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

Water-Supply Paper 964

SURFACE WATER SUPPLY *of the* UNITED STATES

1942

PART 14

PACIFIC SLOPE BASINS IN OREGON AND LOWER COLUMBIA RIVER BASIN

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ILLUSTRATION

SURFACE WATER SUPPLY OF PACIFIC SLOPE BASINS IN OREGON AND LOWER COLUMBIA RIVER BASIN, 1942

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, 1942. The work was begun in 1888 in connection with special studies relating to irrigation. Measurements of the flow of streams and of the stage and contents of lakes and reservoirs have been made at about 9,400 gaging stations in the United States and also at many gaging stations in Alaska and Hawaii. In July 1942, 4,970 gaging stations were being maintained by the Geological Survey and cooperating organizations. Miscellaneous discharge measurements were made 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 on page 12.

DEFINITION OF TERMS

The units in which stream-flow data are presented in this report and other terms used herein are defined as follows:

"Second-feet" is an abbreviation for "cubic feet per second." A second-foot is the rate of discharge of a stream whose channel is 1 square foot in cross-sectional area and whose average velocity is 1 foot per second.

"Second-feet per square mile" is the average number of cubic feet of water flowing per second from each square mile of area drained, on the assumption that the run-off is distributed uniformly both as regards time and area.

"Run-off 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 run-off 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 run-off 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.

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 on plate 1.

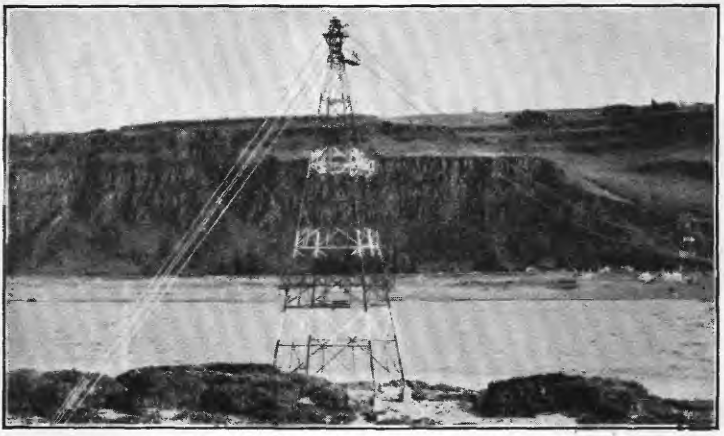
Rating tables giving the discharge for any stage are prepared from the discharge measurements. The application of the daily mean gage height to these rating tables gives the daily mean discharge, from which the monthly and the yearly mean discharge are computed. If the stage-discharge relation is subject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

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

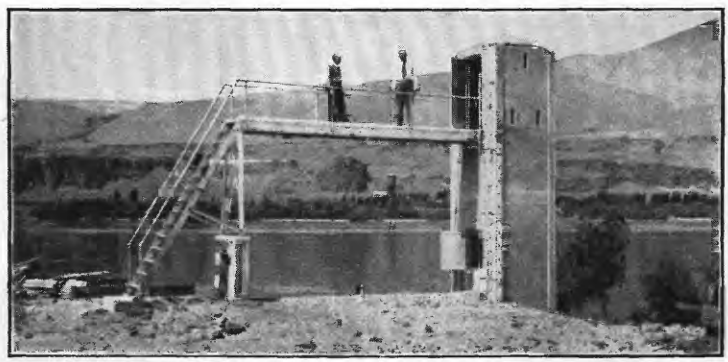
At most gaging stations in the northern part of the United States and at some in the mountainous regions of other parts the stage-discharge relation is affected by ice during the winter, which makes it impossible to compute the discharge in the usual manner. Discharge for periods of ice effect is computed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

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

The description of the station gives the type of gage, its latitude and longitude determined from the best available maps, and information in regard to diversions that



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



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

C. WILLAMETTE RIVER AT ALBANY, OREG.

GAGING-STATION STRUCTURES.

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 stations having drainage areas of less than 10 square miles or more than 10,000 square miles or if the peak discharges usually exceed the corresponding mean discharges for the day by less than 10 percent.

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 flashy floods 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. 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.

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 and 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. This made February 9 a 23-hour day. Time prior to 2 a.m.

February 9 as given herein refers to standard time; time after 2 a.m. February 9 refers to war time. To convert war time to standard time, subtract 1 hour.

Records of daily discharge prior to February 9, 1942, published herein have been computed on the basis of standard time. Records subsequent to that date have been computed on the basis of war time. The discharge given for February 9 is the mean for 23 hours. The mean discharge and run-off for the month of February have been computed from the total second-foot-days for the month without adjustment for the fact that February 9 was a 23-hour day. The small error resulting from this procedure has been disregarded.

ACCURACY OF FIELD DATA AND COMPUTED RESULTS

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

The station description gives a statement in regard to the general accuracy of the records. "Excellent" indicates that, in general, the daily records are accurate within 5 percent; "good," within 10 percent; "fair," within 15 percent; and "poor," within 20 or a higher percent. The records of monthly and yearly mean discharge and run-off 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 "run-off in inches" are not published unless storage or diversion records are included indicating the extent of the regulation or diversion or unless satisfactory adjustments can be made for changes in contents of reservoirs or for other changes incident to use and control. Figures of second-feet per square mile and run-off in inches are also omitted if the drainage area includes large noncontributing areas or if the average annual rainfall over the drainage area is less than 20 inches.

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

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

PUBLICATIONS

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

Part 1. North Atlantic slope basins (St. John River to York River).
2. South Atlantic slope and eastern Gulf of Mexico basins (James River to Mississippi River).

3. Ohio River Basin.
4. St. Lawrence River Basin.
5. Hudson Bay and upper Mississippi River basins.
6. Missouri River Basin.
7. Lower Mississippi River Basin.
8. Western Gulf of Mexico basins.
9. Colorado River Basin.
10. The Great Basin.
11. Pacific slope basins in California.
12. Pacific slope basins in Washington and upper Columbia River Basin.
13. Snake River Basin.
14. Pacific slope basins in Oregon and lower Columbia River Basin.

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

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

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

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

East of the Mississippi River:
Albany, N. Y., 526 Federal Building.
Asheville, N. C., 220 Post Office Building.
Atlanta, Ga., 5 North Rhodes Center.
Augusta, Maine, Statehouse.
Baton Rouge, La., 124 Geology Building, Louisiana State University.
Boston, Mass., 945 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., Engineering Building, University of Maryland.
Columbia, S. C., 119 United States Courthouse.
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.
New Philadelphia, Ohio, Miami Conservancy District Building.
Ocala, Fla., 302 Post Office Building.
Pittsburgh, Pa., 515 Plaza Building.
St. Paul, Minn., 1427 New Post Office Building.
Trenton, N. J., 228 Federal Building.
Urbana, Ill., 14 Post Office Annex, Elm Street.
Williamsburg, Ky., Second and Sycamore Streets.

West of the Mississippi River:
Austin, Tex., 302 West 15th Street.
Boise, Idaho, 429 Federal Building.
Denver, Colo., 230 Customhouse.
Fort Smith, Ark., 6 Post Office Building.
Helena, Mont., 408 Federal Building.
Honolulu, Hawaii, 225 Federal Building.
Idaho Falls, Idaho, 204 Federal Building.
Iowa City, Iowa, 503 Hydraulic Laboratory, University of Iowa.
Lincoln, Nebr., 1404 Statehouse.
Los Angeles, Calif., 529-H United States Post Office and Courthouse.
Oklahoma City, Okla., 303 Capital Office Building.
Portland, Oreg., 606 Post Office Building.
Rolla, Mo., Missouri Geological Survey Building, Missouri School of Mines and Metallurgy.
St. Louis, Mo., 1002 New Federal Building.
Salt Lake City, Utah, 303 Federal Building.
San Francisco, Calif., 625 Market Street Building.
Santa Fe, N. Mex., 204 United States Courthouse.
Tacoma, Wash., 207 Federal Building.
Topeka, Kans., 505 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:

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

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

Report	Character of data	Year
10th A, pt. 2	Descriptive information only.	
11th A, pt. 2	Monthly discharge and descriptive information.....	1884 to Sept. 1890.
12th A, pt. 2	....do.....	1884 to June 30, 1891.
13th A, pt. 3	....do.....	1884 to Dec. 31, 1892.
14th A, pt. 2	Monthly discharge (long-time records, 1871-93).....	1888 to Dec. 31, 1893.
B 131.....	Descriptions, measurements, gage heights, and ratings.....	1893-94.
16th A, pt. 2	Descriptive information only.	
B 140.....	Descriptions, measurements, gage heights, ratings, and monthly discharge (also many data covering earlier years).	1895.
W 11.....	Gage heights (also gage heights for earlier years).....	1896.
18th A, pt. 4	Descriptions, measurements, ratings, and monthly discharge (also similar data for some earlier years).	1895-96.
W 15.....	Descriptions, measurements, and gage heights of streams east of the 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 (also some long-time records).	1897.
W 27.....	Measurements, ratings, and gage heights of streams east of the Mississippi River and Missouri River and tributaries.	1898.
W 28.....	Measurements, ratings, and gage heights of streams west of the Mississippi River except Missouri River and tributaries.	1898.
20th A, pt. 4	Monthly discharge (also for many earlier years).....	1898.
W 35 to 39...	Descriptions, measurements, gage heights, and ratings.....	1899.
21st A, pt. 4	Monthly discharge.....	1899.
W 47 to 52...	Descriptions, measurements, gage heights, and ratings.....	1900.
22d A, pt. 4	Monthly discharge.....	1900
W 65, 66.....	Descriptions, measurements, gage heights, and ratings.....	1901.
W 75.....	Monthly discharge.....	1901.

Papers on surface water supply containing records from 1899 to date, grouped by years and drainage basins, are listed by number on page 7. The data for any particular station will, in general, be found in the reports covering the years during which the station was maintained. For example, the data for 1910 to 1920 for any station in the area covered by part 3 are published in Water-Supply Papers 283, 303, 323, 353, 403, 433, 453, 473, 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. 7), contains a summary of yearly discharge at gaging stations in the area covered by that report. Gaging stations at which 10 or more complete years of record have been collected are represented. These summaries are available also as separate reprints.

Numbers of water-supply papers containing results of stream measurements, 1899-1942

(For basins included see p. 4)

Year	1	2	3	4	5	6	7	8	9	10	11	12	13	14
1899 a...	35	b35, 36	36	36	36	o36, 37	37	37	d37, 38	38, e39	38, f39	38	38	38
1900 g...	47, h48	48	48, 149	49	49	49, j50	50	50	50	51	51	51	51	51
1901.....	55, 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	65, 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	q125, 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

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

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

Reports containing compilation of discharge by States and drainage basins

Water-supply Paper	Period	State or drainage basin and title
		STATE
107	1895-1903	Alabama, Water powers of, with an appendix on stream measurements in Mississippi.
298	1887-1912	California, Water resources of, part 1, Stream measurements in Sacramento River Basin.
299	1878-1912	California, Water resources of, part 2, Stream measurements in San Joaquin River Basin.
300	1891-1912	California, Water resources of, part 3, Stream measurements in the Great Basin and Pacific Coast river basins.
477	1890-1918	California, southern, Surface water supply of Pacific slope of.
597-E	1895-1927	California, Surface water supply of Sacramento River Basin.
636-D	1895-1927	California, Surface water supply of San Joaquin River Basin.
636-E	1894-1927	California, southern, Surface water supply of Pacific slope basins in.
637-A	1895-1927	California, Surface water supply of minor San Francisco Bay, northern Pacific, and Great basins in.
74	1884-1900	Colorado, Water resources of.
197	1895-1905	Georgia, Water resources of.
415	1845-1915	Massachusetts, Surface waters of.
230	1894-1906	Nebraska, Surface water supply of.
370	1878-1910	Oregon, Surface water supply of.
85C	1898-1937	Texas, Summary of records of surface waters of.
424	1875-1916	Vermont, Surface waters of.
492	1878-1919	Washington, Summary of hydrometric data in.
870	1919-35	Washington, Summary of records of surface waters of.
156	1895-1905	Wisconsin, northern, Water powers of.
469	1894-1921	Wyoming, Surface waters of, and their utilization.
		DRAINAGE BASIN
395	1888-1914	Colorado River (Ariz., Colo., N. Mex., Utah, Wyo.) and its utilization.
617	1897-1927	Colorado River, upper (Colo., Utah), and its utilization.
517	1889-1920	Great Salt Lake Basin, Water powers of.
618	1894-1926	Green River (Utah, Wyo.) and its utilization.
198	1890-1906	Kennebec River Basin (Maine), Water resources of.
491	1898-1917	Milk River. See St. Mary and Milk Rivers.
536	1895-1920	New Kanawha River Basin (N. C., Va., W. Va.), Surface water supply of.
279	1904-9	Penobscot River Basin (Maine), Water resources of.
192	1895-1906	Potomac River Basin (D. C., Md., W. Va.)
358	1898-1913	Rio Grande Basin (Colo., N. Mex., Tex.), Water resources of, 1888-1913.
491	1898-1917	St. Mary and Milk Rivers (Mont., Canada), Water supply of.
109	1896-1904	Susquehanna River Basin (Pa., Md.), Hydrography of.

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

State reports containing compilation of records of discharge

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

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

State reports containing compilation of records of discharge--Continued

State	Period	Report	Issued by
Indiana.....	1923-27	Pub. 72, Surface water supply of Indiana.	Department of Conservation.
Do.....	1927-30	Pub. 112, Surface water supply of Indiana.	Do.
Iowa.....	1873-1932	Stream-flow records of Iowa.....	Iowa State Planning Board.
Do.....	1873-1940	Summaries of flow relating to Iowa streams.	Iowa Geological Survey.
Kansas.....	1898-1919	Surface waters of Kansas.....	Kansas Water Commission.
Do.....	1919-24	....do.....	Do.
Do.....	1924-28	....do.....	Kansas State Board of Agriculture.
Do.....	1928-35	Stream-flow data of Kansas.....	Do.
Do.....	1935-39	....do.....	Do.
Kentucky....	1910-20	Surface waters of Kentucky.....	Kentucky Geological Survey.
Louisiana...	1903-38	Geol. Bull. 16, Surface water supply of Louisiana.	Department of Conservation.
Maine.....	1887-1920	1st annual report[2].....	Maine Water Power Commission.
Maryland....	1929-37	Flow data and draft storage curves for major streams in Maryland.	State Planning Commission and Water Resources Commission.
Minnesota...	1909-12	Water-resources investigation of Minnesota.	State Drainage Commission.
Missouri....	1857-1926	Vol. 20, 2d series, Water resources of Missouri.	Missouri Geological Survey and Water Resources.
Do.....	1927-39	Vol. 26, 2d series, Surface waters of Missouri.	Do.
Montana.....	1889-1911	5th biennial report.....	Office of the State engineer.
Do.....	1881-1938	Special Rept. 10, vols. 1-4, Water resources of Montana.	Montana Agricultural Experiment Station.
Nebraska....	1894-1914	1st hydrographic report.....	Bureau of Water Power, Irrigation, and Drainage.
Do.....	1914-28	2d hydrographic report.....	Do.
New Jersey..	1891-1928	Bull. 33, Surface water supply of New Jersey.	Department of Conservation and Development.
Do.....	1928-34	Special Rept. 5, Surface water supply of New Jersey.	State Water Policy Commission.
New Mexico..	1888-1925	Surface water supply of New Mexico.....	Office of the State Engineer.
North Carolina.	1889-1923	Bull. 34, Discharge records of North Carolina streams.[3]	Department of Conservation and Development.
Do.....	1889-1936	Bull. 39, Discharge records of North Carolina streams.[4]	Do.
North Dakota	1919-21	Report to Governor of North Dakota on flood control.	State chief engineer.
Do.....	1882-1938	Surface water in North Dakota.....	State Planning Board.
Ohio.....	1898-1921	Bull. 73, Ohio stream flow.....	Engineering Experiment Station, Ohio State University.
Do.....	1902-39	Bull. 200, Compilation of stream-flow records of Ohio.	Department of Agriculture, Division of Conservation and Natural Resources.
Do.....	1898-1939	Bull. 3, Ohio stream-drainage areas and flow-duration tables.	Engineering Experiment Station, Ohio State University.
Oregon.....	1878-1914	Bull. 4, Water resources of the State of Oregon.	Office of the State Engineer.
Do.....	1914-24	Bull. 7, Water resources of the State of Oregon.	Do.
Do.....	1924-30	Bull. 8, Water resources of the State of Oregon.	Do.
Do.....	1930-36	Bull. 9, Water resources of the State of Oregon.	Do.
Pennsylvania	1890-1911	Report of the Water Supply Commission of Pennsylvania.	Water Supply Commission of Pennsylvania.
Do.....	1928-32	Stream-flow records of Pennsylvania.....	Department of Forests and Waters.
Rhode Island	1929-41	7th annual report.....	Department of Public Works.
Tennessee...	1874-1924	Bull. 34, Water resources of Tennessee.	Department of Education.
Do.....	1920-30	Bull. 40, Surface Waters of Tennessee.[3]	Do.
Utah.....	1889-1908	5th biennial report, State engineer.....	Office of the State Engineer.
Do.....	1906-10	7th biennial report, State engineer.....	Do.
Do.....	1911-1916	10th biennial report, State engineer....	Do.
Virginia....	1895-1927	Bull. 31, Water resources of Virginia...	Conservation Commission.
Washington..	1878-1933	Bull. 5, Monthly and yearly summaries of hydrometric data.	Department of Conservation and Development.
Wisconsin...	1888-1914	1st report of Railroad Commission of Wisconsin to Legislature on water powers.	Railroad Commission of Wisconsin.
Do.....	1914-23	2d report of Railroad Commission of Wisconsin to Legislature on water powers.	Do.

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

Note.- In addition to the records contained in the reports listed above, the following States have issued annual or biennial reports in which are contained records of discharge: California, Colorado, Connecticut, Idaho, Indiana, Maine, Missouri, Montana, Nebraska, Nevada, New Mexico, New York (also New York City Board of Water Supply and city of Rochester), North Dakota, Oregon, Pennsylvania, 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 reports also contain other pertinent hydrologic information and analyses and compilations of data relating to earlier noteworthy floods. The following list gives the numbers and titles of these reports.

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

RECORDS OF DISCHARGE COLLECTED BY ANGENCIES 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 1941 to September 1942 by agencies other than the Geological Survey. The records for these stations are not contained in the publications of the Geological Survey. Records on many canals, not here listed, have been collected by the Oregon State engineer and the Bureau of Reclamation in connection with the operation of irrigation projects.

Records of discharge collected by agencies other than the Geological Survey

Stream	Location	Period	Collected by
Badger Creek.....	NE¼NW¼ sec. 6, T. 4 S., R. 13 E., 1 mile west of Tygh Valley.	1941-42	Bureau of Reclamation.
Beaver Creek, North Fork of.	SE¼ sec. 21, T. 16 S., R. 25 E., 1½ miles south of Powell Ranch and 13 miles northeast of Paulina.	1942	Do.
Big Butte Creek, North Fork of.	SW¼ sec. 2, T. 35 S., R. 2 E., 1 mile north of Butte Falls, Oreg.	1928-42	Oregon State engineer.
Big Butte Springs.....	Sec. 17, T. 35 S., R. 3 E., 6 miles east of Butte Falls, Oreg.	1930-42	Do.
Big Marsh Creek.....	NE¼ sec. 20, T. 24 S., R. 7 E., at Hoey Ranch, near Crescent, Oreg.	1924, 1928-42*	Do.
Brown Creek.....	SW¼SW¼ sec. 29, T. 21 S., R. 8 E., near Lapine, Oreg.	1938-42*	Do.
Butter Creek.....	SE¼ sec. 22, T. 2 N., R. 27 E., at Foley Bridge, 15 miles southeast of Hermiston, Oreg.	1933-42	Do.
Do.....	SE¼ sec. 22, T. 1 N., R. 28 E., 1 mile upstream from Vey Ranch, Oreg.	1921-42	Do.
Camas Creek.....	SE¼ sec. 4, T. 5 S., R. 32 E., 200 feet upstream from Cable Creek, near Ukiah, Oreg.	1932-42*	Do.

* Records for some earlier years published in water-supply papers of the Geological Survey

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

Stream	Location	Period	Collected by
Charlton Creek	Sec. 1, T. 21 S., R. 7 E., near Lapine, Oreg.	1924, 1938-42	Oregon State engineer.
Clear Creek	SE¼SW¼ sec. 2, T. 38 S., R. 8 W.	1941-42	Do.
Columbia River	Big Eddy, Oreg.	1910-42	Corps of Engineers, U. S. Army.
Do	Cascade Locks, Oreg.	1878-42	Do.
Do	Bonneville, Oreg.	1934-42	Do.
Do	Vancouver, Wash.	1931-42	Do.
Do	St. Helens, Oreg.	1930-42	Do.
Do	Longview, Wash.	1933-42	Do.
Do	Wauna, Oreg.	1941-42	Do.
Do	Fort Stevens, Oreg.	1931-42	Do.
Coquille River	Coquille, Oreg.	1937-42	Do.
Crooked River, North Fork of.	SW¼ sec. 21, T. 14 S., R. 22 E., ⅝ mile upstream from Deep Creek and 15 miles northeast of Paulina.	1941-42	Bureau of Reclamation.
Cultus Creek	Sec. 19, T. 20 S., R. 8 E., upstream from Crane Prairie, near Lapine, Oreg.	1938-42*	Oregon State engineer.
Dairy Creek	Centerville Bridge, Oreg.	1940-42	Corps of Engineers, U. S. Army.
Do	Confluence of East and West Forks	1940-42	Do.
Dairy Creek, West Fork of.	Lake Lousignont Canal, Oreg.	1940-42	Do.
Do	Roy Bridge, Oreg.	1939-42	Do.
Davis Creek	NE¼NE¼ sec. 9, T. 22 S., R. 8 E., near Lapine, Oreg.	1924, 1938-42	Oregon State engineer.
Deer Creek	Sec. 36, T. 20 S., R. 7 E., near Lapine, Oreg.	1938-42*	Do.
Do	SW¼NE¼ sec. 18, T. 38 S., R. 6 W., below confluence of North and South Forks.	1941-42	Do.
Deschutes River	NE¼ sec. 14, T. 15 S., R. 12 E., 1,500 feet upstream from dam at Cline Falls, Oreg.	1928-42*	Do.
Do	NW¼NW¼ sec. 28, T. 21 S., R. 8 E., below Sheep Springs, near Lapine, Oreg.	1938-42	Do.
Evans Creek	NE¼ sec. 34, T. 34 S., R. 3 W., at Bybee Springs, near Wimer, Oreg.	1940-42*	Do.
Do	SW¼ sec. 20, T. 34 S., R. 2 W.	1941-42	Do.
Fish Lake Dam, tunnel at	SW¼ sec. 3, T. 37 S., R. 4 E., 18 miles east of Lake Creek, Oreg.	1929-42	Do.
Grave Creek	NW¼SW¼ sec. 5, T. 34 S., R. 4 W., at Pease Bridge, near Grants Pass, Oreg.	1940-42	Do.
Do	NW¼SW¼ sec. 7, T. 34 S., R. 5 W., 1½ miles west of Placer, Oreg.	1929-30, 1932-42*	Do.
Illinois River, East Fork of.	NW¼NE¼ sec. 15, T. 41 S., R. 8 W., 3 miles south of Takilma, Oreg.	1926-32, 1940-42	Do.
Jumpoff Joe Creek	SW¼ sec. 32, T. 34 S., R. 5 W., 7 miles northwest of Merlin, Oreg.	1929-42*	Do.
Little Butte Creek	SE¼ sec. 19, T. 36 S., R. 2 E., at Lake Creek, Oreg.	1922-24, 1927-42	Do.
Little Butte Creek, North Fork of.	Sec. 21, T. 36 S., R. 2 E., above Rogue River Valley Canal intake, near Lake Creek, Oreg.	1931-42*	Do.
Little Butte Creek, South Fork of.	NW¼ sec. 21, T. 37 S., R. 4 E., near Lake Creek, Oreg.	1931-42*	Do.
Little Walla Walla River	George Street, in Milton, Oreg.	1916, 1932-42	Do.
Long Gulch	SW¼SE¼ sec. 10, T. 41 S., R. 8 W., near Basye Ranch, 2½ miles south of Takilma, Oreg.	1940-42	Do.
McKenzie River	Quartz Creek, Oreg.	1938-42	Do.
Ochoco Creek	NE¼ sec. 6, T. 15 S., R. 17 E., below Ochoco Reservoir, 6 miles east of Prineville, Oreg.	1919-42	Do.
Ochoco Reservoir	SW¼ sec. 5, T. 15 S., R. 17 E., 6 miles east of Prineville, Oreg.	1918-42	Do.
Ochoco Springs	NE¼ sec. 6, T. 15 S., R. 17 E., 6 miles east of Prineville, Oreg.	1920-42	Do.
Rancheria Creek	SE¼ sec. 17, T. 35 S., R. 3 E., 10 miles northeast of Lake Creek, Oreg.	1935-42	Do.
Rough and Ready Creek	SE¼NE¼ sec. 15, T. 40 S., R. 9 W., 3 miles west of O'Brien, Oreg.	1940-42	Do.
Row River	Dorena, Oreg.	1939-42	Corps of Engineers, U. S. Army.
Salt Creek	SE¼ sec. 30, T. 22 S., R. 6 E., at Gold Lake, Oreg.	1939-42	Oregon State engineer.
South Santiam River	Sweet Home, Oreg.	1939-42	Corps of Engineers, U. S. Army.
Sucker Creek	SW¼ sec. 30, T. 39 S., R. 6 W., below Grayback Creek, 10 miles southeast of Kerby, Oreg.	1940-42	Oregon State engineer.
Tualatin River	Cornelius Bridge, Oreg.	1939-42	Corps of Engineers, U. S. Army.
Do	Jackson Bridge, Oreg.	1939-41	Do.
Do	Road Bridge, Oreg.	1939-42	Do.
Do	Scholls Bridge, Oreg.	1939-42	Do.
Do	Oregon Iron & Steel Co.'s dam, Oreg.	1939-42	Do.

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

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

Stream	Location	Period	Collected by
Thompson Creek.....	SW¼SE¼ sec. 21, T. 38 S., R. 7 W.	1941-42	Oregon State engineer.
Umatilla River, North Fork of.	NW¼ sec. 22, T. 3 N., R. 37 E., 10 miles east of Gibbon, Oreg.	1939-42*	Do.
Umpqua River.....	Reedsport, Oreg.....	1938-42	Corps of Engineers, U. S. Army.
White River.....	NE¼ sec. 11, T. 5 S., R. 10 E., 500 feet downstream from Crane Creek and about 1 mile east of abandoned Keep saw-mill site.	1941-42	Bureau of Reclamation.
Willamette River, Middle Fork of.	Lookout Point, Oreg.....	1939-42	Corps of Engineers, U. S. Army.
Willamette River.....	United States moorings.....	1916-42	Do.
Wood Creek.....	SE¼NW¼ sec. 29, T. 40 S., R. 8 W., above Waldo lateral.	1942	Oregon State engineer.

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

Note.- Records prior to 1936 indicated above as collected by the Oregon State engineer (some in cooperation with the U. S. Bureau of Reclamation) are contained in bulletins of the State engineer as follows: For 1915-24, in Bulletin 7; for 1925-30, in Bulletin 8; and for 1931-36 (some to December 1936) in Bulletin 9. Records subsequent to 1936 collected by the officer mentioned and all other records here listed have not been published.

The Soil Conservation Service began in 1938 to collect records of run-off from four areas of less than 22 acres each in the vicinity of Newberg, Oreg. These records are available in the files of that organization.

COOPERATION

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

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

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

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

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

Oregon: Counties of Crook, Deschutes, Jackson, Jefferson, Josephine, Klamath, and Umatilla; cities of Eugene and Grants Pass; The California Oregon Power Co., Pacific Power & Light Co., Portland General Electric Co., and West Coast Power Co.

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

DIVISION OF WORK

The stream-gaging work was conducted by the water resources branch of the Geological Survey--Glenn L. Parker, chief hydraulic engineer, Carl G. Paulsen, assistant chief hydraulic engineer, and Rudolph G. Kasel, chief of the division of surface waters. The data for the stations in the two States 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, engineer in charge, and J. W. Gambrell, assistant 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 1942. 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.- 64 years, 195,500 second-feet.
Extremes.- Maximum discharge during year, 431,000 second-feet June 17 (elevation, 140.11 feet); minimum, 81,800 second-feet Mar. 4 (elevation, 129.2 feet).
1858-1942: Maximum discharge, 1,170,000 second-feet June 6, 1894 (elevation, 106.5 feet on gage at The Dalles, 160.1 feet at present site); minimum observed, 35,000 second-feet Jan. 12, 1937 (elevation, 126.0 feet).
Remarks.- Records excellent. Storage and diversions for irrigation are only a small part of total run-off. Some regulation by Columbia River Reservoir above Grand Coulee Dam during year, the total increase in contents during the year ending Sept. 30, 1942, being 2,334,000 acre-feet.
Cooperation.- Recorder inspected and staff gage read twice daily by Corps of Engineers, U. S. Army.

Rating table, water year 1941-42 (elevation, in feet, and discharge, in second-feet)

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

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	122,000	124,000	127,000	145,000	118,000	84,100	118,000	213,000	379,000	312,000	223,000	126,000
2	120,000	121,000	127,000	137,000	116,000	83,600	127,000	212,000	372,000	307,000	219,000	126,000
3	118,000	122,000	127,000	132,000	115,000	83,400	136,000	207,000	367,000	309,000	212,000	125,000
4	120,000	121,000	128,000	128,000	127,000	82,000	147,000	203,000	368,000	311,000	207,000	123,000
5	121,000	111,000	147,000	122,000	132,000	83,200	155,000	200,000	372,000	314,000	203,000	119,000
6	118,000	114,000	166,000	112,000	135,000	85,700	160,000	204,000	382,000	309,000	199,000	117,000
7	120,000	114,000	167,000	95,300	140,000	88,300	168,000	203,000	380,000	306,000	194,000	114,000
8	122,000	112,000	164,000	93,600	137,000	89,000	177,000	201,000	379,000	306,000	190,000	114,000
9	121,000	113,000	164,000	95,500	133,000	90,000	183,000	196,000	394,000	304,000	185,000	107,000
10	121,000	115,000	163,000	98,800	132,000	90,500	184,000	199,000	397,000	299,000	178,000	104,000
11	121,000	115,000	165,000	104,000	132,000	95,000	185,000	208,000	404,000	300,000	174,000	103,000
12	119,000	112,000	167,000	109,000	129,000	103,000	192,000	224,000	414,000	306,000	174,000	103,000
13	120,000	110,000	165,000	111,000	124,000	122,000	202,000	227,000	417,000	300,000	172,000	104,000
14	121,000	108,000	166,000	114,000	118,000	127,000	219,000	228,000	419,000	296,000	168,000	105,000
15	120,000	108,000	162,000	115,000	114,000	129,000	228,000	233,000	424,000	299,000	164,000	105,000
16	120,000	110,000	158,000	112,000	111,000	128,000	241,000	235,000	424,000	292,000	163,000	105,000
17	119,000	123,000	157,000	111,000	109,000	124,000	237,000	246,000	426,000	286,000	160,000	104,000
18	118,000	141,000	164,000	108,000	107,000	121,000	228,000	255,000	428,000	275,000	158,000	104,000
19	119,000	151,000	172,000	107,000	103,000	120,000	223,000	260,000	422,000	273,000	157,000	103,000
20	121,000	147,000	174,000	108,000	97,500	120,000	215,000	264,000	415,000	276,000	152,000	101,000
21	126,000	141,000	181,000	109,000	93,800	117,000	206,000	268,000	410,000	274,000	125,000	99,200
22	127,000	139,000	191,000	108,000	93,600	112,000	205,000	277,000	392,000	272,000	124,000	97,000
23	126,000	136,000	194,000	103,000	93,800	107,000	215,000	290,000	383,000	268,000	126,000	95,800
24	124,000	132,000	190,000	102,000	94,800	105,000	232,000	313,000	376,000	263,000	127,000	95,000
25	123,000	130,000	187,000	101,000	93,800	106,000	237,000	345,000	370,000	256,000	127,000	94,100
26	124,000	127,000	185,000	101,000	90,500	105,000	233,000	376,000	362,000	251,000	124,000	93,400
27	123,000	127,000	182,000	103,000	86,400	101,000	227,000	396,000	349,000	245,000	125,000	91,900
28	122,000	128,000	176,000	112,000	84,800	99,500	222,000	418,000	350,000	240,000	129,000	91,000
29	120,000	128,000	170,000	121,000	-	98,500	218,000	414,000	343,000	235,000	128,000	89,300
30	122,000	128,000	158,000	122,000	-	98,800	216,000	402,000	327,000	234,000	127,000	87,600
31	125,000	-	152,000	122,000	-	107,000	-	390,000	-	228,000	127,000	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acre-feet
October	3,763,000	127,000	118,000	121,400	0.512	0.59	7,464,000
November	3,708,000	151,000	108,000	123,600	.522	.58	7,355,000
December	5,099,000	194,000	127,000	164,500	.694	.80	10,110,000
Calendar year 1941	51,771,100	272,000	68,700	141,800	.598	8.12	102,700,000
January	3,462,200	145,000	93,600	111,700	.471	.54	6,867,000
February	3,161,000	140,000	84,800	112,900	.476	.50	6,270,000
March	3,210,600	129,000	82,000	103,600	.437	.50	6,368,000
April	5,936,000	241,000	118,000	197,900	.835	.93	11,770,000
May	8,310,000	418,000	196,000	268,100	1.13	1.30	16,480,000
June	11,645,000	428,000	327,000	388,200	1.64	1.83	23,100,000
July	8,746,000	314,000	228,000	282,100	1.19	1.37	17,350,000
August	4,995,000	223,000	124,000	161,100	.680	.78	9,907,000
September	3,146,500	126,000	87,600	104,900	.443	.49	6,241,000
Water year 1941-42	65,182,100	428,000	82,000	178,600	.754	10.21	129,300,000

g Computed from graph based on gage readings.
Time basis: Pacific standard time prior to 2 a.m., Feb. 9, 1942; Pacific war time thereafter. To convert war time to standard time, subtract 1 hour.

WALLA WALLA RIVER BASIN

South Fork of Walla Walla River near Milton, Oreg.

Location.- Water-stage recorder, lat. 45°50', long. 118°10', in NE¼ sec. 15, T. 14 N., R. 37 E., 1 mile upstream from Pacific Power and 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 (revised).
Records available.- February to October 1903 (gage heights only), August 1906 to November 1917 (incomplete), May 1931 to September 1942.
Average discharge.- 18 years, 1908-15, 1931-42), 163 second-feet.
Extremes.- Maximum discharge during year, 624 second-feet June 26 (gage height, 2.32 feet); minimum, 79 second-feet Sept. 19-21, 25-27, 30 (gage height, 1.00 foot).
1906-17, 1931-42: 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, present site and datum, Mar. 31, 1931.
Remarks.- Records good. No diversion or regulation above station.

Rating tables, water year 1941-42, except period of ice effect (gage height, in feet, and discharge, in second-feet)

Oct. 1 to Jan. 3				Jan. 7 to Sept. 30			
1.0	78	1.6	195	1.0	79	1.8	280
1.2	106	1.8	265	1.2	110	2.0	375
1.4	145	2.0	375	1.4	154	2.2	520
				1.6	210		

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	86	90	111	117	157	100	230	187	201	161	90	85
2	86	88	266	117	157	102	220	178	190	165	90	86
3	87	96	424	117	162	103	213	173	181	159	89	83
4	122	92	270	b117	284	105	223	190	170	144	89	83
5	110	91	207	b117	258	108	250	196	165	137	89	83
6	102	90	190	b108	213	110	250	201	162	137	87	83
7	100	88	173	102	187	110	247	201	154	126	87	83
8	98	88	161	105	173	110	243	210	152	122	86	82
9	97	88	152	106	168	135	250	233	165	119	86	83
10	94	88	145	105	170	233	258	240	152	119	86	83
11	94	88	132	103	173	256	292	233	159	119	85	83
12	94	88	128	105	165	230	316	233	144	119	85	82
13	92	111	122	105	154	207	312	220	140	119	85	82
14	91	210	126	105	144	187	316	215	132	107	85	82
15	90	362	137	105	137	170	273	243	152	108	85	82
16	90	321	187	107	130	168	265	230	142	124	83	82
17	87	225	207	107	122	157	304	220	135	119	83	82
18	87	184	229	107	116	154	282	210	132	105	83	82
19	92	163	321	107	114	144	262	210	128	102	83	80
20	90	147	382	107	112	142	273	210	122	102	83	80
21	88	137	260	105	110	144	292	226	118	98	83	80
22	88	128	219	107	108	149	269	243	116	98	83	80
23	87	119	198	107	105	147	256	250	112	98	83	80
24	87	115	176	108	105	140	223	236	110	98	83	80
25	87	111	161	110	103	132	207	243	152	95	83	80
26	86	110	150	116	102	126	201	320	410	95	85	80
27	87	106	139	173	102	122	193	276	546	95	85	80
28	94	108	139	201	100	124	187	254	336	93	87	80
29	94	110	132	181	-	135	181	230	254	92	87	80
30	91	113	128	165	-	154	184	213	207	98	85	80
31	90	-	122	149	-	178	-	217	-	98	85	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acre-feet
October	2,868	122	86	92.5	1.47	1.69	5,690
November	3,975	382	88	132	2.10	2.35	7,880
December	5,912	424	111	191	3.03	3.49	11,730
Calendar year 1941	46,850	424	81	128	2.03	27.65	92,930
January	3,690	201	102	119	1.89	2.18	7,320
February	4,131	284	100	148	2.35	2.44	8,190
March	4,562	236	100	147	2.33	2.69	9,050
April	7,432	316	181	248	3.94	4.39	14,740
May	6,939	320	173	224	3.56	4.10	13,760
June	5,439	546	110	181	2.87	3.21	10,790
July	3,531	181	92	114	1.81	2.08	7,000
August	2,648	90	83	85.4	1.36	1.56	5,250
September	2,451	86	80	81.7	1.30	1.45	4,860
Water year 1941-42	53,578	546	80	147	2.33	31.63	106,300

Peak discharge.- Nov. 15 (3:30 p.m.) 512 sec.-ft.; Dec. 2 (11:30 p.m.) 537 sec.-ft.; Dec. 20 (4 a.m.) 417 sec.-ft.; Apr. 16 (12 p.m.) 382 sec.-ft.; May 26 (5 a.m.) 375 sec.-ft.; June 26 (6:30 p.m.) 624 sec.-ft.
b Stage-discharge relation affected by ice.
Time basis: Pacific standard time prior to 2 a.m., Feb. 9, 1942; Pacific war time thereafter. To convert war time to standard time, subtract 1 hour.

South Fork of 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 1942, in reports of Geological Survey. Records for station at other sites within a distance of 2 miles downstream having same annual run-off, as follows: November 1903 to May 1906, in reports of Geological Survey; December 1929 to March 1931, July 1931 to September 1936, in reports of State engineer; October 1936 to September 1940, in files of State engineer.
Average discharge.- 12 years (1904-5, 1930-31, 1932-42), 161 second-feet.
Extremes.- Maximum discharge during year, 566 second-feet June 26 (gage height, 2.89 feet), from rating curve extended above 320 second-feet; minimum, 23 second-feet (regulated) July 12; minimum daily, 71 second-feet Sept. 24.
1903-6, 1929-42: Maximum discharge not determined, probably occurred during floods of May 30-31, 1906, or Mar. 31, 1931; maximum daily discharge, 3,000 second-feet (estimated by Oregon State engineer) Mar. 31, 1931; minimum, 1 second-foot (regulated), June 23, 1940; minimum daily, 64 second-feet Oct. 14, 1930.
Remarks.- Records good. Small diversions above station for irrigation; diversion for power is returned to river 100 yards upstream. Some diurnal fluctuation caused by power plant above station.

Rating table, water year 1941-42 (gage height, in feet, and discharge, in second-feet)

0.8	69	1.4	156	2.2	345
.9	81	1.6	194	2.4	405
1.0	94	1.8	237	2.7	500
1.2	123	2.0	287		

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	89	90	128	120	198	107	222	184	207	209	85	76
2	89	89	258	123	198	108	215	176	194	190	80	75
3	88	93	438	123	196	111	215	172	186	174	80	74
4	122	95	330	123	321	114	219	188	180	163	78	75
5	118	94	266	123	312	117	251	194	174	148	78	74
6	112	94	247	123	261	120	256	196	167	136	77	74
7	110	91	224	118	226	120	254	204	163	131	77	74
8	110	91	207	112	204	123	247	209	156	123	77	75
9	105	90	190	110	215	139	251	228	167	116	77	76
10	102	89	176	108	219	235	271	239	160	112	77	77
11	98	89	165	107	219	242	284	235	163	112	77	76
12	98	91	156	107	207	239	309	239	154	105	76	75
13	95	114	156	105	190	215	304	228	148	110	75	75
14	94	242	158	105	174	198	315	226	144	105	76	75
15	93	408	165	105	163	184	279	242	154	104	77	76
16	93	387	254	107	153	182	266	235	153	114	77	76
17	91	295	301	108	139	172	312	226	146	112	77	76
18	90	233	324	107	131	169	274	217	139	110	76	76
19	95	a200	387	105	126	161	264	215	136	105	76	76
20	93	a180	417	105	122	156	271	215	129	101	76	76
21	91	a160	336	107	122	156	284	222	125	98	76	76
22	91	a150	271	108	116	156	274	235	116	94	76	75
23	90	a135	237	120	114	154	242	244	111	93	76	73
24	90	a132	211	146	114	148	222	233	108	90	76	71
25	88	128	188	154	114	142	211	242	146	86	76	73
26	86	125	174	154	111	136	202	327	390	85	74	74
27	88	120	160	224	111	131	194	287	507	84	76	73
28	91	118	154	277	108	133	186	264	399	82	76	73
29	100	120	148	254	-	139	182	239	295	84	76	74
30	86	126	141	219	-	156	180	226	242	84	77	74
31	91	-	133	198	-	182	-	219	-	84	76	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	2,977	122	86	96.0	5,900
November	4,469	408	89	149	8,860
December	7,100	438	128	229	14,080
Calendar year 1941	50,331	438	79	138	99,820
January	4,205	277	105	136	8,340
February	4,884	321	108	174	9,690
March	4,845	242	107	156	9,610
April	7,456	315	180	249	14,790
May	7,006	327	172	226	13,900
June	5,657	507	108	189	11,220
July	3,544	209	82	114	7,030
August	2,388	82	74	77.0	4,740
September	2,243	77	71	74.8	4,450
Water year 1941-42	56,774	507	71	156	112,600

Peak discharge.- Nov. 15 (5 p.m.) 490 second-feet; Dec. 3 (1:30 a.m.) 518 sec.-ft.; Dec. 20 (4 a.m.) 441 sec.-ft.; Feb. 4 (1 p.m.) 369 sec.-ft.; Apr. 17 (2 a.m.) 357 sec.-ft.; June 26 (8 p.m.) 566 sec.-ft.
a No gage-height record; discharge computed on basis of records for station near Milton.
Time basis: Pacific standard time prior to 2 a.m., Feb. 9, 1942; Pacific war time thereafter. To convert war time to standard time, subtract 1 hour.

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 1942.

Extremes.- Maximum discharge during year, 1,340 second-feet June 26 (gage height, 5.02 feet); no flow at times.
1941-42: Maximum discharge, that of June 26, 1942; no flow at times each year.

Remarks.- Records poor except those for period Feb. 15 to May 31, which are fair. Many diversions above station for irrigation; Little Walla Walla River, a natural distributary, diverts 3 miles upstream. No regulation.

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0	5.0	29	57	160	57	222	53	178	110		
2	0	4.5	133	a68	176	58	226	52	148	71		
3	0	4.5	392	a70	175	61	214	53	120	43		
4	0	5.5	230	a70	336	56	210	62	95	a25		
5	0	2.5	172	a70	326	60	250	78	60	al5		
6	0	2.0	157	6S	272	64	254	74	33	a5.0		
7	0	1.5	151	a66	234	63	250	71	26	a3.0		
8	a4	1.5	138	a64	206	64	218	70	16	a2.0		
9	a8	1.0	122	a60	214	76	200	95	8.0	a2.0		
10	a9	1.0	108	a59	242	226	222	128	5.0	al.0		
11	9	.5	92	a58	250	2S2	234	125	1.0	al.0		
12	12	.5	80	58	230	272	277	128	0	al.0		
13	11	.5	78	a50	192	234	277	118	0	al.0		
14	S.0	100	106	a40	163	203	290	104	0	.5		
15	5.5	31e	154	33	145	175	238	112	0	.5		
16	4.5	425	304	a38	12S	169	214	104	0	0		
17	3.5	295	286	a37	110	157	2S2	98	0	0		
18	3.0	151	264	a36	95	151	21e	83	0	0		
19	4.5	116	390	a35	85	135	200	78	0	0		
20	4.5	97	435	a34	82	128	192	74	0	0		
21	3.5	83	360	a40	78	120	196	76	0	0		
22	3.0	64	277	a40	76	118	175	86	0	0		
23	2.0	57	238	a55	72	112	130	97	0	0		
24	2.0	54	196	a100	71	104	106	93	0	0		
25	2.0	47	169	a180	70	97	93	104	.5	0		
26	1.5	43	142	a180	66	86	82	326	552	0		
27	1.5	40	120	2S2	62	80	74	313	576	0		
2S	2.5	33	120	282	58	80	70	286	380	0		
29	7.5	29	97	282	-	85	61	254	232	0		
30	5.5	31	88	178	-	100	52	218	148	0		
31	5.0	-	78	148	-	132	-	206	-	-		

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	122.5	12	0	3.95	243
November	2,013.5	425	.5	67.1	3,990
December	5,706	435	29	184	11,320
Calendar year	-	-	-	-	-
January	2,838	282	33	91.5	5,630
February	4,376	336	58	156	8,680
March	3,805	282	56	123	7,550
April	5,727	290	52	191	11,360
May	3,819	326	52	123	7,570
June	2,578.5	576	0	86.0	5,110
July	281.0	110	0	9.06	557
August	0	0	0	0	0
September	0	0	0	0	0
Water year 1941-42	31,266.5	576	0	85.7	62,010

a No gage-height record; discharge computed on basis of records for South Fork of Walla Walla below Pacific Power and Light Co.'s plant, near Milton, North Fork of Walla Walla River near Milton, and Little Walla Walla River (unpublished) at Milton.
Note.- Inlet sluggish and gage-height record doubtful during most periods of heavy run-off.
Time basis: Pacific standard time prior to 2 a.m., Feb. 9, 1942; Pacific war time thereafter. To convert war time to standard time, subtract 1 hour.

North Fork of 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 of 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 1942, 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.- 12 years (1930-42), 39.9 second-feet.

Extremes.- Maximum discharge during year, 630 second-feet June 26 (gage height, 4.80 feet), from rating curve extended above 120 second-feet; minimum, 2.0 second-feet Aug. 17-23.

1929-42: Maximum daily discharge observed, 970 second-feet Feb. 28, 1940, probably exceeded by flood of Mar. 31, 1931, when gage was washed out; minimum, 1 second-foot Aug. 8-19, 1936, Aug. 7-11, 1940.

Remarks.- Records fair. Diversions above station for irrigation of about 220 acres; no regulation.

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	7.8	20	30	34	66	18	94	62	62	101	5.5	2.7
2	8.1	19	51	a34	60	22	100	60	56	81	4.9	2.7
3	8.4	19	114	a34	60	23	97	58	49	68	4.4	2.7
4	26	20	97	a34	80	28	97	69	42	53	4.4	2.5
5	28	18	84	a34	92	32	105	92	35	46	3.4	2.7
6	28	18	82	h32	90	35	105	92	32	38	2.9	3.1
7	26	17	76	a28	80	36	100	80	30	32	2.9	3.1
8	24	16	66	a25	77	36	100	66	29	24	2.9	3.4
9	23	16	62	a22	82	43	94	71	34	21	2.7	3.1
10	20	15	56	a20	92	90	94	94	29	21	2.7	3.3
11	18	14	51	a19	94	94	102	97	30	22	2.7	3.6
12	18	14	43	a18	87	97	114	90	26	22	2.4	3.6
13	18	16	40	h17	75	87	114	90	22	20	2.4	3.6
14	16	38	40	a16	66	80	114	82	21	16	2.5	3.6
15	15	77	45	h16	58	77	102	87	30	12	2.5	3.4
16	14	145	87	a16	52	73	100	87	30	27	2.4	3.4
17	14	152	117	a16	45	73	117	84	29	22	2.2	3.4
18	13	117	126	a16	40	69	100	77	29	17	2.0	3.3
19	15	90	155	a16	36	66	90	69	26	14	2.0	3.4
20	16	80	158	h16	34	62	102	64	23	11	2.0	3.8
21	14	69	132	a16	30	64	105	64	21	9.5	2.0	3.6
22	14	58	105	a16	28	62	105	62	18	7.8	2.2	3.3
23	13	49	92	a21	28	60	94	56	16	4.4	2.2	3.3
24	13	43	80	51	23	56	87	51	15	3.6	2.4	3.1
25	13	40	71	52	22	51	80	51	28	6.1	2.4	3.3
26	13	38	62	43	22	47	77	73	239	6.8	2.5	3.8
27	12	32	58	77	21	43	71	35	308	6.6	2.7	3.8
28	15	29	52	105	19	43	66	54	231	4.9	2.9	4.4
29	22	34	49	92	-	45	64	51	152	4.9	3.3	3.6
30	21	32	45	75	-	52	62	47	122	5.5	3.1	3.6
31	20	-	40	69	-	66	-	60	-	5.5	2.7	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	525.3	28	7.8	16.9	1,040
November	1,345	152	14	44.8	2,670
December	2,365	158	30	76.3	4,690
Calendar year 1941	11,617.0	292	2.6	31.8	23,050
January	1,080	105	16	34.8	2,140
February	1,559	92	19	55.7	3,090
March	1,730	97	18	55.8	3,430
April	2,852	117	62	95.1	5,660
May	2,175	97	35	70.2	4,310
June	1,814	308	15	60.5	3,600
July	735.4	101	3.6	23.7	1,460
August	88.2	5.5	2.0	2.85	175
September	100.2	4.4	2.5	3.34	199
Water year 1941-42	16,369.1	308	2.0	44.8	32,460

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

h Computed from staff-gage reading.

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

Mill Creek near Walla Walla, Wash.

Location.- Water-stage recorder, lat. 46°00', long. 118°07', 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.

Records available.- August 1913 to September 1917, April to September 1938, October 1939 to September 1942.

Extremes.- Maximum discharge during year, 902 second-feet June 26 (gage height, 16.31 feet); minimum, 21 second-feet Sept. 5 and 6 (gage height, 14.24 feet). — 1913-17, 1938, 1939-42: Maximum discharge observed, 1,120 second-feet May 13, 1917 (gage height, 4.09 feet, site and datum then in use); minimum observed, 16 second-feet Oct. 11-15, 1939.

Remarks.- Records good except those for period of no gage-height record, which are fair. City of Walla Walla diverts about 22 second-feet about 4 miles above the gage for municipal use.

Rating tables, water year 1941-42 (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Oct. 1 to 3, April to June 26)

Oct.1 to June 26						June 27 to Sept. 30					
14.1	24	14.7	110	15.3	228	14.3	27	14.9	130	15.5	341
14.3	44	14.9	158	15.5	378	14.5	51	15.1	187	15.7	442
14.5	72	15.1	216	15.7	483	14.7	85	15.3	257	16.0	628

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	25	38	39	a54	115	39	155	83	88	106	29	24
2	25	38	63	a52	128	44	147	79	81	92	28	23
3	31	48	182	a50	133	45	133	78	74	74	27	23
4	49	57	147	a49	246	46	126	100	69	65	27	23
5	44	52	115	a47	257	46	124	117	66	59	26	22
6	40	56	110	a46	194	49	119	117	63	53	26	22
7	42	45	106	a44	152	49	117	110	60	50	26	23
8	46	40	98	42	126	50	108	106	58	47	25	23
9	46	39	88	40	121	112	106	138	63	43	25	24
10	42	37	78	38	117	301	110	163	57	42	25	24
11	39	35	68	36	119	254	117	182	61	43	25	24
12	39	36	61	35	113	222	124	174	56	43	24	23
13	37	49	56	35	94	176	121	152	50	38	24	22
14	35	179	57	35	85	150	128	133	52	42	24	22
15	33	401	66	35	79	128	117	135	60	41	24	22
16	32	344	120	35	72	121	108	128	64	48	24	22
17	31	209	166	35	64	117	133	119	56	42	23	23
18	31	147	197	35	60	106	121	108	54	37	23	23
19	34	110	288	35	54	96	113	100	53	36	24	23
20	33	88	276	36	53	94	108	96	52	35	23	22
21	31	78	197	36	52	94	108	96	49	35	23	22
22	31	68	152	36	50	96	106	96	46	35	23	22
23	30	60	128	36	49	94	92	92	46	32	23	22
24	30	56	108	42	50	88	87	85	45	31	23	22
25	30	53	94	48	50	81	81	92	73	31	23	22
26	30	49	83	49	46	69	76	142	460	31	23	22
27	30	46	72	108	43	64	74	135	559	30	23	22
28	30	44	68	155	40	63	76	126	319	30	26	22
29	45	42	63	140	-	66	78	113	193	30	26	22
30	42	40	58	113	-	78	78	104	135	30	24	22
31	40	-	56	96	-	102	-	96	-	29	24	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	1,111	49	25	35.8	2,200
November	2,584	401	35	86.1	5,130
December	3,460	288	39	112	6,860
Calendar year 1941	21,599	401	25	59.2	42,830
January	1,673	155	35	54.0	3,320
February	2,762	257	40	98.6	5,480
March	3,140	301	39	101	6,230
April	3,291	155	74	110	6,530
May	3,595	182	78	116	7,130
June	3,162	559	45	105	6,270
July	1,377	106	29	44.4	2,730
August	763	29	23	24.6	1,510
September	677	24	22	22.6	1,340
Water year 1941-42	27,595	559	22	75.6	54,730

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

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

Mill Creek at Walla Walla, Wash.

Location.- Water-stage recorder, lat. 46°04'40", long. 118°17'00", in NE¼ sec. 22, T. 7 N., R. 36 E., at bridge, 0.9 mile downstream from Yellowhawk Creek diversion and 1.0 mile east of Walla Walla.

Drainage area.- 87 square miles.

Records available.- April 1941 to September 1942.

Extremes.- Maximum discharge during year, 573 second-feet June 27 (gage height, 2.83 feet); minimum, 2.6 second-feet (regulated) June 24 (gage height, 1.08 feet).
1941-42: Maximum discharge, that of June 27, 1942; minimum, 1.0 second-foot (regulated) June 14, 1941 (gage height, 1.00 foot).

Remarks.- Records fair except those for period of ice effect or no gage-height record which are poor. Some regulation at Yellowhawk Creek diversion 0.9 mile upstream. Yellowhawk Creek diverts water to reduce flood peaks in city of Walla Walla and for irrigation during irrigation seasons. City of Walla Walla diverts water for municipal supply. Other small diversions above station for irrigation.

Rating tables, water year 1941-42, except period of ice effect (gage height, in feet, and discharge, in second-feet)

Oct. 1 to June 26						June 27 to Sept. 30					
1.1	3.0	1.5	29	2.1	175	1.2	4.2	1.6	42	2.3	268
1.2	5.0	1.6	42	2.3	335	1.3	8.9	1.7	61	2.5	353
1.3	10	1.7	56	2.4	470	1.4	17	1.9	115	2.6	550
1.4	18	1.8	100			1.5	28	2.1	186		

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	4.4	8.5	7.5	60	139	34	80	37	64	75	4.2	7.7
2	4.6	8.0	7.5	60	170	37	85	38	49	26	4.2	8.3
3	4.6	9.0	10	60	162	38	78	39	34	15	4.5	8.3
4	7.5	14	5.5	60	298	39	71	46	26	9.6	4.2	8.3
5	7.0	10	7.5	60	*376	41	69	55	17	8.9	4.2	8.3
6	7.0	9.5	12	60	268	42	67	67	18	7.7	4.5	8.3
7	6.5	9.0	21	*60	188	42	64	67	17	7.1	4.5	7.7
8	7.0	9.0	45	60	144	42	56	64	16	6.6	4.9	4.5
9	7.0	8.5	53	60	148	66	55	67	17	5.7	5.3	4.5
10	6.0	8.0	55	60	144	278	56	100	14	5.3	5.3	4.5
11	5.5	7.5	48	55	144	259	55	a95	15	5.7	4.2	4.5
12	6.0	7.5	46	55	139	240	58	a90	16	5.7	4.2	4.9
13	7.0	8.0	49	55	121	194	60	a85	11	5.7	4.2	5.3
14	5.0	125	48	55	109	166	58	82	5.0	5.3	4.5	5.7
15	7.5	376	36	55	90	134	55	98	5.5	5.3	4.9	7.7
16	6.0	170	82	55	69	130	53	92	5.5	6.1	4.2	11
17	6.5	170	144	55	64	127	67	85	4.6	6.6	4.5	12
18	6.5	127	149	55	60	127	60	71	4.4	6.1	5.7	11
19	7.0	78	326	50	58	130	55	64	3.8	6.1	6.1	10
20	6.0	21	348	50	58	130	53	60	3.4	6.1	5.7	10
21	5.0	20	268	50	58	127	53	52	4.2	5.7	6.1	8.9
22	4.8	18	188	60	56	121	52	55	3.8	5.3	6.1	8.9
23	4.6	14	166	55	55	92	45	52	3.0	5.3	6.1	8.3
24	4.6	17	144	50	45	64	41	50	2.8	4.9	6.1	8.9
25	4.6	16	124	55	39	56	38	55	3.6	5.3	6.1	9.6
26	7.0	12	95	100	37	50	34	103	207	4.9	6.6	7.7
27	7.0	8.5	73	130	36	46	33	100	536	4.9	7.1	7.1
28	8.0	7.0	69	278	36	42	33	98	368	4.5	8.3	7.1
29	9.0	6.5	66	250	-	42	33	90	277	4.5	8.9	7.1
30	9.0	6.5	62	182	-	46	33	80	199	4.5	8.3	7.1
31	8.5	-	62	175	-	53	-	73	-	4.2	7.7	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	196.7	9.0	4.4	6.35	390
November	1,309.0	376	6.5	43.6	2,600
December	2,818.0	348	6.5	90.9	5,590
Calendar year	-	-	-	-	-
January	2,525	278	50	81.5	5,010
February	3,311	376	36	118	6,570
March	3,035	278	34	97.9	6,020
April	1,650	85	33	55.0	3,270
May	2,210	103	37	71.3	4,380
June	1,950.6	536	2.8	65.0	3,870
July	279.6	75	4.2	9.02	555
August	171.4	8.9	4.2	5.53	340
September	233.2	12	4.5	7.77	463
Water year 1941-42	19,689.5	536	2.8	53.9	39,060

* Winter discharge measurement made on this day.
a No gage-height record; discharge computed on basis of records for Yellowhawk Creek.
State-discharge relation affected by ice Jan. 1-25.
Time basis: Pacific standard time prior to 2 a.m., Feb. 9, 1942; Pacific war time thereafter. To convert war time to standard time, subtract 1 hour.

Blue Creek near Walla Walla, Wash.

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

Drainage area.- 17.0 square miles.

Records available.- October 1939 to September 1942.

Extremes.- Maximum discharge during year, 710 second-feet June 26 (elevation, 1,743.65 feet), from rating curve extended above 200 second-feet; minimum, 0.2 second-foot Aug. 10, 11.
1939-42: Maximum discharge, that of June 26, 1942; minimum discharge observed, 0.1 second-foot Oct. 14, 1939, but may have been less during period of no gage-height record, Oct. 1-11, 1939.

Remarks.- Records good except those for periods of no gage-height record or ice effect and those above 300 second-feet, which are poor. No diversion or regulation.

Rating tables, water year 1941-42, except period of ice effect (elevation, in feet, and discharge, in second-feet)

Oct. 1 to Nov. 14				Nov. 15 to Sept. 30					
1,740.2	1.0	1,740.9	25	1,740.5	0.4	1,740.9	11	1,741.7	85
1,740.3	2.0	1,741.1	41	1,740.6	1.7	1,741.1	23	1,742.0	144
1,740.4	3.3	1,741.3	62	1,740.7	3.9	1,741.3	38	1,742.5	282
1,740.5	5.1	1,741.5	88	1,740.8	7.2	1,741.5	58		
1,740.7	13	1,741.6	103						

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2.3	8.0	0.5		36	3.2	31	8.4	11	25	0.7	0.4
2	2.3	6.8	3.4		38	5.4	28	8.0	9.6	20	.7	.4
3	3.6	9.3	21		39	6.8	26	8.0	7.6	16	.4	.5
4	6.2	14	21		66	8.0	23	17	6.4	12	.6	.5
5	6.5	13	17	4	61	9.2	21	23	5.1	10	.4	.6
6	6.5	11	19		51	10	19	22	4.5	a9	.4	.5
7	5.9	9.3	18		37	10	17	19	3.9	a7	.4	.6
8	5.9	7.6	17		31	11	15	17	3.4	a5	.4	.6
9	5.9	6.8	14		31	25	13	17	5.1	a5	.4	.6
10	5.4	6.2	12		31	47	13	28	2.9	a4	.4	.7
11	4.7	5.6	10		31	44	12	36	2.7	a3	.4	.7
12	4.7	5.1	8.8		28	45	11	34	2.0	2.0	.4	.7
13	4.3	14	7.2	5	25	36	10	30	1.7	2.0	.4	.7
14	3.9	52	7.6		21	31	10	25	1.5	2.0	.3	.6
15	3.6	95	9.2		20	29	9.6	23	2.2	2.2	.3	.7
16	3.4	70	23		17	26	9.2	19	1.9	4.8	.3	.8
17	3.3	a50	35		14	28	13	16	1.5	2.2	.3	.8
18	3.1	a35	41		11	28	11	13	1.5	1.5	.3	.8
19	4.1	a18	52		9.6	26	10	11	1.4	1.2	.3	.7
20	3.6	a14	53	3	9.2	26	9.2	9.6	1.2	.8	.3	.7
21	3.6	a12	40		8.4	26	8.8	8.8	1.1	.7	.3	.7
22	3.6	a10	33		8.0	28	7.6	8.0	.8	.5	.3	.6
23	3.4	8.4	28		6.8	27	6.1	7.2	.8	.4	.3	.6
24	3.4	7.2	24		6.1	25	6.4	6.4	.7	.4	.3	.6
25	3.3	6.1	20	10	5.8	22	6.1	8.4	9.7	.6	.3	.5
26	3.3	5.1	17	16	3.9	20	5.4	20	297	.7	.3	.6
27	3.4	4.5	13	47	4.8	17	5.4	21	213	.9	.4	.7
28	5.6	3.9	12	54	3.9	16	7.2	20	78	.9	.8	.8
29	9.3	3.2	10	43	-	15	7.2	16	44	1.1	.8	.9
30	9.3	1.9	8.8	35	-	17	7.2	14	32	.9	.5	.9
31	8.4	-	7.2	32	-	20	-	13	-	.8	.4	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acre-feet
October	145.8	9.3	2.3	4.70	0.276	0.32	289
November	513.0	95	1.9	17.1	1.01	1.12	1,020
December	602.7	53	.5	19.4	1.14	1.32	1,200
Calendar year 1941	3,688.6	133	.5	10.1	.594	8.08	7,320
January	333	54	-	10.7	.629	.73	660
February	654.5	66	3.9	23.4	1.38	1.43	1,300
March	689.6	47	3.2	22.2	1.31	1.51	1,370
April	378.4	31	5.4	12.6	.741	.83	751
May	526.8	36	6.4	17.0	1.00	1.15	1,040
June	754.2	297	.7	25.1	1.48	1.65	1,500
July	142.6	25	.4	4.60	.271	.31	283
August	12.8	.8	.3	.41	.024	.03	25
September	19.5	.9	.4	.65	.038	.04	39
Water year 1941-42	4,772.9	297	.3	13.1	.771	10.44	9,477

a No gage-height record; discharge computed on basis of records for Mill Creek near Walla Walla.
Note.- Stage-discharge relation affected by ice Jan. 1-25.
Time basis: Pacific standard time prior to 2 a.m., Feb. 9, 1942; Pacific war time thereafter. To convert war time to standard time, subtract 1 hour.

Yellowhawk Creek at Walla Walla, Wash.

Location.- Water-stage recorder, lat. 46°04'20", long. 118°16'55", in NW¼SW¼ sec. 23, T. 7 N., R. 36 E., 0.8 mile downstream from the 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 1942.

Extremes (regulated).- Maximum discharge during year, 186 second-feet Nov. 14 (gage height, 1.99 feet); minimum not determined, probably occurred during period of ice effect Jan. 1-24.

1941-42: 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), may have been less during period of ice effect Jan. 1-24, 1942.

Remarks.- Records good except those for periods of no gage-height record or ice effect, which are poor. Yellowhawk 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 1941-42, except period of ice effect (gage height, in feet, and discharge, in second-feet)

0.6	3.6	1.4	59
.8	8.5	1.6	90
1.0	19	1.8	134
1.2	36	2.0	189

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	21	49	31	b33	19	31	84	47	33	55	11	8.9
2	21	47	40	b26	21	33	66	44	37	68	11	8.9
3	21	56	41	b19	*36	37	82	43	43	56	10	9.3
4	41	72	43	b14	59	34	75	50	46	54	9.7	8.9
5	40	66	59	b7	71	35	72	60	40	48	9.7	9.3
6	37	63	80	b4	58	37	72	53	44	41	8.5	9.7
7	36	59	90	*b3	44	36	68	49	44	35	7.2	9.7
8	39	53			36	36	66	47	42	32	6.3	9.7
9	42	49			35	51	63	48	47	32	5.7	9.7
10	36	47			33	67	64	56	44	29	5.7	9.7
11	36	43	a85			33	56	66	56	46	31	5.7	9.7
12	37	44				35	50	69	54	41	30	5.5	9.7
13	33	52				34	40	68	53	40	28	5.7	9.7
14	28	142	62			30	33	74	53	33	28	5.5	10
15	29	64			b3	37	27	67	53	43	29	5.3	10
16	25	38				49	25	63	49	43	41	4.9	11
17	29	a25				42	24	77	44	40	36	5.1	11
18	29	a28				36	22	69	44	37	29	4.5	12
19	34	a36				33	20	66	44	35	27	4.7	12
20	33	a76				31	17	63	42	34	24	4.3	12
21	31	a57	a85			28	16	62	43	32	22	4.7	12
22	30	a41				27	19	62	42	29	19	5.7	12
23	29	a41			b14	24	32	56	42	27	16	6.3	11
24	29	29			b24	31	52	54	41	25	14	6.3	11
25	29	24			23	36	58	52	43	47	13	6.3	10
26	29	32			34	34	53	48	46	98	13	6.9	10
27	31	31			35	34	50	47	42	106	13	6.9	10
28	40	31	40		27	32	46	47	40	58	12	7.5	11
29	56	30	38		23	-	49	46	35	44	12	8.5	11
30	52	11	37		20	-	53	43	33	36	11	7.8	12
31	50	-	36		19	-	62	-	33	-	11	8.5	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	1,055	56	21	34.0	2,090
November	1,436	142	11	47.9	2,850
December	2,212	90	31	71.4	4,390
Calendar year	-	-	-	-	-
January	370	35	3	11.9	734
February	1,018	71	19	36.4	2,020
March	1,201	67	16	38.7	2,380
April	1,931	66	43	64.4	3,830
May	1,429	60	33	46.1	2,830
June	1,314	106	25	43.8	2,610
July	909	68	11	29.3	1,800
August	211.4	11	4.3	6.82	419
September	310.9	12	8.9	10.4	617
Water year 1941-42	13,397.3	142	3	36.7	26,570

* Winter discharge measurement made on this day.
a No gage-height record; discharge computed on basis of records for Mill Creek at Walla Walla.
b Stage-discharge relation affected by ice.
Time basis: Pacific standard time prior to 2 a.m., Feb. 9, 1942; Pacific war time thereafter. To convert war time to standard time, subtract 1 hour.

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 1942.

Extremes.- Maximum discharge during year not determined, occurred Apr. 1 or 2 during period of doubtful gage-height record; minimum, 0.02 second-foot Feb. 5 (gage height, 1.47 feet).
1941-42: Maximum discharge, that of Apr. 1, 2, 1942; no flow May 10, 1941.

Remarks.- Records good except those for period Mar. 1 to May 10 and those for period of ice effect, which are poor. Some regulation at Yellowhawk Creek diversion from Mill Creek 0.8 mile upstream. Yellowhawk Creek diverts water to reduce flood peaks in city of Walla Walla and for irrigation during irrigation seasons. Garrison Creek in turn diverts water from Yellowhawk Creek for irrigation.

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2.3	4.8	1.8	b0.8	5.0	4.8	29	12	7.5	9.9	1.8	1.4
2	2.5	4.8	1.1	b.8	6.0	4.2	29	9.6	8.7	12	1.9	1.4
3	2.6	5.0	.9	b.8	6.7	5.0	22	9.1	11	9.9	1.9	1.6
4	4.0	5.6	.9	b.8	*9.6	4.8	25	12	11	7.3	1.6	1.6
5	4.8	5.6	1.2	b1.0	8.2	4.8	24	14	8.7	7.0	1.6	1.6
6	4.5	5.3	2.1	(*)	7.9	4.8	21	13	6.6	5.9	1.6	1.6
7	4.5	5.3	1.8		6.7	5.0	16	14	3.1	5.3	1.8	1.5
8	4.5	5.3	1.7		4.8	5.3	9.7	14	1.9	4.7	2.2	1.6
9	4.8	5.3	1.6		4.5	7.5	12	14	3.1	3.5	2.2	1.8
10	4.8	5.3	1.1		3.7	12	17	18	2.9	3.8	2.2	1.6
11	4.3	4.8	.8		3.7	12	17	18	3.3	3.8	2.2	1.8
12	4.5	5.0	.8		3.3	8.7	17	16	2.9	3.5	2.2	1.9
13	4.3	5.0	.9		4.0	10	18	14	2.4	3.5	2.2	1.6
14	4.0	5.8	.8		3.3	7.9	21	14	1.9	3.5	2.4	1.4
15	4.3	5.3	1.0	b1.3	4.0	6.7	21	15	2.1	3.3	2.4	1.2
16	3.8	5.4	1.4		5.7	7.5	20	14	2.4	4.0	1.9	1.1
17	4.3	5.3	1.1		4.2	8.3	20	13	2.5	3.8	1.8	1.2
18	4.0	5.2	1.1		3.5	9.1	16	12	2.5	2.9	1.9	1.5
19	4.3	6.0	1.0		2.9	4.2	16	12	2.7	3.3	1.9	1.1
20	4.3	2.7	1.5		3.3	3.1	16	10	2.7	3.3	1.9	.9
21	4.3	2.6	1.7		3.7	3.5	16	10	2.5	3.1	1.8	1.6
22	4.3	.7	1.7		3.5	5.3	15	10	2.4	3.1	1.6	2.0
23	4.3	.1	1.4		3.7	13	14	9.6	2.2	2.9	1.6	1.8
24	4.3	.7	1.1		6.0	18	13	8.7	2.2	2.7	1.4	1.8
25	4.0	.6	.9	b2.0	7.5	14	13	9.6	2.9	2.4	1.6	1.6
26	4.0	1.0	1.0	b3.0	7.1	10	12	10	16	2.6	1.9	1.6
27	4.3	1.1	1.2	b4.5	6.0	9.1	12	10	18	2.9	1.8	1.8
28	4.8	.9	1.1	6.7	7.9	12	12	9.1	11	2.4	1.6	1.5
29	5.3	.9	.9	5.0	-	12	12	7.5	8.1	1.9	1.8	1.6
30	5.0	.9	.8	5.0	-	14	12	7.1	7.0	2.4	1.6	1.6
31	5.0	-	.8	5.0	-	16	-	7.1	-	2.2	1.5	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	131.0	5.3	2.3	4.23	260
November	112.3	6.0	.1	3.74	223
December	37.2	2.1	.8	1.20	74
Calendar year 1941	-	-	-	-	-
January	60.1	6.7	.8	1.94	119
February	146.4	9.6	2.9	5.23	290
March	262.6	18	3.1	8.47	521
April	517.7	29	9.7	17.3	1,030
May	366.4	18	7.1	11.8	727
June	162.2	18	1.9	5.41	322
July	132.8	12	1.9	4.28	263
August	57.8	2.4	1.4	1.86	115
September	46.3	2.0	.9	1.54	92
Water year 1941-42	2,032.8	29	.1	5.57	4,040

* Winter discharge measurement made on this day.
b Stage-discharge relation affected by ice.
Note.- Shifting-control method used Oct. 1-5 and June 26, 27.
Time basis: Pacific standard time prior to 2 a.m., Feb. 9, 1942; Pacific war time thereafter. To convert war time to standard time, subtract 1 hour.

East Fork of Touchet River near Dayton, Wash.
(Formerly published as 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 mouth of Hatley Creek, three-quarters of a mile downstream from mouth of Wolf Creek, 3 miles upstream from confluence with South Fork, and 4 miles southeast of Dayton. Datum of gage is 1,768.3 feet above mean sea level (from river-profile survey).

Records available.- April 1941 to September 1942.

Extremes.- Maximum discharge during year, 287 second-feet Nov. 13 (gage height, 3.02 feet), may have been higher June 26 during period of faulty gage-height record; minimum, 34 second-feet Aug. 16, 19, 24, Sept. 3 (gage height, 1.91 feet).

1941-42: Maximum discharge, 490 second-feet July 6, 1941 (gage height, 3.64 feet); minimum, that of Aug. 16, 19, 24, Sept. 3, 1942.

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

Rating tables, water year 1941-42 (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Jan. 21 to Mar. 31)

Oct. 1 to Mar. 31				Apr. 1 to Sept. 30			
1.9	42	2.3	103	1.9	33	2.5	136
2.0	53	2.5	147	2.0	44	2.7	188
2.1	66	2.7	196	2.1	58	3.0	275
2.2	83	3.0	281	2.3	92		

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	44	48	57	b70	a110	d55	148	91	89	129	42	36
2	44	48	99	b60	a120	d60	151	87	87	111	41	36
3	58	53	212	b50	*a160	d70	148	87	83	100	40	35
4	68	55	194	b40	207	d55	148	134	78	91	42	35
5	53	51	168	b40	210	d60	154	129	74	81	41	36
6	50	50	147	b40	183	d60	156	129	72	74	41	35
7	52	49	149	b50	158	d60	151	131	72	69	41	35
8	52	48	142	b70	142	d60	151	134	71	64	40	36
9	49	48	128	*b90	138	d150	148	148	72	62	38	37
10	46	48	115	b90	126	d200	156	191	76	58	36	40
11	46	48	107	b90	118	d250	164	172	76	61	35	38
12	47	48	99	b80	111	d210	166	205	69	56	36	38
13	46	87	93	b80	105	178	166	202	66	55	36	38
14	44	186	93	b70	99	173	174	188	64	54	36	38
15	44	207	115	b70	95	161	164	196	67	55	36	37
16	42	215	149	b65	85	156	151	185	69	64	36	37
17	42	181	176	b65	76	151	161	174	66	58	36	37
18	42	151	210	b65	72	144	144	161	64	54	36	37
19	46	128	252	b65	68	135	134	151	62	50	36	37
20	44	111	264	b65	68	131	134	141	61	48	36	37
21	44	99	232	b65	66	128	134	136	60	47	36	37
22	44	89	202	b65	65	126	136	136	58	47	36	37
23	44	81	181	b65	62	122	127	129	56	46	36	37
24	44	76	158	b70	62	113	120	118	56	44	36	36
25	44	71	140	a70	62	109	116	134	94	46	37	36
26	44	68	124	a80	58	101	109	166	196	44	37	36
27	44	64	113	a100	58	95	100	144	266	44	37	36
28	51	61	109	a120	d55	93	98	134	225	43	40	35
29	55	58	101	a110	-	89	96	124	183	43	41	35
30	50	58	95	a100	-	93	92	105	151	42	38	36
31	49	-	81	a90	-	105	-	89	-	42	37	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	1,472	68	42	47.5	2,920
November	2,585	215	48	86.2	5,130
December	4,603	264	57	145	8,930
Calendar year	-	-	-	-	-
January	2,250	120	40	72.6	4,460
February	2,939	210	55	105	5,830
March	3,703	250	55	119	7,340
April	4,196	174	92	140	8,320
May	4,451	205	87	144	8,830
June	2,783	266	56	92.8	5,520
July	1,882	129	42	60.7	3,730
August	1,176	43	36	37.9	2,330
September	1,096	40	35	36.5	2,170
Water year 1941-42	33,036	266	35	90.5	65,510

* Winter discharge measurement made on this day.
a No gage-height record; discharge computed on basis of records for Mill Creek near Walla Walla.
b Stage-discharge relation affected by ice.
d Doubtful gage-height record; discharge computed on basis of records for Mill Creek near Walla Walla and Touchet River near Touchet.

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

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 1942.

Extremes.- Maximum discharge observed during year, 2,260 second-feet May 23 (gage height, 7.92 feet, from rating curve extended above 1,300 second-feet); minimum discharge, 13 second-feet Aug. 15-23 (gage height, 1.66 feet).
1941-42: Maximum discharge, that of May 23, 1942; minimum, that of Aug. 15-23, 1942.

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

Rating tables, water year 1941-42, except period of ice effect (gage height, in feet, and discharge, in second-feet)

Oct. 1 to Jan. 27				Jan. 28 to Sept. 30					
2.0	42	3.2	288	1.7	17	2.7	220	4.5	824
2.2	72	3.5	381	1.9	44	3.0	305	5.0	1,010
2.4	109	4.0	590	2.1	80	3.5	465	6.0	1,410
2.6	150	4.5	845	2.4	144	4.0	641		
2.9	215								

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	38	58	90	ab110	482	156	270	163	245	254	29	19
2	40	56	87	b90	552	158	329	168	198	206	29	19
3	40	56	386	b70	516	198	320	158	180	170	28	19
4	144	64	338	b50	659	183	305	168	163	144	27	19
5	92	68	299	b40	861	170	299	329	154	130	24	18
6	72	60	337	b40	750	163	299	270	146	126	23	18
7	61	58	325	b60	623	158	293	256	142	108	22	18
8	60	56	275	b90	516	156	282	245	139	100	21	17
9	61	55	243	b100	448	168	270	282	139	90	21	17
10	56	53	220	b100	411	450	270	408	156	82	19	17
11	55	55	195	b90	382	534	273	401	139	76	18	17
12	52	55	173	b90	357	569	279	414	137	74	17	18
13	53	56	159	b80	332	499	279	424	123	74	15	19
14	52	319	156	b80	305	448	296	382	113	69	14	19
15	51	458	189	b80	285	465	293	347	110	65	14	19
16	49	633	521	b70	273	408	268	372	119	80	13	19
17	48	471	558	b70	245	405	293	326	117	88	13	18
18	48	302	688	b70	220	372	279	296	108	90	13	18
19	51	245	902	b70	209	344	254	273	104	78	13	18
20	53	206	739	b70	204	326	237	251	100	67	13	19
21	52	180	600	b70	201	326	231	228	94	63	13	19
22	51	161	466	b70	193	338	228	d282	90	58	13	21
23	49	142	442	b70	183	317	228	d1,170	84	47	14	21
24	49	131	338	b80	176	296	212	d320	78	44	14	21
25	49	121	283	b80	173	279	209	314	92	42	14	21
26	51	111	248	b100	163	262	196	410	314	38	14	19
27	52	105	200	b450	158	242	186	329	a800	36	14	19
28	53	102	184	824	158	231	178	282	a630	35	15	19
29	64	98	178	587	-	217	183	259	a460	34	15	19
30	71	94	163	499	-	217	168	251	305	32	16	19
31	63	-	b130	431	-	220	-	231	-	32	18	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	1,780	144	38	57.4	3,530
November	4,629	633	53	154	9,180
December	10,112	902	87	326	20,060
Calendar year	-	-	-	-	-
January	4,781	824	40	154	9,480
February	10,035	861	158	358	19,900
March	9,275	569	156	299	18,400
April	7,707	329	168	257	15,290
May	10,009	1,170	158	323	19,850
June	5,779	800	78	193	11,460
July	2,632	254	32	84.9	5,220
August	546	29	13	17.6	1,080
September	563	21	17	18.8	1,120
Water year 1941-42	67,848	1,170	13	186	134,600

a No gage-height record; discharge computed on basis of records for East Fork of Touchet River near Dayton.
b Stage-discharge relation affected by ice.
d Doubtful gage-height record; discharge computed on basis of graph through staff-gage reading.
Time basis: Pacific standard time prior to 2 a.m., Feb. 9, 1942; Pacific war time thereafter. To convert war time to standard time, subtract 1 hour.

Umatilla River above Meacham Creek, near Gibbon, Oreg.

Location.- Water-stage recorder, lat. 45°43', long. 118°20', in SW¼ sec. 21, T. 3 N., R. 36 E., 0.8 mile downstream from Ryan Creek, 2¼ miles upstream from Meacham Creek, and 2½ miles northeast of Gibbon. Datum of gage is 1,855.25 feet above mean sea level, datum of 1929.
Drainage area.- 125 square miles.
Records available.- June 1939 to September 1942. April 1933 to June 1939 at site 1 mile downstream.
Extremes.- Maximum discharge during year, 1,530 second-feet June 26 or 27 (gage height, 5.36 feet); minimum, 37 second-feet Sept. 21-23, 25 (gage height, 1.90 feet).
1933-42: 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 (site and datum then in use).
Remarks.- Records good except those for periods of ice effect or no gage-height record, which are fair. No diversion or regulation above station.

Rating tables, water year 1941-42, except periods of ice effect
(gage height, in feet, and discharge, in second-feet)

Oct. 1 to Jan. 27				Jan. 28 to Sept. 30					
2.0	47	2.9	253	1.9	37	2.7	195	4.5	1,015
2.2	75	3.2	370	2.1	66	3.0	290	5.0	1,310
2.4	111	3.4	460	2.3	100	3.4	460	5.4	1,560
2.6	157			2.5	142	4.0	745		

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	52	98	a170	b130	240	96	528	366	342	272	56	41
2	52	96	a235	b135	246	108	528	358	302	231	56	40
3	56	102	a360	126	255	119	505	350	269	198	52	38
4	134	113	402	b100	446	126	505	406	a240	178	51	38
5	228	115	388	b72	510	137	630	460	216	170	51	40
6	180	113	397	b76	424	140	645	442	207	147	51	40
7	154	107	374	b96	350	135	610	410	195	133	50	40
8	160	102	326	b105	290	142	568	384	184	124	48	40
9	152	98	283	b100	286	199	554	402	198	113	45	41
10	128	92	242	84	298	532	577	438	175	110	45	44
11	111	89	208	82	302	568	595	433	173	110	44	41
12	100	85	180	80	266	559	700	415	154	102	44	40
13	92	105	166	78	228	464	650	362	142	98	44	40
14	87	358	160	80	198	392	645	338	133	93	43	40
15	80	905	160	80	187	350	550	433	152	91	43	38
16	75	780	279	80	170	318	514	500	142	111	43	38
17	74	572	362	82	150	294	620	446	130	96	43	40
18	70	442	505	84	130	272	541	392	119	86	43	40
19	82	346	806	84	124	252	505	362	115	80	43	40
20	82	290	745	85	119	237	496	346	108	76	43	38
21	80	253	559	85	115	240	492	342	a100	72	41	38
22	82	212	451	85	111	243	460	354	a97	71	41	38
23	78	186	388	87	108	231	392	370	a92	68	41	38
24	77	166	330	96	106	216	342	346	a100	66	41	38
25	75	a155	286	111	102	198	314	346	a140	64	40	38
26	75	a150	253	126	96	178	290	610	a900	62	40	38
27	74	a145	218	305	98	167	276	568	a1,400	60	41	38
28	87	a140	202	433	96	170	286	528	a940	60	44	38
29	111	a140	183	366	-	192	302	460	a550	58	44	38
30	107	a150	166	294	-	246	334	406	a370	58	43	38
31	102	-	147	249	-	346	-	374	-	56	41	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acre-feet
October	3,097	228	52	99.9	0.799	0.92	6,140
November	6,705	905	85	224	1.79	1.99	13,300
December	9,931	806	147	320	2.56	2.95	19,700
Calendar year 1941	59,022	905	43	162	1.30	17.54	117,100
January	4,076	433	72	131	1.05	1.21	8,080
February	6,051	510	96	216	1.73	1.80	12,000
March	7,867	568	96	254	2.03	2.34	15,600
April	14,954	700	276	498	3.98	4.45	29,660
May	12,747	610	338	411	3.29	3.79	25,280
June	8,385	1,400	92	280	2.24	2.49	16,630
July	3,314	272	56	107	.856	.99	6,570
August	1,395	56	40	45.0	.360	.42	2,770
September	1,177	44	38	39.2	.314	.35	2,330
Water year 1941-42	79,699	1,400	38	218	1.74	23.70	158,100

a No gage-height record; discharge computed on basis of records for stations at Pendleton and Yoakum and on McKay Creek near Pilot Rock.
b Stage-discharge relation affected by ice.
Time basis: Pacific standard time prior to 2 a.m., Feb. 9, 1942; Pacific war time thereafter. To convert war time to standard time, subtract 1 hour.

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.

Drainage area.- 637 square miles.

Records available.- February 1891 to July 1892, May 1903 to June 1905, October 1934 to September 1942. May 1921 to September 1934 at site about 2½ miles downstream.

Average discharge.- 19 years (1923-42), 431 second-feet.

Extremes.- Maximum discharge during year, 4,570 second-feet June 27 (gage height, 4.44 feet); minimum, 22 second-feet Aug. 26.

1891-92, 1903-5, 1921-42: 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 stations at Umatilla and near Yoakum and Birch Creek at Reith; minimum, 7 second-feet Aug. 14, 1924 (site and datum then in use).

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 fair. Small diversions above station for irrigation; no regulation.

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	71	242	374	280	757	237	1,090	782	782	663	61	37
2	68	233	427	285	726	242	1,280	834	719	554	56	37
3	60	229	632	b265	740	280	1,210	843	649	421	53	33
4	107	256	671	233	1,340	285	1,140	870	568	332	49	33
5	315	285	743	178	1,590	300	1,520	982	493	316	48	37
6	464	295	791	199	1,340	322	1,910	991	445	305	46	35
7	409	285	799	238	1,110	327	1,780	944	398	260	a45	35
8	360	275	743	229	934	338	1,590	858	354	224	43	36
9	356	256	679	327	944	396	1,410	879	354	210	42	37
10	320	238	616	300	944	850	1,360	962	338	194	39	40
11	290	220	545	246	962	1,330	1,330	953	310	a190	38	40
12	261	207	478	206	906	1,420	1,460	906	270	a175	38	40
13	238	203	427	198	791	1,160	1,380	843	237	h168	38	40
14	216	476	397	194	705	953	1,330	774	224	a155	a37	40
15	199	1,600	374	190	649	879	1,150	774	232	a150	37	39
16	182	2,350	606	190	594	834	1,020	934	237	h164	37	38
17	170	1,880	815	194	529	800	1,080	906	214	a150	36	39
18	154	1,400	855	194	457	757	1,030	825	206	h143	36	40
19	162	1,070	1,650	194	415	726	953	766	194	h130	35	40
20	174	895	1,970	194	393	698	915	726	186	a115	34	40
21	170	791	1,540	194	371	677	906	670	162	a100	35	39
22	166	679	1,210	194	354	670	870	656	146	h94	35	38
23	158	588	1,050	206	322	635	782	748	142	a87	35	38
24	158	497	938	a250	295	594	691	733	130	a82	34	38
25	154	439	831	529	280	561	642	726	158	a76	35	37
26	150	403	735	427	260	511	580	915	911	a72	33	37
27	143	380	648	782	246	469	542	1,040	4,130	h6e	31	36
28	158	363	588	1,180	246	457	600	1,040	3,010	a67	30	34
29	229	352	517	1,110	-	493	621	972	1,690	a65	37	36
30	247	352	464	953	-	614	677	879	962	a64	35	a36
31	247	-	421	808	-	825	-	825	-	a62	35	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	6,578	464	60	212	13,050
November	17,741	2,350	203	591	35,190
December	23,535	1,970	374	759	46,680
Calendar year 1941	125,780	2,350	30	345	249,500
January	11,167	1,180	178	360	22,150
February	19,200	1,590	246	686	38,080
March	19,642	1,420	237	634	38,960
April	32,849	1,910	542	1,095	65,160
May	26,586	1,040	656	858	52,730
June	18,851	4,130	130	628	37,390
July	5,856	663	62	189	11,620
August	1,223	61	30	39.5	2,430
September	1,126	41	33	37.5	2,230
Water year 1941-42	184,354	4,130	30	505	365,700

Peak discharge.- Nov. 15 (12 p.m.) 2,680 sec.-ft.; June 27 (11 a.m.) 4,570 sec.-ft.

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

b Stage-discharge relation affected by ice.

h Computed from staff-gage reading.

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

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 2½ miles downstream from abandoned Furnish Reservoir.
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 1942. June 1915 to September 1934 at site 5 miles upstream, above Furnish Reservoir.
Average discharge.- 39 years, 654 second-feet.
Extremes.- Maximum discharge during year, 4,830 second-feet June 27 (gage height, 6.42 feet); minimum, 42 second-feet Sept. 28, 29 (gage height, 0.69 foot).
1903-42: Maximum discharge, 20,000 second-feet May 30, 1906 (gage height, about 15.0 feet, datum then in use, from floodmarks), from rating curve extended above 6,600 second-feet on basis of records for station near Umatilla; minimum, 12 second-feet Aug. 10-12, 1908.
Remarks.- Records good except those for periods of ice effect or no gage-height record, which are fair. Diversions above station for irrigation. Flow regulated to some extent by mills at Pendleton, and since 1927 by McKay Reservoir.

Rating tables, water year 1941-42, except period of ice effect
(gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Oct. 7 to Nov. 15)

Oct. 1 to Nov. 15		Nov. 16 to Sept. 30					
2.2	550	0.6	29	1.3	181	3.3	1,300
2.7	860	.7	43	1.6	283	4.0	1,930
3.3	1,330	.8	59	1.9	406	5.0	2,980
4.0	2,000	.9	77	2.3	605	6.0	4,240
4.5	2,530	1.1	123	2.7	855	6.5	4,940

Note.- Same as following table below 2.2 feet.

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	90	306	477	a370	1,070	476	1,700	1,400	1,380	1,270	161	318
2	90	295	490	h380	1,020	393	2,040	1,640	1,200	1,030	175	318
3	85	287	713	a350	1,070	434	2,010	1,540	946	846	330	314
4	100	302	842	a285	1,690	438	1,960	1,590	855	677	357	276
5	290	330	939	a210	2,180	447	2,290	1,750	764	588	367	272
6	525	347	981	a235	1,830	462	2,740	1,830	677	515	380	269
7	500	355	1,040	b280	1,560	462	2,560	1,710	623	452	397	265
8	447	347	967	a275	1,310	466	2,320	1,630	561	420	397	265
9	429	322	855	h363	1,400	505	2,150	1,590	540	384	389	265
10	393	302	764	a360	1,420	1,130	2,100	1,750	510	355	367	269
11	351	283	659	a320	1,470	1,820	2,080	1,730	466	326	372	269
12	318	265	595	a300	1,340	2,130	2,140	1,600	434	322	389	265
13	295	254	540	a295	1,210	1,970	2,020	1,400	393	314	393	265
14	269	458	500	a290	1,150	1,750	2,000	1,260	367	314	393	265
15	244	1,510	457	a285	1,050	1,580	1,800	1,210	402	351	397	187
16	223	2,570	665	h283	967	1,540	1,380	1,470	397	415	397	169
17	210	2,300	1,100	a283	876	1,400	1,430	1,430	372	434	389	169
18	197	1,760	1,100	a283	784	1,240	1,430	1,300	397	429	381	161
19	191	1,400	1,890	a280	719	1,200	1,380	1,080	384	406	381	a105
20	200	1,140	2,260	a280	695	1,140	1,280	1,020	372	389	380	a63
21	197	988	1,950	a275	665	1,010	1,150	939	363	384	380	a52
22	194	869	1,530	a270	635	960	1,060	995	351	376	397	51
23	191	744	1,310	h272	605	995	1,050	1,020	363	372	389	46
24	187	653	1,140	a425	578	925	842	1,110	380	351	384	46
25	187	583	1,010	1,080	556	803	764	1,030	424	187	363	45
26	184	535	883	810	540	738	777	1,230	923	157	350	43
27	178	505	777	1,620	520	689	695	1,650	4,270	163	355	45
28	181	486	701	2,090	515	665	876	1,620	3,800	169	342	42
29	258	466	647	1,790	-	683	848	1,600	2,340	166	326	42
30	302	457	594	1,450	-	829	1,110	1,500	1,650	163	322	45
31	310	-	550	1,160	-	1,200	-	1,410	-	163	314	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	7,816	525	85	252	15,500
November	21,419	2,570	254	714	42,480
December	28,914	2,260	457	933	57,350
Calendar year 1941	165,355	2,570	85	453	328,000
January	17,189	2,090	210	554	34,090
February	29,425	2,180	515	1,051	58,360
March	30,480	2,130	393	983	60,460
April	47,982	2,740	895	1,599	95,170
May	44,044	1,830	939	1,421	87,360
June	28,904	4,270	351	897	53,360
July	12,890	1,270	157	416	25,570
August	11,114	397	160	359	22,040
September	5,196	318	42	173	10,310
Water year 1941-42	283,373	4,270	42	776	562,000

a No gage-height record; discharge computed on basis of records at Pendleton, McKay Creek near Pendleton, and Birch Creek near Rieth.
b Stage-discharge relation affected by ice.
h Computed from staff-gage readings.
Time basis: Pacific standard time prior to 2 a.m., Feb. 9, 1942; Pacific war time thereafter. To convert war time to standard time, subtract 1 hour.

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., 1¼ miles downstream from West Division main canal of Umatilla project and 2 miles upstream from Umatilla and mouth. 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 1942.

Average discharge.- 39 years, 492 second-feet.

Extremes.- Maximum discharge during year, 3,610 second-feet June 28 (gage height, 5.43 feet); minimum, 10 second-feet June 15-24 (gage height, 2.12 feet).
1903-42: Maximum discharge observed, 19,600 second-feet May 31, 1906 (gage height, 11.0 feet); no flow at times.

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

Rating tables, water year 1941-42 (gage height, in feet, and discharge, in second-feet)

Oct. 1 to Nov. 15				Nov. 16 to Sept. 30					
2.1	10.3	3.1	255	2.1	9	3.1	250	4.4	1,680
2.3	21	3.4	495	2.3	23	3.4	460	4.9	2,570
2.5	41	3.7	600	2.5	48	3.7	750	5.4	3,550
2.8	107			2.8	119	4.0	1,100		

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	27	225	352	b390	1,030	373	1,060	532	956	956	13	59
2	15	213	366	396	944	286	1,500	980	849	718	13	71
3	14	201	460	469	1,080	286	1,540	920	616	569	13	61
4	14	195	666	b420	1,160	310	1,490	920	469	420	13	108
5	16	219	718	b350	2,040	317	1,540	1,020	352	304	13	240
6	272	249	794	310	1,780	345	2,090	1,140	230	210	13	202
7	600	276	860	280	1,500	366	2,070	1,080	149	174	13	66
8	590	262	836	351	1,230	366	1,880	992	116	145	13	61
9	552	225	761	366	1,180	352	1,580	1,040	73	119	13	55
10	542	207	676	388	1,230	521	1,380	1,180	68	89	13	47
11	477	185	598	388	1,260	1,440	1,380	1,200	48	78	13	52
12	459	170	505	373	1,190	1,820	1,340	1,130	37	66	13	55
13	405	156	444	352	1,050	1,880	1,400	944	28	52	14	42
14	365	156	396	359	1,060	1,650	1,300	772	13	24	17	38
15	325	771	366	352	992	1,400	1,290	656	10	32	19	33
16	290	2,200	366	345	920	1,330	920	794	10	53	25	38
17	269	2,250	860	345	827	1,260	896	908	10	82	21	50
18	249	1,820	908	352	729	1,030	908	816	10	82	17	53
19	237	1,400	1,300	345	645	1,000	838	636	10	82	30	48
20	237	1,100	1,990	345	616	932	740	532	10	73	32	41
21	243	932	1,920	338	588	849	532	444	11	61	33	37
22	231	794	1,490	324	550	729	380	352	11	47	40	33
23	225	687	1,200	324	532	761	380	428	11	34	47	48
24	207	588	1,050	366	505	676	286	487	10	32	42	47
25	207	505	908	920	469	514	191	616	13	31	47	40
26	90	452	794	872	452	436	130	626	87	17	52	41
27	63	420	676	1,140	428	366	126	1,140	2,110	14	42	31
28	41	388	588	2,220	396	359	80	1,110	3,450	13	55	28
29	39	366	532	1,920	-	345	268	1,150	2,240	13	57	22
30	52	352	460	1,550	-	380	240	1,040	1,360	13	55	19
31	111	-	b430	1,230	-	636	-	944	-	13	55	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	7,466	600	14	241	14,810
November	17,964	2,250	156	599	35,630
December	24,272	1,990	352	783	48,140
Calendar year 1941	87,730.8	2,250	.4	240	174,000
January	18,460	2,220	280	595	36,610
February	26,383	2,040	396	942	52,330
March	23,315	1,880	286	752	46,240
April	29,755	2,090	80	992	59,020
May	26,529	1,200	352	856	52,620
June	13,367	3,450	10	446	26,510
July	4,616	956	13	149	9,160
August	856	57	13	27.6	1,700
September	1,766	240	19	58.9	3,500
Water year 1941-42	194,749	3,450	10	534	386,300

b Stage-discharge relation affected by ice.
Time basis: Pacific standard time prior to 2 a.m., Feb. 9, 1942; Pacific war time thereafter. To convert war time to standard time, subtract 1 hour.

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.- 176 square miles.
Records available.- May to August 192[illegible], October 1926 to September 1942 (1927-29 incomplete).
Average discharge.- 14 years (1926-27, 1929-42), 82.3 second-feet.
Extremes.- Maximum discharge during year, 1,860 second-feet June 26 (gage height, 5.36 feet); minimum, 0.9 second-foot Aug. 19 (gage height, 1.22 feet).
1921, 1926-42: 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 fair. Many small diversions for irrigation above station; none between station and McKay Reservoir.

Rating tables, water year 1941-42 (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Oct. 1 to Dec. 12, Feb. 18 to Mar. 12, May 15 to June 26, July 7-30)

Oct. 1 to June 26

1.8	6.0	2.5	79	4.5	1,160
1.9	11	2.6	101	5.4	1,900
2.0	17	2.7	127		
2.1	25	2.9	194		
2.2	34	3.2	328		
2.3	46	3.6	553		
2.4	61	4.0	810		

June 27 to Sept. 30

1.2	0.6	1.9	30	3.1	340
1.3	1.9	2.0	40	3.4	515
1.4	3.8	2.2	65	3.8	765
1.5	6.7	2.3	80	4.5	1,260
1.6	10.7	2.5	121	5.0	1,625
1.7	16	2.7	175		
1.8	22	2.9	246		

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	17	119	111	119	240	74	314	424	227	216	4.1	1.6
2	17	111	114	122	235	75	328	441	202	163	2.8	1.6
3	17	106	139	106	285	99	309	386	172	126	2.1	1.6
4	79	104	139	a80	424	114	304	349	149	101	1.9	1.5
5	391	101	155	a56	476	130	413	375	122	84	1.5	1.5
6	a290	97	165	a60	424	130	413	364	104	71	1.5	1.5
7	a230	90	180	79	396	124	364	344	88	61	1.5	1.5
8	210	86	172	74	354	136	323	314	77	56	1.5	1.5
9	169	79	162	75	493	198	280	294	81	48	1.5	1.5
10	136	74	146	65	535	481	262	280	74	33	1.5	1.5
11	106	65	130	56	529	559	248	271	63	29	1.5	1.6
12	94	56	117	54	441	583	240	258	56	31	1.4	1.6
13	83	58	109	54	370	470	223	235	48	32	1.2	1.5
14	72	111	101	49	318	386	214	202	42	27	1.1	1.5
15	65	464	97	46	276	328	194	248	54	21	1.1	1.5
16	56	625	169	46	235	294	169	262	52	34	1.1	1.5
17	52	595	248	46	198	266	162	235	42	45	1.1	1.5
18	48	487	338	45	169	248	146	206	36	30	1.0	1.6
19	50	396	523	45	142	227	127	183	32	25	1.0	1.6
20	50	a320	470	44	130	202	111	165	30	21	1.1	1.5
21	50	a270	375	42	117	190	99	139	27	20	1.2	1.0
22	50	a220	314	45	111	180	90	122	23	20	1.2	.9
23	50	a180	299	63	99	165	81	142	15	17	1.1	.9
24	49	a155	280	248	94	152	75	136	11	15	1.0	1.0
25	48	a135	253	304	88	139	74	172	20	14	1.4	1.0
26	46	a125	227	309	79	122	72	253	782	12	1.4	1.1
27	42	a115	198	809	75	111	68	271	1,190	11	1.4	1.0
28	50	a110	183	810	77	109	83	294	680	9.9	1.2	1.0
29	130	a107	158	511	-	114	a150	266	413	8.7	1.2	1.0
30	136	a107	139	359	-	158	380	240	286	7.5	1.6	1.1
31	130	-	122	285	-	240	-	235	-	6.1	1.6	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	3,013	391	17	97.2	5,980
November	5,668	825	56	190	11,240
December	6,333	523	97	204	12,560
Calendar year 1941	30,993.8	625	.1	84.9	61,460
January	5,106	810	42	165	10,130
February	7,410	535	75	265	14,700
March	6,804	583	74	219	13,500
April	6,316	413	68	211	12,530
May	8,106	441	122	261	16,080
June	5,198	1,190	11	173	10,310
July	1,395.2	216	6.1	45.0	2,770
August	47.0	4.1	1.0	1.52	93
September	40.7	1.6	.9	1.36	81
Water year 1941-42	55,436.9	1,190	.9	152	110,000

Peak discharge.- Nov. 15 (10 p.m.) 708 sec.-ft.; Nov. 16 (9 p.m.) 747 sec.-ft.; Jan. 27 (1:30 p.m.) 1,560 sec.-ft.; Feb. 11 (12:30 a.m.) 595 sec.-ft.; Mar. 12 (1 a.m.) 625 sec.-ft.; June 26 (6:40 p.m.) 1,860 sec.-ft.
a No gage-height record; discharge computed on basis of records for Umatilla River near Gibbon, at Pendleton, and at Yoakum, and Birch Creek near Rieth.
Time basis: Pacific standard time prior to 2 a.m., Feb. 9, 1942; Pacific war time thereafter. To convert war time to standard time, subtract 1 hour.

McKay Reservoir near Pendleton, Oreg.

Location.- Staff gage, lat. 45°36', long. 118°48', at dam 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 1942.

Extremes.- Maximum contents observed during year, 71,890 acre-feet July 1 (elevation, 1,320.5 feet); minimum observed, 16,800 acre-feet Oct. 1.
1930-42: Maximum contents observed, that of July 1, 1942; 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 1941 to September 1942

Date	Elevation (feet)	Contents (acre-feet)	Change in contents during month (acre-feet)
Oct. 1	-	*16,800	-
Nov. 1	-	†22,670	+5,870
Dec. 1	-	†33,540	+10,870
Calendar year 1941	-	-	+23,620
Jan. 1	1,291.0	41,950	+8,410
Feb. 1	1,306.0	55,670	+13,720
Mar. 1	1,315.3	65,740	+10,070
Apr. 1	1,320.0	71,300	+5,560
May 1	1,320.4	71,770	+470
June 1	1,320.4	71,300	-470
July 1	1,320.5	71,890	+590
Aug. 1	1,314.0	64,280	-7,610
Sept. 1	1,294.5	44,990	-19,290
Oct. 1	1,282.0	34,970	-9,920
Water year 1941-42	-	-	+18,170

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

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 1942 (diversions by irrigation canal at gage not included since 1932).

Average discharge.- 21 years (1919-23, 1924-27, 1928-42), 87.9 second-feet (unadjusted).

Extremes.- Maximum discharge during year, 543 second-feet May 1 (gage height, 1.62 feet); no flow Oct. 1 to Feb. 13, Sept. 18-30.
1918-42: 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 1941-42 (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Feb. 13 to Apr. 12)

0	0	0.3	23	0.6	82	1.2	302
.1	4	.4	39	.8	139	1.5	470
.2	11	.5	58	1.0	213		

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1						84	164	421	273	222	87	293
2						12	90	422	183	209	195	288
3						12	142	382	85	174	313	274
4						12	190	377	103	127	318	243
5						12	334	404	103	130	334	243
6						12	394	404	103	130	344	243
7					0	12	377	350	103	130	360	243
8						12	377	323	103	130	355	239
9						12	377	293	98	127	344	239
10						12	377	339	85	114	328	239
11						12	360	339	70	105	344	239
12						13	293	302	70	105	355	239
13					79	80	252	247	70	124	355	239
14					153	156	247	247	87	178	355	234
15					156	213	197	247	124	230	355	163
16					160	270	18	243	95	247	350	130
17					160	226	18	243	131	247	350	127
18					160	229	130	198	164	239	350	63
19					160	252	197	111	164	239	344	
20					160	247	190	111	164	243	344	
21					160	120	39	117	164	265	355	
22					160	177	73	117	186	265	355	
23					164	217	184	144	213	265	355	
24					164	159	36	201	243	179	339	0
25					164	117	51	114	234	54	328	
26					164	117	186	144	98	68	328	
27					160	111	75	235	78	87	328	
28					160	108	263	220	190	87	307	
29					-	95	161	289	222	87	293	
30					-	127	344	302	226	87	293	
31					-	153	-	313	-	87	293	

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	0	0	0	0	0
November	0	0	0	0	0
December	0	0	0	0	0
Calendar year 1941	17,197.3	307	0	47.1	34,120
January	0	0	0	0	0
February	2,484	164	0	88.7	4,930
March	3,391	270	12	109	6,730
April	6,136	394	18	205	12,170
May	8,199	422	111	264	16,260
June	4,232	273	70	141	8,390
July	4,981	265	54	161	9,880
August	10,054	360	87	324	19,940
September	3,978	293	0	133	7,890
Water year 1941-42	43,455	422	0	119	86,190

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

Birch Creek at Rieth, Oreg.

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

Drainage area.- 291 square miles.

Records available.- May 1921 to September 1923, April 1927 to September 1942 (incomplete prior to October 1929).

Average discharge.- 13 years (1929-42), 33.0 second-feet.

Extremes.- Maximum discharge during year, 1,310 second-feet Jan. 27 (gage height, 5.32 feet), from rating curve extended above 400 second-feet; minimum, 0.1 second-foot July 29 to Sept. 30.
1921-23, 1927-42: 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 fair. Several small diversions above station for irrigation.

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	11	68	67	a54	194	67	209	202	213	161	0.1	0.1
2	12	64	67	h62	172	85	a260	229	198	122	.1	.1
3	12	63	64	a50	175	89	a240	252	173	90	.1	.1
4	14	63	102	a30	215	89	a240	252	155	69	.1	.1
5	72	63	104	a20	220	91	a320	231	132	58	.1	.1
6	100	69	104	a22	211	91	a380	238	115	44	.1	.1
7	88	69	103	h25	196	91	a350	278	103	36	.1	.1
8	84	69	98	h32	168	91	a335	309	89	34	.1	.1
9	80	65	91	h47	155	99	h325	383	84	22	.1	.1
10	73	61	89	a47	157	181	a310	396	75	16	.1	.1
11	68	56	80	a46	185	245	a290	347	64	19	.1	.1
12	64	52	74	a45	217	286	a280	284	61	18	.1	.1
13	59	48	69	a45	204	271	a260	236	54	16	.1	.1
14	54	48	64	a44	179	240	a245	192	50	9.4	.1	.1
15	49	79	57	a43	164	211	a230	200	52	11	.1	.1
16	46	182	69	42	150	189	211	236	45	13	.1	.1
17	43	228	93	42	164	170	198	213	38	11	.1	.1
18	40	209	94	42	120	155	168	179	36	13	.1	.1
19	37	186	137	42	107	140	147	164	34	10	.1	.1
20	36	160	193	41	104	127	134	157	26	14	.1	.1
21	34	146	211	39	99	120	120	138	22	9.5	.1	.1
22	34	133	191	37	95	113	102	132	19	7.2	.1	.1
23	32	118	175	41	90	110	93	130	11	6.5	.1	.1
24	30	104	156	128	85	103	84	123	10	1.8	.1	.1
25	30	96	139	209	80	101	81	132	19	3.6	.1	.1
26	29	89	124	173	75	91	75	127	89	4.5	.1	.1
27	29	82	106	635	74	85	64	123	383	3.8	.1	.1
28	30	76	102	460	70	81	96	134	380	2.3	.1	.1
29	49	69	94	312	-	83	101	134	262	1.9	.1	.1
30	64	67	86	249	-	95	150	138	199	.4	.1	.1
31	68	-	71	215	-	136	-	172	-	.6	.1	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	1,471	100	11	47.5	2,920
November	2,881	228	48	96.0	5,710
December	3,294	211	57	106	6,530
Calendar year 1941	16,004.5	383	0	43.8	31,730
January	3,319	635	20	107	6,580
February	4,125	220	70	147	8,180
March	4,126	286	67	133	8,180
April	6,098	380	64	203	12,100
May	6,461	396	123	208	12,820
June	3,191	383	10	106	6,330
July	828.5	161	.4	26.7	1,640
August	3.1	.1	.1	.10	6.1
September	3.0	.1	.1	.10	6.0
Water year 1941-42	35,800.6	635	.1	98.1	71,000

a No gage-height record; discharge computed on basis of records for nearby stations.
h Computed from staff-gage readings.
Time basis: Pacific standard time prior to 2 a.m., Feb. 9, 1942; Pacific war time thereafter. To convert war time to standard time, subtract 1 hour.

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

The following canals divert water from Umatilla River between Pendleton and Umatilla, Oreg.:

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 NE¼ 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., and at times 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 1942; records for some of the canals published separately prior to 1926.

Diversions, in acre-feet, water year October 1941 to September 1942

Month	Furnish Canal	Umatilla project feed canal	Western Land Canal	Allen Canal	Maxwell Canal	West Division main canal	Brownell Canal
October.....	0	1,870	0	a294	1,830	6,810	0
November.....	0	12,650	0	-	1,270	0	0
December.....	0	12,870	0	-	924	0	0
January.....	0	543	0	-	7	0	0
February.....	0	10,780	0	-	42	0	0
March.....	0	13,260	1,020	b51	554	4,250	0
April.....	5,880	12,490	8,800	1,410	3,660	10,380	962
May.....	7,740	12,190	10,470	957	4,030	10,610	914
June.....	6,840	7,160	9,220	1,200	3,500	10,550	908
July.....	5,200	2,020	8,690	1,290	3,650	11,710	1,310
August.....	8,420	0	11,320	1,080	2,450	11,260	1,450
September....	3,600	0	4,930	1,090	1,810	9,910	1,480
Water year 1941-42..	37,680	85,833	54,450	-	23,727	75,480	7,024

a Oct. 1-11 (no record Oct. 12 to Mar. 25).
b Mar. 26-31.

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

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

John Day River at Prairie City, Oreg.

Location.- Staff gage, lat. 44°27', long. 118°43', in NE¼ sec. 10, T. 13 S., R. 33 E., at power plant, upstream from outlet of Prairie power canal, three-quarters of a mile southwest of Prairie City. Datum of gage was 3,492.06 feet above mean sea level, datum of 1929, prior to Sept. 23, 1942; thereafter, staff gage at site 80 feet upstream, slightly higher datum.

Drainage area.- 231 square miles.

Records available.- October 1926 to September 1942. October 1916 to September 1917 (gage heights only) and March 1925 to September 1926, at site below outlet of Prairie power canal.

Average discharge.- 17 years, 103 second-feet, including flow of Prairie power canal.

Extremes.- Maximum discharge observed during year, 730 second-feet Jan. 27 (gage height, 380 feet), from rating curve extended above 400 second-feet; minimum observed, 5 second-feet July 27-31.

1926-42: Maximum discharge observed, 1,550 second-feet Mar. 19, 1932 (gage height, 4.7 feet), from rating curve extended above 500 second-feet; minimum, 2 second-feet Dec. 8, 21, 22, 1932, Aug. 10, 1934.

Remarks.- Records fair. Gage read twice daily. Diversions above station for irrigation and for power. (See records for Prairie power canal at Prairie City.)

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	8	32	42	18	100	42	171	145	250	51	7	22
2	12	30	64	20	114	48	182	137	229	40	7	17
3	11	40	195	63	153	54	199	136	231	38	9	14
4	15	62	139	68	205	61	217	163	212	31	22	11
5	27	49	127	48	133	71	213	136	199	30	13	12
6	22	46	119	53	127	69	205	139	192	21	9	10
7	20	44	106	54	103	72	211	152	203	14	7	11
8	22	39	97	82	104	96	221	175	210	13	8	15
9	19	38	90	93	114	141	234	212	229	15	9	19
10	18	35	83	67	124	294	247	274	201	14	8	29
11	20	31	76	60	109	258	267	265	153	13	7	17
12	17	35	68	52	107	272	332	246	126	13	7	16
13	18	33	73	46	82	226	351	216	83	13	9	14
14	17	41	81	43	84	232	414	208	70	13	8	13
15	17	92	103	38	84	180	424	288	112	15	9	13
16	18	99	116	60	72	163	354	248	116	17	10	14
17	17	88	116	48	57	136	322	237	92	16	19	14
18	17	75	209	47	31	124	270	212	84	14	20	12
19	23	68	343	41	37	113	243	201	70	14	20	13
20	25	54	230	39	60	100	231	194	64	14	19	12
21	22	53	182	43	61	93	254	194	50	14	20	12
22	20	45	160	40	62	91	290	259	36	13	21	12
23	19	45	151	43	47	90	305	327	31	13	17	12
24	18	54	138	53	49	84	261	372	23	8	24	11
25	18	47	122	120	46	77	231	367	72	10	26	11
26	18	46	96	217	35	68	208	386	192	6	30	11
27	20	44	78	520	43	66	184	329	221	6	33	11
28	38	45	92	225	43	67	203	322	129	6	35	11
29	47	45	96	143	-	73	170	288	74	6	22	12
30	35	46	87	112	-	90	150	281	62	6	17	12
31	33	-	73	104	-	127	-	259	-	6	31	-

Month	River only				River and Prairie power canal			
	Maximum	Minimum	Mean	Run-off in acre-feet	Maximum	Minimum	Mean	Run-off in acre-feet
October	47	8	21.0	1,290	107	68	82.5	5,070
November	99	30	50.0	2,980	160	88	111	6,600
December	343	42	121	7,440	409	103	183	11,250
Calendar year 1941	343	3.7	58.3	42,180	409	29	119	86,240
January	520	18	85.7	5,270	588	70	148	9,130
February	205	31	85.2	4,730	275	88	151	8,380
March	294	42	119	7,300	360	108	185	11,370
April	424	150	252	15,000	497	222	324	19,280
May	386	136	238	14,610	461	209	311	19,140
June	250	23	134	7,970	322	91	201	11,960
July	51	6	16.2	998	118	44	68.9	4,240
August	35	7	16.2	998	64	27	39.8	2,450
September	29	10	13.8	819	67	28	46.2	2,750
Water year 1941-42	520	6	95.9	69,400	588	27	154	111,600

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

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 1942.

Average discharge.- 16 years, 362 second-feet.

Extremes.- Maximum discharge during year, 2,450 second-feet Apr. 15 (gage height, 9.03 feet); minimum, 43 second-feet Sept. 6 (gage height, 1.64 feet).

1926-42: Maximum discharge, 6,000 second-feet Mar. 19, 1932 (gage height, 14.0 feet), from rating curve extended above 2,300 second-feet; minimum, 1 second-foot several days in August and September 1930, Aug. 8, 9, 1936.

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

Rating tables, water year 1941-42 (gage height, in feet, and discharge, in second-feet)

Oct. 1 to Jan. 27						Jan. 28 to Sept. 30					
2.5	137	4.0	413	6.5	1,205	1.6	39	3.2	254	5.7	895
2.8	182	4.5	531	7.5	1,645	1.8	58	3.6	332	6.7	1,270
3.1	234	5.0	675			2.1	90	4.0	418	7.7	1,720
3.5	309	5.5	830			2.4	127	4.5	538	9.0	2,430
						2.8	185	5.1	705		

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	151	271	325	353	771	474	1,700	1,180	1,370	551	98	52
2	154	269	343	280	874	496	1,600	1,170	1,270	486	94	50
3	156	263	446	395	1,060	506	1,660	1,120	1,280	446	94	48
4	166	305	544	420	1,390	508	1,920	1,180	1,210	414	94	47
5	197	329	499	335	1,260	567	1,920	1,190	1,140	383	91	48
6	209	315	477	329	1,020	590	1,850	1,120	1,070	347	123	46
7	208	303	460	391	948	572	1,860	1,120	1,040	310	110	45
8	213	290	433	453	884	645	1,930	1,160	1,020	286	98	44
9	216	282	413	411	906	825	1,990	1,190	1,000	262	94	45
10	211	275	402	470	976	1,330	2,050	1,380	923	234	88	47
11	206	269	395	437	996	1,750	2,130	1,410	853	222	81	50
12	204	262	376	413	895	1,940	2,300	1,340	795	211	75	48
13	209	262	366	391	789	1,660	2,400	1,260	720	204	67	48
14	208	267	380	360	717	1,370	2,420	1,190	648	193	61	51
15	194	417	411	349	750	1,290	2,380	1,420	648	193	57	56
16	192	606	444	406	681	1,180	2,160	1,610	681	198	57	58
17	189	582	501	391	639	1,080	1,980	1,480	631	195	58	60
18	192	514	579	366	548	1,010	1,820	1,380	585	195	57	65
19	202	477	1,390	362	481	940	1,660	1,330	572	191	54	68
20	221	435	1,600	364	533	867	1,580	1,270	538	184	51	71
21	227	402	1,190	351	548	867	1,570	1,250	510	178	49	76
22	220	380	980	360	577	920	1,620	1,360	483	170	49	74
23	218	349	879	370	541	923	1,640	1,650	446	156	49	72
24	220	362	792	395	533	870	1,510	1,650	423	149	48	75
25	216	360	726	516	510	825	1,390	1,630	425	138	48	72
26	214	347	645	675	474	765	1,280	1,650	639	123	48	71
27	216	335	484	1,570	476	771	1,190	1,560	906	115	48	70
28	234	333	501	1,720	483	801	1,190	1,680	839	110	48	70
29	284	333	577	1,120	-	909	1,230	1,560	705	95	49	68
30	288	329	554	870	-	1,120	1,240	1,440	617	92	50	70
31	275	-	506	774	-	1,480	-	1,440	-	95	52	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	6,510	288	151	210	12,910
November	10,523	606	262	351	20,870
December	18,618	1,600	325	601	36,930
Calendar year 1941	166,655	1,600	28	457	330,600
January	16,487	1,720	280	532	32,700
February	21,260	1,390	474	759	42,170
March	29,851	1,940	474	963	59,210
April	53,570	2,420	1,190	1,786	106,300
May	42,370	1,680	1,120	1,367	84,040
June	23,987	1,370	423	800	47,580
July	7,126	551	92	230	14,130
August	2,140	123	48	69.0	4,240
September	1,765	76	44	58.8	3,500
Water year 1941-42	234,207	2,420	44	642	464,600

Peak discharge.- Dec. 19 (11:45 p.m.) 1,850 sec.-ft.; Jan. 27 (5:30 to 6 p.m.) 2,030 sec.-ft.; Mar. 12 (6 a.m.) 2,080 sec.-ft.; Apr.15 (4 a.m.) 2,450 sec.-ft.; May 16 (2 a.m.) 1,680 sec.-ft.; May 28 (9:30 a.m.) 1,830 sec.-ft.

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

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 1942 in reports of Geological Survey. March 1925 to September 1926 and October 1929 to September 1936 in reports of State engineer.

Average discharge.- 14 years (1925-26, 1929-42), 1,379 second-feet.

Extremes.- Maximum discharge during year, 12,300 second-feet Jan. 27 (gage height, 11.08 feet); minimum, 127 second-feet Sept. 9 (gage height, 0.90 foot).
1929-42: Maximum discharge, 28,900 second-feet Mar. 19, 1932 (gage height, 16.75 feet), from rating curve extended above 11,000 second-feet; minimum, 20 second-feet Sept. 6, 1931.

Remarks.- Records good except those above 3,000 second-feet and those for periods of no gage-height record, which are fair. Many diversions above station for irrigation.

Rating table, water year 1941-42
(gage height, in feet, and discharge, in second-feet)

0.9	127	3.0	840	7.0	4,340
1.2	183	3.5	1,120	8.0	5,780
1.5	250	4.0	1,440	9.0	7,510
2.0	400	5.0	2,200	11.0	12,090
2.5	600	6.0	3,150		

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	340	715	1,140	1,310	2,670	1,620	9,480	5,400	5,640	2,140	315	173
2	334	695	1,170	695	3,050	1,660	9,970	5,500	5,320	1,910	306	173
3	337	695	2,700	745	4,640	1,850	9,440	5,100	4,710	1,740	298	165
4	382	715	3,600	1,130	5,230	1,790	9,390	5,080	4,250	1,580	290	161
5	455	918	2,970	1,010	5,600	1,820	9,420	5,060	3,910	1,440	282	155
6	596	928	2,730	735	4,300	2,070	9,300	4,780	3,670	1,320	275	152
7	663	901	2,520	735	3,840	1,990	9,220	4,730	3,520	1,190	f292	148
8	640	845	2,180	675	3,460	2,160	9,350	5,120	3,420	1,070	a300	141
9	681	795	1,960	1,230	3,600	2,740	9,220	5,600	3,300	964	a290	137
10	672	770	1,760	1,530	3,660	5,320	9,130	f6,730	3,200	906	a278	137
11	627	745	1,710	1,630	3,710	7,720	9,330	a6,700	2,950	845	a262	146
12	600	720	1,480	1,360	3,480	9,950	10,400	a6,100	2,700	835	a248	159
13	596	705	1,360	1,200	3,190	7,600	11,100	a5,600	2,480	825	a248	179
14	604	765	1,450	1,130	2,940	5,730	11,200	a5,200	2,270	755	a236	175
15	566	1,580	1,580	928	2,750	5,020	11,200	a5,600	2,170	720	a226	171
16	551	3,670	1,950	890	2,720	4,400	9,650	a7,000	2,330	735	a214	167
17	535	3,400	2,760	1,070	2,500	4,200	8,930	f6,510	2,190	835	a202	167
18	519	2,850	2,550	1,180	2,150	3,770	8,330	6,000	1,970	825	a190	169
19	523	2,360	4,180	1,110	1,830	3,440	7,660	5,600	1,900	725	a178	173
20	539	2,040	6,590	972	1,830	3,200	7,050	5,590	1,860	658	a172	177
21	618	1,680	5,410	896	1,960	3,110	7,030	5,470	1,670	609	a166	179
22	600	1,610	4,170	830	1,970	3,290	7,050	5,580	1,570	564	a160	183
23	564	1,280	3,540	918	1,950	3,360	7,050	6,580	1,470	515	f163	181
24	551	1,210	3,220	1,150	1,880	3,130	6,580	6,640	1,360	479	157	179
25	535	1,360	2,940	1,350	1,820	2,960	5,960	6,270	1,350	455	148	179
26	523	1,310	2,580	1,640	1,730	2,760	5,530	6,360	1,680	421	150	179
27	519	1,190	2,000	5,780	1,610	2,580	5,010	6,080	2,940	400	146	175
28	555	1,130	1,570	6,200	1,620	2,770	4,710	6,000	3,460	376	148	173
29	690	1,130	2,010	4,340	-	3,250	4,710	5,890	2,880	358	150	173
30	860	1,120	2,120	3,240	-	4,540	5,020	5,540	2,430	334	157	173
31	790	-	1,970	2,730	-	7,170	-	5,350	-	321	165	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	17,585	860	334	567	34,880
November	39,832	3,670	695	1,328	79,010
December	79,870	6,590	1,140	2,576	158,400
Calendar year 1941	622,461	6,590	226	1,705	1235,000
January	50,539	6,200	695	1,630	100,200
February	81,690	5,600	1,610	2,918	162,000
March	116,970	9,950	1,620	3,773	232,000
April	247,420	11,200	4,710	8,247	490,800
May	178,760	7,000	4,730	5,766	354,600
June	84,550	5,640	1,350	2,818	167,700
July	26,870	2,140	321	867	53,300
August	6,812	315	146	220	13,510
September	4,999	183	137	167	9,920
Water year 1941-42	935,897	11,200	137	2,564	1,856,000

Peak discharge.- Dec. 20 (11 a.m.) 7,530 sec.-ft.; Jan. 27 (6 p.m.) 12,300 sec.-ft.; Feb.3 (6 a.m.) 5,380 sec.-ft.; Feb.4 (11 p.m.) 6,370 sec.-ft.; Mar. 12 (12:30 p.m.) 11,100 sec.-ft.; May 23 (6 p.m.) 7,050 sec.-ft.

a No gage-height record; discharge computed on basis of records for station at McDonald Ferry and for North Fork of John Day River at Monument.

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

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

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 1942.

Average discharge.- 37 years, 1,895 second-feet.

Extremes.- Maximum discharge during year, 11,900 second-feet Jan. 28 (gage height, 7.11 feet); minimum, 142 second-feet Sept. 27, 28 (gage height, 1.41 feet).
1904-42: 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 period of no gage-height record, which are fair. Diversions above station for irrigation.

Rating tables, water year 1941-42 (gage height, in feet, and discharge, in second-feet)

Oct. 1 to Jan. 28

1.8	330	3.5	2,260	5.5	6,790
2.1	545	4.0	3,160	6.1	8,580
2.5	915	4.6	4,230	7.0	11,550
3.0	1,520	5.0	5,440		

Jan. 29 to Sept. 30

1.4	138	2.1	556
1.6	230	2.5	915
1.8	345		

Note.- Same as preceding table above 2.5 feet.

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	393	885	1,200	2,040	3,400	1,980	7,820	5,320	5,540	2,640	378	151
2	386	835	1,230	1,510	3,420	2,060	9,700	5,620	6,010	2,310	364	151
3	379	777	1,320	957	4,140	2,080	10,100	5,650	5,420	2,080	345	163
4	372	758	2,130	730	6,150	2,240	9,730	5,140	4,940	1,860	339	167
5	372	748	3,960	748	6,820	2,230	9,730	5,240	4,650	1,700	339	172
6	386	786	3,200	1,530	7,020	2,230	9,730	5,190	4,370	1,550	321	f167
7	442	968	2,950	1,100	5,650	2,460	9,560	4,890	4,090	1,420	303	a160
8	554	957	2,710	835	4,990	2,480	9,470	4,870	3,930	1,300	291	a156
9	657	936	2,410	825	4,700	2,570	9,560	5,390	3,820	1,190	285	a154
10	648	885	2,150	1,190	4,960	3,460	9,370	5,910	3,630	1,090	303	a152
11	684	845	1,950	1,520	5,390	6,540	9,340	7,220	3,550	999	291	a151
12	693	825	1,880	1,890	5,040	9,400	9,500	7,140	3,240	936	268	a180
13	657	815	1,700	1,940	4,650	10,400	10,400	6,450	2,970	885	252	a170
14	630	806	1,520	1,620	4,210	8,120	10,900	5,880	2,730	895	246	f159
15	613	915	1,530	1,490	3,820	6,650	11,000	5,490	2,500	855	246	155
16	622	1,980	1,760	1,380	3,630	5,910	10,800	6,070	2,340	808	230	a170
17	613	3,740	2,130	1,180	3,460	5,190	9,530	7,790	2,410	786	220	a180
18	588	3,890	2,990	1,130	3,160	4,940	8,860	6,790	2,430	796	215	a176
19	562	3,240	3,220	1,290	2,820	4,510	8,240	6,180	2,160	f875	200	a174
20	554	2,670	5,060	1,390	2,430	4,140	7,490	5,750	2,020	a870	185	f172
21	554	2,310	7,550	1,290	2,310	3,890	7,110	5,650	2,020	a800	180	172
22	562	1,980	5,930	1,200	2,410	3,720	7,200	5,620	1,840	a720	176	a174
23	622	1,740	4,630	1,130	2,410	3,850	7,580	6,100	1,690	a660	172	a178
24	622	1,600	3,980	1,060	2,430	3,960	7,430	7,250	1,590	a610	159	a180
25	596	1,320	3,610	1,290	2,310	3,740	6,590	7,050	1,520	a560	159	a182
26	579	1,380	3,200	1,980	2,230	3,460	5,910	6,680	1,520	a520	151	a178
27	570	1,450	2,840	3,280	2,130	3,240	5,390	6,820	1,630	a490	146	h172
28	579	1,370	2,380	8,390	2,010	2,990	5,020	6,370	2,760	f466	151	a170
29	579	1,250	1,860	7,670	-	3,180	4,770	6,430	3,720	438	151	a168
30	630	1,210	2,000	5,290	-	3,760	4,890	6,150	3,100	410	155	a168
31	739	-	2,260	3,960	-	5,140	-	5,780	-	397	155	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	17,437	739	372	562	34,590
November	43,871	3,890	748	1,462	87,020
December	87,240	7,550	1,200	2,814	173,000
Calendar year 1941	664,291	7,550	237	1,820	1,318,000
January	62,835	8,390	730	2,027	124,600
February	108,000	7,020	2,010	3,857	214,200
March	130,520	10,400	1,980	4,210	258,900
April	252,720	11,000	4,770	8,424	501,300
May	187,880	7,790	4,870	6,061	372,700
June	94,120	6,010	1,520	3,137	186,700
July	31,894	2,640	397	1,029	63,260
August	7,376	378	146	238	14,630
September	5,022	182	151	167	9,960
Water year 1941-42	1,028,915	11,000	146	2,819	2,041,000

Peak discharge.- Dec. 21 (10 to 11 a.m.) 7,940 sec.-ft.; Jan. 28 (3 p.m.) 11,900 sec.-ft.; Feb. 5 (6:30 p.m.) 7,880 sec.-ft.; Mar. 13 (9 a.m.) 11,100 sec.-ft.; Apr. 15 (10 p.m.) 11,300 sec.-ft.; May 17 (4 a.m.) 8,120 sec.-ft.

a No gage-height record; discharge computed on basis of range of stage and records for station at Service Creek.
f Computed on basis of partly estimated gage-height record.
h Computed on basis of staff-gage reading.

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

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 1942.

Average discharge.- 17 years, 45.2 second-feet.

Extremes.- Maximum discharge observed during year, 79 second-feet May 23 (gage height, 3.25 feet); no flow at times.
1925-42: Maximum discharge, 92 second-feet May 5, 1939; no flow at times.

Remarks.- Records fair. 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. Staff gage read twice daily.

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

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	60	58	61	52	70	66	70	72	72	67	40	22
2	62	58	61	52	70	66	70	72	72	67	38	22
3	62	66	61	64	70	66	70	73	73	58	37	20
4	67	60	62	54	70	62	70	74	72	58	42	22
5	67	60	62	53	71	64	70	73	73	62	45	22
6	64	59	61	62	70	62	68	75	77	58	38	18
7	64	59	61	62	72	62	69	74	77	57	37	19
8	66	59	59	64	68	62	68	74	76	58	36	20
9	65	58	61	62	67	66	71	74	75	54	37	24
10	64	62	62	64	70	66	72	74	74	51	36	38
11	65	62	61	62	68	66	72	74	58	50	36	40
12	66	61	61	64	68	67	73	74	58	52	34	39
13	65	62	62	65	62	66	72	73	60	50	27	39
14	64	62	61	63	66	66	72	73	63	53	21	36
15	61	62	61	62	66	66	73	76	63	54	20	38
16	60	61	61	62	66	66	72	73	60	58	20	34
17	60	61	62	62	58	68	74	67	62	58	e	38
18	60	61	63	64	57	69	72	72	63	58	7	38
19	64	62	66	63	52	69	74	72	62	58	9	39
20	60	61	62	63	59	65	72	72	62	57	8	40
21	58	61	62	64	58	66	75	71	63	54	7	39
22	58	61	62	64	66	65	76	74	67	54	8	40
23	58	61	64	64	66	65	72	77	67	50	19	40
24	58	62	62	64	66	65	72	76	68	50	11	40
25	58	61	62	63	66	65	74	75	67	48	9	34
26	58	61	59	66	65	66	72	75	68	48	13	34
27	58	61	64	68	64	70	73	75	62	38	10	35
28	60	61	70	68	66	70	74	75	68	42	8	34
29	60	61	62	65	-	70	72	74	67	40	26	34
30	57	61	62	66	-	70	72	74	64	40	34	34
31	58	-	62	72	-	70	-	74	-	38	11	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	1,907	67	57	61.5	3,780
November	1,825	66	58	60.8	3,620
December	1,922	70	59	62.0	3,810
Calendar year 1941	22,213	80	25	60.9	44,070
January	1,943	72	52	62.7	3,850
February	1,837	72	52	65.6	3,640
March	2,052	70	62	66.2	4,070
April	2,156	76	68	71.9	4,280
May	2,281	77	67	73.6	4,520
June	2,013	77	58	67.1	3,990
July	1,633	67	38	52.7	3,240
August	732	45	7	23.6	1,450
September	972	40	18	32.4	1,930
Water year 1941-42	21,273	77	7	58.3	42,180

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

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 of Strawberry Creek and 8½ miles south of Prairie City.

Records available.- October 1930 to September 1942.

Average discharge.- 12 years, 10.9 second-feet.

Extremes.- Maximum discharge during year, 86 second-feet May 25 (gage height, 2.04 feet); minimum, 4.0 second-feet Mar. 28, 29, Sept. 27-30.

1930-42: 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 each of the years 1931, 1934, 1935, 1937 and Nov. 19, 1939.

Remarks.- Records good. No diversion above station; some natural regulation by Strawberry Lake.

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	5.7	5.4	8.6	9.7	6.3	4.4	5.7	21	41	36	8.9	6.0
2	5.7	5.4	11	9.3	6.3	4.4	6.6	20	39	38	8.9	6.0
3	5.7	6.3	15	9.3	6.3	4.4	6.9	19	39	38	8.9	6.0
4	6.0	6.6	15	8.9	6.0	4.4	7.5	18	41	36	8.9	6.0
5	5.7	6.6	15	8.6	6.0	4.6	7.8	18	46	34	8.9	5.7
6	5.7	6.6	14	8.6	6.0	4.6	7.8	17	54	33	8.6	5.7
7	5.7	6.6	13	8.2	6.0	4.6	7.8	18	62	30	8.6	5.7
8	5.4	6.6	13	8.2	5.7	4.6	8.6	19	66	28	8.2	5.4
9	5.4	6.6	12	8.6	5.7	4.6	10	22	66	26	8.2	5.4
10	5.4	6.6	12	8.2	5.7	4.6	12	24	64	24	7.8	5.4
11	5.4	6.3	12	8.2	5.7	4.8	14	24	58	22	7.8	5.4
12	5.4	6.3	12	8.2	5.4	5.1	17	24	51	20	7.8	4.8
13	5.4	6.3	12	7.8	5.4	5.1	20	23	48	19	7.5	4.8
14	5.1	6.9	11	7.8	5.4	5.1	22	23	48	18	7.5	4.8
15	5.1	9.7	11	7.5	5.4	5.1	20	24	51	17	7.5	4.8
16	5.1	10	11	7.5	5.1	5.1	18	24	51	16	7.2	4.8
17	5.1	9.7	11	7.2	5.1	4.8	16	24	48	15	7.2	4.6
18	5.1	9.3	11	7.2	5.1	4.8	15	23	47	14	6.9	4.6
19	5.7	8.6	12	7.2	5.1	4.6	16	24	43	14	6.9	4.6
20	5.4	8.6	13	6.9	5.1	4.6	18	26	41	13	6.9	4.6
21	5.4	8.9	13	6.9	5.1	4.6	24	36	36	12	6.9	4.4
22	5.4	8.2	13	6.9	5.1	4.6	28	54	36	12	6.6	4.4
23	5.4	8.9	12	6.6	5.1	4.4	28	68	35	12	6.6	4.4
24	5.4	8.9	12	6.6	4.8	4.4	26	75	35	11	616	4.4
25	5.4	8.6	12	6.3	4.8	4.4	26	80	36	11	6.3	4.4
26	5.4	8.6	11	6.6	4.6	4.4	25	80	36	10	6.3	4.2
27	5.4	8.6	11	6.6	4.6	4.2	25	71	36	10	6.3	4.0
28	5.7	8.6	11	6.6	4.6	4.0	24	61	36	10	6.3	4.0
29	5.4	8.6	10	6.3	-	4.0	23	54	36	9.7	6.3	4.0
30	5.4	8.6	10	6.3	-	4.2	22	47	36	9.7	6.0	4.0
31	5.4	-	10	6.3	-	4.8	-	43	-	9.3	6.0	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	168.9	6.0	5.1	5.45	335
November	231.5	10	5.4	7.72	459
December	369.6	15	3.6	11.9	733
Calendar year 1941	5,036.5	68	3.2	13.8	10,000
January	235.1	9.7	6.3	7.58	466
February	151.5	6.3	4.6	5.41	300
March	142.3	5.1	4.0	4.59	282
April	507.7	28	5.7	16.9	1,010
May	1,104	80	17	35.6	2,190
June	1,362	66	35	45.4	2,700
July	607.7	38	9.3	19.6	1,210
August	229.3	8.9	6.0	7.40	455
September	147.3	6.0	4.0	4.91	292
Water year 1941-42	5,256.9	80	4.0	14.4	10,430

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

North Fork of 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 1942.

Average discharge.- 13 years, 324 second-feet.

Extremes.- Maximum discharge during year, 2,920 second-feet Apr. 13 (gage height, 7.12 feet); minimum, 46 second-feet Sept. 27, 28 (gage height, 2.07 feet).
1929-42: 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 doubtful or no gage-height record, which are fair, and those for periods of ice effect, which are poor. Some small diversions above station for irrigation and mining cause diurnal fluctuation at low stages.

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	77	150	243	b150	a200	b140	a1,050	1,190	1,260	660	119	66
2	95	146	306	b100	a210	b160	a1,000	1,090	1,170	614	112	64
3	100	148	785	b95	220	172	a960	1,080	1,120	556	108	61
4	136	252	745	b115	274	163	940	1,030	1,090	516	105	59
5	190	228	682	b90	250	172	a940	975	1,070	484	112	58
6	158	219	646	b70	* 244	170	a980	1,060	1,070	434	114	57
7	167	*190	548	b80	*241	166	a1,050	1,210	1,120	398	103	54
8	176	176	480	b110	244	185	a1,180	1,460	1,050	368	96	54
9	162	169	404	b140	229	232	a1,150	1,750	1,050	334	102	57
10	150	162	428	b125	241	315	a1,300	2,010	975	315	96	74
11	150	158	330	b110	235	378	1,760	1,800	875	332	90	76
12	154	154	306	b100	212	452	2,510	1,620	800	308	85	65
13	162	158	344	b90	202	434	2,680	1,430	770	280	82	61
14	146	219	379	b85	172	394	2,750	1,370	755	259	80	59
15	136	543	376	b90	192	340	2,370	1,640	840	244	79	57
16	134	682	420	b115	195	346	2,120	1,630	810	308	77	56
17	131	588	468	b110	140	318	2,260	1,500	705	280	76	53
18	129	494	494	b100	*b110	304	1,940	1,410	686	244	72	53
19	152	432	615	b90	b120	294	1,840	1,410	668	216	68	54
20	185	309	682	b80	b140	265	1,980	1,520	583	203	66	56
21	164	334	620	b74	b135	265	2,340	1,720	542	190	65	54
22	152	234	561	b76	b130	268	2,580	1,430	511	175	65	52
23	144	225	516	b80	b160	268	2,130	2,390	498	163	65	50
24	136	312	472	b90	b155	256	1,740	2,140	480	157	62	52
25	131	512	416	b110	b150	247	1,510	2,090	552	150	62	49
26	127	258	321	b200	b130	223	1,320	2,050	785	140	61	48
27	127	231	228	b420	b130	a230	1,190	1,750	1,050	140	61	47
28	160	243	372	312	b135	a270	1,140	1,610	880	136	65	46
29	195	240	444	256	-	a330	1,070	1,470	765	130	74	48
30	171	252	408	226	-	422	1,160	1,360	705	123	79	47
31	154	-	324	a210	-	a800	-	1,320	-	124	72	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	4,551	195	77	147	9,030
November	8,218	682	146	274	16,300
December	14,363	785	228	463	28,490
Calendar year 1941	144,308	2,130	50	395	286,200
January	4,099	420	70	132	8,130
February	5,196	274	110	186	10,310
March	8,979	800	140	290	17,810
April	48,940	2,750	940	1,631	97,070
May	47,515	2,390	975	1,533	94,240
June	25,235	1,260	480	841	50,050
July	8,984	660	124	290	17,820
August	2,573	119	61	83.0	5,100
September	1,687	76	46	56.2	3,350
Water year 1941-42	180,340	2,750	46	494	357,700

* Winter discharge measurement made on this day.
a Doubtful or no gage-height record, discharge computed on basis of records for stations at Monument and on Middle Fork of John Day River at Ritter, Oreg.
b Stage-discharge relation affected by ice.
Time basis: Pacific standard time prior to 2 a.m., Feb. 9, 1942; Pacific war time thereafter. To convert war time to standard time, subtract 1 hour.

North Fork of 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 1942.

Average discharge.- 16 years (1925-27, 1928-42), 966 second-feet.

Extremes.- Maximum discharge during year, 7,980 second-feet Apr. 1, 14 (gage height, 8.67 feet); maximum gage height, 11.81 feet Jan. 27, ice jam; minimum discharge, 88 second-feet Sept. 27, 30.

1925-42: Maximum discharge, 22,000 second-feet Mar. 18, 1932 (gage height, 14.8 feet, from rating curve extended above 9,000 second-feet; minimum, 6 second-feet sometime in period Nov. 2-13, 1936, when recorder was not operating.

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

Rating tables, water year 1941-42, except period of ice effect
(gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Jan. 28 to Feb. 18)

Oct. 1 to Jan. 26

1.8	160	3.2	900	5.0	2,660
2.0	225	3.6	1,200	6.0	3,920
2.4	400	4.0	1,540	7.0	5,330
2.8	630	4.5	2,070		

Jan. 28 to Sept. 30

1.5	78	3.2	860	7.0	5,210
1.8	150	3.7	1,240	8.0	6,800
2.1	250	4.3	1,800	9.0	8,580
2.4	375	5.0	2,560		
2.8	600	6.0	3,800		

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	178	400	760	662	1,560	846	7,220	3,280	3,810	1,370	218	116
2	178	385	956	510	2,150	993	6,680	a3,200	3,200	1,220	215	111
3	200	390	3,180	b450	2,660	1,000	6,510	a3,150	2,900	1,120	201	106
4	233	488	2,470	b540	3,740	979	6,400	a3,100	2,670	1,010	194	101
5	330	600	2,170	a450	3,110	1,070	6,610	a3,050	2,470	944	190	97
6	444	564	1,940	a350	2,500	1,080	6,400	a3,000	2,350	867	204	95
7	411	540	1,700	a400	2,240	1,070	6,410	a3,050	2,300	790	204	93
8	433	499	1,430	b600	2,040	1,280	6,440	3,800	2,150	718	180	91
9	455	472	1,280	b800	2,030	1,860	6,220	4,210	2,120	673	171	93
10	411	455	1,210	b750	2,050	4,030	6,170	5,500	2,020	630	171	95
11	380	433	1,070	b700	2,050	5,900	6,350	4,860	1,780	612	165	113
12	375	416	921	b650	1,960	6,090	7,260	4,270	1,620	636	147	128
13	380	416	942	b600	1,740	4,260	7,380	3,750	1,500	582	139	116
14	380	582	1,020	a570	1,600	3,420	7,710	3,460	1,420	534	136	109
15	346	1,760	1,110	a540	1,580	2,870	7,060	4,720	1,430	492	134	104
16	328	2,770	1,720	b580	1,460	2,690	6,110	5,220	1,570	576	131	101
17	314	2,340	1,940	b700	1,290	2,430	5,920	4,400	1,340	648	126	99
18	310	1,810	1,870	b650	1,090	2,200	5,260	3,920	1,220	546	123	97
19	314	1,480	3,960	a540	958	2,000	4,800	3,680	1,250	474	116	97
20	360	1,220	4,680	a480	1,030	1,840	4,720	3,680	1,130	425	111	99
21	370	1,060	3,200	a450	1,030	1,930	5,020	3,720	1,030	390	106	99
22	341	963	2,550	a470	1,060	2,060	5,300	4,300	958	362	104	99
23	323	740	2,240	b520	1,010	2,010	4,780	5,140	916	326	101	95
24	310	858	1,990	b680	972	1,800	4,020	4,510	874	306	101	95
25	297	893	1,760	b750	951	1,500	3,550	4,330	902	290	99	93
26	293	830	1,480	b1,000	860	1,510	3,170	4,370	1,400	274	95	93
27	293	740	1,030	b2,500	846	1,560	2,870	3,840	2,330	262	95	91
28	346	728	1,100	2,870	860	1,780	2,900	3,930	2,270	254	97	91
29	504	728	1,340	a2,100	-	2,330	2,820	3,710	1,790	246	104	91
30	516	740	1,330	a1,700	-	3,660	3,540	3,330	1,540	236	113	91
31	433	-	1,140	1,470	-	5,820	-	3,450	-	229	121	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	10,786	516	178	348	21,390
November	26,300	2,770	385	877	52,170
December	55,489	4,680	760	1,790	110,100
Calendar year 1941	420,711	4,680	138	1,153	834,600
January	26,032	2,870	350	840	51,630
February	46,427	3,740	846	1,658	92,090
March	74,068	6,090	846	2,389	146,900
April	165,500	7,710	2,820	5,517	328,300
May	121,930	5,500	3,000	3,933	241,800
June	54,260	3,810	874	1,809	107,600
July	18,042	1,370	229	582	35,790
August	4,412	218	95	142	8,750
September	2,999	128	91	100	5,950
Water year 1941-42	606,245	7,710	91	1,661	1,202,000

a No gage-height record; discharge computed on basis of records for John Day River at Picture Gorge, near Dayville, and at Service Creek.
b Stage-discharge relation affected by ice.
Time basis.- Pacific standard time prior to 2 a.m., Feb. 9, 1942; Pacific war time thereafter. To convert war time to standard time, subtract 1 hour.

Middle Fork of 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 1942.

Average discharge.- 13 years, 192 second-feet.

Extremes.- Maximum discharge during year, 1,450 second-feet Apr. 14 (gage height, 5.23 feet); minimum observed, 18 second-feet Aug. 25 (gage height, 1.79 feet).
1929-42: Maximum discharge, 4,000 second-feet Mar. 19, 1932 (gage height, 7.78 feet), from rating curve extended above 1,200 second-feet; minimum, 1.0 second-foot Dec. 10, 1932.

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

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	41	89	119	b120	196	156	1,190	848	546	210	44	25
2	45	84	124	b95	244	184	1,180	750	505	189	44	24
3	52	88	316	b90	283	179	1,200	731	485	174	42	23
4	59	117	302	b110	342	175	1,190	724	476	162	41	23
5	88	119	277	a105	316	203	1,090	681	453	150	47	22
6	89	113	253	a90	289	193	1,080	657	431	135	57	22
7	78	*103	225	a100	*268	191	1,150	687	431	125	44	21
8	98	96	200	a150	271	235	1,210	764	403	116	40	22
9	92	92	177	a200	277	298	1,210	812	395	111	40	23
10	82	88	177	a180	277	611	1,210	938	359	106	37	30
11	78	84	152	h164	277	870	1,210	840	324	109	35	34
12	80	83	134	a150	262	922	1,360	757	302	104	32	30
13	82	83	146	a135	232	693	1,390	687	278	97	30	28
14	78	88	154	a120	215	568	1,410	651	258	92	30	26
15	74	371	162	a110	232	471	1,300	855	278	89	30	26
16	71	464	235	a130	212	453	1,150	833	278	100	30	25
17	68	350	277	a125	186	411	1,060	744	245	104	26	25
18	68	265	342	h113	158	367	990	687	232	89	23	25
19	73	222	464	a104	156	338	915	663	238	80	23	26
20	80	179	611	a98	164	308	908	675	212	78	22	26
21	76	168	510	a94	156	330	982	718	203	73	21	26
22	71	134	410	a96	152	355	1,020	848	185	65	20	26
23	68	120	362	a100	171	371	930	900	172	60	20	26
24	67	140	326	a105	166	344	798	819	166	58	20	26
25	64	144	289	122	164	320	724	798	183	56	18	25
26	64	126	241	132	146	284	663	770	275	56	19	24
27	67	120	160	394	146	302	597	699	407	54	19	25
28	89	120	193	312	150	348	645	699	330	50	21	25
29	113	119	238	256	-	458	639	627	266	49	24	24
30	103	119	232	215	-	718	798	585	232	46	26	25
31	91	-	186	200	-	1,020	-	574	-	45	26	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	2,349	113	41	75.8	4,660
November	4,488	464	83	150	8,900
December	7,994	611	119	258	15,860
Calendar year 1941	76,983	691	27	211	152,700
January	4,515	394	90	146	8,960
February	6,108	342	146	218	12,120
March	12,666	1,020	156	409	25,120
April	31,199	1,410	597	1,040	61,880
May	23,021	938	574	743	45,660
June	9,548	546	166	318	18,940
July	3,032	210	45	97.8	6,010
August	951	57	18	30.7	1,890
September	758	34	21	25.3	1,500
Water year 1941-42	106,629	1,410	18	292	211,500

* Winter discharge measurement made on this day.
a No gage-height record; discharge computed on basis of records for John Day River at Prairie City and North Fork of John Day River at Monument, Oreg.
b Stage-discharge relation affected by ice.
h Computed from staff-gage reading.
Time basis: Pacific standard time prior to 2 a.m., Feb. 9, 1942; Pacific war time thereafter. To convert war time to standard time, subtract 1 hour.

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 1942.

Average discharge.- 12 years, 19.2 second-feet.

Extremes.- Maximum discharge during year, 435 second-feet Mar. 11 (gage height, 3.37 feet); practically no flow Aug. 19-28, Aug. 31 to Sept. 9, Sept. 12-18.
1930-42: Maximum discharge, 800 second-feet Mar. 18, 1932 (gage height, 4.55 feet), from rating curve extended above 180 second-feet; no flow at times.

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

Rating table, water year 1941-42, except period of ice effect (gage height, in feet, and discharge, in second-feet)

0.4	0	1.2	16	2.2	132
.6	.6	1.4	30	2.5	200
.8	2.8	1.6	48	2.8	276
1.0	7.3	1.9	84	3.2	386

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1.2	4.5	10	9.0	81	20	176	147	88	15	0.8	0
2	1.3	4.5	13	9.0	94	25	153	121	72	12	.4	0
3	1.3	4.7	17	10	230	32	147	104	63	10	.8	0
4	1.7	5.5	16	10	174	35	147	111	52	9.6	.9	0
5	3.4	5.5	17	9.0	145	37	138	98	45	8.1	1.0	0
6	3.2	*5.5	17	9.0	81	42	127	88	38	7.0	1.0	0
7	2.8	6.0	15	11	74	47	125	94	36	6.3	.9	0
8	3.4	5.0	16	11	59	51	132	109	33	5.7	.8	0
9	3.2	4.7	16	14	30	103	138	123	32	5.5	.7	0
10	3.9	4.5	16	17	*52	308	140	164	28	5.0	.6	.1
11	2.7	4.3	16	19	56	389	164	149	25	5.0	.6	.1
12	2.8	4.3	15	16	50	281	188	119	23	5.2	.5	0
13	2.2	4.3	16	15	45	149	193	101	21	4.7	.5	0
14	2.8	7.0	17	13	55	103	208	91	18	4.3	.4	0
15	2.7	45	20	11	55	91	188	118	18	4.1	.3	0
16	2.5	61	25	13	45	90	158	176	17	5.5	.2	0
17	2.4	43	80	16	30	88	147	134	15	5.0	.1	0
18	2.2	26	120	15	20	74	128	106	14	4.3	.1	0
19	3.6	19	180	14	20	64	114	95	15	3.9	0	.1
20	3.6	13	100	15	30	63	109	90	13	3.4	0	.2
21	3.6	12	60	16	35	88	109	81	12	2.7	0	.2
22	2.8	11	47	18	50	114	108	84	11	2.2	0	.2
23	2.5	8.4	39	20	35	94	100	103	9.6	2.0	0	.1
24	2.4	9.6	34	25	30	70	87	88	8.4	1.8	0	.1
25	2.2	11	28	30	27	56	80	80	13	1.5	0	.1
26	3.8	11	28	116	25	47	71	78	31	1.4	0	.1
27	2.8	10	25	298	20	67	89	76	37	1.3	0	.1
28	6.3	9.6	30	225	25	100	84	84	32	1.3	0	.1
29	6.8	10	25	200	-	138	111	85	25	1.2	.1	.1
30	5.5	10	20	160	-	183	130	78	19	1.1	.1	.1
31	5.0	-	15	103	-	188	-	81	-	1.0	0	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	96.6	6.8	1.2	3.12	192
November	379.9	61	4.3	12.7	754
December	1,093	180	10	35.3	2,170
Calendar year 1941	7,011.0	180	.3	19.2	13,910
January	1,467	298	9.0	47.3	2,910
February	1,673	230	20	59.8	3,320
March	3,237	389	20	104	6,420
April	3,969	208	69	132	7,870
May	3,256	176	76	105	6,460
June	864.0	88	8.4	28.8	1,710
July	147.1	15	1.0	4.75	292
August	10.8	1.0	0	.35	21
September	1.7	.2	0	.06	3.4
Water year 1941-42	16,195.1	389	0	44.4	32,120

* Winter discharge measurement made on this day.

Note.- Stage-discharge relation affected by ice Dec. 28 to Jan. 25. No gage-height record Dec. 10-21, Feb. 14-28; discharge computed on basis of weather records, recorded range of stage, and records for John Day River at Prairie City, Oreg.

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

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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 4,448 feet (from reservoir surveys of Bureau of Reclamation).

Records available.- November 1937 to September 1942.

Extremes.- Maximum discharge during year, 89 second-feet Sept. 2 (gage height, 1.37 feet); minimum, 43 second-feet Dec. 27 (gage height, 1.12 feet).
1937-42: Maximum discharge, 291 second-feet July 27, 1938 (gage height, 1.96 feet); minimum, that of Dec. 27, 1941.

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

Rating table, water year 1941-42, except periods of ice effect (gage height, in feet, and discharge, in second-feet)

1.2	55
1.3	74
1.4	96

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	64	63	59	b59	63	61	59	66	70	68	74	78
2	64	63	68	b59	63	61	59	66	70	68	74	81
3	61	66	66	b61	63	61	61	68	70	68	74	81
4	64	64	61	61	63	61	61	68	68	68	78	81
5	64	64	63	59	63	61	61	66	70	68	78	81
6	64	63	63	b59	61	61	63	68	72	68	78	81
7	64	63	61	b59	61	61	63	68	70	68	78	81
8	64	63	61	b59	61	61	64	66	70	68	78	81
9	64	63	61	59	61	61	64	68	70	68	78	81
10	64	63	*59	59	61	61	64	68	70	68	78	81
11	64	63	61	59	*61	61	64	68	68	68	78	81
12	64	63	61	59	61	61	64	68	68	68	78	81
13	64	64	61	59	61	61	64	68	68	68	78	81
14	64	68	61	59	61	61	64	68	68	68	78	81
15	64	68	63	b59	61	61	64	68	68	70	78	81
16	64	64	63	59	61	61	64	68	68	72	78	81
17	64	61	61	59	61	61	64	68	68	72	78	81
18	64	61	64	59	61	61	64	66	68	72	78	81
19	66	61	63	59	61	61	64	66	68	72	78	81
20	64	61	63	59	61	59	66	68	68	72	78	81
21	64	61	61	59	61	59	68	68	68	72	78	81
22	64	61	61	59	61	59	68	68	68	74	78	81
23	64	61	61	59	61	59	68	68	68	74	78	81
24	64	59	61	59	61	59	66	68	68	74	78	81
25	64	59	61	59	61	59	66	70	68	74	78	81
26	64	59	59	63	61	59	66	70	68	74	78	81
27	66	59	b60	61	61	59	66	70	70	74	78	81
28	64	59	61	61	61	57	66	70	70	74	78	81
29	63	59	61	61	-	59	66	70	70	74	78	81
30	63	59	61	61	-	59	66	70	68	74	78	81
31	64	-	59	63	-	59	-	70	-	74	78	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	1,986	66	63	64.1	3,940
November	1,865	68	59	62.2	3,700
December	1,909	68	59	61.6	3,790
Calendar year 1941	22,349	74	55	61.2	44,330
January	1,849	63	59	59.6	3,670
February	1,718	63	61	61.4	3,410
March	1,865	61	59	60.2	3,700
April	1,927	68	59	64.2	3,820
May	2,118	70	66	68.3	4,200
June	2,066	72	68	68.9	4,100
July	2,194	74	68	70.8	4,350
August	2,406	78	74	77.6	4,770
September	2,427	81	78	80.9	4,810
Water year 1941-42	24,330	81	59	66.7	48,260

* Winter discharge measurement made on this day.
b Stage-discharge relation affected by ice.
Time basis.-Pacific standard time prior to 2 a.m., Feb. 9, 1942; Pacific war time thereafter. To convert war time to standard time, subtract 1 hour.

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 1942.

Average discharge.- 21 years (1914-15, 1922-42), 188 second-feet.

Extremes.- Maximum discharge during year, 507 second-feet July 14 (gage height, 2.18 feet); minimum, 3 second-feet Oct. 31 (gage height, 0.31 foot).
1914-17, 1922-42: Maximum discharge, 659 second-feet Aug. 3, 1938 (gage height, 2.58 feet); minimum, 2 second-feet Dec. 21, 1940, caused by closing of dam.

Remarks.- Records good except those for period Oct. 31 to May 12, which are fair. No diversion above station; flow partly regulated since Nov. 4, 1922, by Crane Prairie Reservoir. (See p. 53 .)

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	117	5	7	8	9	6	7	9	5	292	451	274
2	117	5	7	8	9	6	7	9	4	310	451	261
3	117	5	7	8	9	6	7	9	13	336	455	222
4	119	5	7	8	9	6	7	9	24	357	451	198
5	117	5	7	8	9	6	7	9	24	357	447	195
6	114	5	7	8	9	6	7	9	24	372	447	192
7	114	5	7	8	9	6	7	9	24	419	423	192
8	114	5	7	8	9	6	7	9	24	463	335	192
9	114	5	7	8	9	6	7	9	24	471	335	198
10	114	5	7	8	9	6	7	9	33	495	331	204
11	114	5	7	9	9	7	7	9	41	495	331	190
12	114	5	7	9	9	7	7	9	41	499	335	190
13	114	5	7	9	7	7	7	30	55	503	310	167
14	114	5	7	9	6	7	7	26	146	503	282	141
15	114	5	7	9	6	7	7	23	141	483	278	144
16	114	5	7	8	6	7	7	23	141	455	282	144
17	114	5	7	8	6	7	8	24	141	435	282	144
18	114	5	7	8	6	7	8	24	141	407	278	144
19	119	6	7	8	6	7	8	24	141	407	278	144
20	114	6	7	8	6	7	8	24	144	407	274	146
21	112	6	7	8	6	7	8	24	164	403	274	146
22	112	6	7	8	6	7	8	24	164	403	274	144
23	112	6	7	8	6	7	8	24	170	423	278	144
24	112	6	7	8	6	7	9	24	181	447	274	146
25	112	6	7	8	6	7	9	23	181	455	274	146
26	112	6	7	9	6	7	9	23	181	455	282	146
27	124	6	7	9	6	7	9	23	181	455	278	146
28	117	6	7	9	6	7	9	23	195	459	274	170
29	114	6	7	9	-	7	9	16	216	455	274	178
30	99	6	6	9	-	7	9	5	241	455	274	175
31	6	-	8	9	-	7	-	5	-	455	274	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	3,433	124	5	111	6,810
November	162	6	5	5.4	321
December	217	8	6	7.0	430
Calendar year 1941	35,728	356	4	97.9	70,870
January	259	9	8	8.4	514
February	205	9	6	7.3	407
March	207	7	6	6.7	411
April	231	9	7	7.7	458
May	510	26	5	16.5	1,010
June	3,206	241	4	107	6,360
July	13,330	503	292	430	26,440
August	10,069	455	274	325	20,010
September	5,223	274	141	174	10,360
Water year 1941-42	37,071	503	4	102	73,530

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

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, 1938-42), and 9 miles west of Lapine.

Records available.- June 1938 to September 1942.

Extremes.- Maximum discharge during year, 1,000 second-feet July 12 (gage height, 4.93 feet); minimum, 378 second-feet (caused by ice jams upstream) sometime during period Dec. 28 to Jan. 14 when recorder was stopped.
1938-42: Maximum discharge, 1,340 second-feet Aug. 4, 1938 (gage height, 6.15 feet); minimum, that in period Dec. 28, 1941 to Jan. 14, 1942.

Remarks.- Records good. Flow regulated by Crane Prairie Reservoir (see p. 53); no regulation at Wickiup Reservoir in 1942.

Rating table, water year 1941-42 (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used July 24 to September 30)

3.3	417	3.8	579	4.6	871
3.4	448	4.0	649	5.0	1,029
3.6	512	4.3	758		

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	535	429	432	a429	458	448	454	464	477	747	898	714
2	535	426	477	a429	464	448	454	464	483	781	913	721
3	535	442	474	a429	464	448	458	470	480	795	918	710
4	535	429	442	a429	474	448	461	467	490	841	918	678
5	535	429	442	a425	470	448	461	464	499	841	910	635
6	528	429	439	a429	464	448	458	464	506	844	910	628
7	535	432	432	a432	454	451	458	464	502	871	910	632
8	528	429	432	a432	451	454	458	467	502	937	841	642
9	528	429	432	a432	451	458	461	467	502	953	784	646
10	528	432	432	a432	454	461	461	470	506	981	776	638
11	525	432	432	a432	451	464	461	470	519	989	776	642
12	525	432	432	a432	451	461	461	470	519	993	776	635
13	522	451	432	a436	451	464	464	470	519	997	784	632
14	519	464	432	a439	445	464	470	486	586	993	740	610
15	519	464	439	442	448	467	467	490	621	993	728	579
16	519	445	442	451	451	458	464	486	621	957	725	579
17	519	439	432	446	451	454	464	486	621	937	725	586
18	519	436	439	448	458	458	464	486	621	890	725	582
19	532	436	442	448	454	454	461	486	621	879	725	582
20	522	432	442	448	448	454	464	486	621	875	725	579
21	512	432	436	448	448	458	461	486	638	875	725	590
22	512	432	436	451	448	461	461	490	642	871	725	586
23	512	432	436	451	448	464	458	490	642	875	717	586
24	512	432	432	451	451	454	461	490	656	894	725	590
25	512	429	432	454	448	451	461	496	663	922	721	586
26	512	429	429	461	445	448	461	490	660	926	717	593
27	532	429	429	470	448	448	464	490	656	930	717	593
28	525	432	a432	454	445	451	464	490	656	926	721	596
29	512	432	a432	451	-	451	464	490	689	926	717	618
30	512	432	a432	451	-	454	467	483	696	922	717	618
31	461	-	a432	451	-	454	-	480	-	922	714	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	16,157	535	461	521	32,050
November	13,048	464	426	435	25,880
December	13,556	477	429	437	26,890
Calendar year 1941	197,718	815	426	542	392,200
January	13,715	470	426	442	27,200
February	12,693	474	448	453	25,180
March	14,104	467	448	455	27,970
April	13,846	470	454	462	27,460
May	14,852	496	464	479	29,460
June	17,414	696	477	580	34,540
July	28,082	997	747	906	55,700
August	24,128	918	714	778	47,860
September	18,606	721	579	620	36,900
Water year 1941-42	200,201	997	425	548	397,100

a No gage-height record; discharge computed on basis of records for station at Pringle Falls and unpublished records for tributaries.
Time basis: Pacific standard time prior to 2 a.m., Feb. 9, 1942; Pacific war time thereafter. To convert war time to standard time, subtract 1 hour.

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 1942.

Average discharge.- 19 years (1923-42), 701 second-feet.

Extremes.- Maximum discharge during year, 987 second-feet July 12-14 (gage height, 2.22 feet); minimum observed, 411 second-feet Jan. 6, but flow may have been less during period of ice effect.
1915-17, 1922-42: Maximum discharge, 1,290 second-feet Aug. 4, 1938 (gage height, 2.88 feet); minimum, 341 second-feet sometime during period Feb. 1-14, 1932, when recorder was stopped.

Remarks.- Records good. No diversion above station. Flow regulated since 1922 by Crane Prairie Reservoir. (See p. 53 .)

Rating table, water year 1941-42, except periods of ice effect,
(gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Aug. 5 to Sept. 21)

1.1	420	1.5	590	2.0	860
1.3	495	1.7	695	2.3	1,035

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	522	427	414	b420	444	438	455	463	475	750	910	717
2	522	424	455	b420	448	438	452	459	483	800	904	712
3	522	434	463	b420	448	438	455	463	479	805	904	695
4	522	430	430	420	452	438	463	463	491	844	904	646
5	522	424	427	417	448	441	459	469	500	849	898	630
6	522	420	424	b420	448	441	459	459	508	854	893	630
7	522	424	420	b424	444	441	459	463	504	871	888	630
8	522	424	420	b424	444	444	459	463	504	927	852	646
9	518	424	420	424	441	448	459	463	504	945	798	646
10	522	424	420	424	441	452	459	463	a515	963	786	651
11	522	420	420	424	444	452	459	463	a525	981	786	640
12	522	420	*420	420	441	452	459	463	a525	981	786	630
13	518	430	420	424	438	452	459	463	a525	987	772	630
14	518	455	427	427	438	452	463	483	a595	981	722	590
15	518	459	427	427	438	459	467	487	a630	975	712	580
16	518	441	438	430	438	448	463	483	a630	951	712	580
17	518	427	430	427	*438	448	463	483	a630	927	712	580
18	518	420	438	430	438	448	463	483	a630	888	712	580
19	531	420	441	430	434	448	459	483	a630	876	712	580
20	526	414	438	427	438	448	463	483	a630	871	706	580
21	518	414	430	430	438	448	459	483	a650	871	706	580
22	518	414	430	430	438	448	459	483	a656	871	706	580
23	513	414	430	434	438	448	459	483	656	866	712	585
24	513	414	427	434	444	448	459	487	673	888	712	585
25	513	414	427	438	438	448	459	491	678	910	712	585
26	513	414	424	444	438	448	459	487	678	915	712	585
27	531	414	b424	455	438	448	459	487	673	915	717	585
28	531	414	b427	448	438	448	463	487	673	915	717	586
29	518	414	427	444	-	448	463	487	700	915	717	615
30	513	417	427	441	-	452	463	483	712	915	712	615
31	479	-	427	441	-	452	-	475	-	915	712	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	16,085	531	479	519	31,900
November	12,704	459	414	423	25,200
December	13,292	463	414	429	26,360
Calendar year 1941	194,994	800	414	534	386,800
January	13,318	455	417	430	26,240
February	12,353	452	434	441	24,500
March	13,855	452	438	447	27,480
April	13,799	467	452	460	27,370
May	14,725	491	459	475	29,210
June	17,622	712	475	589	35,030
July	27,922	987	750	901	55,380
August	23,804	910	706	768	47,210
September	18,473	717	580	616	36,640
Water year 1941-42	197,992	987	414	542	392,700

* Winter discharge measurement made on this day.
a No gage-height record; discharge computed on basis of records for station below Wickiup Reservoir.
b Stage-discharge relation affected by ice.
Time basis: Pacific standard time prior to 2 a.m., Feb. 9, 1942; Pacific war time thereafter. To convert war time to standard time, subtract 1 hour.

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, 1¼ miles downstream from dam site for proposed Benham Falls Reservoir, and 10 miles southwest of Bend.

Records available.- March 1909 to September 1913, August 1920 to September 1921, February 1924 to September 1942. July 1906 to February 1909 and April to September 1914 at West Ranch 7 miles upstream.

Average discharge.- 25 years (1906-13, 1924-42), 1,315 second-feet.

Extremes.- Maximum discharge during year, 1,440 second-feet July 16 (gage height, 1.49 feet); minimum daily, 708 second-feet Jan. 7.

1906-13, 1920-21, 1924-42: Maximum discharge, 5,000 second-feet (estimated) Nov. 27, 1909 (gage height not determined); minimum, 690 second-feet Feb. 8, 9, 1933 (gage height, -0.14 foot).

Remarks.- Records excellent except those for period of no gage-height record, which are fair. Small diversions above station for irrigation. Some regulation since 1922 by Crane Prairie and Crescent Lake Reservoirs. (See p. 53.)

Rating table, water year 1941-42 (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Oct. 1-19 and July 1 to Sept.30)

0	725	0.6	945	1.2	1,220
.2	790	.8	1,030	1.6	1,420
.4	865	1.0	1,120		

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	822	814	762	a721	837	783	833	953	1,060	1,100	1,320	1,020
2	822	762	790	a718	833	786	845	941	1,050	1,120	1,320	1,020
3	822	762	841	a714	837	790	857	941	1,040	1,160	1,310	1,030
4	825	776	877	a712	845	794	869	941	1,030	1,180	1,300	1,000
5	829	766	921	a710	853	808	877	945	1,030	1,200	1,300	965
6	829	758	957	a709	849	811	885	945	1,030	1,250	1,290	945
7	825	766	933	a708	837	814	889	949	1,020	1,260	1,280	941
8	829	766	893	a758	825	822	893	933	1,010	1,280	1,280	941
9	829	758	857	a814	818	833	901	913	1,010	1,320	1,230	957
10	829	749	818	a859	818	853	909	909	1,000	1,350	1,160	949
11	829	746	800	a830	818	861	917	913	1,000	1,360	1,150	945
12	825	740	794	a812	818	881	921	929	1,010	1,380	1,150	941
13	829	743	790	a804	818	893	929	933	1,010	1,400	1,140	937
14	825	772	800	a804	814	885	937	941	1,010	1,420	1,130	929
15	822	818	811	a812	804	866	957	961	1,040	1,420	1,100	901
16	822	845	829	a797	800	849	965	973	1,070	1,440	1,080	889
17	822	881	849	a790	797	837	969	969	1,070	1,420	1,080	885
18	822	893	853	a790	794	833	977	969	1,060	1,400	1,070	877
19	829	877	877	786	794	829	977	957	1,060	1,360	1,070	877
20	837	822	893	776	794	829	973	941	1,060	1,340	1,060	877
21	837	786	897	776	790	829	957	933	1,050	1,340	1,050	877
22	825	780	941	772	790	829	941	933	1,050	1,320	1,050	877
23	825	769	953	776	786	829	941	933	1,060	1,300	1,040	873
24	825	776	937	776	783	829	941	941	1,050	1,300	1,040	873
25	825	776	877	780	783	825	949	973	1,060	1,320	1,030	873
26	825	755	833	797	783	822	957	1,010	1,060	1,330	1,030	877
27	837	746	a785	826	783	814	965	1,030	1,060	1,340	1,030	877
28	857	755	a754	829	783	814	969	1,050	1,060	1,340	1,030	877
29	857	762	a743	825	-	814	961	1,060	1,070	1,320	1,030	877
30	849	762	a733	833	-	818	957	1,070	1,080	1,320	1,030	889
31	845	-	a728	837	-	825	-	1,080	-	1,320	1,020	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	25,730	857	822	830	51,030
November	23,481	893	740	783	46,570
December	26,126	957	728	843	51,820
Calendar year 1941	331,784	1,200	728	909	658,100
January	24,250	859	708	782	48,100
February	22,684	853	783	810	44,990
March	25,704	893	783	829	50,980
April	27,618	977	833	927	55,180
May	29,869	1,080	909	964	59,240
June	31,270	1,080	1,000	1,042	62,020
July	40,710	1,440	1,100	1,313	80,750
August	35,200	1,320	1,020	1,135	69,820
September	27,596	1,030	873	920	54,740
Water year 1941-42	340,438	1,440	708	933	675,200

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

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

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 1942.

Average discharge.- 16 years, 1,036 second-feet.

Extremes.- Maximum discharge during year, 1,220 second-feet July 14-16 (gage height, 1.05 feet); minimum, 568 second-feet sometime during period Dec. 25 to Jan. 11 (gage height, 0.01 foot), caused by ice jam upstream.
1926-42: Maximum discharge, 1,780 second-feet Jan. 3, 1928 (gage height, 1.55 feet); minimum, that in period Dec. 25, 1941, to Jan. 11, 1942.

Remarks.- Records excellent except those for periods of no gage-height record, which are fair. Arnold Canal diverts water above station for irrigation. Flow regulated by Crescent Lake and Crane Prairie Reservoirs. (See p. 53 .)

Rating table, water year 1941-42 (gage height, in feet, and discharge, in second-feet)

0.3	685	0.9	1,090
.5	795	1.1	1,270
.7	930		

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	747	725	730	a702	789	709	783	795	888	946	1,130	930
2	741	685	753	a698	789	700	795	789	888	970	1,130	902
3	741	690	789	a694	795	702	802	789	874	994	1,110	888
4	741	695	821	a692	802	727	802	789	867	1,010	1,110	867
5	735	690	854	a690	802	760	808	789	888	1,030	1,100	881
6	741	680	881	a689	795	763	814	789	888	1,060	1,100	867
7	735	685	860	a688	783	765	821	795	874	1,070	1,100	860
8	735	690	828	a728	777	774	814	840	867	1,080	1,090	860
9	735	685	802	a773	759	685	808	783	867	1,120	1,050	874
10	735	680	765	a810	765	805	802	771	867	1,140	994	874
11	741	700	747	a790	771	815	795	777	867	1,160	970	860
12	735	715	735	777	771	832	802	789	874	1,170	970	860
13	735	725	715	771	771	845	808	795	874	1,210	962	854
14	735	765	715	771	765	840	808	802	874	1,220	954	847
15	735	789	710	783	759	820	814	821	889	1,220	954	828
16	735	808	765	765	753	802	821	828	938	1,220	978	808
17	730	828	795	759	753	792	821	828	930	1,210	978	808
18	735	840	802	759	747	787	828	828	923	1,180	978	808
19	735	828	821	753	747	783	828	821	923	1,150	970	808
20	741	789	828	747	747	777	821	808	916	1,140	962	808
21	741	747	840	741	741	777	808	802	916	1,130	954	808
22	735	735	867	741	741	777	795	802	916	1,120	938	808
23	730	730	867	741	735	777	789	802	930	1,110	938	802
24	730	741	860	730	741	783	789	808	923	1,100	938	802
25	730	735	a810	730	741	777	789	828	930	1,110	938	802
26	730	725	a782	741	735	771	795	867	938	1,130	938	802
27	735	715	a750	771	735	771	802	881	938	1,140	930	802
28	747	725	a733	759	735	765	808	902	938	1,140	930	795
29	747	730	a722	771	-	765	802	916	938	1,130	930	802
30	741	725	a714	789	-	771	795	902	946	1,130	930	814
31	741	-	a708	789	-	777	-	902	-	1,130	930	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	22,850	747	730	737	45,320
November	22,000	840	680	733	43,640
December	24,369	881	708	786	48,340
Calendar year 1941	302,241	1,090	720	828	599,500
January	23,142	810	688	747	45,900
February	21,344	802	735	762	42,340
March	24,094	845	700	777	47,790
April	24,167	828	783	806	47,930
May	25,438	916	771	821	50,460
June	27,089	946	867	903	53,730
July	34,670	1,220	946	1,118	68,770
August	30,884	1,130	930	996	61,260
September	25,129	930	795	838	49,840
Water year 1941-42	305,176	1,220	680	836	605,300

a No gage-height record; discharge computed on basis of records for stations above Benham Falls and below Bend, and diversions from Deschutes River near Bend.

Time basis: Pacific standard time prior to 2 a.m., Feb. 9, 1941; Pacific war time thereafter. To convert war time to standard time, subtract 1 hour.

Deschutes River below Bend, Oreg.

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

Records available.- October 1914 to September 1942.

Average discharge.- 28 years, 645 second-feet.

Extremes.- Maximum discharge during year, 969 second-feet Dec. 23 (gage height, 2.91 feet); minimum, 5 second-feet Sept. 8 (gage height, 0.77 foot).
1914-42: Maximum discharge, 2,500 second-feet Dec. 7, 1921 (gage height, 3.9 feet); minimum, 1 second-foot Aug. 25, 1930.
Maximum discharge known near this site since 1905, 4,820 second-feet Nov. 27, 1909.

Remarks.- Records good except those for period of ice effect, which are fair. Six large canals divert water above station for irrigation. Flow regulated by hydroelectric plant at Bend, and since 1922 by Crescent Lake and Crane Prairie Reservoirs. (See p. 53.)

Rating tables, water year 1941-42, except period of ice effect (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used June 1 to Sept. 30)

Oct. 1 to Dec. 23				Dec. 24 to Sept. 30					
1.4	84	2.3	475	0.8	7	1.2	47	2.1	355
1.6	134	2.6	705	.9	12	1.4	88	2.4	550
1.8	200	2.9	960	1.0	20	1.6	141	2.8	870
2.0	289			1.1	32	1.8	210		

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	100	h146	364	b690	828	737	382	100	68	16	16	20
2	93	a100	331	b686	819	713	339	98	56	18	16	20
3	105	96	348	b682	828	705	328	106	59	20	16	30
4	116	102	386	b678	853	713	317	103	31	20	16	16
5	105	129	512	b675	836	777	328	96	36	19	18	63
6	107	126	729	b672	794	769	317	96	26	27	18	28
7	106	129	713	b670	769	769	263	98	20	22	16	18
8	100	126	a658	b728	761	802	232	130	18	24	16	6
9	105	109	a640	b792	769	802	203	64	17	28	18	28
10	110	134	a631	b850	769	819	203	93	15	49	22	25
11	110	385	a726	b820	777	802	163	93	14	42	21	16
12	112	418	a777	802	785	810	163	75	16	40	20	17
13	110	373	745	785	802	828	170	35	16	42	20	16
14	105	432	761	785	794	836	167	35	14	40	19	16
15	102	580	761	745	785	853	151	30	17	25	18	21
16	105	625	819	769	769	828	157	31	17	25	27	18
17	110	665	853	769	753	810	154	30	14	24	25	19
18	112	689	870	777	721	802	157	30	14	24	20	19
19	a103	689	888	761	753	802	141	21	17	18	20	18
20	a99	625	844	753	769	802	133	18	14	14	19	22
21	a101	580	844	745	761	802	110	17	18	14	21	18
22	a112	558	906	737	689	802	103	26	19	14	19	18
23	h112	535	933	524	403	810	103	24	19	15	17	16
24	h110	558	906	323	312	794	110	21	16	15	18	16
25	h102	550	836	361	312	753	106	26	21	16	17	14
26	a102	535	802	397	344	769	116	58	22	16	17	16
27	h115	512	745	428	522	721	121	75	22	19	22	14
28	h112	520	b725	705	745	713	124	106	15	18	24	18
29	h126	528	b710	769	-	625	119	119	15	17	24	15
30	h118	442	b700	802	-	558	116	88	17	17	24	19
31	h112	-	b695	819	-	565	-	77	-	17	24	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	3,335	126	93	108	6,610
November	11,996	689	96	400	23,790
December	22,147	933	331	714	43,930
Calendar year 1941	112,984	933	11	310	224,100
January	21,499	850	323	694	42,640
February	19,822	853	312	708	39,320
March	23,691	853	558	764	46,990
April	5,596	382	103	197	11,100
May	2,039	130	17	65.8	4,040
June	683	68	14	22.8	1,350
July	715	49	14	23.1	1,420
August	608	27	16	19.6	1,210
September	600	63	6	20.0	1,190
Water year 1941-42	112,731	933	6	309	223,600

a No gage-height record; discharge computed on basis of records for stations above Benham Falls, above Lava Island, and for diversions near Bend.
b Stage-discharge relation affected by ice.
h Computed from staff-gage reading.
Time basis: Pacific standard time prior to 2 a.m., Feb. 9, 1942; Pacific war time thereafter. To convert war time to standard time, subtract 1 hour.

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, about 1,404 feet (from river-profile map).

Records available.- October 1923 to September 1942.

Average discharge.- 19 years, 4,112 second-feet.

Extremes.- Maximum discharge during year, 6,680 second-feet Apr. 9 (gage height, 3.76 feet); minimum, 2,940 second-feet (regulated) Sept. 20 (gage height, 1.41 feet).
1923-42: Maximum discharge, 11,300 second-feet Apr. 20, 1938 (gage height, 5.99 feet); minimum, that of Sept. 20, 1942.

Remarks.- Records excellent except those for period Oct. 13 to Nov. 19, which are good. Large diversions for irrigation in upper river basin.

Rating table, water year 1941-42 (gage height, in feet, and discharge, in second-feet)

1.5	3,060	2.4	4,370	3.3	5,860
1.8	3,470	2.7	4,850	3.7	6,570
2.1	3,910	3.0	5,350		

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	3,190	3,220	3,790	4,120	4,830	4,270	5,780	4,000	4,090	3,470	3,140	3,120
2	3,190	3,190	4,240	3,900	5,040	4,230	6,000	4,030	4,030	3,440	3,140	3,120
3	3,180	3,220	5,130	3,940	5,210	4,240	6,210	4,080	3,960	3,410	3,150	3,140
4	3,230	3,250	4,400	4,090	6,160	4,240	6,260	4,020	3,920	3,400	3,160	3,140
5	3,220	3,250	4,400	4,100	6,160	4,270	6,460	3,970	3,880	3,370	3,150	3,150
6	3,190	3,250	4,500	4,040	5,890	4,290	6,260	3,920	3,860	3,340	3,160	3,140
7	3,200	3,250	4,480	4,090	5,280	4,320	6,140	3,850	3,790	3,340	3,160	3,180
8	3,220	3,230	4,400	3,940	4,980	4,340	6,350	3,800	3,730	3,320	3,160	3,180
9	3,200	3,260	4,310	4,210	4,900	4,450	6,550	3,820	3,720	3,290	3,150	3,200
10	3,220	3,250	4,230	4,240	4,870	4,790	6,530	3,850	3,620	3,270	3,150	3,180
11	3,230	3,220	4,140	4,290	4,830	5,420	6,390	3,850	3,570	3,270	3,140	3,160
12	3,270	3,430	4,210	4,260	4,850	6,010	6,320	3,850	3,510	3,270	3,120	3,180
13	3,250	3,570	4,200	4,210	4,770	6,480	6,390	3,800	3,500	3,270	3,120	3,180
14	3,230	4,100	4,180	4,160	4,670	6,140	6,170	3,730	3,530	3,290	3,110	3,160
15	3,230	4,370	4,120	4,120	4,590	5,520	5,810	3,720	3,610	3,270	3,120	3,160
16	3,200	4,400	4,340	4,140	4,530	5,180	5,470	3,700	3,540	3,270	3,120	3,150
17	3,200	4,370	4,390	4,160	4,470	5,010	5,230	3,780	3,470	3,270	3,140	3,140
18	3,190	4,320	4,590	4,120	4,370	4,950	5,040	3,790	3,410	3,230	3,140	3,140
19	3,220	4,210	4,960	4,090	4,320	4,880	4,820	3,740	3,390	3,220	3,140	3,140
20	3,200	4,090	4,950	4,060	4,340	4,820	4,720	3,730	3,370	3,200	3,140	3,140
21	3,190	4,030	5,150	4,060	4,320	4,800	4,710	3,760	3,340	3,200	3,140	3,140
22	3,180	3,960	5,300	4,040	4,320	4,830	4,670	3,880	3,340	3,200	3,120	3,140
23	3,160	3,900	4,960	4,090	4,210	4,960	4,640	3,850	3,340	3,180	3,140	3,140
24	3,180	3,910	4,820	3,820	4,000	5,060	4,500	3,850	3,340	3,150	3,120	3,140
25	3,160	3,850	4,660	3,780	3,940	4,930	4,340	4,030	3,340	3,140	3,120	3,140
26	3,160	3,850	4,480	3,910	3,920	4,770	4,180	3,970	3,330	3,140	3,110	3,120
27	3,190	3,820	4,370	4,160	3,980	4,660	4,120	3,940	3,340	3,140	3,110	3,120
28	3,200	3,820	4,310	4,660	4,140	4,590	4,040	3,980	3,360	3,140	3,110	3,120
29	3,190	3,850	4,320	4,980	-	4,640	4,030	4,000	3,460	3,140	3,110	3,110
30	3,190	3,880	4,340	5,100	-	4,710	4,020	4,240	3,510	3,140	3,110	3,110
31	3,190	-	4,320	4,800	-	5,100	-	4,270	-	3,140	3,110	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	99,250	3,270	3,160	3,202	196,900
November	111,320	4,400	3,190	3,711	220,800
December	139,080	5,300	3,790	4,486	275,900
Calendar year 1941	1,365,540	5,400	3,090	3,741	2,709,000
January	129,680	5,100	3,780	4,183	257,200
February	131,890	6,160	3,920	4,710	261,600
March	150,900	6,480	4,230	4,868	299,300
April	162,150	6,550	4,020	5,405	321,600
May	120,800	4,270	3,700	3,897	239,600
June	107,200	4,090	3,330	3,573	212,600
July	100,920	3,470	3,140	3,255	200,200
August	97,110	3,160	3,110	3,133	192,600
September	94,380	3,200	3,110	3,146	187,200
Water year 1941-42	1,444,680	6,550	3,110	3,958	2,866,000

Peak discharge.- Dec. 3 (9 a.m.) 5,550 sec.-ft.; Feb. 4 (6 p.m.) 6,460 sec.-ft.; Feb. 5 (10 p.m.) 6,480 sec.-ft.; Mar. 13 (1 p.m.) 6,530 sec.-ft.; Apr. 9 (4p.m.) 6,680 sec.-ft.
Time basis: Pacific standard time prior to 2 a.m., Feb. 9, 1942; Pacific war time thereafter. To convert war time to standard time, subtract 1 hour.

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 1942. October 1897 to December 1899 at site near Moro, 10 miles above mouth.

Average discharge.- 37 years (1898-99, 1906-42), 5,726 second-feet.

Extremes.- Maximum discharge during year, 13,400 second-feet Feb. 5 (gage height, 4.82 feet); minimum, 3,490 second-feet Aug. 24 (gage height, 2.10 feet).
1897-99, 1906-42: Maximum discharge, 43,600 second-feet Jan. 7, 1923 (gage height, 10.2 feet), from rating table extended above 15,000 second-feet; minimum, 3,380 second-feet Sept. 16-19, 1931 (gage height, 2.06 feet).

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

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

Rating table, water year 1941-42 (gage height, in feet, and discharge, in second-feet)

2.1	3,490	3.3	7,080
2.4	4,210	3.7	8,600
2.7	5,060	4.1	10,200
3.0	6,030	4.5	12,000

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	3,620	3,710	4,430	4,960	6,170	5,020	6,200	4,990	5,200	4,110	3,600	3,580
2	3,640	3,760	4,410	4,520	7,230	5,140	6,970	4,900	5,020	4,060	3,600	3,580
3	3,640	3,810	6,790	4,480	6,100	5,170	7,150	4,960	4,930	4,030	3,600	3,580
4	3,640	3,830	6,830	4,640	10,500	5,140	7,380	4,930	4,810	4,000	3,620	3,580
5	3,710	3,850	5,960	4,610	11,700	5,110	7,560	4,870	4,750	3,950	3,640	3,580
6	3,670	3,830	5,640	4,640	10,700	5,230	7,750	4,810	4,720	3,900	3,640	3,600
7	3,670	3,810	5,700	4,660	9,120	5,170	7,410	4,720	4,810	3,880	3,620	3,600
8	3,690	3,810	5,440	4,640	7,980	5,200	7,490	4,690	4,660	3,880	3,620	3,600
9	3,710	3,780	5,290	4,610	7,530	5,260	7,790	4,690	4,580	3,850	3,620	3,640
10	3,690	3,780	5,110	4,930	7,830	5,770	7,980	4,750	4,550	3,830	3,620	3,640
11	3,690	3,780	4,960	4,930	7,680	6,620	7,910	4,720	4,430	3,810	3,600	3,620
12	3,710	3,780	4,870	4,960	7,190	7,340	7,830	4,720	4,380	3,810	3,580	3,620
13	3,730	4,050	4,900	4,870	6,760	7,830	7,870	4,660	4,290	3,810	3,580	3,620
14	3,710	4,380	4,870	4,810	6,370	7,940	7,910	4,610	4,240	3,860	3,580	3,620
15	3,690	5,200	4,870	4,780	6,170	7,260	7,560	4,580	4,270	3,870	3,580	3,620
16	3,670	6,000	5,080	4,690	6,000	6,620	7,080	4,580	4,410	3,810	3,580	3,600
17	3,670	5,320	5,480	4,750	5,860	5,300	6,680	4,550	4,270	3,810	3,580	3,600
18	3,670	5,110	5,440	4,750	5,640	6,060	6,440	4,610	4,160	3,810	3,580	3,580
19	3,690	4,990	6,580	4,720	5,410	5,960	6,170	4,610	4,110	3,760	3,580	3,580
20	3,710	4,780	7,300	4,660	5,320	5,830	5,930	4,660	4,080	3,730	3,580	3,580
21	3,690	4,640	6,860	4,640	5,350	5,770	5,900	4,690	4,030	3,710	3,580	3,600
22	3,670	4,520	6,860	4,580	5,260	5,730	5,960	4,870	4,000	3,710	3,580	3,600
23	3,670	4,460	6,650	4,610	5,230	5,800	5,930	5,110	3,980	3,690	3,560	3,580
24	3,670	4,410	6,270	4,660	5,110	5,930	5,830	5,050	4,000	3,670	3,560	3,600
25	3,670	4,380	5,930	4,350	4,900	5,930	5,640	5,200	4,030	3,640	3,560	3,600
26	3,670	4,350	5,640	4,490	4,810	5,770	5,440	5,480	4,030	3,640	3,560	3,600
27	3,690	4,320	5,410	5,960	4,750	5,600	5,260	5,260	4,000	3,640	3,560	3,600
28	3,710	4,320	5,230	6,790	4,870	5,440	5,170	5,170	4,000	3,620	3,560	3,600
29	3,710	4,320	5,170	6,620	-	5,410	5,020	5,110	4,000	3,620	3,560	3,600
30	3,690	4,350	5,170	6,540	-	5,480	4,990	5,080	4,080	3,620	3,560	3,580
31	3,690	-	5,140	6,270	-	5,640	-	5,290	-	3,600	3,560	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	114,150	3,730	3,620	3,682	226,400
November	129,430	6,000	3,710	4,314	256,700
December	174,280	7,300	4,410	5,622	345,700
Calendar year 1941	1,602,250	7,300	3,530	4,390	3,178,000
January	154,100	6,790	4,350	4,971	305,700
February	189,540	11,700	4,750	6,769	375,900
March	182,470	7,940	5,020	5,888	361,900
April	200,200	7,980	4,990	6,673	397,100
May	150,920	5,480	4,550	4,868	299,300
June	130,820	5,200	3,980	4,361	259,500
July	117,670	4,110	3,600	3,796	233,400
August	111,200	3,640	3,560	3,587	220,600
September	107,980	3,640	3,580	3,599	214,200
Water year 1941-42	1,762,760	11,700	3,560	4,829	3,496,000

Peak discharge.- Dec. 4 (1 a.m.) 8,100 sec.-ft.; Feb. 4 (1 p.m.) 11,800 sec.-ft.; Feb. 5 (4 a.m.) 13,400 sec.-ft.; Feb. 6 (10 a.m.) 11,800 sec.-ft.

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

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 1942. Maximum contents observed during year, 35,980 acre-feet June 9, 10 (gage height, 40.79 feet); no usable contents Oct. 1-30. Maximum contents observed during period 1922-42, 50,830 acre-feet Jan. 10-13, 1924 (gage height, 44.10 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 U.S. Bureau of Reclamation in 1939-40. Capacity, 55,340 acre-feet between gage-heights 24.0 feet (lip of fish screen structure) and 45 feet (crest of spillway). Natural flow passing through reservoir when outlet gates are open prevents withdrawal of storage to elevation of sill of gates. Water used for irrigation near Bend and Redmond. Gage read once or 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 1942. Maximum contents observed during year, 24,400 acre-feet May 30 (gage height, 6.87 feet); minimum observed, 13,720 acre-feet Oct. 25. Maximum contents observed during period 1922-42, 72,460 acre-feet July 15, 1923 (gage height, 19.55 feet); minimum observed, 9,640 acre-feet Oct. 21, 1931 (gage height, 2.75 feet).

Reservoir is formed by dam of earth and logs, completed and storage begun in 1922. Capacity, 86,050 acre-feet between gage heights 0.0 foot (sill of outlet gate), and 23.0 feet (crest of spillway). Dead storage not known; records given herein represent usable contents. Water is diverted from Deschutes River at Bend and used by Deschutes County Municipal Improvement District for irrigation near Tumalo. Gage read about once a week.

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

Gage height and contents, water year October 1941 to September 1942

Date	Crane Prairie Reservoir			Crescent Lake Reservoir		
	Gage height (feet)†	Contents (acre-feet)	Change in contents during month (acre-feet)	Gage height (feet)	Contents (acre-feet)	Change in contents during month (acre-feet)
Sept. 30	24.37	0	-	-	a14,360	-
Oct. 31	28.36	73	+73	-	a13,780	-580
Nov. 30	31.89	5,176	+5,103	-	a15,790	+2,010
Dec. 31	34.71	13,170	+7,994	-	a20,530	+4,740
Calendar year 1941	-	-	-320	- -	-	-1,190
Jan. 31	36.48	19,150	+5,980	-	a21,310	+780
Feb. 28	37.80	23,980	+4,830	-	a21,800	+490
Mar. 31	-	a27,020	+3,040	-	a22,010	+210
Apr. 30	39.54	30,780	+3,760	-	a23,000	+990
May 31	40.52	34,830	+4,050	-	a24,380	+1,380
June 30	39.90	32,250	-2,580	-	a23,990	-390
July 31	34.45	12,340	-19,910	-	a17,590	-6,400
Aug. 31	30.10	1,721	-10,619	-	a15,130	-2,460
Sept. 30	29.22	644	-1,077	-	a14,210	-920
Water year 1941-42	-	-	+644	-	-	-150

† Time of day variable.
a No gage-height record; contents interpolated.
Time basis: Pacific standard time prior to 2 a.m., Feb. 9, 1942; Pacific war time thereafter. To convert war time to standard time, subtract 1 hour.

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 1942.

Extremes.- Maximum discharge during year, 57 second-feet July 19, 21 (gage height, 0.79 foot); minimum recorded, 28 second-feet Nov. 18, 21.
1923-25, 1937-42: Maximum discharge, 118 second-feet May 16, 1938 (gage height, 0.99 foot); minimum, 28 second-feet Mar. 22, Apr. 5-10, 1941.

Remarks.- Records good except those for period Dec. 26 to May 31, which are fair. No diversion or regulation above station.

Discharge, in second-feet, water year October 1941 to September 1942

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

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	1,000	33	32	32.3	1,980
November	941	33	30	31.4	1,870
December	1,040	34	33	33.5	2,060
Calendar year 1941	12,554	39	28	34.4	24,900
January	992	-	-	32.0	1,970
February	845	31	30	30.2	1,680
March	988	33	30	31.9	1,960
April	1,086	39	33	36.2	2,150
May	1,379	49	41	44.5	2,740
June	1,420	51	45	47.3	2,820
July	1,661	55	51	53.6	3,290
August	1,493	51	45	48.2	2,960
September	1,298	45	43	43.3	2,570
Water year 1941-42	14,143	55	30	38.7	28,050

Note.- No gage-height record Dec. 26 to Feb. 11; discharge interpolated.
Time basis: Pacific standard time prior to 2 a.m., Feb. 9, 1942; Pacific war time thereafter. To convert war time to standard time, subtract 1 hour.

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.

Records available.- June 1922 to September 1925, November 1937 to September 1942.

Extremes.- Maximum discharge during year, 24 second-feet Aug. 13, 14 (gage height, 1.80 feet); practically no flow Nov. 14.
1922-25, 1937-42: Maximum discharge, 47 second-feet July 14-16, 1938; minimum, that of Nov. 14, 1941.

Remarks.- Records good except those below 4 second-feet and those for periods of no gage-height record, which are poor. No diversion or regulation above station.

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2.5	1.5	1.5		7.0	9.5	8.5	12	16	20	18	15
2	3.0	1.0	1.5		7.0	9.5	8.5	12	16	20	18	15
3	3.0	1.0	1.0		7.0	9.5	9.5	12	16	21	18	15
4	3.0	1.0	1.0		7.5	9.5	8.5	12	16	21	18	15
5	3.0	1.5	1.5		7.5	8.5	8.5	12	16	21	18	15
6	3.0	1.5	1.5		7.5	8.5	8.5	12	16	21	18	15
7	3.0	1.5	2.0		7.5	9.5	9.5	12	16	21	19	15
8	2.5	1.5	2.0		7.5	9.5	9.5	13	17	21	20	15
9	2.5	1.5	2.0		8.0	8.5	9.5	13	17	21	21	15
10	2.0	1.0	2.0		8.0	8.5	9.5	13	17	21	21	15
11	2.0	1.0	2.0		8.0	8.5	9.5	13	18	20	22	15
12	2.0	1.0	2.0		8.0	9.5	9.5	13	18	20	22	15
13	2.0	1.0	2.5		8.0	9.5	10	13	19	20	23	15
14	2.0	.5	2.5		8.5	8.5	9.5	12	19	20	23	14
15	2.0	.5	2.0		8.5	9.5	10	12	20	19	23	14
16	2.0	.5	2.0	5.5	8.5	8.5	11	12	20	18	23	13
17	2.0	.5	2.5		8.5	9.5	10	12	20	18	23	12
18	2.0	.5	2.0		8.5	9.5	10	12	21	18	21	12
19	1.5	.5	3.0		9.5	9.5	11	12	21	18	21	12
20	1.5	.5	2.0		9.5	9.5	11	14	21	19	21	12
21	1.5	1.0	3.0		9.5	9.5	11	14	21	19	20	12
22	1.5	1.0	3.5		8.5	9.5	11	14	21	19	20	11
23	1.5	1.0	3.5		8.5	9.5	11	14	21	19	18	11
24	1.5	1.0	3.5		9.5	9.5	11	14	21	19	17	11
25	1.5	1.0	3.5		8.5	8.5	11	14	20	18	16	11
26	1.5	1.0	3.5		9.5	8.5	12	14	19	18	15	11
27	1.5	1.0	3.5		8.5	9.5	12	14	19	18	15	11
28	1.0	1.0	3.5		8.5	9.5	12	14	20	18	15	10
29	1.0	1.0	3.5		-	9.5	12	14	20	18	15	10
30	1.5	1.0	3.5		-	9.5	12	14	20	18	15	10
31	1.5	-	4.0		-	9.5	-	15	-	18	15	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	62.0	3.0	1.0	2.00	123
November	29.5	1.5	.5	.98	59
December	77.0	4.0	1.0	2.48	153
Calendar year 1941	1,657.2	8.5	.5	4.54	3,290
January	170.5	-	-	5.50	338
February	231.0	9.5	7.0	8.25	458
March	285.5	9.5	8.5	9.21	566
April	306.5	12	8.5	10.2	608
May	403	15	12	13.0	799
June	562	21	16	18.7	1,110
July	600	21	18	19.4	1,190
August	592	23	15	19.1	1,170
September	392	15	10	13.1	778
Water year 1941-42	3,711.0	23	.5	10.2	7,350

Note.- No gage-height record Nov. 6-12, 15-27, Dec. 27 to Feb. 11; discharge interpolated.
Time basis: Pacific standard time prior to 2 a.m., Feb. 9, 1942; Pacific war time thereafter. To convert war time to standard time, subtract 1 hour.

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 1942.

Extremes.- Maximum discharge during year, 223 second-feet Dec. 4 (gage height, 1.04 feet), from rating curve extended above 120 second-feet; minimum, 13 second-feet Sept. 18-20. 1911-14, 1923-24, 1933-42: Maximum discharge, 390 second-feet June 14, 1912, Jan. 4, 1936; minimum, 12 second-feet sometime in period Sept. 7-30, 1934.

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

Rating table, water year 1941-42 (gage height, in feet, and discharge, in second-feet)

0.2	12	0.6	66
.3	18	.7	95
.4	28	.8	130
.5	44	.9	168

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	19	31	61	80	64	50	40	69	112	75	31	18
2	19	31	98	78	66	50	38	69	116	75	30	17
3	19	40	160	72	69	48	38	75	116	72	30	18
4	21	46	164	69	78	48	40	78	112	75	28	19
5	21	46	130	64	80	48	40	75	112	69	28	19
6	20	46	130	61	86	44	40	72	112	69	28	18
7	21	46	123	78	83	44	40	72	112	66	28	18
8	21	44	120	86	80	42	40	72	109	61	28	19
9	21	44	116	83	80	44	40	75	112	59	28	20
10	21	42	112	78	80	48	42	75	109	56	28	18
11	21	42	109	75	75	50	42	75	106	54	27	17
12	23	40	106	69	69	52	44	75	98	50	26	17
13	22	50	98	64	66	52	46	72	95	48	23	17
14	22	83	98	59	61	52	50	72	92	46	22	17
15	22	126	102	56	59	50	52	75	102	46	23	18
16	21	149	106	56	59	52	54	72	102	46	23	17
17	21	145	106	56	56	52	64	72	98	46	23	16
18	21	130	112	52	52	50	56	72	95	44	23	14
19	24	120	116	50	50	48	56	72	92	44	23	13
20	24	112	116	48	52	46	59	72	86	44	23	14
21	24	102	116	46	52	44	61	75	83	44	22	14
22	24	95	116	44	52	44	69	89	80	42	22	14
23	23	86	116	44	50	44	69	95	75	42	23	15
24	23	83	112	44	52	42	72	106	76	42	23	16
25	23	78	109	46	54	44	75	120	83	40	21	16
26	23	72	106	50	52	42	72	130	89	38	18	16
27	26	69	102	59	52	40	72	130	83	38	17	17
28	28	64	102	61	50	38	72	126	80	37	16	17
29	28	61	98	56	-	38	69	123	78	36	17	17
30	28	61	95	54	-	38	69	120	78	34	17	17
31	30	-	89	56	-	37	-	116	-	32	17	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acre-feet
October	704	30	19	22.7	0.582	0.67	1,400
November	2,184	149	31	72.8	1.87	2.08	4,330
December	3,444	164	61	111	2.85	3.28	6,830
Calendar year 1941	19,231	164	18	52.7	1.35	18.33	38,150
January	1,894	86	44	61.1	1.57	1.81	3,760
February	1,779	66	50	63.5	1.63	1.70	3,530
March	1,421	52	37	45.8	1.17	1.36	2,820
April	1,611	75	38	53.7	1.38	1.54	3,200
May	2,691	130	69	86.8	2.23	2.57	5,340
June	2,892	116	75	96.4	2.47	2.76	5,740
July	1,570	76	32	50.6	1.30	1.50	3,110
August	736	31	16	23.7	.608	.70	1,460
September	503	20	13	16.8	.431	.48	998
Water year 1941-42	21,429	164	13	58.7	1.51	20.45	42,520

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

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 1942 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, 100 second-feet Sept. 8 (gage height, 1.23 feet), caused by release of water from fish hatchery; minimum, 74 second-feet Apr. 6 (gage height, 0.86 feet).
1938-42: Maximum discharge, 157 second-feet Aug. 19-21, 26, Oct. 28, 1933; minimum, that of Apr. 6, 1942.

Remarks.- Records fair. Water diverted above station only to ponds at fish hatcheries, from which water returns to river above station; no regulation.

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

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	86	82	80	79	78	77	78	81	80	84	87	87
2	86	82	80	78	78	77	78	80	80	84	87	87
3	86	82	80	78	78	77	78	80	80	85	87	87
4	85	82	80	78	79	77	78	80	80	85	87	87
5	85	82	80	78	78	77	78	80	81	85	87	87
6	85	82	80	78	78	77	78	80	80	86	87	87
7	85	82	80	78	78	77	78	80	82	86	86	87
8	85	82	79	78	78	77	78	80	82	86	86	87
9	84	82	78	78	78	77	79	80	81	87	86	87
10	84	81	78	78	78	77	79	80	81	87	86	86
11	84	81	78	78	78	77	79	80	81	87	86	86
12	84	80	79	78	78	77	80	80	81	87	86	86
13	84	81	79	78	78	77	80	80	82	87	86	86
14	84	82	79	78	78	77	80	80	82	88	86	86
15	84	81	79	78	78	77	80	80	82	88	86	86
16	84	80	79	78	78	77	a80	80	82	88	85	85
17	83	80	79	78	78	77	a80	80	82	88	85	85
18	82	80	80	78	78	78	a80	80	82	88	85	85
19	84	80	80	78	78	78	80	80	83	88	85	85
20	83	80	79	78	78	78	80	80	83	88	85	85
21	83	80	78	78	78	78	80	80	83	88	85	85
22	82	80	79	78	78	78	80	80	84	88	85	85
23	83	80	79	78	78	78	80	80	84	88	86	86
24	83	80	79	78	78	78	80	80	84	88	86	85
25	83	80	79	78	78	78	80	80	84	88	86	85
26	83	80	79	78	78	78	80	80	84	88	86	85
27	84	80	80	78	78	78	80	80	84	88	86	85
28	83	80	80	78	77	78	81	80	84	88	86	85
29	83	80	80	78	-	78	81	80	84	88	86	84
30	82	79	80	78	-	78	81	80	84	87	86	85
31	82	-	79	78	-	78	-	80	-	87	87	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	2,598	86	82	83.8	5,150
November	2,423	82	79	80.8	4,810
December	2,458	80	78	79.3	4,880
Calendar year 1941	33,616	105	78	92.1	66,670
January	2,419	79	78	78.0	4,800
February	2,184	79	77	78.0	4,330
March	2,401	78	77	77.5	4,760
April	2,384	81	78	79.5	4,730
May	2,481	81	80	80.0	4,920
June	2,466	84	80	82.2	4,890
July	2,698	88	84	87.0	5,350
August	2,666	87	85	86.0	5,290
September	2,574	87	84	85.8	5,110
Water year 1941-42	29,752	88	77	81.5	59,020

a No gage-height record; discharge interpolated.
Time basis: Pacific standard time prior to 2 a.m., Feb. 9, 1942; Pacific war time thereafter. To convert war time to standard time, subtract 1 hour.

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 1942.

Average discharge.- 18 years (1924-42), 141 second-feet.

Extremes.- Maximum discharge during year, 369 second-feet May 30 (gage height, 4.10 feet); minimum, 21 second-feet Sept. 28-30 (gage height, 1.07 feet).
1910-13, 1918, 1920, 1924-42: Maximum discharge, 792 second-feet June 13, 1933 (gage height, 6.43 feet); minimum, 8 second-feet Sept. 2, 3, 1931 (gage height, 0.71 foot).

Remarks.- Records good except those for periods of backwater from aquatic vegetation, which are fair, and those for periods of ice effect or no gage-height record, which are poor. Small diversions above station for irrigation. Flow regulated since August 1922 by Crescent Lake Reservoir. (See p. 53.)

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	33	49	76	63	128	97	130	218	337	132	107	30
2	34	49	92	65	132	98	137	212	313	129	102	30
3	34	52	155	65	136	97	141	211	298	123	97	30
4	34	59	281	65	145	97	146	214	288	121	92	32
5	34	76	246	65	146	98	162	223	268	148	91	31
6	34	77	218	65	130	98	165	221	260	144	89	28
7	36	68	180	65	120	98	171	200	256	142	84	27
8	36	58	162	68	110	102	182	187	255	136	81	26
9	36	53	138	75	112	109	190	178	254	134	79	26
10	36	50	121	88	111	126	199	185	254	131	78	26
11	36	48	118	105	110	153	204	198	249	129	76	26
12	36	*44	107	111	103	167	210	208	246	146	69	25
13	36	45	113	*108	95	159	219	208	227	151	67	28
14	36	63	115	100	*90	134	222	207	210	149	67	26
15	36	130	121	95	90	121	233	211	204	149	65	25
16	36	200	136	92	90	119	243	223	199	151	64	25
17	36	199	138	90	*95	117	252	223	198	150	61	25
18	35	184	139	86	98	114	250	207	195	150	60	25
19	38	117	148	84	87	*111	245	195	189	149	55	25
20	41	96	223	82	88	109	238	187	184	142	46	24
21	45	82	264	81	95	112	227	184	176	136	39	24
22	46	84	226	80	90	115	221	186	170	128	37	24
23	44	86	170	87	90	115	221	198	164	127	35	24
24	41	79	*152	92	88	112	232	242	160	126	34	23
25	40	72	120	98	92	106	241	282	156	124	32	24
26	39	66	117	102	97	101	245	313	157	139	30	24
27	44	69	115	126	105	97	242	341	160	104	29	22
28	51	70	115	152	95	99	236	352	157	109	27	21
29	55	72	117	172	-	102	233	361	152	109	27	21
30	53	73	122	148	-	107	226	365	141	107	27	21
31	50	-	100	130	-	117	-	349	-	109	28	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	1,221	55	33	39.4	2,420
November	2,450	200	44	81.7	4,860
December	4,625	281	76	149	9,170
Calendar year 1941	31,684	281	33	86.8	62,850
January	2,905	172	63	93.7	5,760
February	2,968	146	87	106	5,890
March	3,507	197	97	113	6,960
April	6,261	252	130	209	12,420
May	7,289	365	178	235	14,460
June	6,477	337	141	216	12,850
July	4,144	151	107	134	8,220
August	1,875	107	27	60.5	3,720
September	766	32	21	25.5	1,520
Water year 1941-42	44,488	365	21	122	88,250

* Winter discharge measurement made on this day.

Note.- Stage-discharge relation affected by aquatic vegetation, Oct. 1 to Dec. 3, June 16 to Sept. 30, and by ice Dec. 23 to Mar. 6. No gage-height record Dec. 27 to Jan. 4. Jan. 14-21; discharge computed on basis of weather records and records for Tumalo Creek near Bend and Squaw Creek near Sisters.

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

Crescent Creek at Crescent Lake, near Crescent, Oreg.

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

Records available.- January 1911 to July 1915, July 1927 to September 1928 (incomplete), October 1928 to September 1942.

Average discharge.- 17 years (1911-14, 1928-42), 34.6 second-feet.

Extremes.- Maximum discharge during year, 106 second-feet July 16, 17 (gage height, 1.67 feet); no flow at times.
1911-15, 1927-42: Maximum discharge, 313 second-feet July 9, 1929, Aug. 9, 1936; no flow at times.

Remarks.- Records good except those for periods of no gage-height record, which are poor. Flow regulated since 1922 by Crescent Lake Reservoir (see p. 53), storage being released May 8 to Aug. 17 for diversion below station through Deschutes County Municipal Improvement District Canal at Bend. No diversion above station.

Rating table, water year 1941-42 (gage height, in feet, and discharge, in second-feet)

0	0	0.7	26.4	1.6	99.0
.2	4	1.0	46.8		
.4	10.8	1.3	71.1		

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0	0.4		1.1					68	39	64	
2	0	.4		.9					68	54	59	
3	.5	.2		.9					68	80	59	
4	1.0	.2		.9					68	80	62	
5	.8	.2		.7				0.2	68	79	54	
6	.8	.2		.7					67	79	52	
7	.6	0		.7					67	78	50	
8	.6	0		.5				8.8	67	78	52	1.0
9	.4	0		.5				17	67	87	53	
10	.4	0		.5				17	66	103	39	
11	.2	0						17	59	100	40	
12	.2	.8	1.5					17	51	98	48	
13	0							17	51	99	45	
14	0							17	51	103	40	
15	0				0.3	0.2	0.2	17	51	102	36	
16	0							17	51	103	31	
17	.4							17	51	106	12	
18	1.0							17	51	103		
19	1.0							17	51	100		
20	1.0							17	51	97		
21	1.0	1.5		.3				17	51	94		
22	.8							34	51	92		
23	.8							67	51	90		.8
24	.8		1.5					67	50	88		
25	.8		1.5					67	45	85	1.0	
26	.6		1.5					67	39	81		
27	.6		1.3					67	39	76		
28	.6		1.3					67	39	75		
29	.6		1.3		-			68	39	78		
30	.4		1.1		-			68	39	75		
31	.4	-	1.1		-		-	68	-	69		-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	16.3	1.0	0	0.53	32
November	29.4	1.5	0	.98	58
December	45.1	1.5	1.1	1.45	89
Calendar year 1941	5,721.2	98	0	15.7	11,340
January	13.7	1.1	-	.44	27
February	e.4	-	-	.30	17
March	6.2	-	-	.20	12
April	6.0	-	-	.20	12
May	871.2	68	-	28.1	1,730
June	1,635	68	39	54.5	3,240
July	2,671	106	39	86.2	5,300
August	810.0	64	-	26.1	1,610
September	27.0	-	-	.90	54
Water year 1941-42	6,139.3	106	0	16.8	12,180

Note.- No gage-height record Oct. 1 to May 7, Aug. 18 to Sept. 30; discharge computed on basis of field estimates of discharge by watermaster.
Time basis.- Pacific standard time prior to 2 a.m., Feb. 9, 1942; Pacific war time thereafter. To convert war time to standard time, subtract 1 hour.

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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 the gaging stations at Benham Falls and below Bend.

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

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

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

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

Records of monthly discharge of these canals, published as a group, are available from October 1926 to September 1942; records for each canal published separately prior to 1926.

Diversions, in acre-feet, water year October 1941 to September 1942

Month	Arnold Canal	Central Oregon Canal	Deschutes County Municipal Improvement District Canal	North Canal	Swalley Canal	Total
October	2,990	18,830	0	16,740	2,810	41,370
November	1,090	5,460	216	11,310	2,170	20,246
December	264	2,230	0	3,510	674	6,678
January	266	1,660	0	1,480	173	3,579
February	0	2,090	0	1,390	375	3,855
March	246	0	0	659	1,120	2,225
April	2,770	18,070	0	16,190	3,060	40,090
May	3,740	22,200	137	19,890	4,930	50,897
June	3,450	24,850	238	20,050	6,130	54,718
July	4,020	29,930	3,370	24,290	6,440	68,050
August	1,760	27,690	1,660	21,910	6,810	59,830
September	282	23,160	0	19,980	4,710	48,132
Water year 1941-42	20,878	176,170	5,621	157,599	39,402	399,670

Note.- Beginning Apr. 1, 1942, records for North Canal include flow diverted in NC-1 lateral 90 feet below station. (Previously station was below NC-1 lateral.)

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

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 1942.
Average discharge.- 27 years (1913-21, 1923-42), 77.2 second-feet, excluding Columbia Southern Canal.
Extremes.- Maximum discharge during year, 836 second-feet Dec. 2 (gage height, 3.51 feet), from rating curve extended above 225 second-feet; minimum, 17 second-feet Apr. 18, 19 (gage height, 1.00 foot).
1906-8, 1911-42: Maximum discharge, 1,420 second-feet about Jan. 6, 1923 (gage height, 4.55 feet), from rating curve extended above 200 second-feet; minimum, 1 second-foot June 28 to July 3, 1940.
Remarks.- Records good except those for periods of ice effect or no gage-height record, which are poor. Crater Creek Canal diverts flow of tributaries of Soda Creek into head of Tumalo Creek. Columbia Southern Canal diverts from creek above station; canal records good. Records of daily discharge do not include diversion by Columbia Southern Canal.

Rating tables, water year 1941-42, except periods of ice effect (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Nov. 4-15)

Oct. 1 to Nov. 15		Nov. 16 to Sept. 30					
1.3	48	1.1	23	1.5	68	2.2	230
1.4	61	1.2	31	1.6	85	2.5	330
1.6	93	1.3	41	1.8	123		
		1.4	53	2.0	170		

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	53	56	60	42	68	51	58	76	71	132	53	46
2	52	56	353	47	71	52	58	73	82	113	53	46
3	52	91	298	47	75	51	59	75	96	113	52	53
4	57	79	150	47	63	51	62	73	109	132	52	47
5	54	64	111	47	55	*52	62	73	119	119	51	46
6	53	57	119	47	55	51	62	80	160	103	49	47
7	54	53	*105	47	55	52	66	92	196	103	49	47
8	54	53	98	49	52	53	70	107	200	94	49	51
9	56	53	92	50	53	56	75	115	196	86	51	51
10	57	51	87	65	52	59	75	98	197	82	51	49
11	57	48	90	63	51	59	83	90	189	86	49	48
12	57	49	80	58	51	58	94	85	215	73	48	47
13	56	84	80	57	49	59	96	87	207	68	48	47
14	53	144	76	56	51	58	96	90	182	73	48	47
15	52	226	83	55	51	59	71	94	232	76	48	47
16	52	123	90	54	49	59	38	90	104	83	48	47
17	51	89	82	54	49	58	25	85	77	73	48	48
18	51	76	89	60	49	58	21	94	94	65	48	48
19	54	68	113	58	50	58	20	134	90	65	48	47
20	54	68	103	57	53	58	29	130	94	65	48	47
21	54	64	94	57	51	58	56	119	98	65	48	47
22	52	58	87	57	51	56	123	145	101	65	48	46
23	52	58	85	57	49	54	103	141	90	64	48	46
24	52	56	83	67	51	58	98	168	71	60	48	46
25	52	56	82	80	55	56	92	176	103	59	48	46
26	52	53	82	73	52	56	89	123	99	59	47	45
27	56	53	82	69	51	56	89	103	98	59	47	46
28	54	53	88	65	49	54	83	83	107	58	47	47
29	53	54	95	62	-	54	80	75	99	56	47	47
30	53	70	101	60	-	56	82	68	99	56	47	47
31	53		70	60	-	59	-	68	-	54	47	-

Month	Tumalo Creek				Columbia Southern Canal (run-off in acre-feet)	Combined run-off in acre-feet
	Second-foot-days	Discharge in second-feet		Run-off in acre-feet		
		Maximum	*Minimum*	Mean		
October	1,662	57	51	53.6	3,300	0	3,300
November	2,163	226	48	72.1	4,290	0	4,290
December	3,308	353	60	107	6,560	0	6,560
Calendar year 1941	26,064	353	12	71.4	51,690	4,370	56,060
January	1,767	80	42	57.0	3,500	0	3,500
February	1,511	75	49	54.0	3,000	0	3,000
March	1,729	59	51	55.8	3,430	0	3,430
April	2,115	123	20	70.5	4,200	666	4,870
May	3,110	176	68	100	6,170	1,380	7,550
June	3,875	232	71	129	7,690	2,560	10,250
July	2,457	132	54	79.3	4,870	0	4,870
August	1,513	53	47	48.8	3,000	0	3,000
September	1,419	53	45	47.3	2,810	0	2,810
Water year 1941-42	26,629	353	20	73.0	52,820	4,610	57,430

* Winter discharge measurement made on this day.
Note.- Stage-discharge relation affected by ice Dec. 24 to Jan. 22, Feb. 19, 25, 26. No gage-height record Jan. 23 to Feb. 8, June 7-17; discharge computed on basis of weather records and records for Squaw Creek near Sisters and Little Deschutes River near Lapine.
Time basis: Pacific standard time prior to 2 a.m., Feb. 9, 1942; Pacific war time thereafter. To convert war time to standard time, subtract 1 hour.

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 1942. July 1906 to May 1913 at site 700 feet downstream, below intake of McCallister ditch.

Average discharge.- 30 years (1906-18, 1919-20, 1925-42), 101 second-feet.

Extremes.- Maximum discharge during year, 1,130 second-feet Dec. 2 (gage height, 3.33 feet), from rating curve extended above 850 second-feet; minimum, 25 second-feet Nov. 12 (gage height, 0.97 foot).

1906-42: Maximum gage height, about 8.75 feet (over top of gage), Nov. 22, 1909, site and datum then in use (discharge not determined); highest determined peak discharge, that of Dec. 2, 1941; minimum discharge, 19 second-feet Dec. 6, 1922.

Remarks.- Records fair except those for periods Oct. 3 to Nov. 3, Dec. 31 to Feb. 2, which are poor. A canal near mouth of Pole Creek, a tributary above station, diverts entire flow of that creek for irrigation of lands near Sisters.

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	43	42	51	b55	53	45	47	61	98	185	87	62
2	43	42	582	b60	53	45	48	58	102	196	87	66
3	46	105	*368	b60	*53	44	51	58	109	196	89	72
4	55	86	206	b60	53	43	51	56	127	213	85	69
5	50	71	188	b60	51	43	51	58	140	185	87	68
6	48	48	170	b60	50	43	52	62	160	170	91	62
7	47	38	163	b60	50	43	56	74	170	163	96	62
8	46	35	151	b62	46	43	61	83	170	151	93	65
9	46	33	111	63	47	48	65	82	170	138	93	63
10	48	32	98	65	46	51	65	71	166	127	94	56
11	48	32	94	63	45	48	71	66	157	146	83	55
12	48	30	91	62	45	46	79	66	149	120	79	56
13	47	180	91	60	45	46	79	66	146	109	77	59
14	45	195	85	58	46	46	79	69	146	122	79	59
15	43	332	96	57	44	45	71	69	196	125	82	59
16	43	139	106	57	44	45	72	68	140	132	83	53
17	42	97	85	56	44	45	69	69	125	127	87	48
18	42	80	106	60	45	45	68	77	127	179	85	47
19	42	71	157	57	46	46	74	102	111	111	85	48
20	45	69	130	52	51	46	83	125	113	113	85	50
21	45	60	111	50	47	45	100	154	113	120	82	52
22	45	53	102	50	47	45	100	196	120	130	82	53
23	42	56	102	50	46	45	83	185	130	120	82	54
24	42	53	93	58	45	44	79	210	135	109	79	52
25	42	50	96	70	44	45	72	232	138	106	69	52
26	40	47	96	62	44	44	72	160	127	106	65	52
27	42	46	96	57	45	45	69	140	104	106	58	51
28	42	46	102	53	45	45	65	135	106	102	55	51
29	42	48	109	48	-	45	65	130	130	96	56	50
30	42	62	116	47	-	45	65	109	157	91	59	50
31	42	-	b85	50	-	47	-	100	-	89	61	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	1,383	55	40	44.6	2,740
November	2,268	332	30	75.6	4,500
December	4,242	582	51	137	8,410
Calendar year 1941	28,420	582	30	77.9	56,360
January	1,782	70	47	57.5	3,530
February	1,320	53	44	47.1	2,620
March	1,401	51	43	45.2	2,780
April	2,060	100	47	68.7	4,090
May	3,191	232	56	103	6,330
June	4,082	196	98	136	8,100
July	4,115	213	89	133	8,160
August	2,475	96	55	79.8	4,910
September	1,696	72	47	56.5	3,360
Water year 1941-42	30,017	582	30	82.2	59,530

Peak discharge.- Nov. 3 (12:30 p.m.) 639 sec.-ft.; Nov. 13 (9:30 p.m.) 480 sec.-ft.; Nov. 15 (10 a.m.) 490 sec.-ft.; Dec. 2 (6 p.m.) 1,130 sec.-ft.; May 25 (2:30 a.m.) 318 sec.-ft.; June 15 (7 a.m.) 264 sec.-ft.

* Winter discharge measurement made on this day.

b Stage-discharge relation affected by ice.

Note.- Stage-discharge relation affected by drift on control, Oct. 3 to Nov. 3; no gage-height record Jan. 9 to Feb. 2, Apr. 7-9, July 12. Discharge for these periods computed on basis of weather records and records for Tumalo Creek near Bend.

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

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.

Records available.- November 1908 to August 1911, December 1939 to September 1942.

Extremes.- Maximum discharge during year, 3,120 second-feet Apr. 8 (gage height, 4.89 feet); minimum, 8.9 second-feet Sept. 7.
1908-11, 1939-42: Maximum discharge recorded, 5,540 second-feet Mar. 26, 1940 (gage height, 6.22 feet); minimum, 4.4 second-feet July 12, 1940.
Flood of Mar. 1, 1910, reached a stage of 10.5 feet, site and datum then in use, from floodmarks by gage observer (discharge not determined).

Remarks.- Records good except those for period of ice effect, and those between 40 and 300 second-feet, which are fair. Several small diversions above station; one small canal diverts on right bank 800 feet above station for irrigation downstream; no regulation.

Rating tables, water year 1941-42, except period of ice effect (gage height, in feet, and discharge, in second-feet)

Oct. 1 to Jan. 28				Jan. 29 to Sept. 30					
1.4	37	2.6	360	1.1	10.5	2.0	167	3.5	1,120
1.7	86	3.0	595	1.3	29	2.3	260	4.0	1,770
2.0	155	3.5	1,060	1.5	57	2.6	380	4.5	2,500
2.3	240	4.0	1,720	1.7	95	3.0	635	5.0	3,310

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	37	69	135	110	395	204	2,230	760	518	131	17	21
2	37	80	219	70	769	236	2,420	667	472	110	18	21
3	37	99	342	90	1,220	239	2,560	620	448	102	20	22
4	41	128	291	120	1,130	236	2,660	590	395	104	21	17
5	45	125	237	90	843	292	2,200	539	335	95	18	17
6	47	109	222	85	525	315	2,410	504	311	87	20	17
7	50	96	202	100	448	327	2,690	472	295	73	22	15
8	50	86	166	140	415	410	2,790	525	267	70	20	17
9	50	82	150	200	390	659	2,630	568	239	70	16	18
10	48	82	160	250	415	1,300	2,480	605	207	64	13	24
11	48	86	140	220	448	1,780	2,500	568	195	62	13	24
12	48	80	125	200	405	1,850	2,480	504	184	62	13	22
13	48	80	125	180	344	1,400	2,220	425	170	62	13	21
14	47	99	145	170	307	974	1,920	400	149	59	14	22
15	43	400	174	160	311	824	1,630	460	139	57	14	22
16	41	477	299	150	292	760	1,540	539	139	64	14	21
17	41	346	315	170	288	715	1,370	504	136	68	14	21
18	41	240	268	160	253	667	1,180	415	129	64	14	23
19	41	193	592	150	219	628	1,170	380	122	57	14	24
20	41	150	1,170	145	222	605	1,190	366	117	51	15	23
21	41	128	630	140	225	751	1,230	344	113	50	15	24
22	41	128	416	140	246	952	1,170	340	106	46	15	24
23	43	121	346	150	232	932	963	380	91	38	15	25
24	43	130	275	180	222	751	824	376	89	34	15	27
25	43	123	234	220	210	628	691	390	91	32	15	26
26	44	121	193	300	201	546	620	511	117	30	14	25
27	45	118	142	900	195	575	568	460	260	29	17	24
28	48	112	193	1,300	201	707	628	675	264	26	21	24
29	56	114	216	800	-	974	598	843	195	25	21	25
30	65	121	207	575	-	1,380	590	651	154	22	21	26
31	67	-	196	436	-	1,910	-	582	-	17	22	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	1,417	67	37	45.7	2,810
November	4,323	477	69	144	8,570
December	8,525	1,170	125	275	16,910
Calendar year 1941	94,619	1,540	13	259	187,700
January	8,101	1,300	70	261	16,070
February	11,371	1,220	195	406	22,550
March	24,527	1,910	204	791	48,650
April	50,152	2,790	568	1,672	99,480
May	15,963	843	340	515	31,660
June	6,447	518	89	215	12,790
July	1,861	131	17	60.0	3,690
August	516	22	13	16.6	1,020
September	662	27	15	22.1	1,310
Water year 1941-42	133,865	2,790	13	367	265,500

Note.- Stage-discharge relation affected by ice Jan. 1-29.
Time basis: Pacific standard time prior to 2 a.m., Feb. 9, 1942; Pacific war time thereafter. To convert war time to standard time, subtract 1 hour.

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.

Records available.- January 1940 to February 1941 (discharge measurements only), March 1941 to September 1942. 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 diversion.

Extremes.- Maximum discharge during year, 3,280 second-feet Apr. 8 (gage height, 5.38 feet); maximum gage height, 6.77 feet Jan. 28, ice jam; minimum discharge, 4.8 second-feet Aug. 24 (gage height, 1.17 feet).

1908-12, 1931-14, 1940-42: 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, 5,260 second-feet Mar. 27 or 28, 1940 (gage height, 6.0 feet, present site and datum).

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

Rating tables, water year 1941-42, except periods of ice effect (gage height, in feet, and discharge, in second-feet)

Oct. 1 to Nov. 4		Nov. 5 to Sept. 30					
1.6	33	1.2	5.5	2.2	149	4.0	1,500
1.8	57	1.4	17	2.5	262	4.6	2,240
2.0	93	1.6	33	2.8	433	5.2	3,030
2.2	140	1.8	58	3.1	640		
		2.0	97	3.5	970		

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	40	72	129	b110	480	214	2,500	665	648	146	23	10
2	39	74	143	b90	577	240	2,660	739	591	119	22	12
3	39	84	227	82	1,130	258	2,680	670	577	104	20	10
4	38	104	353	93	1,180	249	2,890	648	521	91	17	12
5	38	135	277	124	*1,030	267	2,630	605	453	89	13	12
6	41	135	240	99	715	324	2,540	556	395	84	13	12
7	44	119	227	97	563	324	2,810	528	364	74	14	12
8	47	107	203	129	500	376	3,000	514	342	65	14	10
9	47	97	175	192	453	514	3,000	584	308	57	14	11
10	47	93	159	240	460	1,060	2,860	619	282	51	15	14
11	49	91	b140	258	535	1,760	2,840	619	244	48	12	14
12	49	95	b145	236	493	2,320	2,890	584	222	43	11	15
13	49	89	146	214	408	1,910	2,670	507	211	42	10	17
14	49	*97	138	196	359	1,250	2,360	460	196	43	10	17
15	47	151	155	185	336	907	2,020	460	171	45	10	16
16	46	473	200	175	330	779	1,800	556	159	48	8.0	16
17	42	453	319	165	313	731	1,620	577	149	50	8.5	16
18	42	336	319	162	293	692	1,390	514	141	48	8.0	16
19	49	253	308	171	b260	640	1,280	440	132	51	6.0	16
20	49	200	763	171	227	612	1,270	420	111	48	5.5	16
21	43	155	934	162	b240	678	1,290	395	109	45	5.5	17
22	43	129	521	162	b250	846	1,290	389	102	43	5.5	18
23	43	b125	408	165	262	943	1,150	389	95	41	5.5	18
24	43	127	342	171	253	854	943	427	78	37	5.2	19
25	44	132	324	196	236	708	820	420	78	33	6.0	20
26	43	121	277	227	218	619	708	480	91	30	6.0	20
27	47	116	188	507	211	584	648	563	109	28	6.5	20
28	50	129	132	b507	211	633	640	584	267	28	6.5	20
29	51	121	188	b860	-	829	648	854	253	27	7.0	20
30	56	124	258	612	-	1,220	633	838	188	26	8.5	20
31	66	-	277	500	-	1,980	-	670	-	24	9.5	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	1,420	66	38	45.8	2,820
November	4,537	473	72	151	9,000
December	8,615	934	129	278	17,090
Calendar year	-	-	-	-	-
January	7,258	860	82	234	14,400
February	12,523	1,180	211	447	24,840
March	25,321	2,320	214	817	50,220
April	56,480	3,000	633	1,883	112,000
May	17,294	854	389	558	34,300
June	7,597	648	78	253	15,060
July	1,708	146	24	55.1	3,390
August	325.7	25	5.2	10.5	646
September	466	20	10	15.5	924
Water year 1941-42	143,534.7	3,000	5.2	393	284,700

* Winter discharge measurement made on this day.
b Stage-discharge relation affected by ice.
Time basis: Pacific standard time prior to 2 a.m., Feb. 9, 1942; Pacific war time thereafter. To convert war time to standard time, subtract 1 hour.

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.
Records available.- October 1917 to September 1942.
Average discharge.- 25 years, 1,411 second-feet.
Extremes.- Maximum discharge observed during year, 4,190 second-feet Apr. 9, 10 (gage height, 3.80 feet); minimum observed, 1,170 second-feet July 29-31, Aug. 1-5, 7 (gage height, 0.50 foot).
1917-42: Maximum discharge observed, 7,600 second-feet Apr. 20, 1938 (gage height, 6.20 feet); minimum, 970 second-feet July 12 to Sept. 5, 1921.
Remarks.- Records good. 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. Gage read once daily.
Cooperation.- Gage readings furnished by Pacific Power & Light Co.

Rating tables, water year 1941-42 (gage height, in feet, and discharge, in second-feet)

Oct. 1 to Mar. 31						Apr. 1 to Sept. 30			
0.5	1,190	1.6	1,950	3.0	3,260	0.5	1,170	2.4	2,640
.7	1,310	2.0	2,300	3.4	3,710	.8	1,340	2.8	3 040
1.0	1,500	2.3	2,570			1.2	1,610	3.3	3 590
1.3	1,710	2.7	2,970			1.6	1,930	3.8	4 190
						2.0	2,280		

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,290	1,310	1,420	1,390	1,820	1,560	3,220	1,850	1,870	1,380	1,170	1,200
2	1,290	1,330	1,420	1,350	1,850	1,540	3,710	1,870	1,850	1,340	1,170	1,200
3	1,290	1,350	1,430	1,330	1,980	1,540	3,830	1,950	1,770	1,340	1,170	1,200
4	1,290	1,350	1,460	1,330	2,710	1,530	3,950	1,930	1,770	1,320	1,170	1,220
5	1,290	1,370	1,670	1,330	2,690	1,530	4,070	1,890	1,710	1,290	1,170	1,220
6	1,290	1,370	1,630	1,320	2,480	1,530	3,950	1,830	1,660	1,280	1,180	1,220
7	1,290	1,420	1,570	1,330	2,120	1,600	3,830	1,770	1,610	1,270	1,170	1,220
8	1,300	1,410	1,540	1,330	1,920	1,600	3,950	1,740	1,570	1,270	1,190	1,220
9	1,300	1,390	1,540	1,330	1,890	1,610	4,190	1,690	1,530	1,270	1,210	1,240
10	1,300	1,370	1,490	1,360	1,840	1,740	4,190	1,720	1,510	1,270	1,190	1,240
11	1,310	1,370	1,440	1,370	1,820	2,410	4,070	1,720	1,470	1,270	1,200	1,240
12	1,300	1,360	1,390	1,420	1,870	3,090	4,070	1,770	1,440	1,270	1,190	1,240
13	1,300	1,360	1,380	1,390	1,840	3,690	4,070	1,720	1,410	1,260	1,190	1,240
14	1,310	1,350	1,380	1,410	1,770	3,270	3,950	1,690	1,400	1,270	1,190	1,240
15	1,300	1,370	1,370	1,410	1,710	2,630	3,590	1,660	1,400	1,240	1,180	1,240
16	1,300	1,390	1,390	1,390	1,640	2,190	3,220	1,690	1,390	1,220	1,180	1,240
17	1,300	1,700	1,420	1,370	1,650	2,080	3,040	1,770	1,340	1,220	1,180	1,240
18	1,300	1,710	1,580	1,370	1,640	2,070	2,840	1,770	1,340	1,220	1,180	1,240
19	1,300	1,610	1,580	1,370	1,610	2,010	2,640	1,750	1,340	1,220	1,200	1,240
20	1,300	1,540	1,600	1,370	1,540	1,950	2,590	1,650	1,300	1,210	1,200	1,240
21	1,300	1,490	1,950	1,360	1,540	1,950	2,550	1,630	1,300	1,210	1,200	1,260
22	1,300	1,440	2,210	1,360	1,540	1,950	2,510	1,600	1,290	1,210	1,200	1,260
23	1,310	1,420	1,790	1,360	1,560	2,030	2,500	1,600	1,290	1,210	1,190	1,260
24	1,310	1,430	1,710	1,360	1,560	2,210	2,410	1,600	1,280	1,210	1,190	1,260
25	1,310	1,430	1,640	1,380	1,560	2,120	2,210	1,640	1,280	1,190	1,200	1,240
26	1,310	1,430	1,640	1,440	1,560	2,010	2,060	1,610	1,280	1,190	1,200	1,240
27	1,310	1,420	1,490	1,510	1,560	1,870	1,980	1,640	1,280	1,190	1,210	1,240
28	1,310	1,420	1,490	2,030	1,560	1,790	1,900	1,790	1,290	1,180	1,210	1,240
29	1,310	1,420	1,390	2,160	-	1,920	1,880	1,770	1,320	1,170	1,210	1,240
30	1,310	1,420	1,390	2,480	-	2,120	1,880	1,770	1,410	1,170	1,210	1,240
31	1,310	-	1,460	1,930	-	2,520	-	2,050	-	1,170	1,200	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	40,340	1,310	1,290	1,301	80,010
November	42,750	1,710	1,310	1,425	84,790
December	47,860	2,210	1,370	1,544	94,930
Calendar year 1941	548,540	2,970	1,190	1,503	1,088,000
January	45,640	2,480	1,320	1,472	90,530
February	50,830	2,710	1,540	1,815	100,800
March	63,660	3,690	1,530	2,054	126,300
April	94,850	4,190	1,880	3,162	188,100
May	54,130	2,050	1,600	1,746	107,400
June	43,700	1,870	1,280	1,457	86,680
July	38,530	1,380	1,170	1,243	76,420
August	36,900	1,210	1,170	1,190	73,190
September	37,060	1,260	1,200	1,235	73,510
Water year 1941-42	596,250	4,190	1,170	1,634	1,183,000

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

Metolius River near Grandview, Oreg.

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

Records available.- October 1921 to September 1942.

Average discharge.- 21 years, 1,409 second-feet.

Extremes.- Maximum discharge observed during year, 2,340 second-feet Dec. 2 (gage height, 1.20 feet); minimum observed, 1,100 second-feet in October, November, August, and September.

1921-42: Maximum discharge, about 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 (gage height, 0.14 foot).

Remarks.- Records excellent. Staff gage read once daily. No diversions or regulation above station.

Rating table, water year 1941-42 (gage height, in feet, and discharge, in second-feet)

0.2	1,100	0.4	1,310	0.7	1,660
.3	1,200	.5	1,420	.9	1,920

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,100	1,100	1,120	1,140	1,160	1,160	1,200	1,220	1,310	1,270	1,160	1,100
2	1,100	1,120	1,930	1,160	1,200	1,160	1,200	1,200	1,310	1,270	1,160	1,100
3	1,100	1,120	1,740	1,160	1,200	1,160	1,220	1,200	1,290	1,290	1,160	1,100
4	1,140	1,140	1,350	1,160	1,350	1,160	1,220	1,200	1,290	1,290	1,160	1,100
5	1,100	1,160	1,290	1,160	1,350	1,160	1,220	1,200	1,290	1,310	1,160	1,100
6	1,100	1,120	1,290	1,160	1,330	1,160	1,220	1,200	1,400	1,290	1,160	1,100
7	1,100	1,100	1,270	1,160	1,290	1,160	1,220	1,200	1,350	1,270	1,160	1,100
8	1,100	1,100	1,220	1,160	1,290	1,160	1,220	1,200	1,310	1,240	1,160	1,100
9	1,100	1,100	1,220	1,180	1,290	1,200	1,220	1,200	1,310	1,240	1,160	1,160
10	1,100	1,100	1,200	1,180	1,270	1,270	1,270	1,200	1,290	1,240	1,160	1,120
11	1,120	1,100	1,200	1,180	1,270	1,290	1,290	1,200	1,270	1,240	1,160	1,100
12	1,160	1,100	1,180	1,180	1,240	1,290	1,290	1,200	1,270	1,240	1,160	1,100
13	1,120	1,100	1,180	1,160	1,240	1,290	1,290	1,200	1,270	1,240	1,160	1,100
14	1,100	1,400	1,180	1,160	1,220	1,270	1,290	a1,200	1,270	1,240	1,160	1,100
15	1,100	1,590	1,220	1,120	1,220	1,270	1,290	1,200	1,270	1,240	1,160	1,100
16	1,100	1,290	1,310	1,120	1,200	1,270	1,290	1,200	1,290	1,240	1,160	1,100
17	1,100	1,200	1,220	1,140	1,200	1,240	1,270	1,200	1,290	1,240	1,140	1,100
18	1,100	1,160	1,440	1,140	1,200	1,240	1,240	1,200	1,270	1,240	1,140	1,100
19	1,140	1,160	1,610	1,140	1,180	1,220	1,240	1,200	1,220	1,240	1,140	1,100
20	1,120	1,140	1,540	1,140	1,180	1,220	1,270	1,240	1,220	1,200	1,140	1,100
21	1,100	1,140	1,400	1,140	1,180	1,220	1,290	1,240	1,220	1,200	1,140	1,100
22	1,100	1,140	1,380	1,140	1,180	1,220	1,290	1,490	1,220	1,200	1,140	1,100
23	1,100	1,140	1,350	1,140	1,160	1,220	1,290	1,400	1,220	1,180	1,140	1,100
24	1,100	1,140	1,310	1,140	1,160	1,200	1,270	1,400	1,220	1,180	1,140	1,100
25	1,100	1,140	1,310	1,140	1,160	1,200	1,270	1,540	1,220	1,180	1,140	1,100
26	1,100	1,140	1,290	1,160	1,160	1,180	1,270	1,440	1,240	1,180	1,140	1,100
27	1,100	1,120	1,270	1,180	1,160	1,180	1,270	1,380	1,240	1,160	1,140	1,100
28	1,140	1,120	1,270	1,180	1,160	1,180	1,240	1,350	1,240	1,160	1,120	1,100
29	1,100	1,120	1,240	1,160	-	1,180	1,240	1,310	1,240	1,160	1,100	1,100
30	1,100	1,120	1,240	1,160	-	1,200	1,240	1,310	1,270	1,160	1,100	1,100
31	1,100	-	1,220	1,160	-	1,200	-	1,310	-	1,160	1,100	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	34,340	1,160	1,100	1,108	68,110
November	34,720	1,590	1,100	1,157	68,870
December	40,990	1,930	1,120	1,322	81,300
Calendar year 1941	428,980	1,930	1,100	1,175	850,900
January	35,800	1,180	1,120	1,155	71,010
February	34,200	1,350	1,160	1,221	67,830
March	37,530	1,290	1,160	1,211	74,440
April	37,640	1,290	1,200	1,255	74,660
May	39,230	1,540	1,200	1,265	77,810
June	38,120	1,400	1,220	1,271	75,610
July	37,990	1,310	1,160	1,225	75,350
August	35,520	1,160	1,100	1,146	70,450
September	33,080	1,160	1,100	1,103	65,610
Water year 1941-42	439,160	1,930	1,100	1,203	871,000

a No gage-height record; discharge interpolated.

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

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 1942.

Average discharge.- 26 years (1915-18, 1919-42), 48.5 second-feet.

Extremes.- Maximum discharge during year, 110 second-feet (regulated) Nov. 15 (gage height, 1.99 feet); minimum, 13 second-feet (regulated) Aug. 28 (gage height, 0.55 foot); minimum daily, 15 second-feet Aug. 28.
1911-13, 1915-42: 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.

Remarks.- Records good except those for periods of no gage-height record, which are poor. No diversion above station; occasional regulation by Suttle Lake.

Rating table, water year 1941-42 (gage heigh., in feet, and discharge, in second-feet)
(Shifting-control method used Dec. 7-24, May 26 to Sept. 24)

0.7	16	1.0	30	1.3	50
.8	20	1.1	36	1.5	66
.9	25	1.2	43	1.7	83

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	22	20	30	52	46	31	34	52	59	32	22	21
2	18	20	90	40	45	31	33	51	54	33	22	22
3	19	28	72	40	43	30	33	55	52	33	22	22
4	22	25	63	40	44	29	32	46	52	35	22	22
5		23	56	42	46	28	32	46	52	29	22	24
6		22	51	40	46	28	32	46	52	29	22	24
7		21	48	41	44	28	33	44	50	28	22	23
8		20	44	44	43	30	34	45	47	24	22	24
9		20	49	42	43	31	34	51	46	18	22	23
10		20	46	42	32	33	35	44	46	24	22	22
11		20	45	42	32	34	37	43	45	33	22	22
12		20	43	40	34	34	37	45	44	31	22	21
13		26	41	40	36	36	39	45	43	29	22	20
14		48	39	40	37	37	42	45	44	29	22	20
15		73	39	39	37	37	44	46	44	28	22	20
16		34	42	37	39	37	49	48	42	28	23	20
17		26	42	37	38	39	54	47	41	28	23	20
18	20	28	60	43	38	41	57	43	42	26	22	20
19		29	68	41	41	35	52	44	40	26	22	20
20		34	68	36	47	34	42	44	40	26	22	20
21		34	75	35	45	34	47	46	38	26	22	20
22		29	82	35	42	35	49	50	37	24	22	20
23		31	84	35	41	35	56	49	37	24	22	20
24		30	83	47	41	34	61	52	35	24	22	20
25		29	85	55	36	34	61	55	35	23	21	20
26		28	82	50	28	32	62	59	36	24	21	19
27		27	79	47	28	32	57	64	34	24	19	19
28		27	75	44	28	32	54	68	33	22	15	19
29		29	64	40	-	33	52	71	32	22	22	19
30		35	64	39	-	35	51	78	32	22	22	19
31		-	60	41	-	34	-	72	-	22	21	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	621	22	-	20.0	1,230
November	856	73	20	28.5	1,700
December	1,869	90	30	60.3	3,710
Calendar year 1941	11,110	90	16	30.4	22,040
January	1,286	55	35	41.5	2,550
February	1,100	47	28	39.3	2,180
March	1,033	41	28	33.3	2,050
April	1,335	62	32	44.5	2,650
May	1,594	78	43	51.4	3,160
June	1,264	59	32	42.8	2,550
July	826	35	18	26.6	1,640
August	671	23	15	21.6	1,330
September	625	24	19	20.8	1,240
Water year 1941-42	13,100	90	15	35.9	25,990

Note.- No gage-height record Oct. 5 to Nov. 9, Nov. 19, Nov. 21 to Dec. 6; discharge computed on basis of weather records, recorded range of stage, and records for Tumalo Creek near Bend.
Time basis: Pacific standard time prior to 2 a.m., Feb. 9, 1942; Pacific war time thereafter. To convert war time to standard time, subtract 1 hour.

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 1942.

Average discharge.- 25 years, 400 second-feet.

Extremes.- Maximum discharge during year, 1,820 second-feet Feb. 4 (gage height, 4.88 feet); minimum not recorded (below 0.12 foot gage height occasionally for short periods); maximum daily, 84 second-feet Sept. 25.
1917-42: 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 fair. Diversion 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 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	88	100	184	260	314	266	351	358	362	196	132	102
2	94	101	402	278	448	266	386	340	334	186	131	102
3	87	110	875	b266	512	263	400	337	314	188	131	101
4	112	134	556	a258	1,070	257	404	327	304	196	139	100
5	112	128	600	a258	1,140	257	412	337	294	234	136	99
6	99	122	472	a260	967	257	432	348	314	249	131	99
7	103	112	404	a259	755	257	456	348	307	240	128	96
8	132	112	344	a258	623	257	468	365	310	229	126	95
9	128	117	314	b254	765	297	480	376	288	216	125	94
10	116	116	288	a250	795	528	496	358	282	208	123	94
11	111	127	272	a243	731	548	532	340	282	198	121	95
12	118	136	260	a236	614	494	574	334	269	191	118	94
13	112	149	257	a240	496	416	578	314	254	184	116	94
14	106	a500	254	a233	448	386	560	307	249	180	112	94
15	102	a700	272	a226	440	354	536	314	272	178	109	94
16	99	a500	330	a230	393	337	504	317	282	176	112	92
17	99	a350	300	h234	358	320	464	307	266	168	111	91
18	98	a260	317	218	327	314	416	297	254	174	111	92
19	103	210	770	221	314	297	420	307	254	163	110	91
20	99	198	835	218	314	291	444	368	243	166	109	90
21	95	188	636	215	307	291	508	368	234	161	109	89
22	95	182	524	215	291	291	520	448	232	159	109	87
23	94	176	508	224	288	282	464	452	226	154	107	87
24	95	176	432	224	288	275	432	420	224	151	104	85
25	96	170	382	240	294	269	420	596	226	146	104	84
26	97	168	346	257	291	263	390	587	234	145	107	86
27	98	168	330	314	282	257	372	508	226	143	106	87
28	104	166	314	368	272	257	362	492	213	141	107	85
29	101	164	307	334	-	257	340	440	205	141	108	86
30	99	162	314	307	-	282	340	404	198	136	109	87
31	100	-	288	285	-	323	-	379	-	134	107	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	3,192	132	87	103	6,330
November	6,022	700	100	201	11,940
December	12,689	875	184	409	25,170
Calendar year 1941	71,999	875	71	197	142,800
January	7,883	368	215	254	15,640
February	14,137	1,140	272	505	28,040
March	9,699	548	257	313	19,240
April	13,461	578	340	449	26,700
May	11,793	596	297	380	23,390
June	7,952	362	198	265	15,770
July	5,556	249	134	179	11,020
August	3,608	139	104	116	7,160
September	2,772	102	84	92.4	5,500
Water year 1941-42	98,764	1,140	84	271	195,900

a No gage-height record; discharge computed on basis of records for West Fork of Hood River near Dee.
b Stage-discharge relation affected by ice.
h Computed from staff-gage reading.
Time basis: Pacific standard time prior to 2 a.m., Feb. 9, 1942; Pacific war time thereafter. To convert war time to standard time, subtract 1 hour.

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 1942 (1920-28 incomplete). October 1909 to December 1910 at site 1 mile upstream.

Average discharge.- 25 years (1909-20, 1928-42), 816 second-feet.

Extremes.- Maximum discharge during year, 2,050 second-feet May 23 (gage height, 4.98 feet); minimum, 273 second-feet Sept. 29.
1909-42: Maximum discharge, 9,870 second-feet Dec. 22, 1933 (gage height, 7.9 feet, present datum), from rating curve extended above 2,000 second-feet; minimum, 204 second-feet Nov. 28, 1931.

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

Rating table, water year 1941-42, except period of ice effect (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Oct. 1 to Dec. 20)

3.0	299	4.0	1,010
3.3	479	4.4	1,390
3.6	689	4.8	1,820

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	330	316	516	ab610	460	403	712	1,240	1,190	797	421	333
2	330	316	1,300	ab580	466	415	773	1,150	1,150	789	421	338
3	335	365	1,740	ab575	473	415	813	1,140	1,130	789	466	338
4	380	385	1,490	b570	499	409	845	1,100	1,140	757	539	344
5	365	395	1,240	b575	486	415	909	1,090	1,140	712	492	333
6	350	380	1,160	b585	486	409	1,010	1,140	1,190	697	473	316
7	345	365	1,050	*b595	479	409	1,100	1,240	1,190	667	466	327
8	345	355	946	b575	473	421	1,150	1,390	1,140	631	479	316
9	355	350	887	b560	479	486	1,190	1,440	1,120	609	466	321
10	385	345	839	b540	473	560	1,240	1,390	1,060	581	473	299
11	405	340	800	b520	466	553	1,440	1,290	1,010	560	434	306
12	425	340	762	b505	441	546	1,540	1,240	942	546	421	316
13	410	489	748	b490	428	546	1,540	1,180	925	533	415	310
14	390	726	740	b480	447	526	1,490	1,190	934	539	415	321
15	375	684	839	b465	447	512	1,440	1,240	1,070	546	415	316
16	370	598	963	b450	441	506	1,390	1,290	1,040	533	428	299
17	375	516	863	b440	*428	499	1,290	1,240	950	539	434	299
18	370	492	929	b430	415	486	1,240	1,190	877	506	415	294
19	380	452	1,540	b425	397	479	1,290	1,290	837	512	428	294
20	375	420	1,490	b420	441	479	1,440	1,490	789	526	415	299
21	360	425	1,240	b415	421	492	1,660	1,710	765	546	434	294
22	350	400	1,120	b415	421	506	1,760	1,880	750	539	409	299
23	340	395	1,010	b415	421	506	1,660	1,930	773	512	409	305
24	335	385	909	b420	415	499	1,540	1,880	765	499	391	305
25	335	405	853	b425	409	499	1,440	1,880	765	492	355	294
26	325	410	773	b430	403	492	1,340	1,710	742	473	344	294
27	335	400	719	b445	409	492	1,290	1,600	742	486	344	294
28	345	430	727	b465	397	499	1,190	1,440	781	486	333	289
29	330	474	689	b450	-	519	1,160	1,340	789	466	321	283
30	320	510	682	441	-	567	1,240	1,240	781	434	316	289
31	316	-	618	466	-	638	-	1,240	-	428	327	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off Inches	Run-off Acre-feet
October	11,086	425	316	358	0.994	1.15	21,990
November	12,863	726	316	429	1.19	1.33	25,510
December	30,180	1,740	516	974	2.71	3.13	59,860
Calendar year 1941	221,110	1,740	316	606	1.68	22.8	438,600
January	15,177	610	415	490	1.36	1.5	30,100
February	12,421	499	397	444	1.23	1.2	24,640
March	15,183	638	403	490	1.36	1.5	30,120
April	38,122	1,760	712	1,271	3.53	3.9	75,610
May	42,810	1,930	1,090	1,381	3.84	4.4	84,910
June	28,477	1,190	742	949	2.64	2.9	56,480
July	17,730	797	428	572	1.59	1.8	35,170
August	12,899	539	316	416	1.16	1.3	25,580
September	9,264	344	283	309	.858	.9	18,370
Water year 1941-42	246,212	1,930	283	675	1.88	25.4	488,300

* Winter discharge measurement made on this day.
a No gage-height record; discharge computed on basis of records for station near Pitt.
b Stage-discharge relationship affected by ice.
Time basis: Pacific standard time prior to 2 a.m., Feb. 9, 1942; Pacific war time thereafter. To convert war time to standard time, subtract 1 hour.

Klickitat River near Pitt, Wash.

Location.- Water-stage recorder, lat. 45°45', long. 120°12', in SW¼ sec. 8, T. 3 N., R. 13 E., 3½ miles south of Pitt, 5 miles upstream from Silvias Creek, and 7 miles upstream from mouth of Lyle. Altitude of gage is 285 feet (from river-profile map).
Drainage area.- 1,170 square miles.
Records available.- October 1935 to September 1942. July 1909 to January 1912 at site 7 miles upstream, published as Klickitat River at Klickitat. October 1928 to September 1935 3½ miles upstream, published as Klickitat River at Pitt.
Average discharge.- 16 years (1909-11, 1928-42), 1,435 second-feet.
Extremes.- Maximum discharge during year, 4,630 second-feet Feb. 4 (gage height, 6.84 feet); minimum, 550 second-feet Sept. 27-30 (gage height, 3.46 feet).
1909-12, 1928-42: 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 ice effect, which are fair. Small diversions above station for irrigation.

Rating table, water year 1941-42, except period of ice effect (gage height, in feet, and discharge, in second-feet)

3.4	520	4.6	1,520
3.5	570	5.0	1,990
3.7	680	5.5	2,600
4.0	910	6.0	3,300
4.3	1,200	6.5	4,100

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	575	580	782	b870	1,410	1,150	1,380	1,630	1,520	1,050	668	600
2	575	580	1,610	b810	2,110	1,170	1,460	1,520	1,460	1,050	668	600
3	580	610	2,730	b800	2,470	1,170	1,520	1,460	1,460	1,050	637	595
4	620	656	1,990	b810	3,930	1,130	1,580	1,410	1,460	1,040	750	600
5	615	644	1,580	b850	3,220	1,120	1,630	1,390	1,460	991	766	605
6	600	656	1,460	b900	3,530	1,110	1,690	1,400	1,580	964	715	590
7	600	632	1,330	b960	2,870	1,120	1,750	1,460	1,580	955	708	585
8	610	620	1,200	*b1,000	2,600	1,120	1,810	1,630	1,520	903	708	595
9	610	615	1,130	b960	3,610	1,250	1,870	1,690	1,460	870	708	590
10	638	610	1,070	886	3,220	1,580	1,870	1,690	1,410	843	722	585
11	662	610	1,010	854	2,806	1,580	1,990	1,630	1,360	822	708	575
12	667	605	955	830	2,470	1,580	2,110	1,520	1,270	793	680	575
13	694	680	919	806	2,170	1,580	2,170	1,460	1,220	783	674	595
14	668	1,120	928	782	2,050	1,520	2,110	1,460	1,220	763	662	575
15	644	1,200	1,020	758	1,930	1,460	1,990	1,520	1,310	814	674	605
16	626	1,030	1,270	750	*1,810	1,400	1,930	1,520	1,380	758	674	575
17	626	894	1,230	758	1,630	1,340	1,810	1,520	1,280	790	674	570
18	626	814	1,630	743	1,520	1,310	1,750	1,460	1,180	750	674	565
19	632	758	3,080	722	1,400	1,260	1,750	1,520	1,130	743	668	565
20	644	708	3,080	708	1,410	1,230	1,810	1,690	1,080	750	668	570
21	620	694	2,540	708	1,400	1,230	2,050	1,870	1,050	790	662	570
22	610	680	2,290	694	1,330	1,250	2,230	2,110	1,020	790	668	565
23	605	662	2,290	694	1,300	1,240	2,050	2,170	1,020	758	656	570
24	600	644	1,990	708	1,280	1,210	1,930	2,110	1,030	743	662	570
25	595	650	1,810	758	1,290	1,190	1,810	2,170	1,030	743	626	570
26	585	680	1,630	928	1,220	1,150	1,690	2,050	1,020	733	610	570
27	595	662	1,410	1,320	1,220	1,140	1,630	1,900	1,010	722	605	565
28	610	662	1,400	1,460	1,190	1,140	1,580	1,810	1,030	733	605	565
29	595	736	1,360	1,410	-	1,140	1,520	1,690	1,050	720	600	555
30	585	766	1,280	1,310	-	1,180	1,520	1,630	1,040	687	595	560
31	580	-	1,180	1,230	-	1,280	-	1,580	-	663	590	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off: Inches	Run-off: Acre-feet
October	19,112	694	575	617	0.527	0.61	37,910
November	21,458	1,200	580	715	.611	.68	42,560
December	49,184	3,080	782	1,587	1.36	1.56	97,560
Calendar year 1941	390,527	3,080	570	1,070	.915	12.41	774,600
January	27,777	1,460	694	896	.766	.88	55,090
February	58,390	3,930	1,190	2,085	1.78	1.86	116,800
March	39,330	1,580	1,110	1,269	1.08	1.25	78,010
April	53,990	2,230	1,380	1,800	1.54	1.72	107,100
May	51,760	2,170	1,390	1,670	1.43	1.65	102,700
June	37,640	1,580	1,010	1,255	1.07	1.20	74,660
July	25,593	1,050	668	826	.706	.81	50,760
August	20,735	766	590	669	.572	.66	41,130
September	17,375	605	555	579	.495	.55	34,460
Water year 1941-42	422,344	3,930	555	1,157	.989	13.43	837,700

Peak discharge.- Dec. 3 (6 a.m.) 2,940 sec.-ft.; Dec. 20 (3 to 5 a.m.) 3,220 sec.-ft.; Feb. 4 (9 p.m.) 4,630 sec.-ft.; Feb. 6 (3:30 a.m.) 4,100 sec.-ft.; Feb. 9 (9:30 a.m.) 4,180 sec.-ft.
* Winter discharge measurement made on this day.
b Stage-discharge relation affected by ice.
Time basis: Pacific standard time prior to 2 a.m., Feb. 9, 1942; Pacific war time thereafter. To convert war time to standard time, subtract 1 hour.

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 108.23 feet above mean sea level, datum of 1929.
Drainage area.- 329 square miles.
Records available.- March 1913 to September 1942.
Average discharge.- 29 years, 1,032 second-feet (including flow of Pacific Power & Light Co.'s conduit).
Extremes.- Maximum discharge during year (river only), 4,370 second-feet Dec. 19 (gage height, 5.16 feet); minimum, 19 second-feet Nov. 10 (gage height, 1.02 feet); minimum daily (including discharge of Pacific Power & Light Co.'s conduit), 204 second-feet Sept. 12.
1913-42: Maximum discharge, 34,000 second-feet (no diversion by the power conduit) Jan. 6, 1923 (gage height, 11.1 feet); minimum, 3 second-feet Aug. 9, 1926 (gage height, 1.45 feet); minimum daily (including discharge of Pacific Power & Light Co.'s conduit), 165 second-feet Aug. 5, 1941.
Remarks.- Records good. 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 1941-42 (gage height, in feet, and discharge, in second-feet)

1.1	24	2.2	198	4.0	2,030
1.3	36	2.6	370	4.5	2,950
1.5	52	3.0	670	5.0	4,010
1.8	99	3.5	1,260		

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	35	38	120	269	584	197	418	388	336	129	40	42
2	32	34	2,410	360	730	208	430	400	292	120	40	43
3	36	138	2,810	300	781	226	412	352	237	104	42	41
4	116	120	2,250	261	1,930	189	444	295	195	144	50	39
5	a30	90	2,150	264	1,750	237	484	245	171	100	43	40
6	a42	57	1,890	279	1,400	249	506	241	329	52	42	40
7	50	40	1,600	314	1,010	222	532	282	276	50	42	42
8	273	33	1,010	291	916	226	508	328	188	38	42	44
9	144	35	781	273	1,490	787	508	323	300	37	42	42
10	140	24	607	198	1,560	1,400	532	282	286	40	36	45
11	94	34	500	163	1,360	988	607	205	286	41	37	46
12	242	28	294	141	964	847	661	160	194	38	36	49
13	105	806	328	143	869	690	569	129	156	74	37	50
14	68	1,880	304	120	720	548	616	210	172	66	36	43
15	52	2,030	382	107	625	470	589	138	456	46	39	46
16	63	1,460	836	105	548	386	516	186	406	80	38	46
17	49	770	740	116	479	365	465	158	282	174	39	46
18	57	470	1,710	99	412	344	437	129	293	42	53	45
19	52	307	3,970	91	360	282	424	320	350	44	41	42
20	44	221	2,690	88	344	241	500	653	222	46	42	47
21	53	155	1,810	84	328	241	589	634	175	45	40	40
22	56	125	1,520	84	447	285	589	881	122	48	39	34
23	52	104	1,810	80	267	240	451	740	97	46	40	38
24	49	120	1,290	77	233	216	444	664	72	46	40	41
25	47	70	1,010	136	208	195	479	1,040	66	40	40	40
26	44	72	792	372	190	166	600	976	105	38	38	41
27	42	34	670	451	183	160	354	836	92	40	40	40
28	44	37	572	388	168	148	344	680	172	36	40	41
29	36	40	486	314	-	167	309	532	76	55	44	40
30	44	166	424	262	-	196	344	472	98	50	40	48
31	42	-	354	265	-	265	-	413	-	39	42	-

Month	Observed				Pacific Power & Light Co.'s conduit near Hood River (acre-feet)	River and conduit combined			
	Discharge in second-feet			Run-off in acre-feet		Run-off in acre-feet	Discharge in second-feet		Run-off in inches
	Maximum	Minimum	Mean				Mean	Per square mile	
October	273	30	72.0	4,430	23,680	28,110	457		
November	2,030	24	318	18,920	26,360	45,280	761		
December	3,970	120	1,233	75,810	28,830	104,600	1,702		
Calendar year 1941	3,970	24	268	193,700	281,100	474,800	656		
January	451	77	210	12,880	28,770	41,650	677		
February	1,930	168	745	41,370	26,410	67,780	1,220		
March	1,400	148	367	22,550	29,880	52,430	853		
April	661	309	469	29,120	28,820	57,940	974		
May	1,040	129	429	26,360	29,610	55,970	910		
June	456	66	217	12,900	28,790	41,690	700		
July	174	36	68.8	3,860	22,230	26,090	424		
August	53	36	40.6	2,500	13,590	16,090	262		
September	50	34	42.7	2,540	10,470	13,010	219		
Water year 1941-42	3,970	24	350	253,200	297,400	550,600	761		

a No gage-height record; discharge computed on basis of records for West Fork of Hood River near Dee and Pacific Power & Light Co.'s conduit near Hood River.
Time basis: Pacific standard time prior to 2 a.m., Feb. 9, 1942; Pacific war time thereafter. To convert war time to standard time, subtract 1 hour.

West Fork of 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 1942.

Average discharge.- 10 years (1932-42), 488 second-feet.

Extremes.- Maximum discharge during year, 4,140 second-feet Dec. 19 (gage height, 7.25 feet); minimum, 100 second-feet Sept. 25, 26 (gage height, 1.42 feet).
1913-15, 1932-42: 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 1941-42 (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used May 9 to July 22)

1.4	97	3.0	585	5.0	1,840
1.7	147	3.5	845	5.7	2,440
2.0	216	4.0	1,140	6.7	3,460
2.5	371	4.5	1,460		

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	170	143	313	346	590	275	528	500	382	336	158	114
2	151	145	2,290	354	585	333	523	519	360	313	158	114
3	130	252	1,900	333	561	326	514	478	340	300	162	118
4	255	246	1,950	310	1,330	310	532	452	320	303	175	114
5	194	258	1,590	310	1,110	354	551	432	313	266	160	115
6	177	219	1,520	313	856	354	575	444	378	243	164	111
7	284	196	1,090	310	710	340	571	491	336	238	158	111
8	444	189	840	a308	746	354	547	505	310	219	153	113
9	340	182	680	306	1,140	960	542	487	412	214	149	114
10	364	173	566	288	1,160	1,160	575	461	444	211	149	108
11	326	189	487	272	991	916	615	432	432	22[illegible]	141	108
12	401	184	428	263	806	784	630	386	368	193	136	111
13	329	671	393	269	670	660	595	360	346	18[illegible]	134	113
14	284	1,610	364	255	590	671	615	354	343	193	134	111
15	255	1,600	432	246	528	505	595	404	432	227	134	114
16	238	1,110	779	252	478	465	547	408	514	33[illegible]	136	105
17	224	735	690	253	436	461	509	393	474	36[illegible]	136	104
18	206	556	1,810	243	404	436	509	375	537	24[illegible]	132	103
19	211	452	3,410	235	378	401	496	523	640	22[illegible]	152	104
20	191	382	1,980	230	368	382	551	645	519	221	136	105
21	182	343	1,290	227	354	378	580	650	474	214	134	104
22	175	303	1,200	221	329	404	561	725	416	20[illegible]	132	105
23	168	281	1,310	219	320	382	496	635	386	191	130	105
24	162	260	973	219	313	364	514	561	360	18[illegible]	126	104
25	155	258	796	234	300	346	537	768	350	18[illegible]	120	104
26	151	240	660	424	284	333	500	834	416	18[illegible]	120	104
27	155	227	571	465	284	333	461	752	368	17[illegible]	116	105
28	160	224	509	448	275	326	448	640	340	17[illegible]	120	107
29	151	230	465	401	-	333	440	537	326	16[illegible]	116	107
30	145	316	428	364	-	364	470	461	336	16[illegible]	114	108
31	145	-	390	346	-	420	-	420	-	16[illegible]	113	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	6,973	444	145	225	13,830
November	12,176	1,610	143	406	24,150
December	32,104	3,410	313	1,036	63,680
Calendar year 1941	130,565	3,410	101	358	259,000
January	9,324	465	219	301	18,490
February	16,896	1,330	275	603	33,510
March	14,330	1,160	275	462	28,420
April	16,127	630	440	538	31,990
May	16,042	834	354	517	31,820
June	12,072	640	310	402	23,940
July	7,056	360	160	228	14,000
August	4,278	175	113	138	8,490
September	3,264	118	103	109	6,470
Water year 1941-42	150,642	3,410	103	413	298,800

a No gage-height record; discharge interpolated.
Time basis: Pacific standard time prior to 2 a.m., Feb. 9, 1942; Pacific war time thereafter. To convert war time to standard time, subtract 1 hour.

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 1942. October 1913 to September 1914 and January 1916 to July 1922 at site in tailrace of former plant.

Average discharge.- 20 years (1922-42), 353 second-feet.

Extremes.- Maximum discharge observed during year, 495 second-feet Apr. 22; no flow when power plant was occasionally shut down.
1913-14, 1916-42: Maximum discharge observed, 510 second-feet Dec. 30, 1932.

Remarks.- Records good. Discharge determined from hourly readings of Venturi meter checked by occasional discharge measurements. Pacific Power & Light Co.'s conduit diverts from Hood River in SE¼ sec. 11, T. 2 N., R. 10 E., just below Neal Creek. Water is diverted around station on Hood River near town of Hood River and returned to river in NE¼ sec. 36, T. 3 N., R. 10 E.

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

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	351	339	477	486	490	438	490	490	470	468	225	168
2	321	371	440	460	490	480	490	490	490	473	228	174
3	318	419	456	479	490	480	490	490	490	480	231	182
4	441	475	455	458	480	490	490	490	490	480	265	185
5	395	473	440	450	480	490	490	490	490	474	267	190
6	338	451	454	455	480	490	490	490	490	437	277	180
7	429	422	326	437	490	490	490	490	490	447	281	165
8	435	416	476	452	490	490	490	490	490	407	276	162
9	462	395	480	460	468	490	490	490	490	375	279	168
10	480	388	471	442	480	480	490	490	490	364	275	161
11	480	413	468	450	480	476	487	490	490	366	242	161
12	446	417	480	490	480	475	490	490	490	329	218	155
13	476	393	480	470	480	480	490	484	490	272	197	173
14	446	452	450	470	486	490	490	395	490	308	198	172
15	424	479	480	475	480	490	490	480	490	398	201	199
16	390	403	480	477	480	490	490	482	490	463	216	170
17	401	480	480	480	485	490	490	490	490	475	222	172
18	371	480	480	480	480	490	490	485	483	388	194	170
19	403	480	465	470	480	490	490	465	490	349	211	176
20	369	487	470	466	480	490	490	485	490	359	223	175
21	360	490	485	460	480	490	490	480	490	348	232	180
22	348	478	480	460	302	490	491	480	490	348	226	184
23	332	458	480	455	460	490	490	480	485	307	222	183
24	332	436	480	460	485	490	490	480	482	285	216	182
25	342	474	480	480	490	490	490	480	481	274	179	179
26	346	453	480	487	478	490	347	480	488	272	175	183
27	339	470	483	487	490	490	490	480	480	277	171	185
28	352	461	490	487	480	490	480	480	398	280	176	187
29	352	470	490	490	-	488	482	490	472	236	178	188
30	330	468	490	482	-	490	482	480	474	239	170	172
31	328	-	490	460	-	490	-	474	-	226	163	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	11,937	490	318	385	23,680
November	13,291	490	339	443	26,360
December	14,536	490	326	469	28,830
Calendar year 1941	141,729	490	97	388	281,100
January	14,506	490	437	468	28,770
February	13,314	490	302	476	26,410
March	15,067	490	438	486	29,880
April	14,529	491	347	484	28,820
May	14,930	490	395	482	29,610
June	14,513	490	398	484	28,790
July	11,206	480	228	361	22,230
August	6,853	285	163	221	13,590
September	5,281	199	155	176	10,470
Water year 1941-42	149,962	491	155	411	297,400

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

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 1942. October 1912 to February 1913 at site at Condit Dam, 1 mile upstream.

Average discharge.- 22 years (1915-30, 1935-42), 1,018 second-feet.

Extremes.- Maximum discharge during year, 3,790 second-feet (regulated) Dec. 19 (gage height, 6.81 feet); minimum, 41 second-feet (regulated) July 9 (gage height, 1.41 feet); minimum daily, 304 second-feet (regulated) Sept. 17.
1915-30, 1935-42: Maximum discharge, 9,700 second-feet Dec. 29, 1917 (gage height, 9.5 feet, datum then in use, relation to present datum unknown); practically no flow at times when power plant is shut down.

Remarks.- Records excellent. Many diversions near Trout Lake for irrigation. Flow regulated by power plant.

Rating table, water year 1941-42 (gage height, in feet, and discharge, in second-feet)

2.6	229	4.0	845	6.0	2,800
3.0	369	4.5	1,220	7.0	4,050
3.5	582	5.0	1,690		

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	389	496	690	814	†1,220	†707	952	1,170	1,160	746	564	479
2	438	†486	1,210	940	1,100	1,090	956	1,120	1,060	752	†445	491
3	544	491	2,360	1,060	1,390	922	1,010	†952	668	756	685	490
4	430	512	1,850	†976	1,610	900	1,000	1,220	954	668	534	572
5	†482	555	1,610	878	1,860	898	†1,040	1,020	855	†716	532	438
6	574	554	1,390	812	1,900	902	1,080	939	1,120	636	588	†432
7	452	520	†1,300	904	1,730	901	1,070	1,040	†1,030	644	593	442
8	477	514	1,220	885	†1,630	†742	1,100	1,160	994	622	568	565
9	493	†408	1,120	762	1,740	1,150	1,200	1,020	952	623	†456	568
10	577	572	986	802	1,770	1,180	1,120	†1,020	1,020	610	650	336
11	666	576	972	†884	1,670	1,240	1,310	1,120	1,000	527	568	498
12	†518	416	872	948	1,550	1,130	†1,300	949	972	†555	464	453
13	806	526	800	824	1,420	1,160	1,300	877	1,040	782	539	†487
14	412	910	†773	832	1,320	1,110	1,290	884	†800	630	629	468
15	820	1,270	1,010	824	†1,290	†928	1,300	917	975	650	551	428
16	566	†1,210	1,110	796	1,240	1,160	1,150	946	974	538	†421	580
17	560	890	1,320	820	1,140	994	1,220	†892	1,020	653	645	304
18	514	846	1,730	†750	1,140	962	1,210	1,070	874	735	548	580
19	†510	750	3,290	944	1,040	982	†1,140	928	856	†598	506	350
20	498	702	3,270	754	1,020	858	1,210	972	836	727	584	†368
21	513	654	†2.510	816	1,150	986	1,260	1,080	†922	584	510	598
22	484	702	2,140	804	†865	†736	1,350	1,190	715	593	552	426
23	479	†518	2,070	777	1,120	1,110	1,280	1,170	822	645	†351	432
24	458	622	1,850	792	1,020	943	1,230	†1,280	720	585	624	356
25	503	630	1,600	†800	956	898	1,160	1,280	858	735	514	471
26	†379	660	1,470	1,040	930	872	†996	1,280	681	†393	494	450
27	583	572	1,320	1,160	934	836	1,190	1,240	764	650	496	†451
28	464	557	†1,270	1,110	916	839	1,050	1,130	†715	563	498	416
29	449	629	1,220	1,050	-	†832	925	1,120	796	517	550	406
30	490	†672	1,180	976	-	871	1,010	1,020	665	559	†374	412
31	436	-	1,160	1,010	-	898	-	†1,070	-	684	630	

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	15,664	806	379	505	31,070
November	19,420	1,270	408	647	38,520
December	46,573	3,290	690	1,502	92,380
Calendar year 1941	289,317	3,290	379	793	573,900
January	27,566	1,160	750	889	54,680
February	36,871	1,900	865	1,317	73,130
March	29,757	1,240	707	960	59,020
April	34,409	1,350	925	1,147	68,250
May	33,076	1,280	877	1,067	65,610
June	27,018	1,160	665	901	53,590
July	19,642	782	396	634	38,960
August	16,663	685	351	538	33,050
September	13,747	598	304	458	27,270
Water year 1941-42	320,406	3,290	304	878	635,500

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

Wind River near Carson, Wash.

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

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

Records available.- December 1934 to September 1942 (includes flow of Little Wind River).

Extremes.- Maximum discharge during year, 14,200 second-feet Dec. 19 (gage height, 15.99 feet), from rating curve extended above 5,000 second-feet; minimum, 141 second-feet Sept. 9, 10 (gage height, 2.47 feet).
1934-42: Maximum discharge, 16,700 second-feet Dec. 29, 1937 (gage height, 17.30 feet), from rating curve extended above 5,000 second-feet on basis of velocity-area studies; minimum, 136 second-feet Nov. 29, Dec. 1, 1936 (gage height, 2.21 feet).

Remarks.- Records good except those above 5,000 second-feet, which are fair. Flow occasionally affected by pondage at Forest Service power plant on Trout Creek. No diversions.

Rating table, water year 1941-42 (gage height, in feet, and discharge, in second-feet)

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

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	289	301	894	1,070	1,620	646	1,050	894	698	440	259	185
2	278	294	4,670	1,030	1,880	786	1,090	894	646	426	254	184
3	276	427	6,280	970	2,020	894	1,030	858	612	412	244	182
4	334	514	4,410	894	4,050	822	1,010	822	578	398	246	180
5	301	530	3,940	840	3,720	822	1,030	768	562	385	246	179
6	292	440	3,720	804	3,190	822	1,030	733	680	385	244	177
7	372	398	3,090	786	2,790	768	990	733	612	372	238	248
8	546	398	2,340	768	2,520	595	951	733	578	359	234	190
9	663	334	1,880	733	2,790	1,520	913	716	680	359	229	145
10	951	359	1,560	698	2,700	2,340	932	698	876	346	225	141
11	970	372	1,360	663	2,430	1,810	951	663	876	359	227	144
12	1,110	359	1,220	646	2,020	1,530	932	612	786	372	218	145
13	951	1,040	1,130	629	1,710	1,360	913	578	733	359	195	149
14	804	2,990	1,090	595	1,500	1,220	932	562	680	346	195	153
15	698	3,720	1,490	578	1,340	1,110	1,010	578	894	346	197	155
16	629	3,190	3,860	562	1,240	1,030	951	578	970	385	198	156
17	578	2,340	3,720	562	1,130	1,010	932	562	970	412	200	158
18	530	1,740	5,130	546	1,050	970	876	546	913	385	198	158
19	499	1,170	11,200	530	990	913	822	578	858	359	198	158
20	456	1,170	6,700	499	951	858	840	646	786	334	197	158
21	426	1,070	4,530	499	894	822	876	646	716	322	197	158
22	398	951	3,940	484	840	858	876	716	663	308	193	158
23	385	858	4,410	484	822	822	822	680	629	301	192	158
24	359	786	5,390	499	768	804	804	646	595	292	190	159
25	346	768	2,700	786	733	768	822	768	578	285	190	155
26	334	716	2,180	1,190	698	733	804	876	562	278	192	155
27	334	663	1,880	1,590	698	698	768	1,030	530	274	190	155
28	334	698	1,620	1,650	663	698	750	1,030	514	269	192	155
29	322	716	1,440	1,420	-	698	716	913	484	265	192	155
30	305	840	1,320	1,220	-	733	733	840	456	265	190	155
31	301	-	1,190	1,110	-	840	-	750	-	261	187	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off: Inches	Run-off: Acre-feet
October	15,371	1,110	276	496	2.20	2.54	30,490
November	30,152	3,720	294	1,005	4.47	4.98	59,810
December	98,284	11,200	894	3,170	14.1	16.25	194,900
Calendar year 1941	323,314	11,200	157	886	3.94	53.44	641,200
January	25,335	1,650	484	817	3.63	4.19	50,250
February	47,757	4,050	663	1,706	7.58	7.89	94,720
March	30,300	2,340	595	977	4.34	5.01	60,100
April	27,156	1,090	716	905	4.02	4.49	53,860
May	22,647	1,030	546	731	3.25	3.74	44,920
June	20,715	970	456	690	3.07	3.42	41,090
July	10,659	440	261	344	1.53	1.76	21,140
August	6,547	259	187	211	.938	1.08	12,990
September	4,908	248	141	164	.729	.81	9,730
Water year 1941-42	339,831	11,200	141	931	4.14	56.16	674,000

Peak discharge.- Dec. 3 (12:15 p.m.) 7,750 sec.-ft.; Dec. 19 (6:45 a.m.) 14,200 sec.-ft.
Time basis: Pacific standard time prior to 2 a.m., Feb. 9, 1942; Pacific war time thereafter. To convert war time to standard time, subtract 1 hour.

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 1942. 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.- 31 years, 1,293 second-feet.
Extremes.- Maximum discharge during year, 6,240 second-feet Dec. 2 (gage height, 7.59 feet); minimum, 226 second-feet Sept. 26 (gage height, 1.97 feet).
1911-42: Maximum discharge, 29,200 second-feet Jan. 6, 1923 (gage height, 17.5 feet, site and datum then in use), by computation of flow over dam; minimum, 205 second-feet Sept. 21-24, 1940.
Remarks.- Records good except those for periods of shifting control or no gage-height record, which are fair. No diversion or regulation above station.
Cooperation.- Water-stage recorder inspected by employee of Portland General Electric Co.

Rating table, water year 1941-42 (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Oct. 1-12, Nov. 14 to Dec. 16)

2.0	235	3.0	700	5.0	2,320
2.3	350	3.5	1,000	6.0	3,620
2.6	490	4.0	1,350	7.0	5,110

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	475	440	820	862	1,160	712	1,370	1,530	1,250	968	445	290
2	525	430	3,260	862	1,210	904	1,330	1,650	1,160	940	436	294
3	480	600	4,620	850	1,250	958	1,270	1,560	1,090	901	445	306
4	958	800	3,900	790	2,220	880	1,290	1,540	1,010	887	490	298
5	844	950	4,020	a780	2,220	922	1,300	1,460	976	814	460	294
6	766	1,050	3,420	a750	1,960	934	1,260	1,500	1,180	754	455	278
7	880	830	2,690	730	1,640	898	1,270	1,620	1,040	748	436	278
8	1,220	680	2,100	850	1,590	910	1,230	1,570	970	689	422	278
9	1,140	600	1,760	1,150	3,120	1,610	1,240	1,470	1,160	673	413	282
10	1,130	540	1,610	1,040	3,540	3,310	1,290	1,360	1,150	667	413	274
11	976	560	1,350	1,000	2,950	2,220	1,340	1,240	1,250	709	386	278
12	1,150	600	1,220	970	2,320	1,810	1,340	1,160	1,150	645	372	278
13	1,000	1,200	1,150	964	1,860	1,550	1,320	1,080	1,060	601	364	278
14	870	4,170	1,080	922	1,520	1,350	1,400	1,030	1,010	623	354	276
15	800	4,700	1,180	874	1,390	1,210	1,310	1,180	1,450	679	359	286
16	740	3,750	1,660	886	1,250	1,130	1,220	1,150	1,560	837	372	263
17	680	2,600	1,540	892	1,150	1,100	1,150	1,100	1,410	868	359	252
18	620	1,810	3,260	838	1,040	1,080	1,150	1,050	1,470	684	350	246
19	660	1,450	4,660	790	964	1,010	1,120	1,350	1,610	628	350	246
20	600	1,220	3,660	760	940	958	1,200	1,620	1,420	601	354	249
21	570	1,090	2,760	724	886	952	1,220	1,580	1,260	606	359	246
22	540	964	2,330	700	852	1,010	1,210	1,850	1,130	590	350	246
23	510	904	2,450	718	814	964	1,130	1,920	1,060	550	342	242
24	490	838	2,010	760	790	922	1,190	1,740	994	535	326	242
25	460	808	1,710	916	784	904	1,370	2,280	1,020	515	310	242
26	430	766	1,470	1,180	736	880	1,360	2,450	1,350	505	314	242
27	420	706	1,330	1,420	736	886	1,260	2,200	1,240	505	306	242
28	540	689	1,240	1,340	706	892	1,280	1,950	1,130	500	318	246
29	500	694	1,150	1,220	-	940	1,240	1,740	1,060	475	302	242
30	470	820	1,060	1,100	-	1,050	1,370	1,540	1,050	475	294	242
31	450	-	988	1,020	-	1,250	-	1,370	-	450	294	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acre-feet
October	21,894	1,220	420	706	2.69	3.11	43,430
November	37,259	4,700	430	1,242	4.74	5.29	73,900
December	67,358	4,660	820	2,173	8.29	9.56	133,600
Calendar year 1941	321,946	4,700	238	882	3.37	45.70	638,600
January	28,658	1,420	700	924	3.53	4.07	56,840
February	41,638	3,540	706	1,487	5.68	5.91	82,590
March	36,094	3,310	712	1,164	4.44	5.12	71,590
April	38,030	1,400	1,120	1,268	4.84	5.40	75,430
May	47,840	2,450	1,030	1,543	5.89	6.79	94,890
June	35,670	1,610	970	1,189	4.54	5.06	70,750
July	20,634	988	450	666	2.54	2.93	40,930
August	11,550	490	294	373	1.42	1.64	22,910
September	7,958	306	242	265	1.01	1.13	15,780
Water year 1941-42	394,583	4,700	242	1,081	4.13	56.01	782,600

Peak discharge.- Nov. 15 (10 a.m. to 12 m.) 5,050 sec.-ft.; Dec. 2 (11 p.m.) 6,240 sec.-ft.; Dec. 4 (9 to 10 p.m.) 4,920 sec.-ft.; Dec. 18 (8 to 9 p.m.) 5,750 sec.-ft.; Feb. 10 (9 a.m.) 3,730 sec.-ft.; Mar. 10 (2 a.m.) 4,180 sec.-ft.
a No gage-height record; discharge computed on basis of records for stations below Bull Run River, near Bull Run, and on Salmon River above Boulder Creek, near Brightwood.
Note.- Rapidly-shifting control Oct. 13 to Nov. 13; discharge computed as noted for period of no gage-height record.
Time basis: Pacific standard time prior to 2 a.m., Feb. 9, 1942; Pacific war time thereafter. To convert war time to standard time, subtract 1 hour.

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

Location.- Water-stage recorder, lat. 45°27', long. 122°15', in NE¼ 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 1942. April 1910 to September 1914 at site three-quarters of a mile upstream.

Average discharge.- 16 years (1910-11, 1912-14, 1929-42), 2,128 second-feet.

Extremes.- Maximum discharge during year, 14,400 second-feet Dec. 2 (gage height, 10.00 feet); minimum, 160 second-feet (regulated) Sept. 24 (gage height, 1.08 feet); minimum daily, 310 second-feet Sept. 6.
1910-14, 1929-42: 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, 1939.

Remarks.- Records good except those for periods of no gage-height record, which are fair. No diversion above station for irrigation; about 50,000 acre-feet annually diverted 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 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	826	698	1,380	1,370	2,760	1,070	2,370	3,150	2,200	1,550		445
2	1,080	570	6,610	1,460	2,900	1,530	2,320	3,630	1,910	1,410		440
3	984	944	10,500	1,400	2,700	1,680	2,170	3,050	1,730	1,320	610	398
4	2,250	1,370	8,100	1,130	5,400	1,610	2,160	3,130	1,610	1,250		406
5	2,010	1,800	8,140	1,190	5,100	1,580	2,030	2,730	1,620	1,190		567
6	1,570	1,910	6,640	1,080	4,400	1,660	2,040	2,700	1,400	1,250		310
7	1,930	1,490	5,040	1,130	3,300	1,540	1,970	2,850	1,400	1,140		326
8	2,880	1,190	3,970	1,330	3,200	1,390	1,930	2,730	1,670	1,020	560	372
9	2,640	1,040	3,120	2,180	7,200	2,750	1,860	2,570	1,960	940		391
10	2,360	1,150	2,580	2,020	7,700	6,220	1,940	2,160	2,000	1,000		364
11	2,100	908	2,250	1,750	6,400	4,100	2,020	2,280	2,330	1,100		374
12	2,610	1,050	1,960	1,770	4,900	3,340	1,960	1,910	2,180	900		376
13	2,340	2,560	1,810	1,720	3,700	2,800	2,150	1,740	1,840	850	490	400
14	1,710	7,900	1,620	1,620	3,000	2,390	2,170	1,670	1,480	850		376
15	1,570	10,100	1,840	1,500	2,600	2,040	2,090	2,030	2,750	980		362
16	1,380	7,550	2,920	1,510	2,150	2,040	1,950	1,850	2,840	1,350		372
17	1,270	4,690	2,920	1,500	1,950	1,860	1,880	1,690	2,550	1,700		365
18	1,130	3,210	5,780	1,510	1,750	1,890	1,860	1,880	2,710	1,500	480	374
19	1,180	2,680	11,600	1,390	1,600	1,740	1,880	2,210	3,210	1,100		342
20	1,060	2,080	8,970	1,280	1,550	1,640	1,990	3,060	2,640	1,000		324
21	970	1,920	6,220	1,220	1,500	1,500	1,860	2,720	2,210	950	474	360
22	920	1,720	5,260	1,090	1,300	1,630	1,890	3,020	1,970	910	546	350
23	834	1,310	5,800	1,160	1,350	1,740	1,930	3,440	1,740	860	441	336
24	808	1,350	4,450	1,240	1,300	1,590	1,960	2,840	1,660	780	478	330
25	768	1,250	3,510	1,640	1,250	1,500	2,460	4,000	1,640	740	432	338
26	614	1,180	3,000	2,160	1,180	1,470	2,570	4,510	2,350	680	434	336
27	657	1,120	2,590	3,040	1,240	1,500	2,470	4,320	2,430	740	439	334
28	868	1,150	2,200	2,930	1,210	1,350	2,420	3,720	1,850	700	462	382
29	824	1,050	2,000	2,610	-	1,410	2,290	3,190	1,890	670	424	348
30	720	1,140	1,870	2,190	-	1,760	2,540	2,670	1,670	640	401	344
31	708	-	1,670	1,960	-	2,040	-	2,380	-	610	394	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off: Inches	Run-off: Acre-feet
October	43,571	2,880	614	1,406	3.20	3.68	86,420
November	68,080	10,100	570	2,269	5.16	5.75	135,000
December	136,520	11,600	1,380	4,404	10.0	11.54	270,800
Calendar year 1941	584,188	11,600	320	1,601	3.64	49.37	1,159,000
January	51,080	3,040	1,080	1,648	3.75	4.32	101,300
February	84,390	7,700	1,180	3,014	6.85	7.13	167,400
March	62,360	6,220	1,070	2,012	4.57	5.27	123,700
April	82,970	2,570	1,680	2,099	4.77	5.62	124,900
May	85,830	4,510	1,670	2,769	6.29	7.25	170,200
June	61,740	3,210	1,400	2,058	4.68	5.22	122,500
July	31,680	1,700	610	1,022	2.32	2.68	62,840
August	15,625	-	394	504	1.15	1.32	30,990
September	11,141	567	310	371	.843	.94	22,100
Water year 1941-42	714,987	11,600	310	1,959	4.45	60.42	1,418,000

Note.- No gage-height record Feb. 2-25, July 3 to Aug. 20; discharge computed on basis of records for stations near Marmot and on Bull Run River and Little Sandy River near Bull Run.
Time basis: Pacific standard time prior to 2 a.m., Feb. 9, 1942; Pacific war time thereafter. To convert war time to standard time, subtract 1 hour.

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 1942.

Average discharge.- 17 years (1910-11, 1926-42), 39.1 second-feet.

Extremes.- Maximum discharge during year, 167 second-feet Dec. 2 (gage height, 1.80 feet); minimum, 14 second-feet Nov. 1-3.
1910-12, 1926-42: 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, 1941-42 (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used June 26 to Sept. 30)

0.3	13.6	1.1	74
.5	22.6	1.4	109
.8	45	1.7	151

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	21	14	30	29	28	23	44	47	52	35	24	15
2	19	14	124	29	29	25	41	47	50	35	23	15
3	23	24	80	28	28	23	41	48	50	33	23	15
4	36	18	92	26	31	23	43	49	48	34	26	15
5	23	23	78	26	26	24	45	48	48	32	23	15
6	21	18	74	25	25	23	49	51	59	32	22	15
7	32	16	58	24	24	23	50	54	50	32	21	15
8	37	15	51	32	25	24	50	54	48	30	21	15
9	26	15	46	35	58	49	51	52	51	31	20	15
10	25	14	42	29	52	48	56	49	54	30	20	16
11	24	16	39	27	39	40	57	45	51	34	19	16
12	28	17	36	27	32	34	58	44	46	30	19	15
13	23	35	35	26	30	31	58	43	42	31	18	16
14	22	50	35	26	29	29	59	43	42	31	18	16
15	21	48	47	25	28	28	53	50	60	30	17	16
16	21	35	54	26	28	28	51	47	53	29	17	16
17	20	29	41	26	26	27	47	43	47	28	16	16
18	20	26	60	24	26	26	46	43	50	31	16	16
19	21	25	87	24	25	26	49	65	50	30	16	16
20	20	24	64	24	25	26	56	62	42	28	16	16
21	19	23	52	24	24	27	56	67	40	28	16	16
22	18	23	50	24	24	26	53	72	40	27	15	16
23	17	23	50	23	24	25	48	66	39	26	15	16
24	16	23	43	24	24	24	47	73	37	28	16	16
25	16	23	40	28	23	24	44	95	44	26	16	16
26	16	23	37	38	23	24	41	82	73	26	16	15
27	17	22	35	32	23	25	42	73	49	25	16	15
28	18	23	33	28	23	26	42	67	42	25	16	15
29	16	26	33	26	-	29	44	62	40	26	16	16
30	15	33	32	24	-	35	50	57	37	24	16	15
31	15	-	29	23	-	41	-	54	-	24	15	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acre-feet
October	666	37	15	21.6	2.47	2.85	1,320
November	718	50	14	23.9	2.75	3.07	1,420
December	1,607	124	29	51.8	5.95	6.87	3,190
Calendar year 1941	9,489	124	14	26.0	2.99	40.57	18,820
January	832	38	23	26.8	3.08	3.56	1,650
February	802	58	23	28.6	3.29	3.43	1,590
March	886	49	23	28.6	3.29	3.79	1,760
April	1,471	59	41	49.0	5.63	6.29	2,920
May	1,752	95	43	56.6	6.49	7.49	3,480
June	1,434	73	37	47.8	5.49	6.13	2,840
July	933	38	24	30.1	3.46	3.99	1,850
August	568	26	15	18.3	2.10	2.43	1,130
September	465	16	15	15.5	1.78	1.99	922
Water year 1941-42	12,134	124	14	33.2	3.82	51.89	24,070

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

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 1942.

Average discharge.- 15 years, 152 second-feet.

Extremes.- Maximum discharge during year, 996 second-feet Dec. 2 (gage height, 3.06 feet); minimum, 49 second-feet Sept. 24-27 (gage height, 0.40 foot).
1927-42: 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 excellent. No diversion or regulation above station.

Rating table, water year 1941-42 (gage height, in feet, and discharge, in second-feet)

0.4	49	1.0	136	1.9	413
.6	73	1.3	206	2.2	536
.8	102	1.6	302	2.5	680

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	60	60	122	144	162	127	233	288	215	132	81	60
2	69	60	597	162	171	138	239	288	206	129	80	59
3	65	92	621	155	183	134	236	282	196	125	79	57
4	118	87	566	140	246	129	242	275	188	122	84	57
5	90	105	554	132	218	134	246	265	183	118	80	57
6	72	87	502	136	198	131	249	265	236	115	77	56
7	102	76	405	132	188	129	271	268	198	115	76	56
8	120	70	334	151	193	136	278	265	183	112	73	56
9	92	69	286	175	364	206	282	262	198	110	72	57
10	81	66	258	153	386	349	292	258	196	110	72	59
11	76	73	230	140	334	288	309	246	203	113	72	56
12	93	83	203	136	282	258	313	233	180	112	70	54
13	81	168	190	132	249	230	306	218	166	107	70	54
14	73	285	183	129	224	209	327	209	159	105	69	54
15	69	417	230	127	209	193	324	227	193	107	68	54
16	68	320	320	123	193	186	299	218	198	118	66	54
17	68	227	239	123	180	178	275	203	175	122	65	54
18	65	180	320	118	171	173	262	196	180	107	65	53
19	70	155	571	116	162	162	258	221	188	100	65	52
20	65	138	482	113	159	159	271	227	168	96	65	51
21	63	129	398	112	153	157	271	227	159	94	65	50
22	60	122	364	110	149	157	275	275	153	93	63	50
23	59	116	364	110	144	149	265	258	151	90	63	50
24	58	110	302	115	142	144	275	249	146	88	63	50
25	58	108	268	144	138	140	275	364	151	87	64	50
26	58	105	239	180	132	136	258	342	224	86	64	49
27	61	99	224	180	131	134	252	302	183	86	64	50
28	69	98	203	159	129	134	266	285	157	84	66	51
29	69	104	193	146	-	144	249	262	146	83	63	52
30	61	131	180	138	-	164	275	242	138	83	61	52
31	60	-	166	136	-	203	-	227	-	81	60	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acre-feet
October	2,273	120	58	73.3	1.36	1.57	4,510
November	3,940	417	60	131	2.43	2.71	7,810
December	10,116	621	122	326	6.04	6.97	20,060
Calendar year 1941	45,303	621	45	124	2.30	31.20	89,840
January	4,267	180	110	138	2.56	2.94	8,460
February	5,590	386	129	200	3.70	3.85	11,090
March	5,510	349	127	171	3.17	3.66	10,530
April	8,172	327	233	272	5.04	5.63	16,210
May	7,947	364	196	256	4.74	5.47	15,760
June	5,417	236	138	181	3.35	3.73	10,740
July	3,230	132	81	104	1.93	2.22	6,410
August	2,145	84	60	69.2	1.28	1.48	4,250
September	1,614	60	49	53.8	.996	1.11	3,200
Water year 1941-42	60,021	621	49	164	3.04	41.34	119,000

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

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 1942. 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, 2,920 second-feet Dec. 2 (gage height, 3.93 feet); minimum, 74 second-feet Sept. 26, 27 (gage height, 0.54 foot).
1913-14, 1920-21, 1925-42: Maximum discharge, 13,000 second-feet Mar. 31, 1931 (gage height, 9.80 feet at Welches), from rating curve extended above 4,800 second-feet; minimum, 59 second-feet Nov. 30, Dec. 1, 1936, Sept. 25, 26, 1940.

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

Rating tables, water year 1941-42 (gage height, in feet, and discharge, in second-feet)

Oct. 1 to Dec. 18						Dec. 19 to Sept. 30					
0.7	108	1.6	435	2.5	1,060	0.5	67	1.6	460	2.8	1,350
1.0	192	1.9	600	2.8	1,350	.7	107	1.9	620	3.2	1,840
1.3	303	2.2	810	3.2	1,840	1.0	195	2.2	810		
						1.3	315	2.5	1060		

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	108	125	238	288	410	230	495	565	400	234	123	89
2	140	125	1,340	292	435	302	480	598	365	220	120	89
3	132	212	1,830	284	260	328	455	560	346	209	117	89
4	316	246	1,430	254	796	284	455	526	324	198	125	87
5	276	332	1,460	250	761	306	450	500	306	192	123	87
6	216	291	1,170	238	644	310	440	500	375	189	115	85
7	307	251	890	242	543	288	450	521	328	182	112	85
8	404	199	679	297	526	302	445	495	306	176	110	85
9	316	182	564	410	1,060	690	445	470	360	173	107	85
10	280	166	485	360	1,130	1,250	445	450	365	173	105	87
11	249	173	435	338	906	754	475	415	415	162	105	87
12	328	182	386	328	722	614	475	395	370	176	103	83
13	284	441	354	324	604	526	470	365	328	166	103	81
14	242	1,210	332	306	516	455	490	346	302	166	98	81
15	206	1,810	390	279	465	400	475	375	460	169	96	81
16	189	1,170	652	279	415	375	440	370	521	198	96	81
17	176	658	570	284	370	365	410	351	450	234	96	81
18	163	475	1,480	262	342	365	390	336	445	189	96	80
19	173	394	1,800	246	315	338	380	420	455	169	96	80
20	163	337	1,240	234	306	320	395	485	395	157	96	78
21	152	303	922	226	288	320	405	450	351	151	98	78
22	143	272	789	220	270	338	420	560	320	148	96	76
23	138	253	850	223	258	320	405	587	292	142	92	76
24	132	234	698	242	254	306	440	532	279	136	92	76
25	127	220	598	324	250	302	521	674	288	133	94	76
26	125	213	516	425	238	292	521	740	375	130	98	76
27	125	202	460	516	234	297	470	662	346	128	98	74
28	146	196	420	470	270	302	485	598	297	125	100	76
29	143	196	390	410	-	328	465	543	270	125	98	76
30	132	242	360	360	-	375	495	480	250	125	94	76
31	127	-	328	333	-	450	-	435	-	123	92	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acre-feet
October	6,158	404	108	199	1.88	2.16	12,210
November	11,290	1,810	125	376	3.55	3.96	22,390
December	24,056	1,830	238	776	7.32	8.44	47,710
Calendar year 1941	104,175	1,830	74	285	2.69	36.54	206,600
January	9,544	516	220	308	2.91	3.35	18,930
February	13,748	1,130	230	491	4.63	4.82	27,270
March	12,432	1,250	230	401	3.78	4.36	24,660
April	13,597	521	380	453	4.27	4.77	26,970
May	15,306	740	338	494	4.66	5.37	30,360
June	10,684	521	250	356	3.36	3.75	21,190
July	5,218	234	123	168	1.58	1.83	10,350
August	3,194	126	92	103	.972	1.12	6,340
September	2,441	89	74	81.4	.768	.86	4,840
Water year 1941-42	127,668	1,830	74	350	3.30	44.79	253,200

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

Lake Ben Morrow Reservoir near Bull Run, Oreg.

Location.- Water-stage recorder, lat. 45°29', long. 122°05', in SW¼ sec. 16, T. 1 S., R. 6 E., at Bear Creek Dam of city of Portland, 8½ miles northeast of Bull Run. Datum of gage is at mean sea level (levels by Portland Water Bureau).

Records available.- October 1928 to September 1942.

Extremes.- Maximum contents during year, 28,930 acre-feet Dec. 18 (elevation, 1,041.07 feet); minimum, 21,350 acre-feet Sept. 30 (elevation, 1,020.51 feet).
1928-42: 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 1941 to September 1942

Date	Elevation (feet)†	Contents (acre-feet)	Change in contents during month (acre-feet)
Sept.30	1,036.63	27,180	-
Oct. 31	1,036.58	27,160	-20
Nov. 30	1,036.94	27,300	+140
Dec. 31	1,036.81	27,250	-50
Calendar year 1941	-	-	-100
Jan. 31	1,037.24	27,410	+160
Feb. 28	1,036.70	27,200	-210
Mar. 31	1,037.23	27,410	+210
Apr. 30	1,037.72	27,600	+190
May 31	1,037.22	27,410	-190
June 30	1,036.95	27,300	-110
July 31	1,036.14	26,980	-320
Aug. 31	1,029.92	24,650	-2,330
Sept.30	1,020.51	21,350	-3,300
Water year 1941-42	-	-	-5,830

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

Bull Run River below Lake Ben Morrow Reservoir, Oreg.

Location.- Water-stage recorder above crest of spillway and scales indicating number of turns outlet needle valves are open, lat. 45°29', long. 122°05', in SW¼ sec. 16, T. 1 S., R. 6 E., at Bear Creek Dam on Bull Run River, 500 feet downstream from Bear Creek, 1,000 feet upstream from Fivemile Creek, and 8½ miles northeast of Bull Run. Datum of gage is at mean sea level (levels by Portland Water Bureau).
Drainage area.- 74 square miles.
Records available.- October 1934 to September 1942. October 1929 to September 1934 at site half a mile downstream.
Average discharge.- 13 years, 530 second-feet.
Extremes.- Maximum discharge during year, 4,520 second-feet Dec. 18 (elevation, 1,041.07 feet); minimum, 99 second-feet Sept. 22-29.
1929-42: 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 except those below 500 second-feet, which are fair. 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 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	227	152	343	260	954	200	590	866	470	318	121	117
2	304	144	2,490	245	1,010	288	600	984	407	238	116	119
3	294	245	2,740	240	908	377	542	816	367	236	111	117
4	655	326	2,460	210	1,950	318	522	760	332	235	108	117
5	581	512	2,170	187	1,730	326	503	683	299	225	110	115
6	464	470	1,830	174	1,260	371	470	634	294	205	105	115
7	600	360	1,370	182	934	338	444	620	316	196	104	115
8	810	316	934	250	891	332	421	594	310	189	104	107
9	746	277	711	548	2,140	893	413	529	496	182	104	103
10	718	240	564	451	1,980	1,650	425	522	590	195	104	101
11	641	235	464	401	1,490	1,040	444	490	718	190	104	101
12	891	242	395	360	1,080	832	451	438	607	186	106	100
13	711	977	354	354	792	655	444	385	516	164	104	100
14	548	2,720	348	304	627	548	503	354	444	170	110	100
15	434	2,810	365	277	536	470	498	389	800	166	128	100
16	365	1,890	776	299	458	425	451	419	800	260	132	102
17	348	1,140	868	354	407	419	432	395	748	475	132	100
18	288	776	2,180	316	345	440	464	371	753	334	132	100
19	282	602	4,080	266	316	401	438	542	866	264	134	100
20	260	510	2,680	240	294	360	432	755	725	228	132	100
21	230	432	1,690	227	282	348	432	620	594	210	124	100
22	207	371	1,440	225	255	354	440	607	503	195	118	99
23	182	321	1,690	230	240	354	444	676	438	174	118	101
24	174	288	1,180	255	235	326	490	600	379	164	118	99
25	169	277	832	360	222	312	683	784	377	153	118	99
26	164	262	648	627	205	304	718	1,010	594	148	119	99
27	160	245	510	934	205	299	614	1,100	574	141	117	99
28	160	220	444	910	205	304	620	976	490	132	117	99
29	171	210	389	760	-	326	622	792	425	129	117	99
30	160	310	354	588	-	371	662	648	365	127	117	101
31	156	-	299	510	-	470	-	542	-	125	117	-

Month	Observed				Change in contents of Lake Ben Morrow Reservoir, in acre-feet	Adjusted for change in reservoir contents			
	Discharge in second-feet			Run-off in acre-feet		Run-off in acre-feet	Discharge in second-feet		Run-off in inches
	Maximum	Minimum	Mean				Mean	Per square mile	
October	891	156	390	24,000	-20	23,980	390	5.27	6.08
November	2,810	144	596	35,460	+140	35,600	598	8.08	9.02
December	4,080	299	1,213	74,570	-50	74,520	1,212	16.4	18.91
Calendar year 1941	4,080	87	413	298,670	-100	298,570	412	5.57	75.67
January	934	174	372	22,900	+160	23,060	375	5.07	5.84
February	2,140	205	785	43,600	-210	43,390	781	10.6	11.04
March	1,650	200	466	28,660	+210	28,870	470	6.35	7.32
April	718	413	507	30,170	+190	30,360	510	6.89	7.69
May	1,100	354	642	39,470	-190	39,280	639	8.64	9.96
June	866	294	520	30,940	-110	30,830	518	7.00	7.81
July	475	125	207	12,740	-320	12,420	202	2.73	3.15
August	134	104	116	7,140	-2,330	4,810	78.2	1.06	1.22
September	119	99	104	6,200	-3,300	2,900	48.7	.658	.73
Water year 1941-42	4,080	99	492	355,850	-5,830	350,020	483	6.53	88.77

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

Bull Run River near Bull Run, Oreg.

Location.- Water-stage recorder, lat. 45°27', long. 122°07', in SE¼ sec. 25, T. 1 S., R. 5 E., 1½ miles upstream from intake of pipe line for water supply of city of Portland and 5 miles east of Bull Run.

Drainage area.- 102 square miles.

Records available.- January 1895 to September 1942.

Average discharge.- 35 years (1907-42), 727 second-feet.

Extremes.- Maximum discharge during year, 5,360 second-feet Dec. 18 (gage height, 6.58 feet); minimum, 111 second-feet Sept. 25-30 (gage height, 0.79 foot).
1895-1942: Maximum discharge, 20,600 second-feet Mar. 31, 1931 (gage height, 13.8 feet), by computation of flow over dam; minimum, 63 second-feet Aug. 13-16, 1926.

Remarks.- Records good. No diversion above station. Flow regulated by Bull Run Lake and Lake Ben Morrow Reservoir; adjustment applied only for storage in Lake Ben Morrow Reservoir; flow from Bull Run Lake is not artificially regulated but reaches river through surface and underground channels.

Cooperation.- Water-stage recorder inspected by Portland Water Bureau.

Rating tables, water year 1941-42 (gage height, in feet, and discharge, in second-feet)

Oct. 1 to Dec. 18						Dec. 19 to Sept. 30					
1.0	180	2.0	560	3.7	1,690	0.7	94	1.6	370	3.1	1,210	5.4	3,570
1.3	274	2.5	815	4.5	2,490	1.0	160	2.0	545	3.8	1,780	6.3	4,880
1.6	390	3.0	1,140	5.5	3,700	1.3	255	2.5	815	4.6	2,600		

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	335	194	454	358	1,230	269	728	1,130	580	406	138	131
2	434	192	2,980	346	1,240	394	706	1,290	509	362	135	131
3	414	325	3,470	322	1,170	496	625	1,060	450	326	133	131
4	899	406	3,070	290	2,510	424	600	1,000	402	294	133	128
5	754	650	2,760	258	2,150	455	570	881	374	266	131	128
6	600	596	2,340	252	1,640	496	536	803	378	244	126	128
7	782	492	1,740	252	1,230	442	514	773	382	234	126	128
8	1,050	418	1,220	362	1,200	437	482	711	362	217	124	122
9	954	370	935	716	2,880	1,020	482	650	570	202	124	117
10	954	330	754	595	2,590	1,960	491	645	684	211	124	115
11	851	354	625	522	1,970	1,270	504	595	821	241	124	115
12	1,190	354	546	486	1,420	1,040	504	522	706	224	124	113
13	948	1,210	492	486	1,080	833	496	464	585	196	124	113
14	744	3,440	502	446	863	684	580	424	514	196	126	113
15	605	3,740	497	398	716	575	575	500	929	199	140	113
16	538	2,530	1,020	414	610	532	509	518	948	335	145	113
17	492	1,500	1,100	482	522	540	486	468	893	590	145	113
18	426	1,040	2,730	428	464	560	532	437	948	419	142	113
19	426	793	4,770	386	406	500	504	676	1,060	338	142	113
20	374	640	3,350	350	390	450	478	905	869	286	142	113
21	338	546	2,170	330	366	432	464	761	711	252	138	113
22	306	474	1,840	298	330	473	504	773	595	230	131	113
23	278	422	2,160	306	310	450	509	857	509	214	131	113
24	257	378	1,540	346	306	414	575	767	455	199	131	113
25	240	374	1,130	473	290	402	851	1,020	464	184	133	111
26	231	350	881	816	269	386	887	1,300	773	172	133	111
27	224	310	728	1,150	283	390	773	1,340	716	166	128	111
28	243	299	610	1,160	272	390	791	1,190	610	158	131	111
29	237	292	532	974	-	410	767	974	532	152	131	111
30	209	414	468	773	-	464	839	809	464	145	131	113
31	200	-	424	667	-	575	-	678	-	142	131	-

Month	Observed				Change in contents of Lake Ben Morrow Reservoir, in acre-feet	Adjusted for change in reservoir contents			
	Discharge in second-feet			Run-off in acre-feet		Run-off in acre-feet	Discharge in second-feet		Run-off in inches
	Maximum	Minimum	Mean				Mean	Per square mile	
October	1,190	200	533	32,790	-20	32,770	533	5.23	6.03
November	3,740	192	731	46,480	+140	46,620	783	7.68	8.57
December	4,770	424	1,543	94,890	-50	94,840	1,542	15.1	17.41
Calendar year 1941	4,770	113	537	388,720	-100	388,620	537	5.26	71.44
January	1,160	252	498	30,630	+160	30,790	501	4.91	5.66
February	2,880	272	1,025	56,940	-210	56,730	1,021	10.0	10.41
March	1,960	269	586	36,030	+210	36,240	589	5.77	6.65
April	887	464	595	35,430	+190	35,620	599	5.87	6.55
May	1,340	424	804	49,430	-190	49,240	801	7.85	9.05
June	1,060	362	626	37,280	-110	37,170	625	6.13	6.84
July	590	142	252	15,470	-320	15,150	246	2.41	2.78
August	145	124	132	8,130	-2,330	5,800	94.3	.925	1.07
September	131	111	117	6,960	-3,300	3,660	61.5	.603	.67
Water year 1941-42	4,770	111	622	450,460	-5,830	444,630	614	6.02	81.69

Peak discharge.- Nov. 14 (4 to 5 p.m.) 3,790 sec.-ft.; Nov. 15 (5 p.m.) 3,890 sec.-ft.; Dec. 2 (8 p.m.) 5,300 sec.-ft.; Dec. 4 (7 p.m.) 4,230 sec.-ft.; Dec. 18 (9 p.m.) 5,360 sec.-ft.; Feb. 4 (10 a.m.) 3,350 sec.-ft.

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

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 1942.

Average discharge.- 23 years (1919-42), 134 second-feet.

Extremes.- Maximum discharge during year, 1,160 second-feet Dec. 2 (gage height, 5.47 feet); minimum observed, 11 second-feet Sept. 24-28.
1911-13, 1919-42: Maximum discharge, 3,950 second-feet Nov. 20, 1931 (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 1941-42 (gage height, in feet, and discharge, in second-feet)

1.9	11	2.6	59	4.0	370
2.0	16	2.9	95	4.4	530
2.2	27	3.2	144	4.9	780
2.4	42	3.6	240		

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	111	40	98	77	154	66	167	229	112	81	28	16
2	118	40	679	76	163	91	142	279	96	71	27	15
3	144	76	606	72	159	101	126	224	87	64	28	14
4	276	82	582	67	342	91	126	224	78	58	29	14
5	172	154	457	63	297	95	123	186	72	54	28	14
6	124	120	437	61	276	95	115	176	78	49	26	14
7	165	96	282	63	210	86	112	170	77	48	25	14
8	243	78	208	110	243	91	106	154	71	44	24	14
9	172	66	165	188	695	196	107	137	128	42	23	14
10	159	60	135	140	640	332	110	126	135	43	23	14
11	139	67	116	126	429	232	110	110	142	58	22	14
12	210	62	100	123	307	193	116	96	120	48	22	14
13	152	249	91	123	232	152	107	85	101	42	21	14
14	121	615	88	107	188	126	131	80	91	41	20	14
15	96	792	91	95	157	108	120	121	190	46	20	h14
16	87	f425	154	104	135	101	102	112	161	122	19	h14
17	77	f270	139	115	120	101	91	95	154	121	19	h14
18	68	183	467	96	104	102	116	88	200	81	18	h14
19	80	148	700	90	92	94	98	197	226	68	18	h14
20	66	120	544	83	90	90	95	196	172	58	18	h12
21	58	102	370	77	86	91	88	148	135	53	18	h12
22	53	86	321	74	77	102	98	183	112	46	18	h12
23	48	80	363	74	72	91	92	218	92	46	17	h12
24	46	72	261	83	74	83	120	188	83	42	16	h11
25	43	68	203	106	70	83	157	282	98	40	16	h11
26	41	63	165	161	64	80	148	338	213	36	16	h11
27	41	57	140	174	69	82	148	304	161	35	16	h11
28	54	57	123	176	66	81	161	235	130	33	18	h11
29	50	55	110	144	-	86	157	188	112	32	18	h12
30	43	98	98	121	-	104	198	152	94	30	16	h12
31	42	-	87	118	-	135	-	128	-	29	16	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acre-feet
October	3,299	276	41	106	4.61	5.33	6,540
November	4,455	792	40	150	6.52	7.25	8,900
December	8,381	700	87	270	11.7	13.55	16,620
Calendar year 1941	36,666	792	11	100	4.35	59.26	72,720
January	3,289	188	61	106	4.61	5.32	6,520
February	5,610	695	64	200	8.70	9.07	11,130
March	3,561	332	66	115	5.00	5.76	7,060
April	3,687	198	88	123	5.35	5.96	7,310
May	5,449	338	80	176	7.65	8.81	10,810
June	3,721	226	71	124	5.39	6.02	7,380
July	1,663	122	29	53.6	2.33	2.69	3,300
August	643	29	16	20.7	.900	1.04	1,280
September	396	16	11	13.2	.574	.64	785
Water year 1941-42	44,184	792	11	121	5.26	71.44	87,640

Peak discharge.- Nov. 15 (9:30 a.m.) 872 sec.-ft.; Dec. 2 (7 p.m.) 1,160 sec.-ft.; Dec. 4 (3 p.m.) 931 sec.-ft.; Dec. 18 (7:30 p.m.) 944 sec.-ft.; Dec. 19 (1 p.m.) 769 sec.-ft.; Feb. 9 (6:30 a.m.) 886 sec.-ft.

f Computed from partly estimated gage-height record.
h Computed from staff-gage reading.
Time basis: Pacific standard time prior to 2 a.m., Feb. 9, 1942; Pacific war time thereafter. To convert war time to standard time, subtract 1 hour.

Middle Fork of 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 1942.
Extremes.- Maximum discharge during year, 15,000 second-feet Nov. 15 (gage height, 7.53 feet), from rating curve extended above 5,000 second-feet; minimum, 227 second-feet Sept. 25-30.
1913-14, 1935-42: Maximum discharge, 15,100 second-feet Apr. 14, 1937 (gage height, 7.60 feet), from rating curve extended above 5,000 second-feet; minimum, 201 second-feet Nov. 27 to Dec. 2, 1936 (gage height, 1.53 feet).
Maximum stage known, 10.6 feet (date unknown), determined in 1935 from floodmarks.
Remarks.- Records good except those for period of no gage-height record, which are fair. No diversion or regulation above station.
Cooperation.- Water-stage recorder inspected by employees of U. S. Forest Service.

Rating tables, water year 1941-42 (gage height, in feet, and discharge, in second-feet)

Oct. 1 to Nov. 15				Nov. 16 to Sept. 30			
1.7	231	4.0	2,150	2.1	230	4.5	2,900
1.9	298	4.5	3,100	2.3	300	5.0	4,070
2.3	480	5.0	4,300	2.6	440	6.0	7,410
2.6	660	6.0	7,650	3.0	715		
3.0	980	7.0	12,100	3.5	1,230		
3.5	1,480			4.0	1,950		

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	256	382	526	a780	1,670	621	742	760	1,760	724	332	262
2	294	429	3,400	a760	1,640	685	715	751	1,680	691	332	258
3	269	760	6,310	a750	1,520	699	715	862	1,520	643	324	258
4	294	1,150	3,400	a720	2,880	667	760	1,110	1,390	614	324	254
5	306	810	2,940	699	2,540	675	769	1,080	1,300	579	320	254
6	294	653	2,460	683	2,500	667	760	1,020	1,330	552	316	251
7	294	558	2,040	1,830	2,020	643	751	1,080	1,350	532	312	251
8	334	496	1,670	4,180	1,670	643	751	1,090	1,240	513	308	254
9	310	454	1,420	2,980	1,560	699	769	1,080	1,270	488	308	293
10	302	420	1,240	2,350	1,640	1,060	787	1,020	1,180	476	304	276
11	298	391	1,100	2,020	1,480	1,150	805	960	1,090	494	300	262
12	351	378	1,000	1,760	1,330	1,210	852	900	1,000	464	296	258
13	378	568	930	1,550	1,180	1,150	872	852	940	452	293	254
14	338	3,700	940	1,390	1,080	1,060	920	834	890	446	290	251
15	322	12,000	1,290	1,280	1,000	980	872	1,020	980	440	286	248
16	302	5,690	3,760	1,230	930	930	824	1,110	930	464	282	244
17	291	2,920	3,000	1,130	872	900	796	1,080	852	513	286	244
18	287	1,920	a4,300	1,060	814	881	769	1,020	805	452	282	240
19	322	1,450	a5,800	980	769	843	733	1,000	760	430	279	237
20	387	1,190	a4,000	920	751	796	751	1,040	707	415	279	234
21	347	1,040	a3,000	872	715	787	824	1,220	667	390	276	234
22	330	920	a2,300	834	685	769	881	1,730	643	390	276	234
23	310	834	a2,500	805	659	733	843	1,670	621	385	272	230
24	298	751	a2,000	778	667	699	814	1,520	607	375	272	230
25	287	691	a1,600	778	651	675	787	2,200	852	365	272	227
26	287	635	a1,400	950	635	643	751	2,600	1,130	360	272	227
27	356	600	a1,200	1,880	635	628	760	2,290	1,030	355	279	227
28	396	579	a1,050	1,760	628	621	787	2,370	920	350	282	227
29	410	558	a1,000	1,470	-	614	742	2,370	834	345	276	227
30	391	558	a920	1,280	-	628	751	2,090	769	340	272	227
31	382	-	a850	1,190	-	667	-	2,090	-	336	268	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off Inches	Run-off Acre-feet
October	10,023	410	256	323	0.824	0.95	19,880
November	43,485	12,000	378	1,450	3.70	4.13	86,250
December	69,346	6,310	526	2,237	5.71	6.58	137,500
Calendar year 1941	295,985	12,000	237	811	2.07	28.09	587,000
January	41,649	4,180	683	1,344	3.43	3.95	82,610
February	35,119	2,880	628	1,254	3.20	3.33	69,660
March	24,421	1,210	614	788	2.01	2.32	48,440
April	23,653	920	715	788	2.01	2.24	46,920
May	41,819	2,600	751	1,349	3.44	3.97	82,950
June	31,047	1,760	607	1,035	2.64	2.95	61,580
July	14,388	724	336	464	1.18	1.37	28,540
August	9,073	332	288	293	.747	.86	18,000
September	7,373	293	227	246	.628	.70	14,620
Water year 1941-42	351,396	12,000	227	963	2.46	33.38	697,000

Peak discharge.- Nov. 15 (1:15 p.m.) 15,000 sec.-ft.; Dec. 3 (2 a.m.) 8,630 sec.-ft.; Dec. 16 (9:30 a.m.) 4,740 sec.-ft.; Jan. 8 (5 a.m.) 4,770 sec.-ft.; Feb. 4 (1 to 3 p.m.) 3,220 sec.-ft.
a No gage-height record; discharge computed on basis of records for stations at Eula and on North Fork of Middle Fork of Willamette River near Oakridge.
Time basis: Pacific standard time prior to 2 a.m., Feb. 9, 1942; Pacific war time thereafter. To convert war time to standard time, subtract 1 hour.

Middle Fork of 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 1942.
Average discharge.- 18 years (1923-26, 1927-42), 2,308 second-feet.
Extremes.- Maximum discharge during year, 33,200 second-feet Nov. 15 (gage height, 13.19 feet); minimum, 544 second-feet Sept. 25-27 (gage height, 0.87 foot).
1923-42: Maximum discharge, 55,100 second-feet Feb. 21, 1927 (gage height, 17.0 feet), from rating curve extended above 21,000 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 water caused by logging operations upstream.
Cooperation.- Gage-height record collected in cooperation with U. S. Weather Bureau.

Rating tables, water year 1941-42 (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Oct. 1 to Nov. 15)

Oct. 1 to Nov. 15				Nov. 16 to Sept. 30			
1.0	630	5.0	5,360	0.8	510	5.5	5,240
1.5	960	6.0	6,960	1.2	745	7.0	8,000
2.0	1,400	8.0	10,700	1.7	1,100	8.5	11,700
2.7	2,160	10.0	17,300	2.3	1,580	10.0	17,300
3.4	3,040	12.0	27,000	3.0	2,220		
4.2	4,150			4.0	3,240		

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	654	1,070	1,470	2,210	3,650	1,610	1,850	2,040	4,270	1,840	838	626
2	782	1,170	4,470	2,090	3,650	1,730	1,830	2,060	4,060	1,720	831	620
3	708	1,730	12,000	2,030	3,380	1,770	1,810	2,180	3,740	1,620	824	620
4	782	3,140	8,020	1,940	5,180	1,700	1,930	2,690	3,440	1,540	817	614
5	850	2,320	7,610	1,840	5,210	1,790	2,000	2,650	3,210	a1,480	810	609
6	822	1,960	6,490	1,800	5,190	1,700	1,940	2,540	3,130	a1,400	797	609
7	822	1,710	5,520	3,410	4,540	1,640	1,920	2,660	3,120	a1,360	784	604
8	900	1,500	4,520	7,830	4,120	1,610	1,920	2,740	2,860	a1,320	778	614
9	878	1,330	3,860	6,640	4,330	1,690	1,930	2,750	2,940	a1,300	764	668
10	850	1,230	3,370	5,430	5,080	2,400	1,980	2,690	2,810	1,270	758	662
11	850	1,150	2,980	4,760	4,500	2,680	2,020	2,550	2,640	1,290	758	632
12	1,020	1,090	2,680	4,200	3,860	2,940	2,090	2,400	2,410	1,230	745	614
13	1,110	1,170	2,480	3,770	3,380	2,820	2,110	2,220	2,270	1,160	726	604
14	1,020	6,130	2,490	3,420	3,060	2,620	2,230	2,140	2,140	1,140	712	598
15	945	26,000	2,960	3,130	2,780	2,430	2,150	2,560	2,350	1,120	700	592
16	900	16,000	7,140	3,030	2,570	2,320	2,020	2,790	2,350	1,160	686	592
17	850	8,300	6,700	2,810	2,360	2,250	1,970	2,710	2,100	1,330	680	592
18	822	5,600	10,200	2,630	2,210	2,250	1,890	2,600	1,940	1,190	680	587
19	857	4,200	14,200	2,480	2,040	2,150	1,790	2,520	a1,800	1,130	680	576
20	1,010	3,440	10,200	2,330	2,000	2,030	1,810	2,580	a1,700	1,080	668	570
21	922	2,930	7,710	2,190	1,940	1,960	1,960	2,860	a1,600	1,040	674	565
22	871	2,590	6,300	2,090	1,840	1,910	2,140	4,140	a1,500	1,010	662	565
23	829	2,330	6,730	2,010	1,760	1,830	2,100	4,180	a1,450	995	650	554
24	796	2,110	5,740	1,940	1,760	1,760	2,010	3,750	a1,400	958	638	554
25	770	1,940	4,740	1,920	1,710	1,680	1,980	5,030	a1,700	936	638	548
26	776	1,800	3,970	2,160	1,660	1,620	1,900	6,420	a3,100	915	638	548
27	885	1,670	3,500	3,890	1,660	1,580	1,920	5,810	2,730	901	644	548
28	1,020	1,600	3,160	3,910	1,630	1,550	2,090	5,820	2,400	887	650	554
29	1,060	1,550	2,900	3,420	-	1,550	1,950	5,820	2,160	880	644	554
30	1,030	1,570	2,690	3,010	-	1,550	1,940	5,180	1,980	866	644	554
31	984	-	2,500	2,840	-	1,660	-	4,940	-	852	638	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off: Inches	Run-off: Acre-feet
October	27,375	1,110	654	883	0.938	1.08	54,300
November	110,330	26,000	1,070	3,678	3.91	4.36	218,800
December	169,300	14,200	1,470	5,461	5.80	6.69	335,800
Calendar year 1941	717,136	26,000	600	1,965	2.09	28.34	1,422,000
January	97,160	7,830	1,800	3,134	3.33	3.84	192,700
February	87,030	5,210	1,630	3,108	3.30	3.44	172,600
March	60,670	2,940	1,550	1,957	2.08	2.40	120,300
April	59,180	2,230	1,790	1,973	2.10	2.34	117,400
May	104,020	6,420	2,040	3,355	3.57	4.11	206,300
June	75,300	4,270	1,400	2,510	2.67	2.98	149,400
July	36,920	1,840	862	1,191	1.27	1.46	73,230
August	22,156	838	638	715	.760	.88	43,950
September	17,747	668	548	592	.629	.70	35,200
Water year 1941-42	867,188	26,000	548	2,376	2.52	34.28	1,720,000

Peak discharge.- Nov. 15 (6 p.m.) 33,200 sec.-ft.; Dec. 3 (6 a.m.) 14,400 sec.-ft.; Dec. 16 (12 m.) 8,950 sec.-ft.; Dec. 18 (11 p.m.) 17,000 sec.-ft.; Jan. 8 (8 a.m.) 8,450 sec.-ft.
a No gage-height record; discharge computed on basis of records for stations above Salt Creek, near Oakridge, and on Salt Creek near Oakridge, Salmon Creek near Oakridge, and North Fork of Middle Fork of Willamette River near Oakridge, Oreg.
Time basis: Pacific standard time prior to 2 a.m., Feb. 9, 1942; Pacific war time thereafter. To convert war time to standard time, subtract 1 hour.

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 1942. June 1919 to September 1928 at site 4 miles downstream published as Willamette River at Eugene; 1894 to 1942 (records of stage by U. S. Weather Bureau), at site at Eugene.
Average discharge.- 24 years (1912-13, 1919-42), 4,838 second-feet.
Extremes.- Maximum discharge during year, 70,500 second-feet Nov. 16 (gage height, 16.8 feet); minimum, 617 second-feet Sept. 25 (gage height, 1.38 feet).
1911-13, 1919-42: Maximum discharge, 73,300 second-feet Feb. 21, 1927 (gage height at Eugene, 17.0 feet); minimum, 500 second-feet Aug. 11, 1926.
Maximum stage recorded by U. S. Weather Bureau, 22.0 feet at Eugene, Jan. 25, 1903. Floods in December 1861 and Februaru 1890 reached about the same stage.
Remarks.- Records good. Slight diurnal fluctuation at low water caused by logging operations in basin of Middle Fork of Willamette River. Small diversions above station.

Rating tables, water year 1941-42 (gage height, in feet, and discharge, in second-feet)

Oct. 1 to Nov. 15						Nov. 16 to Sept. 30					
1.6	860	4.0	4,380	8.5	19,900	1.4	630	4.0	4,380	10.0	27,800
2.0	1,240	5.0	6,930	10.0	26,600	1.7	855	5.0	6,930	12.0	38,400
2.6	1,950	6.0	9,940	12.0	36,100	2.1	1,255	6.0	10,100	14.0	50,500
3.2	2,840	7.0	13,600			2.6	1,910	7.0	14,000		
						3.2	2,840	8.5	20,600		

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	878	1,690	2,610	5,100	7,450	4,120	3,320	4,720	8,670	3,420	1,150	791
2	986	1,910	7,510	4,610	8,450	4,380	3,270	5,460	7,660	3,130	1,140	768
3	1,040	2,160	31,900	4,360	7,630	5,180	3,160	5,260	6,870	2,870	1,130	775
4	1,010	5,660	31,800	4,180	12,600	4,750	3,220	6,680	6,070	2,640	1,120	752
5	1,310	4,450	19,500	3,830	14,500	4,360	3,590	6,590	5,430	2,460	1,110	768
6	1,320	3,470	15,300	3,670	13,300	4,270	3,340	5,840	5,180	2,320	1,090	752
7	1,250	2,890	12,500	6,540	12,000	3,930	3,200	5,430	5,160	2,230	1,050	745
8	1,540	2,500	9,900	18,700	11,000	3,670	3,150	5,200	4,750	2,160	1,030	752
9	1,500	2,180	8,110	17,200	10,800	3,630	3,100	4,910	4,790	2,020	1,010	783
10	1,350	1,960	6,900	12,900	13,200	4,180	3,100	5,080	4,910	h1,880	1,020	889
11	1,310	1,830	5,870	10,600	11,800	4,860	3,110	5,100	4,660	h1,880	1,010	847
12	1,600	1,800	5,180	8,990	9,620	5,810	3,150	4,700	4,270	a1,820	988	799
13	2,230	1,910	4,630	7,780	8,080	6,020	3,150	4,310	3,930	a1,770	959	768
14	1,910	7,170	4,660	6,790	6,930	5,810	3,250	3,990	3,630	a1,710	914	760
15	1,680	37,900	4,790	6,020	6,100	5,330	3,290	4,310	3,670	a1,720	906	745
16	1,480	50,200	15,900	6,000	5,460	4,960	3,080	5,280	4,080	a1,800	880	738
17	1,370	25,000	20,200	5,500	4,910	4,770	3,010	5,400	3,610	a2,000	872	722
18	1,310	14,800	25,200	5,010	4,470	4,960	2,990	4,940	3,290	a1,920	855	722
19	1,280	9,860	37,100	4,610	4,100	4,840	2,810	4,470	3,150	h1,770	855	700
20	1,450	7,540	30,500	4,310	3,830	4,500	2,700	4,270	2,980	1,640	855	693
21	1,420	6,130	21,700	4,030	3,830	4,230	2,790	4,360	2,790	1,550	847	693
22	1,320	5,200	16,600	3,830	3,690	4,140	2,960	5,940	2,640	1,500	839	686
23	1,250	4,470	13,200	3,650	3,490	3,950	3,230	7,130	2,510	1,460	823	679
24	1,190	3,950	16,200	3,530	3,950	3,730	3,080	6,510	2,380	1,380	815	679
25	1,140	3,550	12,500	3,670	4,200	3,510	3,270	9,120	2,980	1,340	799	665
26	1,120	3,290	10,000	3,790	4,030	3,460	3,360	15,100	6,050	1,280	807	672
27	1,240	3,030	8,390	8,020	4,230	3,320	3,460	13,100	7,130	1,260	799	672
28	1,620	2,840	7,420	8,920	4,310	3,250	4,700	12,300	5,500	1,240	839	686
29	1,590	2,670	6,730	7,720	-	3,180	4,540	12,900	4,610	1,230	823	679
30	1,590	2,670	6,210	6,680	-	3,100	4,080	12,000	3,810	1,210	815	672
31	1,510	-	5,760	5,760	-	3,110	-	10,200	-	1,170	799	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acre-feet
October	42,794	2,230	878	1,380	0.68	0.78	84,880
November	224,680	50,200	1,690	7,489	3.69	4.12	445,600
December	429,770	37,100	2,610	13,860	6.83	7.87	852,400
Calendar year 1941	1,472,848	50,200	792	4,035	1.99	26.97	2,921,000
January	206,200	18,700	3,530	6,652	3.28	3.78	409,000
February	207,960	14,500	3,490	7,427	3.66	3.81	412,500
March	133,310	6,020	3,100	4,300	2.12	2.44	264,400
April	98,460	4,700	2,700	3,282	1.62	1.80	195,300
May	210,600	15,100	3,990	6,794	3.35	3.86	417,700
June	137,160	8,670	2,380	4,572	2.25	2.51	272,100
July	57,780	3,420	1,170	1,864	.918	1.06	114,600
August	28,949	1,150	799	934	.460	.53	57,420
September	22,052	889	665	735	.362	.40	43,740
Water year 1941-42	1,799,715	50,200	665	4,931	2.43	32.96	3,570,000

Peak discharge.- Nov. 16 (2 p.m. to 1 a.m.) 70,500 sec.-ft.; Dec. 3 (2 p.m.) 35,400 sec.-ft.; Dec. 19 (8 a.m.) 40,400 sec.-ft.
a No gage-height record; discharge computed on basis of records for Middle Fork of Willamette River at Eula and Coast Fork of Willamette River at Saginaw.
h Computed from staff-gage reading.
Time basis: Pacific standard time prior to 2 a.m., Feb. 9, 1942; Pacific war time thereafter. To convert war time to standard time, subtract 1 hour.

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 1942.

Average discharge.- 47 years (1895-1942), 13,520 second-feet.

Extremes.- Maximum discharge during year, 86,000 second-feet Nov. 18; maximum gage height, 20.26 feet Dec. 21; minimum, 2,590 second-feet Sept. 26 (gage height, -0.26 foot).

1878-82, 1892-1942: Maximum discharge, 266,000 second-feet (revised) Jan. 14, 1881 (gage height, 32.8 feet); minimum, 1,840 second-feet Sept. 1, 2, 1940 (gage height, 0.01 foot).

Maximum stage known, 36.0 feet Dec. 4, 1861 (discharge, 340,000 second-feet, revised, from rating curve extended above 220,000 second-feet).

Remarks.- Records good. Water was stored in Fern Ridge Reservoir during winter and about 500 second-feet in excess of natural flow released Aug. 17 to Sept. 30. (See p. 109). Albany power canal diverts water from South Santiam River into Willamette River above station; small diversions for irrigation.

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

Revisions.- The following table contains the gage heights and discharge for stages above 25 feet for all floods of that magnitude for which records are available. The records for Jan. 14-16, 1881, and Feb. 4, 1890 have not heretofore been published. Figures of discharge for other dates are revisions that supersede the figures previously published.

Date	Gage height (feet)	Discharge (second-feet)	Date	Gage height (feet)	Discharge (second-feet)	Date	Gage height (feet)	Discharge (second-feet)
Dec. 4, 1861	†36.0	340,000	Jan. 15, 1901	30.4	214,000	Feb. 8, 1916	†27.7	165,000
Jan. 14, 1881	†32.8	266,000	16	28.4	177,000	8	26.3	144,000
14	32.5	259,000	Feb. 18	26.0	140,000	9	26.7	149,000
15	27.7	165,000	Jan. 26, 1903	31.3	233,000	Jan. 8, 1923	†30.0	206,000
16	30.5	216,000	27	27.0	154,000	8	29.6	199,000
Feb. 4, 1890	33.9	291,000	Feb. 6, 1907	30.7	220,000	9	26.2	142,000
Jan. 16, 1894	28.2	173,000	7	28.2	173,000	Feb. 22, 1927	†29.2	191,000
17	25.5	134,000	Dec. 27	26.2	142,000	22	27.3	158,000
Nov. 17, 1896	27.4	160,000	28	26.5	147,000	23	26.0	140,000
18	28.5	178,000	Nov. 24, 1909	28.5	178,000	Mar. 21, 1932	†25.5	134,000
19	25.6	135,000	25	29.3	193,000			† Crest

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2,950	4,130	8,810	18,400	20,000	11,200	7,990	9,360	19,900	8,520	3,570	3,020
2	2,890	4,680	12,000	16,500	22,400	10,900	8,380	10,400	17,500	7,770	3,490	2,990
3	3,060	5,750	29,800	15,200	23,600	11,500	8,270	11,100	15,700	7,150	3,440	2,960
4	3,160	6,440	57,100	14,600	27,000	12,200	8,020	11,300	14,200	6,640	3,440	2,990
5	3,160	11,600	62,000	13,600	35,900	11,500	8,190	12,400	12,900	6,200	3,420	2,950
6	3,570	10,600	50,800	13,000	42,900	11,000	8,550	12,200	11,900	5,910	3,360	2,950
7	3,650	8,960	40,100	13,000	39,600	10,700	8,210	11,400	11,600	5,720	3,320	2,920
8	3,670	7,790	32,500	20,200	34,300	10,000	7,880	10,900	11,400	5,570	3,210	2,920
9	4,350	6,890	27,000	37,700	30,500	9,890	7,800	10,700	10,700	5,420	3,160	2,890
10	4,680	6,190	23,500	47,000	29,800	10,000	7,670	10,600	10,900	5,220	3,120	2,960
11	4,230	5,630	21,000	39,400	32,100	12,500	7,590	11,300	10,800	5,060	3,140	3,060
12	4,110	5,400	18,600	30,300	30,200	13,700	7,540	11,500	10,500	5,120	3,080	2,990
13	4,730	5,680	16,900	25,400	26,300	14,600	7,540	10,800	9,900	5,060	3,020	2,940
14	5,680	7,380	16,200	22,600	23,200	14,700	7,560	10,100	9,250	4,900	3,050	2,850
15	5,240	20,300	16,200	20,900	20,700	13,800	7,880	9,890	8,810	4,750	2,940	2,810
16	4,770	45,800	20,400	19,400	18,700	12,900	7,830	10,100	8,870	4,730	2,890	2,800
17	4,350	73,500	33,600	18,800	16,400	12,200	7,490	11,100	9,280	4,900	2,890	2,810
18	4,110	75,900	43,700	17,700	14,800	11,700	7,460	11,000	8,670	5,200	3,020	2,770
19	3,950	44,200	51,500	16,400	13,500	11,700	7,410	10,500	8,270	4,960	3,100	2,700
20	3,930	28,000	72,800	15,300	12,300	11,300	7,180	9,990	8,070	4,600	3,120	2,680
21	4,050	22,200	83,400	14,400	11,900	10,600	7,020	9,720	7,840	4,430	3,120	2,670
22	3,900	18,900	68,500	13,500	11,600	10,100	7,100	10,000	7,150	4,280	3,120	2,670
23	3,700	16,300	51,400	12,700	11,000	9,900	7,380	12,400	6,760	4,180	3,090	2,660
24	3,670	14,000	46,700	13,000	10,800	9,510	7,620	13,800	6,490	4,070	3,060	2,660
25	3,430	12,400	42,800	14,700	11,300	9,190	7,510	13,300	6,490	3,980	3,030	2,670
26	3,360	11,400	35,200	16,600	11,300	8,930	7,880	17,200	7,670	3,900	3,090	2,620
27	3,430	10,800	29,200	19,200	11,000	8,810	8,070	24,000	11,500	3,780	3,050	2,670
28	3,560	10,000	25,400	23,800	11,400	8,520	8,350	24,200	12,300	3,710	3,050	2,640
29	4,130	9,420	23,200	24,100	-	8,300	10,000	23,800	10,700	3,650	3,080	2,660
30	4,210	8,840	21,800	21,400	-	8,050	9,780	24,300	9,450	3,610	3,060	2,710
31	4,210	-	20,200	19,500	-	7,910	-	22,400	-	3,610	3,030	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off Inches	Run-off Acre-feet
October	121,690	5,680	2,890	3,925	0.811	0.94	241,400
November	518,980	75,900	4,130	17,300	3.57	3.99	1,029,000
December	1,102,310	83,400	8,810	35,560	7.35	8.47	2,186,000
Calendar year 1941	3,833,210	83,400	2,340	10,500	2.17	29.45	7,602,000
January	628,500	47,000	12,700	20,270	4.19	4.83	1,247,000
February	604,500	42,900	10,800	21,590	4.46	4.64	1,199,000
March	337,610	14,700	7,910	10,890	2.25	2.59	669,600
April	237,130	10,000	7,020	7,904	1.63	1.82	470,300
May	411,560	24,300	9,360	13,280	2.74	3.16	816,300
June	315,170	19,900	6,490	10,510	2.17	2.42	625,100
July	156,600	8,520	3,160	5,052	1.04	1.20	310,600
August	97,560	3,570	2,890	3,147	.650	.75	193,500
September	84,590	3,060	2,620	2,820	.583	.65	167,800
Water year 1941-42	4,616,200	83,400	2,620	12,650	2.61	35.46	9,156,000

Peak discharge.- Nov. 18 (1 a.m.) 86,000 sec.-ft.; Dec. 5 (5 a.m.) 64,600 sec.-ft.; Dec. 21 (7:30 a.m.) 85,600 sec.-ft.; Jan. 10 (10 a.m.) 47,900 sec.-ft.; Feb. 6 (8-9 a.m.) 43,700 sec.-ft.

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

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 1942.
Average discharge.- 22 years, 21,400 second-feet.
Extremes.- Maximum discharge during year, 132,000 second-feet Dec. 21 (gage height, 19.12 feet); minimum, 3,210 second-feet Sept. 27 (gage height, -4.06 feet).
1909-16, 1927-42: 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. Water was stored in Fern Ridge Reservoir (see p.109) during winter months and about 500 second-feet more than natural flow was discharged Aug. 17 to Sept. 30.
Cooperation.- Gage-height record collected in cooperation with U. S. Weather Bureau.

Rating tables, water year 1941-42 (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Dec. 19, 20)

Oct. 1 to Dec. 20

-3.5	4,120	0.0	13,000	8.0	49,100
-3.0	5,060	2.0	20,000	10.0	62,500
-2.0	7,280	4.0	28,200	13.0	84,500
-1.0	9,980	6.0	37,300	17.0	123,000

Dec. 21 to Sept. 30

-4.0	3,300	2.0	20,000	12.0	69,800
-3.0	5,060	4.0	28,200	15.0	92,400
-2.0	7,280	6.0	36,900	19.0	131,000
-1.0	9,980	8.0	46,500		
0.0	13,000	10.0	57,300		

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	4,460	6,550	14,200	28,400	33,200	17,000	13,700	16,000	29,800	12,800	4,840	3,680
2	4,480	7,110	18,900	25,500	36,000	16,500	14,900	17,600	26,500	11,700	4,730	3,670
3	4,730	8,620	69,500	23,400	37,500	17,800	14,600	18,700	23,500	10,800	4,710	3,620
4	4,860	10,500	98,800	22,200	45,600	19,100	14,300	18,700	21,400	10,000	4,650	3,620
5	5,600	14,900	104,000	20,800	61,000	18,000	14,200	19,000	19,200	9,400	4,610	3,600
6	6,100	17,800	97,600	19,400	70,800	17,500	14,400	19,000	17,700	8,870	4,560	3,600
7	6,210	15,400	78,100	19,300	69,200	17,000	14,000	18,200	17,400	8,490	4,460	3,590
8	6,520	13,300	61,400	31,000	59,200	16,100	13,400	17,600	16,800	8,170	4,370	3,540
9	8,300	11,600	49,100	51,000	51,300	15,700	13,000	17,200	15,900	7,860	4,260	3,560
10	8,870	10,400	40,100	67,700	51,500	21,300	12,800	17,000	16,400	7,530	4,210	3,620
11	8,380	9,430	34,800	62,100	54,100	28,300	12,700	17,100	17,300	7,360	4,140	3,680
12	8,120	9,040	30,700	49,800	50,400	27,200	12,700	16,800	17,000	7,300	4,120	3,760
13	9,800	9,400	27,400	41,700	43,800	26,400	12,600	15,800	15,800	7,380	4,050	3,700
14	10,500	18,200	25,900	36,700	38,100	25,500	12,600	14,700	14,600	7,020	3,930	3,620
15	9,800	43,400	25,200	33,200	34,000	23,700	12,900	14,000	13,600	6,800	3,900	3,560
16	8,700	85,900	32,900	30,700	30,700	21,700	12,900	14,300	14,400	6,800	3,800	3,560
17	7,880	100,000	52,400	29,600	27,400	20,200	12,300	15,100	15,000	7,210	3,760	3,540
18	7,330	109,000	68,700	28,100	24,800	19,300	12,100	15,100	14,000	8,090	3,760	3,510
19	6,990	86,300	88,400	26,000	22,500	19,000	12,000	14,600	13,500	7,730	3,810	3,440
20	6,920	51,100	120,000	24,300	20,500	18,100	11,700	14,600	13,200	6,990	3,880	3,400
21	6,730	36,700	131,000	22,700	19,700	17,100	11,500	14,500	12,400	6,520	3,880	3,350
22	6,550	30,600	120,000	21,300	19,000	16,300	11,500	14,800	11,600	6,190	3,860	3,320
23	6,210	26,500	93,300	19,800	17,800	16,000	11,800	18,400	10,800	5,990	3,850	3,280
24	5,900	22,900	84,200	20,000	17,500	15,600	12,000	20,800	10,400	5,860	3,810	3,260
25	5,620	19,900	67,400	23,000	17,700	15,000	12,100	20,900	10,100	5,680	3,750	3,270
26	5,450	17,800	56,700	27,900	17,400	14,800	12,900	27,700	11,200	5,510	3,750	3,260
27	5,450	16,600	47,000	34,600	17,000	14,400	13,300	35,900	15,500	5,360	3,730	3,260
28	5,680	15,600	40,500	39,500	17,200	14,000	14,000	37,800	18,000	5,220	3,730	3,280
29	6,360	14,800	36,500	39,900	-	13,500	15,800	36,700	16,200	5,120	3,750	3,270
30	6,750	14,100	33,800	36,000	-	13,300	16,000	35,400	14,300	5,020	3,760	3,280
31	6,620	-	31,500	32,400	-	13,300	-	33,200	-	4,920	3,780	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off Inches	Run-off Acre-feet
October	211,870	10,500	4,460	6,835	0.94	1.08	420,200
November	853,450	109,000	6,550	28,450	3.91	4.36	1,693,000
December	1,880,000	131,000	14,200	60,650	8.33	9.60	3,729,000
Calendar year 1941	6,356,130	131,000	3,100	17,410	2.39	32.48	12,610,000
January	988,000	67,700	19,300	31,870	4.38	5.05	1,960,000
February	1,004,900	70,800	17,000	35,890	4.93	5.13	1,993,000
March	568,700	28,300	13,300	18,350	2.52	2.91	1,128,000
April	394,700	16,000	11,500	13,160	1.81	2.02	782,900
May	627,200	37,800	14,000	20,230	2.78	3.20	1,244,000
June	483,500	29,800	10,100	16,120	2.21	2.47	959,000
July	229,690	12,800	4,920	7,409	1.02	1.17	456,600
August	126,200	4,840	3,730	4,071	.559	.64	250,300
September	104,700	3,760	3,260	3,490	.479	.53	207,700
Water year 1941-42	7,472,910	131,000	3,260	20,470	2.81	38.16	14,820,000

Peak discharge.- Nov. 18 (3 p.m.) 111,000 sec.-ft.; Dec. 5 (9 p.m.) 108,000 sec.-ft.; Dec. 21 (1 p.m.) 132,000 sec.-ft.
Time basis: Pacific standard time prior to 2 a.m., Feb. 9, 1942; Pacific war time thereafter. To convert war time to standard time, subtract 1 hour.

Hills Creek near Oakridge, Oreg.

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

Drainage area.- 59 square miles.

Records available.- September 1935 to September 1942.

Extremes.- Maximum discharge observed during year, 3,150 second-feet Nov. 15 (gage height, 8.02 feet, observed at peak), from rating curve extended above 900 second-feet by logarithmic plotting; minimum observed, 20 second-feet Sept. 25-30.
1935-42: Maximum discharge, that of Nov. 15, 1941; minimum observed, 12 second-feet Aug. 26 to Sept. 2, 1940.

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

Rating table, water year 1941-42 (gage height, in feet, and discharge, in second-feet)

0.8	16	2.0	158	4.0	755
1.0	30	2.3	218	4.6	1,010
1.2	47	2.6	287	5.2	1,310
1.4	68	3.0	400	5.8	1,620
1.7	107	3.5	565	6.5	2,030

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	30	68	78	120	242	83	120	110	310	123	42	27
2	55	85	430	113	245	93	110	107	287	110	40	26
3	38	88	839	104	231	96	107	130	258	104	40	26
4	46	231	520	101	412	93	123	332	218	99	38	25
5	56	171	433	96	352	93	113	203	216	93	38	24
6	53	133	388	90	343	93	110	195	227	85	38	24
7	61	113	300	252	277	90	110	218	249	80	36	24
8	59	93	256	586	238	93	117	216	222	78	36	26
9	56	83	218	436	254	101	117	205	238	73	36	27
10	49	76	183	376	286	181	120	181	225	68	36	29
11	47	66	158	321	263	201	123	156	199	80	33	27
12	66	61	144	282	229	233	126	147	177	68	33	26
13	64	g86	130	247	197	206	130	133	162	64	33	24
14	57	g694	130	216	171	181	137	123	151	64	31	23
15	53	g2,020	201	189	154	154	126	179	197	61	31	23
16	47	g1,070	632	183	140	151	110	193	164	68	30	22
17	45	g586	448	164	126	140	107	191	147	107	30	22
18	43	g376	815	154	117	151	104	177	137	70	30	22
19	51	g277	916	140	107	126	99	175	126	66	29	22
20	88	g225	667	126	104	120	104	187	113	59	29	22
21	73	181	478	120	101	113	107	225	107	57	29	21
22	64	158	382	113	93	117	123	448	104	55	29	21
23	55	137	418	107	88	107	113	385	96	49	29	21
24	51	123	332	104	90	107	107	332	90	49	27	21
25	47	110	270	104	90	101	110	433	177	47	27	20
26	45	99	236	117	85	93	107	470	247	47	26	20
27	57	93	197	292	90	90	107	403	227	45	26	20
28	68	88	164	254	85	90	110	409	187	45	27	20
29	93	83	158	220	-	90	107	403	158	43	28	20
30	80	80	151	187	-	93	107	379	144	43	28	20
31	76	-	130	177	-	104	-	340	-	42	27	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acre-feet
October	1,769	93	30	57.1	0.968	1.12	3,510
November	7,753	2,020	61	258	4.37	4.89	15,380
December	10,802	916	78	348	5.90	6.81	21,430
Calendar year 1941	45,896	2,020	26	126	2.14	28.94	91,030
January	6,091	586	90	196	3.32	3.84	12,080
February	5,209	412	86	186	3.15	3.28	10,330
March	3,783	233	83	122	2.07	2.38	7,500
April	3,411	137	99	114	1.93	2.15	6,770
May	7,785	470	107	251	4.25	4.91	15,440
June	5,560	310	90	185	3.14	3.50	11,030
July	2,142	123	42	69.1	1.17	1.35	4,250
August	990	42	26	31.9	.541	.62	1,960
September	695	29	20	23.2	.393	.44	1,380
Water year 1941-42	55,990	2,020	20	153	2.59	35.29	111,100

g Computed from graph based on gage readings.
Time basis: Pacific standard time prior to 2 a.m., Feb. 9, 1942; Pacific war time thereafter. To convert war time to standard time, subtract 1 hour.

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 1942.

Average discharge.- 10 years, 252 second-feet.

Extremes.- Maximum discharge during year, 2,620 second-feet Nov. 15 (gage height, 6.52 feet); minimum, 96 second-feet Sept. 25-27 (gage height, 1.41 feet).
1913-14, 1933-42: Maximum discharge, that of Nov. 15, 1941; minimum, 55 second-feet Jan. 8, 1937 (computed on basis of record for Salmon Creek near Oakridge).

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

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

Rating tables, water year 1941-42 (gage height, in feet, and discharge, in second-feet)

Oct. 1 to Nov. 15						Nov. 16 to Sept. 30			
1.5	88	2.8	445	4.6	1,340	1.4	95	3.2	620
1.7	124	3.2	615	5.3	1,775	1.7	135	3.6	820
2.0	187	3.6	800	6.0	2,240	2.0	200	4.0	1,020
2.4	295	4.0	1,000			2.4	310	4.6	1,360
						2.8	450		

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	102	148	173	230	304	175	205	250	494	262	122	103
2	111	161	606	225	307	185	200	248	498	242	120	103
3	103	245	1,190	222	295	185	202	283	474	225	118	102
4	124	340	820	210	364	180	222	322	446	212	118	102
5	130	283	745	198	364	182	222	316	422	198	117	102
6	122	244	640	195	368	180	222	319	438	188	117	102
7	128	251	530	259	347	175	232	347	450	180	116	101
8	138	196	458	406	328	175	240	372	403	173	114	102
9	130	180	396	406	364	185	250	386	422	167	114	105
10	126	169	354	382	450	268	262	364	389	163	112	108
11	122	159	319	358	406	283	280	334	361	180	111	104
12	144	152	292	334	368	310	295	316	331	165	111	103
13	142	195	274	310	328	298	304	295	313	157	110	102
14	132	803	265	289	301	277	319	295	307	155	108	101
15	126	2,210	340	271	274	259	295	358	392	151	106	100
16	122	1,310	640	274	253	250	280	372	368	167	106	100
17	118	805	584	248	238	242	268	364	322	205	105	100
18	113	570	790	238	225	238	250	361	301	167	105	99
19	130	450	990	225	210	228	245	368	286	155	105	99
20	142	375	855	215	208	220	265	403	259	147	105	98
21	130	325	690	205	200	215	304	502	242	143	105	98
22	124	289	598	198	190	210	337	740	230	139	104	98
23	118	262	625	192	185	202	313	705	220	135	103	98
24	114	238	539	185	188	195	295	635	215	132	102	97
25	111	220	462	185	182	190	277	725	304	130	101	97
26	111	202	400	218	178	180	259	765	446	129	101	97
27	130	192	364	322	180	180	256	710	396	128	101	97
28	142	182	334	319	175	175	259	670	344	126	101	98
29	159	180	310	292	-	173	242	635	313	124	101	98
30	146	180	289	268	-	175	250	575	286	123	101	98
31	144	-	262	256	-	188	-	539	-	123	101	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acre-feet
October	3,934	159	102	127	1.12	1.29	7,800
November	11,480	2,210	148	383	3.39	3.78	22,770
December	16,134	1,190	173	520	4.60	5.31	32,000
Calendar year 1941	79,223	2,210	87	217	1.92	26.06	157,100
January	8,135	406	185	262	2.32	2.68	16,140
February	7,780	450	175	278	2.46	2.56	15,430
March	6,578	310	173	212	1.88	2.16	13,050
April	7,850	337	200	262	2.32	2.58	15,570
May	13,874	765	248	448	3.96	4.57	27,520
June	10,672	498	215	356	3.15	3.51	21,170
July	5,091	262	123	164	1.45	1.68	10,100
August	3,381	122	103	109	.965	1.11	6,710
September	3,012	108	97	100	.885	.99	5,970
Water year 1941-42	97,921	2,210	97	268	2.37	32.22	194,200

Peak discharge.- Nov. 15 (3 p.m.) 2,620 sec.-ft.; Dec. 3 (3 a.m.) 1,470 sec.-ft.; Dec. 16 (9 a.m.) 730 sec.-ft.; Dec. 19 (1 a.m.) 1,060 sec.-ft.; May 22 (2 p.m.) 805 sec.-ft.; May 26 (1 a.m.) 825 sec.-ft.

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

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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 1942. February 1913 to September 1914 at site 2 miles downstream, below Flat Creek; October 1914 to October 1919 at site 1 mile downstream.
Extremes.- Maximum discharge during year, 3,600 second-feet Nov. 15 (gage height, 6.15 feet), from rating curve extended above 1,600 second-feet; minimum, 111 second-feet Oct. 1 (gage height, 1.24 feet).
1913-19, 1933-42: 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 periods of no gage-height record, which are fair. No regulation above station. Since 1936 village of Oakridge has diverted water around station in an 8-inch pipe. Tunnel and control gates that were built to divert part of outflow from Waldo Lake into Salmon Creek Basin were not used during year; leakage under gates is about 3 second-feet.
Cooperation.- Water-stage recorder inspected by employee of U. S. Forest Service.

Rating tables, water year 1941-42 (gage height, in feet, and discharge, in second-feet)

Oct. 1 to Nov. 15

1.2	104	2.6	550	4.7	2,160
1.5	165	3.0	780	5.5	2,940
1.8	246	3.5	1,130		
2.2	377	4.0	1,535		

Nov. 16 to Sept. 30

1.2	120	2.2	390	3.5	1,130
1.5	180	2.6	570	4.0	1,535
1.8	260	3.0	790	4.5	1,980

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	115	182	243	330	440	254	293	296	595	299	164	128
2	122	212	482	317	440	269	293	296	585	284	162	128
3	115	306	980	308	420	266	293	317	535	269	161	127
4	144	447	844	296	530	260	311	352	488	257	160	127
5	149	385	931	284	530	263	311	352	452	243	158	127
6	140	335	862	281	540	263	305	352	457	235	157	125
7	149	296	742	422	510	260	305	383	439	229	156	125
8	156	265	631	730	480	257	308	406	402	224	153	127
9	149	240	550	730	540	278	311	426	418	218	150	134
10	156	226	484	670	640	358	314	410	394	213	150	134
11	151	209	430	620	590	394	320	376	376	224	150	128
12	212	201	390	575	545	444	327	358	352	216	150	127
13	204	212	369	520	480	426	330	338	334	208	147	125
14	188	831	355	480	434	390	341	344	320	205	144	123
15	175	2,930	444	440	402	366	320	398	372	202	141	123
16	163	1,980	814	450	372	348	308	418	348	221	141	122
17	156	1,190	742	410	348	338	299	406	320	243	140	125
18	149	832	1,140	380	324	341	287	390	305	216	138	122
19	156	636	1,550	360	305	320	281	386	299	205	137	120
20	163	520	1,280	350	299	308	287	406	287	202	137	120
21	149	452	1,010	330	293	302	305	475	275	198	136	118
22	144	398	862	320	284	299	320	675	263	192	135	118
23	138	368	886	300	272	287	305	642	257	190	133	118
24	134	324	766	290	272	278	293	620	257	185	133	117
25	132	299	658	290	266	272	284	720	324	178	133	117
26	130	284	570	310	257	260	272	800	426	175	133	116
27	154	272	506	470	260	257	287	770	402	173	134	117
28	165	263	462	450	254	252	293	740	366	171	133	117
29	178	254	426	420	-	252	281	700	341	170	133	117
30	165	252	390	380	-	252	284	670	314	168	132	117
31	172	-	366	350	-	266	-	630	-	166	132	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off Inches	Run-off Acre-feet
October	4,773	212	115	154	1.32	1.52	9,470
November	15,591	2,930	182	520	4.44	4.96	30,920
December	21,165	1,550	243	683	5.84	6.73	41,980
Calendar year 1941	98,341	2,930	101	269	2.30	31.26	195,100
January	12,863	730	281	415	3.55	4.09	25,510
February	11,327	640	254	405	3.46	3.60	22,470
March	9,380	444	252	303	2.59	2.98	18,600
April	9,068	341	272	302	2.58	2.88	17,990
May	14,852	800	296	479	4.09	4.72	29,460
June	11,303	595	257	377	3.22	3.59	22,420
July	6,579	299	166	212	1.81	2.09	13,050
August	4,463	164	132	144	1.23	1.42	8,850
September	3,689	134	116	123	1.05	1.17	7,320
Water year 1941-42	125,053	2,930	115	343	2.93	39.75	248,000

Peak discharge.- Nov. 15 (12:45 p.m.) 3,600 sec.-ft.; Dec. 3 (6 a.m.) 1,070 sec.-ft.; Dec. 5 (1 a.m.) 980 sec.-ft.; Dec. 16 (9 a.m.) 892 sec.-ft.; Dec. 18 (11 p.m.) 1,670 sec.-ft.; Dec. 23 (12:30 a.m.) 959 sec.-ft.
Note.- No gage-height record Jan. 15 to Feb. 10, May 24-31, July 29 to Aug. 30; discharge computed on basis of records for Salt Creek near Oakridge.
Time basis: Pacific standard time prior to 2 a.m., Feb. 9, 1942; Pacific war time thereafter. To convert war time to standard time, subtract 1 hour.

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 1942.

Extremes.- Maximum discharge during year, 42 second-feet during period while clock was stopped, Apr. 1 to July 16 (gage height, 1.25 feet, may be peak of momentary duration caused by seiche); practically no flow Oct. 1 to Nov. 12, Sept. 4-30 (lake level below weir crest).

1936-42: Maximum discharge, 92 second-feet Mar. 29, 1938 (gage height, 2.15 feet); no flow at times.

Remarks.- Records good except those below 1 second-foot and 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 regulated artificially. Diversion tunnel into head of Black Creek, near south end of lake, built about 1914, is not used, but an unmeasured leakage passes control gates, which were probably closed throughout year.

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1		0	6.8	29							16	0.3
2		0	13	28							16	.2
3		0	18	28							15	.1
4		0	20	27							14	0
5		0	21	26							14	0
6		0	22	26							13	0
7		0	22								13	0
8		0	21								12	0
9		0	20							a32	12	0
10		0	20								11	0
11		0	20								10	0
12		0	19								9.7	0
13		.2	19								8.8	0
14		2.8	20								7.9	0
15		8.5	21								7.4	0
16		11	24		a29	a24	a25	a30	a36		7.1	0
17		11	25							27	6.5	0
18		11	30							27	6.0	0
19		10	32	a25						26	5.4	0
20		9.7	32							25	5.0	0
21		9.4	33							24	4.7	0
22		8.8	34							23	4.2	0
23		8.5	36							23	3.4	0
24		7.9	35							22	3.0	0
25		7.9	35							21	2.4	0
26		7.4	34							21	1.7	0
27		7.1	33							20	1.1	0
28		7.4	32							19	.9	0
29		6.8	31		-					18	.8	0
30		6.3	31		-					18	.7	0
31		-	30		-		-		-	17	.6	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acre-feet
October	0	0	0	0	0	0	0
November	141.7	11	0	4.72	.157	.18	281
December	789.8	36	6.8	25.5	.850	.98	1,570
Calendar year 1941	2,112.6	38	0	5.79	.193	2.63	4,190
January	789	-	-	25.5	.850	.98	1,560
February	812	-	-	29.0	.967	1.01	1,610
March	744	-	-	24.0	.800	.92	1,480
April	750	-	-	25.0	.833	.93	1,490
May	930	-	-	30.0	1.00	1.15	1,840
June	1,080	-	-	36.0	1.20	1.34	2,140
July	843	-	17	27.2	.907	1.05	1,670
August	233.3	16	.6	7.53	.251	.29	463
September	.6	.3	0	.02	.0007	.001	1
Water year 1941-42	7,113.4	36	0	19.5	.650	8.83	14,100

a No gage-height record; discharge computed on basis of records for Odell Creek near Crescent.
Time basis: Pacific standard time prior to 2 a.m., Feb. 9, 1942; Pacific war time thereafter. To convert war time to standard time, subtract 1 hour.

North Fork of Middle Fork of 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 (river-profile survey).

Drainage area.- 246 square miles.

Records available.- October 1909 to September 1912 (fragmentary), September 1935 to September 1942. October 1913 to February 1916 at site half a mile upstream, above a small tributary.

Extremes.- Maximum discharge during year, 8,580 second-feet Nov. 15 (gage height, 9.96 feet), from rating curve extended above 5,000 second-feet by logarithmic plotting; minimum, 60 second-feet (regulated) Jan. 31 (gage height, 0.40 foot); minimum daily, 119 second-feet Sept. 24-27, 29, 30.

1909-16, 1935-42: Maximum gage height observed, 12.4 feet Nov. 22, 1909, site and datum then in use (discharge not determined); minimum discharge, 26 second-feet (regulated) Oct. 14, 1939.

Remarks.- Records good. 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 3 second-feet. Occasional diurnal fluctuation during low-water periods by logpond above station.

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

Rating tables, water year 1941-42 (gage height, in feet, and discharge, in second-feet)

Oct. 1 to Nov. 14				Nov. 15 to Sept. 30					
1.0	152	2.5	780	0.8	121	2.0	490	5.0	2,530
1.3	233	3.0	1,070	1.0	159	2.5	750	6.0	3,540
1.6	334	3.5	1,380	1.3	231	3.0	1,040	7.3	5,020
2.0	510	4.0	1,740	1.6	327	4.0	1,700	8.6	6,660

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	154	278	433	673	960	472	550	590	1,070	450	200	130
2	193	316	1,120	635	950	490	555	615	1,050	433	195	128
3	167	514	2,510	625	902	500	545	640	944	409	191	128
4	207	920	2,050	580	1,320	476	595	700	866	389	188	126
5	230	736	2,210	545	1,380	472	620	678	794	373	186	125
6	216	615	1,970	530	1,390	476	595	673	778	354	183	126
7	227	525	1,680	h805	1,280	454	585	717	750	342	181	125
8	261	456	1,400	h2,010	1,260	454	580	766	684	335	179	126
9	245	398	1,210	h1,850	1,490	481	580	766	717	313	177	139
10	242	373	1,050	h1,560	1,790	690	585	761	695	310	174	143
11	236	342	932	h1,350	1,530	772	590	712	673	324	172	135
12	312	323	838	h1,220	1,300	866	595	668	625	310	170	130
13	330	365	761	f1,140	1,120	805	595	620	590	296	168	128
14	295	1,720	756	1,030	1,020	750	625	600	550	292	163	128
15	f274	6,610	849	932	908	695	595	695	605	285	159	126
16	h255	4,180	1,630	914	838	656	555	728	600	299	153	128
17	h240	2,480	1,530	838	761	651	545	706	555	320	157	126
18	h225	1,700	2,780	794	706	656	525	673	515	289	155	126
19	h250	1,310	4,040	734	651	630	490	651	510	270	153	125
20	h280	1,070	3,060	684	630	595	490	662	472	257	151	123
21	h240	914	2,300	646	610	585	525	728	450	248	151	123
22	h225	800	1,880	610	575	570	565	1,020	429	240	149	121
23	h215	706	1,970	585	540	550	555	1,030	409	231	149	121
24	f204	646	1,640	565	540	525	530	920	401	228	145	119
25	193	585	1,390	550	520	510	535	1,250	476	223	143	119
26	188	535	1,200	646	495	486	515	1,650	700	218	141	119
27	221	500	1,060	1,030	495	472	525	1,560	673	215	141	119
28	245	468	962	1,030	481	468	595	1,530	600	210	139	121
29	248	450	890	926	-	450	555	1,470	545	208	139	119
30	236	463	827	827	-	450	550	1,310	495	205	139	119
31	248	-	766	811	-	490	-	1,230	-	203	134	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acre-feet
October	7,302	330	154	236	0.959	1.10	14,480
November	31,298	6,610	278	1,043	4.24	4.73	62,080
December	47,694	4,040	433	1,539	6.26	7.21	94,600
Calendar year 1941	195,801	6,610	125	536	2.18	29.59	388,400
January	27,675	2,010	530	893	3.63	4.18	54,890
February	26,442	1,790	481	944	3.84	4.00	52,450
March	17,587	866	450	567	2.30	2.66	34,880
April	16,845	620	490	562	2.28	2.55	33,410
May	27,319	1,650	590	881	3.58	4.13	54,190
June	19,221	1,070	401	641	2.61	2.91	38,120
July	9,080	450	203	293	1.19	1.37	18,010
August	5,025	200	134	162	.659	.76	9,970
September	3,771	143	119	126	.512	.57	7,480
Water year 1941-42	239,259	6,610	119	656	2.67	36.17	474,600

Peak discharge.- Nov. 15 (3:30 p.m.) 8,580 sec.-ft.; Dec. 3 (4 a.m.) 2,750 sec.-ft.; Dec. 19 (3:30 a.m.) 4,480 sec.-ft.

f Computed from partly estimated gage-height record.

h Computed from staff-gage reading.

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

Fall Creek above Winberry Creek, near Lowell, Oreg.

Location.- Staff gage, lat. 43°57', long. 122°43', in SE¼ sec. 32, T. 18 S., R. 1 E., 2⅝ miles upstream from Winberry Creek and 4½ miles northeast of Lowell. Datum of gage is 727.99 feet above mean sea level, datum of 1929.
Drainage area.- 131 square miles.
Records available.- September 1935 to September 1942.
Extremes.- Maximum discharge during year, 6,820 second-feet Nov. 15 (gage height, 8.17 feet, from graph based on gage readings), from rating curve extended above 2,300 second-feet; minimum observed, 30 second-feet Sept. 22-29.
1935-42: Maximum discharge, 6,850 second-feet Mar. 19, 1938 (gage height, 8.0 feet, from floodmark), from rating curve extended above 2,600 second-feet; minimum observed, 14 second-feet Dec. 1, 1936.
Maximum stage known, about 11 feet (date unknown), from floodmarks observed in 1935.
Remarks.- Records good. No diversion above station. Gage read once daily, oftener during periods of high water.

Rating tables, water year 1941-42 (gage height, in feet, and discharge, in second-feet)

Oct. 1 to Nov. 15

1.0	49	2.4	442	5.6	3,050
1.2	77	2.8	630	6.4	4,120
1.4	113	3.4	960	7.4	5,600
1.7	185	4.0	1,400		
2.0	280	4.8	2,130		

Nov. 16 to Sept. 30

0.8	30	1.7	180
1.0	47	2.0	279
1.2	73	2.4	442
1.4	107		

Note.- Same as preceding table above 2.4 feet.

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	47	193	138	326	476	387	233	565	476	236	70	37
2	109	270	g590	306	438	485	201	655	438	223	70	37
3	59	g442	1,870	295	387	476	195	635	404	204	67	36
4	e75	g730	1,950	265	1,270	425	189	625	350	180	67	36
5	131	442	1,540	250	1,080	396	183	555	318	169	66	36
6	98	295	1,110	236	974	379	177	451	318	152	65	36
7	126	223	930	g900	829	342	172	404	326	147	62	36
8	226	159	710	1,670	995	310	169	342	279	133	59	e38
9	169	154	494	1,380	1,260	298	156	310	342	124	58	47
10	131	142	459	948	1,460	392	145	392	326	140	58	45
11	113	135	429	720	1,060	358	142	425	318	174	57	41
12	117	131	330	630	829	526	140	354	310	128	57	37
13	273	g213	283	545	620	476	140	306	257	120	55	37
14	e180	1,480	279	425	512	421	138	306	236	111	54	36
15	147	g5,600	g358	371	434	383	142	318	283	120	52	36
16	122	g2,350	g645	392	392	375	130	326	334	133	51	35
17	105	1,110	g451	310	342	379	135	310	310	195	49	34
18	91	736	g2,500	279	302	472	130	272	279	128	47	34
19	111	530	2,440	261	261	451	130	236	287	118	47	33
20	109	434	1,740	236	268	400	120	217	279	103	46	32
21	98	354	1,260	220	257	379	102	210	272	100	45	31
22	92	334	1,090	204	236	362	142	358	223	94	45	30
23	80	243	1,290	195	230	318	186	366	207	91	45	30
24	74	230	1,070	195	291	298	158	383	172	89	43	30
25	70	223	876	192	358	279	268	948	530	86	43	30
26	65	174	640	198	334	272	306	1,330	834	83	42	30
27	104	163	560	204	383	272	265	1,040	630	79	41	30
28	142	147	472	560	400	268	575	954	485	76	41	30
29	128	138	434	521	-	254	526	924	392	73	41	30
30	122	163	413	400	-	240	354	752	314	73	40	31
31	128	-	392	375	-	236	-	670	-	72	40	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acre-feet
October	3,642	273	47	117	0.893	1.03	7,220
November	17,938	5,600	131	598	4.56	5.09	35,580
December	27,743	2,500	138	895	6.83	7.80	56,030
Calendar year 1941	101,453	5,600	34	278	2.12	28.80	201,200
January	14,009	1,670	192	452	3.45	3.98	27,790
February	16,878	1,460	230	596	4.55	4.75	33,080
March	11,309	526	256	365	2.79	3.21	22,430
April	6,048	575	102	202	1.54	1.72	12,000
May	15,939	1,330	210	514	3.92	4.52	31,610
June	10,529	834	172	351	2.68	2.99	20,880
July	3,954	236	72	128	.977	1.12	7,840
August	1,623	70	40	52.4	.400	.46	3,220
September	1,041	47	30	34.7	.265	.30	2,060
Water year 1941-42	130,453	5,600	30	357	2.73	37.03	258,700

e Gage reading not representative of average for the day; discharge computed on basis of records for station below Winberry Creek, near Fall Creek.
g Computed from graph based on gage reading.
Time basis: Pacific standard time prior to 2 a.m., Feb. 9, 1942; Pacific war time thereafter. To convert war time to standard time, subtract 1 hour.

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

Location.- Staff gage, lat. 43°57', long. 122°47', near center of sec. 2, T. 19 S., R. 1 W., 1½ miles downstream from Winberry Creek, and 2½ miles southeast of Fall Creek. Datum of gage is 637.80 feet above mean sea level, datum of 1929.
Drainage area.- 190 square miles.
Records available.- October to December 1911 (gage heights only), September 1935 to September 1942.
Extremes.- Maximum discharge during year, 11,200 second-feet Nov. 15 (gage height, 13.1 feet, from graph based on gage readings), from rating curve extended above 4,000 second-feet by logarithmic plotting; minimum observed, 32 second-feet Sept. 25-27 (gage height, 0.70 foot).
1935-42: Maximum discharge, that of Nov. 15, 1941; minimum observed, 19 second-feet Dec. 1, 1936.
Maximum stage known, about 14 feet (date unknown), determined in 1935 from flood-marks.
Remarks.- Records good except those for period of doubtful gage-height record, which are fair. No diversion above station. Gage read once daily, oftener during periods of high water.

Rating tables, water year 1941-42 (gage height, in feet, and discharge, in second-feet)

Oct. 1 to Nov. 15						Nov. 16 to Sept. 30					
1.0	49	3.0	490	7.0	3,010	0.7	32	2.0	198	4.3	1,050
1.3	82	3.6	710	8.0	4,000	1.0	45	2.5	325	5.0	1,450
1.6	126	4.3	1,030	10.0	6,400	1.3	74	3.0	495	6.2	2,310
2.0	207	5.0	1,440	12.0	9,350	1.6	119	3.6	730	7.6	3,600
2.5	336	6.2	2,320								

Discharge, in second-feet, water year October 1941 to September 19[illegible]

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	48	236	183	453	594	516	313	706	774	372	74	45
2	118	356	5842	414	582	670	292	910	674	319	72	44
3	68	511	2,960	394	774	682	282	850	558	278	70	43
4	80	920	g2,370	352	1,350	586	307	920	488	245	72	41
5	150	532	2,270	310	1,360	530	307	810	446	22[illegible]	68	40
6	116	393	1,730	331	1,280	509	272	666	418	205	d67	40
7	189	312	1,220	g1,230	1,080	460	262	578	446	194	d66	39
8	293	251	945	g2,380	1,350	418	252	484	394	183	d64	38
9	187	209	830	1,860	1,680	422	235	453	506	16[illegible]	d63	41
10	146	185	610	1,280	2,310	502	219	523	502	154	d62	54
11	128	170	506	985	1,540	520	205	566	481	22[illegible]	d61	43
12	320	160	432	710	1,080	726	200	506	414	158	d60	40
13	317	226	372	558	846	706	198	460	390	143	d59	37
14	229	g1,510	400	512	702	694	214	418	340	13[illegible]	d58	37
15	170	g9,040	422	478	594	610	205	481	464	14[illegible]	d56	37
16	140	g3,600	g1,740	498	512	530	196	464	442	178	d55	35
17	128	1,730	1,810	422	450	523	198	436	404	233	d54	35
18	108	935	g3,750	383	400	664	198	376	368	16[illegible]	d53	34
19	131	610	3,470	352	349	618	174	334	343	14[illegible]	d52	34
20	142	478	2,370	334	349	538	166	316	298	123	d51	34
21	115	439	1,900	316	337	523	168	325	278	114	51	34
22	107	400	1,530	290	316	509	180	492	255	107	51	33
23	91	357	1,920	268	337	453	233	530	243	105	51	33
24	85	288	1,590	248	390	411	228	495	235	9[illegible]	50	33
25	78	260	1,060	270	400	397	340	1,670	590	9[illegible]	50	32
26	77	253	875	288	446	386	349	2,340	1,350	9[illegible]	50	32
27	123	214	742	758	598	383	425	1,660	1,010	8[illegible]	51	32
28	172	200	626	726	538	362	706	1,430	678	8[illegible]	50	33
29	162	185	570	662	-	349	566	1,590	566	8[illegible]	49	33
30	160	212	542	550	-	340	526	1,250	460	7[illegible]	48	33
31	148	-	512	502	-	328	-	940	-	77	47	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acre-feet
October	4,526	320	48	146	0.768	0.89	8,980
November	25,132	9,040	160	838	4.41	4.92	49,850
December	41,099	3,750	183	1,326	6.98	8.04	81,520
Calendar year 1941	141,975	9,040	41	389	2.05	27.79	281,600
January	19,114	2,380	248	617	3.25	3.74	37,910
February	22,544	2,310	316	805	4.24	4.41	44,720
March	15,855	726	328	511	2.69	3.10	31,450
April	8,414	706	166	280	1.47	1.65	16,690
May	23,959	2,340	316	773	4.07	4.69	47,520
June	14,805	1,350	235	494	2.60	2.90	29,370
July	4,987	372	77	161	.847	.98	9,890
August	1,785	74	47	57.6	.303	.35	3,540
September	1,119	54	32	37.3	.196	.22	2,220
Water year 1941-42	183,339	9,040	32	502	2.64	35.89	363,700

d Doubtful gage-height record; discharge computed on basis of records for station above Winberry Creek, near Lowell.
g Computed from staff-gage readings.
Time basis: Pacific standard time prior to 2 a.m., Feb. 9, 1942; Pacific war time thereafter. To convert war time to standard time, subtract 1 hour.

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 1942.

Extremes.- Maximum discharge during year, 2,370 second-feet Nov. 15 (gage height, 5.90 feet, from graph based on gage readings), from rating curve extended above 1,800 second-feet; minimum observed, 16 second-feet Sept. 30 (gage height, 1.36 feet).
1935-42: Maximum discharge, 4,020 second-feet Mar. 18 or 19, 1938 (gage height, 7.0 feet, from floodmark), from rating curve extended above 1,800 second-feet on basis of velocity-area studies; minimum observed, 10 second-feet Dec. 1, 1936, Aug. 26, 27, Aug. 30 to Sept. 1, 1940.

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

Rating tables, water year 1941-42 (gage height, in feet, and discharge, in second-feet)

Oct. 1 to Nov. 15						Nov. 16 to Sept. 30					
1.6	28	2.8	225	4.4	880	1.3	14	2.5	140	4.1	700
1.9	52	3.2	345	4.9	1,270	1.6	27	2.8	215	4.7	1,070
2.2	89	3.6	490	5.4	1,760	1.9	52	3.2	340		
2.5	147	4.0	660			2.2	88	3.6	480		

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	27	63	85	205	160	168	112	200	205	102	42	23
2	29	83	316	190	150	195	103	230	188	96	42	23
3	31	86	532	180	150	208	100	230	165	90	42	22
4	32	g166	587	165	361	188	113	224	142	84	42	22
5	45	125	578	155	354	185	105	205	138	80	40	22
6	48	103	462	148	368	178	96	180	142	80	40	22
7	61	94	368	319	417	162	92	155	134	76	39	21
8	59	81	299	564	428	152	88	142	122	74	39	23
9	56	73	233	556	544	162	85	155	128	70	37	25
10	54	65	205	445	556	172	83	175	142	68	37	23
11	52	61	185	368	462	170	80	170	134	69	36	22
12	106	78	165	305	389	188	79	148	126	65	36	21
13	96	g106	155	269	316	185	79	138	118	63	34	20
14	78	g394	148	236	269	175	82	130	117	63	33	20
15	61	g1,720	145	210	239	162	80	134	130	63	31	20
16	59	g1,030	420	198	208	160	75	130	115	97	30	20
17	52	g582	414	182	192	158	84	122	108	70	30	19
18	50	361	g1,000	168	175	158	85	113	108	63	28	19
19	61	275	1,040	155	160	152	79	108	102	61	28	19
20	59	245	822	148	158	155	75	103	96	59	27	18
21	56	190	690	136	150	148	71	102	90	56	27	18
22	43	165	587	130	138	152	79	148	87	54	27	18
23	40	140	650	124	140	140	80	128	84	52	27	17
24	38	124	540	117	162	130	80	122	83	50	26	17
25	37	113	473	113	160	134	103	254	142	50	25	17
26	40	105	403	117	140	130	98	344	185	48	25	17
27	63	100	375	170	170	132	148	293	175	48	25	17
28	52	96	275	188	175	126	198	296	145	46	25	18
29	48	91	269	175	-	120	160	299	126	46	24	17
30	45	90	257	162	-	117	172	257	115	44	24	16
31	59	-	233	155	-	113	-	227	-	44	24	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off: Inches	Run-off: Acre-feet
October	1,637	106	27	52.8	1.10	1.27	3,250
November	7,025	1,720	63	234	4.88	5.44	13,930
December	12,911	1,040	85	416	8.67	10.00	25,610
Calendar year 1941	47,767	1,720	21	131	2.73	37.00	94,730
January	6,753	564	113	218	4.54	5.23	13,390
February	7,291	556	138	260	5.42	5.65	14,460
March	4,875	208	113	157	3.27	3.78	9,670
April	2,964	198	71	98.8	2.06	2.30	5,880
May	5,662	344	102	183	3.81	4.39	11,230
June	3,892	205	83	130	2.71	3.02	7,720
July	2,031	102	44	65.5	1.36	1.57	4,030
August	993	42	24	32.0	.667	.77	1,970
September	596	25	16	19.9	.415	.46	1,180
Water year 1941-42	56,630	1,720	16	155	3.23	43.88	112,300

g Computed from graph based on gage readings.
Time basis: Pacific standard time prior to 2 a.m., Feb. 9, 1942; Pacific war time thereafter. To convert war time to standard time, subtract 1 hour.

Coast Fork of Willamette River at London, Oreg.

Location.- Water-stage recorder, lat. 43°39', long. 123°05', in SW¼ sec. 2C, 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 1942.

Extremes.- Maximum discharge during year, 6,070 second-feet Nov. 15 (gage height, 10.37 feet), from rating curve extended above 3,000 second-feet; minimum observed, 15 second-feet Sept. 22-26 (gage height, 1.05 feet).
1935-42: Maximum discharge, that of Nov. 15, 1941; minimum, 10 second-feet on several days in 1936, 1938, 1939, and 1940.

Remarks.- Records good except those for period of no gage-height record, which are fair. No diversion above station; millpond 3 miles upstream may cause slight regulation at times.

Rating tables, water year 1941-42 (gage height, in feet, and discharge, in second-feet)

Oct. 1 to Nov. 15						Nov. 16 to Sept. 30					
1.1	21	2.8	430	6.0	2,280	1.1	17	2.8	390		
1.4	45	3.3	645	7.0	3,025	1.4	38	3.3	615		
1.7	88	3.8	890	8.0	3,850	1.7	75	3.8	875		
2.0	155	4.4	1,230			2.0	133	4.4	1,215		
2.4	279	5.0	1,600			2.4	247	5.0	1,600		

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	24	34	f85	197	484	163	f98	277	250	96	34	19
2	25	45	697	182	374	203	a95	247	209	85	34	18
3	23	138	1,090	177	406	231	a90	241	177	77	33	18
4	34	161	735	161	980	206	a110	304	156	72	33	18
5	36	96	590	148	690	182	a120	254	138	66	32	18
6	29	73	466	163	735	166	a100	209	131	63	30	18
7	29	60	374	422	534	150	a95	174	120	62	29	18
8	32	51	304	700	448	138	a90	148	111	59	28	20
9	27	45	257	480	410	133	a90	146	140	55	28	22
10	26	42	215	362	406	133	a85	158	124	54	28	22
11	29	43	185	298	350	138	a80	166	113	55	28	20
12	121	47	163	254	304	174	a75	140	103	53	27	19
13	67	143	166	218	257	185	a75	126	96	50	26	18
14	47	864	177	194	228	182	a85	120	90	49	25	18
15	41	3,840	215	177	203	172	f80	166	100	50	24	18
16	36	1,520	1,180	180	180	174	80	254	94	62	23	18
17	33	804	924	156	166	180	90	225	87	58	23	17
18	32	475	1,390	146	153	182	85	185	84	48	23	17
19	38	329	1,310	136	140	172	78	156	78	45	22	16
20	33	250	1,220	126	140	158	75	133	74	43	22	16
21	31	203	782	120	138	150	70	120	69	41	23	16
22	29	169	655	115	129	143	75	131	66	40	23	15
23	28	a145	686	115	129	133	92	136	64	40	22	15
24	26	a130	650	118	163	122	89	129	63	39	22	15
25	26	a120	493	122	166	118	102	358	136	37	21	15
26	28	a110	382	247	163	113	102	484	326	36	21	15
27	45	a105	326	422	172	107	146	382	234	36	21	16
28	38	a95	287	343	169	103	209	434	169	36	20	17
29	33	a90	264	277	-	100	169	502	131	36	20	16
30	31	a95	244	231	-	98	194	394	109	36	20	16
31	33	-	225	231	-	98	-	308	-	35	20	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acre-feet
October	1,110	121	23	35.8	0.519	0.60	2,200
November	10,322	3,840	34	344	4.99	5.56	20,470
December	16,937	1,390	85	546	7.91	9.13	33,590
Calendar year 1941	57,950	3,840	20	159	2.30	31.23	114,900
January	7,218	700	115	233	3.38	3.89	14,320
February	8,817	980	129	315	4.57	4.75	17,490
March	4,707	231	98	152	2.20	2.54	9,340
April	3,024	209	70	101	1.46	1.63	6,000
May	7,197	502	120	232	3.36	3.88	14,280
June	3,842	326	63	128	1.86	2.07	7,620
July	1,614	96	35	52.1	.755	.87	3,200
August	785	34	20	25.3	.367	.42	1,560
September	524	22	15	17.5	.254	.28	1,040
Water year 1941-42	66,097	3,840	15	181	2.62	35.62	131,100

Peak discharge.- Nov. 15 (9 a.m.) 6,070 sec.-ft.; Dec. 2 (11:30 p.m.) 1,370 sec.-ft.; Dec. 16 (9 a.m.) 1,610 sec.-ft.; Dec. 18 (5:30 p.m.) 1,890 sec.-ft.; Dec. 19 (11:45 p.m.) 1,590 sec.-ft.

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

f Computed from partly estimated gage-height record.

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

Coast Fork of 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., at bridge on private road 1 mile downstream from Cottage Grove Reservoir dam and 4½ miles south of Cottage Grove. Datum of gage is 695.07 feet above mean sea level (levels by Corps of Engineers, U. S. Army).

Drainage area.- 108 square miles.

Records available.- January 1939 to September 1942 (records do not include flow in logging flume diverting up to 15 second-feet around gage prior to Aug. 23, 1940).

Extremes.- Maximum discharge during year, 3,320 second-feet (regulated) Nov. 15 (gage height, 9.86 feet); minimum, 18 second-feet Sept. 24-26 (gage height, 2.32 feet).
1939-42: Maximum discharge observed, that of Nov. 15, 1941; minimum, 4 second-feet (regulated) Aug. 21, 1941 (gage height, 1.95 feet).

Remarks.- Records good except those for period of no gage-height record, which are fair. No diversion above station. Flow slightly regulated by logpond upstream; Cottage Grove Reservoir, under construction in 1942, stored no water during the year except for temporary pondage when inflow exceeded capacity of outlet gates (2,600 second-feet at minimum pool level).

Rating table, water year 1941-42 (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Mar. 29-31, Aug. 1 to Sept. 30)

2.2	14	4.0	392	7.2	1,810
2.5	36	4.5	575	8.2	2,360
2.8	75	5.0	775	9.4	3,040
3.2	160	5.6	1,020		
3.6	266	6.2	1,310		

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	27	51	126	311	567	252	140	a400	392	140	39	24
2	31	59	595	290	575	287	131	a370	326	120	40	23
3	31	105	1,510	272	508	326	126	a360	281	107	39	23
4	39	224	1,200	258	1,040	299	155	a470	238	97	40	23
5	46	135	907	232	1,020	269	160	a370	213	91	39	23
6	39	97	716	224	951	246	133	a310	200	84	37	22
7	39	80	575	443	815	218	122	a265	188	82	35	21
8	42	70	467	975	671	208	115	235	170	79	34	23
9	36	62	392	907	579	195	113	221	200	74	34	26
10	34	56	332	611	555	192	107	249	188	69	34	28
11	36	57	290	492	496	192	99	246	165	69	34	25
12	136	70	244	409	433	238	95	218	152	68	32	24
13	97	105	221	355	378	263	95	195	150	62	31	22
14	68	895	258	311	329	272	111	182	128	63	30	21
15	56	2,670	290	284	302	255	124	235	135	64	28	21
16	48	2,970	1,240	261	269	258	109	365	133	77	26	20
17	46	2,360	1,410	255	244	258	133	345	117	77	25	20
18	42	1,070	1,590	232	227	266	126	293	113	63	24	20
19	47	547	1,860	213	185	252	115	241	111	59	25	19
20	46	412	1,980	202	190	232	111	206	99	54	26	19
21	43	326	1,540	188	246	216	99	185	95	51	25	19
22	40	275	988	182	210	205	101	202	89	50	25	19
23	38	232	1,180	180	200	192	128	208	84	48	25	18
24	36	202	1,050	175	275	182	124	192	82	46	24	18
25	35	180	815	175	278	175	145	433	202	44	24	16
26	35	158	639	249	266	168	145	711	471	44	24	18
27	56	148	523	563	272	158	a210	579	361	43	24	18
28	55	138	453	527	266	150	a300	615	260	42	24	19
29	48	131	409	429	-	142	a250	711	202	43	24	19
30	44	138	382	361	-	140	a270	619	168	43	24	18
31	46	-	352	320	-	138	-	482	-	42	24	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off Inches	Run-off Acre-feet
October	1,464	138	27	47.2	0.437	0.50	2,900
November	14,023	2,970	51	467	4.32	4.83	27,810
December	24,533	1,980	126	791	7.32	8.45	48,660
Calendar year 1941	79,597	2,970	19	218	2.02	27.41	157,900
January	10,806	975	175	349	3.23	3.72	21,430
February	12,347	1,040	165	441	4.08	4.25	24,490
March	6,844	326	138	221	2.05	2.36	13,670
April	4,192	300	95	140	1.30	1.44	8,310
May	10,712	711	182	346	3.20	3.69	21,250
June	5,713	471	82	190	1.76	1.97	11,330
July	2,095	140	42	67.6	.626	.72	4,160
August	919	40	24	29.6	.274	.32	1,820
September	631	28	16	21.0	.194	.22	1,250
Water year 1941-42	94,279	2,970	18	258	2.39	32.47	187,000

a No gage-height record; discharge computed on basis of records for station at London.
Time basis: Pacific standard time prior to 2 a.m., Feb. 9, 1942; Pacific war time thereafter. To convert war time to standard time, subtract 1 hour.

Coast Fork of 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, ½ 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 1942 (1924-27 incomplete).
Average discharge.- 16 years (1925-26, 1927-42), 1,088 second-feet.
Extremes.- Maximum discharge during year, 29,100 second-feet Nov. 15 (gage height, 12.01 feet), from rating curve extended above 11,000 second-feet; minimum daily, 55 second-feet Sept. 25.
1923-42: Maximum discharge, that of Nov. 15, 1941; minimum observed, 7 second-feet July 31, 1928.
Remarks.- Records good. Small diversions and regulation by log ponds above station. Storage in Cottage Grove Reservoir, under construction, had little effect on flow. No storage except when inflow exceeded 2,600 second-feet, capacity of outlet gates.
Cooperation.- Gage-height record collected in cooperation with U. S. Weather Bureau.

Rating tables, water year 1941-42 (gage height, in feet, and discharge, in second-feet
(Shifting-control method used Nov. 17 to Dec. 2)

Oct. 1 to Nov. 14

0.9	82	1.7	490	3.6	2,150
1.0	110	2.0	700	4.4	3,270
1.2	192	2.4	1,000	5.3	4,790
1.4	300	3.0	1,510		

Nov. 15 to Sept. 6

1.0	54	2.4	930	6.6	8,140
1.2	113	3.0	1,660	8.0	11,500
1.4	190	3.6	2,520	9.0	15,100
1.7	345	4.3	3,680	11.0	24,000
2.0	545	5.3	5,530		

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	104	294	464	1,200	2,640	1,100	750	1,400	1,980	684	156	76
2	110	324	4,330	1,070	2,670	1,350	657	1,490	1,610	570	152	71
3	120	556	10,600	1,040	2,220	1,630	622	1,530	1,350	500	148	71
4	141	1,550	6,130	963	4,810	1,440	702	2,180	1,120	444	148	74
5	255	828	4,980	853	4,180	1,280	740	1,970	952	399	144	74
6	228	588	3,680	853	4,200	1,200	639	1,610	897	369	138	71
7	197	470	2,910	2,730	3,300	1,040	588	1,410	864	357	130	66
8	255	399	2,300	6,190	2,720	952	554	1,210	770	340	127	68
9	234	330	1,880	4,330	2,720	930	530	1,070	886	318	124	76
10	202	289	1,560	3,140	3,470	1,110	515	1,110	919	296	124	90
11	187	272	1,300	2,480	2,810	1,130	492	1,140	810	312	124	85
12	425	289	1,110	2,010	2,260	1,370	470	1,030	720	296	120	90
13	525	366	998	1,690	1,960	1,450	457	908	648	280	116	75
14	373	4,760	1,080	1,410	1,540	1,400	485	820	588	264	113	73
15	294	22,600	1,310	1,250	1,350	1,270	508	1,050	596	264	110	70
16	244	12,300	7,200	1,280	1,160	1,220	438	1,600	613	296	107	67
17	213	6,690	6,370	1,140	1,050	1,200	485	1,480	530	340	104	67
18	192	3,790	8,730	1,020	941	1,260	485	1,210	492	296	101	65
19	208	2,310	9,940	930	831	1,200	444	1,030	470	259	98	63
20	228	1,740	8,350	942	800	1,080	424	886	431	238	98	62
21	202	1,360	5,610	780	875	1,020	412	800	399	219	91	61
22	192	1,130	4,150	740	810	1,010	412	963	381	209	88	59
23	178	941	5,440	702	790	930	485	1,200	363	204	85	57
24	168	790	4,450	693	1,040	842	464	1,100	351	195	85	57
25	154	693	3,310	684	1,120	800	613	2,540	622	186	82	55
26	149	613	2,550	952	1,070	770	711	4,400	2,440	177	82	57
27	239	562	2,110	2,360	1,140	740	820	3,190	2,120	173	82	57
28	330	522	1,830	2,520	1,140	730	1,390	3,230	1,430	166	82	57
29	283	492	1,650	2,010	-	711	1,210	3,720	1,050	166	85	57
30	244	508	1,500	1,690	-	693	1,070	3,240	810	169	82	57
31	239	-	1,390	1,460	-	720	-	2,500	-	161	82	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off Inches	Run-off Acre-feet
October	7,103	525	104	229	0.433	0.50	14,090
November	68,356	22,600	272	2,279	4.31	4.61	135,600
December	119,210	10,600	464	3,845	7.27	8.38	236,400
Calendar year 1941	379,299	22,600	80	1,039	1.96	26.67	752,300
January	51,512	6,190	684	1,662	3.14	3.62	102,200
February	55,517	4,810	790	1,983	3.75	3.90	110,100
March	33,578	1,630	693	1,083	2.05	2.36	66,600
April	18,572	1,390	412	619	1.17	1.31	36,840
May	53,017	4,400	800	1,710	3.23	3.73	105,200
June	27,212	2,440	351	907	1.71	1.91	53,970
July	9,153	684	161	295	.558	.64	18,150
August	3,408	156	82	110	.208	.24	6,760
September	2,018	90	55	67.3	.127	.14	4,000
Water year 1941-42	448,656	22,600	55	1,229	2.32	31.54	889,900

Peak discharge.- Nov. 15 (2:30 p.m.) 29,100 sec.-ft.; Dec. 3 (4 a.m.) 13,000 sec.-ft.
Note.- Gravel-plant operations on control Sept. 7-30; discharge computed on basis of records for Coast Fork of Willamette River near Cottage Grove, Mosby Creek near Cottage Grove, and Row River near Dorena.
Time basis: Pacific standard time prior to 2 a.m., Feb. 9, 1942; Pacific war time thereafter. To convert war time to standard time, subtract 1 hour.

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 1942.

Extremes.- Maximum discharge during year, 16,600 second-feet Nov. 15 (gage height, 13.19 feet), from rating curve extended above 9,300 second-feet; minimum, 18 second-feet Sept. 25.

1935-42: Maximum discharge, that of Nov. 15, 1941; minimum, 12 second-feet Sept. 2, 1940.

The flood discharge of Nov. 15, 1941, is believed to be about equal to that of February 1927, which was reported to have reached a stage of about 18 feet, site and datum in use 1935-38.

Remarks.- Records good. No diversion above station; possibly slight regulation at times by logponds.

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

Rating table, water year 1941-42 (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Sept. 3-30)

1.5	18	2.6	112	4.5	700	7.5	3,280
1.8	34	3.0	162	5.0	990	8.5	4,700
2.0	49	3.5	301	5.5	1,330	10.0	7,900
2.3	76	4.0	471	6.5	2,160	12.0	13,210

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	42	129	195	399	1,400	402	388	586	966	321	66	33
2	52	164	4,420	368	1,180	586	339	670	777	274	65	32
3	49	459	4,840	352	966	690	316	716	625	239	63	31
4	86	804	2,570	321	2,230	573	368	1,060	534	212	63	31
5	121	417	2,390	296	1,600	529	355	948	463	188	61	31
6	93	290	1,750	301	1,850	496	307	810	455	174	59	30
7	89	227	1,340	1,740	1,300	436	282	766	444	164	56	29
8	137	176	984	2,960	1,110	406	269	645	399	151	55	27
9	107	146	766	1,920	1,290	428	259	560	512	141	54	32
10	89	122	620	1,370	1,860	650	249	534	512	134	54	38
11	82	109	512	1,090	1,360	625	244	551	448	151	53	36
12	218	104	432	864	1,030	760	239	504	392	132	51	33
13	232	148	395	690	810	711	230	444	342	122	50	31
14	158	2,930	414	578	655	625	239	410	304	116	47	30
15	121	11,600	625	496	568	560	230	630	346	115	47	27
16	100	4,060	3,230	500	485	529	205	870	327	130	45	27
17	87	2,070	2,430	436	425	546	205	733	288	164	43	27
18	78	1,220	4,230	392	375	564	201	591	259	132	42	25
19	92	834	4,030	358	333	525	186	500	244	115	41	25
20	95	635	2,900	327	321	475	184	448	223	103	40	24
21	85	508	1,900	301	318	467	195	428	203	94	39	21
22	76	421	1,540	282	298	467	207	529	185	89	39	20
23	69	364	1,990	266	285	421	235	560	172	87	38	20
24	63	316	1,540	259	324	381	244	529	164	84	37	19
25	61	277	1,160	252	358	355	336	1,820	365	79	36	19
26	60	247	894	506	358	333	392	2,410	1,420	76	36	20
27	121	225	728	1,360	364	330	432	1,660	1,040	75	37	20
28	164	212	625	1,080	388	336	680	1,790	685	73	39	19
29	129	205	564	828	-	336	564	1,930	500	73	38	20
30	108	216	512	670	-	349	508	1,580	392	70	36	20
31	109	-	467	605	-	385	-	1,250	-	68	35	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acre-feet
October	3,173	232	42	102	0.483	0.56	6,290
November	29,635	11,600	104	988	4.68	5.22	58,780
December	50,993	4,840	195	1,645	7.80	8.99	101,100
Calendar year 1941	168,638	11,600	34	462	2.19	29.71	334,400
January	22,167	2,960	252	715	3.39	3.91	43,970
February	23,859	2,230	285	852	4.04	4.21	47,320
March	15,276	760	330	493	2.34	2.89	30,300
April	9,108	680	184	304	1.44	1.61	18,070
May	27,462	2,410	410	886	4.20	4.84	54,470
June	13,987	1,420	164	466	2.21	2.47	27,740
July	4,146	321	68	134	.635	.73	8,220
August	1,465	66	35	47.3	.224	.26	2,910
September	797	38	19	26.6	.126	.14	1,580
Water year 1941-42	202,068	11,600	19	554	2.63	35.63	400,800

Peak discharge.- Nov. 15 (11:30 a.m.) 16,600 sec.-ft.; Dec. 2 (floodmark) 9,950 sec.-ft.; Dec. 18 (5:30 p.m.) 6,560 sec.-ft.

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

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., 1¼ miles upstream from Mosby Creek and 3½ miles northwest of Dorena. Datum of gage is 685.24 feet above mean sea level, datum of 1929 (levels by Corps of Engineers, U. S. Army).

Drainage area.- 270 square miles.

Records available.- January 1939 to September 1942.

Extremes.- Maximum discharge during year, 19,400 second-feet Nov. 15 (gage height, 17.16 feet); minimum, 28 second-feet Sept. 25, 26 (gage height, 1.56 feet).
1939-42: Maximum discharge observed, that of Nov. 15, 1941; minimum, 14 second-feet Aug. 29 to Sept. 2, 1940 (gage height, 1.23 feet).

Remarks.- Records good except those above 2,500 second-feet, which are fair. No diversion or regulation above station.

Rating tables, water year 1941-42 (gage height, in feet, and discharge, in second-feet)

Oct. 1 to Nov. 15						Nov. 16 to Sept. 30					
1.7	61	3.5	790	7.0	3,610	1.5	22	2.6	265	5.0	1,710
1.9	101	4.0	1,100	8.0	4,610	1.7	44	3.0	430	6.0	2,520
2.2	182	4.5	1,430	10.0	7,100	1.9	74	3.5	660	7.5	3,900
2.6	325	5.0	1,780	12.0	10,150	2.2	137	4.2	1,130	9.0	5,550
3.0	510	6.0	2,570	14.0	13,500						

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	60	182	237	535	1,550	560	466	752	1,240	428	83	40
2	65	214	3,280	480	740	740	408	852	982	365	81	39
3	66	462	5,360	470	1,170	917	381	910	788	321	79	38
4	101	1,090	2,990	430	2,390	768	434	1,350	658	285	78	37
5	168	582	2,740	385	1,880	669	439	1,200	570	254	76	37
6	131	406	2,070	394	2,030	625	385	1,000	555	230	76	39
7	126	305	1,620	1,740	1,560	550	353	917	530	220	72	34
8	170	241	1,210	3,390	1,380	515	337	782	480	193	69	33
9	148	204	950	2,300	1,610	530	321	674	585	187	68	36
10	126	176	764	1,700	2,250	728	309	660	590	177	66	45
11	118	162	620	1,380	1,730	722	301	728	530	193	66	44
12	263	156	535	1,110	1,330	904	293	647	462	174	63	42
13	325	192	500	878	1,020	872	277	570	408	163	60	40
14	224	3,420	510	728	826	788	293	520	369	154	58	40
15	168	13,300	686	625	692	704	293	728	398	143	57	37
16	145	5,240	3,530	625	595	652	251	1,050	385	163	57	36
17	126	2,640	3,020	580	535	658	265	891	345	193	55	36
18	114	1,640	4,610	520	470	698	265	722	321	163	52	34
19	131	1,130	4,540	466	421	669	240	605	297	143	51	33
20	137	852	3,550	426	412	605	230	545	269	132	51	33
21	126	658	2,430	385	416	580	234	520	248	120	48	32
22	111	560	2,040	361	390	580	248	692	223	115	48	30
23	101	466	2,580	341	373	535	297	813	213	111	47	30
24	94	412	2,030	333	466	485	297	740	196	105	45	29
25	88	357	1,520	321	525	457	412	2,120	448	100	45	28
26	83	325	1,170	479	515	439	475	2,920	1,850	93	45	29
27	156	289	962	1,640	545	430	545	2,090	1,400	91	45	29
28	217	265	806	1,380	565	430	904	2,170	910	92	45	29
29	179	258	728	1,100	-	421	746	2,370	658	97	44	29
30	153	273	658	898	-	470	636	1,970	520	89	44	30
31	150	-	615	664	-	462	-	1,600	-	87	43	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acre-feet
October	4,370	325	60	141	0.522	0.60	8,670
November	36,457	13,300	156	1,215	4.50	5.02	72,310
December	58,761	5,360	237	1,896	7.02	8.09	116,600
Calendar year 1941	203,191	13,300	45	557	2.06	27.98	403,100
January	27,064	3,390	321	873	3.23	3.73	53,680
February	28,386	2,390	373	1,014	3.76	3.91	56,300
March	19,153	917	421	618	2.29	2.64	37,990
April	11,335	904	230	378	1.40	1.56	22,480
May	34,128	2,920	520	1,101	4.08	4.70	67,690
June	17,428	1,850	196	581	2.15	2.40	34,570
July	5,406	426	85	174	.644	.74	10,720
August	1,817	83	43	58.6	.217	.25	3,600
September	1,048	45	28	34.9	.129	.14	2,080
Water year 1941-42	245,353	13,300	28	672	2.49	33.78	486,700

Peak discharge.- Nov. 15 (12:10 p.m.) 19,400 sec.-ft.; Dec. 3 (1 a.m.) 7,280 sec.-ft.; Dec. 16 (10 a.m.) 4,990 sec.-ft.; Dec. 18 (7 p.m.) 6,940 sec.-ft.
Time basis: Pacific standard time prior to 2 a.m., Feb. 9, 1942; Pacific war time thereafter. To convert war time to standard time, subtract 1 hour.

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 1942.

Extremes.- Maximum discharge during year, 6,260 second-feet Nov. 15 (gage height, 8.5 feet, from graph based on gage readings), from rating curve extended above 2,100 second-feet; minimum observed, 6 second-feet Sept. 27-30.
1936-42: Maximum discharge, that of Nov. 15, 1941; minimum, 3 second-feet Aug. 15 to Sept. 2, 1940.

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

Rating table, water year 1941-42 (gage height, in feet, and discharge, in second-feet)

0.4	5	1.5	225	3.6	1,420
.6	18	1.8	345	4.3	2,020
.8	45	2.1	490	5.0	2,670
1.0	84	2.5	710	6.0	3,620
1.2	131	3.0	1,020	7.0	4,620

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	14	38	52	148	568	156	82	200	292	76	18	9.0
2	14	65	928	a130	455	190	74	228	232	69	17	9.0
3	14	181	1,990	a125	350	218	69	239	184	63	17	a9.0
4	a14	218	1,120	a110	1,190	194	97	363	153	a58	17	8.5
5	a15	114	704	104	740	168	86	272	131	52	16	8.0
6	16	78	525	114	595	161	76	a210	118	49	16	8.0
7	16	63	395	668	662	137	67	168	106	45	16	8.0
8	14	52	304	1,040	415	118	61	137	97	45	16	8.0
9	14	58	236	639	376	118	61	116	102	42	16	10
10	14	38	190	440	425	124	58	a120	111	42	a15	12
11	a90	a35	142	322	350	124	52	151	99	42	15	a11
12	114	38	134	260	276	162	50	134	88	39	15	10
13	86	76	104	208	228	178	49	116	84	38	13	9.5
14	45	1,100	95	174	194	187	54	102	76	36	12	9.0
15	38	4,300	181	153	162	168	54	148	82	34	12	9.0
16	29	1,530	1,700	151	145	162	52	226	74	42	a12	8.5
17	26	836	1,110	137	126	162	61	194	67	36	12	8.0
18	24	450	1,980	124	116	168	61	a150	63	33	12	8.0
19	26	288	1,770	111	104	168	60	a120	59	30	12	7.5
20	26	204	1,140	104	106	151	50	102	52	28	11	7.0
21	26	159	704	95	104	145	47	106	49	25	11	7.0
22	24	128	535	91	106	134	50	184	49	25	10	7.0
23	22	108	968	86	104	121	54	190	47	24	10	6.6
24	22	95	704	82	156	108	63	225	45	23	10	6.5
25	19	80	435	86	174	104	86	246	131	22	10	6.5
26	19	71	327	159	162	99	91	a800	395	20	a10	6.5
27	47	65	242	610	168	95	128	a600	284	19	10	6.0
28	44	59	228	455	156	91	218	639	210	18	9.5	6.0
29	38	64	181	276	-	86	162	734	146	18	9.5	a6.0
30	29	61	168	246	-	84	146	573	102	18	9.5	a6.0
31	32	-	162	200	-	84	-	400	-	18	9.5	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off Inches	Run-off Acre-feet
October	971	114	14	31.3	0.368	0.42	1,930
November	10,642	4,300	35	355	4.18	4.66	21,110
December	19,454	1,990	52	628	7.39	8.51	38,590
Calendar year 1941	59,701	4,300	10	164	1.93	26.11	118,400
January	7,548	1,040	82	243	2.86	3.30	14,970
February	8,613	1,190	104	308	3.62	3.77	17,080
March	4,365	218	84	140	1.65	1.91	8,640
April	2,308	218	47	76.9	.905	1.01	4,580
May	8,192	800	102	264	3.11	3.59	16,250
June	3,727	395	45	124	1.46	1.63	7,390
July	1,129	76	18	36.4	.428	.49	2,240
August	399.0	18	9.5	12.9	.152	.17	791
September	241.0	12	6.0	8.03	.094	.11	478
Water year 1941-42	67,579	4,300	6.0	185	2.18	29.56	134,000

a No gage-height record; discharge computed on basis of records for Coast Fork of Willamette River near Cottage Grove and Row River at Star.
Time basis: Pacific standard time prior to 2 a.m., Feb. 9, 1942; Pacific war time thereafter. To convert war time to standard time, subtract 1 hour.

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 1942.

Average discharge.- 26 years (1910-14, 1915-16, 1918-21, 1923-25, 1926-42), 1,579 second-feet.

Extremes.- Maximum discharge during year, 4,710 second-feet Dec. 19 (gage height, 3.89 feet); minimum, 847 second-feet Oct. 1, 3 (gage height, 0.87 foot).
1910-42: Maximum discharge, 18,000 second-feet Jan. 6, 1923 (gage height, 8.3 feet, from floodmarks at former gage at highway bridge), from rating curve extended above 2,400 second-feet; minimum, 805 second-feet Oct. 20, 1931.

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

Rating tables, water year 1941-42 (gage height, in feet, and discharge, in second-feet)

Oct. 1 to Dec. 18						Dec. 19 to Sept. 30					
0.8	805	1.4	1,260	2.4	2,420	0.9	830	2.0	1,910	3.3	3,720
1.0	930	1.7	1,560	2.8	2,970	1.2	1,070	2.4	2,420	3.8	4,550
1.2	1,080	2.0	1,910			1.6	1,450	2.8	2,970		

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	853	884	1,190	1,530	1,490	1,220	1,240	1,320	1,560	1,240	1,070	900
2	853	891	2,440	1,490	1,490	1,240	1,240	1,310	1,520	1,230	1,060	893
3	853	993	2,800	1,460	1,540	1,220	1,240	1,310	1,470	1,220	1,060	893
4	865	1,020	2,390	1,410	2,040	1,200	1,280	1,310	1,430	1,210	1,040	886
5	865	993	2,610	1,370	2,030	1,200	1,280	1,300	1,420	1,200	1,030	886
6	859	979	2,480	1,350	2,010	1,200	1,260	1,310	1,440	1,200	1,020	886
7	864	958	2,260	1,380	1,900	1,180	1,270	1,340	1,400	1,190	1,020	886
8	930	951	2,060	1,800	1,810	1,180	1,270	1,360	1,370	1,180	1,020	886
9	917	944	1,910	1,840	1,890	1,270	1,280	1,350	1,380	1,170	1,010	908
10	904	937	1,790	1,690	2,020	1,660	1,300	1,340	1,390	1,180	1,010	893
11	898	930	1,720	1,650	1,920	1,580	1,330	1,310	1,370	1,190	998	886
12	951	924	1,640	1,620	1,800	1,530	1,340	1,290	1,340	1,160	989	879
13	944	1,120	1,590	1,570	1,720	1,460	1,350	1,270	1,310	1,150	989	879
14	930	1,590	1,560	1,530	1,640	1,390	1,370	1,270	1,300	1,150	980	879
15	924	3,290	1,710	1,480	1,580	1,350	1,360	1,280	1,340	1,150	972	872
16	910	2,450	2,110	1,460	1,540	1,320	1,360	1,280	1,320	1,170	964	872
17	904	1,890	2,020	1,430	1,480	1,310	1,350	1,270	1,290	1,160	956	872
18	904	1,630	2,970	1,400	1,440	1,290	1,360	1,260	1,300	1,140	956	865
19	904	1,500	4,520	1,370	1,410	1,270	1,360	1,280	1,290	1,140	948	865
20	898	1,420	3,740	1,350	1,380	1,250	1,400	1,310	1,270	1,130	948	865
21	891	1,360	3,030	1,320	1,360	1,240	1,440	1,350	1,260	1,130	940	865
22	884	1,320	2,660	1,300	1,330	1,240	1,440	1,440	1,250	1,120	940	865
23	878	1,290	2,580	1,280	1,320	1,230	1,410	1,410	1,240	1,120	932	865
24	872	1,260	2,360	1,270	1,300	1,210	1,390	1,380	1,240	1,110	932	858
25	872	1,240	2,190	1,280	1,270	1,200	1,370	1,580	1,270	1,110	924	858
26	865	1,220	2,030	1,420	1,250	1,200	1,350	1,660	1,300	1,110	916	858
27	878	1,210	1,930	1,620	1,250	1,180	1,350	1,690	1,280	1,100	916	858
28	878	1,190	1,850	1,590	1,230	1,170	1,340	1,720	1,260	1,100	916	851
29	872	1,180	1,770	1,520	-	1,160	1,310	1,670	1,250	1,090	916	851
30	865	1,200	1,680	1,460	-	1,170	1,320	1,640	1,240	1,080	908	851
31	872	-	1,600	1,440	-	1,200	-	1,630	-	1,080	900	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acre-feet
October	27,577	951	853	890	2.58	2.97	54,700
November	39,144	3,290	884	1,305	3.78	4.22	77,640
December	69,090	4,520	1,190	2,229	6.46	7.45	137,000
Calendar year 1941	435,634	4,520	847	1,194	3.46	46.96	864,000
January	45,680	1,840	1,270	1,474	4.27	4.92	90,600
February	44,440	2,040	1,230	1,587	4.60	4.79	88,150
March	39,520	1,660	1,160	1,275	3.70	4.26	78,390
April	39,960	1,440	1,240	1,332	3.86	4.31	79,260
May	43,240	1,720	1,260	1,395	4.04	4.66	85,770
June	40,100	1,560	1,240	1,337	3.88	4.32	79,540
July	35,710	1,240	1,080	1,152	3.34	3.85	70,830
August	30,180	1,070	900	974	2.82	3.25	59,860
September	26,231	908	851	874	2.53	2.83	52,030
Water year 1941-42	480,872	4,520	851	1,317	3.82	51.83	953,800

Peak discharge.- Nov. 15 (11 a.m.) 3,830 sec.-ft.; Dec. 2 (11 p.m.) 3,530 sec.-ft.; Dec. 19 (6 a.m.) 4,710 sec.-ft.

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

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 1942. June 1910 to March 1911 (gage heights only), at site at Martin Rapids.
Average discharge.- 18 years, 3,516 second-feet.
Extremes.- Maximum discharge during year, 24,100 second-feet Nov. 15 (gage height, 8.40 feet); minimum, 1,360 second-feet Sept. 23-30 (gage height, 0.46 foot).
1924-42: Maximum discharge, 47,200 second-feet Feb. 20, 1927 (gage height, 14.2 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 except those for periods of no gage-height record, which are fair. No diversion or regulation above station.
Cooperation.- Water-stage recorder inspected by employee of Eugene Water Board.

Rating table, water year 1941-42 (gage height, in feet, and discharge, in second-feet)

0.4	1,300	2.0	3,720	5.0	11,600
.7	1,630	2.5	4,730	6.0	15,000
1.0	2,050	3.0	5,950	7.5	20,700
1.3	2,510	3.5	7,240		
1.6	3,010	4.0	8,600		

Discharge, in second-foot, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,460	2,020	2,560	3,470	a4,000	2,860	2,920	3,250	4,280	2,590	1,770	1,470
2	1,520	2,200	7,700	3,320	a4,000	3,110	2,870	3,290	4,080	2,530	1,730	1,460
3	1,460	3,010	11,700	3,220	a4,400	3,100	2,860	3,290	3,820	2,450	1,710	1,460
4	1,610	3,820	9,320	3,060	a8,500	2,920	3,010	3,360	3,580	2,370	1,700	1,440
5	1,630	3,040	9,410	2,960	a8,200	2,960	3,060	3,250	3,410	2,300	1,680	1,440
6	1,580	2,670	8,350	3,130	a7,800	a2,950	2,980	3,230	3,470	2,260	1,670	1,430
7	1,860	2,410	7,060	6,290	a7,000	a2,900	2,940	3,380	3,340	2,220	1,640	1,430
8	2,230	2,230	5,950	8,940	a6,000	a2,900	2,920	3,410	3,150	2,180	1,640	1,460
9	2,080	2,080	5,180	7,290	a6,400	a3,150	2,920	3,360	3,250	2,140	1,670	1,500
10	1,930	1,980	4,580	6,080	a7,000	a4,800	2,960	3,320	3,270	2,120	1,680	1,470
11	1,840	1,930	4,180	5,450	6,380	a4,400	3,030	3,220	3,270	2,280	1,610	1,440
12	2,300	1,890	3,870	5,010	5,520	a4,150	3,040	3,110	3,110	2,160	1,560	1,420
13	2,240	2,540	3,740	a4,700	4,890	a3,800	3,040	2,980	2,960	2,080	1,580	1,420
14	2,050	8,590	3,650	a4,400	a4,450	a3,600	3,180	2,910	2,870	2,080	1,560	1,410
15	1,920	20,200	4,510	a4,200	4,120	a3,350	3,100	3,100	3,200	2,080	1,560	1,400
16	1,830	13,000	7,670	a4,000	3,870	3,250	3,010	3,160	3,160	2,230	1,570	1,400
17	1,760	8,000	6,930	a3,800	3,650	3,180	2,980	3,100	2,980	2,320	1,570	1,400
18	1,710	5,920	16,000	a3,600	3,500	3,150	2,990	3,010	2,910	2,160	1,560	1,390
19	1,730	4,820	16,800	a3,450	3,320	3,010	2,910	3,040	2,890	2,080	1,580	1,380
20	1,710	4,140	11,800	a3,300	3,250	2,920	2,980	3,110	2,760	2,020	1,580	1,380
21	1,660	3,740	9,230	3,160	3,130	2,860	3,100	3,270	2,640	1,990	1,580	1,370
22	1,610	3,450	8,180	3,040	3,030	2,840	3,160	3,910	2,570	1,960	1,580	1,370
23	1,670	3,220	7,970	2,940	3,010	2,790	3,060	3,970	2,510	1,930	1,580	1,360
24	1,550	3,030	6,770	2,890	3,010	2,720	3,030	3,720	2,460	1,900	1,610	1,360
25	1,520	2,870	5,900	2,870	2,980	2,690	3,080	5,030	2,810	1,860	1,600	1,360
26	1,510	2,740	5,200	2,870	2,910	2,640	3,040	6,150	3,380	1,830	1,600	1,360
27	1,620	2,640	4,730	4,400	2,910	2,610	3,060	6,080	3,200	1,820	1,600	1,360
28	1,730	2,560	4,380	4,730	2,870	2,590	3,230	6,020	2,960	1,800	1,610	1,360
29	1,700	2,530	4,160	4,470	-	2,570	3,040	5,600	2,810	1,790	1,580	1,360
30	1,640	2,640	3,950	4,100	-	2,590	3,040	5,030	2,670	1,770	1,480	1,360
31	1,630	-	3,680	3,850	-	2,720	-	4,760	-	1,750	1,470	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off Inches	Run-off Acre-feet
October	54,190	2,300	1,460	1,748	1.88	2.17	107,500
November	125,910	20,200	1,890	4,197	4.51	5.04	249,700
December	215,110	16,800	2,560	6,939	7.46	8.60	426,700
Calendar year 1941	1,055,060	20,200	1,340	2,891	3.11	42.20	2,093,000
January	128,990	8,940	2,870	4,161	4.47	5.16	255,800
February	130,100	8,500	2,870	4,646	5.00	5.20	258,000
March	96,080	4,800	2,570	3,099	3.33	3.84	190,600
April	90,540	3,230	2,860	3,018	3.25	3.62	179,600
May	117,390	6,150	2,910	3.787	4.07	4.69	232,800
June	93,790	4,280	2,460	3,126	3.36	3.75	186,000
July	65,030	2,590	1,750	2,098	2.26	2.60	129,000
August	49,060	1,730	1,470	1,583	1.70	1.96	97,310
September	42,220	1,500	1,360	1,407	1.51	1.69	83,740
Water year 1941-42	1,208,410	20,200	1,360	3,311	3.56	48.32	2,397,000

Peak discharge.- Nov. 15 (2:30 p.m.) 24,100 sec.-ft.; Dec. 3 (1:15 a.m.) 14,400 sec.-ft.; Dec. 4 (10 p.m.) 10,700 sec.-ft.; Dec. 18 (6:30 p.m.) 20,800 sec.-ft.; Jan. 8 (1 p.m.) 9,290 sec.-ft.
a No gage-height record; discharge computed on basis of range of stage and records for station at McKenzie Bridge and Blue River near Blue River.
Time basis: Pacific standard time prior to 2 a.m., Feb. 9, 1942; Pacific war time thereafter. To convert war time to standard time, subtract 1 hour.

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 1942.

Extremes.- Maximum discharge during year, 4,310 second-feet Dec. 18 (gage height, 5.49 feet); minimum, 18 second-feet Sept. 27-30 (gage height, 1.03 feet).
1935-42: Maximum discharge, 5,800 second-feet Jan. 22, 1938 (gage height, 6.50 feet); minimum, 13 second-feet Sept. 27, 28, Oct. 1, 2, 1938.

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

Rating tables, water year 1941-42 (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used July 16 to Aug. 31, Sept. 9-30)

Oct. 1 to Nov. 15						Nov. 16 to Sept. 30					
1.2	49	2.4	660	4.4	2,820	1.0	14	2.0	380	3.8	2,060
1.4	111	2.8	1,000	5.0	3,620	1.2	49	2.4	650	4.4	2,820
1.7	236	3.3	1,490			1.4	108	2.8	995	5.0	3,620
2.0	390	3.8	2,060			1.7	223	3.3	1,490		

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	49	138	151	237	498	a185	276	320	428	118	38	27
2	60	158	1,760	223	492	a260	261	336	364	138	38	27
3	52	409	2,140	210	612	a280	256	326	314	102	38	27
4	80	438	1,510	194	1,930	a235	286	308	276	96	38	27
5	87	319	1,500	181	1,460	a230	281	298	246	92	38	25
6	80	260	1,300	177	1,400	a230	256	308	228	89	36	25
7	111	214	968	481	968	a220	246	325	210	86	36	25
8	218	184	706	2,020	756	a210	242	308	194	80	36	28
9	201	158	547	1,730	923	a310	237	286	202	77	36	36
10	163	138	440	1,150	1,140	a820	242	281	206	77	36	30
11	138	127	369	923	887	a660	246	270	206	80	34	27
12	223	123	314	790	666	a560	237	246	189	77	34	25
13	210	537	292	642	519	a470	232	228	173	74	34	25
14	171	1,820	281	533	434	a395	242	215	162	74	30	25
15	142	3,550	398	460	369	a350	228	232	189	74	30	24
16	123	2,080	1,060	428	325	a320	210	232	177	99	28	24
17	111	1,130	905	392	281	298	202	215	162	96	28	24
18	101	714	2,500	352	251	298	219	202	154	74	28	22
19	101	512	3,560	320	228	281	202	210	151	69	28	21
20	91	392	2,190	286	219	242	210	210	140	63	28	21
21	84	325	1,370	261	206	232	219	219	132	57	27	21
22	77	276	1,010	237	194	223	219	303	126	55	27	20
23	71	242	1,140	228	185	215	202	303	115	52	27	20
24	66	215	860	219	185	202	202	276	112	52	27	20
25	63	194	666	242	181	194	206	547	143	49	25	20
26	63	173	519	452	177	185	210	772	185	47	25	20
27	77	162	434	736	177	181	237	815	173	45	27	18
28	94	154	374	642	a177	181	292	851	151	45	30	18
29	87	147	336	519	-	185	261	756	136	43	30	18
30	77	158	308	428	-	202	276	620	129	43	28	18
31	77	-	276	392	-	246	-	519	-	41	27	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acre-feet
October	3,348	223	49	108	1.44	1.66	6,640
November	15,447	3,550	123	515	6.87	7.66	30,640
December	30,184	3,560	151	974	13.0	14.97	59,870
Calendar year 1941	104,021	3,560	22	285	3.80	51.59	206,300
January	16,087	2,020	177	519	6.92	7.98	31,910
February	15,840	1,930	177	566	7.55	7.85	31,420
March	9,080	820	181	293	3.91	4.50	18,010
April	7,135	292	202	238	3.17	3.54	14,150
May	11,336	851	202	366	4.88	5.62	22,480
June	5,773	428	112	192	2.56	2.86	11,450
July	2,234	118	41	72.1	.961	1.11	4,430
August	972	38	25	31.4	.419	.48	1,930
September	708	36	18	23.6	.315	.35	1,400
Water year 1941-42	118,144	3,560	18	324	4.32	58.58	234,300

Peak discharge.- Nov. 15 (12 m.) 4,170 sec.-ft.; Dec. 18 (8:30 p.m.) 4,310 sec.-ft.
a No gage-height record; discharge computed on basis of recorded range in stage, weather records, and records for McKenzie River at Vida and South Santiam River below Cascadia.
Time basis: Pacific standard time prior to 2 a.m., Feb. 9, 1942; Pacific war time thereafter. To convert war time to standard time, subtract 1 hour.

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 1942.

Extremes.- Maximum discharge during year, 5,650 second-feet Nov. 15 (gage height, 16.3 feet, from graph based on gage readings); minimum observed, 25 second-feet Sept. 30 (gage height, 1.16 feet).
1935-42: Maximum discharge observed, 6,480 second-feet Mar. 18, 1938 (gage height, about 18.0 feet, from floodmark); minimum observed, 11 second-feet Sept. 17, 1938.

Remarks.- Records fair. No diversion above station; possibly some regulation caused by logponds. Gage read once daily during low-water periods, twice daily at other times.

Rating tables, water year 1941-42 (gage height, in feet, and discharge, in second-feet)

Oct. 1 to Nov. 15

1.5	67	3.0	410	8.0	2,030
1.8	118	4.0	685	10.0	2,840
2.2	208	5.0	980	12.0	3,690
2.6	307	6.0	1,300	14.0	4,580

Nov. 16 to Sept. 30

1.1	21	1.8	113	3.0	404
1.3	38	2.2	203	4.0	683
1.5	64	2.6	300	5.0	980

Note.- Same as preceding table above 5.0 feet.

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	76	337	328	718	651	558	318	401	631	198	75	33
2	105	353	1,750	648	677	666	292	426	549	194	71	32
3	80	445	4,020	617	651	597	295	407	480	166	83	31
4	122	478	2,840	561	1,680	558	292	396	426	162	75	33
5	116	488	2,360	507	2,290	510	285	356	390	159	71	31
6	103	394	1,890	485	2,210	505	270	312	426	153	64	32
7	122	348	1,510	1,010	1,890	485	253	305	388	157	63	34
8	141	304	1,240	2,680	1,760	461	244	282	333	150	57	33
9	137	260	1,060	2,490	1,800	533	237	308	374	148	57	34
10	116	230	902	1,830	2,020	589	225	382	426	137	58	39
11	116	234	761	1,420	1,690	625	215	348	348	142	58	36
12	280	237	683	1,190	1,470	686	213	320	312	128	57	35
13	206	502	634	1,020	1,180	735	213	295	298	120	49	34
14	163	1,390	577	893	1,020	695	217	263	280	124	45	32
15	143	4,260	869	791	902	628	210	288	258	137	43	31
16	137	4,000	1,800	803	800	591	196	280	253	157	42	29
17	131	2,550	1,580	698	729	583	205	282	244	139	43	30
18	120	1,730	3,490	628	637	549	205	249	249	117	42	30
19	118	1,190	4,580	558	597	505	196	234	234	105	45	28
20	118	878	4,450	533	569	482	180	216	217	102	39	27
21	108	753	3,230	491	544	455	180	215	201	94	40	27
22	108	663	2,570	461	485	453	175	477	194	94	39	27
23	107	563	2,810	439	521	423	187	330	167	92	38	27
24	99	482	2,290	428	566	396	203	335	185	89	37	28
25	94	434	1,880	431	538	420	217	666	328	84	36	26
26	99	399	1,510	642	510	385	198	854	415	81	37	26
27	154	369	1,270	738	651	372	348	782	320	81	38	28
28	157	343	1,120	732	648	348	346	1,040	268	80	39	30
29	131	328	1,000	642	-	333	322	1,190	244	83	38	26
30	122	333	917	597	-	322	318	947	220	80	37	25
31	126	-	815	605	-	315	-	753	-	78	36	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acre-feet
October	3,955	280	76	128	0.711	0.82	7,840
November	25,275	4,260	230	842	4.68	5.22	50,130
December	56,736	4,580	328	1,830	10.2	11.72	112,500
Calendar year 1941	164,474	4,580	33	451	2.51	33.99	326,200
January	26,286	2,680	428	848	4.71	5.43	52,140
February	29,686	2,290	485	1,060	5.89	6.13	58,880
March	15,763	735	315	508	2.82	3.26	31,270
April	7,255	348	175	242	1.34	1.50	14,390
May	13,938	1,190	215	450	2.50	2.88	27,650
June	9,678	631	185	323	1.79	2.00	19,200
July	3,831	198	78	124	.689	.79	7,600
August	1,552	83	36	50.1	.278	.32	3,080
September	912	39	25	30.4	.169	.19	1,810
Water year 1941-42	194,867	4,580	25	534	2.97	40.26	386,600

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

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 1¼ 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 1942.

Extremes.- Maximum discharge during year, 2,060 second-feet Dec. 20 (gage height, 14.64 feet); minimum, 11 second-feet Sept. 20, 21.
1935-42: Maximum discharge, 3,970 second-feet Jan. 13, 1936 (gage height, 18.3 feet, from graph based on gage readings); minimum observed, 7 second-feet Sept. 25-27, 1939 (gage height, 0.66 foot).

Remarks.- Records good. No diversion above station; slight diurnal fluctuation caused by log pond above Noti.

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	16	42	71	312	538	209	122	105	83	39	25	16
2	18	62	570	279	580	205	115	112	80	36	24	15
3	19	50	1,560	271	552	199	124	108	79	35	25	15
4	16	61	1,070	250	1,170	189	144	117	75	34	24	15
5	20	49	740	224	1,420	183	144	110	70	36	24	15
6	22	41	575	216	1,180	182	126	101	66	36	23	13
7	20	34	443	408	939	172	115	93	64	34	22	15
8	23	32	357	751	754	169	110	88	63	34	21	14
9	22	31	306	980	668	178	108	85	66	32	20	15
10	22	29	260	775	588	210	104	110	66	33	22	16
11	19	31	219	593	513	214	99	113	61	34	22	15
12	24	32	190	487	457	202	97	110	57	34	21	14
13	26	96	172	419	411	208	94	104	54	34	20	12
14	24	469	218	372	373	208	98	94	52	34	19	14
15	22	955	228	338	350	196	94	94	53	34	18	14
16	21	1,050	729	322	323	190	92	92	51	34	17	14
17	21	908	887	300	303	182	99	88	50	36	18	14
18	20	491	1,470	279	280	181	108	82	49	34	18	13
19	26	296	1,840	259	262	169	94	76	47	30	18	13
20	26	203	1,950	247	251	162	91	75	45	31	17	12
21	22	153	1,330	235	252	158	85	71	46	28	17	13
22	22	126	911	231	236	155	83	70	44	30	16	14
23	22	108	1,080	234	233	148	84	71	41	28	15	14
24	22	93	925	257	277	142	83	71	42	28	16	13
25	19	83	700	438	247	143	91	99	63	27	16	13
26	22	77	574	536	230	142	85	97	71	24	16	12
27	33	72	473	650	233	136	95	81	57	26	16	12
28	33	72	431	556	222	130	117	83	49	25	17	14
29	28	70	410	457	-	127	101	89	47	26	17	15
30	24	74	381	404	-	124	97	90	41	27	15	14
31	26	-	347	387	-	120	-	85	-	25	16	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acre-feet
October	702	33	16	22.6	0.267	0.30	1,390
November	5,889	1,050	29	196	2.23	2.49	11,680
December	21,417	1,950	71	691	7.85	9.05	42,480
Calendar year 1941	64,131	1,950	11	176	2.00	27.12	127,200
January	12,467	980	216	402	4.57	5.27	24,730
February	13,842	1,420	222	494	5.61	5.85	27,460
March	5,332	214	120	172	1.95	2.25	10,580
April	3,099	144	83	103	1.17	1.31	6,150
May	2,864	117	70	92.4	1.05	1.21	5,680
June	1,732	83	41	57.7	.656	.73	3,440
July	978	39	24	31.5	.358	.41	1,940
August	595	25	15	19.2	.218	.25	1,180
September	418	16	12	13.9	.158	.18	829
Water year 1941-42	69,335	1,950	12	190	2.16	29.30	137,500

Peak discharge.- Dec. 3 (12:15 p.m.) 1,670 sec.-ft.; Dec. 19 (6 to 7 a.m.) 1,870 sec.-ft.; Dec. 20 (10 to 11 a.m.) 2,060 sec.-ft.; Feb. 5 (1 to 2 a.m.) 1,550 sec.-ft.
Time basis: Pacific standard time prior to 2 a.m., Feb. 9, 1942; Pacific war time thereafter. To convert war time to standard time, subtract 1 hour.

WILLAMETTE RIVER BASIN

Fern Ridge Reservoir near Elmira, Oreg.

Location.- Water-stage recorder, lat. 44°07'18", long. 123°17'56", near center of sec. 4, T. 17 S., R. 5 W., in control house at spillway section of dam on Long Tom River, 4½ miles northeast of Elmira. Datum of gage is at mean sea level (levels by Corps of Engineers, U. S. Army). Prior to Dec. 27, 1941, float gage at same site and datum.

Drainage area.- 252 square miles.

Records available.- October 1941 to September 1942.

Extremes.- Maximum contents during year, 69,810 acre-feet July 4 (elevation, 369.70 feet); contents practically zero Oct. 1 to Nov. 12.

Remarks.- Reservoir is formed by earthfill 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 elevation 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; prior to Dec. 27, 1941, midnight elevations interpolated.

Cooperation.- Gage readings made and water-stage recorder inspected by employees of Corps of Engineers, U. S. Army.

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

340	0	344	189	352	5,800	360	22,620	368	58,330
341	21	346	577	354	8,550	362	29,260	370	71,980
342	59	348	1,570	356	12,300	364	37,180	372	87,830
343	115	350	3,270	358	16,970	366	46,820	374	106,000

Contents, in acre-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1		-	97	50,810	6,850	29,840	45,920	55,250	66,290	69,740	67,820	46,240
2		-	3,270	47,830	8,050	30,500	46,240	55,610	66,570	69,740	67,750	45,100
3		-	12,720	44,790	9,760	31,200	46,820	56,160	66,710	69,590	67,680	43,880
4		-	21,120	41,660	14,490	31,810	47,350	56,520	66,920	69,450	67,680	42,830
5		-	25,490	38,370	22,070	32,390	47,830	57,020	67,050	69,380	67,610	41,660
6		-	27,850	35,340	27,890	32,980	48,210	57,320	67,260	69,380	67,610	40,520
7		-	28,200	33,780	31,020	33,580	48,590	57,630	67,470	69,380	67,470	39,410
8		-	28,200	34,310	31,850	34,060	48,970	57,820	67,680	69,240	67,330	38,280
9		-	25,490	38,320	31,930	34,640	49,190	58,320	67,820	69,240	67,190	37,180
10		-	23,550	42,200	31,470	35,340	49,520	58,640	67,820	69,100	67,120	36,020
11		-	21,410	44,580	30,310	36,060	49,690	59,010	67,890	69,100	66,980	34,840
12		0	19,390	44,030	27,920	36,830	50,020	59,270	68,100	69,100	66,780	33,860
13		-	16,710	41,090	25,350	37,610	50,300	59,590	68,100	69,020	66,570	32,750
14		-	13,820	38,010	23,680	38,230	50,580	59,840	68,320	69,020	66,640	31,660
15		1,930	11,080	34,760	23,460	38,950	50,750	60,230	68,320	69,020	66,090	30,420
16		5,860	11,880	31,660	23,150	39,550	51,040	60,550	68,320	69,020	64,920	29,400
17		10,130	17,490	28,550	22,740	40,100	51,490	60,870	68,390	68,880	63,640	28,160
18		11,880	25,820	25,220	23,210	40,620	51,780	61,130	68,390	68,880	62,640	26,960
19		10,510	38,950	21,890	23,490	41,230	52,060	61,390	68,390	68,880	61,460	25,980
20		8,220	51,200	19,700	23,870	41,760	52,290	61,590	68,390	68,880	60,230	24,930
21		6,980	58,380	17,150	24,440	42,290	52,470	61,850	68,390	68,740	59,140	23,870
22		6,550	62,240	13,480	24,900	42,730	52,700	62,180	68,390	68,670	58,010	22,740
23		6,410	64,240	9,980	25,450	43,080	52,930	62,310	68,390	68,600	56,830	21,650
24		5,340	64,240	8,130	26,050	43,530	53,110	62,910	68,460	68,460	55,670	20,730
25		3,910	64,240	8,320	26,690	43,780	53,340	63,310	69,170	68,390	54,350	19,610
26		2,340	63,570	9,010	27,510	44,130	53,700	63,910	69,310	68,320	53,280	18,610
27		491	62,840	9,480	28,340	44,480	53,930	64,450	69,450	68,180	52,060	17,490
28		136	60,680	9,270	29,120	44,740	54,170	64,920	69,520	68,100	50,920	16,310
29		97	58,570	8,650	-	45,040	54,530	65,470	69,670	68,030	49,800	15,130
30		97	56,340	7,410	-	45,350	54,890	65,810	69,670	67,960	48,480	14,000
31		-	53,520	6,740	-	45,660	-	66,150	-	67,890	47,400	-

Monthly elevation and contents, water year October 1941 to September 1942

Date	Elevation (feet)	Contents (acre-feet)	Change in contents during month (acre-feet)
Sept. 30	-	0	-
Oct. 31	-	0	0
Nov. 30	342.7	97	+97
Dec. 31	367.20	53,520	+53,423
Calendar year 1941	-	-	+53,520
Jan. 31	352.83	6,740	-46,780
Feb. 28	361.96	29,120	+22,380
Mar. 31	365.78	45,660	+16,540
Apr. 30	367.43	54,890	+9,230
May 31	369.18	66,150	+11,260
June 30	369.68	69,670	+3,520
July 31	369.43	67,890	-1,780
Aug. 31	366.11	47,400	-20,490
Sept. 30	356.78	14,000	-33,400
Water year 1941-42	-	-	+14,000

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

Long Tom River at Smithfield, Oreg.

Location. - Water-stage recorder, lat. 44°09'22", long. 123°17'15", in NW¼ sec. 27, T. 16 S., R. 5 W., at road crossing 100 feet downstream from Coyote Creek, 1 mile east of Smithfield, and 2½ miles downstream from Fern Ridge Dam. Datum of gage is 320.91 feet above mean sea level, datum of 1929 (Corps of Engineers, U.S. Army, bench mark).

Drainage area. - 263 square miles.

Records available.- August 1939 to September 1942.

Extremes.- Maximum discharge during year, 2,330 second-feet Jan. 14-16 (gage height, 13.16 feet); minimum not recorded (backwater from temporary dam on control); minimum daily, 8 second-feet (estimated) Oct. 4.

1939-42: Maximum discharge, 4,360 second-feet Feb. 8, 29, 1940 (gage height, 13.69 feet); minimum, 1 second-foot (regulated) Aug. 7, 1941 (gage height, 1.95 feet).

Remarks.- Records good except those for period of backwater from dam on control, which are fair. A few small diversions above station. Fern Ridge Dam 2½ miles above station was completed in 1941, and regulated flow beginning Nov. 15, 1941. (See preceding page.)

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	20	38	239	1,960	1,360	81	53	28	21	18	15	525
2	18	34	442	1,930	1,130	72	36	27	21	18	16	521
3	15	66	964	1,910	818	68	29	27	21	19	18	516
4	8	72	1,100	1,960	826	65	33	35	21	18	17	513
5	11	71	608	1,930	344	64	31	35	21	18	17	509
6	16	72	522	1,930	253	61	28	27	21	18	17	520
7	14	64	803	2,140	516	60	26	25	21	18	16	528
8	40	56	874	2,310	1,280	60	26	24	21	18	16	527
9	30	50	1,630	1,250	1,620	61	26	24	21	17	16	524
10	20	44	1,660	738	1,620	65	25	26	21	17	16	520
11	22	38	1,660	678	1,630	63	25	27	21	17	16	519
12	25	42	1,890	767	1,950	61	24	26	21	17	16	518
13	12	56	1,840	2,290	2,060	61	24	26	21	18	18	518
14	20	97	1,820	2,330	1,960	61	25	25	22	18	25	528
15	30	363	1,790	2,330	1,060	57	25	25	23	19	74	538
16	31	1,010	1,630	2,330	518	57	24	25	22	18	294	537
17	29	1,160	428	2,290	794	57	26	25	22	17	439	536
18	28	755	393	2,270	522	56	27	24	22	16	496	530
19	28	1,050	404	2,220	385	57	25	24	22	16	501	527
20	26	1,660	315	2,080	373	55	24	25	21	16	501	524
21	28	1,580	190	1,320	304	55	24	25	19	16	502	520
22	29	850	591	1,980	262	55	24	25	19	16	504	516
23	29	430	1,690	2,120	260	55	24	23	19	16	504	508
24	28	378	1,770	2,040	268	54	24	22	19	16	504	505
25	28	740	1,930	1,150	258	55	24	21	21	16	525	499
26	28	776	1,930	982	147	55	24	22	23	16	537	496
27	29	701	1,950	988	101	55	27	22	22	16	538	496
28	31	455	1,950	1,340	90	54	27	22	20	15	538	544
29	39	310	1,950	1,450	-	53	26	22	19	15	533	556
30	40	260	1,960	1,460	-	53	26	21	19	15	531	551
31	38	-	1,980	1,620	-	53	-	21	-	15	528	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	790	40	8	25.5	1,570
November	13,278	1,660	34	443	26,340
December	38,883	1,980	190	1,254	77,120
Calendar year 1941	132,644	2,910	2	363	263,100
January	54,093	2,330	678	1,745	107,300
February	23,009	2,060	90	822	45,640
March	1,839	81	53	59.3	3,650
April	812	53	24	27.1	1,610
May	776	35	21	25.0	1,540
June	627	23	19	20.9	1,240
July	517	19	15	16.7	1,030
August	8,288	538	15	267	16,440
September	15,669	556	496	522	31,080
Water year 1941-42	158,581	2,330	8	434	314,600

Note.-Backwater from small dam Oct. 3-15, and no gage-height record July 31 to Aug.5; discharges computed on basis of weather records and records for station at Monroe.

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

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 1942 (1925-27 incomplete).
Average discharge.- 19 years (1921-25, 1927-42), 689 second-feet.
Extremes.- Maximum discharge observed during year, 4,180 second-feet Jan. 9 (gage height, 12.24 feet); minimum observed, 8 second-feet (regulated by small dam above Cheshire) Oct. 6.
1929-42: Maximum discharge, 18,600 second-feet Jan. 7, 1923 (gage height, 14.4 feet, site and datum then in use), from rating curve extended above 9,000 second-feet; minimum observed, 7 second-feet Sept. 29, Oct. 1, 1939.
Remarks.- Records good. A few small diversions above station; some fluctuation at low stages owing to pondage at mill dam at Monroe and dam above Cheshire; flow regulated by Fern Ridge Reservoir beginning Nov. 15, 1941: (See p. 109.) Gage read once daily, oftener during periods of high water.
Cooperation.- Gage-height record collected in cooperation with U. S. Weather Bureau.

Rating table, water year 1941-42 (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used June 21 to Sept. 30)

0.4	12	1.3	115	3.0	399	7.0	1,350
.6	29	1.6	159	4.0	590	9.0	2,020
.8	52	2.0	223	5.0	820	11.0	2,880
1.0	76	2.5	309	6.0	1,070	12.2	4,120

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	23	47	349	2,430	2,460	281	110	79	92	44	18	524
2	21	57	760	2,380	2,360	250	107	81	79	41	20	520
3	21	57	2,460	2,280	2,230	223	94	76	71	37	24	516
4	16	84	4,010	2,260	2,250	220	94	81	64	37	23	516
5	13	97	2,940	2,280	2,820	210	105	84	62	32	20	508
6	8	89	1,800	2,250	2,450	210	102	89	59	29	20	508
7	19	86	1,260	2,360	1,700	188	99	81	57	29	24	524
8	16	76	1,430	2,930	1,610	175	94	74	57	33	20	532
9	45	66	1,380	3,980	2,280	175	89	71	54	31	20	528
10	31	57	1,750	3,650	2,520	186	84	71	54	31	20	528
11	23	54	2,050	2,280	2,400	220	81	74	54	32	20	528
12	27	42	1,960	1,540	2,260	217	76	71	54	26	20	528
13	29	57	2,160	1,360	2,460	226	76	69	52	26	20	528
14	13	159	2,210	2,640	2,620	237	76	69	50	32	20	524
15	15	770	2,170	2,920	2,570	233	76	69	52	32	30	536
16	33	1,900	2,500	2,930	1,510	201	74	71	52	31	30	548
17	33	2,770	2,750	2,880	1,140	175	74	71	50	31	240	544
18	29	2,350	2,530	2,810	1,070	169	76	69	50	27	376	540
19	29	1,550	2,930	2,740	753	159	76	69	47	27	455	532
20	31	1,500	3,760	2,660	570	150	74	66	47	23	484	528
21	29	1,980	2,940	2,570	542	144	71	66	46	22	492	524
22	29	1,940	1,850	1,670	457	135	69	65	41	22	492	524
23	29	1,140	2,200	2,330	431	129	69	74	41	22	492	520
24	27	590	2,820	2,540	453	123	69	69	39	22	492	512
25	27	464	2,810	2,640	467	121	69	74	46	20	494	508
26	27	910	2,730	2,170	439	126	69	99	59	22	512	500
27	31	945	2,580	2,100	309	121	71	99	62	20	512	496
28	42	865	2,520	2,060	274	115	81	138	54	20	528	492
29	38	554	2,530	2,170	-	112	76	118	50	20	528	544
30	42	399	2,540	2,120	-	110	74	105	47	20	524	564
31	45	-	2,590	2,060	-	110	-	99	-	20	524	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	841	45	8	27.1	1,670
November	21,655	2,770	42	722	42,950
December	71,269	4,010	349	2,299	141,400
Calendar year 1941	205,445	4,010	8	563	407,470
January	75,990	3,980	1,360	2,451	150,700
February	43,185	2,620	274	1,542	85,660
March	5,453	281	110	176	10,820
April	2,455	110	69	81.8	4,870
May	2,492	138	66	80.4	4,940
June	1,642	92	39	54.7	3,260
July	861	44	20	27.8	1,710
August	7,494	528	18	242	14,860
September	15,724	564	492	524	31,190
Water year 1941-42	249,061	4,010	18	682	494,000

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

Coyote Creek near Crow, Oreg.

Location.- Water-stage recorder and concrete control, lat. 44°01'19", long. 123°15'17", in NE¼ sec. 11, T. 18 S., R. 5 W., just upstream from backwater of Fern Ridge Reservoir, 1 mile downstream from Spencer Creek, and 5 miles northeast of Crow. Datum of gage is 374.0 feet above mean sea level (Corps of Engineers, U. S. Army, bench mark).
Drainage area.- 94 square miles.
Records available.- June 1940 to September 1942.
Extremes.- Maximum discharge during year, 5,200 second-feet Dec. 3 (gage height, 12.89 feet); minimum, 0.5 second-foot Sept. 24-29.
1940-42: Maximum discharge, that of Dec. 3, 1941; no flow at times in August and September 1940.
Remarks.- Records good. Small diversions for irrigation above station; no regulation.

Rating tables, water year 1941-42 (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Sept. 23-30)

Oct. 1 to Nov. 15

0.4	1.1	1.4	49	5.0	264
.6	4.5	1.7	60	7.0	437
.7	9.5	2.0	72	9.0	750
.9	24	3.0	128	10.0	1,100
1.1	35	4.0	193		

Nov. 16 to Sept. 30

0.3	0.4	1.5	43	7.0	387
.5	2.2	2.0	60	9.0	680
.7	7.4	3.0	98	10.0	1,020
.9	14.2	4.0	157	11.0	1,940
1.2	27	5.0	225	12.2	3,790

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1.5	5.0	53	163	439	103	43	53	74	10	3.9	1.4
2	1.5	8.0	1,220	135	492	109	40	60	66	9.3	3.9	1.2
3	1.5	9.0	3,700	139	474	113	38	58	59	8.4	3.6	1.0
4	1.7	12	1,580	136	1,150	96	62	89	53	8.0	3.6	.9
5	1.7	13	917	107	1,580	91	76	82	45	7.7	3.6	.9
6	1.8	10	662	94	1,170	98	62	68	40	7.4	3.6	.9
7	2.2	8.5	427	326	897	84	52	59	41	7.4	3.4	.8
8	2.3	7.5	290	1,120	767	78	49	51	34	7.4	3.2	.8
9	2.7	7.0	222	1,440	629	83	45	47	32	7.1	2.9	.9
10	2.7	6.0	175	1,060	493	87	42	58	31	6.8	2.7	1.1
11	2.7	5.5	138	770	386	91	36	69	24	6.6	2.7	1.1
12	3.2	6.5	112	559	313	110	32	59	19	6.6	2.7	1.0
13	3.8	15	101	412	262	121	30	50	16	6.6	2.4	1.0
14	4.5	98	123	325	218	119	34	42	14	6.6	2.4	.9
15	4.3	1,050	136	269	188	100	33	51	13	6.3	2.2	.9
16	3.6	1,350	587	279	165	91	27	66	13	6.3	2.1	.8
17	3.4	938	879	247	144	84	36	61	12	6.3	2.1	.8
18	3.2	521	2,760	206	125	82	46	55	11	6.3	2.0	.8
19	3.4	262	2,700	179	107	78	34	48	11	6.0	1.7	.8
20	3.4	160	3,050	158	109	69	26	41	11	5.7	1.7	.7
21	3.6	113	1,420	142	128	65	22	33	10	5.4	1.6	.6
22	3.4	88	857	134	106	62	20	32	10	4.9	1.5	.6
23	3.2	73	822	142	100	59	20	44	9.6	4.6	1.5	.6
24	3.0	64	702	194	115	57	19	38	9.3	4.6	1.4	.5
25	2.7	56	536	370	124	56	21	108	17	4.6	1.2	.5
26	3.0	50	377	426	105	56	21	184	46	4.4	1.1	.5
27	4.1	46	280	507	134	52	24	170	37	4.1	1.2	.5
28	5.5	42	240	493	124	48	38	172	18	4.1	1.2	.5
29	6.0	39	241	401	-	45	31	140	13	4.1	1.5	.5
30	5.0	50	247	345	-	42	30	111	11	4.1	1.6	.6
31	4.5	-	211	327	-	40	-	88	-	3.9	1.5	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acre-feet
October	99.1	6.0	1.5	3.20	0.034	0.04	197
November	5,113.0	1,350	5.0	170	1.81	2.02	10,140
December	25,765	3,700	53	831	8.84	10.19	51,100
Calendar year 1941	51,778.4	3,700	.7	142	1.51	20.49	102,700
January	11,605	1,440	94	374	3.98	4.59	23,020
February	11,044	1,580	100	394	4.19	4.37	21,910
March	2,469	121	40	79.6	.847	.98	4,900
April	1,089	76	19	36.3	.386	.43	2,160
May	2,287	184	32	73.8	.785	.90	4,540
June	799.9	74	9.3	26.7	.284	.32	1,590
July	191.6	10	3.9	6.18	.066	.08	380
August	71.7	3.9	1.1	2.31	.025	.03	142
September	24.1	1.4	.5	.803	.0085	.01	48
Water year 1941-42	60,558.4	3,700	.5	166	1.77	23.96	120,100

Peak discharge.- Nov. 15 (5 p.m.) 2,010 sec.-ft.; Dec. 3 (4:45 a.m.) 5,200 sec.-ft.; Dec. 20 (6:30 a.m.) 3,700 sec.-ft.; Jan. 9 (3 p.m.) 1,560 sec.-ft.; Feb. 5 (4 to 5 a.m.) 1,810 sec.-ft.
Time basis: Pacific standard time prior to 2 a.m., Feb. 9, 1942; Pacific war time thereafter.
To convert war time to standard time, subtract 1 hour.

Marys River near Philomath, Oreg.

Location.- Wire-weight gage, lat. 44°31'35", long. 123°20'00", in SW¼ sec. 18, T. 12 S., R. 5 W., at bridge 2 miles upstream from Muddy Creek and 2 miles southeast of Philomath.
Drainage area.- 155 square miles (including drainage area of Evergreen Creek above road crossing 1½ miles south of station).
Records available.- October 1940 to September 1942.
Extremes.- Maximum discharge observed during year, 3,840 second-feet Feb. 4 (gage height, 18.13 feet); minimum observed, 11 second-feet Sept. 22-26.
1940-42: Maximum discharge observed, that of Feb. 4, 1942; minimum observed, 9 second-feet Aug. 21, 1941 (gage height, 2.16 feet).
Remarks.- Records good; they include flow of Evergreen Creek at road crossing 1½ miles south, with which overflow from Marys River may at times be mingled. City of Corvallis diverts municipal supply from headwaters; other small diversions above station for irrigation. No regulation. Gage read twice daily.

Rating tables, water year 1941-42 (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Sept. 6-30)

Oct. 1 to Feb. 4						Feb. 5 to Sept. 30			
2.6	27	5.0	246	13.0	1,642	2.4	12	4.3	161
2.9	44	6.0	383	15.0	2,170	2.6	21	5.0	245
3.3	70	7.0	530	18.0	3,750	2.9	38	6.0	380
3.7	103	9.0	858			3.3	66	7.0	530
4.3	163	11.0	1,225			3.7	100		

Note.- Same as preceding table above 7.0 feet.

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	28	52	214	437	1,270	287	224	206	174	74	31	16
2	33	69	1,580	397	1,190	230	215	202	163	67	27	15
3	36	73	2,370	380	1,510	276	213	a220	154	62	32	16
4	32	82	1,940	349	3,610	261	214	240	145	60	27	16
5	31	81	1,530	321	3,560	255	200	a230	137	58	27	16
6	35	78	1,250	305	2,950	245	188	a210	133	58	26	16
7	33	72	996	491	2,080	240	179	a190	143	58	24	17
8	34	66	790	851	1,550	233	172	177	136	56	23	14
9	43	62	658	1,070	1,270	250	166	a165	135	53	24	14
10	38	59	548	1,000	1,100	262	163	a210	137	53	23	15
11	40	57	467	858	978	253	154	288	131	56	22	14
12	52	57	408	736	860	242	154	a260	126	57	84	14
13	70	209	377	648	756	254	149	a235	114	58	22	13
14	59	688	425	589	656	249	147	a220	108	53	21	14
15	56	1,640	538	522	586	237	157	209	104	59	20	14
16	45	1,570	1,970	484	527	237	146	a220	106	61	18	13
17	48	1,240	2,020	455	478	254	146	a200	113	62	18	13
18	43	858	2,510	430	431	266	145	179	109	62	18	14
19	50	592	2,660	405	395	261	139	176	103	54	18	13
20	49	446	3,530	383	377	250	132	170	99	48	18	13
21	50	361	2,800	362	379	244	128	157	94	46	22	12
22	40	312	1,920	342	348	249	128	159	85	44	18	11
23	38	267	2,360	369	327	242	140	197	82	44	18	11
24	37	236	1,770	510	324	232	142	177	80	40	17	11
25	35	210	1,390	1,060	307	245	161	210	98	31	18	11
26	34	190	1,090	1,520	292	266	154	210	114	37	18	11
27	49	174	875	1,590	300	257	165	196	121	37	16	12
28	54	183	756	1,380	290	248	186	208	102	37	16	14
29	54	187	662	1,130	-	237	179	198	90	28	19	13
30	45	219	579	958	-	227	184	184	80	30	16	15
31	43	-	508	888	-	221	-	183	-	30	17	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off: Inches	Run-off: Acre-feet
October	1,334	70	28	43.0	0.277	0.32	2,650
November	10,390	1,640	52	346	2.23	2.49	20,610
December	41,491	3,530	214	1,338	8.63	9.96	82,300
Calendar year 1941	111,851	3,530	9	306	1.97	26.85	221,900
January	21,220	1,590	305	685	4.42	5.09	42,090
February	28,701	3,610	290	1,025	6.61	6.89	56,930
March	7,760	287	221	250	1.61	1.86	15,390
April	4,972	224	128	166	1.07	1.19	9,860
May	6,286	288	157	203	1.31	1.51	12,470
June	3,516	174	80	117	.755	.84	6,970
July	1,573	74	28	50.7	.327	.38	3,120
August	658	32	16	21.2	.137	.16	1,310
September	411	17	11	13.7	.088	.10	815
Water year 1941-42	128,312	3,610	11	352	2.27	30.79	254,500

a No gage-height record; discharge computed on basis of records for Luckiamute River near Suver.
Time basis: Pacific standard time prior to 2 a.m., Feb. 9, 1942; Pacific war time thereafter.
To convert war time to standard time, subtract 1 hour.

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 (revised) above mean sea level, datum of 1929.

Drainage area.- 99 square miles.

Records available.- September 1935 to September 1942.

Extremes.- Maximum discharge during year, 4,920 second-feet Nov. 15 (gage height, 8.10 feet, observed at peak); minimum observed, 26 second-feet Sept. 26, 30 (gage height, 0.80 foot).

1935-42: Maximum discharge, 6,200 second-feet Jan. 4, 1936 (gage height, 9.2 feet, from graph based on gage readings); minimum observed, 13 second-feet (regulated), Sept. 8, 1940.

Maximum stage known, 10.6 feet, probably in February 1927, from floodmarks noted in 1935 (discharge not determined).

Remarks.- Records good. No diversion above station; slight regulation at times during low-water periods by small dam upstream. Gage read once daily, oftener during periods of high water.

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

Rating tables, water year 1941-42 (gage height, in feet, and discharge, in second-feet)

Oct. 1 to Nov. 15						Nov. 16 to Sept. 30					
1.1	64	2.3	400	5.0	2,000	0.8	26	1.9	235	4.0	1,270
1.3	98	2.8	615	6.0	2,810	1.0	46	2.3	377	4.8	1,845
1.6	164	3.4	920	7.3	4,050	1.3	89	2.8	580	5.7	2,560
1.9	250	4.0	1,280			1.6	154	3.4	885		

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	66	172	281	388	535	302	288	354	407	182	66	37
2	133	260	2,100	362	523	354	257	377	369	195	65	36
3	89	329	2,360	343	519	483	241	358	324	166	64	35
4	125	561	1,740	317	2,020	404	232	343	295	152	64	35
5	133	396	1,700	288	1,770	366	251	317	264	142	62	34
6	118	317	1,330	267	1,710	392	226	295	257	137	59	34
7	116	264	1,000	400	1,210	354	212	292	270	130	58	34
8	162	228	780	2,260	970	332	203	274	238	126	56	33
9	241	202	655	1,850	1,000	392	195	251	366	119	54	34
10	172	182	548	1,210	1,210	868	187	292	317	115	54	30
11	150	169	479	918	1,030	725	184	298	328	119	54	36
12	314	185	423	750	802	700	176	267	292	115	53	34
13	288	344	385	640	685	625	172	248	264	106	52	33
14	250	1,290	392	562	580	535	184	229	235	102	51	33
15	180	4,010	535	495	511	471	187	248	251	102	48	32
16	159	2,510	1,280	495	463	439	172	254	257	130	47	31
17	142	1,480	1,310	427	423	400	179	232	223	152	46	31
18	133	970	2,940	388	377	404	192	215	209	115	46	30
19	147	730	4,000	358	339	369	187	206	220	102	45	30
20	129	598	2,910	328	332	339	172	195	198	95	44	30
21	118	491	1,910	298	339	324	162	187	182	89	44	29
22	112	411	1,470	284	309	325	156	209	172	87	43	28
23	104	369	1,560	267	295	309	172	298	162	84	42	28
24	98	332	1,230	257	339	288	154	251	154	80	42	27
25	94	295	970	288	320	278	192	495	212	79	40	28
26	91	267	786	274	295	270	209	680	358	75	40	26
27	108	245	675	635	317	267	209	635	328	74	39	27
28	145	232	589	562	309	261	339	735	274	72	42	27
29	136	215	531	503	-	254	274	665	235	71	42	27
30	136	245	495	439	-	245	254	548	209	69	39	26
31	120	-	447	396	-	248	-	479	-	68	38	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acre-feet
October	4,509	314	66	145	1.46	1.69	8,940
November	18,299	4,010	169	610	6.16	6.87	36,300
December	37,811	4,000	281	1,220	12.3	14.20	75,000
Calendar year 1941	122,296	4,010	34	335	3.38	45.93	242,600
January	17,249	2,260	257	556	5.62	6.48	34,210
February	19,532	2,020	295	698	7.05	7.34	38,740
March	12,326	868	245	398	4.02	4.63	24,450
April	6,218	339	154	207	2.09	2.34	12,330
May	10,727	735	187	346	3.49	4.03	21,280
June	7,870	407	154	262	2.65	2.96	15,610
July	3,450	195	68	111	1.12	1.30	6,840
August	1,539	66	38	49.6	.501	.58	3,050
September	935	37	26	31.2	.315	.35	1,850
Water year 1941-42	140,465	4,010	26	385	3.89	52.77	278,600

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

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 1942.

Extremes.- Maximum discharge during year, 10,200 second-feet Dec. 20 (gage height, 18.52 feet, observed at peak); minimum observed, 9 second-feet (regulated) Sept. 22 (gage height, 0.96 foot).
1940-42: Maximum discharge, that of Dec. 20, 1941; minimum observed, that of Sept. 22, 1942.

Remarks.- Records good. A few small diversions above station for irrigation. Diurnal fluctuation caused by ponds at flour mills near Shedd. Gage read twice daily, oftener at high stages.

Rating tables, water year 1941-42 (gage height, in feet, and discharge, in second-feet)

Oct. 1 to Dec. 20

2.1	81	5.0	680	12.0	3,620
2.4	127	6.0	960	14.0	4,800
2.8	198	7.0	1,300	16.0	6,200
3.4	315	8.0	1,660	18.4	10,000
4.0	435	10.0	2,520		

Dec. 21 to Sept. 30

1.2	17.5	3.3	311
1.5	33	4.0	464
1.8	56	5.0	700
2.2	104	6.5	1,130
2.7	192	8.0	1,660

Note.- Same as preceding table above 8.0 feet.

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	96	206	481	830	1,950	607	367	391	757	262	76	41
2	89	345	1,790	695	1,980	561	391	510	628	236	77	38
3	110	425	6,570	631	1,800	757	356	512	556	222	67	39
4	127	479	8,580	616	2,980	734	343	487	492	202	75	34
5	127	685	5,620	565	4,170	628	330	457	433	182	76	36
6	169	714	4,210	505	4,900	652	341	416	394	175	66	32
7	162	536	3,100	528	4,300	619	309	369	398	164	70	17
8	153	423	2,120	2,040	3,190	551	288	367	354	160	54	32
9	180	375	1,540	4,720	2,350	563	282	352	369	153	73	38
10	234	319	1,270	5,690	2,170	713	268	343	438	146	40	36
11	221	299	1,020	4,120	2,270	1,130	256	424	424	139	66	34
12	206	291	843	2,510	1,880	1,140	248	405	407	132	54	35
13	311	339	727	1,820	1,460	1,040	242	361	369	139	46	43
14	351	1,050	840	1,460	1,150	1,010	240	334	334	139	54	17
15	295	2,850	960	1,120	962	825	240	315	311	127	56	31
16	251	6,530	2,270	967	866	734	236	385	313	118	52	32
17	221	7,360	3,520	1,050	762	677	228	407	309	132	35	34
18	191	5,480	3,940	858	700	638	219	356	278	164	56	32
19	187	2,970	4,820	760	621	614	232	324	264	148	45	28
20	198	1,570	9,820	660	565	554	242	311	260	128	42	26
21	191	1,120	7,960	602	640	503	224	286	236	115	39	16
22	164	894	5,530	561	652	473	213	280	230	106	38	19
23	158	753	4,480	542	572	478	205	650	198	102	49	28
24	148	659	4,120	660	657	455	215	595	186	106	29	28
25	141	568	3,260	1,170	708	431	207	600	194	94	36	29
26	129	495	2,240	1,650	609	460	240	1,400	282	106	38	27
27	141	449	1,590	2,680	590	438	260	1,570	407	61	36	28
28	148	415	1,340	2,550	734	405	343	1,200	389	88	38	18
29	204	415	1,420	2,080	-	383	435	1,330	336	85	37	18
30	200	425	1,510	1,310	-	376	385	1,520	292	81	42	27
31	198	-	1,170	1,080	-	356	-	964	-	81	22	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off Inches	Run-off Acre-feet
October	5,701	351	89	184	0.508	0.59	11,310
November	39,439	7,360	206	1,315	3.63	4.05	78,230
December	98,661	9,820	481	3,183	8.79	10.14	195,700
Calendar year 1941	252,837	9,820	12	693	1.91	25.99	501,500
January	47,030	5,690	505	1,517	4.19	4.83	93,280
February	46,188	4,900	565	1,650	4.56	4.75	91,610
March	19,505	1,140	356	629	1.74	2.00	38,690
April	8,385	435	205	280	.773	.86	16,630
May	18,221	1,570	280	588	1.62	1.87	36,140
June	10,838	757	186	361	.997	1.11	21,500
July	4,293	262	61	138	.381	.44	8,520
August	1,592	79	22	51.4	.142	.16	3,160
September	893	43	16	29.8	.082	.09	1,770
Water year 1941-42	300,746	9,820	16	824	2.28	30.89	596,500

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

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 1942. August 1910 to October 1913 at site above Boulder Creek (records not equivalent).
Average discharge.- 15 years (1907-8, 1928-42), 890 second-feet.
Extremes.- Maximum discharge during year, 7,290 second-feet Dec. 2 (gage height, 7.0 feet, from graph based on records at nearby stations); minimum, 299 second-feet (regulated) Sept. 26 (gage height, 0.42 foot); minimum daily, 336 second-feet Sept. 27.
1907-9, 1910-11, 1928-42: 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 except those for period of no gage-height record, which are fair. 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 1941-42 (gage height, in feet, and discharge, in second-feet)

0.6	338	1.7	770	3.5	2,020
.8	392	2.1	990	4.0	2,520
1.1	500	2.5	1,220	4.9	3,630
1.4	625	3.0	1,590		

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	364	424	735	842	1,120	612	830	803	1,110	725	435	364
2	364	442	a3,700	820	1,170	648	836	776	1,080	695	431	367
3	359	612	a4,900	798	1,220	625	847	776	1,020	680	438	370
4	435	661	a3,300	750	1,770	612	891	776	962	661	456	367
5	405	661	a3,000	705	1,730	616	918	765	962	625	438	367
6	386	607	a2,450	695	1,740	607	902	781	1,190	602	438	359
7	464	560	a2,000	765	1,500	598	902	836	1,070	589	531	356
8	556	528	a1,700	1,070	1,370	607	908	669	984	568	428	361
9	516	504	a1,450	1,140	1,490	847	924	886	1,030	560	424	378
10	500	488	a1,250	1,060	1,680	1,450	952	847	1,070	552	418	367
11	480	492	a1,120	1,020	1,550	1,340	1,000	814	1,050	556	408	356
12	598	508	a1,020	990	1,400	1,240	1,010	776	979	536	402	359
13	552	1,090	a950	962	1,240	1,130	1,020	735	935	524	395	356
14	512	2,310	a900	924	1,140	1,050	1,030	720	913	532	395	354
15	484	4,250	a1,020	886	1,070	968	979	765	1,020	540	402	354
16	460	2,650	1,510	864	996	918	968	786	935	576	402	348
17	442	1,940	1,370	842	935	874	935	750	869	580	402	343
18	428	1,490	2,130	808	880	836	902	735	847	528	395	338
19	442	1,230	4,480	776	830	792	880	798	814	512	398	338
20	424	1,080	3,480	750	803	760	968	852	770	512	395	338
21	411	968	2,480	730	770	740	1,020	957	740	508	392	338
22	402	880	2,040	715	735	730	1,010	1,230	725	504	392	338
23	395	825	1,930	715	715	705	930	1,190	705	488	392	338
24	386	760	1,650	730	695	685	902	1,100	690	476	386	338
25	381	715	1,450	820	760	680	891	1,460	740	468	375	338
26	381	675	1,300	1,000	643	656	836	1,530	808	464	370	338
27	411	648	1,180	1,240	638	643	814	1,440	765	460	370	336
28	435	634	1,100	1,200	620	638	792	1,370	730	456	370	338
29	421	630	1,040	1,120	-	634	765	1,340	720	449	367	338
30	402	740	979	1,050	-	652	798	1,230	735	446	367	338
31	395	-	913	1,020	-	715	-	1,200	-	442	367	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acre-feet
October	13,591	598	359	438	1.96	2.26	26,960
November	30,202	4,250	424	1,007	4.50	5.01	59,900
December	58,527	4,900	735	1,888	8.43	9.72	116,100
Calendar year 1941	272,738	4,900	346	747	3.33	45.28	541,000
January	27,807	1,240	695	897	4.00	4.62	55,150
February	31,120	1,770	620	1,111	4.96	5.17	61,730
March	24,608	1,450	598	794	3.54	4.09	48,810
April	27,360	1,030	765	912	4.07	4.54	54,270
May	29,893	1,530	720	964	4.30	4.96	59,290
June	26,968	1,190	690	899	4.01	4.48	53,490
July	16,814	725	442	542	2.42	2.79	33,350
August	12,479	456	367	403	1.80	2.07	24,750
September	10,518	378	336	351	1.57	1.75	20,860
Water year 1941-42	309,887	4,900	336	849	3.79	51.46	614,700

Peak discharge.- Nov. 15 (10 a.m.) 5,190 sec.-ft.; Dec. 2 (7 p.m.) 7,290 sec.-ft.; Dec. 19 (1:30 p.m.) 4,970 sec.-ft.
a No gage-height record; discharge computed on basis of records for stations above Mayflower Creek near Detroit, and on Breitenbush River near Detroit.
Time basis: Pacific standard time prior to 2 a.m., Feb. 9, 1942; Pacific war time thereafter. To convert war time to standard time, subtract 1 hour.

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 (revised) above mean sea level, datum of 1929.
Drainage area.- 438 square miles.
Records available.- October 1938 to September 1942.
Extremes.- Maximum discharge during year, 17,400 second-feet Dec. 2 (gage height, 11.86 feet), from rating curve extended above 13,000 second-feet; minimum, 456 second-feet (regulated) Sept. 25 (gage height, 2.99 feet); minimum daily, 480 second-feet Sept. 28-28, 30.
1938-42: Maximum discharge, that of Dec. 2, 1941; minimum, 416 second-feet Sept. 22, 1940 (gage height, 2.94 feet).
Remarks.- Records excellent except those for periods of no gage-height record, which are good. No diversion above station; slight diurnal fluctuation by power plant at Idanha.

Rating table, water year 1941-42 (gage height, in feet, and discharge, in second-feet)

3.0	460	5.7	2,790
3.4	640	6.5	4,020
3.8	890	7.5	6,000
4.4	1,340	8.5	8,300
5.0	1,940	10.2	12,700

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	625	754	1,540	1,620	2,750	1,180	1,840	1,610	2,130	1,350	700	545
2	652	799	9,910	1,560	2,820	1,330	1,800	1,520	2,080	1,280	694	540
3	635	1,220	11,100	1,490	2,990	1,360	1,750	1,500	1,980	1,220	688	545
4	904	1,390	6,880	1,410	4,960	1,280	1,850	1,500	1,830	1,200	730	540
5	890	1,340	6,420	1,330	4,560	1,290	1,850	1,480	1,760	1,130	700	540
6	832	1,250	5,480	1,300	4,620	1,290	1,790	1,500	2,220	1,060	694	536
7	1,010	1,120	4,440	1,380	3,740	1,260	1,760	1,640	1,940	1,030	676	532
8	1,320	1,030	3,540	2,190	3,250	1,280	1,750	1,700	1,750	995	670	532
9	1,240	960	2,990	2,690	3,730	2,230	1,760	1,750	1,940	953	652	565
10	1,120	904	2,600	2,370	4,400	4,250	1,840	1,600	2,040	939	646	550
11	1,060	904	2,290	2,210	3,840	3,390	1,950	1,520	2,020	953	635	532
12	1,320	987	2,050	2,150	3,220	2,950	1,950	1,470	1,830	911	625	528
13	1,210	2,340	1,920	2,040	2,780	2,560	1,930	1,380	1,720	877	620	524
14	1,090	5,720	1,830	1,930	2,460	2,250	1,950	1,340	1,700	877	615	520
15	1,000	9,940	2,150	1,810	2,220	2,020	1,830	1,430	2,020	911	610	520
16	939	6,660	3,780	1,720	2,020	1,860	1,760	1,470	1,870	1,010	615	508
17	877	4,270	3,390	1,670	1,860	1,760	1,710	1,400	1,680	1,070	605	508
18	838	3,130	5,770	1,590	1,710	1,690	1,640	1,390	1,630	918	595	496
19	864	2,560	12,700	1,510	1,630	1,600	1,600	1,600	1,590	877	595	496
20	818	2,180	9,160	1,440	1,580	1,520	1,740	1,820	1,480	851	595	496
21	773	1,920	5,960	1,400	1,500	1,490	1,920	2,000	1,400	838	590	492
22	742	1,720	4,660	1,340	1,420	1,460	1,900	2,450	1,350	825	590	492
23	700	1,580	4,840	1,380	1,380	1,420	1,700	2,350	1,330	806	590	488
24	682	1,460	3,840	1,490	1,350	1,360	1,640	2,200	1,300	773	585	488
25	664	1,350	3,250	1,950	1,300	1,340	1,690	2,800	1,370	766	565	484
26	646	1,280	2,820	2,470	1,240	1,280	1,620	3,200	1,530	760	560	480
27	700	1,230	2,510	3,440	1,220	1,270	1,550	2,950	1,480	748	560	480
28	786	1,200	2,280	3,100	1,200	1,260	1,550	2,700	1,400	742	565	480
29	760	1,200	2,090	2,690	-	1,260	1,480	2,600	1,380	724	565	484
30	718	1,520	1,940	2,390	-	1,320	1,520	2,350	1,380	712	560	480
31	694	-	1,780	2,240	-	1,520	-	2,300	-	706	550	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acre-feet
October	27,109	1,320	625	874	2.00	2.30	53,770
November	65,898	9,940	754	2,130	4.86	5.43	126,700
December	135,930	12,700	1,540	4,385	10.0	11.54	269,600
Calendar year 1941	575,270	12,700	504	1,576	3.60	48.84	1,141,000
January	59,300	3,440	1,300	1,913	4.37	5.04	117,600
February	71,770	4,960	1,200	2,563	5.85	6.09	142,400
March	53,330	4,250	1,180	1,720	3.93	4.53	105,800
April	52,620	1,950	1,480	1,754	4.00	4.47	104,400
May	58,520	3,200	1,340	1,888	4.31	4.97	116,100
June	51,130	2,220	1,300	1,704	3.89	4.34	101,400
July	28,812	1,350	706	929	2.12	2.45	57,150
August	19,230	730	550	620	1.42	1.63	38,140
September	15,401	565	480	513	1.17	1.31	30,550
Water year 1941-42	637,050	12,700	480	1,745	3.98	54.10	1,264,000

Peak discharge.- Nov. 15 (11:30 a.m.) 11,700 sec.-ft.; Dec. 2 (9 p.m.) 17,400 sec.-ft.; Dec. 19 (1:30 p.m.) 14,200 sec.-ft.
Note.- No gage-height record Mar. 28, 29, May 2 to June 3; discharge computed on basis of records for stations at Detroit and on Breitenbush River near Detroit.
Time basis: Pacific standard time prior to 2 a.m., Feb. 9, 1942; Pacific war time thereafter. To convert war time to standard time, subtract 1 hour.

North Santiam River at Mehama, Oreg.

Location.- Water-stage recorder, lat. 44°47', long. 122°37', in NW¼ sec. 18, T. 9 S., R. 2 E., at Mehama, half a mile downstream from Little North Santiam River. Datum of gage is 601.78 feet above mean sea level, datum of 1929.
Drainage area.- 665 square miles.
Records available.- July 1905 to March 1907, October 1910 to September 1914, September 1921 to September 1942.
Average discharge.- 26 years (1905-6, 1910-14, 1921-42), 3,135 second-feet.
Extremes.- Maximum discharge during year, 26,600 second-feet Dec. 2 (gage height, 10.18 feet); minimum, 500 second-feet (regulated) Sept. 22, 24; minimum daily, 521 second-feet Sept. 21-25.
1905-7, 1910-14, 1921-42: 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-water flow by mill dam at Mill City. No diversion above station for irrigation.
Cooperation.- Gage-height record collected in cooperation with U. S. Weather Bureau.

Rating table, water year 1941-42 (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used June 28 to Sept. 30)

1.6	500	3.5	2,860	7.0	12,600
1.9	740	4.0	3,840	8.0	16,600
2.2	1,030	4.5	4,950	9.0	21,000
2.6	1,490	5.0	6,220		
3.0	2,050	6.0	9,170		

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	900	1,140	2,220	2,220	3,990	1,590	2,860	2,660	3,150	1,840	794	602
2	980	1,210	12,400	2,120	4,140	1,930	2,780	2,840	2,860	1,700	785	586
3	910	1,590	18,200	2,020	4,250	2,230	2,620	2,740	2,620	1,580	785	594
4	1,430	2,330	11,900	1,870	8,110	1,960	2,640	2,640	2,440	1,540	830	610
5	1,530	2,390	11,300	1,760	7,930	1,960	2,640	2,520	2,310	1,470	803	610
6	1,380	2,250	9,200	1,700	7,960	2,020	2,460	2,500	2,740	1,390	776	602
7	1,590	1,920	7,400	2,000	6,220	1,870	2,410	2,690	2,520	1,350	767	602
8	2,470	1,720	5,790	4,740	5,360	1,840	2,360	2,710	2,300	1,300	749	626
9	2,260	1,560	4,720	6,330	6,600	3,090	2,340	2,640	2,570	1,240	731	634
10	2,040	1,440	3,990	4,840	8,260	7,840	2,380	2,520	2,860	1,230	722	586
11	1,860	1,410	3,430	4,200	6,830	5,520	2,500	2,330	3,080	1,290	722	570
12	2,340	1,490	3,000	3,740	5,460	4,650	2,490	2,140	2,690	1,230	686	563
13	2,170	2,770	2,720	3,410	4,510	3,970	2,390	1,940	2,440	1,170	677	563
14	1,840	9,010	2,590	3,100	3,840	3,390	2,490	1,870	2,260	1,140	668	556
15	1,650	17,300	2,930	2,810	3,370	2,970	2,360	1,940	2,880	1,200	668	556
16	1,500	12,600	6,550	2,740	3,020	2,720	2,200	2,120	3,120	1,360	677	542
17	1,380	7,930	5,790	2,620	2,710	2,570	2,180	2,040	2,870	1,630	677	542
18	1,300	5,590	9,340	2,420	2,520	2,550	2,060	1,900	2,570	1,320	668	535
19	1,350	4,400	19,000	2,280	2,300	2,390	2,000	2,160	2,570	1,200	677	528
20	1,260	3,570	15,000	2,110	2,180	2,250	2,110	2,590	2,330	1,120	668	528
21	1,170	3,060	9,910	2,000	2,080	2,180	2,340	2,670	2,110	1,070	659	521
22	1,120	2,710	7,690	1,900	1,930	2,220	2,410	3,430	1,920	1,030	650	521
23	1,060	2,460	8,540	1,870	1,860	2,120	2,180	3,450	1,820	990	650	521
24	1,020	2,230	6,690	2,000	1,830	1,990	2,060	3,060	1,730	950	642	521
25	990	2,050	5,440	2,810	1,760	1,990	2,380	4,420	1,930	920	626	521
26	950	1,900	4,470	3,610	1,680	1,900	2,340	6,410	2,660	900	634	528
27	1,000	1,770	3,860	5,620	1,680	1,870	2,250	5,620	2,540	880	642	528
28	1,170	1,730	3,370	5,050	1,610	1,870	2,420	5,170	2,260	860	642	528
29	1,170	1,700	3,080	4,270	-	1,890	2,300	4,560	2,050	840	642	528
30	1,110	2,100	2,780	3,610	-	2,020	2,300	3,940	1,930	821	634	528
31	1,060	-	2,500	3,270	-	2,310	-	3,550	-	803	618	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off Inches	Run-off Acre-feet
October	43,960	2,470	900	1,418	2.13	2.46	87,190
November	105,330	17,300	1,140	3,511	5.28	5.89	208,900
December	215,800	19,000	2,220	6,961	10.5	12.07	428,000
Calendar year 1941	869,847	19,000	556	2,383	3.58	48.64	1,725,000
January	95,040	6,330	1,700	3,066	4.61	5.32	188,500
February	113,990	8,260	1,610	4,071	6.12	6.37	226,100
March	81,670	7,840	1,590	2,635	3.96	4.67	162,000
April	71,250	2,860	2,000	2,375	3.57	3.98	141,300
May	93,770	6,410	1,870	3,025	4.55	5.24	186,000
June	73,930	3,150	1,730	2,464	3.71	4.13	146,600
July	37,364	1,840	803	1,205	1.81	2.09	74,110
August	21,569	830	618	696	1.05	1.21	42,780
September	16,780	610	521	559	.841	.94	33,280
Water year 1941-42	970,453	19,000	521	2,659	4.00	54.27	1,925,000

Peak discharge.- Nov. 15 (2:30 p.m.) 20,400 sec.-ft.; Dec. 2 (10 p.m.) 26,600 sec.-ft.; Dec. 19 (5:30 p.m.) 20,900 sec.-ft.
Time basis: Pacific standard time prior to 2 a.m., Feb. 9, 1942; Pacific war time thereafter. To convert war time to standard time, subtract 1 hour.

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 1942 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.- 12 years (1907-16, 1939-42), 7,185 second-feet.
Extremes.- Maximum discharge during year, 55,100 second-feet Dec. 3 (gage height, 17.24 feet); minimum, 355 second-feet Sept. 21, 22 (gage height, 2.08 feet).
1905-6, 1907-16, 1939-42: Maximum discharge observed, 108,000 second-feet during night of Nov. 22, 1909 (gage height, 18.2 feet, site and datum then in use), from poorly defined extension of rating curve above 54,000 second-feet; minimum observed, 260 second-feet Aug. 15-22, Aug. 24 to Sept. 2, 1940 (gage height, -1.00 foot, site and datum then in use).
Maximum stage known, 19.5 feet Nov. 21, 1921 (referred to gage at railroad bridge 350 feet downstream, site and datum used prior to Oct. 1, 1940).
Remarks.- Records excellent. Salem Canal diverts from North Santiam River at Stayton for irrigation and power use, most of this water reaching Willamette River through Mill Creek at Salem. Stayton Canal diverts from North Santiam River at Stayton for irrigation of lands near West Stayton; some return flow reaches North Santiam River above station. Albany power canal diverts from South Santiam River at Lebanon, return flow reaching Willamette River at Albany. No regulation.
Cooperation.- Gage-height record collected in cooperation with U. S. Weather Bureau.

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,170	2,130	4,360	5,900	8,790	4,000	5,380	6,210	7,460	3,620	910	456
2	1,480	2,960	14,000	5,400	9,380	4,370	5,680	6,810	6,570	3,250	880	444
3	1,460	3,100	54,600	5,150	12,300	6,080	5,270	6,590	5,920	2,960	880	444
4	1,690	5,770	31,400	4,830	16,500	5,420	5,120	6,250	5,300	2,760	880	450
5	2,640	6,180	30,200	4,410	23,000	4,980	5,150	5,800	4,850	2,560	880	444
6	2,410	6,480	23,700	4,150	23,100	5,230	4,850	5,480	4,980	2,370	815	432
7	2,340	5,340	19,800	4,940	18,700	4,830	4,570	5,580	5,150	2,260	788	420
8	3,700	4,490	15,300	15,900	15,200	4,570	4,420	5,640	4,570	2,130	762	414
9	4,530	3,860	12,200	25,300	15,300	5,210	4,300	5,480	4,770	1,990	719	432
10	3,830	3,420	10,200	19,000	20,700	14,500	4,280	5,580	5,500	1,880	728	450
11	3,510	3,120	8,620	14,200	18,800	13,500	4,330	5,320	6,020	1,940	710	450
12	4,260	3,320	7,530	11,800	14,900	11,300	4,330	4,830	5,590	1,950	678	426
13	5,140	4,000	6,760	10,200	12,000	9,880	4,190	4,390	4,940	1,800	655	420
14	4,240	17,600	6,570	8,870	10,100	8,440	4,300	4,070	4,440	1,680	618	414
15	3,590	40,300	6,460	7,860	8,740	7,350	4,260	4,100	4,590	1,680	596	420
16	3,080	46,700	14,600	7,510	7,740	6,650	3,930	4,480	5,800	1,780	547	426
17	2,750	26,600	15,800	7,250	6,890	6,130	3,830	4,260	5,190	2,620	547	420
18	2,480	17,100	19,500	6,630	6,230	6,080	3,740	3,960	4,700	2,380	540	414
19	2,520	12,700	44,800	6,080	5,700	5,700	3,660	3,910	4,830	1,960	522	404
20	2,500	10,100	49,300	5,580	5,340	5,250	3,570	4,550	4,480	1,720	510	387
21	2,200	8,410	30,800	5,190	5,320	4,980	3,710	4,510	4,030	1,560	504	365
22	2,030	7,230	22,400	4,870	4,850	4,960	3,840	5,620	3,660	1,480	504	387
23	1,880	6,310	23,900	4,660	4,570	4,870	3,910	7,120	3,410	1,430	498	387
24	1,740	5,590	20,000	4,720	4,850	4,600	3,600	6,130	3,200	1,310	486	398
25	1,610	5,020	15,600	5,560	4,590	4,500	4,240	8,140	3,410	1,230	480	398
26	1,540	4,540	12,600	6,850	4,240	4,480	4,530	13,700	5,270	1,140	474	404
27	1,610	4,200	10,500	12,000	4,230	4,240	4,510	13,300	5,980	1,110	480	392
28	2,130	3,930	9,220	11,900	4,210	4,170	5,620	12,700	5,130	1,070	480	382
29	2,260	3,730	8,240	10,300	-	4,140	5,400	11,500	4,500	1,020	486	398
30	2,220	3,920	7,480	8,790	-	4,190	5,080	9,710	3,980	982	486	404
31	2,020	-	6,760	7,860	-	4,440	-	8,460	-	950	462	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	80,560	5,140	1,170	2,599	159,800
November	278,150	46,700	2,130	9,272	551,700
December	563,200	54,600	4,360	18,170	1,117,000
Calendar year 1941	1,932,929	54,600	365	5,296	3,834,000
January	263,660	25,300	4,150	8,505	523,000
February	296,270	23,100	4,210	10,580	587,600
March	188,840	14,500	4,000	6,092	374,600
April	133,600	5,680	3,570	4,453	265,000
May	204,180	13,700	3,910	6,586	405,000
June	148,210	7,460	3,200	4,940	294,000
July	58,572	3,620	950	1,889	116,200
August	19,515	910	462	630	38,710
September	12,482	456	365	416	24,760
Water year 1941-42	2,247,239	54,600	365	6,157	4,457,000

Peak discharge.- Nov. 16 (1:15 a.m.) 59,000 sec.-ft.; Dec. 3 (8:15 a.m.) 65,100 sec.-ft.; Dec. 20 (2 a.m.) 55,500 sec.-ft.
Time basis: Pacific standard time prior to 2 a.m., Feb. 9, 1942; Pacific war time thereafter. To convert war time to standard time, subtract 1 hour.

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 1942. October 1910 to October 1913 (fragmentary) at site below French Creek; records equivalent except for inflow from French Creek.
Average discharge.- 10 years (1932-42), 503 second-feet.
Extremes.- Maximum discharge during year, 5,650 second-feet Dec. 2 (gage height, 7.39 feet); minimum, 100 second-feet Sept. 26, 27 (gage height, 0.40 foot).
1932-42: Maximum discharge, 8,100 second-feet Dec. 22, 1933 (gage height, 9.08 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 tables, water year 1941-42 (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Oct. 4-19, Nov. 3-14)

Oct. 1 to Dec. 2				Dec. 3 to Sept. 30					
0.8	150	3.0	1,030	0.4	100	2.0	509	4.4	2,070
1.1	210	3.7	1,470	.7	141	2.5	750	5.2	2,910
1.5	325	4.4	2,070	1.1	219	3.0	1,020	6.1	3,980
1.9	475	5.2	2,910	1.5	327	3.7	1,470		
2.4	710	6.0	3,860						

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	145	163	455	397	695	275	456	369	591	363	160	119
2	150	178	3,430	376	710	309	441	362	553	359	158	118
3	147	300	2,860	366	785	312	441	362	526	323	161	116
4	240	308	1,800	343	1,250	297	468	353	522	327	179	116
5	215	292	1,660	324	1,090	303	468	340	522	287	166	116
6	195	265	1,410	312	1,060	303	452	349	655	275	158	115
7	251	240	1,120	330	872	297	452	393	549	264	155	113
8	350	220	904	407	770	309	452	429	484	253	151	113
9	308	206	750	484	699	634	456	433	544	241	148	135
10	280	197	655	452	1,030	1,130	476	390	544	276	144	125
11	268	199	572	445	882	855	505	356	505	241	143	120
12	332	222	509	441	745	720	509	337	456	219	141	115
13	286	692	472	422	665	625	497	315	448	219	138	113
14	254	1,450	445	400	586	535	497	312	472	219	135	112
15	232	2,550	531	383	531	480	456	340	620	276	134	111
16	215	1,500	965	369	484	441	437	343	501	264	132	110
17	206	964	928	356	441	422	415	330	433	275	130	110
18	197	710	1,630	343	407	411	397	327	422	229	129	108
19	201	588	3,930	324	376	390	390	433	400	212	129	107
20	195	502	2,470	309	362	369	472	549	369	204	129	106
21	182	447	1,490	300	343	362	531	660	359	195	128	106
22	168	403	1,170	294	327	362	505	882	359	189	126	105
23	161	370	1,210	300	321	349	429	725	369	183	125	104
24	155	346	954	337	312	330	415	670	359	177	125	104
25	150	322	790	468	297	330	415	877	369	175	125	102
26	148	299	690	625	286	315	397	866	376	173	125	101
27	164	286	620	822	286	309	383	765	369	171	126	101
28	182	280	558	725	277	309	369	730	369	168	130	102
29	178	286	509	635	-	312	353	690	379	166	129	104
30	164	431	472	553	-	330	362	635	400	164	125	104
31	157	-	433	536	-	383	-	655	-	162	120	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off: Inches	Run-off: Acre-feet
October	6,476	350	145	209	1.94	2.23	12,840
November	15,216	2,550	163	507	4.69	5.24	30,180
December	36,292	3,930	433	1,171	10.8	12.50	71,980
Calendar year 1941	144,221	3,930	104	395	3.66	49.67	286,000
January	13,177	822	294	425	3.94	4.54	26,140
February	17,089	1,250	277	610	5.65	5.88	33,900
March	13,108	1,130	275	423	3.92	4.51	26,000
April	13,296	531	353	443	4.10	4.58	26,370
May	15,577	882	312	502	4.65	5.36	30,900
June	13,824	655	369	461	4.27	4.76	27,420
July	7,219	393	162	233	2.16	2.49	14,320
August	4,304	179	120	139	1.29	1.48	8,540
September	3,331	135	101	111	1.03	1.15	6,610
Water year 1941-42	168,909	3,930	101	435	4.03	54.72	315,200

Peak discharge.- Nov. 15 (10 a.m.) 3,040 sec.-ft.; Dec. 2 (6:30 p.m.) 5,650 sec.-ft.; Dec. 19 (12 m.) 4,560 sec.-ft.
Time basis: Pacific standard time prior to 2 a.m., Feb. 9, 1942; Pacific war time thereafter. To convert war time to standard time, subtract 1 hour.

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 1942. July to September 1924 and July to September 1931 at site 4 miles upstream.
Average discharge.- 11 years, 694 second-feet.
Extremes.- Maximum discharge observed during year, 9,300 second-feet Nov. 15 (gage height, 10.5 feet, from graph based on gage readings); minimum observed, 22 second-feet Sept. 25 (gage height, 2.12 feet).
1924, 1931-42: Maximum discharge, 18,900 second-feet Dec. 22, 1933 (gage height, 14.7 feet, from floodmark), 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 good except those for periods of considerable fluctuation or doubtful gage-height record, which are fair. No regulation or diversion above station. Gage read once daily.

Rating table, water year 1941-42 (gage height, in feet, and discharge, in second-feet)

2.1	20	3.6	256	6.0	1,620
2.3	37	4.0	398	7.0	2,740
2.5	56	4.5	630	8.0	4,270
2.8	92	5.0	895	9.0	6,180
3.2	154	5.5	1,190	10.0	8,200

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	145	223	480	406	878	295	846	741	575	329	88	32
2	187	232	2,610	386	1,720	378	736	895	484	291	87	34
3	185	406	5,010	378	1,890	444	650	840	475	229	87	36
4	466	551	4,630	356	2,560	449	585	758	432	229	90	33
5	432	763	3,920	315	1,960	458	546	725	371	210	74	33
6	390	670	2,700	288	1,940	458	493	715	444	187	71	34
7	440	522	1,910	319	1,370	462	471	741	466	177	61	32
8	1,070	432	1,330	2,010	1,090	469	449	780	390	171	58	32
9	884	378	1,060	2,260	2,010	1,770	423	670	517	167	57	32
10	796	319	846	1,680	2,540	2,290	440	605	600	156	58	32
11	680	302	710	d1,300	1,750	d1,600	444	556	780	167	56	32
12	705	319	605	1,070	1,250	d1,100	419	480	605	147	55	32
13	768	660	536	950	988	796	386	449	462	140	54	32
14	610	2,370	556	829	846	640	390	419	402	128	51	31
15	484	6,580	600	660	758	551	402	440	645	136	50	30
16	406	3,420	1,870	685	605	498	386	493	972	215	46	29
17	367	2,020	1,350	616	503	536	371	444	685	382	39	28
18	308	1,710	2,940	560	444	541	371	419	655	275	40	28
19	295	983	6,080	512	427	526	367	650	752	194	40	26
20	282	796	4,040	458	415	522	367	625	630	166	37	26
21	259	655	3,150	423	386	512	375	655	522	152	36	26
22	232	585	2,420	378	352	498	406	730	444	141	37	26
23	212	508	2,290	371	305	462	376	741	348	134	37	25
24	197	436	1,610	378	340	444	398	752	312	126	37	26
25	182	415	1,160	522	298	432	493	1,210	386	114	37	22
26	173	375	950	829	282	382	489	1,960	807	100	37	25
27	169	326	d780	1,390	288	390	493	1,650	665	97	38	25
28	223	319	630	1,170	291	402	512	1,340	585	95	41	26
29	512	312	625	988	-	440	565	1,080	480	93	41	24
30	247	402	546	1,350	-	466	590	961	390	90	36	26
31	204	-	546	1,060	-	665	-	645	-	91	33	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acre-feet
October	12,510	1,070	145	404	3.67	4.23	24,810
November	28,009	6,580	223	934	8.49	9.47	55,560
December	58,490	6,080	480	1,887	17.2	19.77	116,000
Calendar year 1941	204,565	6,580	35	560	5.09	69.16	405,700
January	24,895	2,260	288	803	7.30	8.42	49,380
February	28,486	2,560	282	1,017	9.25	9.63	56,500
March	19,899	2,290	298	642	5.84	6.73	39,470
April	14,241	846	367	475	4.32	4.81	28,250
May	24,169	1,960	419	780	7.09	8.17	47,940
June	16,281	972	312	543	4.94	5.50	32,290
July	5,319	382	90	172	1.56	1.80	10,560
August	1,609	90	33	51.9	.472	.54	3,190
September	875	36	22	29.2	.265	.30	1,740
Water year 1941-42	234,763	6,580	22	643	5.85	79.37	465,700

d Doubtful gage-height record; discharge computed on basis of records for stations on North Santiam River.
Time basis: Pacific standard time prior to 2 a.m., Feb. 9, 1942; Pacific war time thereafter. To convert war time to standard time, subtract 1 hour.

Diversions from North Santiam River at Stayton, Oreg.

Salem Canal diverts from right bank of North Santiam River in SE¼ sec. 11, T. 9 S., R. 1 W., 1 mile east of Stayton. Water-stage recorder located in SW¼ sec. 10, half a mile west of Stayton, 1¼ miles downstream from intake and 0.8 mile downstream from wasteway into Stayton District Canal. Records available, October 1940 to September 1942 (discontinued) in reports of Geological Survey; July 1938 to September 1940, in files of State engineer. Water is diverted into Mill Creek 3 miles northwest of Stayton and enters Willamette River at Salem, partly above and partly below that gaging station. Water is used for development of power at Aumsville, Turner, and Salem, and for irrigation of lands between Stayton and Salem.

Stayton District Canal diverts from North Santiam River in SE¼ sec. 11, T. 9 S., R. 1 W., 1 mile east of Stayton, through Gardner-Bennett canal system and power plants; some water may be received also from Salem power canal at wasteway of that canal in SE¼ sec. 10. Water-stage recorder is located in NW¼ sec. 15, 0.1 mile downstream from Gardner-Bennett wasteway, and half a mile southwest of Stayton. Records available, October 1940 to September 1942 (discontinued) in reports of Geological Survey; July 1938 to September 1940, in files of Oregon State engineer. Water is used for development of power above station in Stayton and for irrigation below station near West Stayton; return flow may reach North Santiam River or Mill Creek.

City of Salem water supply conduit diverts 7½ to 15 million gallons of water a day from an infiltration basin in NE¼ sec. 13, T. 9 S., R. 1 W., near head of Stayton Island in North Santiam River, 2 miles east of Stayton. Water reaches this basin from river by gravity percolation augmented at times by pumping from shallow wells in adjacent gravel bars. A record of this diversion is obtained by the water department of the city of Salem.

Diversions, in acre-feet, water year October 1941 to September 1942

Month	Salem Canal	Stayton District Canal
October	13,170	768
November	7,260	337
December	5,680	65
Calendar year 1941	112,000	9,890
January	5,390	0
February	3,790	0
March	7,160	65
April	10,090	385
May	10,430	422
June	12,230	704
July	10,480	3,100
August	11,290	2,930
September	11,180	1,590
Water year 1941-42	106,150	10,370

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

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 1942. Records do not include the run-off from 3 square miles between cable and gage.
Extremes.- Maximum discharge during year, 9,220 second-feet Nov. 15 (gage height, 11.41 feet), from rating curve extended above 6,300 second-feet; minimum, 41 second-feet Sept. 24-27, 30.
1935-42: Maximum discharge, 10,700 second-feet Jan. 22, 1938 (gage height, 12.31 feet), from rating curve extended above 6,300 second-feet; minimum, 23 second-feet Dec. 1, 2, 1936 (gage height, 0.98 foot).
Remarks.- Records excellent except those prior to Dec. 18, which are good. No diversion or regulation above station.
Cooperation.- Water-stage recorder inspected by employees of U. S. Forest Service.

Rating table, water year 1941-42 (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Oct. 1 to Nov. 14)

1.1	39	2.4	240	5.0	1,630
1.3	56	2.8	385	5.8	2,270
1.5	79	3.2	560	6.8	3,200
1.8	121	3.7	815	8.0	4,500
2.1	172	4.3	1,160	10.0	7,050

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	167	349	337	520	869	438	570	788	930	409	110	58
2	204	389	3,990	492	903	605	542	837	804	361	103	56
3	164	645	4,580	466	958	665	520	782	715	329	103	56
4	286	820	3,040	425	2,350	565	551	740	620	294	103	55
5	292	770	2,820	389	2,330	551	560	705	551	270	103	54
6	258	665	2,370	385	2,470	542	520	685	538	255	98	53
7	377	546	1,850	1,060	1,700	492	502	720	515	240	93	52
8	605	470	1,410	3,420	1,390	484	479	715	461	227	91	52
9	510	405	1,130	2,860	1,850	705	470	700	595	212	88	54
10	417	365	930	1,980	2,500	1,870	470	680	615	205	88	60
11	377	361	793	1,550	1,930	1,490	479	635	630	212	87	57
12	776	385	690	1,270	1,460	1,260	474	590	556	199	84	53
13	635	1,020	645	1,060	1,170	1,060	470	524	497	186	83	52
14	510	2,980	630	920	969	898	506	497	456	182	79	51
15	425	7,200	842	810	832	776	470	542	575	182	77	50
16	365	3,930	2,270	750	725	705	443	546	556	258	75	49
17	324	2,230	1,850	710	650	680	438	510	492	240	74	47
18	296	1,480	4,360	640	575	680	443	474	434	194	73	46
19	314	1,120	6,280	575	515	625	405	497	497	178	72	45
20	282	898	4,180	524	492	570	413	502	443	167	71	45
21	258	750	2,660	484	484	546	434	524	401	159	69	44
22	237	650	2,090	452	452	546	456	815	369	154	67	43
23	217	570	2,300	425	430	506	448	815	337	149	65	42
24	207	502	1,770	425	456	470	456	725	313	144	64	41
25	198	443	1,400	470	443	456	520	1,330	497	137	61	41
26	192	401	1,120	705	417	434	556	1,490	837	132	63	41
27	230	365	952	1,090	430	425	560	1,430	735	131	62	41
28	268	341	826	986	430	421	710	1,420	615	126	67	42
29	278	325	740	854	-	413	645	1,340	528	121	65	42
30	254	369	675	705	-	421	660	1,170	461	118	62	41
31	240	-	600	680	-	466	-	1,110	-	114	59	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off Inches	Run-off Acre-feet
October	10,163	776	164	328	1.89	2.17	20,160
November	31,744	7,200	325	1,058	6.08	6.79	62,960
December	60,130	6,280	337	1,940	11.1	12.85	119,300
Calendar year 1941	212,865	7,200	61	583	3.35	45.48	422,200
January	28,082	3,420	385	906	5.21	6.00	55,700
February	30,170	2,500	417	1,078	6.20	6.45	59,840
March	20,765	1,870	413	670	3.85	4.44	41,190
April	15,170	710	405	506	2.91	3.24	30,090
May	24,828	1,490	474	801	4.60	5.31	49,250
June	16,623	930	313	554	3.18	3.55	32,970
July	6,286	409	114	203	1.17	1.34	12,470
August	2,473	110	59	79.8	.459	.53	4,910
September	1,463	60	41	48.8	.280	.31	2,900
Water year 1941-42	247,896	7,200	41	679	3.90	52.97	491,700

Peak discharge.- Nov. 15 (12:30 p.m.) 9,220 sec.-ft.; Dec. 2 (7:30 p.m.) 7,180 sec.-ft.; Dec. 18 (10 p.m.) 6,740 sec.-ft.
Time basis: Pacific standard time prior to 2 a.m., Feb. 9, 1942; Pacific war time thereafter. To convert war time to standard time, subtract 1 hour.

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 1942.
Average discharge.- 20 years (1905-6, 1923-42), 2,632 second-feet.
Extremes.- Maximum discharge during year, 30,300 second-feet Nov. 15 (gage height, 13.31 feet); minimum, 156 second-feet Sept. 24-30.
1905-7, 1910-11, 1923-42: Maximum discharge, 70,000 second-feet Mar. 31, 1931 (gage height, 22.0 feet), from rating curve extended above 31,000 second-feet; minimum, 96 second-feet Sept. 1, 2, 1940 (gage height, 1.98 feet).
Remarks.- Records good except those for periods of shifting control or no gage-height record, which are fair. No diversion or regulation above station.
Cooperation.- Gage-height record collected in cooperation with U. S. Weather Bureau.

Rating tables, water year 1941-42 (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used July 28 to Sept. 30)

Oct. 1 to Nov. 15						Nov. 16 to Sept. 30					
2.7	465	4.5	2,730	8.0	11,600	2.1	149	3.3	990	6.0	5,800
3.0	730	5.0	3,620	9.0	14,800	2.3	222	3.7	1,450	7.5	10,000
3.5	1,260	6.0	5,800	10.6	20,200	2.6	390	4.3	2,300	9.5	16,400
4.0	1,950	7.0	8,600	12.0	25,300	2.9	625	5.0	3,510	12.0	25,300

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	521	1,050	1,440	2,120	3,160	1,580	2,140	2,570	2,880	1,350	404	251
2	740	1,340	11,900	1,970	3,340	1,960	2,090	2,790	2,510	1,210	390	246
3	608	1,840	18,500	1,860	3,230	2,740	1,930	2,590	2,220	1,110	384	241
4	905	3,410	11,400	1,710	7,760	2,220	1,900	2,430	1,960	1,020	390	236
5	1,050	3,000	11,200	1,570	9,130	2,090	1,930	2,260	1,760	950	384	236
6	946	2,710	8,890	1,500	9,640	2,200	1,780	2,150	1,760	910	364	232
7	978	2,180	7,090	2,590	6,980	1,990	1,650	2,220	1,710	872	352	222
8	1,830	1,790	5,450	12,100	5,850	1,690	1,690	2,200	1,540	827	339	214
9	1,880	1,530	4,380	12,000	6,720	2,620	1,540	2,090	1,900	782	332	210
10	1,520	1,340	3,610	7,980	9,130	7,390	1,530	2,160	2,150	746	326	218
11	1,320	1,260	3,090	6,200	7,390	5,650	1,520	2,030	2,270	755	315	218
12	2,280	1,350	2,690	5,040	5,720	4,700	1,480	1,850	2,040	764	309	206
13	2,300	2,330	2,400	4,230	4,590	3,940	1,420	1,660	1,790	702	304	198
14	1,800	10,200	2,380	3,570	3,790	3,320	1,520	1,540	1,590	668	292	186
15	1,480	24,400	2,520	3,140	3,230	2,880	1,480	1,580	1,790	659	281	186
16	1,260	15,400	7,060	3,010	2,840	2,600	1,360	1,680	2,000	800	276	182
17	1,110	8,980	6,530	2,820	2,520	2,410	1,350	1,550	1,760	1,080	270	175
18	1,020	6,020	12,800	2,520	2,240	2,440	1,370	1,460	1,650	845	265	172
19	1,050	4,520	23,600	2,280	2,020	2,260	1,310	1,450	1,720	719	265	169
20	967	3,530	17,400	2,080	1,890	2,060	1,270	1,540	1,580	650	260	169
21	885	2,960	10,900	1,900	1,870	1,960	1,280	1,520	1,450	608	256	166
22	816	2,540	8,180	1,790	1,730	1,960	1,310	1,940	1,310	574	256	159
23	749	2,240	9,340	1,710	1,660	1,860	1,370	2,410	1,210	557	256	159
24	702	1,960	7,200	1,680	1,780	1,720	1,310	2,040	1,130	524	251	156
25	654	1,750	5,780	1,900	1,690	1,680	1,650	3,400	1,460	508	246	156
26	635	1,580	4,570	2,320	1,580	1,620	1,750	4,940	2,670	484	251	156
27	702	1,460	3,880	4,570	1,620	1,570	1,780	4,840	2,510	476	256	156
28	925	1,360	3,320	4,100	1,640	1,570	2,400	5,230	2,090	453	265	156
29	915	1,280	2,980	3,510	-	1,570	2,160	4,590	1,760	446	265	156
30	855	1,410	2,740	2,980	-	1,580	2,030	3,820	1,530	432	260	156
31	796	-	2,440	2,670	-	1,710	-	3,340	-	418	256	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off Inches	Run-off Acre-feet
October	34,199	2,300	521	1,103	1.72	1.99	67,830
November	116,720	24,400	1,050	3,891	6.08	6.78	231,500
December	225,660	23,600	1,440	7,279	11.4	13.11	447,600
Calendar year 1941	782,875	24,400	218	2,145	3.35	45.47	1,553,000
January	109,420	12,100	1,500	3,530	5.52	6.36	217,000
February	114,740	9,640	1,580	4,098	6.40	6.67	227,600
March	77,740	7,390	1,570	2,508	3.92	4.52	154,200
April	49,210	2,400	1,270	1,640	2.56	2.86	97,610
May	77,870	5,230	1,450	2,512	3.92	4.52	154,500
June	55,700	2,880	1,130	1,857	2.90	3.24	110,500
July	22,899	1,350	418	739	1.15	1.33	45,420
August	9,320	404	246	301	.470	.54	18,490
September	5,743	251	156	191	.298	.33	11,390
Water year 1941-42	899,221	24,400	156	2,464	3.85	52.25	1,784,000

Peak discharge.- Nov. 15 (4 p.m.) 30,300 sec.-ft.; Dec. 2 (10 p.m.) 28,700 sec.-ft.; Dec. 19 (2 p.m.) 25,100 sec.-ft.
Time basis: Pacific standard time prior to 2 a.m., Feb. 9, 1942; Pacific war time thereafter. To convert war time to standard time, subtract 1 hour.

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 1942.

Average discharge.- 11 years, 1,394 second-feet.

Extremes.- Maximum discharge during year, 15,100 second-feet Dec. 2 (gage height, 12.80 feet); minimum, 76 second-feet Sept. 30 (gage height, 1.48 feet).
1931-42: Maximum discharge, 29,500 second-feet Mar. 18, 1932 (gage height, 17.84 feet); minimum, 54 second-feet Dec. 1, 1936 (gage height, 1.25 feet).

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

Rating tables, water year 1941-42 (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used May 12 to June 25)

Oct. 1 to Nov. 15						Nov. 16 to Sept. 30					
2.5											
2.6	278	5.0	1,540	9.0	6,650	1.4	68	3.5	600	8.0	4,680
3.0	427	6.0	2,450	10.0	8,550	1.7	100	4.0	855	9.0	6,300
3.6	615	7.0	3,600	11.0	10,700	2.1	165	5.0	1,510	11.0	10,600
4.0	870	8.0	4,980			2.5	259	6.0	2,340		
						3.0	405	7.0	3,370		

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	302	460	811	1,000	1,740	735	1,340	1,370	1,310	655	214	111
2	343	540	8,380	940	1,770	1,110	1,220	1,400	1,170	596	207	108
3	300	1,300	7,620	920	1,760	1,310	1,120	1,320	1,020	555	207	106
4	594	1,820	5,680	880	4,300	1,050	1,100	1,260	904	511	209	104
5	525	1,450	5,470	840	4,040	1,040	1,080	1,170	838	475	207	103
6	478	1,250	4,410	820	4,510	1,080	994	1,160	860	450	202	103
7	589	984	3,420	1,600	3,220	976	940	1,250	806	430	195	101
8	1,140	815	2,640	5,800	2,650	976	888	1,200	745	405	188	100
9	990	705	2,150	5,600	3,630	2,060	855	1,110	1,110	393	186	101
10	826	624	1,810	4,000	4,440	4,410	855	1,090	1,260	375	182	107
11	735	602	1,540	3,200	3,410	2,880	860	1,020	1,300	393	176	103
12	1,380	620	1,360	2,600	2,650	2,300	828	910	1,110	375	169	99
13	1,120	1,900	1,240	2,100	2,160	1,920	794	811	958	351	165	95
14	900	5,630	1,170	1,800	1,830	1,610	850	756	865	339	159	93
15	745	9,560	1,250	1,550	1,600	1,400	806	772	1,150	345	164	90
16	642	6,700	3,400	1,500	1,400	1,280	740	806	1,100	519	150	89
17	572	3,870	3,000	1,350	1,250	1,220	740	730	982	660	146	88
18	521	2,670	5,500	1,200	1,100	1,200	772	670	958	461	143	86
19	525	2,070	9,300	1,120	1,000	1,090	730	745	958	399	141	85
20	481	1,690	7,200	1,050	958	1,010	715	800	866	363	138	84
21	444	1,450	5,000	980	916	988	720	784	784	336	134	82
22	411	1,260	3,800	940	844	994	735	1,060	715	315	132	81
23	383	1,100	4,300	894	822	946	725	1,050	665	301	128	80
24	364	988	3,450	882	838	877	750	910	627	284	124	79
25	343	888	2,800	1,070	794	860	964	1,620	833	273	122	78
26	331	811	2,300	1,530	745	816	976	2,410	1,350	259	120	77
27	367	745	2,000	2,330	745	806	976	2,320	1,170	251	120	77
28	427	710	1,700	2,160	735	822	1,240	2,550	964	243	120	77
29	411	680	1,500	1,850	-	850	1,120	2,120	828	236	118	77
30	376	789	1,350	1,540	-	894	1,120	1,770	730	226	116	76
31	361	-	1,200	1,400	-	1,020	-	1,530	-	221	114	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acre-feet
October	17,926	1,380	300	578	2.13	2.46	35,560
November	54,381	9,560	460	1,813	6.69	7.46	107,900
December	106,761	9,300	811	3,444	12.7	14.65	211,700
Calendar year 1941	396,533	9,560	113	1,086	4.01	54.40	786,500
January	55,446	5,800	820	1,789	6.60	7.61	110,000
February	56,057	4,510	735	2,002	7.39	7.69	111,200
March	40,530	4,410	736	1,307	4.82	5.56	80,390
April	27,553	1,340	715	918	3.39	3.78	54,650
May	38,474	2,550	670	1,241	4.58	5.28	76,310
June	28,926	1,350	627	964	3.56	3.97	57,370
July	11,995	660	221	387	1.43	1.65	23,790
August	4,886	214	114	158	.583	.67	9,690
September	2,740	111	76	91.3	.337	.38	5,430
Water year 1941-42	445,665	9,560	76	1,221	4.51	61.16	884,000

Peak discharge.- Nov. 15 (12:30 p.m.) 14,400 sec.-ft.; Dec. 2 (7 p.m.) 15,100 sec.-ft.
Note.- No gage-height record Dec. 15 to Jan. 21; discharge computed on basis of records for South Santiam River below Cascadia and at Waterloo, Oreg.
Time basis: Pacific standard time prior to 2 a.m., Feb. 9, 1942; Pacific war time thereafter. To convert war time to standard time, subtract 1 hour.

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 1942. February to December 1919 at site near Albany.

Average discharge.- 16 years, 219 second-feet.

Extremes.- Maximum discharge during year, 311 second-feet Mar. 10 (gage height, 3.83 feet); minimum, 33 second-feet Aug. 31 (gage height, 0.66 foot).
1919, 1926-42: Maximum discharge, 342 second-feet Nov. 3, 1938; 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 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	266	271	263	257	242	272	268	287	252	262	260	181
2	275	281	175	250	243	274	272	293	262	272	260	179
3	278	278	183	254	239	283	269	294	261	268	258	176
4	283	278	222	253	243	278	269	289	262	267	260	174
5	293	261	236	256	251	273	268	285	259	266	256	172
6	289	260	253	257	232	275	267	283	264	263	256	174
7	289	260	249	257	240	279	267	283	236	263	256	172
8	280	265	252	216	253	277	266	282	259	261	256	171
9	272	258	258	194	266	280	266	281	262	263	255	170
10	268	263	259	177	295	280	265	282	267	266	242	169
11	264	270	265	173	287	251	265	281	218	266	240	177
12	274	271	261	177	276	242	262	279	264	269	227	175
13	280	274	260	205	268	240	266	276	264	265	233	172
14	273	249	259	206	265	241	275	274	264	264	237	158
15	268	287	260	203	263	245	274	272	265	263	243	154
16	259	263	192	210	264	242	271	274	272	268	242	153
17	254	291	227	213	273	254	271	273	272	279	237	151
18	250	219	205	209	269	275	270	272	269	274	231	148
19	249	235	162	228	259	277	270	268	269	269	228	147
20	254	247	124	240	248	274	269	272	268	266	224	143
21	260	251	183	234	256	267	267	271	265	259	222	140
22	259	258	202	232	263	263	270	276	263	260	202	119
23	256	263	219	232	267	262	273	281	264	263	198	113
24	258	274	225	233	276	264	267	273	259	265	193	114
25	263	264	235	235	275	267	270	285	264	267	190	115
26	261	262	242	228	272	268	273	296	279	262	189	115
27	261	263	257	211	274	267	274	298	280	259	189	116
28	266	262	261	196	277	265	284	294	274	261	196	121
29	266	262	256	207	-	262	286	259	270	264	198	112
30	263	262	259	229	-	264	281	256	263	262	193	118
31	263	-	259	239	-	264	-	252	-	261	188	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	8,294	293	249	268	16,450
November	7,902	291	219	263	15,670
December	7,163	265	124	231	14,210
Calendar year 1941	89,946	297	124	246	178,400
January	6,911	257	173	223	13,710
February	7,536	295	232	262	14,550
March	8,225	283	240	265	16,310
April	8,115	286	262	270	16,100
May	8,641	298	252	279	17,140
June	7,890	280	218	263	15,650
July	8,217	279	259	265	16,300
August	7,059	260	188	228	14,000
September	4,499	181	112	150	8,920
Water year 1941-42	90,252	298	112	247	179,000

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

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 3⅜ 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 1942.

Extremes.- Maximum discharge during year, 2,860 second-feet Dec. 19 (gage height, 8.36 feet); minimum, 9 second-feet Sept. 25.
1934-42: Maximum discharge, 5,080 second-feet Dec. 29, 1937; minimum, 7 second-feet Sept. 2-5, 10, 21, 22, 1934.

Remarks.- Records fair for periods October to December, April to September, poor for period January to March. No diversion or regulation above station; log ponds upstream cause diurnal fluctuation at times.

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	43	52	113	159	734	117	118	133	94	45	25	13
2	40	50	933	151	602	120	103	151	88	43	24	12
3	39	82	916	141	662	113	100	149	82	41	23	13
4	41	80	824	127	1,630	107	96	139	78	40	23	13
5	37	92	686	120	1,230	113	92	122	74	40	23	13
6	37	82	526	115	796	107	88	111	76	39	22	14
7	45	77	389	209	574	102	85	102	73	38	20	13
8	50	73	311	389	474	100	82	96	70	37	20	12
9	43	67	261	450	481	209	79	97	81	37	21	12
10	88	65	221	358	421	256	76	110	94	37	20	12
11	94	73	190	317	353	218	73	100	81	49	20	12
12	148	65	168	256	298	194	72	94	74	45	19	12
13	113	388	164	237	261	190	69	90	69	37	19	12
14	97	712	170	203	239	170	72	84	67	43	18	12
15	83	873	207	196	212	159	73	84	72	48	16	12
16	76	865	574	185	192	159	69	81	74	52	16	11
17	70	645	661	170	176	168	70	77	72	54	16	10
18	70	444	1,440	159	166	164	69	73	69	44	16	10
19	69	323	2,380	157	153	157	65	88	67	39	16	10
20	62	250	1,390	151	151	149	61	78	65	36	16	10
21	58	206	892	143	141	143	59	74	61	34	16	10
22	55	177	700	135	131	147	62	85	59	33	15	10
23	53	156	728	141	133	135	60	77	57	32	15	10
24	51	139	588	159	145	127	69	76	56	31	15	10
25	50	126	460	241	129	139	76	86	61	30	15	9
26	52	114	358	570	124	133	70	96	62	29	15	10
27	62	109	301	535	129	127	97	115	57	28	15	10
28	54	114	258	467	122	124	100	126	52	28	16	10
29	51	109	230	392	-	117	94	118	49	28	16	10
30	50	114	205	322	-	110	107	111	47	27	15	10
31	50	-	181	344	-	108	-	102	-	26	13	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acre-feet
October	1,931	148	37	62.3	1.83	2.11	3,830
November	6,722	873	50	224	6.59	7.35	13,330
December	17,427	2,380	113	562	16.5	19.06	34,570
Calendar year 1941	54,057	2,380	8	148	4.35	59.13	107,200
January	7,699	570	115	248	7.29	8.42	15,270
February	10,859	1,630	122	388	11.4	11.88	21,540
March	4,482	256	100	145	4.26	4.90	8,890
April	2,406	118	59	80.2	2.36	2.63	4,770
May	3,125	151	73	101	2.97	3.42	6,200
June	2,081	94	47	69.4	2.04	2.28	4,130
July	1,170	54	26	37.7	1.11	1.28	2,320
August	559	25	13	18.0	.529	.61	1,110
September	337	14	9	11.2	.329	.37	668
Water year 1941-42	58,798	2,380	9	161	4.74	64.31	116,600

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

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 1942.
Extremes.- Maximum discharge during year, 4,770 second-feet Dec. 19 (gage height, 11.60 feet, from floodmark); minimum observed, 12 second-feet Sept. 15, 25 (gage height, 0.92 foot).
1940-42: Maximum discharge, that of Dec. 19, 1941; minimum observed, 9 second-feet Aug. 16, 18, 23, 24 (gage height, 0.82 foot).
Remarks.- Records good. Small diversions above station for irrigation. Some diurnal fluctuation in summer caused by logponds above station. Gage read twice daily.
Revisions.- Revised figures of run-off, in inches, for the water year 1941, superseding those published in Water Supply Paper 934, are given herein:

September 1941	1.02
Water year 1940-41	28.80

Rating tables, water year 1941-42 (gage height, in feet, and discharge, in second-feet)

Oct. 1 to Jan. 7

1.4	45	3.5	428	8.0	2,190
1.7	79	4.0	550	10.0	3,510
2.0	124	5.0	870	11.5	4,680
2.5	213	6.0	1,220		
3.0	316	7.0	1,640		

Jan. 8 to Sept. 30

1.0	15	1.7	75	3.0	306
1.2	28	2.0	117	3.5	418
1.4	43	2.5	207	4.0	550

Note.- Same as preceding table above 4.0 feet.

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	62	82	223	442	1,300	267	241	226	188	74	38	26
2	57	79	1,610	412	1,230	271	207	255	172	71	37	29
3	57	104	2,020	387	1,320	253	209	251	159	67	39	29
4	54	132	1,690	350	3,350	243	205	247	154	63	44	26
5	56	134	1,460	324	3,020	251	196	222	143	64	38	25
6	55	127	1,240	302	2,080	236	184	205	145	63	35	25
7	64	118	944	304	1,570	226	174	190	145	62	34	25
8	75	113	758	694	1,280	220	168	175	132	60	34	24
9	64	102	658	996	1,200	338	161	177	150	56	34	27
10	102	99	540	902	986	459	154	220	170	58	28	21
11	108	100	483	765	870	394	150	234	148	67	29	24
12	227	104	430	646	790	356	148	207	138	74	34	24
13	176	408	445	622	700	369	147	181	126	63	28	19
14	136	1,150	450	565	616	321	148	174	120	64	35	25
15	119	1,710	452	511	542	302	152	181	124	79	32	17
16	108	1,620	1,500	485	492	302	141	170	124	74	28	25
17	98	1,150	1,520	456	448	319	147	159	122	84	27	24
18	92	810	2,620	440	408	316	139	150	120	68	27	25
19	105	649	4,420	423	378	304	131	166	116	62	27	24
20	89	488	3,400	394	367	287	124	157	108	58	27	20
21	83	419	1,980	369	367	277	120	141	108	52	26	15
22	79	368	1,550	349	316	279	127	186	104	51	27	15
23	78	326	1,820	376	308	275	127	165	96	49	27	20
24	71	292	1,440	482	334	263	134	152	94	48	25	20
25	70	267	1,340	902	300	283	148	186	112	48	18	17
26	69	235	958	1,230	283	273	138	188	119	46	25	19
27	96	221	796	1,240	291	261	183	211	101	44	26	19
28	87	233	673	1,140	279	247	194	232	92	41	27	14
29	78	221	619	936	-	236	179	215	88	41	28	19
30	71	233	540	852	-	228	190	205	82	42	28	23
31	71	-	490	818	-	224	-	201	-	41	27	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off Inches	Run-off Acre-feet
October	2,755	227	54	88.9	0.794	0.91	5,460
November	12,094	1,710	79	403	3.60	4.02	23,990
December	39,069	4,420	223	1,260	11.2	12.97	77,490
Calendar year 1941	113,959	4,420	9	312	2.79	37.85	226,000
January	19,114	1,240	302	617	5.51	6.35	37,910
February	25,425	3,350	279	908	8.11	8.44	50,430
March	8,880	459	220	286	2.55	2.95	17,610
April	4,866	241	120	162	1.45	1.62	9,650
May	6,029	255	141	194	1.73	2.00	11,960
June	3,800	188	82	127	1.13	1.26	7,540
July	1,834	84	41	59.2	.529	.61	3,640
August	930	44	18	30.0	.268	.31	1,840
September	665	29	14	22.2	.198	.22	1,320
Water year 1941-42	125,461	4,420	14	344	3.07	41.66	248,800

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

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 1942.

Extremes.- Maximum discharge during year, 8,060 second-feet Dec. 20 (gage height, 27.73 feet); minimum, 24 second-feet Sept. 25 (gage height, 1.82 feet).

1905-11, 1940-42: Maximum discharge observed, 9,970 second-feet Jan. 19, 1911 (gage height, 30.9 feet, site and datum then in use); minimum observed, 23 second-feet Aug. 30 to Sept. 1, 1940, Aug. 12, 1941.

Maximum stage known at present site, 33.5 feet from floodmark, probably or Dec. 29, 1937.

Remarks.- Records excellent except those for period of no gage-height record, which are fair. A few small diversions above station for irrigation; no diversion around station. Some diurnal fluctuation during periods of low flow caused by millpond above station.

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

Rating tables, water year 1941-42 (gage height, in feet, and discharge, in second-feet)

Oct. 1 to Dec. 20						Dec. 21 to Sept. 30			
2.7	88	8.0	735	21.0	3,320	1.8	23	3.2	127
3.2	129	10.0	1,050	24.0	4,570	2.0	36	4.0	204
4.0	206	12.0	1,400	27.5	7,780	2.3	57	6.0	449
5.0	322	15.0	1,940			2.7	86	8.0	735
6.0	451	18.0	2,530			Note.- Same as preceding table above 8.0 feet.			

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	95	118	484	956	2,440	560	481	400	357	142	79	44
2	103	131	1,640	855	2,680	554	476	448	331	133	74	42
3	98	131	4,280	813	2,400	560	444	449	307	126	77	41
4	93	226	3,860	750	4,180	520	437	478	285	119	72	42
5	102	216	3,250	681	6,710	512	409	448	267	117	70	42
6	94	228	2,550	639	5,840	523	388	407	259	118	69	42
7	94	201	2,020	699	4,290	480	370	372	267	114	65	45
8	112	187	1,620	1,200	3,040	464	357	345	249	111	62	41
9	121	175	1,370	1,860	2,460	546	346	323	255	107	62	39
10	124	163	1,170	2,040	2,200	920	332	357	299	105	61	41
11	216	157	1,000	1,760	1,920	831	317	409	309	110	57	40
12	a370	175	884	1,510	1,700	729	306	371	276	140	60	42
13	a290	220	816	1,350	1,480	694	299	340	249	124	60	34
14	a250	1,780	924	1,500	1,320	650	297	318	232	110	53	35
15	216	2,220	981	1,140	1,180	597	303	312	226	134	54	37
16	186	2,810	2,680	1,060	1,070	586	294	331	237	138	58	35
17	170	2,610	3,200	1,030	972	583	291	299	250	150	49	33
18	156	1,910	3,890	973	888	648	287	282	239	144	49	35
19	166	1,370	6,210	908	812	604	275	283	229	125	49	33
20	158	1,040	7,740	848	764	572	261	308	216	111	49	35
21	141	844	6,120	796	771	550	251	272	203	103	50	30
22	132	734	4,350	756	704	551	246	288	191	98	49	33
23	126	632	3,700	753	660	541	264	329	182	97	45	27
24	120	560	3,310	956	681	515	251	289	176	94	42	34
25	114	501	2,590	1,770	650	519	287	328	187	90	42	29
26	112	458	2,200	2,570	602	562	281	341	213	86	40	32
27	124	425	1,800	2,900	606	529	290	361	203	84	44	30
28	146	421	1,570	2,580	589	508	367	427	180	82	49	38
29	130	484	1,400	2,130	-	488	345	420	166	81	49	30
30	119	481	1,260	1,790	-	470	337	390	153	79	49	37
31	113	-	1,110	1,670	-	452	-	381	-	78	46	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off: Inches	Run-off: Acre-feet
October	4,591	370	93	148	0.627	0.72	9,110
November	21,606	2,810	118	720	3.05	3.40	42,850
December	79,979	7,740	484	2,580	10.9	12.60	158,600
Calendar year 1941	226,525	7,740	28	621	2.63	35.69	449,300
January	41,045	2,900	639	1,324	5.61	6.47	81,410
February	53,599	6,710	589	1,914	8.11	8.45	106,300
March	17,818	920	452	575	2.44	2.81	35,340
April	9,887	481	246	330	1.40	1.56	19,610
May	11,106	478	272	358	1.52	1.75	22,030
June	7,193	357	153	240	1.02	1.13	14,270
July	3,450	150	78	111	.470	.54	6,840
August	1,737	79	40	56.0	.237	.27	3,450
September	1,096	44	27	36.5	.155	.17	2,170
Water year 1941-42	253,107	7,740	27	693	2.94	39.87	502,000

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

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

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 1942 in reports of Geological Survey. November 1938 to September 1940 in files of Oregon State engineer.
Extremes.- Maximum discharge during year, 2,800 second-feet Dec. 20 (gage height, 5.64 feet); minimum, 132 second-feet (regulated) Sept. 30 (gage height, 1.32 feet).
1938-42: Maximum discharge, 2,470 second-feet Mar. 27, 1940 (gage height, 5.13 feet); minimum, 44 second-feet July 13, 1939.
Maximum discharge known, 8,320 second-feet Dec. 29, 1937, computed by velocity-area method on basis of discharge measurement of 7,300 second-feet made that day.
Remarks.- Records good except those for period of shifting control and periods of no gage-height record, which are fair. Salem power canal diverts water from North Santiam River at Stayton into Mill Creek; some diversions from canal and creek above station for irrigation. Flow diverted for irrigation on left bank between gage and control is not included in record. Diurnal fluctuation caused by changes at head-gates and small power plants above station.

Rating table, water year 1941-42 (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Nov. 15 to Jan. 11, Feb. 4-9)

1.4	149	3.3	930
1.7	219	3.6	1,240
2.0	306	4.3	1,610
2.4	450	4.8	2,100
2.8	640	5.3	2,670

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	197	209	262	291	595	291	253	365	380	a200	190	181
2	214	222	1,150	262	508	230	250	334	351	a195	190	188
3	209	227	2,490	250	660	227	247	328	331	a190	190	190
4	219	227	1,590	233	1,350	214	244	387	312	a200	200	193
5	233	239	1,200	207	1,500	276	241	325	297	a195	195	186
6	227	247	1,030	197	1,270	285	236	291	306	a190	195	a180
7	230	236	840	270	1,030	270	233	273	300	186	186	a190
8	230	227	635	706	954	262	227	262	270	186	188	184
9	236	219	545	1,060	888	279	222	267	288	179	186	184
10	247	214	472	970	828	259	222	303	288	174	184	193
11	250	214	410	724	688	262	219	300	285	188	184	193
12	264	222	365	635	580	217	219	267	273	190	184	186
13	256	360	354	605	495	306	217	253	256	186	190	200
14	256	625	387	531	430	306	227	244	247	184	181	193
15	253	1,510	404	459	383	285	227	286	250	184	184	184
16	247	1,580	1,010	482	351	276	217	306	244	a190	200	188
17	250	990	870	500	387	252	217	270	241	a195	195	184
18	253	646	1,120	430	362	270	225	247	239	200	179	179
19	264	518	1,370	391	276	230	217	270	236	193	177	170
20	259	430	2,560	365	262	225	212	276	230	186	186	184
21	253	372	1,550	344	387	241	212	259	219	158	197	181
22	247	337	1,220	331	340	247	214	414	212	158	188	170
23	244	306	1,420	334	322	239	217	522	214	158	195	170
24	244	279	1,030	372	303	207	217	410	219	174	205	165
25	241	259	800	508	267	259	222	565	236	174	197	170
26	239	241	625	795	306	253	222	795	239	188	195	172
27	253	233	513	930	322	244	247	698	230	190	186	188
28	225	241	482	780	312	230	288	664	225	188	188	190
29	212	241	450	565	-	225	262	580	a215	188	184	170
30	205	267	406	472	-	212	273	486	a210	193	181	160
31	202	-	354	495	-	233	-	418	-	184	195	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	7,359	264	197	237	14,600
November	12,138	1,580	209	405	24,080
December	27,914	2,560	262	900	55,370
Calendar year 1941	118,946	2,560	156	326	235,900
January	15,394	1,060	197	497	30,530
February	16,396	1,500	262	585	32,500
March	7,842	306	207	253	15,550
April	6,946	288	212	232	13,780
May	11,654	795	244	376	23,120
June	7,854	380	210	262	15,570
July	5,744	200	156	185	11,390
August	5,875	205	177	190	11,650
September	5,466	200	160	182	10,840
Water year 1941-42	130,570	2,560	156	358	259,000

a No gage-height record; discharge computed on basis of weather records and records for Salem Canal at Stayton.
Time basis: Pacific standard time prior to 2 a.m., Feb. 9, 1942; Pacific war time thereafter. To convert war time to standard time, subtract 1 hour.

Mill Creek at Salem, Oreg.

Location.- Water-stage recorder, lat. 44°56'05", long. 123°01'00", in NE¼ sec. 28, T. 7 S., R. 3 W., 200 feet downstream from 19th Street diversion and 30 feet upstream from State Street bridge in Salem.

Records available.- October 1940 to September 1942 in reports of Geological Survey. July 1938 to September 1940 in files of Oregon State engineer.

Extremes.- Maximum discharge during year, 951 second-feet Dec. 3 (gage height, 4.88 feet, from graph estimated for several hours when pencil left no trace); minimum, 10 second-feet Sept. 30 (gage height, 0.55 foot).
1938-42: Maximum discharge recorded, that of Dec. 3, 1941; no flow Oct. 2, 1939.

Remarks.- Records good except those for periods of no gage-height record, which are fair. Salem power canal diverts water into Mill Creek near Stayton; several diversions from Mill Creek, including Shelton flood by-pass 1¼ miles upstream, and 19th Street power diversion 200 feet upstream. Diurnal fluctuation caused by power plants above station.

Rating tables, water year 1941-42 (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Oct. 1 to Nov. 14)

Oct. 1 to Nov. 15				Nov. 16 to Sept. 30					
0.9	47	2.4	330	0.7	19	2.0	228	3.8	656
1.2	94	2.8	420	.9	38	2.4	317	4.3	791
1.6	165	3.3	540	1.2	76	2.8	412		
2.0	244	3.8	668	1.6	147	3.3	532		

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	48	67	134	164	335	151	101	182	184	a60	47	41
2	72	78	499	136	299	105	103	170	170	a55	62	41
3	73	81	853	139	335	97	99	205	153	a55	48	46
4	75	92	594	121	578	76	96	211	143	a60	52	52
5	86	91	484	103	544	136	114	147	136	a55	45	50
6	83	104	431	94	470	145	96	128	145	a50	44	a47
7	88	94	395	147	383	132	86	115	155	a45	39	a45
8	84	86	310	393	352	123	79	106	132	45	40	47
9	88	73	279	542	331	141	76	112	132	45	52	40
10	108	68	248	494	301	124	75	147	134	41	36	46
11	106	72	209	398	261	121	79	132	130	54	33	42
12	120	83	194	328	222	75	97	106	117	62	34	50
13	106	180	196	319	182	145	76	92	114	45	36	75
14	115	363	220	285	158	143	86	a90	124	42	32	61
15	108	663	226	254	153	132	84	128	108	a42	38	42
16	104	742	503	250	130	126	76	151	101	a45	59	46
17	104	530	491	259	141	126	75	170	96	a50	49	42
18	109	393	551	226	130	130	81	97	94	57	38	35
19	122	335	503	199	81	92	82	114	90	73	23	34
20	115	292	661	188	105	86	70	121	97	47	34	63
21	115	259	458	170	201	79	68	105	92	27	45	52
22	108	218	400	168	194	99	62	189	75	27	47	31
23	99	186	530	170	170	97	66	257	70	26	56	27
24	91	162	438	196	162	75	68	228	72	26	58	26
25	96	134	369	301	132	96	86	274	89	28	50	27
26	86	114	310	417	153	117	94	374	96	42	47	33
27	108	106	261	494	174	101	96	322	94	36	49	54
28	84	115	246	414	166	92	136	312	a85	32	44	59
29	76	114	237	333	-	103	112	279	a75	45	47	39
30	60	136	218	285	-	78	119	241	a65	44	52	26
31	52	-	190	294	-	82	-	326	-	37	56	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	2,889	122	48	93.2	5,730
November	6,031	742	67	201	11,960
December	11,640	853	134	375	23,090
Calendar year 1941	48,940.5	853	6.4	134	97,060
January	8,281	542	94	267	16,430
February	6,843	578	81	244	13,570
March	3,425	151	75	110	6,790
April	2,638	136	62	87.9	5,230
May	5,631	374	90	182	11,170
June	3,368	184	65	112	6,680
July	1,398	73	26	45.1	2,770
August	1,392	62	23	44.9	2,760
September	1,319	75	26	44.0	2,620
Water year 1941-42	54,855	853	23	150	108,800

a No gage-height record; discharge computed on basis of records for station at penitentiary annex and unpublished records at Salem.
Time basis: Pacific standard time prior to 2 a.m., Feb. 9, 1942; Pacific war time thereafter. To convert war time to standard time, subtract 1 hour.

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 1942.

Extremes.- Maximum discharge during year, 9,340 second-feet Dec. 19 (gage height, 10.93 feet); minimum, 12 second-feet Sept. 22.
1934-42: Maximum discharge, 14,000 second-feet Dec. 27, 1937 (gage height, 14.08 feet); minimum, 3 second-feet (regulated) Aug. 22, 1938; minimum daily, 7 second-feet Aug. 22, 1938.

Remarks.- Records good. Slight regulation occasionally 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 1941-42 (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Aug. 29 to Sept. 24)

0.6	13	1.6	224	3.5	1,110	7.0	4,270
.8	31	2.0	365	4.0	1,440	8.0	5,430
1.0	63	2.5	580	5.0	2,200	9.0	6,690
1.3	134	3.0	830	6.0	3,170	11.0	9,440

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	63	80	429	441	2,540	284	421	389	211	91	47	20
2	65	78	2,620	405	1,820	320	365	389	192	86	45	19
3	58	189	2,900	369	2,290	320	338	361	177	84	45	19
4	84	227	2,400	331	3,880	295	316	365	165	80	44	20
5	69	202	1,960	295	2,850	327	291	323	156	78	41	21
6	63	186	1,650	291	2,230	331	271	295	151	76	38	23
7	91	162	1,240	302	1,740	302	257	271	151	74	37	23
8	101	142	995	441	1,450	298	244	254	145	69	35	21
9	84	134	830	625	1,430	486	227	244	171	67	35	19
10	183	126	695	576	1,260	553	218	257	214	65	35	19
11	214	168	600	499	1,100	481	202	244	202	89	35	19
12	327	165	512	463	948	450	195	221	177	101	35	19
13	267	802	558	454	805	530	186	205	156	71	31	18
14	221	1,660	830	441	705	481	186	195	148	67	30	16
15	189	1,900	2,030	409	615	445	183	208	165	86	29	15
16	159	2,100	3,950	405	535	437	177	192	180	126	29	15
17	142	1,590	3,170	413	486	486	189	174	205	162	28	15
18	134	1,110	4,930	409	437	499	168	165	189	113	27	15
19	131	885	8,400	381	397	468	156	195	180	94	27	16
20	113	680	4,950	369	369	437	151	189	165	84	27	14
21	103	566	3,060	361	361	405	142	165	156	76	28	14
22	98	481	2,480	342	323	450	159	221	145	71	26	13
23	91	405	2,850	413	316	441	183	195	137	69	22	13
24	84	357	2,020	1,010	361	441	224	177	131	63	22	14
25	82	320	1,570	2,100	320	499	284	195	145	59	22	14
26	82	288	1,190	2,150	295	494	264	221	154	56	23	14
27	101	257	956	1,820	295	472	291	274	134	56	24	15
28	96	327	795	1,520	288	458	305	288	124	52	26	17
29	82	381	680	1,210	-	421	274	260	111	49	29	17
30	71	458	680	1,020	-	401	335	254	106	49	26	17
31	69	-	504	1,270	-	389	-	260	-	49	23	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off: Inches	Run-off: Acre-feet
October	3,717	327	58	120	0.902	1.04	7,370
November	16,426	2,100	78	548	4.12	4.59	32,580
December	62,334	8,400	429	2,011	15.1	17.43	123,600
Calendar year 1941	168,872	8,400	13	463	3.48	47.22	334,900
January	21,535	2,150	291	695	5.23	6.02	42,710
February	30,444	3,880	288	1,087	8.17	8.51	50,380
March	13,101	553	284	423	3.18	3.66	25,990
April	7,202	421	142	240	1.80	2.01	14,280
May	7,646	389	165	247	1.86	2.14	15,170
June	4,843	214	106	161	1.21	1.35	9,610
July	2,412	162	49	77.8	.585	.67	4,780
August	971	47	22	31.3	.235	.27	1,930
September	513	23	13	17.1	.129	.14	1,020
Water year 1941-42	171,144	8,400	13	469	3.53	47.83	339,400

Peak discharge.- Dec. 16 (1:30 a.m.) 5,500 sec.-ft.; Dec. 19 (2 a.m.) 9,340 sec.-ft.
Time basis: Pacific standard time prior to 2 a.m., Feb. 9, 1942; Pacific war time thereafter. To convert war time to standard time, subtract 1 hour.

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 1942.

Extremes.- Maximum discharge during year, 21,700 second-feet Dec. 20 (gage height, 41.54 feet); minimum, 24 second-feet Sept. 22, 23 (gage height, 1.16 feet).
1940-42: Maximum discharge, that of Dec. 20, 1941; minimum, 18 second-feet Aug. 23, 1941 (gage height, 1.11 feet).

Remarks.- Records good. Slight regulation during low-water periods from logponds upstream. Small diversions above station for irrigation.

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

Rating tables, water year 1941-42 (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Oct. 2 to Nov. 13)

Oct. 1 to Dec. 3							Dec. 4 to Sept. 30			
1.1	22	4.0	304	12.0	1,620	34.0	10,800	7.0	748	18.0	3,010
1.5	42	5.0	445	16.0	2,485	38.0	15,800	9.0	1,080	21.0	3,885
2.0	79	6.0	595	20.0	3,600	42.0	22,600	11.0	1,430	24.0	4,870
2.5	126	7.0	750	22.0	4,260			13.0	1,820	27.0	6,020
3.0	179	8.0	910	26.0	5,740			15.0	2,250		
3.5	239	10.0	1,250	30.0	7,790						

Discharge, in second-feet, water year October 1941 to September 1942.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	109	122	852	1,300	4,960	806	878	760	516	216	93	43
2	113	129	1,860	1,150	6,600	786	800	790	476	193	83	40
3	115	137	5,630	1,070	5,430	838	750	790	445	181	83	38
4	96	314	6,660	997	7,640	792	700	764	414	167	84	37
5	122	305	5,700	910	12,200	771	660	750	390	164	87	40
6	113	301	4,330	856	10,600	827	620	680	376	157	77	42
7	112	264	3,290	878	7,650	782	570	630	372	146	73	44
8	143	240	2,420	981	5,310	758	540	590	359	137	69	46
9	148	217	1,960	1,440	4,160	776	520	560	353	133	65	41
10	142	202	1,650	1,930	3,640	1,060	500	590	400	130	64	38
11	328	200	1,410	1,800	3,030	1,040	480	560	460	140	65	38
12	394	245	1,240	1,600	2,560	971	460	540	415	187	65	40
13	472	255	1,130	1,420	2,160	1,010	440	520	373	176	64	40
14	367	2,230	1,450	1,410	1,880	1,010	430	500	344	142	59	37
15	301	3,320	2,090	1,340	1,660	946	420	540	331	150	55	36
16	259	3,860	5,560	1,250	1,490	920	410	510	359	179	52	34
17	231	4,020	8,870	1,260	1,360	910	430	480	391	279	49	32
18	208	2,790	10,300	1,270	1,240	1,030	410	450	386	256	47	32
19	206	1,910	15,700	1,230	1,140	981	400	520	369	199	43	30
20	200	1,450	21,100	1,160	1,060	930	390	480	349	169	45	29
21	181	1,180	17,600	1,090	1,070	862	380	430	330	147	47	26
22	154	1,020	12,800	1,040	1,010	927	383	520	308	134	48	25
23	144	881	9,380	1,040	954	910	432	570	290	128	46	26
24	132	788	8,380	1,520	981	910	595	498	275	125	41	28
25	129	703	5,990	3,370	952	1,020	620	508	288	113	41	29
26	130	641	3,970	4,950	886	980	600	522	324	106	40	28
27	134	590	2,830	5,710	857	965	620	538	309	100	37	28
28	156	570	2,240	5,170	846	961	640	625	277	99	40	30
29	155	758	1,910	3,960	-	944	590	606	256	96	43	34
30	138	791	1,680	2,990	-	910	680	568	234	94	49	36
31	122	-	1,490	2,520	-	830	-	547	-	93	50	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acre-feet
October	5,754	472	96	186	0.371	0.43	11,410
November	30,433	4,020	122	1,014	2.02	2.25	60,360
December	171,472	21,100	852	5,531	11.0	12.70	340,100
Calendar year 1941	420,967	21,100	19	1,153	2.30	31.20	835,000
January	58,612	5,710	856	1,891	3.77	4.34	116,300
February	93,326	12,200	846	3,333	6.64	6.91	185,100
March	28,162	1,060	758	908	1.81	2.09	55,860
April	16,348	878	380	545	1.09	1.21	32,450
May	17,936	790	430	579	1.15	1.33	35,580
June	10,769	516	234	359	.715	.80	21,360
July	4,736	279	93	153	.305	.35	9,390
August	1,806	92	37	58.3	.116	.13	3,580
September	1,047	46	25	34.9	.070	.08	2,080
Water year 1941-42	440,401	21,100	25	1,207	2.40	32.62	873,600

Peak discharge.- Dec. 20 (7 to 8 a.m.) 21,700 sec.-ft.; Feb. 5 (2 p.m.) 12,700 sec.-ft.
Note.- No gage-height record Mar. 21 to Apr. 21, Apr. 25 to May 4, May 5-21; discharge computed on basis of records for station near Willamina and North Yamhill River near Pike.
Time basis: Pacific standard time prior to 2 a.m., Feb. 9, 1942; Pacific war time thereafter. To convert war time to standard time, subtract 1 hour.

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 (revised).

Records available.- June 1934 to September 1942.

Extremes.- Maximum discharge during year, 3,150 second-feet Dec. 19 (gage height, 7.74 feet); minimum, 11 second-feet Sept. 18, 22-26.
1934-42: 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. No regulation or diversion above station.

Rating table, water year 1941-42 (gage height, in feet, and discharge, in second-feet)

1.2	10.6	2.6	164	5.0	1,075
1.4	16	3.0	255	5.5	1,350
1.7	33	3.5	415	6.0	1,670
2.0	62	4.0	605	6.5	2,040
2.3	107	4.5	825	7.3	2,720

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	35	38	120	221	676	148	166	131	109	48	29	14
2	32	37	460	207	561	156	152	134	102	45	29	14
3	29	68	613	194	686	148	148	131	97	43	27	14
4	35	72	629	179	1,310	144	140	136	92	42	29	15
5	32	74	565	168	1,040	156	133	129	87	43	27	15
6	32	67	513	164	875	152	127	121	86	42	25	15
7	44	60	415	166	735	144	121	112	86	41	22	15
8	45	55	352	181	654	140	120	109	84	40	21	14
9	43	52	306	264	676	166	114	107	90	40	22	14
10	82	49	261	258	605	177	111	116	111	40	22	15
11	82	62	230	232	529	168	107	114	102	51	22	15
12	107	58	207	218	457	162	102	104	90	47	21	14
13	88	341	203	209	398	170	100	98	81	40	20	13
14	74	722	235	200	345	162	98	95	80	43	18	13
15	65	840	432	189	309	156	97	104	82	48	16	13
16	59	812	935	185	276	162	93	97	87	65	16	13
17	53	605	1,020	181	248	177	90	93	87	61	16	13
18	51	432	1,890	181	225	179	87	88	81	48	16	13
19	52	336	2,690	174	209	170	84	111	76	42	16	12
20	47	267	1,750	168	203	166	82	105	72	38	17	12
21	44	225	1,170	162	192	160	80	97	70	35	16	12
22	41	194	990	158	179	164	86	118	66	35	16	12
23	39	174	1,090	168	177	166	86	109	63	35	15	11
24	38	158	825	291	183	166	102	102	62	32	15	11
25	36	144	658	497	170	187	121	111	72	31	15	11
26	37	129	533	497	164	196	111	109	70	29	16	12
27	44	120	443	493	162	187	129	114	65	30	16	13
28	46	131	373	446	154	177	131	116	60	30	17	14
29	41	129	321	394	-	168	120	112	55	30	19	13
30	39	123	282	352	-	162	123	112	52	31	16	13
31	38	-	248	387	-	158	-	120	-	31	15	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acre-feet
October	1,530	107	29	49.4	0.760	0.88	3,030
November	6,574	840	37	219	3.37	3.76	13,040
December	20,759	2,690	120	670	10.3	11.88	41,170
Calendar year 1941	63,974	2,690	10	175	2.69	‡36.60	126,900
January	7,784	497	158	251	3.86	4.45	15,440
February	12,398	1,310	154	443	6.82	7.09	24,590
March	6,094	196	140	164	2.52	2.91	10,100
April	3,561	165	80	112	1.72	1.92	6,670
May	3,467	136	88	112	1.72	1.98	6,860
June	2,417	111	52	80.6	1.24	1.38	4,790
July	1,256	65	29	40.5	.623	.72	2,490
August	607	29	15	19.6	.302	.35	1,200
September	398	15	11	13.3	.205	.23	789
Water year 1941-42	65,635	2,690	11	180	2.77	37.55	130,200

‡ Computed on basis of 65 square miles drainage area.
Time basis: Pacific standard time prior to 2 a.m., Feb. 9, 1942; Pacific war time thereafter. To convert war time to standard time, subtract 1 hour.

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 1942.

Extremes.- Maximum discharge during year, 3,830 second-feet Dec. 18 (gage height, 8.24 feet), affected by release of water from logpond upstream; minimum, 7.5 second-feet Sept. 25 (gage height, 0.97 foot).
1940-42: Maximum discharge, that of Dec. 18, 1941; minimum, that of Sept. 25, 1942.

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 1941-42 being 1.47 second-feet.

Rating table, water year 1941-42 (gage height, in feet, and discharge, in second-feet)

1.0	9.0	2.6	301	4.6	1,180
1.3	34	3.0	435	5.0	1,420
1.6	71	3.4	590	5.5	1,720
1.9	125	3.8	765	6.2	2,190
2.2	194	4.2	965		

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	22	29	98	175	785	111	117	101	65	34	18	11
2	22	28	684	163	570	115	105	105	63	29	19	10
3	20	71	662	154	768	109	101	103	58	28	18	12
4	22	64	574	138	1,170	103	96	101	56	26	19	12
5	22	61	466	127	835	115	91	96	53	26	18	12
6	21	55	414	125	675	109	87	87	55	26	17	12
7	30	51	323	132	554	103	84	81	53	26	15	11
8	41	47	267	140	506	103	81	67	52	25	15	10
9	38	44	229	224	498	143	79	63	56	25	15	9.7
10	96	42	196	192	446	145	76	64	65	26	15	10
11	74	46	170	168	390	136	73	61	58	30	15	10
12	76	43	152	154	332	129	70	57	55	29	15	9.7
13	84	289	154	147	292	138	68	55	50	26	14	9.7
14	100	466	187	140	261	125	68	52	49	29	13	9.7
15	64	486	516	132	237	121	68	65	53	33	12	9.7
16	53	474	905	127	216	123	65	60	58	38	12	9.7
17	51	332	335	127	199	132	64	56	58	35	12	9.7
18	51	242	1,670	125	182	134	61	53	56	28	12	9.0
19	50	189	2,130	119	168	127	60	61	53	26	12	9.0
20	45	152	1,190	115	165	123	58	57	51	23	13	9.0
21	43	129	780	113	156	119	56	53	49	22	13	8.5
22	41	111	750	111	140	127	63	64	46	22	12	8.5
23	38	98	785	145	136	123	57	56	45	22	11	8.5
24	35	87	582	368	134	117	56	60	46	20	11	8.5
25	33	81	470	614	125	138	63	79	58	19	12	8.0
26	30	74	382	644	121	136	57	68	50	19	13	8.5
27	35	70	323	542	117	129	116	68	45	19	13	9.7
28	38	100	278	424	113	125	81	73	43	18	14	10
29	32	103	248	348	-	121	74	71	41	19	15	10
30	30	101	222	298	-	115	96	70	37	19	12	9.7
31	29	-	196	442	-	117	-	70	-	19	12	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acre-feet
October	1,366	100	20	44.1	0.919	1.06	2,710
November	4,165	486	28	139	2.90	3.23	8,260
December	16,838	2,130	98	543	11.3	13.05	33,400
Calendar year 1941	49,371	2,130	9	135	2.81	38.26	97,940
January	6,973	644	111	225	4.69	5.40	13,830
February	10,291	1,170	113	368	7.67	7.97	20,410
March	3,811	145	103	123	2.56	2.95	7,560
April	2,291	117	56	76.4	1.59	1.78	4,540
May	2,177	105	52	70.2	1.46	1.69	4,320
June	1,577	65	37	52.6	1.10	1.22	3,130
July	786	38	18	25.4	.529	.61	1,560
August	437	19	11	14.1	.294	.34	867
September	294.8	12	8.0	9.83	.205	.23	585
Water year 1941-42	51,006.8	2,130	8.0	140	2.92	39.53	101,200

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

Haskins Creek near McMinnville, Oreg.

Location.- Water-stage recorder and wooden control, lat. 45°18'50", long. 123°21'55" (revised), 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 1942.

Average discharge.- 13 years, 24.6 second-feet (adjusted for diversion, 1937-42).

Extremes (not adjusted for diversion).- Maximum discharge during year, 264 second-feet Dec. 18 (gage height, 3.10 feet); minimum, 0.7 second-foot Sept. 23-25 (gage height, 1.22 feet).

1928-42: Maximum discharge, 610 second-feet Mar. 31, 1931 (gage height, 4.00 feet, before control was built); minimum prior to diversion above station, 1.0 second-foot Oct. 8, 1932.

Remarks.- Records good except those for periods of no gage-height record, which are fair. Since Sept. 2, 1937, about 1.5 second-feet has been diverted at a point 800 feet upstream into a 12-inch 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 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2.1	2.5	11	a25	94	16	14	14	9.2	4.0	2.6	1.4
2	1.7	2.1	69	a24	78	16	13	14	8.6	3.7	2.6	1.4
3	1.7	6.2	82	a23	98	16	13	14	7.9	3.4	2.6	1.4
4	2.3	5.8	84	a21	140	15	12	13	7.4	3.4	2.6	1.4
5	1.7	6.2	71	a19	114	16	11	13	6.9	3.4	2.4	1.4
6	2.1	5.0	64	a18	97	16	11	12	6.4	3.7	2.4	1.5
7	4.1	4.7	61	a19	84	16	11	11	6.4	3.7	2.2	1.4
8	4.4	4.4	41	a21	77	14	9.9	11	6.9	3.4	2.2	1.2
9	4.1	4.1	35	a29	74	19	9.2	9.9	7.4	3.4	1.9	1.2
10	11	3.8	29	27	68	19	e.5	9.9	9.2	3.7	1.9	1.2
11	8.9	4.4	26	a26	61	18	7.9	9.2	7.9	4.6	1.9	1.2
12	8.9	3.5	23	a25	53	17	7.9	8.6	7.4	4.3	1.7	1.2
13	6.6	34	23	a24	48	17	7.9	8.6	6.4	4.0	1.7	1.1
14	6.4	61	26	a22	42	17	7.9	7.9	6.4	4.6	1.6	1.1
15	5.0	40	53	a20	38	16	7.9	8.5	7.4	6.0	1.6	1.1
16	4.4	34	91	a19	36	17	7.4	8.6	7.9	6.9	1.7	1.1
17	3.8	27	106	a19	32	19	7.4	9.2	7.9	5.4	1.6	1.0
18	4.1	22	167	a18	29	19	6.4	8.5	7.4	4.3	1.6	1.0
19	3.8	19	238	a17	26	18	6.4	11	6.9	3.7	1.6	1.0
20	3.2	18	171	16	25	17	5.9	9.9	6.4	3.4	1.7	.9
21	3.0	16	121	16	24	16	5.9	8.5	6.4	3.4	1.7	.9
22	2.7	13	114	16	21	17	6.9	9.9	5.9	3.1	1.6	.8
23	2.6	12	113	19	21	17	6.4	8.5	5.4	3.1	1.6	.8
24	2.3	11	92	46	20	16	7.9	8.5	5.9	2.8	1.5	.8
25	2.1	9.2	76	71	a20	18	11	11	6.9	2.6	1.6	.9
26	2.5	8.5	a58	74	a19	18	8.5	9.9	6.4	2.6	1.6	.9
27	3.2	7.9	a46	68	a18	17	9.9	11	5.9	2.6	1.6	.9
28	3.0	11	a38	67	a17	16	9.9	11	5.4	2.6	1.7	1.0
29	2.7	11	a33	48	-	15	8.5	9.9	5.0	2.8	2.2	1.0
30	2.7	9.9	a30	43	-	14	12	9.9	4.3	2.8	1.6	.9
31	2.5	-	a28	64	-	14	-	11	-	2.6	1.5	-

Month	Observed				Diversion for McMinnville water supply (second-feet)	Adjusted for diversion			
	Discharge in second-feet			Run-off in acre-feet		Run-off in acre-feet	Discharge in second-feet		Run-off in inches
	Maximum	Minimum	Mean				Mean	Per square mile	
October	11	1.7	3.82	235	1.57	331	5.39	0.946	1.09
November	51	2.1	13.6	808	1.16	877	14.8	2.60	2.88
December	238	11	71.3	4,380	1.14	4,460	72.4	12.7	14.64
Calendar year 1941	238	.8	17.2	12,480	1.42	13,510	18.6	3.26	44.44
January	74	16	30.7	1,890	2.03	2,020	32.7	6.74	6.62
February	140	17	52.6	2,920	1.99	3,030	54.6	9.58	9.97
March	19	14	16.6	1,020	2.04	1,146	18.6	3.26	3.77
April	14	6.9	9.08	540	2.09	665	11.2	1.96	2.19
May	14	7.9	10.3	636	1.70	741	12.0	2.11	2.44
June	9.2	4.3	6.86	408	1.28	484	8.14	1.43	1.59
July	6.9	2.6	3.66	224	1.06	289	4.71	.826	.95
August	2.6	1.5	1.87	116	.76	162	2.63	.461	.53
September	1.5	.8	1.10	66	.69	119	1.99	.349	.39
Water year 1941-42	238	.8	18.3	13,240	1.47	14,310	19.8	3.47	47.06

a No gage-height record; discharge computed on basis of records for Nestucca River near McMinnville.

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

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 1942.

Extremes.- Maximum discharge during year, 7,360 second-feet Dec. 2 (gage height, 7.45 feet); minimum, 26 second-feet Sept. 25-27 (gage height, 0.92 foot).
1935-42: Maximum discharge, 10,800 second-feet Dec. 29, 1937 (gage height, 8.95 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 excellent. No diversion or regulation above station.

Rating tables, water year 1941-42 (gage height, in feet, and discharge, in second-feet)

Oct. 1 to Dec. 2				Dec. 3 to Sept. 30					
1.4	105	3.5	1,200	0.9	24	2.0	270	4.0	1,670
1.5	160	4.0	1,680	1.1	45	2.5	465	4.5	2,260
2.0	290	4.5	2,260	1.4	99	3.0	760	5.0	2,950
2.5	525	5.2	3,250	1.7	174	3.5	1,170	5.6	3,870
3.0	830	5.9	4,360						

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	110	169	330	319	774	216	442	384	388	229	73	37
2	125	169	4,230	302	746	305	412	388	344	205	73	35
3	115	227	3,830	288	862	348	388	372	308	186	74	35
4	272	255	2,230	263	2,360	308	372	376	280	171	71	35
5	244	362	1,870	242	2,010	308	348	368	263	160	69	35
6	214	362	1,560	235	1,840	305	326	368	280	152	65	34
7	302	298	1,170	270	1,280	288	312	380	246	144	60	34
8	514	255	886	746	999	284	298	364	235	137	58	33
9	440	224	684	1,150	1,430	734	291	340	319	127	57	33
10	420	202	564	910	1,800	1,460	291	333	396	124	54	34
11	370	205	475	774	1,340	910	294	316	452	144	52	33
12	530	199	412	660	999	690	280	294	396	127	54	32
13	420	906	388	582	760	559	270	274	340	117	52	31
14	344	1,900	368	495	618	470	280	260	305	115	50	31
15	286	3,900	442	442	520	412	288	298	344	122	46	31
16	248	2,350	1,370	429	456	372	263	336	336	163	46	30
17	217	1,380	1,110	412	404	352	260	330	316	222	45	30
18	199	935	2,210	372	364	336	270	302	333	163	44	30
19	214	713	4,000	344	333	316	256	352	376	142	43	29
20	190	564	3,040	319	319	294	249	388	344	124	43	28
21	172	470	1,860	294	298	294	249	360	308	115	43	28
22	157	411	1,440	277	277	312	260	447	277	108	43	28
23	142	366	1,720	274	266	298	242	480	249	101	40	27
24	130	322	1,270	298	256	277	266	447	232	93	39	27
25	125	294	950	475	242	277	288	648	298	88	39	27
26	118	272	732	928	229	263	270	974	384	84	39	27
27	125	252	600	1,240	229	266	280	958	364	82	41	27
28	190	244	505	950	219	270	305	830	330	80	44	27
29	205	241	447	746	-	280	302	672	291	78	41	27
30	184	306	400	606	-	308	330	542	260	76	40	27
31	169	-	356	542	-	356	-	452	-	74	38	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off: Inches	Run-off: Acre-feet
October	7,491	530	110	242	2.52	2.90	14,860
November	18,753	3,900	169	625	6.51	7.26	37,200
December	41,449	4,230	330	1,337	13.9	16.06	82,210
Calendar year 1941	142,339	4,230	30	390	4.06	55.14	282,300
January	16,184	1,240	235	522	5.44	6.27	32,100
February	22,230	2,360	219	794	8.27	8.61	44,090
March	12,468	1,460	216	402	4.19	4.83	24,730
April	8,982	442	242	299	3.11	3.48	17,820
May	13,633	974	260	440	4.58	5.28	27,040
June	9,594	452	232	320	3.33	3.72	19,050
July	4,051	229	74	131	1.36	1.57	8,040
August	1,582	74	38	51.0	.531	.61	3,140
September	922	37	27	30.7	.320	.36	1,830
Water year 1941-42	157,339	4,230	27	431	4.49	60.95	312,100

Peak discharge.- Nov. 15 (11 a.m.) 4,600 sec.-ft.; Dec. 2 (9:30 p.m.) 7,360 sec.-ft.; Dec. 19 (3 p.m.) 4,280 sec.-ft.

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

Molalla River near Molalla, Oreg.

Location.- Staff gage, lat. 45°10', long. 122°32', in SW¼ sec. 2, T. 5 S., R. 2 E., (revised), at bridge 2 miles northeast of Molalla.

Records available.- July 1938 to September 1942 (incomplete). November 1905 to July 1909 at site at Dickey Prairie, in sec. 23, 3 miles upstream.

Extremes.- Maximum discharge observed during period June to September 1942, 725 second-feet June 26 (gage height, 3.13 feet), from rating curve extended above 400 second-feet; minimum observed, 42 second-feet Sept. 23-30.
1905-9, 1938-42: Maximum daily discharge, 9,800 second-feet Feb. 5, 1907, from rating curve extended above 1,600 second-feet; minimum observed; 22 second-feet Aug. 22, 23, 1941.

Remarks.- Records good for July and August, fair for September. No regulation; two small diversions above station for irrigation, and a larger diversion a quarter of a mile above station into Woodcock Creek for flour mill on Milk Creek.

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1										426	132	51
2										382	130	50
3										356	142	49
4										310	128	49
5										294	123	49
6										279	117	48
7										264	106	48
8										252	100	48
9										243	96	50
10										228	94	52
11										273	92	51
12										252	90	50
13										225	86	49
14										210	83	48
15										226	76	47
16										282	68	47
17										434	66	46
18										304	65	46
19										255	62	45
20										234	59	44
21										210	59	43
22										199	66	43
23										193	55	42
24										185	53	42
25										168	53	42
26									720	160	56	42
27										155	58	42
28										148	60	42
29										140	60	42
30										140	56	42
31										136	83	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October					
November					
December					
Calendar year					
January	-	-	-	-	-
February	-	-	-	-	-
March	-	-	-	-	-
April	-	-	-	-	-
May	-	-	-	-	-
June	-	-	-	-	-
July	7,564	434	138	244	15,000
August	2,534	142	53	81.7	5,030
September	1,389	52	42	46.3	2,760
The period	-	-	-	-	22,790

Note.- Discharge for periods Sept. 1-7, 9-13, 15-22, 24-29, computed on basis of records for stations above Pine Creek, near Wilhoit, and near Canby.
Time basis: Pacific standard time prior to 2 a.m., Feb. 9, 1942; Pacific war time thereafter. To convert war time to standard time, subtract 1 hour.

Molalla River near Canby, Oreg.

Location.- Water-stage recorder, lat. 45°15', long. 122°41', in NE¼ sec. 9, T. 4 S., R. 1 E., at bridge 1½ miles south of Canby. Datum of gage is 104.56 feet above mean sea level, datum of 1929.

Drainage area.- 323 square miles.

Records available.- August 1928 to September 1942.

Average discharge.- 14 years, 954 second-feet.

Extremes.- Maximum discharge during year, 14,200 second-feet Dec. 3 (gage height, 11.1 feet); minimum, 55 second-feet Sept. 24, 25 (gage height, 1.87 feet).
1928-42: 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. A few small diversions above station for irrigation.

Rating table, water year 1941-42 (gage height, in feet, and discharge, in second-feet)

1.9	61	3.0	660	5.4	3,410
2.0	87	3.4	1,030	6.2	4,610
2.2	157	3.8	1,440	7.0	5,960
2.4	256	4.3	2,000	8.2	8,180
2.7	440	4.8	2,610	9.5	10,750

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	198	420	625	840	1,570	585	894	894	1,040	562	166	84
2	286	420	3,910	786	1,550	690	885	940	903	510	162	79
3	256	447	10,700	633	1,500	912	831	930	804	461	171	74
4	475	540	5,390	682	3,490	831	786	930	708	414	166	79
5	548	682	4,740	617	4,220	804	750	912	649	382	162	77
6	468	867	3,720	585	3,880	804	682	858	708	369	153	77
7	510	759	2,950	649	2,950	642	649	867	641	345	138	82
8	831	649	2,290	1,340	2,320	708	609	840	578	321	142	74
9	831	555	1,850	2,610	2,640	970	585	786	716	309	130	79
10	724	503	1,510	2,420	4,280	2,740	585	777	804	291	134	74
11	649	468	1,270	2,050	3,490	2,110	578	750	1,110	327	130	77
12	786	503	1,090	1,750	2,660	1,720	555	690	1,050	321	123	79
13	768	718	980	1,520	2,070	1,450	532	639	894	291	119	74
14	649	3,350	950	1,340	1,730	1,250	548	585	777	282	113	77
15	555	7,740	970	1,180	1,450	1,110	548	682	849	286	116	74
16	489	6,730	2,480	1,120	1,270	1,000	510	849	912	327	97	74
17	440	3,610	2,470	1,070	1,130	912	510	885	876	468	87	71
18	394	2,380	3,080	960	990	867	510	813	840	382	90	71
19	434	1,790	6,900	885	885	795	503	840	867	321	87	71
20	427	1,380	8,540	813	840	742	475	1,010	813	286	90	66
21	375	1,160	5,100	742	840	708	454	940	733	256	90	71
22	351	990	3,540	699	750	750	475	1,180	649	245	87	71
23	321	876	4,050	682	733	733	496	1,570	578	230	82	69
24	297	786	3,200	733	665	699	489	1,450	540	214	87	66
25	280	699	2,520	960	641	724	585	1,790	699	203	82	64
26	268	625	2,000	1,400	593	742	578	2,800	930	194	84	64
27	268	585	1,660	2,490	617	742	593	2,640	921	194	90	61
28	394	562	1,440	2,240	593	750	768	2,180	831	189	90	77
29	518	540	1,270	1,920	-	750	733	1,780	733	175	97	69
30	489	609	1,110	1,620	-	750	716	1,460	641	171	84	71
31	447	-	980	1,420	-	795	-	1,240	-	175	93	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off: Inches	Run-off: Acre-feet
October	14,726	831	198	475	1.47	1.70	29,210
November	41,923	7,740	420	1,397	4.33	4.83	83,150
December	93,285	10,700	625	3,009	9.32	10.74	185,000
Calendar year 1941	297,793	10,700	49	816	2.53	34.29	590,600
January	38,856	2,610	585	1,253	3.88	4.47	77,070
February	50,296	4,280	593	1,796	5.56	6.79	99,760
March	29,885	2,740	585	964	2.98	3.44	59,280
April	18,412	894	454	614	1.90	2.12	36,520
May	35,507	2,800	585	1,145	3.54	4.09	70,430
June	23,794	1,110	540	793	2.46	2.74	47,190
July	9,481	562	171	306	.947	1.09	18,810
August	3,542	171	82	114	.353	.41	7,030
September	2,196	84	61	73.2	.227	.25	4,360
Water year 1941-42	361,903	10,700	61	992	3.07	41.67	717,800

Peak discharge.- Nov. 15 (7 p.m.) 10,300 sec.-ft.; Dec. 3 (4 to 5 a.m.) 14,200 sec.-ft.; Dec. 20 (5 to 6 a.m.) 9,540 sec.-ft.
Time basis: Pacific standard time prior to 2 a.m., Feb. 9, 1942; Pacific war time thereafter. To convert war time to standard time, subtract 1 hour.

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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 Mount 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 1942.

Extremes.- Maximum discharge observed during year, 4,610 second-feet Dec. 20 (gage height, 22.44 feet); minimum observed, 19 second-feet Sept. 24 (gage height, 0.79 foot).

1939-42: Maximum discharge observed, that of Dec. 20, 1941; minimum observed, 10 second-feet Aug. 23-26, 1940 (gage height, 0.57 foot).

Remarks.- Records fair. Some small diversions for irrigation above station; no regulation. Gage read once daily, twice daily at high stages.

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	80	a170	d470	d750	1,170	502	416	552	a800	259	61	25
2	140	d180	882	685	1,140	505	440	618	a700	253	61	25
3	182	290	3,330	640	a1,500	503	408	602	602	229	61	a25
4	242	343	3,000	590	1,960	502	382	566	510	210	60	a25
5	259	322	2,810	523	2,760	501	369	568	460	203	59	a24
6	163	502	2,410	494	a2,700	536	329	509	a480	163	57	a24
7	149	445	2,010	733	a2,300	502	316	471	a450	144	54	a24
8	176	387	1,690	a1,300	a2,100	474	296	d430	a440	131	50	24
9	253	425	1,390	1,700	a2,200	506	286	d410	513	125	46	24
10	242	407	1,140	1,750	a2,500	495	276	d400	a510	119	43	24
11	213	391	1,020	1,540	a1,900	733	254	432	a490	121	41	24
12	411	351	879	1,330	a1,600	777	252	d420	a470	124	39	24
13	369	358	796	1,170	a1,400	709	243	370	a430	125	38	23
14	317	a800	786	1,050	a1,100	658	230	a346	a400	119	37	23
15	290	2,010	753	943	a1,100	588	229	a360	a420	135	35	23
16	235	2,270	1,440	895	994	577	230	a400	a410	153	33	22
17	a200	2,190	1,510	918	910	583	a225	a430	a400	228	31	22
18	a170	2,010	1,640	a800	809	576	a225	a410	a410	162	a31	21
19	a180	1,780	2,240	736	730	538	a230	a380	a370	144	30	21
20	a190	a1,200	4,450	697	685	535	224	a410	a330	105	30	20
21	a175	884	4,340	646	670	502	223	a410	a300	100	30	20
22	a160	767	3,350	619	618	485	225	a450	284	95	29	20
23	a150	676	3,060	595	577	480	223	a640	265	89	29	20
24	a140	a600	2,630	608	583	468	229	a740	246	80	29	19
25	a135	536	a2,150	744	562	461	235	a700	343	78	29	20
26	a130	488	1,830	a1,300	515	452	253	a1,000	425	74	29	a20
27	130	454	1,530	d1,700	508	446	291	a1,300	375	70	30	a21
28	133	442	a1,300	d1,600	a505	439	449	a1,250	362	70	30	21
29	a190	446	1,090	1,330	-	418	470	a1,100	306	68	29	20
30	168	453	953	1,180	-	408	509	a1,000	265	65	28	20
31	179	-	a850	a1,100	-	404	-	a900	-	65	27	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acre-feet
October	6,153	411	80	198	0.957	1.11	12,200
November	22,577	2,270	170	753	3.64	4.06	44,780
December	57,729	4,450	470	1,862	9.00	10.37	114,500
Calendar year 1941	177,463	4,450	24	486	2.35	31.90	352,000
January	30,666	1,750	494	989	4.78	5.51	60,830
February	36,196	2,760	505	1,293	6.25	6.50	71,790
March	16,263	777	404	525	2.54	2.92	32,260
April	8,959	599	223	299	1.44	1.61	17,790
May	18,594	1,300	346	600	2.90	3.34	36,880
June	12,766	800	246	426	2.06	2.29	25,320
July	4,106	259	65	132	.633	.74	8,140
August	1,216	61	27	39.2	.189	.22	2,410
September	668	25	19	22.3	.103	.12	1,320
Water year 1941-42	215,903	4,450	19	592	2.86	38.79	428,200

a No gage-height record; discharge computed on basis of records for station at Aurora.
d Doubtful gage-height record; discharge computed on basis of records for station at Aurora.
Time basis: Pacific standard time prior to 2 a.m., Feb. 9, 1942; Pacific war time thereafter.
To convert war time to standard time, subtract 1 hour.

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 1942.

Average discharge.- 14 years, 1,038 second-feet.

Extremes.- Maximum discharge observed during year, 6,480 second-feet Dec. 21 (gage height, 17.81 feet); minimum observed, 54 second-feet Sept. 26 (gage height, 0.26 foot)

1928-42: 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. Small diversions above station; slight regulation at times in summer by mills on tributaries. Gage read twice daily Oct. 1 to June 30, once daily thereafter.

Rating table, water year 1941-42 (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Aug. 6 to Sept. 30)

0.1	49	1.6	241	4.0	724	10.0	2,480
.4	77	2.0	312	5.0	960	12.0	3,230
.8	122	2.5	408	6.0	1,210	15.0	4,640
1.2	177	3.0	509	8.0	1,810	18.0	6,630

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	139	280	713	1,420	1,960	864	658	680	1,230	456	135	70
2	140	281	876	1,180	2,130	816	702	816	1,080	408	133	67
3	164	331	3,980	1,060	2,020	900	691	852	960	360	132	64
4	192	358	5,200	1,010	2,440	948	658	840	852	323	13[illegible]	63
5	244	436	4,960	924	4,030	888	625	828	770	281	131	64
6	287	540	4,690	840	4,530	888	582	782	713	271	128	64
7	255	625	4,430	804	4,530	888	551	724	713	262	12[illegible]	64
8	280	572	4,030	1,010	4,330	828	530	669	680	251	116	64
9	342	520	3,430	2,130	3,980	816	509	625	647	246	109	64
10	360	468	2,690	3,150	3,740	1,110	488	614	702	226	10[illegible]	62
11	365	432	2,020	3,230	3,650	1,510	468	669	736	222	103	62
12	400	412	1,630	2,830	3,390	1,390	448	669	724	238	10[illegible]	62
13	488	468	1,420	2,410	2,990	1,270	428	614	669	265	9[illegible]	62
14	488	936	1,270	2,130	2,520	1,210	416	572	614	244	9[illegible]	62
15	428	2,130	1,270	1,840	2,100	1,140	426	551	572	226	89	60
16	380	3,430	1,720	1,600	1,780	1,040	436	604	604	226	8[illegible]	60
17	339	3,830	2,870	1,600	1,570	960	424	658	614	256	8[illegible]	59
18	316	3,560	3,150	1,570	1,420	936	420	614	582	329	80	59
19	305	2,950	3,740	1,420	1,270	924	436	572	562	337	7[illegible]	60
20	320	2,240	5,500	1,270	1,140	864	432	604	572	265	75	58
21	339	1,630	6,390	1,160	1,160	816	394	636	540	227	8[illegible]	58
22	294	1,270	5,850	1,080	1,240	782	369	614	498	198	7[illegible]	57
23	272	1,110	5,440	1,010	1,080	793	367	985	460	183	7[illegible]	56
24	251	960	5,320	1,040	1,010	782	380	1,180	428	177	7[illegible]	56
25	234	864	4,960	1,160	985	747	384	1,130	436	168	70	55
26	221	782	4,640	1,660	924	758	448	1,550	572	158	67	54
27	218	713	4,080	2,580	900	758	456	2,040	669	151	6[illegible]	55
28	238	669	3,310	2,950	924	736	520	2,070	614	147	67	58
29	310	669	2,520	2,760	-	702	658	1,890	551	144	63	59
30	333	680	1,930	2,410	-	680	647	1,690	488	140	73	59
31	301	-	1,630	2,060	-	658	-	1,460	-	139	7[illegible]	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acre-feet
October	9,243	488	139	298	0.604	0.70	18,330
November	34,146	3,830	280	1,138	2.31	2.58	67,730
December	105,659	6,390	713	3,408	6.91	7.97	209,600
Calendar year 1941	305,173	6,390	54	836	1.70	23.02	605,400
January	53,298	3,230	804	1,719	3.49	4.02	105,700
February	63,743	4,530	900	2,277	4.62	4.81	126,400
March	28,402	1,510	658	916	1.86	2.14	56,330
April	14,951	702	367	498	1.01	1.13	29,650
May	28,802	2,070	551	929	1.88	2.17	57,130
June	19,852	1,230	428	662	1.34	1.50	39,380
July	7,524	456	139	243	.493	.57	14,920
August	2,917	136	64	94.1	.191	.22	5,790
September	1,817	70	54	60.6	.123	.14	3,600
Water year 1941-42	370,354	6,390	54	1,015	2.06	27.95	734,600

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

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 1942 in reports of Geological Survey. January to December 1936 in files of State engineer.

Extremes.- Maximum discharge during year, 2,400 second-feet Dec. 2 (gage height, 9.2 feet, from graph based on gage readings); minimum observed, 6.8 second-feet Sept. 25. 1936, 1940-42: Maximum discharge observed, that of Dec. 2, 1941; minimum, that of Sept. 25, 1942.

Remarks.- Records good except those for period Oct. 1 to Feb. 14, which are fair. Small diversions above station for irrigation. Some diurnal fluctuation caused by mills at Scotts Mills. Gage read twice daily Nov. 21 to Apr. 5, once daily at other times.

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	29	57	152	246	381	103	152	150	219	86	23	11
2	37	69	1,120	234	378	160	136	147	190	77	22	9.5
3	32	64	1,540	226	387	152	129	138	157	68	22	9.9
4	65	86	1,100	198	1,020	134	125	138	143	62	21	10
5	57	107	769	181	881	140	119	136	129	58	22	9.9
6	52	131	675	187	836	138	114	121	157	57	20	9.5
7	57	118	513	204	552	129	104	117	134	53	19	9.5
8	67	107	420	381	456	125	99	106	129	40	17	8.9
9	80	92	375	531	414	246	94	103	182	46	17	8.9
10	78	84	343	480	507	278	89	134	157	49	16	9.2
11	80	78	316	405	429	264	86	121	157	57	17	9.2
12	155	80	290	369	402	256	83	106	138	46	17	11
13	112	90	262	341	a340	240	80	99	132	43	16	11
14	140	647	288	321	282	214	83	96	117	39	14	9.9
15	86	1,520	302	304	267	195	83	108	140	48	13	9.2
16	75	1,050	703	290	240	180	74	103	125	67	12	7.7
17	70	616	453	274	221	172	80	92	121	88	12	8.9
18	72	426	567	248	190	167	83	99	110	52	12	8.6
19	75	339	1,200	232	175	152	73	106	123	46	12	8.3
20	70	316	1,690	220	170	143	69	117	114	38	12	8.0
21	65	288	820	206	164	150	67	101	103	35	12	7.4
22	57	237	656	198	147	150	67	206	91	32	12	7.4
23	53	215	798	195	140	140	77	235	86	35	11	7.4
24	50	192	600	204	157	132	86	208	80	27	10	7.1
25	48	176	a520	254	129	132	85	267	129	24	10	6.8
26	46	157	429	375	119	129	83	429	140	24	10	7.1
27	45	143	384	426	116	127	89	410	134	27	11	7.7
28	70	160	345	429	112	127	121	350	121	24	11	7.7
29	65	138	335	360	-	121	119	278	108	25	13	8.0
30	59	162	310	366	-	123	117	267	98	24	12	8.0
31	57	-	279	378	-	127	-	235	-	24	12	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acre-feet
October	2,104	155	29	67.9	1.06	1.22	4,170
November	7,925	1,520	57	264	4.12	4.61	15,720
December	18,554	1,690	152	599	9.36	10.78	36,800
Calendar year 1941	55,578.4	1,690	7.3	152	2.38	32.30	110,200
January	9,263	531	181	299	4.67	5.38	18,370
February	9,612	1,020	112	343	5.36	5.69	19,070
March	5,046	278	103	163	2.55	2.93	10,010
April	2,866	152	67	95.5	1.49	1.67	5,680
May	5,325	429	92	172	2.69	3.09	10,560
June	3,963	219	80	132	2.06	2.30	7,860
July	1,433	88	24	46.2	.722	.83	2,840
August	459	23	10	14.8	.231	.27	910
September	263.0	11	6.8	8.77	.137	.15	522
Water year 1941-42	66,811.0	1,690	6.8	183	2.86	38.82	132,500

a No gage-height record; discharge computed on basis of records for Molalla River above Pine Creek, near Wilhoit.

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

Tualatin River at Gaston, Oreg.

Location.- Staff gage, lat. 45°26'10", long. 123°10'05", in W½ sec. 34, T. 1 S., R. 4 W., 1.5 miles west of Gaston. Prior to May 20, 1942, water-stage recorder at site 1.7 miles downstream at Gaston; datum of gage was 163.18 feet above mean sea level, datum of 1929.

Drainage area.- 45 square miles at measuring section at Gaston.

Records available.- October 1940 to September 1942.

Extremes.- Maximum discharge during year, 3,540 second-feet Dec. 19 (gage height, 13.88 feet), from rating curve extended above 2,500 second-feet; minimum observed, 14 second-feet Sept. 18-22, 24-26.

Remarks.- Records fair. Slight diurnal fluctuation caused by logponds upstream; dam 1 mile below Gaston causes backwater at Gaston at times. Small diversions above station for irrigation. Staff gage read once daily.

Cooperation.- One discharge measurement furnished by Corps of Engineers, U. S. Army.

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	30	40	120	a190	885	118	a112	96	78	42	26	19
2	32	36	551	a170	636	118	110	109	74	40	26	19
3	27	55	785	a155	684	118	106	104	72	38	25	18
4	32	86	597	146	1,350	113	101	106	66	35	27	18
5	33	83	544	137	1,010	115	95	100	68	37	26	18
6	33	79	447	132	743	117	92	92	66	37	24	18
7	36	69	363	136	574	109	89	86	65	36	22	17
8	46	61	293	a140	510	105	87	82	66	34	22	16
9	48	56	251	a170	555	125	84	79	71	35	22	16
10	164	43	210	a200	486	154	81	77	83	35	22	16
11	147	30	178	183	414	136	77	79	82	42	21	17
12	121	38	a155	161	357	124	76	72	a76	38	20	15
13	89	130	a140	153	312	133	74	71	a71	34	19	15
14	72	673	194	145	280	124	74	68	a66	40	19	15
15	61	678	338	135	254	117	76	72	a63	42	19	16
16	52	608	998	129	230	121	72	76	65	60	19	15
17	50	462	892	129	210	132	71	72	66	45	19	15
18	47	341	1,290	130	193	147	68	70	64	39	18	14
19	51	267	2,570	124	179	138	67	80	61	37	18	14
20	45	182	1,410	120	176	126	66	84	58	34	19	14
21	42	160	922	117	167	117	64	73	56	31	19	14
22	40	139	737	115	153	122	64	89	53	30	18	14
23	35	120	948	132	146	120	68	76	51	29	17	15
24	37	109	663	322	144	117	68	65	50	28	17	14
25	35	104	524	658	136	122	80	85	66	27	18	14
26	32	94	422	674	128	135	78	74	58	27	20	14
27	39	87	356	650	126	129	87	80	52	27	18	15
28	50	96	311	490	120	125	98	87	50	26	19	15
29	44	127	271	385	-	122	88	82	47	26	20	17
30	40	129	238	322	-	118	92	81	44	26	19	18
31	38	-	210	353	-	116	-	77	-	26	18	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acre-feet
October	1,648	164	27	53.2	1.18	1.36	3,270
November	5,180	678	30	173	3.84	4.28	10,270
December	17,928	2,570	120	578	12.8	14.82	35,560
Calendar year 1941	56,017	2,570	13	153	3.40	46.28	111,100
January	7,203	674	116	232	5.16	5.95	14,290
February	11,165	1,350	120	398	8.84	9.22	22,130
March	3,833	164	105	124	2.76	3.17	7,600
April	2,463	112	64	82.1	1.82	2.04	4,890
May	2,544	109	65	82.1	1.82	2.10	5,050
June	1,908	83	44	63.6	1.41	1.58	3,780
July	1,083	60	26	34.9	.776	.90	2,150
August	636	27	17	20.5	.456	.53	1,260
September	475	19	14	15.8	.351	.39	942
Water year 1941-42	56,059	2,570	14	154	3.42	46.34	111,200

a No gage-height record; discharge computed on basis of records for Tualatin River near Dilley and Scoggin Creek near Gaston.

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

Tualatin River near Dilley, Oreg.

Location.- Chain gage, lat. 45°28'25", long. 123°07'20", in NW¼ sec. 24, T. 1 S., R. 4 W., at county road bridge three-quarters of a mile downstream from Scoggin Creek and 1½ miles south of Dilley. Datum of gage is 151.10 feet above mean sea level (datum of 1929).

Drainage area.- 133 square miles.

Records available.- October 1940 to September 1942.

Extremes.- Maximum discharge during year, 5,360 second-feet Dec. 19 (gage height, 12.90 feet); minimum observed, 9.0 second-feet Sept. 20 (gage height, 0.36 foot).
1940-42: Maximum discharge, that of Dec. 19, 1941; minimum observed, 4 second-feet Aug. 21, 1941 (gage height, 0.35 foot).

Remarks.- Records good except those below 50 second-feet, which are fair. Diversions above station for irrigation, chiefly in Wapato Lake area. Diurnal fluctuation caused by dam below Gaston. Gage read once daily, twice daily at high stages.

Cooperation.- Two discharge measurements furnished by Corps of Engineers, U. S. Army.

Rating tables, water year 1941-42 (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Sept. 25-30)

Oct. 1 to Dec. 19

1.1	38	4.0	281	11.2	1,715
1.4	58	5.5	418	11.8	2,590
1.8	88	7.0	559	12.4	3,750
2.3	129	9.0	771	12.9	5,360
3.0	191	10.5	1,025		

Dec. 20 to Sept. 30

0.3	7.5	1.4	69	4.0	286
.5	13.5	1.8	101	5.5	420
.8	28	2.3	141	7.0	560
1.1	47	3.0	201	9.0	771

Note.- Same as preceding table above 9.0 feet.

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	44	65	222	429	1,340	254	215	174	146	54	33	19
2	51	58	513	399	1,410	246	211	186	133	50	29	18
3	44	58	1,020	373	1,270	241	200	176	125	47	28	22
4	42	163	1,020	346	2,320	231	195	186	117	46	41	28
5	43	134	978	317	2,460	220	180	171	109	48	39	22
6	40	136	886	300	1,850	233	169	156	106	47	31	22
7	46	114	769	303	1,320	220	166	147	114	47	25	21
8	54	99	676	301	996	214	157	143	109	41	25	18
9	74	97	589	397	1,000	222	156	135	114	41	24	17
10	e155	80	498	436	937	289	152	129	121	41	27	16
11	226	58	428	393	867	277	139	133	125	73	25	18
12	234	68	383	360	796	262	132	124	114	61	26	16
13	186	114	297	339	710	284	132	113	110	48	23	18
14	148	629	376	326	647	267	137	107	101	40	22	14
15	112	832	464	310	592	250	135	111	102	65	26	13
16	98	869	899	297	536	252	131	137	106	77	23	14
17	89	792	1,740	293	478	246	123	123	109	85	20	16
18	80	633	2,280	297	432	277	119	115	101	61	20	12
19	82	506	5,280	284	393	271	123	116	106	40	18	10
20	74	394	3,750	275	367	263	119	140	100	43	18	9.0
21	66	336	2,300	271	373	248	113	127	91	34	18	9.8
22	65	295	1,740	266	344	246	105	131	85	31	18	9.5
23	58	253	1,990	293	317	241	119	135	77	36	18	9.5
24	58	222	1,540	467	317	233	121	139	77	30	18	10
25	53	200	1,080	832	300	230	138	149	116	31	21	12
26	51	177	909	1,080	279	249	131	149	97	31	19	12
27	53	146	816	1,440	277	241	135	137	83	36	19	12
28	76	154	717	1,050	265	234	169	163	84	33	22	13
29	81	227	648	914	-	233	151	158	76	31	26	13
30	68	229	574	816	-	224	149	150	63	34	22	12
31	65	-	503	780	-	216	-	153	-	38	22	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off Inches	Run-off Acre-feet
October	2,616	234	40	84.4	0.635	0.73	5,190
November	8,138	869	58	271	2.04	2.28	16,140
December	35,885	5,280	222	1,158	8.71	10.03	71,180
Calendar year 1941	105,913	5,280	4.0	290	2.18	29.60	210,100
January	14,974	1,440	266	483	3.63	4.19	29,700
February	23,693	2,820	265	846	6.36	6.63	46,990
March	7,613	289	214	246	1.85	2.13	15,100
April	4,422	215	105	147	1.11	1.24	8,770
May	4,415	186	107	142	1.07	1.23	8,760
June	3,117	146	63	104	.782	.87	6,180
July	1,418	85	30	45.7	.344	.40	2,810
August	746	41	18	24.1	.181	.21	1,480
September	449.8	22	9.0	15.0	.113	.13	892
Water year 1941-42	107,486.8	5,280	9.0	294	2.21	30.07	213,200

e Gage reading not representative of average for day; discharge computed on basis of records for station at Gaston and Scoggin Creek near Gaston.
Time basis: Pacific standard time prior to 2 a.m., Feb. 9, 1942; Pacific war time thereafter. To convert war time to standard time, subtract 1 hour.

Tualatin River at Farmington, Oreg.

Location.- Staff gage, lat. 45°27'00", long. 122°57'00", in SE¼ sec. 29, T. 1 S., R. 2 W., at highway bridge at Farmington, 7½ miles southwest of Beaverton. Auxiliary staff gage at highway bridge 6½ miles downstream, 1 mile northeast of Scholls. Datum of gage at Farmington is 100.42 feet (revised) above mean sea level, datum of 1929; datum of gage at Scholls is 100.45 feet (revised) above mean sea level, datum of 1929. All discharge measurements made at Farmington.

Drainage area.- 568 square miles.

Records available.- October 1939 to September 1942.

Extremes.- Maximum discharge observed during year, 14,500 second-feet Dec. 20 (gage height, 33.30 feet); minimum observed, 44 second-feet Sept. 20.

1939-42: Maximum discharge observed, that of Dec. 20, 1941; maximum gage height observed, 33.45 feet Dec. 21, 1941; minimum discharge observed, 34 second-feet Aug. 22, 1941.

Maximum stage known, about 37 feet at Farmington, Dec. 22 or 23, 1933.

Remarks.- Records good except those for periods Oct. 12 to Nov. 14, Jan. 22-24, which are fair. Daily discharge ascertained from stage at Farmington, at times using fall in water surface between gages at Farmington and near Scholls as a factor. Stage-discharge relation affected at times by flashboards on low dam 30 miles downstream. Slight regulation by logponds 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. Staff gages read twice daily.

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	88	201	594	2,810	3,900	1,010	664	550	494	205	98	66
2	92	188	671	2,300	4,010	941	685	642	466	185	100	62
3	106	192	1,680	1,890	4,260	915	666	639	436	167	99	57
4	110	203	2,840	1,550	5,140	899	642	623	407	155	98	59
5	108	335	2,810	1,230	6,380	834	632	618	374	153	106	59
6	113	325	2,740	1,110	8,300	834	583	591	373	149	108	60
7	114	299	2,900	1,030	8,230	861	552	547	390	145	102	60
8	116	268	2,710	1,020	7,700	789	532	499	395	146	86	61
9	132	240	2,490	1,120	7,110	734	506	468	377	140	84	60
10	158	223	2,300	1,510	6,440	696	500	443	374	143	81	56
11	296	205	1,720	1,640	5,690	1,070	468	443	398	153	81	52
12	478	184	1,280	1,520	4,980	1,030	451	435	393	166	81	52
13	433	229	1,050	1,370	4,370	1,020	429	407	354	181	76	53
14	371	457	1,030	1,250	3,840	1,120	422	371	330	166	74	52
15	309	1,410	1,240	1,180	3,550	1,100	435	364	301	169	68	50
16	260	1,760	2,070	1,040	2,970	999	443	401	295	186	70	47
17	224	1,980	2,910	989	2,680	951	423	422	301	206	68	46
18	217	2,020	3,410	1,040	2,270	952	412	408	310	230	61	46
19	207	1,830	5,120	1,070	1,880	973	388	384	299	181	64	45
20	213	1,500	13,200	1,020	1,530	925	373	398	285	158	59	45
21	211	1,010	12,200	931	1,460	857	362	432	275	140	58	46
22	190	819	10,200	910	1,450	845	348	412	264	112	59	47
23	181	693	8,800	900	1,240	833	354	443	249	106	56	46
24	170	648	7,580	1,200	1,200	817	377	484	235	100	57	45
25	162	565	7,140	2,000	1,230	786	377	443	238	99	52	45
26	158	511	6,310	2,690	1,170	832	415	493	250	93	53	46
27	156	474	5,680	3,160	1,080	878	426	524	309	92	57	47
28	174	428	5,060	3,540	1,060	800	486	514	281	99	62	50
29	212	472	4,500	3,660	-	765	570	532	255	96	67	53
30	248	584	3,940	3,820	-	728	520	541	228	98	68	56
31	224	-	3,300	3,660	-	698	-	516	-	96	70	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acre-feet
October	6,231	478	88	201	0.354	0.41	12,360
November	20,253	2,020	184	675	1.19	1.33	40,170
December	129,375	13,200	694	4,173	7.35	8.47	256,600
Calendar year 1941	358,217	13,200	35	981	1.73	23.44	710,500
January	54,200	3,820	900	1,748	3.08	3.55	107,500
February	105,120	8,300	1,060	3,754	6.61	6.88	208,500
March	27,692	1,120	698	893	1.57	1.81	54,930
April	14,461	685	348	482	.849	.95	28,680
May	14,987	642	384	483	.850	.98	29,730
June	9,936	494	228	331	.583	.65	19,710
July	4,515	230	92	146	.257	.30	8,960
August	2,323	108	52	74.9	.132	.15	4,610
September	1,569	66	45	52.0	.092	.10	3,110
Water year 1941-42	390,662	13,200	45	1,070	1.88	25.58	774,900

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

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 1942.
Average discharge.- 14 years, 1,315 second-feet (including flow of Oswego Canal).
Extremes (river only).- Maximum discharge during year, 11,700 second-feet Dec. 22 (gage height, 12.69 feet); minimum observed, 7.5 second-feet Sept. 23, 24 (gage height, 1.50 feet).
1928-42: 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. (Flow in canal is only a small part of total flow in winter.) Oswego Canal diverts water from Tualatin River 4½ miles above station for recreational use and development of power at Oswego and returns it to Willamette River below station; also small diversions above station for irrigation. Some regulation in low-water season by flashboards on crest of Oswego Canal diversion dam.

Rating tables, water year 1941-42 (gage height, in feet, and discharge, in second-feet)

Oct. 1 to Dec. 22

2.0	58	3.7	555	9.0	5,110
2.2	88	4.3	860	10.5	7,390
2.5	146	5.0	1,290	11.5	9,240
2.8	221	6.0	2,020	12.6	11,500
3.2	346	7.5	3,370		

Dec. 23 to Sept. 30

1.5	7.5	2.5	139
1.7	18	2.8	219
1.9	36	3.2	346
2.2	79		

Note.- Same as preceding table above 3.2 feet.

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	57	144	600	3,490	4,440	1,190	783	550	510	190	43	12
2	55	131	927	2,920	4,520	1,150	766	596	483	168	42	12
3	59	136	2,040	2,380	4,810	1,110	745	630	452	151	47	12
4	68	151	2,930	1,880	5,280	1,080	725	625	418	130	47	12
5	71	194	3,130	1,550	5,790	1,040	710	620	386	115	48	12
6	71	241	3,120	1,330	6,350	1,020	675	596	386	103	51	12
7	74	238	3,030	1,210	7,050	1,020	640	564	375	97	54	11
8	74	218	2,920	1,150	7,390	993	615	528	386	97	48	11
9	75	182	2,740	1,220	7,300	957	591	492	375	93	46	11
10	93	167	2,560	1,440	6,900	993	578	470	368	92	43	12
11	125	164	2,120	1,630	6,260	1,120	560	448	371	99	42	12
12	286	153	1,720	1,600	5,720	1,190	542	439	375	109	37	12
13	339	192	1,430	1,490	5,190	1,190	514	418	357	121	30	12
14	312	394	1,290	1,410	4,800	1,200	514	390	343	130	25	12
15	262	1,050	1,330	1,340	4,060	1,190	319	378	315	119	21	12
16	218	1,720	2,340	1,260	3,570	1,150	368	394	283	121	20	11
17	182	2,040	3,430	1,230	3,160	1,100	422	410	283	144	19	10
18	164	2,120	4,280	1,240	2,740	1,080	422	410	283	166	19	9.3
19	160	2,020	5,610	1,250	2,320	1,080	398	398	277	168	20	8.4
20	146	1,720	7,490	1,210	1,940	1,070	375	390	271	139	19	8.4
21	142	1,350	9,520	1,160	1,730	1,030	368	410	252	109	18	8.8
22	133	1,050	11,500	1,130	1,640	993	357	444	243	93	16	8.8
23	123	860	11,300	1,130	1,540	957	346	488	231	79	15	8.4
24	116	725	10,100	1,280	1,460	945	357	510	222	70	13	8.4
25	108	630	8,980	1,950	1,420	933	375	514	231	62	12	8.4
26	104	568	7,960	2,920	1,380	939	390	524	240	58	11	8.8
27	106	514	7,150	3,740	1,310	933	414	555	268	52	11	8.8
28	123	478	6,340	4,020	1,250	893	478	550	271	51	11	8.8
29	131	483	5,640	4,090	-	860	537	542	246	48	11	8.8
30	148	542	4,890	4,160	-	844	550	546	216	46	12	8.8
31	155	-	4,140	4,180	-	805	-	537	-	43	12	-

Month	Observed				Diversion by Oswego Canal in acre-feet	Adjusted for diversion			
	Discharge in second-feet			Run-off in acre-feet		Run-off in acre-feet	Discharge in second-feet		Run-off in inches
	Maximum	Minimum	Mean				Mean	Per square mile	
October	339	55	138	8,490	4,310	12,800	208	0.293	0.34
November	2,120	131	666	40,810	4,680	45,490	765	1.08	1.20
December	11,500	600	4,599	282,800	8,200	291,000	4,733	6.67	7.69
Calendar year 1941	11,500	12	1,046	757,600	52,190	809,800	1,119	1.58	21.40
January	4,180	1,130	2,000	123,000	2,880	125,900	2,046	2.88	3.32
February	7,390	1,250	3,961	220,000	5,640	225,600	4,062	5.72	5.96
March	1,200	605	1,034	63,580	1,480	65,060	1,058	1.49	1.72
April	783	319	514	30,610	3,850	34,460	579	.815	.91
May	630	378	496	30,480	5,600	36,080	587	.827	.95
June	510	216	324	19,270	5,040	24,310	409	.576	.64
July	190	43	105	6,470	4,450	10,920	178	.251	.29
August	54	11	27.8	1,710	3,940	5,650	91.9	.129	.15
September	12	8.4	10.4	617	3,620	4,240	71.1	.100	.11
Water year 1941-42	11,500	8.4	1,143	827,800	53,690	881,500	1,218	1.72	23.28

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

Scoggin Creek near Gaston, Oreg.

Location.- Water-stage recorder, lat. 45°27', long. 123°09', in NW¼ sec. 26, T. 1 S., R. 4 W., 500 feet upstream from highway bridge, 1½ miles upstream from mouth, and 1.7 miles northwest of Gaston. Datum of gage is 168.44 feet above mean sea level, datum of 1929

Drainage area.- 44.0 square miles.

Records available.- October 1940 to September 1942.

Extremes.- Maximum discharge during year, 1,590 second-feet Dec. 19 (gage height, 14.20 feet); minimum, 1.9 second-feet Sept. 18 (gage height, 1.82 feet).
1940-42: Maximum discharge, 1,610 second-feet Jan. 18, 1941 (gage height, 14.31 feet); minimum, 1.2 second-feet Aug. 22, 1941 (gage height, 1.73 feet).

Remarks.- Records fair. Small diversions by pumping above station for irrigation. Water supply for Hillsboro is diverted from Sein Creek above station; some diurnal fluctuation caused by logponds.

Rating table, water year 1941-42 (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Oct. 1-4)

1.8	1.8	3.2	78	7.0	490
2.1	4.9	3.5	108	8.5	690
2.3	8.8	4.0	158	10.0	910
2.6	25	4.8	238	11.5	1,140
2.9	49	5.8	348	13.5	1,465

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	11	19	67	135	f786	84	73	60	54	21	10	4.9
2	13	19	308	123	555	84	72	58	51	20	9.1	5.8
3	11	34	552	121	648	81	71	56	48	22	9.4	7.4
4	9.8	45	377	h112	1,100	76	68	56	45	20	12	7.1
5	9.8	41	298	h104	864	76	61	52	43	19	13	6.9
6	10	38	238	102	637	76	61	53	40	18	11	6.6
7	11	36	196	99	461	71	59	51	46	17	9.8	6.9
8	13	35	164	97	387	70	60	49	47	14	9.4	6.0
9	17	29	145	131	h377	91	58	48	54	15	8.8	3.4
10	79	28	125	123	h322	99	55	48	55	19	8.8	3.4
11	57	29	116	111	h266	94	51	46	53	21	7.1	3.6
12	54	28	109	105	227	89	50	43	44	22	7.4	4.4
13	40	145	108	99	201	91	52	38	38	15	9.8	4.8
14	34	352	118	97	185	89	53	38	37	13	12	5.0
15	28	390	g168	91	171	83	54	43	34	18	11	6.0
16	29	327	g648	88	155	h84	50	49	34	23	10	5.6
17	26	222	g725	86	144	h96	49	46	35	25	9.1	4.4
18	24	152	997	84	134	h94	48	44	36	20	7.4	2.0
19	25	119	1,470	83	123	91	46	49	33	16	3.0	2.7
20	19	98	1,060	81	h122	88	45	49	31	14	3.3	2.9
21	16	86	708	80	h116	85	44	40	32	11	4.1	3.5
22	16	80	560	81	104	84	f40	47	31	11	5.0	3.6
23	17	74	686	91	102	81	h42	56	28	11	4.9	3.7
24	17	66	489	229	100	77	h43	47	26	11	5.2	4.2
25	17	61	361	517	97	78	h47	56	44	11	6.6	5.0
26	17	54	283	599	94	77	h45	53	38	11	6.9	4.9
27	17	53	237	582	91	76	h64	51	33	12	7.4	5.4
28	26	57	197	411	87	77	h52	59	31	12	6.0	5.2
29	25	71	176	304	-	77	h52	59	26	12	4.1	2.6
30	22	69	161	242	-	74	f58	53	25	12	4.8	3.4
31	21	-	148	268	-	72	-	52	-	12	4.9	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off: Inches	Run-off: Acre-feet
October	731.6	79	9.8	23.6	0.536	0.62	1,450
November	2,857	390	19	95.2	2.16	2.41	5,670
December	11,995	1,470	67	387	8.80	10.14	23,790
Calendar year 1941	35,833.9	1,470	1.6	98.2	2.23	30.29	71,070
January	5,476	599	80	177	4.02	4.63	10,860
February	8,656	1,100	87	309	7.02	7.32	17,170
March	2,565	99	70	82.7	1.88	2.17	5,090
April	1,623	73	40	54.1	1.23	1.37	3,220
May	1,549	60	38	50.0	1.14	1.31	3,070
June	1,172	55	25	39.1	.889	.99	2,320
July	498	25	11	16.1	.366	.42	988
August	241.3	13	3.0	7.78	.177	.20	479
September	141.3	7.4	2.0	4.71	.107	.12	280
Water year 1941-42	37,505.2	1,470	2.0	103	2.34	31.70	74,390

f Computed from partly estimated gage heights.
g Computed from graph based on gage readings.
h Computed from staff-gage readings.
Time basis: Pacific standard time prior to 2 a.m., Feb. 9, 1942; Pacific war time thereafter. To convert war time to standard time, subtract 1 hour.

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 449.5 feet above mean sea level (from river-profile survey).

Drainage area.- 33 square miles.

Records available.- September 1935 to September 1942.

Extremes.- Maximum discharge observed during year, 1,720 second-feet Dec. 19 (gage height, 5.60 feet); minimum observed, 5.9 second-feet Sept. 23 (gage height, 1.12 feet).
1935-42: Maximum discharge, 3,540 second-feet Dec. 27, 1937 (gage height, 8.10 feet, from floodmark); minimum observed, 3.4 second-feet (regulated) Sept. 28, 1939.

Remarks.- Records good. No diversion above station; diurnal fluctuation caused at times by logpond 3 miles upstream. Gage read once daily, twice daily at high stages.

Rating table, water year 1941-42 (gage height, in feet, and discharge, in second-feet)

1.0	4.8	2.0	70	4.0	720
1.2	10	2.5	150	4.5	1,015
1.4	19	3.0	285	5.0	1,330
1.7	38	3.5	475	5.5	1,655

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	16	23	75	122	534	70	87	66	42	27	16	8.6
2	15	22	542	111	439	75	73	63	41	25	15	14
3	e23	54	538	102	562	70	80	63	39	24	15	9.3
4	26	e42	463	96	955	68	73	63	39	24	16	8.9
5	16	38	383	90	704	79	70	58	37	23	14	8.9
6	16	35	299	86	529	70	66	56	38	23	14	10
7	21	34	240	89	411	73	64	55	39	23	14	7.5
8	22	31	190	83	383	68	63	52	37	23	12	7.5
9	21	30	165	93	324	150	60	51	40	22	14	6.8
10	99	29	140	89	310	146	58	52	43	23	15	8.2
11	70	30	122	80	275	131	56	48	39	27	13	8.2
12	63	29	107	79	231	117	54	47	37	25	13	8.2
13	50	306	117	76	198	116	52	45	37	23	12	8.2
14	46	415	110	75	174	105	52	43	36	23	12	7.8
15	38	367	171	73	158	97	52	48	35	26	16	7.8
16	36	313	720	62	150	94	50	45	41	27	11	7.8
17	32	222	775	69	133	107	49	44	38	23	7.8	11
18	34	165	1,140	69	122	99	47	42	37	21	13	7.5
19	30	131	1,590	65	111	94	46	48	37	21	7.5	7.5
20	27	105	985	63	110	93	44	43	36	20	10	6.8
21	26	82	556	55	100	89	42	42	34	20	10	6.8
22	25	e63	475	60	94	91	54	56	32	17	7.8	7.5
23	24	58	475	75	90	89	46	e48	32	17	8.6	6.9
24	24	58	395	225	90	86	60	a42	31	18	9.6	7.5
25	24	60	344	475	83	97	58	49	38	17	9.6	6.8
26	23	57	288	552	79	91	55	45	37	a17	10	6.8
27	26	52	222	459	78	90	60	45	32	17	10	7.5
28	27	60	190	359	75	89	57	47	32	16	11	7.8
29	25	59	167	278	-	87	54	46	30	16	11	7.8
30	22	62	150	228	-	83	65	46	27	16	10	7.5
31	24	-	131	243	-	82	-	44	-	16	8.9	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off: Inches	Run-off: Acre-feet
October	971	99	15	31.3	0.948	1.09	1,930
November	3,057	415	22	102	3.09	3.45	6,060
December	12,245	1,590	75	395	12.0	13.80	24,290
Calendar year 1941	35,807.9	1,590	8.9	98.1	2.97	40.35	71,020
January	4,700	552	55	152	4.61	5.30	9,320
February	7,494	955	75	268	8.12	8.45	14,860
March	2,895	150	68	93.4	2.83	3.26	5,740
April	1,752	87	42	58.4	1.77	1.97	3,480
May	1,541	66	42	49.7	1.51	1.74	3,060
June	1,093	43	27	36.4	1.10	1.23	2,170
July	657	27	15	21.2	.642	.74	1,300
August	366.8	16	7.5	11.8	.358	.41	728
September	242.4	14	5.9	8.08	.245	.27	481
Water year 1941-42	37,014.2	1,590	5.9	101	3.06	41.71	73,420

a No gage-height record; discharge computed on basis of records for station near Forest Grove.
e Gage reading not representative of average for the day; discharge computed on basis of records for station near Forest Grove.
Time basis: Pacific standard time prior to 2 a.m., Feb. 9, 1942; Pacific war time thereafter. To convert war time to standard time, subtract 1 hour.

Gales Creek near Forest Grove, Oreg.

Location.- Water-stage recorder, lat. 45°33'10", long. 123°11'10", in E½ sec. 21, T. 1 N., R. 4 W., at bridge 2½ miles southeast of village of Gales Creek and 4½ miles northwest of Forest Grove. Datum of gage is 203.01 feet above mean sea level, datum of 1929.

Drainage area.- 66 square miles.

Records available.- October 1940 to September 1942.

Extremes.- Maximum discharge during year, 3,580 second-feet Dec. 19 (gage height, 6.24 feet), from rating curve extended above 2,300 second-feet; minimum, 9 second-feet Sept. 24 (gage height, 1.66 feet).
1940-42: Maximum discharge, that of Dec. 19, 1941; minimum, 9 second-feet Aug. 20, 1941, Sept. 24, 1942.

Remarks.- Records good. Small diversions above station for irrigation; some diurnal fluctuations at low stages caused by logponds upstream.

Rating table, water year 1941-42 (gage height, in feet, and discharge, in second-feet)

1.6	6	2.7	172	4.8	1,250
1.8	18	3.0	260	5.4	2,030
2.0	37	3.4	390	6.0	3,100
2.2	65	3.8	560		
2.4	101	4.3	850		

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	22	29	112	218	913	124	132	95	68	34	22	10
2	22	28	608	200	701	127	122	90	68	30	22	10
3	21	58	844	186	850	120	118	86	58	30	22	12
4	25	64	683	164	1,450	116	112	86	56	30	22	12
5	22	58	556	154	1,090	127	103	82	53	30	21	14
6	23	50	479	144	811	122	101	79	58	30	19	13
7	25	45	386	144	632	116	95	74	58	31	19	13
8	28	41	327	141	542	116	95	72	58	29	17	11
9	29	37	287	167	520	192	92	70	60	29	17	11
10	139	36	251	169	479	212	86	70	65	30	17	12
11	95	38	215	149	430	197	86	68	60	34	17	12
12	92	37	189	144	383	175	82	67	56	32	17	11
13	74	187	194	134	341	183	82	64	54	29	16	11
14	64	570	212	132	311	164	82	62	52	33	16	12
15	56	585	475	124	287	167	82	70	47	37	17	12
16	49	565	1,080	122	263	159	79	65	53	38	12	12
17	42	376	1,070	122	239	178	74	64	56	34	14	12
18	40	a300	1,730	122	218	172	72	60	52	30	15	12
19	41	a240	2,670	120	200	167	70	67	50	27	14	11
20	36	a190	1,370	114	197	156	68	65	52	25	14	11
21	33	a150	920	109	186	151	67	60	47	24	15	11
22	31	a125	756	116	172	154	79	67	44	24	14	10
23	29	a110	837	149	162	146	75	64	41	24	13	10
24	28	a110	683	422	154	139	75	60	42	23	13	10
25	27	a115	590	761	149	154	79	74	62	22	14	10
26	27	a110	479	857	141	154	75	68	54	22	14	12
27	30	a100	410	767	139	151	86	70	47	22	14	12
28	42	105	362	585	132	141	84	80	44	21	14	14
29	35	118	317	470	-	136	77	82	40	22	14	14
30	31	114	281	390	-	132	88	77	37	22	13	14
31	30	-	248	458	-	127	-	75	-	22	12	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acre-feet
October	1,288	139	21	41.5	0.629	0.73	2,550
November	4,691	585	28	156	2.36	2.64	9,300
December	19,620	2,670	112	633	9.59	11.06	38,920
Calendar year	-	-	-	-	-	-	-
January	8,054	857	109	260	3.94	4.54	15,970
February	12,092	1,450	132	432	6.55	6.81	23,980
March	4,675	212	116	151	2.29	2.63	9,270
April	2,618	132	67	87.3	1.32	1.48	5,190
May	2,233	95	60	72.0	1.09	1.26	4,430
June	1,592	68	37	53.1	.805	.90	3,160
July	870	38	21	28.1	.426	.49	1,730
August	500	22	12	16.1	.244	.28	992
September	351	14	10	11.7	.177	.20	696
Water year 1941-42	58,584	2,670	10	161	2.44	33.02	116,200

a No gage-height record; discharge computed on basis of records for station near Gales Creek.
Time basis: Pacific standard time prior to 2 a.m., Feb. 9, 1942; Pacific war time thereafter. To convert war time to standard time, subtract 1 hour.

West Fork of Dairy Creek at Banks, Oreg.

Location.- Water-stage recorder, lat. 45°37'25", long. 123°06'50", in SE¼ sec. 25, T. 2 N., R. 4 W., at highway bridge at Banks. Datum of gage is 183.65 feet above mean sea level, datum of 1929.

Drainage area.- 49.2 square miles.

Records available.- October 1940 to September 1942.

Extremes.- Maximum discharge during year, 1,100 second-feet Dec. 19, 20 (gage height, 11.80 feet); minimum, 2.1 second-feet Sept. 25.
1940-42: Maximum discharge, that of Dec. 19, 20, 1941; minimum, that of Sept. 25, 1942.

Remarks.- Records fair. Many small diversions above station for irrigation; no regulation.

Cooperation.- One discharge measurement furnished by Corps of Engineers, U. S. Army.

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	5.8	10	39	137	448	73	55	56	41	18	7.6	3.8
2	6.4	10	137	124	511	72	53	51	38	16	7.6	3.6
3	6.3	15	280	f112	450	66	52	48	37	15	7.2	3.8
4	6.1	23	279	102	549	65	52	54	34	14	7.6	4.2
5	6.3	17	230	91	564	66	49	49	32	14	8.2	4.2
6	6.1	14	201	88	567	65	47	46	38	14	7.4	4.1
7	6.3	13	170	90	503	61	46	42	35	13	6.5	4.1
8	7.3	12	149	86	375	61	44	40	33	14	6.1	3.8
9	7.9	12	135	102	335	77	43	39	33	14	5.8	3.5
10	28	11	120	107	306	102	41	39	34	10	5.8	3.3
11	19	12	105	93	276	97	h40	40	32	15	5.6	3.5
12	15	14	92	88	248	93	39	35	30	15	5.5	3.5
13	14	38	92	83	218	104	39	34	26	13	5.1	3.3
14	12	148	104	80	195	95	40	33	25	13	4.2	2.8
15	10	161	129	77	177	89	38	35	27	18	4.0	3.7
16	9.2	180	399	75	162	f89	37	35	26	18	4.1	3.1
17	8.8	141	457	73	146	90	36	33	29	17	5.1	3.3
18	8.8	105	561	74	134	86	h35	31	26	14	4.1	2.7
19	9.7	83	1,040	69	122	82	33	32	25	13	3.8	2.6
20	10	67	1,040	67	118	78	32	34	27	12	3.8	2.7
21	9.2	56	780	65	118	h77	30	31	24	11	3.5	3.6
22	8.4	49	506	66	106	75	31	34	23	10	4.5	2.7
23	8.2	44	437	77	99	72	33	34	21	10	3.8	2.6
24	8.0	39	396	187	94	69	f33	30	21	7.4	3.5	2.6
25	8.0	35	340	374	88	70	37	37	33	7.4	3.6	2.8
26	8.0	32	290	466	83	67	34	40	32	7.4	4.1	2.8
27	8.8	30	250	552	82	64	39	36	27	7.4	4.7	3.1
28	14	34	220	476	77	h61	44	41	24	7.4	5.0	3.7
29	13	47	f195	347	-	60	38	49	22	3.5	5.3	4.0
30	11	41	170	276	-	58	41	50	20	8.5	5.0	4.0
31	10	-	150	256	-	f56	-	43	-	8.2	4.5	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acre-feet
October	309.6	28	5.8	9.99	0.203	0.23	614
November	1,493	180	10	49.8	1.01	1.13	2,960
December	9,493	1,040	39	306	6.22	7.18	18,830
Calendar year 1941	27,313.9	1,040	2.4	74.8	1.52	20.64	54,170
January	4,960	552	65	160	3.25	3.75	9,840
February	7,151	567	77	255	5.18	5.41	14,180
March	2,340	104	56	75.5	1.53	1.77	4,640
April	1,211	55	30	40.4	.821	.92	2,400
May	1,231	56	30	39.7	.807	.93	2,440
June	875	41	20	29.2	.593	.66	1,740
July	378.2	18	3.5	12.2	.248	.29	750
August	162.6	8.2	3.5	5.25	.107	.12	323
September	101.5	4.2	2.6	3.38	.069	.08	201
Water year 1941-42	29,705.9	1,040	2.6	81.4	1.65	22.47	58,920

f Computed from partly estimated gage heights.
h Computed from staff-gage readings.
Note.- No gage-height record Dec. 25 to Jan. 2, Mar. 17-20, 22-27, 29, 30, Apr. 5-10, 12-17, 19-23; discharge computed on basis of records for Gales Creek near Forest Grove and East Fork of Dairy Creek at Mountaindale.
Time basis: Pacific standard time prior to 2 a.m., Feb. 9, 1942; Pacific war time thereafter. To convert war time to standard time, subtract 1 hour.

East Fork of 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 1942.
Extremes.- Maximum discharge during year, 1,100 second-feet Dec. 19 (gage height, 12.38 feet); minimum, 10 second-feet Sept. 13-15, 18-26 (gage height, 0.68 foot).
1940-42: Maximum discharge, that of Dec. 19, 1941; minimum, 9 second-feet Aug. 17-22, 1941.
Remarks.- Records good except those for periods of shifting control, which are fair; they include measured or estimated discharge of two small streams which pass through dam site at station on left bank and enter creek below station. No known diversion above station, probably some pumping for irrigation. Diurnal fluctuation at low stages caused by logpond upstream.

Rating table, water year 1941-42 (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Oct. 1 to Dec. 15, Sept. 27-30)

0.7	10	2.9	77	9.0	498
1.0	16	3.e	117	10.5	647
1.3	24	5.0	164	11.5	798
1.7	36	6.0	250	12.3	1,080
2.2	52	7.5	366		

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	14	22	51	131	395	94	69	76	61	30	19	12
2	14	21	129	122	370	96	65	73	59	31	19	12
3	14	35	249	116	417	92	64	71	56	30	19	12
4	15	35	249	107	863	89	63	69	54	29	20	13
5	15	32	226	100	742	92	60	65	53	29	19	12
6	15	29	207	95	541	89	58	62	61	29	18	13
7	a15	27	173	96	410	86	57	59	54	28	17	12
8	a16	26	149	95	347	85	56	57	52	28	16	12
9	a18	26	134	119	316	98	55	56	52	27	16	12
10	h44	25	117	107	293	102	54	56	53	28	16	12
11	a33	32	102	98	272	100	53	55	48	30	16	11
12	a29	30	92	94	246	100	52	53	46	28	15	11
13	h26	80	91	91	214	116	52	51	44	26	15	11
14	a24	164	89	89	197	108	54	48	43	28	14	11
15	a22	266	124	87	181	106	51	53	46	33	14	11
16	21	265	360	85	164	105	49	54	45	33	14	11
17	21	188	414	84	149	106	48	52	45	31	14	11
18	21	143	628	82	137	100	47	48	43	27	14	11
19	24	117	1,060	79	128	95	45	54	42	25	13	10
20	22	95	908	77	126	92	44	53	42	23	14	10
21	21	83	618	76	122	91	43	49	40	22	14	10
22	20	74	479	76	112	89	45	55	38	22	13	10
23	20	67	460	85	110	86	47	52	38	21	13	10
24	20	62	394	144	112	82	47	50	38	21	13	10
25	20	57	344	269	104	83	46	60	48	20	13	10
26	20	54	278	370	100	79	45	59	44	20	14	10
27	23	52	240	449	102	75	60	57	40	20	14	11
28	32	57	209	367	97	73	58	63	38	19	14	11
29	30	59	187	288	-	72	54	64	37	21	14	11
30	22	56	165	240	-	69	61	63	34	16	13	11
31	22	-	147	240	-	66	-	62	-	19	13	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acre-feet
October	673	44	14	21.7	0.505	0.58	1,330
November	2,280	268	21	76.0	1.77	1.97	4,520
December	9,073	1,060	51	293	6.81	7.85	18,000
Calendar year 1941	28,178	1,060	9	77.2	1.80	24.36	55,e70
January	4,558	449	76	147	3.42	3.94	9,040
February	7,367	863	97	263	6.12	6.37	14,610
March	2,818	116	68	90.9	2.11	2.44	5,590
April	1,604	69	43	53.5	1.24	1.39	3,180
May	1,799	76	48	58.0	1.35	1.55	3,570
June	1,394	61	34	46.5	1.08	1.21	2,760
July	794	33	16	25.6	.595	.69	1,570
August	470	20	13	15.2	.353	.41	932
September	334	13	10	11.1	.258	.29	662
Water year 1941-42	33,164	1,060	10	90.9	2.11	28.70	65,760

a No gage-height record; discharge computed on basis of records for Gales Creek near Forest Grove and West Fork of Dairy Creek at Banks.
h Computed from staff-gage readings.
Time basis: Pacific standard time prior to 2 a.m., Feb. 9, 1942; Pacific war time thereafter. To convert war time to standard time, subtract 1 hour.

McKay Creek near North Plains, Oreg.

Location.- Water-stage recorder, lat. 45°37'35", long. 123°58'25", in SE¼ sec. 30 T. 2 N., R. 2 W., at bridge 2½ miles north of North Plains. Datum of gage is 172.82 feet above mean sea level, datum of 1929.
Drainage area.- 27.6 square miles.
Records available.- October 1940 to September 1942.
Extremes.- Maximum discharge during year, 1,000 second-feet Dec. 19 (gage height, 9.60 feet); minimum, 2.5 second-feet Sept. 24, 25 (gage height, 0.53 foot).
1940-42: Maximum discharge, that of Dec. 19, 1941; minimum, 1.8 second-feet Aug. 12, 1941 (gage height, 0.46 foot).
Remarks.- Records good except those for periods of no gage-height record and periods of shifting control, which are fair. No known diversions above station; no regulation.

Rating table, water year 1941-42 (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Oct. 1 to Dec. 2, Sept. 15-30)

0.4	1.9	2.0	27	6.0	198
.6	3.6	2.5	38	7.0	278
.8	5.9	3.0	53	8.0	420
1.1	10	3.5	72	8.8	652
1.4	15	4.0	93	9.6	1,000
1.7	20	5.0	141		

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	4.5	8.2	28	54	267	50	31	44	44	10	a5.7	3.5
2	4.5	7.8	95	51	270	51	28	46	40	9.6	a5.8	3.6
3	4.3	13	281	48	284	49	29	47	35	9.2	5.8	3.8
4	4.8	15	265	44	620	46	29	52	31	9.0	6.3	4.0
5	4.7	13	209	f40	544	48	26	f49	33	8.9	6.0	a3.9
6	4.9	12	169	39	342	47	f24	47	33	8.6	5.3	a3.9
7	5.4	12	130	39	235	45	22	41	a29	8.6	4.9	a3.8
8	5.5	12	104	40	176	46	22	37	a27	8.3	4.7	a3.6
9	5.2	11	89	56	170	49	22	35	h27	8.2	4.8	a3.6
10	16	11	74	56	170	52	21	34	a28	8.2	4.9	a3.4
11	12	15	62	54	158	51	20	29	h24	10	4.9	a3.3
12	13	15	54	54	136	51	19	27	23	9.7	4.6	a3.2
13	11	29	52	52	112	60	19	24	21	8.5	4.4	a3.1
14	9.3	106	55	53	95	59	22	23	19	9.3	4.2	a3.1
15	8.5	227	76	52	84	56	19	26	22	12	4.0	3.1
16	8.0	261	322	52	73	55	18	25	21	14	4.0	3.2
17	7.8	158	449	49	64	53	18	27	20	13	4.0	3.2
18	7.9	104	f579	48	56	53	17	22	19	9.9	3.9	3.1
19	9.9	71	f960	46	52	50	16	26	18	8.5	3.9	3.0
20	8.6	51	770	44	f52	48	16	25	18	7.3	3.9	2.8
21	7.6	44	471	43	f52	48	15	24	16	6.8	4.0	2.7
22	7.2	39	346	44	49	47	16	30	15	6.7	3.9	2.8
23	7.1	34	322	46	46	44	17	29	14	6.4	3.7	2.7
24	6.9	30	a260	71	52	42	16	27	14	5.9	3.6	2.6
25	6.8	26	a210	142	52	42	16	37	18	5.4	3.5	2.6
26	6.9	f23	a170	227	52	a39	15	39	18	5.2	3.7	2.9
27	7.9	f22	135	302	55	a37	23	42	15	5.3	4.0	3.2
28	13	27	112	224	51	a35	25	46	13	5.3	4.2	3.5
29	11	33	92	163	-	33	22	49	12	5.7	4.3	3.6
30	8.7	31	76	130	-	32	27	48	11	5.8	3.8	3.4
31	8.2	-	66	124	-	32	-	47	-	5.7	3.6	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off: Inches	Run-off: Acre-feet
October	247.1	16	4.3	7.97	0.289	0.33	490
November	1,461.0	261	7.8	48.7	1.76	1.97	2,900
December	7,083	960	28	228	8.26	9.54	14,050
Calendar year 1941	17,771.8	960	2.9	48.7	1.76	23.94	35,250
January	2,487	302	39	80.2	2.91	3.35	4,930
February	4,369	620	46	156	5.65	5.89	8,670
March	1,450	60	32	46.8	1.70	1.95	2,880
April	630	31	15	21.0	.761	.85	1,250
May	1,104	52	22	35.6	1.29	1.49	2,190
June	678	44	11	22.6	.819	.91	1,340
July	255.0	14	5.2	8.23	.298	.34	506
August	138.3	6.3	3.5	4.46	.162	.19	274
September	98.1	4.0	2.6	3.27	.118	.13	195
Water year 1941-42	20,000.5	960	2.6	54.8	1.99	26.94	39,680

a No gage-height record; discharge computed on basis of records for West Fork of Dairy Creek at Banks and East Fork of Dairy Creek at Mountaindale.
f Computed on basis of partly estimated gage-height record.
h Computed from staff-gage reading.
Time basis: Pacific standard time prior to 2 a.m., Feb. 9, 1942; Pacific war time thereafter. To convert war time to standard time, subtract 1 hour.

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 1942.

Average discharge.- 14 years, 61.8 second-feet.

Extremes.- Maximum discharge during year, 248 second-feet Dec. 20 (gage height, 9.46 feet), from rating curve extended above 150 second-feet; minimum, 2 second-feet Mar. 27, 30.

1928-42: Maximum discharge, 6,000 second-feet Dec. 23, 1933 (gage height, 16.1 feet, site and datum then in use), computed from slope, area, and lake spillway data; practically no flow at times.

Remarks.- Records good except those for period of doubtful gage-height record, which are fair. Oswego Canal diverts water from Tualatin River in NW¼ sec. 20, but diversion dam is in NE¼ sec. 33, about 3 miles downstream.

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	64		59	78	120	28	44	92	93	77	68	65
2	64		74	64	122	27	44	94	92	76	69	65
3	64		108	51	124	26	45	95	91	74	70	64
4	65		132	40	141	25	46	96	90	72	69	63
5	66	a72	137	33	152	23	46	95	88	71	69	64
6	66		137	32	164	22	38	95	88	71	70	64
7	66		135	d32	177	22	43	93	89	71	70	65
8	66		132	d32	180	22	42	92	89	72	69	65
9	66		126	d33	178	21	42	90	89	73	67	65
10	68	77	117	33	171	22	41	90	89	73	66	65
11	69	77	106	37	161	26	41	89	89	75	65	64
12	79	76	92	36	150	13	40	89	89	76	63	63
13	83	80	82	33	137	2	39	88	88	77	62	63
14	82	91	77	31	123	14	38	87	86	77	62	63
15	79	106	79	29	108	27	50	87	82	76	62	62
16	76	123	114	28	94	26	83	88	81	76	63	60
17	74	125	149	27	82	24	86	88	81	78	63	60
18	72	121	170	27	70	23	86	88	81	79	63	59
19	72	111	209	27	58	23	86	88	82	79	62	58
20	71	99	189	26	49	23	86	88	81	75	62	58
21	71	86	181	24	43	22	85	88	80	72	61	58
22	70	76	205	23	40	21	85	89	80	70	61	57
23	69	69	200	23	38	20	84	90	80	68	61	57
24	68	63	184	17	36	19	85	91	79	67	61	57
25	67	59	172	17	34	19	86	92	80	67	60	56
26	67	56	158	76	33	19	87	93	80	67	60	56
27	67	54	147	101	31	27	88	94	82	67	60	56
28	68	53	136	109	30	43	90	94	82	66	60	57
29	a72	53	123	110	-	42	92	94	81	66	61	57
30	a72	56	109	111	-	31	92	94	79	67	63	57
31	a72	-	94	112	-	42	-	94	-	67	65	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	2,175	83	64	70.2	4,310
November	2,359	125	53	78.6	4,690
December	4,133	209	59	133	8,200
Calendar year 1941	26,317	209	2	72.1	52,190
January	1,452	112	17	46.8	2,880
February	2,846	160	30	102	5,640
March	744	43	2	24.0	1,480
April	1,940	92	38	64.7	3,850
May	2,825	96	87	91.1	5,600
June	2,541	93	79	84.7	5,040
July	2,242	79	66	72.3	4,450
August	1,987	70	60	64.1	3,940
September	1,823	65	56	60.8	3,620
Water year 1941-42	27,067	209	2	74.2	53,690

a No gage-height record; discharge computed on basis of range of stage.
d Doubtful gage-height record.
Time basis: Pacific standard time prior to 2 a.m., Feb. 9, 1942; Pacific war time thereafter. To convert war time to standard time, subtract 1 hour.

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 1942.
Average discharge.- 22 years, 438 second-feet.
Extremes.- Maximum discharge during year, 3,070 second-feet Dec. 2 (gage height, 5.70 feet), from rating curve extended above 1,000 second-feet; minimum, 184 second-feet Sept. 12 (gage height, 1.51 feet).
1920-42: Maximum discharge, 6,750 second-feet Mar. 31, 1931 (gage height, 8.28 feet), from rating curve extended above 3,500 second-feet; minimum, that of Sept. 12, 1942.
Remarks.- Records fair. No regulation or diversion above station.
Cooperation.- Water-stage recorder graph and notes of discharge measurements furnished by Portland General Electric Co.

Rating table, water year 1941-42 (gage height, in feet, and discharge, in second-feet)

1.5	182	3.1	795
1.8	260	3.4	970
2.2	395	3.8	1,240
2.5	510	4.3	1,640
2.8	640	4.8	2,100

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	201	219	314	392	423	290	360	388	390	254	209	192
2	204	222	1,410	388	434	297	367	370	381	249	206	194
3	199	266	2,070	378	458	297	367	360	367	246	204	192
4	227	260	1,300	356	700	287	381	353	353	246	209	192
5	214	249	1,160	336	655	290	392	342	346	243	204	192
6	204	238	1,030	332	626	284	392	346	378	240	201	192
7	227	229	856	325	568	278	402	353	350	240	199	194
8	275	224	715	332	526	278	412	367	336	238	196	194
9	249	222	626	367	582	388	420	360	356	235	194	192
10	232	219	564	336	631	622	430	350	364	232	194	189
11	224	224	510	318	595	538	454	360	370	238	194	187
12	240	238	474	311	550	506	478	340	342	235	194	184
13	232	414	446	300	510	474	482	330	325	232	194	187
14	224	710	430	294	478	438	486	330	314	229	194	187
15	219	1,380	506	287	454	412	478	380	322	232	192	187
16	216	958	740	284	434	395	474	400	318	243	194	187
17	214	650	626	278	409	381	462	380	308	240	194	187
18	211	518	839	275	388	370	446	390	308	229	194	187
19	219	446	1,970	269	374	356	446	390	308	224	194	187
20	216	395	1,590	266	367	342	474	420	294	219	194	187
21	211	367	1,120	263	356	339	494	450	287	219	194	189
22	209	342	922	263	342	336	498	580	281	216	194	189
23	206	322	952	263	336	328	466	540	278	216	194	189
24	204	304	762	275	328	318	462	500	275	214	192	192
25	206	290	670	322	318	318	454	540	290	214	192	192
26	204	281	600	353	308	311	423	620	300	214	194	192
27	214	272	550	406	304	304	409	560	287	214	194	194
28	222	269	514	381	294	300	395	510	275	214	196	194
29	219	269	482	356	-	300	378	470	266	211	196	196
30	211	314	454	339	-	311	388	430	260	211	194	196
31	211	-	423	339	-	328	-	410	-	209	192	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acre-feet
October	6,764	275	199	218	1.65	1.91	13,420
November	11,311	1,380	219	377	2.86	3.19	22,440
December	25,625	2,070	314	827	6.27	7.22	50,830
Calendar year 1941	124,825	2,070	192	342	2.59	35.18	247,600
January	9,964	406	263	322	2.44	2.81	19,800
February	12,748	700	294	455	3.45	3.59	25,290
March	11,016	622	278	355	2.69	3.10	21,850
April	12,970	498	360	432	3.27	3.65	25,730
May	12,919	620	330	417	3.16	3.64	25,620
June	9,629	390	260	321	2.43	2.71	19,100
July	7,096	254	209	229	1.73	2.00	14,070
August	6,086	209	192	196	1.48	1.71	12,070
September	5,713	196	184	190	1.44	1.61	11,330
Water year 1941-42	131,861	2,070	184	361	2.73	37.14	261,600

Peak discharge.- Nov. 15 (12:15 p.m.) 1,750 sec.-ft.; Dec. 2 (10:30 p.m.) 3,070 sec.-ft.; Dec. 19 (3:30 p.m.) 2,300 sec.-ft.
Note.- No gage-height record May 9 to June 1; discharge computed on basis of records for station above Three Lynx Creek and Oak Grove Fork above power-plant intake.
Time basis: Pacific standard time prior to 2 a.m., Feb. 9, 1942; Pacific war time thereafter. To convert war time to standard time, subtract 1 hour.

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 1942.
Average discharge.- 23 years, 1,794 second-feet.
Extremes.- Maximum discharge during year, 15,900 second-feet Dec. 2 (gage height, 9.72 feet); minimum, about 405 second-feet (regulated) Aug. 29 (stage below inlet pipe); minimum daily, 584 second-feet Sept. 24, 26, 28.
1911-13, 1921-42: Maximum discharge, 34,800 second-feet Mar. 31, 1931 (gage height, 15.5 feet), from rating curve extended above 11,000 second-feet; minimum observed, 375 second-feet Aug. 10, 16, 1924, Sept. 20, 1936; minimum daily, 536 second-feet Oct. 22, 1930.
Remarks.- Records good except those for period of no gage-height record and periods when stage fell below inlet at times, which are fair. Water diverted from Cak Grove Fork is used in power plant on Clackamas River just above station. Considerable diurnal fluctuation during periods of low water; no regulation.
Cooperation.- Water-stage recorder graph and notes of discharge measurements furnished by Portland General Electric Co.

Rating tables, water year 1941-42 (gage height, in feet, and discharge, in second-feet)

Oct. 1 to Mar. 10						Mar. 11 to Sept. 30			
1.0	655	2.9	2,120	6.0	6,520	0.8	580	2.2	1,400
1.6	990	3.8	3,120	7.5	9,950	1.2	750	2.9	2,060
2.2	1,440	4.9	4,600	9.0	13,900	1.7	1,020	3.8	3,090

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	678	f710	a1,200	1,480	2,240	1,120	1,560	1,500	1,840	1,020	732	f644
2	710	740	a7,500	1,520	2,460	1,240	1,640	1,460	1,600	924	723	f628
3	700	849	a11,000	1,420	2,610	1,210	1,670	1,410	1,520	918	728	f640
4	844	955	5,630	1,360	4,320	1,170	1,700	1,520	1,440	875	736	f612
5	844	948	5,240	1,280	4,200	1,210	1,730	1,390	1,400	870	723	f636
6	800	896	4,360	1,280	3,760	1,220	1,740	1,340	1,490	930	710	f624
7	902	854	3,670	1,260	3,100	1,140	1,720	1,440	1,400	865	705	f640
8	1,280	805	3,050	1,300	2,690	1,220	1,710	1,540	1,370	860	705	f636
9	1,230	783	2,620	1,610	3,190	1,720	1,740	1,540	1,400	840	696	f640
10	1,090	772	2,300	1,490	3,840	3,780	1,780	1,490	1,500	830	696	f632
11	1,020	772	2,050	1,340	3,490	3,010	1,900	1,530	1,630	830	687	f632
12	1,100	816	1,850	1,440	3,010	2,610	1,900	1,380	1,500	800	682	f636
13	1,050	1,950	1,720	1,330	2,620	2,220	1,980	1,290	1,400	835	678	f628
14	976	3,960	1,600	1,280	2,320	1,950	1,950	1,260	1,240	815	669	f620
15	920	a7,500	1,950	1,230	2,120	1,750	1,900	1,390	1,400	830	664	f628
16	866	a5,300	3,250	1,210	1,990	1,720	1,850	1,510	1,380	900	682	f616
17	832	a3,300	3,040	1,220	1,820	1,550	1,760	1,450	1,310	924	660	f620
18	810	a2,600	4,510	1,140	1,660	1,480	1,680	1,500	1,300	855	674	f616
19	810	a2,000	10,200	1,140	1,560	1,410	1,620	1,480	1,320	800	669	f612
20	f800	a1,650	7,620	1,070	1,520	1,340	1,780	1,660	1,240	820	664	f596
21	f710	a1,450	4,860	1,060	1,420	1,310	1,870	1,760	1,200	795	660	f600
22	750	a1,300	3,910	1,020	1,330	1,320	1,890	2,470	1,180	785	664	f604
23	740	a1,200	4,240	1,060	1,420	1,330	1,780	2,430	1,090	775	674	f592
24	720	a1,140	3,450	1,160	1,310	1,250	1,720	2,160	1,100	770	f636	f584
25	715	a1,060	2,990	1,540	1,250	1,260	1,660	2,350	1,170	755	f648	f592
26	705	a1,000	2,650	1,970	1,240	1,200	1,600	2,560	1,190	750	f660	f584
27	f673	a940	2,330	2,740	1,190	1,150	1,580	2,430	1,170	746	f660	f604
28	788	a940	2,090	2,470	1,160	1,130	1,530	2,370	1,150	750	f678	f584
29	f750	a940	1,990	2,130	-	1,140	1,440	2,280	1,120	736	f644	f592
30	f730	a1,050	1,830	1,920	-	1,260	1,420	1,980	1,020	746	f660	f592
31	f691	-	1,680	1,820	-	1,320	-	1,860	-	736	f648	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acre-feet
October	26,234	1,280	673	846	1.73	2.00	52,030
November	49,180	7,500	710	1,639	3.36	3.75	97,550
December	116,400	11,000	1,200	3,755	7.69	8.87	230,900
Calendar year 1941	517,251	11,000	610	1,417	2.90	39.41	1,026,000
January	45,290	2,740	1,020	1,461	2.99	3.45	89,830
February	64,860	4,320	1,160	2,316	4.75	4.94	128,600
March	47,740	3,780	1,120	1,540	3.16	3.64	94,690
April	51,820	1,980	1,420	1,727	3.54	3.95	102,900
May	53,750	2,560	1,260	1,734	3.55	4.10	106,600
June	40,070	1,840	1,020	1,336	2.74	3.05	79,480
July	25,685	1,020	736	829	1.70	1.96	50,950
August	21,115	736	636	681	1.40	1.61	41,880
September	18,464	644	584	615	1.26	1.41	36,620
Water year 1941-42	560,608	11,000	584	1,536	3.15	42.73	1,112,000

Peak discharge.- Dec. 2 (about 11 p.m.) 15,900 sec.-ft.; Dec. 19 (5:30 p.m.) 11,400 sec.-ft.
a No gage-height record: discharge computed on basis of records for station near Cazadero.
f Computed from partly-estimated gage-height record (stage below inlet pipe part of each day).
Time basis: Pacific standard time prior to 2 a.m., Feb. 9, 1942; Pacific war time thereafter. To convert war time to standard time, subtract 1 hour.

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 of 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 1942.
Average discharge.- 33 years, 2,547 second-feet.
Extremes.- Maximum discharge during year, 23,000 second-feet Dec. 2 (elevation, 545.48 feet); minimum, 507 second-feet (regulated) Aug. 29; minimum daily, 642 second-feet Sept. 13, 20.
1909-42: 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 discharge, 587 second-feet Aug. 17, 1930.
Remarks.- Records good. Some diurnal fluctuation during low water due to Oak Grove power plant. No diversion or regulation.
Cooperation.- Water-stage recorder graph and notes of discharge measurements furnished by Portland General Electric Co.

Rating tables, water year 1941-42 (elevation, in feet, and discharge, in second-feet)

Oct. 1 to Dec. 19						Dec. 20 to Sept. 30					
533.2	850	535.0	2,130	539.0	7,310	532.8	615	536.0	3,010		
533.6	1,080	536.0	3,090	541.0	11,500	533.4	900	537.5	4,760		
534.0	1,350	537.0	4,260	543.0	16,400	534.1	1,340	539.0	7,090		
						535.0	2,050	540.5	10,100		

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	825	960	1,710	a1,950	3,160	1,510	2,300	2,310	2,600	1,440	880	736
2	916	960	10,400	a2,050	3,380	1,740	2,390	2,330	2,350	1,360	880	723
3	900	1,100	15,200	a1,900	3,470	1,780	2,360	2,240	2,160	1,310	865	710
4	1,420	1,290	8,780	a1,800	6,000	1,710	2,380	2,350	2,030	1,240	900	692
5	1,330	1,550	e,160	a1,680	6,150	1,750	2,410	2,200	1,940	1,220	870	678
6	1,180	1,470	7,030	1,680	5,600	1,770	2,410	2,160	2,100	1,250	855	664
7	1,400	1,330	5,700	1,660	4,460	1,670	2,360	2,260	1,890	1,190	840	660
8	1,890	1,200	4,620	1,820	3,790	1,700	2,330	2,360	1,900	1,160	830	669
9	1,770	1,100	3,900	2,430	5,260	2,360	2,360	2,280	2,030	1,120	825	664
10	1,540	1,070	3,380	2,300	6,720	5,940	2,370	2,240	2,080	1,110	840	674
11	1,410	1,060	2,980	2,130	5,750	4,530	2,530	2,240	2,510	1,140	810	660
12	1,610	1,120	2,700	2,200	4,680	3,790	2,540	2,020	2,310	1,070	790	664
13	1,480	2,410	2,490	2,100	3,910	3,280	2,610	1,890	2,100	1,090	780	642
14	1,350	6,400	2,370	1,990	3,400	2,880	2,570	1,810	1,890	1,070	780	664
15	1,260	11,500	2,710	1,890	3,040	2,560	2,540	2,100	2,210	1,090	770	660
16	1,160	8,070	4,960	1,860	2,850	2,440	2,410	2,480	2,180	1,210	775	660
17	1,090	5,070	4,520	1,820	2,550	2,240	2,360	2,340	2,100	1,330	770	660
18	1,040	3,580	6,680	1,710	2,360	2,140	2,210	2,280	2,090	1,160	775	660
19	1,100	2,900	14,000	1,690	2,180	2,020	2,120	2,360	2,100	1,060	770	656
20	1,040	2,400	10,500	1,580	2,090	1,910	2,300	2,600	1,960	1,050	765	642
21	944	2,130	7,180	1,540	1,970	1,860	2,380	2,640	1,800	1,020	755	660
22	949	1,910	5,680	1,490	1,850	1,920	2,460	3,860	1,770	994	760	651
23	905	1,740	6,340	1,510	1,900	1,940	2,350	4,040	1,620	982	750	664
24	878	1,640	5,040	1,710	1,740	1,840	2,310	3,440	1,610	966	748	660
25	861	1,520	4,230	2,330	1,700	1,820	2,410	3,990	1,780	938	736	664
26	856	1,440	3,690	3,000	1,650	1,840	2,350	4,360	1,940	944	760	660
27	835	1,350	3,240	4,170	1,620	1,820	2,300	3,980	1,880	911	760	669
28	1,090	1,350	2,910	3,720	1,580	1,790	2,250	3,640	1,710	916	780	669
29	1,120	1,350	2,710	3,230	-	1,780	2,150	3,410	1,640	895	750	660
30	1,020	1,580	2,470	2,830	-	1,900	2,150	3,020	1,510	911	750	669
31	960	-	2,280	2,630	-	2,030	-	2,710	-	900	732	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off: Inches	Run-off: Acre-feet
October	36,129	1,890	825	1,165	1.75	2.02	71,660
November	72,550	11,500	960	2,418	3.64	4.06	143,900
December	168,580	15,200	1,710	5,438	8.18	9.43	334,400
Calendar year 1941	710,834	15,200	680	1,947	2.93	39.75	1,410,000
January	66,400	4,170	1,490	2,142	3.22	3.71	131,700
February	94,810	6,720	1,580	3,386	5.09	5.30	188,100
March	70,260	5,940	1,510	2,266	3.41	3.93	139,400
April	70,970	2,610	2,120	2,366	3.56	3.97	140,800
May	83,840	4,360	1,810	2,705	4.07	4.69	166,300
June	59,790	2,600	1,510	1,993	3.00	3.34	118,600
July	34,047	1,440	895	1,098	1.65	1.90	67,530
August	24,649	900	732	795	1.20	1.38	48,890
September	20,064	736	642	669	1.01	1.12	39,800
Water year 1941-42	802,089	15,200	642	2,198	3.31	44.85	1,591,000

Peak discharge.- Nov. 15 (12 m.) 14,300 sec.-ft.; Dec. 2 (11 p.m.) 23,000 sec.-ft.; Dec. 4 (9 p.m.) 9,450 sec.-ft.; Dec. 19 (6 p.m.) 15,200 sec.-ft.; Feb. 4 (10:30 p.m.) 7,070 sec.-ft.; Feb. 10 (11 a.m.) 7,220 sec.-ft.
a No gage-height record; discharge computed on basis of records for station above Three Lynx Creek.
Time basis: Pacific standard time prior to 2 a.m., Feb. 9, 1942; Pacific war time thereafter. To convert war time to standard time, subtract 1 hour.

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 1942. 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.- 18 years (1924-42), 449 second-feet.
Extremes.- Maximum discharge during year, 1,320 second-feet Dec. 2 (gage height, 3.30 feet); minimum, 243 second-feet Oct. 1 (gage height, 1.68 feet).
1909-42: 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 notes of discharge measurements furnished by Portland General Electric Co.

Rating tables, water year 1941-42 (gage height, in feet, and discharge, in second-feet)

Oct. 1 to Dec. 2				Dec. 3 to Sept. 30			
1.6	215	2.2	500	1.7	235	2.5	650
1.8	290	2.4	630	1.9	320	3.0	1,020
2.0	385	2.7	840	2.2	475		

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	250	254	308	431	385	345	405	475	453	330	280	263
2	254	254	815	426	390	350	415	475	448	325	275	267
3	262	270	967	415	405	350	415	475	431	325	275	267
4	286	266	757	395	486	340	420	470	426	325	275	267
5	274	282	764	a380	486	340	420	464	420	320	275	267
6	270	266	708	375	475	345	426	453	448	320	275	267
7	282	262	638	365	453	340	436	453	431	320	271	271
8	290	258	572	380	453	a340	448	453	426	320	267	271
9	278	254	530	390	560	a400	453	453	420	316	263	271
10	274	254	497	370	602	a490	458	458	420	316	263	267
11	270	254	464	360	584	464	480	458	420	311	263	267
12	278	262	442	355	548	458	497	448	410	311	259	263
13	270	340	426	345	514	442	502	436	395	311	259	263
14	266	434	415	340	492	426	514	420	390	311	255	259
15	262	651	442	340	475	405	514	436	385	311	255	259
16	258	552	566	340	458	395	514	448	385	316	259	259
17	258	446	519	330	442	385	502	448	385	320	259	263
18	258	385	548	325	426	380	492	431	385	311	259	259
19	258	355	928	320	410	375	486	453	380	311	259	259
20	258	335	935	316	405	370	497	442	370	306	255	259
21	258	322	771	306	400	365	502	480	365	302	255	255
22	254	317	696	306	390	365	514	578	360	293	255	255
23	254	308	764	306	380	360	514	560	350	293	255	255
24	254	304	676	311	375	355	502	524	350	284	255	255
25	250	299	626	350	370	350	508	572	360	284	259	251
26	250	294	566	370	360	345	502	602	370	284	259	251
27	254	290	536	385	360	345	492	572	360	280	259	255
28	258	290	514	380	350	345	492	542	355	280	259	255
29	258	290	492	365	-	345	470	514	345	280	259	255
30	254	312	480	355	-	365	464	486	335	280	259	255
31	254	-	458	355	-	390	-	470	-	280	259	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acre-feet
October	8,154	290	250	263	2.09	2.41	16,170
November	9,660	651	254	322	2.56	2.85	19,160
December	18,820	967	308	607	4.82	5.55	37,330
Calendar year 1941	124,178	967	243	340	2.70	36.65	246,300
January	11,087	431	306	358	2.84	3.27	21,990
February	12,434	602	350	444	3.52	3.67	24,660
March	11,670	490	340	376	2.98	3.44	23,150
April	14,254	514	405	475	3.77	4.21	28,270
May	14,949	602	420	482	3.83	4.41	29,650
June	11,778	453	335	393	3.12	3.48	23,360
July	9,476	330	280	306	2.43	2.80	18,800
August	8,134	280	255	262	2.08	2.40	16,130
September	7,830	271	251	261	2.07	2.31	15,530
Water year 1941-42	138,246	967	250	379	3.01	40.80	274,200

Peak discharge.- Dec. 2 (11 to 12 p.m.) 1,320 sec.-ft.; Dec. 19 (11 p.m.) 1,010 sec.-ft.
a No gage-height record; discharge computed on basis of records for stations on Clackamas River.
Time basis: Pacific standard time prior to 2 a.m., Feb. 9, 1942; Pacific war time thereafter.
To convert war time to standard time, subtract 1 hour.

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 1942.

Extremes.- Maximum discharge during year, 937 second-feet Dec. 19 (gage height, 8.51 feet); minimum, 0.6 second-foot Sept. 27, 30.
1940-42: Maximum discharge, that of Dec. 19, 1941; minimum, 0.2 second-foot Aug. 14-16, 18-22, 1940, Aug. 2, 21, 22, 1941.

Remarks.- Records good except those below 5 second-feet, which are fair. Small diversions above station for irrigation; no regulation.

Rating tables, water year 1941-42 (gage height, in feet, and discharge, in second-feet)

Oct. 1 to Nov. 13		Nov. 14 to Sept. 30					
0.9	1.0	0.8	0.4	1.9	41	4.0	200
1.1	4.6	1.0	2.0	2.2	56	5.0	327
1.3	13	1.2	8.1	2.6	80	6.0	472
1.5	22	1.4	16	3.0	107	7.0	637
		1.6	26	3.5	148	8.0	830

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1.1	2.2	30	28	172	77	18	52	26	4.4	2.0	0.8
2	1.3	2.2	415	24	151	79	15	61	20	3.9	1.8	.8
3	1.2	5.0	500	23	157	73	14	52	16	3.4	1.8	.8
4	2.4	9.6	270	22	383	58	12	44	13	3.2	1.8	1.2
5	2.1	13	160	66	331	60	11	35	11	3.0	1.8	1.2
6	1.8	12	154	61	229	55	10	28	14	3.0	1.6	1.2
7	1.6	9.1	107	40	157	48	9.3	21	11	3.0	1.4	1.2
8	1.8	7.5	82	32	131	43	8.9	16	9.7	3.0	1.3	1.2
9	1.9	6.6	66	36	172	52	8.5	15	12	2.7	1.6	1.1
10	2.1	5.8	52	29	180	62	8.1	14	12	2.7	1.6	1.1
11	2.5	5.4	44	25	138	56	7.4	11	13	3.9	1.7	1.1
12	5.4	6.2	38	27	106	61	7.0	10	11	4.2	1.6	1.2
13	4.2	18	36	28	82	58	7.0	8.9	8.9	3.4	1.6	1.1
14	3.0	160	42	32	68	52	7.4	8.1	7.7	3.2	1.4	1.2
15	2.5	315	59	28	56	44	7.4	27	8.1	3.4	1.3	1.0
16	2.2	216	223	32	48	40	7.0	34	8.5	4.4	1.3	1.1
17	2.1	109	231	41	44	36	6.2	22	8.1	5.5	1.3	1.2
18	2.0	72	345	40	38	35	6.6	17	8.1	4.4	1.2	1.1
19	2.7	58	740	35	32	30	6.2	28	8.1	3.7	1.2	.9
20	2.7	45	652	31	37	26	5.5	32	7.0	3.4	1.0	.9
21	2.4	36	296	30	52	24	5.1	24	6.2	3.2	.8	1.0
22	2.0	30	229	28	40	22	5.1	48	5.1	3.0	.8	.8
23	2.1	26	217	35	40	21	5.9	82	5.1	2.5	.8	.8
24	1.4	21	141	79	83	22	6.2	69	4.8	2.7	1.1	.8
25	1.4	17	120	181	72	30	7.4	92	7.4	2.7	.9	.9
26	1.7	15	89	281	63	30	8.5	92	12	a2.5	1.0	.7
27	1.8	13	70	264	106	26	11	84	8.5	a2.3	1.1	.6
28	4.2	18	58	210	93	22	21	70	7.0	h2.1	1.0	.7
29	3.6	23	49	133	-	20	14	53	5.9	a2.1	1.0	.7
30	2.5	24	42	97	-	18	17	41	5.1	a2.0	1.0	.6
31	2.2	-	36	88	-	17	-	32	-	a2.0	.9	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acre-feet
October	71.9	5.4	1.1	2.32	0.082	1.09	143
November	1,302.6	315	2.2	43.4	1.54	1.72	2,580
December	5,593	740	30	180	6.38	7.38	11,090
Calendar year 1941	12,699.2	740	0.2	34.8	1.23	16.75	25,180
January	2,106	281	22	67.9	2.41	2.78	4,180
February	3,261	383	32	116	4.11	4.30	6,470
March	1,297	79	17	41.8	1.48	1.71	2,570
April	283.7	21	5.1	9.46	.335	.37	563
May	1,223.0	92	8.1	39.5	1.40	1.61	2,430
June	300.3	26	4.8	10.0	.355	.40	596
July	98.9	5.5	2.0	3.19	.113	.13	196
August	40.7	2.0	.8	1.31	.046	.05	81
September	29.0	1.2	.6	.97	.034	.04	58
Water year 1941-42	15,607.1	740	.6	42.8	1.52	20.58	30,960

Peak discharge.- Nov. 15 (3 p.m.) 380 sec.-ft.; Dec. 2 (10 p.m.) 709 sec.-ft.; Dec. 19 (11:50 p.m.) 937 sec.-ft.; Jan. 26 (4 p.m.) 355 sec.-ft.; Feb. 4 (6 p.m.) 445 sec.-ft.
a No gage-height record; discharge interpolated.
h Computed from staff-gage reading.
Time basis: Pacific standard time prior to 2 a.m., Feb. 9, 1942; Pacific war time thereafter. To convert war time to standard time, subtract 1 hour.

Salmon Creek near Brush Prairie, Wash.

Location.- Water-stage recorder, lat. 45°43'45", long. 122°35'50", in NW¼SW¼ sec. 20, T. 3 N., R. 2 E., 2½ miles west of Brush Prairie and 7 miles northeast of Vancouver.

Records available.- Aug. 7 to Nov. 3, 1941 (discontinued).

Extremes.- Maximum discharge during period, 151 second-feet Oct. 10 or 11 (gage height, 1.63 feet, from recorded range of stage during period of no gage-height record); minimum, 8.0 second-feet Aug. 20 (gage height, 0.56 foot).

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

Discharge, in second-feet, for the period Aug. 7 to Nov. 3, 1941

Day	Aug.	Sept.	Oct.	Nov.
1	-	20	27	36
2	-	35	27	35
3	-	23	27	51
4	-	33	49	-
5	-	36	40	-
6	-	25	36	-
7	9.2	20	41	-
8	9.2	17	85	-
9	9.2	15	73	-
10	9.2	27	a128	-
11	9.8	38	a116	-
12	11	31	a128	-
13	12	29	a 82	-
14	10	35	a 66	-
15	9.8	35	a 58	-
16	9.2	30	a 54	-
17	9.8	26	51	-
18	9.2	24	50	-
19	8.6	27	59	-
20	8.0	25	51	-
21	8.6	23	47	-
22	9.2	22	45	-
23	10	21	42	-
24	12	20	40	-
25	15	20	40	-
26	23	20	38	-
27	21	20	38	-
28	22	18	42	-
29	16	18	38	-
30	14	19	35	-
31	13	-	36	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
August 7-31	298.0	23	8.0	11.9	591
September	752	38	15	25.1	1,490
October	1,689	128	27	54.5	3,350
November 1-3	122	-	-	-	242
The period	-	-	-	-	5,670

a No gage-height record; discharge computed on basis of records for East Fork of Lewis River near Heisson.

Time basis: Pacific standard time.

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 (revised).
Records available.- July 1910 to March 1912 (gage heights only), June 1924 to September 1942. July 1909 to June 1910 at site 1,000 feet upstream from Swift Creek.
Average discharge.- 18 years (1924-42), 2,684 second-feet.
Extremes.- Maximum discharge during year, 22,700 second-feet Dec. 19 (gage height, 11.35 feet); minimum, 631 second-feet Sept. 29 (gage height, 3.14 feet).
1910-12, 1924-42: Maximum discharge, 54,400 second-feet Dec. 21, 1933 (gage height, 15.7 feet, datum then in use), from rating curve extended above 15,000 second-feet; minimum, 454 second-feet Oct. 21, 1931 (gage height, 0.01 foot, datum then in use).
Remarks.- Records good except those above 5,000 second-feet which are fair. No diversion or regulation.

Rating tables, water year 1941-42 (gage height, in feet, and discharge, in second-feet)

Oct. 1 to Dec. 18				Dec. 19 to Sept. 30					
3.8	1,060	6.0	3,750	3.2	668	5.0	2,520	9.0	13,200
4.1	1,300	6.5	4,680	3.5	874	5.5	3,330	10.0	17,000
4.5	1,660	7.0	5,800	3.8	1,120	6.0	4,290	11.0	21,100
5.0	2,250	7.5	7,090	4.1	1,410	7.0	6,710		
5.5	2,950			4.5	1,860	8.0	9,750		

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,090	1,170	2,660	2,380	2,990	1,460	2,450	2,520	2,380	1,680	966	781
2	1,060	1,130	8,150	2,310	2,830	1,740	2,520	2,380	2,310	1,630	950	781
3	1,060	1,540	11,400	2,240	2,990	1,680	2,450	2,310	2,240	1,580	958	781
4	1,210	1,560	8,530	2,040	4,190	1,580	2,520	2,310	2,180	1,520	1,040	781
5	1,060	1,720	6,820	1,920	4,290	1,580	2,670	2,180	2,180	1,460	982	774
6	1,060	1,560	7,090	1,920	4,090	1,520	2,670	2,240	2,750	1,410	950	754
7	1,210	1,470	6,300	1,860	3,800	1,520	2,670	2,310	2,450	1,360	942	754
8	1,420	1,420	5,330	1,860	3,600	1,520	2,670	2,450	2,310	1,310	920	747
9	1,660	1,380	4,580	1,800	3,600	2,940	2,750	2,600	2,750	1,280	912	740
10	3,020	1,340	4,010	1,740	3,600	3,800	2,830	2,520	3,420	1,260	904	726
11	2,880	1,340	3,580	1,680	3,510	3,240	3,080	2,310	3,330	1,360	889	720
12	3,500	1,300	3,180	1,630	3,240	2,910	3,240	2,180	2,990	1,410	874	720
13	3,100	2,540	2,880	1,580	2,990	2,750	3,160	2,040	2,750	1,210	852	726
14	2,660	5,110	2,800	1,520	2,750	2,520	3,330	2,040	2,670	1,200	838	714
15	2,380	6,560	3,340	1,520	2,600	2,380	3,240	2,040	3,420	1,300	845	714
16	2,180	5,800	6,300	1,460	2,380	2,240	3,160	2,040	3,420	1,460	838	700
17	2,060	4,780	5,800	1,410	2,240	2,240	3,160	2,040	3,330	1,580	831	681
18	1,880	4,100	6,830	1,410	2,110	2,110	2,910	1,980	3,160	1,310	831	674
19	1,880	3,580	18,600	1,360	2,040	1,980	2,830	2,240	2,910	1,240	824	674
20	1,720	3,100	14,300	1,310	1,980	1,920	3,080	2,520	2,750	1,200	824	681
21	1,610	2,800	9,750	1,310	1,920	1,860	3,420	2,830	2,520	1,160	824	668
22	1,520	2,520	7,860	1,290	1,800	1,920	3,330	3,510	2,330	1,160	816	662
23	1,470	2,320	7,270	1,310	1,740	1,860	2,990	3,330	2,240	1,120	802	662
24	1,420	2,180	5,910	1,520	1,680	1,740	2,910	2,990	2,180	1,090	802	662
25	1,380	2,250	5,170	2,240	1,630	1,680	2,750	3,330	2,110	1,070	774	656
26	1,340	2,060	4,400	2,520	1,580	1,630	2,600	3,330	2,040	1,050	781	656
27	1,300	1,940	3,890	2,990	1,580	1,630	2,380	3,240	1,920	1,040	781	650
28	1,300	2,120	3,510	2,990	1,520	1,630	2,310	3,080	1,860	1,030	795	650
29	1,250	2,320	3,240	2,750	-	1,630	2,180	2,830	1,800	1,010	788	644
30	1,210	2,590	2,910	2,520	-	1,680	2,240	2,670	1,740	990	781	650
31	1,210	-	2,670	2,450	-	1,920	-	2,520	-	966	781	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acre-feet
October	53,100	3,500	1,060	1,713	3.56	4.11	105,300
November	75,600	6,560	1,130	2,520	5.24	5.85	150,000
December	189,060	18,600	2,660	6,099	12.7	14.62	375,000
Calendar year 1941	807,629	18,600	680	2,213	4.60	62.45	1,602,000
January	58,840	2,990	1,290	1,898	3.95	4.55	116,700
February	75,270	4,290	1,520	2,688	5.59	5.82	149,300
March	62,810	3,800	1,460	2,026	4.21	4.86	124,600
April	84,500	3,420	2,180	2,817	5.86	6.53	167,600
May	78,910	3,510	1,980	2,545	5.29	6.10	156,500
June	76,490	3,420	1,740	2,550	5.30	5.91	151,700
July	39,446	1,680	966	1,272	2.64	3.05	78,240
August	26,695	1,040	774	861	1.79	2.06	52,950
September	21,183	781	644	706	1.47	1.64	42,020
Water year 1941-42	841,904	18,600	644	2,307	4.80	65.10	1,670,000

Peak discharge.- Dec. 3 (3:45 a.m.) 12,800 sec.-ft.; Dec. 19 (8 a.m.) 22,700 sec.-ft.; Dec. 23 (12:30 a.m.) 8,470 sec.-ft.
Time basis: Pacific standard time prior to 2 a.m., Feb. 9, 1942; Pacific war time thereafter. To convert war time to standard time, subtract 1 hour.

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 (revised).

Records available.- July 1922 to September 1942. July to November 1909 at site 3 miles upstream.

Average discharge.- 19 years (1923-42), 4,395 second-feet, adjusted for storage since March 1931.

Extremes (regulated).- Maximum discharge during year, 40,600 second-feet Dec. 19 (gage height, 17.4 feet); minimum, 726 second-feet Sept. 14 (gage height, 1.03 feet); minimum daily discharge, 814 second-feet Sept. 7.

1909, 1922-42: 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 from spillway-gate openings; no flow at times on June 30 and in periods 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 2,000 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 1941 to September 1942.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	3,340	3,620	3,610	a3,900	†2,670	†3,440	3,690	4,390	3,670	3,040	1,460	1,340
2	2,630	†3,520	14,600	3,780	3,380	3,480	3,670	4,300	3,430	3,460	†1,480	1,310
3	2,600	3,720	18,900	3,620	3,370	3,740	3,630	†4,330	3,400	3,160	1,580	1,320
4	2,500	3,890	13,800	†3,740	9,950	3,800	3,550	3,930	2,940	1,550	1,540	1,560
5	†2,370	3,810	11,800	3,860	9,230	3,710	†2,630	3,680	3,170	†1,430	1,600	1,160
6	3,080	3,790	12,200	3,830	8,000	3,820	3,470	3,470	3,760	2,230	1,590	†880
7	2,980	3,840	†9,960	3,840	7,180	3,780	3,310	3,630	†3,400	2,340	1,570	814
8	2,680	3,820	8,200	3,850	†7,450	†3,120	3,000	3,670	3,490	1,960	1,440	1,400
9	2,450	†3,320	7,250	3,540	7,930	3,430	2,990	3,950	3,560	1,910	†1,330	1,160
10	2,870	3,560	6,160	3,750	7,810	3,590	2,910	†3,590	4,940	1,870	1,360	1,180
11	2,570	3,580	5,370	†2,880	6,770	3,520	3,320	3,830	5,200	1,240	1,280	1,000
12	†2,490	3,710	4,690	3,450	6,140	3,640	†2,690	3,500	4,550	†1,010	1,360	954
13	2,800	3,650	4,290	a3,600	5,420	3,510	3,310	3,220	4,190	1,550	1,350	†977
14	3,110	3,540	†4,080	a3,700	4,790	3,560	3,360	3,190	†3,930	1,480	1,390	1,280
15	3,790	3,580	5,300	3,770	†4,310	†3,470	3,320	3,160	5,780	1,380	1,310	1,540
16	4,190	†4,830	10,000	3,690	4,030	4,230	3,300	3,390	5,640	1,290	†1,290	1,110
17	3,750	8,710	9,740	3,610	3,790	3,630	3,730	†2,610	5,860	2,160	1,400	1,390
18	3,300	7,050	15,900	†a3,200	3,470	3,640	4,150	3,260	5,140	2,130	1,310	1,190
19	†3,350	5,390	37,600	a3,400	3,360	3,730	†3,310	3,540	4,710	†1,970	1,300	1,310
20	3,690	5,310	26,000	a3,650	3,340	3,740	4,370	3,510	4,260	1,850	1,330	†1,470
21	3,620	4,810	†16,100	3,520	2,930	3,670	3,310	2,880	†4,210	1,880	1,300	1,680
22	3,460	4,160	a15,000	3,520	†3,060	†2,770	4,220	2,990	3,750	1,870	1,200	1,420
23	3,120	†3,710	a15,500	3,520	3,170	3,400	4,340	4,430	3,710	1,810	†a980	1,520
24	3,070	3,670	a12,000	3,460	3,460	3,660	3,680	†4,050	3,570	1,790	a1,330	1,620
25	3,080	3,680	a9,000	†2,710	3,650	3,690	3,710	4,340	3,540	1,500	1,290	1,660
26	†2,520	3,680	a7,000	3,200	3,690	3,760	†3,790	5,160	3,780	†1,960	1,350	1,460
27	3,160	3,780	a6,000	3,220	3,770	3,710	3,440	5,620	3,340	1,440	1,140	†1,590
28	3,710	3,790	†a5,800	3,300	3,790	3,730	3,650	5,770	†2,620	1,580	1,330	1,580
29	3,490	3,700	5,460	3,440	-	†3,080	3,070	5,010	3,220	1,700	1,170	1,380
30	3,880	†3,140	4,590	3,380	-	3,530	3,540	4,250	3,360	1,630	†1,060	1,690
31	3,850	-	a4,150	3,350	-	3,600	-	†4,200	-	1,460	1,460	-

Month	Observed				Change in contents in Lake Merwin Reservoir in acre-feet	Adjusted for change in contents			
	Discharge in second-feet			Run-off in acre-feet		Run-off in acre-feet	Discharge in second-feet		Run-off in inches
	Maximum	Minimum	Mean				Mean	Per square mile	
October	4,190	2,370	3,145	193,400	+4,900	198,300	3,225	4.41	5.09
November	8,710	3,140	4,145	246,700	+24,100	270,800	4,551	6.23	6.95
December	37,600	3,610	10,710	658,700	+1,200	659,900	10,730	14.7	16.92
Calendar year 1941	37,600	730	3,565	2,581,000	+7,800	2,589,000	3,607	4.93	66.30
January	3,900	2,710	3,525	216,800	-19,500	197,300	3,209	4.39	5.06
February	9,950	2,670	4,997	277,500	+7,800	285,300	5,137	7.03	7.32
March	4,230	2,770	3,586	220,500	-3,500	217,000	3,529	4.83	5.57
April	4,370	2,630	3,482	207,200	+23,600	230,800	3,879	5.31	5.92
May	5,770	2,610	3,898	239,700	0	239,700	3,898	5.33	6.15
June	5,860	2,620	4,004	238,300	-4,800	233,500	3,924	5.37	5.99
July	3,460	1,010	1,853	113,900	+4,400	118,300	1,924	2.63	3.03
August	1,600	980	1,351	83,070	+400	83,470	1.356	1.86	2.14
September	1,690	814	1,332	79,270	-20,500	58,770	988	1.35	1.51
Water year 1941-42	37,600	814	3,883	2,775,000	+18,100	2,793,000	3,858	5.28	71.65

† Sunday

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

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

East Fork of Lewis River near Heisson, Wash.

Location.- Water-stage recorder, lat. 45°50', long. 122°28', in N½ sec. 17, T. 4 N., R. 3 E., just upstream from Basket Creek, 1½ miles northeast of Heisson and 20 miles upstream from mouth. Datum of gage is 366.8 feet above mean sea level (from river-profile surveys).

Drainage area.- 125 square miles (revised).

Records available.- September 1929 to September 1942.

Average discharge.- 13 years, 704 second-feet.

Extremes.- Maximum discharge during year, 9,920 second-feet Dec. 19 (gage height, 9:89 feet); minimum, 50 second-feet Sept. 23-25 (gage height, 0.28 foot).
1929-42: 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. No diversion or regulation.

Rating table, water year 1941-42 (gage height, in feet, and discharge, in second-feet)

0.5	68	2.0	363	5.0	2,100
.7	91	2.5	535	6.0	3,160
1.0	133	3.0	751	7.0	4,570
1.3	187	3.5	1,010	8.0	6,230
1.6	254	4.0	1,320	9.0	8,080

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July.	Aug.	Sept.
1	297	247	555	535	1,560	348	682	1,190	728	333	143	67
2	300	237	2,620	497	1,500	578	596	1,190	638	305	138	66
3	357	396	3,100	461	1,560	616	535	1,010	575	234	136	68
4	638	369	2,640	424	2,740	535	516	875	516	239	140	70
5	516	683	2,580	388	2,240	535	516	775	461	254	135	67
6	444	596	2,640	372	1,880	516	479	704	479	214	126	69
7	572	497	1,960	360	1,530	479	461	659	444	237	117	64
8	955	444	1,460	435	1,640	479	424	596	444	221	112	63
9	928	404	1,160	575	2,430	1,230	407	575	555	215	112	64
10	1,420	369	955	516	2,140	1,530	410	575	775	212	115	66
11	1,280	369	799	479	1,760	1,040	410	497	751	244	117	64
12	1,420	339	704	461	1,420	849	382	461	659	254	108	61
13	1,100	905	638	444	1,160	751	372	424	555	232	103	60
14	875	2,340	638	420	982	659	427	407	516	202	91	60
15	728	3,100	934	394	849	596	427	444	1,230	228	86	60
16	638	2,690	2,440	427	751	596	391	444	1,460	442	87	62
17	575	1,960	2,240	461	659	596	394	397	1,220	442	89	62
18	516	1,420	3,630	420	575	596	360	375	1,040	322	87	59
19	497	1,130	8,280	394	535	575	339	615	901	272	84	57
20	444	901	5,210	369	516	535	345	659	775	232	86	54
21	404	775	3,420	357	479	516	342	596	659	212	91	55
22	372	682	2,860	339	444	555	375	775	575	204	80	53
23	348	596	3,100	360	420	516	360	775	516	198	74	52
24	330	535	2,280	427	417	497	414	704	479	183	76	51
25	316	516	1,720	375	388	497	555	824	516	172	81	51
26	302	497	1,360	1,220	363	479	616	1,280	575	164	89	53
27	295	461	1,100	1,600	372	461	596	1,530	497	163	83	54
28	295	516	928	1,530	351	444	596	1,420	461	154	91	60
29	269	497	799	1,220	-	444	575	1,220	417	152	86	59
30	256	535	704	982	-	444	730	1,010	366	152	76	58
31	256	-	616	875	-	555	-	849	-	147	72	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acre-feet
October	17,943	1,420	256	579	4.63	5.34	35,590
November	25,006	3,100	237	834	6.67	7.44	49,600
December	64,070	8,280	555	2,067	16.5	19.06	127,100
Calendar year 1941	221,092	8,280	55	606	4.85	65.78	438,600
January	18,617	1,600	339	601	4.81	5.54	36,930
February	31,661	2,740	351	1,131	9.06	9.42	62,800
March	19,047	1,530	348	614	4.91	5.67	37,780
April	14,032	730	339	468	3.74	4.17	27,830
May	23,855	1,530	375	770	6.16	7.10	47,320
June	19,783	1,460	366	659	5.27	5.89	39,240
July	7,335	462	147	237	1.90	2.18	14,550
August	3,111	143	72	100	.800	.93	6,170
September	1,809	70	51	60.3	.482	.54	3,590
Water year 1941-42	246,269	8,280	51	675	5.40	73.28	488,500

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

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 1942. July 1911 to December 1919 at site 1 mile upstream, published as Cowlitz River at Lewis, Wash.

Average discharge.- 21 years, 1,551 second-feet.

Extremes.- Maximum discharge during year, 10,100 second-feet Dec. 2 (gage height, 8.87 feet); minimum, 261 second-feet Sept. 18 (gage height, 3.07 feet).
1911-19, 1929-42: 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 good except those for period of shifting control, which are fair. No diversion or regulation.

Rating table, water year 1941-42 (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Oct. 1 to Nov. 13)

3.1	273	4.4	1,040	6.2	3,270
3.4	411	5.0	1,570	7.0	4,910
3.8	633	5.6	2,290	8.0	7,410

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	695	469	1,570	832	867	432	1,100	1,100	2,020	2,670	818	474
2	661	447	7,130	818	832	495	1,120	1,040	2,220	2,590	812	512
3	1,310	837	6,530	792	853	495	1,110	1,020	2,080	2,440	846	546
4	1,670	1,160	3,850	740	1,060	463	1,160	1,000	2,150	2,220	1,000	551
5	1,220	2,430	2,840	689	1,160	490	1,290	988	2,440	1,900	909	523
6	1,040	1,620	2,920	676	1,070	468	1,290	1,120	3,650	1,620	902	463
7	1,160	1,310	2,440	652	980	458	1,420	1,470	3,000	1,520	874	463
8	1,220	1,100	1,960	664	944	479	1,470	1,720	2,590	1,340	846	463
9	1,510	960	1,720	708	937	1,060	1,520	1,900	2,840	1,240	853	406
10	2,280	865	1,520	766	995	1,470	1,870	1,620	3,000	1,200	846	391
11	2,080	944	1,380	766	1,020	1,290	2,020	1,380	2,440	1,200	754	411
12	2,150	842	1,200	773	951	1,120	2,020	1,240	2,220	1,080	684	468
13	1,620	1,850	1,120	792	f874	1,020	1,840	1,120	2,520	1,020	639	447
14	1,360	4,260	1,060	773	799	930	1,900	1,200	3,990	1,120	670	401
15	1,180	3,460	1,100	760	f760	846	1,620	1,290	f4,690	1,290	670	437
16	1,090	2,670	1,900	747	f695	792	1,520	1,420	3,360	1,520	695	362
17	1,170	2,020	1,620	721	658	760	1,420	1,420	2,840	1,720	664	321
18	1,020	1,670	1,760	695	615	734	1,340	1,470	2,440	1,420	702	316
19	1,100	1,380	5,100	676	586	689	1,420	2,020	2,150	1,290	734	357
20	992	1,200	4,260	658	574	652	1,720	3,000	1,960	1,240	621	406
21	912	1,100	2,920	633	546	645	2,440	3,850	1,840	1,240	670	401
22	850	972	2,360	621	528	633	2,150	4,470	1,840	1,240	676	432
23	797	895	2,080	609	506	604	1,670	3,650	2,150	1,160	676	442
24	738	839	1,840	645	485	574	1,470	3,270	1,960	1,080	546	442
25	675	1,060	1,570	760	463	557	1,340	3,460	1,840	1,050	458	421
26	627	1,030	1,420	881	447	534	1,200	3,090	1,900	1,030	416	401
27	595	951	1,290	1,020	437	523	1,100	2,590	1,960	1,020	391	386
28	576	1,020	1,160	1,020	432	517	1,020	2,220	2,150	980	406	377
29	545	1,340	1,070	958	-	534	995	2,080	2,290	916	386	372
30	509	1,620	1,010	888	-	621	1,040	2,020	2,590	867	406	367
31	492	-	930	846	-	806	-	2,020	-	832	427	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off: Inches	Run-off: Acre-feet
October	33,844	2,280	492	1,092	3.80	4.39	67,130
November	42,321	4,260	447	1,411	4.92	5.43	83,940
December	70,630	7,130	930	2,278	7.94	9.15	140,100
Calendar year 1941	401,266	7,130	385	1,099	3.83	52.03	795,900
January	23,579	1,020	609	761	2.65	3.03	46,770
February	21,074	1,160	432	753	2.62	2.73	41,800
March	21,691	1,470	432	700	2.44	2.81	43,020
April	44,455	2,440	995	1,482	5.16	5.73	88,180
May	61,258	4,470	988	1,976	6.89	7.91	121,500
June	75,190	4,690	1,840	2,506	8.73	9.74	149,100
July	43,055	2,670	832	1,389	4.84	5.53	85,400
August	20,977	1,000	386	677	2.36	2.72	41,610
September	12,759	551	316	425	1.48	1.65	25,310
Water year 1941-42	470,833	7,130	316	1,290	4.49	61.01	933,900

Peak discharge.- Dec. 2 (1-2 p.m.) 10,000 sec.-ft.; Dec. 3 (1 a.m.) 8,860 sec.-ft.; Dec. 19 (7 a.m.) 5,730 sec.-ft.

f Fragmentary gage-height record; discharge computed from partially estimated gage heights.

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

Cowlitz River near Mayfield, Wash.

Location.- Water-stage recorder, lat. 46°50'40", long. 122°36'50", in NW¼ sec. 24, T. 12 N., R. 1 E., 1 mile upstream from Mill Creek, 2 miles downstream from Winston Creek, and 2½ miles west of Mayfield. Datum of gage is 226.6 feet above mean sea level, datum of 1929.

Drainage area.- 1,400 square miles.

Records available.- April 1934 to September 1942. August 1910 to November 1911 at site 2½ miles upstream, published as Cowlitz River at Mayfield, Wash.

Extremes.- Maximum discharge during year, 33,600 second-feet Dec. 20 (gage height, 19.26 feet); minimum, 1,080 second-feet Sept. 19 (gage height, 7.74 feet).

1910-11, 1934-42: Maximum discharge, 38,900 second-feet Nov. 6, 1934 (gage height, 20.1 feet), from rating curve extended above 18,000 second-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. 6, 1934.

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

Rating tables, water year 1941-42 (gage height, in feet, and discharge, in second-feet)

Oct. 1 to Dec. 19						Dec. 20 to Sept. 30			
8.3	1,850	10.0	4,570	14.0	14,600	7.8	1,150	11.0	6,520
8.6	2,250	11.0	6,530	16.0	21,200	8.3	1,760	12.0	8,920
9.0	2,850	12.0	8,920	18.0	28,700	9.0	2,810		
9.5	3,680	13.0	11,600	19.0	32,600	10.0	4,520		

Note:- Same as preceding table above 12.0 feet.

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2,210	2,240	5,170	5,040	5,140	2,840	4,200	4,910	6,010	5,820	2,440	1,430
2	2,440	2,150	6,910	4,760	5,050	3,130	4,850	5,080	5,860	5,750	2,380	1,460
3	2,580	2,540	18,700	4,570	4,930	3,400	4,830	4,910	5,730	5,530	2,360	1,500
4	4,590	3,480	16,200	4,320	6,130	3,150	4,760	4,810	5,610	5,310	2,440	1,550
5	4,570	4,790	13,600	4,050	7,480	3,180	4,850	4,630	5,610	5,000	2,590	1,550
6	3,940	5,340	13,400	3,900	6,860	3,200	5,060	4,480	6,610	4,540	2,420	1,510
7	4,170	4,500	12,700	3,790	6,150	3,030	5,120	4,680	7,740	4,230	2,370	1,440
8	4,610	3,980	10,900	3,810	5,860	2,970	5,290	5,270	6,810	3,960	2,310	1,400
9	4,880	3,610	9,360	4,160	6,050	4,090	5,370	5,880	7,150	3,710	2,280	1,380
10	6,750	3,360	8,110	4,310	6,370	6,540	5,510	6,320	S,360	3,570	2,250	1,310
11	a8,000	3,360	7,130	4,130	6,520	6,480	5,940	5,800	9,180	3,540	2,220	1,250
12	a8,000	3,360	6,380	4,160	6,130	5,800	6,740	5,230	8,180	3,590	2,100	1,260
13	a7,500	3,800	5,810	4,160	5,670	5,250	6,810	a5,000	7,220	3,250	1,980	1,330
14	a7,500	9,360	5,430	4,050	5,270	4,850	6,790	a4,700	7,080	3,130	1,910	1,310
15	a5,500	14,300	5,430	3,930	4,950	4,480	6,480	a4,500	9,840	3,470	1,900	1,260
16	a5,000	12,700	8,540	3,860	4,650	4,290	5,960	a4,500	11,500	3,980	1,900	1,270
17	a4,800	10,300	9,600	3,840	4,360	4,180	5,710	a4,700	10,200	5,050	1,910	1,190
18	a4,500	8,360	9,900	3,690	4,110	4,140	5,370	a4,700	9,230	4,850	1,890	1,140
19	a4,300	7,110	26,800	3,560	3,900	3,910	5,100	a4,800	8,460	4,180	1,900	1,120
20	a4,000	6,130	31,000	3,420	3,780	3,710	5,230	a5,500	7,600	3,840	1,910	1,140
21	3,680	5,510	23,000	3,320	3,690	3,590	6,150	a6,500	6,900	3,620	1,870	1,180
22	3,440	5,040	17,900	3,230	3,490	3,720	7,270	a8,000	6,370	3,490	1,840	1,190
23	3,240	4,610	16,200	3,180	3,350	3,620	6,810	9,410	6,170	3,350	1,840	1,220
24	3,040	4,280	13,400	3,300	3,270	3,490	5,920	8,510	6,200	3,180	1,820	1,230
25	2,880	4,570	11,200	4,140	3,130	3,420	5,670	8,360	6,030	3,030	1,730	1,230
26	2,750	4,570	9,520	4,540	3,020	3,300	5,530	8,660	5,780	2,940	1,700	1,200
27	2,630	4,320	8,260	5,120	2,810	3,220	5,000	8,510	5,750	2,860	1,580	1,180
28	2,580	4,190	7,380	5,430	2,890	3,160	4,700	7,770	5,610	2,790	1,580	1,190
29	2,480	4,520	6,720	5,210	-	3,130	4,480	7,130	5,730	2,680	1,560	1,160
30	2,360	4,840	6,150	4,890	-	3,180	4,320	6,590	5,690	2,600	1,490	1,150
31	2,260	-	5,630	4,630	-	3,400	-	6,280	-	2,490	1,440	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acre-feet
October	130,180	8,000	2,210	4,199	3.00	3.46	258,200
November	161,720	14,300	2,150	5,391	3.85	4.30	320,800
December	356,450	31,000	5,170	11,500	8.21	9.47	707,000
Calendar year 1941	1,512,570	31,000	1,220	4,144	2.96	40.20	3,000,000
January	128,600	5,430	3,180	4,148	2.96	3.42	255,100
February	135,000	7,480	2,810	4,821	3.44	3.59	267,800
March	119,850	6,540	2,840	3,866	2.76	3.18	237,700
April	165,820	7,270	4,200	5,527	3.95	4.40	328,900
May	186,120	9,410	4,480	6,004	4.29	4.94	369,200
June	214,210	11,500	5,610	7,140	5.10	5.69	424,900
July	119,320	5,820	2,490	3,849	2.75	3.17	236,700
August	61,920	2,590	1,440	1,997	1.43	1.64	122,800
September	38,730	1,550	1,120	1,291	.922	1.03	76,820
Water year 1941-42	1,817,920	31,000	1,120	4,981	3.56	48.29	3,606,000

Peak discharge:- Dec. 3 (12:30 p.m.) 20,200 sec.-ft.; Dec. 20 (3 a.m.) 33,600 sec.-ft.; Dec. 23 (2 a.m.) 17,200 sec.-ft.

a No gage-height record; discharge computed on basis of recorded ranges of stage and records for stations at Packwood and at Castle Rock.

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

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 (revised).

Records available.- December 1926 to September 1942.

Average discharge.- 15 years, (1927-42) 8,375 second-feet.

Extremes.- Maximum discharge during year, 58,100 second-feet Dec. 20 (gage height, 19.73 feet); minimum, 1,510 second-feet Sept. 30 (gage height, 6.13 feet).
1926-42: 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 for period of shifting control, which are good. No diversion or regulation.

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2,670	2,990	7,190	7,680	9,590	4,120	5,520	7,600	7,760	7,600	2,950	1,840
2	3,440	2,900	9,680	7,060	9,620	4,360	6,600	7,760	7,290	7,520	2,880	1,860
3	3,300	3,240	24,200	6,760	9,120	5,430	6,580	7,340	7,190	7,240	2,810	1,880
4	5,520	4,630	24,900	6,390	13,000	4,860	6,410	7,080	6,860	6,860	2,940	1,910
5	6,600	5,660	21,200	5,890	17,200	4,730	6,410	6,630	6,730	6,510	3,130	1,930
6	5,590	6,860	19,800	5,540	14,300	5,050	6,600	6,290	7,420	5,960	2,940	1,910
7	5,590	6,030	19,200	5,430	11,700	4,600	6,660	6,360	9,180	5,480	2,810	1,860
8	6,460	5,270	16,300	5,450	10,300	4,440	6,780	7,000	8,560	5,140	2,760	1,810
9	6,760	4,750	14,000	6,390	11,100	6,060	6,830	7,600	8,780	4,770	2,690	1,790
10	8,980	4,420	12,100	7,190	11,300	10,900	6,930	8,390	10,400	4,540	2,670	1,760
11	10,900	4,420	10,500	6,680	11,400	10,600	7,290	7,780	12,400	4,560	2,640	1,690
12	11,100	4,600	9,410	6,360	10,500	9,360	8,220	6,960	11,200	4,630	2,570	1,670
13	10,500	5,640	8,560	6,270	9,380	8,980	8,560	6,290	9,620	4,240	2,450	1,690
14	8,860	14,000	8,110	6,050	8,580	8,110	8,700	5,840	8,920	3,970	2,350	1,720
15	7,680	24,000	8,360	5,800	7,890	7,260	8,500	5,730	13,000	4,240	2,320	1,670
16	6,860	22,100	16,600	5,610	7,320	6,800	7,760	5,680	17,200	5,180	2,320	1,690
17	6,410	16,800	18,800	5,610	6,760	6,580	7,580	5,870	15,900	6,530	2,300	1,670
18	6,050	13,200	20,200	5,320	6,270	6,730	7,060	5,840	14,100	6,660	2,300	1,620
19	5,840	10,900	46,300	5,070	5,870	6,240	6,560	5,910	12,800	5,680	2,270	1,570
20	5,540	9,270	55,400	4,840	5,570	5,770	6,510	6,930	11,400	5,030	2,300	1,560
21	5,120	8,220	39,500	4,650	5,570	5,500	7,390	8,580	10,200	4,650	2,300	1,590
22	4,710	7,470	29,000	4,500	5,210	5,700	8,860	11,000	9,240	4,400	2,200	1,590
23	4,420	6,780	26,800	4,420	4,990	5,570	8,700	12,800	8,670	4,240	2,230	1,590
24	4,160	6,290	22,000	5,290	4,880	5,320	7,680	10,900	8,640	4,000	2,200	1,590
25	3,930	6,290	18,300	8,500	4,670	5,230	7,550	10,300	8,440	3,780	2,180	1,600
26	3,740	6,430	15,400	9,270	4,400	5,120	7,780	11,000	8,560	3,610	2,110	1,600
27	3,590	6,070	13,300	10,300	4,340	4,840	6,960	11,200	8,080	3,490	2,080	1,570
28	3,550	5,870	11,600	10,500	4,240	4,650	6,410	10,500	7,780	3,400	2,010	1,560
29	3,420	6,310	10,500	9,650	-	4,540	6,100	9,740	7,650	3,310	2,010	1,570
30	3,240	6,780	9,440	8,580	-	4,460	5,940	8,780	7,630	3,190	1,940	1,560
31	3,080	-	8,610	7,970	-	4,630	-	8,220	-	3,060	1,880	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acre-feet
October	177,610	11,100	2,670	5,729	2.56	2.95	352,300
November	238,590	24,000	2,900	7,953	3.55	3.96	473,200
December	575,260	55,400	7,190	18,560	8.29	9.56	1,141,000
Calendar year 1941	2,275,710	55,400	1,720	6,235	2.78	37.79	4,514,000
January	205,020	10,500	4,420	6,614	2.95	3.40	406,700
February	235,070	17,200	4,240	8,395	3.75	3.90	466,300
March	186,540	10,900	4,120	6,017	2.69	3.10	370,000
April	215,430	8,860	5,520	7,181	3.21	3.58	427,300
May	247,900	12,800	5,680	7,997	3.57	4.12	491,700
June	291,600	17,200	6,730	9,720	4.34	4.84	578,400
July	153,470	7,600	3,060	4,951	2.21	2.55	304,400
August	75,540	3,130	1,880	2,437	1.09	1.26	149,800
September	50,920	1,930	1,560	1,697	.758	.85	101,000
Water year 1941-42	2,652,950	55,400	1,560	7,268	3.24	44.07	5,262,000

Peak Discharge.- Nov. 15 (6 p.m.) 26,100 sec.-ft.; Dec. 3 (9 p.m.) 28,200 sec.-ft.; Dec. 20 (6 a.m.) 58,100 sec.-ft.; Dec. 23 (5 a.m.) 28,300 sec.-ft.
Note.- Shifting-control method used Dec. 21 to June 15.
Time basis: Pacific standard time prior to 2 a.m., Feb. 9, 1942; Pacific war time thereafter. To convert war time to standard time, subtract 1 hour.

Clear Fork of Cowlitz River near Packwood, Wash.

Location.- Water-stage recorder, lat. 46°40'50", long. 121°34'30", in NE¼ sec. 29, T. 14 N., R. 10 E., three-quarters of a mile upstream from mouth and 7 miles northeast of Packwood.
Drainage area.- 56 square miles.
Records available.- August 1907 to September 1917 (October 1913 to September 1917, gage heights only), August 1930 to December 1942 (discontinued).
Average discharge.- 17 years (1907-12, 1930-42), 236 second-feet.
Extremes.- Maximum discharge during period Oct. 1, 1941, to Dec. 11, 1942. 4,020 second-feet Nov. 23, 1942 (gage height, 8.50 feet); minimum, 40 second-feet Oct. 25, 1942 (gage height, 2.33 feet).
1907-17, 1930-42: Maximum discharge, 8,030 second-feet Dec. 22, 1933 (gage height, 11.7 feet), from rating curve extended above 1,200 second-feet; minimum, 30 second-feet Nov. 2, 1935, Nov. 29, 30, Dec. 1, 1936.
Remarks.- Records excellent except those for periods of no gage-height record which are fair. No regulation. Small diversion a few hundred feet above gage for fish hatchery.

Discharge, in second-feet, 1941-42

1941-42

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	92	85			117	73	155	172	319		97	62
2	89	82			114	80	161	161	333		93	61
3	180	165			119	77	159	159	333		90	60
4	243	240			145	73	170	157	329		103	60
5	172	336			149	75	198	157	367	a300	93	59
6	145	243	a450	a130	139	73	213	175	492		89	58
7	175	201			128	70	232	226	389		88	58
8	189	175			128	77	237	278	339		85	57
9	229	155			130	204	243	303	378		82	56
10	452	139		124	143	263	272	266	389		81	55
11	378	159		123	143	216	339	229	357	a160	80	55
12	371	145		123	133	184	371	206	278		79	55
13	281	295	a230	126	123	166	339	193	235		76	55
14	235	613		123	116	147	336	201	229		75	54
15	206	535		119	109	135	300	216		147	74	54
16	198	427		119	103	126	281	229		215	73	53
17	208	339		116	97	121	260	224		272	72	52
18	177	281	a590	113	92	113	243	a260		206	70	51
19	184	235		106	89	106	246	a340		179	69	51
20	166	208		103	89	102	316	a470		164	69	50
21	145	189		103	86	100	404	a600		151	68	50
22	133	172		100	84	97	364	672	a310	143	66	50
23	123	157		99	81	93	293	567		133	65	49
24	117	149		100	79	90	257	501		124	65	49
25	109	172		113	76	88	226	513		119	65	48
26	105	170	a320	121	74	84	208	484		116	65	48
27	103	155		128	75	81	191	404		113	65	47
28	100	170		128	74	81	179	350		109	66	47
29	93	203		123	-	82	170	329		105	65	47
30	88	300		117	-	88	170	322		103	64	48
31	85	-		116	-	108	-	313	-	100	63	-

a No gage-height record; discharge computed on basis of records for Lake Creek near Packwood and Greenwater River at Greenwater.

1942

Day	Oct.	Nov.	Dec.	Day	Oct.	Nov.	Dec.	Day	Oct.	Nov.	Dec.
1	50	281	451	11	46	77	275	21	42	159	-
2	49	216	393	12	45	77	-	22	41	356	-
3	50	240	333	13	44	90	-	23	41	2,550	-
4	49	168	290	14	46	325	-	24	41	1,260	-
5	48	128	263	15	48	397	-	25	40	642	-
6	47	114	237	16	44	272	-	26	42	467	-
7	46	103	221	17	44	219	-	27	48	371	-
8	45	96	211	18	44	179	-	28	44	313	-
9	45	88	203	19	44	153	-	29	50	528	-
10	45	81	281	20	43	133	-	30	54	553	-
								31	457	-	-

Monthly discharge, in second-feet, 1941-42

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acre-feet
October 1941	5,571	452	85	180	3.21	3.70	11,050
November	6,895	613	82	230	4.11	4.58	13,680
December	12,120	-	-	391	6.98	8.05	24,040
Calendar year 1941	59,377	-	42	163	2.91	39.42	117,800
January 1942	3,713	-	-	120	2.14	2.47	7,360
February	3,035	149	74	108	1.93	2.02	6,020
March	3,473	263	70	112	2.00	2.31	6,890
April	7,533	404	155	251	4.48	5.00	14,940
May	9,677	672	157	312	5.57	6.45	19,190
June	9,727	-	-	324	5.79	6.48	19,290
July	5,719	-	100	184	3.29	3.80	11,340
August	2,355	103	63	76.0	1.36	1.56	4,670
September	1,599	62	47	53.3	.952	1.06	3,170
Water year 1941-42	71,417	-	47	196	3.50	47.44	141,600
October 1942	1,822	457	40	58.8	1.05	1.21	3,610
November	10,614	2,550	77	354	6.32	7.05	21,050
December 1-11	3,158	451	203	287	5.12	2.10	6,260

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

Lake Creek near Packwood, Wash.

Location.- Water-stage recorder, lat. 46°35'55", long. 121°34'15", in sec. 21, T. 13 N., R. 10 E., 500 feet downstream from outlet of Packwood Lake and 6 miles east of Packwood.
Drainage area.- 18.8 square miles.
Records available.- September 1911 to September 1924, September 1930 to October 1942 (discontinued).
Average discharge.- 25 years, 98.2 second-feet.
Extremes.- Maximum discharge during period Oct. 1, 1941, to Oct. 31, 1942, 308 second-feet Dec. 20 (gage height, 3.22 feet); minimum, 23 second-feet Oct. 23-25, 1942 (gage height, 1.50 feet).
1911-24, 1930-42: Maximum discharge, 1,400 second-feet Dec. 22, 1933 (gage height, 5.9 feet); minimum, 19 second-feet Dec. 1, 1936, Oct. 9, 1941.
Maximum stage recorded, 6.0 feet (datum then in use) Dec. 18, 1917 (discharge not determined).
Remarks.- Records fair. No diversions. Natural regulation in Packwood Lake.

Discharge, in second-feet, 1941-42

1941-42

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	51	53	120	65	52	37	41	73	101	244	55	39
2	51	51	206	61	52	41	43	71	101	261	52	38
3	80	58	278	60	52	39	43	69	101	254	52	37
4	111	69	248	58	58	38	44	69	104	246	61	36
5	98	87	201	57	59	41	44	68	115	221	61	35
6	90	84	187	55	58	39	45	64	176	195	57	35
7	101	76	164	a57	55	37	46	66	204	166	56	35
8	104	71	142	a60	56	38	46	72	175	149	53	35
9	109	66	120	a59	57	52	48	83	189	138	52	34
10	144	62	104	a58	58	61	48	90	201	132	50	33
11	160	65	93	57	58	60	51	88	182	128	48	32
12	169	65	82	56	54	59	55	84	149	124	46	32
13	149	81	74	54	51	57	58	81	130	111	46	32
14	128	146	70	53	48	52	65	74	140	108	46	31
15	115	169	74	52	47	50	67	72	262	113	45	31
16	104	164	99	52	46	48	69	72	277	142	43	30
17	109	144	106	51	44	46	72	72	236	197	43	30
18	101	128	127	50	43	46	73	72	201	182	43	30
19	102	113	261	49	42	44	72	81	176	161	42	29
20	94	101	300	49	41	43	77	99	151	136	41	29
21	85	91	251	48	42	41	101	132	136	126	41	29
22	77	84	204	47	42	41	124	241	128	118	41	29
23	72	77	178	47	41	40	122	258	138	106	41	29
24	70	71	144	48	41	39	115	251	144	91	39	28
25	66	80	122	52	39	39	109	238	146	83	38	28
26	64	88	104	52	38	37	99	246	153	79	38	27
27	62	81	93	54	38	37	91	209	157	77	39	26
28	61	80	84	55	38	36	84	169	164	73	41	26
29	59	88	79	53	-	36	77	136	176	68	41	26
30	57	109	74	52	-	36	72	118	211	63	40	26
31	55	-	69	51	-	36	-	108	-	58	39	-

a No gage-height record; discharge computed on basis of records for Clear Fork of Cowlitz River or Greenwater River.

1942

Day	Oct.	Day	Oct.	Day	Oct.
1	28	11	26	21	24
2	28	12	26	22	24
3	28	13	26	23	23
4	28	14	26	24	a23
5	28	15	26	25	a23
6	26	16	26	26	a24
7	26	17	26	27	a26
8	26	18	25	28	a24
9	25	19	24	29	a25
10	26	20	24	30	a27
				31	a120

a No gage-height record; discharge computed on basis of records for Clear Fork of Cowlitz River or Greenwater River.

Monthly discharge, in second-feet, 1941-42

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acre-feet
October 1941	2,898	169	51	93.5	4.97	5.73	5,750
November	2,702	169	51	90.1	4.79	5.35	5,360
December	4,458	300	69	144	7.66	8.82	8,840
Calendar year 1941	26,231	300	33	71.9	3.82	51.89	52,040
January 1942	1,672	65	47	53.9	2.87	3.31	3,320
February	1,350	59	38	48.2	2.56	2.67	2,680
March	1,346	61	36	43.4	2.31	2.68	2,670
April	2,101	124	41	70.0	3.72	4.16	4,170
May	3,606	258	64	116	6.17	7.13	7,150
June	4,927	277	101	164	8.72	9.75	9,770
July	4,330	261	58	140	7.45	8.57	8,590
August	1,430	61	38	46.1	2.45	2.83	2,840
September	937	39	26	31.2	1.66	1.85	1,860
Water year 1941-42	31,757	300	26	87.0	4.63	62.85	63,000
October 1942	887	120	23	28.6	1.52	1.75	1,760

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

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.- 323 square miles.

Records available.- October 1910 to February 1912, September 1929 to September 1942.

Average discharge.- 14 years (1910-11, 1929-42), 1,243 second-feet.

Extremes.- Maximum discharge during year not determined, occurred during period of no gage-height record; minimum, 297 second-feet Sept. 26, 29 (gage height, 2.78 feet). 1910-12, 1929-42: 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, 2.68 feet Oct. 9, 1940.

Remarks.- Records good except those for period of shifting control, which are fair, and those for period of no gage-height record, which are poor. No diversion or regulation.

Rating table, water year 1941-42 (gage height, in feet, and discharge, in second-feet) (Shifting-control method used Oct. 1 to Nov. 13)

2.8	302	3.6	650	5.0	1,9e0	7.0	5,17C
3.0	364	4.0	932	5.5	2,660	8.0	7,36C
3.3	488	4.5	1,390	6.0	3,420		

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	470	523	1,200	1,100	1,060	576	1,040	1,200	1,440	1,260	528	371
2	479	523	1,600	970	1,020	615	1,100	1,170	1,440	1,200	513	371
3	549	598	3,000	880	1,050	609	1,110	1,160	1,390	1,140	543	386
4	870	656	3,100	820	1,250	587	1,160	1,140	1,390	1,120	633	397
6	740	720	2,700	740	1,290	598	1,270	1,120	1,390	1,050	560	390
6	675	720	2,600	700	1,230	576	1,290	1,190	1,730	957	570	371
7	761	669	2,500	700	1,140	570	1,390	1,390	1,670	916	549	371
8	810	650	2,200	760	1,090	581	1,440	1,560	1,500	847	538	371
9	647	621	2,000	820	1,090	803	1,500	1,730	1,560	825	528	368
10	1,110	615	1,800	660	1,100	1,090	1,610	1,610	1,730	803	528	351
11	1,210	633	1,600	820	1,100	1,030	1,850	1,440	1,670	767	493	354
12	1,390	627	1,500	774	1,030	982	1,980	1,340	1,560	754	460	366
13	1,270	1,050	1,400	754	982	924	1,980	1,240	1,440	682	447	368
14	1,160	2,380	1,300	733	940	862	1,980	1,230	1,440	700	447	368
15	1,060	2,590	1,200	713	901	818	1,790	1,260	1,920	781	451	375
16	967	2,310	1,500	707	854	788	1,670	1,290	1,790	839	460	344
17	893	1,920	2,700	688	810	767	1,610	1,290	1,670	885	451	334
18	810	1,670	2,900	669	774	740	1,500	1,280	1,610	761	447	331
19	810	1,500	4,300	650	733	707	1,500	1,390	1,560	700	456	331
20	788	1,340	6,600	638	727	688	1,790	1,730	1,440	707	465	331
21	720	1,220	5,600	627	713	688	2,240	2,110	1,340	700	456	331
22	675	1,110	4,800	615	682	700	2,110	2,590	1,290	700	451	331
23	682	1,050	4,100	615	656	682	1,850	2,440	1,290	669	447	331
24	644	990	3,600	675	638	663	1,610	2,180	1,270	638	438	331
25	627	990	3,100	893	621	644	1,500	2,240	1,270	627	401	328
26	587	990	2,700	974	598	633	1,390	2,240	1,250	627	394	319
27	581	949	2,300	1,190	592	627	1,250	2,110	1,240	621	375	314
28	570	9e2	1,900	1,150	581	621	1,170	1,850	1,230	604	386	311
29	549	1,030	1,600	1,080	-	638	1,120	1,730	1,270	587	371	308
30	538	1,100	1,400	1,020	-	694	1,140	1,610	1,250	570	371	314
31	528	-	1,200	974	-	847	-	1,560	-	538	371	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off: Inches	Run-off: Acre-feet
October	24,360	1,390	470	786	2.43	2.80	48,320
November	32,726	2,590	523	1,091	3.3e	3.77	64,910
December	80,000	6,600	1,200	2,581	7.99	9.21	158,700
Calendar year 1941	353,505	6,600	340	969	3.00	40.70	701,200
January	25,309	1,190	615	816	2.53	2.91	50,200
February	25,252	1,290	581	902	2.79	2.91	50,090
March	22,348	1,090	570	721	2.23	2.57	44,330
April	45,940	2,240	1,040	1,531	4.74	5.29	91,120
May	49,420	2,590	1,120	1,594	4.93	5.69	98,020
June	44,040	1,920	1,230	1,468	4.54	5.07	87,350
July	24,575	1,260	538	793	2.46	2.83	48,740
August	14,528	633	371	469	1.45	1.67	28,820
September	10,469	397	308	349	1.08	1.21	20,760
Water year 1941-42	398,967	6,600	308	1,093	3.38	45.93	791,400

Note.- No gage-height record Nov. 30 to Jan. 11; discharge computed on basis of records for Cowlitz River at Packwood and near Mayfield.

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

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 1942.

Extremes.- Maximum discharge during year, 8,090 second-feet Dec. 19 (gage height, 11.32 feet), from rating curve extended above 2,400 second-feet; minimum, 79 second-feet Sept. 27 (gage height, 3.83 feet).
1941-42: Maximum discharge, that of Dec. 19, 1941; minimum, 70 second-feet Aug. 20-22, 1941 (gage height, 3.58 feet).

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

Rating table, water year 1941-42 (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Aug. 15 to Sept. 30)

3.5	60	4.3	210	5.5	675	7.5	2,270
3.7	87	4.5	266	6.0	970	8.0	2,840
3.9	121	4.7	330	6.5	1,340	9.0	4,190
4.1	162	5.0	444	7.0	1,770	10.0	5,760

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	570	300	686	670	1,000	408	675	727	521	393	226	108
2	563	288	1,100	620	970	601	938	875	436	366	215	105
3	754	532	1,640	587	938	660	815	815	400	348	213	105
4	1,150	815	1,820	544	1,700	563	702	758	370	330	213	105
5	875	1,420	2,110	508	2,160	606	630	660	461	317	200	105
6	758	1,110	2,960	486	1,680	596	591	601	448	310	192	105
7	1,040	845	2,380	473	1,340	549	549	558	579	294	185	103
8	1,260	702	1,770	530	1,280	535	512	521	970	282	183	100
9	1,260	615	1,420	758	1,340	1,300	478	490	1,860	278	183	97
10	1,960	549	1,150	845	1,540	1,590	448	504	1,590	297	176	97
11	1,680	582	1,000	815	1,540	1,150	440	461	1,150	366	169	97
12	1,640	530	875	758	1,340	938	440	432	905	307	169	97
13	1,340	993	785	758	1,110	815	424	400	1,230	275	158	95
14	1,080	2,900	714	702	970	724	465	377	2,160	319	152	93
15	875	3,420	708	650	875	650	473	359	2,110	385	147	93
16	785	2,540	1,190	635	785	620	428	337	1,720	696	141	93
17	730	1,770	1,150	635	708	625	412	323	1,460	1,110	135	92
18	650	1,340	1,840	591	645	630	385	314	1,220	875	127	90
19	630	1,080	6,770	563	596	587	362	323	1,040	655	125	89
20	563	905	4,730	526	577	549	341	348	875	530	123	87
21	517	785	3,220	504	544	535	330	320	785	452	123	86
22	478	697	2,540	482	504	606	341	396	719	404	119	83
23	440	625	2,660	469	486	577	362	393	665	366	116	81
24	416	591	2,110	504	461	554	341	362	665	327	114	81
25	389	970	1,680	823	440	544	444	432	620	307	112	80
26	370	845	1,420	905	416	526	572	596	572	291	139	80
27	359	758	1,220	938	420	508	526	785	526	275	129	80
28	359	758	1,080	970	408	504	508	724	495	263	149	80
29	330	785	938	875	-	504	508	724	452	252	127	80
30	314	730	845	785	-	508	504	587	420	243	119	84
31	304	-	758	719	-	554	-	530	-	234	112	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acre-feet
October	24,439	1,960	304	788	4.99	5.75	48,470
November	30,780	3,420	288	1,026	6.49	7.24	61,050
December	55,269	6,770	686	1,783	11.3	13.01	109,600
Calendar year	-	-	-	-	-	-	-
January	20,628	970	469	665	4.21	4.86	40,920
February	26,753	2,160	408	955	6.04	6.30	53,060
March	20,629	1,590	408	665	4.21	4.86	40,920
April	14,944	938	330	498	3.15	3.52	29,640
May	15,953	875	314	515	3.26	3.76	31,640
June	27,424	2,160	370	914	5.78	6.46	54,390
July	12,138	1,110	234	392	2.48	2.86	24,080
August	4,791	226	112	155	.981	1.13	9,500
September	2,771	108	80	92.4	.585	.65	5,500
Water year 1941-42	256,519	6,770	80	703	4.45	60.40	508,800

Peak discharge:- Nov. 15 (2:30 p.m.) 3,620 sec.-ft.; Dec. 6 (11 a.m.) 3,280 sec.-ft.; Dec. 19 (11 a.m.) 8,090 sec.-ft.
Time basis: Pacific standard time prior to 2 a.m., Feb. 9, 1942; Pacific war time thereafter. To convert war time to standard time, subtract 1 hour.

Toutle River near Silver Lake, Wash.

Location.- Water-stage recorder, lat. 46°20'10", long. 122°43'30", in SE¼ sec. 19, T. 10 N., R. 1 E., at highway bridge half a mile downstream from confluence of North and South Forks and 5 miles northeast of Silver Lake. Datum of gage is 407.3 feet above mean sea level (from river-profile survey).

Drainage area.- 474 square miles (revised).

Records available.- October 1919 to December 1923, September 1929 to September 1942. September 1909 to August 1912 at site 2 miles downstream, published as Toutle River near Castle Rock, Wash.

Average discharge.- 18 years (1909-11, 1919-21, 1922-23, 1929-42), 1,952 second-feet.

Extremes.- Maximum discharge during year, 21,400 second-feet Dec. 19 (gage height, 14.26 feet); minimum, 325 second-feet Sept. 27 (gage height, 1.70 feet).
1909-12, 1919-23, 1929-42: 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 except those for period of no gage-height record, which are fair. No diversion or regulation.

Rating table, water year 1941-42 (gage height, in feet, and discharge, in second-feet)

1.7	325	3.0	1,120	6.0	5,750
2.0	460	3.5	1,580	7.0	7,800
2.2	560	4.0	2,100	9.0	11,200
2.5	740	4.5	2,720	11.0	14,800
2.7	880	5.0	3,540	13.0	18,700

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	896	747	1,530	1,780	2,580	1,090	1,440	1,990	1,530	a1,200	605	401
2	1,020	726	3,060	1,680	2,330	1,340	1,390	1,830	1,440	a1,150	590	401
3	1,080	1,070	5,420	1,630	2,330	1,440	1,340	1,730	1,390	a1,100	600	396
4	1,940	1,120	4,250	1,480	3,640	1,260	1,300	1,680	1,340	a1,050	726	396
5	1,530	1,210	4,040	1,390	3,730	1,340	1,300	1,580	1,390	a1,000	610	396
6	1,340	1,120	4,250	1,340	3,110	1,300	1,300	1,530	1,580	a970	585	396
7	1,680	1,020	3,730	1,340	2,580	1,210	1,260	1,530	1,480	a950	570	388
8	1,830	944	3,030	1,390	2,450	1,160	1,210	1,530	1,680	920	555	378
9	1,880	888	2,650	1,680	2,870	1,900	1,160	1,530	1,940	873	550	374
10	2,920	845	2,330	1,680	2,870	2,580	1,160	1,580	2,450	873	540	370
11	2,720	992	2,160	1,580	2,800	2,210	1,260	1,480	2,390	968	525	365
12	2,720	952	1,940	1,530	2,520	1,990	1,300	1,340	2,040	928	510	361
13	2,270	1,870	1,830	1,480	2,270	1,880	1,300	1,260	1,830	851	495	361
14	1,940	4,250	1,780	1,440	2,100	1,730	1,440	1,210	a1,750	845	485	357
15	1,730	5,970	2,070	1,390	1,940	1,630	1,340	1,160	a2,900	960	475	361
16	1,580	4,710	5,510	1,390	1,780	1,580	1,300	1,120	a3,000	1,440	465	357
17	1,480	3,360	4,850	1,340	1,680	1,580	1,390	1,120	a3,000	1,340	465	357
18	1,340	2,650	6,670	1,260	1,580	1,580	1,210	1,120	a2,850	1,160	450	349
19	1,390	2,270	18,900	1,210	1,480	1,480	1,160	1,210	a2,600	1,050	450	345
20	1,210	1,990	15,600	1,160	1,440	1,390	1,160	1,390	a2,300	952	450	345
21	1,120	1,830	9,580	1,120	1,390	1,390	1,300	1,530	a2,050	888	465	341
22	1,060	1,680	6,820	1,100	1,300	1,440	1,390	1,990	a1,900	838	450	337
23	1,000	1,530	6,610	1,120	1,260	1,390	1,300	1,990	a1,750	803	440	333
24	952	1,440	5,070	1,390	1,210	1,300	1,340	1,730	a1,600	766	430	333
25	896	1,440	4,040	2,620	1,210	1,260	1,580	1,830	a1,650	733	420	333
26	866	1,390	3,280	2,520	1,120	1,210	1,730	1,990	a1,700	705	455	329
27	838	1,300	2,870	2,580	1,120	1,210	1,480	2,160	a1,600	691	445	329
28	880	1,340	2,580	2,450	1,090	1,160	1,390	2,040	a1,500	664	460	333
29	817	1,390	2,330	2,210	-	1,120	1,340	2,040	a1,400	652	450	333
30	775	1,580	2,160	1,990	-	1,120	1,480	1,830	a1,300	634	420	333
31	747	-	1,940	1,880	-	1,210	-	1,680	-	610	406	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off Inches	Run-off Acre-feet
October	44,447	2,920	747	1,434	3.03	3.49	88,160
November	53,624	5,970	726	1,787	3.77	4.21	106,400
December	142,860	18,900	1,530	4,608	9.72	11.21	283,400
Calendar year 1941	546,427	18,900	329	1,497	‡3.16	‡42.89	1,084,000
January	50,150	2,620	1,100	1,618	3.41	3.93	99,470
February	57,780	3,730	1,090	2,064	4.35	4.53	114,600
March	45,480	2,580	1,090	1,467	3.09	3.57	90,210
April	40,050	1,730	1,160	1,335	2.82	3.14	79,440
May	49,730	2,160	1,120	1,604	3.38	3.90	98,640
June	57,330	3,000	1,300	1,911	4.03	4.50	113,700
July	28,546	1,440	610	921	1.94	2.24	56,620
August	15,542	726	406	501	1.06	1.22	30,830
September	10,788	401	329	360	.759	.85	21,400
Water year 1941-42	596,327	18,900	329	1,634	3.45	46.79	1,183,000

‡ Based on revised drainage area.
a No gage-height record; discharge computed on basis of records for South Fork of Toutle River at Toutle.
Time basis: Pacific standard time prior to 2 a.m., Feb. 9, 1942; Pacific war time thereafter. To convert war time to standard time, subtract 1 hour.

South Fork of 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, 1¼ miles upstrsam from mouth and 3 miles downstream from Johnson Creek. Datum of gage is at msan sea level (from river-profile survey).

Drainage area.- 118 square miles (revised).

Records available.- October 1939 to September 1942.

Extremes.- Maximum discharge during year, 6,770 second-feet Dec. 19 (elevation, 456.99 feet); minimum, 74 second-feet Sept. 24, 25, 27 (elevation, 451.60 feet).
1939-42: Maximum discharge, that of Dec. 19, 1941; minimum, 68 second-feet Aug. 18, 19, 1940 (elevation, 451.46 feet).

Remarks.- Records good. No diversion or regulation.

Rating tables, water year 1941-42 (elevation, in feet, and discharge, in second-feet)
(Shifting-control method used Oct. 1-10)

Oct. 1 to Dec. 19						Dec. 20 to Sept. 30			
452.2	252	453.5	1,140	455.0	3,220	451.7	91	453.0	58[illegible]
452.5	378	454.0	1,750	456.0	4,920	451.9	134	453.5	95[illegible]
453.0	685	454.5	2,450	457.0	6,770	452.2	220	454.0	1,44[illegible]
						452.5	331	454.5	2,02[illegible]

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	323	a215	439	433	1,040	295	469	787	428	284	157	93
2	332	a210	1,210	423	899	412	454	695	385	265	155	91
3	404	374	1,610	409	882	423	418	629	362	251	152	91
4	551	328	1,310	375	1,780	375	399	580	327	244	198	91
5	455	388	1,220	340	1,600	399	399	523	311	230	160	91
6	418	323	1,290	331	1,280	375	389	485	335	220	150	91
7	571	294	1,070	335	1,030	349	375	490	315	214	139	91
8	618	271	887	353	950	344	357	479	335	204	132	88
9	583	256	748	485	1,140	752	344	474	479	195	132	88
10	1,090	241	633	479	1,130	950	335	469	715	196	129	88
11	953	294	551	448	1,010	765	353	428	787	251	127	88
12	963	263	495	433	865	648	357	380	661	230	122	86
13	732	735	455	423	737	611	340	344	557	192	118	86
14	611	1,520	472	404	648	551	423	323	506	195	118	84
15	544	1,880	711	380	580	490	375	319	908	230	113	86
16	483	1,500	2,020	390	523	469	375	299	950	396	111	86
17	444	1,130	1,620	375	485	469	418	295	950	409	111	84
18	406	897	2,380	349	443	464	362	291	865	349	111	81
19	408	732	6,100	331	409	428	327	327	722	335	111	81
20	345	611	4,220	319	399	404	327	353	629	280	111	79
21	319	532	2,550	307	385	399	340	353	540	251	111	79
22	298	461	2,020	291	357	423	366	464	474	240	107	77
23	282	413	2,020	311	340	399	366	459	438	223	103	76
24	259	378	a1,600	464	331	371	371	389	409	208	101	76
25	252	378	a1,250	1,160	327	362	482	459	423	196	103	74
26	241	350	a900	1,100	307	340	569	512	459	189	107	76
27	234	328	a740	1,150	299	327	474	642	409	183	107	76
28	a250	359	a620	1,000	291	323	438	611	366	177	109	77
29	a235	378	a530	795	-	319	433	623	331	172	107	77
30	a220	477	a490	675	-	327	531	528	311	169	99	79
31	a215	-	a450	642	-	362	-	474	-	160	97	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acre-feet
October	14,041	1,090	215	453	3.84	4.43	27,850
November	16,516	1,880	210	551	4.67	5.21	32,760
December	42,611	6,100	439	1,375	11.7	13.43	84,520
Calendar year 1941	164,653	6,100	e1	451	‡3.82	‡51.90	326,600
January	15,710	1,160	291	507	4.30	4.95	31,160
February	20,467	1,780	291	731	6.19	6.45	40,600
March	13,925	950	295	449	3.81	4.39	27,620
April	11,966	569	327	399	3.38	3.77	23,730
May	14,484	787	291	467	3.96	4.56	28,730
June	15,667	950	311	523	4.43	4.94	31,110
July	7,542	409	160	237	2.01	2.31	14,560
August	3,808	198	97	123	1.04	1.20	7,550
September	2,511	93	74	83.7	.709	.79	4,980
Water year 1941-42	179,068	6,100	74	491	4.16	56.43	355,200

‡ Based on revised drainage area.
a No gage-height record; discharge computed on basis of records for Toutle River near Silver Lake.
Time basis: Pacific standard time prior to 2 a.m., Feb. 9, 1942; Pacific war time thereafter.
To convert war time to standard time, subtract 1 hour.

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.

Drainage area.- 66 square miles.

Records available.- October 1940 to September 1942.

Extremes.- Maximum discharge during year, 4,550 second-feet Dec. 19 (gage height, 9.13 feet; minimum, 31 second-feet Sept. 22-25 (gage height, 2.13 feet).
1940-42: Maximum discharge, that of Dec. 19, 1941; minimum, 31 second-feet Aug. 18-20, 1941, Sept. 22-25, 1942; minimum gage height, 2.12 feet Aug. 18-20, 1941.
Maximum stage known, 17.2 feet in December 1933, from information by local residents.

Remarks.- Records excellent except those for January, which are good. No diversion or regulation.

Rating tables, water year 1941-42 (gage height, in feet, and discharge, in second-feet)

Oct. 1 to Dec. 19, Feb. 5 to Sept. 30				Dec. 20 to Feb. 4			
2.3	52	4.3	574	3.6	353	4.5	667
2.5	82	5.0	920	4.0	477	5.0	920
2.9	156	6.0	1,600				
3.3	248	7.0	2,440	Note.- Same as preceding table above 4.8 feet.			
3.7	360	8.0	3,390				

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	186	138	351	342	609	199	243	279	130	132	74	43
2	138	134	774	320	511	243	226	282	126	125	72	42
3	164	309	865	301	580	228	209	277	119	121	74	42
4	177	319	980	279	1,070	209	199	268	115	117	79	43
5	152	528	892	261	1,170	243	188	233	110	113	72	42
6	156	376	892	245	920	228	181	213	132	108	68	44
7	276	310	732	258	707	211	175	197	132	106	65	40
8	313	271	595	274	638	221	166	186	148	101	63	39
9	296	246	515	444	684	782	160	184	236	98	63	38
10	496	238	446	391	784	616	154	181	415	101	63	38
11	456	336	399	345	684	460	150	169	339	130	62	37
12	460	261	354	322	595	392	146	160	271	121	59	35
13	386	832	333	303	515	399	144	150	226	98	56	37
14	336	1,420	351	287	446	345	173	144	237	112	53	35
15	296	1,380	600	274	402	316	150	142	402	140	52	35
16	298	1,170	980	263	360	310	140	140	471	186	52	35
17	304	920	980	253	327	363	136	130	453	211	52	34
18	307	707	2,350	240	298	357	126	125	379	150	51	32
19	290	554	3,890	230	277	324	123	175	324	126	49	32
20	258	460	2,220	220	261	301	121	169	285	112	51	32
21	240	408	1,420	213	248	290	117	146	261	104	51	32
22	223	357	1,280	206	230	345	130	144	228	98	49	31
23	209	321	1,420	218	236	330	128	136	213	96	46	31
24	197	304	1,100	345	238	324	174	126	206	90	46	31
25	186	478	892	494	216	336	194	156	228	87	60	31
26	177	370	712	477	201	318	162	152	204	85	56	32
27	173	330	605	494	204	301	223	175	181	84	53	33
28	175	339	529	529	195	288	240	169	164	84	65	34
29	156	357	460	460	-	271	206	154	152	82	59	34
30	148	370	412	412	-	256	238	146	144	80	51	35
31	144	-	373	406	-	243	-	140	-	77	44	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off: Inches	Run-off: Acre-feet
October	7,773	496	138	251	3.80	4.38	15,420
November	14,543	1,420	134	485	7.35	8.19	28,850
December	28,702	3,890	333	926	14.0	16.17	56,930
Calendar year 1941	102,997	3,890	31	282	4.27	58.03	204,300
January	10,106	529	206	326	4.94	5.69	20,040
February	13,606	1,170	195	486	7.36	7.67	26,990
March	10,049	782	199	324	4.91	5.66	19,930
April	5,112	243	117	170	2.58	2.88	10,140
May	5,438	282	125	175	2.65	3.06	10,790
June	7,033	471	110	234	3.55	3.96	13,950
July	3,491	211	77	112	1.70	1.96	6,900
August	1,809	79	44	58.4	.885	1.02	3,590
September	1,079	44	31	36.0	.545	.61	2,140
Water year 1941-42	108,731	3,890	31	298	4.52	61.25	215,700

Peak discharge.- Nov. 13 (6 p.m.) 1,600 sec.-ft.; Dec. 19 (2:30 a.m.) 4,550 sec.-ft.; Feb. 5 (12 a.m.) 1,340 sec.-ft.

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

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 1942. March 1916 to September 1917 (gage heights only) at site 3 miles upstream. August 1927 to December 1933 at site 1 mile upstream.

Extremes.- Maximum discharge during year, 3,110 second-feet Dec. 18 (gage height, 11.14 feet); minimum, 5.9 second-feet Sept. 22-25.
1927-42: 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 1941-42 (gage height, in feet, and discharge, in second-feet)

0.7	5.2	2.6	63	6.0	720
1.0	10	3.0	97	7.0	1,050
1.4	18	3.5	151	8.0	1,450
1.8	29	4.0	230	10.0	2,450
2.2	44	5.0	450		

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	41	47	163	111	548	86	116	216	54	46	20	8.4
2	52	44	795	105	359	132	100	207	50	42	20	8.2
3	48	112	813	96	462	124	90	181	48	39	19	8.0
4	76	112	789	86	759	110	82	163	45	38	24	8.4
5	64	166	575	79	572	138	75	134	42	36	22	8.6
6	54	126	525	75	500	134	69	114	42	34	18	8.6
7	124	107	366	82	412	121	64	99	44	32	17	8.2
8	122	92	273	95	458	120	61	87	45	31	16	7.7
9	121	82	212	143	609	360	57	82	68	30	16	7.6
10	319	75	168	125	545	302	54	82	159	30	16	7.4
11	298	129	144	111	410	226	53	77	116	36	16	7.4
12	300	104	126	105	315	207	52	70	94	34	14	7.2
13	205	517	134	100	246	226	50	63	78	28	14	7.2
14	154	810	258	92	198	184	52	58	75	28	13	7.1
15	125	717	834	85	164	158	50	54	164	33	12	7.1
16	112	714	1,120	82	141	141	49	51	289	80	12	6.9
17	108	532	855	80	126	178	52	48	241	72	12	6.8
18	94	345	1,660	75	113	163	49	47	181	52	11	6.6
19	87	244	2,450	69	103	141	45	59	147	42	11	6.5
20	74	181	1,170	64	107	128	43	53	124	34	11	6.3
21	67	145	729	61	102	126	42	48	104	30	11	6.2
22	61	124	676	58	88	155	51	49	86	29	11	6.0
23	56	107	786	67	88	156	54	48	79	27	10	5.9
24	52	94	558	414	93	173	102	45	73	25	9.8	5.9
25	50	130	405	440	88	287	143	50	95	24	9.6	6.0
26	49	106	304	382	82	263	128	71	93	23	9.6	6.3
27	54	91	243	339	88	214	130	77	75	23	9.5	6.5
28	63	112	197	317	85	176	119	69	65	22	14	6.8
29	54	167	164	246	-	150	103	66	58	22	13	6.6
30	49	197	143	195	-	129	168	66	51	22	11	6.9
31	48	-	126	234	-	115	-	57	-	21	9.5	-

Month	Second-foot-days	Maximum	Minimum	Mean.	Per square mile	Run-off Inches	Run-off Acre-feet
October	3,171	319	41	102	3.19	3.69	6,290
November	6,529	810	44	218	6.81	7.59	12,950
December	17,761	2,450	126	573	17.91	20.64	35,230
Calendar year 1941	52,232.5	2,450	5.3	143	4.47	60.72	103,600
January	4,613	440	58	149	4.66	5.36	9,150
February	7,861	759	82	281	8.78	9.14	15,590
March	5,323	360	86	172	5.38	6.19	10,560
April	2,303	168	42	76.8	2.40	2.68	4,570
May	2,591	216	45	83.6	2.61	3.01	5,140
June	2,885	289	42	96.2	3.01	3.35	5,720
July	1,065	80	21	34.4	1.08	1.24	2,110
August	432.0	24	9.5	13.9	.434	.50	857
September	213.3	8.6	5.9	7.11	.222	.25	423
Water year 1941-42	54,747.3	2,450	5.9	150	4.69	63.64	108,600

Peak discharge.- Nov. 13 (8 p.m.) 1,190 sec.-ft.; Dec. 2 (8 a.m.) 1,170 sec.-ft.; Dec. 15 (10 p.m.) 1,860 sec.-ft.; Dec. 18 (9 p.m.) 3,110 sec.-ft.; Dec. 22 (9:30 p.m.) 1,090 sec.-ft.
Time basis: Pacific standard time prior to 2 a.m., Feb. 9, 1942; Pacific war time thereafter. To convert war time to standard time, subtract 1 hour.

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 1942.
Extremes.- Maximum discharge during year, 31,100 second-feet Dec. 19 (gage height, 17.13 feet); minimum, 95 second-feet Sept. 26 (gage height, 1.50 feet).
1939-42: Maximum discharge, that of Dec. 19, 1941; minimum, 85 second-feet Aug. 20, 21, 1940 (gage height, 1.38 feet).
Remarks.- Records good. No known diversion or regulation.

Rating tables, water year 1941-42 (gage height, in feet, and discharge, in second-feet)

Oct. 1 to Dec. 19

2.3	440	5.0	2,590	11.0	14,100
2.6	615	6.0	3,780	13.0	19,300
3.0	880	7.0	5,300	16.6	29,400
3.5	1,230	8.0	7,150		
4.0	1,630	9.0	9,290		

Dec. 20 to Sept. 30

1.5	95	2.6	590
1.7	156	3.0	855
2.0	270	3.5	1,220
2.3	414	4.0	1,630

Note.- Same as preceding table above 4.0 feet.

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	478	674	2,280	2,320	6,240	1,340	2,030	2,130	1,070	664	266	150
2	490	641	7,430	2,060	7,310	1,440	1,890	2,430	1,000	636	262	146
3	462	943	9,340	1,900	7,370	1,580	1,720	2,360	939	584	258	140
4	609	1,250	10,800	1,740	11,600	1,500	1,600	2,220	890	542	262	137
5	615	1,580	9,750	1,570	15,000	1,550	1,490	2,010	827	518	266	137
6	567	1,530	8,370	1,440	12,400	1,670	1,380	1,820	806	494	262	143
7	654	1,410	6,830	1,490	9,110	1,650	1,280	1,650	820	470	245	140
8	873	1,260	5,450	1,560	7,850	1,600	1,210	1,500	827	464	229	134
9	1,100	1,160	4,500	1,880	8,630	2,380	1,140	1,410	911	442	221	130
10	3,390	1,080	3,720	2,010	8,350	2,990	1,080	1,370	1,180	436	214	130
11	3,190	1,250	3,160	1,970	7,790	2,850	1,040	1,310	1,280	464	210	127
12	3,220	1,230	2,760	1,820	6,370	2,640	988	1,210	1,200	482	202	124
13	2,640	3,990	2,540	1,740	5,110	2,600	946	1,120	1,090	436	195	124
14	2,190	11,200	2,610	1,660	4,190	2,470	953	1,050	1,000	425	188	121
15	1,830	11,500	4,690	1,570	3,560	2,280	953	1,000	1,130	453	180	121
16	1,560	10,500	10,800	1,510	3,070	2,170	925	981	1,530	530	177	118
17	1,420	8,450	12,900	1,470	2,710	2,230	897	946	1,890	603	170	118
18	1,280	6,180	18,700	1,440	2,380	2,310	841	904	1,700	536	163	115
19	1,200	4,650	29,300	1,400	2,150	2,240	799	995	1,520	464	163	115
20	1,110	3,660	24,400	1,320	1,990	2,090	766	1,010	1,370	414	160	112
21	1,030	3,000	17,800	1,260	1,890	2,020	733	995	1,230	378	156	110
22	943	2,540	12,200	1,220	1,780	2,160	772	974	1,120	337	156	107
23	866	2,210	11,600	1,280	1,670	2,230	862	932	1,020	338	153	104
24	810	1,940	10,700	2,900	1,660	2,270	1,020	925	960	319	150	104
25	758	1,880	8,340	6,500	1,570	2,450	1,430	925	1,030	301	150	101
26	738	1,750	6,450	8,370	1,480	2,620	1,710	1,010	1,080	298	150	98
27	732	1,570	5,020	7,850	1,430	2,610	1,700	1,180	1,040	279	153	101
28	784	1,620	4,120	7,090	1,380	2,500	1,720	1,190	925	274	160	104
29	764	2,100	3,510	5,710	-	2,370	1,800	1,190	834	270	166	107
30	752	2,360	3,040	4,650	-	2,220	1,840	1,180	759	270	163	115
31	706	-	2,630	4,230	-	2,070	-	1,120	-	270	156	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acre-feet
October	37,761	3,390	462	1,218	1.83	2.11	74,900
November	95,108	11,500	641	3,170	4.75	5.30	188,600
December	265,740	29,300	2,280	8,572	12.9	14.82	527,100
Calendar year 1941	793,162	29,300	110	2,173	3.26	44.22	1,573,000
January	84,930	8,370	1,220	2,740	4.11	4.74	168,500
February	146,540	15,000	1,380	5,234	7.85	8.17	290,700
March	67,100	2,990	1,340	2,165	3.25	3.74	133,100
April	37,515	2,030	733	1,250	1.87	2.09	74,410
May	41,047	2,430	904	1,324	1.99	2.29	81,420
June	32,978	1,890	759	1,099	1.65	1.84	65,410
July	13,431	694	270	433	.649	.75	26,640
August	6,006	266	150	194	.291	.33	11,910
September	3,633	150	98	121	.181	.20	7,210
Water year 1941-42	831,789	29,300	98	2,279	3.42	46.38	1,650,000

Peak discharge.- Nov. 14 (10:30 to 11:30 p.m.) 12,200 sec.-ft.; Dec. 4 (4 p.m.) 11,600 sec.-ft.; Dec. 19 (10 a.m.) 31,100 sec.-ft.; Feb. 5 (9 to 11 a.m.) 14,200 sec.-ft.
Time basis: Pacific standard time prior to 2 a.m., Feb. 9, 1942; Pacific war time thereafter. To convert war time to standard time, subtract 1 hour.

Wilson River near Tillamook, Oreg.

Location.- Water-stage recorder, lat. 45°29', long. 123°43', in NW¼ sec. 18, T. 1 S., R. 8 W., 1 mile upstream from North Fork and 6½ miles east of Tillamook. Datum of gage is 42.13 feet above mean sea level, datum of 1929.

Drainage area.- 162 square miles.

Records available.- July 1931 to September 1942. December 1914 to November 1916 (incomplete) at site three-quarters of a mile downstream.

Average discharge.- 11 years (1931-41), 1,193 second-feet.

Extremes.- Maximum discharge during year, 18,700 second-feet Dec. 19 (gage height, 15.25 feet); minimum, 80 second-feet Sept. 28-30.
1914-16, 1931-42: Maximum discharge, 30,000 second-feet Dec. 21, 1933 (gage height, 19.28 feet, site and datum then in use), from rating curve extended above 15,000 second-feet; minimum observed, 59 second-feet Sept. 22, 1938.

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

Rating table, water year 1941-42 (gage height, in feet, and discharge, in second-feet)

1.2	80	2.6	580	4.5	2,120	8.0	6,300
1.4	119	3.0	830	5.0	2,620	9.0	7,750
1.8	229	3.5	1,200	6.0	3,730	11.0	10,800
2.2	375	4.0	1,640	7.0	4,960	13.0	14,300

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	402	351	970	791	3,170	486	963	949	592	347	192	108
2	371	343	4,270	726	2,590	616	879	1,080	542	331	189	106
3	367	713	4,390	688	2,570	662	804	1,010	498	316	186	104
4	420	844	3,980	628	5,610	622	739	900	465	301	201	104
5	396	1,040	3,560	574	4,670	676	682	791	430	294	184	106
6	360	921	3,060	547	3,460	676	628	700	420	290	172	115
7	435	791	2,420	592	2,660	646	586	640	411	272	166	106
8	580	688	1,910	604	2,510	634	547	586	411	262	161	102
9	765	622	1,560	1,220	3,030	1,570	514	558	514	259	159	102
10	3,030	558	1,300	1,170	2,740	1,870	481	536	784	259	153	102
11	2,250	682	1,100	1,020	2,250	1,410	460	514	752	301	148	100
12	2,050	592	956	956	1,840	1,160	435	470	658	286	143	100
13	1,610	2,430	914	900	1,540	1,080	416	440	574	252	141	98
14	1,290	6,500	978	830	1,310	949	445	420	536	266	133	98
15	1,050	5,040	1,590	772	1,130	679	445	445	646	305	131	96
16	935	3,910	4,450	739	1,010	879	425	420	851	416	129	96
17	817	3,050	3,780	694	900	1,030	425	393	1,050	416	126	96
18	752	2,290	8,510	670	810	1,150	402	380	907	355	124	92
19	713	1,780	14,100	628	739	1,060	384	520	778	316	121	91
20	640	1,440	6,940	596	706	963	371	525	688	294	121	89
21	586	1,200	4,380	564	658	921	363	476	622	269	121	91
22	536	1,030	3,540	542	604	1,010	364	503	569	259	119	91
23	503	910	4,250	569	598	956	393	460	520	249	117	87
24	465	804	3,240	1,250	592	907	470	430	486	236	115	85
25	440	798	2,500	2,420	542	949	634	476	520	226	117	84
26	425	706	1,970	2,420	508	970	670	604	486	223	117	82
27	430	652	1,610	2,150	520	942	720	804	445	210	121	82
28	435	700	1,360	1,840	492	928	739	900	411	207	124	82
29	402	907	1,170	1,510	-	900	700	817	388	204	126	80
30	375	1,000	1,020	1,310	-	865	772	726	367	201	119	82
31	371	-	900	1,340	-	851	-	652	-	198	103	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acre-feet
October	24,223	3,030	367	781	4.91	5.67	48,050
November	43,292	6,500	343	1,443	9.08	10.13	85,870
December	96,678	14,100	900	3,119	19.6	22.61	191,800
Calendar year 1941	343,882	14,100	80	942	5.92	80.44	682,100
January	31,462	2,420	542	1,015	6.38	7.36	62,400
February	49,779	5,610	492	1,778	11.2	11.64	98,740
March	29,237	1,670	486	943	5.93	6.84	57,990
April	16,876	963	363	563	3.54	3.95	33,470
May	19,125	1,080	380	617	3.88	4.47	37,930
June	17,321	1,050	367	577	3.63	4.05	34,360
July	8,620	416	198	278	1.75	2.02	17,100
August	4,379	201	103	141	.887	1.02	8,690
September	2,856	115	80	95.3	.599	.67	5,670
Water year 1941-42	343,850	14,100	80	942	5.92	80.45	682,100

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

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 1942.

Average discharge.- 11 years, 955 second-feet.

Extremes.- Maximum discharge during year, 13,900 second-feet Dec. 19 (gage height, 10.31 feet); minimum, 92 second-feet Sept. 24, 25 (gage height, 0.52 foot).
1931-42: 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 floods 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 1941-42 (gage height, in feet, and discharge, in second-feet)

Oct. 1 to Mar. 31						Apr. 1 to Sept. 30			
1.0	210	3.0	1,460	6.0	5,710	0.4	69	1.5	400
1.5	400	3.5	2,010	7.0	7,480	.7	130	2.0	670
2.0	665	4.0	2,640	8.8	10,900	1.0	210	2.6	1,020
2.5	1,000	5.0	4,100						

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	345	309	623	750	2,820	465	742	749	436	306	187	117
2	309	294	2,460	704	2,190	539	658	847	414	290	164	115
3	325	562	3,130	659	2,330	539	622	784	400	279	178	115
4	400	566	3,220	594	4,350	506	574	749	378	272	184	115
5	345	717	3,000	550	3,660	578	534	658	366	265	176	115
6	329	629	2,560	534	2,840	556	500	598	353	257	168	119
7	400	566	2,020	572	2,210	522	475	550	349	250	162	115
8	522	512	1,640	769	2,080	512	455	512	353	243	157	112
9	544	470	1,350	1,060	2,710	909	432	490	418	240	154	112
10	2,010	445	1,120	944	2,510	1,020	414	517	544	240	154	106
11	1,540	512	972	840	2,030	881	400	476	495	298	152	104
12	1,380	445	860	788	1,650	808	387	436	445	272	147	102
13	1,120	1,690	834	750	1,380	814	374	418	409	253	144	100
14	937	3,650	874	704	1,170	750	383	396	396	243	137	100
15	802	3,720	1,380	659	1,020	717	387	427	568	268	135	100
16	717	3,140	3,340	641	916	762	366	400	702	450	132	98
17	635	2,410	3,190	617	828	834	366	374	742	414	132	98
18	594	1,790	6,360	588	750	895	349	366	676	329	130	98
19	566	1,400	10,900	550	684	840	333	490	610	290	128	98
20	500	1,120	6,120	522	672	782	325	460	539	264	130	96
21	460	958	4,040	500	629	750	313	427	495	250	128	96
22	436	840	3,360	480	583	814	353	455	460	240	126	94
23	409	750	3,890	517	572	782	357	418	436	230	121	94
24	387	672	3,000	986	556	750	436	400	414	220	121	92
25	370	641	2,320	1,790	517	814	592	436	445	213	126	92
26	366	576	1,820	1,660	490	821	562	465	427	207	130	94
27	374	539	1,470	1,470	506	788	598	539	387	201	128	94
28	361	594	1,230	1,320	475	762	604	568	361	198	130	94
29	333	605	1,060	1,120	-	743	568	539	345	196	137	94
30	317	665	937	1,010	-	704	634	495	325	192	126	96
31	317	-	840	1,120	-	678	-	465	-	190	119	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acre-feet
October	18,450	2,010	309	595	4.16	4.80	36,600
November	31,809	3,720	294	1,060	7.41	8.27	63,090
December	79,920	10,900	623	2,578	18.0	20.78	158,500
Calendar year 1941	272,266	10,900	84	746	5.22	70.81	540,000
January	25,768	1,790	480	831	5.81	6.70	51,110
February	43,128	4,350	475	1,540	10.8	11.22	85,540
March	22,635	1,020	465	730	5.10	5.89	44,900
April	14,093	742	313	470	3.29	3.67	27,950
May	15,903	847	366	513	3.59	4.14	31,540
June	13,688	742	325	456	3.19	3.56	27,150
July	8,040	450	190	259	1.81	2.09	15,950
August	4,463	187	119	144	1.01	1.16	8,850
September	3,075	119	92	102	.713	.80	6,100
Water year 1941-42	280,972	10,900	92	770	5.38	73.08	557,300

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

Nestucca River near McMinnville, Oreg.

Location.- Water-stage recorder, lat. 45°19'30", long. 123°27'00" (revised), 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 1942.

Average discharge.- 14 years, 43.4 second-feet.

Extremes.- Maximum discharge during year, 730 second-feet Dec. 19 (gage height, 3.85 feet); minimum, 2.3 second-feet Sept. 29-30.
1928-42: 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 fair. No diversion above station. Flow regulated slightly by dam at outlet of Meadow Lake.

Rating tables, water year 1941-42 (gage height, in feet, and discharge, in second-feet)

Oct. 1 to Dec. 1e						Dec. 19 to Sept. 30					
0.7	6.5	1.3	29	2.4	156	0.4	1.9	1.3	26	2.8	238
.9	11	1.6	51	2.8	250	.6	4.1	1.6	47	3.2	380
1.1	18	2.0	92	3.2	3e5	.8	7.7	2.0	96	3.7	640
						1.0	13	2.4	146		

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	7.3	9.6	30	38	146	27	30	31	24	9.1	5.1	3.3
2	7.3	9.3	108	36	132	28	28	33	20	8.4	5.2	3.1
3	7.6	11	162	33	141	28	27	30	19	7.7	5.2	3.0
4	7.6	14	148	31	278	27	25	31	18	7.3	5.2	3.0
5	7.6	17	128	29	216	28	22	30	16	7.1	5.1	3.0
6	7.8	16	111	28	161	28	21	26	16	6.9	4.9	2.9
7	9.6	15	90	30	129	27	20	22	16	6.9	4.7	2.9
8	13	14	72	33	115	25	18	21	16	6.7	4.6	2.9
9	14	13	62	53	123	32	16	19	16	6.7	4.4	2.9
10	22	12	53	53	110	39	16	20	20	6.5	4.1	2.8
11	25	13	46	46	98	36	16	19	20	7.1	4.0	2.8
12	29	13	41	41	82	35	16	18	18	7.7	4.0	2.7
13	26	40	39	39	70	35	15	17	15	7.3	4.0	2.6
14	22	156	45	36	60	33	16	16	14	7.5	3.7	2.6
15	19	176	64	33	54	31	16	16	15	8.4	3.7	2.6
16	16	162	170	32	49	32	15	16	16	11	3.6	2.6
17	16	132	196	32	45	34	15	18	17	13	3.5	2.6
18	14	97	337	31	41	37	15	17	15	11	3.4	2.5
19	14	72	629	30	38	34	14	19	15	9.3	3.4	2.4
20	13	57	342	28	36	32	13	20	14	8.2	3.4	2.3
21	12	47	197	26	35	31	12	18	13	7.5	3.4	2.3
22	11	40	157	25	32	34	13	19	12	7.3	3.4	2.3
23	11	35	197	28	31	34	14	20	12	6.5	3.3	2.3
24	10	30	152	55	31	32	15	19	11	6.3	3.1	2.3
25	9.6	28	116	107	31	32	21	22	11	5.9	3.0	2.3
26	9.6	25	92	119	29	32	20	22	11	5.7	3.0	2.3
27	10	23	74	118	28	31	21	24	11	5.4	3.0	2.3
28	11	26	62	102	27	30	22	25	11	5.2	3.0	2.3
29	11	32	54	82	-	30	20	24	11	5.2	3.1	2.3
30	10	32	49	68	-	28	24	24	9.8	5.2	3.3	2.3
31	9.8	-	44	75	-	27	-	25	-	5.1	3.4	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off: Inches	Run-off: Acre-feet
October	412.8	29	7.3	13.3	1.11	1.28	819
November	1,366.9	176	9.3	45.6	3.80	4.24	2,710
December	4,067	629	30	131	10.9	12.60	8,070
Calendar year 1941	12,957.8	629	2.2	35.5	2.96	40.16	25,700
January	1,517	119	25	48.9	4.07	4.70	3,010
February	2,368	278	27	84.6	7.05	7.34	4,700
March	969	39	25	31.3	2.61	3.00	1,920
April	556	30	12	18.5	1.54	1.72	1,100
May	683	33	16	22.0	1.83	2.12	1,350
June	452.8	24	9.8	15.1	1.26	1.40	898
July	229.1	13	5.1	7.39	.616	.71	454
August	120.2	5.2	3.0	3.88	.323	.37	238
September	78.5	3.3	2.3	2.62	.218	.24	156
Water year 1941-42	12,820.3	629	2.3	35.3	2.94	29.72	25,420

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

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 1942.

Average discharge.- 22 years (1906-11, 1925-42), 1,598 second-feet.

Extremes.- Maximum discharge during year, 25,400 second-feet Dec. 19 (gage height, 21.96 feet); minimum, 89 second-feet Sept. 30 (gage height, 2.43 feet).

1905-12, 1924-42: Maximum discharge, 34,600 second-feet Nov. 22, 1909, from rating curve extended above 19,000 second-feet; minimum observed, 51 second-feet Dec. 6, 7, 1929.

Maximum discharge known, 40,800 second-feet Nov. 20, 1921 (gage height, 31.6 feet, site and datum then in use), from rating curve extended above 19,000 second-feet.

Remarks.- Records good. No diversion above station. Some diurnal fluctuation caused by log pond at Valsetz.

Rating table, water year 1941-42 (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Oct. 1 to Dec. 18)

2.4	84	3.6	410	6.0	1,680	12.0	7,730
2.6	121	4.0	575	7.0	2,360	14.0	10,700
2.8	164	4.5	810	8.0	3,100	17.0	15,700
3.2	270	5.0	1,080	10.0	5,100	20.0	21,400

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	395	414	1,030	1,160	3,280	760	982	1,300	815	380	232	123
2	365	399	5,720	1,060	2,890	845	900	1,430	735	358	223	121
3	329	694	6,320	987	3,330	855	865	1,310	674	340	218	121
4	410	750	5,320	905	9,740	810	805	1,230	620	329	212	121
5	345	967	4,680	820	7,210	850	740	1,070	575	322	207	121
6	322	905	3,770	760	5,120	825	692	960	552	309	200	127
7	391	820	2,950	1,280	3,760	765	656	875	539	299	192	121
8	466	730	2,400	2,300	3,200	740	620	795	522	289	187	117
9	434	652	1,920	3,120	3,710	1,560	580	810	634	283	187	117
10	938	602	1,690	2,520	3,510	2,120	544	890	810	283	185	115
11	1,040	725	1,490	2,060	2,920	1,720	522	830	745	410	190	115
12	1,660	642	1,310	1,750	2,440	1,520	506	750	670	399	173	112
13	1,360	2,700	1,260	1,530	2,020	1,560	486	701	611	309	169	110
14	1,110	6,210	1,460	1,350	1,710	1,450	458	665	562	312	164	108
15	926	6,390	2,050	1,200	1,540	1,360	474	652	652	391	157	104
16	825	6,820	5,930	1,160	1,370	1,370	442	611	660	582	157	102
17	730	5,230	5,510	1,060	1,230	1,490	470	575	735	706	155	100
18	692	3,470	11,400	954	1,110	1,560	458	534	725	544	153	98
19	696	2,610	21,300	890	998	1,450	418	674	678	474	149	98
20	598	2,030	11,500	830	960	1,330	406	629	634	418	153	97
21	539	1,610	6,930	765	900	1,240	387	566	588	380	149	95
22	494	1,430	5,170	725	815	1,280	434	652	544	358	144	95
23	458	1,260	6,010	715	845	1,190	474	584	506	336	140	93
24	430	1,120	4,550	895	954	1,100	544	552	486	312	138	93
25	402	992	3,460	1,920	850	1,160	665	620	526	299	134	91
26	418	905	2,740	2,420	800	1,160	660	810	580	283	136	91
27	494	830	2,290	2,510	825	1,090	810	1,190	498	273	136	93
28	458	921	1,940	2,280	795	1,010	987	1,310	454	264	138	95
29	418	932	1,690	1,980	-	965	910	1,150	422	252	140	93
30	387	1,060	1,490	1,740	-	910	1,050	1,010	406	246	134	91
31	383	-	1,310	1,790	-	875	-	905	-	243	127	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acre-feet
October	18,911	1,660	322	610	3.02	3.48	37,510
November	54,840	6,820	399	1,828	9.05	10.10	108,800
December	136,590	21,300	1,030	4,406	21.8	25.15	270,900
Calendar year 1941	425,109	21,300	78	1,165	5.77	78.28	843,200
January	45,436	3,120	715	1,466	7.26	8.37	90,120
February	68,832	9,740	795	2,458	12.2	12.67	136,500
March	36,960	2,120	740	1,192	5.90	6.80	73,310
April	18,945	1,060	387	632	3.13	3.49	37,580
May	26,640	1,430	534	859	4.25	4.90	52,840
June	18,156	815	406	605	3.00	3.34	36,020
July	10,983	706	243	354	1.75	2.02	21,780
August	5,169	232	127	167	.827	.95	10,250
September	3,178	127	91	106	.525	.59	6,300
Water year 1941-42	444,642	21,300	91	1,218	6.03	81.86	881,900

Peak discharge.- Dec. 2 (8 p.m.) 8,980 sec.-ft.; Dec. 19 (3:30 a.m.) 25,400 sec.-ft.; Feb. 4 (11 a.m.) 10,900 sec.-ft.

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

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 1942.

Extremes.- Maximum discharge during year, 13,900 second-feet Feb. 4 (gage height, 14.90 feet); minimum, 82 second-feet Sept. 25 (gage height, 1.56 feet).
1939-42: Maximum discharge, 15,900 second-feet Feb. 6, 1940 (gage height, 15.93 feet); minimum, 62 second-feet Sept. 1, 1940 (gage height, 1.43 feet).

Remarks.- Records excellent. No regulation; a few small diversions above station for irrigation.

Rating table, water year 1941-42 (gage height, in feet, and discharge, in second-feet)

1.5	72	3.5	815	8.0	4,200
1.7	108	4.0	1,090	9.0	5,270
2.0	186	4.5	1,390	10.0	6,460
2.3	275	5.0	1,710	12.0	9,300
2.6	390	6.0	2,400	14.0	12,440
3.0	570	7.0	3,240		

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	233	303	898	1,470	3,530	1,060	832	908	675	318	178	110
2	233	366	7,850	1,350	3,360	1,060	755	942	625	296	175	106
3	221	476	9,380	1,290	4,110	1,020	770	908	588	278	172	102
4	236	630	5,730	1,180	11,400	958	755	914	548	266	175	108
5	236	584	4,850	1,080	10,000	947	725	826	520	263	172	106
6	221	507	3,810	1,100	7,510	914	695	765	520	257	161	110
7	248	453	3,060	2,010	5,490	864	665	710	525	251	161	108
8	306	408	2,520	4,830	4,330	832	650	660	498	245	155	108
9	275	362	2,160	4,020	4,040	969	625	670	543	239	153	110
10	289	338	1,850	3,040	3,730	1,290	606	760	561	242	155	108
11	322	338	1,630	2,460	3,140	1,210	584	795	530	289	155	106
12	448	326	1,440	2,100	2,680	1,120	561	740	489	286	150	104
13	430	1,310	1,380	1,840	2,340	1,220	548	700	453	245	142	100
14	362	3,630	1,450	1,650	2,070	1,200	556	660	426	254	137	100
15	314	6,360	1,830	1,500	1,850	1,140	570	645	440	292	132	96
16	286	5,860	6,710	1,400	1,680	1,130	538	615	448	326	132	94
17	272	4,220	5,610	1,290	1,530	1,140	561	588	471	386	130	94
18	269	2,760	8,310	1,190	1,400	1,200	579	561	440	303	130	92
19	292	2,040	11,400	1,110	1,290	1,120	534	556	417	263	120	88
20	272	1,610	9,970	1,040	1,230	1,050	516	525	386	242	122	86
21	257	1,340	6,490	980	1,200	991	498	502	366	230	120	85
22	248	1,160	4,900	936	1,090	1,000	507	525	350	221	122	86
23	239	1,030	6,130	936	1,100	969	534	512	334	218	118	85
24	230	925	5,070	1,170	1,230	936	543	498	326	206	115	83
25	224	842	4,070	2,320	1,140	974	630	660	430	200	113	83
26	227	775	3,260	2,920	1,070	986	610	660	552	195	113	85
27	278	730	2,720	4,130	1,130	947	705	760	489	189	115	88
28	272	755	2,340	3,830	1,090	903	859	980	417	186	118	92
29	254	755	2,080	3,070	-	854	775	914	374	180	120	94
30	239	930	1,850	2,530	-	810	780	810	346	186	118	90
31	251	-	1,650	2,340	-	775	-	735	-	183	113	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acre-feet
October	8,484	448	221	274	0.820	0.94	16,830
November	42,123	6,360	303	1,404	4.20	4.69	83,550
December	132,398	11,400	896	4,271	12.8	14.74	262,600
Calendar year 1941	406,380	11,400	87	1,113	3.33	45.24	806,000
January	62,112	4,830	936	2,004	6.00	6.92	123,200
February	85,760	11,400	1,070	3,063	9.17	9.55	170,100
March	31,589	1,290	775	1,019	3.05	3.52	62,660
April	19,066	659	498	636	1.90	2.12	37,820
May	22,004	980	498	710	2.13	2.45	43,640
June	14,087	675	326	470	1.41	1.57	27,940
July	7,735	386	180	250	.748	.86	15,340
August	4,292	178	113	138	.413	.48	8,510
September	2,905	110	83	96.8	.290	.32	5,760
Water year 1941-42	432,555	11,400	83	1,185	3.55	48.16	858,000

Peak discharge.- Nov. 14 (2 a.m.) 4,980 sec.-ft.; Nov. 15 (5:30 p.m.) 8,420 sec.-ft.; Dec. 2 (11 to 12 p.m.) 12,700 sec.-ft.; Dec. 19 (4 a.m.) 11,700 sec.-ft.; Jan. 8 (10 a.m.) 5,180 sec.-ft.; Feb. 4 (11 a.m.) 13,900 sec.-ft.

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

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 1942.

Average discharge.- 11 years, 194 second-feet.

Extremes.- Maximum discharge during year, 1,250 second-feet Dec. 20 (gage height, 4.53 feet); minimum, 10 second-feet Sept. 25-30.
1931-42: Maximum discharge, 3,960 second-feet Dec. 22, 1933, Jan. 13, 1936 (gage height, 8.1 feet), from rating curve extended above 2,400 second-feet; minimum, 5.5 second-feet Sept. 30 to Oct. 4, 1939.

Remarks.- Records good except those for periods of no gage-height record, which are fair. No diversion above station; flow regulated only by natural storage in Triangle Lake.

Rating table, water year 1941-42 (gage height, in feet, and discharge, in second-feet)

0.5	9.0	1.6	98	3.5	700
.7	15.5	2.0	177	4.0	950
1.0	33	2.5	312	4.5	1,230
1.3	60	3.0	485		

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	35	39	108	247	500	150	95	92	76	42	20	13
2	33	44	310	230	520	151	94	96	71	41	20	13
3	32	54	835	220	520	149	94	98	68	39	20	12
4	32	64	1,000	215	800	140	95	100	66	34	20	12
5	32	72	795	220	g1,180	136	100	98	62	32	20	12
6	32	72	624	240	g1,060	132	98	92	60	31	19	12
7	32	70	509	310	g945	126	95	86	58	30	18	12
8	32	64	420	500	g775	119	92	81	56	30	18	12
9	32	61	353	800	g650	124	88	77	57	29	17	12
10	32	57	300	760	578	170	84	79	58	28	17	12
11	33	54	262	680	525	180	81	81	59	29	17	12
12	34	52	228	520	461	175	78	81	58	29	17	12
13	35	69	210	450	406	173	77	77	55	30	16	12
14	35	242	210	390	356	170	76	73	53	30	16	12
15	34	574	220	360	318	164	75	72	51	30	15	12
16	33	775	386	340	285	159	73	71	49	32	15	12
17	32	755	619	320	259	155	73	69	48	33	15	12
18	32	574	850	300	236	153	76	67	47	34	15	11
19	33	417	1,110	290	215	149	76	66	46	34	14	11
20	34	306	1,210	270	200	142	73	63	44	31	14	11
21	34	233	1,070	260	200	132	71	61	43	30	14	11
22	32	195	880	260	180	128	69	60	41	27	14	11
23	32	166	820	260	180	124	68	59	39	27	13	11
24	31	144	810	270	200	119	69	59	39	25	13	11
25	30	128	700	320	185	117	71	62	43	24	13	10
26	30	115	574	470	170	115	71	67	46	23	13	10
27	32	106	481	540	170	112	76	69	49	23	14	10
28	35	103	410	520	160	105	81	72	49	22	14	10
29	35	101	359	480	-	101	88	77	46	21	14	10
30	35	103	321	420	-	98	89	79	45	21	13	10
31	36	-	282	420	-	95	-	79	-	21	13	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acre-feet
October	1,021	36	30	32.9	0.658	0.76	2,030
November	5,809	775	39	194	3.88	4.32	11,520
December	17,266	1,210	108	557	11.1	12.84	34,250
Calendar year 1941	55,853	1,210	11	153	3.06	41.54	110,800
January	11,882	800	215	383	7.66	8.84	23,570
February	12,234	1,180	160	437	8.74	9.10	24,270
March	4,263	180	95	138	2.76	3.17	8,460
April	2,446	100	68	81.5	1.63	1.82	4,850
May	2,363	100	59	76.2	1.52	1.76	4,690
June	1,582	76	39	52.7	1.05	1.18	3,140
July	912	42	21	29.4	.588	.68	1,810
August	491	20	13	15.8	.316	.37	974
September	343	13	10	11.4	.228	.26	680
Water year 1941-42	60,612	1,210	10	166	3.32	45.10	120,200

g Computed from graph based on gage readings.
Note.- No gage-height record Jan. 2 to Feb. 4, Feb. 21 to Mar. 1, Mar. 10-12; discharge computed on basis of records for Long Tom River near Noti.
Time basis: Pacific standard time prior to 2 a.m., Feb. 9, 1942; Pacific war time thereafter. To convert war time to standard time, subtract 1 hour.

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 1942.

Extremes.- Maximum discharge during year, 11,400 second-feet Dec. 18 (gage height, 11.78 feet); minimum, 40 second-feet Sept. 25-27 (gage height, 0.91 foot).
1910-11, 1939-42: Maximum discharge observed, 11,400 second-feet Nov. 28, 1910, Dec. 18, 1941; 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 1941-42 (gage height, in feet, and discharge, in second-feet)

0.9	39	2.0	330	4.0	1,380	8.5	6,010
1.1	67	2.5	535	5.0	2,180	10.0	8,270
1.4	133	3.0	775	6.0	3,120		
1.7	220	3.5	1,050	7.0	4,130		

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	53	108	187	886	1,730	576	571	913	1,640	517	113	56
2	57	113	2,930	805	1,950	700	540	858	1,420	462	110	54
3	62	130	5,620	740	1,750	780	530	896	1,230	422	108	53
4	62	406	3,140	695	3,750	710	576	1,510	1,080	386	106	51
5	78	244	3,710	630	3,470	695	576	1,370	974	354	104	51
6	75	181	2,630	650	3,740	680	558	1,190	940	33[illegible]	101	51
7	67	146	1,940	3,400	3,050	640	530	1,160	858	31[illegible]	97	51
8	71	126	1,420	6,140	2,680	616	530	1,070	775	30[illegible]	93	51
9	69	110	1,110	4,310	2,360	625	535	990	775	28[illegible]	88	57
10	67	101	918	3,320	2,440	946	540	984	705	26[illegible]	86	71
11	75	95	765	2,600	2,080	1,030	548	990	635	25[illegible]	86	65
12	99	88	665	2,350	1,740	1,100	562	1,030	584	24[illegible]	84	56
13	136	88	602	1,980	1,450	1,010	566	1,040	540	23[illegible]	82	53
14	99	664	700	1,660	1,230	930	576	990	512	22[illegible]	78	51
15	84	2,700	978	1,460	1,090	852	562	2,200	562	21[illegible]	75	49
16	75	2,160	5,200	1,530	962	820	512	2,400	530	214	73	47
17	69	1,230	3,670	1,400	869	825	486	1,790	462	214	71	46
18	65	780	7,020	1,230	785	880	470	1,420	450	19[illegible]	69	46
19	73	580	7,660	1,090	710	842	446	1,200	422	18[illegible]	67	45
20	93	454	5,580	979	680	780	446	1,110	402	17[illegible]	65	44
21	86	382	3,820	913	655	745	482	1,120	378	166	64	43
22	76	330	3,080	852	612	715	522	1,380	354	15[illegible]	64	41
23	69	290	4,120	815	576	670	517	1,420	338	14[illegible]	62	41
24	65	258	3,130	795	580	625	478	1,260	330	144	61	41
25	62	234	2,320	815	576	584	470	3,570	561	13[illegible]	59	41
26	62	214	1,780	940	558	540	442	5,070	1,300	133	59	40
27	113	196	1,460	2,290	566	508	504	3,570	1,110	126	57	41
28	141	187	1,220	2,310	580	482	750	2,920	842	123	59	41
29	116	181	1,100	1,790	-	466	695	2,890	690	116	61	43
30	101	190	1,070	1,480	-	462	715	2,500	584	116	59	43
31	97	-	1,020	1,300	-	490	-	2,010	-	116	57	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off: Inches	Run-off: Acre-feet
October	2,517	141	53	81.2	0.179	0.21	4,990
November	12,966	2,700	88	432	.952	1.06	25,720
December	80,565	7,660	187	2,599	5.72	6.60	159,800
Calendar year 1941	237,072	7,660	52	650	1.43	19.42	470,200
January	52,345	6,140	630	1,689	3.72	4.29	103,800
February	43,219	3,750	558	1,544	3.40	3.54	85,720
March	22,324	1,100	462	720	1.59	1.83	44,280
April	16,235	750	442	541	1.19	1.33	32,200
May	52,821	5,070	558	1,704	3.75	4.33	104,800
June	22,003	1,640	330	733	1.61	1.80	43,640
July	7,285	517	116	235	.518	.60	14,450
August	2,418	113	57	78.0	.172	.20	4,800
September	1,463	71	40	48.8	.107	.12	2,900
Water year 1941-42	316,161	7,660	40	866	1.91	25.91	627,100

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

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). Former gage at site 400 feet upstream, at different datum.
Drainage area.- 1,640 square miles (revised).
Records available.-December 1905 to June 1912, October 1923 to September 1926, January to September 1942.
Extremes.- Maximum discharge observed during year, 20,000 second-feet Feb. 4 (gage height, 14.61 feet); minimum observed, 81 second-feet Sept. 25, 27 (gage height, 3.04 feet).
1905-12, 1923-26, 1942: Maximum discharge, 71,000 second-feet Jan. 4, 1907 (gage height, 26.0 feet, from floodmark, former site and datum), from rating curve extended above 15,000 second-feet parallel to later curve defined by discharge measurements to 24,000 second-feet; minimum observed, 36 second-feet Aug. 12, 13, 1926.
Flood of Feb. 21, 1927, reached a stage of about 31.8 feet, present site and datum (discharge, about 78,000 second-feet). The flood of February 1890 reached a stage just 2 feet higher, according to John Lander, who lived nearby at the time of both floods, (discharge, about 85,000 second-feet).
Remarks.- Records good. Many small diversions above station for irrigation; no regulation. Gage read twice daily.
Cooperation.- Gage installed and gage-height record furnished by Bureau of Reclamation.

Rating table, January to December 1942 (gage height, in feet, and discharge, in second-feet)

3.0	75	5.0	810	9.0	6,160
3.3	124	5.5	1,160	10.0	8,260
3.6	195	6.0	1,590	12.0	13,050
4.0	320	7.0	2,780	14.0	18,300
4.5	530	8.0	4,330		

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1				-	6,260	1,540	1,070	1,620	3,620	920	190	89
2				-	7,330	1,740	1,090	1,790	3,140	768	192	91
3				-	8,060	1,690	1,120	1,700	2,710	690	185	92
4				-	16,000	1,690	1,180	2,320	2,340	608	182	95
5				-	15,300	1,660	1,300	2,630	2,130	530	180	97
6				-	14,200	1,570	1,190	2,300	1,910	510	178	94
7				-	11,600	1,510	1,140	2,080	1,750	500	172	91
8				-	11,300	1,450	1,090	1,930	1,580	471	165	91
9				-	8,130	1,370	1,070	1,790	1,540	453	163	102
10				-	6,860	1,390	1,060	1,790	1,430	435	158	135
11				-	6,020	1,760	1,000	1,900	1,320	423	153	156
12				-	5,160	1,970	1,020	1,990	1,140	401	153	146
13				-	4,360	2,110	1,030	2,030	1,050	399	148	139
14				-	3,650	2,060	1,110	1,930	1,020	383	146	128
15				-	3,330	2,120	1,100	2,840	961	379	142	99
16				3,390	3,050	2,030	1,100	4,760	1,020	355	133	92
17				3,200	2,740	2,080	954	4,240	940	355	128	89
18				2,880	2,410	2,230	968	3,940	901	348	126	92
19				2,560	2,150	2,410	914	3,280	836	330	120	89
20				2,290	1,970	2,300	868	2,320	762	316	118	92
21				2,150	1,910	2,010	856	1,970	714	302	113	94
22				1,990	1,830	1,980	856	2,720	674	276	111	92
23				1,940	1,600	1,760	934	2,810	613	258	107	86
24				2,700	1,710	1,640	927	2,850	608	252	107	83
25				3,480	1,650	1,590	901	5,140	635	249	102	81
26				4,010	1,550	1,540	888	11,200	1,170	234	100	83
27				11,300	1,560	1,340	920	7,910	1,940	225	97	81
28				10,500	1,540	1,270	1,280	6,100	1,510	225	95	83
29				7,370	-	1,210	1,410	5,770	1,190	213	91	83
30				5,660	-	1,180	1,330	5,230	1,100	210	89	86
31				4,690	-	1,140	-	4,240	-	195	88	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acre-feet
October							
November							
December							
Calendar year							
January 16-31	70,110	11,300	1,940	4,382	2.67	1.59	139,100
February	153,230	16,000	1,540	5,472	3.34	3.47	303,900
March	53,340	2,410	1,140	1,721	1.05	1.21	105,800
April	31,676	1,410	856	1,056	.644	.72	62,830
May	105,120	11,200	1,620	3,391	2.07	2.38	208,500
June	42,254	3,620	608	1,408	.859	.96	83,810
July	12,213	920	195	394	.240	.28	24,220
August	4,232	192	88	137	.084	.10	8,390
September	2,951	156	81	98.4	.060	.07	5,850
The period	-	-	-	-	-	-	942,400

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

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 1942 (incomplete prior to November 1908).

Average discharge.- 37 years, 6,977 second-feet.

Extremes.- Maximum discharge during year, 74,200 second-feet Dec. 19 (gage height, 22.6 feet, from graph based on gage readings), from rating curve extended above 50,000 second-feet; minimum observed, 818 second-feet Sept. 25, 26 (gage height, 1.06 feet).
1905-42: Maximum discharge, 172,000 second-feet Feb. 21, 1927 (gage height, 41.0 feet, from floodmark), from rating curve extended above 50,000 second-feet; minimum observed, 640 second-feet July 18, 1926 (gage height, 0.71 foot).
Maximum stage known, 45.5 feet sometime in 1861.

Remarks.- Records good. Some diversions for irrigation from streams in South Umpqua River Basin, but low flow probably only slightly affected. Slight fluctuation by gates and racks of fish hatchery at Diamond Lake and by power plant at Winchester ordinarily does not affect discharge at this station. Gage read twice daily.

Rating table, water year 1941-42 (gage height, in feet, and discharge, in second-feet)

1.0	770	3.0	2,930	7.0	10,900	15.0	39,700
1.5	1,220	4.0	4,340	9.0	17,000	17.0	48,400
2.0	1,730	5.0	6,130	11.0	23,800	19.0	57,300
2.5	2,300	6.0	8,300	13.0	31,500	22.0	71,300

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	940	1,210	2,070	8,060	12,400	4,840	3,530	4,760	10,600	3,530	1,250	931
2	931	1,220	g5,120	6,950	16,100	4,760	3,740	5,640	9,040	3,150	1,230	922
3	922	1,260	g53,200	6,430	15,800	5,370	3,670	5,640	7,830	2,880	1,220	922
4	949	g1,450	g41,800	6,130	g24,600	5,840	3,740	6,330	6,950	2,630	1,220	922
5	958	3,600	27,200	5,740	38,000	5,460	3,960	8,660	6,130	2,420	1,200	913
6	985	2,500	21,400	5,280	30,700	5,100	3,880	7,940	5,640	2,290	1,200	904
7	1,040	1,990	16,400	8,920	26,800	4,920	3,670	6,840	5,550	2,170	1,200	904
8	1,010	1,640	12,700	34,300	22,400	4,670	3,600	6,330	5,190	2,080	1,180	904
9	1,030	1,460	9,820	35,500	19,300	4,420	3,530	5,840	4,920	2,020	1,160	895
10	1,070	1,300	8,060	24,200	17,700	5,100	3,450	5,640	4,840	1,930	1,130	886
11	1,020	1,260	6,740	18,300	16,400	6,330	3,400	5,640	4,580	1,850	1,120	931
12	1,040	1,220	5,840	15,800	13,900	6,430	3,380	5,740	4,180	1,820	1,110	967
13	1,060	1,240	5,100	12,700	11,500	6,740	3,360	5,460	3,880	1,810	1,100	949
14	1,360	g1,900	5,370	10,900	9,690	6,840	3,400	5,280	3,600	1,740	1,090	931
15	1,290	g22,000	g8,060	9,170	8,420	6,640	3,670	5,190	3,530	1,690	1,080	913
16	1,220	g43,100	32,300	8,540	7,600	6,230	3,600	7,490	3,600	1,690	1,070	904
17	1,120	23,100	46,200	8,180	6,840	6,130	3,430	10,100	3,530	1,660	1,060	886
18	1,060	14,200	g48,400	7,490	6,330	6,230	3,330	8,420	3,290	1,730	1,050	868
19	1,070	8,300	70,800	6,840	5,370	6,530	3,260	7,160	3,070	1,700	1,030	850
20	1,040	6,030	56,000	6,230	5,190	6,330	3,120	6,130	2,930	1,580	1,020	850
21	1,060	5,010	36,300	5,640	5,190	5,840	3,030	5,640	2,810	1,510	1,010	850
22	1,090	4,180	25,700	5,370	4,920	5,550	3,100	5,550	2,600	1,470	994	834
23	1,070	3,670	28,000	5,190	4,760	5,280	3,180	7,490	2,500	1,430	985	834
24	1,040	3,270	31,100	5,280	4,760	5,010	3,350	7,720	2,410	1,390	976	834
25	1,010	2,970	23,100	6,230	5,190	4,670	3,240	7,720	2,500	1,370	967	818
26	994	2,680	17,700	6,840	5,010	4,420	3,310	24,900	3,020	1,330	949	818
27	1,010	2,470	13,900	13,300	4,840	4,180	3,360	23,100	6,640	1,300	940	834
28	1,040	2,300	12,100	22,800	4,920	3,960	3,810	18,000	5,930	1,290	940	834
29	1,240	2,200	10,100	17,700	-	3,810	5,010	16,400	4,670	1,270	940	834
30	1,280	2,100	9,170	13,300	-	3,600	4,760	15,800	4,030	1,260	940	834
31	1,270	-	8,660	10,900	-	3,530	-	13,300	-	1,260	940	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off: Inches	Run-off: Acre-feet
October	33,239	1,360	922	1,072	0.291	0.34	65,930
November	170,830	43,100	1,210	5,694	1.55	1.73	338,800
December	698,410	70,800	2,070	22,530	6.12	7.06	1,385,000
Calendar year 1941	2,019,779	70,800	886	5,534	1.50	20.42	4,006,000
January	358,210	35,500	5,190	11,560	3.14	3.62	710,500
February	354,630	38,000	4,760	12,670	3.44	3.58	703,400
March	164,760	6,840	3,530	5,315	1.44	1.67	326,800
April	108,870	5,010	3,030	3,562	.968	1.08	212,000
May	275,850	24,900	4,760	8,898	2.42	2.79	547,100
June	139,990	10,600	2,410	4,666	1.27	1.41	277,700
July	57,250	3,530	1,260	1,847	.502	.58	113,600
August	33,301	1,250	940	1,074	.292	.34	66,050
September	26,476	967	818	883	.240	.27	52,510
Water year 1941-42	2,419,816	70,800	818	6,630	1.80	24.47	4,799,000

g Computed from graph based on gage readings.
Time basis: Pacific standard time prior to 2 a.m., Feb. 9, 1942; Pacific war time thereafter. To convert war time to standard time, subtract 1 hour.

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 1942 (incomplete 1926-29 and 1932).
Average discharge.- 12 years (1929-31, 1932-42), 88.7 second-feet.
Extremes.- Maximum discharge during year, 2,880 second-feet Dec. 18 (gage height, 8.2 feet, from graph based on gage readings); minimum observed, 8.5 second-feet Sept. 26 (gage height, 1.77 feet).
1926-42: Maximum discharge observed, 4,000 second-feet Jan. 2, 1933 (gage height, 7.8 feet), from rating curve extended above 320 second-feet by logarithmic plotting; minimum obeerved, 4 second-feet Sept. 9-19, 1929, Aug. 26-28, 1931, Aug. 21 to Sept. 6, 1934.
Remarks.- Records good except those for periods Nov. 15, 16, Dec. 18, 19, which are fair. Staff gage read once daily. Small diversions above station for irrigation.

Rating tables, water year 1941-42 (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Sept. 9-11)

Oct. 1 to Dec. 2

1.9	15	2.4	79
2.0	21	2.6	120
2.2	45	2.9	197

Note.- Same as following table above 2.9 feet.

Dec. 3 to Sept. 30

1.8	9.8	2.6	122	4.5	750
1.9	15	2.9	197	5.0	990
2.0	23	3.2	281	6.0	1,490
2.2	46	3.5	370		
2.4	80	4.0	550		

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	11	17	20	107	346	80	62	80	168	38	16	11
2	11	19	g940	96	407	82	60	76	148	38	15	11
3	12	23	g940	86	456	80	60	78	132	36	15	11
4	13	28	g224	80	g990	76	59	80	113	33	15	10
5	14	20	g224	75	940	75	59	78	104	31	14	10
6	13	18	134	80	g640	75	57	73	100	31	14	10
7	13	16	100	g224	510	73	54	67	92	30	14	11
8	13	15	84	g590	388	71	51	62	88	30	14	12
9	13	14	69	340	328	73	49	62	86	29	14	15
10	13	14	62	293	293	76	48	64	76	28	14	14
11	12	14	54	235	252	82	48	71	73	28	14	13
12	16	14	49	197	224	100	49	90	69	27	13	12
13	17	17	52	187	205	94	51	84	64	27	13	11
14	14	51	71	156	192	88	54	80	62	27	13	11
15	13	g224	g171	151	176	86	57	219	66	26	12	11
16	13	g144	g1,290	146	154	84	52	202	60	27	12	11
17	13	65	g840	134	141	88	48	158	56	26	12	10
18	14	42	g1,890	132	129	90	45	124	54	24	12	10
19	23	31	g1,140	129	115	96	42	104	51	24	11	10
20	20	26	g550	113	113	92	41	86	48	23	11	9.8
21	17	23	340	100	109	86	40	281	46	23	11	9.8
22	15	21	252	96	100	84	42	224	46	21	11	9.8
23	14	20	449	100	96	82	43	171	43	21	11	9.0
24	14	19	346	113	96	80	48	154	42	20	11	9.0
25	13	19	293	146	90	76	45	710	62	20	11	9.0
26	14	18	202	340	92	71	43	358	76	19	11	8.5
27	17	18	171	456	88	69	66	269	60	17	11	9.4
28	17	17	146	328	82	66	76	224	49	17	12	9.4
29	15	17	136	241	-	62	67	293	48	17	12	9.8
30	15	19	122	230	-	62	76	241	43	17	12	9.8
31	16	-	113	266	-	66	-	197	-	16	11	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acre-feet
October	448	23	11	14.5	0.191	0.22	889
November	1,003	224	14	33.4	.439	.49	1,990
December	11,474	1,890	20	370	4.87	5.61	22,760
Calendar year 1941	32,466	1,890	10	88.9	1.17	15.39	64,420
January	5,967	590	75	192	2.53	2.92	11,840
February	7,954	990	82	284	3.74	3.89	15,780
March	2,465	100	62	79.5	1.05	1.21	4,890
April	1,592	76	40	53.1	.699	.76	3,160
May	5,060	710	62	163	2.14	2.48	10,040
June	2,225	168	42	74.2	.976	1.09	4,410
July	791	38	16	25.5	.336	.39	1,570
August	392	16	11	12.6	.166	.19	778
September	317.3	15	8.5	10.6	.139	.16	629
Water year 1941-42	39,688.3	1,890	8.5	109	1.43	19.43	78,740

g Computed from graph based on gage readings.
Time basis: Pacific standard time prior to 2 a.m., Feb. 9, 1942; Pacific war time thereafter. To convert war time to standard time, subtract 1 hour.

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 1942.

Average discharge.- 15 years, 355 second-feet.

Extremes.- Maximum discharge during year, 501 second-feet May 25 (gage height, 1.32 feet); minimum, 243 second-feet Oct. 1-7 (gage height, 0.72 foot).
1927-42: 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 excellent except those for period of no gage-height record, which are good. No diversion above station. Flow slightly regulated by Diamond Lake.

Rating table, water year 1941-42 (gage height, in feet, and discharge, in second-feet)

0.7	235	0.9	312	1.1	396
.8	273	1.0	353	1.3	490

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	243	258	285	269	324	308	269	337	441	345	308	304
2	243	254	349	285	328	304	273	341	441	345	304	304
3	243	273	379	320	332	304	281	362	428	345	304	304
4	243	285	345	308	341	304	289	356	446	349	308	304
5	243	269	341	300	337	304	292	356	446	345	304	304
6	243	265	332	312	337	300	296	366	446	341	308	300
7	246	262	328	356	337	300	300	370	446	337	308	292
8	246	262	341	353	332	300	304	370	436	337	304	289
9	246	258	337	341	337	300	308	374	441	332	300	289
10	254	258	332	337	337	a330	312	383	432	332	300	289
11	250	254	328	337	332	a335	320	379	423	332	296	285
12	246	254	324	349	328	a330	328	379	414	332	296	281
13	246	262	324	349	320	a322	337	374	410	328	292	281
14	262	308	316	345	324	a314	345	370	405	328	292	277
15	254	328	324	345	320	a307	349	370	414	324	292	277
16	265	312	316	341	320	a300	349	366	400	328	292	273
17	254	296	300	337	320	a294	349	370	392	324	289	273
18	250	289	324	337	316	a290	341	374	387	320	292	277
19	254	289	345	332	312	a287	341	379	383	320	296	277
20	254	285	337	328	316	a284	345	392	374	320	296	273
21	254	285	328	324	316	a282	353	423	370	320	296	273
22	250	285	328	324	312	a280	370	456	366	320	296	273
23	250	281	328	324	312	a278	370	475	362	320	296	269
24	250	281	328	324	312	a276	370	475	362	320	296	269
25	246	281	324	324	312	a274	362	485	379	316	300	281
26	250	281	300	332	304	a272	353	490	374	316	304	281
27	254	281	300	337	308	a270	353	480	362	316	304	281
28	254	281	324	328	308	a268	345	466	353	312	308	285
29	254	281	328	324	-	a266	341	461	349	312	304	281
30	254	289	320	324	-	a264	337	451	349	312	304	281
31	258	-	304	324	-	269	-	446	-	308	304	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acre-feet
October	7,759	265	243	250	1.43	1.65	15,390
November	8,347	328	254	278	1.59	1.77	16,560
December	10,119	379	285	326	1.86	2.15	20,070
Calendar year 1941	109,065	379	243	299	1.71	23.17	216,300
January	10,170	356	269	328	1.87	2.16	20,170
February	9,034	341	304	323	1.85	1.92	17,920
March	9,116	335	264	294	1.68	1.94	18,080
April	9,882	370	269	329	1.88	2.10	19,600
May	12,476	490	337	402	2.30	2.65	24,750
June	12,031	446	349	401	2.29	2.56	23,860
July	10,136	349	308	327	1.87	2.15	20,100
August	9,293	308	289	300	1.71	1.97	18,430
September	8,527	304	269	284	1.62	1.81	16,910
Water year 1941-42	116,890	490	243	320	1.83	24.83	231,800

a No gage-height record; discharge computed on basis of records for station above Toketee Falls.
Time basis: Pacific standard time prior to 2 a.m., Feb. 9, 1942; Pacific war time thereafter. To convert war time to standard time, subtract 1 hour.

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 1942.

Average discharge.- 17 years (1925-42), 841 second-feet.

Extremes.- Maximum discharge during year, 1,710 second-feet Dec. 18 (gage height, 2.46 feet); minimum, 520 second-feet Oct. 1, 3, 18, 23-26 (gage height, 0.72 foot).
1908-9, 1914-17, 1924-42: Maximum discharge, 3,600 second-feet Feb. 20, 1927 (gage height, 4.65 feet), from rating curve extended above 1,600 second-feet on basis of velocity-area studies; minimum, 475 second-feet Nov. 27-29, Dec. 12, 14, 1931.

Remarks.- Records excellent. No diversion above station; regulation at Diamond Lake has little effect.

Rating table, water year 1941-42 (gage height, in feet, and discharge, in second-feet)

0.7	510	1.3	835	2.4	1,660
.9	610	1.6	1,040		
1.1	720	2.0	1,340		

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	525	545	616	758	970	758	753	842	1,160	823	676	616
2	525	545	1,040	758	970	764	753	842	1,190	811	670	610
3	525	632	1,440	781	970	753	764	887	1,140	805	670	610
4	530	654	1,140	761	1,120	748	799	907	1,140	805	665	610
5	525	590	1,140	758	1,120	748	799	907	1,140	793	660	605
6	525	575	1,100	764	1,120	748	805	914	1,140	781	660	605
7	530	565	1,030	984	1,090	742	811	942	1,120	775	660	595
8	530	555	984	1,260	1,050	742	817	963	1,090	770	654	600
9	525	550	928	1,200	1,050	753	823	984	1,100	734	654	600
10	540	545	880	1,140	1,070	963	842	984	1,060	733	648	595
11	535	545	842	1,110	1,050	970	961	970	1,030	733	648	590
12	545	540	817	1,100	1,010	963	887	956	998	748	643	585
13	535	590	805	1,070	970	942	914	928	977	742	638	585
14	545	882	799	1,030	949	914	935	928	970	742	638	585
15	530	1,210	868	1,010	921	861	921	991	1,000	736	638	580
16	540	1,030	1,030	1,000	894	848	907	998	963	742	632	580
17	525	842	963	977	874	829	900	998	928	736	632	580
18	525	764	1,300	949	854	823	880	991	907	720	632	580
19	545	720	1,640	921	829	811	868	991	894	714	632	580
20	540	687	1,520	900	835	799	880	1,030	874	709	632	575
21	530	672	1,330	880	823	799	921	1,100	854	704	626	575
22	525	654	1,200	861	811	793	956	1,240	848	704	626	575
23	520	643	1,190	854	799	787	942	1,230	835	704	626	575
24	520	632	1,100	848	799	775	921	1,220	829	698	621	580
25	520	621	1,040	854	787	770	907	1,320	949	692	621	590
26	525	616	970	900	770	753	874	1,360	956	692	626	590
27	550	610	928	1,030	781	758	887	1,340	894	637	626	585
28	550	605	907	1,000	764	726	874	1,320	861	637	626	585
29	550	610	907	970	-	714	848	1,300	848	632	626	585
30	540	621	861	956	-	709	848	1,270	835	632	621	585
31	545	-	829	942	-	726	-	1,220	-	676	621	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off: Inches	Run-off: Acre-feet
October	16,520	550	520	533	1.58	1.82	32,770
November	19,850	1,210	540	662	1.96	2.19	39,370
December	32,144	1,640	616	1,037	3.08	3.55	63,760
Calendar year 1941	253,847	1,640	520	695	2.06	28.01	503,500
January	29,346	1,260	758	947	2.81	3.24	58,210
February	26,050	1,120	764	930	2.76	2.87	51,670
March	24,789	970	709	800	2.37	2.74	49,170
April	25,897	956	753	863	2.56	2.86	51,370
May	32,873	1,360	842	1,060	3.16	3.63	65,200
June	29,550	1,190	829	985	2.92	3.26	58,610
July	22,830	823	676	736	2.18	2.52	45,280
August	19,848	676	621	640	1.90	2.19	39,370
September	17,691	616	575	590	1.75	1.95	35,090
Water year 1941-42	297,388	1,640	520	815	2.42	32.82	589,900

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

— 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 1942.
Average discharge.- 18 years, 2,209 second-feet.
Extremes.- Maximum discharge during year, 22,300 second-feet Dec. 18 (gage height, 12.67 feet); minimum, 655 second-feet Oct. 25, 26 (gage height, 2.20 feet).
1924-42: Maximum discharge, 55,000 second-feet Feb. 20, 1927 (gage height, 20.18 feet), from rating curve extended above 18,000 second-feet; minimum, 521 second-feet Oct. 16, 1931 (gage height, 1.86 feet).
Remarks.- Records good except those for periods Oct. 1-25, Jan. 7 to Apr. 3, which are fair. No diversion above station; regulation at Diamond Lake has little effect.

Rating table, water year 1941-42 (gage height, in feet, and discharge, in second-feet)

2.2	655	4.0	1,980	7.0	6,420
2.5	805	4.5	2,490	8.0	8,630
2.8	1,000	5.0	3,060	9.0	11,100
3.2	1,300	5.5	3,750	10.0	13,700
3.6	1,620	6.0	4,530	11.0	16,700

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	660	829	1,130	2,230	3,800	1,890	1,740	2,290	3,660	1,630	898	740
2	668	817	5,940	2,130	3,720	2,090	1,660	2,210	3,380	1,550	891	735
3	678	1,210	11,900	2,030	3,330	2,320	1,660	2,300	3,020	1,480	884	730
4	673	2,330	7,570	1,940	7,060	2,120	1,780	3,270	2,780	1,420	878	725
5	700	1,410	8,030	1,800	6,130	2,030	1,800	3,220	2,610	1,360	872	725
6	705	1,140	6,100	1,840	6,170	2,000	1,750	2,880	2,820	1,320	859	715
7	705	1,000	4,890	5,440	5,260	1,870	1,720	2,790	2,660	1,280	853	715
8	811	910	3,840	11,300	4,850	1,790	1,700	2,630	2,460	1,250	841	710
9	805	853	3,150	7,720	4,560	1,840	1,700	2,560	2,510	1,220	841	745
10	761	817	2,700	5,800	5,040	2,800	1,720	2,510	2,360	1,200	841	745
11	761	783	2,350	4,960	4,390	2,950	1,740	2,480	2,210	1,200	835	725
12	1,130	766	2,110	4,320	3,800	2,930	1,780	2,390	2,060	1,170	823	710
13	1,160	876	1,960	3,740	3,290	2,760	1,800	2,280	1,950	1,140	811	700
14	979	6,620	2,140	3,270	2,950	2,570	1,890	2,210	1,870	1,130	805	696
15	872	16,000	3,110	2,950	2,700	2,410	1,840	2,920	1,950	1,110	800	691
16	805	9,560	9,650	2,930	2,460	2,370	1,740	3,560	1,920	1,140	794	691
17	740	5,450	7,170	2,740	2,250	2,370	1,700	3,160	1,770	1,210	788	686
18	700	3,520	13,500	2,530	2,070	2,400	1,680	2,810	1,680	1,130	783	682
19	735	2,620	15,200	2,340	1,910	2,300	1,630	2,590	1,630	1,080	778	678
20	772	2,160	9,830	2,180	1,890	2,160	1,640	2,510	1,560	1,060	778	673
21	a720	1,870	7,170	2,080	1,840	2,110	1,730	2,590	1,510	1,040	772	a670
22	a690	1,670	5,840	1,970	1,750	2,080	1,820	3,160	1,470	1,010	766	a670
23	a670	1,520	6,610	1,900	1,700	2,050	1,800	3,190	1,440	993	761	a670
24	a665	1,410	5,580	1,850	1,840	1,850	1,730	2,980	1,400	979	756	a670
25	660	1,320	4,600	1,840	1,880	1,760	1,760	5,580	1,840	965	750	a665
26	664	1,260	3,900	2,180	1,840	1,670	1,740	7,720	3,060	958	756	a665
27	811	1,210	3,400	4,940	1,880	1,610	1,860	6,190	2,700	944	756	673
28	917	1,160	3,070	4,700	1,890	1,570	2,290	6,210	2,200	937	766	673
29	847	1,130	2,880	3,880	-	1,530	2,110	5,740	1,920	924	761	673
30	794	1,150	2,700	3,360	-	1,520	2,080	4,990	1,750	917	756	673
31	783	-	2,560	3,040	-	1,600	-	4,290	-	904	745	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off: Inches	Run-off: Acre-feet
October	24,041	1,160	660	776	0.876	1.01	47,680
November	73,371	16,000	766	2,446	2.76	3.08	145,500
December	170,580	15,200	1,130	5,503	6.21	7.16	338,300
Calendar year 1941	689,717	16,000	660	1,890	2.13	28.95	1,368,000
January	105,930	11,300	1,800	3,417	3.86	4.45	210,100
February	92,250	7,060	1,700	3,295	3.72	3.87	183,000
March	65,320	2,950	1,520	2,107	2.38	2.74	129,600
April	53,590	2,290	1,630	1,786	2.02	2.25	106,300
May	106,210	7,720	2,210	3,426	3.87	4.46	210,700
June	66,150	3,660	1,400	2,205	2.49	2.78	131,200
July	35,651	1,630	904	1,150	1.30	1.50	70,710
August	24,998	898	745	806	.910	1.05	49,580
September	20,919	745	665	697	.787	.88	41,490
Water year 1941-42	839,010	16,000	660	2,299	2.59	35.23	1,664,000

Peak discharge.- Nov. 15 (5 p.m.) 20,200 sec.-ft.; Dec. 3 (1:30 a.m.) 15,800 sec.-ft.; Dec. 18 (7 p.m.) 22,300 sec.-ft.; Jan. 8 (5 a.m.) 13,600 sec.-ft.
a No gage-height record; discharge computed on basis of records for station above Tokatee Falls and for Umpqua River near Elkton.
Time basis: Pacific standard time prior to 2 a.m., Feb. 9, 1942; Pacific war time thereafter. To convert war time to standard time, subtract 1 hour.

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, about 5,180 feet (from river-profile map).

Drainage area.- 57 square miles.

Records available.- May 1922 to September 1925 (incomplete), October 1926 to September 1942.

Average discharge.- 15 years (1926-29, 1930-42), 46.0 second-feet.

Extremes.- Maximum discharge during year, 108 second-feet Jan. 11 (gage height, 1.63 feet); minimum, 1 second-foot (regulated) Nov. 1, Mar. 27 to Apr. 1, Apr. 3, May 15; minimum daily, 1 second-foot Mar. 31.
1922-25, 1926-42: Maximum discharge observed, 146 second-feet June 1, 1925 (gage height, 2.13 feet, site and datum then in use); no flow (result of regulation) Aug. 25-27, 1931.

Remarks.- Records good except those for periods of shifting-control, 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.

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	7	15	36	a66	77	61	4	15	51	31	26	27
2	7	18	49	66	77	58	7	26	43	31	24	26
3	7	29	56	65	79	58	7	39	45	40	22	25
4	8	36	57	64	85	57	8	41	52	38	23	24
5	8	32	57	63	86	56	8	43	51	37	23	24
6	8	33	57	64	88	56	8	51	50	36	31	2
7	8	32	66	71	86	53	9	48	49	35	28	6
8	8	31	80	76	85	52	5	44	46	34	27	6
9	10	31	77	80	84	52	3	40	44	33	24	6
10	15	31	76	80	82	52	3	44	43	33	24	6
11	12	31	75	92	80	52	3	44	42	32	22	6
12	11	31	72	104	79	52	3	44	41	32	22	6
13	9	36	68	102	76	53	3	44	40	31	23	6
14	23	43	66	97	75	53	3	37	40	31	24	6
15	18	48	58	95	74	a54	3	31	40	30	24	6
16	20	50	50	93	72	54	6	33	33	30	23	6
17	10	49	50	90	71	53	4	38	33	29	24	6
18	9	46	63	89	69	52	4	38	31	28	24	5
19	10	45	68	87	68	51	4	40	31	27	30	5
20	11	44	71	84	68	50	4	43	31	27	27	5
21	11	45	71	77	66	50	4	52	31	29	27	5
22	11	42	71	76	65	49	5	45	31	31	26	5
23	11	42	71	76	65	48	5	50	30	31	25	7
24	11	41	71	75	65	46	4	40	30	30	24	14
25	11	40	70	75	64	46	5	38	32	29	30	20
26	14	39	69	76	62	45	5	50	32	29	32	19
27	15	39	68	79	63	29	4	51	31	27	31	18
28	15	39	68	79	62	8	6	50	31	27	30	18
29	16	39	66	77	-	5	6	51	31	27	29	18
30	16	39	66	77	-	2	7	51	31	25	28	19
31	16	-	66	77	-	1	-	51	-	27	27	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off: Inches	Run-off: Acre-feet
October	366	23	7	11.8	0.207	0.24	726
November	1,116	50	15	37.2	.653	.73	2,210
December	2,011	80	36	64.9	1.14	1.31	3,990
Calendar year 1941	14,456	80	5	39.6	.695	9.44	28,660
January	2,472	104	63	79.7	1.40	1.61	4,900
February	2,073	88	62	74.0	1.30	1.35	4,110
March	1,408	61	1	45.4	.796	.92	2,790
April	150	9	3	5.0	.088	.10	298
May	1,314	52	15	42.4	.744	.86	2,610
June	1,146	52	30	38.2	.670	.75	2,270
July	957	40	25	30.9	.542	.62	1,900
August	804	32	22	25.9	.454	.52	1,590
September	352	27	2	11.7	.205	.23	698
Water year 1941-42	14,169	104	1	38.8	.681	9.24	28,090

a No gage-height record; discharge interpolated.
Time basis: Pacific standard time prior to 2 a.m., Feb. 9, 1942; Pacific war time thereafter. To convert war time to standard time, subtract 1 hour.

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 1942.

Average discharge.- 14 years (1928-42), 140 second-feet.

Extremes.- Maximum discharge during year, 264 second-feet Dec. 2 (gage height, 1.62 feet); minimum, 114 second-feet Oct. 1, Nov. 11, 12 (gage height, 0.73 foot).
1927-42: Maximum discharge, 380 second-feet June 9, 1933 (gage height, 2.02 feet, datum then in use), from rating curve extended above 200 second-feet; minimum, 91 second-feet Nov. 4-6, 27, Dec. 12, 29, 1931, Jan. 3, 1932.

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

Rating table, water year 1941-42 (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Oct. 1 to Dec. 2)

0.7	105
.9	133
1.1	166
1.3	201

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	115	117	122	130	136	135	133	146	168	152	128	118
2	117	117	190	132	136	135	132	144	173	151	127	118
3	117	122	185	130	137	135	133	147	171	147	127	118
4	118	120	152	130	140	135	135	146	169	146	127	118
5	118	118	146	128	139	135	135	146	171	143	127	118
6	118	117	141	130	138	134	136	146	174	141	127	118
7	120	115	136	149	138	134	138	149	171	139	127	118
8	118	115	133	147	137	134	138	152	169	139	126	118
9	118	115	132	141	138	134	141	154	173	138	126	118
10	118	115	128	138	138	144	143	152	166	138	126	118
11	118	114	127	138	137	145	144	151	161	138	126	118
12	120	114	127	138	137	144	147	151	159	136	126	118
13	118	122	128	136	137	142	152	149	159	136	124	118
14	118	151	127	136	137	140	154	151	159	136	124	118
15	118	166	138	136	137	138	152	154	166	136	124	118
16	118	141	143	136	136	137	152	154	161	136	124	118
17	118	132	135	135	136	136	152	156	156	135	124	118
18	118	127	149	135	136	135	151	154	154	133	122	118
19	120	126	165	133	136	134	151	156	152	133	122	118
20	117	122	159	133	136	133	152	161	151	132	121	118
21	117	122	154	132	136	132	158	169	149	132	121	118
22	115	121	151	132	135	132	159	163	149	132	121	118
23	115	121	149	132	135	131	166	178	147	130	121	118
24	115	120	144	133	135	131	164	180	147	130	120	118
25	115	120	141	132	135	130	162	199	166	130	120	118
26	115	120	138	141	135	130	151	185	163	130	120	118
27	118	120	138	143	135	129	151	176	156	130	120	118
28	117	120	138	139	135	129	149	173	152	130	120	118
29	117	121	136	138	-	128	147	169	154	128	118	118
30	115	124	135	137	-	128	147	171	154	128	118	118
31	117	-	133	136	-	132	-	169	-	128	118	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acre-feet
October	3,636	120	115	117	2.92	3.38	7,210
November	3,695	166	114	123	3.08	3.44	7,330
December	4,418	190	122	143	3.58	4.11	8,760
Calendar year 1941	46,682	190	114	128	3.20	43.41	92,580
January	4,206	149	128	136	3.40	3.91	8,340
February	3,822	140	135	136	3.40	3.55	7,580
March	4,171	145	128	135	3.38	3.88	8,270
April	4,395	159	132	146	3.65	4.09	8,720
May	4,971	199	144	160	4.00	4.62	9,860
June	4,820	174	147	161	4.02	4.48	9,560
July	4,213	152	128	136	3.40	3.92	8,360
August	3,822	128	118	123	3.08	3.55	7,580
September	3,540	118	118	118	2.95	3.29	7,020
Water year 1941-42	49,709	199	114	136	3.40	46.22	98,590

Note.- No gage-height record Jan. 30 to Mar. 30; discharge computed on basis of range of stage and records for North Umpqua River below Lake Creek and above Toketee Falls.
Time basis: Pacific standard time prior to 2 a.m., Feb. 9, 1942; Pacific war time thereafter. To convert war time to standard time, subtract 1 hour.

South Fork of 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 1942. September 1916 to September 1926 at site 1½ miles upstream.

Average discharge.- 23 years (1916-26, 1929-42), 705 second-feet.

Extremes.- Maximum discharge during year, 15,500 second-feet Dec. 2 (gage height, 14.50 feet), from rating curve extended above 11,000 second-feet; minimum, 20 second-feet Sept. 30 (gage height, 1.15 feet).
1916-26, 1928-42: 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, 1931.

Remarks.- Records good except those for period Dec. 3 to Feb. 4, which are fair. No regulation above station. Small diversions for irrigation.

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	37	66	368	941	3,030	560	448	1,070	824	182	62	33
2	36	122	11,200	866	4,250	642	395	941	694	163	62	32
3	35	159	7,880	806	6,450	752	395	837	590	155	59	31
4	38	294	3,730	752	9,740	681	488	934	500	143	59	31
5	39	172	2,780	702	4,420	603	494	837	442	136	58	30
6	38	136	1,960	712	3,420	560	442	726	400	131	56	29
7	39	116	1,420	2,930	3,510	500	395	603	375	125	52	28
8	39	99	1,100	4,730	3,040	454	360	512	338	123	52	29
9	36	90	902	2,750	2,160	448	329	506	356	114	51	58
10	36	82	752	1,940	1,720	500	300	610	320	110	51	50
11	38	82	645	1,530	1,390	454	276	733	288	110	51	40
12	57	84	572	1,270	1,120	506	259	681	273	108	50	37
13	66	940	696	1,100	948	740	266	610	252	108	49	35
14	58	4,560	1,060	976	804	824	312	548	238	106	47	32
15	49	8,760	2,440	878	714	792	352	530	232	104	46	31
16	44	4,740	7,940	818	622	792	342	494	222	102	43	30
17	40	2,740	5,960	752	548	818	415	426	209	100	43	28
18	39	1,580	8,280	696	494	864	395	380	197	97	42	27
19	57	1,060	8,510	655	437	798	360	347	188	91	40	26
20	61	750	7,530	620	437	746	324	312	179	88	39	24
21	60	579	3,850	585	405	733	292	284	168	84	38	25
22	53	470	2,680	572	365	752	292	280	160	81	36	24
23	49	400	3,390	645	385	720	296	273	155	81	37	23
24	45	350	3,120	1,280	662	642	292	262	153	77	37	23
25	42	302	2,380	2,150	622	572	329	844	203	74	37	22
26	49	266	1,750	3,580	554	512	360	1,120	324	71	36	22
27	120	236	1,430	4,710	542	459	437	1,170	296	68	35	23
28	101	225	1,190	3,280	572	432	681	2,140	252	68	35	22
29	77	243	1,100	2,190	-	405	648	1,710	222	68	35	21
30	67	400	1,130	1,620	-	400	857	1,300	200	66	34	21
31	61	-	1,050	1,830	-	415	-	1,020	-	65	34	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off: Inches	Run-off: Acre-feet
October	1,606	120	35	51.8	0.307	0.35	3,190
November	30,103	8,760	66	1,003	5.93	6.62	59,710
December	98,795	11,200	368	3,187	18.9	21.74	196,000
Calendar year 1941	275,431	11,200	29	755	4.47	60.60	546,300
January	48,866	4,730	572	1,576	9.33	10.75	96,920
February	53,361	9,740	365	1,906	11.3	11.74	105,800
March	19,082	864	400	616	3.64	4.20	37,850
April	11,831	857	259	394	2.33	2.60	23,470
May	23,040	2,140	262	743	4.40	5.07	45,700
June	9,250	824	153	308	1.82	2.04	18,350
July	3,199	182	65	103	.609	.70	6,350
August	1,408	62	34	45.4	.269	.31	2,790
September	887	58	21	29.6	.175	.20	1,760
Water year 1941-42	301,428	11,200	21	826	4.89	66.32	597,900

Peak discharge.- Nov. 15 (10:30 a.m.) 10,770 sec.-ft.; Dec. 2 (3 p.m.) 15,500 sec.-ft.; Dec. 16 (5 a.m.) 10,670 sec.-ft.; Dec. 18 (2 p.m.) 9,650 sec.-ft.; Dec. 19 (9:30 p.m.) 12,500 sec.-ft.; Feb. 4 (3 a.m.) 12,320 sec.-ft.

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

Middle Fork of 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 1942.

Average discharge.- 12 years, 726 second-feet.

Extremes.- Maximum discharge during year, 12,600 second-feet Nov. 15 (gage height, 18.10 feet), from rating curve extended above 9,000 second-feet; minimum, 17 second-feet Sept. 23-27, 30.

1930-42: 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 except those for periods of no gage-height record, which are fair. Logponds above station cause diurnal fluctuation at times. No diversion above station.

Rating table, water year 1941-42 (gage height, in feet, and discharge, in second-feet)

2.0	15	3.0	71	5.0	393	8.0	1,540	14.0	6,670
2.2	22	3.5	124	6.0	665	10.0	2,800	16.S	10,500
2.5	36	4.0	195	7.0	1,060	12.0	4,500		

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	46	57	286	1,000	1,840	794	337	890	749	264	60	24
2	46	92	4,110	886	3,030	790	310	806	59S	236	61	24
3	41	118	7,780	794	3,660	802	321	721	525	209	59	23
4	42	167	4,090	718	6,260	728	375	1,130	471	187	59	23
5	50	144	3,530	626	4,060	640	365	1,040	413	172	59	23
6	48	122	2,460	651	3,010	580	331	814	400	163	54	22
7	47	105	1,780	1,850	3,490	520	306	634	371	151	52	22
8	53	92	1,360	3,720	4,180	47S	292	515	335	150	50	22
9	51	84	1,080	2,500	2,760	440	282	508	360	140	49	37
10	46	77	866	1,740	2,020	413	268	704	350	132	50	46
11	44	79	704	1,320	1,580	400	251	962	316	137	50	36
12	58	91	592	1,060	1,280	436	238	866	29S	130	48	29
13	85	112	609	866	1,050	679	230	728	276	122	45	26
14	a92	2,060	1,050	735	87S	1,120	238	616	258	116	43	23
15	a7S	10,480	1,500	637	756	1,090	240	595	264	117	40	21
16	a62	6,720	8,520	571	654	1,040	221	553	282	120	40	20
17	a60	4,280	6,860	500	574	1,080	216	480	253	145	38	20
18	a58	2,170	8,560	459	518	1,170	198	436	23S	120	37	19
19	a96	1,340	7,430	424	468	1,070	192	408	226	105	34	18
20	102	934	8,940	393	461	926	170	375	209	98	31	18
21	85	704	4,400	369	468	798	168	342	195	92	34	18
22	73	56e	2,860	352	436	728	185	321	182	90	33	18
23	66	480	4,900	365	411	644	223	375	174	92	32	17
24	61	417	4,900	648	665	571	230	327	166	76	32	17
25	56	365	3,360	1,020	862	522	274	665	219	76	31	17
26	59	329	2,190	a2,500	79S	480	264	1,070	528	76	29	17
27	69	300	1,660	a3,800	778	440	360	914	515	74	28	17
28	66	282	1,310	2,160	842	411	66S	1,120	422	76	28	18
29	60	270	1,130	1,690	-	380	595	1,320	342	62	26	18
30	54	310	1,150	1,340	-	360	690	1,150	296	62	25	17
31	53	-	1,130	1,160	-	346	-	902	-	61	25	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acre-feet
October	1,907	102	41	61.5	0.202	0.23	3,780
November	33,349	10,480	57	1,112	3.65	4.07	66,150
December	101,057	8,940	286	3,261	10.7	12.33	200,500
Calendar year 1941	261,634	10,480	25	717	2.35	31.90	519,000
January	38,854	3,800	352	1,189	3.90	4.49	73,100
February	47,809	6,260	411	1,707	5.60	5.83	94,830
March	20,876	1,170	346	673	2.21	2.55	41,410
April	9,038	690	168	301	.987	1.10	17,930
May	22,287	1,320	321	719	2.36	2.72	44,210
June	10,2[illegible]	749	166	341	1.12	1.25	20,290
July	3,891	264	61	124	.407	.47	7,640
August	1,282	61	25	41.4	.136	.16	2,540
September	670	46	17	22.3	.073	.03	1,330
Water year 1941-42	289,251	10,480	17	792	2.60	35.28	573,700

Peak discharge.- Nov. 15 (1 p.m.) 12,600 sec.-ft.; Dec. 3 (3 a.m.) 9,540 sec.-ft.; Dec. 16 (9-10 a.m.) 10,600 sec.-ft.; Dec. 17 (10 p.m.) 8,810 sec.-ft.; Dec. 18 (6 p.m.) 9,290 sec.-ft.; Dec. 20 (3 a.m.) 11,500 sec.-ft.

a No gage-height record; discharge computed on basis of weather records, range of stage, and records for South Fork of Coquille River at Powers, Oreg.

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

North Fork of 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 1941. October 1928 to September 1930 at site 3½ miles downstream.

Average discharge.- 13 years (1929-42), 876 second-feet.

Extremes.- Maximum discharge during year, 8,860 second-feet Nov. 15 (gage height, 35.31 feet); minimum daily, 32 second-feet Sept. 29, 30.
1928-42: Maximum discharge, 10,400 second-feet Jan. 3, 1933 (gage height, 35.7 feet); minimum, 14 second-feet Sept. 3, 1938.
Maximum stage known, 41.2 feet, sometime during winter of 1909-10.

Remarks.- Records fair. No diversion above station. Flow slightly regulated by operation of log ponds above station.

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	104	118	585	1,290	a2,500	1,210	420	1,160	833	295	98	51
2	103	188	1,770	1,140	a4,000	1,090	392	1,100	710	278	97	49
3	98	369	5,930	1,050	a6,400	1,060	400	901	636	259	95	48
4	81	1,120	5,730	973	a6,000	939	476	961	569	241	94	47
5	93	682	5,860	886	5,030	852	490	942	417	213	93	47
6	110	439	4,670	847	3,840	787	423	798	489	171	90	47
7	131	334	3,390	1,580	3,580	716	388	679	500	202	86	45
8	98	230	2,490	4,080	4,090	662	368	598	454	268	83	49
9	89	266	1,770	3,940	3,820	617	353	579	474	171	83	67
10	107	238	1,400	2,760	3,130	593	343	784	529	173	83	66
11	108	228	1,160	2,030	2,640	564	321	930	498	178	82	56
12	133	245	995	1,720	2,130	579	311	832	440	193	80	52
13	188	275	959	1,380	1,760	740	302	735	396	173	73	49
14	201	1,680	1,230	1,250	1,480	995	312	652	315	164	58	46
15	130	7,270	1,230	1,130	1,210	1,010	363	639	382	163	55	44
16	121	7,740	4,730	968	981	968	337	601	458	169	66	42
17	113	6,400	6,260	957	881	959	316	539	380	210	68	40
18	112	4,610	6,500	882	789	977	302	494	350	195	68	39
19	137	2,840	7,310	823	719	906	286	458	316	164	67	37
20	187	1,870	7,530	774	689	821	274	426	252	147	66	36
21	201	1,440	6,590	731	695	741	262	400	273	138	63	35
22	157	1,260	5,050	687	655	705	256	384	269	134	62	34
23	130	999	5,040	663	644	673	291	400	258	127	61	34
24	104	968	5,640	708	1,190	623	285	370	245	120	61	35
25	68	894	4,860	891	1,460	583	350	575	307	117	54	a34
26	139	707	3,580	1,050	1,280	563	367	850	636	114	54	a34
27	153	647	2,680	2,030	1,250	527	426	998	575	108	53	a34
28	130	595	2,130	a4,000	1,340	500	838	1,120	458	107	53	a33
29	125	553	1,660	a3,000	-	466	765	1,480	363	104	54	a32
30	119	609	1,680	a2,400	-	446	697	1,250	295	102	53	a32
31	112	-	1,490	a2,000	-	426	-	1,000	-	103	52	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acre-feet
October	3,902	201	81	126	0.457	0.53	7,740
November	45,814	7,740	118	1,527	5.53	6.17	90,870
December	111,949	7,530	585	3,611	13.1	15.08	222,000
Calendar year 1941	326,378	7,740	48	894	3.24	43.97	647,300
January	48,620	4,080	663	1,568	5.68	6.55	96,440
February	63,983	6,400	644	2,285	8.28	8.62	126,900
March	23,298	1,210	426	752	2.72	3.14	46,210
April	11,714	838	256	390	1.41	1.58	23,230
May	23,535	1,480	370	759	2.75	3.17	46,680
June	13,077	833	245	436	1.58	1.76	25,940
July	5,291	295	102	171	.620	.71	10,490
August	2,205	98	52	71.1	.258	.30	4,370
September	1,294	67	32	43.1	.156	.17	2,570
Water year 1941-42	354,682	7,740	32	972	3.52	47.78	703,400

Peak discharge.- Nov. 15 (8:30 p.m.) 8,860 sec.-ft.; Dec. 3 (6 p.m.) 6,300 sec.-ft.; Dec. 5 (10 a.m.) 6,060 sec.-ft.; Dec. 17 (1 a.m.) 6,490 sec.-ft.; Dec. 19 (5 to 6 a.m.) 7,380 sec.-ft.; Dec. 20 (12 m.) 7,670 sec.-ft.

a No gage-height record; discharge computed on basis of records for South Fork of Coquille River at Powers and Middle Fork of Coquille River near Myrtle Point.

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

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, about 3,465 feet (from river-profile map).
Drainage area.- 118 square miles.
Records available.- January 1930 to September 1942.
Average discharge.- 12 years, 448 second-feet.
Extremes.- Maximum discharge during year, 1,890 second-feet Dec. 2 (gage height, 4.56 feet); minimum, 212 second-feet Oct. 25, 26 (gage height, 1.00 foot).
1930-42: Maximum discharge, 4,460 second-feet June 9, 1933 (gage height, 7.68 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 except those for period of no gage-height record, which are fair. No diversion or regulation above station.
Cooperation.- Water-stage recorder inspected by employee of The California Oregon Power Co.

Rating tables, water year 1941-42 (gage height, in feet, and discharge, in second-feet)

Oct. 1 to Mar. 31

1.0	220	2.0	505	3.2	1,090
1.2	262	2.3	635	3.6	1,310
1.4	310	2.6	780		
1.7	395	2.9	930		

Apr. 1 to Sept. 30

1.0	212	1.4	305
1.2	254	1.7	395

Note.- Same as preceding table above 1.7 feet.

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	228	236	308	320	a480	315	412	462	750	383	266	245
2	232	238	953	423	a560	320	409	444	825	371	266	245
3	228	280	1,300	533	a540	315	420	477	750	359	264	243
4	236	322	750	477	a630	315	458	481	725	350	264	243
5	232	264	715	489	a560	320	458	493	715	341	261	243
6	230	253	653	558	a600	318	485	513	735	335	261	243
7	230	244	576	875	a560	318	501	572	662	329	259	243
8	230	240	509	835	a520	325	509	612	626	323	259	252
9	228	236	469	690	a500	341	541	648	640	317	259	259
10	242	236	437	599	a490	409	563	599	590	314	256	252
11	236	236	406	563	a475	430	604	554	550	314	254	245
12	249	236	389	541	a440	430	635	533	525	308	254	243
13	238	260	386	517	a410	406	653	513	513	305	254	243
14	232	551	406	493	a390	383	653	513	505	305	254	241
15	230	725	590	481	a380	368	604	635	576	302	252	241
16	228	563	730	473	a370	362	604	622	517	308	252	241
17	228	409	581	448	a360	356	568	604	473	302	250	239
18	228	353	730	a430	356	347	545	599	454	297	252	239
19	240	325	1,060	a415	350	341	545	626	437	292	250	236
20	238	310	960	a400	353	338	599	700	423	289	250	236
21	230	300	770	a385	341	341	676	810	409	286	250	236
22	226	292	658	a375	335	338	700	955	398	283	247	236
23	226	288	622	a370	330	330	608	850	392	281	247	236
24	224	280	554	a370	332	328	568	835	386	278	247	236
25	224	276	509	a380	325	322	537	1,130	521	276	247	236
26	226	271	473	a400	318	318	505	1,080	545	273	247	236
27	269	271	458	a650	322	318	509	950	469	273	250	236
28	249	274	444	a580	315	320	481	930	434	271	250	236
29	240	288	423	a500	-	328	462	900	409	271	250	236
30	234	330	402	a470	-	344	477	835	392	268	247	236
31	236	-	386	a450	-	377	-	790	-	266	247	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off: Inches	Run-off: Acre-feet
October	7,247	269	224	234	1.98	2.28	14,370
November	9,387	725	236	313	2.65	2.96	18,620
December	18,607	1,300	308	600	5.08	5.86	36,910
Calendar year 1941	137,598	1,300	224	377	3.19	43.37	272,900
January	15,490	875	320	500	4.24	4.88	30,720
February	11,942	630	315	426	3.61	3.76	23,690
March	10,721	430	315	346	2.93	3.38	21,260
April	16,289	700	409	543	4.60	5.13	32,310
May	21,265	1,130	444	686	5.81	6.70	42,180
June	16,346	825	386	545	4.62	5.15	32,420
July	9,470	383	266	305	2.58	2.98	18,780
August	7,866	266	247	254	2.15	2.48	15,600
September	7,232	259	236	241	2.04	2.28	14,340
Water year 1941-42	151,862	1,300	224	416	3.53	47.84	301,200

Peak discharge.- Nov. 15 (5:30 p.m.) 945 sec-ft.; Dec. 2 (11:30 p.m.) 1,890 sec.-ft.; Dec. 19 (10 p.m.) 1,100 sec.-ft.; May 22 (7:30 a.m.) 996 sec.-ft.; May 26 (1:30 a.m.) 1,220 sec.-ft.
a No gage-height record; discharge computed on basis of range of stage and records for stations above Prospect and below South Fork, near Prospect.
Time basis: Pacific standard time prior to 2 a.m., Feb. 9, 1942; Pacific war time thereafter. To convert war time to standard time, subtract 1 hour.

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., 1¼ 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, about 2,620 feet (from river-profile map).
Drainage area.- 332 square miles.
Records available.- July 1907 to February 1912 (incomplete), October 1923 to September 1942.
Average discharge.- 20 years (1910-11, 1923-42), 691 second-feet.
Extremes.- Maximum discharge during year, 4,150 second-feet Dec. 2 (gage height, 4.88 feet); minimum, 286 second-feet Oct. 26 (gage height, 1.34 feet).
1907-12, 1923-42: Maximum discharge, 9,300 second-feet (estimated) Nov. 22, 1909 (gage height, about 7.0 feet, site and datum then in use); minimum observed, 200 second-feet Nov. 20, 1931 (gage height, 1.07 feet).
Remarks.- Records good. No diversion or regulation above station.
Cooperation.- Water-stage recorder graph furnished by The California Oregon Power Co.

Rating tables, water year 1941-42 (gage height, in feet, and discharge, in second-feet)

Oct. 1 to Dec. 2

1.3	270	2.2	765	3.2	1,730
1.5	350	2.5	1,000	3.6	2,230
1.8	500	2.8	1,290	4.1	2,940

Dec. 3 to Sept. 30

1.3	285	1.6	500
1.5	360		

Note.- Same as preceding table above 1.8 feet.

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	294	314	435	f506	920	478	688	730	1,250	573	360	324
2	294	314	1,730	f554	1,070	489	688	702	1,320	548	360	320
3	294	330	2,850	625	1,080	489	695	744	1,200	530	360	320
4	298	467	1,500	606	1,360	484	758	788	1,140	512	360	316
5	306	364	1,400	524	1,240	494	765	818	1,090	494	356	316
6	302	342	1,280	548	1,290	500	780	825	1,130	484	352	320
7	298	326	1,110	1,030	1,160	500	802	912	1,030	472	348	320
8	298	322	952	1,690	1,010	506	818	976	976	467	348	328
9	294	318	848	1,480	952	536	856	1,030	968	456	348	344
10	302	314	758	1,270	920	681	868	976	912	445	348	336
11	314	314	695	1,160	896	758	944	904	840	445	344	324
12	314	310	653	1,120	840	788	1,000	872	802	440	344	324
13	322	318	632	1,050	772	737	1,020	840	772	436	340	320
14	314	691	674	984	737	695	1,020	825	765	432	336	320
15	306	a1,400	944	944	716	646	960	984	840	427	336	320
16	298	1,130	1,340	936	688	625	944	1,010	802	427	336	320
17	294	730	1,100	896	653	599	912	984	723	427	336	316
18	294	586	1,420	840	625	586	872	968	688	414	336	316
19	298	512	2,340	802	592	560	864	968	660	409	332	313
20	314	467	2,230	758	592	548	912	1,050	632	404	332	313
21	310	440	1,680	730	566	542	1,010	1,180	612	396	328	313
22	302	425	1,380	709	554	542	1,050	1,400	592	388	328	310
23	298	415	1,270	695	542	530	936	1,300	580	384	328	310
24	290	400	1,110	695	542	524	872	1,240	566	380	328	310
25	290	386	992	716	524	512	832	1,690	709	380	326	306
26	286	377	896	810	494	489	780	1,850	848	376	324	302
27	338	372	848	1,310	500	489	780	1,620	744	376	328	302
28	350	368	810	1,170	489	469	751	1,600	667	372	332	302
29	326	372	772	992	-	494	709	1,580	625	368	332	302
30	318	430	716	920	-	518	723	1,470	599	368	328	302
31	310	-	667	864	-	592	-	1,360	-	364	324	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off: Inches	Run-off: Acre-feet
October	9,466	350	286	305	0.919	1.06	18,780
November	13,854	1,400	310	462	1.39	1.55	27,480
December	36,032	2,850	435	1,162	3.50	4.04	71,470
Calendar year 1941	222,215	2,850	286	609	1.83	24.89	440,800
January	27,954	1,690	506	902	2.72	3.13	55,450
February	22,324	1,360	469	797	2.40	2.50	44,280
March	17,420	788	478	562	1.69	1.95	34,550
April	25,629	1,050	688	854	2.57	2.87	50,830
May	34,196	1,850	702	1,103	3.33	3.83	67,830
June	25,082	1,320	566	836	2.52	2.81	49,750
July	13,394	573	364	432	1.30	1.50	26,570
August	10,520	360	324	339	1.02	1.18	20,870
September	9,469	344	302	316	.952	1.06	18,820
Water year 1941-42	245,360	2,850	286	672	2.02	27.48	486,700

Peak discharge.- Nov. 15 (floodmark) 1,670 sec.-ft; Dec. 2 (11:30 p.m.) 4,150 sec.-ft.; Dec. 19 (3 a.m.) 2,400 sec.-ft.; Dec. 20 (2 a.m.) 2,520 sec.-ft.; Jan. 8 (6 a.m.) 1,790 sec.-ft.; May 26 (5 a.m.) 2,000 sec.-ft.
a No gage-height record; discharge computed on basis of records for stations above Bybee Creek and below South Fork, near Prospect.
f Computed on basis of partly estimated gage-height record.
Time basis: Pacific standard time prior to 2 a.m., Feb. 9, 1942; Pacific war time thereafter. To convert war time to standard time, subtract 1 hour.

Rogue River below South Fork of 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, about 1,708 feet (from river-profile map).
Drainage area.- 643 square miles.
Records available.- April 1929 to September 1942.
Average discharge.- 13 years, 1,502 second-feet.
Extremes.- Maximum discharge during year, 6,220 second-feet Dec. 2 (gage height, 5.1 feet, from floodmark); minimum, 555 second-feet (regulated) Sept. 28, 29 (gage height, 0.07 foot); minimum daily, 738 second-feet Oct. 7.
1929-42: Maximum discharge, 12,600 second-feet Mar. 19, 1932 (gage height, 8.7 feet), from rating curve extended above 5,700 second-feet; minimum gage height and minimum daily discharge not determined as stage falls too low at times to be recorded.
Remarks.- Records good except those for periods of no gage-height record, which are fair. Small diversions above station for irrigation. Considerable diurnal fluctuation caused by power plant 4 miles above station.
Cooperation.- Water-stage recorder graph furnished by The California Oregon Power Co.

Rating table, water year 1941-42 (gage height, in feet, and discharge, in second-feet)

0.4	745	2.5	2,560
.7	950	3.0	3,180
1.0	1,160	3.5	3,860
1.5	1,570	4.0	4,570
2.0	2,030		

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	778	845	985	1,340	1,940	1,340	1,460	1,590	2,610	1,420	999	a860
2	778	831	2,470	1,300	2,130	1,340	1,460	1,530	2,300	1,380	992	a860
3	778	873	a4,500	1,370	2,150	1,360	1,460	1,600	2,560	1,380	971	a852
4	778	1,040	a3,000	1,390	2,880	1,310	1,560	1,700	2,500	1,330	965	a845
5	778	908	2,560	1,300	2,790	1,310	1,580	1,710	2,530	1,290	978	a845
6	771	852	2,300	1,340	2,950	1,310	1,590	1,720	2,490	1,260	978	a855
7	738	838	2,020	2,000	2,680	1,300	1,620	1,820	2,320	1,230	971	a850
8	764	810	1,780	3,210	2,430	1,310	1,630	1,920	2,240	1,220	964	a860
9	752	797	1,620	2,900	2,250	1,370	1,700	2,000	2,260	1,220	950	a910
10	758	790	1,470	2,540	2,190	1,610	1,730	1,920	2,170	1,180	943	a890
11	790	771	1,390	2,360	2,090	1,650	1,800	1,810	2,020	1,180	950	a870
12	810	790	1,340	2,010	2,010	1,700	1,880	1,800	1,910	1,180	936	a870
13	797	810	1,300	2,150	1,890	1,650	1,930	1,780	1,870	1,160	929	a840
14	790	1,280	1,360	2,050	1,830	1,600	1,990	1,730	1,850	1,160	915	a850
15	771	1,950	1,620	1,950	1,780	1,530	1,930	2,030	1,950	1,150	909	a840
16	745	a2,100	2,300	2,000	1,700	1,520	1,880	2,120	1,890	1,160	894	a850
17	758	a1,600	2,010	1,890	1,650	1,480	1,830	2,050	1,770	1,150	894	a845
18	758	a1,250	2,850	1,810	1,570	1,420	1,780	2,010	1,690	1,120	908	a845
19	797	1,090	4,080	1,750	1,520	1,450	1,740	2,030	1,640	1,100	901	a835
20	797	1,050	4,000	1,690	1,520	1,380	1,800	2,160	1,570	1,100	894	a835
21	758	992	3,100	1,630	1,500	1,370	1,940	2,410	1,520	1,080	894	a835
22	758	985	2,580	1,620	1,450	1,360	2,050	2,820	1,500	1,060	894	824
23	758	943	2,520	1,610	1,440	1,340	1,870	2,720	1,460	1,060	894	824
24	745	929	2,210	1,590	1,460	1,320	1,790	2,640	1,460	1,060	887	817
25	771	943	2,030	1,610	1,440	1,290	1,720	3,450	1,630	1,040	880	831
26	771	894	1,870	1,730	1,410	1,280	1,630	3,690	1,930	1,030	880	817
27	887	866	1,740	2,480	1,380	1,270	1,650	3,310	1,730	1,030	887	817
28	845	908	1,680	2,350	1,340	1,260	1,640	3,300	1,590	1,030	901	817
29	810	859	1,620	2,120	-	1,260	1,560	3,270	1,500	1,020	894	817
30	790	992	1,550	1,960	-	1,300	1,570	3,020	1,460	1,020	901	810
31	784	-	1,490	1,890	-	1,340	-	2,810	-	1,010	873	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acre-feet
October	24,163	887	738	779	1.21	1.40	47,930
November	30,586	2,100	771	1,020	1.59	1.77	60,670
December	67,345	4,500	985	2,172	3.38	3.90	133,600
Calendar year 1941	483,970	4,500	738	1,326	2.06	28.01	960,000
January	58,940	3,210	1,300	1,901	2.96	3.41	116,900
February	53,370	2,950	1,340	1,906	2.96	3.09	105,900
March	43,230	1,700	1,260	1,395	2.17	2.50	85,750
April	51,770	2,050	1,460	1,726	2.68	2.99	102,700
May	70,470	3,690	1,530	2,273	3.53	4.08	139,800
June	58,420	2,800	1,460	1,947	3.03	3.38	115,900
July	35,810	1,420	1,010	1,155	1.80	2.07	71,030
August	28,645	999	873	924	1.44	1.66	56,820
September	25,316	910	810	844	1.31	1.46	50,210
Water year 1941-42	548,065	4,500	738	1,502	2.34	31.71	1,087,000

a No gage-height record; discharge computed on basis of records for stations above Prospect and at Dodge Bridge, near Eagle Point.
Time basis: Pacific standard time prior to 2 a.m., Feb. 9, 1942; Pacific war time thereafter. 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 1942.

Extremes.- Maximum discharge during year, 16,000 second-feet Dec. 2 (gage height, 7.06 feet), from rating curve extended above 10,500 second-feet; minimum, 653 second-feet (regulated) Aug. 17 (gage height, 1.03 feet); minimum daily, 840 second-feet Sept. 29, 30.

1938-42: Maximum discharge, that of Dec. 2, 1941; minimum, 611 second-feet (regulated) Aug. 6, 14, 29, Sept. 9, 1940 (gage height, 0.99 foot); minimum daily, 830 second-feet Sept. 1, 1940

Remarks.- Records excellent except those for period of no gage-height record, which are good. Many small diversions above station for irrigation; most of the flow of Big Butte Creek is diverted near Butte Falls. Beginning in 1942, water is diverted from Big Butte Springs near Butte Falls for Camp White, a U.S. Army post near Eagle Point. Some diurnal fluctuation caused by power plant about 30 miles upstream.

Rating table, water year 1941-42 (gage height, in feet, and discharge, in second-feet)

1.2	840	2.6	2,880	4.5	7,290
1.5	1,200	3.0	3,640	5.0	8,760
1.8	1,600	3.5	4,730	5.5	10,400
2.2	2,200	4.0	5,950		

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	888	996	1,210	2,070	2,930	1,830	a1,780	2,150	3,440	1,560	1,060	936
2	936	1,030	7,870	1,880	3,270	1,880	a1,750	2,020	3,520	1,520	1,060	936
3	924	1,070	9,730	1,920	3,500	1,860	1,840	2,020	3,250	1,500	1,010	924
4	924	1,240	4,460	1,940	8,190	1,820	1,920	2,330	3,080	1,430	1,030	912
5	972	1,120	3,890	1,770	6,210	1,820	1,980	2,230	2,950	1,410	1,030	912
6	924	1,060	3,340	1,860	6,820	1,820	1,960	2,180	2,900	1,370	1,020	924
7	912	1,020	2,860	4,590	5,600	1,740	1,950	2,220	2,740	1,340	996	912
8	936	1,010	2,440	7,460	4,840	1,740	1,960	2,300	2,650	1,340	996	936
9	936	984	2,180	5,900	4,170	1,800	2,000	2,360	2,620	1,320	996	984
10	936	984	1,960	4,820	3,930	1,950	2,020	2,360	2,550	1,300	984	960
11	972	948	1,820	4,280	3,600	2,200	2,070	2,260	2,380	1,290	972	936
12	1,010	972	1,700	3,910	3,330	2,480	2,170	2,310	2,250	1,280	972	936
13	1,020	936	1,660	3,540	3,020	2,330	2,220	2,310	2,180	1,240	960	900
14	972	1,450	1,830	3,250	2,810	2,230	2,310	2,220	2,100	1,250	960	912
15	960	2,650	2,230	3,060	2,630	a2,140	2,250	2,650	2,170	1,230	972	900
16	960	3,060	6,640	3,340	2,510	a2,090	2,150	2,860	2,200	1,230	960	912
17	948	2,120	5,240	3,060	2,360	a2,130	2,140	2,670	2,020	1,230	924	900
18	936	1,660	9,200	2,830	2,250	a1,940	2,070	2,560	1,920	1,210	948	900
19	984	1,430	9,330	2,620	2,150	a1,980	2,000	2,510	1,840	1,160	948	888
20	984	1,330	8,600	2,480	2,150	a1,910	2,020	2,550	1,770	1,140	960	888
21	984	1,260	6,160	2,360	2,140	a1,840	2,180	2,720	1,710	1,120	960	888
22	948	1,250	4,940	2,300	2,060	a1,800	2,300	3,360	1,670	1,130	948	876
23	936	1,190	6,000	2,260	2,000	a1,760	2,180	3,360	1,630	1,100	948	876
24	936	1,160	4,710	2,260	2,090	a1,720	2,060	3,170	1,600	1,080	948	876
25	912	1,140	3,850	2,300	2,020	a1,680	2,000	5,620	1,680	1,080	948	864
26	960	1,130	3,210	2,500	1,940	a1,640	1,900	5,600	2,200	1,070	948	876
27	1,060	1,130	2,860	4,190	1,900	a1,620	2,000	4,640	2,040	1,080	972	840
28	1,090	1,100	2,650	3,960	1,860	a1,510	2,090	4,570	1,800	1,080	972	852
29	1,020	1,100	2,550	3,340	-	a1,600	1,940	4,710	1,680	1,080	972	840
30	996	1,200	2,460	3,060	-	a1,600	1,980	4,210	1,600	1,080	972	840
31	972	-	2,340	2,880	-	a1,660	-	3,790	-	1,080	948	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	29,848	1,090	888	963	59,200
November	38,730	3,060	936	1,291	76,820
December	129,920	9,730	1,210	4,191	257,700
Calendar year 1941	673,692	9,730	840	1,846	1,336,000
January	98,010	7,460	1,770	3,162	194,400
February	92,280	8,190	1,860	3,296	183,000
March	58,220	2,480	1,600	1,878	115,500
April	61,190	2,310	1,750	2,040	121,400
May	92,820	5,620	2,020	2,994	184,100
June	68,140	3,520	1,600	2,271	135,200
July	38,250	1,560	1,030	1,234	75,870
August	30,294	1,060	924	977	60,090
September	27,036	984	840	901	53,630
Water year 1941-42	764,738	9,730	840	2,095	1,517,000

Peak discharge.- Dec. 2 (9 p.m.) 16,000 sec.-ft.; Dec. 16 (7:30 a.m.) 10,200 sec.-ft.; Dec. 18 (3 p.m.) 11,800 sec.-ft.; Dec. 20 (4:30 a.m.) 9,960 sec.-ft.; Feb. 4 (8 a.m.) 10,400 sec.-ft.

a No gage-height record; discharge computed on basis of records for stations below South Fork, near Prospect, and at Raygold, near Central Point.

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

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 1942.
Average discharge.- 37 years, 2,702 second-feet.
Extremes.- Maximum discharge during year, 25,200 second-feet Dec. 3 (gage height, 10.45 feet); minimum recorded, 547 second-feet (regulated) Aug. 30 (gage height, -0.06 foot, elevation of inlet pipe); momentary minimum discharge probably less; minimum daily discharge, 902 second-feet Sept. 27.
1905-42: Maximum discharge, 91,500 second-feet Feb. 21, 1927 (gage height, 24.8 feet, from floodmark), from rating curve extended above 36,000 second-feet; minimum not determined; minimum daily, 616 second-feet Sept. 6, 1931.
Remarks.- Records good. 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 1941-42 (gage height, in feet, and discharge, in second-feet)

0.4	835	2.0	2,420	4.0	5,720
.7	1,070	2.5	3,100	5.0	7,920
1.0	1,320	3.0	3,880	6.0	10,410
1.5	1,820	3.5	4,750	7.0	13,260
				8.1	16,810

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	910	1,060	1,290	2,640	3,660	2,290	2,190	2,560	4,790	1,690	1,090	958
2	942	1,120	8,020	2,320	4,030	2,340	2,190	2,380	4,840	1,630	1,090	974
3	966	1,130	16,800	2,330	4,360	2,360	2,170	2,360	4,460	1,620	1,050	982
4	942	1,310	6,160	2,330	10,700	2,260	2,300	2,860	4,120	1,510	1,050	958
5	998	a1,400	4,730	2,150	8,210	2,210	2,390	2,710	3,830	1,500	1,050	958
6	990	a1,250	4,070	2,210	9,990	2,220	2,340	2,630	3,780	1,460	1,050	958
7	1,010	a1,150	3,380	6,670	8,020	2,160	2,360	2,640	3,530	1,430	1,020	966
8	1,020	1,080	2,890	10,100	7,160	2,110	2,340	2,690	3,340	1,430	1,020	966
9	1,020	1,050	2,560	7,440	5,930	2,190	2,380	2,760	3,240	1,400	1,030	1,010
10	1,010	1,040	2,290	5,970	5,420	2,300	2,450	2,860	3,180	1,370	1,010	1,050
11	1,020	1,010	2,110	5,260	4,900	2,650	2,500	2,920	2,900	1,370	1,010	1,050
12	1,030	1,020	1,960	4,750	4,430	3,930	2,550	3,090	2,710	1,370	1,010	1,010
13	1,090	1,030	1,900	4,340	4,020	3,190	2,620	3,140	2,550	1,360	1,010	998
14	1,050	1,260	2,170	3,960	3,610	2,990	2,790	2,960	2,430	1,350	998	1,010
15	1,020	2,740	2,360	3,700	3,370	2,710	2,790	3,530	2,430	1,310	990	974
16	1,020	4,020	10,900	4,240	3,200	2,640	2,620	4,200	2,520	1,320	990	966
17	1,010	2,630	9,060	3,820	3,000	2,550	2,600	3,670	2,290	1,320	966	966
18	990	1,930	16,800	3,460	2,830	2,520	2,520	3,420	2,150	1,290	950	950
19	1,020	1,640	12,700	3,200	2,680	2,460	2,390	3,250	2,050	1,280	1,010	950
20	1,110	1,480	11,200	3,020	2,710	2,330	2,410	3,220	1,970	1,220	974	934
21	1,070	1,370	8,160	2,850	2,790	2,300	2,480	3,360	1,910	1,210	974	942
22	1,050	1,310	6,940	2,780	2,600	2,260	2,590	4,140	1,830	1,180	982	926
23	1,010	1,280	8,710	2,690	2,500	2,220	2,560	4,520	1,750	1,140	974	934
24	998	1,250	7,100	2,690	2,680	2,160	2,370	4,070	1,710	1,130	974	918
25	982	1,280	5,560	2,760	2,640	2,080	2,290	8,360	1,730	1,130	974	910
26	1,010	1,180	4,480	2,930	2,450	2,000	2,190	9,230	2,300	1,130	974	918
27	1,110	1,170	3,850	5,580	2,480	2,000	2,260	6,660	2,320	1,100	974	902
28	1,170	1,160	3,560	5,560	2,480	1,950	2,450	6,220	2,020	1,090	990	934
29	1,090	1,170	3,430	4,500	-	2,000	2,320	6,900	1,880	1,090	1,010	910
30	1,070	1,210	3,320	3,880	-	1,970	2,250	5,990	1,740	1,090	998	918
31	1,040	-	3,160	3,590	-	2,040	-	5,320	-	1,090	982	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	31,768	1,170	910	1,025	63,010
November	42,730	4,020	1,010	1,424	84,750
December	181,640	16,800	1,290	5,859	360,300
Calendar year 1941	802,041	16,800	895	2,197	1,591,000
January	123,720	10,100	2,150	3,991	245,400
February	122,850	10,700	2,450	4,388	243,700
March	73,390	3,930	1,950	2,367	145,600
April	72,660	2,790	2,170	2,422	144,100
May	124,620	9,230	2,360	4,020	247,200
June	82,300	4,840	1,710	2,743	163,200
July	40,610	1,690	1,090	1,310	80,550
August	31,174	1,090	950	1,006	61,830
September	28,800	1,050	902	960	57,120
Water year 1941-42	956,262	16,800	902	2,620	1,897,000

Peak discharge.- Dec. 3 (12:30 a.m.) 25,200 sec.-ft.; Dec. 16 (12:30 p.m.) 18,200 sec.-ft.; Dec. 18 (5 p.m.) 20,000 sec.-ft.; Jan. 8 (3:30 a.m.) 12,000 sec.-ft.; Feb. 4 (10:30 a.m.) 14,600 sec.-ft.; May 25 (5:30 p.m.) 13,400 sec.-ft.
a No gage-height record; discharge computed on basis of records for station at Dodge Bridge, near Eagle Point.
Time basis: Pacific standard time prior to 2 a.m., Feb. 9, 1942; Pacific war time thereafter. To convert war time to standard time, subtract 1 hour.

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 1942.

Extremes.- Maximum discharge during year, 28,000 second-feet Dec. 3 (gage height, 12.91 feet); minimum, 718 second-feet (regulated) Oct. 8 (gage height, 0.55 foot); minimum daily, 769 second-feet Aug. 18, 19.

1939-42: Maximum discharge, 29,700 second-feet Feb. 28, 1940 (gage height, 13.4 feet); minimum, 560 second-feet (regulated) Aug. 8, 1940 (gage height, 0.30 foot); minimum daily, 637 second-feet Aug. 8, 1940.

Remarks.- Records excellent. Many diversions from Rogue River and tributaries above station, the largest of which are at Savage Rapids Dam of Grants Pass Irrigation District, 5 miles upstream. Flow regulated slightly by Fish Lake and Emigrant Gap reservoirs and by pools above dams at Raygold and Savage Rapids.

Cooperation.- Water-stage recorder inspected by employees of Grants Pass Water Department.

Rating tables, water year 1941-42 (gage height, in feet, and discharge, in second-feet)

Oct. 1 to Dec. 3

0.8	S90	3.0	3,450	7.0	11,290
1.2	1,250	3.5	4,210	9.0	16,400
1.6	1,670	4.0	5,030	11.0	22,100
2.1	2,250	5.0	6,890		
2.5	2,750	6.0	8,980		

Dec. 4 to Sept. 30

0.6	720	1.6	1,640
.S	S60	2.1	2,230
1.2	1,210	2.5	2,750

Note.- Same as preceding table above 2.5 feet.

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	946	1,260	1,470	3,170	4,310	2,680	2,260	2,530	4,740	1,550	S68	790
2	938	1,310	5,S10	2,680	4,710	2,590	2,2S0	2,410	4,740	1,460	S68	790
3	954	1,380	19,600	2,680	5,270	2,630	2,270	2,300	4,470	1,420	860	790
4	954	1,500	7,310	2,670	12,100	2,540	2,370	2,750	4,050	1,360	846	790
5	979	1,590	5,050	2,530	10,700	2,4S0	2,490	2,710	3,750	1,320	846	790
6	1,180	1,400	4,430	2,490	12,800	2,450	2,420	2,540	3,920	1,270	S46	790
7	1,670	1,330	3,720	6,870	10,000	2,410	2,420	2,490	3,120	1,240	S32	7S3
8	1,220	1,280	3,170	12,700	9,020	2,330	2,400	2,540	3,260	1,230	S25	797
9	1,170	1,260	2,780	9,240	7,310	2,360	2,350	2,560	3,090	1,210	818	868
10	1,150	1,240	2,530	7,330	6,470	2,460	2,400	2,740	3,090	1,190	811	924
11	1,150	1,230	2,300	6,210	5,760	2,700	2,400	2,790	2,820	1,180	804	924
12	1,200	1,210	2,150	5,590	5,150	3,940	2,420	2,940	2,610	1,170	797	900
13	1,250	1,230	2,060	5,050	4,610	3,380	2,500	3,060	2,440	1,170	797	S64
14	1,240	1,380	2,320	4,590	4,180	3,220	2,670	2,870	2,310	1,160	7S3	868
15	1,190	2,560	2,490	4,270	3,940	2,940	2,750	3,230	2,270	1,130	763	868
16	1,180	4,530	12,100	4,630	3,720	2,S20	2,570	4,150	2,390	1,130	790	S46
17	1,170	3,150	11,000	4,370	3,450	2,740	2,580	3,660	2,300	1,150	7S3	846
18	1,150	2,300	20,900	3,940	3,240	2,700	2,530	3,330	1,990	1,100	769	846
19	1,150	1,950	16,300	3,680	3,030	2,650	2,360	3,130	1,890	1,080	769	839
20	1,280	1,740	13,200	3,400	3,020	2,560	2,310	3,060	1,810	1,040	783	839
21	1,270	1,600	9,490	3,230	3,170	2,520	2,400	3,150	1,730	1,010	783	832
22	1,200	1,520	S,250	3,090	2,940	2,450	2,460	3,750	1,670	98S	776	S18
23	1,190	1,470	10,900	3,010	2,790	2,420	2,540	4,450	1,600	940	776	790
24	1,150	1,360	8,780	3,020	2,960	2,360	2,280	3,960	1,550	908	783	783
25	1,150	1,520	6,S30	3,090	2,950	2,300	2,230	7,310	1,580	932	783	776
26	1,160	1,370	5,340	3,330	2,720	2,270	2,110	9,860	2,090	932	783	776
27	1,250	1,340	4,590	5,990	2,680	2,170	2,130	6,910	2,260	908	783	783
28	1,350	1,330	4,180	6,570	2,750	1,890	2,410	6,180	1,960	908	790	790
29	1,340	1,310	4,000	5,280	-	1,860	2,260	6,830	1,760	884	797	790
30	1,250	1,330	3,920	4,560	-	2,030	2,180	6,080	1,640	868	797	790
31	1,240	-	3,720	4,180	-	2,150	-	5,280	-	876	S11	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	36,571	1,570	938	1,180	72,540
November	48,980	4,530	1,210	1,633	97,150
December	210,690	20,900	1,470	6,796	417,900
Calendar year 1941	889,164	20,900	820	2,436	1,764,000
January	143,440	12,700	2,490	4,627	284,500
February	145,770	12,800	2,680	5,206	289,100
March	78,900	3,940	1,860	2,545	156,500
April	71,750	2,750	2,110	2,392	142,300
May	121,550	9,860	2,300	3,921	241,100
June	78,920	4,740	1,550	2,631	156,500
July	34,714	1,550	868	1,120	68,860
August	24,940	868	769	805	49,470
September	24,700	924	776	823	48,990
Water year 1941-42	1,020,925	20,900	769	2,797	2,025,000

Peak discharge.- Dec. 3 (3:30 a.m.) 28,000 sec.-ft.; Dec. 16 (3:30 p.m.) 20,600 sec.-ft.; Dec. 18 (S p.m.) 25,700 sec.-ft.; Feb. 4 (2 p.m.) 17,500 sec.-ft.

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

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 1942. Maximum contents observed during year, 5,742 acre-feet June 29 (elevation, 4,821.42 feet); minimum observed, 532 acre-feet Sept. 11 (elevation, 4,804.21 feet). Maximum contents observed during period 1915-42, 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 1942. Maximum contents observed during year, 8,603 acre-feet May 25 (elevation, 2,174.6 feet); minimum observed, 509 acre-feet Sept. 15 (elevation, 2,104.3 feet). Maximum contents during period 1924-42, 8,748 acre-feet Feb. 20, 1927 (elevation, 2,175.2 feet, observed at peak); 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 elevation 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 1941 to September 1942

Date	Fish Lake Reservoir			Emigrant Gap Reservoir		
	Elevation (feet)	Contents (acre-feet)	Change in contents during month (acre-feet)	Elevation (feet)	Contents (acre-feet)	Change in contents during month (acre-feet)
Sept.30	4,807.54	1,313	-	-	a1,518	-
Oct. 31	4,810.22	2,047	+734	-	a1,669	+151
Nov. 30	4,812.11	2,605	+558	-	a2,034	+365
Dec. 31	4,813.93	3,168	+564	-	a5,928	+3,894
Calendar year 1941	-	-	+206	-	-	+1,433
Jan. 31	4,814.70	3,414	+246	2,167.4	6,990	+1,062
Feb. 28	4,815.33	3,618	+204	2,170.0	7,546	+556
Mar. 31	-	a3,707	+89	-	a8,342	+796
Apr. 30	-	a4,182	+475	2,173.1	8,248	-94
May 31	-	a5,099	+917	2,173.5	8,342	+94
June 30	4,821.39	5,731	+632	2,171.0	7,768	-574
July 31	4,814.39	3,315	-2,416	2,144.8	3,414	-4,354
Aug. 31	4,805.41	790	-2,525	2,122.4	1,361	-2,053
Sept.30	4,804.58	606	-184	2,106.2	575	-786
Water year 1941-42	-	-	-707	-	-	-943

a Interpolated.

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

South Fork of 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 1942.

Average discharge.- 11 years, 118 second-feet.

Extremes.- Maximum discharge during year, 435 second-feet May 25 (gage height, 3.13 feet); minimum, 40 second-feet Oct. 3, 4, Nov. 11-13 (gage height, 0.99 foot).
1931-42: Maximum discharge, 1,140 second-feet Dec. 3, 1938 (gage height, 4.52 feet); minimum, 27 second-feet Oct. 1-21, 1931.

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

Cooperation.- Water-stage recorder graph furnished by The California Oregon Power Co.

Rating table, water year 1941-42, except period of ice effect (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Jan. 3-7, May 25 to June 10)

0.9	34	1.6	109	2.5	275
1.1	49	1.9	157	2.8	350
1.3	69	2.2	215	3.0	405

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	41	44	53	b88	129	86	91	116	249	115	69	52
2	41	46	88	b86	127	85	91	114	271	110	69	52
3	40	47	268	84	127	82	93	124	255	106	68	52
4	41	54	157	82	155	81	104	129	257	102	67	51
5	41	47	211	82	157	81	109	132	253	100	67	50
6	42	45	164	82	170	80	108	137	249	98	65	50
7	41	44	137	132	161	79	112	152	233	96	64	48
8	41	43	120	185	148	80	118	171	227	96	64	49
9	41	43	108	161	145	80	129	183	247	94	62	53
10	41	41	98	145	142	86	135	168	235	91	61	53
11	42	40	93	137	137	94	148	159	209	91	60	51
12	45	40	88	130	130	98	161	157	195	90	60	49
13	44	43	84	127	124	96	171	155	189	89	59	49
14	43	79	86	121	121	93	175	159	185	88	58	48
15	42	112	88	120	118	90	164	185	189	88	57	48
16	41	114	116	120	115	89	159	199	179	89	57	47
17	41	84	110	116	112	86	150	185	166	88	57	47
18	41	69	192	112	108	85	142	183	157	86	57	47
19	43	62	255	109	104	85	138	189	150	84	57	47
20	44	59	231	106	103	84	147	215	142	82	57	46
21	43	57	189	102	100	84	166	253	137	81	56	46
22	41	56	161	102	98	84	183	328	132	80	55	45
23	41	54	152	102	96	84	161	332	127	79	55	45
24	41	53	140	102	94	81	145	318	124	76	55	45
25	41	52	130	103	91	80	137	390	145	75	55	44
26	42	51	126	110	89	77	129	362	193	74	54	44
27	52	50	124	161	89	77	127	310	162	75	54	44
28	47	50	120	150	86	77	124	308	142	74	54	43
29	46	50	115	138	-	77	118	315	130	73	54	43
30	44	54	110	134	-	80	121	278	122	71	54	43
31	43	-	106	129	-	86	-	259	-	70	53	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acre-feet
October	1,317	52	40	42.5	0.817	0.94	2,610
November	1,683	114	40	56.1	1.08	1.20	3,340
December	4,220	268	53	136	2.62	3.02	8,370
Calendar year 1941	32,591	465	40	89.3	1.72	23.31	64,640
January	3,658	185	82	118	2.27	2.62	7,260
February	3,376	170	86	121	2.33	2.41	6,700
March	2,607	98	77	84.1	1.62	1.86	5,170
April	4,056	183	91	135	2.60	2.90	8,040
May	6,665	390	114	215	4.13	4.77	13,220
June	5,651	271	122	188	3.62	4.04	11,210
July	2,711	115	70	87.5	1.68	1.94	5,380
August	1,834	69	53	59.2	1.14	1.31	3,640
September	1,431	52	43	47.7	.917	1.02	2,840
Water year 1941-42	39,209	390	40	107	2.06	28.03	77,780

b Stage-discharge relation affected by ice.
Time basis: Pacific standard time prior to 2 a.m., Feb. 9, 1942; Pacific war time thereafter. To convert war time to standard time, subtract 1 hour.

Immaha 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 1942.

Average discharge.- 11 years, 38.9 second-feet.

Extremes.- *Maximum* daily discharge during year, 110 second-feet (estimated) May 25; minimum daily, 17 second-feet Oct. 6-10, Nov. 10-13.
1931-42: Maximum discharge observed, 237 second-feet Mar. 19, 1932 (gage height, 2.10 feet); minimum observed, 11 second-feet Dec. 14, 1931 (gage height, 0.46 foot).

Remarks.- Records fair for October, July to September; poor for period November to June. Staff gage read once weekly; discharge for intervening days computed on basis of records for stations on South Fork of 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 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	18	18	22	h40	58	42	39	42	86	39	23	19
2	h18	19	30	40	58	40	h39	42	88	h38	22	19
3	18	21	70	39	58	39	39	44	87	37	22	h19
4	18	23	h44	38	70	38	40	45	h87	36	22	19
5	18	20	49	38	h73	h38	42	45	86	35	22	19
6	17	h18	44	38	76	38	43	46	82	35	h22	19
7	17	18	41	52	74	38	43	h46	78	34	22	19
8	17	18	38	h65	72	38	42	51	76	34	22	20
9	h17	18	36	58	71	38	h42	54	82	h33	22	20
10	17	17	34	55	70	39	45	52	76	32	21	h19
11	18	17	h33	52	69	42	48	50	h67	31	21	18
12	19	17	32	51	h68	h42	50	50	65	30	21	18
13	18	h17	31	50	64	42	52	50	64	29	h21	18
14	18	27	32	50	62	41	50	h50	63	29	21	18
15	18	h36	33	h50	59	41	48	54	62	29	21	18
16	h18	38	37	49	58	41	h47	58	59	h29	21	18
17	18	29	35	48	h56	40	46	55	56	h30	21	h18
18	18	25	h60	47	55	40	44	54	h54	30	21	18
19	19	23	80	46	h54	h39	43	54	52	29	21	18
20	19	h22	70	46	52	39	45	56	50	28	h19	18
21	18	21	62	45	50	39	48	h60	49	28	19	18
22	18	21	56	h45	48	39	52	86	48	27	19	h18
23	h18	20	52	45	47	38	h45	86	47	h27	19	18
24	18	20	50	45	45	37	44	84	45	26	19	h18
25	18	19	h48	45	44	37	43	110	h50	26	19	18
26	18	19	47	50	h43	h36	43	102	64	25	19	18
27	23	h19	46	68	43	36	42	97	56	26	h19	18
28	19	19	45	64	43	36	42	h95	50	25	19	18
29	19	20	44	h62	-	36	42	95	45	24	19	18
30	h18	20	43	60	-	37	h42	90	41	h24	19	18
31	18	-	42	59	-	38	-	87	-	23	19	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acre-feet
October	563	23	17	18.2	0.700	0.81	1,120
November	639	38	17	21.3	.819	.91	1,270
December	1,386	80	22	44.7	1.72	1.98	2,750
Calendar year 1941	10,806	80	17	29.6	1.14	15.46	21,430
January	1,540	68	38	49.7	1.91	2.20	3,050
February	1,640	76	43	58.6	2.25	2.35	3,250
March	1,204	42	36	38.8	1.49	1.72	2,390
April	1,330	52	39	44.3	1.70	1.90	2,640
May	1,990	110	42	64.2	2.47	2.85	3,950
June	1,915	88	41	63.8	2.45	2.74	3,800
July	928	39	23	29.9	1.15	1.33	1,840
August	637	23	19	20.5	.788	.91	1,260
September	552	20	18	18.4	.708	.79	1,090
Water year 1941-42	14,324	110	17	39.2	1.51	20.49	28,410

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

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 1942.

Average discharge.- 10 years, 98.1 second-feet.

Extremes.- Maximum discharge during year, 153 second-feet May 21 (gage height, 3.44 feet); minimum, 1 second-foot July 1.
1932-42: 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. This canal, completed in March 1932, diverts water from South Fork of 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 of 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 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	55	60	71	124	146	123	123	148	148	138	89	69
2	58	64	105	124	146	123	126	146	148	143	88	69
3	55	62	142	121	146	118	129	149	147	141	88	68
4	58	73	142	118	146	117	141	149	147	135	86	68
5	55	63	140	115	146	115	143	148	148	131	86	67
6	56	60	147	118	146	115	142	150	148	130	84	66
7	58	58	146	146	146	111	142	148	148	126	83	67
8	58	58	142	145	140	111	142	148	148	125	83	69
9	57	57	130	146	145	114	142	149	146	122	83	72
10	56	56	120	146	145	122	142	150	145	120	81	70
11	58	55	114	144	146	136	142	150	146	118	80	68
12	62	56	107	142	146	136	142	149	145	118	81	66
13	60	58	104	145	146	132	143	149	146	116	79	64
14	58	103	107	146	146	130	142	150	144	114	79	66
15	57	118	111	128	146	126	143	149	146	114	76	65
16	56	129	133	146	145	126	134	149	145	115	77	64
17	55	102	127	146	143	123	144	150	148	113	77	64
18	55	88	141	146	145	123	144	149	146	110	76	63
19	60	81	147	146	144	120	145	150	146	106	76	63
20	60	76	146	146	146	118	146	149	146	106	74	62
21	57	74	146	146	143	120	145	149	146	103	75	63
22	55	72	146	142	141	120	147	149	146	101	74	60
23	55	70	146	142	138	118	147	147	146	99	72	62
24	55	68	142	142	138	114	146	149	146	98	72	60
25	55	67	143	145	129	114	146	146	146	97	72	61
26	55	66	145	146	130	110	143	147	145	95	72	60
27	72	65	143	146	129	111	144	149	146	94	72	58
28	62	65	142	146	123	110	144	147	146	93	72	60
29	62	67	142	145	-	110	147	146	145	92	73	60
30	58	70	135	143	-	113	148	148	146	90	72	60
31	60	-	133	143	-	119	-	148	-	90	70	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	1,793	72	55	57.8	3,560
November	2,161	129	55	72.0	4,290
December	4,085	147	71	132	8,100
Calendar year 1941	37,876	158	50	104	75,120
January	4,324	146	115	132	8,580
February	3,976	146	123	142	7,890
March	3,698	136	110	119	7,330
April	4,254	148	123	142	8,440
May	4,604	150	146	149	9,130
June	4,389	148	144	146	8,710
July	3,493	143	90	113	6,930
August	2,422	89	70	78.1	4,800
September	1,934	72	58	64.5	3,840
Water year 1941-42	41,133	150	55	113	81,600

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

Middle Fork of 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 1942 (include flow of Middle Fork power canal).

Average discharge.- 17 years, 166 second-feet.

Extremes.- Maximum combined discharge of river and canal during year, 813 second-feet Dec. 3 (river gage height, 3.75 feet); minimum combined daily discharge, 96 second-feet Nov. 11, 12.
1925-42: Maximum discharge, 1,300 second-feet Mar. 19, 1932 (gage height, 4.55 feet, present datum); minimum, 72 second-feet Aug. 24 to Sept. 5, 1931.

Remarks.- Records good. Flow regulated since Nov. 19, 1931, by head gates at diversion dam of power canal which diverts water around station; practically no storage above diversion dam. Flow of Middle Fork power canal included in tables below.

Cooperation.- Water-stage recorder graph furnished by The California Oregon Power Co.

Combined discharge, in second-feet, of Middle Fork of Rogue River and Middle Fork power canal near Prospect, Oreg. water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	99	103	111	131	184	133	139	152	298	188	120	107
2	99	106	368	131	192	134	139	150	334	184	119	107
3	97	107	394	136	188	131	142	160	309	173	119	107
4	102	108	248	134	225	130	152	165	315	169	118	106
5	99	102	280	131	221	131	151	189	308	165	119	106
6	99	100	234	134	228	130	151	176	304	160	118	106
7	99	99	203	201	223	129	155	199	288	155	117	106
8	100	98	181	238	216	130	161	214	273	151	116	108
9	100	98	164	250	213	133	171	227	305	147	116	110
10	102	98	152	219	208	148	174	207	277	145	115	110
11	101	96	143	215	202	161	184	199	251	144	115	107
12	108	96	139	208	196	163	194	196	241	142	115	106
13	103	105	135	205	189	159	201	192	241	140	114	106
14	99	164	135	199	184	155	195	195	242	139	114	105
16	98	226	147	194	180	152	189	215	266	140	114	105
16	98	166	175	195	174	150	186	218	242	139	113	104
17	98	133	157	188	167	147	178	213	225	138	113	104
18	98	123	228	182	160	146	169	221	217	136	112	103
19	103	117	274	175	154	141	170	235	206	134	111	103
20	102	114	269	172	152	139	185	262	200	132	111	102
21	99	111	232	166	149	138	205	296	194	131	110	101
22	98	109	211	164	147	138	215	352	192	129	109	101
23	98	107	207	161	144	137	191	322	192	128	109	101
24	98	107	193	160	144	135	183	323	190	127	109	101
25	98	106	182	158	141	133	170	423	230	127	109	101
26	100	105	171	174	137	130	162	368	245	125	109	101
27	113	105	165	212	136	129	168	332	212	125	110	101
28	104	104	160	200	133	129	157	324	200	124	110	101
29	103	107	153	189	-	129	153	316	195	122	110	101
30	101	111	148	186	-	130	155	298	191	122	109	101
31	101	-	143	184	-	136	-	288	-	122	108	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acre-feet
October	3,117	113	97	101	1.77	2.03	6,180
November	3,431	226	96	114	2.00	2.24	6,810
December	6,102	394	111	197	3.46	3.98	12,100
Calendar year 1941	52,825	394	96	145	2.54	34.47	104,800
January	5,574	238	131	180	3.16	3.64	11,060
February	4,987	228	133	178	3.12	3.25	9,890
March	4,306	163	129	139	2.44	2.81	8,540
April	5,145	215	139	172	3.02	3.36	10,200
May	7,607	423	150	245	4.30	4.96	15,090
June	7,383	334	190	246	4.32	4.82	14,640
July	4,403	188	122	142	2.49	2.87	8,730
August	3,511	120	108	113	1.98	2.29	6,960
September	3,128	110	101	104	1.82	2.04	6,200
Water year 1941-42	58,694	423	96	161	2.82	38.29	116,400

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

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 1942.

Average discharge.- 11 years, 104 second-feet.

Extremes.- Maximum discharge during year, 159 second-feet July 2 (gage height, 3.11 feet); minimum, 0.5 second-foot Dec. 6, 7.
1931-42: 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 of Rogue River into Main power canal to supplement flow of Rogue River above Prospect diversion dam.

Cooperation.- Gage-height record furnished by The California Oregon Power Co.

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	97	100	107	129	136	128	134	144	147	147	119	105
2	97	102	62	127	136	129	136	144	148	155	118	105
3	96	103	.7	132	136	127	138	144	147	146	118	105
4	100	104	.6	129	137	126	143	145	105	148	117	104
5	97	100	.6	126	137	127	143	145	1	152	118	104
6	97	98	.5	127	137	126	143	146	1	154	117	104
7	97	97	74	135	137	125	143	147	1	151	116	104
8	98	96	136	136	137	126	144	148	87	148	115	106
9	98	96	151	135	137	129	144	149	145	145	113	108
10	100	96	147	135	137	136	144	148	145	143	112	108
11	100	95	139	134	137	137	144	147	145	142	112	106
12	106	95	136	134	137	137	144	147	144	140	112	104
13	101	99	133	135	136	136	145	147	144	138	112	104
14	98	111	133	135	136	136	145	147	144	138	112	104
15	96	95	140	135	136	136	144	147	145	138	112	104
16	96	75	143	135	136	136	145	148	144	137	111	103
17	96	105	142	135	135	136	145	147	144	136	111	103
18	96	119	144	134	135	137	144	148	144	134	110	102
19	100	115	112	134	135	135	144	149	144	133	109	102
20	99	112	70	134	134	134	145	150	144	131	109	101
21	97	110	70	134	135	133	146	150	144	129	108	100
22	96	108	70	134	135	133	147	150	144	128	108	100
23	96	105	70	134	135	132	145	149	144	127	108	100
24	96	104	70	134	135	130	145	150	144	126	108	100
25	96	104	105	134	135	129	144	151	144	126	108	100
26	98	103	154	135	132	126	144	149	145	124	108	100
27	108	103	154	136	131	125	145	149	144	123	108	100
28	101	102	153	136	128	125	144	148	144	122	108	100
29	100	104	148	136	-	125	144	148	143	120	108	100
30	99	107	144	136	-	126	144	147	143	120	107	100
31	99	-	139	136	-	131	-	147	-	120	106	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	3,051	108	96	98.4	6,050
November	3,063	119	75	102	6,080
December	3,248.4	154	.5	105	6,440
Calendar year 1941	41,763.2	160	.5	114	82,840
January	4,141	136	126	134	8,210
February	3,790	137	128	135	7,520
March	4,054	137	125	131	8,040
April	4,305	147	134	144	8,540
May	4,575	151	144	148	9,070
June	3,808	148	1	127	7,550
July	4,223	155	120	136	8,380
August	3,458	119	106	112	6,860
September	3,085	108	100	103	6,120
Water year 1941-42	44,801.4	155	.5	123	88,860

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

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 1942. Prior to October 1928, in NE¼ sec. 34, T. 32 S., R. 3 E.

Average discharge.- 17 years, 98.3 second-feet.

Extremes.- Maximum discharge during year, 470 second-feet probably Dec. 3 (gage height, 2.6 feet, from floodmark), from rating curve extended above 200 second-feet; minimum daily, 51 second-feet Oct. 8-11, Sept. 29, 30.
1925-42: Maximum discharge observed, 1,200 second-feet Mar. 11, 1928; 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. One diversion above station for irrigation. Gage read once weekly; discharge for intervening days computed on basis of records for South Fork of Rogue River near Prospect and Red Blanket power canal.

Cooperation.- Gage readings furnished by The California Oregon Power Co.

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	53	56	60	82	100	79	80	h86	175	95	67	56
2	53	56	120	h80	99	79	80	84	200	93	66	56
3	h54	60	190	80	98	79	h81	87	186	h91	66	56
4	55	61	110	78	130	78	86	90	182	90	65	h55
5	53	58	h134	77	130	78	86	94	h176	88	65	55
6	52	55	115	80	h142	h77	87	96	165	86	64	55
7	52	h53	105	118	135	79	88	100	158	85	h64	54
8	51	53	98	180	122	82	89	h109	150	e4	63	56
9	51	53	92	h160	117	84	90	130	172	83	63	58
10	h51	53	87	145	114	91	h92	120	156	h81	63	57
11	51	53	83	135	109	95	95	107	146	80	62	h55
12	55	52	h79	128	105	101	103	103	h142	79	62	54
13	53	58	78	124	h103	h101	115	100	136	79	61	54
14	54	h86	81	120	100	96	120	105	135	78	h60	52
15	54	130	90	118	98	92	116	h120	144	78	60	54
16	53	h101	100	h116	h96	88	106	130	135	h78	59	52
17	h52	85	95	110	94	86	h97	125	125	h77	59	54
18	52	77	160	105	92	84	94	120	120	76	59	h53
19	5o	70	h204	100	90	82	91	126	h117	78	59	52
20	54	65	190	96	h89	h80	94	143	112	76	59	52
21	53	h61	160	94	86	80	104	160	107	76	h5e	52
22	52	60	135	93	84	79	128	h179	102	75	5e	52
23	52	58	130	h93	82	79	110	170	98	72	5e	52
24	h52	57	120	92	82	78	h98	180	96	h71	5e	52
25	52	56	112	92	81	77	94	240	110	68	5e	h52
26	55	55	h106	100	80	76	91	220	h128	67	5e	52
27	64	55	100	132	h79	h74	90	210	114	68	5e	52
28	59	h55	95	125	79	75	88	202	108	68	h57	52
29	57	57	92	114	-	75	86	h214	104	67	5e	51
30	56	62	90	h106	-	75	88	200	99	68	5e	51
31	h55	-	88	103	-	77	-	185	-	h68	55	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off Inches	Run-off Acre-feet
October	1,666	64	51	53.7	1.34	1.55	3,300
November	1,913	130	52	63.8	1.60	1.78	3,790
December	3,489	204	60	113	2.82	3.24	6,920
Calendar year 1941	30,297	204	49	83.0	2.08	28.16	60,080
January	3,376	180	77	109	2.72	3.14	6,700
February	2,816	142	79	101	2.52	2.62	5,590
March	2,556	101	74	82.5	2.06	2.38	5,070
April	2,867	128	80	95.6	2.39	2.67	5,690
May	4,335	240	84	140	3.50	4.03	8,600
June	4,098	200	96	137	3.42	3.81	8,130
July	2,423	95	67	78.2	1.96	2.25	4,810
August	1,872	67	55	60.4	1.51	1.74	3,710
September	1,608	58	51	53.6	1.34	1.50	3,190
Water year 1941-42	33,019	240	51	90.5	2.26	30.71	65,500

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

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 1942.

Average discharge.- 10 years, 63.8 second-feet.

Extremes.- Maximum discharge during year, 94 second-feet Dec. 7 (gage height, 3.12 feet); minimum, 7 second-feet June 11-17.
1931-42: 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.- Gage-height record furnished by The California Oregon Power Co.

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	48	52	58	84	86	80	80	82	83	91	65	55
2	48	54	66	84	86	80	80	82	83	92	64	55
3	47	59	8	82	87	80	82	83	83	91	62	55
4	50	59	8	80	88	79	85	83	51	83	62	55
5	48	54	49	78	87	79	86	83	9	83	62	55
6	48	54	92	80	86	80	85	83	8	83	62	54
7	48	52	92	91	86	79	85	83	e	83	62	52
8	48	52	91	87	86	79	86	83	8	83	61	54
9	48	51	88	87	86	81	87	84	8	83	61	56
10	48	51	85	86	85	89	88	84	8	80	60	55
11	48	51	82	86	85	91	91	83	8	79	59	54
12	52	50	79	86	86	90	86	84	7	78	59	53
13	51	53	77	86	86	91	84	83	7	77	59	52
14	52	81	80	86	86	90	84	83	7	76	59	50
15	52	80	87	86	85	88	83	83	7	76	58	51
16	52	65	92	86	85	88	83	83	7	77	56	50
17	50	74	89	86	85	86	83	83	43	74	56	51
18	50	73	91	86	84	85	83	83	66	73	56	50
19	54	66	90	86	84	83	84	83	66	74	56	50
20	52	61	89	85	85	83	85	83	74	73	56	50
21	50	59	89	85	84	82	85	83	79	73	56	50
22	50	58	89	86	83	82	84	84	79	72	56	50
23	49	57	89	86	82	80	84	84	88	70	56	50
24	50	56	89	86	85	79	83	85	92	68	56	50
25	50	55	90	86	84	79	83	85	93	65	54	50
26	52	54	92	86	82	77	82	83	92	65	54	50
27	60	54	92	86	82	77	83	83	92	65	54	50
28	53	54	91	86	80	77	82	84	92	65	55	50
29	52	55	90	86	-	77	81	83	92	65	56	50
30	51	59	89	86	-	77	82	83	91	66	54	50
31	52	-	88	86	-	77	-	83	-	66	54	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	1,563	60	47	50.4	3,100
November	1,751	81	50	58.4	3,470
December	2,481	92	8	80.0	4,920
Calendar year 1941	26,325	96	e	72.1	52,220
January	2,643	91	78	85.3	5,240
February	2,376	88	80	84.9	4,710
March	2,545	91	77	82.1	5,050
April	2,518	91	80	83.9	4,990
May	2,581	85	82	83.3	5,120
June	1,531	93	7	51.0	3,040
July	2,355	92	65	76.0	4,670
August	1,800	65	54	58.1	3,570
September	1,557	56	50	51.9	3,090
Water year 1941-42	25,701	93	7	70.4	50,970

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

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 mile 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 1942.

Average discharge.- 10 years (1932-42), 260 second-feet.

Extremes.- Maximum discharge during year, 410 second-feet Dec. 26 (gage height, 4.16 feet); minimum, 32 second-feet June 8 (gage height, 1.00 foot).
1931-42: Maximum discharge, 423 second-feet June 22, 1936; no flow at times.

Remarks.- Records good except those below 250 second-feet in December, January, February, and June, which are fair. This canal, completed in November 1931, carries water diverted from South and Middle Forks of Rogue River and Red Blanket Creek into Rogue River above Prospect diversion dam.

Cooperation.- Gage-height record furnished by The California Oregon Power Co.

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	197	209	236	349	364	327	349	285	293	376	274	232
2	198	216	214	346	363	329	354	282	293	394	270	230
3	197	223	33	341	286	322	359	287	293	383	268	229
4	202	235	34	330	211	317	336	287	218	378	268	228
5	200	215	116	320	209	319	292	290	34	375	268	226
6	197	211	247	329	209	317	288	292	33	373	268	225
7	198	208	321	376	209	314	288	295	33	366	268	222
8	198	204	378	258	208	316	288	298	200	361	266	226
9	197	204	383	188	208	324	290	298	245	354	264	236
10	201	204	368	187	208	351	292	298	206	348	260	234
11	201	204	348	185	207	368	296	296	259	339	258	228
12	218	204	330	185	295	371	292	295	274	337	258	225
13	209	216	324	184	326	366	287	293	285	332	258	221
14	205	304	330	185	252	361	285	293	285	332	256	221
15	201	308	351	284	250	356	284	293	285	332	253	219
16	200	272	356	338	307	354	270	296	284	334	252	218
17	197	293	298	314	359	351	279	298	325	332	248	218
18	196	295	317	312	359	348	277	298	351	327	247	215
19	209	271	237	314	358	344	277	301	348	320	244	215
20	205	258	156	314	359	342	280	304	356	316	242	214
21	198	247	155	312	358	341	285	306	373	312	241	214
22	198	241	154	346	354	341	287	306	380	311	238	212
23	198	234	154	366	349	336	282	301	388	306	236	212
24	196	228	150	363	353	330	280	301	392	301	238	211
25	194	225	251	364	344	325	285	301	390	298	234	211
26	201	223	368	366	341	320	285	296	392	295	232	209
27	236	222	304	298	339	317	287	293	388	293	232	211
28	215	222	301	254	329	316	285	293	388	292	235	212
29	212	225	293	324	-	317	285	292	387	285	240	212
30	205	236	284	366	-	324	287	292	387	279	235	211
31	208	-	304	366	-	337	-	292	-	277	232	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	6,287	236	194	203	12,470
November	7,057	308	204	235	14,000
December	8,095	383	33	261	16,060
Calendar year 1941	105,543	401	33	289	209,400
January	9,364	376	184	302	18,570
February	8,314	364	207	297	16,490
March	10,401	371	314	335	20,630
April	8,811	359	270	294	17,480
May	9,152	306	282	295	18,150
June	8,765	392	33	292	17,390
July	10,258	394	277	331	20,350
August	7,783	274	232	251	15,440
September	6,595	236	209	220	13,080
Water year 1941-42	100,882	394	33	276	200,100

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

South Fork of 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 1942. August 1922 to March 1925, at site at Butte Falls.

Average discharge.- 26 years (1910-11, 1917-42), 153 second-feet.

Extremes.- Maximum discharge during year, 477 second-feet Dec. 20 (gage height, 1.59 feet); minimum, 60 second-feet Sept. 30 (gage height, 0.52 foot).
1910-11, 1915, 1917-42: Maximum discharge, 2,470 second-feet Feb. 20, 1927 (gage height, 4.05 feet), from rating curve extended above 1,600 second-feet; minimum, 39 second-feet Oct. 14, 1931 (gage height, 0.32 foot).

Remarks.- Records good. Diversions above station for irrigation and, since 1927, for Medford municipal supply; diversion from Big Butte Springs for Camp White, a U. S. Army post near Eagle Point, began in 1942. No regulation.

Rating table, water year 1941-42 (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used July 27 to Sept.30)

0.5	63	0.8	132	1.2	271
.6	82	.9	162	1.5	425
.7	105	1.0	194		

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	61	67	67	121	215	135	121	129	246	105	76	65
2	61	69	114	a121	215	141	118	124	237	103	74	63
3	61	74	229	a117	208	138	116	138	226	100	74	63
4	61	76	156	a114	334	135	124	150	212	96	74	63
5	61	69	147	a112	318	135	124	144	201	94	74	63
6	61	67	129	118	365	135	124	141	191	94	74	63
7	61	67	113	212	344	132	121	141	181	91	74	63
8	61	63	105	258	339	132	121	144	172	91	74	65
9	61	63	98	258	304	132	121	147	175	91	72	69
10	61	63	91	242	285	138	121	159	162	94	72	69
11	61	63	87	233	263	153	121	159	153	91	72	69
12	67	63	82	218	242	198	121	165	147	91	71	69
13	65	69	82	208	229	194	127	159	135	94	71	69
14	63	69	87	196	215	156	135	159	132	91	71	65
15	63	129	84	191	204	178	129	181	129	91	71	65
16	61	144	127	218	198	175	124	191	129	94	72	65
17	61	103	132	201	184	168	124	188	127	94	72	63
18	61	87	304	191	175	172	121	181	121	89	72	63
19	69	80	349	181	165	159	116	175	118	87	71	63
20	67	76	425	172	162	159	116	172	118	84	71	63
21	65	72	323	165	159	156	116	172	116	84	71	63
22	63	71	267	159	153	153	116	188	110	84	71	63
23	63	71	285	156	147	147	116	194	108	82	71	65
24	63	71	246	159	156	144	113	184	110	82	69	63
25	63	67	215	162	147	141	110	280	121	82	71	63
26	65	65	188	172	141	135	105	313	135	78	67	65
27	71	65	175	299	144	129	116	285	127	76	69	63
28	65	63	165	304	141	129	124	294	118	76	67	63
29	65	65	156	263	-	124	116	299	113	76	69	61
30	63	65	150	246	-	124	121	276	105	76	65	61
31	65	-	144	229	-	121	-	258	-	76	67	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	1,959	71	61	63.2	3,890
November	2,256	144	63	75.2	4,470
December	5,322	425	67	172	10,560
Calendar year 1941	36,067	425	60	98.8	71,560
January	5,998	304	112	193	11,900
February	6,152	365	141	220	12,200
March	4,568	198	121	147	9,060
April	3,598	135	105	120	7,140
May	5,890	313	124	190	11,680
June	4,475	246	105	149	8,880
July	2,737	105	76	88.3	5,430
August	2,209	76	65	71.3	4,380
September	1,930	69	61	64.3	3,830
Water year 1941-42	47,094	425	61	129	93,420

Peak discharge.- Dec. 3 (12:30 a.m.) 258 second-feet; Dec. 18 (4 p.m.) 420 second-feet; Dec. 20 (3 a.m.) 477 second-feet.
a No gage-height record; discharge computed on basis of range of stage and records for South and North Forks of Little Butte Creek near Lake Creek.
Time basis: Pacific standard time prior to 2 a.m., Feb. 9, 1942; Pacific war time thereafter. To convert war time to standard time, subtract 1 hour.

South Fork of 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 1942. November 1910 to April 1913 at site in sec. 11, T. 37 S., R. 2 E., 5 miles above Lake Creek.

Average discharge.- 22 years (1911-12, 1921-42), 92.4 second-feet.

Extremes.- Maximum discharge during year, 1,570 second-feet May 25 (gage height, 4.16 feet), from rating curve extended above 300 second-feet by logarithmic plotting; minimum, 14 second-feet Oct. 1, Sept. 23.

1910-13, 1921-42: Maximum discharge, 2,700 second-feet Feb. 20, 1927 (gage height, 6.25 feet), from rating curve extended above 1,300 second-feet; minimum, 2 second-feet Aug. 10, 1931 (gage height, 0.97 foot). Maximum discharge for flood of Dec. 30, 1924, as published in water-supply papers for water years 1926-41 is in error.

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

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	14	27	a39	79	170	74	101	161	385	43	21	16
2	14	32	a80	86	196	79	104	153	365	41	21	16
3	15	33	a190	77	174	77	111	174	324	39	21	16
4	17	40	a120	72	285	77	149	206	289	36	20	16
5	20	31	a110	63	264	79	161	188	256	35	19	18
6	19	27	a90	95	387	77	161	178	236	33	18	18
7	19	25	a74	259	311	72	174	183	213	33	17	17
8	19	24	a66	239	295	77	178	196	194	33	18	19
9	18	23	a60	210	244	61	196	220	191	31	19	25
10	18	22	a56	192	234	94	210	230	169	31	19	26
11	17	22	a52	174	220	167	220	264	152	31	18	22
12	22	21	48	165	201	295	230	295	138	31	18	20
13	24	22	46	153	165	225	249	269	122	31	17	20
14	20	32	52	140	153	178	275	259	112	31	16	20
15	19	120	54	140	140	157	249	349	119	31	16	20
16	19	131	206	153	128	153	244	392	103	32	16	19
17	19	77	258	132	114	140	230	333	92	31	16	19
18	19	54	482	114	104	136	206	306	84	29	17	17
19	31	46	508	108	94	124	196	280	78	29	18	16
20	31	42	514	98	98	117	196	269	73	27	19	16
21	24	a40	343	89	91	117	201	275	68	25	19	16
22	23	a39	280	89	91	117	215	338	62	20	19	16
23	22	a39	327	89	84	108	206	338	60	20	18	16
24	21	a39	290	91	86	98	192	322	57	23	17	15
25	21	a37	215	114	81	94	178	1,080	64	22	16	15
26	21	a36	157	136	74	81	157	979	106	22	16	16
27	27	a36	136	343	84	84	174	740	78	21	16	16
28	26	a35	128	311	77	81	170	647	64	21	16	16
29	25	a36	132	225	-	84	144	659	53	21	16	16
30	25	a36	121	206	-	89	149	531	47	21	16	16
31	24	-	111	183	-	104	-	455	-	21	15	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	653	31	14	21.1	1,300
November	1,224	131	21	46.4	2,430
December	5,345	514	39	172	10,600
Calendar year 1941	29,507	514	14	80.8	58,530
January	4,625	343	63	149	9,170
February	4,645	387	74	166	9,210
March	3,536	295	72	114	7,010
April	5,626	275	101	188	11,160
May	11,269	1,080	153	364	22,350
June	4,354	385	47	145	8,640
July	895	43	20	28.9	1,780
August	548	21	15	17.7	1,090
September	534	26	15	17.8	1,060
Water year 1941-42	43,254	1,080	14	119	85,800

Peak discharge.- Nov. 15 (6 p.m.) 240 sec.-ft.; Dec. 16 (6 a.m.) 375 sec.-ft.; Dec. 17 (8 a.m.) 531 sec.-ft.; Dec. 18 (11:30 a.m.) 659 sec.-ft.; Dec. 20 (1 a.m.) 656 sec.-ft.; May 25 (11 a.m.) 1,570 sec.-ft.

a No gage-height record; discharge computed on basis of records for North Fork of Little Butte Creek near Lake Creek and South Fork of Big Butte Creek at Butte Falls.

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

North Fork of 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 1942.

Average discharge.- 27 years (1915-42), 31.5 second-feet.

Extremes.- Maximum discharge during year, 122 second-feet July 30 (gage height, 1.55 feet); minimum, 1.3 second-feet Oct. 2-4 (gage height, 0.12 foot).
1914-42: 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 1941-42 (gage height, in feet, and discharge, in second-feet)

0.1	1.1	0.4	4.8	0.8	21	1.4	93
.2	1.9	.5	7.2	1.0	37	1.6	133
.3	3.1	.6	11	1.2	61		

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	3.0	3.4	6.0	9.9	12	12	13	19	25	53	118	44
2	1.3	3.6	6.7	9.9	12	13	13	19	25	56	118	44
3	1.3	3.8	7.2	9.9	12	13	13	19	25	57	116	41
4	1.3	4.0	7.2	9.9	12	13	14	20	25	57	116	51
5	1.4	4.1	7.2	10	12	13	14	20	25	73	118	53
6	1.6	4.3	7.2	10	12	13	14	20	25	78	116	44
7	1.7	4.1	7.2	10	12	13	14	21	25	79	116	52
8	1.7	4.1	7.2	10	12	13	15	21	25	83	118	56
9	1.7	4.3	7.5	10	12	13	15	22	25	86	116	46
10	1.7	4.3	7.5	10	12	13	15	22	25	90	118	37
11	1.7	4.3	7.5	10	12	13	16	22	25	97	118	30
12	a1.8	4.3	7.5	10	12	13	16	22	25	99	116	25
13	1.9	4.3	7.5	10	12	13	16	22	25	99	112	25
14	2.0	4.8	7.5	10	12	13	17	22	25	95	110	26
15	2.0	5.0	7.5	10	12	13	17	22	25	91	102	26
16	2.1	5.3	8.6	10	12	13	18	22	25	91	99	26
17	2.4	5.3	8.6	10	12	13	18	22	25	91	97	24
18	2.4	5.3	8.6	10	12	13	18	22	25	91	88	24
19	2.7	5.3	8.6	10	12	13	18	22	25	93	83	24
20	2.6	5.5	8.9	10	12	13	19	22	25	97	79	25
21	2.6	5.5	9.2	10	12	14	19	22	26	106	72	27
22	2.6	5.5	9.2	10	12	14	19	23	26	106	68	27
23	2.6	5.5	9.6	10	12	14	19	23	25	114	67	27
24	2.6	5.5	9.6	10	12	14	19	24	28	120	62	27
25	2.7	5.5	9.6	11	12	14	19	25	30	118	56	27
26	2.9	5.5	9.6	11	12	14	19	25	25	118	54	26
27	3.1	5.8	9.6	11	12	13	19	25	25	116	54	26
28	3.1	5.8	9.6	11	12	13	19	25	25	118	54	26
29	3.3	6.0	9.6	11	-	13	19	25	32	116	53	27
30	3.3	6.0	9.9	11	-	13	19	25	40	120	49	27
31	3.3	-	9.9	11	-	13	-	25	-	120	44	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	70.4	3.3	1.3	2.27	140
November	146.0	6.0	3.4	4.87	290
December	257.1	9.9	6.0	8.29	510
Calendar year 1941	8,044.9	124	1.3	22.0	15,960
January	316.6	11	9.9	10.2	628
February	336	12	12	12.0	666
March	408	14	12	13.2	809
April	503	19	13	16.8	998
May	690	25	19	22.3	1,370
June	782	40	25	26.1	1,550
July	2,928	120	53	94.5	5,810
August	2,807	118	44	90.5	5,570
September	990	56	24	33.0	1,960
Water year 1941-42	10,234.1	120	1.3	28.0	20,300

a No gage-height record; discharge interpolated.
Time basis: Pacific standard time prior to 2 a.m., Feb. 9, 1942; Pacific war time thereafter. To convert war time to standard time, subtract 1 hour.

North Fork of 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 1942, in reports of Geological Survey; September 1911 to March 1913 and May 1922 to September 1936 in reports of State engineer.

Average discharge.- 16 years (1911-12, 1922-23, 1928-42), 63.7 second-feet.

Extremes.- Maximum discharge during year, 309 second-feet May 25 (gage height, 2.62 feet), from rating curve extended above 160 second-feet by velocity-area studies; minimum, 21 second-feet Oct. 2-10.

1911-13, 1922-28, 1931-42: Maximum discharge, 680 second-feet Dec. 30, 1924 (gage height, 3.30 feet), from rating curve extended above 170 second-feet; minimum, 11 second-feet (computed on basis of records for station at Fish Lake, near Lake Creek) Oct. 29 to Nov. 8, 1931.

Remarks.- Records good. Flow regulated by Fish Lake Reservoir. Small diversions above station for irrigation; some water diverted into Fish Lake from Fourmile Lake, in Klamath River Basin, since September 1923.

Rating tables, water year 1941-42 (gage height, in feet, and discharge, in second-feet)

Oct. 1 to May 25				May 26 to Sept. 30			
1.5	22	2.0	86	1.7	42	2.0	104
1.6	29	2.2	137	1.8	57	2.1	141
1.8	51			1.9	77	2.2	189

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	24	26	26	a38	50	43	41	56	82	77	146	65
2	21	26	61	a38	51	44	40	52	80	80	146	65
3	21	28	74	a38	49	43	40	60	77	82	146	63
4	22	27	46	a37	63	43	44	63	73	80	146	65
5	22	25	45	36	60	43	43	60	71	96	155	73
6	21	24	43	49	72	43	41	58	69	115	155	63
7	21	24	35	80	66	41	41	57	67	115	160	65
8	21	24	33	64	72	41	43	57	65	119	160	71
9	21	24	32	58	64	41	43	58	65	115	160	69
10	22	24	31	57	63	43	44	60	63	122	160	59
11	22	24	31	56	60	56	44	68	61	126	155	51
12	24	24	31	52	57	74	44	72	61	126	165	44
13	22	26	31	51	54	60	45	66	61	126	151	44
14	22	29	31	50	52	56	46	64	59	122	141	45
15	22	59	31	50	51	52	45	82	61	122	137	45
16	22	45	60	64	50	51	46	76	57	122	a133	45
17	22	32	64	50	47	51	46	68	57	122	a129	44
18	23	28	103	47	46	50	45	64	57	122	126	42
19	30	27	74	45	45	49	45	63	57	122	119	42
20	24	26	76	43	45	47	46	62	56	126	111	42
21	23	26	64	43	45	46	46	63	54	134	101	44
22	23	26	58	43	44	45	47	74	54	134	96	45
23	23	26	53	43	44	45	46	70	52	134	96	45
24	23	26	57	44	45	45	46	66	56	146	88	45
25	23	26	50	43	44	45	45	130	63	146	77	48
26	24	26	46	46	43	44	45	115	61	146	77	48
27	26	26	a44	80	44	43	50	99	54	146	77	46
28	24	26	a43	68	43	43	51	101	54	141	77	46
29	24	26	a43	57	-	43	49	101	57	151	75	46
30	23	26	a42	54	-	41	52	88	63	155	71	48
31	24	-	a41	51	-	41	-	85	-	151	67	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	709	30	21	22.9	1,410
November	832	59	24	27.7	1,650
December	1,509	103	26	48.7	2,990
Calendar year 1941	17,882	140	21	49.0	35,470
Jahuary	1,565	80	36	50.5	3,100
February	1,471	72	43	52.5	2,920
March	1,454	74	41	46.9	2,880
April	1,349	52	40	45.0	2,680
May	2,258	130	52	72.8	4,480
June	1,867	82	52	62.2	3,700
July	3,621	155	77	123	7,580
August	3,803	165	67	123	7,540
September	1,563	73	42	52.1	3,100
Water year 1941-42	22,201	165	21	60.8	44,030

a No gage-height record; discharge interpolated or computed on basis of records for South Fork of Little Butte Creek near Lake Creek and South Fork of Big Butte Creek at Butte Falls.

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

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 1942; records of some of the canals published separately prior to 1929.

Many smaller canals divert from Little Butte Creek and its tributaries.

Diversions, in acre-feet, water year October 1941 to September 1942

Month	Hanley South Canal	Hanley North Canal	Rogue River Valley Canal below junction of intakes	Eagle Point Canal
October.....	-	-	212	615
November.....	-	-	0	†42
December.....	-	-	0	-
January.....	-	-	0	-
February.....	-	-	0	-
March.....	-	-	285	-
April.....	111	-	4,830	916
May.....	257	285	4,980	897
June.....	410	558	5,740	1,010
July.....	437	571	7,450	1,020
August.....	417	561	6,290	899
September....	400	511	2,400	879
The year or period...	2,032	2,486	32,187	-

† Period Nov. 1-6; no record Nov. 7 to Mar. 31.

Note.- Probably some flow in canals during periods of no record.

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

Emigrant Creek near Ashland, Oreg.

Location.- Water-stage recorder, lat. 42°10', long. 122°36', in SE¼ sec. 20, T. 39 S., R. 2 E., 500 feet downstream from Emigrant Gap Reservoir Dam and 6 miles southeast of Ashland.

Records available.- January 1920 to September 1942 (some years incomplete).

Extremes.- Maximum discharge during year, 638 second-feet May 25 (gage height, 3.91 feet); no flow at times.

1920-42: Maximum discharge, 5,260 second-feet Feb. 20, 1927, by computation of flow over dam; no flow at times.

Remarks.- Records good except those above 150 second-feet and those for periods of no gage-height record, which are poor. Flow regulated since December 1924 by Emigrant Gap Reservoir. Diversions above station for irrigation; principal canals are Ashland lateral and East lateral. Water diverted by Keene Creek Canal from Klamath River Basin into Emigrant Creek above station.

Rating tables, water year 1941-42 (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Nov. 11)

Oct. 1 to Mar. 13

0.1	0.4	0.5	3.3	1.0	26
.2	.7	.6	5.3	1.2	43
.3	1.2	.7	8.5	1.5	72
.4	1.9	.8	13		

Note.- Same as following table above 1.5 feet.

Mar. 14 to Sept. 30

0.2	0.2	1.0	23
.3	.4	1.2	41
.4	.9	1.5	72
.5	2.0	1.8	108
.6	3.8	2.1	153
.7	6.3	2.5	223
.8	10	2.9	313

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1				a19	87	0.8	15	2.0	93	8.2	38	8.2
2				a19	102	.6	17	2.2	57	18	39	12
3				a19	103	.6	17	2.2	57	30	39	15
4				a18	179	.6	21	3.3	52	30	40	16
5		a0.1		a18	251	.6	24	5.8	42	31	41	16
6				a18	292	.6	26	5.8	33	31	40	15
7				18	294	.6	28	4.3	29	31	40	14
8				19	285	.7	28	2.7	27	31	41	15
9				29	208	.7	31	1.8	23	31	39	16
10	a0.2		a0.1	61	139	3.7	22	1.7	19	32	39	8.9
11		.1		68	80	33	22	4.3	14	32	39	4.8
12				71	16	53	20	40	14	32	40	3.4
13				72	.8	50	21	73	12	35	40	3.1
14				72	.8	a48	16	70	8.2	33	39	2.9
15				72	.7	a46	14	74	7.0	31	39	2.0
16				67	.6	a44	11	72	4.0	31	38	a1.8
17				56	.6	a42	8.9	54	1.4	31	38	a1.6
18			a8.0	46	.6	a40	7.4	36	.4	32	35	a1.3
19			a12	23	.6	38	5.3	35	.3	33	35	a1.1
20			a81	.5	.6	34	4.0	30	.3	34	33	a.9
21		a.1	a116	.5	.6	34	2.7	28	.3	35	30	a.6
22			116	.5	.6	33	1.7	28	.4	34	26	a.4
23			a122	.5	6.8	33	1.7	28	.4	35	21	.2
24			128	.5	8.5	33	1.9	27	.8	38	15	.2
25	a.1		131	.5	.9	32	1.9	309	4.8	39	13	.2
26			a131	10	7.7	27	1.9	214	4.8	39	12	.2
27			a131	121	52	22	2.4	156	5.0	39	7.0	2.3
28			a131	161	28	23	3.3	139	5.0	39	3.8	4.8
29			a131	a102	-	22	2.9	115	6.0	39	3.8	8.9
30			a131	44	-	22	2.2	116	7.4	38	3.6	10
31			a59	63	-	19	-	107	-	38	3.8	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	4.9	-	-	0.16	9.7
November	3.0	-	-	.10	6.0
December	1,429.7	131	-	46.1	2,840
Calendar year 1941	7,255.5	300	-	19.9	14,400
January	1,289.0	161	0.5	41.6	2,560
February	2,146.4	294	.6	76.7	4,260
March	737.5	53	.6	23.8	1,460
April	381.2	31	1.7	12.7	756
May	1,787.1	309	1.7	57.6	3,540
June	528.5	93	.3	17.6	1,050
July	1,010.2	39	8.2	32.6	2,000
August	911.0	41	3.6	29.4	1,810
September	186.8	16	.2	6.23	371
Water year 1941-42	10,415.3	309	-	28.5	20,660

a No gage-height record; discharge interpolated or based on engineer's and observer's notes.

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

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 1942 (incomplete prior to April 1927).

Average discharge.- 21 years (1920-26, 1927-42), 74.4 second-feet.

Extremes.- Maximum discharge during year, 2,080 second-feet May 25 (gage height, 4.12 feet); minimum, 8.2 second-feet Oct. 4.
1915-42: Maximum discharge, 10,200 second-feet Feb. 20, 1927 (gage height, 10.15 feet), from rating curve extended above 1,600 second-feet; practically no flow at times.

Remarks.- Records fair except those for period of no gage-height record, which are poor. Diversions above station for irrigation. Flow partly regulated since December 1924 by Emigrant Gap Reservoir.

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	10	32	29	172	255	127	107	100	391	47	12	13
2	11	35	481	161	304	127	100	91	450	46	11	13
3	10	39	541	139	311	125	99	103	363	a43	11	13
4	11	42	188	135	518	118	103	116	326	a40	13	13
5	16	36	141	127	628	119	103	100	300	a36	15	13
6	31	32	114	150	845	118	105	99	300	a32	14	13
7	31	31	99	468	782	103	102	91	284	a28	12	13
8	29	29	91	330	674	99	102	80	272	a26	11	13
9	28	27	84	261	577	100	103	82	252	a24	11	17
10	22	27	80	255	442	103	110	99	230	a22	12	22
11	21	27	74	258	358	125	103	154	220	a21	13	18
12	24	26	70	247	255	167	103	179	207	a20	12	15
13	29	26	69	235	210	137	110	226	174	a19	12	12
14	26	36	77	228	198	125	127	233	137	a18	12	11
15	24	79	78	222	179	118	125	290	137	a17	11	10
16	24	96	628	235	167	133	110	311	119	a16	12	10
17	24	70	602	215	156	154	110	247	103	a15	13	11
18	24	59	901	200	137	152	103	212	87	a15	9.8	11
19	35	51	518	183	125	141	97	215	78	a14	9.4	15
20	45	42	442	150	137	125	92	205	74	a13	9.4	15
21	36	36	398	139	135	131	82	200	72	a12	11	14
22	31	34	371	135	123	118	70	244	72	a12	13	13
23	26	33	660	139	116	109	61	247	51	12	13	11
24	27	32	501	143	133	116	65	233	48	13	12	11
25	25	31	402	154	125	114	69	1,010	56	12	12	11
26	26	30	354	158	131	112	64	968	79	12	12	10
27	29	29	330	322	156	109	82	586	76	12	13	11
28	32	29	315	384	167	105	92	525	68	13	13	12
29	29	27	304	304	-	107	86	586	60	10	13	13
30	26	29	293	202	-	105	88	490	49	11	13	17
31	26	-	264	220	-	109	-	440	-	13	13	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	788	45	10	25.4	1,560
November	1,152	96	26	38.4	2,280
December	9,499	901	29	306	18,840
Calendar year 1941	34,086.9	1,080	7.1	93.4	67,610
January	6,671	468	127	215	13,230
February	8,344	845	116	298	16,550
March	3,751	167	99	121	7,440
April	2,873	127	61	95.8	5,700
May	8,754	1,010	80	282	17,360
June	5,135	450	48	171	10,190
July	644	47	10	20.8	1,280
August	373.6	15	9.4	12.1	741
September	394	22	10	13.1	781
Water year 1941-42	48,378.6	1,010	9.4	133	95,950

Peak discharge.- Dec. 2 (10 p.m.) 1,210 sec.-ft.; Dec. 16 (4:30 p.m.) 1,060 sec.-ft.; Dec. 17 (10 p.m.) 1,850 sec.-ft.; Feb. 6 (4:30 a.m.) 1,000 sec.-ft.; Feb. 7 (2 p.m.) 949 sec.-ft.; May 25 (5:30 p.m.) 2,080 sec.-ft.

a No gage-height record; discharge computed on basis of records for Applegate River near Ruch.

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

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 Talent lateral partly interpolated.

Records of these canals, published as a group, are available from April 1929 to September 1942; records for some of the canals published separately prior to 1929.

Many smaller canals divert from Bear Creek and tributaries.

Diversions, in acre-feet, water year October 1941 to September 1942

Month	Ashland lateral	East lateral	Talent lateral	Phoenix Canal	Bear Creek Canal
October	-	0	0	383	0
November	-	0	0	-	0
December	-	27	0	-	0
January	-	986	0	-	0
February	-	1,260	0	-	0
March	-	642	0	-	0
April	330	1,630	1,030	632	640
May	316	1,330	1,440	849	992
June	339	1,480	1,220	1,190	695
July	1,110	3,200	2,460	1,550	1,050
August	1,100	2,930	1,950	952	833
September	663	1,060	744	928	659
Water year 1941-42	3,868	14,545	8,844	-	4,869

Note.- Not much flow during months for which no figures are given.
Time basis: Pacific standard time prior to 2 a.m., Feb. 9, 1942; Pacific war time thereafter. To convert war time to standard time, subtract 1 hour.

Applegate River near Copper, Oreg.

Location.- Water-stage recorder, lat. 42°03', long. 123°07', in SE¼ sec. 25, T. 40 S., R. 4 W., a quarter of a mile downstream from French Gulch, 1½ miles downstream from Squaw Creek, and 3 miles northeast of Copper store. Datum of gage is 1,759.66 feet above mean sea level, datum of 1929.

Records available.- December 1938 to September 1942.

Extremes.- Maximum discharge during year, 6,900 second-feet Dec. 2 (gage height, 11.66 feet); minimum, 34 second-feet Sept. 30 (gage height, 0.99 foot).
1938-42: Maximum discharge, 7,410 second-feet Feb. 28, 1940 (gage height, 11.84 feet); minimum, 20 second-feet Sept. 23-25, 1939.

Remarks.- Records good. About 11 second-feet diverted for irrigation of 482 acres above station in Applegate River Basin; Grand Applegate ditch diverts about 3.3 second-feet around station on left bank. About 21 second-feet for irrigation and 8 second-feet for mining use are diverted at times into Thompson Creek Basin. Several hundred acre-feet normally stored each winter in Squaw Lake for irrigation the following summer.

Rating table, water year 1941-42 (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Dec. 3-15)

1.0	35	3.0	485	6.5	2,680
1.3	63	3.5	690	7.5	3,440
1.6	108	4.0	955	8.5	4,240
2.0	187	4.5	1,260		
2.5	320	5.5	1,950		

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	47	63	172	460	900	374	365	374	806	216	78	47
2	48	70	4,220	443	1,310	374	359	365	806	206	75	47
3	48	94	2,100	422	1,270	365	404	374	770	192	76	48
4	48	119	979	401	2,010	356	436	371	745	183	76	47
5	50	84	730	380	1,760	365	429	368	730	174	72	45
6	49	76	576	404	1,920	365	425	398	676	167	67	43
7	48	74	482	1,110	1,570	356	454	474	627	159	67	43
8	48	68	418	1,420	1,320	365	478	528	596	157	68	44
9	48	66	374	1,060	1,140	412	513	536	584	153	67	48
10	48	62	338	900	1,000	478	520	464	552	149	66	49
11	48	62	309	823	889	502	556	464	510	145	66	48
12	52	61	286	760	806	478	592	429	488	141	67	48
13	55	75	332	700	740	454	604	422	471	137	66	48
14	51	284	457	645	686	432	552	460	464	141	63	48
15	49	444	1,210	614	645	408	516	560	454	139	59	44
16	49	371	2,300	584	604	394	516	556	422	134	56	44
17	48	224	1,520	544	568	384	478	540	390	139	59	41
18	48	167	2,900	513	548	371	454	556	368	123	58	41
19	62	141	3,380	488	520	359	460	592	350	117	56	41
20	71	124	2,460	464	513	353	513	760	335	112	59	41
21	63	115	1,610	446	492	350	560	955	320	103	58	39
22	62	110	1,240	450	468	347	572	967	306	103	58	38
23	58	105	1,130	474	454	341	502	862	295	103	58	37
24	56	100	944	510	443	332	468	918	286	94	55	37
25	55	96	828	560	418	326	443	1,950	309	91	53	36
26	58	93	730	1,160	408	314	415	1,350	300	83	52	36
27	85	91	672	1,480	394	312	422	1,090	278	85	50	35
28	64	101	618	1,090	380	312	390	985	259	83	49	36
29	59	134	572	889	-	306	368	944	242	83	51	37
30	56	204	532	780	-	314	404	867	229	85	52	35
31	58	-	502	780	-	323	-	818	-	89	49	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	1,689	85	47	54.5	3,350
November	3,878	444	61	129	7,690
December	34,921	4,220	172	1,126	69,260
Calendar year 1941	158,761	4,220	43	435	314,900
January	21,754	1,480	380	702	43,150
February	24,176	2,010	380	863	47,950
March	11,522	502	306	372	22,850
April	14,168	604	359	472	28,100
May	21,297	1,950	365	687	42,240
June	13,968	806	229	466	27,710
July	4,087	216	80	132	8,110
August	1,906	78	49	61.5	3,780
September	1,271	49	35	42.4	2,520
Water year 1941-42	154,637	4,220	35	424	306,700

Peak discharge.- Dec. 2 p.m.) 6,900 sec.-ft.; Dec. 16 (4:30 a.m.) 3,290 sec.-ft.; Dec. 18 (2:45 p.m.) 3,900 sec.-ft.; Dec. 19 (3:45 p.m.) 3,740 sec.-ft.; Dec. 19 (11 p.m.) 3,480 sec.-ft.
Time basis: Pacific standard time prior to 2 a.m., Feb. 9, 1942; Pacific war time thereafter. To convert war time to standard time, subtract 1 hour.

Applegate River near Ruch, Oreg.

Location.- Wire-stage recorder, lat. 42°11', long. 123°03', in sec. 15, T. 39 S., R. 3 W., at Cameron Bridge, 1½ miles upstream from Little Applegate River and 4½ miles south of Ruch. Datum of gage is 1,475.09 feet above mean sea level, datum of 1929 (levels by Corps of Engineers, U. S. Army).

Records available.- June 1911 to September 1914, September 1925 to September 1942.

Average discharge.- 19 years (1911-14, 1925-26, 1927-41), 339 second-feet.

Extremes.- Maximum discharge during year not determined; minimum, 27 second-feet Sept. 30 (gage height, 0.27 foot).
1911-14, 1925-42: 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 excellent except those for periods of no gage-height record, which are fair. Diversions above station for irrigation.

Rating tables, water year 1941-42 (gage height, in feet, and discharge, in second-feet)

Oct. 1 to Dec. 2				Dec. 3 to Sept. 30					
0.5	51	1.3	288	0.3	30	1.0	185	3.0	1,380
.6	70	1.6	435	.4	42	1.3	297	4.0	2,320
.7	92	1.9	595	.5	58	1.7	485	5.0	3,420
.9	145	2.3	845	.6	78	2.1	715	5.6	4,150
1.1	208			.8	126	2.5	985		

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	42	66	175	496	929	406	373	387	838	a225	74	42
2	44	72	a4,400	470	1,380	406	364	373	859	a215	72	41
3	45	83	a2,200	450	1,360	392	401	382	800	a200	68	41
4	45	128	1,020	425	2,300	382	445	387	780	188	68	40
5	48	88	767	406	1,980	392	435	378	754	176	66	38
6	46	81	607	421	2,300	392	425	397	715	166	62	38
7	46	77	512	1,080	1,890	382	455	465	655	160	62	40
8	45	72	445	1,560	1,580	392	480	534	625	151	64	42
9	45	68	397	1,150	1,330	421	518	556	607	148	68	47
10	48	64	355	971	1,160	496	524	475	578	146	62	44
11	46	64	323	894	1,030	529	551	490	529	143	60	44
12	48	62	306	826	957	502	595	450	496	140	62	41
13	55	66	328	760	859	475	613	440	480	134	60	42
14	51	235	490	709	793	455	568	475	470	137	62	42
15	48	425	1,120	673	741	430	534	578	460	137	58	41
16	46	435	2,440	643	697	411	529	578	425	132	53	38
17	44	238	1,670	595	655	401	480	562	397	126	48	38
18	40	175	3,130	556	619	392	460	578	373	124	48	38
19	55	145	3,590	529	590	378	465	613	355	116	48	36
20	77	128	2,680	502	578	364	512	760	332	108	50	36
21	66	117	1,740	480	551	364	562	950	323	108	50	35
22	64	112	1,320	480	524	359	590	992	315	106	50	34
23	59	107	1,220	496	502	355	507	887	306	101	48	34
24	57	102	1,020	507	490	346	470	887	293	92	48	32
25	55	97	894	601	460	337	445	2,080	310	90	47	31
26	57	90	793	1,090	440	323	416	1,450	319	83	45	30
27	85	90	728	1,600	430	319	421	1,130	a295	78	45	30
28	70	97	673	1,160	416	315	397	1,010	a275	83	45	29
29	64	125	619	950	-	310	378	985	a255	80	44	29
30	59	198	573	83e	-	315	406	901	a240	80	44	28
31	59	-	546	806	-	350	-	852	-	76	44	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	1,659	85	42	53.5	3,290
November	3,907	435	62	130	7,750
December	37,081	4,400	175	1,196	73,550
Calendar year 1941	164,085	4,400	39	450	325,500
January	23,124	1,600	406	746	45,870
February	27,541	2,300	416	984	54,630
March	12,091	529	310	390	23,980
April	14,319	613	364	477	28,400
May	21,982	2,080	373	709	43,600
June	14,459	859	240	482	28,680
July	4,049	225	76	131	8,030
August	1,725	74	44	55.6	3,420
September	1,121	47	28	37.4	2,220
Water year 1941-42	163,058	4,400	28	447	323,400

Peak discharge.- Dec. 16 (7:30 a.m.) 3,360 sec.-ft.; Dec. 18 (3:30 p.m.) 4,180 sec.-ft.; Dec. 19 (5 p.m.) 3,880 sec.-ft.; Feb. 4 (7 a.m.) 2,640 sec.-ft.; Feb. 6 (3:30 a.m.) 2,570 sec.-ft.; May 25 (12 m.) 2,490 sec.-ft.

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

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

Applegate River near Applegate, Oreg.

Location.- Water-stage recorder, lat. 42°14', long. 123°08', in NE¼ sec. 26, T. 38 S., R. 4 W., 0.9 mile downstream from Keeler Creek and 2 miles southeast of Applegate. Datum of gage is 1,285.33 feet above mean sea level, datum of 1929.

Records available.- October 1938 to September 1942.

Extremes.- Maximum discharge during year, 9,250 second-feet Dec. 2 (gage height, 9.00 feet), from rating curve extended above 4,300 second-feet; minimum, 24 second-feet Sept. 24-27.

1938-42: Maximum discharge, 10,600 second-feet Feb. 28, 1940 (gage height, 9.67 feet), from rating curve extended above 4,300 second-feet; minimum, 8 second-feet Sept. 7, 12, 13, 1939.

Remarks.- Records good. Many diversions above station for irrigation of about 4,000 acres in Applegate River Basin. About 10 second-feet is diverted through Wagner Gap to Bear Creek Basin for several months each year; Fowler-Keeler and Berryman ditches may divert 4.3 and 13.6 second-feet, respectively, around station.

Rating tables, water year 1941-42 (gage height, in feet, and discharge, in second-feet)

Oct. 1 to Dec. 2						Dec. 3 to Sept. 30					
1.0	43	2.5	441	4.5	2,070	0.8	25	2.0	248	4.0	1,490
1.2	65	3.0	720	5.0	2,650	1.0	41	2.5	441	4.5	2,020
1.5	116	3.5	1,090	5.5	3,290	1.2	65	3.0	710	5.0	2,620
2.0	248	4.0	1,550	6.3	4,440	1.5	116	3.5	1,050	6.0	3,930

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	44	77	202	584	1,030	494	441	432	1,080	262	62	31
2	44	90	4,450	568	1,510	489	428	415	1,160	248	61	30
3	46	94	3,750	546	1,530	479	465	423	1,060	236	61	31
4	45	155	1,340	514	2,750	465	514	437	1,030	220	61	31
5	48	114	968	484	2,450	475	504	419	1,010	202	57	30
6	50	97	764	494	2,970	475	499	432	961	194	55	31
7	49	88	634	1,110	2,450	455	525	479	877	178	51	30
8	49	80	540	1,830	2,070	475	551	551	842	162	50	31
9	49	76	475	1,350	1,710	494	595	584	809	152	52	35
10	51	74	419	1,160	1,460	578	595	525	770	145	49	35
11	54	71	372	1,060	1,270	622	628	556	716	140	49	34
12	57	71	348	975	1,150	595	674	530	668	138	49	32
13	64	74	348	898	1,040	568	692	494	644	134	49	33
14	60	222	551	828	954	540	662	525	622	134	50	33
15	59	455	1,200	783	898	514	617	639	612	138	44	31
16	55	530	2,860	752	828	499	606	662	568	136	40	30
17	54	311	2,080	692	783	479	556	644	520	127	39	31
18	53	223	3,680	656	746	475	520	668	489	125	38	30
19	68	183	4,150	617	704	451	509	686	455	120	36	31
20	103	162	3,310	590	686	441	556	828	432	114	36	30
21	87	150	2,200	562	656	437	612	1,040	410	108	36	30
22	85	143	1,610	551	634	437	639	1,200	389	101	35	30
23	77	136	1,510	573	606	432	568	1,070	372	87	36	26
24	71	131	1,290	600	590	415	525	1,060	356	72	33	28
25	66	125	1,130	686	556	410	499	2,680	360	71	31	24
26	68	118	982	1,120	535	397	470	2,000	389	70	32	24
27	97	116	898	1,820	525	389	479	1,520	341	64	31	26
28	87	118	822	1,320	499	385	451	1,330	322	64	31	27
29	76	140	758	1,080	-	381	419	1,280	296	66	30	28
30	71	208	686	947	-	389	441	1,180	275	68	30	34
31	68	-	656	898	-	410	-	1,100	-	65	32	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	1,955	103	44	63.1	3,880
November	4,632	530	71	154	9,190
December	44,983	4,450	202	1,451	89,220
Calendar year 1941	194,710	4,450	40	533	386,200
January	26,648	1,830	484	860	52,860
February	33,590	2,970	499	1,200	66,620
March	14,545	622	381	469	28,850
April	16,240	692	419	541	32,210
May	26,389	2,680	415	851	52,340
June	18,835	1,160	275	628	37,360
July	4,141	262	64	134	8,210
August	1,346	62	30	43.4	2,670
September	905	35	24	30.2	1,800
Water year 1941-42	194,209	4,450	24	532	385,200

Peak discharge.- Dec. 2 (7:30 p.m.) 9,250 sec.-ft.; Dec. 16 (9 a.m.) 3,960 sec.-ft.; Dec. 18 (6 p.m.) 4,760 sec.-ft.; Dec. 19 (6 p.m.) 4,410 sec.-ft.; Dec. 20 (1 a.m.) 4,280 sec.-ft.; May 25 (2 p.m.) 3,380 sec.-ft.

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

Applegate River near Wilderville, Oreg.

Location.- Staff gage, lat. 42°21', long. 123°24', in W½ sec. 15, T. 37 S., R. 6 W., 900 feet downstream from Jackson Creek and 4 miles southeast of Wilderville. Datum of gage is 949.54 feet above mean sea level, datum of 1929 (levels by Corps of Engineers, U. S. Army).

Records available.- October 1938 to September 1942.

Extremes.- Maximum discharge during year, 11,000 second-feet Dec. 3 (gage height, 11.0 feet, from floodmark); minimum observed, 21 second-feet Aug. 20, 22, 23, Sept. 1, 2, 1938-42: Maximum discharge observed, 13,300 second-feet Feb. 28, 1940 (gage height, 12.16 feet); minimum observed, 3.0 second-feet Sept. 12-15, 18-25, 1939.

Remarks.- Records good. Many diversions above station for irrigation and mining. Two irrigation ditches on left bank divert about 17 second-feet around station. Gage read once daily Oct. 1-31, Apr. 1 to Sept. 30, twice daily Nov. 1 to Mar. 31.

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	45	125	276	944	1,500	670	558	536	1,350	295	51	21
2	41	142	g3,410	790	1,980	676	541	520	1,400	262	46	21
3	43	161	7,030	760	2,260	646	563	530	1,360	238	38	22
4	44	213	2,230	742	4,660	624	629	563	1,230	220	37	22
5	44	204	1,540	688	3,680	629	607	520	1,180	207	38	22
6	46	176	1,140	664	5,060	618	596	525	1,130	196	37	23
7	49	161	919	g1,520	4,050	612	607	558	997	187	39	23
8	50	154	784	3,310	3,220	607	624	574	958	168	36	26
9	53	144	700	2,310	2,620	624	646	624	919	147	37	44
10	56	138	629	1,880	2,210	700	664	596	868	131	40	45
11	63	138	563	1,670	1,940	766	694	700	796	121	38	46
12	72	129	515	1,490	1,740	760	718	712	808	114	37	45
13	84	133	490	1,350	1,560	718	760	682	754	116	34	41
14	92	210	760	1,210	1,380	712	748	664	688	118	34	43
15	87	520	1,120	1,130	1,310	682	730	820	658	121	37	47
16	84	844	g4,200	1,070	1,210	652	688	886	624	123	24	46
17	88	541	3,540	984	1,130	624	676	856	580	121	23	45
18	92	381	g6,450	919	1,050	629	624	832	552	120	22	43
19	96	318	5,870	868	971	607	590	820	525	125	22	46
20	140	284	5,060	808	945	580	612	945	485	118	21	47
21	129	252	3,360	772	919	558	652	1,090	430	107	22	31
22	123	235	2,370	748	856	563	646	1,320	421	103	21	28
23	118	220	2,750	766	814	558	624	1,270	398	100	21	28
24	114	207	2,170	790	820	541	574	1,290	385	87	22	29
25	108	198	1,810	932	778	536	552	2,680	377	64	23	30
26	118	193	1,560	1,140	742	520	515	2,600	412	57	23	26
27	147	182	1,380	2,550	808	515	500	1,970	373	54	22	27
28	142	187	1,240	2,030	694	500	510	1,720	353	52	22	26
29	138	193	1,100	1,640	-	510	515	1,690	337	50	23	26
30	129	242	1,010	1,440	-	495	530	1,590	310	53	24	25
31	123	-	945	1,310	-	510	-	1,480	-	49	22	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	2,757	147	41	88.9	5,470
November	7,225	844	125	241	14,330
December	66,921	7,030	276	2,159	132,700
Calendar year 1941	265,636	7,030	28	728	526,800
January	39,125	3,310	664	1,262	77,600
February	50,907	5,060	694	1,818	101,000
March	18,942	766	495	611	37,570
April	18,493	760	500	616	36,680
May	32,153	2,680	520	1,037	63,770
June	21,758	1,400	310	722	42,960
July	4,024	295	49	130	7,980
August	736	51	21	30.2	1,860
September	996	47	21	33.2	1,980
Water year 1941-42	264,137	7,030	21	724	523,900

g Computed from graph based on gage readings.
Time basis: Pacific standard time prior to 2 a.m., Feb. 9, 1942; Pacific war time thereafter. To convert war time to standard time, subtract 1 hour.

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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 1942.
Average discharge.- 16 years, 1,058 second-feet.
Extremes.- Maximum discharge during year, 23,000 second-feet Dec. 2 (gage height, 18.39 feet), from rating curve extended above 3,500 second-feet; minimum, 32 second-feet Sept. 22-30.
1926-42: 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 no gage-height record, which are fair. Diversions above station for irrigation.

Rating tables, water year 1941-42 (gage height, in feet, and discharge, in second-feet)

Oct. 1 to Dec. 2				Dec. 3 to Sept. 30					
-0.2	61	1.5	570	-0.7	32	1.2	510	8.0	5,750
-.1	77	2.0	775	-.5	64	1.6	660	10.0	8,280
.1	115	2.5	1,020	-.3	101	2.0	835	12.0	11,350
.4	190	3.0	1,310	-.1	143	2.5	1,080	14.0	14,700
.7	280	4.0	1,970	.2	215	3.0	1,355	16.0	18,300
1.0	385			.5	290	4.0	1,980		
				.8	380	6.0	3,650		

Note.- Same as following table above 4.0 feet.

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	51	h95	618	1,130	3,290	808	680	1,020	1,690	242	h64	34
2	51	120	14,700	1,040	4,640	835	666	920	1,510	225	65	34
3	52	160	10,300	945	6,650	871	740	880	1,340	215	66	h34
4	52	h322	4,460	895	11,500	830	853	975	1,200	205	h66	33
5	55	180	3,330	840	6,850	799	822	910	1,100	h190	64	33
6	h53	155	2,270	1,070	9,880	781	758	853	1,020	180	61	33
7	53	145	1,720	9,960	6,760	750	718	830	925	170	61	h34
8	52	135	1,400	8,840	4,980	727	709	790	840	162	h82	35
9	52	h124	1,200	4,320	3,520	754	704	781	822	158	63	40
10	58	113	1,040	3,000	2,750	980	700	822	758	155	55	h38
11	h55	113	920	2,350	2,290	960	692	1,060	692	153	h52	38
12	57	h111	830	1,980	1,970	895	696	1,170	632	150	51	39
13	66	130	866	1,710	1,710	925	727	1,100	600	140	50	40
14	60	1,010	1,660	1,540	1,530	890	826	1,110	566	h141	h50	41
15	56	2,830	4,220	1,400	1,390	871	1,150	1,220	542	143	49	h41
16	54	2,700	10,200	1,350	1,270	871	1,100	1,220	503	h145	48	37
17	51	1,700	8,220	1,250	1,110	940	1,120	1,130	472	138	h47	37
18	47	1,050	17,200	1,150	1,080	1,000	1,140	1,060	440	134	47	37
19	62	766	9,140	1,060	1,000	985	1,030	965	428	128	47	h34
20	96	618	6,650	995	1,020	955	955	970	407	120	h47	34
21	80	510	4,380	915	975	935	890	1,040	398	h119	47	33
22	77	444	3,430	885	885	925	835	1,070	368	116	47	h32
23	70	396	4,260	980	862	885	745	1,000	356	111	46	32
24	h67	368	3,240	1,210	940	850	692	980	329	102	h46	32
25	64	343	2,530	1,710	880	768	660	4,950	338	h99	42	32
26	66	318	2,060	3,540	844	709	628	4,180	353	92	38	h32
27	130	304	1,800	6,840	848	688	648	2,980	314	84	h36	32
28	96	298	1,580	5,050	830	656	668	3,970	293	h84	36	h32
29	90	315	1,450	3,320	-	636	640	3,220	278	76	35	32
30	86	546	1,350	2,530	-	608	772	2,450	265	73	35	52
31	86	-	1,240	2,410	-	620	-	1,990	-	66	h35	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	2,045	130	47	66.0	4,060
November	16,419	2,830	95	547	32,570
December	128,264	17,200	618	4,136	254,400
Calendar year 1941	460,774	17,200	47	1,262	913,800
January	76,215	9,960	840	2,458	151,200
February	82,254	11,500	830	2,938	163,100
March	25,687	1,000	608	828	50,950
April	23,966	1,150	628	799	47,540
May	47,606	4,950	781	1,536	94,430
June	19,779	1,690	265	659	39,230
July	4,316	242	66	139	8,560
August	1,558	66	35	50.3	3,090
September	1,047	41	32	34.9	2,080
Water year 1941-42	429,156	17,200	32	1,176	851,200

Peak discharge.- Dec. 2 (7 p.m.) 23,000 sec.-ft.; Dec. 16 (6:30 a.m.) 13,100 sec.-ft.; Dec. 18 (2 p.m.) 22,400 sec.-ft.; Jan. 7 (10 p.m.) 15,000 sec.-ft.; Feb. 4 (7 a.m.) 14,800 sec.-ft.; Feb. 6 (3 a.m.) 14,200 sec.-ft.
h Computed from staff-gage reading.
Note.- No gage-height record except occasional staff-gage readings Oct. 1 to Nov. 13, July 6 to Sept. 30; discharge for days of no gage-height record computed on basis of records for Applegate River near Ruch.
Time basis: Pacific standard time prior to 2 a.m., Feb. 9, 1942; Pacific war time thereafter. To convert war time to standard time, subtract 1 hour.

Springs in the Walla Walla River Basin, Oreg.-Wash.

Ground-water overflow through many springs on the alluvial fan of the Walla Walla River near Milton and Freewater, Oreg., amounts to about 50,000 acre-feet a year. During the irrigation season practically all the overflow is used to water crops on land not served by diversion from the river. A survey made in 1933 listed 57 springs or spring groups in the area, arranged in "inner," "intermediate," and "outer" zones concentric about the apex of the alluvial fan.[1]

The inner zone is 3 to 3½ miles downstream from Freewater and extends from the vicinity of Nicholas Spring, which is about half a mile east of the Walla Walla River at McCoy Bridge, to springs in the vicinity of Dugger Creek. Within this zone are fully three-fourths of the springs in the Walla Walla Basin. The intermediate and outer zones, each of which contains only a few springs, are about 2 miles and 4 miles, respectively, beyond the inner zone.

In order to bring about a more effective use of the available water supply through a better understanding of the relation between surface- and ground-water supplies in the basin, discharge measurements of each of the principal springs and measurements of ground-water levels in representative wells have been made periodically since 1932. Results of previous discharge measurements have been published in Water-Supply Papers 834, 864, 884, 904, and 934.

Discharge measurements, in second-feet, of springs in Walla Walla River Basin, Oreg.-Wash., during water year October 1941 to September 1942†

Springs of the inner zone

Nicholas Spring, Oreg., NE¼NE¼ sec. 24, T. 6 N., R. 35 E., 150 feet above confluence of spring channel and Walla Walla River

Date	Discharge	Date	Discharge	Date	Discharge	Date	Discharge
Oct. 11	0.34	Mar. 11	1.09	May 25	0.82	Aug. 11	0.30
Nov. 11	.46	24	.90	June 12	.48	25	.18
Dec. 10	.81	Apr. 11	1.02	29	1.26	Sept.14	.18
Jan. 12	1.10	24	.66	July 11	.36		
Feb. 11	1.24	May 11	.73	25	.47		

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

Oct. 11	3.60	Mar. 11	3.25	May 25	10.1	Aug. 11	4.09
Nov. 11	2.50	24	2.67	June 12	7.73	25	2.93
Dec. 10	4.59	Apr. 11	2.17	29	7.17	Sept.14	3.85
Jan. 12	6.67	24	3.98	July 11	11.2		
Feb. 11	5.72	May 11	6.78	25	7.26		

Big Spring Branch (east prong), Oreg., NE¼SW¼ sec. 24, T. 6 N., R. 35 E., above flow line of small reservoir supplying two diversion pumps

Oct. 11	1.54	Mar. 11	1.51	May 25	3.17	Aug. 11	1.83
Nov. 11	.78	24	1.49	June 12	2.74	25	1.43
Dec. 10	2.99	Apr. 11	1.31	29	2.49	Sept.14	1.54
Jan. 12	2.73	24	1.71	July 11	3.34		
Feb. 11	2.55	May 11	2.32	25	2.58		

Engle Spring, Oreg., NW¼SE¼ sec. 23, T. 6 N., R. 35 E., at diversion dam

Oct. 11	2.90	Mar. 11	2.20	May 26	3.44	Aug. 11	2.43
Nov. 12	2.35	24	1.79	June 12	3.19	25	2.42
Dec. 10	2.12	Apr. 11	1.78	29	3.12	Sept.14	2.77
Jan. 12	3.13	24	2.27	July 11	3.47		
Feb. 11	2.92	May 11	3.24	25	2.86		

Downing Spring, Oreg., SE¼SW¼ sec. 23, T. 6 N., R. 35 E., at weir, 200 feet below spring orifice

Oct. 11	1.26	Feb. 11	1.26	May 25	2.75	July 25	2.09
Nov. 12	.19	Mar. 11	.11	June 12	2.27	Aug. 11	1.04
Dec. 10	.01	Apr. 24	.53	26	2.18	26	.53
Jan. 12	1.42	May 11	2.27	July 11	2.56	Sept.14	1.11

Haun Spring, Oreg., NW¼SE¼ sec. 23, T. 6 N., R. 35 E., at Haun farm, 50 feet above highway crossing

Oct. 11	1.48	Mar. 11	0.69	May 25	1.95	Aug. 11	1.07
Nov. 12	.91	24	.66	June 12	1.90	26	.99
Dec. 10	.97	Apr. 11	.57	29	1.59	Sept.14	1.05
Jan. 12	1.71	24	.91	July 11	1.97		
Feb. 11	1.47	May 11	1.70	25	1.44		

† Measurements by the Oregon State Water Resources Department.

[1] Piper, A. M., Robinson, T. W., and Thomas, H. E., Ground water in the Walla Walla Basin, Oregon-Washington: Supreme Court of the United States, October term 1935, State of Washington vs. State of Oregon, transcript of record, p. 132 A, October 14, 1935.

Discharge measurements, in second-feet, of springs in Walla Walla River basin, Oreg.-Wash., during water year October 1941 to September 1942--Continued

Springs of the intermediate and outer zones

McEvoy Spring, Wash., SE¼NW¼ sec. 10, T. 6 N., R. 35 E., at McEvoy farm and 200 feet above Walla Walla Valley Railway

Date	Discharge	Date	Discharge	Date	Discharge	Date	Discharge
Oct. 11	3.74	Mar. 11	2.68	May 26	5.35	Aug. 11	4.02
Nov. 11	3.60	23	2.43	June 12	3.85	26	3.40
Dec. 10	3.09	Apr. 10	2.09	29	4.50	Sept.11	3.06
Jan. 12	3.10	25	2.98	July 11	4.24		
Feb. 11	3.67	May 10	3.98	25	5.11		

Lewis Spring, Oreg., NW¼NW¼ sec. 23, T. 6 N., R. 35 E., below road crossing

Oct. 11	2.11	Mar. 11	1.31	June 12	1.90	Aug. 25	1.60
Nov. 11	1.91	24	1.28	29	1.98	Sept.14	2.04
Dec. 10	1.78	Apr. 11	1.41	July 11	2.53		
Jan. 12	1.61	24	2.12	25	2.08		
Feb. 11	1.87	May 25	2.25	Aug. 11	2.09		

Unnamed spring, Wash., NW¼NE¼ sec. 16, T. 6 N., R. 35 E., at a small diversion structure

Oct. 11	3.97	Mar. 11	2.94	May 26	3.35	Aug. 10	2.59
Nov. 11	3.85	23	2.12	June 10	2.83	26	2.31
Dec. 10	2.38	Apr. 10	2.50	26	2.79	Sept.11	1.92
Jan. 12	1.77	25	2.63	July 10	2.59		
Feb. 10	2.13	May 10	4.35	25	2.90		

East Mud Creek (west prong), Oreg., SW¼SW¼ sec. 22, T. 6 N., R. 35 E., at weir

Oct. 9	3.06	Mar. 10	3.03	May 25	4.68	Aug. 10	2.42
Nov. 12	2.31	23	3.11	June 10	4.12	25	1.68
Dec. 11	2.16	Apr. 10	3.05	29	4.19	Sept.11	1.74
Jan. 10	1.61	24	2.60	July 10	3.07		
Feb. 10	2.80	May 10	4.16	24	3.20		

East Mud Creek (east prong), Oreg., SE¼SW¼ sec. 22, T. 6 N., R. 35 E., in diversion ditch, 150 feet below diversion dam

Oct. 9	1.73	Mar. 10	1.36	May 25	1.52	Aug. 10	1.39
Nov. 12	1.01	23	.70	June 10	1.86	25	.86
Dec. 11	.80	Apr. 10	.54	29	1.44	Sept.11	.63
Jan. 10	.42	24	.90	July 10	1.62		
Feb. 10	1.64	May 10	1.42	24	1.58		

East Mud Creek (branch of), Oreg., SW¼SW¼ sec. 16, T. 6 N., R. 35 E., near Lockwood dwelling

Oct. 9	4.43	Mar. 11	3.08	May 26	5.39	Aug. 10	3.25
Nov. 12	4.54	23	2.75	June 10	6.41	26	2.43
Dec. 10	4.57	Apr. 10	2.56	29	5.35	Sept.11	2.16
Jan. 12	3.25	24	3.08	July 10	4.47		
Feb. 10	4.18	May 10	3.87	25	4.09		

South Mud Creek, Oreg., SE¼NW¼ sec. 28, T. 6 N., R. 35 E., at Von der Ahe farm

Oct. 9	2.35	Mar. 10	1.42	May 25	4.25	Aug. 10	2.57
Nov. 12	2.33	23	1.36	June 10	4.22	25	1.68
Dec. 11	1.82	Apr. 10	1.35	29	3.84	Sept.11	1.52
Jan. 10	1.22	24	2.61	July 10	3.87		
Feb. 10	1.17	May 10	3.52	24	3.18		

Johnson Creek, Oreg., SE¼NW¼ sec. 29, T. 6 N., R. 35 E., at two weirs

Oct. 9	2.39	Mar. 10	3.33	May 25	4.47	Aug. 10	3.16
Nov. 12	3.01	23	2.90	June 12	2.69	25	2.79
Dec. 9	4.12	Apr. 10	2.79	24	3.96	Sept.11	2.89
Jan. 10	3.01	25	3.68	July 10	4.51		
Feb. 10	1.31	May 10	4.75	26	4.26		

Dugger Creek, Oreg., NW¼NW¼ sec. 32, T. 6 N., R. 35 E., at two weirs

Oct. 9	8.82	Mar. 10	6.27	May 25	13.1	Aug. 26	5.86
Nov. 12	9.03	23	5.31	June 10	17.4	Sept.11	5.44
Dec. 11	8.47	Apr. 10	6.61	July 10	9.17		
Jan. 10	6.08	24	7.67	26	10.8		
Feb. 10	5.56	May 10	11.8	Aug. 10	7.60		

Schwartz Spring Branch (south prong), Oreg., SW¼SE¼ sec. 23, T. 6 N., R. 34 E., at weirs

Oct. 9	4.13	Mar. 10	3.82	May 25	6.72	Aug. 10	4.78
Nov. 10	4.12	23	3.95	June 10	7.36	26	3.83
Dec. 11	5.81	Apr. 10	3.88	26	9.58	Sept.11	2.91
Jan. 10	5.87	24	4.23	July 10	6.32		
Feb. 10	5.15	May 10	5.53	24	5.73		

Schwartz Spring Branch (north prong), Oreg., NE¼SW¼ sec. 23, T. 6 N., R. 34 E., in ditch diverting from spring

Oct. 9	4.29	Mar. 10	4.37	May 25	4.77	Aug. 10	3.98
Nov. 10	5.01	23	4.67	June 10	5.08	26	4.10
Dec. 11	3.45	Apr. 10	4.29	24	5.18	Sept.11	4.65
Jan. 10	5.28	24	4.41	July 10	4.73		
Feb. 10	4.81	May 10	4.31	24	4.81		

South Mud Creek, Oreg., SW¼SE¼ sec. 13, T. 6 N., R. 34 E., at Krumbaugh farm

Oct. 9	4.99	Mar. 10	4.06	May 25	5.72	Aug. 10	5.33
Nov. 12	4.86	23	3.95	June 10	7.06	26	5.66
Dec. 11	5.16	Apr. 10	4.03	29	7.40	Sept.11	5.52
Jan. 10	5.36	24	4.20	July 10	5.05		
Feb. 10	4.77	May 10	5.67	24	5.69		

In addition to the records of stream flow obtained at gaging stations in Pacific slope basins in Oregon and lower Columbia River Basin and reported in the preceding pages, measurements of flow were made at other points, as shown in the following table:

Miscellaneous discharge measurements in Pacific slope basins in Oregon and lower Columbia River Basin during water year October 1941 to September 1942

Walla Walla River Basin, Oreg.-Wash.

Date	Stream	Tributary to or diverting from-	Locality	Discharge (sec.-ft.)
Nov. 12	Walla Walla River	Columbia River.....	NE¼SW¼ sec. 18, T. 5 N., R. 36 E., above power plant, 1,800 feet upstream from Couse Creek, near Milton, Oreg.	28.4
Feb. 17	....do.....	....do.....	....do.....	114
Apr. 21	....do.....	....do.....	....do.....	278
May 14	....do.....	....do.....	....do.....	222
Aug. 21	....do.....	....do.....	....do.....	1.77
Nov. 12	Couse Creek.....	Walla Walla River..	SW¼SW¼ sec. 18, T. 5 N., R. 36 E., near mouth, Oreg.	1.86
Feb. 17	....do.....	....do.....	....do.....	15.2
Apr. 21	....do.....	....do.....	....do.....	21.9
May 15	....do.....	....do.....	....do.....	17.7
Aug. 21	....do.....	....do.....	....do.....	0
Nov. 12	Pine Creek.....	....do.....	NE¼ sec. 22, T. 4 N., R. 35 E., at highway bridge at weston, Oreg.	1.11
Feb. 17	....do.....	....do.....	....do.....	16.7
May 14	....do.....	....do.....	....do.....	13.7
Aug. 21	....do.....	....do.....	....do.....	*.03
Nov. 12	Dry Creek.....	Pine Creek.....	SE¼ sec. 35, T. 5 N., R. 35 E., at road crossing 3/4 mile south of Blue Mountain, and 3½ miles northeast of Weston, Oreg.	2.09
Feb. 17	....do.....	....do.....	....do.....	24.6
May 14	....do.....	....do.....	....do.....	12.0
Aug. 6	....do.....	....do.....	....do.....	*.02
21	....do.....	....do.....	....do.....	*.4
Nov. 18	Touchet River....	Walla Walla River..	Sec. 7, T. 9 N., R. 37 E., just downstream from road bridge, 1/8 mile south of Bolles, Wash.	321
Apr. 1	....do.....	....do.....	....do.....	325
May 15	....do.....	....do.....	....do.....	373
July 1	....do.....	....do.....	....do.....	108
Sept. 6	....do.....	....do.....	....do.....	25.8
Nov. 18	Wolf Creek.....	East Fork of Touchet River.	SW¼ sec. 23, T. 9 N., R. 39 E., 500 feet downstream from Robinson Creek, near Dayton, Wash.	70.2
Mar. 31	....do.....	....do.....	....do.....	56.3
May 16	....do.....	....do.....	....do.....	78.9
July 2	....do.....	....do.....	....do.....	56.5
Sept. 7	....do.....	....do.....	....do.....	18.5
Nov. 18	South Fork of Touchet River.	Touchet River.....	Sec. 31, T. 10 N., R. 39 E., just upstream from mouth, near Dayton, Wash.	75.3
Apr. 1	....do.....	....do.....	....do.....	85.2
May 16	....do.....	....do.....	....do.....	66.9
July 2	....do.....	....do.....	....do.....	45.9
Sept. 6	....do.....	....do.....	....do.....	.57
Nov. 18	Patit Creek.....	....do.....	Sec. 30, T. 10 N., R. 39 E., 400 feet upstream from mouth at Dayton, Wash.	18.7
Apr. 1	....do.....	....do.....	....do.....	29.1
May 16	....do.....	....do.....	....do.....	33.2
July 1	....do.....	....do.....	....do.....	9.8
Sept. 6	....do.....	....do.....	....do.....	0

* Estimated.

John Day River Basin, Oreg.

Aug. 17	Bridge Creek.....	John Day River.....	SE¼ sec. 36, T. 11 S., R. 21 E., at Mitchell.	6.5
17	....do.....	....do.....	Mouth, near Burnt Ranch.....	4.0
17	West Branch.....	Bridge Creek.....	NW¼ sec. 21, T. 11 S., R. 21 E., at mouth, near Mitchell.	.9
17	Meyers Creek.....	....do.....	NE¼ sec. 16, T. 11 S., R. 21 E., at mouth, near Mitchell.	*.02
Nov. 8	Cable Creek.....	Camas Creek.....	¼ mile above mouth, at former gaging station near Ukiah.	11.3
June 6	....do.....	....do.....	....do.....	48.6
20	....do.....	....do.....	....do.....	17.5
July 31	....do.....	....do.....	....do.....	3.8

* Estimated.

Deschutes River Basin, Oreg.

July 28	Deschutes River..	Columbia River.....	At Tetherow Bridge, 4 miles northwest of Redmond.	8.6
Aug. 17	Canyon Creek.....	Ochoco Creek.....	Mouth, SW¼ sec. 35, T. 13 S., R. 19 E.	.9
17	Marks Creek.....	....do.....	Mouth, SE¼ sec. 21, T. 14 S., R. 18 E., 14 miles east of Prineville.	*.3
17	Mill Creek.....	....do.....	Mouth, sec. 27, T. 14 S., R. 17 E., 9 miles east of Prineville.	0
18	Cache Creek.....	Lake Creek.....	Above and below Tollgate Spring.....	0
18	Tollgate Spring..	Cache Creek.....	NE¼ sec. 15, T. 14 S., R. 8 E., 4 miles south of Suttle Lake.	*.05

* Estimated.

Miscellaneous discharge measurements in Pacific slope basins in Oregon and lower Columbia River Basin during water year October 1941 to September 1942--Continued

White Salmon River Basin, Wash.

Date	Stream	Tributary to or diverting from-	Locality	Discharge (sec.-ft.)
Oct. 7	Little Buck Creek.	White Salmon River.	E½ sec. 5, T. 3 N., R. 10 E., at Forks, near Underwood.	0.17

Little White Salmon River Basin, Wash.

Oct. 7	Little White Salmon River.	Columbia River.....	Sec. 26, T. 4 N., R. 9 E., just upstream from Moss Creek, near Willard.	15.2
Apr. 12	....do.....	....do.....	....do.....	111
June 6	....do.....	....do.....	....do.....	52.0
Oct. 7	....do.....	....do.....	Sec. 26, T. 4 N., R. 9 E., just downstream from Moss Creek, near Willard.	39.2
Apr. 12	....do.....	....do.....	....do.....	208
June 6	....do.....	....do.....	....do.....	163

Wind River Basin, Wash.

Oct. 13	Little Wind River.	Wind River.....	SW¼SW¼ sec. 22, T. 3 N., R. 8 E., just upstream from mouth, near Carson.	14.5
Nov. 20	....do.....	....do.....	....do.....	21.8
Jan. 6	....do.....	....do.....	....do.....	20.6
Feb. 18	....do.....	....do.....	....do.....	31.8
Apr. 10	....do.....	....do.....	....do.....	16.1
June 4	....do.....	....do.....	....do.....	10.4
July 12	....do.....	....do.....	....do.....	5.7
Aug. 29	....do.....	....do.....	....do.....	3.4

Willamette River Basin, Oreg.

Aug. 3	Mill Creek.....	Pudding River.....	Mouth, at Aurora.....	6.1
19	....do.....	....do.....	....do.....	5.7
Sept. 28	....do.....	....do.....	....do.....	5.4

Washougal River Basin, Wash.

Oct. 8	Washougal River...	Columbia River.....	NE¼SE¼ sec. 28, T. 2 N., R. 4 E., 2 miles upstream from Western Light & Power Co. dam, 3⅜ miles northeast of Washougal.	1,480
Apr. 9	....do.....	....do.....	....do.....	404
June 8	....do.....	....do.....	....do.....	358
Aug. 28	....do.....	....do.....	....do.....	93.8
June 8	Little Washougal River.	Washougal River....	SW¼ sec. 32, T. 2 N., R. 4 E., 300 feet upstream from mouth, near Washougal.	53.1
Aug. 28	....do.....	....do.....	....do.....	13.2
June 8	Lacamas Creek.....	....do.....	SW¼ sec. 7, T. 2 N., R. 3 E., just upstream from mouth of Fifth Plain Creek, near Camas.	34.4
Aug. 28	....do.....	....do.....	....do.....	6.0
Oct. 8	....do.....	....do.....	Sec. 20, T. 2 N., R. 3 E., just downstream from bridge, near Camas.	28.6
Apr. 9	....do.....	....do.....	....do.....	43.6
June 8	....do.....	....do.....	....do.....	54.0
Aug. 28	....do.....	....do.....	....do.....	10.0
June 8	Fifth Plain Creek.	Lacamas Creek.....	SW¼ sec. 7, T. 2 N., R. 3 E., 500 feet upstream from mouth, near Camas.	15.0
Aug. 28	....do.....	....do.....	....do.....	3.5

Salmon Creek Basin, Wash.

Oct. 9	Salmon Creek.....	Columbia River.....	NE¼ sec. 12, T. 3 N., R. 2 E., at county road crossing, near Battle Ground.	55.8
Apr. 8	....do.....	....do.....	....do.....	25.5
June 2	....do.....	....do.....	....do.....	66.1
Aug. 27	....do.....	....do.....	....do.....	5.8
Oct. 9	....do.....	....do.....	NE¼SW¼ sec. 15, T. 3 N., R. 2 E., 100 feet upstream from Weaver Creek, near Vancouver.	62.4
Apr. 9	....do.....	....do.....	....do.....	33.2
June 2	....do.....	....do.....	....do.....	79.9
Aug. 27	....do.....	....do.....	....do.....	7.1
Nov. 25	....do.....	....do.....	NW¼SW¼ sec. 20, T. 3 N., R. 2 E., at former gaging station, near Brush Prairie.	74.4
Apr. 8	....do.....	....do.....	....do.....	49.8
June 1	....do.....	....do.....	....do.....	112
Aug. 27	....do.....	....do.....	....do.....	13.9
Oct. 9	....do.....	....do.....	SW¼SE¼ sec. 26, T. 3 N., R. 1 E., just upstream from Pacific Highway, near Vancouver.	85.0
Apr. 8	....do.....	....do.....	....do.....	56.6
June 1	....do.....	....do.....	....do.....	131
Aug. 27	....do.....	....do.....	....do.....	18.5

Miscellaneous discharge measurements in Pacific slope basins in Oregon and lower Columbia River Basin during water year October 1941 to September 1942--Continued

Salmon Creek Basin, Wash.--Continued

Date	Stream	Tributary to or diverting from-	Locality	Discharge (sec.-ft.)
Oct. 8	Salmon Creek.....	Columbia River.....	SE¼NE¼ sec. 28, T. 3 N., R. 1 E., ½ mile upstream from Cougar Canyon Creek, near Vancouver.	105
Apr. 8	....do.....	....do.....	....do.....	61.4
Aug. 27	....do.....	....do.....	....do.....	21.5
Oct. 9	Muddy Creek.....	Salmon Creek.....	SE¼ sec. 12, T. 3 N., R. 2 E., ⅛ mile upstream from confluence with Salmon Creek, near Battle Ground.	4.0
Apr. 8	....do.....	....do.....	....do.....	4.7
June 2	....do.....	....do.....	....do.....	10.0
Aug. 27	....do.....	....do.....	....do.....	1.2
Oct. 9	Weaver Creek.....	....do.....	Sec. 15, T. 3 N., R. 2 E., at mouth, near Brush Prairie.	3.0
Apr. 8	....do.....	....do.....	....do.....	3.8
June 2	....do.....	....do.....	....do.....	11.3
Aug. 27	....do.....	....do.....	....do.....	1.2
Oct. 9	Unnamed.....	....do.....	NE¼NW¼ sec. 29, T. 3 N., R. 2 E., just upstream from bridge, 0.4 mile upstream from mouth, near Brush Prairie.	2.3
Apr. 8	....do.....	....do.....	....do.....	4.9
June 1	....do.....	....do.....	....do.....	4.6
Aug. 27	....do.....	....do.....	....do.....	2.6
Oct. 9	Mill Creek.....	....do.....	SW¼SE¼ sec. 24, T. 3 N., R. 1 E., just upstream from bridge at mouth, near Vancouver.	1.0
Apr. 8	....do.....	....do.....	....do.....	3.0
June 1	....do.....	....do.....	....do.....	4.9
Aug. 27	....do.....	....do.....	....do.....	.46
Oct. 8	Cougar Canyon Creek.	....do.....	SE¼ sec. 28, T. 3 N., R. 1 E., just upstream from mouth, near Vancouver.	.32
Apr. 8	....do.....	....do.....	....do.....	.84

Lewis River Basin, Wash.

June 9	Cedar Creek.....	Lewis River.....	NW¼SW¼ sec. 11, T. 5 N., R. 2 E., just upstream from bridge, at Dayton.	152
Aug. 26	....do.....	....do.....	....do.....	17.3
26	....do.....	....do.....	NW¼NE¼ sec. 8, T. 5 N., R. 2 E., at road crossing, near Etna.	20.6
June 9	....do.....	....do.....	Sec. 7, T. 5 N., R. 2 E., at Etna...	187

Cowlitz River Basin, Wash.

May 29	Olequa Creek.....	Cowlitz River.....	NW¼SW¼ sec. 33, T. 12 N., R. 2 W., at Winlock.	33.4
Aug. 23	....do.....	....do.....	....do.....	4.1
May 29	....do.....	....do.....	NW¼ sec. 32, T. 11 N., R. 2 W., just upstream from mouth of Stillwater Creek at Vader.	41.5
Aug. 23	....do.....	....do.....	....do.....	2.6
May 29	Stillwater Creek..	Olequa Creek.....	NW¼ sec. 32, T. 11 N., R. 2 W., just upstream from mouth at Vader.	34.5
Aug. 23	....do.....	....do.....	....do.....	5.4

Umpqua River Basin, Oreg.

Sept.15	Canyon Creek.....	South Umpqua River.	Canyon Creek Lodge, at Canyonville..	2.2
18	Rattlesnake Creek.	Cow Creek.....	Mouth, 4 miles west of Glendale.....	*.5
18	Perkins Creek.....	....do.....	....do.....	*.5
18	Battle Creek.....	....do.....	SE¼ sec. 33, T. 32 S., R. 7 W., at road crossing 5 miles west of Glendale.	*.15
18	Marion Creek.....	....do.....	SW¼ sec. 33, T. 32 S., R. 7 W., at road crossing 5 miles west of Glendale.	*.4

* Estimated.

Rogue River Basin, Oreg.

May 6	Main power canal..	Rogue River.....	1,000 feet above forebay of power plants, near Prospect.	a993
July 16	....do.....	....do.....	....do.....	b837
Sept.19	Elk Creek.....	....do.....	NE¼NE¼ sec. 13, T. 32 S., R. 1 E., near Trail.	4.5
19	....do.....	....do.....	Mouth, 4 miles northeast of Trail...	3.5
20	Neil Creek.....	Bear Creek.....	NW¼ sec. 31, T. 39 S., R. 2 E., 6 miles southeast of Ashland.	3.8
20	Walker Creek.....	....do.....	Mouth, 3 miles east of Ashland.....	7.0
Nov. 21	Pleasant Creek....	Evans Creek.....	SW¼ sec. 10, T. 35 S., R. 4 W., at bridge near Wimer.	3.0
21	Ditch Creek.....	Pleasant Creek.....	S½ sec. 33, T. 34 S., R. 4 W., at bridge near Wimer.	1.8
19	Elliott Creek.....	Applegate River....	Youth, in sec. 15, T. 41 S., R. 4 W.	34.1
19	Carberry Creek....	....do.....	NW¼ sec. 34, T. 40 S., R. 4 W., at bridge near Copper.	42.7

a Output of power plants; 4,600 KW by No. 1, 35,000 by No. 2.
b Output of power plants; 0 KW by No. 1, 35,500 by No. 2.

Miscellaneous discharge measurements in Pacific slope basins in Oregon and lower Columbia River Basin during water year October 1941 to September 1942--Continued

Rogue River Basin, Oreg.--Continued

Date	Stream	Tributary to or diverting from-	Locality	Discharge (sec.-ft.)
Sept.15	Slate Creek.....	Applegate River....	Above Elliott Creek, at Wonder.....	*0.6
15	Butcherknife Creek	Slate Creek.....	Mouth, near Wonder.....	*.05
15	Waters Creek.....	....do.....	....do.....	*.08
18	Bummer Creek.....	Jumpoff Joe Creek..	Mouth, at Merlin.....	*.4
18	Hog Creek.....	Rogue River.....	SW¼ sec. 11, T. 35 S., R. 7 W., at mouth.	*.1
18	Taylor Creek.....	....do.....	SW¼ sec. 5, T. 35 S., R. 7 W., at mouth.	*2.5
18	Galice Creek.....	....do.....	Mouth, at Galice.....	c6.0
18	Rich Gulch.....	....do.....	NW¼ sec. 36, T. 34 S., R. 8 W., at mouth.	*.2
18	Rocky Gulch.....	....do.....	....do.....	*.8
18	Hook Gulch.....	....do.....	NW¼ sec. 25, T. 34 S., R. 8 W., at mouth.	*.05
18	Bailey Creek.....	....do.....	SW¼ sec. 13, T. 34 S., R. 8 W., at mouth.	*.2
18	Argo Creek.....	....do.....	NW¼ sec. 13, T. 34 S., R. 8 W., at mouth.	*.02
18	Mouse Creek.....	....do.....	SW¼ sec. 12, T. 34 S., R. 8 W., at mouth.	*.02
18	Rat Creek.....	....do.....	NW¼ sec. 12, T. 34 S., R. 8 W., at mouth.	*.10
15	Wolf Creek.....	Grave Creek.....	At bridge above Coyote Creek, at Wolf Creek.	*.1
15	Coyote Creek.....	Wolf Creek.....	Mouth, at Wolf Creek.....	*.03
18	China Gulch.....	Rogue River.....	SE¼ sec. 35, T. 33 S., R. 8 W., at bridge.	*.01
18	Whisky Creek.....	....do.....	SE¼ sec. 27, T. 33 S., R. 8 W., at Benton Mine.	*2.0
18	Drain Creek.....	whisky Creek.....	NW¼ sec. 26, T. 33 S., R. 8 W., at bridge.	*.05
18	California Gulch..	....do.....	SW¼ sec. 26, T. 33 S., R. 8 W., at bridge.	0
July 14	Illinois River....	Rogue River.....	1.8 miles downstream from station at Kerby.	148
Sept.16	Wendenhall Creek..	Rough and Ready Creek.	SW¼ sec. 6, T. 40 S., R. 8 W., at Stewart-Jones ranch.	*.2
16	Reeves Creek.....	Illinois River.....	Highway bridge 2 miles north of Kerby.	*.2
Nov. 13	White Creek.....	Deer Creek.....	Sec. 24, T. 38 S., R. 7 W., near Selma.	*.25
Jan. 14	....do.....	....do.....	....do.....	8.5
Feb. 21	....do.....	....do.....	....do.....	4.9
Mar. 26	....do.....	....do.....	....do.....	3.6
Apr. 29	....do.....	....do.....	....do.....	1.8
May 26	....do.....	....do.....	....do.....	35.1
June 12	....do.....	....do.....	....do.....	2.5
July 15	....do.....	....do.....	....do.....	.3
Aug. 31	....do.....	....do.....	....do.....	d.06
Sept.29	....do.....	....do.....	....do.....	d.04
Nov. 13	Crooks Creek.....	....do.....	Sec. 9, T. 38 S., R. 7 W., near Selma.	*.50
Dec. 19	....do.....	....do.....	....do.....	138
Jan. 14	....do.....	....do.....	....do.....	18.9
Feb. 21	....do.....	....do.....	....do.....	13.3
Mar. 26	....do.....	....do.....	....do.....	5.8
Apr. 29	....do.....	....do.....	....do.....	3.4
May 26	....do.....	....do.....	....do.....	61.3
June 12	....do.....	....do.....	....do.....	5.8
July 15	....do.....	....do.....	....do.....	1.4
Aug. 31	....do.....	....do.....	....do.....	d.25
Sept.29	....do.....	....do.....	....do.....	d.14
Nov. 13	McMullin Creek....	....do.....	Sec. 30, T. 38 S., R. 7 W., near Selma.	*1.0
Dec. 19	....do.....	....do.....	....do.....	104
Jan. 14	....do.....	....do.....	....do.....	18.2
Feb. 19	....do.....	....do.....	....do.....	14.3
Mar. 25	....do.....	....do.....	....do.....	8.0
Apr. 29	....do.....	....do.....	....do.....	3.9
May 26	....do.....	....do.....	....do.....	44.7
June 12	....do.....	....do.....	....do.....	7.4
July 15	....do.....	....do.....	....do.....	1.7
Aug. 31	....do.....	....do.....	....do.....	d.09
Sept.29	....do.....	....do.....	....do.....	d.01
Nov. 14	Draper Creek.....	....do.....	NW¼ sec. 12, T. 38 S., R. 8 W., near Selma.	*.10
Dec. 18	....do.....	....do.....	....do.....	256
Jan. 14	....do.....	....do.....	....do.....	16.1
Feb. 19	....do.....	....do.....	....do.....	8.8
Mar. 26	....do.....	....do.....	....do.....	4.2
Apr. 29	....do.....	....do.....	....do.....	2.5
May 26	....do.....	....do.....	....do.....	51.5
June 12	....do.....	....do.....	....do.....	3.9
July 15	....do.....	....do.....	....do.....	.60
Aug. 31	....do.....	....do.....	....do.....	d.01
Sept.20	....do.....	....do.....	....do.....	0

* Estimated.
c Measured by floats.
d Measured with weir.

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