1,170	1,010	1,010
26	2,430	1,630	2,080	2,260	2,010	2,540	3,860	2,060	1,700	1,160	1,010	950
27	1,960	1,610	1,830	2,100	2,040	2,390	3,750	2,100	1,630	1,130	1,010	1,010
28	1,980	1,580	1,720	1,980	2,120	2,290	3,950	2,410	1,560	1,190	1,020	982
29	2,050	1,600	1,660	1,910	2,320	2,250	4,000	2,520	1,510	1,230	1,010	1,010
30	2,120	1,660	1,610	1,910	-	2,290	3,960	2,450	1,470	1,170	998	1,120
31	2,020	-	1,590	1,900	-	2,380	-	2,360	-	1,130	990	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	50,520	2,500	1,300	1,630	100,200
November	61,770	5,850	1,580	2,059	122,500
December	53,580	2,360	1,520	1,728	106,300
Calendar year 1943	1,289,070	31,600	1,300	3,532	2,557,000
January	68,910	3,980	1,820	2,223	136,700
February	83,770	6,280	1,920	2,889	166,200
March	89,960	5,780	2,030	2,902	178,400
April	104,960	4,980	2,430	3,499	208,200
May	89,500	3,960	2,060	2,887	177,500
June	59,210	2,750	1,470	1,974	117,400
July	38,620	1,420	1,130	1,246	76,600
August	33,178	1,190	990	1,070	65,810
September	30,442	1,120	950	1,015	60,380
Water year 1943-44	764,420	6,280	950	2,089	1,516,000

Peak discharge.- Nov. 5 (2 a.m.) 8,060 sec.-ft.; Feb. 5 (2:30 p.m.) 7,690 sec.-ft.
a No gage-height record; discharge computed on basis of records for stations at Dodge Bridge, near Eagle Point, and at Grants Pass.
f Computed from partly estimated gage-height record.
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 1944.

Extremes.- Maximum discharge during year, 8,150 second-feet Nov. 5 (gage height, 5.57 feet); minimum, 814 second-feet Sept. 12 (gage height, 0.63 foot).

1939-44: Maximum discharge, 54,400 second-feet Jan. 21, 1943 (gage height, 19.83 feet), from rating curve extended above 23,000 second-feet; minimum, 560 second-feet (regulated) Aug. 8, 1940 (gage height, 0.30 foot); minimum daily, 637 second-feet Aug. 8, 1940.

Maximum stages known, about 32 feet in February 1890 and about 28 feet Feb. 22, 1927, from floodmarks.

Remarks.- Records excellent except those for June 22-24, June 30 to July 25, which are fair. Many diversions from Rogue River and tributaries above station, the largest of which are at Savage Rapids Dam of Grants Pass Irrigation District, 5 miles upstream. Flow slightly regulated by Fish Lake and Emigrant Gap Reservoirs and by pools above dams at Raygold and Savage Rapids.

Cooperation.- Water-stage recorder inspected by employees of Grants Pass Water Department.

Rating table, water year 1943-44 (gage height, in feet, and discharge, in second-feet)

0.6	790	1.6	1,710	3.5	4,340
.9	1,030	2.2	2,420	4.2	5,530
1.2	1,300	2.8	3,250	5.0	7,010

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,230	1,900	1,830	1,860	2,050	2,370	2,600	4,000	2,340	h1,300	1,010	886
2	1,230	1,860	1,840	4,040	2,520	2,240	2,690	3,830	2,280	h1,300	1,110	966
3	1,240	1,840	1,820	3,460	2,740	2,280	2,420	3,640	2,600	a1,260	1,080	942
4	1,260	3,740	1,970	2,500	3,040	3,370	2,880	3,610	2,620	h1,230	1,070	902
5	1,260	6,550	2,420	2,920	6,180	4,400	2,830	3,670	2,300	h1,230	1,030	902
6	1,320	3,640	2,180	4,120	6,050	3,600	2,690	3,830	2,130	h1,210	998	886
7	1,360	2,780	1,990	2,780	4,740	3,160	2,560	3,910	2,050	h1,170	1,010	886
8	1,290	2,420	1,930	2,370	4,470	3,500	2,590	3,760	1,950	h1,160	998	878
9	1,260	2,190	1,880	2,210	5,300	4,810	2,600	3,490	1,910	h1,150	990	878
10	1,270	2,040	1,820	2,160	4,520	6,800	2,420	3,240	1,950	a1,150	982	878
11	1,410	1,980	1,780	2,090	3,810	5,420	2,670	3,000	1,810	a1,120	966	870
12	1,840	1,950	1,750	1,990	3,360	4,500	3,760	2,880	1,790	a1,100	950	846
13	1,750	1,840	1,720	2,050	3,090	3,920	3,640	2,710	1,710	a1,080	950	838
14	1,260	1,820	1,690	2,100	2,960	3,480	4,040	2,630	1,670	a1,080	942	878
15	1,420	1,840	1,670	2,070	2,950	3,190	4,520	2,680	1,610	a1,060	926	878
16	1,450	1,790	1,670	2,050	2,710	2,960	4,760	2,640	1,760	a1,050	918	910
17	1,490	1,720	1,670	2,070	2,740	2,900	4,370	2,560	1,780	a1,050	910	934
18	1,590	1,690	1,640	2,120	2,600	3,020	3,780	2,640	1,720	a1,050	894	934
19	1,620	1,710	1,640	2,050	2,630	3,040	3,940	2,550	1,850	a1,040	894	942
20	1,620	1,800	1,710	2,010	2,560	3,020	4,620	2,420	1,910	a1,040	894	902
21	2,110	2,030	1,660	1,990	2,500	2,830	4,340	2,360	2,000	a1,030	902	894
22	2,060	1,930	1,620	1,970	2,380	2,690	3,810	2,290	2,170	a1,030	902	902
23	1,990	1,820	1,620	2,220	2,290	2,650	3,580	2,170	a1,900	a1,020	894	902
24	2,110	1,790	1,600	3,500	2,210	3,120	4,870	2,060	1,670	a1,020	886	902
25	2,600	1,730	1,830	2,920	2,170	3,000	4,480	1,980	1,640	1,040	878	894
26	2,750	1,720	2,270	2,540	2,170	2,810	4,020	1,930	1,540	1,020	878	878
27	2,160	1,700	1,940	2,360	2,210	2,640	3,880	1,940	1,480	1,020	902	862
28	2,040	1,690	1,820	2,190	2,280	2,500	3,970	2,170	1,420	1,050	886	862
29	2,120	1,670	1,750	2,100	2,550	2,460	4,050	2,360	1,350	1,160	870	902
30	2,170	1,710	1,710	2,050	-	2,470	4,020	2,360	1,350	1,060	870	1,050
31	2,190	-	1,710	2,030	-	2,560	-	2,220	-	1,030	878	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	52,470	2,750	1,230	1,693	104,100
November	64,890	6,550	1,670	2,163	128,700
December	56,150	2,420	1,600	1,811	111,400
Calendar year 1943	1,367,890	41,500	1,220	3,748	2,713,000
January	74,890	4,120	1,860	2,416	148,500
February	91,780	6,180	2,050	3,165	182,000
March	101,710	6,800	2,240	3,281	201,700
April	107,390	4,870	2,420	3,580	213,000
May	87,530	4,000	1,930	2,824	173,600
June	56,160	2,620	1,350	1,872	111,400
July	34,310	1,300	1,020	1,107	68,050
August	29,268	1,110	870	944	58,050
September	26,984	1,050	838	899	53,520
Water year 1943-44	783,532	6,800	838	2,141	1,554,000

Peak discharge.- Nov. 5 (5 a.m.) 8,150 sec.-ft.; Jan. 6 (2 a.m.) 5,480 sec.-ft.; Feb. 5 (6 p.m.) 8,130 sec.-ft.

a No gage-height record; discharge computed on basis of records for station at Raygold, near Central Point, and unpublished records of diversions at Grants Pass.

h Computed from staff-gage reading.

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 1944. Maximum contents observed during year, 7,437 acre-feet May 25-28 (elevation, 4,825.78 feet); minimum observed, 165 acre-feet Sept. 29 (elevation, 4,801.69 feet). Maximum contents observed during period 1915-44, 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 1944. Maximum contents observed during year, 8,342 acre-feet Apr. 27, May 4 (elevation, 2,173.5 feet); minimum observed, 25 acre-feet Sept. 11 (elevation, 2,080.0 feet). Maximum contents during period 1924-44, 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 1943 to September 1944

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	-	a5,071	-	-	a481	-
Oct. 31	4,821.94	5,937	+866	-	a618	+137
Nov. 30	4,823.47	6,521	+584	-	a837	+219
Dec. 31	4,824.11	6,771	+250	-	a1,026	+189
Calendar year 1943	-	-	+2,991	-	-	-5,293
Jan. 31	4,824.40	6,884	+113	-	a1,496	+470
Feb. 29	-	a6,974	+90	-	a2,816	+1,320
Mar. 31	4,824.66	6,988	+14	-	a5,606	+2,790
Apr. 30	4,824.87	7,072	+84	-	a8,342	+2,736
May 31	4,825.61	7,368	+296	-	a6,305	-2,037
June 30	4,824.71	7,008	-360	2,163.2	6,165	-140
July 31	4,814.31	3,289	-3,719	2,134.0	2,255	-3,910
Aug. 31	4,805.61	836	-2,453	-	a452	-1,803
Sept.30	4,802.24	224	-612	2,085.0	70	-382
Water year 1943-44	-	-	-4,847	-	-	-411

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

South Fork Rogue River above Imnaha Creek, near Prospect, Oreg.

Location.- Water-stage recorder, lat. 42°42', long. 122°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 1944.

Average discharge.- 13 years, 122 second-feet.

Extremes.- Maximum discharge during year, 419 second-feet Nov. 4 (gage height, 3.27 feet); minimum, 43 second-feet Sept. 26-29 (gage height, 1.36 feet).
1931-44: Maximum discharge, 2,170 second-feet Dec. 1, 1942 (gage height, 6.21 feet), from rating curve extended above 250 second-feet on basis of former curve well defined to 1,000 second-feet; minimum, 27 second-feet Oct. 1-21, 1931.

Remarks.- Records good except those above 200 second-feet, 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 1943-44 (gage height, in feet, and discharge, in second-feet)

1.3	36	2.2	173
1.5	62	2.5	228
1.7	92	2.9	313
1.9	124		

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	70	84	72	70	64	70	106	195	187	95	68	52
2	70	80	72	74	64	70	114	195	195	94	68	52
3	68	84	74	65	68	70	129	207	243	94	68	49
4	70	250	77	64	66	70	130	224	195	92	68	48
5	70	217	77	66	92	70	127	251	175	92	65	48
6	70	143	74	65	110	70	127	282	164	90	65	48
7	68	118	72	65	111	70	124	291	159	89	64	48
8	68	105	72	64	110	74	124	274	154	88	62	47
9	66	95	71	64	108	100	121	247	146	96	62	46
10	66	89	71	64	102	124	121	224	143	89	62	46
11	77	86	70	62	98	116	130	205	140	86	61	46
12	68	82	68	65	94	106	134	191	138	83	59	46
13	66	80	68	65	92	102	132	187	132	83	59	46
14	65	78	66	65	90	97	132	195	130	83	59	46
15	65	77	65	65	88	92	134	195	138	80	59	46
16	65	74	65	64	84	94	132	178	146	78	56	46
17	70	74	65	65	83	95	129	180	142	77	55	47
18	72	72	65	62	83	98	127	176	134	76	55	48
19	71	72	65	62	82	100	135	170	140	76	55	46
20	86	77	64	62	80	98	134	173	138	76	52	46
21	95	77	64	61	80	97	129	177	173	76	52	46
22	84	76	64	62	78	96	127	166	159	74	51	46
23	82	74	62	70	76	94	135	153	142	74	51	44
24	89	71	65	66	76	102	142	146	130	74	51	44
25	98	71	66	65	74	97	137	146	122	72	49	44
26	92	71	66	64	74	95	137	153	114	74	49	43
27	84	68	65	65	72	92	140	173	110	74	49	43
28	95	68	64	65	71	90	153	202	103	72	49	43
29	95	66	62	64	71	90	161	220	98	72	49	46
30	105	70	61	64	-	95	180	198	98	72	49	54
31	89	-	61	62	-	103	-	193	-	70	49	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff	
						Inches	Acre-feet
October	2,399	105	65	77.4	1.49	1.72	4,760
November	2,749	250	66	91.6	1.76	1.97	5,450
December	2,093	77	61	67.5	1.30	1.50	4,150
Calendar year 1943	63,903	1,560	61	175	3.37	45.71	126,800
January	2,006	74	61	64.7	1.24	1.43	3,980
February	2,441	111	64	84.2	1.62	1.75	4,840
March	2,836	124	70	91.5	1.76	2.03	5,630
April	3,983	180	106	133	2.56	2.85	7,900
May	6,166	291	146	199	3.83	4.41	12,230
June	4,388	243	98	146	2.81	3.14	8,700
July	2,520	95	70	81.3	1.56	1.80	5,000
August	1,770	68	49	57.1	1.10	1.27	3,510
September	1,400	54	43	46.7	.898	1.00	2,780
Water year 1943-44	34,751	291	43	94.9	1.82	24.87	68,930

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

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 1944.

Average discharge.- 13 years, 41.0 second-feet.

Extremes.- Maximum daily discharge during year, 84 second-feet May 7, 8 (gage not read); minimum daily, 20 second-feet Sept. 25-28.
1931-44: Maximum discharge observed, 410 second-feet Nov. 29 or Dec. 1, 1942 (gage height, 2.60 feet, from floodmark), from rating curve extended above 100 second-feet on basis of former curve defined to 250 second-feet by measurements; minimum observed, 11 second-feet Dec. 14, 1931 (gage height, 0.46 foot).

Remarks.- Records fair. Staff gage read once weekly; discharge for intervening days computed on basis of records for stations on South Fork Rogue River and power canal. No diversion or regulation above station.

Cooperation.- Gage readings furnished by The California Oregon Power Co.

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	26	40	29	29	29	31	46	66	h50	35	26	22
2	26	38	h29	30	29	h31	48	66	50	34	26	22
3	27	37	30	29	h29	31	51	67	63	33	h26	22
4	27	64	31	28	30	31	52	69	56	33	26	22
5	27	58	31	28	38	30	50	74	52	32	26	21
6	28	47	30	h28	46	30	h49	78	50	h32	25	21
7	h28	41	30	28	46	30	48	84	48	32	24	h21
8	28	37	29	28	44	31	48	84	h47	33	24	21
9	28	34	h29	28	43	h40	48	75	46	33	23	21
10	28	33	29	28	h40	52	49	69	45	32	h23	21
11	28	h32	29	28	39	46	49	h64	43	31	23	21
12	28	31	28	28	38	45	50	61	42	30	24	21
13	28	30	28	h28	37	42	h50	60	41	h29	24	21
14	h28	30	28	28	36	40	50	62	41	29	h24	h21
15	28	29	28	28	36	38	52	62	h43	h29	24	21
16	30	29	h28	28	35	h37	50	58	46	29	23	21
17	30	29	28	28	h35	37	50	57	45	28	h22	22
18	31	h29	28	28	34	37	54	h56	44	28	22	22
19	32	30	28	h28	34	39	56	56	42	28	22	21
20	34	31	28	h28	33	39	h56	58	42	h28	22	21
21	h35	30	27	28	33	39	56	55	46	28	22	h21
22	33	30	27	28	32	39	56	53	h42	28	22	21
23	h31	29	h27	31	32	h40	54	51	41	28	22	21
24	30	29	27	29	h32	42	58	50	40	28	h22	21
25	34	h28	27	28	32	43	h58	h49	39	27	22	20
26	39	28	27	28	32	42	58	50	39	27	22	20
27	38	28	27	h28	32	41	h59	54	38	h27	22	20
28	h37	28	27	28	32	41	60	59	38	27	22	h20
29	36	29	27	28	31	41	60	60	h37	27	22	22
30	39	29	h27	28	-	h42	61	55	36	26	22	25
31	43	-	28	28	-	44	-	51	-	26	h22	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff	
						Inches	Acre-feet
October	965	43	26	31.1	1.20	1.38	1,910
November	1,017	64	28	33.9	1.30	1.45	2,020
December	876	31	27	28.3	1.09	1.25	1,740
Calendar year 1943	22,410	330	26	61.4	2.36	32.06	44,450
January	876	31	28	28.3	1.09	1.25	1,740
February	1,019	46	29	35.1	1.35	1.46	2,020
March	1,193	52	30	38.5	1.48	1.71	2,370
April	1,586	61	46	52.9	2.03	2.27	3,150
May	1,913	84	49	61.7	2.37	2.74	3,790
June	1,332	63	36	44.4	1.71	1.91	2,640
July	917	35	26	29.6	1.14	1.31	1,820
August	721	26	22	23.3	.896	1.03	1,430
September	637	25	20	21.2	.815	.91	1,260
Water year 1943-44	13,052	84	20	35.7	1.37	18.67	25,890

h Gage read on this day.
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 1944.

Average discharge.- 12 years, 102 second-feet.

Extremes.- Maximum daily discharge during year, 157 second-feet several days in period April to June; minimum, 2 second-feet May 7 (gage height, 0.38 foot).
1932-44: Maximum discharge, 175 second-feet May 31, June 17, 1933, Feb. 6, 1940; no flow at times.

Remarks.- Records good. Daily discharge computed on basis of electrical output of power plant below station, the relation between electrical output and discharge being based on discharge measurements. This canal, completed in March 1932, diverts water from South Fork Rogue River 200 feet below mouth of Imnaha Creek for use at power plant located in W½ sec. 1, T. 33 S., R. 3 E., from which water may be wasted into Middle Fork Rogue River or mingled with flow of other diversions in Main power canal.

Cooperation.- Water-stage recorder graph and record of electrical output furnished by The California Oregon Power Co.

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	90	105	95	95	87	93	154	e157	156	134	86	71
2	88	96	93	98	88	92	154	157	154	132	90	70
3	88	102	99	86	93	94	154	156	157	128	87	69
4	89	138	105	88	92	93	154	156	157	122	86	67
5	87	139	97	90	131	92	155	156	157	122	84	66
6	88	140	93	88	148	92	150	156	157	122	82	66
7	88	137	93	85	148	93	150	95	157	123	82	65
8	87	128	92	84	149	98	150	157	157	114	82	65
9	86	118	90	83	148	129	145	156	156	134	82	62
10	86	114	88	83	137	144	150	155	157	120	80	63
11	101	108	88	82	135	144	155	157	157	119	78	63
12	92	105	88	85	129	146	155	156	156	111	78	63
13	87	101	86	e84	128	142	156	157	156	111	74	62
14	86	98	85	83	125	134	156	156	157	110	76	64
15	87	97	84	83	119	132	157	157	157	106	75	63
16	85	94	83	82	117	133	157	156	156	104	74	63
17	94	93	84	87	115	137	e156	156	156	104	74	66
18	95	92	83	83	113	142	155	156	157	101	72	67
19	94	93	86	83	110	144	157	157	157	99	73	62
20	109	105	86	81	107	140	156	157	156	98	71	62
21	125	100	83	82	108	135	155	157	157	97	70	62
22	109	99	83	81	104	134	157	156	157	96	71	62
23	105	95	83	95	102	139	157	156	156	93	70	60
24	116	92	87	90	100	144	156	156	157	94	70	59
25	129	92	88	86	98	140	157	156	157	95	71	61
26	117	90	86	86	100	137	157	157	157	93	69	59
27	104	88	83	86	96	140	157	156	149	90	70	60
28	118	88	83	83	97	135	156	157	144	92	69	58
29	121	88	83	83	95	138	156	157	141	93	67	62
30	129	94	81	e84	-	142	e156	156	134	90	67	74
31	110	-	82	85	-	150	-	156	-	90	68	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	3,090	129	85	99.7	6,130
November	3,129	140	88	104	6,210
December	2,720	105	81	87.7	5,400
Calendar year 1943	47,736	155	50	131	94,680
January	2,654	98	81	85.6	5,260
February	3,319	149	87	114	6,580
March	3,948	150	92	127	7,830
April	4,640	157	145	155	9,200
May	4,786	157	95	154	9,490
June	4,639	157	134	155	9,200
July	3,337	134	90	108	6,620
August	2,347	90	67	75.7	4,660
September	1,916	74	58	63.9	3,800
Water year 1943-44	40,525	157	58	111	80,380

e Discharge interpolated on basis of gage-height record (flow apparently bypassed around power unit).

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 1944 (include flow of Middle Fork power canal).

Average discharge.- 19 years, 169 second-feet.

Extremes.- Maximum combined discharge of river and canal during year, 1,010 second-feet Nov. 4 (river gage height, 3.38 feet); minimum daily, 106 second-feet Sept. 21, 22, 26-28.

1925-44: Maximum discharge, 2,760 second-feet Nov. 29, 1942 (river gage height, 5.15 feet), from rating curve extended above 1,100 second-feet on basis of study of flow in river and Middle Fork power canal; minimum, 72 second-feet Aug. 24 to Sept. 5, 1931.

Remarks.- Records good except those above 200 second feet, which are poor. Rating curve for river only defined to 110 second-feet by measurements and to 1,100 second-feet by study of increments of discharge when flow in canal was changed. Flow in river controlled since Nov. 19, 1931, by head gates at diversion dam of power canal which diverts water around station; practically no storage above diversion dam. Figures of discharge include flow of Middle Fork power canal.

Cooperation.- Water-stage recorder graph furnished by The California Oregon Power Co.

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	136	145	144	150	138	138	170	261	264	159	124	117
2	135	142	146	150	139	138	176	258	269	156	124	115
3	136	165	159	139	148	139	184	264	297	153	125	113
4	136	578	157	138	148	142	182	275	246	151	125	112
5	134	301	150	141	201	141	176	311	229	149	123	111
6	134	208	147	137	212	137	176	343	224	148	124	111
7	135	182	144	134	202	139	172	357	224	146	121	110
8	135	170	143	134	195	142	176	340	215	147	121	109
9	135	166	142	134	190	216	169	312	200	148	121	110
10	136	157	141	132	181	221	171	286	195	145	118	109
11	136	155	140	130	176	199	181	268	195	144	118	109
12	138	152	139	132	171	189	181	250	192	141	118	108
13	138	149	138	132	169	181	183	237	187	140	118	109
14	136	147	138	130	168	175	186	247	182	137	118	109
15	136	145	138	130	163	171	196	242	189	135	118	109
16	135	143	137	135	161	169	191	228	195	135	117	110
17	144	142	136	138	156	171	186	233	184	133	116	112
18	143	142	136	137	155	173	184	225	185	132	116	111
19	142	144	137	136	154	172	193	227	189	131	116	108
20	168	161	137	135	152	167	189	230	186	131	115	108
21	163	153	134	135	151	163	183	225	200	128	115	106
22	157	150	134	135	149	161	186	209	189	128	115	106
23	159	148	134	147	146	171	197	193	181	127	116	107
24	171	142	136	144	144	176	204	190	180	129	115	107
25	180	141	141	139	143	168	199	198	178	128	115	107
26	157	140	138	137	142	164	200	212	176	126	115	106
27	151	139	136	136	141	162	209	232	171	126	114	106
28	163	139	135	135	142	161	226	270	165	131	114	106
29	161	141	132	134	140	160	241	327	162	141	113	112
30	161	146	131	134	-	161	254	276	160	125	113	117
31	150	-	132	134	-	163	-	279	-	125	114	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff: Inches	Runoff: Acre-feet
October	4,539	180	134	146	2.56	2.96	9,000
November	5,131	578	139	171	3.00	3.35	10,180
December	4,332	159	131	140	2.46	2.83	8,590
Calendar year 1943	80,242	965	131	220	3.86	52.36	159,200
January	4,234	150	130	137	2.40	2.76	8,400
February	4,677	212	138	161	2.82	3.05	9,280
March	5,130	221	137	165	2.89	3.35	10,180
April	5,721	254	169	191	3.36	3.73	11,350
May	8,005	357	190	258	4.53	5.22	15,880
June	6,009	297	160	200	3.51	3.92	11,920
July	4,275	159	125	138	2.42	2.79	8,480
August	3,655	125	113	118	2.07	2.38	7,250
September	3,290	117	106	110	1.93	2.15	6,530
Water year 1943-44	58,998	578	106	161	2.82	38.49	117,000

Peak discharge.- Nov. 4 (12 m.) 1,010 sec.-ft.; May 28 (11 p.m.) 324 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 1944.

Average discharge.- 13 years, 107 second-feet.

Extremes.- Maximum discharge during year, 155 second-feet Feb. 5; maximum gage height, 3.18 feet Mar. 9-12; minimum discharge, 0.2 second-foot May 5-13 (gage height, 0.10 foot).

1931-44: Maximum discharge, 196 second-feet Feb. 3, 1935 (gage height, 3.50 feet); no flow at times.

Remarks.- Records good. This canal, completed in November 1931, diverts water from Middle Fork Rogue River into Main power canal to supplement flow of Rogue River above Prospect diversion dam.

Cooperation.- Water-stage recorder graph furnished by The California Oregon Power Co.

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	133	137	138	141	135	134	143	142	145	147	29	114
2	133	135	139	142	135	134	142	142	145	146	79	112
3	133	144	147	135	142	135	142	142	145	145	106	110
4	133	129	146	134	142	137	142	143	145	144	106	109
5	132	144	142	137	154	136	142	65	145	143	106	108
6	132	143	140	133	154	133	142	.2	144	142	110	108
7	133	145	138	131	154	133	142	.2	144	141	120	108
8	133	145	137	131	153	135	142	.2	143	141	120	107
9	133	110	137	131	153	147	142	.2	143	142	120	108
10	134	145	136	130	152	147	142	.2	143	140	118	107
11	128	146	135	129	152	147	142	.2	143	138	118	107
12	134	145	135	130	152	145	142	.2	143	136	118	106
13	132	143	134	130	152	142	142	43	143	135	118	107
14	132	141	134	129	152	142	142	84	143	133	118	107
15	132	140	134	129	151	142	142	81	144	132	118	107
16	131	138	134	133	151	142	142	81	144	132	117	108
17	137	136	134	135	147	142	142	81	144	130	116	110
18	137	136	134	134	147	142	142	83	145	130	116	108
19	136	137	134	133	146	142	142	85	146	129	116	106
20	144	148	134	133	144	142	142	118	145	129	115	106
21	145	144	131	133	144	142	142	145	145	127	115	105
22	145	142	131	133	142	142	142	145	145	127	115	105
23	144	139	131	142	140	142	142	145	144	126	114	106
24	146	136	132	139	138	142	142	146	145	128	110	106
25	145	135	135	136	137	142	142	147	145	127	110	106
26	143	134	133	134	136	142	142	147	145	125	110	105
27	142	134	132	133	136	142	142	148	145	125	109	105
28	146	134	132	133	136	142	142	149	146	128	109	105
29	145	135	129	132	135	141	142	149	146	37	109	110
30	144	139	129	132	-	140	142	147	146	1.2	110	113
31	141	-	130	132	-	140	-	145	-	1.1	111	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	4,258	146	128	137	8,450
November	4,159	148	110	139	8,250
December	4,187	147	129	135	8,300
Calendar year 1943	47,782	150	0	131	94,770
January	4,138	142	129	133	8,210
February	4,212	154	135	145	8,350
March	4,356	147	133	141	8,640
April	4,261	143	142	142	8,450
May	2,904.4	149	.2	93.7	5,760
June	4,333	146	143	144	8,590
July	3,807.3	147	1.1	123	7,550
August	3,406	120	29	110	6,760
September	3,229	114	105	108	6,400
Water year 1943-44	47,250.7	154	.2	129	93,710

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 1944. Prior to October 1928 in NE¼ sec. 34, T. 32 S., R. 3 E.

Average discharge.- 19 years, 102 second-feet.

Extremes.- Maximum daily discharge during year, 215 second-feet Nov. 5 (gage not read); minimum daily, 49 second-feet Sept. 27, 28.
1925-44: Maximum discharge observed, 1,880 second-feet Nov. 29, 1942 (gage height, 5.1 feet, from floodmark), from rating curve extended above 350 second-feet; minimum observed, 34 second-feet Sept. 3, 4, 25, Oct. 9, 16, 1931.

Remarks.- Records fair for days when gage was read, poor for other periods. Gage read only once weekly; discharge for intervening days computed on basis of records for South Fork Rogue River near Prospect and Red Blanket power canal. One diversion above station for irrigation.

Cooperation.- Gage readings furnished by The California Oregon Power Co.

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	h73	79	85	88	78	76	98	148	141	88	66	h59
2	73	77	88	87	80	76	100	148	h152	87	66	58
3	73	79	h92	83	83	h76	103	150	180	86	66	57
4	72	188	94	80	h88	77	104	155	162	83	h66	56
5	72	h215	90	82	94	78	102	h160	150	81	66	55
6	72	125	87	81	104	75	101	175	145	79	65	54
7	71	110	84	h77	106	76	h101	186	138	h77	64	54
8	h71	102	82	77	108	78	101	180	132	76	64	h54
9	71	98	81	78	107	85	102	162	h129	82	63	54
10	71	96	h80	78	105	108	104	150	124	78	62	56
11	85	94	79	78	h103	106	110	140	120	75	h61	55
12	74	h92	79	79	100	104	115	h127	116	74	61	54
13	72	90	78	79	97	100	113	124	114	73	61	54
14	72	89	78	h80	94	99	h111	129	110	h72	61	54
15	h71	88	77	80	92	96	110	132	110	h72	61	h54
16	74	88	76	81	90	98	108	130	h115	71	61	54
17	82	87	h76	h81	88	h101	104	129	120	70	61	56
18	84	86	76	80	h86	104	106	127	116	70	h61	56
19	82	h86	76	79	85	107	112	h126	120	69	61	54
20	102	90	76	78	83	104	108	126	115	68	60	53
21	97	93	75	h78	81	100	h104	130	134	h68	60	52
22	h94	90	75	80	80	99	102	124	116	67	59	h52
23	95	87	74	84	79	102	108	116	h104	66	59	52
24	104	84	h74	82	78	h106	118	112	98	66	58	51
25	109	81	81	80	h78	105	h114	110	96	65	h58	50
26	95	h80	79	78	77	100	116	h114	94	65	57	50
27	88	79	76	77	77	97	120	126	93	65	57	49
28	92	78	75	h76	76	97	h131	140	92	h72	57	49
29	h89	80	74	76	76	96	136	170	91	76	56	h51
30	88	83	74	77	-	96	145	156	h90	69	56	60
31	82	-	h73	77	-	h96	-	146	-	67	56	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff	
						Inches	Acre-feet
October	2,550	109	71	82.3	2.06	2.37	5,060
November	2,894	215	77	96.5	2.41	2.69	5,740
December	2,464	94	73	79.5	1.99	2.29	4,890
Calendar year 1943	54,894	926	71	150	3.75	51.05	108,900
January	2,471	88	76	79.7	1.99	2.30	4,900
February	2,573	108	76	88.7	2.22	2.39	5,100
March	2,918	108	75	94.1	2.35	2.71	5,790
April	3,307	145	98	110	2.75	3.07	6,560
May	4,348	186	110	140	3.50	4.04	8,620
June	3,617	180	90	121	3.02	3.36	7,170
July	2,277	88	65	73.5	1.84	2.12	4,520
August	1,890	66	56	61.0	1.52	1.76	3,750
September	1,617	60	49	53.9	1.35	1.50	3,210
Water year 1943-44	32,926	215	49	90.0	2.25	30.60	65,310

h Gage read 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 1944.

Average discharge.- 12 years, 64.7 second-feet.

Extremes.- Maximum discharge during year, 99 second-feet Nov. 4 (gage height, 3.18 feet); minimum, 11 second-feet Nov. 9 (gage height, 1.27 feet).
1931-44: Maximum discharge, 116 second-feet Nov. 6, 1932; no flow for part of day Sept. 24, 25, 1932.

Remarks.- Records excellent. This canal, completed in October 1932, diverts water from Red Blanket Creek into Main power canal to supplement flow of Rogue River above Prospect diversion dam.

Cooperation.- Water-stage recorder graph furnished by The California Oregon Power Co.

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	73	88	f83	87	83	77	90	89	89	83	68	59
2	73	85	83	88	83	77	90	89	89	82	68	57
3	73	88	89	85	88	78	91	89	89	82	68	56
4	73	88	88	81	88	80	91	89	89	80	67	55
5	73	80	86	83	88	80	91	89	88	79	66	55
6	72	80	85	80	87	78	91	90	88	79	66	54
7	72	80	83	77	87	80	91	90	89	77	63	54
8	71	87	83	77	88	82	91	90	92	77	63	54
9	71	75	80	77	88	87	91	90	91	81	63	55
10	72	89	80	77	87	86	91	89	91	76	63	56
11	85	90	79	76	86	86	91	89	91	75	61	54
12	76	91	79	77	85	86	91	89	90	74	61	54
13	73	89	77	77	85	86	91	89	90	73	61	54
14	72	88	77	77	85	89	91	89	90	70	61	54
15	72	86	76	77	88	91	91	89	90	69	61	54
16	71	85	76	78	89	91	91	89	90	69	60	54
17	79	84	74	82	88	91	91	89	90	68	58	56
18	78	83	74	81	86	91	91	89	90	68	58	56
19	76	85	74	80	86	91	91	89	90	68	58	54
20	85	89	76	80	85	91	91	89	90	67	58	54
21	89	88	76	79	84	91	91	89	90	67	58	54
22	85	86	74	79	83	91	91	89	90	67	58	54
23	87	83	74	86	82	91	92	89	89	66	57	54
24	88	83	77	86	80	91	92	89	92	67	57	54
25	88	82	83	83	80	91	92	88	96	67	57	52
26	88	80	79	82	80	91	91	88	94	65	56	52
27	91	80	77	80	79	91	89	88	93	66	57	52
28	91	79	76	79	80	91	89	a88	91	76	56	52
29	88	f78	74	78	78	91	89	88	90	76	56	55
30	89	f85	74	78	-	91	89	89	86	70	56	59
31	89	-	75	77	-	91	-	89	-	68	56	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	2,463	91	71	79.5	4,890
November	2,534	91	75	84.5	5,030
December	2,441	89	74	78.7	4,840
Calendar year 1943	22,285	94	3	61.1	44,220
January	2,484	88	76	80.1	4,930
February	2,456	89	78	84.7	4,870
March	2,699	91	77	87.1	5,350
April	2,723	92	89	90.8	5,400
May	2,758	90	88	89.0	5,470
June	2,707	96	86	90.2	5,370
July	2,252	93	65	72.6	4,470
August	1,876	68	56	60.5	3,720
September	1,637	59	52	54.6	3,250
Water year 1943-44	29,030	96	52	79.3	57,590

a No gage-height record; discharge interpolated.
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.

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 1944.

Average discharge.- 12 years (1932-44), 266 second-feet.

Extremes.- Maximum discharge during year, 401 second-feet Mar. 24; maximum gage height, 4.20 feet Oct. 11; minimum discharge 23 second-feet Nov. 9.
1931-44: 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 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	303	329	329	341	314	312	336	327	327	322	67	254
2	301	317	327	348	316	311	337	339	327	322	68	247
3	301	341	351	324	336	314	339	339	325	322	68	244
4	300	277	353	320	334	319	339	339	325	317	66	241
5	295	288	344	327	308	316	339	222	324	319	65	241
6	295	287	332	317	277	309	339	114	330	317	106	238
7	295	287	325	311	277	316	339	107	351	316	272	238
8	295	282	320	309	282	325	337	106	341	320	271	236
9	293	223	316	306	279	358	337	90	337	337	270	236
10	296	336	319	304	270	351	339	90	334	324	268	236
11	336	332	316	301	265	351	339	90	334	322	264	235
12	316	341	314	308	258	348	339	141	341	319	262	236
13	306	341	311	300	272	341	339	277	342	317	262	236
14	301	334	311	303	314	339	339	319	342	316	262	236
15	298	327	308	303	341	351	339	316	342	312	260	234
16	296	320	306	306	368	378	341	316	342	309	259	234
17	320	319	303	317	361	385	336	316	341	308	256	241
18	322	319	301	311	356	388	336	308	341	304	256	240
19	312	322	303	308	353	390	336	317	341	301	254	234
20	349	349	304	306	348	387	336	349	341	303	253	232
21	344	342	304	304	346	383	337	380	341	300	253	230
22	337	334	301	303	339	382	337	366	346	298	252	229
23	337	334	300	336	332	390	336	356	353	295	248	228
24	f351	325	317	329	329	322	336	356	354	298	246	225
25	h359	319	327	317	324	266	337	356	358	296	242	223
26	f339	316	314	316	324	300	337	356	354	293	241	222
27	349	312	309	311	320	320	336	353	349	296	241	219
28	359	311	304	306	322	322	334	329	342	311	240	219
29	f353	314	301	304	317	326	336	329	337	96	240	228
30	f351	329	300	300	-	330	334	326	330	70	238	218
31	341	-	301	303	-	330	-	327	-	67	244	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	9,950	359	293	321	19,740
November	9,507	349	223	317	18,860
December	9,771	353	300	315	19,380
Calendar year 1943	109,106	403	4	299	216,400
January	9,699	348	300	313	19,240
February	9,182	368	258	317	18,210
March	10,559	390	266	341	20,940
April	10,121	341	334	337	20,070
May	8,655	380	90	279	17,170
June	10,192	368	324	340	20,220
July	8,947	337	67	289	17,750
August	6,794	272	65	219	13,480
September	7,010	264	218	234	13,900
Water year 1943-44	110,387	390	65	302	219,000

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.

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 1944. August 1922 to March 1925 at site at Butte Falls.

Average discharge.- 28 years (1910-11, 1917-44), 155 second-feet.

Extremes.- Maximum discharge during year, 358 second-feet Apr. 24 (gage height, 1.42 feet); minimum, 65 second-feet Sept. 19 (gage height, 0.53 foot).
1910-11, 1915, 1917-44: Maximum discharge, 2,470 second-feet Feb. 20, 1927 (gage height, 4.05 feet), from rating curve extended above 1,600 second-feet; minimum, 39 second-feet Oct. 14, 1931 (gage height, 0.32 foot).

Remarks.- Records good except those for periods of no gage-height record, which are poor. Diversions above station for irrigation, and since 1927 for Medford municipal supply. No regulation.

Rating table, water year 1943-44 (gage height, in feet, and discharge, in second-feet)

0.6	78	1.0	185
.7	101	1.2	257
.8	126	1.4	347

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	96	108	104	a140	114	129	137	246	114	101	83	76
2	94	106	104	a180	114	124	137	238	126	101	80	76
3	94	111	106	a150	129	129	137	230	140	99	80	74
4	94	170	116	h126	129	146	148	227	129	96	80	74
5	92	160	118	a140	209	148	140	223	118	94	83	72
6	94	129	111	a136	202	146	137	219	116	92	83	74
7	94	118	108	a123	185	148	134	212	116	92	80	72
8	94	114	108	a121	188	151	148	209	111	94	78	72
9	92	111	106	a120	209	188	143	199	111	94	80	70
10	94	108	104	a116	182	234	137	185	111	92	78	70
11	99	106	101	114	170	234	154	186	114	94	78	68
12	96	106	101	116	157	212	160	173	108	92	78	68
13	96	106	101	116	154	202	166	166	106	92	78	70
14	96	104	99	114	157	188	186	160	99	92	78	70
15	96	104	99	114	151	179	223	160	116	92	78	74
16	96	101	101	111	148	173	227	154	126	90	78	76
17	99	101	101	114	146	170	219	154	118	90	78	78
18	104	101	101	111	140	166	209	148	121	92	76	78
19	101	101	101	108	143	166	234	143	132	92	78	76
20	111	118	104	108	140	163	265	137	129	92	78	76
21	121	121	99	108	137	160	270	129	134	90	78	76
22	121	111	99	106	134	148	257	129	132	90	78	76
23	116	106	96	143	132	160	278	129	126	90	78	74
24	114	106	101	148	126	173	337	126	118	90	80	74
25	132	104	126	137	126	163	313	121	116	87	80	74
26	118	101	121	132	126	154	299	116	108	87	78	74
27	108	101	114	129	129	146	282	114	106	87	78	74
28	126	99	111	121	132	143	274	111	106	87	74	74
29	124	99	a110	118	134	140	257	111	104	85	74	78
30	126	101	a104	116	-	137	249	108	101	85	70	85
31	116	-	a108	114	-	134	-	111	-	85	74	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	3,254	132	92	105	6,450
November	3,332	170	99	111	6,610
December	3,283	126	96	106	6,510
Calendar year 1943	79,609	1,730	92	218	157,900
January	3,850	180	106	124	7,640
February	4,343	209	114	150	8,610
March	5,054	234	124	163	10,020
April	6,256	337	134	209	12,410
May	5,073	246	108	164	10,060
June	3,512	140	99	117	6,970
July	2,836	101	85	91.5	5,630
August	2,425	83	70	78.2	4,810
September	2,223	85	68	74.1	4,410
Water year 1943-44	45,441	337	68	124	90,130

a No gage-height record; discharge computed on basis of records for South and North Forks Little Butte Creek near Lake Creek.
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 1944. November 1910 to April 1913 at site in sec. 11, T. 37 S., R. 2 E., 5 miles above Lake Creek.

Average discharge.- 24 years (1911-12, 1921-44), 94.9 second-feet.

Extremes.- Maximum discharge during year, 588 second-feet Apr. 23 (gage height, 2.83 feet); minimum, 12 second-feet Aug. 19, 20 (gage height, 1.14 feet).
1910-13, 1921-44: Maximum discharge, 2,870 second-feet Jan. 21, 1943 (gage height, 5.77 feet, from floodmark), from rating curve extended above 400 second-feet by logarithmic plotting; minimum, 2 second-feet Aug. 10, 1931 (gage height, 0.97 foot).

Remarks.- Records good except those for periods of shifting control, which are fair, and those for August, September, and periods of no gage-height record, which are poor. Diversions above station for irrigation.

Rating tables, water year 1943-44, except periods of shifting control (gage height, in feet, and discharge, in second-feet)

Oct. 1 to Feb. 8				Feb. 9 to Sept. 30					
1.3	20	1.7	84	1.2	16	1.5	48	2.0	193
1.4	28	1.8	112	1.3	24	1.6	69	2.2	270
1.5	41	2.0	178	1.4	34	1.8	126	2.5	410
1.6	59								

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	22	33	29	37	36	65	136	328	88	32	22	16
2	22	32	29	57	40	56	158	315	102	32	22	17
3	21	32	29	38	57	61	182	306	126	30	23	18
4	21	46	32	a35	64	85	176	310	105	30	22	18
5	22	57	37	a55	175	91	162	320	82	30	21	18
6	22	43	28	a42	122	69	155	333	74	29	22	18
7	23	37	31	a37	109	69	142	333	67	28	22	16
8	22	34	29	a35	125	82	148	324	65	28	22	17
9	22	33	26	a32	190	168	148	302	65	27	20	15
10	22	32	26	a30	132	219	155	279	65	26	19	15
11	25	31	27	a29	114	197	215	262	65	25	19	16
12	25	29	26	a29	91	158	219	238	56	24	18	16
13	22	28	26	29	82	129	226	226	52	22	18	17
14	22	27	26	29	80	102	234	219	50	23	18	18
15	22	27	26	28	74	93	297	212	67	23	18	16
16	22	26	26	28	74	91	310	200	63	22	18	17
17	24	26	26	29	82	99	274	193	56	22	18	20
18	26	26	26	28	77	120	250	190	52	22	18	20
19	25	27	26	28	77	126	351	172	56	22	15	19
20	25	32	26	27	74	105	302	158	56	21	14	18
21	31	43	26	28	74	91	258	152	63	21	15	18
22	29	37	25	27	65	88	223	145	58	21	17	18
23	28	32	25	55	56	102	322	136	48	21	16	17
24	27	29	26	84	58	123	410	126	44	22	16	17
25	41	28	29	57	50	111	324	114	42	21	17	18
26	38	28	29	45	54	96	292	105	40	19	18	18
27	31	28	27	41	54	91	270	105	38	20	18	18
28	45	27	26	34	74	85	297	105	37	21	17	18
29	41	27	25	36	82	93	310	93	34	21	15	21
30	55	28	26	36	-	108	328	91	32	22	15	29
31	40	-	26	34	-	126	-	91	-	22	15	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	863	55	21	27.8	1,710
November	965	57	26	32.2	1,910
December	847	37	25	27.3	1,680
Calendar year 1943	50,165	1,200	21	137	99,490
January	1,159	84	27	37.4	2,300
February	2,442	190	36	84.2	4,840
March	3,299	219	56	106	6,540
April	7,274	410	136	242	14,430
May	6,483	333	91	209	12,860
June	1,848	126	32	61.6	3,670
July	749	32	19	24.2	1,490
August	568	23	14	18.3	1,130
September	537	29	15	17.9	1,070
Water year 1943-44	27,034	410	14	73.9	53,630

a No gage-height record; discharge computed on basis of records for North Fork Little Butte Creek near Lake Creek and South Fork Big Butte Creek near Butte Falls.
Note.- Shifting-control method used Oct. 1-29, Feb. 19 to Apr. 23.
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 1944.

Average discharge.- 29 years (1915-44), 32.4 second-feet.

Extremes (regulated).- Maximum discharge during year, 139 second-feet July 27 (gage height, 1.65 feet); minimum, 6.2 second-feet Sept. 30 (gage height, 0.46 foot).
1914-44: 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 1943-44 (gage height, in feet, and discharge, in second-feet)

0.5	7.2	0.9	29
.6	10.6	1.1	50
.7	15.2	1.3	77
.8	21	1.6	129

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	44	24	27	27	27	27	25	29	47	85	129	82
2	44	24	27	27	27	27	24	30	37	93	127	80
3	44	25	27	27	27	27	26	31	33	96	125	76
4	38	27	27	27	27	27	26	31	33	107	125	73
5	36	26	27	27	27	26	27	32	32	105	123	73
6	36	26	27	27	27	26	27	33	32	107	125	71
7	36	26	27	27	27	26	26	33	32	108	120	69
8	31	26	27	27	27	26	26	33	32	110	108	70
9	27	26	27	27	27	27	26	33	32	114	108	70
10	27	26	27	27	27	26	26	34	32	125	112	70
11	24	26	27	27	27	26	27	34	32	121	120	71
12	23	25	27	27	27	26	27	34	37	121	118	70
13	23	26	27	27	27	26	27	34	41	127	114	67
14	22	26	27	27	27	26	26	34	48	125	114	62
15	21	26	27	27	27	26	26	34	39	123	112	58
16	21	26	27	27	27	26	26	34	32	125	110	53
17	21	27	27	27	27	26	26	34	39	125	107	49
18	21	27	27	27	27	26	26	34	49	123	105	44
19	22	27	27	27	27	26	26	34	48	121	105	41
20	23	27	27	27	27	26	26	34	37	123	103	37
21	23	27	27	27	27	26	26	34	31	121	100	37
22	23	27	27	27	27	26	26	34	31	127	88	36
23	23	27	27	27	27	26	27	34	30	133	82	35
24	23	26	27	27	27	26	27	33	30	133	83	34
25	23	26	27	27	27	26	27	33	30	133	82	33
26	23	26	27	27	27	26	27	33	36	133	82	33
27	23	26	27	27	27	26	27	35	55	135	80	33
28	24	26	27	27	27	27	27	37	59	135	77	32
29	24	26	27	27	27	26	27	42	71	131	67	23
30	24	26	27	27	-	26	28	47	71	133	79	6.2
31	24	-	27	27	-	25	-	47	-	131	82	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	841	44	21	27.1	1,670
November	781	27	24	26.0	1,550
December	837	27	27	27.0	1,660
Calendar year 1943	17,362	120	19	47.6	34,450
January	837	27	27	27.0	1,660
February	783	27	27	27.0	1,550
March	811	27	25	26.2	1,610
April	791	28	24	26.4	1,570
May	1,068	47	29	34.5	2,120
June	1,188	71	30	39.6	2,360
July	3,729	135	85	120	7,400
August	3,212	129	67	104	6,370
September	1,588.2	82	6.2	52.9	3,150
Water year 1943-44	16,466.2	135	6.2	45.0	32,670

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 1944 in reports of Geological Survey. September 1911 to March 1913 and May 1922 to September 1936 in reports of State engineer.

Average discharge.- 18 years (1911-12, 1922-23, 1928-44), 65.8 second-feet.

Extremes.- Maximum discharge during year, 157 second-feet (regulated) July 27, 31, Aug. 4, 5; minimum, 28 second-feet Sept. 30.

1911-13, 1922-28, 1931-44: Maximum discharge, 680 second-feet Dec. 30, 1924 (gage height, 3.30 feet), from rating curve extended above 170 second-feet; minimum, 11 second-feet (computed on basis of records for station at Fish Lake, near Lake Creek) Oct. 29 to Nov. 8, 1931.

Remarks.- Records good. Flow regulated by Fish Lake Reservoir. Small diversions above station for irrigation; some water diverted into Fish Lake from Fourmile Lake, in Klamath River Basin, since September 1923.

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	75	53	56	62	55	58	60	77	75	115	152	100
2	75	53	55	69	55	56	60	75	75	124	152	100
3	75	53	55	58	62	58	60	75	67	124	152	98
4	69	67	56	56	62	60	60	75	64	130	152	93
5	66	60	56	66	82	62	60	75	62	127	156	93
6	64	56	55	60	67	60	58	75	62	127	152	93
7	62	56	55	56	64	62	58	73	60	127	145	90
8	60	55	55	56	66	64	62	73	60	134	131	90
9	53	55	53	55	75	86	60	71	60	137	131	90
10	55	55	53	55	66	89	60	73	62	147	134	90
11	56	55	53	53	62	80	67	73	60	144	145	90
12	50	56	53	53	60	73	69	71	64	144	141	90
13	49	56	53	53	58	69	80	69	69	147	138	87
14	49	53	53	53	60	66	80	69	71	147	134	85
15	49	53	53	53	58	64	98	69	75	144	134	80
16	50	53	52	53	60	64	93	69	62	140	138	77
17	53	53	52	53	60	64	89	69	66	144	131	73
18	53	53	52	53	58	64	86	69	80	144	125	64
19	50	53	52	52	60	64	110	67	80	144	125	58
20	53	60	52	52	58	62	101	66	71	144	122	54
21	56	55	52	52	58	62	96	66	66	144	118	53
22	53	55	52	52	56	60	91	64	62	144	109	53
23	53	53	52	64	55	64	104	64	60	150	100	52
24	52	53	53	66	55	67	107	62	60	150	103	50
25	60	53	64	60	55	64	93	62	60	150	103	50
26	53	53	58	56	58	62	89	62	62	150	103	50
27	52	53	56	65	56	60	86	66	86	153	98	50
28	60	53	55	53	60	60	84	69	89	153	95	48
29	58	53	55	53	60	58	82	71	104	153	87	52
30	58	55	55	53	-	60	80	77	104	153	95	30
31	53	-	55	53	-	60	-	77	-	153	100	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	1,774	75	49	57.2	3,520
November	1,642	67	53	54.7	3,260
December	1,681	64	52	54.2	3,330
Calendar year 1943	32,707	214	49	89.6	64,870
January	1,738	69	52	56.1	3,450
February	1,761	82	55	60.7	3,490
March	2,002	89	56	64.6	3,970
April	2,383	110	58	79.4	4,730
May	2,173	77	62	70.1	4,310
June	2,098	104	60	69.9	4,160
July	4,387	153	115	142	8,700
August	3,901	156	87	126	7,740
September	2,183	100	30	72.8	4,330
Water year 1943-44	27,723	156	30	75.7	54,990

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 1944; 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, from Little Butte Creek near Lake Creek, Oreg.
water year October 1943 to September 1944

Month	Hanley South Canal	Hanley North Canal	Rogue River Valley Canal below junction of intakes	Eagle Point Canal
October	a130	a178	b1,910	c549
March	-	-	d1,580	-
April	e87	-	3,760	f60
May	366	435	7,340	759
June	384	577	6,010	1,070
July	400	595	8,360	1,050
August	395	595	6,560	988
September	352	546	3,350	948

a Oct. 1-15.
b Oct. 1-18.
c Oct. 1-19.
d Mar. 17-31.
e Apr. 20-30.
f Apr. 18-30.

Emigrant Creek near Ashland, Oreg.

Location.- Water-stage recorder, lat. 42°10', long. 122°36', in sec. 20, T. 39 S., R. 2 E., 500 feet downstream from Emigrant Gap Reservoir Dam and 6 miles southeast of Ashland.
Records available.- January 1920 to September 1944.
Average discharge.- 11 years (1924-28, 1929-30, 1933-35, 1940-44), 21.1 second-feet.
Extremes.- Maximum discharge during year, 95 second-feet July 12 (gage height, 1.67 feet); no flow at times.
1920-44: Maximum discharge, 5,260 second-feet Feb. 20, 1927, by computation of flow over dam; no flow at times.
Remarks.- Records fair except those below 5 second-feet, 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.

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1							a0.5	48	32	29	34	1.8
2							a.5	46	25	29	34	1.0
3							.5	42	10	30	34	.6
4							.5	35	4.6	31	34	.5
5							.6	26	4.6	34	33	6.2
6							.6	19	4.6	34	32	16
7							.6	11	4.8	34	32	24
8				a0.3		a0.5	.6	2.6	8.5	34	33	24
9							.6	.8	8.5	34	33	22
10							.6	.7	9.3	35	33	19
11							.6	.6	19	36	32	12
12							.6	.6	27	39	32	.2
13							.5	.5	27	35	31	.1
14				h.3			.5	.5	27	35	33	0
15	a0.2	a0.2	a0.3		a0.4		.5	.5	25	35	34	0
16						h.5	.5	a.5	22	35	34	0
17							.5	a.5	21	35	34	0
18							.5	a.5	21	35	34	0
19							.5	a.4	19	35	32	0
20							.5	a.4	7.9	35	28	0
21							.5	a.4	1.2	35	25	0
22							.5	.4	.3	35	14	0
23				a.3			.6	.4	.3	35	2.7	0
24						a.5	.6	.4	.3	35	.2	0
25							.6	3.8	.3	35	.1	0
26							a5.0	10	.3	35	.2	0
27							a35	22	.3	36	.1	0
28							a53	29	1.0	35	14	0
29	h.2						a51	29	11	34	14	0
30	a.2				-		a50	30	25	33	10	0
31	a.2	-			-		-	32	-	32	3.8	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	6.2	-	-	0.2	12
November	6.0	-	-	.2	12
December	9.3	-	-	.3	18
Calendar year 1943	14,737.8	632	-	40.4	29,230
January	9.3	-	-	.3	18
February	11.6	-	-	.4	23
March	15.5	-	-	.5	31
April	207.6	53	0.5	6.92	412
May	393.5	48	.4	12.7	780
June	367.8	32	.3	12.3	730
July	1,059	39	29	34.2	2,100
August	740.1	34	.1	23.9	1,470
September	127.4	24	0	4.25	253
Water year 1943-44	2,953.3	53	0	8.07	5,860

a No gage-height record; discharge computed on basis of unpublished records for station below Walker Creek, near Ashland.
h Computed from staff-gage reading.
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 1944 (incomplete prior to April 1927).

Average discharge.- 23 years (1920-26, 1927-44), 78.1 second-feet.

Extremes.- Maximum discharge during year, 279 second-feet Apr. 24 (gage height, 1.68 feet); minimum, 4.0 second-feet Sept. 26-28 (gage height, 0.22 foot).
1915-44: 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 good except those for periods of shifting control, which are fair, and those for July 15-21, which are poor. Diversions above station for irrigation. Flow partly regulated since December 1924 by Emigrant Gap Reservoir.

Rating tables, water year 1943-44, except periods of shifting control
(gage height, in feet, and discharge, in second-feet)

Oct. 1 to Apr. 23				Apr. 24 to Sept. 30			
0.3	8	0.7	72	0.2	4.0	0.8	93
.4	18	.9	112	.3	11.5	1.1	154
.5	34	1.2	176	.4	22	1.4	221
				.6	55		

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	8.0	36	24	31	26	57	74	144	40	19	15	12
2	9.0	32	24	64	31	55	72	129	48	19	14	13
3	10	32	24	53	44	62	74	113	66	19	14	13
4	10	40	32	36	53	92	74	93	48	20	16	12
5	9.0	45	47	59	110	102	70	78	40	21	17	12
6	9.0	38	34	64	98	94	47	63	38	21	15	10
7	9.0	32	31	45	80	86	40	48	32	21	13	8.5
8	7.5	28	31	44	86	116	49	35	27	19	16	8.5
9	7.5	26	29	42	88	158	53	28	28	19	16	8.5
10	9.0	26	26	40	70	185	49	22	27	20	15	7.8
11	15	26	26	36	66	133	82	25	20	20	12	7.8
12	20	26	24	34	57	108	102	28	28	21	14	7.8
13	20	26	23	34	55	94	100	32	22	21	15	7.0
14	18	26	23	36	57	78	90	28	20	19	14	7.8
15	18	26	24	36	55	76	92	33	32	18	12	8.5
16	17	24	26	32	49	76	96	38	36	17	13	8.5
17	20	24	26	32	53	78	96	38	28	16	15	7.0
18	13	24	24	31	55	82	88	40	38	a14	17	7.8
19	15	23	24	29	53	82	106	40	55	a15	17	9.2
20	21	29	26	28	53	76	135	38	68	a13	16	10
21	29	40	28	26	53	66	144	33	119	a14	17	8.5
22	28	34	28	26	51	64	122	38	107	14	17	8.5
23	26	32	26	44	49	66	120	36	93	15	16	11
24	31	29	28	66	47	72	221	36	85	17	15	5.5
25	59	28	29	45	47	64	139	33	80	14	16	5.5
26	57	26	29	34	47	61	125	25	50	19	17	4.8
27	40	26	26	31	47	57	137	20	33	19	15	4.0
28	49	24	23	28	53	57	152	20	25	19	15	4.8
29	49	24	23	24	61	64	156	36	20	24	13	8.5
30	55	24	23	24	-	70	152	28	20	18	11	13
31	45	-	24	24	-	76	-	38	-	15	10	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	733.0	59	7.5	23.6	1,450
November	876	45	23	29.2	1,740
December	835	47	23	26.9	1,660
Calendar year 1943	58,148	3,720	7.5	159	115,300
January	1,178	66	24	38.0	2,340
February	1,694	110	26	58.4	3,360
March	2,607	185	55	84.1	5,170
April	3,057	221	40	102	6,060
May	1,436	144	20	46.3	2,850
June	1,373	119	20	45.8	2,720
July	560	24	13	18.1	1,110
August	457	17	10	14.7	906
September	260.8	13	4.0	8.69	517
Water year 1943-44	15,066.8	221	4.0	41.2	29,880

a No gage-height record; discharge computed on basis of records for Bear Creek Canal at Medford.
Note.- Shifting-control method used Apr. 3 to June 6, Sept. 17-30.
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 Ashland lateral partly interpolated.

Records of these canals, published as a group, are available from April 1929 to September 1944; 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 1943 to September 1944

Month	Ashland lateral	East lateral	Talent lateral	Phoenix Canal	Bear Creek Canal
October	a108	-	0	-	-
November	-	-	0	-	-
December	-	-	0	-	-
January	-	-	0	-	-
February	-	-	0	-	-
March	-	-	0	-	-
April	-	141	901	302	b11
May	656	2,630	2,120	793	803
June	470	1,820	1,650	1,300	850
July	1,240	3,990	2,530	885	780
August	944	3,060	1,720	781	677
September	71	0	359	429	414
Water year 1943-44	-	-	9,280	-	-

a Period Oct. 1-12.
b Period Apr. 17-30.
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.

Drainage area.- 152 square miles.

Records available.- December 1938 to September 1944.

Extremes.- Maximum discharge during year, 909 second-feet May 5 (gage height, 3.98 feet); minimum, 23 second-feet Sept. 26-29 (gage height, 0.89 foot).
1938-44: Maximum discharge, 7,980 second-feet Dec. 31, 1942 (gage height, 12.85 feet); minimum, 20 second-feet Sept. 23-25, 1939.

Remarks.- Records good. About 11 second-feet diverted for irrigation of 482 acres above station in Applegate River Basin; Grand Applegate ditch diverts about 3.3 second-feet around station on left bank. About 21 second-feet for irrigation and 8 second-feet for mining use are diverted at times into Thompson Creek Basin. Several hundred acre-feet normally stored each winter in Squaw Lake for irrigation the following summer.

Rating tables, water year 1943-44 (gage height, in feet, and discharge, in second-feet)

Oct. 1 to 24				Oct. 25 to Sept. 30					
1.0	35	1.9	160	0.8	17	1.6	101	2.9	440
1.2	51	2.2	230	1.0	32	1.9	150	3.4	625
1.4	73	2.5	310	1.2	51	2.2	218	3.7	760
1.6	103			1.4	74	2.5	304		

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	37	104	170	159	172	130	323	486	307	100	55	43
2	36	95	152	301	221	126	388	468	304	98	58	39
3	36	104	145	186	270	137	461	542	360	94	55	37
4	36	546	158	162	239	168	440	617	292	90	51	34
5	36	391	160	166	256	164	380	720	250	87	50	31
6	36	226	143	158	384	160	353	770	234	84	49	30
7	39	168	136	141	405	168	320	683	223	80	49	30
8	37	139	136	132	475	234	310	597	206	80	49	29
9	36	122	124	127	422	593	282	528	198	79	49	28
10	36	112	119	122	350	710	279	468	191	79	48	27
11	39	104	114	118	307	525	346	412	182	75	45	26
12	41	98	110	124	273	461	320	384	164	68	46	25
13	38	94	107	134	250	405	301	370	158	63	44	26
14	36	90	104	146	236	353	288	402	156	63	44	25
15	37	87	101	145	218	320	295	384	172	64	44	25
16	36	83	98	150	203	304	273	336	158	64	39	25
17	41	80	98	177	193	330	253	363	148	61	39	25
18	46	80	100	164	182	370	239	353	148	59	38	26
19	45	110	100	154	172	377	256	336	175	62	38	26
20	53	298	106	150	164	343	247	339	193	60	38	26
21	97	218	101	150	164	317	231	343	223	58	38	24
22	71	172	97	150	156	298	234	320	186	55	36	26
23	79	152	94	258	148	292	267	288	164	53	36	26
24	305	139	98	261	145	301	273	270	148	50	36	26
25	424	129	126	218	141	282	256	264	139	58	37	25
26	193	121	113	196	139	264	258	276	130	83	36	24
27	139	114	106	177	136	250	261	301	121	94	34	23
28	143	113	101	162	141	241	314	301	114	74	33	23
29	136	113	97	154	132	241	402	295	108	63	32	24
30	145	166	95	148	-	264	450	276	104	56	31	26
31	118	-	93	145	-	301	-	314	-	55	34	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	2,627	424	36	84.7	5,210
November	4,568	546	80	152	9,060
December	3,602	170	93	116	7,140
Calendar year 1943	148,176	5,790	36	406	293,900
January	5,125	301	118	165	10,170
February	6,694	475	132	231	13,280
March	9,429	710	126	304	18,700
April	9,300	461	231	310	18,450
May	12,806	770	264	413	25,400
June	5,656	360	104	189	11,220
July	2,209	100	50	71.3	4,380
August	1,311	58	31	42.3	2,600
September	830	43	23	27.7	1,650
Water year 1943-44	64,157	770	23	175	127,300

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).

Drainage area.- 230 square miles.

Records available.- June 1911 to September 1914, September 1925 to September 1944.

Average discharge.- 21 years (1911-14, 1925-26, 1927-44), 341 second-feet.

Extremes.- Maximum discharge during year, 1,740 second-feet Mar. 10 (gage height, 3.28 feet); minimum observed, 18 second-feet Sept. 25 (gage height, -0.30 foot).
1911-14, 1925-44: Maximum discharge, 20,000 second-feet Feb. 20, 1927 (gage height, 16.0 feet), from rating curve extended above 8,000 second-feet; minimum, 7 second-feet Sept. 2, 1929 (gage height, 0.26 foot).

Remarks.- Records good except those for May 24 to Sept. 30, which are fair. Diversions above station for irrigation.

Rating tables, water year 1943-44 (gage height, in feet, and discharge, in second-feet)

Oct. 1 to Mar. 9				Mar. 10 to Sept. 30					
-0.2	28	0.4	118	-0.3	18	0.1	61	1.1	345
-.1	38	.7	195	-.2	24	.3	99	1.4	485
0.0	50	1.0	297	-.1	34	.5	145	1.7	635
.1	63	1.3	425	0.0	46	.8	232	2.0	800
.2	79	1.6	570						

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	h32	118	173	148	178	144	329	490	a310	a105	a47	h33
2	h30	108	164	325	229	141	390	455	a305	a100	h48	a27
3	h32	103	157	207	278	157	465	530	a365	99	a47	h24
4	h28	473	164	167	260	201	450	610	a305	89	a43	a23
5	h27	447	178	184	260	201	390	723	a260	87	a40	h22
6	h27	246	159	184	376	195	363	784	a240	87	a39	a21
7	h27	189	146	159	416	195	333	706	a230	85	a39	h20
8	h28	157	146	149	470	264	325	615	a215	83	h39	h21
9	h28	136	136	141	443	550	301	535	203	83	a37	h20
10	h30	125	130	141	363	818	290	475	191	81	h36	a19
11	h31	116	126	132	325	610	358	412	186	77	a36	h19
12	h39	112	120	136	271	500	333	386	171	74	a36	a19
13	h38	108	116	144	267	440	309	368	161	a65	a36	h19
14	h32	105	114	164	253	381	297	399	a160	a55	h36	a22
15	h32	105	114	159	236	350	301	381	a180	a50	a37	h26
16	h32	103	112	159	226	329	290	350	a165	a50	h38	a23
17	h31	101	112	184	220	345	282	354	a155	a47	a35	h22
18	h40	99	114	175	204	386	264	354	a155	h45	h32	a22
19	48	105	114	162	201	394	271	337	a185	a48	a31	h22
20	53	286	116	159	189	368	267	341	a205	a50	h31	a21
21	101	243	116	159	184	337	253	345	a240	a47	a30	h20
22	83	187	114	157	175	317	250	325	a210	a45	h30	a19
23	84	164	114	250	167	313	271	297	a180	a42	a29	h19
24	233	149	114	275	162	317	286	a275	a165	a42	h27	a19
25	489	139	136	236	157	297	267	a265	a155	a50	a27	h18
26	226	130	136	207	151	278	271	a270	145	77	h27	a19
27	162	125	118	192	149	267	271	a295	140	103	a28	h19
28	157	123	118	178	157	256	301	a295	a125	83	h28	a19
29	154	120	118	170	149	256	390	a295	a115	66	h32	h19
30	159	164	116	162	-	275	430	a280	a110	a55	h24	a19
31	134	-	114	157	-	317	-	a305	-	a50	a28	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	2,647	489	27	85.4	5,250
November	4,886	473	99	163	9,690
December	4,024	178	112	130	7,980
Calendar year 1943	155,793	7,460	27	427	309,000
January	5,522	325	132	178	10,950
February	7,116	470	149	245	14,110
March	10,199	818	141	329	20,230
April	9,598	465	250	320	19,040
May	12,852	784	265	415	25,490
June	5,932	365	110	198	11,770
July	2,120	105	42	68.4	4,200
August	1,073	48	24	34.6	2,130
September	635	33	18	21.2	1,260
Water year 1943-44	66,604	818	18	182	132,100

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

Drainage area.- 413 square miles.

Records available.- October 1938 to September 1944.

Extremes.- Maximum discharge during year, 1,040 second-feet Mar. 10 (gage height, 3.48 feet); minimum, 9 second-feet Sept. 10 (gage height, 0.36 foot).
1938-44: Maximum discharge, 15,100 second-feet Jan. 21, 1943 (gage height, 11.87 feet), from rating curve extended above 4,300 second-feet; minimum, 8 second-feet Sept. 7, 12, 13, 1939.

Remarks.- Records excellent. Many diversions above station for irrigation of about 4,000 acres in Applegate River Basin. About 10 second-feet is diverted through Wagner Gap to Bear Creek Basin for several months each year; Fowler-Keeler and Berryman ditches may divert 4.3 and 13.6 second-feet, respectively, around station.

Rating table, water year 1943-44 (gage height, in feet, and discharge, in second-feet)

0.4	11	1.2	75	2.3	361
.6	18	1.4	107	2.6	498
.8	30	1.7	170	3.0	720
1.0	49	2.0	253	3.3	910

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	22	143	195	132	190	163	342	529	311	104	32	12
2	23	130	172	330	247	158	390	488	286	98	30	13
3	25	124	163	226	279	172	474	550	365	100	26	14
4	24	406	170	180	266	235	464	605	315	86	25	14
5	26	485	195	195	266	260	412	732	270	78	23	14
6	25	266	168	203	369	250	382	819	250	72	22	13
7	23	206	158	182	431	238	349	762	238	64	22	14
8	24	178	158	172	478	300	349	660	223	61	23	13
9	26	156	152	163	483	534	322	561	220	55	23	12
10	30	145	141	161	395	910	311	493	215	48	23	12
11	32	134	136	152	349	678	365	435	209	43	22	13
12	34	124	130	156	311	550	357	408	188	40	22	12
13	34	118	128	165	290	478	330	378	172	37	22	12
14	31	111	124	188	273	412	315	403	168	31	20	12
15	30	107	120	180	260	382	318	390	201	30	21	12
16	32	104	116	185	238	357	315	361	190	31	22	13
17	32	100	116	203	232	365	300	349	180	28	22	12
18	35	98	116	201	220	403	279	357	180	27	20	13
19	38	113	116	190	212	417	283	334	206	29	17	14
20	44	265	124	182	203	386	276	338	235	36	15	14
21	106	263	120	180	198	357	263	342	286	33	15	15
22	105	203	116	180	192	338	260	322	253	30	16	14
23	100	178	111	255	185	318	279	300	223	29	16	15
24	209	163	107	308	178	338	297	283	201	26	15	15
25	529	156	143	263	172	318	279	270	188	24	13	15
26	276	147	136	235	170	304	293	263	168	43	13	14
27	190	143	126	217	168	290	300	273	158	68	15	14
28	152	136	120	201	178	279	315	283	136	55	13	14
29	185	132	116	190	168	276	399	300	126	40	13	15
30	188	165	113	182	-	290	454	273	113	35	12	15
31	163	-	111	178	-	330	-	270	-	33	12	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	2,823	529	22	91.1	5,600
November	5,199	485	98	173	10,310
December	4,217	195	107	136	8,360
Calendar year 1943	189,324	10,800	22	519	375,500
January	6,135	330	132	198	12,170
February	7,601	483	168	262	15,080
March	11,086	910	158	358	21,990
April	10,072	474	260	336	19,980
May	13,131	819	263	424	26,040
June	6,474	365	113	216	12,840
July	1,514	104	24	48.8	3,000
August	605	32	12	19.5	1,200
September	404	15	12	13.5	801
Water year 1943-44	69,261	910	12	189	137,400

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).

Drainage area.- 627 square miles.

Records available.- October 1938 to September 1944.

Extremes.- Maximum discharge observed during year, 1,600 second-feet Mar. 10 (gage height, 4.76 feet); minimum observed, 4 second-feet Sept. 28 (gage height, 0.76 foot).
1938-44: Maximum discharge observed, 22,200 second-feet Jan. 21, 1943 (gage height, 16.10 feet); from rating curve extended above 9,500 second-feet by logarithmic plotting; minimum observed, 3.0 second-feet Sept. 12-15, 18-25, 1939.

Remarks.- Records good except those for April, which are fair, and those below 10 second-feet, which are poor. Gage read once daily Oct. 1-31, Apr. 1 to Sept. 30, twice daily Nov. 1 to Mar. 31. Many diversions above station for irrigation and mining. Two irrigation ditches on left bank divert about 17 second-feet around station.

Rating tables, water year 1943-44 (gage height, in feet, and discharge, in second-feet)

Oct. 1 to Mar. 10						Mar. 11 to Sept. 30					
1.1	18	2.1	112	3.4	605	0.7	3	1.8	64	3.4	640
1.3	29	2.4	178	3.8	855	.9	7	2.1	113	3.8	885
1.5	42	2.7	271	4.3	1,210	1.1	12	2.4	182	4.3	1,220
1.8	70	3.0	395	4.7	1,550	1.3	23	2.7	278		
						1.5	36	3.0	413		

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	30	251	254	192	305	251	468	604	354	91	18	7
2	31	206	244	583	368	237	479	592	363	84	22	7
3	21	200	228	455	415	279	580	628	446	88	24	6
4	27	346	234	386	440	572	592	652	430	65	19	6
5	17	738	294	415	425	803	512	760	373	63	21	7
6	19	445	251	485	495	600	457	826	336	50	22	7
7	35	342	228	386	578	539	413	808	310	45	21	8
8	36	286	231	364	629	605	424	712	256	43	18	8
9	36	234	215	325	707	897	403	628	242	40	17	9
10	38	215	200	305	605	1,520	393	563	249	41	16	9
11	36	203	192	282	539	1,190	363	512	216	35	18	9
12	42	192	189	264	490	989	446	468	204	32	19	8
13	48	178	186	286	445	833	424	435	193	25	16	8
14	48	168	178	338	420	724	408	446	177	21	15	7
15	49	163	173	325	400	634	424	435	182	22	14	8
16	50	153	168	321	372	586	413	413	180	22	10	7
17	57	144	170	354	359	569	403	403	174	20	11	7
18	56	142	168	359	346	580	393	413	190	19	13	7
19	59	151	168	334	334	628	403	403	223	13	12	7
20	63	247	173	313	309	610	446	393	327	12	11	9
21	96	382	173	294	301	557	424	383	403	11	13	8
22	173	301	168	286	301	518	413	363	363	12	12	7
23	198	264	158	350	282	501	435	354	322	13	14	8
24	271	237	156	556	268	506	446	322	286	14	11	8
25	796	225	228	485	264	490	430	314	271	14	11	6
26	465	209	251	425	257	468	457	302	223	12	11	7
27	325	198	225	382	244	440	440	290	182	16	10	8
28	286	189	203	354	268	408	457	298	136	35	10	4
29	279	184	192	334	257	393	534	310	113	24	6	9
30	271	206	181	313	-	403	557	282	102	20	6	22
31	257	-	173	294	-	424	-	286	-	18	7	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	4,215	796	17	136	8,360
November	7,399	738	142	247	14,680
December	6,252	294	156	202	12,400
Calendar year 1943	275,349	16,200	17	754	546,100
January	11,145	583	192	360	22,110
February	11,423	707	244	394	22,660
March	18,754	1,520	237	605	37,200
April	13,437	592	363	448	26,650
May	14,598	826	282	471	28,950
June	7,826	446	102	261	15,520
July	1,020	91	11	32.9	2,020
August	448	24	6	14.5	889
September	238	22	4	7.93	472
Water year 1943-44	96,755	1,520	4	264	191,900

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 1944.

Average discharge.- 18 years, 1,063 second-feet.

Extremes.- Maximum discharge during year, 7,090 second-feet Nov. 4 (gage height, 9.11 feet); minimum, 27 second-feet Sept. 29 (gage height, 0.19 foot).
1926-44: Maximum discharge, 50,000 second-feet Feb. 20, 1927 (gage height, 19.6 feet, site and datum then in use), from rating curve extended above 26,000 second-feet; minimum, 13 second-feet Sept. 10-15, 1934.

Remarks.- Records good except those for periods of shifting control or no gage-height record, which are fair, and those for May 21 to July 23, which are poor. Diversions above station for irrigation.

Rating tables, water year 1943-44, except periods of shifting control
(gage height, in feet, and discharge, in second-feet)

Oct. 1 to Nov. 4

0.3	33	1.3	320	3.0	1,120
.5	72	1.7	480	4.0	1,800
.7	120	2.1	660	5.0	2,650
1.0	215	2.5	850	7.0	4,620

Nov. 5 to Sept. 30

0.2	31	1.3	340	4.0	1,800
.3	47	1.6	455	5.0	2,650
.5	90	2.0	625	6.0	3,620
.7	142	2.5	870		
1.0	235	3.0	1,150		

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	37	424	1,400	2,370	890	503	548	930	407	187	57	37
2	37	380	1,150	3,900	1,250	495	553	860	472	181	57	37
3	37	432	940	2,070	1,450	620	580	840	1,280	163	57	37
4	37	5,030	1,130	1,460	1,340	1,520	589	845	850	160	57	36
5	37	2,840	1,410	2,800	1,310	2,040	571	860	670	157	55	36
6	37	1,440	1,100	2,680	1,350	1,510	531	880	566	145	53	36
7	33	1,020	905	1,790	a1,500	1,380	515	810	483	134	53	34
8	37	805	800	1,380	a1,800	1,670	540	730	443	120	51	33
9	33	666	700	1,200	a1,700	a2,600	553	666	407	115	51	33
10	32	584	638	1,150	a1,400	a3,000	527	612	375	115	51	34
11	40	515	584	1,030	a1,250	a2,000	571	584	350	115	49	33
12	40	459	531	1,050	a1,100	1,570	720	584	322	95	47	31
13	42	427	499	1,100	h976	1,310	860	562	305	92	45	33
14	42	403	479	1,370	a860	1,140	1,120	535	291	100	45	33
15	40	379	455	1,250	a800	1,000	1,520	558	288	92	45	33
16	40	361	443	1,170	755	910	1,250	562	274	78	44	33
17	47	344	423	1,460	710	885	1,020	634	266	74	42	33
18	68	336	415	1,330	670	895	895	785	270	69	44	33
19	70	403	407	1,130	643	875	885	670	298	67	44	31
20	79	1,530	423	982	616	830	1,030	594	330	67	42	30
21	372	1,570	399	890	589	765	1,020	548	372	65	42	30
22	610	1,100	375	820	566	715	955	527	364	63	41	30
23	615	880	364	1,240	535	690	920	499	322	63	39	30
24	1,890	745	391	1,600	511	755	1,000	455	298	61	37	30
25	2,520	656	1,040	1,320	495	700	1,060	415	277	63	37	30
26	1,310	584	1,100	1,120	479	652	1,260	395	256	63	37	30
27	865	535	870	976	463	625	1,380	375	242	61	39	28
28	692	499	745	880	515	589	1,210	361	225	61	37	28
29	606	483	652	805	519	562	1,090	347	209	59	36	30
30	538	875	598	735	-	553	994	326	196	59	34	36
31	468	-	562	690	-	548	-	340	-	57	36	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	11,351	2,520	32	366	22,510
November	26,705	5,030	336	890	52,970
December	21,928	1,410	364	707	43,490
Calendar year 1943	382,491	21,700	32	1,048	758,700
January	43,748	3,900	690	1,411	86,770
February	27,042	1,800	463	932	53,640
March	33,907	3,000	495	1,094	67,250
April	26,267	1,520	515	876	52,100
May	18,689	930	326	603	37,070
June	11,708	1,280	196	390	23,220
July	3,001	187	57	96.8	5,950
August	1,404	57	34	45.3	2,780
September	978	37	28	32.6	1,940
Water year 1943-44	226,728	5,030	28	619	449,700

a No gage-height record; discharge computed on basis of records for Applegate River near Copper and Ruch.
h Computed from staff-gage reading.
Note.- Shifting-control method used Oct. 1-21, Sept. 18-30.
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 and the results published periodically since 1932.

Discharge measurements, in second-feet, of springs in Walla Walla River Basin, Oreg.-Wash., during water year October 1943 to September 1944 †

Springs of the inner zone

Date	Spring	Locality	Discharge (sec.-ft.)
Nov. 2	Nicholas Spring, Oreg.....	NE¼NE¼ sec. 24, T. 6 N., R. 35 E., 150 feet above confluence of spring channel and Walla Walla River.	0.86
Jan. 19	....do.....	....do.....	.68
Nov. 2	Big Spring Branch (west prong), Oreg.	SE¼NW¼ sec. 24, T. 6 N., R. 35 E., at Ballou residence, 75 feet above bridge on county road.	5.35
Jan. 19	....do.....	....do.....	5.09
Nov. 2	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.	2.13
Jan. 19	....do.....	....do.....	1.88
Nov. 3	Engle Spring, Oreg.....	NW¼SE¼ sec. 23, T. 6 N., R. 35 E., total flow at diversion dam.	2.60
Jan. 20	....do.....	....do.....	2.42
Nov. 2	Downing Spring, Oreg.....	SE¼SW¼ sec. 23, T. 6 N., R. 35 E., at weir, 200 feet below spring orifice.	1.58
Jan. 19	....do.....	....do.....	2.18
Nov. 2	Haun Spring, Oreg.....	NW¼SE¼ sec. 23, T. 6 N., R. 35 E., at Haun farm, 50 feet above highway crossing.	1.29
Jan. 19	....do.....	....do.....	1.33

Springs of the intermediate and outer zones

Nov. 3	McEvoy Spring, Wash.....	SE¼NW¼ sec. 10, T. 6 N., R. 35 E., at McEvoy farm, 200 feet above Walla Walla Valley Railway.	3.95
Jan. 20	....do.....	....do.....	2.82
Nov. 2	Lewis Spring, Oreg.....	NW¼NW¼ sec. 23, T. 6 N., R. 35 E., below road crossing.	2.26
Jan. 19	....do.....	....do.....	2.01
Nov. 3	Unnamed spring, Wash.....	NW¼NE¼ sec. 16, T. 6 N., R. 35 E., at a small diversion structure.	2.91
Jan. 20	....do.....	....do.....	2.46
Nov. 3	East Mud Creek (west prong), Oreg.	SW¼SW¼ sec. 22, T. 6 N., R. 35 E., at two weirs.	3.12
Jan. 18	....do.....	....do.....	2.16
Nov. 3	East Mud Creek (east prong), Oreg.	SE¼SW¼ sec. 22, T. 6 N., R. 35 E., in diversion ditch, 150 feet below diversion dam.	1.33
Jan. 18	....do.....	....do.....	.91
Nov. 3	East Mud Creek (branch of), Oreg.	SW¼SW¼ sec. 16, T. 6 N., R. 35 E., near Lockwood dwelling.	3.93
Jan. 20	....do.....	....do.....	3.92
Nov. 4	South Mud Creek, Oreg.....	SE¼NW¼ sec. 28, T. 6 N., R. 35 E., at Von der Ahe farm.	2.94
Jan. 18	....do.....	....do.....	1.19
Nov. 2	Johnson Creek, Oreg.....	SE¼NW¼ sec. 29, T. 6 N., R. 35 E., at two weirs.	3.88
Jan. 18	....do.....	....do.....	2.46
Nov. 2	Dugger Creek, Oreg.....	NW¼NW¼ sec. 32, T. 6 N., R. 35 E., at two weirs.	9.91
Jan. 18	....do.....	....do.....	5.22
Nov. 3	Schwartz Spring Branch (south prong), Oreg.	SW¼SE¼ sec. 23, T. 6 N., R. 34 E., at weirs.	3.10
Jan. 18	....do.....	....do.....	5.12
Nov. 3	Schwartz Spring Branch (north prong), Oreg.	NE¼SW¼ sec. 23, T. 6 N., R. 34 E., in ditch diverting from spring.	4.00
Jan. 18	....do.....	....do.....	4.23
Nov. 3	South Mud Creek, Oreg.....	SW¼SE¼ sec. 13, T. 6 N., R. 34 E., at Krumbaugh farm.	4.26
Jan. 18	....do.....	....do.....	5.77

† Measurements by 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.

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 1943 to September 1944

Walla Walla River Basin, Wash.

Date	Stream	Tributary to or diverting from--	Locality	Discharge (sec.-ft.)
Dec. 3	Touchet River....	Walla Walla River..	Sec. 7, T. 9 N., R. 37 E., at road bridge 1/8 mile south of Bolles.	145
Feb. 28	....do.....	....do.....	....do.....	127
Apr. 15	....do.....	....do.....	....do.....	313
May 18	....do.....	....do.....	....do.....	124
June 24	....do.....	....do.....	....do.....	54.3
Aug. 17	....do.....	....do.....	....do.....	20.5
Dec. 3	Wolf Creek.....	East Fork Touchet River.	SW¼ sec. 23, T. 9 N., R. 39 E., 500 feet below Robinson Creek, near Dayton.	53.3
Feb. 29	....do.....	....do.....	....do.....	33.0
Apr. 16	....do.....	....do.....	....do.....	67.8
May 19	....do.....	....do.....	....do.....	42.4
June 24	....do.....	....do.....	....do.....	26.1
Aug. 17	....do.....	....do.....	....do.....	18.0
Dec. 3	South Fork Touchet River.	Touchet River.....	Sec. 31, T. 10 N., R. 39 E., just above mouth, near Dayton.	42.9
Feb. 29	....do.....	....do.....	....do.....	21.1
Apr. 15	....do.....	....do.....	....do.....	74.7
May 19	....do.....	....do.....	....do.....	26.8
June 24	....do.....	....do.....	....do.....	8.26
Aug. 17	....do.....	....do.....	....do.....	.45
Dec. 3	Patit Creek.....	....do.....	Sec. 30, T. 10 N., R. 39 E., 400 feet above mouth, at Dayton.	2.96
Feb. 29	....do.....	....do.....	....do.....	7.10
Apr. 15	....do.....	....do.....	....do.....	24.9
May 19	....do.....	....do.....	....do.....	3.25
June 24	....do.....	....do.....	....do.....	.51

Deschutes River Basin, Oreg.

Sept.28	Rock Creek.....	Cultus River in Crane Prairie Reservoir.	SE¼SE¼ sec. 1, T. 21 S., R. 7 E., 500 feet east of spring.	20.9
28	Cold Creek.....	Rock Creek.....	Mouth, SW¼SW¼ sec. 6, T. 21 S., R. 8 E.	2.5
Nov. 11	Unnamed stream...	Davis Creek.....	Mouth, on left bank of Davis Creek, S½ sec. 5, T. 22 S., R. 8 E.	17.0
Oct. 19	Lost River (distributary).	Deschutes River....	NW¼SW¼ sec. 27, T. 18 S., R. 11 E., 1,500 feet above Arnold Canal diversion.	27.8
26	....do.....	....do.....	....do.....	29.7
Dec. 7	....do.....	....do.....	....do.....	26.5
Mar. 3	....do.....	....do.....	....do.....	24.6
Apr. 18	....do.....	....do.....	....do.....	18.7
July 7	....do.....	....do.....	....do.....	26.4
18	South Fork Squaw Creek.	Squaw Creek.....	SW¼ sec. 31, T. 16 S., R. 9 E., at trail crossing.	37.4
18	North Fork Squaw Creek.	....do.....	SW¼SW¼ sec. 30, T. 16 S., R. 9 E., at trail crossing.	11.0
18	Soap Creek.....	....do.....	NW¼ sec. 30, T. 16 S., R. 9 E., at trail crossing.	5.9
Oct. 22	Beaver Creek.....	Crooked River.....	Bureau of Reclamation gaging station 3 miles northeast of Paulina.	3.3
22	North Fork Beaver Creek.	Beaver Creek.....	Bureau of Reclamation gaging station 13 miles northeast of Paulina.	.2
22	North Fork Crooked River.	Crooked River.....	Bureau of Reclamation gaging station 15 miles north of Paulina.	8.7
Sept.11	Wizard Springs...	Metolius River.....	Near south line of sec. 14, T. 12 S., R. 9 E., 300 feet below head and 4 miles north of Camp Sherman.	8.9

Wind River Basin, Wash.

Oct. 15	Little Wind River	Wind River.....	SW¼SW¼ sec. 22, T. 3 N., R. 8 E., just above mouth, near Carson.	2.98

Sandy River Basin, Oreg.

Oct. 7	South Fork Bull Run River.	Bull Run River.....	Mouth, SW¼ sec. 30, T. 1 S., R. 6 E., 6 miles northeast of Bull Run.	10.8

Willamette River Basin, Oreg.

Dec. 10	McKenzie River...	Willamette River...	Hendricks Bridge, 1½ miles southwest of Walterville.	2,500
June 22	Olallie Creek....	McKenzie River.....	⅛ mile above mouth, 9 miles northeast of town of McKenzie Bridge.	132
Dec. 10	Leaburg power canal.	....do.....	Sec. 1, T. 17 S., R. 1 E., 1.1 miles below diversion dam and 3 miles northeast of Leaburg.	1,290
10	Eugene power canal	....do.....	Walterville, 1.7 miles below intake.	943

Miscellaneous discharge measurements in Pacific slope basins in Oregon and lower Columbia River Basin during water year October 1943 to September 1944--Continued

Willamette River Basin, Oreg.--Continued

Date	Stream	Tributary to or diverting from--	Locality	Discharge (sec.-ft.)
Apr. 11	Calapooya River..	Willamette River....	Mouth, below power canal, at Albany..	760
July 13	....do.....	....do.....	....do.....	258
Aug. 18	....do.....	....do.....	....do.....	187
Sept. 6	....do.....	....do.....	....do.....	164
June 26	Mill Creek.....	Pudding River.....	Mouth, at Aurora.....	8.9
Sept. 7	....do.....	....do.....	....do.....	5.3

Cowlitz River Basin, Wash.

Oct. 23	Olequa Creek.....	Cowlitz River.....	NW¼SW¼ sec. 33, T. 12 N., R. 2 W., at Winlock.	10.6
23	....do.....	....do.....	SW¼SW¼ sec. 29, T. 11 N., R. 2 W., just above Stillwater Creek, at Vader.	17.6
23	Stillwater Creek.	Olequa Creek.....	W½ sec. 30, T. 11 N., R. 2 W., at bridge, 1 mile west of Vader.	24.6
26	Outlet Creek.....	Toutle River.....	NW¼ sec. 30, T. 10 N., R. 1 E., at road crossing, near town of Silver Lake.	.86

Rogue River Basin, Oreg.

Oct. 21	Little Applegate River.....	Applegate River.....	Mouth, 3 miles south of Ruch.	19.5
Nov. 23	....do.....	....do.....	....do.....	18.2
Dec. 8	....do.....	....do.....	....do.....	18.3
Jan. 5	....do.....	....do.....	....do.....	19.2
Feb. 9	....do.....	....do.....	....do.....	38.6
Mar. 2	....do.....	....do.....	....do.....	18.3
15	....do.....	....do.....	....do.....	36.9
31	....do.....	....do.....	....do.....	34.3
Apr. 30	....do.....	....do.....	....do.....	65.3
May 16	....do.....	....do.....	....do.....	43.4
June 9	....do.....	....do.....	....do.....	28.8
July 3	....do.....	....do.....	....do.....	22.2
26	....do.....	....do.....	....do.....	9.08
Aug. 8	....do.....	....do.....	....do.....	6.73
29	....do.....	....do.....	....do.....	6.93
Oct. 22	Wood Creek.....	West Fork Illinois River.....	SE¼NW¼ sec. 29, T. 40 S., R. 8 W., 2 miles east of O'Brien.	3.36
Dec. 6	....do.....	....do.....	....do.....	12.3
Jan. 25	....do.....	....do.....	....do.....	19.2
Mar. 3	....do.....	....do.....	....do.....	7.21
May 5	....do.....	....do.....	....do.....	4.68
June 6	....do.....	....do.....	....do.....	2.70
July 15	....do.....	....do.....	....do.....	.77
Oct. 24	Crooks Creek.....	Deer Creek.....	Sec. 9, T. 38 S., R. 7 W., 4 miles east of Selma.	*.3
Dec. 7	....do.....	....do.....	....do.....	5.9
Jan. 26	....do.....	....do.....	....do.....	16.6
Mar. 4	....do.....	....do.....	....do.....	20.1
May 6	....do.....	....do.....	....do.....	2.4
9	....do.....	....do.....	....do.....	2.6
June 7	....do.....	....do.....	....do.....	2.2
July 17	....do.....	....do.....	....do.....	.4
Oct. 21	Thompson Creek...	....do.....	Near south line of sec. 21, T. 38 S., R. 7 W., at road bridge 5 miles southeast of Selma.	1.0
Dec. 7	....do.....	....do.....	....do.....	12.8
Jan. 26	....do.....	....do.....	....do.....	27.6
Mar. 4	....do.....	....do.....	....do.....	37.1
May 6	....do.....	....do.....	....do.....	7.1
9	....do.....	....do.....	....do.....	5.5
June 7	....do.....	....do.....	....do.....	5.4
July 17	....do.....	....do.....	....do.....	.4
Oct. 24	McMullin Creek...	....do.....	Sec. 30, T. 38 S., R. 7 W., 4 miles southeast of Selma.	1.3
Dec. 7	....do.....	....do.....	....do.....	5.0
Jan. 26	....do.....	....do.....	....do.....	14.1
Mar. 4	....do.....	....do.....	....do.....	39.0
May 4	....do.....	....do.....	....do.....	3.2
9	....do.....	....do.....	....do.....	2.8
June 7	....do.....	....do.....	....do.....	1.7
July 17	....do.....	....do.....	....do.....	.3
Oct. 21	Draper Creek.....	....do.....	NW¼ sec. 12, T. 38 S., R. 8 W., 1 mile east of Selma.	*.2
Dec. 7	....do.....	....do.....	....do.....	3.9
Jan. 26	....do.....	....do.....	....do.....	18.5
May 6	....do.....	....do.....	....do.....	1.5
9	....do.....	....do.....	....do.....	1.7
June 3	....do.....	....do.....	....do.....	.9
Oct. 21	Clear Creek.....	....do.....	SE¼SW¼ sec. 2, T. 38 S., R. 8 W., at Selma.	6.4
Dec. 7	....do.....	....do.....	....do.....	20.0
Jan. 26	....do.....	....do.....	....do.....	33.7
Mar. 2	....do.....	....do.....	....do.....	11.2
May 4	....do.....	....do.....	....do.....	10.2
9	....do.....	....do.....	....do.....	5.0
June 3	....do.....	....do.....	....do.....	14.6
July 15	....do.....	....do.....	....do.....	1.6

* Estimated.

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