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Water-Supply Paper 834

SURFACE WATER SUPPLY *of the* UNITED STATES

1937

PART 14

PACIFIC SLOPE BASINS IN OREGON AND LOWER COLUMBIA RIVER BASIN

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CONTENTS

ILLUSTRATION

SURFACE WATER SUPPLY OF PACIFIC SLOPE BASINS IN OREGON AND LOWER COLUMBIA RIVER BASIN, 1937

SCOPE OF WORK

This volume is one of a series of 14 reports presenting results of measurements of flow made on streams in the United States during the water year ending September 30, 1937. The work was begun in 1888 in connection with special studies relating to irrigation. Measurements of stream flow have been made at about 7,200 points in the United States and also at many points in Alaska and the Hawaiian Islands. In July 1937, 3,380 gaging stations were being maintained by the Geological Survey and the cooperating organizations. Many miscellaneous discharge measurements were made at 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. Acknowledgments for cooperation of the first kind are made in connection with the description of each station affected; cooperation of the second kind is acknowledged on page 9.

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 a rate of flow of 1 cubic foot per second, or the rate of discharge of water flowing in a channel when the cross-sectional area is 1 square foot and the 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 flowing 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', equivalent to 43,560 cubic feet, is the quantity required to cover an acre to the depth of 1 foot. 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.

"Stage-discharge relation" is an abbreviation for the term "relation of gage height to discharge."

"Control" is a term used to designate the natural section or reach of the channel or artificial structure below the gage which determines the stage-discharge relation at the gage.

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 gage heights 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 gaging stations, equipped with water-stage recorder and measuring cable and car, are shown on plate 1.

Rating tables giving the discharge for any stage are prepared from the discharge measurements. The application of the daily gage height to these rating tables gives the daily discharge from which the monthly and yearly mean discharge is computed.

The data presented for each gaging station in the area covered by this report usually 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 except for those stations whose daily discharge for the greater part of the year was determined by shifting-control method or by use of slope 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 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. Information under "Extremes" gives 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, and also the minimum discharge if useful; and the minimum gage height except when 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 represents the lowest discharge unless otherwise qualified.

The table of daily discharge gives, for stations equipped with nonrecording gages, the discharge in second-feet corresponding to once-daily or the mean of twice-daily readings of the gage. For stations equipped with water-stage recorders the table gives the discharge corresponding to the mean daily gage height except for stations on streams subject to sudden or rapid fluctuation. For stations subject to such fluctuation the mean daily gage height may not indicate the true mean daily discharge, which must be obtained by averaging the discharge for intervals of the day or by using the discharge integrator, an instrument for obtaining the mean daily discharge from a continuous gage-height graph and containing as an essential element the rating curve of the station.

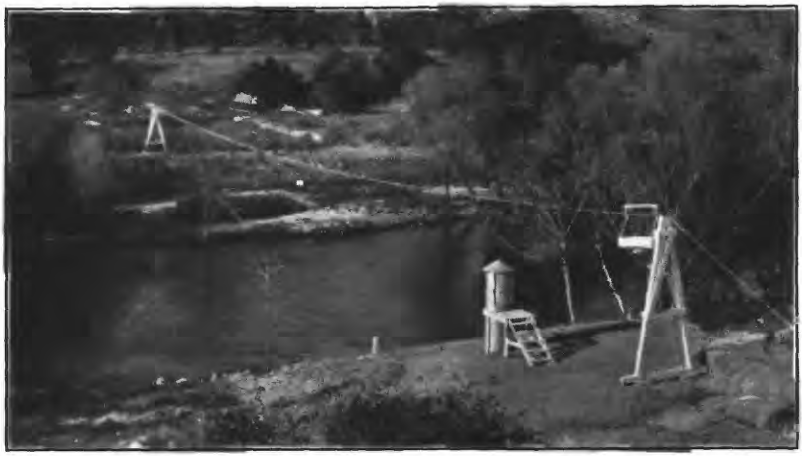
In the table of monthly discharge the column headed "Second-foot-days" gives the sum for each month of the discharge given in the table of daily discharge. The column headed "Maximum" gives the maximum daily discharge and not the discharge when the water surface was at crest height. Likewise, in the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

ACCURACY OF FIELD DATA AND COMPUTED RESULTS

The accuracy of stream-flow data depends primarily (1) on the permanency of the stage-discharge relation and (2) on the accuracy of observation of stage, measurements of flow, and interpretation of records.

The station description gives a statement under "Remarks" in regard to the general accuracy of the records. "Excellent" indicates that, in general, the daily records are

A. ARTIFICIAL CONTROL, RECORDER HOUSE, AND MEASURING CABLE ON OLENTANGY RIVER, DELAWARE, OHIO.



B. RECORDER HOUSE AND MEASURING CABLE ON KAWEAH RIVER, THREE RIVERS, CALIF.

TYPICAL RIVER-MEASUREMENT STATIONS.

in error not more than 5 percent; "good", not more than 10 percent; "fair", not more than 15 percent; and "poor", over 15 percent.

The monthly means of any station may represent with high accuracy the quantity of water flowing past the gage, but the figures showing discharge per square mile and depth in inches may be subject to gross errors caused by the inclusion of large noncontributing districts in the measured drainage area, by lack of information concerning water diverted for irrigation or other use, or by inability to interpret the effect of artificial regulation of the flow of the river above the station. "Second-feet per square mile" and "run-off in inches" are therefore not computed if such errors appear probable. The computations are also omitted for stations on streams draining areas in which the annual rainfall 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 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 gives a general idea of the flow at the station. The table of daily discharge allows more detailed studies of the variation in flow. It should be borne in mind, however, that the observations in each succeeding year may be expected to throw new light on data previously published, and that greater degrees of refinement in computations and records may be warranted with increased data and use of improved equipment.

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 in regard to the water resources of the United States may be obtained or consulted as indicated 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:

Augusta, Maine, Statehouse.
Boston, Mass., 945 Post Office Building.
Hartford, Conn., 203 Federal Building.
Albany, N. Y., 526 Federal Building.
Trenton, N. J., 228 Federal Building.

Harrisburg, Pa., 490 Education Building.
Charlottesville, Va., University of Virginia.
South Charleston, W. Va., Naval Ordnance Plant.
Asheville, N. C., 220 Post Office Building.
Columbia, S. C., 119 United States Courthouse.
Atlanta, Ga., Georgia School of Technology.
Ocala, Fla., Post Office Building.
Montgomery, Ala., Post Office Building.
Chattanooga, Tenn., 442 Post Office Building.
Louisville, Ky., Federal Building.
Columbus, Ohio, Engineering Experiment Station, Ohio State University.
Indianapolis, Ind., 319 Federal Building.
Urbana, Ill., 14 Post Office Annex.
Madison, Wis., 337N State Capitol.
St. Paul, Minn., 808 New Post Office Building.
Iowa City, Iowa, 402 Hydraulic Laboratory, University of Iowa.
St. Louis, Mo., 906 Customhouse, 1114 Market Street.
Rolla, Mo., Missouri Geological Survey Building, Missouri School of Mines and Metallurgy.
Topeka, Kans., 305 Federal Building.
Fort Smith, Ark., Post Office Building.
Austin, Tex., State Highway Building.
Santa Fe, N. Mex., 3 United States Courthouse.
Tucson, Ariz., 210 Post Office Building.
Denver, Colo., 230 Customhouse.
Salt Lake City, Utah, 303 Federal Building.
Idaho Falls, Idaho, 228 Federal Building.
Boise, Idaho, 429 Federal Building.
Helena, Mont., 412 Federal Building.
Tacoma, Wash., 406 Federal Building.
Portland, Oreg., 606 Post Office Building.
San Francisco, Calif., 208 Federal Office Building.
Los Angeles, Calif., 512 Eighth and Figueroa Building.
Honolulu, Hawaii, 225 Federal Building.

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

Records of flow of streams in the United States have been published in the reports tabulated as follows:

Stream-flow data 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, eastern United States, eastern Mississippi River, and Missouri River above junction with Kansas River.	1897.
W 16.....	Descriptions, measurements, and gage heights, western Mississippi River below junction of Missouri and Platte Rivers, and western United States.	1897.
19th A, pt. 4	Descriptions, measurements, ratings, and monthly discharge (also some long-time records).	1897.
W 27.....	Measurements, ratings, and gage heights, eastern United States, eastern Mississippi River, and Missouri River.	1898.
W 28.....	Measurements, ratings, and gage heights, Arkansas River and western United States.	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.

Note.- The reports which contain records after 1901 are given in the table on page 5.

Numbers of water-supply papers containing results of stream measurements, 1899-1937

(For basins included see p. 3)

Year	1	2	3	4	5	6	7	8	9	10	11	12	13	14
1899 a...	35	b 35, 36	36	36	36	c 36, 37	37	37	d 37, 38	38, e 39	38, f 39	38	38	38
1900 g...	47, h 48	48	48, i 49	49	49	49, j 50	50	50	50	51	51	51	51	51
1901.....	65, 75	65, 75	65, 75	65, 75	k 65, 66, 75	66, 75	k 65, 66, 75	66, 75	66, 75	66, 75	66, 75	66, 75	66, 75	66, 75
1902.....	82	b 82, 83	83	m 82, 83	k 83, 85	84	k 83, 84	84	85	85	85	85	85	85
1903.....	97	b 97, 98	98	97	k 98, 99, n 100	99	k 98, 99	99	100	100	100	100	100	100
1904.....	o 124, p 125, q 126	q 126, 127	128	129	k 128, 130	130, r 131	k 128, 131	132	133	133, s 134	134	135	135	135
1905.....	o 165, p 166, q 167	q 167, 168	169	170	171	172	k 169, 173	174	175, t 177	176, s 177	177	178	178	u 177, 178
1906.....	o 201, p 202, q 203	q 203, 204	205	206	207	208	k 205, 209	210	211, t 213	212, s 213	213	214	214	214
1907-8...	241	242	243	244	245	246	247	248	249	250, s 251	251	252	252	252
1909.....	261	262	263	264	265	266	267	268	269	270, s 271	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	153	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

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

The foregoing table gives, by years and drainage basins, the numbers of the papers on surface water supply published from 1899 to 1937. 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 from 1910 to 1920 for any station in the area covered by part 3 are published in Water-Supply Papers 283, 303, 323, 353, 383, 403, 433, 453, 473, and 503, which contain records for the Ohio River Basin for those years.

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

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	Year ending	State or drainage basin and title
		STATE
107	1903	Alabama, Water powers of, with an appendix on stream measurements in Mississippi.
298	1912	California, Water resources of, part 1, Stream measurements in Sacramento River Basin.
299	1912	California, Water resources of, part 2, Stream measurements in San Joaquin River Basin.
300	1912	California, Water resources of, part 3, Stream measurements in the Great Basin and Pacific coast river basins.
447	1918	California, Surface water supply of the southern Pacific slope of.
597e	1927	California, Surface water supply of Sacramento River Basin.
636d	1927	California, Surface water supply of San Joaquin River Basin.
636e	1927	California, Surface water supply of Pacific slope basins in.
637a	1927	California, Surface water supply of minor San Francisco Bay, northern Pacific, and Great basins in.
74	1900	Colorado, Water resources of.
197	1905	Georgia, Water resources of.
415	1915	Massachusetts, Surface waters of.
230	1906	Nebraska, Surface water supply of.
370	1910	Oregon, Surface water supply of.
424	1916	Vermont, Surface waters of.
492	1919	Washington, Summary of hydrometric data in.
469	1921	Wyoming, Surface waters of, and their utilization.
		DRAINAGE BASIN
395	1914	Colorado River (Colo., Utah, etc.) and its utilization, 1916.
617	1927	Colorado River, upper (Colo., Utah), and its utilization, 1929.
517	1920	Great Salt Lake Basin, Water powers of, 1924.
618	1928	Green River (Wyo., Utah) and its utilization, 1930.
198	1906	Kennebec River Basin (Maine), Water resources of, 1907.
		Milk River. (See St. Mary and Milk Rivers.)
536	1920	New-Kanawha River Basin (W. Va., Va., N. C.), Surface water supply of, 1925.
279	1909	Penobscot River Basin (Maine), Water resources of, 1912.
192	1906	Potomac River Basin (W. Va., Va., Md., etc.), 1907.
358	1913	Rio Grande Basin (N. Mex., Tex., etc.), Water resources of, 1888-1913.
491	1917	St. Mary and Milk Rivers (Mont. and Canada), Water supply of, 1920.
109	1904	Susquehanna River Basin (Pa., Md.), Hydrography of, 1905.

In addition to the records noted above, records of discharge have been published 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	Year ending	Report	Issued by
Alabama....	1915	Bull. 17, Water powers of Alabama.....	Geological Survey of Alabama.
Arkansas...	1928	Stream gaging report 1.....	Arkansas Geological Survey.
Georgia....	1920	Bull. 38, Water powers of Georgia.....	Geological Survey of Georgia.
Illinois...	1937	Stream flow data of Illinois.....	Division of Waterways.
Do.....	1911	Water resources of Illinois.....	Rivers and Lakes Commission.
Indiana....	1927	Pub. 72, Surface water supply of Indiana.	Department of Conservation.
Do.....	[a]1930	Pub. 112, Surface water supply of Indiana.	Do.
Iowa.....	1932	Stream-flow records of Iowa.....	Iowa State Planning Board.
Kansas.....	[b]1919	Surface waters of Kansas.....	Kansas Water Commission.
Do.....	[c]1924	.....do.....	Do.
Do.....	[d]1928	.....do.....	Do.
Kentucky...	1920	Surface waters of Kentucky.....	Kentucky Geological Survey.
Minnesota..	1912	Water resources investigation of Minnesota.	State Drainage Commission.
Missouri...	1926	Reports of Bureau of Geology and Mines, Vol. 20, 2d series, Water Resources of Missouri.	Missouri Bureau of Geology and Mines.
Nebraska...	1914	1st hydrographic report.....	Bureau of Water Power, Irrigation and Drainage.
Do.....	[e]1928	2d hydrographic report.....	Do.
New Jersey.	1928	Bull. 33, Surface water supply of New Jersey.	Department of Conservation and Development.
Do.....	[f]1934	Special Report 5, Surface water supply of New Jersey.	State Water Policy Commission.
New Mexico.	1925	Surface water supply of New Mexico....	Office of the State Engineer.
North Carolina.	1923	Bull. 34, Discharge records of North Carolina streams.	Department of Conservation and Development.
Oregon.....	1914	Bull. 4, Water resources of the State of Oregon.	Office of the State Engineer.
Do.....	[g]1924	Bull. 7, Water resources of the State of Oregon.	Do.
Do.....	[h]1930	Bull. 8, Water resources of the State of Oregon.	Do.
Do.....	[i]1936	Bull. 9, Water resources of the State of Oregon.	Do.
Pennsylvania	1911	Report of Water Supply Commission of Pennsylvania.	Water Supply Commission of Pennsylvania.
Do.....	[j]1932	Stream-flow records of Pennsylvania...	Department of Forests and Waters.
Tennessee..	1924	Bull. 34, Water resources of Tennessee.	Department of Education.
Do.....	[k]1930	Bull. 40, Surface waters of Tennessee.	Do.
Utah.....	1905	5th Biennial Report, State Engineer...	Office of the State Engineer.
Virginia...	1927	Bull. 31, Water resources of Virginia.	Conservation and Development Commission.
Washington.	1933	Bull. 5, Monthly and yearly summaries of hydrometric data.	Department of Conservation and Development.
Wisconsin..	1914	1st report of Railroad Commission of Wisconsin to Legislature on water powers.	Railroad Commission of Wisconsin.
Do.....	[l]1923	2d report of Railroad Commission of Wisconsin to Legislature on water powers.	Do.

a Includes records for the years 1927-30.
b Includes records for the years 1895-1919.
c Includes records for the years 1919-24.
d Includes records for the years 1924-28.
e Includes records for the years 1914-28.
f Includes records for the years 1928-34.
g Includes records for the years 1914-24.
h Includes records for the years 1924-30.
i Includes records for the years 1930-36.
j Includes records for the years 1928-32.
k Includes average weekly discharge for the years 1920-30.
l Includes records for the years 1914-23.

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, Idaho, Indiana, Missouri, Montana, Nebraska, New Mexico, New York (also New York City Board of Water Supply), North Dakota, Oregon, Pennsylvania, Utah, Washington, and Wyoming.

RECORDS OF DISCHARGE BY AGENCIES OTHER THAN THE GEOLOGICAL SURVEY

The following table contains a list of gaging stations for the area covered by this report at which records of daily discharge were collected during the water year October 1936 to September 1937 by agencies other than the Geological Survey The records for these stations are not contained in the publications of the Geological Survey.

Records of daily discharge collected by agencies other than the Geological Survey

Stream	Location	Period
Abernathy Creek.....	1½ miles east of Oregon City, Oreg.....	1936-37
Bear Creek.....	SW¼ sec.29,T.4 S.,R. 1 E., 1 mile above mouth, near Needy, Oreg.	1936-37
Beaver Creek.....	SE¼ sec.16,T. 3 S.,R.2 E.,below highway bridge, 1½ miles northwest of Beaver Creek, Oreg.	1936-37
Beaver Creek.....	SE¼ sec.13,T.3 S.,R. 1 E., 2 miles northeast of New Era, Oreg.	1936-37
Big Butte Springs....	Sec.17,T.35 S., R. 3 E., 6 miles east of Butte Falls, Oreg.	1930-37
Big Marsh Creek.....	NE¼ sec.20,T. 24 S.,R.7 E., at Roey ranch, near Crescent, Oreg.	1924,1928-37
Buckner Creek.....	NE¼ sec. 16, T. 4 S., R. 2 E., near Mulino,Oreg.	1937
Bull Creek.....	NE¼ sec. 6, T. 5 S., R. 3 E., 2 miles west of Colton, Oreg.	1936-37
Butte Creek.....	NE¼ sec. 36. T. 5 S., R. 1 W., at Monitor, Oreg.	1936-37
Butter Creek.....	SE¼ sec.22, T.2 N., R. 37 E., at Foley Bridge, 15 miles southwest of Hermiston, Oreg.	1933-37
Butter Creek.....	SE¼ sec. 22. T. 1 N., R. 28 E., 1 mile above Vey ranch, Oreg.	1921-37
Cable Creek.....	NE¼ sec.9,T.5 S.,R.32 E.,6 miles east of Ukiah, Oreg.	*1932-37
Camas Creek.....	SE¼ sec.4,T.5 S.,R.32 E., 200 feet above mouth of Cable Creek, near Ukiah, Oreg.	*1932-37
Canyon Creek.....	NW¼ sec.3,T.5 S.,R. 3 E.,near Colton, Oreg.	1936-37
Clear Creek.....	NW¼ sec.17,T.4 S.,R. 4 E., 3 miles south of Springwater, Oreg.	1936-37
Clear Creek.....	NW¼ sec. 23,T.3 S.,R 3 E., at Viola, Oreg.....	1936-37
Clear Creek	SW¼ sec.18,T.2 S.,R. 3 E., ¼ mile south of Carver, Oreg.	1936-37
Deep Creek.....	SW¼ sec.14,T. 2 S., R. 3 E., ½ mile north of Barton, Oreg.	1936-37
Deschutes River.....	NE¼ sec. 14, T. 15 S.,R. 12 E., 1,500 feet above dam at Cline Falls, Oreg.	*1928-37
Dorn Creek.....	SE¼ sec.24, T.4 S.,R.3 E., 3½ miles northeast of Colton, Oreg.	1936-37
Eagle Cree.....	SW¼ sec.26,T.3 S.,R.5 E.,at Log Cabin Camp near Estacada, Oreg.	1933-37
Fivemile Creek.....	SW¼ sec.27,T.4 S.,R.29 E.,6 miles southwest of Gurdane, Oreg.	1928-30 1932-33 1935-37
Grave Creek.....	NE¼SW¼ sec.12,T.34 S.,R.6 W.,13 miles north of Grants Pass, Oreg.	*1929-37
Holcomb Creek†.....	NW¼ sec.34,T.2 S.,R.2 E., 2 miles east of Oregon City, Oreg.	1936-37
Jackson Creek.....	NE¼ sec.35,T.4 S.,R.3 E., 2 miles northeast of Colton, Oreg.	1936-37
Johnson Creek.....	NE¼ sec. 35, T. 1 S.,R. 1 E., at Milwaukie, Oreg.	1936-37
Jumpoff Joe Creek....	Sec.32,T.34 S.,R. 5 W., 7 miles northeast of Merlin, Oreg.	*1929-37
Little Butte Creek...	SE¼ sec. 19, T. 36 S., R. 2 E., at Lake Creek, Oreg.	1922-24 1927-37
Little Clear Creek...	SW¼ sec. 15, T. 3 S.,R. 3 E., 1 mile northwest of Viola, Oreg.	1936-37
Little Walla Walla River.	George St., in Milton, Oreg.....	1916, 1932-37
Louse Creek.....	Sec. 29, T. 35 S., R. 5 W., 5 miles north of Grants Pass, Oreg.	1937
McKay Creek.....	NE¼ sec.8, T. 14 S.,R. 16 E., at feeder canal intake, 5 miles North of Prineville, Oreg.	1935-37
Milk Creek.....	NE¼ sec.17, T. 4 S., R. 2 E., below Mulino, Oreg.	1937
Milk Creek.....	SW¼ sec.16,T. 4 S.,R. 2 E.,1 mile southeast of Mulino, Oreg.	1936-37
Mill Creek.....	SW¼ sec.31,T.7 S.,R.2 W.,at Hager Grove, near Salem, Oreg.	1936-37
Mill Creek.....	NW¼ sec.36,T.4 S.,R.3 E.,2½ miles northeast of Colton, Oreg.	1936-37
Molalla River.....	SW¼ sec.2,T. 5 S.,R. 2 E.,near Molalla, Oreg....	1937
Nate Creek.....	NW¼ sec.6, T. 5 S.,R. 3 E., 2½ miles west of Colton, Oreg.	1936-37

*Records for some earlier years published in water-supply papers of Geological Survey.
†Formerly published as Hocumb Creek.

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

Stream	Location	Period
North Fork of Big Butte Creek	SW¼ sec.2, T. 35 S., R. 2 E., 1 mile north of Butte Falls, Oreg.	1928-37
North Fork of Deep Creek	NE¼ sec.1,T.2 S.,R. 3 E., ¼ mile south of Boring, Oreg.	1936-37
North Fork of Little Butte Creek	Sec.21,T.36 S.,R. 2 E.,above intake of Rogue River Valley Canal, near Lakecreek,Oreg.	1916-19 1921-37
North Fork of Walla Walla River	NE¼ sec.22,T.5 N.,R.36 E., 5 miles southeast of Milton, Oreg.	1929-37
Ochoco Creek.....	NE¼ sec.6, T.15 S.,R. 17 E.,below Ochoco Reservoir, Oreg.	1919-37
Ochoco Reservoir.....	SW¼ sec.5,T.15 S.,R.17 E., 6 miles east of Prineville, Oreg.	1918-37
Ochoco Springs.....	NE¼ sec.6,T. 15 S., R. 17 E., 6 miles east of Prineville, Oreg.	1920-37
Parrott Creek.....	NE¼SW¼ sec.25,T.3 S.,R.1 E., 2 miles southeast of New Era Oreg.	1936-37
Rancheria Creek.....	SE¼ sec.17,T.35 S.,R.3 E., 10 miles northeast of Lakecreek, Oreg.	1935-37
Rock Creek.....	NE¼ sec.12,T.2 S.,R.2 E.,1½ miles northwest of Carver, Oreg.	1936-37
Rock Creek.....	NE¼ sec.7,T.5 S.,R.1 E., 2 miles southwest of Needy, Oreg.	1936-37
South Fork of Little Butte Creek	NW¼ sec. 21, T. 37 S.,R. 4 E., near Lakecreek, Oreg.	*1926-37
South Fork of Walla Walla River	Above power diversion dam at Milton, Oreg.. ...	*1929-37
Tunnel at Fish Lake Dam	SW¼ sec.3,T.37 S.,R.4 E., 18 miles east of Lakecreek, Oreg.	1929-37
Unnamed creek.....	NE¼ sec.17,T.4 S.,R.2 E.,½ mile northeast of Mulino, Oreg.	1936-37
Wildhorse Creek.....	At Athena, Oreg.....	1935-37
Woodcock Creek.....	SE¼ sec.2,T.5 S.,R.2 E., 2½ miles northeast of Molalla, Oreg.	1936-37

†Records for some earlier years published in water-supply papers of Geological Survey.
Note.- Records for stations listed in above table were collected by Oregon State engineer: those for 1915-24 published in State engineer Bulletin No. 7, those for 1925-30, in Bulletin No. 8, and those for 1931-36 (some up to December 1936), in Bulletin No. 9; those for 1937 not published. Records on numerous canals have also been collected by the Oregon State engineer and U. S. Bureau of Reclamation in connection with operation of irrigation projects.

COOPERATION

The work in the two States was done under cooperative agreements as follows: In Oregon, with the State engineer, Charles E. Stricklin; in Washington, with the Department of Conservation and Development, J. B. Fink, director, and Charles J. Bartholet, supervisor of hydraulics.

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Assistance in collecting records was also rendered by the following municipalities, organizations, corporations and individuals: In Oregon, by Deschutes, Jackson, Josephine, and Umatilla Counties; the cities of Eugene, McMinnville, and Portland: The California Oregon Power Co., Pacific Power & Light Co., and Portland General Electric Co., in Washington, by Backus-Brooks Co., Inland Power & Light Co., and Northwestern Electric Co.

DIVISION OF WORK

The data for the stations in Oregon were collected and prepared for publication under the supervision of G. H. Canfield, district engineer, the work being done in collaboration with Charles E. Stricklin, State engineer; in Washington, under the supervision of G. L. Parker, district engineer.

COLUMBIA RIVER MAIN STEM

Columbia River near The Dalles, Oreg.
(Formerly published as Columbia River at The Dalles, Oreg.)

Location.- Water-stage recorder, lat. 45°39', long. 120°58', in NE¼ sec. 20, T. 2 N., R. 15 E., just above Celilo Falls and 11 miles east of The Dalles. Gage readings above Celilo Falls are elevations above mean sea level (general adjustment of 1929). Since January 1937 all discharge measurements made at cableway 9 miles above recorder, with flow of Deschutes River added.

Drainage area.- 237,000 square miles.

Records available.- June 1878 to September 1937, prior to October 1901, 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 1858 to 1877, from readings of gage at Lower Cascades Landing.

Average discharge.- 59 years (1878-1937), 198,600 second-feet.

Extremes.- Maximum discharge during year, 379,000 second-feet June 24 (gage height from gage above Celilo Falls, 138.68 feet); minimum discharge observed, 35,000 second-feet Jan. 12 (gage height, 126.0 feet).

1858-1937: Maximum discharge, 1,170,000 second-feet June 6, 1894 (gage height, 59.6 feet from gage at The Dalles and 160.1 feet from gage above Celilo Falls); minimum, that of Jan. 12, 1937.

Remarks.- Records excellent except those for Jan. 7-24, when stage was below inlet and gage read twice daily, which are good. Storage and diversions for irrigation are only a small part of total run-off. Records obtained in cooperation with Corps of Engineers, U. S. Army.

Rating table, water year 1936-37 (gage height, in feet, and discharge, in second-feet)

126.0	35,000	130	101,000	135	247,000
126.7	40,700	131	126,000	136	282,000
127.4	48,600	132	153,000	137	316,000
128.1	59,200	133	181,000	139	390,000
129.0	77,300	134	212,000		

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	76,200	63,800	52,000	51,300	42,700	56,700	71,800	150,000	325,000	332,000	178,000	113,000
2	76,200	62,800	52,000	51,300	41,200	57,500	76,200	145,000	318,000	329,000	178,000	111,000
3	77,300	62,600	52,000	49,900	42,700	59,200	84,100	145,000	325,000	318,000	175,000	111,000
4	76,200	61,900	51,300	48,600	44,400	60,100	90,000	150,000	332,000	311,000	173,000	111,000
5	76,200	61,900	52,000	47,300	47,300	61,900	92,400	170,000	347,000	307,000	173,000	108,000
6	75,100	61,000	52,800	42,700	46,000	63,800	90,000	193,000	354,000	300,000	170,000	106,000
7	74,000	60,100	53,600	39,800	49,200	64,700	88,800	209,000	354,000	297,000	164,000	106,000
8	72,900	60,100	53,600	39,400	49,200	64,700	88,800	212,000	347,000	289,000	161,000	101,000
9	72,900	60,100	52,800	40,700	49,200	65,700	88,800	212,000	343,000	279,000	156,000	96,000
10	71,800	60,100	52,800	38,400	48,000	64,700	92,400	216,000	347,000	275,000	153,000	98,500
11	70,800	60,100	53,600	36,400	48,000	65,700	93,600	219,000	347,000	272,000	150,000	98,500
12	70,800	59,200	54,300	36,000	48,000	66,700	94,800	226,000	358,000	264,000	147,000	96,500
13	70,800	57,500	53,600	36,400	49,900	69,800	93,600	226,000	358,000	257,000	145,000	97,200
14	68,700	57,500	52,800	40,200	52,800	72,900	97,200	230,000	347,000	250,000	142,000	98,500
15	68,700	56,700	52,800	40,700	53,600	77,300	111,000	236,000	347,000	243,000	139,000	94,800
16	67,700	56,700	52,000	40,200	52,000	79,500	142,000	247,000	343,000	236,000	136,000	93,600
17	67,700	57,500	51,300	40,700	51,300	75,100	161,000	261,000	340,000	233,000	134,000	93,600
18	66,700	55,900	51,300	41,200	54,300	80,600	158,000	264,000	343,000	226,000	131,000	93,600
19	67,700	55,900	51,300	41,200	55,100	84,100	158,000	268,000	350,000	226,000	131,000	93,600
20	68,700	55,900	51,300	38,900	54,300	85,200	150,000	275,000	347,000	219,000	131,000	96,000
21	67,700	56,700	51,300	38,400	52,000	83,000	142,000	282,000	350,000	216,000	131,000	96,000
22	67,700	56,700	52,800	40,200	52,800	78,400	142,000	282,000	361,000	209,000	131,000	86,400
23	67,700	56,700	52,800	39,800	55,900	72,900	147,000	282,000	376,000	206,000	126,000	91,200
24	68,700	54,300	51,300	40,700	61,000	69,800	147,000	282,000	376,000	203,000	126,000	92,400
25	68,700	54,300	52,000	41,700	60,100	68,700	139,000	286,000	376,000	200,000	121,000	92,400
26	68,700	54,300	52,000	45,500	60,100	67,700	134,000	293,000	368,000	196,000	121,000	91,200
27	67,700	54,300	52,800	46,100	59,200	68,700	131,000	300,000	361,000	193,000	121,000	93,600
28	66,700	53,600	53,600	46,700	57,500	69,800	134,000	314,000	350,000	190,000	118,000	90,000
29	64,700	53,600	52,800	46,100	-	69,800	142,000	325,000	340,000	187,000	118,000	88,800
30	63,800	52,800	52,000	45,500	-	69,800	147,000	332,000	336,000	184,000	118,000	88,800
31	64,700	-	51,300	43,200	-	69,800	-	332,000	-	184,000	113,000	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off: Inches	Run-off: Acre-feet
October	2,173,900	77,300	63,800	70,130	0.296	0.34	4,312,000
November	1,734,800	63,800	52,800	57,830	.244	.27	3,441,000
December	1,623,900	54,300	51,300	52,380	.221	.25	3,221,000
Calendar year 1936	57,599,700	529,000	45,100	157,400	.664	9.03	114,200,000
January	1,315,200	51,300	36,000	42,430	.179	.21	2,609,000
February	1,439,800	61,000	41,200	51,420	.217	.23	2,856,000
March	2,164,300	85,200	56,700	69,820	.295	.34	4,293,000
April	3,527,500	161,000	71,800	117,600	.496	.55	6,997,000
May	7,564,000	332,000	145,000	244,000	1.03	1.19	15,000,000
June	10,466,000	376,000	318,000	348,900	1.47	1.64	20,760,000
July	7,631,000	332,000	184,000	246,200	1.04	1.20	15,140,000
August	4,411,000	178,000	113,000	142,300	.600	.69	8,749,000
September	2,930,200	113,000	86,400	97,670	.412	.46	5,812,000
Water year 1936-37	46,981,600	376,000	36,000	128,700	.543	7.37	93,190,000

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. 4 N., R. 37 E., one mile above Pacific Power and Light Co.'s penstock intake and 13 miles southeast of Milton. Zero of gage is about 2,050 feet above mean sea level (Geological Survey river profile).

Drainage area.- 67 square miles.

Records available.- February to October 1903 (gage heights only), August 1906 to November 1917 (incomplete), May 1931 to September 1937. November 1903 to May 1906, at site 7 miles downstream.

Average discharge.- 14 years, (1904-5, 1908-15, 1931-37), 168 second-feet.

Extremes.- Maximum discharge during year, 690 second-feet Apr. 15 (gage height, 2.36 feet); minimum daily discharge, 87 second-feet (estimated), Jan. 9 (float frozen).
1903-17, 1931-37: Maximum discharge recorded, 1,650 second-feet Apr. 14, 1904 (flood of May 30, 31, 1906, which washed out gage, was probably much higher); minimum, 72 second-feet Feb. 14, 1932.
Maximum stage known, about 6 feet present site and datum, Mar. 31, 1931.

Remarks.- Records good except those for periods of missing gage heights or ice effect, which are poor. No diversions or regulation above station.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	100	103	*98	*97	*91	143	217	275	224	131	100	98
2	100	103	100	*97	91	198	*250	376	230	126	99	95
3	99	103	*102	*97	91	181	*230	480	236	122	99	92
4	99	104	*103	*97	94	183	*206	480	224	120	98	95
5	99	104	*105	*96	94	193	*202	393	208	117	98	99
6	98	104	*107	*94	94	203	*198	376	200	114	98	95
7	95	104	*106	*90	94	188	*195	378	196	112	98	92
8	94	104	*104	*88	95	178	*192	356	190	110	98	90
9	94	103	*102	*87	95	198	*194	346	193	107	98	90
10	94	103	*99	*89	94	208	*197	328	200	107	98	89
11	92	103	*99	92	94	227	*200	376	183	106	95	89
12	94	103	*97	*92	98	236	203	360	178	106	96	89
13	94	103	*96	*92	95	217	311	388	172	106	96	89
14	95	103	*96	*92	95	188	366	410	167	106	96	89
15	98	*102	*96	*92	94	183	*600	371	162	104	95	90
16	96	*99	*98	*92	95	183	*360	360	178	103	95	90
17	96	*97	*100	*92	96	188	*320	346	167	103	95	91
18	98	*96	*102	*92	95	183	*280	342	183	103	95	91
19	96	*96	*104	*91	98	*176	250	328	188	103	95	92
20	98	*96	*104	*90	98	*168	250	311	220	103	95	92
21	99	*98	*104	*88	100	*158	279	295	211	100	94	94
22	99	*100	*104	*90	109	152	*282	299	206	100	95	94
23	99	101	104	92	115	145	*274	291	206	99	96	94
24	100	101	*102	92	130	139	*270	291	186	98	95	92
25	100	*101	*98	90	131	130	*267	299	176	98	94	92
26	100	*101	*97	*91	126	135	333	299	165	98	94	92
27	100	*99	*97	*91	124	145	311	295	154	98	94	92
28	100	*98	*97	*91	124	150	250	283	145	99	94	92
29	100	*98	*97	*91	-	143	214	261	141	98	94	92
30	101	*98	*97	*91	-	139	214	239	137	98	95	91
31	101	-	*97	*91	-	169	-	230	-	96	98	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acre-feet
October	3,026	101	92	97.7	1.46	1.68	6,010
November	3,028	104	96	101	1.51	1.68	6,010
December	3,112	107	96	100	1.49	1.72	6,170
Calendar year 1936	63,241	930	92	173	2.58	35.07	125,400
January	2,847	97	87	91.8	1.37	1.58	5,650
February	2,850	131	91	102	1.52	1.58	5,650
March	5,427	236	130	175	2.61	3.01	10,760
April	7,915	600	192	264	3.94	4.40	15,700
May	10,460	480	230	337	5.03	5.80	20,750
June	5,626	236	137	188	2.81	3.14	11,160
July	3,294	131	98	106	1.58	1.82	6,530
August	2,980	100	94	96.1	1.43	1.65	5,910
September	2,762	98	89	92.1	1.37	1.53	5,480
Water year 1936-37	53,329	600	87	146	2.18	29.59	105,800

*Periods of missing gage-heights or ice effect, which were computed on basis of weather records and unpublished record of discharge for station above Milton city intake, and North Fork of Walla Walla River near Milton.

Umatilla River above Meacham Creek, near Gibbon, Oreg.

Location.- Water-stage recorder, lat. 45°43', long. 118°21', in NE¼ sec. 29, T. 3 N., R. 36 E., at highway bridge, 1½ miles above Meacham Creek and 1½ miles northeast of Gibbon. (Supersedes description published in previous water-supply papers.)

Drainage area.- 125 square miles.

Records available.- April 1933 to September 1937.

Extremes.- Maximum discharge during year, 1,620 second-feet Apr. 15 (gage height, 2.47 feet); minimum, 28 second-feet (estimated) Jan. 9.
1933-37: Maximum discharge, 2,120 second-feet Apr. 12, 1936 (gage height, 2.95 feet); minimum, 28 second-feet Sept. 27, 1935, Jan. 9, 1937.

Remarks.- Records good except the one above 1,200 second-feet and those for periods of missing gage heights, which are fair, and those for period of ice effect, which are poor. No diversions or regulation above station.

Rating tables, water year 1936-37, except for period of ice effect (gage height, in feet, and discharge in second-feet)
(Shifting-control method used Jan. 29 to Mar. 1)

Oct. 1 to Apr. 14		Apr. 15 to Sept. 30	
0	38	0	30
.2	64	.2	58
.5	129	.5	121
.8	234	.8	218
1.2	428	1.2	450
1.6	682	1.6	755
2.0	1,040	2.0	1,130
2.5	1,580	2.5	1,670

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	44	*45	40	53	56	278	610	630	232	104	47	42
2	44	*45	44	51	54	473	597	867	232	*96	47	42
3	44	*45	46	51	54	417	473	970	237	*90	47	44
4	45	*45	50	50	54	467	402	789	223	*86	45	44
5	45	45	56	50	*50	473	391	622	207	*83	45	42
6	45	*45	63	50	*48	450	391	576	195	*78	45	41
7	*45	*45	61	*43	*46	402	396	527	184	*74	45	42
8	*45	45	60	*33	*46	355	417	555	180	*71	45	41
9	*45	45	60	*28	*47	407	508	678	184	69	44	38
10	44	45	60	*29	*50	396	603	712	214	67	44	38
11	44	46	58	*30	*54	478	570	721	195	67	44	37
12	44	48	57	*35	*62	520	490	*720	180	65	44	37
13	43	48	56	*43	*66	490	771	*700	168	63	41	37
14	43	48	54	*48	*65	380	1,110	670	158	62	42	37
15	43	48	53	*50	*62	365	1,400	*620	155	62	42	36
16	*43	48	51	*51	63	396	960	*580	164	58	44	36
17	*43	48	51	*49	64	380	646	*520	164	56	42	36
18	*43	46	50	*45	64	402	513	*490	168	55	41	36
19	*43	46	50	*40	64	340	492	*460	203	53	42	37
20	*43	46	51	*37	66	292	485	*430	326	50	41	38
21	*43	45	51	*36	67	265	513	*400	276	48	41	37
22	*43	45	51	*36	103	247	418	*380	256	48	42	*34
23	*44	45	51	*38	161	222	333	*360	270	47	42	*32
24	*44	44	54	*42	234	214	298	*350	232	47	42	*30
25	*45	43	53	*50	214	222	418	*340	203	47	42	31
26	*47	42	53	*57	164	230	646	*330	177	47	42	32
27	*47	40	53	*60	164	238	614	*320	155	45	42	31
28	*46	39	53	*58	192	256	464	*310	141	45	42	31
29	*45	39	53	57	-	252	359	282	129	45	42	32
30	*45	38	53	54	-	265	404	256	116	45	42	34
31	*45	-	53	62	-	375	-	237	-	45	42	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	1,372	47	43	44.3	2,720
November	1,342	48	38	44.7	2,660
December	1,649	63	40	53.2	3,270
Calendar year 1936	75,936	1,690	38	207	150,600
January	1,416	62	28	45.7	2,810
February	2,454	234	46	87.6	4,870
March	10,947	520	214	353	21,710
April	16,692	1,400	298	556	33,110
May	16,402	970	237	529	32,530
June	5,924	326	116	197	11,750
July	1,918	104	45	61.9	3,800
August	1,338	47	41	43.2	2,650
September	1,105	44	30	36.8	2,190
Water year 1936-37	62,559	1,400	28	171	124,100

*Periods of missing gage heights or ice effect, discharge computed on basis of weather records and records from station at Pendleton.

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 above mouth of McKay Creek. Zero of gage is 1,062.54 feet above mean sea level (general adjustment of 1929).

Drainage area.- 637 square miles.

Records available.- February 1891 to July 1892, May 1903 to June 1905, October 1934 to September 1937. May 1921 to September 1934 at site about 2½ miles downstream; records equivalent.

Average discharge.- 14 years (1923-1937), 438 second-feet.

Extremes.- Maximum discharge during year, 4,720 second-feet Apr. 15 (gage height, 4.67 feet); minimum, 20 second-feet Aug. 19.

1891-92, 1903-6, 1921-37: Maximum discharge, 13,500 second-feet (estimated), Apr. 1, 1931 (gage height, 10.7 feet, former site and datum); minimum, 7 second-feet Aug. 14, 1924.

The flood of May 30-31, 1906, was somewhat greater than that of Apr. 1, 1931 (gage height, about 11.0 feet, present datum).

Remarks.- Records fair. Discharge for period of ice effect, Jan. 8 to Feb. 6, computed on basis of gage heights, weather records, and records for other stations in the Umatilla River Basin. Small diversions for irrigation above station; no regulation.

Rating table, water year 1936-37 except for period of ice effect (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used July 1 to Sept. 30)

0.5	10	1.5	340	3.0	1,620
.7	35	2.0	657	3.5	2,260
1.0	119	2.5	1,080	4.0	3,060
				4.5	4,260

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	32	53	57	69	81	519	1,500	1,160	329	199	42	34
2	34	53	57	72	77	754	1,860	1,620	314	163	42	32
3	34	53	57	74	72	828	1,560	1,990	308	155	34	32
4	34	53	60	69	70	891	1,290	2,120	303	133	28	30
5	35	53	60	72	65	1,050	1,220	1,740	292	116	24	37
6	37	53	69	72	62	1,040	1,240	1,380	258	102	23	42
7	37	53	74	66	60	1,020	1,220	1,250	235	96	28	39
8	37	53	80	60	57	900	1,230	1,090	221	89	26	37
9	39	53	80	55	57	954	1,440	1,080	221	80	26	30
10	39	57	74	51	55	936	1,990	1,080	268	77	26	28
11	39	57	72	52	235	1,060	1,990	1,240	278	72	29	29
12	39	57	69	56	738	1,290	1,740	1,360	253	57	28	30
13	37	57	69	62	292	1,270	1,560	1,380	235	48	28	29
14	32	57	69	68	148	1,050	2,880	1,390	208	50	29	28
15	30	57	69	70	106	909	4,120	1,270	208	46	30	28
16	34	57	69	72	167	1,060	1,680	1,080	204	44	30	32
17	42	57	66	73	324	1,070	2,400	999	221	44	29	32
18	42	57	66	70	287	1,070	1,990	936	213	39	22	35
19	44	57	66	66	126	1,040	1,740	864	268	35	24	32
20	44	57	63	64	99	864	1,560	778	384	35	24	34
21	46	57	63	61	195	746	1,500	701	461	37	26	35
22	46	57	66	61	282	686	1,350	622	455	37	24	39
23	46	57	66	63	263	622	1,120	566	481	37	26	48
24	50	57	77	66	351	579	936	519	449	32	30	46
25	53	57	80	72	413	586	900	500	395	26	39	46
26	55	57	77	81	407	607	1,310	500	340	29	34	39
27	55	57	77	87	419	650	1,920	474	287	28	34	32
28	53	57	77	90	401	730	1,620	431	244	30	32	37
29	53	57	74	90	-	746	1,220	395	208	29	32	39
30	53	57	74	88	-	754	1,030	378	199	29	30	32
31	53	-	72	85	-	846	-	362	-	32	30	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	1,304	55	32	42.1	2,590
November	1,674	57	53	55.8	3,320
December	2,149	80	57	69.3	4,260
Calendar year 1936	160,641	4,880	22	439	318,700
January	2,157	90	51	69.6	4,280
February	5,909	738	55	211	11,720
March	27,117	1,290	519	875	53,790
April	49,116	4,120	900	1,637	97,420
May	31,275	2,120	362	1,009	62,030
June	8,735	481	199	291	17,330
July	2,026	199	26	65.4	4,020
August	909	42	22	29.3	1,800
September	1,043	48	28	34.8	2,070
Water year 1936-37	133,414	4,120	22	366	264,600

Umatilla River at Yoakum, Oreg.

Location.- Water-stage recorder, lat. 45°40', long. 119°02', in SW¼ sec. 2, T. 2 N., R. 30 E., at highway bridge, 2½ miles below former Furnish Reservoir and half a mile northeast of Yoakum station.

Drainage area.- 1,280 square miles.

Records available.- May 1903 to August 1916 (flow slightly affected by storage in Furnish Reservoir after about 1910), October 1934 to September 1937. June 1915 to September 1934, at site 5 miles upstream, above Furnish Reservoir.

Average discharge.- 34 years, 667 second-feet.

Extremes.- Maximum discharge during year, 4,870 second-feet Apr. 15 (gage height, 6.33 feet); minimum, 24 second-feet Nov. 10.

1903-37: Maximum discharge, about 20,000 second-feet May 30, 1906 (gage height, about 15.0 feet former datum, from floodmarks); minimum, 12 second-feet Aug. 10-12, 1908.

Remarks.- Records good except those for periods of ice effect or missing gage heights, Nov. 1-3, Jan. 2-31, Feb. 2-12, 14, 15, 17, which were computed on basis of weather records and records for other stations in the Umatilla River Basin and are fair. Diversions for irrigation above station. Flow regulated to some extent by operating of mills at Pendleton, and since 1927 by storage in McKay Reservoir.

Rating tables, water year 1936-37, except for periods of ice effect (gage height, in feet, and discharge, in second-feet)

Oct. 1 to Feb. 5				Feb. 12 to Sept. 30							
0.6	28	1.5	226	0.6	25	1.5	223	3.0	1,060	5.0	3,130
.8	50	1.8	332	.9	62	2.0	415	3.5	1,500	6.0	4,450
1.2	133	2.2	507	1.2	128	2.5	705	4.0	2,000		

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	40	55	60	78	98	465	1,650	1,320	504	301	339	258
2	40	54	64	80	88	875	2,200	1,900	465	324	320	186
3	40	54	60	83	84	1,060	1,850	2,310	415	327	312	179
4	40	54	64	79	82	1,100	1,550	2,530	455	33[illegible]	305	183
5	42	54	64	80	80	1,280	1,500	2,100	455	331	301	189
6	43	56	74	81	76	1,230	1,460	1,700	440	32[illegible]	294	196
7	45	58	82	78	73	1,230	1,410	1,500	415	320	294	189
8	45	59	82	73	71	1,060	1,320	1,360	397	351	298	186
9	43	59	84	68	70	1,100	1,460	1,320	397	35[illegible]	298	179
10	42	58	82	65	70	1,140	2,050	1,360	445	36[illegible]	301	167
11	42	62	76	65	600	1,230	2,100	1,500	425	36[illegible]	309	170
12	42	58	78	70	790	1,600	1,900	1,700	402	347	301	183
13	42	59	78	77	251	1,600	2,000	1,650	389	331	290	183
14	39	58	78	80	200	1,360	2,000	1,650	367	327	301	76
15	37	62	73	83	160	1,140	4,280	1,460	367	33[illegible]	305	43
16	38	58	73	84	176	1,280	3,770	1,230	367	335	301	42
17	45	58	74	85	365	1,320	2,710	1,100	375	33[illegible]	276	41
18	45	56	74	83	305	1,460	2,100	980	363	33[illegible]	262	40
19	45	56	74	79	192	1,320	1,900	910	425	331	276	37
20	45	58	73	75	192	1,140	1,800	812	460	324	276	35
21	48	59	73	74	244	980	1,850	731	509	33[illegible]	280	34
22	43	64	73	74	351	903	1,800	686	487	331	287	32
23	49	59	73	77	316	833	1,460	679	520	335	298	31
24	46	59	78	83	430	784	1,180	634	492	33[illegible]	301	34
25	50	60	86	90	487	764	1,100	610	435	339	312	33
26	52	65	86	96	425	777	1,460	610	371	331	312	34
27	53	74	84	100	389	833	2,150	586	324	324	298	37
28	54	60	82	102	406	903	1,950	538	283	327	290	35
29	53	59	82	102	-	945	1,550	504	294	327	287	40
30	52	60	82	100	-	945	1,320	450	316	335	283	39
31	56	-	80	98	-	1,100	-	411	-	331	276	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	1,396	56	37	45.0	2,770
November	1,765	74	54	58.8	3,500
December	2,346	86	60	75.7	4,650
Calendar year 1936	193,555	5,550	32	529	384,000
January	2,542	102	65	82.0	5,040
February	7,071	790	70	253	14,030
March	33,757	1,600	465	1,089	66,960
April	56,830	4,280	1,100	1,894	112,700
May	36,831	2,530	411	1,188	73,050
June	12,359	520	283	412	24,510
July	10,364	363	301	334	20,560
August	9,183	339	262	296	18,210
September	3,111	258	31	104	6,170
Water year 1936-37	177,555	4,280	31	486	352,200

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., 1⅛ miles below West Division Main Canal of Umatilla project and 2 miles above Umatilla and mouth of river.

Drainage area.- 2,290 square miles.

Records available.- October 1903 to September 1937.

Average discharge.- 33 years (1904-37), 499 second-feet.

Extremes.- Maximum discharge during year, 3,610 second-feet Apr. 16 (gage height, 5.40 feet); no flow June 16, 17.
1903-37: Maximum discharge, 19,600 second-feet May 31, 1906 (gage height, 11.0 feet); no flow at times.

Remarks.- Records fair except those for Jan. 6, 8-15, 17-22, 24-29, Jan. 31 to Feb. 11, which are poor. Discharge for periods of ice effect or missing gage heights computed on basis of records for station at Yoakum and canals diverting between Yoakum and Umatilla. Shifting-control method used Oct. 1-31, July 4 to Sept. 30. Several diversions for irrigation above station, Brownell Canal diverts below station. Flow regulated by storage in McKay and Cold Springs Reservoirs.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	11	7	88	62	*104	176	*1,200	370	10	*8	13	*55
2	10	*7	88	75	*103	313	1,460	578	10	*8	18	*57
3	10	*7	85	78	*100	652	1,340	1,060	*9	*9	19	*60
4	10	*7	85	83	*95	624	984	1,490	9	9	16	62
5	10	*7	91	88	†90	750	867	1,340	9	9	13	67
6	10	7	91	†92	*88	770	845	867	9	9	*13	54
7	10	*30	88	101	*85	770	856	570	9	9	13	49
8	10	*40	88	*99	*83	690	812	544	211	9	15	42
9	10	*75	88	*97	*83	614	812	355	*90	9	13	39
10	10	104	88	*93	*83	690	1,160	348	*40	9	13	36
11	10	*103	83	*88	*130	652	1,440	415	*23	9	12	29
12	10	*110	80	*89	1,140	900	1,290	586	14	9	12	30
13	10	108	80	*93	801	1,030	1,290	624	10	10	13	32
14	11	*107	78	*98	422	960	*1,290	700	*6	10	12	27
15	11	*107	78	*105	299	730	*3,300	624	*3	10	*13	30
16	11	*112	75	114	246	730	3,120	438	*0	10	*14	27
17	10	*110	70	*115	502	823	2,370	320	0	10	16	22
18	10	*110	67	*117	633	867	1,680	165	16	10	37	22
19	10	*110	78	*115	266	856	1,350	101	45	11	35	24
20	10	*115	75	*110	192	700	1,190	43	72	11	35	22
21	10	125	75	*108	152	544	*1,150	14	156	11	36	19
22	10	114	75	*100	334	462	*1,100	10	143	12	43	15
23	8	114	72	108	292	408	812	9	198	11	*46	15
24	8	91	72	*110	400	327	510	9	198	11	*50	15
25	7	88	75	*111	299	292	252	11	114	11	*45	13
26	8	85	88	*113	272	299	313	11	43	11	*40	12
27	7	80	70	*114	192	306	900	*10	17	11	*39	11
28	7	95	70	*116	156	355	1,190	10	11	12	42	13
29	7	85	70	*114	-	430	790	11	7	11	47	71
30	7	88	67	108	-	408	494	14	*7	11	*50	187
31	7	-	65	*105	-	*480	-	11	-	11	*53	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	290	11	7	9.4	575
November	2,348	125	7	78.3	4,660
December	2,443	91	65	78.8	4,850
Calendar year 1936	116,659.5	3,720	.5	319	231,400
January	3,119	117	62	101	6,190
February	7,642	1,140	83	273	15,160
March	18,608	1,030	176	600	36,910
April	36,167	3,300	252	1,206	71,740
May	11,658	1,490	9	376	23,120
June	1,489	211	0	49.6	2,950
July	311	12	8	10.0	617
August	836	53	12	27.0	1,660
September	1,157	187	11	38.6	2,290
Water year 1936-37	86,068	3,300	0	236	170,700

*Missing gage height.
†Ice effect.

McKay Creek near Pilot Rock, Oreg.

Location.- Water-stage recorder, lat. 45°33', long. 118°46', in SE¼ sec. 23, T. 1 N., R. 32 E., 1 mile above backwater from McKay Reservoir and 6 miles northeast of Pilot Rock.

Drainage area.- 178 square miles.

Records available.- May to August 1921 and October 1926 to September 1937 (incomplete 1927-29)

Extremes.- Maximum discharge during year, 988 second-feet Apr. 15 (gage height, 3.93 feet); no flow at times.
1921, 1926-37: Maximum discharge, 6,000 second-feet Apr. 1, 1931 (gage height, 10.4 feet); no flow at times.

Remarks.- Records good except those for periods of missing gage heights, Nov. 15-27, Jan. 8-12, 17-25, Jan. 31 to Feb. 2, Apr. 25-30 (computed on basis of weather records and records for Birch Creek near Rieth and Umatilla River near Gibbon), and those for July 11-15, 24-27 (interpolated), all of which are fair. Numerous small diversions for irrigation above station; none between station and McKay Reservoir.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1		0	2	7	9	150	632	225	15	10	0.8	
2		0	3	8	12	255	710	266	12	9	.7	
3		0	3	8	14	272	500	280	8	7	.4	
4		0	3	8	17	283	370	269	7	7	.2	
5		0	3	8	17	306	318	220	7	6	0	
6		0	3	8	16	322	294	184	6	6	0	
7		0	3	7	15	272	269	165	5	5	0	
8		0	4	5	16	228	249	148	4	5	0	
9		0	3	4	14	255	326	142	4	5	0	
10		0	3	3	14	234	435	154	6	5	0	
11		0	3	6	16	272	494	181	5	5	0	
12		0	4	7	23	326	435	179	4	4	0	
13		0	4	8	35	334	554	154	5	3	0	
14		0	4	8	39	262	728	144	6	3	0	
15			4	8	37	306	922	131	6	2	0	
16			4	8	34	342	860	116	11	1	0	
17			4	8	34	330	668	96	14	2	0	
18			4	7	42	385	542	84	14	2	0	
19			4	5	41	354	460	73	16	1	0	
20			4	4	38	302	410	64	25	1	0	
21		1	3	4	38	269	390	56	30	1	0	
22			3	5	77	258	314	52	35	.9	0	
23			4	6	146	237	246	48	48	.8	0	
24			5	8	179	231	217	45	47	.8	0	
25			6	9	161	231	280	40	39	.8	0	
26			6	10	118	222	380	34	32	.8	0	
27			6	10	102	217	365	28	24	.8	0	
28		3	5	9	116	225	290	22	16	.8	0	
29		3	5	7	-	214	202	21	14	.8	0	
30		2	5	3	-	214	215	21	12	.6	0	
31		-	4	3	-	280	-	18	-	.7	0	

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	0	0	0	0	0
November	21	-	0	.7	42
December	121	6	2	3.9	240
Calendar year 1936	22,739.5	710	0	62.1	45,100
January	209	10	3	6.7	415
February	1,420	179	9	50.7	2,820
March	8,388	385	150	271	16,640
April	13,075	922	202	436	25,930
May	3,660	280	18	118	7,260
June	477	48	4	15.9	946
July	97.8	10	.6	3.15	194
August	2.1	.8	0	.07	4
September	0	0	0	0	0
Water year 1936-37	27,470.9	922	0	75.3	54,490

McKay Reservoir near Pendleton, Oreg.

Location.- Staff gage, lat. 45°36', long. 118°48', at reservoir dam in SE¼ sec. 34, T. 2 N., R. 32 E., 4 miles south of Pendleton. Gage readings are elevations above mean sea level.

Records available.- October 1930 to September 1937.

Extremes.- Maximum contents observed during year, 57,740 acre-feet May 21 (elevation, 1,308.0 feet); minimum observed, 3,234 acre-feet Nov. 1, Dec. 1 (elevation, 1,218.3 feet).

1930-37: Maximum contents observed, 69,920 acre-feet Mar. 22, 1932 (elevation, 1,318.85 feet); minimum, 3,051 acre-feet Oct. 1, Nov. 1, Dec. 1, 1935 (elevation, 1,217.6 feet).

Remarks.- Records fair. Gage read to tenths of a foot at beginning of each month. Summer flow above reservoir entirely diverted for irrigation. McKay Reservoir, completed in 1927 by the Bureau of Reclamation, stores water for irrigation of lands along Umatilla River near Echo, Stanfield, and Hermiston. It has a capacity of 74,000 acre-feet at elevation 1,322.0 feet. Gage-height record furnished by Bureau of Reclamation.

Elevation and contents, water year 1936-37

Date	Elevation (feet)	Contents (acre-feet)	Change in contents during month (acre-feet)
Oct. 1	1,218.85	3,385	-
Nov. 1	1,218.3	3,234	-151
Dec. 1	1,218.3	3,234	0
Jan. 1	1,219.3	3,514	+280
Feb. 1	1,221.0	4,021	+507
Mar. 1	1,232.5	8,054	+4,033
Apr. 1	1,268.5	25,900	+17,846
May 1	1,302.5	52,180	+26,280
June 1	1,307.2	56,900	+4,720
July 1	1,300.5	50,290	-6,610
Aug. 1	1,280.5	33,890	-13,400
Sept.1	1,250.0	15,610	-18,280
Oct. 1	-	*11,400	-4,210
The year	-	-	+8,015

*Estimated from reading of 1,241.0 feet Sept. 14 (contents, 11,480 acre-feet).

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 above irrigation diversion dam, a quarter of a mile below McKay Dam and 4 miles south of Pendleton.

Records available.- November 1918 to September 1923, October 1924 to September 1937. Diversions of irrigation canal at gage not included since 1932.

Average discharge.- 16 years (1919-23, 1924-27, 1928-37), 89.9 second-feet.

Extremes.- Maximum discharge during year, 323 second-feet July 31 (gage height, 1.32 feet); no flow Oct. 1 to May 2, Sept. 16-30.
1918-37: Maximum discharge, 3,250 second-feet Feb. 10, 1921; no flow at times.

Remarks.- Records good. Diversions for irrigation above McKay Reservoir use total summer flow. Flow completely regulated since 1927 by storage in McKay Reservoir.

Rating table, water year 1936-37 (gage height, in feet, and discharge, in second-feet)

0	0
.2	9
.4	36
.6	71
.8	117
1.0	185
1.2	267
1.4	363

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1								0	201	136	304	213
2								0	153	193	295	167
3								10	130	208	290	163
4								10	174	224	295	163
5								10	174	224	295	163
6								10	178	220	290	163
7								19	181	237	295	163
8								27	185	231	290	160
9								27	189	295	295	160
10								27	181	304	299	160
11								27	143	295	299	167
12								20	143	290	295	178
13								7	143	290	299	142
14								7	146	290	304	1
15								7	146	299	304	1
16								7	136	299	285	0
17								8	136	299	267	0
18								8	139	299	267	0
19								8	110	299	285	0
20								8	14	308	281	0
21								8	9	308	281	0
22								27	9	308	290	0
23								39	10	313	290	0
24								39	10	313	290	0
25								39	9	313	290	0
26								39	9	313	290	0
27								41	9	318	276	0
28								41	42	308	272	0
29								41	111	313	272	0
30								39	123	318	272	0
31								61	-	313	276	-

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 1936	21,304	308	0	58.2	42,250
January	0	0	0	0	0
February	0	0	0	0	0
March	0	0	0	0	0
April	0	0	0	0	0
May	661	61	0	21.3	1,310
June	3,343	201	9	111	6,630
July	8,728	318	136	282	17,310
August	8,933	304	267	288	17,720
September	2,164	213	0	72.1	4,290
Water year 1936-37	23,829	318	0	65.3	47,260

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 above mouth and half a mile southwest of Rieth.

Drainage area.- 291 square miles.

Records available.- May 1921 to September 1923 and April 1927 to September 1937 (incomplete prior to 1929).

Extremes.- Maximum discharge during year, 530 second-feet Apr. 15 (gage height, 3.70 feet); no flow Oct. 1 to Nov. 30, Sept. 1-30.
1921-23, 1927-37: Maximum discharge, 1,640 second-feet Jan. 29, 1923 (gage height, 6.00 feet, former site and datum); no flow at times.

Remarks.- Records fair except those for period of missing gage heights, Dec. 1 to Feb. 15 (computed on basis of one discharge measurement, Feb. 13, two field estimates of discharge, one staff-gage reading, weather records, and records for McKay Creek near Pilot Rock), and those for July 30 to Sept. 30 (estimated on basis of weather records and field estimate of discharge), all of which are poor. Several small diversions for irrigation above station.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1					3	28	140	112	0.3	0.1		
2					3	40	178	170	.2	.1		
3					3	47	161	237	1	.1		
4					15	48	146	254	1	.1		
5					*20	55	133	200	4	.1		
6					18	72	123	159	4	.1		
7				2	16	78	112	133	5	.1		
8					20	68	110	123	5	0		
9					18	68	116	114	3	0		
10					15	79	142	116	4	0		
11					16	82	168	116	1	.1		
12					16	93	167	114	.1	.1		
13					16	103	209	110	.1	.1		
14					16	102	312	99	1	.1	†0.1	
15				†2	17	104	495	84	4	.1		
16				2	18	110	390	72	3	.1		
17				2	17	111	283	61	3	0		
18				3	17	130	224	47	2	0		
19				†3	17	123	209	37	4	.1		
20					16	116	211	23	6	.1		
21					16	103	247	16	9	.1		
22					16	99	215	16	17	.1		
23					18	91	168	18	34	.1		
24					23	84	132	18	43	.1		
25				3	29	83	128	12	37	.1		
26					29	80	178	10	25	.1		
27					26	80	250	8	13	.1		
28					26	85	204	6	3	.1		
29					-	87	157	3	.1	.1		
30					-	89	120	2	.1	.1		
31					-	100	-	.9	-	.1		

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	15.5	-	-	.5	31
Calendar year 1936	8,585.0	341	0	23.5	17,030
January	76	-	-	2.5	151
February	480	29	3	17.1	952
March	2,638	130	28	85.1	5,230
April	5,828	495	110	194	11,560
May	2,490.9	254	.9	80.4	4,940
June	232.9	43	.1	7.76	462
July	2.6	.1	0	.84	5
August	1.6	-	-	.05	3
September	0	0	0	0	0
Water year 1936-37	11,765.5	495	0	32.2	23,330

*From staff-gage reading.
†Field estimate of discharge.

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

Furnish Canal diverts from right bank of Umatilla River in sec. 36, T. 3 N., R. 29 E. Umatilla project feed canal diverts 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 and Irrigation Co.'s canal diverts from left bank of Umatilla River in NE¼ sec. 21, T. 3 N., R. 29 E.; gage is 1 mile below intake. Allen Canal diverts from right bank of Western Land and Irrigation Co.'s canal half a mile below headgate of that canal. Maxwell Canal diverts from right bank of Umatilla River in SW¼ sec. 28, T. 4 N., R. 28 E., and also receives water from Cold Springs Reservoir at times. West Division Main Canal diverts from left bank of Umatilla River in SW¼ sec. 28, T. 5 N., R. 28 E. Brownell Canal diverts from right bank of Umatilla River 2 miles below West Division Main Canal diversion and 1½ miles above mouth of Umatilla River.

Water diverted by all of 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 divert water between Pendleton and Umatilla, but no records for them were obtained.

Records are available from March 1926 to September 1937. Records were formerly published as "Diversions from Umatilla River between Furnish Reservoir and Umatilla, Oreg." Furnish Reservoir is no longer in existence owing to complete sedimentation of the reservoir and later removal of the dam. Records for some of the canals were published separately prior to 1926.

Diversions, in acre-feet, water year October 1936 to September 1937

Month	Furnish Canal	Umatilla project feed canal	Western Land and Irrigation Co.'s canal	Allen Canal	Maxwell Canal	West Division Main Canal	Brownell Canal
October	-	0	528	1,290	2,040	5,480	129
November	-	873	682	916	2,040	1,430	0
December	-	4,560	0	(*)	825	0	0
January	-	776	0	(*)	(*)	0	0
February	-	4,440	0	(*)	(*)	0	0
March	†470	19,760	0	(*)	‡1,020	5,860	0
April	3,410	19,400	5,480	1,050	2,420	6,710	585
May	7,560	17,860	12,220	1,770	4,910	11,020	908
June	6,860	6,070	9,000	1,160	3,200	8,100	726
July	7,030	0	11,310	1,190	2,440	10,080	770
August	7,000	16	9,800	1,120	1,870	9,880	986
September	171	60	4,690	1,170	1,730	8,920	954
The year or period	32,501	73,815	53,710	-	-	67,480	5,058

*Probably some flow; records fragmentary or lacking.
†Mar. 20-31; no record May 1-19.
‡Mar. 11-31; no record Mar. 1-10.

Note.- Little or no flow during months left blank.

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., above outlet of Prairie power canal, at power plant, three-quarters of a mile southwest of Prairie City. Zero of gage is 3,492.55 feet above sea level (general adjustment of 1929).

Records available.- October 1926 to September 1937. October 1916 to September 1917 (gage heights only), and March 1925 to September 1926 at site below outlet of Prairie power canal.

Average discharge.- 12 years, 97.3 second-feet, including flow of Prairie power canal.

Extremes.- Maximum discharge observed during year, 382 second-feet Apr. 1 (gage height, 2.20 feet); minimum, 3 second-feet Jan. 2.
1926-37: Maximum discharge, 1,550 second-feet (estimated) Mar. 19, 1932 (gage height, 4.7 feet); minimum, 2 second-feet Dec. 8, 21, 22, 1932, Aug. 10, 1934.

Remarks.- Records for river station good except those for January, which are fair. Discharge for periods of ice effect, Jan. 10-14, 19-31, computed on basis of weather records, observer's notes, and discharge measurement on Feb. 1. Diversions above station for irrigation and for power. (See record for Prairie power canal.) Staff gage read twice daily by employee of West Coast Power Co.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	6	6	5	5	11	14	287	131	88	18	34	9
2	6	5	6	3	19	27	180	170	76	14	29	12
3	6	6	6	4	11	32	140	224	74	15	25	12
4	6	6	6	4	10	53	122	274	75	13	25	12
5	8	6	6	8	10	66	108	236	81	12	34	14
6	10	6	6	4	6	108	122	202	83	13	31	18
7	10	6	6	4	5	98	95	202	75	13	20	20
8	9	5	7	4	5	117	90	180	75	12	20	16
9	9	5	8	4	5	126	95	180	70	12	21	17
10	9	5	6	4	6	126	97	160	85	12	21	16
11	9	5	6	5	5	144	92	140	85	12	20	15
12	9	5	6	7	6	184	86	131	80	12	16	18
13	10	6	6	6	10	220	122	131	66	12	16	11
14	10	5	6	5	6	184	202	150	60	12	16	12
15	11	5	6	10	6	126	302	150	59	13	15	10
16	11	6	6	12	6	144	261	150	102	13	15	10
17	11	6	6	10	6	108	191	150	122	14	10	10
18	11	5	6	11	5	105	160	150	93	14	9	9
19	11	5	6	5	5	86	150	150	122	14	9	10
20	11	5	5	4	5	85	150	140	131	13	9	10
21	12	5	5	4	6	81	160	131	122	20	9	12
22	12	5	14	5	6	89	150	131	122	24	8	10
23	12	6	16	5	6	93	131	140	111	23	8	10
24	9	5	13	6	6	88	113	140	85	25	8	10
25	6	5	11	5	6	78	109	140	63	24	7	12
26	6	5	8	6	6	78	131	140	41	31	7	13
27	6	5	5	6	8	64	180	131	28	40	7	10
28	6	5	5	5	9	68	160	131	25	35	6	13
29	6	5	5	5	-	57	131	140	21	35	6	13
30	6	5	4	4	-	56	113	131	18	31	6	13
31	6	-	4	4	-	83	-	113	-	28	8	-

	River only					River and Prairie power canal			
Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet	Maximum	Minimum	Mean	Run-off in acre-feet
October	270	12	6	8.7	536	47	30	37.9	2,330
November	160	6	5	5.3	317	57	39	53.3	3,170
December	211	16	4	6.8	419	77	46	58.1	3,570
Calendar year 1936	12,551	246	4	34.3	24,890	313	8	76.6	55,560
January	174	12	3	5.6	345	63	10	41.6	2,560
February	201	19	5	7.2	399	70	53	58.7	3,260
March	2,988	220	14	96.4	5,930	271	68	147	9,010
April	4,430	302	96	148	8,790	350	134	195	11,620
May	4,869	274	113	157	9,660	320	157	204	12,540
June	2,338	131	18	77.9	4,640	177	55	124	7,360
July	579	40	12	18.7	1,150	52	17	31.6	1,950
August	475	34	6	15.3	942	49	8	18.1	1,110
September	377	20	9	12.6	748	46	13	28.3	1,680
Water Year 1936-37	17,072	302	3	46.8	33,880	350	8	83.1	60,160

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. 28 E., on John Day highway, 0.7 mile above Rock Creek bridge and 7 miles northwest of Dayville. Zero of gage is 2,232.10 feet above mean sea level (general adjustment of 1929).

Records available.- April 1926 to September 1937.

Average discharge.- 11 years, 316 second-feet.

Extremes.- Maximum discharge during year, 2,540 second-feet Apr. 15 (gage height, 9.10 feet); minimum, 2.4 second-feet Aug. 28, 29 (gage height, 1.08 feet).
1926-37: Maximum discharge, about 6,000 second-feet Mar. 19, 1932 (gage height, 14.0 feet); minimum, 1 second-foot several days in August and September 1930, Aug. 8, 9, 1936.

Remarks.- Records excellent except those for periods of ice effect, Nov. 26 to Dec. 2, Jan. 1-4, Jan. 5 to Feb. 12, which were computed on basis of discharge measurement for Jan. 29, observer's notes, weather records, and records for station at Prairie City and are poor. Numerous diversions for irrigation above station.

Rating table, water year 1936-37 except periods of ice effect (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Oct. 7-20)

1.0	1.2	2.8	177	5.5	820
1.2	6.0	3.2	247	6.0	1,000
1.4	18	3.6	325	7.0	1,420
1.7	43	4.0	411	8.0	1,900
2.0	71	4.5	530	9.0	2,480
2.4	118	5.0	665		

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	4.4	48	70	85	120	208	1,020	1,000	411	161	7.5	4.0
2	4.7	51	80	70	130	247	1,560	1,160	378	129	6.5	4.0
3	5.0	56	99	60	140	276	1,080	1,420	356	94	6.0	4.7
4	5.3	57	104	85	160	305	925	1,610	325	69	7.0	5.3
5	5.0	60	105	99	150	346	800	1,610	315	58	6.5	5.3
6	5.0	63	109	70	140	422	838	1,380	305	48	6.5	5.7
7	5.7	65	113	50	130	518	770	1,160	295	39	6.5	5.7
8	5.0	68	118	45	120	492	710	1,040	285	32	6.0	5.7
9	5.0	68	118	55	115	620	725	980	295	28	5.0	5.3
10	5.3	69	110	70	110	650	802	942	285	24	5.0	5.0
11	5.7	75	106	80	130	680	785	908	305	14	5.7	5.3
12	5.7	82	100	90	160	785	770	855	356	10	8.0	5.7
13	5.3	82	103	100	180	942	960	820	356	9.0	5.7	6.0
14	6.0	83	103	105	184	1,160	1,900	855	336	10	4.7	5.7
15	6.0	85	105	110	154	872	2,360	908	336	11	4.4	6.0
16	6.5	91	104	120	156	872	2,300	872	389	13	4.7	5.7
17	7.0	93	100	120	158	890	1,800	820	505	16	4.0	5.0
18	8.5	95	100	115	163	802	1,510	785	505	18	3.4	5.3
19	8.5	98	101	100	156	695	1,380	740	518	17	4.4	6.5
20	9.5	91	103	90	140	605	1,380	695	555	15	5.0	6.5
21	13	90	101	95	143	555	1,470	650	592	11	4.7	6.5
22	15	93	104	110	149	542	1,420	605	580	9.0	4.4	7.0
23	17	90	112	115	160	542	1,250	592	555	6.5	4.7	7.0
24	21	88	125	115	167	568	1,080	580	518	5.3	4.0	7.5
25	25	86	118	120	172	650	1,040	542	433	4.7	3.7	8.5
26	33	75	114	120	172	592	1,160	530	378	6.0	3.7	9.0
27	43	65	109	125	172	555	1,330	518	315	7.0	3.0	8.5
28	47	60	108	135	172	555	1,290	480	256	7.0	2.6	9.0
29	47	55	105	130	-	530	1,120	480	224	5.7	2.4	9.5
30	46	60	103	115	-	518	1,000	492	196	6.5	3.4	10
31	47	-	94	110	-	542	-	456	-	7.0	3.4	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	473.1	47	4.4	15.3	938
November	2,242	98	48	74.7	4,450
December	3,244	125	70	105	6,430
Calendar year 1936	101,787.4	2,240	1.1	278	201,900
January	3,009	135	45	97.1	5,970
February	4,203	184	110	150	8,340
March	18,536	1,160	208	598	36,770
April	36,625	2,360	710	1,221	72,640
May	26,485	1,610	456	854	52,530
June	11,458	592	196	382	22,730
July	890.7	161	4.7	28.7	1,770
August	152.5	8.0	2.4	4.92	302
September	190.9	10	4.0	6.36	379
Water year 1936-37	107,509.2	2,360	2.4	295	213,200

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 below mouth of Service Creek and three-quarters of a mile southwest of Service Creek post office. Zero of gage is 1,635.83 feet above mean sea level (general adjustment of 1929).

Records available.- October 1929 to September 1937.

Extremes.- Maximum discharge during year, 14,500 second-feet Apr. 15 (gage height, 11.86 feet); minimum, 40 second-feet Aug. 23.
1929-37: Maximum discharge, 28,900 second-feet Mar. 19, 1932 (gage height, 16.75 feet), from rating curve extended above 11,000 second-feet by comparison with records for other stations in John Day River Basin; minimum, 20 second-feet Sept. 6, 1931.

Remarks.- Records excellent except those for periods of ice effect, Nov. 26 to Dec. 1, Jan. 2-4, 7-12, 19-22, 29-31 (computed on basis of weather records, observer's notes, and discharge measurement on Jan. 30), and those for period of missing gage heights, Aug. 1-4 (computed on basis of records for stations at Picture Gorge, near Dayville, and at McDonald Ferry), all of which are fair. Many diversions for irrigation above station.

Rating table, water year 1936-37 except periods of ice effect (gage height, in feet, and discharge, in second-feet)

0.4	39	2.0	365	5.0	2,120
.7	75	2.5	550	6.0	3,040
1.0	123	3.0	780	7.0	4,180
1.3	179	3.5	1,060	8.0	5,600
1.6	245	4.0	1,380	10.0	9,600
				12.0	14,800

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	60	111	115	218	248	635	4,310	4,570	2,120	880	135	52
2	57	120	128	160	260	830	6,830	5,600	1,960	780	125	51
3	57	133	159	140	262	1,090	4,850	7,410	1,960	680	115	51
4	58	123	196	170	294	1,180	3,940	8,670	1,960	590	110	57
5	57	109	207	200	324	1,520	3,700	8,020	1,800	510	103	63
6	56	125	218	173	318	1,880	3,370	6,830	1,620	460	92	67
7	54	155	229	105	294	2,120	3,260	6,100	1,480	418	82	68
8	52	175	265	80	279	2,000	2,940	5,760	1,420	396	76	63
9	56	157	282	90	273	2,370	3,150	5,600	1,340	393	75	68
10	58	133	262	110	270	2,740	4,180	5,600	1,450	386	71	67
11	58	113	236	150	282	2,840	4,440	5,290	1,590	354	70	62
12	57	120	222	180	324	3,480	3,940	5,140	1,590	327	70	57
13	58	138	245	194	354	3,940	4,830	5,290	1,560	300	63	57
14	61	150	229	204	379	4,710	9,600	6,100	1,450	282	62	54
15	62	165	224	222	348	4,060	12,900	6,460	1,340	270	58	54
16	61	196	224	227	365	4,180	11,400	5,930	1,420	265	60	51
17	63	200	229	236	372	4,440	7,810	5,600	1,660	248	58	50
18	66	215	243	240	407	4,180	6,280	5,440	1,760	236	56	50
19	70	215	234	230	372	3,480	5,930	4,990	1,700	224	55	52
20	71	213	234	210	358	2,740	5,760	4,440	1,880	220	58	54
21	72	204	236	190	330	2,370	6,100	4,060	2,280	213	57	52
22	74	194	240	200	354	2,200	6,100	3,940	2,280	204	51	52
23	74	190	243	224	379	2,280	5,290	3,820	2,200	198	43	60
24	78	179	288	227	418	2,120	4,440	3,590	2,120	185	46	70
25	82	165	318	231	494	2,550	4,180	3,370	1,800	187	47	71
26	86	135	309	231	550	2,640	4,710	3,370	1,560	231	47	72
27	90	120	288	245	550	2,640	5,760	3,150	1,380	399	46	72
28	103	105	273	255	570	2,940	6,100	3,040	1,210	224	44	72
29	111	100	262	240	-	2,740	5,140	2,840	1,060	169	43	72
30	111	105	250	233	-	2,550	4,440	2,640	970	179	46	72
31	111	-	248	235	-	2,740	-	2,280	-	148	51	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	2,184	111	52	70.5	4,330
November	4,563	215	100	152	9,050
December	7,336	318	115	237	14,550
Calendar year 1936	430,940	10,100	32	1,177	854,700
January	6,050	255	80	195	12,000
February	10,028	570	248	358	19,890
March	82,185	4,710	635	2,651	163,000
April	165,680	12,900	2,940	5,523	328,600
May	154,940	8,670	2,280	4,998	307,300
June	49,920	2,280	970	1,664	99,010
July	10,556	880	148	341	20,940
August	2,115	135	43	68.2	4,200
September	1,813	72	50	60.4	3,600
Water year 1936-37	497,370	12,900	43	1,363	986,500

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 below mouth of Rock Creek, and 10 miles east of Klondike. Zero of gage is 392.02 feet above mean sea level.
Drainage area.- 7,580 square miles.
Records available.- December 1904 to September 1937.
Average discharge.- 32 years (1905-37), 1,898 second-feet.
Extremes.- Maximum discharge during year, 13,300 second-feet Apr. 16 (gage height, 7.65 feet); minimum, 34 second-feet Aug. 29, 30 (gage height, 1.13 foot).
1904-37: Maximum discharge, 24,900 second-feet Mar. 20, 1932 (gage height, 10.6 feet), from rating curve extended above 12,000 second-feet; minimum, 4 second-feet Aug. 31, 1931 (gage height, 0.68 foot).
Maximum stage known, 12.8 feet, probably in 1894 (estimated discharge, 33,000 second-feet).
Remarks.- Records good except those for periods of ice effect, Nov. 27 to Dec. 1, Jan. 1 to Feb. 17, which were computed on basis of weather records, gage heights, observer's notes, and records for station at Service Creek and are fair. Diversions for irrigation above station.

Rating table, water year 1936-37 except periods of ice effect (gage height, in feet, and discharge, in second-feet)

Oct. 1 to Dec. 1		Dec. 2 to Sept. 30					
1.1	33	1.1	28	2.6	975	6.0	8,060
1.3	84	1.3	71	3.0	1,460	7.0	11,200
1.5	160	1.5	144	3.5	2,200	8.0	14,800
1.8	320	1.8	301	4.0	3,070		
		2.2	586	5.0	5,280		

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	52	98	100	260	260	657	3,360	4,550	2,440	1,140	185	132
2	50	112	116	240	270	770	5,030	4,670	2,200	1,020	176	94
3	50	116	144	220	290	1,010	7,180	5,800	2,040	912	172	78
4	50	119	158	200	320	1,160	5,280	7,470	1,960	820	149	69
5	50	119	153	180	350	1,330	4,440	8,360	1,960	732	132	66
6	50	123	144	200	380	1,670	4,200	7,760	1,890	657	120	64
7	52	140	181	200	430	1,960	3,760	6,620	1,710	577	108	61
8	52	135	200	150	380	2,360	3,660	6,070	1,570	529	101	64
9	52	123	216	120	340	2,280	3,460	5,800	1,470	476	94	64
10	54	127	226	100	300	2,530	3,760	5,670	1,420	426	91	66
11	52	165	254	90	400	3,070	4,790	5,670	1,460	399	84	69
12	50	175	266	130	607	3,260	5,030	5,410	1,600	365	74	69
13	50	160	248	170	650	3,870	4,670	5,280	1,670	339	69	69
14	50	144	226	200	700	4,440	5,940	5,280	1,670	307	64	71
15	54	127	226	230	600	5,160	10,500	6,200	1,660	289	59	71
16	54	127	232	240	550	4,550	13,000	6,340	1,560	272	61	69
17	52	148	226	250	500	4,670	10,900	5,940	1,500	248	57	64
18	52	160	211	260	521	4,910	8,060	5,670	1,630	226	57	59
19	54	190	216	270	483	4,550	6,760	5,540	1,960	221	52	61
20	57	210	216	260	491	3,870	6,340	5,160	1,840	211	47	57
21	60	226	226	240	469	3,160	6,340	4,670	2,040	195	45	54
22	60	231	226	230	419	2,790	6,620	4,200	2,360	181	45	54
23	66	231	221	230	413	2,530	6,480	3,980	2,700	176	43	57
24	69	226	248	250	413	2,620	5,540	3,870	2,530	167	43	59
25	72	215	242	250	447	2,530	4,790	3,660	2,440	158	45	59
26	75	205	254	250	505	3,160	4,550	3,460	2,120	158	47	59
27	78	180	301	260	569	3,360	5,030	3,460	1,800	162	43	59
28	78	150	320	270	621	3,460	6,200	3,260	1,600	226	38	61
29	84	120	295	270	-	3,460	6,340	3,070	1,410	513	36	71
30	88	100	283	250	-	3,360	5,160	2,980	1,260	399	38	74
31	91	-	272	250	-	3,070	-	2,790	-	237	71	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	1,858	91	50	59.9	3,690
November	4,702	231	98	157	9,330
December	6,847	320	100	221	13,580
Calendar year 1936	440,263	9,280	19	1,203	873,300
January	6,720	270	90	217	13,330
February	12,678	700	260	453	25,150
March	91,577	5,160	657	2,954	181,600
April	177,170	13,000	3,360	5,906	351,400
May	158,660	8,360	2,790	5,118	314,700
June	55,470	2,700	1,260	1,849	110,000
July	12,738	1,140	158	411	25,270
August	2,446	185	36	78.9	4,850
September	2,024	132	54	67.5	4,010
Water year 1936-37	532,890	13,000	36	1,460	1,057,000

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., above county road bridge over canal and 1 mile south of Prairie City.

Records available.- May 1925 to September 1937.

Average discharge.- 12 years, 43.5 second-feet.

Extremes.- Maximum discharge observed during year, 63 second-feet Dec. 22; no flow at times.
1925-37: Maximum discharge, 71 second-feet Dec. 10, 1929; no flow at times.

Remarks.- Records good except those for period of shifting control, Mar. 11 to May 11, and those for May 23 and Aug. 4, which are poor. Discharge for Sept. 30 interpolated. 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 once daily by employee of West Coast Power Co.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	24	44	41	51	48	54	48	48	46	31	15	4
2	24	34	46	48	51	51	46	48	46	25	14	4
3	26	44	48	41	51	51	46	48	44	21	13	4
4	24	46	51	57	51	57	48	46	46	18	6	3
5	26	51	54	36	51	51	46	46	46	16	0	4
6	24	48	51	7	51	51	54	46	48	13	0	5
7	28	46	57	7	51	51	51	46	46	11	0	5
8	26	46	57	6	48	51	46	46	46	11	0	5
9	26	46	51	7	51	46	48	46	48	12	0	6
10	26	46	41	36	51	57	48	46	48	12	0	6
11	26	48	41	46	51	57	46	46	46	11	0	7
12	28	51	57	48	51	51	48	41	46	12	0	7
13	26	51	54	48	51	51	46	44	46	11	0	7
14	26	51	51	51	51	51	46	46	48	11	0	13
15	24	51	48	46	57	51	48	46	48	11	0	13
16	28	51	51	51	51	51	48	46	46	11	0	13
17	26	51	51	48	51	54	48	46	46	11	2	14
18	28	51	51	46	51	51	46	46	46	10	2	14
19	28	51	51	21	51	48	48	48	46	11	2	17
20	26	51	51	15	57	48	48	48	46	4	2	18
21	26	51	57	18	51	48	46	46	48	8	2	18
22	28	51	63	21	51	51	46	48	46	8	2	25
23	28	51	54	36	51	51	46	61	46	10	3	29
24	28	51	54	36	51	48	48	48	46	10	3	33
25	30	48	51	32	54	46	46	46	48	11	3	33
26	41	46	51	46	54	46	46	51	48	11	3	33
27	41	48	54	46	54	48	46	48	46	12	3	33
28	41	48	51	46	51	44	48	46	44	13	3	33
29	41	46	51	41	-	44	51	46	37	13	3	33
30	41	41	51	41	-	48	51	46	37	15	2	33
31	41	-	51	36	-	48	-	44	-	18	4	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	906	41	24	29.2	1,800
November	1,439	51	34	48.0	2,850
December	1,591	63	41	51.3	3,160
Calendar year 1936	15,470	70	0	42.3	30,680
January	1,115	57	6	36.0	2,210
February	1,443	57	48	51.5	2,860
March	1,555	57	44	50.2	3,080
April	1,427	54	46	47.6	2,830
May	1,453	61	41	46.9	2,880
June	1,374	48	37	45.8	2,730
July	402	31	4	13.0	797
August	87	15	0	2.8	173
September	472	33	3	15.7	936
Water year 1936-37	13,264	63	0	36.3	26,310

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

Records available.- October 1930 to September 1937.

Extremes.- Maximum discharge during year, 67 second-feet June 21 (gage height, 2.02 feet); minimum, 1.4 second-feet Feb. 13-22, Mar. 7, 8.
1930-37: Maximum discharge, 150 second-feet June 9, 1933, from rating curve extended above 85 second-feet; minimum, 1.4 second-feet Jan. 8, 19, Oct. 7-21, 23, 24, 26-28, 1931, Oct. 13-17, 1934, Dec. 26, 1935, Feb. 13-22, Mar. 7, 8, 1937.

Remarks.- Records fair. Stage-discharge relation affected by ice for several hours of each day during Nov. 29 to Dec. 1, Dec. 10-12, Dec. 29 to Jan. 3; method of shifting control used Apr. 14 to Sept. 30. No diversions above station; some natural regulation by Strawberry Lake.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	3.0	2.2	1.8	2.2	1.5	1.5	2.2	6.7	43	28	9.7	4.4
2	3.0	1.9	1.8	1.9	1.5	1.5	2.2	9.3	44	27	9.7	4.4
3	3.0	2.0	1.8	1.9	1.5	1.5	2.0	13	48	24	9.7	4.2
4	3.0	2.0	1.8	2.5	1.5	1.5	2.0	16	52	24	9.3	4.0
5	2.6	2.0	1.9	2.2	1.5	1.5	2.0	15	52	23	9.0	4.0
6	2.6	2.0	1.9	2.0	1.5	1.5	2.0	14	50	21	8.7	3.8
7	2.6	1.9	1.9	2.2	1.5	1.4	2.0	15	46	19	8.4	3.8
8	2.6	1.9	1.9	2.2	1.5	1.4	2.0	15	45	18	8.4	3.7
9	2.6	2.0	1.9	2.2	1.5	1.5	2.2	16	44	17	8.4	3.7
10	2.6	2.0	2.0	2.2	1.5	1.5	2.2	16	42	16	8.0	3.5
11	2.6	2.0	2.2	2.2	1.5	1.6	2.2	15	41	16	8.0	3.5
12	2.6	2.0	2.0	2.2	1.5	1.9	2.3	15	38	15	7.7	3.5
13	2.6	1.9	2.2	2.0	1.4	1.9	3.7	20	35	14	7.4	3.3
14	2.6	1.9	2.2	2.0	1.4	1.9	4.9	27	32	14	7.2	3.2
15	2.6	1.9	2.2	2.0	1.4	1.8	5.5	27	31	13	7.2	3.2
16	2.6	1.9	2.3	1.9	1.4	1.8	5.6	29	36	13	7.0	3.2
17	2.6	1.9	2.3	1.8	1.4	1.8	5.1	33	37	13	7.0	3.0
18	2.5	1.9	2.3	1.8	1.4	1.8	4.9	39	40	13	6.7	3.0
19	2.5	1.9	2.3	1.8	1.4	1.8	4.7	45	43	12	6.4	3.2
20	2.5	1.9	2.3	1.8	1.4	1.8	5.1	49	54	12	6.2	3.2
21	2.5	1.9	2.3	1.8	1.4	1.8	5.8	51	64	12	6.2	3.0
22	2.3	1.9	2.5	1.8	1.4	1.9	5.8	55	61	11	6.0	3.0
23	2.3	1.9	2.5	1.8	1.5	1.9	5.3	58	56	11	6.0	2.8
24	2.3	1.9	2.5	1.8	1.5	1.9	5.1	56	50	11	5.8	2.8
25	2.3	1.9	2.3	1.8	1.5	1.9	5.1	56	45	11	5.5	2.8
26	2.3	1.8	2.3	1.8	1.5	1.9	6.0	56	40	11	5.3	2.8
27	2.2	1.8	2.3	1.6	1.5	1.9	6.7	56	36	10	5.3	2.8
28	2.0	1.8	2.2	1.6	1.5	1.9	6.4	56	34	10	5.1	2.8
29	2.2	1.6	2.2	1.6	-	1.9	6.0	55	31	10	4.9	2.8
30	2.2	1.6	2.2	1.6	-	1.9	5.8	50	30	9.7	4.7	2.8
31	2.0	-	2.2	1.6	-	2.0	-	45	-	9.7	5.1	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	77.9	3.0	2.0	2.51	155
November	57.2	2.2	1.6	1.91	113
December	66.5	2.5	1.8	2.15	132
Calendar year 1936	3,651.3	82	1.6	9.98	7,250
January	59.8	2.5	1.6	1.93	119
February	41.0	1.5	1.4	1.46	81
March	53.8	2.0	1.4	1.74	107
April	122.7	6.7	2.0	4.09	243
May	1,029.0	58	6.7	33.2	2,040
June	1,300	64	30	43.3	2,580
July	468.4	28	9.7	15.1	929
August	220.0	9.7	4.7	7.10	436
September	100.2	4.4	2.8	3.34	199
Water year 1936-37	3,596.5	64	1.4	9.85	7,130

North Fork of John Day River near Dale, Oreg.

Location.- Water-stage recorder, lat. 45°00', long. 118°57', in SE¼ sec. 25, T. 6 S., R. 31 E., three-eighths of a mile below Desolation Creek and 1½ miles northeast of Dale. Zero of gage is 2,775.85 feet above mean sea level (general adjustment of 1929).

Drainage area.- 525 square miles.

Records available.- October 1929 to September 1937.

Extremes.- Maximum discharge during year, 3,260 second-feet May 14 (gage height, 7.10 feet); minimum, 6 second-feet Nov. 3 (gage height, 1.40 feet).
1929-37: Maximum discharge, 4,990 second-feet May 14, 1932 (gage height, 8.4 feet); minimum, that of Nov. 3, 1936.

Remarks.- Records good except those for period of shifting control, May 2-29, which are fair, and those for period of ice effect, Nov. 10 to Mar. 8, which were computed on basis of observer's notes, weather records, discharge measurements on Dec. 12 and Mar. 5, and records for Middle Fork of John Day River at Ritter, North Fork of John Day River at Monument, and John Day River at Service Creek and are poor. Discharge for period of missing gage heights, Aug. 6-10, interpolated. Some small diversions for irrigation and mining above station cause diurnal fluctuation at low stages.

Rating table, water year 1936-37 except period of ice effect (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used May 2-29)

1.4	6	2.4	96	3.8	560	6.0	2,250
1.6	13	2.7	159	4.2	765	7.0	3,380
1.8	25	3.0	240	4.6	1,010		
2.1	54	3.4	390	5.0	1,310		

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	38	45	10	20	35	50	244	765	940	338	69	52
2	36	22	15	20	35	55	258	1,350	975	303	69	54
3	34	13	20	15	35	60	223	2,000	1,040	286	64	46
4	33	35	25	20	40	65	198	2,250	975	258	59	45
5	35	55	25	30	40	76	179	1,700	820	228	55	52
6	38	46	30	20	40	100	176	1,520	765	214	54	54
7	36	24	35	10	40	90	159	1,660	710	200	53	51
8	36	14	50	10	35	110	162	1,700	685	189	52	45
9	35	26	45	20	35	128	139	1,850	660	172	52	44
10	38	20	40	25	35	139	261	1,750	738	159	51	43
11	39	10	40	25	35	148	247	1,660	685	150	50	37
12	36	15	35	30	35	166	240	1,900	710	141	52	35
13	37	20	35	35	30	184	374	2,470	635	136	52	33
14	40	25	35	35	30	192	551	2,910	580	130	50	32
15	42	30	35	40	30	192	792	2,690	600	126	48	31
16	43	40	40	40	30	195	685	2,580	685	121	47	31
17	43	50	40	40	30	187	528	2,640	685	113	47	29
18	41	55	40	40	30	187	502	2,580	635	111	44	28
19	40	55	40	30	30	166	546	2,200	738	104	42	37
20	39	55	40	20	30	164	556	1,950	910	100	45	50
21	42	50	40	15	30	132	635	1,850	880	93	47	50
22	41	45	45	25	30	141	551	1,950	765	86	46	47
23	39	40	50	30	35	119	458	1,800	738	82	46	44
24	41	30	60	35	40	123	390	1,700	635	83	46	42
25	44	35	50	35	40	119	430	1,750	556	91	46	42
26	42	25	45	35	40	117	610	1,620	506	85	45	42
27	44	15	40	40	45	126	880	1,520	458	98	45	39
28	39	15	40	40	45	130	710	1,520	422	93	45	40
29	38	10	40	40	-	121	575	1,350	394	74	43	39
30	38	10	35	35	-	148	551	1,120	378	66	41	40
31	50	-	30	35	-	182	-	975	-	64	45	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	1,217	50	33	39.3	2,410
November	930	55	10	31.0	1,840
December	1,150	60	10	37.1	2,280
Calendar year 1936	111,856	2,520	10	306	221,800
January	890	40	10	28.7	1,770
February	985	45	30	35.2	1,950
March	4,111	195	50	133	8,150
April	12,860	880	159	429	25,510
May	57,280	2,910	765	1,848	113,600
June	20,903	1,040	378	697	41,460
July	4,494	338	64	145	8,910
August	1,550	69	41	50.0	3,070
September	1,254	54	28	41.8	2,490
Water year 1936-37	107,624	2,910	10	295	213,400

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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 below entrance to canyon and three-quarters of a mile west of Monument.

Drainage area.- 2,520 square miles.

Records available.- March 1925 to September 1937.

Average discharge.- 11 years (1925-27, 1928-37), 884 second-feet.

Extremes.- Maximum discharge during year, 10,200 second-feet Apr. 15 (gage height 9.75 feet); minimum, 6 second-feet sometime during Nov. 2-13, when recorder was not operating (gage height, 0.97 foot).

1925-37: Maximum discharge, 22,000 second-feet Mar. 18, 1932 (gage height, 14.8 feet), from rating curve extended above 9,000 second-feet; minimum, that in period Nov. 2-13, 1936.

Remarks.- Records fair except those for periods of missing gage heights, Nov. 2-12, Nov. 27 to Dec. 1, Jan. 1-16, 18-22, 24-29, July 21-24, July 26 to Aug. 5, and of ice effect, Dec. 2, Jan. 17, 23, Jan. 30 to Feb. 13, Feb. 15, 20, which were computed on basis of weather records, discharge measurement on Jan. 30, and records for John Day River at Service Creek and are poor. Several small diversions for irrigation above station.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	56	71	30	60	105	455	4,500	2,790	1,590	570	110	57
2	56	65	35	45	110	707	4,220	4,080	1,540	510	105	65
3	53	60	56	40	115	735	2,790	5,400	1,590	470	100	71
4	53	50	69	50	120	922	2,330	6,370	1,540	430	95	72
5	51	70	74	80	120	1,160	2,220	5,400	1,390	392	90	80
6	49	75	86	50	110	1,490	2,060	4,360	1,240	356	87	71
7	52	80	107	35	105	1,390	1,890	4,080	1,160	330	81	74
8	55	70	132	30	100	1,340	1,890	3,800	1,070	309	78	78
9	53	60	126	45	95	1,740	2,380	3,940	1,020	289	76	72
10	52	50	121	60	95	1,740	3,280	3,940	1,160	268	78	67
11	53	30	109	65	100	2,000	3,030	3,800	1,240	246	74	65
12	56	40	99	70	110	2,500	2,670	3,940	1,200	232	74	62
13	56	49	89	80	120	3,010	4,650	4,360	1,060	218	72	59
14	55	62	82	90	140	2,850	7,590	5,400	948	208	69	56
15	55	76	86	95	135	2,730	9,250	5,100	930	195	67	54
16	59	97	93	100	145	3,030	6,710	4,650	975	185	65	53
17	62	95	93	105	160	2,910	4,650	4,650	1,240	179	65	50
18	62	111	95	100	154	2,790	3,670	4,360	1,060	173	64	50
19	64	107	91	80	148	2,060	3,540	3,940	1,200	170	61	50
20	62	99	93	60	140	1,640	3,670	3,410	1,390	168	56	50
21	59	93	97	65	148	1,390	3,940	3,090	1,540	160	56	64
22	61	78	104	75	162	1,340	3,800	3,090	1,390	150	56	71
23	62	76	119	80	193	1,340	3,030	2,910	1,490	145	59	69
24	62	64	154	85	245	1,340	2,440	2,730	1,240	140	57	67
25	61	55	143	90	312	1,540	2,220	2,730	1,070	135	57	65
26	64	37	129	95	330	1,690	2,910	2,550	939	135	59	65
27	68	36	114	105	338	1,790	3,800	2,330	850	140	57	67
28	66	30	104	110	402	2,000	3,940	2,330	756	150	56	65
29	66	25	97	105	-	1,740	3,150	2,220	672	135	57	62
30	64	25	93	99	-	1,790	2,670	1,940	618	125	56	65
31	66	-	74	100	-	2,060	-	1,690	-	115	57	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	1,813	68	49	58.5	3,600
November	1,935	111	25	64.5	3,840
December	2,994	154	30	96.6	5,940
Calendar year 1936	290,882	7,050	25	795	577,000
January	2,349	110	30	75.8	4,660
February	4,557	402	95	163	9,040
March	55,219	3,030	455	1,781	109,500
April	108,890	9,250	1,890	3,630	216,000
May	115,430	6,370	1,690	3,724	229,000
June	35,108	1,590	618	1,170	69,640
July	7,428	570	115	240	14,730
August	2,194	110	56	70.8	4,350
September	1,916	80	50	63.9	3,800
Water year 1936-37	339,833	9,250	25	931	674,100

Middle Fork of John Day River at Ritter, Oreg.

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

Drainage area.- 526 square miles.

Records available.- October 1929 to September 1937.

Extremes.- Maximum discharge during year, 1,650 second-feet Apr. 15 (gage height, 5.40 feet); minimum, 5 second-feet Nov. 3, 24.
1929-37: 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, Nov. 28 to Dec. 7, Jan. 2, 3, Jan. 6 to Feb. 3, Feb. 15, 20, which were computed on basis of observer's notes, weather records, and records for John Day River at Service Creek and are poor. A few small diversions for irrigation above station.

Rating tables, water year 1936-37 except periods of ice effect (gage height, in feet, and discharge, in second-feet)

Oct. 1 to Mar. 31				Apr. 1 to Sept. 30					
1.5	6	2.8	154	1.5	6.3	2.8	160	4.5	870
1.8	17	3.4	320	1.8	18.5	3.2	260	5.0	1,220
2.1	39	4.0	580	2.1	44	3.6	385	5.5	1,740
2.4	79			2.4	85	4.0	555		

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	15	22	10	18	30	59	1,020	622	345	102	24	12
2	15	19	15	15	35	78	894	814	345	90	25	15
3	15	12	20	15	35	88	610	1,010	354	80	26	14
4	14	18	20	23	39	138	500	708	332	79	23	12
5	14	26	25	25	39	219	452	910	298	69	21	12
6	15	26	25	15	38	302	436	783	272	57	19	14
7	15	22	35	10	38	266	399	769	252	54	19	17
8	15	16	47	10	37	292	396	734	240	50	18	18
9	15	19	44	15	36	313	492	734	240	48	18	16
10	16	17	36	20	35	279	627	708	249	43	18	15
11	16	19	32	20	34	338	555	660	260	41	16	16
12	17	21	28	20	34	403	510	672	232	40	16	15
13	16	29	26	25	33	540	798	734	216	38	16	14
14	16	29	29	30	30	525	1,290	902	199	35	15	14
15	18	32	30	30	30	423	1,560	862	196	30	14	13
16	18	32	32	35	30	431	1,110	798	214	30	13	13
17	18	28	31	35	31	448	798	798	235	28	13	12
18	19	28	29	30	29	466	714	769	209	28	12	11
19	20	26	33	20	30	334	741	690	224	29	11	12
20	17	25	33	15	30	288	741	622	249	24	11	13
21	18	26	32	15	30	241	806	590	257	24	10	16
22	18	26	34	20	31	256	748	600	229	22	9	17
23	19	15	40	25	34	247	638	580	216	22	9	16
24	19	8	45	30	37	266	545	560	194	22	9	16
25	19	10	41	30	40	263	545	565	169	22	9	16
26	20	14	34	30	43	285	660	530	154	22	9	17
27	20	11	34	35	47	302	854	520	139	22	9	18
28	21	10	33	35	50	327	762	515	128	38	9	18
29	20	10	33	30	-	310	622	460	115	30	9	18
30	21	10	24	25	-	338	565	396	113	24	9	18
31	21	-	22	25	-	554	-	361	-	24	11	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	540	21	14	17.4	1,070
November	606	32	8	20.2	1,200
December	952	47	10	30.7	1,890
Calendar year 1936	64,281	1,870	6	176	127,500
January	726	35	10	23.4	1,440
February	985	50	29	35.2	1,950
March	9,619	554	59	310	19,080
April	21,388	1,560	396	713	42,420
May	20,976	1,010	361	677	41,610
June	6,875	354	113	229	13,640
July	1,267	102	22	40.9	2,510
August	450	26	9	14.5	893
September	448	18	11	14.9	889
Water year 1936-37	64,832	1,560	8	178	128,600

Fox Creek at gorge near Fox, Oreg.

(The lower portion 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 1937.

Extremes.- Maximum discharge during year, 328 second-feet Mar. 14 (gage height, 3.04 feet), from rating curve extended above 140 second-feet; no flow at times.
1930-37: Maximum discharge, 800 second-feet Mar. 18, 1932 (gage height, 4.55 feet); no flow at times.

Remarks.- Records fair. Practically no flow Oct. 1 to Dec. 21. Discharge for January, February, August, and September estimated. Stage apparently affected by ice Dec. 1-21, Jan. 1-5, Jan. 7 to Feb. 28. Several diversions for irrigation in valley above station.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1			0			0.1	264	66	2.6	1.3		
2			0			.6	160	96	2.3	1.0		
3			0			.2	89	135	1.8	.6		
4			0			.2	72	164	1.2	.4		
5			0			.4	68	141	.8	.3		
6			0	*0.1		.8	68	117	.6	.2		
7			0			.5	62	104	.3	.2		
8			0			14	66	96	.2	.2		
9			0			137	97	92	.4	.1		
10			0			156	103	92	.9	.4		
11			0			106	76	85	1.6	.2	†0.1	
12			0			218	70	76	3.0	.1		
13			0			254	171	74	3.2	.1		
14			0			236	259	80	3.0	.1		
15			0			222	274	76	2.9	.1		
16			0			215	175	62	6.9	.1		
17			0			177	112	53	11	.1		
18			0			139	97	48	11	.1		
19			0			89	84	44	9.6	.1		
20			0			60	92	35	12	.1		
21			0			45	103	30	13	.1		
22			1.7			40	110	18	12	.1		
23			4.8			34	87	18	11	.1		
24			4.8			43	66	19	7.4	.1		
25			2.3			94	63	17	5.5	.1		
26			1.2			127	84	16	4.4	.2		
27			.7			108	121	13	3.4	.3		
28			.6			90	110	11	2.8	.2		
29			.4			74	79	10	2.0	.1		
30			.3			90	63	5.0	1.7	.1		
31			.3			134	-	2.2	-	.1		

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	17.1	4.8	0	.55	34
Calendar year 1936	6,526.8	300	0	17.8	12,940
January	3.1	-	-	.10	6.1
February	2.8	-	-	.10	5.6
March	2,904.8	254	.1	93.7	5,760
April	3,355	274	62	112	6,650
May	1,895.2	164	2.2	61.1	3,760
June	138.5	13	.2	4.62	275
July	7.3	1.3	.1	.24	14
August	1.6	-	-	.05	3.2
September	1.5	-	-	.05	3.0
Water year 1936-37	8,326.9	274	0	22.8	16,510

*Stage-discharge relation not affected by ice.
†Discharge measurement.

Crane Prairie Reservoir near Lapine, Oreg.

Location.- Staff gage, lat. 43°45', long. 121°47', in NW¼ sec. 16, T. 21 S., R. 8 E., at Crane Prairie Reservoir dam, 15 miles northwest of Lapine. Zero of gage is 4,400.0 feet above mean sea level.

Records available.- November 1922 to September 1937.

Extremes.- Maximum contents observed during year, 41,660 acre-feet Apr. 22-25 (gage height, 42.12 feet); minimum, 2,074 acre-feet Sept. 6 (gage height, 30.48 feet).
1922-37: Maximum contents, 50,830 acre-feet Jan. 10-13, 1924 (gage height, 44.10 feet); no storage at times.

Remarks.- Records good. Gage read once daily except Dec. 15-27, Dec. 29 to Apr. 15, Apr. 17-19 when no readings were made. Reservoir completed by North Canal Co. in 1922; gates first closed Nov. 4, 1922. Capacity of reservoir is 55,200 acre-feet at gage height 45 feet (spillway crest). Contents given are those above gage height 28.4 feet. Stored water is used for irrigation of lands near Bend and Redmond.

Stage and contents, water year October 1936 to September 1937

Date	Gage height (feet)	Contents (acre-feet)	Change in contents during month (acre-feet)
Sept. 30.....	36.30	18,400	-
Oct. 31.....	36.36	18,610	+210
Nov. 30.....	38.75	27,510	+8,900
Dec. 31.....	40.10	*33,910	+6,400
Apr. 30.....	42.00	41,120	†+7,210
May 31.....	41.04	36,920	-4,200
June 30.....	39.90	32,130	-4,790
July 31.....	35.00	13,980	-18,150
Aug. 31.....	31.00	3,079	-10,901
Sept. 30.....	31.10	3,286	+207
The year.....	-	-	-15,114

*Extrapolated.
†Dec. 31 to Apr. 30.

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 below Crane Prairie Dam and 15 miles northwest of Lapine.

Records available.- January 1914 to June 1917, and February 1922 to September 1937.

Average discharge.- 16 years (1914-15, 1922-37), 201 second-feet.

Extremes.- Maximum discharge during year, 538 second-feet July 12, 13 (gage height, 2.30 feet); minimum discharge observed, 16 second-feet Jan. 7-16 (gage height, 0.43 foot).

1914-17, 1922-37: Maximum discharge, 604 second-feet Apr. 18, 1924 (gage height, 2.40 feet); minimum, 2.5 second-feet Apr. 24, 1923, caused by closing of dam (gage height, 0.05 foot).

Remarks.- Records good except those for periods of missing gage heights, Oct. 24-28 (interpolated), Jan. 20-31 (extrapolated), Feb. 1 to Apr. 15 (estimated), all of which are fair. Shifting-control method used Apr. 16 to May 6, July 6 to Sept. 30. Flow partly regulated since Nov. 4, 1922, by storage in Crane Prairie Reservoir.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	250	84	18	18				107	307	426	438	363
2	250	56	18	18				107	328	426	434	359
3	247	36	18	18				107	348	438	434	359
4	247	24	19	18				110	374	455	434	356
5	247	24	19	17				105	399	463	426	352
6	247	24	19	17				105	399	471	418	310
7	247	23	18	16				107	403	484	426	218
8	240	22	18	16			30	120	407	484	438	103
9	234	22	18	16				117	403	497	446	134
10	234	21	18	16				122	399	506	446	224
11	234	21	18	16				127	352	529	446	224
12	231	20	18	16				191	286	538	438	224
13	228	20	18	16				218	286	538	442	228
14	224	19	18	16				218	286	529	438	228
15	218	19	18	16				218	266	524	434	228
16	209	19	18	16			36	218	228	510	438	228
17	206	18	17	17			40	234	228	488	438	231
18	200	18	17	17			40	263	224	488	434	231
19	194	18	17	17			41	266	224	476	434	231
20	194	18	17				41	266	224	471	426	231
21	194	18	17				52	260	224	480	418	234
22	194	17	17				68	260	221	484	411	234
23	194	18	17				74	260	218	493	407	234
24	194	17	17				107	273	218	497	399	234
25	194	17	18	17			132	307	250	497	396	231
26	194	16	18				132	310	331	497	388	234
27	194	17	18				132	307	345	493	384	234
28	194	17	18				120	307	396	497	377	228
29	194	17	18				110	307	418	488	377	231
30	185	18	18				112	307	422	446	370	231
31	124	-	18				-	307	-	442	366	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	6,636	250	124	214	13,160
November	698	84	16	23.3	1,380
December	553	19	17	17.8	1,100
Calendar year 1936	62,474	501	16	171	123,900
January	521	18	16	16.8	1,030
February	560	-	-	20	1,110
March	775	-	-	25	1,540
April	1,687	132	-	56.2	3,350
May	6,531	310	105	211	12,950
June	9,414	422	218	314	18,670
July	15,055	538	426	486	29,860
August	13,001	446	366	419	25,790
September	7,387	363	103	246	14,650
Water year 1936-37	62,818	538	16	172	124,600

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 above bridge at Pringle Falls and 7 miles northwest of Lapine.

Records available.- December 1915 to June 1917, June 1922 to September 1937.

Average discharge.- 14 years (1923-37), 716 second-feet.

Extremes.- Maximum discharge during year, 1,060 second-feet July 26 (gage height, 2.51 feet); minimum, 585 second-feet Nov. 18-21, Apr. 7 (gage height, 1.47 feet).
1915-17, 1922-37: Maximum discharge, 1,170 second-feet June 21-27, 29, 30, 1917; minimum, 341 second-feet Feb. 1-14, 1932, when recorder was stopped.

Remarks.- Records good except those for periods of missing gage heights, Nov. 22-29, Jan. 6 to Mar. 7, which were computed on basis of records for stations on Deschutes River between Benham Falls and Bend and are fair. No diversions above station. Flow regulated to small extent since 1922 by storage in Crane Prairie Reservoir.

Rating table, water year 1936-37 (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used July 7 to Sept. 30)

1.4	561
1.6	633
1.8	720
2.0	815
2.2	920
2.5	1,080

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	820	680	599	606		600	603	662	835	958	992	914
2	820	641	599	603		600	595	662	845	958	992	914
3	815	629	599	603		600	595	662	870	958	986	909
4	815	606	599	606		600	595	662	882	980	980	904
5	815	603	603	614		600	592	658	920	992	975	898
6	815	599	603			602	592	658	926	997	975	892
7	810	595	606			605	588	658	926	1,010	970	805
8	810	592	606			606	588	662	953	1,010	986	738
9	805	592	599			606	592	667	953	1,020	992	637
10	805	588	595			606	592	667	942	1,020	997	760
11	805	588	595			606	588	675	931	1,030	992	765
12	800	588	599			614	588	706	835	1,050	992	775
13	800	588	599			618	637	747	825	1,060	992	775
14	800	588	603			610	641	752	825	1,060	992	775
15	800	588	603			606	633	752	830	1,060	986	775
16	790	588	603			606	610	756	780	1,040	986	775
17	790	588	603			606	614	756	770	1,030	992	780
18	790	585	603			603	614	810	765	1,020	986	785
19	790	585	603	600		603	614	805	770	1,020	980	800
20	785	585	603			599	614	805	775	1,020	975	790
21	785	585	606			595	618	800	770	1,010	970	785
22	785	585	606			595	625	795	770	1,040	964	785
23	785	585	606			599	633	795	765	1,040	964	785
24	785	585	610			603	641	795	765	1,050	953	780
25	785	585	606			595	684	840	765	1,050	948	780
26	785	590	606			595	684	840	835	1,050	942	780
27	780	595	606			595	684	840	860	1,050	936	780
28	770	597	606			595	684	835	892	1,040	936	775
29	770	599	606			595	667	835	942	1,050	926	775
30	756	599	610			595	662	835	953	1,010	926	775
31	724	-	606			599	-	835	-	997	926	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	24,590	820	724	793	48,770
November	17,901	680	585	597	35,510
December	18,696	610	595	603	37,080
Calendar year 1936	273,610	1,080	554	748	542,700
January	18,632	614	-	601	36,960
February	16,800	-	-	600	33,320
March	18,657	618	595	602	37,010
April	18,667	684	588	622	37,030
May	23,227	840	658	749	46,070
June	25,475	953	765	849	50,530
July	31,680	1,060	958	1,022	62,840
August	30,109	997	926	971	59,720
September	23,966	914	637	799	47,540
Water year 1936-37	268,400	1,060	585	735	532,400

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 above head of Benham Falls, 1½ miles below 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, and February 1924 to September 1937, July 1906 to February 1909, and April to September 1914, at West ranch, 7 miles upstream.

Average discharge.- 20 years (1906-13, 1924-37), 1,365 second-feet. (Discharge for water-year 1905-6, formerly included in computation of average discharge, omitted because records for that year are not equivalent to those for other years.)

Extremes.- Maximum discharge during year, 1,680 second-feet July 28 (gage height, 1.98 feet); minimum discharge observed, 913 second-feet Dec. 1 (gage height, 0.42 foot). 1906-13, 1920-21, 1924-37: 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 missing gage heights, Jan. 6 to Mar. 2, which were computed on basis of weather records and records for stations below Lava Island and below Bend. Shifting-control method used most of year. Minor diversions for irrigation above station. Some regulation since 1922 caused by storage in Crane Prairie and Crescent Lake Reservoirs.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,160	1,120	937	990	1,010	980	1,060	1,240	1,420	1,440	1,620	1,390
2	1,160	1,040	954	986	1,020	980	1,060	1,240	1,420	1,440	1,590	1,360
3	1,160	1,020	950	981	1,020	981	1,060	1,240	1,420	1,440	1,590	1,360
4	1,160	990	954	981	1,010	986	1,090	1,240	1,420	1,420	1,590	1,360
5	1,160	981	958	990	1,010	990	1,090	1,260	1,420	1,440	1,590	1,340
6	1,160	968	976	970	1,000	1,020	1,060	1,260	1,440	1,470	1,590	1,340
7	1,160	972	990	950	980	1,020	1,060	1,260	1,440	1,530	1,560	1,320
8	1,160	968	990	945	970	1,020	1,040	1,260	1,470	1,530	1,560	1,240
9	1,160	954	990	950	965	1,020	1,040	1,260	1,500	1,530	1,560	1,140
10	1,140	941	981	965	970	1,040	1,040	1,260	1,530	1,530	1,560	1,090
11	1,140	933	976	980	970	1,040	1,040	1,260	1,560	1,560	1,590	1,160
12	1,140	933	981	990	970	1,090	1,040	1,260	1,560	1,590	1,590	1,190
13	1,140	937	981	995	965	1,120	1,090	1,340	1,470	1,620	1,590	1,160
14	1,140	945	976	1,000	965	1,140	1,190	1,360	1,470	1,650	1,560	1,160
15	1,140	954	976	1,000	970	1,160	1,240	1,360	1,470	1,650	1,560	1,160
16	1,140	958	972	995	970	1,160	1,290	1,340	1,440	1,650	1,560	1,160
17	1,140	963	976	990	975	1,140	1,320	1,340	1,390	1,620	1,530	1,160
18	1,140	963	981	985	975	1,140	1,340	1,390	1,360	1,620	1,530	1,160
19	1,140	958	976	980	970	1,120	1,290	1,420	1,360	1,620	1,530	1,190
20	1,140	958	976	980	970	1,120	1,240	1,420	1,360	1,590	1,500	1,190
21	1,140	954	981	980	965	1,060	1,220	1,470	1,360	1,590	1,470	1,190
22	1,140	954	990	985	970	1,060	1,240	1,470	1,390	1,620	1,470	1,190
23	1,140	954	990	990	970	1,040	1,260	1,440	1,390	1,620	1,470	1,160
24	1,140	954	1,020	995	970	1,040	1,260	1,420	1,360	1,620	1,440	1,160
25	1,140	937	990	1,000	970	1,040	1,260	1,420	1,340	1,620	1,440	1,160
26	1,140	933	990	1,000	970	1,040	1,290	1,440	1,340	1,650	1,420	1,160
27	1,140	937	990	1,010	975	1,040	1,320	1,440	1,390	1,650	1,420	1,160
28	1,140	941	990	1,010	975	1,040	1,320	1,440	1,390	1,650	1,390	1,160
29	1,140	945	990	1,000	-	1,040	1,290	1,440	1,420	1,650	1,390	1,160
30	1,140	945	990	1,000	-	1,040	1,260	1,440	1,440	1,650	1,390	1,160
31	1,140	-	990	1,000	-	1,040	-	1,420	-	1,650	1,390	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	35,520	1,160	1,140	1,146	70,450
November	28,910	1,120	933	964	57,340
December	30,362	1,020	937	979	60,220
Calendar year 1936	448,633	1,710	910	1,226	889,800
January	30,573	1,010	945	986	60,640
February	27,420	1,020	965	979	54,390
March	32,747	1,160	980	1,056	64,950
April	35,400	1,340	1,040	1,180	70,210
May	41,850	1,470	1,240	1,350	83,010
June	42,740	1,560	1,340	1,425	84,770
July	48,910	1,650	1,420	1,578	97,010
August	47,040	1,620	1,390	1,517	93,300
September	36,290	1,390	1,090	1,210	71,980
Water year 1936-37	437,762	1,650	933	1,199	868,300

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 below Lava Island, 1 mile below intake of Arnold Canal, and 6 miles southwest of Bend.

Records available.- March 1926 to September 1937.

Average discharge.- 11 years, 1,049 second-feet.

Extremes.- Maximum discharge during year, 1,600 second-feet July 14 (gage height, 1.42 feet); minimum, 710 second-feet Jan. 6 (ice jam upstream).
1926-37: Maximum discharge, 1,780 second-feet Jan. 3, 1928 (gage height, 1.55 feet); minimum, 612 second-feet Feb. 9, 1933 (gage height, 0.16 foot).

Remarks.- Records good except those for periods of ice effect, Jan. 6 to Feb. 18, Feb. 27 to Mar. 3, which were computed on basis of weather records and records for stations in Deschutes River Basin between Benham Falls and Bend and are poor. Arnold Canal diverts water for irrigation above station. Flow regulated by storage in Crescent Lake and Crane Prairie Reservoir.

Rating table, water year 1936-37 except periods of ice effect (gage height, in feet, and discharge in second-feet)
(Shifting-control method used July 15 to Sept. 30)

0.2	658
.4	765
.6	898
.8	1,050
1.0	1,220
1.2	1,400
1.4	1,580

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,020	1,020	849	863	885	895	943	1,070	1,230	1,280	1,440	1,260
2	1,020	973	870	863	910	900	958	1,070	1,230	1,280	1,440	1,260
3	1,010	936	863	856	920	900	958	1,050	1,220	1,270	1,440	1,260
4	1,010	928	856	856	890	891	973	1,050	1,220	1,260	1,440	1,250
5	1,010	906	827	870	865	877	966	1,050	1,220	1,260	1,440	1,230
6	1,000	891	822	790	855	884	958	1,070	1,250	1,360	1,430	1,220
7	1,000	891	828	790	850	884	950	1,080	1,260	1,340	1,420	1,210
8	1,000	884	851	795	855	906	950	1,070	1,270	1,360	1,410	1,140
9	1,000	877	884	805	860	936	950	1,090	1,300	1,360	1,420	1,060
10	996	863	877	825	865	950	958	1,090	1,340	1,360	1,420	950
11	996	849	870	845	870	958	958	1,090	1,370	1,380	1,420	1,030
12	1,000	849	877	860	865	981	966	1,090	1,380	1,420	1,430	1,050
13	1,000	849	877	875	865	1,020	1,010	1,130	1,330	1,440	1,430	1,040
14	1,000	856	870	885	860	1,030	1,100	1,180	1,300	1,490	1,420	1,040
15	996	863	870	890	865	1,070	1,130	1,170	1,300	1,450	1,410	1,020
16	996	870	870	880	870	1,070	1,180	1,170	1,290	1,460	1,410	1,010
17	988	877	870	870	880	1,040	1,180	1,170	1,250	1,450	1,400	1,010
18	988	877	863	865	880	1,030	1,210	1,180	1,230	1,450	1,390	1,010
19	996	877	863	860	877	1,010	1,210	1,230	1,210	1,440	1,380	1,030
20	988	870	863	855	870	966	1,110	1,250	1,210	1,410	1,370	1,040
21	988	870	863	850	870	928	1,070	1,270	1,210	1,410	1,360	1,040
22	988	826	870	855	870	936	1,070	1,610	1,240	1,410	1,340	1,030
23	988	809	877	860	877	928	1,080	1,260	1,240	1,420	1,330	1,030
24	988	829	884	870	877	913	1,090	1,220	1,230	1,430	1,320	1,030
25	988	849	877	880	884	913	1,090	1,210	1,210	1,430	1,310	1,020
26	988	842	877	890	884	906	1,090	1,240	1,200	1,440	1,300	1,020
27	988	842	870	895	885	906	1,110	1,250	1,240	1,450	1,280	1,010
28	981	856	870	900	890	906	1,110	1,250	1,250	1,450	1,270	1,010
29	973	856	870	900	-	913	1,120	1,240	1,260	1,450	1,270	1,010
30	973	849	870	895	-	913	1,090	1,230	1,270	1,450	1,260	1,010
31	1,000	-	870	885	-	928	-	1,240	-	1,440	1,260	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	30,857	1,020	973	995	61,200
November	26,234	1,020	809	874	52,030
December	26,818	884	822	865	53,190
Calendar year 1936	391,805	1,440	809	1,071	777,100
January	26,678	900	790	861	52,920
February	24,494	920	850	875	48,580
March	29,288	1,070	877	945	58,090
April	31,538	1,210	943	1,051	62,550
May	36,070	1,310	1,050	1,164	71,540
June	37,760	1,380	1,200	1,259	74,900
July	43,300	1,490	1,260	1,397	85,890
August	42,660	1,440	1,260	1,376	84,610
September	32,330	1,260	950	1,078	64,130
Water year 1936-37	388,027	1,490	790	1,060	769,600

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 below North Canal Dam and 2 miles north of Bend.

Records available.- October 1914 to September 1937.

Average discharge.- 23 years, 693 second-feet.

Extremes.- Maximum discharge during year, 1,080 second-feet Apr. 18 (gage height, 2.95 feet); minimum, 22 second-feet Oct. 11 (gage height, 0.95 foot).
1914-37: Maximum discharge, 2,500 second-feet Dec. 7, 1921 (gage height, 3.9 feet); minimum, 1 second-foot Aug. 25, 1930.
Maximum known discharge since 1905, of river near this point, 4,820 second-feet Nov. 27, 1909.

Remarks.- Records good except those for periods of missing gage heights, Dec. 2, 8-10, Jan. 10-12, 14-24, and periods of ice effect, Jan. 6-9, 13, 25-28, which were computed on basis of records for Deschutes River below Lava Island, near Bend, and diversions and are fair. Six large canals divert above station. Flow regulated by hydroelectric plant at Bend and, since 1922, by storage in Crescent Lake and Crane Prairie Reservoirs.

Rating table, water year 1935-37 except periods of ice effect (gage height, in feet, and discharge, in second-feet)

0.9	18	1.8	221
1.0	27	2.1	390
1.2	51	2.4	605
1.4	88	2.7	850
1.6	143	3.0	1,120

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	105	516	895	922	922	696	976	332	84	115	143	115
2	107	474	895	931	967	769	967	264	115	118	131	112
3	98	530	895	949	976	895	976	131	107	112	124	110
4	110	523	704	922	967	877	994	121	107	107	121	112
5	105	509	680	931	931	895	985	107	102	105	118	105
6	110	502	474	920	886	886	904	110	118	137	112	102
7	112	509	358	910	868	859	744	107	118	95	110	110
8	110	523	358	895	868	850	744	98	131	105	107	107
9	115	530	831	900	877	949	744	100	154	100	107	102
10	107	523	925	915	886	967	744	105	179	105	115	58
11	102	509	913	930	886	841	744	102	221	110	115	84
12	95	509	922	935	850	658	744	107	240	105	115	100
13	105	516	895	885	832	688	752	112	198	110	115	100
14	110	516	877	745	859	720	769	140	172	143	112	105
15	107	530	877	725	886	760	769	137	187	124	110	107
16	100	538	859	745	886	913	823	121	226	118	107	107
17	105	530	850	795	760	895	832	118	221	115	105	105
18	100	530	850	795	796	877	922	118	168	115	110	98
19	98	516	895	830	841	850	1,040	200	112	105	107	121
20	102	516	895	910	787	895	904	358	105	102	102	124
21	110	530	895	915	778	940	832	161	102	98	100	121
22	107	523	931	920	769	949	832	179	107	105	100	118
23	105	502	922	930	752	958	841	128	143	105	100	124
24	110	516	949	940	728	958	841	115	124	112	115	121
25	107	545	949	945	680	958	760	118	105	121	110	128
26	110	665	958	950	642	949	612	128	105	131	110	143
27	105	680	940	955	620	958	620	134	128	134	107	137
28	107	736	931	960	650	967	612	134	115	143	107	134
29	107	904	931	960	-	976	552	128	115	137	107	134
30	100	922	940	985	-	967	453	175	124	140	110	131
31	161	-	940	994	-	967	-	128	-	134	112	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	3,332	161	95	107	6,610
November	16,972	922	474	562	33,470
December	26,134	958	358	843	51,840
Calendar year 1936	174,149	1,060	78	476	345,400
January	27,934	994	725	901	55,410
February	23,150	976	620	827	45,920
March	27,287	976	658	880	54,120
April	24,032	1,040	453	801	47,670
May	4,516	358	98	146	8,960
June	4,231	240	84	141	8,390
July	3,606	143	95	116	7,150
August	3,464	143	100	112	6,870
September	3,375	143	68	112	6,690
Water year 1936-37	167,933	1,040	58	460	333,100

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 below Pelton dam site, 4 miles above mouth of Shitike Creek and 9 miles northwest of Madras. Zero of gage is about 1,404 feet above mean sea level (Geological Survey river profile).

Records available.- October 1923 to September 1937.

Average discharge.- 14 years, 4,125 second-feet.

Extremes.- Maximum discharge during year, 9,730 second-feet Apr. 17 (gage height, 5.34 feet); minimum, 3,230 second-feet Oct. 17 (gage height, 1.63 feet).
1923-37: Maximum discharge, 10,700 second-feet Feb. 6, 1925 (gage height, 6.54 feet, former site and datum); minimum, 2,960 second-feet Aug. 15, 1931.

Remarks.- Records excellent. Discharge for July 8-10 interpolated. Diversions for irrigation in upper river basin.

Rating table, water year 1935-37 (gage height, in feet, and discharge, in second-feet)

1.6	3,190
1.9	3,610
2.2	4,050
2.6	4,680
3.0	5,340
3.5	6,210
4.0	7,120
5.0	9,090

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	3,340	3,400	4,120	4,120	4,120	3,980	4,760	4,840	3,820	4,050	3,470	3,390
2	3,340	3,680	4,120	4,050	4,200	4,120	4,840	4,920	3,750	4,050	3,430	3,390
3	3,330	3,680	4,050	4,120	4,280	4,200	5,080	5,170	3,900	3,900	3,430	3,390
4	3,340	3,750	4,120	4,200	4,440	4,280	5,170	5,340	3,900	3,900	3,400	3,400
5	3,340	3,750	4,050	4,200	4,280	4,280	4,920	5,340	3,820	3,900	3,410	3,400
6	3,340	3,680	3,900	3,980	4,280	4,280	4,920	5,080	3,750	3,820	3,400	3,530
7	3,360	3,680	3,820	3,680	4,200	4,280	4,760	4,760	3,750	3,750	3,390	3,470
8	3,360	3,680	3,750	3,680	4,200	4,280	4,680	4,600	3,820	3,720	3,390	3,440
9	3,340	3,750	3,750	3,820	4,200	4,280	4,680	4,520	3,900	3,680	3,370	3,410
10	3,340	3,750	4,120	3,900	4,200	4,440	4,760	4,360	3,900	3,640	3,360	3,390
11	3,340	3,680	4,120	4,050	4,280	4,600	5,170	4,360	3,820	3,610	3,390	3,360
12	3,330	3,680	4,120	4,120	4,280	4,520	5,170	4,280	3,820	3,610	3,390	3,300
13	3,320	3,750	4,120	4,200	4,200	4,600	5,510	4,280	3,900	3,610	3,390	3,340
14	3,320	3,750	4,120	4,280	4,200	4,840	6,210	4,280	3,900	3,600	3,360	3,340
15	3,290	3,750	4,120	4,120	4,200	5,080	8,080	4,360	3,980	3,600	3,360	3,360
16	3,290	3,750	4,200	3,980	4,200	5,170	9,090	4,280	4,120	3,600	3,340	3,360
17	3,300	3,750	4,200	4,120	4,200	5,080	8,880	4,200	4,280	3,580	3,360	3,340
18	3,320	3,750	4,200	4,120	4,120	5,000	6,750	4,120	4,120	3,610	3,360	3,330
19	3,320	3,750	4,200	4,120	4,120	4,920	6,390	4,120	4,520	3,580	3,360	3,470
20	3,330	3,750	4,200	4,050	4,120	4,760	6,210	4,120	4,920	3,550	3,360	3,370
21	3,320	3,750	4,200	3,900	4,120	4,680	6,210	4,200	5,340	3,550	3,340	3,390
22	3,320	3,750	4,200	4,050	4,120	4,600	6,390	3,980	5,260	3,540	3,340	3,370
23	3,330	3,750	4,280	4,200	4,120	4,520	6,020	4,050	5,000	3,530	3,370	3,370
24	3,330	3,750	4,200	4,280	4,120	4,520	5,680	3,980	4,600	3,540	3,340	3,370
25	3,320	3,750	4,200	4,200	4,050	4,520	5,510	4,050	4,520	3,550	3,360	3,370
26	3,320	3,820	4,200	4,280	4,050	4,520	5,510	3,980	4,280	3,570	3,370	3,370
27	3,330	3,900	4,200	4,280	3,980	4,680	5,680	3,900	4,120	3,550	3,360	3,390
28	3,320	3,900	4,120	4,200	3,980	4,680	5,510	3,980	4,120	3,550	3,340	3,390
29	3,330	3,980	4,200	4,200	-	4,680	5,260	3,900	4,120	3,550	3,340	3,370
30	3,330	4,050	4,200	4,200	-	4,680	4,920	3,820	4,120	3,570	3,360	3,370
31	3,320	-	4,120	4,200	-	4,680	-	3,820	-	3,530	3,400	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	103,160	3,360	3,290	3,328	204,600
November	112,560	4,050	3,400	3,752	223,300
December	127,520	4,280	3,750	4,114	252,900
Calendar year 1936	1,519,890	8,000	3,290	4,153	3,014,000
January	126,900	4,280	3,680	4,094	251,700
February	116,860	4,440	3,980	4,174	231,800
March	141,750	5,170	3,980	4,573	281,200
April	172,720	9,090	4,680	5,757	342,600
May	134,990	5,340	3,820	4,355	267,700
June	125,170	5,340	3,750	4,172	248,300
July	113,390	4,050	3,530	3,658	224,900
August	104,640	3,470	3,340	3,375	207,600
September	101,540	3,530	3,300	3,385	201,400
Water year 1936-37	1,461,200	9,090	3,290	4,058	2,938,000

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 above mouth and 5 miles southwest of Biggs. Zero of gage is 167.43 feet above mean sea level (general adjustment of 1929).

Drainage area.- 10,500 square miles.

Records available.- July 1906 to September 1937. October 1897 to December 1899 at site near Moro, 10 miles above mouth.

Average discharge.- 32 years (1898-99, 1906-37), 5,848 second-feet.

Extremes.- Maximum discharge during year, 13,300 second-feet Apr. 17 (gage height, 4.75 feet); minimum, 3,760 second-feet Sept. 13.
1897-99, 1906-37: Maximum discharge, 43,600 second-feet Jan. 7, 1923 (gage height, 10.2 feet); minimum, 3,380 second-feet Sept. 16-19, 1931 (gage height, 2.06 feet).

Remarks.- Records excellent. Diversions for irrigation in upper river basin. Water-stage recorder inspected by agent of Eastern Oregon Land Co.

Rating tables, water year 1936-37 (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Oct. 9 to Dec. 15)

Oct. 1 to Dec. 15		Dec. 16 to Sept. 30			
2.2	3,830	2.2	3,710	3.7	8,600
2.4	4,340	2.5	4,490	4.1	10,200
2.6	4,890	2.8	5,380	4.5	12,000
		3.1	6,370	5.0	14,200
		3.4	7,450		

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	3,900	3,810	4,390	4,550	4,490	4,780	5,860	6,370	5,230	5,080	3,950	3,900
2	3,880	3,960	4,480	4,460	4,490	5,380	6,030	6,370	5,230	5,080	3,900	3,880
3	3,880	4,130	4,500	4,380	4,640	5,700	6,030	6,900	5,380	4,930	3,880	3,880
4	3,900	4,110	4,450	4,520	4,930	5,540	6,200	7,640	5,540	4,750	3,880	3,880
5	3,900	4,130	4,480	4,660	5,230	5,380	6,200	7,830	5,380	4,720	3,850	3,900
6	3,900	4,130	4,480	4,490	4,750	5,540	6,030	7,450	5,230	4,660	3,880	3,900
7	3,880	4,130	4,310	4,180	4,640	5,380	5,860	7,080	5,080	4,490	3,850	4,000
8	3,880	4,130	4,340	3,980	4,610	5,230	5,540	6,720	5,080	4,430	3,850	3,930
9	3,860	4,130	4,240	4,000	4,610	5,080	5,700	6,540	5,230	4,380	3,850	3,900
10	3,860	4,130	4,240	4,130	4,610	5,230	5,700	6,370	5,230	4,320	3,850	3,880
11	3,860	4,130	4,560	4,290	4,610	5,380	6,030	6,370	5,080	4,290	3,850	3,850
12	3,860	4,130	4,530	4,460	4,780	5,540	6,370	6,370	5,080	4,270	3,880	3,810
13	3,830	4,130	4,530	4,490	4,780	6,030	6,720	6,370	4,930	4,240	3,850	3,810
14	3,830	4,130	4,560	4,660	4,660	6,370	9,000	6,540	4,930	4,210	3,850	3,810
15	3,830	4,160	4,530	4,720	4,640	6,370	11,000	6,720	5,080	4,180	3,830	3,830
16	3,830	4,160	4,580	4,490	4,690	6,370	12,400	6,720	5,230	4,160	3,830	3,810
17	3,830	4,160	4,610	4,430	4,930	6,370	12,800	6,370	5,380	4,130	3,810	3,810
18	3,830	4,180	4,640	4,550	4,930	6,200	10,800	6,200	5,380	4,130	3,810	3,810
19	3,830	4,160	4,720	4,550	4,720	6,030	8,800	6,200	5,540	4,160	3,810	3,830
20	3,830	4,160	4,660	4,430	4,660	5,860	8,600	6,030	6,200	4,110	3,810	3,930
21	3,830	4,160	4,640	4,270	4,780	5,700	8,400	6,030	7,260	4,050	3,810	3,830
22	3,810	4,160	4,660	4,210	5,230	5,700	8,400	5,860	7,450	4,030	3,810	3,830
23	3,810	4,160	4,780	4,520	5,080	5,540	8,210	5,860	6,900	4,000	3,830	3,830
24	3,810	4,110	4,930	4,690	4,930	5,380	7,640	5,860	6,370	4,000	3,850	3,830
25	3,810	4,130	4,750	4,640	4,930	5,700	7,080	5,700	5,860	4,000	3,830	3,830
26	3,810	4,160	4,720	4,660	4,780	5,700	7,080	6,030	5,700	4,050	3,850	3,830
27	3,810	4,180	4,690	4,690	4,780	5,700	7,450	5,700	5,380	4,050	3,850	3,850
28	3,810	4,240	4,640	4,640	4,780	5,700	7,260	5,700	5,230	4,030	3,830	3,850
29	3,810	4,240	4,580	4,610	-	5,700	7,080	5,540	5,230	3,980	3,830	3,850
30	3,810	4,370	4,610	4,550	-	5,700	6,720	5,380	5,230	4,000	3,850	3,850
31	3,810	-	4,610	4,490	-	5,700	-	5,230	-	3,980	3,880	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	119,130	3,900	3,810	3,843	236,300
November	124,200	4,370	3,810	4,140	246,300
December	141,440	4,930	4,240	4,563	280,500
Calendar year 1936	1,880,490	11,000	3,810	5,138	3,730,000
January	138,390	4,720	3,980	4,464	274,500
February	133,690	5,230	4,490	4,775	265,200
March	175,980	6,370	4,780	5,677	349,100
April	226,990	12,800	5,540	7,566	450,200
May	196,050	7,830	5,230	6,324	388,900
June	166,050	7,450	4,930	5,535	329,400
July	132,890	5,080	3,980	4,287	263,600
August	119,290	3,950	3,810	3,848	236,600
September	115,730	4,000	3,810	3,858	229,500
Water year 1936-37	1,789,830	12,800	3,810	4,904	3,550,000

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. Zero of gage is 4,778.83 feet above mean sea level (general adjustment of 1929).

Drainage area.- 39 square miles.

Records available.- August 1911 to August 1914 (incomplete), December 1923 to June 1924, May 1933 to September 1937.

Extremes.- Maximum discharge during year, 256 second-feet June 21, 22 (gage height, 1.18 feet); minimum, 20 second-feet Aug. 30 (gage height, 0.31 foot).
1911-14, 1923-24, 1933-37: Maximum discharge, 390 second-feet June 14, 1912, Jan. 4, 1936; minimum, 12 second-feet some time during September 7-30, 1934, when clock was stopped.

Remarks.- Records fair. Discharge computed by shifting-control method. No diversions above station. Flow regulated at times by debris collecting on fish racks or by use of boards to change lake level at summer-resort docks at outlet of Odell Lake.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	29	29	30	54	74	59	54	59	135	142	36	24
2	30	26	30	50	76	62	52	62	135	132	35	25
3	30	26	29	49	76	59	52	64	135	124	35	26
4	29	27	29	54	85	54	54	69	135	121	35	27
5	29	28	36	62	88	54	57	66	138	110	35	26
6	28	27	42	54	82	50	59	66	138	104	34	27
7	29	26	50	50	82	49	57	66	142	98	33	27
8	29	26	64	47	85	47	54	66	157	95	32	28
9	29	26	62	46	82	47	54	69	172	92	30	27
10	30	27	59	47	79	46	57	74	176	88	29	27
11	30	28	54	46	79	44	57	79	176	82	30	27
12	32	28	52	38	76	44	57	82	172	73	32	28
13	33	29	49	41	74	46	85	82	161	76	30	27
14	34	30	47	50	71	46	107	85	153	71	29	29
15	30	30	46	57	69	44	114	92	157	66	27	30
16	28	32	46	66	69	44	110	95	169	66	26	30
17	27	33	47	69	74	42	101	98	172	64	27	29
18	27	33	49	76	79	44	95	121	169	62	27	33
19	28	34	47	74	82	46	88	128	180	57	26	36
20	27	33	47	66	79	47	82	128	212	57	27	38
21	25	33	47	64	79	47	82	128	242	52	26	35
22	25	32	49	62	79	47	82	128	242	50	26	35
23	26	32	50	62	76	49	76	132	242	49	26	32
24	27	30	57	66	66	54	74	135	212	43	25	29
25	26	30	57	64	64	54	71	146	192	50	25	29
26	27	30	59	71	59	52	69	146	176	52	26	30
27	27	30	62	79	57	52	66	146	165	54	25	29
28	27	30	59	76	57	49	66	150	157	50	23	30
29	27	30	54	76	-	47	64	150	153	47	22	28
30	29	29	59	71	-	47	62	142	150	43	22	27
31	30	-	57	71	-	49	-	135	-	41	25	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acre-feet
October	884	34	25	28.5	0.731	0.84	1,750
November	884	34	26	29.5	.756	.84	1,750
December	1,525	64	29	49.2	1.26	1.45	3,020
Calendar year 1936	26,131	280	23	71.4	1.83	24.88	51,820
January	1,858	79	38	59.9	1.54	1.78	3,690
February	2,098	88	57	74.9	1.92	2.00	4,160
March	1,521	62	42	49.1	1.26	1.45	3,020
April	2,158	114	52	71.9	1.84	2.05	4,280
May	3,189	150	59	103	2.64	3.04	6,330
June	5,115	242	135	170	4.36	4.86	10,150
July	2,326	142	41	75.0	1.92	2.21	4,610
August	896	36	22	28.6	.733	.85	1,760
September	875	38	24	29.2	.749	.84	1,740
Water year 1936-37	23,319	242	22	63.9	1.64	22.21	46,260

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, 1¾ miles north of Lapine. Zero of gage is 4,192.81 feet above mean sea level (general adjustment of 1929).

Records available.- September 1910 to October 1913 (incomplete), June to November 1918, August to October 1920, May 1924 to September 1937.

Average discharge.- 13 years (1924-37), 143 second-feet.

Extremes.- Maximum discharge during year, 435 second-feet Apr. 17 (gage height, 4.30 feet); minimum daily discharge, 21 second-feet Nov. 24 (gage height, 1.04 feet, probably caused by ice jam upstream).
1910-13, 1918, 1920, 1924-37: 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 ice effect or missing gage heights, Nov. 25 to Mar. 14, which were computed on basis of four discharge measurements, partial gage-height record, weather records, and records for Odell Creek near Crescent and Deschutes River at Pringle Falls, near Lapine, and are fair. Small diversions for irrigation above station. Flow regulated since August 1922 by storage in Crescent Lake Reservoir.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	36	38	32		34	58	113	237	237	147	272	128
2	35	37	36		32	60	134	244	216	134	272	128
3	34	33	42		30	60	136	258	196	122	272	110
4	32	34	37		30	65	124	272	182	113	272	104
5	31	50	37		34	68	118	279	182	196	272	101
6	30	46	40		40	72	111	286	182	230	272	100
7	30	42	45		40	75	100	286	176	196	265	98
8	28	38	52		40	80	94	279	182	182	258	96
9	28	32	56		40	85	96	279	230	212	258	94
10	28	34	52		38	95	106	265	286	230	258	93
11	28	40	50		36	105	116	265	308	235	272	74
12	29	44	46		36	115	108	279	300	235	265	62
13	30	47	42		38	130	127	279	279	235	251	57
14	30	46	40		40	150	244	272	258	258	244	55
15	31	43	40		42	163	345	272	258	231	230	53
16	32	50	40		40	158	405	272	258	231	216	54
17	31	43	40		36	163	420	272	258	214	202	52
18	32	46	40		30	140	308	286	237	237	189	52
19	31	38	40		28	134	272	315	223	237	182	62
20	30	38	40		28	108	258	360	244	237	170	70
21	30	41	40		30	104	272	330	286	230	163	76
22	30	39	42		35	93	293	300	286	223	158	72
23	30	34	45		40	81	272	272	270	223	153	64
24	31	30	47		45	80	258	265	250	230	149	61
25	31	25	50		50	80	258	272	230	237	147	59
26	31	30	52		52	79	279	272	209	214	144	57
27	31	32	48		55	85	293	265	189	238	136	56
28	33	28	48		55	88	272	265	170	236	129	55
29	35	30	46		-	89	251	251	154	272	127	54
30	37	34	46		-	96	237	244	150	235	125	54
31	38	-	45		-	102	-	244	-	272	127	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	973	38	28	31.4	1,930
November	1,142	50	25	38.1	2,270
December	1,356	56	32	43.7	2,690
Calendar year 1936	58,116	693	25	159	115,300
January	1,085	-	-	35	2,150
February	1,074	55	28	38.4	2,130
March	3,061	163	58	98.7	6,070
April	6,420	420	94	214	12,730
May	8,537	360	237	275	16,930
June	6,886	308	150	230	13,660
July	7,002	286	113	226	13,890
August	6,450	272	125	208	12,790
September	2,251	128	52	75.0	4,460
Water year 1936-37	46,237	420	28	127	91,700

Crescent Lake Reservoir near Crescent, Oreg.

Location.- Staff gage, lat. 43°30', long. 121°58', in sec. 11, T. 24 S., R. 6 E., at Crescent Lake Reservoir dam, 14 miles west of Crescent. Zero of gage is 4,826.0 feet above mean sea level.

Records available.- August 1922 to September 1937.

Extremes.- Maximum contents observed during year, 42,340 acre-feet July 3 (gage height, 11.71 feet); minimum, 19,270 acre-feet Sept. 9-25 (gage height, 5.45 feet).
1922-37: Maximum contents observed, 72,460 acre-feet July 15, 1923 (gage height, 19.55 feet); minimum, 9,640 acre-feet Oct. 21, 1931 (gage height, 2.75 feet).

Remarks.- Records good. Contents for Jan. 31 and Feb. 28 computed from readings presumably made to top of ice, and for July 31, from stage at gage affected by drawdown; auxiliary gage used Aug. 17-31. Contents given are those above zero of gage and elevation of gate sill. Water stored in Crescent Lake Reservoir, completed in 1922, is used for irrigation of lands near Tumalo by Deschutes County Municipal Improvement District, whose canal diverts from Deschutes River at Bend. Capacity of reservoir is 86,050 acre-feet at spillway crest at gage height 23.0 feet. Gage read once daily.

Stage and contents, water year October 1936 to September 1937

Date	Gage height (feet)	Contents (acre-feet)	Change in contents during month (acre-feet)
Sept. 30	6.0	21,260	-
Oct. 31	6.0	21,260	0
Nov. 30	6.1	21,620	+360
Dec. 31	6.4	22,700	+1,080
Jan. 31	7.3	24,340	+1,640
Feb. 28	7.4	25,840	+1,500
Mar. 31	7.7	27,430	+1,590
Apr. 30	7.9	28,170	+740
May 31	9.22	33,030	+4,860
June 30	11.60	41,920	+8,890
July 31	8.48	30,680	-11,240
Aug. 31	5.74	20,310	-10,370
Sept. 30	5.55	19,930	-680
The year	-	-	-1,630

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. 8 E., 100 yards below 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 1937.

Average discharge.- 12 years (1911-14, 1928-37), 37.9 second-feet.

Extremes.- Maximum discharge during year, 237 second-feet (regulated) Aug. 9 (gage height, 2.76 feet); no flow most of year.
1911-15, 1927-37: Maximum discharge, 313 second-feet July 9, 1929, Aug. 9, 1936; no flow at times.

Remarks.- Records excellent. Discharge for Aug. 25 interpolated. Flow regulated since 1922 by storage in Crescent Lake Reservoir, this storage being released July 3 to Sept. 9 for diversion through Deschutes County Municipal Improvement District Canal near Bend.

Rating table, July to September 1937 (gage height, in feet, and discharge, in second-feet)

0.0	0	1.5	89.3
.2	4.0	2.0	142
.4	10.8	2.6	216
.7	26.4	3.2	301
1.0	46.8		

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1										0	226	76
2										0	229	54
3										40	229	54
4										138	229	53
5										122	230	53
6										98	226	53
7										99	222	52
8										157	219	52
9										210	226	30
10										212	225	0
11										210	213	0
12										208	204	0
13										206	195	0
14										204	182	0
15										200	172	0
16										198	166	0
17										203	159	0
18										210	151	0
19										207	145	0
20										203	138	0
21										199	132	0
22										206	124	0
23										208	119	0
24										207	114	0
25										203	110	0
26										207	105	0
27										210	102	0
28										207	97	0
29										213	92	0
30										220	89	0
31										225	87	-

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 1936	11,548	225	0	31.6	22,910
January	0	0	0	0	0
February	0	0	0	0	0
March	0	0	0	0	0
April	0	0	0	0	0
May	0	0	0	0	0
June	0	0	0	0	0
July	5,430	225	0	175	10,770
August	5,157	230	87	166	10,230
September	477	76	0	15.9	946
Water year 1936-37	11,064	225	0	30.3	21,950

Diversions from Deschutes River near Bend, Oreg.

The following five canals, which are equipped with water-stage recorders, divert from Deschutes River between the 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., 11 E.; water used for irrigation of lands east of Bend. (Beginning Oct. 1, 1932, records obtained above 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 combined discharge of these canals are available for October 1926 to September 1937. Records for each canal published separately for years prior to 1926.

Diversions in acre-feet, water year October 1936 to September 1937

Month	Arnold Canal	Central Oregon Canal	Deschutes County Municipal Improvement District Canal	North Canal	Swalley Canal	Total
October	4,910	25,260	117	22,560	4,760	57,607
November	218	930	3,390	12,000	1,760	18,298
December	309	1,900	0	1,470	389	4,068
January	0	1,680	0	528	0	2,208
February	0	1,870	0	2,190	462	4,522
March	480	3,230	0	1,420	617	5,747
April	1,020	7,610	0	6,210	1,970	16,810
May	5,510	26,330	238	27,180	5,510	64,568
June	5,420	28,180	1,150	26,890	6,150	67,790
July	6,120	30,290	7,140	30,200	6,890	80,640
August	3,380	30,310	9,000	29,600	6,810	79,100
September	3,920	25,890	1,280	23,270	4,780	59,140
The year	31,087	183,480	22,315	183,518	40,098	460,498

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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 above diversion dam of feed canal for Tumalo project, 4 miles above mouth, and 4 miles northwest of Bend.

Drainage area.- 57 square miles.

Records available.- November 1913 to September 1937; also during winters from October 1906 to April 1913, except 1909 and 1910.

Average discharge.- 22 years (1913-21, 1923-37), 79.6 second-feet excluding Columbia Southern Canal.

Extremes.- Maximum discharge during year, 820 second-feet June 20 (gage height, 3.39 feet), from rating curve extended above 250 second-feet; minimum, 6.5 second-feet Dec. 12 (gage height, 0.76 foot).

1906-8, 1911-37: Maximum discharge, 1,420 second-feet about Jan. 6, 1923 (gage height, 4.55 feet), from rating curve extended above 200 second-feet; minimum, 4.0 second-feet Oct. 28, 1922 (gage height, 0.55 foot).

Remarks.- Records good except those for periods of missing gage heights, Oct. 7-11, Aug. 20-23, which were computed from flow in Tumalo feed canal and are fair, and those for period of ice effect, Jan. 1 to Feb. 28, which were computed on basis of weather records, discharge measurement for Mar. 1, and records for Lake Creek and Squaw Creek near Sisters and are poor. Gage heights for Nov. 24 to Dec. 4, Dec. 10-12 partly estimated because of ice effect at times. Columbia Southern Canal diverts above station. Canal records good except those for periods of faulty gage heights, Nov. 5 to Dec. 13, Apr. 5-20, May 25, June 4-6, July 6-11, which were computed on basis of records for Tumalo Creek near Bend and are fair.

Rating table, water year 1936-37 except for periods of ice effect (gage height, in feet, and discharge in second-feet)

0.8	7.8	1.2	31	1.6	85	2.2	247	3.0	595	
1.0	17	1.4	53	1.9	154	2.5	360			

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	59	56	8	46	37	46	47	71	149	211	41	58
2	58	54	9	46	38	47	46	83	174	154	37	53
3	58	60	9	47	39	47	46	97	211	136	37	53
4	59	39	8	47	40	47	46	107	189	141	37	54
5	59	12	9	45	42	47	45	99	177	119	37	54
6	60	11	10	40	41	48	29	97	174	89	38	51
7	61	10	11	34	41	47	28	101	174	80	38	49
8	61	11	10	33	40	47	28	95	247	78	38	51
9	59	10	9	33	40	47	28	99	211	75	38	49
10	57	14	9	34	39	47	12	99	183	68	38	49
11	57	11	9	34	40	47	10	99	154	66	38	49
12	58	11	8	35	40	48	10	107	138	65	37	49
13	58	11	9	36	43	52	16	128	144	65	38	49
14	58	11	19	38	43	49	22	154	151	64	38	49
15	58	11	53	39	43	48	21	154	192	62	37	49
16	58	11	53	40	42	48	16	154	198	58	40	48
17	56	11	53	39	42	48	14	157	160	58	56	48
18	58	11	54	39	43	47	13	166	180	60	56	49
19	56	11	56	39	43	46	12	144	230	56	56	65
20	56	11	54	38	43	47	12	141	545	49	56	56
21	56	11	54	37	41	47	18	151	525	48	56	53
22	58	11	54	36	40	47	60	166	414	46	60	53
23	58	11	56	36	40	47	59	149	272	46	62	52
24	56	8	56	36	40	47	60	157	211	47	58	52
25	56	9	53	37	41	47	65	183	198	48	53	52
26	56	8	53	38	42	47	71	154	202	48	53	54
27	56	8	53	38	44	47	68	160	217	45	56	54
28	54	7	51	38	45	46	66	174	244	43	56	54
29	54	9	52	38	-	46	64	160	261	41	54	54
30	56	9	53	38	-	47	64	133	221	40	54	53
31	56	-	47	37	-	47	-	133	-	41	62	-

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	1,780	61	54	57.4	3,530	0	3,530
November	488	64	7	16.3	968	2,630	3,598
December	1,042	56	8	33.6	2,070	1,330	3,400
Calendar year 1936	23,553	360	7	64.4	46,728	-	-
January	1,191	47	33	38.4	2,360	0	2,360
February	1,152	45	37	41.1	2,280	0	2,280
March	1,465	52	46	47.3	2,910	0	2,910
April	1,096	71	10	36.5	2,170	1,320	3,490
May	4,072	183	71	131	8,060	908	8,988
June	6,746	545	138	225	13,380	5,010	18,390
July	2,247	211	40	72.5	4,460	2,930	7,390
August	1,455	62	37	46.9	2,890	672	3,562
September	1,563	58	48	52.1	3,100	0	3,100
Water year 1936-37	24,297	545	7	66.6	48,198	14,800	62,998

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., immediately above intake of McCallister ditch and 4 miles south of Sisters.

Drainage area.- 63 square miles.

Records available.- 1913 to 1925 (irrigation seasons only), October 1925 to September 1937. July 1906 to May 1913, at site below intake of McCallister ditch and 700 feet downstream.

Average discharge.- 25 years (1906-18, 1919-20, 1925-37), 105 second-feet.

Extremes.- Maximum discharge during year, 892 second-feet June 19 (gage height, 2.65 feet); minimum discharge, 20 second-feet (estimated) Jan. 8.
1906-37: Maximum discharge, 1,940 second-feet (estimated) Nov. 22, 1909 (gage height, 7.5 feet, former site and datum); minimum, 19 second-feet Dec. 6, 1922.

Remarks.- Records good except those for periods of ice effect, Nov. 28 to Dec. 11, Dec. 21 to Feb. 25 (computed on basis of discharge measurements for Dec. 2, 20, Jan. 27, form of gage-height graph, weather records, and records for Tumalo Creek near Bend and Lake Creek near Sisters), those for period of missing gage heights, Aug. 26-30 (estimated), and those for June and July, all of which are fair. 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 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	72	41	35	35	21	31	36	72	185	297	104	80
2	72	39	35	35	21	32	35	84	206	305	102	82
3	70	45	35	34	22	31	35	99	243	281	109	80
4	74	45	35	31	22	32	35	104	228	301	122	78
5	68	44	35	25	23	32	34	97	224	281	130	72
6	63	44	36	23	23	32	34	92	224	235	130	76
7	65	42	37	21	22	33	35	92	228	220	130	82
8	65	46	38	20	22	32	35	88	297	228	130	80
9	61	44	38	21	21	32	36	92	250	224	133	78
10	63	42	39	21	21	33	36	88	224	217	136	84
11	59	40	39	22	21	33	36	94	192	217	128	76
12	68	38	39	22	21	36	38	106	185	217	130	84
13	56	38	40	22	22	36	92	130	185	202	119	86
14	61	38	40	23	23	36	125	155	224	192	99	92
15	49	38	39	23	24	35	99	152	322	192	92	102
16	48	39	39	24	24	35	76	145	386	185	99	86
17	50	42	39	24	24	35	68	145	301	188	109	80
18	51	39	41	24	23	35	63	162	418	196	102	80
19	51	38	42	24	23	35	61	152	537	182	97	104
20	45	38	42	23	24	35	65	145	765	175	97	80
21	45	38	42	23	25	35	74	158	698	175	99	74
22	46	37	42	22	26	34	61	178	619	171	97	65
23	48	37	43	21	28	34	59	178	391	178	86	56
24	45	39	44	21	30	34	61	182	297	178	76	56
25	44	39	44	21	31	34	67	206	262	178	78	59
26	44	40	43	21	32	33	72	192	262	175	80	59
27	44	38	42	21	31	33	68	202	277	165	82	58
28	45	39	41	22	31	34	63	213	326	155	76	54
29	45	36	41	22	-	34	61	185	369	142	74	51
30	44	36	41	21	-	34	63	165	339	136	76	50
31	42	-	36	21	-	35	-	168	-	122	82	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	1,693	74	42	54.6	3,360
November	1,199	46	36	40.0	2,380
December	1,222	44	35	39.4	2,420
Calendar year 1936	37,059	326	35	101	73,510
January	733	35	20	23.6	1,450
February	681	32	21	24.3	1,350
March	1,045	36	31	33.7	2,070
April	1,723	125	34	57.4	3,420
May	4,321	213	72	139	8,570
June	9,664	765	185	322	19,170
July	6,310	305	122	204	12,520
August	3,204	136	74	103	6,360
September	2,244	104	50	74.8	4,450
Water year 1936-37	34,039	765	20	93.3	67,520

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 below Cove power plant and 3 miles northwest of Culver. Zero of gage is about 1,722 feet above mean sea level (Geological Survey river profile).

Drainage area.- 4,330 square miles.

Records available.- October 1917 to September 1937.

Average discharge.- 20 years, 1,377 second-feet.

Extremes.- Maximum discharge observed during year, 7,620 second-feet Apr. 16 (gage height, 5.80 feet); minimum, 1,160 second-feet Jan. 6, July 19-27, Aug. 4-7, 9, 10, 12-18, 23 (gage height, 0.47 foot).
1917-37: Maximum discharge, that of Apr. 16, 1937; minimum, 970 second-feet July 12 to Sept. 5, 1921.

Remarks.- Records good. Flow slightly regulated by storage in Ochoco Reservoir. Summer flow above Prineville diverted for irrigation. Springs increase flow about 1,000 second-feet within a few miles above station. Gage readings furnished by Pacific Power & Light Co. Gage read once daily.

Rating table, water year 1936-37 (gage height, in feet, and discharge, in second-feet)

0.3	1,070	3.0	3,100
.6	1,220	3.5	3,670
1.0	1,460	4.0	4,330
1.5	1,800	5.0	6,000
2.0	2,180	6.0	8,060
2.5	2,610		

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,190	1,190	1,190	1,250	1,220	1,280	1,590	2,020	1,220	1,280	1,210	1,200
2	1,190	1,190	1,190	1,240	1,220	1,280	1,730	2,430	1,220	1,280	1,180	1,210
3	1,200	1,180	1,210	1,220	1,220	1,280	2,020	2,610	1,190	1,280	1,170	1,210
4	1,220	1,190	1,200	1,220	1,220	1,280	2,020	2,800	1,190	1,280	1,160	1,210
5	1,200	1,190	1,200	1,220	1,220	1,280	1,800	2,800	1,130	1,250	1,160	1,220
6	1,200	1,190	1,210	1,180	1,220	1,340	1,800	2,430	1,170	1,220	1,160	1,250
7	1,200	1,200	1,220	1,180	1,220	1,340	1,760	2,260	1,170	1,220	1,160	1,280
8	1,190	1,210	1,220	1,180	1,220	1,340	1,760	2,100	1,170	1,210	1,170	1,280
9	1,190	1,190	1,240	1,200	1,250	1,340	1,760	2,020	1,170	1,200	1,160	1,250
10	1,200	1,200	1,250	1,200	1,250	1,430	1,800	1,870	1,170	1,200	1,160	1,250
11	1,210	1,190	1,220	1,210	1,250	1,520	2,520	1,800	1,180	1,200	1,170	1,210
12	1,200	1,190	1,190	1,200	1,250	1,590	2,260	1,730	1,190	1,180	1,160	1,190
13	1,190	1,200	1,220	1,200	1,250	1,660	2,260	1,730	1,200	1,170	1,160	1,200
14	1,200	1,200	1,220	1,220	1,250	1,940	2,700	1,620	1,200	1,170	1,160	1,210
15	1,190	1,200	1,220	1,220	1,250	2,180	5,090	1,700	1,210	1,170	1,160	1,200
16	1,200	1,200	1,220	1,220	1,280	2,180	7,200	1,620	1,250	1,170	1,160	1,190
17	1,200	1,200	1,210	1,220	1,280	1,940	6,190	1,560	1,280	1,170	1,160	1,190
18	1,210	1,200	1,210	1,250	1,250	1,940	3,550	1,520	1,310	1,170	1,160	1,180
19	1,200	1,200	1,220	1,250	1,280	1,870	2,900	1,490	1,460	1,160	1,170	1,180
20	1,210	1,210	1,220	1,220	1,250	1,870	2,800	1,430	1,430	1,160	1,170	1,190
21	1,190	1,200	1,210	1,210	1,280	1,700	2,900	1,400	1,400	1,160	1,170	1,190
22	1,200	1,200	1,220	1,220	1,250	1,590	3,100	1,370	1,520	1,160	1,170	1,200
23	1,210	1,200	1,220	1,220	1,250	1,490	2,700	1,370	1,590	1,160	1,160	1,200
24	1,220	1,200	1,220	1,220	1,280	1,520	2,340	1,340	1,520	1,160	1,170	1,210
25	1,210	1,210	1,250	1,220	1,250	1,560	2,260	1,310	1,520	1,160	1,170	1,220
26	1,210	1,220	1,250	1,220	1,280	1,560	2,520	1,280	1,460	1,160	1,170	1,220
27	1,210	1,210	1,250	1,220	1,280	1,590	2,700	1,280	1,400	1,160	1,170	1,250
28	1,200	1,200	1,220	1,220	1,280	1,590	2,610	1,250	1,400	1,180	1,170	1,250
29	1,190	1,200	1,220	1,220	-	1,590	2,260	1,250	1,340	1,180	1,180	1,220
30	1,190	1,190	1,250	1,220	-	1,590	2,100	1,250	1,280	1,220	1,180	1,220
31	1,190	-	1,220	1,220	-	1,620	-	1,220	-	1,220	1,200	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	37,210	1,220	1,190	1,200	73,800
November	35,950	1,220	1,180	1,198	71,310
December	37,810	1,250	1,190	1,220	75,000
Calendar year 1936	534,490	6,000	1,160	1,460	1,060,000
January	37,690	1,250	1,160	1,216	74,760
February	35,000	1,280	1,220	1,250	69,420
March	49,280	2,180	1,280	1,590	97,750
April	81,000	7,200	1,590	2,700	160,700
May	53,860	2,800	1,220	1,737	106,800
June	38,990	1,590	1,170	1,300	77,340
July	37,060	1,280	1,160	1,195	73,510
August	36,230	1,210	1,160	1,169	71,860
September	36,480	1,280	1,180	1,216	72,360
Water year 1936-37	516,560	7,200	1,160	1,415	1,025,000

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 1937.

Average discharge.- 16 years, 1,448 second-feet.

Extremes.- Maximum discharge observed during year, 2,060 second-feet June 20, 21 (gage height, 1.02 feet); minimum daily discharge (estimated), 1,100 second-feet Jan. 8 (gage not read).
1921-37: Maximum discharge, about 5,780 second-feet Jan. 7, 1923 (gage height, 3.32 feet); minimum, 1,080 second-feet Feb. 17, 1932 (gage height, 0.14 foot).

Remarks.- Records good. Discharge for periods of missing gage heights Nov. 7-10, July 7, interpolated; that for Jan. 8-12 computed on basis of weather records and notes by observer. No diversions or regulation above station. Gage read once daily.

Rating table, water year 1936-37 (gage height, in feet, and discharge, in second-feet)

0.2	1,140
.4	1,340
.6	1,560
.8	1,800
1.0	2,060

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,260	1,240	1,220	1,200	1,200	1,220	1,300	1,450	1,620	1,680	1,320	1,260
2	1,260	1,220	1,220	1,180	1,200	1,240	1,300	1,450	1,620	1,680	1,320	1,260
3	1,260	1,220	1,220	1,180	1,220	1,240	1,300	1,500	1,620	1,620	1,320	1,260
4	1,260	1,220	1,220	1,220	1,240	1,240	1,300	1,560	1,680	1,620	1,320	1,260
5	1,260	1,220	1,220	1,220	1,220	1,240	1,300	1,560	1,680	1,620	1,320	1,280
6	1,260	1,220	1,220	1,180	1,200	1,260	1,300	1,500	1,680	1,560	1,320	1,280
7	1,260	1,220	1,260	1,140	1,200	1,260	1,300	1,500	1,680	1,560	1,320	1,280
8	1,260	1,220	1,260	1,100	1,200	1,260	1,300	1,500	1,680	1,560	1,320	1,280
9	1,260	1,220	1,240	1,120	1,200	1,260	1,300	1,500	1,680	1,560	1,320	1,260
10	1,260	1,220	1,220	1,140	1,220	1,260	1,300	1,500	1,620	1,560	1,320	1,260
11	1,260	1,220	1,220	1,180	1,200	1,260	1,300	1,500	1,560	1,560	1,320	1,260
12	1,260	1,220	1,220	1,160	1,220	1,280	1,300	1,560	1,560	1,560	1,320	1,260
13	1,260	1,220	1,220	1,220	1,220	1,340	1,560	1,6	1,560	1,560	1,320	1,260
14	1,260	1,220	1,220	1,220	1,220	1,340	1,800	1,6	1,560	1,450	1,320	1,280
15	1,260	1,220	1,220	1,240	1,220	1,320	1,800	1,6	1,680	1,450	1,320	1,280
16	1,240	1,220	1,220	1,200	1,220	1,320	1,680	1,6	1,620	1,450	1,300	1,280
17	1,240	1,220	1,220	1,200	1,220	1,320	1,560	1,6	1,620	1,450	1,300	1,280
18	1,240	1,220	1,220	1,200	1,220	1,300	1,560	1,6	1,680	1,450	1,300	1,280
19	1,240	1,220	1,220	1,200	1,220	1,300	1,560	1,6	1,680	1,450	1,300	1,300
20	1,240	1,220	1,220	1,160	1,200	1,280	1,560	1,6	2,060	1,450	1,300	1,300
21	1,240	1,220	1,220	1,160	1,200	1,280	1,560	1,680	2,060	1,450	1,300	1,260
22	1,240	1,220	1,230	1,220	1,220	1,280	1,500	1,620	1,930	1,400	1,300	1,240
23	1,240	1,220	1,260	1,220	1,220	1,260	1,500	1,620	1,740	1,400	1,300	1,240
24	1,240	1,220	1,260	1,220	1,220	1,260	1,450	1,620	1,680	1,400	1,300	1,240
25	1,240	1,220	1,240	1,200	1,220	1,260	1,450	1,800	1,620	1,400	1,300	1,240
26	1,240	1,220	1,220	1,200	1,220	1,260	1,500	1,680	1,620	1,400	1,300	1,240
27	1,240	1,220	1,220	1,200	1,220	1,260	1,500	1,620	1,620	1,400	1,300	1,240
28	1,240	1,220	1,200	1,200	1,220	1,260	1,450	1,620	1,620	1,400	1,280	1,240
29	1,240	1,220	1,210	1,200	-	1,260	1,450	1,620	1,610	1,400	1,260	1,240
30	1,240	1,220	1,220	1,180	-	1,280	1,450	1,620	1,620	1,340	1,260	1,240
31	1,240	-	1,220	1,180	-	1,300	-	1,560	-	1,3	1,260	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	38,740	1,260	1,240	1,250	76,8
November	36,620	1,240	1,220	1,221	72,6
December	38,000	1,260	1,200	1,226	75,370
Calendar year 1936	506,500	1,860	1,200	1,384	1,005,000
January	36,840	1,240	1,100	1,188	73,070
February	34,000	1,240	1,200	1,214	67,440
March	39,500	1,340	1,220	1,274	78,350
April	43,490	1,800	1,300	1,450	86,260
May	49,340	1,800	1,450	1,592	97,860
June	50,390	2,060	1,560	1,680	99,950
July	46,120	1,680	1,340	1,488	91,480
August	40,460	1,320	1,260	1,305	80,250
September	37,880	1,300	1,240	1,263	75,130
Water year 1936-37	491,380	2,060	1,100	1,346	974,600

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 below Suttle Lake, 6 miles above mouth, and 13 miles northwest of Sisters. Zero of gage is about 3,430 feet above mean sea level (Geological Survey topographic map).
Drainage area.- 20.5 square miles.
Records available.- April 1915 to September 1937. 1911 to 1913, occasional readings during summers.
Average discharge.- 21 years (1915-18, 1919-37), 51.2 second-feet.
Extremes.- Maximum discharge during year, 138 second-feet May 18 (gage height, 2.18 feet); minimum (regulated), 17 second-feet Aug. 1 (gage height, 0.75 foot); minimum daily discharge, 20 second-feet July 31, Aug. 1, 28.
1911-13, 1915-37: Maximum discharge, 302 second-feet Jan. 10, 1923 (gage height, 2.58 feet) from rating curve extended above 150 second-feet; minimum, 14 second-feet Oct. 17, 1933; minimum daily discharge, 15 second-feet July 29, 30, 1932.
Remarks.- Records good. Discharge for periods of missing gage heights, Oct. 6-12, Dec. 7-29 computed on basis of discharge measurements for Oct. 5, 13, Dec. 30 and weather records at Bend. No diversions above station; occasional regulation by storage in Suttle Lake.

Rating tables, water year 1936-37 (gage height, in feet, and discharge in second-feet)
(Shifting-control method used July 6 to Sept. 30)

Oct. 1 to May 18		May 19 to Sept. 30	
0.9	19	0.8	15
1.1	28	1.2	32
1.4	48	1.6	65
1.7	76	2.0	106
2.1	126	2.2	133

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	25	24	24	26	29	24	30	63	103	63	20	30
2	25	24	24	24	29	26	30	63	97	62	22	28
3	24	24	24	24	30	27	29	63	93	59	22	36
4	24	24	24	24	32	26	31	64	92	56	24	34
5	24	24	24	26	32	26	34	67	92	52	26	33
6	24	25	26	26	31	27	34	72	92	51	33	32
7	24	25	27	26	30	28	33	78	91	50	30	29
8	24	25	27	26	29	27	32	83	87	49	30	30
9	24	25	28	26	28	26	32	85	87	44	29	30
10	24	25	28	26	27	26	32	88	86	44	28	28
11	24	26	28	26	28	26	32	93	82	43	30	24
12	24	26	28	26	29	26	32	94	80	43	30	27
13	24	26	28	26	28	27	41	99	77	41	30	34
14	24	26	28	26	28	27	55	104	72	42	30	32
15	24	26	28	30	26	27	60	109	70	41	30	30
16	24	26	28	31	28	27	60	111	70	40	30	30
17	24	26	28	30	30	26	63	113	70	41	31	27
18	24	26	28	30	32	26	66	109	70	41	31	26
19	24	26	28	30	31	27	66	120	74	39	30	27
20	24	26	28	29	32	28	66	118	83	41	30	32
21	24	25	27	28	28	28	65	116	84	39	30	29
22	24	25	26	26	28	26	65	118	90	39	30	24
23	24	25	26	26	27	26	65	116	98	39	32	25
24	24	25	26	27	26	27	65	119	100	38	28	26
25	24	24	26	26	27	28	65	122	98	38	33	26
26	24	24	26	28	31	27	65	118	93	38	28	30
27	24	24	26	30	27	27	64	116	87	38	21	33
28	24	24	26	30	24	27	65	115	80	38	20	30
29	24	24	26	29	-	27	65	114	74	33	22	25
30	24	-	26	28	-	27	64	110	69	24	23	26
31	24	-	26	28	-	28	-	106	-	20	30	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	746	26	24	24.1	1,480
November	749	26	24	25.0	1,490
December	823	28	24	26.6	1,630
Calendar year 1936	15,038	112	22	41.1	29,830
January	844	31	24	27.2	1,670
February	807	32	24	28.8	1,600
March	828	28	24	26.7	1,640
April	1,506	66	29	50.2	2,990
May	3,086	129	63	99.5	6,120
June	2,540	103	69	84.7	5,040
July	1,333	65	20	43.0	2,640
August	863	33	20	27.8	1,710
September	873	36	24	29.1	1,730
Water year 1936-37	14,998	129	20	41.1	29,740

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 4⅛ miles below Tygh Valley.

Drainage area.- 393 square miles.

Records available.- October 1917 to September 1937.

Average discharge.- 20 years, 423 second-feet.

Extremes.- Maximum discharge during year, 2,140 second-feet Apr. 15 (gage height, 4.95 feet); minimum 25 second-feet (estimated) Nov. 18 (gage height, about 0.47 foot below zero of gage, caused by shutdown at power plant); minimum daily discharge, 100 second-feet Nov. 2.

1917-37: Maximum discharge, 13,300 second-feet Jan. 6, 1923 (gage height, about 13.3 feet); minimum, 10 second-feet Dec. 11-14, 1919, Aug. 9, 1931. Minimum daily discharge, 75 second-feet Sept. 1, 1924.

Remarks.- Records fair. Discharge for period of ice effect, Jan. 6-31, and of missing gage heights, July 2-9, computed on basis of one discharge measurement, weather records, and records for West Fork of Hood River near Dee and Salmon River near Government Camp. Several diversions for irrigation above station. Low-water flow regulated to some extent by operation of power plant. Water-stage recorder inspected by employees of Pacific Power & Light Co.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	115	109	118	139	112	297	582	672	718	480	154	135
2	115	100	129	133	127	382	520	840	815	430	151	136
3	114	103	123	138	158	358	452	1,200	890	390	149	136
4	118	108	122	164	174	337	432	1,370	840	350	149	136
5	127	109	132	159	161	348	416	1,200	765	320	149	145
6	118	109	199	130	142	400	390	1,140	740	290	149	142
7	117	106	199	120	139	365	372	1,110	695	280	149	135
8	117	103	172	110	135	337	386	1,020	695	270	148	134
9	116	111	167	110	130	317	400	1,020	672	260	148	134
10	116	114	146	120	128	320	468	1,000	695	249	146	134
11	116	117	135	115	134	323	480	1,080	628	243	148	130
12	114	118	133	110	180	408	500	1,050	582	237	146	127
13	111	117	129	120	176	672	1,290	1,200	540	226	139	126
14	111	117	150	140	169	628	1,990	1,260	540	221	136	125
15	111	118	147	160	145	560	1,800	1,200	605	215	135	123
16	109	120	140	140	170	500	1,340	1,170	650	232	132	122
17	108	123	140	130	193	460	1,140	1,080	605	200	130	122
18	108	122	204	120	213	420	1,000	1,050	628	196	128	121
19	107	120	210	115	180	382	918	1,000	695	193	125	123
20	109	120	167	110	168	354	840	945	945	193	123	130
21	109	115	158	*105	297	334	918	918	1,050	184	121	125
22	108	118	197	115	480	323	790	972	972	182	121	122
23	108	114	234	110	386	304	695	945	918	180	134	121
24	108	112	244	107	323	297	650	918	790	182	134	118
25	108	112	199	105	294	365	628	972	695	180	126	118
26	108	115	183	120	275	330	628	918	628	208	123	120
27	109	116	176	115	263	337	628	890	582	186	123	121
28	108	114	162	110	257	344	628	865	540	174	123	118
29	108	110	154	105	-	351	582	790	520	168	122	118
30	106	120	156	102	-	354	718	718	500	164	126	121
31	108	-	148	105	-	428	-	718	-	159	145	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	3,465	127	106	112	6,870
November	3,410	123	100	114	6,760
December	5,073	244	118	164	10,060
Calendar year 1936	141,475	1,840	100	387	280,600
January	3,772	164	102	122	7,480
February	5,699	480	112	204	11,300
March	11,935	672	297	385	23,670
April	22,581	1,990	372	753	44,790
May	31,231	1,370	672	1,007	61,950
June	21,138	1,050	500	705	41,930
July	7,442	480	159	240	14,760
August	4,231	154	121	136	8,390
September	3,818	145	118	127	7,570
Water year 1936-37	123,795	1,990	100	339	245,500

*Discharge measurement.

Klickitat River near Glenwood, Wash.

Location.- Water-stage recorder, lat. 46°05'30", long. 121°15'30", in SF¼ sec. 14, T. 7 N., R. 12 E., half a mile below Dairy Creek and 5 miles north of Glerwood.

Drainage area.- 356 square miles.

Records available.- December 1910 to September 1937 (incomplete). October 1909 to December 1910 at a site 1 mile upstream.

Average discharge.- 20 years (1909-20, 1928-37), 841 second-feet.

Extremes.- Maximum discharge during year, 2,390 second-feet June 21 (gage height, 3.96 feet); minimum, 266 second-feet Nov. 28 (gage height, 1.00 foot); discharge may have been lower sometime during Jan. 8-13, Jan. 17 to Feb. 28, when stage-discharge relation was affected by ice.

1909-37: 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 ice effect, Jan. 8-13, Jan. 17 to Mar. 4, which were computed on basis of fragmentary gage-height record, weather records, and records of flow for neighboring streams and are poor. No diversions or regulation.

Rating tables, water year 1936-37 except periods of ice effect (gage height, in feet, and discharge, in second-feet)

Oct. 1 to Apr. 14				Apr. 15 to Sept. 30			
1.0	266	2.5	1,160	1.0	175	2.5	1,060	3.5	1,910
1.5	505	3.0	1,580	1.5	395	3.0	1,460	4.0	2,450
2.0	800			2.0	700				

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	360	314	314	310	310	300	466	1,060	1,760	1,540	500	466
2	355	289	314	301	320	310	461	1,260	2,060	1,420	500	450
3	350	310	301	355	330	320	450	1,540	2,280	1,300	517	450
4	380	318	301	370	340	320	461	1,860	2,110	1,300	541	456
5	360	314	314	328	330	341	455	1,720	1,910	1,260	559	565
6	355	314	375	293	330	360	440	1,630	1,810	1,140	541	511
7	360	305	425	278	330	346	435	1,580	1,810	1,100	535	488
8	360	297	375	300	320	341	445	1,500	1,810	1,100	523	483
9	360	305	341	350	300	346	463	1,460	1,760	1,060	541	472
10	355	305	314	400	300	346	532	1,420	1,720	1,050	572	466
11	346	318	318	400	300	360	532	1,380	1,540	1,040	604	461
12	341	314	318	400	300	405	617	1,380	1,460	1,000	572	472
13	341	310	346	430	300	435	1,280	1,540	1,460	959	541	461
14	365	310	365	440	300	415	1,580	1,760	1,460	917	488	456
15	332	314	346	430	300	405	1,500	1,810	1,540	889	472	461
16	332	318	332	410	300	405	1,260	1,760	1,720	882	478	439
17	332	336	332	400	320	405	1,140	1,680	1,580	868	505	422
18	336	318	341	370	320	395	1,030	1,720	1,540	875	523	412
19	336	318	390	350	310	395	980	1,760	1,720	833	529	400
20	332	314	360	300	300	390	966	1,760	2,060	791	500	406
21	328	310	385	300	300	380	996	1,810	2,330	742	483	390
22	332	310	533	320	300	380	917	1,910	2,010	721	466	375
23	332	305	697	360	310	370	868	1,860	†1,910	700	456	370
24	332	305	500	360	310	355	854	1,860	†1,810	700	456	360
25	323	305	430	360	300	355	896	2,010	†1,700	728	461	370
26	323	301	415	370	300	365	1,000	2,010	†1,600	693	472	395
27	318	289	390	370	300	370	1,000	2,010	1,500	644	456	380
28	318	278	365	350	300	390	996	2,010	1,540	630	439	370
29	314	289	336	330	-	405	966	1,810	1,580	610	428	360
30	318	305	350	320	-	425	980	1,630	1,540	559	450	370
31	314	-	314	310	-	450	-	1,680	-	517	494	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acre-feet
October	10,540	380	314	340	0.955	1.10	20,910
November	9,238	336	278	308	.865	.97	18,320
December	11,537	697	301	372	1.04	1.20	22,880
Calendar year 1936	261,782	3,000	278	715	2.01	27.33	519,200
January	10,965	440	278	354	.994	1.15	21,750
February	8,680	340	300	310	.871	.91	17,220
March	11,585	450	300	374	1.05	1.21	22,980
April	24,986	1,580	435	833	2.34	2.61	49,560
May	52,180	2,010	1,060	1,683	4.73	5.45	103,500
June	52,630	2,330	1,460	1,754	4.93	5.50	104,400
July	28,568	1,540	517	922	2.59	2.99	56,660
August	15,602	604	428	503	1.41	1.63	30,950
September	12,937	565	360	431	1.21	1.35	25,660
Water year 1936-37	249,448	2,330	278	683	1.92	26.07	494,800

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 above Silvias Creek, and 7 miles above mouth.

Drainage area.- 1,170 square miles.

Records available.- October 1935 to September 1937. July 1909 to January 1912, at site at Klickitat. October 1928 to September 1935, at site at Pitt. Records equivalent.

Extremes.- Maximum discharge during year, 5,630 second-feet Apr. 15 (gage height, 7.55 feet); minimum, 466 second-feet Feb. 4 (gage height, 3.32 feet).
1909-12, 1928-37: Maximum discharge observed, about 21,000 second-feet Dec. 22, 1933 (gage height, 12.5 feet, former site and datum), from rating curve extended above 3,000 second-feet; minimum, that of Feb. 4, 1937.

Remarks.- Records good. Minor diversions for irrigation above station.

Rating tables, water year 1936-37 (gage height, in feet, and discharge, in second-feet)

Oct. 1 to June 20				June 21 to Sept. 30	
3.0	320	5.5	2,600	3.5	470
3.5	570	6.0	3,250	4.0	830
4.0	920	6.5	3,950	4.5	1,340
4.5	1,410	7.0	4,700	5.0	1,940
5.0	1,990	7.6	5,630	5.5	2,590
				6.0	3,250

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	672	594	582	600	582	2,230	1,630	1,990	2,110	1,880	692	668
2	665	582	606	558	630	2,660	1,580	2,110	2,470	1,760	684	632
3	651	576	600	612	624	2,290	1,460	2,410	2,730	1,640	692	618
4	672	606	588	651	618	1,870	1,520	2,860	2,660	1,560	692	632
5	672	600	606	644	630	1,750	1,520	2,730	2,470	1,530	716	732
6	644	600	637	558	606	1,750	1,460	2,540	2,290	1,390	708	716
7	651	594	707	522	588	1,580	1,370	2,410	2,230	1,320	692	646
8	658	582	679	522	582	1,460	1,340	2,290	2,230	1,280	684	639
9	658	588	644	624	570	1,460	1,410	2,230	2,110	1,270	676	632
10	651	594	612	672	570	1,520	1,520	2,230	2,170	1,240	708	625
11	658	600	594	658	600	1,580	1,520	2,170	1,990	1,220	740	618
12	644	600	612	644	624	1,930	1,580	2,110	1,870	1,160	740	625
13	644	600	618	679	624	2,170	4,100	2,170	1,750	1,130	716	625
14	672	600	658	693	624	2,050	5,150	2,470	1,750	1,100	676	618
15	644	600	637	686	612	1,930	5,000	2,600	1,810	1,030	639	625
16	637	600	624	637	658	1,870	4,100	2,540	2,050	1,020	639	625
17	637	630	618	606	728	1,870	3,530	2,410	2,050	1,000	660	604
18	637	618	618	606	735	1,690	3,180	2,350	1,930	1,010	668	597
19	637	606	658	582	686	1,630	2,920	2,410	2,110	990	700	597
20	630	606	665	540	665	1,690	2,730	2,410	2,600	940	684	584
21	624	600	651	540	875	1,630	2,660	2,410	2,980	902	646	584
22	624	594	707	588	1,460	1,810	2,470	2,470	2,850	893	646	570
23	624	588	1,080	606	1,410	1,630	2,290	2,470	2,520	902	625	551
24	624	582	888	618	1,300	1,520	2,170	2,410	2,200	884	618	538
25	630	588	763	612	1,250	1,460	2,110	2,540	2,000	920	611	544
26	630	582	721	618	1,520	1,460	2,170	2,660	1,880	920	618	564
27	624	570	700	606	1,690	1,460	2,170	2,660	1,880	884	618	570
28	624	570	672	594	1,630	1,460	2,110	2,660	1,880	848	590	551
29	618	558	644	594	-	1,520	1,990	2,410	1,940	821	590	538
30	612	576	637	576	-	1,520	1,930	2,170	1,940	785	611	538
31	606	-	618	576	-	1,630	-	2,110	-	724	660	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acre-feet
October	19,874	672	606	641	0.548	0.63	39,420
November	17,784	630	558	593	.507	.57	35,270
December	20,644	1,080	582	666	.569	.66	40,920
Calendar year 1936	480,293	3,820	538	1,312	1.12	15.26	952,700
January	18,822	693	522	607	.519	.60	37,330
February	23,691	1,690	570	846	.723	.75	46,990
March	54,080	2,660	1,460	1,745	1.49	1.72	107,300
April	70,690	5,150	1,340	2,356	2.01	2.24	140,200
May	74,410	2,860	1,990	2,400	2.05	2.36	147,600
June	65,450	2,980	1,750	2,182	1.86	2.08	129,800
July	34,953	1,880	724	1,128	.964	1.11	69,330
August	20,639	740	590	666	.569	.66	40,940
September	18,206	732	538	607	.519	.58	36,110
Water year 1936-37	439,243	5,150	522	1,203	1.03	13.96	871,200

Hood River near Hood River, Oreg.

Location.- Water-stage recorder, lat. 45°20', long. 121°31', in SE¼ sec. 36, T. 3 N., R. 10 E., at Powerdale, a quarter of a mile above Pacific Power & Light Co.'s plant and three-quarters of a mile south of Hood River. Zero of gage is 106.23 feet above mean sea level (general adjustment of 1929).
Drainage area.- 329 square miles.
Records available.- March 1913 to September 1937.
Average discharge.- 24 years, 1,078 second-feet (including flow of Pacific Power & Light Co.'s conduit).
Extremes.- Maximum discharge during year, 5,300 second-feet Apr. 14 (gage height, 5.56 feet); minimum, 14 second-feet Nov. 26, 27, 29; minimum daily discharge, 17 second-feet Nov. 16, Jan. 7.
1913-37: Maximum discharge, 34,000 second-feet Jan. 6, 1923 (gage height, 11.1 feet); minimum, 3 second-feet Aug. 9, 1926 (gage height, 1.45 feet); minimum daily discharge of river and Pacific Power & Light Co.'s conduit, 199 second-feet Aug. 17, 1930.
Remarks.- Records good except those for periods of missing gage heights, Nov. 12-15, Jan. 7-13, 19-26, Jan. 31 to Feb. 2, and those for periods of ice effect, Jan. 15, 30, which were computed on basis of weather records and records for West Fork of Hood River near Dee and Pacific Power & Light Co.'s conduit near Hood River and are fair. Diversions for irrigation above station. Discharge regulated by pondage at sawmill at Dee and by Pacific Power & Light Co.'s conduit, which diverts water around gage. Water-stage recorder inspected by employees of Pacific Power & Light Co.

Rating table, water year 1936-37 except periods of ice effect (gage height, in feet, and discharge, in second-feet)

0.9	13	1.8	94	3.0	670	4.5	2,950
1.2	28	2.2	205	3.5	1,260	5.0	4,010
1.5	48	2.6	375	4.0	2,030	5.5	5,170

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	40	30	30	79	140	750	1,680	803	803	916	42	48
2	38	28	29	90	187	1,460	1,200	1,060	1,050	740	42	48
3	37	36	26	58	79	1,480	904	1,670	1,200	651	42	48
4	69	34	23	111	384	1,140	940	1,750	1,010	642	44	46
5	39	29	30	95	134	988	880	1,360	880	622	43	52
6	42	30	147	134	86	1,130	781	1,140	847	462	41	41
7	33	28	320	17	79	1,140	700	1,090	836	392	40	46
8	35	31	352	24	74	928	680	1,130	814	355	39	36
9	34	34	264	25	64	825	680	1,120	792	330	41	41
10	33	32	81	34	52	814	781	1,300	720	264	42	42
11	34	27	46	24	84	781	740	1,940	613	294	56	42
12	32	29	30	25	476	988	880	1,610	527	233	50	50
13	34	27	100	63	198	1,220	3,800	1,720	535	222	43	44
14	36	52	275	383	110	1,160	4,460	1,930	642	182	46	43
15	34	24	154	591	77	1,050	3,790	1,620	916	135	46	50
16	33	17	108	518	276	1,000	2,470	1,420	1,040	117	52	45
17	35	28	428	134	538	964	1,880	1,260	1,000	179	56	44
18	35	27	1,090	82	584	858	1,660	1,250	1,460	188	50	52
19	34	26	613	58	386	750	1,360	1,130	2,010	169	49	54
20	35	22	330	62	264	700	1,230	964	3,360	110	44	46
21	35	60	438	51	597	760	1,500	940	2,950	92	44	44
22	35	20	792	57	1,170	584	1,260	1,050	2,200	84	46	44
23	34	60	2,380	49	964	527	1,090	976	1,750	63	46	38
24	31	36	1,120	51	836	469	964	940	1,340	88	41	53
25	38	19	670	52	700	456	988	1,030	1,140	132	40	42
26	36	22	488	100	642	469	1,050	916	1,000	149	42	54
27	34	22	355	88	584	476	976	858	904	114	44	49
28	36	19	248	75	535	613	892	904	892	90	42	51
29	30	138	188	52	-	535	781	847	858	59	45	52
30	28	36	158	59	-	710	740	660	928	41	84	45
31	31	-	110	85	-	1,420	-	680	-	42	69	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	1,110	69	28	35.8	2,200
November	1,023	138	17	34.1	2,030
December	11,423	2,380	23	368	22,660
Calendar year 1936	231,164	5,580	17	632	458,500
January	3,326	591	17	107	6,600
February	10,300	1,170	52	368	20,430
March	27,145	1,480	456	876	53,840
April	41,737	4,460	680	1,391	82,780
May	37,068	1,940	660	1,196	73,520
June	35,017	3,360	527	1,167	69,460
July	8,157	916	41	263	16,180
August	1,451	84	39	46.8	2,880
September	1,390	54	36	46.3	2,760
Water year 1936-37	179,147	4,460	17	491	355,300

Combined discharge, in second-feet, of Hood River and Pacific Power & Light Co.'s Conduit near Hood River, Oreg., for water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	402	368	358	549	500	1,220	2,050	1,260	1,210	1,360	357	378
2	404	355	361	539	600	1,930	1,580	1,520	1,480	1,180	342	366
3	396	361	363	521	489	1,930	1,330	2,110	1,640	1,090	339	360
4	453	382	362	581	473	1,580	1,360	2,210	1,440	1,070	362	371
5	443	372	421	565	489	1,420	1,300	1,820	1,320	1,020	388	480
6	421	379	613	516	447	1,550	1,220	1,600	1,280	884	396	442
7	406	370	788	390	428	1,420	1,150	1,550	1,250	829	385	437
8	406	365	807	390	418	1,300	1,140	1,590	1,250	800	368	419
9	404	380	724	450	409	1,200	1,140	1,580	1,230	783	378	422
10	408	377	541	460	402	1,190	1,220	1,760	1,170	724	416	407
11	404	369	506	440	484	1,150	1,180	2,390	1,050	728	490	428
12	383	370	473	420	946	1,360	1,310	2,070	941	693	443	448
13	384	375	520	500	668	1,600	4,210	2,180	941	682	400	399
14	413	380	738	793	580	1,460	4,880	2,390	1,050	642	379	418
15	384	380	614	1,000	547	1,420	4,220	2,080	1,340	595	336	428
16	364	384	568	909	746	1,370	2,920	1,870	1,460	577	310	406
17	378	457	859	576	1,010	1,350	2,330	1,710	1,420	639	331	393
18	372	386	1,550	548	1,050	1,230	1,990	1,710	1,870	648	346	384
19	364	376	1,060	495	856	1,130	1,790	1,590	2,420	629	347	396
20	357	380	800	450	734	1,080	1,670	1,420	3,740	570	327	407
21	347	377	908	420	1,070	969	1,940	1,400	3,330	552	312	385
22	355	373	1,260	490	1,640	961	1,710	1,480	2,590	540	361	376
23	350	365	2,790	470	1,430	918	1,530	1,360	2,120	517	407	379
24	353	365	1,580	450	1,310	860	1,420	1,330	1,720	548	349	361
25	334	366	1,140	440	1,170	845	1,440	1,450	1,530	587	326	357
26	343	373	958	506	1,110	854	1,490	1,340	1,390	609	320	376
27	342	349	825	461	1,050	864	1,430	1,280	1,310	574	339	387
28	349	349	718	435	1,000	904	1,340	1,330	1,290	529	301	363
29	357	347	658	418	-	905	1,230	1,270	1,300	484	315	372
30	355	356	628	400	-	1,080	1,200	1,070	1,370	449	345	365
31	363	-	580	420	-	1,800	-	1,090	-	387	456	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	11,794	453	334	380	23,390
November	11,186	457	347	373	22,190
December	25,071	2,790	358	809	49,730
Calendar year 1936	368,118	6,000	289	1,006	730,100
January	16,002	1,000	390	516	31,740
February	22,056	1,640	402	788	43,750
March	38,850	1,930	845	1,253	77,060
April	54,720	4,880	1,140	1,824	108,500
May	50,810	2,390	1,070	1,639	100,800
June	47,452	3,740	941	1,582	94,120
July	21,919	1,360	387	707	43,480
August	11,271	490	301	364	22,360
September	11,910	480	357	397	23,620
Water year 1936-37	323,041	4,880	301	885	640,700

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 above Dead Point Creek, half a mile above junction with Hood River, and 1 mile northwest of Dee. Zero of gage is 801.4 feet above mean sea level. (Elevation published in previous water-supply papers in error).

Drainage area.- 96 square miles.

Records available.- August 1913 to September 1915 (incomplete); June 1932 to September 1937.

Extremes.- Maximum discharge during year, 4,480 second-feet Apr. 14 (gage height, 7.47 feet); minimum, 100 second-feet Nov. 29 to Dec. 4 (gage height, 1.51 feet).
1913-15, 1932-37: Maximum discharge, 12,900 second-feet Dec. 22, 1933 (gage height, 12.4 feet); minimum, 100 second-feet Sept. 29, 30, 1915, Nov. 29 to Dec. 4, 1936.

Remarks.- Records good except those for periods of faulty gage-height record, Dec. 6-14, 16-22, Jan. 7-25, May 26 to June 15, June 21-23, 25-27, which were computed on basis of weather records and records for combined discharge of Hood River and Pacific Power & Light Co.'s conduit near Hood River and are fair. Diversions for irrigation above station.

Rating table, water year 1936-37 (gage height, in feet, and discharge, in second-feet)

1.5	99	4.0	1,120
2.0	193	4.5	1,460
2.5	345	5.0	1,850
3.0	555	6.0	2,730
3.5	810	7.0	3,820

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	132	113	100	243	213	600	1,320	625	620	546	184	164
2	130	112	100	229	268	1,150	960	854	700	474	182	162
3	132	112	100	218	206	1,120	782	1,220	840	445	184	162
4	157	110	100	258	191	900	810	1,180	800	433	184	162
5	145	112	158	238	182	840	755	960	760	409	188	200
6	138	110	230	188	166	960	675	840	720	369	186	172
7	138	110	370	180	155	840	625	810	700	349	184	166
8	138	110	450	180	153	728	600	870	680	345	177	164
9	138	110	330	190	149	650	650	870	660	334	184	162
10	138	110	270	200	145	650	728	1,060	640	320	200	157
11	138	110	240	190	258	625	700	1,390	560	314	198	160
12	138	110	220	180	492	810	850	1,180	500	303	182	155
13	136	109	250	190	334	930	2,930	1,280	500	300	175	151
14	141	109	360	220	284	840	3,490	1,360	600	287	168	151
15	132	109	307	230	268	755	2,540	1,080	720	274	157	151
16	127	109	290	220	397	728	1,690	990	755	268	155	145
17	125	125	500	205	580	700	1,250	900	755	271	160	143
18	125	109	900	190	555	650	1,050	900	990	294	160	141
19	125	109	600	180	433	578	900	810	1,420	280	162	149
20	122	109	450	170	377	532	900	755	2,140	262	155	145
21	122	109	520	160	610	488	990	728	1,700	252	153	136
22	120	109	800	175	1,020	457	870	782	1,200	240	170	134
23	118	107	2,050	170	782	429	782	755	900	229	208	130
24	118	107	1,080	165	675	405	728	728	782	235	166	128
25	116	107	728	160	600	409	728	755	650	235	157	132
26	115	106	555	175	555	433	755	680	560	229	160	134
27	113	106	449	170	510	441	728	640	520	226	149	132
28	113	103	373	166	478	470	650	660	519	218	145	132
29	113	102	324	160	-	474	600	620	532	208	143	140
30	113	100	300	155	-	662	578	570	555	206	168	147
31	113	-	271	179	-	1,280	-	560	-	193	182	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	3,969	157	113	128	7,870
November	3,273	125	100	109	6,490
December	13,775	2,050	100	444	27,320
Calendar year 1936	175,436	5,190	100	479	348,000
January	5,934	258	155	191	11,770
February	11,036	1,020	145	394	21,890
March	21,534	1,280	405	695	42,710
April	31,614	3,490	578	1,054	62,710
May	27,412	1,390	560	884	54,370
June	23,978	2,140	500	799	47,560
July	9,348	546	193	302	18,540
August	5,326	208	143	172	10,560
September	4,507	200	128	150	8,940
Water year 1936-37	161,706	3,490	100	443	320,700

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 Hood River.

Records available.- October 1922 to September 1937. October 1913 to September 1914 and January 1916 to July 1922 at site in tailrace of former plant.

Average discharge.- 15 years (1922-37), 344 second-feet.

Extremes.- Maximum discharge during year, 480 second-feet Oct. 14; no flow when power plant was occasionally shut down.
1913-14, 1916-37: Maximum discharge, 510 second-feet Dec. 30, 1932.

Remarks.- Records good. Discharge determined from hourly readings of Venturi meter and checked by occasional discharge measurements, except those for Jan. 7-18, 20-27, Feb. 3-7, for which periods discharge was computed from records of electrical output of power plant. Pacific Power & Light Co.'s conduit diverts from Hood River in SE¼ sec. 11, T. 2 N., R. 10 E., immediately below mouth of Neal Creek. Water is diverted around the station on Hood River near Hood River and returned to river in NE¼ sec. 36, T. 3 N., R. 10 E. Hourly readings of Venturi meter furnished by Pacific Power & Light Co.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	362	338	328	470	360	470	368	460	410	439	315	330
2	366	327	332	449	413	470	383	460	428	435	300	318
3	359	325	337	463	410	447	423	442	439	437	297	312
4	384	348	339	470	89	440	424	460	435	431	318	325
5	404	343	391	470	355	429	425	460	435	403	345	428
6	379	349	466	382	361	416	437	460	431	422	355	401
7	373	342	468	373	349	283	451	460	413	437	345	391
8	371	334	455	366	344	372	459	460	433	445	329	383
9	370	346	460	425	345	376	458	460	437	453	337	381
10	375	345	460	426	350	377	441	458	448	460	374	365
11	370	342	460	416	400	372	440	452	434	434	434	386
12	351	341	443	395	470	372	428	460	414	460	393	398
13	350	348	420	437	470	385	412	460	406	460	357	355
14	377	328	463	410	470	299	420	460	407	460	333	375
15	350	356	460	409	470	370	430	460	425	460	290	378
16	331	367	460	391	470	373	451	454	415	460	258	361
17	343	429	431	442	470	382	449	448	416	460	275	349
18	337	359	464	466	470	373	328	458	408	460	296	332
19	330	350	445	437	470	382	428	460	412	460	298	342
20	322	358	470	388	470	384	441	456	376	460	283	361
21	312	317	470	369	470	209	445	456	382	460	268	341
22	320	353	470	433	470	377	446	429	387	456	315	332
23	316	305	409	421	470	391	442	379	371	454	361	341
24	322	329	463	399	470	391	452	393	382	460	308	308
25	296	347	470	388	470	389	452	421	391	455	286	315
26	307	351	470	406	470	385	443	421	393	460	278	322
27	308	327	470	373	470	388	456	424	404	460	295	338
28	313	330	470	360	470	291	452	425	402	439	259	312
29	327	209	470	366	-	370	451	419	443	425	270	320
30	327	320	470	341	-	373	460	406	440	408	261	320
31	332	-	470	335	-	377	-	406	-	345	387	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	10,684	404	296	345	21,190
November	10,163	429	209	339	20,160
December	13,654	470	328	440	27,080
Calendar year 1936	136,960	479	0	374	271,700
January	12,676	470	335	409	25,140
February	11,766	470	89	420	23,340
March	11,713	470	209	378	23,230
April	12,995	460	328	433	25,780
May	13,727	460	379	443	27,230
June	12,417	448	371	414	24,630
July	13,758	460	345	444	27,290
August	9,820	434	268	317	19,480
September	10,520	428	308	351	20,870
Water year 1936-37	143,893	470	89	394	285,400

White Salmon River at Husum, Wash.

Location.- Water-stage recorder, lat. 45°47'50", long. 121°29'15", in SW¼ sec. 30, T. 4 N., R. 11 E., at Husum, 500 feet above Rattlesnake Creek.

Drainage area.- 300 square miles.

Records available.- September 1909 to October 1919 and October 1929 to September 1937 in reports of Geological Survey; November 1919 to September 1920 in State Water-Supply Bulletin 5.

Average discharge.- 19 years (1909-20, 1929-37), 969 second-feet.

Extremes.- Maximum discharge during year, 3,070 second-feet Apr. 15 (gage height, 5.51 feet); minimum, 426 second-feet Dec. 3.
1909-20, 1929-37: Maximum discharge, 10,800 second-feet Dec. 22, 1933 (gage height, 11.0 feet); minimum, 340 second-feet Dec. 30, 1930 (gage height, 0.64 foot).

Remarks.- Records good. Discharge for Feb. 1-7 computed on basis of records for station near Underwood and for Klickitat River near Pitt and recorded range of stage. Numerous diversions for irrigation near Trout Lake. Springs greatly increase flow within a few miles above station.

Rating tables, water year 1936-37 (gage height, in feet, and discharge, in second-feet)

Oct. 1 to Dec. 22		Dec. 23 to Sept. 30					
1.0	400	1.0	430	3.0	1,100	4.5	2,090
1.5	505	1.5	533	3.5	1,370	5.0	2,550
2.0	670	2.0	690	4.0	1,690	6.0	3,640
		2.5	875				

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	535	478	435	528	450	560	883	1,140	1,320	1,380	784	708
2	538	473	435	511	450	683	871	1,200	1,410	1,320	778	704
3	532	476	433	514	460	714	843	1,390	1,520	1,260	767	697
4	541	478	429	521	480	700	851	1,590	1,530	1,210	764	697
5	545	478	435	516	470	704	851	1,590	1,470	1,170	756	770
6	538	476	461	483	470	736	835	1,490	1,440	1,100	756	746
7	538	468	517	463	470	732	811	1,450	1,430	1,080	742	718
8	535	468	511	461	463	718	807	1,420	1,450	1,060	736	711
9	532	466	481	467	456	711	831	1,420	1,450	1,030	725	697
10	538	464	461	500	450	714	875	1,450	1,440	1,010	722	694
11	535	464	454	489	456	728	871	1,490	1,380	996	742	683
12	523	461	450	481	471	815	912	1,490	1,320	992	736	666
13	520	461	464	498	479	907	1,680	1,580	1,290	978	722	658
14	526	464	492	505	473	887	2,400	1,620	1,280	964	700	644
15	520	461	489	505	463	863	2,970	1,610	1,400	933	694	644
16	517	461	473	496	473	851	2,440	1,570	1,500	920	704	638
17	517	468	473	505	491	843	1,990	1,500	1,490	895	722	617
18	517	459	483	494	498	811	1,710	1,470	1,570	920	718	605
19	514	456	520	485	498	781	1,530	1,500	1,830	887	711	599
20	508	454	502	465	496	784	1,440	1,460	2,210	867	708	599
21	505	454	511	463	498	774	1,410	1,430	2,400	859	694	590
22	505	450	661	467	511	746	1,330	1,470	2,140	855	700	581
23	505	448	1,160	489	528	753	1,240	1,450	1,940	835	708	575
24	500	446	1,040	481	538	736	1,200	1,420	1,750	827	708	572
25	489	444	823	475	541	732	1,180	1,430	1,580	835	700	566
26	489	444	711	475	544	732	1,200	1,440	1,500	831	697	560
27	486	441	652	469	552	732	1,220	1,460	1,450	819	697	560
28	483	437	608	465	544	739	1,200	1,470	1,440	807	690	557
29	483	435	584	459	-	746	1,170	1,380	1,420	811	683	552
30	483	439	569	452	-	767	1,140	1,290	1,380	799	686	555
31	481	-	549	450	-	827	-	1,280	-	784	708	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	15,978	545	481	515	31,690
November	13,772	478	435	459	27,320
December	17,266	1,160	429	557	34,250
Calendar year 1936	326,793	2,140	429	893	648,200
January	15,072	528	450	486	29,890
February	13,673	552	450	488	27,120
March	23,526	907	560	759	46,660
April	38,691	2,970	807	1,290	76,749
May	44,950	1,620	1,140	1,450	89,160
June	46,730	2,400	1,280	1,558	92,690
July	30,034	1,380	784	969	59,570
August	22,358	784	683	721	44,350
September	19,163	770	552	639	38,010
Water year 1936-37	301,213	2,970	429	825	597,400

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 below Northwestern Electric Co.'s Condit power plant and 2 miles north of Underwood.

Drainage area.- 384 square miles.

Records available.- March 1915 to September 1930 and September 1935 to September 1937. October 1912 to February 1913, at dam 1 mile above.

Average discharge.- 17 years (1915-30, 1935-37), 1,044 second-feet.

Extremes.- Maximum discharge during year, 4,210 second-feet Apr. 15 (gage height, 7.47 feet), from rating curve extended above 2,000 second-feet; minimum daily discharge, 378 second-feet Nov. 29; minimum discharge, 102 second-feet Nov. 29 (gage height, 1.77 feet); both minimums due to regulation.
1915-30, 1935-37: Maximum discharge, about 9,700 second-feet Dec. 29, 1917 (gage height, 9.5 feet, former datum, relation to present datum unknown); practically no flow at times when power plant is shut down.

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

Rating table, water year 1936-37 (gage height, in feet, and discharge, in second-feet)

1.7	94	3.5	555	5.0	1,600	6.5	3,120
2.0	130	4.0	805	5.5	2,100	7.0	3,670
2.5	215	4.5	1,150	6.0	2,600	7.5	4,250
3.0	365						

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	528	468	466	580	441	736	1,210	1,300	1,390	1,490	774	668
2	567	452	489	530	440	1,190	1,070	1,370	1,500	1,420	773	785
3	556	468	455	476	467	1,200	1,060	1,590	1,600	1,370	798	740
4	562	556	462	552	496	953	1,150	1,810	1,650	1,300	751	664
5	593	516	447	456	442	1,020	1,130	1,810	1,550	1,250	770	867
6	556	518	450	521	448	1,140	1,060	1,680	1,510	1,200	759	960
7	546	518	550	404	443	1,040	1,030	1,600	1,490	1,090	767	616
8	570	506	564	429	460	956	1,050	1,600	1,530	1,070	756	596
9	564	491	524	536	457	1,010	1,010	1,600	1,530	1,060	770	615
10	559	496	479	448	454	976	1,000	1,630	1,520	1,050	751	673
11	578	495	484	510	494	1,010	1,130	1,700	1,440	967	768	683
12	552	546	480	479	518	1,050	1,110	1,690	1,370	992	756	820
13	547	466	484	480	506	1,240	2,510	1,770	1,330	958	752	550
14	578	536	558	568	510	1,270	3,270	1,810	1,330	959	732	816
15	542	502	529	536	495	1,230	3,600	1,790	1,480	957	734	702
16	560	471	520	444	546	1,100	3,020	1,760	1,600	938	728	632
17	536	528	583	543	652	1,090	2,560	1,680	1,580	860	748	628
18	565	488	474	454	590	1,090	2,210	1,610	1,690	910	801	611
19	563	495	576	467	532	928	1,970	1,680	1,960	876	735	614
20	546	576	506	478	579	1,030	1,830	1,620	2,280	870	761	614
21	545	458	617	458	513	1,080	1,790	1,560	2,460	838	713	608
22	529	504	718	496	770	876	1,650	1,610	2,220	856	632	608
23	550	496	1,180	500	696	994	1,540	1,590	2,030	838	730	552
24	524	462	1,120	528	713	881	1,440	1,550	1,850	830	773	501
25	520	506	702	450	636	939	1,420	1,560	1,690	840	734	572
26	540	426	754	514	638	894	1,430	1,550	1,600	821	752	588
27	508	558	604	516	680	940	1,460	1,570	1,530	812	714	585
28	522	512	626	408	755	961	1,420	1,600	1,510	813	605	586
29	553	378	590	446	-	968	1,360	1,520	1,540	864	713	582
30	505	495	596	454	-	1,040	1,310	1,370	1,480	790	686	594
31	614	-	518	442	-	1,160	-	1,380	-	714	752	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	17,078	614	505	551	33,870
November	14,887	576	378	496	29,530
December	18,105	1,180	447	584	35,910
Calendar year 1936	364,098	2,540	378	995	722,200
January	15,103	580	404	487	29,960
February	15,371	770	440	549	30,490
March	31,992	1,270	736	1,032	63,460
April	48,800	3,600	1,000	1,627	96,790
May	49,960	1,810	1,300	1,612	99,090
June	49,240	2,460	1,330	1,641	97,670
July	30,603	1,490	714	987	60,700
August	22,988	801	605	742	45,600
September	19,630	960	501	654	38,940
Water year 1936-37	333,757	3,600	378	914	662,000

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 above Little Wind River and 1 mile northeast of Carson. Discharge measurements made just below mouth of Little Wind River and records include its flow.

Drainage area.- 234 square miles.

Records available.- December 1934 to September 1937.

Extremes.- Maximum discharge during year, 9,360 second-feet Apr. 14 (gage height, 15.72 feet), from rating curve extended above 2,100 second-feet; minimum, 136 second-feet Nov. 29, Dec. 1 (gage height, 2.21 feet).
1934-37: Maximum discharge, that of Apr. 14, 1937; minimum, that of Nov. 29, Dec. 1, 1936.

Remarks.- Records good except those between 3,000 and 4,000 second-feet, which are fair, and those above 4,000 second-feet, which are poor. No diversions or regulation.

Rating table, water year 1936-37 (gage height, in feet, and discharge, in second-feet)

2.0	115	7.0	1,750
2.5	181	7.5	2,070
3.0	270	8.0	2,420
3.5	375	9.0	3,150
4.0	495	10.0	3,950
4.5	645	11.0	4,790
5.0	820	12.0	5,690
5.5	1,010	13.0	6,590
6.0	1,210	14.0	7,590
6.5	1,450	15.8	9,470

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	172	149	142	610	280	1,850	2,990	1,400	1,050	950	352	309
2	172	149	142	550	320	3,870	2,490	1,690	1,130	872	341	280
3	172	149	142	535	320	3,550	2,140	2,280	1,130	802	341	242
4	172	156	149	565	320	2,910	2,210	2,350	1,050	785	330	251
5	181	164	156	520	330	2,770	2,280	2,000	1,010	732	330	341
6	181	156	281	446	320	2,840	2,140	1,750	970	698	320	320
7	172	149	494	422	309	2,490	1,870	1,690	930	645	320	305
8	164	149	460	418	299	2,140	1,810	1,690	930	610	309	270
9	164	149	482	446	289	2,000	1,930	1,690	910	595	309	260
10	164	149	352	410	289	2,000	2,420	1,930	890	565	309	251
11	164	149	299	386	385	2,000	2,560	2,560	838	550	309	251
12	164	149	270	375	680	2,350	2,700	2,210	785	520	299	242
13	164	149	368	398	628	2,560	6,700	2,210	750	520	299	233
14	164	149	550	386	535	2,280	7,830	2,070	715	495	289	233
15	164	149	446	508	764	2,070	6,370	1,870	768	482	289	248
16	164	149	410	434	997	2,000	4,470	1,690	838	470	280	224
17	164	164	717	422	1,360	1,930	3,470	1,570	950	446	270	224
18	164	156	1,170	422	1,260	1,810	2,840	1,450	1,540	434	270	224
19	164	149	1,090	398	990	1,630	2,490	1,400	2,200	434	270	224
20	156	149	785	352	838	1,570	2,280	1,350	3,630	422	260	224
21	156	149	1,000	352	980	1,450	2,420	1,300	3,790	410	260	224
22	156	142	2,800	352	1,860	1,400	2,210	1,300	2,840	410	270	215
23	156	142	5,100	352	1,810	1,300	2,000	1,250	2,420	398	341	215
24	156	142	2,970	341	1,750	1,250	1,810	1,210	2,000	398	309	215
25	156	142	1,980	341	1,630	1,210	1,810	1,250	1,630	398	280	215
26	156	142	1,450	352	1,400	1,210	1,810	1,210	1,450	386	270	206
27	156	142	1,170	341	1,250	1,250	1,750	1,170	1,300	386	260	206
28	156	142	1,010	330	1,210	1,300	1,630	1,130	1,170	375	251	206
29	156	142	872	320	-	1,250	1,510	1,090	1,130	375	251	206
30	163	142	802	299	-	1,520	1,400	1,010	1,010	364	270	231
31	156	-	698	280	-	2,490	-	990	-	364	341	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acre-feet
October	5,069	181	156	164	0.732	0.84	10,050
November	4,458	164	142	149	.665	.74	8,840
December	28,757	5,100	142	928	4.14	4.77	57,040
Calendar year 1936	346,942	6,500	142	948	4.23	57.56	688,200
January	12,663	610	280	408	1.82	2.10	25,120
February	23,403	1,860	280	836	3.73	3.88	46,420
March	62,250	3,870	1,210	2,008	8.96	10.33	123,500
April	82,340	7,830	1,400	2,745	12.3	13.72	163,300
May	49,760	2,560	990	1,605	7.17	8.27	98,700
June	41,754	3,790	715	1,392	6.21	6.93	82,820
July	16,291	950	364	526	2.35	2.71	32,310
August	9,199	352	251	297	1.33	1.53	18,250
September	7,295	341	206	243	1.08	1.20	14,470
Water year 1936-37	343,239	7,830	142	940	4.20	57.02	680,800

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 above Sandy River Dam of Portland General Electric Co., and 5 miles below mouth of Salmon River.

Drainage area.- 262 square miles.

Records available.- August 1911 to December 1915, July 1919 to September 1937. Combined discharge of Sandy River below dam and canal gives equivalent results for January 1916 to June 1919.

Average discharge.- 26 years, 1,333 second-feet.

Extremes.- Maximum discharge during year, 8,860 second-feet Apr. 14 (gage height, 9.10 feet); minimum, 215 second-feet Nov. 30, Dec. 1 (gage height, 1.90 feet).
1911-37: Maximum discharge, about 29,200 second-feet Jan. 6, 1923 (gage height, 17.5 feet); minimum, 210 second-feet Oct. 14, 15, 1931.

Remarks.- Records good except those for periods of missing gage heights, Oct. 8-10, Jan. 9, 10, and those for period of ice effect, Jan. 11, 12, which are fair. Discharge for Oct. 8-10 interpolated; that for Jan. 9-12 computed by comparison with records for station below Bull Run River, near Bull Run. No diversions or regulation above station. Water-stage recorder inspected by employee of Portland General Electric Co.

Rating table, water year 1936-37 except period of ice effect (gage height, in feet, and discharge, in second-feet)

1.9	215	3.0	720	4.5	1,780	7.0	5,110
2.2	330	3.5	1,010	5.0	2,320	8.0	6,780
2.4	415	4.0	1,350	6.0	3,620	9.0	8,660
2.7	560						

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	298	254	218	665	456	1,780	3,200	1,830	1,690	1,280	485	410
2	298	236	229	605	446	2,880	2,260	2,810	1,880	1,140	465	370
3	290	236	236	600	424	2,520	1,830	3,900	1,930	1,070	465	379
4	370	246	254	643	520	2,560	1,880	3,900	1,690	1,040	480	388
5	366	250	676	595	565	2,680	1,830	3,140	1,560	980	490	500
6	310	246	1,070	460	505	2,740	1,690	2,740	1,470	920	485	406
7	302	236	1,280	428	480	2,260	1,560	2,680	1,430	890	475	370
8	297	236	1,280	451	465	1,980	1,560	2,680	1,390	890	460	366
9	292	236	1,240	480	446	2,090	1,930	2,680	1,430	860	475	366
10	287	232	802	470	433	1,980	2,140	2,810	1,350	830	510	370
11	282	232	643	470	570	2,090	1,980	4,050	1,280	830	505	366
12	270	229	560	470	1,510	2,680	2,090	3,620	1,210	802	485	362
13	274	229	720	520	1,100	3,070	6,690	3,900	1,140	802	460	358
14	314	229	1,100	495	920	2,940	7,690	3,900	1,240	748	442	358
15	282	229	920	665	830	2,440	6,260	3,270	1,430	714	410	362
16	270	236	775	570	1,100	2,140	4,500	2,940	1,510	709	410	350
17	278	298	1,510	560	1,210	1,980	3,340	2,620	1,560	720	420	342
18	266	250	2,380	560	1,240	1,740	2,810	2,680	2,090	748	415	338
19	258	240	1,560	495	1,070	1,510	2,500	2,320	2,560	698	415	370
20	254	243	1,140	446	920	1,350	2,320	2,140	4,050	654	402	379
21	246	240	1,150	460	1,140	1,240	2,740	2,140	4,050	638	397	346
22	243	236	1,690	480	1,600	1,180	2,380	2,320	3,000	638	446	326
23	246	229	3,760	465	1,560	1,100	2,090	2,090	2,380	648	495	310
24	246	226	2,680	470	1,640	1,040	1,930	2,040	1,930	665	433	298
25	246	226	1,830	446	1,640	1,010	2,090	2,380	1,640	643	392	298
26	243	226	1,430	465	1,510	1,040	2,200	2,140	1,510	632	392	302
27	240	222	1,180	442	1,350	1,040	2,040	1,980	1,390	626	379	306
28	236	218	980	420	1,280	1,100	1,830	1,930	1,350	600	358	294
29	236	222	890	406	-	1,100	1,600	1,780	1,280	565	354	294
30	240	218	802	379	-	1,320	1,560	1,600	1,280	540	402	314
31	254	-	720	370	-	2,310	-	1,600	-	500	500	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acre-feet
October	8,534	370	236	275	1.05	1.21	16,930
November	7,086	298	218	236	.901	1.01	14,050
December	35,705	3,760	218	1,152	4.40	5.07	70,820
Calendar year 1936	451,773	11,100	218	1,234	4.71	64.13	896,000
January	15,451	665	370	498	1.90	2.19	30,650
February	26,930	1,640	424	962	3.67	3.82	53,410
March	58,990	3,070	1,010	1,903	7.26	8.37	117,000
April	80,520	7,690	1,560	2,684	10.2	11.33	159,700
May	82,610	4,050	1,600	2,665	10.2	11.73	163,900
June	53,700	4,050	1,140	1,790	6.83	7.62	106,500
July	24,020	1,280	500	775	2.96	3.41	47,640
August	13,702	510	354	442	1.69	1.95	27,180
September	10,598	500	294	353	1.35	1.51	21,020
Water year 1936-37	417,846	7,690	218	1,145	4.37	59.30	828,800

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

Location.- Water-stage recorder, lat. 45°27', long. 122°15', in NW¼ sec. 30, T. 1 S., R. 5 E., 1 mile below Bull Run River and 2 miles northwest of Bull Run. Zero of gage is about 202 feet above mean sea level (Geological Survey river profile).

Drainage area.- 440 square miles.

Records available.- October 1929 to September 1937. April 1910 to September 1914, at site three-quarters of a mile upstream.

Average discharge.- 11 years (1910-11, 1912-14, 1929-37), 2,225 second-feet.

Extremes.- Maximum discharge during year, 19,500 second-feet Apr. 14 (gage height, 11.56 feet); minimum, 109 second-feet Nov. 29 (gage height, 0.87 foot); minimum daily discharge, 291 second-feet Dec. 2.
1910-14, 1929-37: Maximum discharge, 58,000 second-feet Mar. 31, 1931 (gage height, 20.6 feet); minimum, 53 second-feet Oct. 4, 1931 (gage height, 0.53 foot); minimum daily discharge, 129 second-feet Oct. 4, 1931.

Remarks.- Records good. No diversions for irrigation above station; about 50,000 acre-feet diverted annually from Bull Run River by Portland Water Bureau. Flow slightly regulated by storage in Bull Run Lake and Bull Run Reservoir of Portland Water Bureau; large diurnal regulation by pondage for Bull Run power plant of Portland General Electric Co.

Rating table, water year 1936-37 (gage height, in feet, and discharge, in second-feet)

0.9	115	4.0	1,850	7.0	6,400	10.0	14,100
1.4	250	5.0	2,940	8.0	8,650	11.0	17,400
2.0	480	6.0	4,450	9.0	11,100	12.0	21,000
3.0	1,020						

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	406	372	302	1,100	720	3,740	6,610	2,610	2,770	1,960	574	527
2	370	358	291	894	746	6,820	4,700	4,110	2,900	1,860	590	502
3	404	363	346	854	720	6,190	3,480	6,400	2,970	1,430	528	452
4	458	360	370	1,170	916	5,380	3,550	6,400	2,590	1,120	550	476
5	507	378	923	975	1,170	5,380	3,960	5,000	2,280	1,240	556	652
6	416	388	1,650	706	1,040	5,580	3,350	4,570	2,150	1,260	556	526
7	406	348	1,940	696	907	4,530	3,080	4,460	2,260	1,160	556	516
8	373	367	1,810	68[illegible]	889	4,110	2,980	4,130	2,050	1,120	542	505
9	400	343	3,050	802	826	4,020	3,580	4,180	2,080	1,180	554	438
10	372	364	1,810	700	758	3,830	4,100	5,000	2,180	1,090	605	488
11	375	326	1,350	678	915	3,740	3,830	7,710	1,890	839	546	476
12	386	336	1,120	660	2,970	4,910	4,270	6,190	1,590	1,050	560	404
13	360	323	1,720	734	2,630	5,380	13,800	6,400	1,400	962	592	438
14	404	347	3,240	753	2,080	5,380	15,900	6,610	1,760	990	596	451
15	385	370	2,310	1,174	1,710	4,640	12,900	4,940	2,050	866	550	434
16	376	332	1,880	924	2,460	3,900	8,650	4,830	2,280	926	528	419
17	392	422	3,380	913	2,800	3,740	6,190	4,330	2,550	1,020	540	450
18	342	374	6,400	978	3,030	3,220	5,190	4,300	4,190	756	514	432
19	402	336	3,860	872	2,440	3,020	4,520	3,950	5,190	836	478	492
20	328	354	2,320	718	2,010	2,330	3,990	3,570	9,610	828	482	446
21	353	354	2,330	691	2,230	2,020	5,040	3,600	9,370	756	432	463
22	360	352	3,690	754	3,770	2,150	4,580	3,570	6,400	735	532	421
23	328	312	9,370	792	3,690	1,900	4,210	3,010	4,820	802	638	417
24	328	326	6,190	734	3,500	1,860	3,350	3,370	3,600	670	576	358
25	347	353	4,060	667	3,400	1,740	3,540	3,850	3,100	730	529	425
26	350	339	3,150	750	3,190	1,820	3,890	3,430	2,340	663	460	371
27	325	338	2,350	742	2,840	1,670	3,530	3,310	2,140	706	472	410
28	334	308	2,000	648	2,380	1,480	3,180	3,180	2,280	756	401	402
29	340	292	1,610	623	-	1,850	2,730	2,600	2,050	631	502	364
30	366	312	1,410	614	-	2,040	2,790	2,220	1,810	695	452	426
31	383	-	1,300	532	-	4,240	-	2,320	-	566	610	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acre-feet
October	11,676	507	325	377	0.857	0.99	23,160
November	10,447	422	292	348	.791	.88	20,720
December	77,532	9,370	291	2,501	5.68	6.55	153,800
Calendar year 1936	774,654	22,600	291	2,117	4.81	65.44	1,537,000
January	24,528	1,174	532	791	1.80	2.08	48,650
February	56,737	3,770	720	2,026	4.60	4.79	112,500
March	112,510	6,820	1,480	3,629	8.25	9.51	223,200
April	155,270	15,800	2,730	5,176	11.8	13.17	308,000
May	134,050	7,710	2,220	4,324	9.83	11.33	265,900
June	94,650	9,610	1,400	3,155	7.17	8.00	187,700
July	30,203	1,960	566	974	2.21	2.55	59,910
August	16,601	638	401	536	1.22	1.41	32,930
September	13,581	652	358	453	1.03	1.15	26,940
Water year 1936-37	737,785	15,800	291	2,021	4.59	62.41	1,463,000

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 and 4 miles southeast of Government Camp. Zero of gage is 3,446.45 feet above mean sea level (general adjustment of 1929).

Drainage area.- 8.7 square miles.

Records available.- May 1910 to May 1912, April 1926 to September 1937.

Average discharge.- 12 years, 41.0 second-feet.

Extremes.- Maximum discharge during year, 152 second-feet June 20 (gage height, 1.81 feet); minimum, 12 second-feet Nov. 2, 10-12, Nov. 28 to Dec. 4.
1910-12, 1926-37: Maximum discharge, 650 second-feet Dec. 22, 1933 (gage height, 3.81 feet); minimum, 12 second-feet Nov. 21, 1929, Oct. 19, 1930, Nov. 2, 10-12, Nov. 28 to Dec. 4, 1936.

Remarks.- Records good except those for period of ice effect or missing gage heights, Jan. 5-19, which were computed on basis of weather records and records for station above Boulder Creek, near Brightwood, and are fair. No diversions or regulation above station.

Rating table, water year 1936-37 except period of ice effect (gage height, in feet, and discharge, in second-feet)

0.3	11	1.2	78
.4	16	1.4	98
.6	29	1.6	121
.8	44	1.8	150
1.0	60		

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	18	14	12	18	16	21	43	62	93	78	35	26
2	18	13	12	20	16	26	34	84	105	72	33	26
3	19	14	12	17	16	26	31	102	105	70	33	26
4	28	15	12	18	16	26	31	101	98	69	33	26
5	20	14	42	17	16	26	29	84	98	66	34	31
6	20	14	46	14	16	28	28	84	96	61	34	25
7	20	13	42	13	16	27	28	87	95	60	34	24
8	19	13	26	13	15	26	31	85	94	60	32	24
9	19	13	23	16	15	28	38	80	93	59	33	24
10	18	13	18	15	15	28	38	83	90	58	34	24
11	17	12	18	14	19	30	33	99	84	58	35	23
12	17	13	16	14	23	44	46	102	80	57	32	23
13	17	14	23	17	20	52	100	107	79	57	32	23
14	18	14	26	16	17	46	102	116	86	55	31	23
15	17	14	20	22	17	41	79	102	91	54	28	23
16	17	15	18	20	17	38	61	97	93	53	28	23
17	17	16	23	19	17	36	55	95	86	54	28	23
18	18	14	50	19	17	32	54	97	96	54	29	23
19	17	14	29	18	16	29	53	90	104	50	29	25
20	17	14	23	17	16	27	57	88	125	47	28	25
21	17	14	34	16	26	26	58	92	107	46	28	23
22	17	14	40	16	26	25	50	95	94	46	31	22
23	17	14	55	16	22	23	46	88	89	46	36	21
24	17	14	34	16	21	23	49	89	79	46	29	21
25	17	14	28	16	20	23	59	104	75	46	26	21
26	17	13	26	16	19	25	61	93	74	44	27	22
27	17	13	23	16	18	26	55	90	74	42	26	21
28	17	12	21	16	18	28	48	88	74	42	26	20
29	16	12	20	16	-	28	46	83	74	40	25	21
30	14	12	20	16	-	32	52	80	85	39	32	21
31	14	-	19	16	-	43	-	85	-	36	31	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acre-feet
October	551	28	14	17.8	2.05	2.36	1,090
November	408	16	12	13.6	1.56	1.74	809
December	813	55	12	26.2	3.01	3.47	1,610
Calendar year 1936	14,578	157	12	39.8	4.57	62.25	28,910
January	513	22	13	16.5	1.90	2.19	1,020
February	506	26	15	18.1	2.08	2.17	1,000
March	939	52	21	30.3	3.48	4.01	1,860
April	1,495	102	28	49.8	5.72	6.38	2,970
May	2,832	116	62	91.4	10.5	12.11	5,620
June	2,716	125	74	90.5	10.4	11.60	5,390
July	1,665	78	36	53.7	6.17	7.11	3,300
August	952	36	25	30.7	3.53	4.07	1,890
September	703	31	20	23.4	2.69	3.00	1,390
Water year 1936-37	14,093	125	12	38.5	4.44	60.21	27,950

Salmon River below Linney Creek, Oreg.

Location.- Water-stage recorder, lat. 45°13', long. 121°52', 200 feet below 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 1937.

Average discharge.- 10 years, 204 second-feet.

Extremes.- Maximum discharge during year, 1,200 second-feet Apr. 14 (gage height, 3.4 feet); minimum, 37 second-feet Nov. 2 (gage height, 0.22 foot).
1927-37: Maximum discharge, 4,070 second-feet Mar. 31, 1931 (gage height, 5.81 feet); minimum, that of Nov. 2, 1936.

Remarks.- Records good except those for period of ice effect, Jan. 6, 7, and period of missing gage heights, Jan. 8 to Feb. 20, which were computed by comparison with records for stations near Government Camp and above Boulder Creek, near Brightwood, and are fair. No diversions or regulation above station.

Rating table, water year 1936-37 except period of ice effect (gage height, in feet, and discharge, in second-feet)

0.3	43	1.6	310
.5	64	2.0	460
.8	108	2.5	685
1.0	144	3.0	960
1.3	216	3.5	1,270

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	58	47	46	82	70	122	346	444	398	270	108	83
2	58	44	47	80	65	162	279	580	413	239	106	78
3	58	45	48	86	60	159	254	768	417	222	103	77
4	68	48	49	88	70	159	254	822	391	213	103	78
5	67	49	134	82	80	168	236	712	368	206	103	92
6	60	47	155	70	75	190	222	660	353	195	103	92
7	60	46	162	60	70	183	216	660	335	185	103	77
8	57	46	136	64	68	176	236	635	332	183	98	76
9	57	46	122	74	66	183	283	605	342	176	98	76
10	56	46	86	70	65	185	314	615	328	171	100	74
11	55	46	74	66	100	208	286	712	317	166	102	73
12	54	46	68	64	200	279	350	685	293	162	97	73
13	55	46	74	72	130	346	932	768	276	159	95	73
14	56	47	97	70	90	342	1,080	795	296	155	95	72
15	54	48	84	100	80	314	908	740	339	148	90	69
16	52	50	74	80	110	300	685	685	328	144	89	69
17	51	57	128	76	120	286	549	630	310	144	88	68
18	50	51	222	74	110	254	496	625	346	146	88	69
19	49	49	151	70	90	228	452	562	376	138	89	73
20	50	49	111	64	80	206	444	528	464	133	88	76
21	49	47	129	72	144	190	476	532	452	129	86	70
22	48	47	180	76	142	178	406	544	391	127	90	68
23	47	47	317	75	127	166	372	504	337	125	102	67
24	46	47	219	74	123	157	361	500	332	123	90	65
25	47	47	166	74	116	153	417	572	307	122	83	65
26	46	46	144	72	110	162	456	508	286	123	83	65
27	45	46	129	70	105	171	429	480	273	120	82	67
28	45	46	116	65	105	185	376	464	257	118	80	64
29	44	46	106	62	-	190	346	437	254	115	78	67
30	45	45	102	55	-	208	368	402	279	113	86	67
31	47	-	95	60	-	300	-	394	-	111	95	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acre-feet
October	1,634	68	44	52.7	0.976	1.13	3,240
November	1,417	57	44	47.2	.874	.98	2,810
December	3,771	317	46	122	2.26	2.61	7,480
Calendar year 1936	72,997	1,300	44	199	3.69	50.33	144,800
January	2,247	100	55	72.5	1.34	1.54	4,460
February	2,771	200	60	99.0	1.83	1.91	5,500
March	6,510	345	122	210	3.89	4.48	12,910
April	12,826	1,080	216	428	7.93	8.85	25,440
May	18,568	822	394	599	11.1	12.80	36,830
June	10,240	464	254	341	6.31	7.04	20,310
July	4,881	270	111	157	2.91	3.36	9,680
August	2,901	108	78	93.6	1.73	1.99	5,750
September	2,173	92	64	72.4	1.34	1.50	4,310
Water year 1936-37	69,939	1,080	44	192	3.56	48.19	138,700

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. 8 E., 1 mile above Boulder Creek, 1½ miles south of Brightwood, and 2½ miles above mouth.
Drainage area.- 106 square miles.
Records available.- August 1936 to September 1937. October 1912 to March 1913 (gage heights only), at site at fish hatchery below Boulder Creek, near Brightwood. August 1913 to September 1914, July 1920 to September 1921, April 1925 to September 1936 at sites at or near Welches, about 5 miles upstream from present site.
Extremes.- 1936: Maximum discharge during period, 199 second-feet Sept. 2 (gage height, 1.13 feet); minimum, 74 second-feet Sept. 27-30.
1936-37: Maximum discharge during year, 3,600 second-feet Apr. 13 (gage height, 4.35 feet); minimum, 58 second-feet Nov. 30, Dec. 1.
1913-14, 1920-21, 1925-37: Maximum discharge, 13,000 second-feet (estimated) Mar. 31, 1931 (gage height, 9.80 feet at Welches); minimum, that of Nov. 30, Dec. 1, 1936.
Remarks.- Records excellent except those for periods of ice effect, Jan. 7-12, Jan. 30 to Feb. 1, and of missing gage heights, Aug. 2, 3, 28-30, Sept. 22-24, 1937 (computed on basis of weather records and records for stations near Government Camp and below Linney Creek), and those for period of shifting control, Aug. 24 to Sept. 17, 1936, all of which are fair. No diversions or regulation above station.

Discharge, in second-feet, Aug. 24 to Sept. 30, 1936

Day	Aug.	Sept.	Day	Aug.	Sept.	Day	Aug.	Sept.
1	-	115	11	-	85	21	-	93
2	-	165	12	-	90	22	-	82
3	-	118	13	-	110	23	-	82
4	-	104	14	-	159	24	113	78
5	-	102	15	-	122	25	104	77
6	-	98	16	-	104	26	100	75
7	-	96	17	-	94	27	100	74
8	-	90	18	-	88	28	98	74
9	-	88	19	-	86	29	98	74
10	-	88	20	-	83	30	104	74
						31	100	-

Note.- Mean discharge Aug. 24-31, 102 second-feet (run-off, 1,620 acre-feet); Sept. 1-30, 95.3 second-feet (run-off 5,670 acre-feet).

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	74	74	63	186	130	668	1,300	752	636	425	140	128
2	74	71	66	162	130	1,110	860	1,140	689	378	137	119
3	74	71	67	171	120	934	703	1,530	669	351	134	113
4	85	72	71	189	146	934	710	1,550	616	338	131	117
5	92	75	274	171	162	1,010	682	1,190	572	325	131	133
6	78	74	435	130	143	1,020	616	1,070	544	304	128	126
7	75	72	528	100	132	812	574	1,060	516	292	131	115
8	75	71	496	110	127	731	604	1,040	506	279	126	113
9	75	69	462	140	120	775	738	1,010	516	263	126	111
10	74	69	240	135	118	752	844	1,120	500	256	128	109
11	74	69	183	130	185	828	768	1,620	485	244	131	104
12	72	68	154	130	668	1,120	885	1,390	445	237	124	102
13	74	68	211	151	405	1,260	3,190	1,500	415	233	122	102
14	77	68	348	146	299	1,170	3,110	1,500	440	226	122	100
15	77	69	255	219	255	951	2,480	1,250	500	212	115	98
16	74	72	209	177	381	852	1,750	1,120	506	205	113	96
17	72	82	761	177	425	790	1,300	1,020	522	202	111	96
18	72	75	1,000	177	440	675	1,070	1,030	721	208	111	96
19	72	72	574	154	339	586	951	908	820	195	111	106
20	71	71	362	132	283	517	892	828	1,370	186	109	113
21	71	69	409	135	385	462	1,060	828	1,310	176	106	104
22	71	69	675	143	604	430	884	876	917	173	119	100
23	71	68	1,680	137	586	400	790	798	798	167	135	97
24	71	68	926	132	649	376	731	775	662	164	112	95
25	71	67	616	125	630	366	798	934	577	164	111	94
26	69	66	473	127	534	381	860	828	522	164	109	94
27	71	66	371	122	462	395	805	768	475	156	106	93
28	71	64	303	118	456	430	703	738	440	154	104	93
29	69	64	263	110	-	435	630	689	420	151	102	93
30	69	62	237	94	-	534	623	623	420	145	130	96
31	74	-	209	100	-	992	-	610	-	143	151	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acre-feet
October	2,289	92	69	73.8	0.696	0.80	4,540
November	2,095	82	62	69.8	.658	.73	4,160
December	12,921	1,680	63	417	3.93	4.53	25,630
Calendar year							
January	4,430	219	94	143	1.35	1.56	8,790
February	9,314	668	118	333	3.14	3.27	18,470
March	22,696	1,260	366	732	6.91	7.97	45,020
April	31,911	3,190	574	1,064	10.0	11.16	63,290
May	32,095	1,620	610	1,035	9.76	11.25	63,660
June	18,549	1,370	415	618	5.83	6.50	36,790
July	7,116	425	143	230	2.17	2.50	14,110
August	3,776	151	102	122	1.15	1.33	7,490
September	3,156	133	93	105	.991	1.11	6,260
Water year 1936-37	150,348	3,190	62	412	3.89	52.71	298,200

Bull Run Reservoir near Bull Run, Oreg.

Location.- Water-stage recorder, lat. 45°29', long. 122°05', in SW¼ sec. 16, T. 1 S., R. 5 E., at Bear Creek Dam of City of Portland, 8½ miles northeast of Bull Run. Gage readings are elevations above mean sea level.

Records available.- October 1928 to September 1937.

Extremes.- Maximum contents during year, 29,060 acre-feet Apr. 13 (elevation, 1,041.40 feet); minimum, 18,090 acre-feet Dec. 4 (elevation, 1,010.45 feet).
1928-37: Maximum contents, 31,600 acre-feet Mar. 31, 1931 (elevation, 1,047.40 feet); minimum, that of Dec. 4, 1936.

Remarks.- Records good. Bear Creek Dam on Bull Run River, completed in March 1929, stores water in Bull Run Reservoir for supply of city of Portland. Capacity of reservoir at crest of spillway, elevation 1,036 feet, is 26,930 acre-feet, and at center-line of outlet valves, elevation 890 feet, is 213 acre-feet, which is dead storage. Water-stage recorder graph furnished by Portland Water Bureau.

Elevation and contents, water year October 1936 to September 1937

Date	Elevation (feet)	Contents (acre-feet)	Change in contents during month (acre-feet)
Sept. 30	1,028.14	24,010	-
Oct. 31	-	*21,710	-2,300
Nov. 30	1,011.08	18,280	-3,430
Dec. 31	1,036.87	27,270	+8,990
Jan. 31	-	*27,080	-190
Feb. 28	1,037.29	27,430	+350
Mar. 31	1,038.25	27,810	+380
Apr. 30	1,037.32	27,440	-370
May 31	1,037.26	27,420	-20
June 30	1,036.98	27,310	-110
July 31	1,036.08	26,960	-350
Aug. 31	1,034.02	26,180	-780
Sept. 30	1,034.62	26,410	+230
The year	—	—	+2,400

*Interpolated.

Bull Run River below Bull Run Reservoir, Oreg.

Location.- Water-stage recorder above crest of spillway and scales indicating how much outlet needle valves are open, lat. 45°28', long. 122°05', in SW¼ sec. 16, T. 1 S., R. 6 E., at Bull Run Dam, 8¾ miles northeast of Bull Run. Zero of gage is level with crest of dam and 1,036 feet above mean sea level.

Drainage area.- 77 square miles.

Records available.- October 1929 to September 1937.

Extremes.- Maximum discharge during year, 4,980 second-feet Apr. 13 (gage height, 5.40 feet); minimum, 26 second-feet part of Dec. 7.
1929-37: Maximum discharge, 15,700 second-feet Mar. 31, 1931 (gage height, 10.85 feet); minimum (estimated), 5 second-feet Oct. 10, 11, 1930.

Remarks.- Records good except those for period of partial gage-height record, Jan. 28 to Feb. 6, which were computed on basis of available gage-heights and records for station near Bull Run and are fair. Discharge determined by combining flow over crest of dam and flow through valves near base of dam. No diversions above station. Flow regulated by storage in Bull Run Lake and Bull Run Reservoir; adjustment applied only for storage in Bull Run Reservoir. Records of reservoir stage and valve openings furnished by Portland Water Bureau.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	103	99	56	255	125	718	1,850	627	574	321	111	88
2	101	99	56	220	115	1,700	1,240	976	669	299	111	88
3	101	99	56	205	120	1,700	976	1,460	718	266	110	88
4	101	98	56	192	190	1,320	976	1,500	620	245	116	88
5	101	98	56	174	210	1,240	976	1,240	555	240	119	89
6	101	98	58	169	170	1,320	840	1,020	529	223	112	89
7	101	98	49	169	160	1,100	776	1,050	516	210	104	89
8	103	98	56	164	140	934	732	1,100	477	196	104	92
9	101	99	994	160	148	891	894	1,100	454	187	104	89
10	101	98	704	152	148	860	1,100	1,370	438	174	104	89
11	101	98	496	144	196	832	1,050	2,320	419	199	106	89
12	100	98	383	140	760	1,050	1,100	1,650	389	181	181	89
13	100	99	832	144	739	1,320	4,170	1,600	354	177	147	89
14	100	97	1,370	148	484	1,240	4,040	1,550	354	167	147	89
15	102	97	900	220	425	1,070	2,980	1,240	383	161	147	92
16	100	97	672	192	581	942	1,850	1,100	473	156	135	89
17	100	97	1,510	164	827	843	1,320	1,020	627	153	116	89
18	100	97	2,540	156	865	768	1,040	1,010	1,190	148	118	89
19	100	97	1,370	144	683	548	882	916	1,750	151	118	89
20	100	99	800	140	548	555	792	792	3,280	144	118	89
21	100	96	840	132	641	484	1,140	779	2,760	141	118	89
22	102	96	1,320	116	1,060	470	1,100	840	1,650	134	118	92
23	100	96	3,160	99	900	458	953	739	1,190	132	99	89
24	100	96	1,800	96	835	432	848	725	882	130	88	89
25	99	96	1,190	99	800	413	816	808	686	127	91	89
26	99	95	848	99	711	410	816	776	568	125	88	89
27	99	91	634	102	627	395	776	704	486	120	88	89
28	99	66	496	95	548	389	693	658	425	119	88	89
29	101	56	407	90	-	395	600	594	389	115	88	92
30	99	56	346	85	-	496	568	548	354	114	91	89
31	99	-	294	80	-	1,320	-	529	-	114	88	-

Month	Observed				Change in contents Bull Run Reservoir in acre-feet	Adjusted for storage			
	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	103	99	100	6,180	-2,300	3,880	63.1	0.819	0.94
November	99	56	93.4	5,560	-3,430	2,130	35.8	.465	.52
December	3,160	49	785	48,300	+8,990	57,290	932	12.1	13.95
Calendar year 1936	6,290	49	518	376,430	-730	375,700	518	6.73	91.55
January	255	80	147	9,010	-190	8,820	143	1.86	2.14
February	1,060	115	491	27,290	+350	27,640	498	6.47	6.74
March	1,700	389	862	52,980	+380	53,360	868	11.3	13.03
April	4,170	568	1,263	75,160	-370	74,790	1,257	16.3	18.19
May	2,320	529	1,043	64,150	-20	64,130	1,043	13.5	15.56
June	3,280	354	805	47,920	-110	47,810	803	10.4	11.60
July	321	114	174	10,670	-350	10,320	168	2.18	2.51
August	147	88	111	6,800	-780	6,020	97.9	1.27	1.46
September	92	88	89.3	5,310	+230	5,540	93.1	1.21	1.35
Water year 1936-37	4,170	49	496	359,330	+2,400	361,730	500	6.49	87.99

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 above 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 1925 to September 1937.

Average discharge.- 30 years (1907-37), 745 second-feet.

Extremes.- Maximum discharge during year, 6,290 second-feet Apr. 14 (gage height, 7.12 feet); minimum, 93 second-feet Dec. 1 (gage height, 0.67 foot).
1925-1937: Maximum discharge, 20,600 second-feet Mar. 31, 1931 (gage height, 13.8 feet); minimum, 63 second-feet Aug. 13-16, 1926.

Remarks.- Records good. No diversions above station. Flow regulated by storage in Bull Run Lake and Bull Run Reservoir; adjustments for storage applied for Bull Run Reservoir only, because flow from Bull Run Lake is not artificially regulated but reaches river through surface and underground channels. Water-stage recorder graph furnished by Portland Water Bureau.

Rating table, water year 1936-37 (gage height, in feet, and discharge, in second-feet)

0.6	90	1.7	420	3.0	1,140	5.0	3,070
.7	99	2.0	550	3.5	1,520	6.0	4,410
1.0	173	2.5	815	4.0	1,970	7.0	6,110
1.3	267						

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	121	128	95	368	211	1,100	2,300	845	732	420	126	117
2	119	126	95	325	193	2,380	1,560	1,210	845	388	126	110
3	117	124	97	299	218	2,220	1,240	1,780	875	356	126	108
4	141	126	103	356	299	1,690	1,280	1,870	760	333	134	110
5	128	126	226	360	314	1,640	1,320	1,480	705	314	134	144
6	121	126	292	271	281	1,780	1,140	1,280	650	296	131	121
7	119	124	325	243	260	1,480	1,070	1,280	595	267	119	117
8	121	124	398	243	250	1,240	1,000	1,360	550	257	119	117
9	117	121	1,320	247	230	1,210	1,240	1,360	546	243	119	110
10	117	119	935	240	221	1,180	1,480	1,690	532	230	121	108
11	117	119	650	230	260	1,140	1,320	2,920	496	243	128	108
12	117	119	500	218	930	1,400	1,450	2,020	460	236	136	108
13	117	126	960	214	905	1,690	5,010	1,920	432	214	157	108
14	124	121	1,740	227	678	1,600	5,220	1,870	428	205	157	108
15	124	121	1,180	322	555	1,400	3,830	1,520	482	196	157	112
16	119	124	935	278	788	1,210	2,540	1,360	600	188	151	106
17	117	128	1,950	278	978	1,140	1,780	1,240	788	182	134	106
18	117	126	3,070	296	1,070	1,040	1,400	1,240	1,430	179	134	106
19	117	124	1,690	247	815	875	1,210	1,100	2,170	176	134	108
20	117	128	1,070	218	625	788	1,070	968	3,970	165	131	110
21	117	126	1,120	211	760	678	1,480	968	3,540	160	134	106
22	119	126	1,600	205	1,440	625	1,480	1,040	2,170	154	144	110
23	114	126	3,970	211	1,360	590	1,320	905	1,560	151	141	106
24	114	126	2,380	211	1,140	560	1,180	905	1,180	149	126	106
25	114	126	1,600	190	1,040	523	1,140	1,040	935	146	121	106
26	112	126	1,210	195	968	514	1,100	968	760	144	119	103
27	112	126	905	185	875	514	1,040	875	650	138	119	103
28	112	106	678	175	788	496	935	815	560	141	117	103
29	121	97	570	165	-	482	815	760	500	134	114	110
30	124	95	496	162	-	658	760	678	456	131	124	117
31	128	-	424	154	-	1,660	-	650	-	128	136	-

Month	Observed				Change in contents Bull Run Reservoir in acre-feet	Adjusted for storage			
	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	141	112	119	7,330	-2,300	5,030	81.8	0.802	0.92
November	128	95	122	7,260	-3,430	3,830	64.4	.631	.70
December	3,970	95	1,051	64,630	+8,990	73,620	1,197	11.7	13.49
Calendar year 1936	7,420	95	664	482,010	-730	481,280	663	6.50	88.45
January	368	154	243	14,960	-190	14,770	240	2.35	2.71
February	1,440	193	659	36,600	+350	36,950	665	6.52	6.79
March	2,380	482	1,145	70,420	+380	70,800	1,151	11.3	13.03
April	5,220	760	1,657	98,600	-370	98,230	1,651	16.2	18.07
May	2,920	650	1,288	79,170	-20	79,150	1,287	12.6	14.53
June	3,970	428	1,012	60,210	-110	60,100	1,010	9.90	11.04
July	420	128	215	13,220	-350	12,870	209	2.05	2.36
August	157	114	131	8,070	-780	7,290	119	1.17	1.35
September	144	103	110	6,570	+230	6,800	114	1.12	1.25
Water year 1936-37	5,220	95	645	467,040	+2,400	469,440	648	6.35	86.24

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 above Portland General Electric Co.'s dam and tunnel from Sandy River and 3 miles east of Bull Run. Zero of gage is 710.51 feet above mean sea level (surveys of Portland General Electric Co., referred to adjustment of 1924).

Drainage area.- 23 square miles.

Records available.- May 1911 to April 1913 (fragmentary), July 1919 to September 1937.

Average discharge.- 18 years (1919-37), 139 second-feet.

Extremes.- Maximum discharge during year, 1,370 second-feet Apr. 14 (gage height, 5.77 feet); minimum, 12 second-feet Nov. 30 (gage height, 1.89 feet).
1911-13, 1919-37: Maximum discharge, 3,950 second-feet Nov. 20, 1921 (gage height, 9.18 feet); minimum, 10 second-feet Sept. 17, 1924, Sept. 2-5, 1931, Sept. 30, Oct. 1-11, 1932.

Remarks.- Records good except those for periods of ice effect, Jan. 7-15, 20-22, 31, Feb. 1, which were computed on basis of weather records, gage heights, and records for Bull Run River near Bull Run, and are fair. No diversions or regulation above station. Water-stage recorder graph furnished by Portland General Electric Co.

Rating table, water years 1936-37 except periods of ice effect (gage height, in feet, and discharge, in second-feet)

3	9	2.7	73	4.5	580
)	17	3.0	115	5.0	840
?	28	3.5	219	5.5	1,180
4	43	4.0	380	6.0	1,570

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	14	20	13	59	50	310	415	179	166	71	22	25
2	14	16	14	55	43	507	268	272	176	65	21	20
3	14	15	16	53	48	439	227	362	159	59	20	18
4	42	16	20	64	73	356	253	376	132	57	20	20
5	36	18	203	60	75	348	241	277	115	55	20	50
6	23	16	294	48	72	380	214	244	104	52	20	33
7	20	16	314	46	66	297	196	247	95	49	19	25
8	18	16	398	45	59	250	185	262	88	47	19	22
9	17	16	268	46	54	262	262	265	88	44	19	21
10	16	16	143	44	52	253	284	341	88	41	22	20
11	16	14	102	43	64	241	247	520	92	40	22	19
12	16	14	80	42	151	268	313	380	107	37	20	18
13	16	14	224	42	176	310	938	384	84	38	19	18
14	25	14	300	45	157	331	1,020	370	84	37	19	18
15	21	14	187	53	129	271	725	277	102	34	18	17
16	18	14	145	48	162	239	487	256	130	33	18	16
17	16	21	323	52	181	225	366	236	176	32	18	16
18	16	18	394	55	192	194	294	265	358	32	17	17
19	16	16	199	48	157	170	259	214	401	32	17	21
20	16	14	132	45	130	149	239	199	700	29	16	24
21	16	14	160	42	170	130	324	212	587	28	16	20
22	16	14	244	41	277	117	268	216	387	27	23	18
23	16	13	700	43	247	110	247	192	268	26	30	18
24	16	14	390	41	222	105	230	199	202	26	29	17
25	16	13	247	38	216	98	227	265	159	26	21	16
26	16	13	190	41	227	96	227	214	132	24	19	16
27	14	13	145	39	209	96	209	187	113	24	18	16
28	14	13	110	37	190	93	183	172	96	23	17	16
29	14	13	92	36	-	92	157	157	84	23	16	16
30	14	12	80	34	-	125	151	145	77	23	21	22
31	17	-	70	34	-	271	-	151	-	22	37	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acre-feet
October	559	42	14	18.0	0.783	0.90	1,110
November	450	21	12	15.0	.652	.73	893
December	6,197	700	13	200	8.70	10.03	12,290
Calendar year 1936	46,750	1,330	12	128	5.57	75.60	92,740
January	1,422	64	34	45.9	2.00	2.31	2,820
February	3,849	277	43	137	5.96	6.21	7,630
March	7,133	507	92	230	10.0	11.53	14,150
April	9,661	1,020	151	322	14.0	15.62	19,160
May	8,034	520	143	259	11.3	13.03	15,940
June	5,550	700	77	185	8.04	8.97	11,010
July	1,156	71	22	37.3	1.62	1.87	2,290
August	633	37	16	20.4	.887	1.02	1,260
September	613	50	16	20.4	.887	.99	1,220
Water year 1936-37	45,257	1,020	12	124	5.39	73.21	89,770

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 above mouth of Salt Creek and 2 miles southwest of Oakridge. Zero of gage is 1,202.8 feet above mean sea level (plane-table survey by Geological Survey).

Drainage area.- 392 square miles.

Records available.- October 1913 to September 1914, September 1935 to September 1937.

Extremes.- Maximum discharge during year, 15,100 second-feet Apr. 14 (gage height, 7.60 feet); minimum, 201 second-feet Nov. 27 to Dec. 2 (gage height, 1.53 feet).
1913-14, 1935-37: Maximum discharge, that of Apr. 14, 1937; minimum, that of Nov. 27 to Dec. 2, 1936.
Maximum stage known, determined in 1935 from floodmarks, 10.6 feet (date unknown).

Remarks.- Records good. No diversions above gage. Water-stage recorder inspected by employee of U. S. Forest Service.

Rating tables, water year 1936-37 (gage height, in feet, and discharge, in second-feet)

Oct. 1 to Apr. 13

1.6	222	4.5	3,260
2.0	380	5.0	4,570
2.5	655	5.5	6,260
3.0	1,060	6.0	8,140
3.5	1,610	7.0	12,300
4.0	2,310		

Apr. 14 to Sept. 30

1.7	235	3.5	1,690
2.0	345	4.0	2,410
2.4	570	4.5	3,310
3.0	1,100		

Note.- Same as preceding table above 5.0 feet.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	232	219	201	260	256	1,480	2,230	1,400	1,560	1,200	390	325
2	229	219	201	249	275	2,950	2,080	1,890	1,760	1,090	381	309
3	229	219	204	253	298	1,860	1,610	2,660	1,960	995	372	302
4	228	225	207	264	470	1,730	1,490	2,740	1,890	945	363	305
5	227	235	242	267	636	2,230	1,610	2,330	1,820	895	363	341
6	226	222	323	225	450	2,400	1,550	2,030	1,760	832	363	309
7	225	222	486	219	380	1,860	1,340	2,030	1,690	771	363	298
8	225	222	486	242	340	1,930	1,270	1,890	1,690	728	358	294
9	222	222	380	335	314	2,760	1,610	1,890	1,890	696	354	291
10	219	219	302	350	310	2,480	1,730	1,960	1,960	664	350	291
11	219	216	260	270	353	2,000	1,730	2,410	1,960	633	345	284
12	219	213	246	260	832	2,150	1,550	2,570	1,820	605	345	284
13	219	210	236	270	848	2,150	8,860	2,830	1,690	577	345	277
14	216	210	229	260	762	2,230	11,900	2,920	1,560	564	341	270
15	216	210	229	271	642	1,860	9,980	2,660	1,690	538	341	263
16	216	210	232	275	662	1,670	5,380	2,660	1,820	512	337	263
17	216	210	253	260	840	1,490	3,420	2,410	2,030	499	329	260
18	216	210	310	271	1,240	1,370	2,660	2,660	2,100	487	329	263
19	219	210	283	260	816	1,190	2,250	2,660	2,410	475	325	345
20	219	210	260	232	622	1,050	2,030	2,330	4,140	457	321	341
21	219	210	271	236	546	956	2,180	2,100	4,010	451	321	294
22	222	207	450	279	596	872	1,890	2,250	3,110	440	329	284
23	222	207	530	256	662	832	1,620	2,180	2,490	434	363	277
24	222	204	755	249	832	856	1,500	2,250	2,100	434	333	270
25	222	204	465	242	1,000	848	1,620	2,410	1,820	463	325	270
26	222	204	390	256	897	816	1,690	2,180	1,620	577	321	266
27	219	201	380	264	816	856	1,620	2,030	1,500	499	317	266
28	219	201	340	256	816	848	1,500	2,030	1,430	440	317	266
29	216	201	314	246	-	824	1,340	1,820	1,400	418	309	263
30	216	201	306	239	-	872	1,280	1,620	1,310	406	313	270
31	216	-	279	242	-	1,070	-	1,500	-	401	354	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off: Inches	Run-off: Acre-feet
October	6,852	232	216	221	0.564	0.65	13,590
November	8,363	225	201	212	.541	.60	12,620
December	10,050	755	201	324	.827	.95	19,930
Calendar year 1936	347,184	7,430	201	949	2.42	32.94	688,600
January	8,058	350	219	260	.663	.76	15,980
February	17,511	1,240	256	625	1.59	1.66	34,730
March	48,490	2,950	816	1,564	3.99	4.60	96,180
April	82,520	11,900	1,270	2,751	7.02	7.83	163,700
May	69,300	2,920	1,400	2,235	5.70	6.57	137,500
June	59,990	4,140	1,310	2,000	5.10	5.69	119,000
July	19,126	1,200	401	617	1.57	1.81	37,940
August	10,622	390	309	343	.875	1.01	21,070
September	8,641	345	260	288	.735	.82	17,140
Water year 1936-37	347,523	11,900	201	952	2.43	32.95	689,400

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 below mouth of North Fork. Zero of gage is 860.89 feet above mean sea level (general adjustment of 1929).

Drainage area.- 941 square miles.

Records available.- July 1923 to September 1937.

Average discharge.- 13 years (1923-26, 1927-37), 2,340 second-feet.

Extremes.- Maximum discharge during year, 29,600 second-feet Apr. 14 (gage height, 12.5 feet); minimum, 535 second-feet Jan. 7 (gage height, 0.99 feet).
1923-37: Maximum discharge, 55,100 second-feet Feb. 21, 1927 (gage height, 17.0 feet); minimum, 450 second-feet Nov. 24, 25, Dec. 5, 6, 1929, Sept. 4-6, 16, 17, 1931.

Remarks.- Records good. No diversions above station. Considerable diurnal fluctuation during low water, caused by logging operations upstream. Gage-height record collected in cooperation with U. S. Weather Bureau.

Rating tables, water year 1936-37 (gage height, in feet, and discharge, in second-feet)

Oct. 1 to Apr. 13				Apr. 14 to Sept. 30			
1.0	540	5.0	4,740	1.0	585	4.0	3,490
1.5	820	6.0	6,440	1.5	900	5.0	4,970
2.0	1,170	7.0	8,310	2.0	1,280	6.0	6,610
2.5	1,590	8.0	10,400	2.5	1,720	7.0	8,460
3.0	2,060	9.0	13,400	3.0	2,240	8.0	10,500
3.5	2,610	10.0	17,300	3.5	2,830		
4.0	3,240	12.0	27,000	Note.- Same as preceding table above 8.2 feet.			

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	612	590	545	764	770	3,310	6,220	3,350	3,550	2,590	963	830
2	606	590	550	736	856	3,440	5,910	4,350	4,060	2,350	949	784
3	612	585	550	736	915	4,900	4,740	3,100	4,660	2,130	928	758
4	618	601	555	754	1,330	4,580	4,420	3,610	4,660	2,020	921	758
5	618	618	700	790	1,680	5,400	4,740	5,930	4,360	1,910	900	817
6	618	601	1,090	672	1,290	5,910	4,580	5,130	4,060	1,760	893	772
7	612	590	1,370	685	1,090	5,230	4,110	4,970	3,910	1,660	886	746
8	612	580	1,590	718	1,020	5,230	3,810	4,810	3,910	1,580	872	739
9	612	580	1,330	915	950	5,620	4,420	4,810	4,360	1,530	865	726
10	601	575	985	985	929	6,440	4,740	4,970	4,510	1,470	858	700
11	601	575	820	832	1,060	5,740	4,900	6,100	4,510	1,410	851	706
12	596	575	742	796	2,220	5,910	4,420	6,610	4,210	1,370	844	694
13	596	570	700	820	2,440	6,080	14,100	7,140	3,770	1,320	830	694
14	596	560	672	778	2,110	6,260	25,500	7,320	3,490	1,290	817	688
15	601	565	656	808	1,860	5,570	23,000	6,780	3,630	1,250	810	670
16	596	560	650	826	1,860	4,900	12,800	6,440	3,910	1,220	804	664
17	590	560	712	784	2,120	4,580	9,270	6,270	4,360	1,190	791	670
18	585	560	985	826	2,040	4,110	7,500	6,440	4,510	1,170	784	670
19	585	565	887	808	2,270	3,660	6,440	6,440	5,130	1,140	778	798
20	585	560	790	650	1,820	3,180	5,610	5,770	8,070	1,120	765	851
21	585	555	766	667	1,640	2,920	5,770	5,290	8,650	1,100	784	752
22	585	555	1,170	850	1,820	2,670	5,290	5,610	7,140	1,080	798	713
23	590	555	1,370	808	1,910	2,490	4,510	5,450	5,930	1,060	879	694
24	590	550	2,060	754	2,220	2,440	4,060	5,450	4,970	1,050	784	688
25	590	550	1,460	724	2,490	2,380	4,060	5,770	4,210	1,100	791	676
26	590	545	1,210	772	2,380	2,320	4,210	5,450	3,630	1,280	772	670
27	585	545	1,130	796	2,220	2,380	4,060	5,130	3,350	1,160	758	664
28	580	545	1,020	760	2,220	2,440	3,770	4,970	3,160	1,070	752	658
29	575	545	929	736	-	2,380	3,420	4,510	3,020	1,030	746	658
30	570	545	894	706	-	2,440	3,160	3,910	2,830	998	752	664
31	580	-	832	710	-	3,180	-	3,560	-	977	893	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acre-feet
October	18,472	618	570	596	0.633	0.73	36,640
November	17,050	618	545	568	.604	.67	33,820
December	29,720	2,060	545	959	1.02	1.18	58,950
Calendar year 1936	888,901	14,500	545	2,429	2.58	35.13	1,763,000
January	23,886	985	585	771	.819	.94	47,380
February	48,530	3,040	770	1,733	1.84	1.92	96,260
March	132,090	6,620	2,320	4,261	4.53	5.22	262,000
April	203,540	25,500	3,160	6,785	7.21	8.04	403,700
May	171,450	7,320	3,350	5,531	5.88	6.78	340,100
June	134,540	8,660	2,830	4,485	4.77	5.32	266,900
July	43,385	2,590	977	1,400	1.49	1.72	86,050
August	25,818	963	746	833	.885	1.02	51,210
September	21,572	851	658	719	.764	.85	42,790
Water year 1936-37	870,053	25,500	545	2,384	2.53	34.39	1,726,000

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. Zero of gage is 424.16 feet above mean sea level (general adjustment of 1929).

Drainage area.- 2,030 square miles.

Records available.- November 1911 to September 1913, October 1928 to September 1937. June 1919 to September 1928, at site at Eugene, 4 miles downstream. 1894 to 1937, records of stage at Eugene by U. S. Weather Bureau.

Average discharge.- 19 years (1912-13, 1919-37), 4,948 second-feet.

Extremes.- Maximum discharge during year, 57,600 second-feet Apr. 15 (gage height, 16.65 feet); minimum, 622 second-feet Nov. 16 to Dec. 5 (gage height, 1.44 feet).
1911-13, 1919-37: 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 February 1890 reached about the same stage.

Remarks.- Records good except those for October, November and September, which are fair. Discharge for period of missing gage heights, Jan. 8-14, computed or basis of records for stations on tributaries near Eula, Fall Creek, and Saginaw. Slight diurnal fluctuation during low water, caused by logging operations in basin of Middle Fork of Willamette River. No diversions above station.

Rating tables, water year 1936-37 (gage height, in feet, and discharge, in second-feet)

Oct. 1 to Feb. 3						Feb. 4 to Sept. 30					
1.4	590	3.0	2,390	4.8	6,100	1.5	720	4.0	4,370	10.0	25,500
1.7	840	3.6	3,380	5.4	7,690	2.0	1,180	5.0	6,810	12.0	34,700
2.0	1,130	4.2	4,650	6.0	9,480	2.5	1,790	6.0	9,770	14.0	44,400
2.5	1,690					3.0	2,500	8.0	17,000	16.0	54,500

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	694	630	622	1,510	6,120	11,100	14,300	5,660	4,590	4,160	1,290	1,200
2	686	638	622	1,310	8,860	19,500	15,800	6,810	4,940	3.750	1,270	1,040
3	686	638	622	1,180	8,560	15,800	12,500	8,810	5,660	3,460	1,220	990
4	678	638	622	1,150	12,800	13,900	11,800	9,770	5,540	3.270	1,180	971
5	678	654	646	1,380	13,200	15,400	12,800	8,810	5,300	3,090	1,180	980
6	678	654	1,340	1,430	7,910	16,200	12,800	7,630	5,060	2,920	1,160	990
7	670	646	1,820	1,060	5,790	13,500	11,100	7,350	4,700	2.660	1,200	917
8	670	638	2,940	1,120	4,700	12,800	9,770	7,080	4,700	2,500	1,090	890
9	670	638	2,700	1,330	4,160	15,800	11,400	6,810	5,420	2,420	1,110	872
10	670	630	2,100	1,450	3,650	17,400	12,100	7,350	6,550	2,280	1,110	890
11	670	630	1,400	1,230	4,060	14,300	12,100	9,440	7,350	2.200	1,100	854
12	662	630	1,130	1,160	9,580	13,900	11,100	10,400	7,080	2,130	1,090	854
13	662	630	970	1,200	11,400	14,300	26,900	10,400	6,040	1,990	1,060	836
14	662	630	876	1,230	10,800	15,000	54,000	10,400	5,300	1.920	1,060	836
15	662	630	822	1,570	8,500	13,200	52,500	9,770	5,420	1,920	990	827
16	654	622	804	3,200	8,500	11,400	36,100	9,120	6,420	1.860	980	818
17	662	622	831	2,460	10,200	10,400	24,200	8,500	8,500	1.790	962	827
18	662	622	1,360	2,040	16,200	9,770	17,000	8,500	8,500	1.720	962	818
19	654	622	1,450	3,120	11,800	8,810	13,200	9,120	9,770	1.660	953	935
20	654	622	1,220	2,240	8,500	7,910	11,100	8,200	13,900	1,620	962	1,290
21	654	622	1,090	1,690	7,350	7,350	10,800	7,350	19,900	1,560	917	1,180
22	654	622	1,370	1,690	7,630	6,810	10,100	7,350	15,000	1,540	935	1,040
23	654	622	2,320	1,760	7,910	6,290	8,810	7,080	12,100	1.520	1,060	908
24	646	622	5,800	1,960	8,500	6,420	7,630	7,080	9,440	1,420	1,120	881
25	646	622	4,090	1,960	9,120	5,920	7,350	7,350	7,630	1,460	1,030	863
26	638	622	2,860	2,700	8,810	5,660	7,350	7,080	6,550	1,660	990	863
27	638	622	3,120	4,310	7,910	5,790	7,080	6,550	5,790	1,660	953	863
28	630	622	2,540	3,880	7,630	5,790	6,550	6,420	5,180	1,530	935	863
29	630	622	2,030	2,940	-	5,660	6,160	6,040	4,820	1.420	917	863
30	630	622	1,820	2,390	-	5,660	5,660	5,300	4,590	1,390	899	854
31	630	-	1,690	2,240	-	7,080	-	4,700	-	1,330	1,070	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acre-feet
October	20,434	694	630	659	0.325	0.37	40,530
November	18,884	654	622	629	.310	.35	37,460
December	53,427	5,600	622	1,723	.849	.98	106,000
Calendar year 1936	1,666,846	42,400	622	4,554	2.24	30.53	3,306,000
January	60,790	4,310	1,060	1,961	.966	1.11	120,600
February	240,150	16,200	3,650	8,577	4.23	4.40	476,300
March	338,820	19,500	5,660	10,930	5.38	6.20	672,000
April	460,060	54,000	5,660	15,340	7.56	8.44	912,500
May	242,230	10,400	4,700	7,814	3.85	4.44	480,500
June	221,740	19,900	4,590	7,391	3.64	4.06	439,800
July	65,810	4,160	1,330	2,123	1.05	1.21	130,500
August	32,755	1,290	899	1,057	.521	.60	64,970
September	27,813	1,290	818	927	.457	.51	55,170
Water year 1936-37	1,782,913	54,000	622	4,885	2.41	32.67	3,536,000

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 below mouth of Calapooya River. Zero of gage is 171.70 feet above mean sea level (general adjustment of 1929).
Drainage area.- 4,840 square miles.
Records available.- November 1878 to April 1882, 1883 to 1888 (fragmentary), January 1892 to September 1937.
Average discharge.- 42 years (1895-1937), 13,720 second-feet.
Extremes.- Maximum discharge during year, 127,000 second-feet Apr. 16 (gage height, 24.5 feet); minimum, 2,150 second-feet Nov. 28, Nov. 30 to Dec. 2, Dec. 4 (gage height, 0.27 foot).
1878-82, 1892-1937: Maximum discharge, 229,000 second-feet Jan. 14, 1881 (gage height, 32.8 feet); minimum, about 1,870 second-feet Sept. 21-27, 1879 (gage height, 0.2 foot). Minimum discharge in recent years, 1,890 second-feet Sept. 5, 1931 (gage height, 0.26 foot).
Maximum stage known, 36.0 feet Dec. 4, 1861 (discharge, 274,000 second-feet, estimated).
Remarks.- Records excellent except those above 50,000 second-feet, which are good. No regulation. Albany power canal diverts water from South Santiam River into Willamette River above station. Gage-height record collected in cooperation with U. S. Weather Bureau.

Rating table, water year 1936-37 (gage height, in feet, and discharge, in second-feet)

0.2	2,000	2.4	7,530	7.0	23,100
.4	2,420	2.8	8,700	8.0	26,900
.6	2,860	3.2	9,900	10.0	34,800
.8	3,320	3.6	11,100	12.0	43,300
1.1	4,040	4.0	12,400	14.0	52,600
1.4	4,800	4.5	14,100	17.0	69,000
1.7	5,590	5.0	15,800	20.0	88,500
2.0	6,410	6.0	19,400	24.0	122,000

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2,420	2,230	2,170	5,460	9,900	20,500	18,300	15,500	12,400	12,400	4,290	3,680
2	2,420	2,250	2,210	4,930	23,800	27,200	29,200	15,100	12,400	11,800	4,290	3,800
3	2,420	2,230	2,190	4,420	34,800	38,100	32,800	17,200	13,100	10,800	4,160	3,440
4	2,420	2,250	2,190	4,290	40,700	38,500	28,800	20,500	14,100	10,200	4,040	3,300
5	2,460	2,290	2,250	4,290	49,200	34,000	26,900	22,300	13,700	9,600	3,920	3,250
6	2,460	2,340	2,490	4,670	46,000	34,000	28,400	20,800	13,100	9,000	3,920	3,230
7	2,460	2,320	3,680	4,160	32,400	34,400	28,400	18,700	12,400	8,400	3,920	3,250
8	2,420	2,320	4,930	3,560	23,800	31,200	25,700	17,900	12,100	8,110	3,920	3,160
9	2,400	2,290	6,690	3,920	19,400	30,000	24,600	17,600	12,400	7,530	3,800	3,110
10	2,360	2,270	6,690	3,800	16,500	33,600	26,900	17,200	13,400	7,250	3,800	3,070
11	2,320	2,230	5,320	4,290	15,100	35,200	29,200	19,400	14,800	7,110	3,800	3,040
12	2,320	2,210	4,160	3,920	19,000	32,000	30,000	24,600	15,800	6,830	3,680	3,040
13	2,290	2,210	3,560	3,680	28,800	30,800	37,300	26,500	15,100	6,550	3,680	3,000
14	2,290	2,230	3,300	3,800	31,600	30,800	53,600	26,100	13,400	6,270	3,560	2,950
15	2,290	2,210	3,140	4,930	29,200	30,800	88,400	25,700	12,700	6,130	3,560	2,930
16	2,290	2,210	3,000	8,110	27,600	28,400	124,000	24,200	13,100	5,860	3,440	2,880
17	2,270	2,230	3,020	9,600	30,000	25,700	111,000	22,300	14,400	5,720	3,440	2,840
18	2,270	2,270	3,110	9,000	36,500	25,800	77,600	21,200	17,900	5,590	3,320	2,840
19	2,250	2,250	4,290	10,200	42,400	22,300	51,600	20,800	18,700	5,460	3,300	2,980
20	2,250	2,250	4,540	9,300	36,900	20,500	38,500	20,800	21,600	5,320	3,250	3,230
21	2,250	2,270	4,040	7,530	28,800	19,400	32,000	19,400	30,800	5,190	3,250	3,680
22	2,250	2,230	3,920	6,410	24,600	17,900	29,600	17,900	39,800	5,060	3,230	3,440
23	2,250	2,230	5,720	6,130	23,100	16,900	26,900	17,900	36,500	4,930	3,320	3,230
24	2,230	2,210	8,700	6,000	22,300	16,200	23,800	17,600	30,800	4,800	3,680	3,090
25	2,250	2,230	12,700	6,130	22,300	15,800	21,600	17,200	25,300	4,670	3,800	3,000
26	2,270	2,210	10,200	6,970	22,700	15,100	20,800	17,900	20,800	4,670	3,560	2,930
27	2,250	2,210	8,700	10,200	21,600	14,800	20,100	17,200	17,900	4,800	3,320	2,880
28	2,230	2,190	8,400	13,400	20,100	14,800	19,400	16,200	15,800	4,800	3,300	2,860
29	2,210	2,190	7,250	12,400	-	14,400	18,300	15,800	14,400	4,540	3,200	2,840
30	2,210	2,190	6,410	10,500	-	14,100	16,900	14,800	13,400	4,420	3,180	2,880
31	2,230	-	6,000	9,000	-	14,100	-	13,400	-	4,420	3,270	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off: Inches	Run-off: Acre-feet
October	71,710	2,460	2,210	2,313	0.478	0.55	142,200
November	67,250	2,340	2,190	2,242	.463	.52	133,400
December	154,970	12,700	2,170	4,999	1.03	1.19	307,400
Calendar year 1936	4,482,450	120,000	2,170	12,250	2.53	34.43	8,891,000
January	205,000	13,400	3,560	6,613	1.37	1.58	406,600
February	779,100	49,200	9,900	27,820	5.75	5.99	1,545,000
March	775,300	38,500	14,100	25,010	5.17	5.96	1,538,000
April	1,140,600	124,000	16,900	38,020	7.86	8.77	2,262,000
May	599,700	26,500	13,400	19,350	4.00	4.61	1,189,000
June	532,100	39,800	12,100	17,740	3.67	4.10	1,055,000
July	208,230	12,400	4,420	6,717	1.39	1.60	413,000
August	112,200	4,290	3,180	3,619	.748	.86	222,500
September	93,850	3,800	2,840	3,128	.646	.72	186,100
Water year 1936-37	4,740,010	124,000	2,170	12,990	2.68	36.45	9,400,000

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 above highway bridge at Salem. Zero of gage is 113.59 feet above mean sea level (general adjustment of 1929).
Drainage area.- 7,280 square miles.
Records available.- October 1909 to December 1916, October 1927 to September 1937.
Average discharge.- 17 years, 21,950 second-feet.
Extremes.- Maximum discharge during year, 201,000 second-feet Apr. 16 (gage height, 22.4 feet); minimum, 3,030 second-feet Dec. 1, 2 (gage height, -4.16 feet).
1909-16, 1927-37: Maximum discharge observed, 315,000 second-feet Nov. 25, 1909 (gage height, 30.5 feet); minimum, 2,500 second-feet Sept. 5-8, 1931 (gage height, -3.5 feet); minimum gage height, that of Dec. 1, 2, 1936.
Maximum known discharge, 500,000 second-feet (estimated) Dec. 4, 1861 (gage height, about 39 feet). Flood of Feb. 5, 1890, reached a stage of 37.1 feet.
Remarks.- Records good. Stage-discharge relation affected by ice for a few hours Jan. 8, 9. A few small irrigation diversions above station; part of flow of Salem Canal diverted from North Santiam River returns to Willamette River below gage; no regulation. Gage-height record collected in cooperation with U. S. Weather Bureau.

Rating tables, water year 1936-37 except period of ice effect (gage height, in feet, and discharge, in second-feet)

Oct. 1 to Apr. 15						Apr. 16 to Sept. 30			
-4.0	3,220	-1.0	9,680	10.0	82,500	-4.0	3,250	-1.0	10,000
-3.5	3,890	0	12,900	12.0	76,700	-3.5	3,990	0	13,200
-3.0	4,710	2.0	19,900	16.0	112,000	-3.0	4,860	2.0	20,300
-2.5	5,700	4.0	28,300	20.0	162,000	-2.5	5,940	4.0	28,400
-2.0	6,850	6.0	37,300	24.0	228,000	-2.0	7,180		
-1.5	8,200	8.0	49,100						

Note.- Same as preceding table above 4.6 feet.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	3,280	3,110	3,060	9,840	13,600	31,900	31,900	35,400	20,700	19,700	5,870	4,540
2	3,320	3,120	3,030	8,780	27,100	44,000	45,200	25,400	21,100	18,400	5,730	5,040
3	3,310	3,140	3,090	7,920	44,000	61,800	49,800	29,300	22,600	17,000	5,600	4,780
4	3,340	3,150	3,090	7,240	57,700	64,600	44,600	34,600	23,400	15,800	5,470	4,470
5	3,320	3,170	3,110	7,370	73,700	57,700	42,800	36,800	23,000	14,900	5,310	4,340
6	3,360	3,210	3,320	7,920	70,200	56,300	43,400	34,600	21,500	14,000	5,190	4,320
7	3,360	3,220	5,700	6,980	53,000	56,300	42,800	31,000	20,700	13,200	5,230	4,340
8	3,310	3,210	10,800	5,200	36,800	51,700	39,400	30,100	19,900	12,200	5,080	4,290
9	3,280	3,200	12,400	5,600	30,500	49,100	37,800	30,100	19,500	11,500	5,040	4,180
10	3,230	3,170	12,900	6,380	26,100	53,000	41,000	30,100	20,300	10,900	4,920	4,130
11	3,230	3,170	9,840	5,930	24,800	55,000	47,800	36,400	21,900	10,400	4,900	4,040
12	3,220	3,150	7,370	6,200	32,800	51,700	48,400	47,800	21,900	10,200	4,880	3,990
13	3,210	3,120	6,040	6,130	49,100	50,400	66,700	47,800	21,500	9,700	4,820	3,990
14	3,210	3,120	5,350	6,150	53,000	51,700	107,000	47,100	19,900	9,260	4,760	3,940
15	3,210	3,110	5,310	7,920	46,500	51,100	151,000	45,200	19,000	8,960	4,650	3,860
16	3,230	3,120	5,010	15,100	45,200	47,100	194,000	40,500	19,400	8,680	4,580	3,820
17	3,200	3,150	4,730	16,800	52,400	42,200	191,000	36,800	21,500	8,260	4,470	3,770
18	3,160	3,150	5,920	15,800	66,000	38,800	145,000	34,600	25,400	8,120	4,440	3,720
19	3,170	3,210	10,100	16,800	68,800	35,900	95,700	33,700	31,900	7,980	4,350	3,830
20	3,150	3,180	9,840	15,600	61,800	33,200	66,000	32,800	39,400	7,710	4,290	4,130
21	3,140	3,170	8,200	12,500	47,100	31,000	53,000	30,600	60,400	7,440	4,270	4,620
22	3,150	3,120	9,080	10,600	39,400	28,700	47,800	29,300	67,400	7,150	4,250	4,730
23	3,140	3,110	15,600	9,990	37,300	26,900	43,400	29,300	61,100	6,920	4,270	4,320
24	3,150	3,090	27,800	9,680	35,900	26,100	38,300	28,400	49,800	6,800	4,620	4,120
25	3,150	3,090	26,100	9,840	35,500	24,800	34,600	28,000	39,900	6,620	5,160	3,960
26	3,150	3,100	21,900	11,600	35,500	23,500	33,200	28,400	33,200	6,520	4,840	3,830
27	3,150	3,090	18,100	16,000	34,600	22,700	32,800	27,600	28,400	6,600	4,510	3,800
28	3,140	3,080	16,300	19,900	31,900	22,700	31,400	25,800	25,000	6,670	4,370	3,710
29	3,140	3,080	14,200	19,500	-	22,300	29,300	25,400	22,600	6,420	4,270	3,680
30	3,110	3,090	12,200	16,300	-	21,900	27,100	23,800	21,100	6,160	4,180	3,710
31	3,110	-	11,000	14,000	-	23,100	-	21,900	-	5,940	4,240	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acre-feet
October	99,630	3,360	3,110	3,214	0.441	0.51	197,600
November	94,200	3,220	3,080	3,140	.431	.48	186,800
December	310,520	27,800	3,060	10,020	1.38	1.59	615,900
Calendar year 1936	7,303,720	211,000	3,060	19,960	2.74	37.26	14,490,000
January	335,570	19,900	5,200	10,820	1.49	1.72	665,600
February	1,230,300	73,700	13,600	43,940	6.04	6.29	2,440,000
March	1,257,200	64,600	21,900	40,550	5.57	6.42	2,494,000
April	1,902,200	194,000	27,100	63,410	8.71	9.72	3,773,000
May	1,008,600	47,800	21,900	32,540	4.47	5.15	2,001,000
June	863,400	67,400	19,000	28,780	3.95	4.41	1,713,000
July	310,110	19,700	5,940	10,000	1.37	1.58	615,100
August	148,560	5,870	4,180	4,792	.658	.76	294,700
September	124,000	5,040	3,680	4,133	.568	.63	246,000
Water year 1936-37	7,684,290	194,000	3,060	21,050	2.89	39.26	15,240,000

Hills Creek near Oakridge, Oreg.

Location.- Staff gage, lat. 43°42', long. 122°24', in E½ sec. 36, T. 21 S., R. 3 E., 1½ miles above mouth and 4½ miles southeast of Oakridge.

Drainage area.- 59 square miles.

Records available.- September 1935 to September 1937.

Extremes.- Maximum discharge during year, 2,120 second-feet Apr. 14 (gage height, 4.02 feet, from floodmark); minimum, 15 second-feet Jan. 20.
1935-37: Maximum discharge, that of Apr. 14, 1937; minimum, that of Jan. 20, 1937.

Remarks.- Records fair except those for January to September, which are poor. Discharge for periods of missing gage heights, Nov. 13, 26, Sept. 24, interpolated; that for periods of ice effect, Dec. 30 to Jan. 2, Jan. 7-19, 21, 22, 30, computed on basis of weather records, observer's notes, and records for stations on nearby streams. No diversions above station. Records include flow diverted to small canal just below gage. Gage read once daily, oftener during periods of rapidly changing stage.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	19	18	17	24	22	174	330	159	197	138	38	30
2	19	18	17	24	22	432	330	260	252	116	37	29
3	19	18	17	27	22	305	260	460	305	103	36	27
4	19	19	17	25	31	305	228	488	278	90	36	27
5	19	19	19	24	33	355	244	405	252	83	35	37
6	19	18	31	22	42	488	252	287	244	78	35	29
7	19	18	62	20	35	330	212	305	244	69	33	27
8	19	18	55	17	31	355	197	278	252	62	33	26
9	18	18	42	40	29	515	287	252	278	62	33	26
10	18	18	31	35	27	432	305	252	296	59	33	26
11	18	18	24	30	27	380	296	305	296	55	32	25
12	18	18	22	25	69	405	282	355	282	52	30	25
13	18	18	21	25	83	405	1,390	460	252	50	30	24
14	18	18	21	28	87	405	1,860	460	228	50	30	24
15	18	18	19	28	65	355	1,620	405	252	49	29	24
16	18	18	21	30	65	305	960	380	260	47	29	24
17	18	18	21	28	74	296	570	355	278	46	29	24
18	18	18	27	33	144	264	432	460	296	46	29	23
19	18	17	22	25	74	204	355	432	305	45	29	33
20	18	17	22	15	69	185	287	355	695	43	29	33
21	18	17	25	17	59	181	305	305	630	42	29	27
22	18	17	42	20	69	138	274	305	542	42	29	24
23	18	17	39	33	69	125	228	305	432	40	37	24
24	18	17	69	29	92	125	193	330	305	39	39	24
25	18	17	44	27	113	135	204	405	252	38	30	24
26	18	17	35	25	138	128	212	330	220	56	29	23
27	18	17	33	25	110	135	200	296	204	49	29	23
28	18	17	31	25	100	132	181	287	189	43	29	23
29	18	17	27	22	-	128	155	244	174	42	29	23
30	18	17	26	18	-	128	138	189	159	39	29	22
31	18	-	25	19	-	148	-	174	-	39	37	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acre-feet
October	566	19	18	18.3	0.310	0.36	1,120
November	530	19	17	17.7	.300	.33	1,050
December	924	69	17	29.8	.505	.58	1,830
Calendar year 1936	45,073	960	17	123	2.08	28.39	89,390
January	785	40	15	25.3	.429	.49	1,560
February	1,801	144	22	64.3	1.09	1.14	3,570
March	8,398	515	125	271	4.59	5.29	16,660
April	12,787	1,860	138	426	7.22	8.06	25,360
May	10,263	488	159	332	5.63	6.49	20,400
June	8,849	695	159	295	5.00	5.58	17,550
July	1,812	138	38	58.5	.992	1.14	3,590
August	991	39	29	32.0	.542	.62	1,970
September	780	37	22	26.0	.441	.49	1,550
Water year 1936-37	48,506	1,860	15	133	2.25	30.57	96,210

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 above mouth and 2 miles southeast of Oakridge. Zero of gage is 1,245.67 feet above mean sea level (general adjustment of 1929).
Drainage area.- 113 square miles.
Records available.- July 1913 to September 1914, October 1933 to September 1937.
Extremes.- Maximum discharge during year, 2,040 second-feet Apr. 15 (gage height, 5.73 feet); minimum, about 55 second-feet Jan. 8.
1913-14, 1933-37: Maximum discharge, 2,170 second-feet Dec. 20, 1934 (gage height, 5.92 feet); minimum, that of Jan. 8, 1937.
Remarks.- Records good except those for periods of ice effect, Jan. 6-14, 19-22, which were computed by comparison with records for Salmon Creek near Oakridge and are fair. No diversions above station; slight regulation. Water-stage recorder inspected by employee of U. S. Forest Service.

Revision of discharge, 1936

Revised daily discharge for Jan. 4, 1936, 876 second-feet, and for May 16, 1936, 692 second-feet. (These figures supersede those published in Water-Supply Paper 814, p. 80). Revised figures of discharge for January, May and water year 1935-36 are given in following table:

	Second-foot days	Mean	Per square mile	Run-off in inches	Run-off in acre-feet
January	14,465	467	4.13	4.76	28,690
May	18,383	593	5.25	6.05	36,460
Water year 1935-36	97,958	268	2.37	32.24	194,290

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	100	96	89	106	103	304	476	329	472	338	129	122
2	100	96	89	100	106	484	452	413	540	308	125	116
3	100	96	88	104	116	388	380	540	625	281	123	113
4	100	98	92	108	165	380	362	602	602	266	122	120
5	102	98	134	108	174	456	362	540	560	255	120	125
6	100	98	150	90	146	500	362	488	540	234	123	116
7	98	97	184	76	130	460	345	480	540	222	122	115
8	97	96	189	66	125	472	331	456	580	212	122	111
9	97	96	168	88	117	540	370	472	602	206	120	111
10	96	94	128	116	114	500	392	476	602	196	120	110
11	97	94	117	100	121	464	396	520	560	189	120	110
12	97	94	109	92	172	480	370	540	520	183	118	110
13	97	94	106	92	184	500	993	625	468	176	118	108
14	97	94	103	96	182	500	1,710	670	452	169	118	108
15	96	94	100	102	168	452	1,710	670	488	165	118	106
16	96	94	103	102	172	416	1,060	648	500	161	116	106
17	94	93	116	104	201	392	760	648	520	159	116	106
18	94	93	132	110	242	359	602	715	500	154	113	106
19	96	93	119	98	204	324	520	715	540	152	113	133
20	96	92	112	80	174	298	476	648	835	148	111	127
21	96	92	114	74	168	274	488	602	785	146	113	116
22	96	92	140	88	182	256	444	670	715	144	120	113
23	96	92	163	112	189	242	399	648	602	140	138	111
24	96	92	194	104	214	239	371	648	500	140	122	110
25	94	90	154	98	236	233	378	692	452	148	116	108
26	94	90	142	103	228	230	388	648	416	172	115	108
27	94	90	136	106	217	236	371	625	396	157	113	108
28	93	90	126	104	222	236	347	625	385	142	111	108
29	93	89	119	104	-	233	320	560	388	136	111	105
30	93	88	117	102	-	239	308	484	364	134	116	106
31	94	-	109	102	-	280	-	456	-	133	136	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acre-feet
October	2,989	102	93	96.4	0.853	0.98	5,930
November	2,805	98	88	93.5	.827	.92	5,560
December	3,942	194	88	127	1.12	1.29	7,820
Calendar year 1936	96,482	970	88	264	2.34	31.74	191,400
January	3,035	116	66	97.9	.866	1.00	6,020
February	4,772	242	103	170	1.50	1.56	9,470
March	11,367	540	230	367	3.25	3.75	22,550
April	16,243	1,710	308	541	4.79	5.34	32,220
May	17,853	715	329	576	5.10	5.88	35,410
June	16,049	835	364	535	4.73	5.28	31,830
July	5,765	338	133	186	1.65	1.90	11,430
August	3,698	138	111	119	1.05	1.21	7,330
September	3,372	133	105	112	.991	1.11	6,690
Water year 1936-37	91,890	1,710	66	252	2.23	30.22	182,300

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 above 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 1937. February 1913 to September 1914, at site 2 miles downstream, below Flat Creek. October 1914 to October 1919, at site 1 mile below present gage.

Extremes.- Maximum discharge during year, 3,040 second-feet Apr. 14 (gage height, 5.55 feet); minimum, 63 second-feet Jan. 8 (gage height, 0.87 foot).
1913-19, 1933-37: Maximum discharge, 6,400 second-feet (estimated) Jan. 12, 1918; minimum, that of Jan. 8, 1937.

Remarks.- Records good except those for periods of ice effect, Jan. 9, 21, 22, and of missing gage heights, July 24 to Aug. 4 (computed on basis of weather records and records for other streams near Oakridge); those for October, and those above 1,800 second-feet or below 100 second-feet, all of which are fair. No diversion or regulation above station. Water-stage recorder inspected by employee of U. S. Forest Service.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	120	110	94	125	112	384	930	515	575	414	174	157
2	118	106	95	121	114	615	840	668	640	384	172	150
3	118	106	95	119	118	520	668	900	722	356	172	148
4	118	112	100	127	166	515	635	1,000	695	328	170	152
5	120	110	172	127	184	615	640	870	668	313	168	157
6	118	108	182	100	157	722	610	780	625	295	168	148
7	116	106	248	81	144	668	560	750	605	281	166	144
8	114	105	254	79	140	695	535	722	630	271	166	142
9	114	102	227	108	127	840	590	722	640	261	163	142
10	112	102	166	138	123	810	625	750	630	251	161	140
11	112	102	144	116	142	750	640	840	630	245	161	138
12	112	102	131	108	242	780	595	930	580	239	159	138
13	112	102	123	106	251	840	1,690	1,040	535	233	157	135
14	112	102	118	112	233	870	2,740	1,070	515	224	155	133
15	112	102	114	119	213	780	2,490	1,000	530	218	155	133
16	111	100	114	119	208	695	1,710	965	550	213	152	131
17	107	100	150	119	221	640	1,300	900	585	210	152	131
18	107	100	184	125	274	610	1,040	965	615	205	150	133
19	107	98	163	116	256	545	900	900	668	202	150	157
20	111	97	146	85	202	481	810	810	900	199	150	146
21	111	97	142	78	199	436	810	780	965	197	150	138
22	107	95	170	96	221	396	750	840	870	194	159	133
23	105	95	199	121	230	376	668	810	780	192	189	131
24	105	95	254	114	261	364	610	810	668	192	161	131
25	105	95	202	108	291	352	615	870	590	198	155	127
26	105	94	182	112	281	344	625	780	535	220	152	127
27	105	94	170	116	268	352	610	750	495	200	150	127
28	105	94	157	116	274	352	570	750	468	190	148	127
29	105	94	146	112	-	352	520	668	458	180	146	125
30	105	94	142	106	-	364	490	585	436	178	155	127
31	107	-	131	106	-	505	-	555	-	176	175	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acre-feet
October	3,436	120	105	111	0.949	1.09	6,820
November	3,019	112	94	101	.863	.96	5,990
December	4,915	254	94	159	1.36	1.57	9,750
Calendar year 1936	131,952	1,540	94	361	3.09	41.95	261,700
January	3,437	138	78	110	.949	1.09	6,820
February	5,632	291	112	201	1.72	1.79	11,170
March	17,568	870	344	567	4.85	5.59	34,850
April	26,816	2,740	490	894	7.64	8.52	53,190
May	25,295	1,070	515	816	6.97	8.04	50,170
June	18,803	965	436	627	5.36	5.98	37,300
July	7,459	414	176	241	2.06	2.38	14,790
August	4,961	189	146	160	1.37	1.58	9,840
September	4,148	157	125	138	1.18	1.32	8,230
Water year 1936-37	125,489	2,740	78	344	2.94	39.91	248,900

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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. Elevation of water surface of lake and zero of gage are about 5,410 feet above mean sea level (Geological Survey topographic map).
Drainage area.- 30 square miles.
Records available.- October 1936 to September 1937.
Extremes.- Maximum discharge during year, about 87 second-feet, probably during June 21-23, when clock was stopped (gage height from pencil trace, 2.06 feet, including estimated allowance for effect of seiche); no flow at times.
Remarks.- Records good except those for periods of missing gage heights, Feb. 6-8, Apr. 28 to June 30, July 4 to Sept. 20, Sept. 23-27, (computed on basis of recorded range of stage, weather records, and discharge of Odell Creek near Crescent) and those below 1 second-foot, which are poor. Seiches on Waldo Lake cause rapid changes in stage at gage several times an hour. Lake outlet was dammed for construction of control Sept. 25, 1936, at noon; no flow from that time until Oct. 2, at noon, when water was released. Lake not regulated artificially; a diversion tunnel into head of Black Creek, near south end of lake, built about 1914, is not used, but there is some unmeasured leakage past control gates, which were closed during year.

Rating table, water year 1936-37 (gage height, in feet, and discharge, in second-feet)

0	0	0.9	29
.1	1.2	1.2	43
.2	3.2	1.5	57
.4	9.0	1.8	72
.6	16	2.1	87

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0	0.7	0	1.9	24	40	37	47	67	76	24	11
2	4.0	.6	0	1.7	25	40	38	48	67	74	23	10
3	12	.3	0	1.7	26	40	38	50	67	73	22	9.0
4	11	.3	0	2.1	27	39	39	52	67	68	22	8.0
5	10	.3	0	3.7	30	38	40	52	67	64	22	9.0
6	10	.2	0	4.0	32	38	41	52	67	60	21	8.0
7	9.7	.2	.1	3.2	33	37	41	52	68	56	21	7.5
8	9.7	0	.2	2.5	32	37	40	52	70	53	20	7.0
9	9.3	0	.4	2.5	32	36	41	53	72	50	20	6.6
10	8.4	0	.4	2.3	32	36	42	54	74	48	20	6.2
11	8.0	0	.4	2.1	32	35	43	55	74	46	21	5.8
12	7.7	0	.3	1.7	34	35	42	56	73	44	20	5.6
13	7.4	0	.2	2.3	34	35	48	57	72	42	20	5.4
14	6.8	0	.1	3.5	34	35	54	58	72	40	19	5.2
15	6.5	0	.1	6.5	34	34	58	59	72	38	18	5.0
16	5.9	0	.2	7.7	36	34	60	60	74	37	18	5.0
17	5.3	0	.4	8.7	37	33	59	62	76	36	18	5.0
18	4.5	0	.6	12	40	34	58	64	76	34	18	6.0
19	4.0	0	.4	13	42	34	58	65	78	32	17	8.0
20	3.7	0	.6	13	42	35	57	65	81	33	17	9.0
21	3.5	0	.6	13	42	34	57	65	84	32	16	7.7
22	3.2	0	.9	13	41	34	58	65	84	31	15	6.5
23	2.8	0	1.0	14	40	35	57	66	84	30	16	5.8
24	2.5	0	1.6	16	40	35	56	68	83	29	15	5.4
25	2.5	0	1.7	16	40	35	55	70	82	29	14	5.0
26	2.1	0	2.1	18	39	34	54	70	81	30	13	4.7
27	1.9	0	2.1	21	39	34	53	70	80	31	12	4.5
28	1.7	0	1.9	22	39	34	51	70	79	29	11	4.0
29	1.4	0	1.9	22	-	33	49	70	78	27	10	3.0
30	1.0	0	2.1	21	-	34	48	68	77	26	10	2.8
31	.9	-	2.1	22	-	35	-	67	-	25	12	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acre-feet
October	167.4	12	0.9	5.40	0.180	0.21	332
November	2.6	.7	0	.09	.0030	.003	5.2
December	22.4	2.1	0	.72	.024	.03	44
January	294.1	22	1.7	9.49	.316	.36	583
February	978	42	24	34.9	1.16	1.21	1,940
March	1,102	40	33	35.5	1.18	1.36	2,190
April	1,472	60	37	49.1	1.64	1.83	2,920
May	1,862	70	47	60.1	2.00	2.31	3,690
June	2,246	84	67	74.9	2.50	2.79	4,450
July	1,324	76	25	42.7	1.42	1.64	2,630
August	545	24	10	17.6	.587	.68	1,080
September	191.7	11	2.8	6.39	.213	.24	380
Water year 1936-37	10,207.2	84	0	28.0	.933	12.66	20,240

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

Location.- Staff gage, lat. 43°45', long. 122°30', in SW¼ sec. 7, T. 21 S., R. 3 E., 1 mile above mouth and 2½ miles northeast of Oakridge. Zero of gage is 1,029.6 feet above mean sea level (plane-table survey by Geological Survey).

Drainage area.- 246 square miles.

Records available.- October 1909 to September 1912 (fragmentary), September 1935 to September 1937. October 1913 to February 1916, at site half a mile upstream, above a small tributary.

Extremes.- Maximum discharge observed during year, 6,320 second-feet Apr. 14 (gage height, 8.50 feet); minimum. 112 second-feet Dec. 1 (gage height, 0.76 foot). 1909-16, 1935-37: Maximum stage observed, 12.4 feet, former site and datum, Nov. 22, 1909 (discharge not determined); minimum discharge observed, that of Dec. 1, 1936.

Remarks.- Records good except those for Dec. 8, 9, which were affected by regulation and are fair. Tunnel and control gates, which have been built to divert part of outflow from Waldo Lake into Salmon Creek Basin, were not used during year. Leakage under gates amounts to about 2 second-feet. Occasional regulation during periods of low water by operation of log pond upstream. Gage read twice daily.

Rating table, water year 1936-37 (gage height, in feet, and discharge, in second-feet)

0.7	102	2.5	765	6.0	3,580
1.0	158	3.0	1,060	7.0	4,640
1.3	230	3.5	1,380	8.0	5,740
1.6	323	4.0	1,740	9.0	6,920
2.0	495	5.0	2,590		

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	127	121	114	220	222	765	1,240	1,310	1,060	683	233	192
2	128	110	116	209	217	1,060	1,380	1,590	1,060	623	230	173
3	134	119	119	199	225	1,240	1,380	1,820	1,240	572	225	169
4	136	123	138	204	227	1,240	1,450	1,820	1,240	527	222	169
5	138	130	190	190	244	1,240	1,450	1,660	1,120	495	217	169
6	136	125	236	162	241	1,450	1,310	1,520	1,000	470	214	167
7	134	121	470	130	244	1,450	1,240	1,520	1,000	443	212	162
8	130	121	185	119	244	1,450	1,310	1,450	1,060	422	209	158
9	130	121	380	156	236	1,520	1,380	1,450	1,180	422	207	156
10	127	119	230	199	244	1,520	1,520	1,740	1,120	403	204	154
11	127	117	204	176	289	1,740	1,590	2,230	1,120	383	204	150
12	127	119	182	160	682	1,820	3,080	2,320	1,060	383	199	150
13	127	119	173	178	655	1,980	5,520	2,410	1,060	343	194	146
14	130	117	154	165	682	2,060	6,080	2,230	940	343	192	142
15	127	117	150	202	682	2,230	5,960	2,140	940	323	187	142
16	127	117	158	217	655	2,060	4,530	1,980	1,000	323	182	142
17	127	119	236	204	682	1,740	2,880	1,900	1,060	323	180	142
18	127	121	289	207	710	1,450	2,410	1,900	1,180	303	178	138
19	127	119	247	202	545	1,180	1,740	1,900	1,520	303	176	169
20	123	117	222	162	545	1,000	1,740	1,820	2,140	283	173	178
21	121	116	289	130	600	940	1,660	1,820	2,230	283	171	160
22	121	117	400	176	682	880	1,520	1,520	1,820	277	171	154
23	121	116	422	214	655	880	1,380	2,060	1,520	270	158	152
24	121	114	572	202	628	820	1,240	1,590	1,240	264	148	146
25	121	116	445	199	600	820	1,240	1,590	1,120	289	154	142
26	123	116	380	212	600	765	1,310	1,450	1,000	289	162	140
27	121	117	400	220	600	765	1,310	1,450	940	270	169	138
28	121	117	283	204	628	820	1,180	1,380	820	253	169	136
29	119	117	258	194	-	820	1,120	1,240	765	252	171	134
30	119	116	238	185	-	880	1,000	1,060	710	247	190	144
31	119	-	217	185	-	1,180	-	1,000	-	241	207	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acre-feet
October	3,916	138	119	126	0.512	0.59	7,770
November	3,563	130	114	119	.484	.54	7,070
December	8,097	572	114	261	1.06	1.22	16,060
Calendar year 1936	253,090	4,860	114	692	2.81	38.26	502,000
January	5,802	220	119	187	.760	.88	11,510
February	13,464	710	217	481	1.96	2.04	26,710
March	39,765	2,230	765	1,283	5.22	6.02	78,870
April	62,150	6,080	1,000	2,072	8.42	9.39	123,300
May	52,870	2,410	1,000	1,705	6.93	7.99	104,900
June	35,265	2,230	710	1,176	4.78	5.33	69,950
July	11,307	682	241	365	1.48	1.71	22,430
August	5,908	233	148	191	.776	.89	11,720
September	4,614	192	134	154	.626	.70	9,150
Water year 1936-37	246,721	6,080	114	675	2.75	37.30	489,400

Fall Creek above Winberry Creek, near Lowell, Oreg.

Location.- Staff gage, lat. 43°57', long. 122°43', in SE¼ sec. 32, T. 18 S., R. 1 E., 2½ miles above Winberry Creek and 4½ miles northeast of Lowell. Zero of gage is 728.0 feet above mean sea level by preliminary determination (general adjustment of 1929).
Drainage area.- 131 square miles.
Records available.- September 1935 to September 1937.
Extremes.- Maximum discharge during year, 6,520 second-feet Apr. 13 or 14 (gage height, 7.8 feet, from floodmark); minimum observed, 14 second-feet Dec. 1 (gage height, 0.49 foot).
1935-37: Maximum discharge, that of Apr. 13 or 14, 1937; minimum observed, that of Dec. 1, 1936.
Maximum stage known, about 11 feet, from floodmarks (date unknown).
Remarks.- Records good except those for Nov. 18-20, Feb. 11, and those for periods of ice effect, Jan. 7-10, 21, 22, which were computed on basis of weather records and records for station below Winberry Creek and Little Fall Creek near Fall Creek and are fair. No diversions above gage. Gage read once daily, oftener during periods of high water.

Rating table, water year 1936-37 except periods of ice effect (gage height, in feet, and discharge, in second-feet)

Oct. 1 to Feb. 11				Feb. 12 to Sept. 30			
0.5	14	1.8	237	0.7	19	3.0	745	6.0	3,780
.7	22	2.2	395	1.0	44	3.5	1,060	7.0	5,250
.9	36	2.6	580	1.5	131	4.0	1,470	8.0	6,850
1.2	78	3.0	805	2.0	275	4.5	1,960		
1.5	144			2.5	485	5.0	2,510		

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	24	20	14	106	295	1,660	2,180	395	176	210	66	68
2	25	21	18	93	315	2,400	1,380	510	176	204	64	51
3	25	20	18	86	315	1,560	995	535	184	187	64	45
4	25	21	20	82	690	1,660	995	585	171	176	60	44
5	26	28	177	132	805	1,860	1,060	485	158	171	56	45
6	26	24	355	86	508	1,760	995	418	150	158	56	42
7	25	22	690	80	355	1,380	930	418	143	148	55	40
8	23	22	485	78	295	1,560	865	395	158	141	54	40
9	23	21	462	76	237	2,070	995	350	187	131	54	40
10	23	20	183	75	216	1,660	995	440	292	124	52	40
11	22	20	101	75	444	1,470	995	865	440	124	52	39
12	22	20	71	75	1,380	1,560	865	745	350	113	51	37
13	22	20	55	76	995	1,470	3,380	690	275	109	50	36
14	23	20	45	93	930	1,380	4,800	585	210	105	48	35
15	24	20	42	171	690	1,130	3,780	535	275	101	46	34
16	23	19	43	223	745	995	2,510	462	350	97	45	33
17	23	20	82	160	1,130	930	1,660	395	865	91	44	32
18	22	22	275	230	1,210	865	1,130	418	865	87	43	32
19	22	21	147	202	805	745	930	418	930	87	42	118
20	21	20	101	119	610	635	805	350	1,860	85	42	118
21	21	20	97	105	635	585	865	310	1,660	82	41	59
22	21	20	335	100	865	535	745	310	1,060	78	41	45
23	21	19	580	97	865	485	635	275	930	75	105	40
24	21	19	745	101	995	485	560	258	690	73	59	38
25	20	18	444	97	930	440	585	292	560	73	50	37
26	20	18	355	115	865	418	535	258	462	113	45	36
27	20	18	444	136	745	462	535	240	372	82	43	36
28	20	18	275	132	745	485	462	225	310	73	42	34
29	20	18	186	122	-	485	440	204	275	70	40	33
30	20	16	144	101	-	510	395	184	258	68	40	33
31	20	-	112	104	-	930	-	176	-	66	127	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off Inches	Run-off Acre-feet
October	693	26	20	22.4	0.171	0.20	1,370
November	605	28	16	20.2	.154	.17	1,200
December	7,101	745	14	229	1.75	2.02	14,080
Calendar year 1936	133,633	3,900	14	365	2.79	37.89	265,000
January	3,528	230	75	114	.870	1.00	7,000
February	19,615	1,380	216	701	5.35	5.57	38,910
March	34,570	2,400	418	1,115	8.51	9.81	68,570
April	36,002	4,800	395	1,267	9.67	10.79	75,380
May	12,726	865	176	411	3.14	3.62	25,240
June	14,792	1,860	143	493	3.76	4.20	29,340
July	3,502	210	66	113	.863	.99	6,950
August	1,677	127	40	54.1	.413	.46	3,330
September	1,360	118	32	45.3	.346	.39	2,700
Water year 1936-37	138,171	4,800	14	379	2.89	39.24	274,100

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

Location.- Staff gage, lat. 43°57', long. 122°47', near center of sec. 2, T. 19 S., R. 1 W., 1⅛ miles below Winberry Creek and 2½ miles southeast of Fall Creek. Zero of gage is 637.75 feet above mean sea level by preliminary determination (general adjustment of 1929).
Drainage area.- 190 square miles.

Records available.- October to December 1911 (gage heights only), September 1935 to September 1937.

Extremes.- Maximum discharge during year, 7,820 second-feet Apr. 14 (gage height, 10.8 feet, from floodmarks; minimum observed, 19 second-feet Dec. 1 (gage height, 0.48 foot).
1935-37: Maximum discharge, that of Apr. 14, 1937; minimum, that of Dec. 1, 1936. Maximum stage known, about 14 feet from floodmarks, (date unknown).

Remarks.- Records good except those for periods of missing or faulty gage heights, Nov. 1, Dec. 5-7, 10, Jan. 15, July 4, Sept. 8-10, 19, and those for periods of ice effect, Jan. 6-13, 21, which were computed by comparison with records for station above Winberry Creek, near Lowell, and those for Little Fall Creek near Fall Creek and are fair. No diversions above station. Gage read once daily, oftener during periods of high water.

Rating table, 1936-37 except periods of ice effect (gage height, in feet, and discharge, in second-feet)

0.5	20	1.8	179	3.5	750	7.0	3,200
.7	31	2.2	275	4.0	975	8.0	4,250
1.0	54	2.6	405	5.0	1,520	9.0	5,430
1.4	108	3.0	550	6.0	2,270		

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	30	25	19	150	475	2,110	2,900	550	262	305	79	85
2	30	27	24	124	590	3,100	1,870	670	275	275	76	61
3	30	25	22	108	510	2,450	1,460	795	290	248	74	50
4	30	27	24	105	1,170	2,110	1,460	795	275	236	71	48
5	30	35	250	159	1,120	2,540	1,520	670	248	223	66	49
6	30	31	600	115	710	2,540	1,400	590	236	212	66	48
7	30	30	1,000	102	510	1,800	1,280	590	223	200	66	48
8	29	26	710	98	405	1,950	1,120	550	223	190	64	48
9	27	26	630	96	352	2,630	1,400	510	275	179	61	46
10	27	26	300	94	335	2,270	1,400	630	475	169	61	45
11	26	26	212	93	590	1,950	1,340	1,070	670	159	61	43
12	26	25	93	92	2,270	1,950	1,170	975	510	150	59	40
13	26	24	76	90	1,460	1,950	4,140	885	440	141	56	40
14	27	24	64	124	1,340	1,870	6,340	795	370	141	54	38
15	29	25	54	250	1,020	1,590	5,690	710	388	132	54	37
16	27	24	52	335	1,070	1,340	3,600	630	510	124	52	37
17	26	26	76	223	1,220	1,220	2,270	590	1,170	124	50	36
18	26	27	370	370	1,730	1,070	1,590	630	1,020	124	48	37
19	25	26	190	290	1,170	975	1,120	630	1,170	116	48	200
20	25	25	124	179	885	840	1,020	550	2,270	116	46	179
21	25	25	105	165	885	750	1,170	475	2,190	108	44	79
22	25	24	370	159	1,170	670	975	475	1,460	102	49	54
23	25	24	550	141	1,170	630	885	405	1,170	99	93	48
24	25	24	930	169	1,400	630	750	405	885	93	72	44
25	25	24	630	150	1,280	550	795	440	710	90	56	41
26	25	24	475	212	1,170	550	710	422	590	190	50	41
27	25	24	510	223	1,070	630	710	370	510	108	48	40
28	25	24	335	236	1,070	630	630	370	440	93	44	38
29	25	22	248	200	-	630	590	335	388	87	44	37
30	25	25	223	200	-	670	550	305	370	85	44	37
31	24	-	179	190	-	1,120	-	275	-	82	141	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acre-feet
October	830	30	24	26.8	0.141	0.16	1,650
November	770	35	22	25.7	.135	.15	1,530
December	9,445	1,000	19	305	1.61	1.86	18,730
Calendar year 1936	174,943	5,070	19	478	2.52	34.23	347,000
January	5,242	370	90	169	.889	1.02	10,400
February	28,147	2,270	335	1,005	5.29	5.51	55,830
March	45,715	3,100	550	1,475	7.76	8.95	90,670
April	51,855	6,340	550	1,728	9.09	10.14	102,900
May	18,092	1,070	275	584	3.07	3.54	35,880
June	20,013	2,270	223	667	3.51	3.92	39,700
July	4,701	305	82	152	.800	.92	9,320
August	1,897	141	44	61.2	.322	.37	3,760
September	1,674	200	36	55.8	.294	.33	3,320
Water year 1936-37	188,381	6,340	19	516	2.72	36.87	373,700

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 1937.

Extremes.- Maximum discharge during year, 2,240 second-feet Apr. 14 (gage height, 5.8 feet, from graph based on gage readings); minimum daily discharge (estimated), 10 second-feet Dec. 1.
1935-37: Maximum discharge observed, 3,000 second-feet Jan. 4, 1936 (gage height, 6.30 feet); minimum, that of Dec. 1, 1936.

Remarks.- Records good except those for periods of ice effect or of faulty gage heights, Nov. 27, 28, Dec. 1, 17 (computed by comparison with records for stations on Fall Creek), and those for January, which are fair. Gage read once daily, oftener during periods of high water.

Rating table, 1936-37 except periods of ice effect (gage height, in feet, and discharge, in second-feet)

1.1	9	3.0	280
1.3	17	3.5	445
1.5	26	4.0	650
1.8	44	4.5	945
2.2	87	5.0	1,360
2.6	167	5.5	1,870

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	18	13	10	63	103	480	760	207	79	118	43	38
2	17	13	12	57	122	875	650	207	77	111	41	33
3	17	13	11	55	250	700	560	250	74	103	40	31
4	17	18	13	84	310	650	560	250	72	100	40	30
5	17	17	27	79	250	700	605	221	67	93	38	29
6	17	15	44	77	236	750	560	207	65	87	37	28
7	17	15	122	72	155	650	500	193	64	82	37	28
8	17	16	93	67	122	605	445	180	74	79	36	28
9	16	14	97	63	118	750	520	180	122	77	36	28
10	16	14	63	63	103	750	520	250	107	74	36	27
11	16	13	44	61	250	650	520	445	132	72	36	26
12	16	13	32	60	520	650	480	358	103	70	35	26
13	16	13	28	59	462	650	1,450	310	90	67	35	26
14	17	13	17	63	392	650	1,990	250	90	65	33	25
15	17	13	15	77	325	650	1,550	221	107	63	32	24
16	16	13	29	93	325	560	1,180	207	180	61	32	24
17	16	15	50	74	358	500	875	180	236	59	31	24
18	16	14	87	107	428	480	650	193	340	59	30	24
19	15	13	82	82	358	462	520	167	358	57	30	67
20	15	13	41	73	310	392	462	143	605	55	30	44
21	15	13	49	61	375	340	445	132	650	53	29	33
22	15	13	87	59	358	310	392	122	462	52	29	30
23	15	12	167	57	340	295	358	118	358	51	68	27
24	15	12	310	59	340	280	310	114	295	51	39	26
25	14	11	167	59	375	265	295	122	265	51	33	25
26	14	11	143	67	358	265	280	111	193	49	31	24
27	14	11	122	67	325	280	250	100	167	48	30	24
28	14	11	103	63	340	265	236	93	155	48	30	24
29	14	11	87	59	-	250	221	87	143	47	29	24
30	14	11	84	57	-	295	207	86	132	46	35	24
31	14	-	72	55	-	392	-	82	-	45	55	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acre-feet
October	487	18	14	15.7	0.327	0.38	966
November	396	18	11	13.2	.275	.31	785
December	2,308	310	10	74.5	1.55	1.79	4,580
Calendar year 1936	59,300	1,590	10	162	3.37	46.01	117,600
January	2,092	107	55	67.5	1.41	1.63	4,150
February	8,308	520	103	297	6.19	6.45	16,480
March	15,791	875	250	509	10.6	12.22	31,320
April	18,341	1,990	207	611	12.7	14.17	36,380
May	5,786	445	82	187	3.90	4.50	11,480
June	5,862	650	64	195	4.06	4.53	11,630
July	2,093	118	45	67.5	1.41	1.63	4,150
August	1,116	68	29	36.0	.750	.86	2,210
September	871	67	24	29.0	.604	.67	1,730
Water year 1936-37	63,451	1,990	10	174	3.62	49.14	125,900

Coast Fork of Willamette River at London, Oreg.

Location.- Water-stage recorder, lat. 43°39', long. 123°05', in SW¼ sec. 20, T. 22 S., R. 3 W., 0.6 mile north of London and 11 miles south of Cottage Grove.

Drainage area.- 69 square miles.

Records available.- September 1935 to September 1937.

Extremes.- Maximum discharge during year, 3,820 second-feet Apr. 14 (gage height, 7.98 feet); minimum, 10 second-feet Oct. 28-30, Nov. 12-13, Nov. 27 to Dec. 1.
1935-37: Maximum discharge, that of Apr. 14, 1937; minimum, that of Oct. 28-30, Nov. 12, 13, Nov. 27 to Dec. 1, 1936.

Remarks.- Records good except those for periods of missing gage heights, Dec. 4-15, Dec. 19 to Jan. 1, Jan. 3-5, May 21 to June 1, June 3-8, June 28 to July 14, July 16 to Aug. 2, which were computed by comparison with records for stations on Mosby Creek and Row River and are fair. No diversions above gage; mill pond 3 miles upstream may cause slight regulation at times.

Rating table, 1936-37 (gage height, in feet, and discharge, in second-feet)

0.9	9	3.5	775
1.1	21	4.0	1,050
1.4	51	4.5	1,350
1.7	96	5.5	2,000
2.0	169	6.5	2,690
2.5	335	7.5	3,420
3.0	540		

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	14	12	11	41	531	608	562	172	78	130	37	30
2	13	12	12	40	403	852	508	181	93	120	37	26
3	13	12	12	37	435	630	435	193	100	110	36	24
4	14	15	15	50	775	652	526	190	90	100	36	24
5	13	18	20	55	518	700	585	175	80	92	36	23
6	13	14	50	40	310	652	513	169	76	85	36	22
7	12	12	90	36	221	531	427	169	74	82	36	21
8	12	12	110	36	181	562	387	163	80	78	36	21
9	12	12	90	40	158	725	407	163	169	75	36	22
10	12	11	60	38	149	630	439	190	225	72	34	21
11	11	11	40	32	282	562	427	343	231	70	32	21
12	12	10	30	31	652	536	387	293	225	67	30	21
13	12	10	26	35	531	540	1,750	250	184	64	29	20
14	12	11	25	43	518	526	2,520	215	175	62	28	20
15	12	11	24	170	375	479	2,520	187	196	61	26	18
16	12	11	26	149	526	419	1,260	172	293	58	26	18
17	12	13	27	102	755	395	800	169	383	56	26	18
18	12	12	30	172	585	359	585	193	343	54	25	20
19	11	12	25	127	504	343	463	199	367	52	24	51
20	11	12	22	86	379	359	387	175	700	50	24	40
21	12	12	25	68	335	339	363	160	725	48	23	29
22	12	12	100	64	363	310	318	155	495	47	30	24
23	12	11	350	61	391	318	276	140	395	46	44	22
24	12	11	250	78	439	324	250	150	310	45	31	20
25	11	11	120	73	513	286	239	150	253	43	27	20
26	11	11	90	122	479	257	231	130	212	42	26	20
27	11	10	140	169	435	265	215	115	181	41	24	20
28	11	10	90	122	419	243	199	110	165	41	23	20
29	10	10	60	94	-	228	184	90	150	40	22	19
30	10	10	50	79	-	239	172	75	140	39	25	21
31	11	-	45	113	-	261	-	70	-	38	41	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acre-feet
October	368	14	10	11.9	0.172	0.20	730
November	351	18	10	11.7	.170	.19	696
December	2,065	350	11	66.6	.965	1.11	4,100
Calendar year 1936	59,675	2,760	10	163	2.36	32.17	118,400
January	2,403	172	31	77.5	1.12	1.29	4,770
February	12,162	775	149	434	6.29	6.55	24,120
March	14,130	852	228	456	6.61	7.62	28,030
April	18,335	2,520	172	611	8.86	9.88	36,370
May	5,306	343	70	171	2.48	2.86	10,520
June	7,188	725	74	240	3.48	3.88	14,260
July	2,009	130	38	64.8	.939	1.08	3,980
August	946	44	22	30.5	.442	.51	1,880
September	696	51	18	23.2	.336	.37	1,380
Water year 1936-37	65,959	2,520	10	181	2.62	35.54	130,800

Coast Fork of Willamette River at Saginaw, Oreg.

Location.- Chain gage, lat. 43°50'05", long. 123°02'30", in NW¼ sec. 15, T. 20 S., R. 3 W., at Saginaw, 1 mile below mouth of Row River. Zero of gage is 595.47 feet above mean sea level (general adjustment of 1929).

Drainage area.- 529 square miles.

Records available.- October 1923 to September 1937 (1924-27, incomplete).

Average discharge.- 11 years (1925-26, 1927-37), 1,089 second-feet.

Extremes.- Maximum discharge during year, 21,900 second-feet Apr. 15 (gage height, 11.6 feet, from floodmark); minimum discharge observed, 23 second-feet Oct. 15 (gage height, 0.82 foot).
1923-37: Maximum discharge, 28,600 second-feet Feb. 20, 1927 (gage height, 12.9 feet); minimum, 7 second-feet July 31, 1928.

Remarks.- Records fair. Discharge for periods of unsatisfactory gage-height record, Nov. 7, 9, Jan. 12, 13, June 4-9, 12, 13, July 26-29, Aug. 8-11, 22-24, Sept. 18-20 computed by comparison with records for three upper stations in this basin. No diversion or regulation above station. Gage-height record collected in cooperation with U. S. Weather Bureau. Gage read once daily.

Rating tables, water year 1936-37 (gage height, in feet, and discharge, in second-feet)

Oct. 1 to Feb. 4

0.8	20	2.5	750
1.1	74	3.0	1,230
1.4	172	4.0	2,510
1.7	295	6.0	5,680
2.0	450	8.0	10,000

Feb. 5 to Sept. 30

0.8	24	4.0	2,550
1.2	105	5.0	4,090
1.6	260	6.0	5,820
2.0	455	8.0	10,000
2.5	800	10.0	15,900
3.0	1,290	12.0	23,500

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	26	38	41	320	2,370	2,140	3,140	1,290	580	685	168	158
2	34	38	56	277	1,470	8,100	4,260	1,760	685	650	168	122
3	34	45	41	226	2,100	4,770	3,140	2,010	720	580	161	100
4	45	48	45	202	4,460	4,770	2,690	2,010	740	543	154	92
5	48	56	48	422	4,940	5,460	3,610	1,460	680	543	140	100
6	45	59	450	345	2,410	5,110	3,450	1,290	610	515	140	92
7	52	56	600	295	1,640	3,450	2,690	1,400	580	455	133	88
8	48	41	760	218	1,400	3,450	2,410	1,290	550	455	130	80
9	45	48	800	210	1,290	6,180	3,140	1,290	1,200	405	125	80
10	41	45	450	234	1,240	4,770	2,840	1,400	1,640	380	120	85
11	41	45	242	187	1,290	3,930	3,140	2,140	1,760	315	116	85
12	34	45	165	180	4,090	3,930	2,550	2,140	1,760	325	112	80
13	27	41	128	190	3,770	4,090	10,000	2,010	1,300	325	112	75
14	26	41	101	218	3,770	4,090	19,000	1,880	1,030	335	105	75
15	23	45	85	259	3,450	3,450	21,500	1,640	1,130	305	100	68
16	48	45	101	1,120	2,840	2,840	9,500	1,400	1,290	296	90	58
17	48	48	96	725	3,140	2,410	6,360	1,340	2,140	287	85	55
18	48	45	250	1,020	4,940	2,410	4,260	1,340	1,880	278	85	70
19	52	45	242	975	3,610	2,010	3,290	1,400	2,140	269	80	150
20	52	45	187	625	2,550	2,010	2,690	1,340	3,770	260	80	210
21	48	41	142	625	2,140	1,880	2,690	1,180	5,460	251	80	175
22	52	41	210	450	2,410	1,760	2,410	1,180	3,450	233	100	122
23	52	45	505	565	2,410	1,520	2,010	1,130	2,550	215	160	100
24	48	38	1,840	565	2,990	1,760	1,760	1,030	2,010	207	140	90
25	48	41	1,020	565	3,140	1,640	1,760	1,080	1,520	207	116	80
26	48	45	658	760	2,840	1,460	1,760	980	1,340	300	100	75
27	48	45	975	1,230	2,550	1,400	1,520	1,080	980	335	95	70
28	41	41	690	800	2,270	1,400	1,460	1,030	932	260	85	70
29	41	38	505	840	-	1,290	1,340	842	800	210	80	70
30	41	48	450	725	-	1,340	1,290	720	760	191	80	70
31	38	-	395	625	-	1,520	-	580	-	175	105	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off: Inches	Run-off: Acre-feet
October	1,322	52	23	42.6	0.081	0.09	2,620
November	1,342	59	38	44.7	.084	.09	2,660
December	12,278	1,840	41	396	.749	.86	24,350
Calendar year 1936	398,729	18,400	20	1,089	2.06	28.02	790,800
January	15,998	1,230	180	516	.975	1.12	31,730
February	77,520	4,940	1,240	2,769	5.23	5.45	153,800
March	96,340	8,100	1,290	3,108	5.88	6.78	191,100
April	131,660	21,500	1,290	4,389	8.30	9.26	261,100
May	42,682	2,140	550	1,376	2.60	3.00	84,620
June	45,987	5,460	550	1,533	2.90	3.24	91,210
July	10,786	685	175	348	.658	.76	21,390
August	3,544	168	80	114	.216	.25	7,030
September	2,845	210	55	94.8	.179	.20	5,640
Water year 1936-37	442,283	21,500	23	1,212	2.29	31.10	877,200

Row River at Star, Oreg.

Location.- Staff gage, lat. 43°44', long. 122°53', in N½ sec. 24, T. 21 S., R. 2 W., half a mile west of Star and 3 miles above Teeter Creek.

Drainage area.- 211 square miles.

Records available.- September 1935 to September 1937.

Extremes.- Maximum discharge during year, 15,000 second-feet Apr. 13 (gage height, 12.85 feet, from floodmarks); minimum observed, 15 second-feet Nov. 27 (gage height, 0.40 foot).

1935-37: Maximum discharge, that of Apr. 13, 1937; minimum, 13 second-feet Oct. 1, 1935 (gage height, 0.32 foot).

Maximum stage known, about 18 feet from floodmarks, in February 1927.

Remarks.- Records good. No diversions above station; possibly slight regulation at times by operation of logging ponds. Gage read once daily, oftener during periods of high water.

Rating tables, 1936-37 (gage height, in feet, and discharge, in second-feet)

Oct. 1 to Apr. 12		Apr. 13 to Sept. 30			
0.4	15	0.6	19	4.0	850
.6	24	1.0	45	5.0	1,410
1.0	51	1.5	99	6.0	2,200
1.5	99	2.0	168	8.0	4,630
		2.5	274	10.0	8,500
Note.- Same as following table above 1.5 feet.		3.0	423	12.0	13,000

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	21	17	17	111	480	1,940	2,380	760	356	250	64	59
2	21	18	17	88	423	3,480	1,860	1,160	423	227	64	45
3	21	19	17	78	460	2,020	1,340	1,410	442	206	59	42
4	22	29	17	94	1,050	2,380	1,550	1,220	388	196	54	36
5	22	31	43	105	950	2,780	1,550	950	327	196	54	42
6	22	24	152	73	540	2,580	1,340	805	314	186	52	39
7	21	22	274	73	356	1,940	1,160	900	287	186	50	34
8	21	21	274	68	274	2,110	1,100	805	262	152	50	33
9	20	20	356	83	227	3,480	1,100	805	480	136	49	33
10	20	20	138	64	227	2,680	1,280	950	625	131	48	31
11	19	19	88	68	388	2,200	1,550	1,280	900	124	47	30
12	19	19	68	83	1,550	2,290	1,280	1,220	715	124	43	29
13	19	18	55	73	1,100	2,290	8,710	1,280	540	118	42	29
14	21	18	46	73	1,000	2,290	10,900	1,160	460	111	40	26
15	20	18	42	206	760	1,780	8,500	1,000	442	105	39	25
16	20	18	43	186	900	1,480	4,020	950	670	105	37	24
17	20	19	59	131	1,050	1,280	2,290	805	1,000	99	37	23
18	19	19	160	206	1,700	1,220	1,620	950	900	93	36	23
19	19	19	78	168	950	950	1,340	900	1,050	93	33	43
20	19	18	68	118	670	850	1,100	760	2,290	87	33	111
21	18	18	78	118	625	805	1,340	715	2,110	87	31	64
22	18	18	287	99	900	760	1,100	715	1,340	81	31	43
23	19	17	1,100	94	950	715	900	625	1,050	75	70	34
24	18	17	805	105	1,280	715	850	670	805	75	64	31
25	17	17	342	105	1,220	670	900	670	670	75	44	29
26	18	17	250	138	1,000	625	900	540	500	227	39	28
27	19	15	356	160	950	670	805	500	423	111	37	26
28	18	16	206	152	950	670	715	500	388	87	34	26
29	18	17	177	131	-	670	715	406	327	75	33	25
30	17	17	131	88	-	760	625	327	287	75	31	25
31	17	-	118	124	-	950	-	314	-	70	64	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off Inches	Run-off Acre-feet
October	603	22	17	19.5	.0.092	0.11	1,200
November	575	31	15	19.2	.091	.10	1,140
December	5,862	1,100	17	189	.896	1.03	11,630
Calendar year 1936	186,058	8,080	15	508	2.41	32.81	369,000
January	3,463	206	64	112	.531	.61	6,870
February	22,930	1,700	227	819	3.88	4.04	45,480
March	50,030	3,480	625	1,614	7.65	8.82	99,230
April	64,820	10,900	625	2,161	10.2	11.38	128,600
May	26,052	1,410	314	840	3.98	4.59	51,670
June	20,771	2,290	262	692	3.28	3.66	41,200
July	3,921	250	70	126	.597	.69	7,780
August	1,409	70	31	45.5	.216	.25	2,790
September	1,088	111	23	36.3	.172	.19	2,160
Water year 1936-37	201,524	10,900	15	552	2.62	35.47	399,800

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 1937.

Extremes.- Maximum discharge during year, 3,540 second-feet Apr. 13 (gage height, 6.4 feet, from floodmark); minimum, 4 second-feet Nov. 29 to Dec. 2 (gage height, 0.38 foot).
1936-37: Maximum discharge, that of Apr. 13, 1937; minimum, that of Nov. 29 to Dec. 2, 1936.

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

Revision of discharge, 1936

Revised daily discharge for April 4, 1936, 438 second-feet, and for May 7, 1936, 438 second-feet. These figures supersede those published in Water-Supply Paper 814 (p. 89). Revised figures of discharge for April, May, and water year 1935-36 are given in the following table:

Month	Second-foot days	Mean	Per square mile	Run-off in inches	Run-off in acre-feet
April	6,020	201	2.36	2.63	11,940
May	4,971	160	1.88	2.17	9,860
Water year 1935-36	30,813				61,120

Note.- Revised maximum for April 1936 is 438 second-feet.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	5	6	4	37	560	660	688	161	70	84	18	16
2	5	6	4	32	460	990	635	201	75	79	18	13
3	6	6	5	24	415	688	485	236	79	70	16	11
4	6	9	6	22	1,050	770	485	222	70	65	16	11
5	6	11	6	50	688	825	560	181	61	65	16	11
6	8	11	24	44	370	660	535	155	57	57	16	9
7	7	9	87	22	243	510	438	161	54	54	14	11
8	6	9	78	22	182	660	370	148	57	50	14	9
9	6	6	58	22	186	825	460	142	130	47	14	9
10	5	8	34	22	144	635	460	161	304	43	14	9
11	5	6	24	22	215	560	510	438	370	40	14	9
12	5	6	18	18	935	535	415	325	348	40	14	9
13	5	6	14	22	610	510	2,740	304	243	37	14	8
14	5	6	12	27	660	485	2,280	243	194	37	14	8
15	6	5	11	106	415	415	2,280	208	201	35	13	8
16	6	5	12	163	660	370	1,330	188	262	32	13	7
17	6	6	16	91	560	325	880	161	370	32	11	7
18	6	6	34	201	935	325	585	188	370	29	11	7
19	5	6	24	150	585	282	438	208	415	29	11	25
20	5	6	18	91	415	325	438	174	825	29	11	32
21	5	6	18	69	348	325	348	155	880	27	9	18
22	5	6	106	54	415	282	304	142	585	27	9	13
23	5	5	116	44	460	243	262	130	438	25	27	11
24	5	5	122	61	560	282	229	118	325	25	18	9
25	5	5	116	61	560	243	229	136	243	25	14	9
26	5	5	82	106	460	215	215	130	194	25	11	9
27	5	5	138	188	438	222	201	112	161	25	11	8
28	5	5	82	144	392	201	181	106	136	20	11	8
29	5	4	54	111	-	188	174	101	112	20	9	8
30	5	4	47	87	-	201	161	79	101	20	9	9
31	5	-	44	69	-	229	-	75	-	18	20	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acre-feet
October	169	8	5	5.5	0.065	0.07	335
November	189	11	4	6.3	.074	.08	375
December	1,414	138	4	45.6	.536	.62	2,800
Calendar year							
January	2,182	201	18	70.4	.828	.95	4,330
February	13,891	1,050	144	495	5.84	6.08	27,550
March	13,886	990	188	448	5.27	6.08	27,540
April	19,316	2,740	161	644	7.58	8.46	38,310
May	5,489	438	75	177	2.08	2.40	10,890
June	7,730	880	54	258	3.04	3.39	15,330
July	1,213	84	18	39.1	.460	.53	2,410
August	430	27	9	13.9	.164	.19	853
September	331	32	7	11.0	.129	.14	657
Water year 1936-37	66,240	2,740	4	181	2.13	28.99	131,400

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 McKenzie Bridge. Zero of gage is 1,416.92 feet above mean sea level (general adjustment of 1929).

Drainage area.- 345 square miles at measuring section three-quarters of a mile above gage

Records available.- August 1910 to September 1937.

Average discharge.- 18 years (1913-14, 1915-16, 1918-21, 1923-25, 1926-37), 1,625 second-feet

Extremes.- Maximum discharge during year, 5,660 second-feet Apr. 14 (gage height, 4.35 feet); minimum, 905 second-feet Jan. 29 to Feb. 4 (gage height, 0.90 foot).
1910-37: Maximum discharge, 18,000 second-feet (estimated) Jan. 6, 1923 (gage height, 8.3 feet, from floodmarks at former gage at highway bridge); minimum, 805 second-feet Oct. 20, 1931.

Remarks.- Records good. No diversion or regulation above station. Water-stage recorder inspected by employee of U. S. Forest Service.

Rating tables, water year 1936-37 (gage height, in feet, and discharge, in second-feet)

Oct. 1 to Apr. 12		Apr. 13 to Sept. 30			
0.9	905	1.0	950	2.8	2,970
1.0	970	1.2	1,090	3.2	3,560
1.2	1,120	1.4	1,260	3.6	4,210
1.4	1,300	1.7	1,560	4.1	5,090
1.7	1,620	2.0	1,910		
2.0	1,990	2.4	2,420		

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,010	950	912	984	912	1,170	1,740	1,790	2,360	2,100	1,290	1,000
2	1,000	950	912	970	912	1,510	1,680	2,030	2,480	1,970	1,280	1,000
3	1,000	944	912	964	912	1,460	1,560	2,420	2,620	1,910	1,280	1,090
4	1,000	950	918	970	924	1,400	1,620	2,480	2,480	1,850	1,270	1,090
5	998	944	957	957	931	1,460	1,620	2,290	2,420	1,790	1,260	1,080
6	991	944	984	950	924	1,510	1,560	2,160	2,360	1,730	1,250	1,080
7	991	944	1,060	944	924	1,460	1,560	2,160	2,360	1,730	1,240	1,080
8	991	944	1,030	944	924	1,460	1,510	2,160	2,360	1,670	1,230	1,070
9	991	938	1,020	944	918	1,510	1,560	2,220	2,360	1,620	1,220	1,070
10	984	938	970	944	912	1,560	1,740	2,420	2,290	1,620	1,220	1,070
11	984	938	957	944	944	1,560	1,740	2,970	2,220	1,560	1,210	1,070
12	984	931	944	944	1,130	1,680	1,740	2,970	2,100	1,560	1,210	1,060
13	977	931	938	944	1,120	1,740	3,530	3,110	2,100	1,500	1,200	1,060
14	984	931	931	938	1,060	1,740	5,090	3,110	2,100	1,500	1,190	1,060
15	977	931	924	950	1,030	1,680	4,300	2,970	2,160	1,500	1,170	1,060
16	970	931	924	931	1,040	1,620	3,560	2,830	2,160	1,450	1,170	1,060
17	970	924	950	938	1,070	1,560	2,970	2,760	2,290	1,450	1,160	1,050
18	970	924	977	938	1,100	1,510	2,620	2,760	2,290	1,450	1,150	1,050
19	970	924	970	924	1,070	1,460	2,420	2,690	2,520	1,400	1,150	1,080
20	970	924	950	924	1,050	1,400	2,290	2,620	3,480	1,400	1,150	1,060
21	964	924	1,010	924	1,060	1,380	2,360	2,550	3,410	1,400	1,150	1,050
22	964	918	1,190	918	1,070	1,360	2,290	2,690	2,970	1,400	1,150	1,040
23	964	918	1,300	918	1,090	1,320	2,160	2,620	2,760	1,350	1,190	1,030
24	964	918	1,210	918	1,100	1,300	2,100	2,620	2,550	1,350	1,140	1,030
25	957	918	1,110	912	1,130	1,280	2,030	2,620	2,420	1,350	1,130	1,030
26	957	918	1,080	918	1,100	1,260	2,030	2,550	2,290	1,350	1,130	1,030
27	957	912	1,060	918	1,090	1,260	2,030	2,550	2,220	1,350	1,120	1,030
28	950	912	1,030	912	1,100	1,260	1,910	2,550	2,220	1,330	1,110	1,020
29	950	912	1,030	912	-	1,260	1,850	2,420	2,160	1,320	1,110	1,020
30	950	912	1,020	905	-	1,310	1,790	2,290	2,100	1,310	1,110	1,020
31	950	-	998	905	-	1,510	-	2,220	-	1,300	1,110	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off Inches	Run-off Acre-feet
October	30,239	1,010	950	975	2.83	3.26	59,980
November	27,897	950	912	930	2.70	3.01	55,330
December	31,178	1,300	912	1,006	2.92	3.37	61,840
Calendar year 1936	546,304	5,500	912	1,493	4.33	58.90	1,084,000
January	29,006	984	905	936	2.71	3.12	57,530
February	28,547	1,130	912	1,020	2.96	3.08	56,620
March	44,950	1,740	1,170	1,450	4.20	4.84	89,160
April	66,960	6,090	1,510	2,232	6.47	7.22	132,800
May	78,600	3,110	1,790	2,535	7.35	8.47	155,900
June	72,610	3,480	2,100	2,420	7.01	7.82	144,000
July	47,570	2,100	1,300	1,535	4.45	5.13	94,350
August	36,750	1,290	1,110	1,185	3.43	3.95	72,890
September	31,540	1,090	1,000	1,051	3.05	3.40	62,560
Water year 1936-37	525,847	5,090	905	1,441	4.18	56.67	1,043,000

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 above head of Martin Rapids and 5 miles east of Vida. Zero of gage is 855.56 feet above mean sea level (general adjustment of 1929).

Drainage area.- 930 square miles.

Records available.- September 1924 to September 1937. June 1910 to March 1911 (gage heights only), at site at Martin Rapids.

Average discharge.- 13 years (1924-37), 3,619 second-feet.

Extremes.- Maximum discharge during year, 25,300 second-feet Apr. 14 (gage height, 8.66 feet); minimum, 1,350 second-feet Nov. 26, 28 (gage height, 0.44 foot).

1924-37: Maximum discharge, 47,200 second-feet Feb. 20, 1927 (gage height, 14.2 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 excellent. No diversion or regulation above station. Water-stage recorder inspected by employee of Eugene Water Board.

Rating table, water year 1936-37 (gage height, in feet, and discharge, in second-feet)

0.4	1,310	2.0	3,720	5.0	11,600
.5	1,410	2.5	4,730	5.5	13,200
.7	1,670	3.0	5,950	6.0	15,000
1.0	2,080	3.5	7,240	7.0	18,800
1.3	2,540	4.0	8,600	8.0	22,600
1.6	3,020	4.5	10,100	9.0	26,400

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,570	1,460	1,380	1,770	1,590	4,730	7,240	4,620	5,080	4,100	2,160	1,870
2	1,550	1,450	1,370	1,680	1,630	7,780	6,200	5,950	5,700	3,820	2,160	1,800
3	1,550	1,440	1,380	1,670	1,560	6,330	5,200	7,780	6,200	3,630	2,080	1,800
4	1,570	1,460	1,400	1,750	2,010	5,950	5,320	8,050	5,820	3,540	2,080	1,790
5	1,570	1,450	1,680	1,790	2,230	6,460	5,580	6,980	5,580	3,450	2,080	1,800
6	1,570	1,440	2,010	1,586	1,940	6,720	5,320	6,080	5,320	3,280	2,080	1,770
7	1,550	1,420	2,810	1,620	1,870	6,080	4,840	6,200	5,080	3,190	2,080	1,760
8	1,540	1,410	2,700	1,700	1,790	6,080	4,620	5,950	5,320	3,100	2,010	1,750
9	1,540	1,400	2,620	1,660	1,740	7,240	5,200	6,200	5,580	3,020	2,010	1,740
10	1,540	1,400	1,940	1,670	1,740	6,980	5,820	6,720	5,450	2,940	2,010	1,720
11	1,530	1,400	1,710	1,590	2,160	6,460	5,700	9,170	5,200	2,860	2,010	1,720
12	1,530	1,400	1,620	1,580	4,840	6,980	5,320	8,880	4,730	2,780	2,010	1,710
13	1,510	1,390	1,570	1,630	3,820	7,510	15,500	9,170	4,510	2,780	2,010	1,700
14	1,530	1,390	1,530	1,660	3,280	6,980	23,400	9,170	4,400	2,700	1,940	1,680
15	1,510	1,390	1,500	1,940	2,860	6,330	19,400	8,600	4,400	2,700	1,940	1,680
16	1,510	1,390	1,530	1,870	3,020	5,700	13,200	8,050	4,840	2,620	1,940	1,670
17	1,500	1,390	1,780	1,760	3,450	5,450	10,100	7,510	5,700	2,540	1,940	1,660
18	1,500	1,400	2,230	1,800	4,000	4,960	8,050	7,510	5,820	2,540	1,870	1,670
19	1,500	1,390	2,010	1,680	3,190	4,510	7,240	7,240	6,460	2,460	1,870	1,870
20	1,490	1,390	1,790	1,540	2,780	4,100	6,720	6,720	11,600	2,460	1,870	1,800
21	1,450	1,390	1,940	1,570	2,780	3,910	6,980	6,460	11,300	2,380	1,870	1,710
22	1,490	1,380	3,020	1,660	3,190	3,720	6,460	6,980	8,600	2,380	1,940	1,670
23	1,480	1,370	3,450	1,620	3,280	3,540	5,820	6,720	7,510	2,380	2,160	1,640
24	1,480	1,370	3,630	1,590	3,540	3,450	5,320	6,720	6,460	2,380	1,940	1,630
25	1,480	1,360	2,860	1,650	3,820	3,360	5,450	6,980	5,700	2,380	1,870	1,630
26	1,460	1,350	2,840	1,630	3,540	3,280	5,580	6,460	5,080	2,380	1,870	1,620
27	1,460	1,360	2,300	1,640	3,280	3,360	5,320	6,200	4,730	2,300	1,870	1,620
28	1,460	1,350	2,160	1,590	3,280	3,360	4,960	6,200	4,510	2,230	1,800	1,620
29	1,450	1,360	2,010	1,550	-	3,360	4,620	5,700	4,400	2,230	1,800	1,600
30	1,450	1,370	2,010	1,510	-	3,630	4,400	5,080	4,200	2,230	1,800	1,630
31	1,450	-	1,870	1,540	-	5,040	-	4,960	-	2,160	1,940	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acre-feet
October	46,810	1,570	1,450	1,510	1.62	1.87	92,850
November	41,820	1,460	1,350	1,397	1.50	1.67	83,150
December	64,350	3,630	1,370	2,076	2.23	2.57	127,600
Calendar year 1936	1,275,280	19,800	1,350	3,484	3.75	50.99	2,530,000
January	51,390	1,940	1,510	1,658	1.78	2.05	101,900
February	78,310	4,840	1,590	2,797	3.01	3.13	155,300
March	163,340	7,780	3,280	5,269	5.67	6.54	324,000
April	224,880	23,400	4,400	7,496	8.06	8.99	446,000
May	215,010	9,170	4,620	6,936	7.46	8.60	426,500
June	175,280	11,600	4,200	5,843	6.28	7.01	347,700
July	85,940	4,100	2,160	2,772	2.98	3.44	170,500
August	61,010	2,160	1,800	1,968	2.12	2.44	121,000
September	51,330	1,870	1,600	1,711	1.84	2.05	101,800
Water year 1936-37	1,259,570	23,400	1,350	3,451	3.71	50.36	2,498,000

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 above North Fork and 3½ miles northeast of Blue River, Oreg.

Drainage area.- 75 square miles.

Records available.- September 1935 to September 1937.

Extremes.- Maximum discharge during year, 4,900 second-feet Apr. 14 (gage height, 5.90 feet); minimum, 14 second-feet Nov. 27 to Dec. 2 (gage height, 1.01 feet).
1935-37: Maximum discharge, 5,500 second-feet Jan. 4, 1936 (gage height, 6.29 feet); minimum, that of Nov. 27 to Dec. 2, 1936.
Maximum stage in recent years, about 7 feet, from floodmarks.

Remarks.- Records good except those for periods of missing gage heights, Jan. 12 to Feb. 9, Aug. 1-3 (computed on basis of range of stage, weather records, and records for McKenzie River near Vida and Mohawk River near Springfield, and those for period of shifting control, Feb. 10 to Mar. 1, which are fair. No diversion or regulation above station.

Rating table, 1936-37 (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Feb. 10 to Mar. 1)

1.0	13	2.4	675	4.5	2,950
1.2	51	2.8	1,000	5.0	3,620
1.4	123	3.2	1,390	5.5	4,320
1.7	249	3.6	1,820	6.3	5,500
2.0	403	4.0	2,300		

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	22	19	14	100	110	748	1,240	615	434	227	55	42
2	22	19	14	85	110	1,490	928	973	517	209	53	35
3	22	19	16	78	120	1,030	720	1,280	517	197	50	33
4	22	20	19	93	130	894	774	1,150	440	180	49	33
5	22	22	75	93	120	1,020	822	862	392	171	49	33
6	22	20	171	58	100	1,040	720	728	364	155	46	33
7	20	19	364	58	80	854	622	766	342	151	46	30
8	19	19	296	71	70	878	615	735	347	143	44	30
9	19	19	263	85	65	1,120	790	774	364	135	44	30
10	19	19	135	82	61	1,070	973	964	358	127	42	28
11	19	19	85	68	176	1,000	894	1,600	332	119	42	28
12	19	18	61	58	937	1,170	854	1,340	311	115	40	28
13	19	18	49	50	544	1,230	3,680	1,390	282	106	40	28
14	20	18	42	54	375	1,130	4,320	1,200	272	104	37	28
15	20	18	40	75	291	946	3,020	1,020	291	100	37	26
16	19	18	40	70	322	846	1,820	910	332	96	37	26
17	19	19	104	65	422	774	1,210	798	465	93	35	26
18	19	19	258	75	524	675	928	790	606	85	35	26
19	19	19	197	65	347	572	790	712	869	82	35	51
20	19	18	131	60	263	484	750	622	2,120	78	35	49
21	19	18	287	55	263	428	870	652	1,710	78	33	35
22	19	16	551	52	353	386	735	690	1,010	75	37	33
23	19	16	792	55	386	358	615	622	750	71	96	30
24	19	16	645	58	446	342	551	630	572	71	49	28
25	19	16	392	54	517	332	638	630	465	78	40	28
26	19	16	282	70	440	332	682	544	392	80	37	28
27	18	14	218	80	369	358	622	537	337	71	35	28
28	18	14	176	70	375	386	544	524	306	65	33	26
29	18	14	151	65	-	409	478	446	277	61	33	26
30	18	14	135	62	-	484	472	375	249	61	37	30
31	18	-	115	60	-	870	-	381	-	58	51	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acre-feet
October	605	22	18	19.5	0.260	0.30	1,200
November	532	22	14	17.7	.236	.26	1,060
December	6,108	782	14	197	2.63	3.03	12,120
Calendar year 1936	115,718	4,620	14	316	4.21	57.34	229,500
January	2,124	100	50	68.5	.913	1.05	4,210
February	8,316	937	61	297	3.96	4.12	16,490
March	23,656	1,490	332	763	10.2	11.76	46,920
April	32,677	4,320	472	1,089	14.5	16.18	64,810
May	25,260	1,600	375	815	10.9	12.57	50,100
June	16,023	2,120	249	534	7.12	7.94	31,780
July	3,453	227	58	111	1.48	1.71	6,850
August	1,332	96	33	43.0	.573	.66	2,640
September	935	51	26	31.2	.416	.46	1,850
Water year 1936-37	121,021	4,320	14	332	4.43	60.04	240,000

Mohawk River near Springfield, Oreg.

Location.- Chain gage, lat. 44°06', long. 122°57', in sec. 17, T. 17 S., R. 2 W., 1 mile above mouth and 4½ miles northeast of Springfield.

Drainage area.- 180 square miles.

Records available.- September 1935 to September 1937.

Extremes.- Maximum discharge during year, 5,340 second-feet Apr. 15 (gage height, 15.7 feet); minimum observed, 21 second-feet Nov. 28, 29 (gage height, 1.12 feet).
1935-37: Maximum discharge observed, 5,550 second-feet Jan. 11, 1936 (gage height, 17.04 feet); minimum, 13 second-feet Oct. 1, 1935.

Remarks.- Records good except those for Oct. 1 to Dec. 6, Dec. 15, 17, which are fair. Discharge for days of no gage reading, Nov. 14, Dec. 15, 17, computed on basis of weather records and records for Blue River near Blue River. No diversions above gage, possibly some regulation due to operation of logging ponds. Gage read once daily, oftener during periods of high water.

Rating tables, 1936-37 (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Oct. 1 to Dec. 6)

Oct. 1 to Feb. 4				Feb. 5 to Sept. 30					
1.0	14	5.0	1,040	1.3	36	3.5	516	8.0	2,030
1.5	82	6.0	1,360	1.6	83	4.0	652	10.0	2,840
2.0	187	7.0	1,680	2.0	158	5.0	950	12.0	3,690
2.5	311	8.0	2,030	2.5	269	6.0	1,280	14.0	4,580
3.0	445	10.0	2,780	3.0	389	7.0	1,640	16.0	5,480
4.0	740								

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	44	26	22	235	1,290	1,720	1,490	414	212	376	93	92
2	44	28	22	199	1,230	3,010	1,350	414	223	340	88	72
3	45	25	22	187	1,350	2,720	1,220	464	201	328	88	56
4	51	33	27	235	2,520	2,270	1,280	490	201	304	90	59
5	41	40	71	272	2,390	2,190	1,390	426	190	304	90	62
6	41	30	142	199	1,390	2,190	1,420	376	179	269	80	59
7	37	28	248	153	980	1,830	1,180	340	179	269	80	56
8	35	28	153	187	830	1,640	1,050	364	179	234	80	61
9	33	25	223	187	740	1,870	1,080	402	246	223	80	64
10	31	26	132	187	652	1,830	1,350	439	258	212	83	56
11	33	26	92	176	830	1,570	1,350	681	304	201	81	51
12	35	25	77	164	2,550	1,490	1,280	1,020	258	190	78	50
13	30	25	59	164	1,990	1,460	3,010	860	246	179	77	50
14	32	25	50	211	1,790	1,390	4,670	770	223	168	62	44
15	34	26	48	980	1,350	1,180	4,980	652	292	168	54	39
16	30	26	86	1,130	1,750	1,050	3,730	569	414	158	67	38
17	27	28	130	531	1,750	920	2,680	516	464	152	59	39
18	30	30	164	860	2,800	830	2,070	542	652	158	56	36
19	30	30	132	590	1,990	770	1,600	490	681	150	54	118
20	28	28	105	417	1,460	740	1,280	414	1,870	146	53	88
21	28	28	119	337	1,350	652	1,150	389	2,680	136	62	62
22	28	28	260	337	1,320	624	980	364	1,720	132	78	50
23	28	26	740	298	1,320	596	800	340	1,320	140	116	44
24	27	23	860	337	1,320	542	710	316	950	122	81	42
25	30	23	560	285	1,280	516	652	352	770	114	69	44
26	32	22	473	473	1,250	490	624	304	652	107	61	42
27	26	22	560	560	1,180	516	569	292	542	104	57	46
28	26	21	390	473	1,150	490	516	280	477	104	53	44
29	27	21	311	390	-	477	464	269	439	102	53	42
30	25	23	324	337	-	516	439	246	402	104	81	44
31	27	-	272	324	-	1,570	-	234	-	97	116	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acre-feet
October	1,015	51	25	32.7	0.182	0.21	2,010
November	795	40	21	26.5	.147	.16	1,580
December	6,874	860	22	222	1.23	1.42	13,630
Calendar year 1936	157,356	5,180	21	430	2.39	32.52	312,200
January	11,415	1,130	153	368	2.04	2.36	22,640
February	41,802	2,800	652	1,493	8.29	8.63	82,910
March	39,659	3,010	477	1,279	7.11	8.20	78,660
April	46,364	4,980	439	1,545	8.58	9.57	91,960
May	14,029	1,020	234	453	2.52	2.90	27,830
June	17,424	2,680	179	581	3.23	3.60	34,560
July	5,781	376	97	186	1.03	1.19	11,470
August	2,320	116	53	74.8	.416	.48	4,600
September	1,650	118	36	55.0	.306	.34	3,270
Water year 1936-37	189,128	4,980	21	518	2.88	39.05	375,100

Long Tom River near Noti, Oreg.

Location.- Staff gage, lat. 44°03', long. 123°26', in sec. 33, T. 17 S., R. 6 W., an eighth of a mile above railroad bridge, 1 mile below Noti Creek, and 1⅛ miles southeast of Noti.

Drainage area.- 88 square miles.

Records available.- October 1935 to September 1937.

Extremes.- Maximum discharge during year, 2,500 second-feet Apr. 14, 15 (gage height, 15.2 feet, from graph based on gage readings); minimum discharge observed, 10 second-feet Nov. 1 (gage height, 0.80 foot).

1935-37: Maximum discharge, 3,970 second-feet Jan. 13, 1936 (gage height, 18.3 feet, from graph based on gage readings); minimum observed, that of Nov. 1, 1936.

Remarks.- Records good. No diversions above station; slight diurnal fluctuation due to operation of logging pond above Noti. Gage read twice daily, oftener during periods of high water.

Rating table, water-year 1936-37 (gage height, in feet, and discharge, in second-feet)

0.8	10	3.0	277	8.0	900
1.0	18	3.5	356	10.0	1,210
1.3	35	4.0	423	12.0	1,590
1.6	59	5.0	540	14.0	2,090
2.0	106	6.0	635	16.0	2,820
2.5	185	7.0	755		

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	19	12	17	60	692	615	310	232	93	113	48	38
2	17	16	17	51	1,020	1,050	370	222	86	100	43	33
3	16	16	18	48	1,080	840	384	203	79	100	40	30
4	13	16	18	45	1,660	668	410	185	77	93	39	33
5	19	18	20	93	1,630	596	472	176	80	86	38	25
6	16	16	33	86	1,020	550	484	168	76	93	40	27
7	16	16	66	48	657	448	423	168	77	79	38	27
8	16	13	61	59	569	448	384	185	79	79	37	27
9	15	18	44	55	550	496	460	151	93	74	36	26
10	13	17	33	48	508	484	587	160	128	70	36	27
11	14	16	25	60	635	423	635	423	106	68	35	25
12	17	17	22	46	1,300	410	615	310	93	67	35	25
13	16	17	19	44	1,100	384	1,610	259	80	66	33	27
14	16	16	20	71	811	341	2,460	212	80	64	32	22
15	15	16	20	397	668	310	2,390	185	80	64	31	22
16	15	20	22	540	1,070	294	1,660	176	120	60	32	22
17	15	18	35	356	1,280	268	1,080	160	106	58	30	20
18	12	18	54	436	2,060	250	811	160	120	58	30	20
19	15	18	35	397	1,350	250	657	143	203	58	29	28
20	15	18	31	241	885	294	569	135	587	54	29	30
21	16	16	34	168	680	370	519	128	560	54	28	26
22	15	15	64	135	646	370	472	120	423	51	29	28
23	16	20	232	120	635	370	423	120	341	50	34	22
24	14	17	194	135	605	384	384	120	259	48	33	22
25	12	17	113	106	625	356	356	143	203	48	30	21
26	17	15	78	277	605	310	370	120	168	46	29	20
27	15	18	151	436	560	326	341	113	151	44	27	22
28	16	14	106	423	519	277	326	106	128	45	25	22
29	16	14	73	277	-	250	294	106	120	45	27	21
30	16	19	79	194	-	232	250	100	120	43	28	26
31	17	-	67	326	-	232	-	93	-	43	35	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acre-feet
October	480	19	12	15.5	0.176	0.20	952
November	497	20	12	16.6	.189	.21	986
December	1,801	232	17	58.1	.660	.76	3,570
Calendar year 1936	68,564	3,580	12	187	2.12	29.00	136,000
January	5,778	540	44	186	2.11	2.43	11,460
February	25,420	2,060	508	908	10.3	10.73	50,420
March	12,896	1,050	232	416	4.73	5.45	25,580
April	20,506	2,460	250	684	7.77	8.67	40.670
May	5,282	423	93	170	1.93	2.22	10,480
June	4,916	587	76	164	1.86	2.08	9,750
July	2,021	113	43	65.2	.741	.85	4,010
August	1,036	48	25	33.4	.380	.44	2,050
September	764	38	20	25.5	.290	.32	1,520
Water year 1936-37	81,397	2,460	12	223	2.53	34.36	161,400

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 below mouth of Shafer Creek. Zero of gage is 262.27 feet above mean sea level (general adjustment of 1929).

Drainage area.- 391 square miles.

Records available.- November 1920 to September 1937 (1925-27 incomplete).

Average discharge.- 14 years (1921-25, 1927-37), 690 second-feet.

Extremes.- Maximum discharge observed during year, 11,800 second-feet Feb. 4 (gage height, 15.30 feet); minimum, 14 second-feet Oct. 13, 14, 19-23 (gage height, 0.34 foot).

1920-37: Maximum discharge, about 18,600 second-feet Jan. 7, 1923; minimum, 8 second-feet Sept. 5-19, 23, 1924.

Maximum stage known, 282.1 feet above mean sea level in February, 1890, from floodmarks at bridge at Monroe, corresponding to stage of about 19 feet at gage (discharge not determined).

Remarks.- Records good except those for period of moss effect, July 11 to Sept. 30, which were computed by shifting-control method, and are fair. No diversions above station. Some fluctuation at low stages owing to pondage at mill dam at Monroe. Gage read once daily.

Rating table, water year 1936-37 (gage height, in feet, and discharge, in second-feet) (Shifting-control method used July 11 to Sept. 30)

0.3	12	0.9	66	2.0	225	3.5	477	6.0	1,140	9.0	2,080	12.0	3,980
.5	24	1.2	106	2.5	305	4.0	584	7.0	1,450	10.0	2,440	14.0	7,980
.7	43	1.6	164	3.0	388	5.0	840	8.0	1,760	11.0	2,990	16.0	14,800

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	16	17	21	134	1,290	1,540	629	606	185	239	61	39
2	16	18	23	120	2,630	2,150	990	497	176	265	61	41
3	16	18	23	100	9,990	2,530	1,420	458	164	241	61	45
4	18	18	23	89	11,800	2,480	1,260	422	155	222	60	43
5	19	18	24	89	10,300	2,290	1,290	388	146	203	55	41
6	19	17	24	100	7,980	1,890	1,420	362	137	191	53	39
7	17	26	33	215	5,320	1,600	1,450	346	131	179	53	39
8	16	20	43	140	3,710	1,350	1,350	354	131	161	53	37
9	17	20	52	114	2,990	1,350	1,390	337	137	152	51	37
10	17	23	61	109	2,360	1,480	1,600	337	158	143	46	37
11	16	20	54	92	2,190	1,510	2,050	440	203	133	48	36
12	15	18	50	89	2,400	1,290	2,020	606	257	127	46	34
13	14	18	39	79	2,580	1,080	3,130	725	265	119	46	32
14	14	18	31	79	2,990	960	5,510	676	265	113	46	30
15	16	20	28	152	3,210	900	9,080	540	241	105	46	30
16	15	20	26	449	3,130	840	8,510	440	225	105	43	28
17	15	21	29	477	3,210	750	5,710	388	233	102	41	28
18	15	21	29	780	4,130	676	4,130	354	273	99	39	27
19	14	20	39	900	4,770	529	3,130	337	329	96	39	30
20	14	21	47	700	4,770	652	2,440	321	449	93	37	30
21	14	23	62	676	3,710	780	1,980	305	750	87	37	32
22	14	21	50	518	2,990	870	1,600	281	1,140	84	36	36
23	14	21	69	405	2,400	930	1,350	257	1,700	79	36	34
24	15	21	137	354	2,020	960	1,170	241	1,600	76	36	32
25	16	21	161	329	1,830	960	990	241	1,350	74	37	30
26	16	20	222	422	1,730	900	900	265	840	71	39	28
27	16	21	225	930	1,600	810	870	265	562	66	41	28
28	15	21	194	1,480	1,510	725	870	241	440	66	37	27
29	15	21	182	1,920	-	676	810	219	371	64	36	25
30	17	20	188	1,700	-	606	725	219	321	61	36	25
31	17	-	161	1,290	-	540	-	194	-	61	37	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off: Inches	Run-off: Acre-feet
October	487	19	14	15.7	0.040	0.05	966
November	602	26	17	20.1	.051	.06	1,190
December	2,340	225	21	75.5	.193	.22	4,640
Calendar year 1936	237,903	15,300	14	650	1.66	22.64	471,800
January	15,031	1,920	79	485	1.24	1.43	29,810
February	109,540	11,800	1,290	3,912	10.0	10.41	217,300
March	36,704	2,530	540	1,184	3.03	3.49	72,800
April	69,774	9,080	629	2,326	5.95	6.64	138,400
May	11,662	725	194	376	.962	1.11	23,130
June	13,334	1,700	131	444	1.14	1.27	26,450
July	3,927	289	61	127	.325	.37	7,790
August	1,388	61	35	44.8	.115	.13	2,750
September	1,000	45	25	33.3	.085	.09	1,980
Water year 1936-37	265,789	11,800	14	728	1.86	25.27	527,200

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 above Brush Creek. Zero of gage is 527.24 feet above mean sea level, preliminary determination (general adjustment of 1929).
Drainage area.- 99 square miles.
Records available.- September 1935 to September 1937.
Extremes.- Maximum discharge during year, 5,030 second-feet Apr. 14 (gage height, about 8.2 feet, from graph based on gage readings); minimum, 17 second-feet Nov. 26-30, Dec. 1, 3.
1935-37: Maximum discharge, 6,200 second-feet Jan. 4, 1936 (gage height, about 9.2 feet, from graph based on gage readings); minimum, 17 second-feet Oct. 1, 2, 1935, Nov. 26-30, Dec. 1, 3, 1936.
Maximum stage known, 10.6 feet, probably in February 1927 (discharge not determined).
Remarks.- Records good except those for periods of ice effect, Nov. 28, 29, Jan. 8-14, which were computed on basis of records for South Santiam River near Cascadia and at Waterloo and are fair. Gage read once daily, oftener during periods of high water.

Rating tables, 1936-37 except periods of ice effect (gage height, in feet, and discharge, in second-feet)

Oct. 1 to Jan. 7				Jan. 8 to Sept. 30					
0.6	16	2.0	295	0.8	26	2.5	485	6.0	2,810
.8	32	2.5	495	1.0	50	3.0	720	7.0	3,740
1.0	58	3.0	740	1.3	97	3.5	990	8.0	4,810
1.3	107	3.5	1,030	1.6	163	4.0	1,300		
1.6	172			2.0	287	5.0	2,020		

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	23	19	17	149	825	1,020	1,650	462	267	287	67	60
2	25	20	18	138	620	2,170	1,200	598	287	253	64	46
3	23	19	17	123	935	1,580	990	798	305	240	64	42
4	25	22	19	117	1,300	1,440	1,080	770	273	221	61	40
5	26	23	27	149	990	1,510	1,110	620	253	215	58	41
6	25	22	160	131	598	1,440	990	552	231	191	58	38
7	24	20	540	96	462	1,200	880	575	253	180	56	37
8	23	20	227	100	400	1,170	852	575	240	169	56	36
9	22	20	350	120	323	1,440	962	485	224	158	53	36
10	22	19	138	130	287	1,300	1,140	720	256	148	53	35
11	22	19	89	110	400	1,200	1,110	1,580	323	143	53	34
12	22	19	70	120	1,580	1,260	990	1,230	287	134	50	34
13	22	19	58	110	1,050	1,300	3,540	1,080	243	125	50	33
14	23	19	50	120	880	1,230	4,370	908	224	120	50	32
15	24	18	42	247	670	1,050	3,740	798	247	116	47	30
16	22	18	47	280	1,020	935	2,410	695	305	112	45	28
17	22	21	67	203	1,300	852	1,720	598	598	108	45	27
18	21	22	227	256	1,440	770	1,260	620	670	105	42	27
19	20	22	185	209	962	670	1,020	552	852	101	42	66
20	20	20	123	146	745	620	880	485	2,090	97	40	74
21	20	19	127	118	695	575	962	440	1,870	94	40	50
22	20	19	430	143	770	530	825	440	1,230	90	41	38
23	20	19	850	127	745	508	695	420	1,020	87	105	35
24	20	18	795	116	825	485	620	400	798	83	77	34
25	20	18	518	120	798	462	620	440	645	80	51	30
26	20	17	370	260	720	440	598	380	530	80	46	29
27	20	17	350	243	645	440	598	360	440	80	44	28
28	20	17	278	215	620	440	530	305	400	77	41	28
29	20	17	212	171	-	440	485	305	360	74	37	28
30	19	17	212	150	-	530	440	277	305	74	38	28
31	20	-	172	131	-	852	-	256	-	70	64	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off: Inches	Run-off: Acre-feet
October	675	26	19	21.8	0.220	0.25	1,340
November	579	23	17	19.3	.195	.22	1,150
December	6,785	850	17	219	2.21	2.55	13,460
Calendar year 1936	131,203	4,370	17	358	3.62	49.31	260,200
January	4,848	280	96	156	1.58	1.82	9,620
February	22,605	1,580	287	807	8.15	8.49	44,840
March	29,859	2,170	440	963	9.73	11.22	59,220
April	38,267	4,370	440	1,276	12.9	14.39	75,900
May	18,724	1,580	256	604	6.10	7.03	37,140
June	16,026	2,090	224	534	5.39	6.01	31,790
July	4,112	287	70	133	1.34	1.54	8,160
August	1,638	105	37	52.8	.533	.61	3,250
September	1,124	74	27	37.5	.379	.42	2,230
Water year 1936-37	145,242	4,370	17	398	4.02	54.55	288,100

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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. Zero of gage is 1,475.4 feet above mean sea level.

Drainage area.- 224 square miles.

Records available.- January 1907 to October 1909, October 1928 to September 1937. August 1910 to October 1913, at site above Boulder Creek, near Hoover; records equivalent.

Average discharge.- 11 years (1907-8, 1910-11, 1928-37), 904 second-feet.

Extremes.- Maximum discharge during year, 7,290 second-feet Apr. 14 (gage height, 7.05 feet); minimum, 318 second-feet Nov. 30 (gage height, 0.53 foot).
1907-9, 1910-11, 1928-37: Maximum discharge, 15,000 second-feet Mar. 31, 1931 (gage height, about 12.0 feet); minimum, 295 second-feet Oct. 9-12, 14-16, 20, 21, 1931.

Remarks.- Records good except those for period of ice effect, Jan. 7-14, which were computed on basis of weather records, gage heights, and records for station at Mehama and for Breitenbush River near Detroit and are fair. No diversion or regulation above station. Water-stage recorder inspected by employee of U. S. Forest Service.

Rating tables, water year 1936-37 except period of ice effect (gage height, in feet, and discharge, in second-feet)

0.5	311	1.7	790	4.0	2,520
.7	363	2.1	1,010	4.5	3,090
.9	429	2.5	1,260	5.0	3,770
1.1	507	3.0	1,620	6.0	5,390
1.4	642	3.5	2,040	7.0	7,290

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	366	352	323	440	389	765	1,330	1,330	1,740	1,260	546	455
2	366	343	323	415	373	1,190	1,260	1,660	2,000	1,160	537	444
3	366	341	325	419	373	1,130	1,130	2,220	2,180	1,070	533	436
4	376	349	330	433	402	1,070	1,160	2,370	2,040	1,070	533	440
5	376	352	409	429	405	1,100	1,160	2,080	1,950	982	533	462
6	369	349	503	363	382	1,160	1,130	1,900	1,900	928	528	444
7	369	343	690	350	376	1,130	1,070	1,900	1,820	872	520	436
8	366	341	582	340	373	1,100	1,040	1,950	1,820	872	516	433
9	363	341	541	370	363	1,160	1,160	1,950	1,780	845	516	429
10	360	338	444	390	357	1,190	1,330	2,080	1,660	818	520	429
11	357	338	402	380	444	1,190	1,360	2,910	1,540	790	524	433
12	355	338	385	360	715	1,330	1,360	2,800	1,470	735	516	429
13	355	335	369	375	642	1,540	4,140	3,030	1,440	755	507	422
14	363	335	366	390	582	1,580	6,690	3,090	1,540	740	491	419
15	357	335	360	419	533	1,470	5,390	2,850	1,620	715	478	419
16	352	335	360	402	618	1,400	3,490	2,520	1,700	690	478	409
17	349	349	412	398	637	1,330	2,580	2,270	1,780	670	470	402
18	349	338	491	402	642	1,190	2,080	2,370	1,900	715	466	405
19	349	335	470	382	586	1,130	1,820	2,270	2,320	646	462	568
20	346	335	419	343	546	1,040	1,700	2,080	3,920	642	459	478
21	346	333	548	363	568	955	1,780	2,080	3,770	637	455	433
22	346	330	872	405	642	900	1,660	2,220	2,850	678	474	415
23	346	328	1,220	382	642	845	1,500	2,130	2,370	628	546	405
24	343	325	1,010	373	642	818	1,440	2,080	1,900	628	482	402
25	343	325	790	363	666	790	1,440	2,270	1,660	628	466	398
26	341	325	690	376	642	790	1,500	2,080	1,540	642	462	395
27	341	323	604	373	618	790	1,470	2,000	1,470	609	451	392
28	338	323	546	366	614	818	1,360	2,000	1,440	590	436	389
29	338	323	511	355	-	818	1,260	1,820	1,400	572	433	385
30	338	321	495	349	-	872	1,220	1,620	1,330	544	451	392
31	341	-	459	366	-	1,070	-	1,620	-	554	491	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acre-feet
October	10,970	376	338	354	1.58	1.82	21,760
November	10,078	352	321	336	1.50	1.67	19,990
December	16,249	1,220	323	524	2.34	2.70	32,230
Calendar year 1936	335,559	5,210	321	917	4.09	55.70	665,600
January	11,871	440	340	383	1.71	1.97	23,550
February	14,772	715	357	528	2.36	2.46	29,300
March	33,661	1,580	765	1,086	4.85	5.59	66,770
April	57,010	6,690	1,040	1,900	8.48	9.46	113,100
May	67,550	3,090	1,330	2,179	9.73	11.22	134,000
June	57,850	3,920	1,330	1,928	8.61	9.61	114,700
July	23,735	1,260	554	766	3.42	3.94	47,080
August	15,280	546	433	493	2.20	2.54	30,310
September	12,798	568	385	427	1.91	2.13	25,380
Water year 1936-37	331,824	6,690	321	909	4.06	55.11	658,200

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 below mouth of Little North Santiam River. Zero of gage is 601.78 feet above mean sea level (general adjustment of 1929).

Drainage area.- 665 square miles.

Records available.- July 1905 to March 1907, October 1910 to September 1914, September 1921 to September 1937.

Average discharge.- 20 years (1905-6, 1911-14, 1921-37), 3,252 second-feet.

Extremes.- Maximum discharge during year, 30,100 second-feet Apr. 14 (gage height, 10.89 feet); minimum, 462 second-feet Nov. 28 (gage height, 1.48 feet).
1905-7, 1910-14, 1921-37: 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 discharge, 420 second-feet Sept. 18, 1924.

Remarks.- Records good. Slight regulation of low-water flow by operation of mill dam at Mill City. No diversions for irrigation above station. Gage-height record collected in cooperation with U. S. Weather Bureau.

Rating table, water year 1936-37 (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Aug. 13 to Sept. 30)

1.5	475	3.0	2,160	5.0	6,350	7.0	12,600
1.7	620	3.5	3,040	5.5	7,690	8.0	16,600
2.0	885	4.0	4,030	6.0	9,150	10.0	25,700
2.5	1,440	4.5	5,140	6.5	10,800	12.0	35,600

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	545	524	475	1,330	1,120	4,680	7,140	6,480	4,460	2,940	905	866
2	545	524	475	1,200	1,200	8,550	5,730	5,850	5,370	2,580	885	781
3	545	510	482	1,160	1,260	7,140	4,800	8,260	5,730	2,400	866	754
4	560	517	496	1,190	2,080	6,350	4,680	8,260	5,140	2,320	847	745
5	590	524	764	1,220	2,240	6,870	5,020	6,870	4,680	2,160	847	790
6	568	517	1,780	975	1,710	7,410	4,680	5,850	4,460	1,920	818	790
7	552	510	3,720	895	1,450	6,350	4,240	5,850	4,350	1,780	809	736
8	545	503	3,230	945	1,320	5,850	4,140	6,220	4,140	1,710	800	718
9	538	496	3,040	1,070	1,220	6,480	4,800	6,220	3,920	1,680	790	700
10	531	496	1,710	1,070	1,160	6,480	6,350	6,870	3,720	1,600	790	692
11	531	489	1,260	925	1,530	6,100	6,220	10,800	3,520	1,520	800	684
12	524	489	1,060	885	5,980	6,870	5,980	9,460	3,230	1,470	790	676
13	524	489	965	996	4,240	7,970	20,500	9,780	3,040	1,430	800	668
14	538	489	1,190	996	3,420	7,690	26,700	9,460	3,230	1,370	790	660
15	538	482	1,060	1,370	2,760	6,610	20,800	8,260	3,520	1,320	772	660
16	531	489	985	1,280	3,820	5,850	13,000	7,410	3,820	1,270	763	652
17	517	524	1,680	1,180	4,240	5,610	9,460	6,480	4,570	1,250	754	644
18	517	517	3,320	1,250	4,460	4,910	7,410	6,610	5,740	1,250	754	652
19	517	503	2,580	1,140	3,420	4,350	6,480	6,220	7,410	1,220	745	985
20	510	496	1,780	915	2,760	3,820	5,850	5,610	13,400	1,160	736	975
21	510	489	2,230	905	2,760	3,420	6,480	5,490	12,600	1,120	718	772
22	510	482	4,680	985	3,720	3,140	5,850	6,100	8,850	1,090	754	709
23	510	482	8,380	955	3,720	2,940	5,140	5,730	7,140	1,070	985	676
24	510	475	6,100	935	3,720	2,760	4,680	5,490	5,730	1,060	945	660
25	510	468	4,030	866	3,720	2,580	4,800	5,850	4,800	1,030	818	644
26	503	475	3,140	945	3,520	2,580	5,140	5,140	4,240	1,160	772	644
27	503	475	2,580	935	3,230	2,670	4,910	5,020	3,820	1,060	754	636
28	496	475	2,160	895	3,040	2,850	4,460	5,020	3,620	996	727	628
29	496	475	1,850	847	-	2,940	3,920	4,570	3,420	975	718	628
30	496	475	1,710	838	-	3,320	3,720	3,920	3,140	945	736	652
31	503	-	1,470	809	-	5,140	-	3,820	-	925	945	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acre-feet
October	16,313	590	496	526	0.791	0.91	32,360
November	14,859	524	468	495	.744	.83	29,470
December	70,382	8,380	475	2,270	3.41	3.93	139,600
Calendar year 1936	1,021,804	26,200	468	2,792	4.20	57.10	2,027,000
January	31,907	1,370	809	1,029	1.55	1.79	63,280
February	78,820	5,980	1,120	2,815	4.23	4.40	156,300
March	160,280	8,550	2,580	5,170	7.77	8.96	317,900
April	223,080	26,700	3,720	7,436	11.2	12.50	442,500
May	202,970	10,800	3,820	6,547	9.85	11.36	402,600
June	154,810	13,400	3,040	5,160	7.76	8.66	307,100
July	45,781	2,940	925	1,477	2.22	2.56	90,810
August	24,933	985	718	804	1.21	1.40	49,450
September	21,477	985	628	716	1.08	1.20	42,600
Water year 1936-37	1,045,612	26,700	468	2,865	4.31	58.50	2,074,000

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 below Canyon Creek, 1½ miles above French Creek, and 2 miles east of Detroit. Zero of gage is 1,559.4 feet above mean sea level.
Drainage area.- 108 square miles.
Records available.- June 1932 to September 1937. October 1910 to October 1913, at site below French Creek (fragmentary); records equivalent except for inflow from French Creek.
Extremes.- Maximum discharge during year, about 5,530 second-feet Apr. 14 (gage height, 7.27 feet, estimated from form of graph, recorder not operating properly); minimum, 101 second-feet Dec. 1 (gage height, 0.46 foot).
1932-37: Maximum discharge, 8,100 second-feet Dec. 22, 1933 (gage height, 9.08 feet); minimum, 93 second-feet Sept. 27, 1934 (gage height, 0.42 foot).
Remarks.- Records good except those for periods of ice effect, Jan. 7-10, 20, 21, 31, which were computed on basis of weather records, gage heights, and records for North Santiam River at Detroit and at Mehama and are fair. No diversion or regulation above station. Water-stage recorder inspected by employee of U. S. Forest Service.

Rating tables, water year 1936-37 except periods of ice effect (gage height, in feet, and discharge, in second-feet)

Oct. 1 to Dec. 22		Dec. 23 to Sept. 30			
0.4	94	0.6	111	3.0	1,010
.6	120	.8	141	3.5	1,330
.8	151	1.0	179	4.0	1,730
1.0	190	1.3	250	5.0	2,720
1.3	265	1.6	341	6.0	3,870
1.6	363	2.0	493	7.0	5,140
2.0	520	2.5	735		
2.5	765				

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	116	110	101	188	139	536	1,080	820	880	655	201	161
2	114	107	102	171	128	1,040	820	1,220	1,140	573	197	148
3	114	106	104	165	125	850	680	1,740	1,220	532	190	141
4	119	107	107	173	152	762	680	1,700	1,040	532	186	143
5	120	109	176	167	163	850	708	1,320	940	493	183	159
6	117	106	244	152	145	880	655	1,110	910	436	181	148
7	116	106	395	140	135	790	606	1,110	880	409	179	139
8	114	109	338	130	131	735	620	1,140	880	409	175	136
9	110	109	280	135	125	820	762	1,140	820	398	175	133
10	110	109	199	140	122	820	970	1,280	735	390	173	131
11	109	107	169	139	194	790	880	1,780	708	372	171	127
12	109	107	153	135	510	1,040	970	1,740	630	366	167	127
13	109	106	148	148	362	1,280	4,230	1,950	630	358	165	124
14	110	106	180	154	290	1,180	5,140	1,900	735	341	161	122
15	110	106	160	165	258	1,000	3,580	1,620	790	318	157	119
16	109	107	153	150	321	910	2,180	1,390	850	305	155	118
17	107	116	222	146	352	850	1,540	1,250	880	308	154	118
18	109	110	408	145	362	735	1,250	1,280	1,150	315	150	125
19	106	107	335	133	299	655	1,080	1,140	1,500	293	148	229
20	106	106	252	120	267	573	1,000	1,040	2,520	272	146	173
21	106	106	426	130	293	519	1,140	1,140	2,270	264	145	143
22	106	105	765	139	398	477	970	1,250	1,580	253	155	133
23	106	104	1,340	138	402	444	850	1,140	1,250	247	201	128
24	106	104	735	128	402	421	762	1,140	940	245	169	125
25	105	104	502	124	421	406	850	1,280	820	258	154	121
26	105	102	394	130	391	429	910	1,000	762	308	146	118
27	105	102	321	127	362	456	850	970	762	280	145	117
28	105	102	272	124	355	493	762	1,000	762	229	143	114
29	105	102	245	119	-	510	680	850	762	222	139	119
30	104	102	229	117	-	592	680	708	655	212	154	124
31	106	-	203	125	-	880	-	735	-	208	181	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acre-feet
October	3,393	120	104	109	1.01	1.16	6,730
November	3,189	116	102	106	.981	1.09	6,330
December	9,657	1,340	101	312	2.89	3.33	19,150
Calendar year 1936	184,990	4,880	101	505	4.68	63.69	366,900
January	4,397	188	117	142	1.31	1.51	8,720
February	7,604	510	122	272	2.52	2.62	15,080
March	22,723	1,280	406	733	6.79	7.83	45,070
April	37,885	5,140	606	1,263	11.7	13.05	75,140
May	38,883	1,950	708	1,254	11.6	13.37	77,120
June	30,401	2,520	630	1,013	9.38	10.46	60,300
July	10,761	655	208	347	3.21	3.70	21,340
August	5,146	201	139	166	1.54	1.78	10,210
September	4,063	229	114	135	1.25	1.40	8,060
Water year 1936-37	178,102	5,140	101	488	4.52	61.30	353,200

Little North Santiam River near Mehama, Oreg.

Location.- Staff and wire-weight gages, 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. Zero of gage is 655.41 feet above mean sea level (general adjustment of 1929).

Drainage area.- 110 square miles.

Records available.- October 1931 to September 1937. July to September 1924 and July to September 1931, at site 4 miles upstream; records equivalent.

Extremes.- Maximum discharge observed during year, 8,200 second-feet Apr. 14 (gage height, 10.0 feet); minimum observed, 22 second-feet Nov. 25-30 (gage height, 2.06 feet).
1924, 1931-37: Maximum discharge, 18,900 second-feet Dec. 22, 1933 (gage height, 14.7 feet); minimum, 21 second-feet Sept. 11, 1934 (gage height, 2.08 feet).

Remarks.- Records good except those for periods of ice effect, Jan. 6-14, 20, 21, and of faulty gage heights, June 18, 19, Aug. 31, which were computed by comparison with records for Breitenbush River near Detroit and North Santiam River at Detroit and at Mehama, and are fair. No regulation or diversions above station. Gage read twice daily.

Rating table, water year 1936-37 except periods of ice effect (gage height, in feet, and discharge, in second-feet)

2.0	17	3.4	208	6.0	1,620
2.2	34	3.8	335	6.5	2,140
2.4	53	4.2	500	7.0	2,740
2.6	74	4.6	695	8.0	4,270
2.8	99	5.0	905	9.0	6,180
3.1	144	5.5	1,210	11.0	10,400

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	34	29	23	375	250	1,440	1,920	850	695	395	65	92
2	33	29	23	318	282	3,000	1,440	1,360	905	355	65	80
3	32	29	25	265	375	2,250	1,080	1,820	905	318	64	68
4	43	29	30	282	500	2,030	1,080	1,720	745	250	63	55
5	46	28	127	318	500	2,030	1,140	1,080	645	196	58	70
6	40	30	850	200	500	1,820	1,020	960	620	196	58	63
7	34	30	1,920	160	435	1,820	960	1,080	595	208	55	58
8	32	29	1,360	140	335	1,620	905	1,140	570	196	54	53
9	30	25	1,140	160	335	2,030	1,140	1,210	522	184	53	49
10	30	24	595	190	282	1,820	1,210	1,280	478	173	53	47
11	30	23	375	180	570	1,720	1,360	2,740	455	153	54	45
12	29	23	282	170	2,610	2,030	1,360	2,030	415	144	54	44
13	29	23	395	180	1,360	2,250	7,380	2,030	415	144	52	41
14	33	23	500	200	1,020	1,920	7,380	1,820	415	136	52	40
15	35	23	395	375	905	1,620	4,450	1,360	478	127	51	38
16	32	24	335	318	1,280	1,360	2,490	1,210	570	127	50	36
17	32	34	795	265	1,280	1,210	1,920	1,080	905	120	48	34
18	30	34	1,820	300	1,210	1,080	1,530	1,140	1,530	113	42	34
19	29	30	1,080	250	960	905	1,140	1,020	2,870	99	42	99
20	28	25	905	170	905	795	1,080	850	3,590	113	42	99
21	28	25	795	180	850	695	1,360	850	2,740	106	42	67
22	27	23	1,440	196	1,210	645	1,140	850	1,820	106	53	52
23	26	23	4,090	196	1,140	595	960	850	1,440	99	55	49
24	25	23	2,030	184	1,140	570	960	850	1,020	99	74	43
25	25	22	1,820	173	1,140	500	960	905	795	92	65	42
26	25	22	905	162	1,080	500	905	795	695	86	55	41
27	24	22	795	184	905	522	850	695	645	86	52	39
28	24	22	645	184	1,360	570	795	745	570	74	50	39
29	25	22	522	162	-	620	745	645	500	73	44	38
30	26	22	455	162	-	795	695	595	455	70	44	43
31	27	-	415	162	-	1,440	-	620	-	65	127	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off Inches	Run-off Acre-feet
October	943	46	24	30.4	0.276	0.32	1,870
November	770	34	22	25.7	.234	.26	1,530
December	26,887	4,090	23	867	7.88	9.08	53,330
Calendar year 1936	234,249	9,960	22	640	5.82	79.24	464,700
January	6,761	375	140	218	1.98	2.28	13,410
February	24,719	2,610	250	883	8.03	8.36	49,030
March	42,202	3,000	500	1,361	12.4	14.30	83,710
April	51,355	7,380	695	1,712	15.6	17.40	101,900
May	36,180	2,740	595	1,167	10.6	12.22	71,760
June	29,003	3,590	415	967	8.79	9.81	57,530
July	4,703	395	65	152	1.38	1.59	9,330
August	1,736	127	42	56.0	.509	.59	3,440
September	1,598	99	34	53.3	.485	.54	3,170
Water year 1936-37	226,857	7,380	22	622	5.65	76.75	450,000

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 below bridge at Cascadia ranger station, half a mile below Tollgate Creek, three-quarters of a mile above Deer Creek, and 1⅛ miles southwest of Cascadia. Gaging cable is 0.7 mile upstream, above Tollgate Creek. Zero of gage is 759.29 feet above mean sea level (general adjustment of 1929).

Drainage area.- 174 square miles, at gaging cable.

Records available.- September 1935 to September 1937. They do not include run-off from the three square miles between gaging cable and gage.

Extremes.- Maximum discharge during year, 9,200 second-feet Apr. 14 (gage height, 11.40 feet); minimum, 23 second-feet Dec. 1, 2 (gage height, 0.98 foot).
1935-37: Maximum discharge, 9,200 second-feet Jan. 4, 1936, Apr. 14, 1937 (gage height, 11.4 feet); minimum, that of Dec. 1, 2, 1936.

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

Rating tables, 1936-37 (gage height, in feet, and discharge, in second-feet)

Oct. 1 to Apr. 14						Apr. 15 to Sept. 30	
1.0	24	2.4	237	5.0	1,660	1.1	36
1.1	29	2.8	400	6.0	2,460	1.4	65
1.4	54	3.2	585	8.0	4,500	1.7	101
1.7	92	3.6	785	10.0	7,050	2.0	148
2.0	138	4.0	1,000	11.0	8,540	2.4	241

Note.- Same as preceding table above 2.5 feet.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	38	30	23	197	227	1,750	2,460	922	975	540	107	101
2	36	31	24	172	295	3,110	1,810	1,310	1,180	486	102	82
3	36	31	24	158	339	2,210	1,420	1,770	1,240	436	100	72
4	37	33	27	170	840	2,130	1,340	1,770	1,090	409	96	70
5	38	35	144	170	812	2,460	1,380	1,480	1,000	373	93	72
6	38	34	267	118	512	2,460	1,280	1,240	975	331	92	72
7	38	32	580	128	373	1,970	1,180	1,310	922	299	89	68
8	36	30	490	156	303	1,970	1,120	1,340	950	275	88	64
9	35	29	615	231	252	2,370	1,340	1,380	1,000	261	87	64
10	35	28	264	182	231	2,290	1,660	1,590	975	244	87	61
11	35	28	168	156	356	2,050	1,620	2,820	950	229	87	60
12	35	27	133	165	1,470	2,210	1,510	2,460	840	221	83	60
13	34	26	115	163	1,120	2,370	6,390	2,370	785	210	81	57
14	37	26	103	140	950	2,290	7,940	2,210	760	198	78	55
15	37	26	93	215	785	1,890	6,240	1,930	868	190	75	52
16	36	26	93	208	1,090	1,620	3,940	1,700	1,080	182	74	51
17	34	28	250	174	1,310	1,480	2,730	1,520	1,420	173	72	52
18	33	28	445	197	1,380	1,310	2,050	1,560	1,600	167	70	53
19	32	28	307	172	950	1,120	1,620	1,450	1,930	161	69	80
20	32	27	205	128	735	1,000	1,420	1,280	3,610	156	69	114
21	32	26	351	149	840	895	1,560	1,210	3,510	148	68	83
22	32	26	812	145	1,000	840	1,340	1,280	2,210	143	72	70
23	32	26	1,580	133	1,060	785	1,180	1,210	1,730	140	150	64
24	32	24	1,210	135	1,210	760	1,060	1,210	1,310	133	109	62
25	32	24	785	128	1,210	710	1,120	1,280	1,090	131	86	61
26	31	24	600	143	1,090	685	1,150	1,150	950	134	80	59
27	30	24	522	149	1,000	685	1,060	1,120	840	125	74	55
28	30	24	414	138	1,000	685	975	1,090	735	117	70	52
29	30	24	327	130	-	685	868	975	685	112	69	51
30	29	24	283	121	-	755	812	868	610	109	73	57
31	30	-	234	121	-	1,390	-	868	-	108	107	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off: Inches	Run-off: Acre-feet
October	1,052	38	29	33.9	0.195	0.22	2,090
November	829	35	24	27.6	.159	.18	1,640
December	11,488	1,580	23	371	2.13	2.46	22,790
Calendar year 1936	228,290	7,360	23	624	3.59	48.81	452,800
January	4,892	231	118	158	.908	1.05	9,700
February	22,740	1,470	227	812	4.67	4.86	45,100
March	48,965	3,110	685	1,580	9.08	10.47	97,120
April	61,575	7,940	812	2,052	11.8	13.17	122,100
May	45,673	2,820	868	1,473	8.47	9.76	90,590
June	37,820	3,610	610	1,261	7.25	8.09	75,010
July	6,941	540	108	224	1.29	1.49	13,770
August	2,657	150	68	85.7	.493	.57	5,270
September	1,974	114	51	65.8	.378	.42	3,920
Water year 1936-37	246,606	7,940	23	676	3.89	52.74	489,100

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 below highway at Waterloo and 2½ miles above Hamilton Creek. Zero of gage is 370.2 feet above mean sea level.

Drainage area.- 640 square miles.

Records available.- July 1905 to March 1907, October 1910 to December 1911, July 1923 to September 1937.

Average discharge.- 15 years (1905-6, 1923-37), 2,717 second-feet.

Extremes.- Maximum discharge during year, 34,300 second-feet Apr. 15 (gage height, 14.34 feet); minimum, 107 second-feet Dec. 1, 2 (gage height, 2.02 feet).
1905-7, 1910-11, 1923-37: Maximum discharge, 70,000 second-feet Mar. 31, 1931 (gage height, 22.0 feet); minimum, 100 second-feet several days in September, October, and November, 1925.

Remarks.- Records excellent. No diversion or regulation above station. Gage-height record collected in cooperation with U. S. Weather Bureau.

Rating table, water year 1936-37 (gage height, in feet, and discharge, in second-feet)

2.0	101	3.5	1,260	8.0	11,600
2.2	167	4.0	1,950	10.0	18,100
2.4	258	4.5	2,790	12.0	25,300
2.7	465	5.0	3,740	14.0	33,100
3.0	730	6.0	5,910		

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	156	132	107	1,020	1,950	5,440	9,160	3,350	2,880	1,880	428	473
2	160	136	110	885	2,190	11,300	7,440	4,460	3,440	1,670	420	355
3	160	136	113	825	2,360	9,160	5,790	6,150	3,840	1,530	405	295
4	160	136	126	816	3,940	7,710	5,440	6,400	3,350	1,420	390	270
5	167	146	208	1,010	4,140	8,560	5,910	5,320	2,970	1,320	376	264
6	167	150	1,200	768	2,790	8,560	5,560	4,560	2,790	1,200	369	270
7	167	146	2,570	608	2,030	7,170	4,990	4,560	2,700	1,130	355	253
8	160	139	1,950	673	1,700	6,650	4,560	4,770	2,520	1,060	348	243
9	156	136	2,880	825	1,490	7,990	5,320	4,770	2,610	998	334	233
10	153	129	1,340	895	1,340	7,990	6,650	5,440	2,610	946	327	228
11	150	126	875	768	1,670	7,170	6,910	10,700	2,610	905	327	223
12	150	123	654	825	7,290	7,440	6,030	8,860	2,360	855	320	218
13	146	123	537	758	5,910	8,270	22,200	8,270	2,110	825	308	213
14	153	123	513	787	4,770	7,990	29,100	7,440	2,030	778	295	208
15	160	120	497	1,290	3,840	6,910	24,900	6,650	2,270	740	283	200
16	156	120	458	1,460	4,770	6,150	14,800	5,790	2,790	711	277	196
17	153	126	638	1,100	5,560	5,790	10,400	5,100	4,040	692	270	192
18	150	142	2,440	1,310	6,910	5,210	7,710	5,100	4,850	664	264	196
19	146	139	1,800	1,140	4,880	4,560	6,400	4,880	6,400	644	258	277
20	142	129	1,160	855	3,840	4,040	5,560	4,240	13,200	608	253	405
21	139	126	1,060	740	3,640	3,540	5,910	3,940	13,500	581	248	341
22	139	120	3,840	816	4,350	3,350	5,440	4,240	8,270	563	253	258
23	139	116	6,820	740	4,460	3,160	4,660	3,940	6,400	545	420	228
24	139	116	5,670	768	4,660	2,970	4,140	3,840	5,100	529	521	213
25	139	113	3,640	730	4,770	2,790	4,240	4,140	4,140	521	362	204
26	136	110	2,700	967	4,460	2,610	4,350	3,740	3,440	513	301	196
27	136	110	2,360	1,120	4,140	2,700	4,140	3,440	2,970	521	277	192
28	132	110	1,880	978	3,840	2,700	3,740	3,440	2,610	481	258	188
29	132	110	1,530	855	-	2,700	3,440	3,160	2,360	458	253	183
30	129	110	1,390	749	-	2,970	3,160	2,790	2,110	442	253	196
31	129	-	1,160	758	-	5,100	-	2,610	-	435	420	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acre-feet
October	4,601	167	129	148	0.231	0.27	9,130
November	3,798	150	110	127	.198	.22	7,530
December	52,226	6,820	107	1,685	2.63	3.03	103,600
Calendar year 1936	871,063	28,200	107	2,380	3.72	50.61	1,728,000
January	27,839	1,460	608	898	1.40	1.61	55,220
February	107,690	7,290	1,340	3,846	6.01	6.26	213,600
March	178,650	11,300	2,610	5,763	9.00	10.38	354,300
April	238,050	29,100	3,160	7,935	12.4	13.83	472,200
May	156,090	10,700	2,610	5,035	7.87	9.07	309,600
June	123,270	13,500	2,030	4,109	6.42	7.16	244,500
July	26,165	1,880	435	844	1.32	1.52	51,900
August	10,173	521	248	328	.512	.59	20,180
September	7,411	473	183	247	.386	.43	14,700
Water year 1936-37	935,963	29,100	107	2,564	4.01	54.37	1,856,000

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 above mouth of Green Peter Creek and 8 miles northeast of Foster. Zero of gage is 733.44 feet above mean sea level.

Drainage area.- 271 square miles.

Records available.- August 1931 to September 1937.

Extremes.- Maximum discharge during year, 19,400 second-feet Apr. 14 (gage height, 14.45 feet, from floodmark and recorder trace, while clock was stopped); minimum, 54 second-feet Dec. 1 (gage height, 1.25 feet).
1931-37: Maximum discharge, 29,500 second-feet Mar. 18, 1932 (gage height, 17.84 feet); minimum, that of Dec. 1, 1936.

Remarks.- Records excellent except those for periods of missing gage heights, Jan. 8 to Feb. 18, Mar. 5 to Apr. 18, which were computed on basis of records for South Santiam River below Cascadia and at Waterloo and recorded ranges of stage and are fair. No regulation or diversion above station.

Rating tables, water year 1936-37 (gage height, in feet, and discharge, in second-feet)

Oct. 1 to Apr. 14						Apr. 15 to Sept. 30			
1.3	58	3.0	405	8.0	4,960	1.6	104	4.0	875
1.5	80	3.5	600	10.0	8,550	2.0	168	5.0	1,560
1.7	105	4.0	855	12.0	13,100	2.5	282	6.0	2,450
2.0	152	5.0	1,530	14.0	18,300	3.0	429	8.0	4,960
2.5	260	6.0	2,400			3.5	620	10.0	8,550
								12.0	13,100

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	82	70	57	535	1,000	2,700	5,200	1,940	1,720	930	237	220
2	82	70	58	487	1,150	5,790	4,000	2,850	2,120	818	230	176
3	81	69	58	450	1,300	4,490	3,300	3,920	2,160	732	220	157
4	85	73	68	499	2,500	3,770	3,100	3,790	1,840	740	216	150
5	88	76	298	511	2,200	4,300	3,300	2,960	1,680	690	209	155
6	85	73	800	375	1,500	4,200	3,000	2,550	1,560	620	205	155
7	82	68	1,810	330	1,150	3,600	2,700	2,650	1,480	598	201	143
8	79	67	1,300	360	1,000	3,500	2,500	2,750	1,360	556	196	138
9	78	66	1,530	420	850	4,000	3,000	2,850	1,330	528	192	135
10	78	64	670	450	800	3,900	4,000	3,660	1,260	502	192	132
11	75	63	433	410	1,200	3,600	3,900	7,030	1,220	476	190	128
12	75	62	333	430	3,700	3,800	3,500	4,960	1,080	459	186	127
13	74	62	284	400	2,500	4,100	11,000	4,960	1,050	439	178	124
14	76	62	309	410	2,100	3,900	14,000	4,340	1,050	423	170	120
15	76	61	271	740	1,800	3,500	10,000	3,660	1,160	403	164	117
16	74	62	265	850	2,200	3,200	7,000	3,180	1,400	391	163	112
17	70	75	750	650	2,700	3,000	5,000	2,850	1,890	375	159	112
18	69	74	1,570	800	2,900	2,600	3,800	2,850	3,040	363	155	114
19	69	67	1,060	650	1,900	2,300	3,070	2,650	4,050	352	150	170
20	69	65	695	450	1,490	2,100	2,850	2,300	8,760	337	148	205
21	69	63	1,030	400	1,570	1,800	3,180	2,250	6,670	323	145	152
22	69	60	2,450	430	1,980	1,660	2,750	2,400	3,920	312	159	133
23	69	60	4,820	400	1,980	1,540	2,450	2,200	3,070	304	277	124
24	69	59	2,920	410	2,080	1,440	2,160	2,250	2,450	293	237	118
25	68	59	1,900	400	2,160	1,390	2,300	2,300	1,980	287	176	115
26	68	58	1,410	560	1,980	1,400	2,400	1,980	1,680	309	159	111
27	67	58	1,160	650	1,810	1,400	2,250	1,940	1,480	287	150	111
28	67	58	970	540	1,730	1,390	2,020	1,940	1,300	266	143	107
29	68	57	800	430	-	1,390	1,800	1,760	1,190	254	140	107
30	64	58	720	380	-	1,700	1,720	1,480	1,050	246	157	122
31	66	-	622	400	-	3,000	-	1,480	-	242	301	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acre-feet
October	2,291	88	64	73.9	0.273	0.31	4,540
November	1,939	76	57	64.6	.238	.27	3,850
December	31,421	4,820	57	1,014	3.74	4.31	62,320
Calendar year 1936	468,484	20,500	57	1,280	4.72	64.24	929,200
January	15,207	850	330	491	1.81	2.09	30,160
February	51,230	3,700	800	1,830	6.75	7.03	101,600
March	90,460	5,790	1,390	2,918	10.8	12.45	179,400
April	121,250	14,000	1,720	4,042	14.9	16.62	240,500
May	90,680	7,030	1,480	2,925	10.8	12.45	179,900
June	66,000	8,760	1,050	2,200	8.12	9.06	130,900
July	13,975	960	242	451	1.66	1.91	27,720
August	5,805	301	140	187	.690	.80	11,510
September	4,090	220	107	136	.502	.56	8,110
Water year 1936-37	494,348	14,000	57	1,354	5.00	67.86	980,500

Albany power canal near Lebanon, Oreg.

Location.- Staff gage, lat. 44°32'55", long. 122°54'20", in SW¼ sec. 2, T. 12 S., R. 2 W., an eighth of a mile below spillway and 1 mile north of Lebanon.

Records available.- April 1926 to September 1937. February to December 1919, at site near Albany.

Average discharge.- 11 years, 210 second-feet.

Extremes.- Maximum discharge observed during year, 332 second-feet Dec. 29 (gage height, 3.90 feet); minimum, 53 second-feet Jan. 24.
1919, 1926-37: Maximum discharge, that of Dec. 29, 1936; no flow at times.

Remarks.- Records fair. Discharge for periods of faulty gage heights, Nov. 28 to Dec. 6, June 26 to July 5, July 7 to Aug. 3, Aug. 5-20, 22, 24, 26, 28-31, Sept. 7-19, 21-30, computed on basis of records for South Santiam River at Waterloo, gage readings by engineers July 6, Aug. 4, 21, and miscellaneous discharge measurement on canal at Albany Sept. 23. Gage read about three times a week; discharge estimated or interpolated for days gage was not read. 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 of city of Albany. Gage readings furnished by Mountain States Power Co.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	132	89	80	324	147	288	304	299	310	290	275	266
2	132	88	80	321	147	294	299	299	310	290	275	264
3	132	86	85	321	142	299	299	299	316	290	275	261
4	132	84	95	321	177	299	299	299	321	290	272	252
5	132	82	150	321	182	299	299	299	318	290	270	243
6	127	80	290	310	182	299	299	299	314	288	270	234
7	122	80	288	316	235	299	299	299	310	285	265	230
8	113	80	282	321	288	299	299	299	310	285	265	220
9	104	80	277	310	224	299	299	299	310	285	260	210
10	110	80	277	299	224	299	296	299	310	285	260	200
11	118	80	277	288	234	299	292	299	310	285	255	195
12	122	80	281	282	213	299	288	299	310	285	250	190
13	122	80	285	277	224	296	240	299	310	285	245	185
14	122	80	288	277	218	292	193	299	310	285	240	180
15	120	80	294	277	213	288	252	299	310	285	235	175
16	118	80	299	277	213	288	310	299	310	285	230	175
17	113	80	304	277	224	288	302	299	316	285	225	175
18	108	80	310	277	234	288	295	299	321	285	220	180
19	104	80	310	277	266	288	288	299	318	285	215	225
20	104	80	310	277	277	292	288	299	314	285	210	288
21	104	80	310	282	288	296	288	299	310	280	208	265
22	102	80	310	288	299	299	294	302	310	280	205	230
23	100	80	310	288	299	299	299	306	310	280	256	215
24	98	80	310	202	299	299	299	310	310	280	270	195
25	95	80	310	288	299	299	299	310	310	280	256	185
26	92	80	306	282	294	299	299	310	305	280	250	180
27	92	80	302	277	288	299	299	310	300	280	245	175
28	92	80	299	288	288	299	299	310	300	280	240	170
29	91	80	332	299	-	299	299	310	295	280	235	165
30	90	80	329	250	-	310	299	310	295	280	235	170
31	90	-	326	195	-	310	-	310	-	280	275	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	3,431	132	90	111	6,810
November	2,429	89	80	81.0	4,820
December	8,306	332	80	268	16,470
Calendar year 1936	87,213	332	25	238	173,000
January	8,889	324	195	287	17,630
February	6,618	299	142	236	13,130
March	9,200	310	288	297	18,250
April	8,714	310	193	290	17,280
May	9,367	310	299	302	18,580
June	9,303	321	295	310	18,450
July	8,808	290	280	284	17,470
August	7,687	275	205	248	15,250
September	6,298	288	165	210	12,490
Water year 1936-37	89,050	332	80	244	176,600

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 below Benton County line and 3½ miles northwest of Hoskins. Zero of gage is 378.7 feet above mean sea level (Geological Survey river-profile survey).

Drainage area.- 34 square miles.

Records available.- May 1934 to September 1937.

Extremes.- Maximum discharge during year, 2,520 second-feet Feb. 17 (gage height, 7.85 feet); minimum, 8 second-feet Nov. 28 (gage height, 0.74 foot).
1934-37: Maximum discharge, 3,950 second-feet (revised) Jan. 12, 1936 (gage height, 9.90 feet); minimum, 7 second-feet Sept. 2-5, 10, 21, 22, 1934.

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

Rating table, water year 1936-37 (gage height, in feet, and discharge, in second-feet)

0.7	7	3.5	565
1.0	17	4.0	745
1.4	54	5.0	1,160
1.8	115	6.0	1,600
2.2	196	7.0	2,080
2.6	294	8.0	2,640
3.0	405		

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	10	10	9	141	201	635	435	141	66	113	30	22
2	10	9	9	126	233	865	375	133	63	105	29	18
3	10	9	10	115	289	670	344	128	60	96	28	17
4	12	10	13	149	610	548	405	120	57	92	26	17
5	12	10	36	153	618	495	405	115	53	85	26	18
6	11	11	88	129	420	450	390	112	52	79	25	17
7	10	10	129	120	331	375	344	113	52	76	25	17
8	10	10	103	115	284	350	312	115	50	70	24	17
9	10	10	112	112	248	375	299	113	52	66	25	17
10	10	9	58	101	231	339	339	252	54	63	28	17
11	10	9	41	95	760	315	361	405	53	60	25	16
12	10	9	32	88	1,200	297	455	294	48	57	23	16
13	10	9	101	112	670	289	1,650	241	44	55	22	15
14	10	10	115	128	495	268	2,080	210	43	54	22	14
15	10	10	78	1,030	485	246	1,560	185	49	52	21	14
16	10	11	79	600	1,160	229	945	170	57	49	20	14
17	9	18	286	420	1,660	217	670	153	147	46	19	14
18	9	13	420	390	1,330	198	512	141	323	46	19	14
19	9	11	243	317	745	198	405	139	435	44	18	17
20	9	10	155	266	530	243	347	122	670	41	18	15
21	9	10	203	229	495	256	317	115	565	40	18	14
22	9	10	351	203	548	243	281	108	435	39	22	13
23	9	9	1,240	187	495	258	248	103	342	38	28	13
24	9	9	635	176	450	268	224	100	271	36	22	13
25	10	9	420	187	435	256	205	100	226	33	20	13
26	10	9	347	243	405	238	201	90	194	32	19	13
27	10	9	284	243	372	231	183	85	170	31	18	13
28	9	9	233	229	358	212	170	80	149	32	17	13
29	9	9	208	203	-	194	155	79	135	32	17	13
30	9	9	192	178	-	229	147	73	124	30	22	25
31	9	-	161	168	-	405	-	70	-	31	30	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acre-feet
October	303	12	9	9.8	0.288	0.33	601
November	300	18	9	10.0	.294	.33	595
December	6,391	1,240	9	206	6.06	6.99	12,680
Calendar year 1936	62,512	2,620	9	171	5.03	68.43	124,000
January	6,953	1,030	88	224	6.59	7.60	13,790
February	16,058	1,660	201	574	16.9	17.60	31,850
March	10,392	865	194	335	9.85	11.36	20,610
April	14,764	2,080	147	492	14.5	16.18	29,280
May	4,405	405	70	142	4.18	4.82	8,740
June	5,039	670	43	168	4.94	5.51	9,990
July	1,723	113	30	55.6	1.64	1.89	3,420
August	706	30	17	22.8	.671	.77	1,400
September	469	25	13	15.6	.459	.51	930
Water year 1936-37	67,503	2,080	9	185	5.44	73.89	133,900

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 above Wallace Bridge, 2 miles above Willamina Creek, and 2 miles southwest of Willamina. Zero of gage is 235.01 feet above mean sea level (general adjustment of 1929).

Drainage area.- 133 square miles.

Records available.- May 1934 to September 1937.

Extremes.- Maximum discharge during year, 8,310 second-feet Apr. 14 (gage height, 10.15 feet); minimum, 15 second-feet Oct. 9, 10 (gage height, 0.67 foot).
1934-36: Maximum discharge, 12,900 second-feet Jan. 12, 1936 (gage height, 13.[illegible] feet); minimum, 5 second-feet, regulated Sept. 23, 1935 (gage height, 0.38 foot); minimum daily discharge, 11 second-feet Aug. 25, Sept. 2, 1934, Aug. 29, Sept. 5-8, 10, 1935.

Remarks.- Records good except those for periods of ice effect, Jan. 7-9, 12, 13 (computed on basis of records for Willamina Creek near Willamina and Luckiamute River near Hoskins), and those for periods of shifting control, Oct. 1-9, July 1 to Sept. 30, which are fair. Slight regulation occasionally during summer due to operation of mill pond upstream; no diversions above gage.

Rating table, water year 1936-37 except periods of ice effect (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Oct. 1-9, July 1 to Sept. 30)

0.6	11	2.5	580	6.0	3,190
.9	41	3.0	850	7.0	4,270
1.2	102	3.5	1,160	8.0	5,430
1.6	218	4.0	1,480	10.0	8,030
2.0	360	5.0	2,240		

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	22	21	20	360	526	1,580	762	352	159	171	41	54
2	23	21	21	313	565	2,240	655	336	150	156	40	40
3	23	21	26	285	630	1,720	610	328	139	145	37	38
4	24	22	33	444	1,760	1,350	708	320	131	131	34	38
5	25	24	63	535	1,690	1,260	762	306	128	125	34	43
6	21	26	228	408	1,320	1,160	852	292	105	115	33	43
7	19	27	476	370	1,090	970	790	292	115	110	33	38
8	17	24	258	340	970	820	708	356	115	102	33	35
9	17	23	404	320	850	880	680	344	118	93	34	34
10	16	21	196	292	762	762	1,000	652	123	90	38	35
11	16	20	134	265	1,570	680	1,000	1,120	120	88	38	33
12	16	20	107	250	2,420	630	1,270	708	110	84	37	33
13	18	20	171	285	1,840	625	4,950	590	93	81	33	31
14	18	20	225	356	1,430	575	6,990	516	93	77	33	28
15	23	20	168	2,160	1,420	521	4,830	449	97	73	35	28
16	21	20	186	1,660	2,990	476	2,990	412	120	71	31	26
17	18	31	559	1,350	5,020	440	2,000	388	153	69	28	25
18	18	30	735	1,420	4,050	412	1,520	344	436	71	28	28
19	18	24	494	1,090	2,510	424	1,190	313	516	67	26	37
20	17	22	356	880	1,720	503	970	292	880	61	25	38
21	17	21	625	735	1,620	530	910	271	735	59	25	35
22	17	20	1,460	655	1,660	503	790	254	550	55	28	31
23	17	21	3,070	615	1,520	580	680	244	585	54	59	28
24	18	21	1,660	680	1,320	605	595	221	454	52	65	28
25	18	21	1,120	670	1,190	560	530	218	376	52	40	28
26	18	21	910	1,000	1,090	521	540	205	313	48	33	30
27	18	20	762	880	970	498	467	196	268	45	30	28
28	19	19	585	790	880	462	424	183	234	45	27	28
29	19	19	508	708	-	432	392	180	205	46	27	34
30	20	19	508	600	-	485	372	177	192	43	31	102
31	20	-	424	535	-	735	-	168	-	43	73	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off Inches	Run-off Acre-feet
October	591	25	16	19.1	0.144	0.17	1,170
November	659	31	19	22.0	.165	.18	1,310
December	16,492	3,070	20	532	4.00	4.61	32,710
Calendar year 1936	178,398	9,600	16	487	3.66	49.93	353,900
January	21,251	2,160	250	686	5.16	5.95	42,150
February	45,433	5,020	526	1,623	12.2	12.70	90,120
March	23,939	2,240	412	772	5.80	6.69	47,480
April	40,935	6,990	372	1,364	10.3	11.49	81,190
May	11,027	1,120	168	356	2.68	3.09	21,870
June	7,813	880	93	260	1.95	2.18	15,500
July	2,522	171	43	81.4	.612	.71	5,000
August	1,109	73	25	35.8	.269	.31	2,200
September	1,077	102	25	35.9	.270	.30	2,140
Water year 1936-37	172,848	6,990	16	474	3.56	48.38	342,800

Willamina Creek near Willamina, Oreg.

Location.- Water-stage recorder, lat. 45°09', long. 123°30', in N½ sec. 13, T. 5 S., R. 7 W., 4 miles north of Willamina. Zero of gage is 316.1 feet above mean sea level (Geological Survey river-profile survey).

Drainage area.- 62 square miles.

Records available.- June 1934 to September 1937.

Extremes.- Maximum discharge during year, 2,320 second-feet Apr. 14 (gage height, 5.88 feet); minimum, 12 second-feet Oct. 9-12, 18, 19, Nov. 28.
1934-37: Maximum discharge, 3,900 second-feet Jan. 12, 1936 (gage height, 7.36 feet); minimum, 9 second-feet Sept. 3, 4, 1934, Sept. 9, 1935.

Remarks.- Records good except those for period of ice effect, Jan. 7-12, and period of missing gage heights May 17-20 (computed on basis of records for Luckiamute River near Hoskins and South Yamhill River near Willamina), and those below 100 second-feet, all of which are fair. No regulation or diversions above station.

Rating tables, water year 1936-37 except period of ice effect (gage height, in feet, and discharge, in second-feet)

Oct. 1 to Dec. 6		Dec. 7 to Sept. 30			
0.1	7.5	0.3	13.9	2.5	405
.3	13.9	.5	22	3.0	585
.5	21	.8	43	3.5	800
.8	38	1.2	89	4.0	1,050
1.2	88	1.6	158	5.0	1,640
		2.0	250	6.0	2,410

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	15	14	14	111	164	800	319	202	84	79	30	30
2	15	14	14	100	158	1,080	292	196	80	75	28	24
3	15	14	17	95	170	900	277	189	76	71	26	21
4	17	15	20	139	404	732	331	180	74	69	24	24
5	17	16	38	148	419	688	346	172	72	65	24	26
6	16	18	69	114	346	625	367	164	69	62	24	24
7	14	16	114	108	304	528	352	164	69	58	24	21
8	13	15	87	104	283	475	325	176	69	55	24	20
9	13	15	98	100	262	565	313	164	71	53	29	22
10	12	15	52	98	245	510	370	288	75	51	30	20
11	12	15	39	95	398	458	374	361	76	48	29	19
12	13	15	33	95	605	426	533	277	70	48	25	19
13	13	14	58	119	545	422	1,590	237	65	48	24	19
14	14	14	71	128	475	380	2,080	214	63	46	24	17
15	15	14	51	747	475	343	1,680	196	68	45	22	16
16	14	15	54	475	825	310	1,180	187	71	43	21	16
17	13	18	184	394	1,250	286	875	175	79	41	20	17
18	12	16	219	394	1,150	262	665	160	143	41	19	17
19	12	15	137	322	825	259	545	150	148	42	19	22
20	13	15	96	271	645	268	458	140	198	38	19	21
21	13	14	161	237	710	265	430	134	200	37	19	18
22	14	14	262	214	800	256	391	128	170	36	21	17
23	14	14	545	207	755	271	346	123	158	34	33	17
24	13	14	367	207	688	271	313	118	134	33	32	17
25	14	14	265	205	645	253	286	116	119	32	24	16
26	14	14	242	229	605	242	310	111	106	30	22	16
27	13	14	210	224	545	229	277	106	98	29	20	16
28	13	14	170	207	528	219	250	101	89	28	20	16
29	13	15	150	187	-	210	229	98	85	30	19	17
30	13	14	143	172	-	227	214	94	84	28	27	40
31	14	-	125	166	-	295	-	88	-	28	38	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acre-feet
October	426	17	12	13.7	0.221	0.25	845
November	444	18	14	14.8	.239	.27	881
December	4,105	545	14	132	2.13	2.46	8,140
Calendar year 1936	71,588	2,900	11	196	3.16	42.94	142,000
January	6,412	747	95	207	3.34	3.85	12,720
February	15,224	1,250	158	544	8.77	9.13	30,200
March	13,055	1,080	210	421	6.79	7.83	25,890
April	16,318	2,080	214	544	8.77	9.78	32,370
May	5,209	361	88	168	2.71	3.12	10,330
June	2,963	200	63	98.8	1.59	1.77	5,880
July	1,423	79	28	45.9	.740	.85	2,820
August	760	38	19	24.5	.395	.46	1,510
September	605	40	16	20.2	.326	.36	1,200
Water year 1936-37	66,944	2,080	12	183	2.95	40.13	132,800

Haskins Creek near McMinnville, Oreg.

Location.- Water-stage recorder and wooden control, lat. 45°19', long. 123°22', in NE¼ sec. 13, T. 3 S., R. 6 W., 300 feet above flow line of McMinnville water-supply reservoir and 11 miles northwest of McMinnville.

Drainage area.- 5.7 square miles.

Records available.- October 1928 to September 1937.

Extremes.- Maximum discharge during year, 274 second-feet Apr. 14 (gage height, 3.14 feet); minimum, 0.5 second-foot Sept. 25-27; minimum prior to beginning of diversion above station, 1.1 second-feet Oct. 18.

1928-37: Maximum discharge, 610 second-feet Mar. 31, 1931 (gage height, 4.00 feet before control was built); minimum, that of Sept. 25-27, 1937; minimum prior to beginning of diversion above station, 1.0 second-feet Oct. 8, 1932.

Remarks.- Records fair for Oct. 1 to Feb. 5 and good thereafter. Float frozen in well Jan. 6-9, 20-23, Feb. 3-5; discharge computed on basis of weather records and records for stations on Luckiamute River, South Fork of Yamhill River, Willamina Creek, and Trask River. Beginning Sept. 2, 1937, a small amount of water (probably about 1 second-foot) was diverted at point 800 feet upstream into a 12-inch steel pipe and delivered into intake of water-supply pipe line of city of McMinnville below reservoir. No regulation. Water-stage recorder inspected by employees of City of McMinnville.

Rating table, water year 1936-37 (gage height, in feet, and discharge, in second-feet)

(Shifting-control method used Oct. 1 to Dec. 21)

1.1	0.2	1.4	5.0	2.0	53
1.2	1.0	1.5	9.5	2.4	113
1.3	2.4	1.7	22.5	2.8	192
				3.2	290

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1.6	1.4	1.4	11	12	85	52	27	10	9.5	4.7	3.7
2	1.4	1.6	1.6	10	12	120	47	25	9.5	9.0	4.2	2.0
3	1.4	1.7	1.8	9.5	13	106	43	25	9.5	9.0	4.2	1.3
4	1.6	1.7	2.1	14	30	90	49	24	9.5	8.6	4.0	1.6
5	1.6	1.6	4.2	13	28	96	48	23	9.0	8.2	4.0	1.6
6	1.4	1.6	8.6	12	16	90	52	22	9.0	8.2	4.0	1.4
7	1.4	1.6	6.8	11	15	77	48	22	9.0	7.7	4.0	1.1
8	1.4	1.6	7.7	10	14	69	47	22	8.6	7.2	4.0	1.0
9	1.4	1.6	5.9	9.0	14	77	43	21	9.0	7.2	4.5	1.0
10	1.3	1.6	3.7	9.0	14	72	52	35	9.5	6.8	4.2	.9
11	1.3	1.6	3.2	8.6	32	67	51	38	9.0	6.4	4.2	1.1
12	1.4	1.6	2.7	8.2	42	66	85	31	8.6	6.4	4.0	1.6
13	1.4	1.6	5.9	8.6	36	66	194	28	8.2	6.4	3.7	1.6
14	1.4	1.6	5.0	8.2	31	62	246	26	8.2	6.4	3.7	1.4
15	1.3	1.6	3.7	8.6	33	57	194	23	8.6	5.9	3.7	1.6
16	1.3	1.7	4.5	11	58	53	137	22	8.6	5.4	3.4	1.7
17	1.3	2.0	18	20	117	49	103	21	11	5.4	3.4	1.8
18	1.1	1.8	18	23	93	45	83	20	17	5.4	3.4	2.0
19	1.3	1.7	11	21	67	43	69	18	16	5.4	3.2	2.3
20	1.3	1.6	7.2	18	53	43	60	18	22	5.0	3.2	2.0
21	1.3	1.6	18	16	63	41	56	17	21	5.0	3.2	1.8
22	1.3	1.4	60	15	76	38	51	16	18	4.7	3.4	2.0
23	1.3	1.4	76	14	70	38	46	15	19	4.7	4.7	2.0
24	1.4	1.4	40	14	65	36	41	14	17	4.5	4.2	1.8
25	1.4	1.4	28	15	61	34	38	14	15	4.5	3.7	1.3
26	1.4	1.4	23	15	57	32	39	14	14	4.5	3.2	.6
27	1.4	1.4	20	14	54	31	35	13	12	4.5	3.2	.6
28	1.4	1.4	17	14	54	30	33	12	11	4.5	3.2	.8
29	1.4	1.4	14	12	-	29	30	12	11	4.5	3.2	1.6
30	1.3	1.4	14	12	-	34	28	11	10	4.2	4.2	4.7
31	1.4	-	12	12	-	51	-	11	-	4.7	5.0	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acre-feet
October	42.6	1.6	1.1	1.37	0.240	0.28	84
November	47.0	2.0	1.4	1.57	.275	.31	93
December	445	76	1.4	14.4	2.53	2.92	883
Calendar year 1936	8,705.5	338	1.1	23.8	4.18	56.88	17,270
January	396.7	23	8.2	12.8	2.25	2.59	787
February	1,230	117	12	43.9	7.70	8.02	2,440
March	1,827	120	29	58.9	10.3	11.87	3,620
April	2,098	246	28	69.9	12.3	13.72	4,160
May	640	38	11	20.6	3.61	4.16	1,270
June	359.8	22	8.2	12.0	2.11	2.35	714
July	189.8	9.5	4.2	6.12	1.07	1.23	376
August	118.9	5.0	3.2	3.84	.674	.78	236
September	49.9	4.7	.6	1.66	.291	.32	99
Water year 1936-37	7,444.7	246	.6	20.4	3.58	48.55	14,760

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 above Pine Creek and 5 miles southeast of Wilhoit.

Drainage area.- 96 square miles.

Records available.- October 1935 to September 1937.

Extremes.- Maximum discharge during year, 6,900 second-feet Apr. 13 (gage height, 7.30 feet); minimum, 21 second-feet Nov. 25, Nov. 29 to Dec. 2 (gage height, 0.73 foot).

1935-37: Maximum discharge, that of Apr. 13, 1937; minimum, that of Nov. 25, Nov. 29 to Dec. 2, 1936.

Remarks.- Records fair. Discharge for period of ice effect, Jan. 6-16, and period of missing gage height, July 8-11, computed on basis of records for station near Canby. No diversion or regulation near station.

Rating tables, water year 1936-37 except period of ice effect (gage height, in feet, and discharge, in second-feet)

Oct. 1 to Apr. 12				Apr. 13 to Sept. 30	
0.7	18	3.0	840	0.9	41
.9	40	3.5	1,280	1.2	90
1.2	87	4.0	1,710	1.5	159
1.5	153	4.5	2,290	2.0	320
1.8	246	5.0	2,970		
2.2	400	6.0	4,510	Note.- Same as preceding table above 2.0 feet.	
2.6	595	7.0	6,310		

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	32	27	21	219	203	1,240	1,280	639	595	313	68	107
2	30	26	21	193	243	2,230	980	1,020	736	283	66	77
3	30	25	22	175	257	1,660	820	1,360	723	255	63	65
4	36	26	25	190	540	1,410	875	1,320	606	236	60	61
5	46	26	87	187	540	1,560	910	1,020	556	222	58	79
6	38	28	328	153	364	1,710	788	875	525	203	58	71
7	34	26	768	94	282	1,360	704	910	500	188	58	60
8	32	25	543	105	236	1,140	686	980	468	176	57	55
9	30	24	530	120	203	1,280	840	980	436	166	55	54
10	28	23	293	140	184	1,230	1,180	1,410	409	156	55	51
11	28	23	209	120	315	1,180	1,100	2,170	396	150	55	47
12	28	23	167	110	1,180	1,360	1,300	1,660	376	144	52	45
13	28	22	173	120	782	1,560	5,560	1,660	356	136	51	44
14	32	22	264	130	617	1,460	5,480	1,560	356	128	49	40
15	32	22	209	150	535	1,180	3,950	1,230	380	125	48	39
16	29	23	190	236	1,060	1,060	2,360	1,060	409	118	47	38
17	27	33	360	203	1,180	945	1,610	945	525	113	45	37
18	26	30	612	161	1,100	814	1,280	980	1,000	111	44	42
19	26	25	463	138	742	710	1,060	875	1,240	107	42	149
20	26	24	336	133	562	628	945	742	2,620	103	41	109
21	26	23	623	138	546	551	1,020	723	2,110	96	40	79
22	26	23	910	143	692	500	875	788	1,410	92	52	66
23	26	22	2,290	130	716	472	756	704	1,180	88	139	60
24	26	22	1,360	121	756	440	680	710	910	86	90	55
25	26	21	827	102	775	418	723	749	710	84	65	52
26	25	22	600	117	698	409	756	692	578	80	55	49
27	25	22	476	119	622	414	710	650	495	80	52	47
28	24	22	384	113	584	427	639	634	432	79	48	45
29	24	21	324	106	-	436	573	568	388	75	45	42
30	23	21	293	102	-	584	540	500	348	71	48	60
31	24	-	246	100	-	910	-	500	-	69	142	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acre-feet
October	893	46	23	28.8	0.300	0.35	1,770
November	722	33	21	24.1	.251	.28	1,430
December	13,954	2,290	21	450	4.69	5.41	27,680
Calendar year 1936	159,947	5,380	21	437	4.55	61.98	317,200
January	4,368	236	94	141	1.47	1.70	8,660
February	16,514	1,180	184	590	6.15	6.40	32,760
March	31,278	2,230	409	1,009	10.5	12.11	62,040
April	40,980	5,560	540	1,366	14.2	15.84	81,280
May	30,614	2,170	500	988	10.3	11.87	60,720
June	21,773	2,620	348	726	7.56	8.44	43,190
July	4,339	313	69	140	1.46	1.68	8,610
August	1,848	142	40	59.6	.621	.72	3,670
September	1,825	149	37	60.8	.633	.71	3,620
Water year 1936-37	169,108	5,560	21	463	4.82	65.51	335,400

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. Zero of gage is 104.56 feet above mean sea level (general adjustment of 1929).

Drainage area.- 323 square miles.

Records available.- August 1928 to September 1937.

Extremes.- Maximum discharge during year, 12,700 second-feet Apr. 15 (gage height, 10.6 feet); minimum, 34 second-feet Nov. 26, 29; minimum daily discharge, 42 second-feet Nov. 29.
1928-37: Maximum discharge, 22,300 second-feet Mar. 31, 1931 (gage height, 14.7 feet); minimum, 32 second-feet Sept. 11, 1934; minimum daily discharge, 38 second-feet Sept. 7, 1935.

Remarks.- Records good except discharge for day of ice effect, Feb. 1, which was computed on basis of weather records and is poor. A few small irrigation diversions above gage.

Rating tables, 1936-37 except period of ice effect (gage height, in feet, and discharge, in second-feet)

Oct. 1 to Apr. 12				Apr. 13 to Sept. 30					
1.4	34	3.0	1,010	1.6	45	3.4	1,270	7.0	6,070
1.6	91	4.0	1,910	2.0	196	4.0	1,890	8.0	7,780
1.8	175	5.0	3,090	2.4	440	5.0	3,070	9.0	9,590
2.3	475	6.0	4,490	2.8	745	6.0	4,490	10.0	11,500

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	66	44	47	489	550	1,940	2,280	1,200	932	689	130	227
2	69	60	47	419	898	4,340	2,230	1,520	1,120	628	139	164
3	66	60	55	372	978	3,630	1,910	2,110	1,190	560	118	130
4	63	57	55	366	2,120	2,960	1,810	2,280	1,040	508	118	122
5	82	57	66	419	2,640	3,020	1,860	1,890	930	485	114	135
6	85	52	286	316	1,760	3,350	1,860	1,570	865	433	110	156
7	76	55	938	210	1,340	2,760	1,710	1,520	825	391	110	147
8	66	44	702	247	1,090	2,280	1,610	1,570	785	364	103	122
9	72	55	930	280	962	2,400	1,760	1,570	729	344	114	118
10	66	57	538	340	866	2,400	2,180	1,720	721	312	110	114
11	60	55	360	280	930	2,230	2,280	3,160	673	276	110	106
12	66	50	274	247	2,640	2,340	2,230	2,640	681	276	99	96
13	66	55	230	269	2,460	2,700	8,960	2,580	628	247	92	110
14	66	50	372	316	2,060	2,700	10,400	2,520	620	247	85	99
15	72	44	392	545	1,660	2,280	10,500	2,110	650	242	96	96
16	66	57	322	740	2,800	2,010	6,410	1,780	705	232	88	92
17	69	57	334	635	3,600	1,810	4,340	1,570	801	222	92	81
18	55	66	842	778	4,050	1,660	3,220	1,570	1,110	206	78	88
19	63	60	770	702	2,700	1,520	2,640	1,470	1,620	216	74	192
20	60	55	582	538	1,960	1,340	2,220	1,270	3,400	196	74	270
21	60	50	568	454	1,710	1,250	2,280	1,180	4,190	187	74	196
22	69	52	1,300	454	1,910	1,130	2,000	1,250	2,960	174	74	160
23	57	57	3,100	412	1,960	1,090	1,780	1,180	2,580	169	151	143
24	63	50	2,580	405	1,910	1,010	1,570	1,150	2,000	164	206	135
25	60	47	1,660	392	1,910	978	1,520	1,220	1,570	160	147	130
26	69	44	1,210	552	1,760	930	1,570	1,190	1,270	174	118	106
27	63	55	1,010	598	1,610	914	1,570	1,120	1,090	160	106	122
28	60	47	850	575	1,430	906	1,470	1,080	939	160	96	110
29	55	42	702	510	-	906	1,320	1,030	833	164	81	106
30	57	47	635	454	-	970	1,200	914	761	156	96	106
31	52	-	560	419	-	1,340	-	865	-	139	164	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acre-feet
October	2,019	85	52	65.1	0.202	0.23	4,000
November	1,581	66	42	52.7	.163	.18	3,140
December	22,317	3,100	47	720	2.23	2.57	44,270
Calendar year 1936	326,106	9,220	42	891	2.76	37.52	646,900
January	13,733	778	210	443	1.37	1.58	27,240
February	52,264	4,050	550	1,867	5.78	6.02	103,700
March	61,094	4,340	906	1,971	6.10	7.03	121,200
April	88,630	10,500	1,200	2,954	9.15	10.21	175,800
May	49,799	3,160	865	1,606	4.97	5.73	98,770
June	38,234	4,190	620	1,274	3.94	4.40	75,840
July	8,881	689	139	286	.885	1.02	17,620
August	3,367	206	74	109	.337	.39	6,680
September	3,979	270	81	133	.412	.46	7,890
Water year 1936-37	345,898	10,500	42	948	2.93	39.82	686,200

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 above mouth of Mill Creek. Zero of gage is 76.79 feet above mean sea level (general adjustment of 1929).

Drainage area.- 493 square miles.

Records available.- October 1928 to September 1937.

Extremes.- Maximum discharge observed during year, 7,990 second-feet Apr. 15 (gage height, 19.47 feet); minimum, 58 second-feet Oct. 1.
1928-37: Maximum discharge observed, 10,200 second-feet Dec. 23, 1933 (gage height, 21.64 feet); minimum, 37 second-feet Sept. 9, 12, 1935.
Maximum stage known, 25.0 feet Jan. 9, 1923 (discharge, about 14,500 second-feet).

Remarks.- Records good except those for periods of ice effect, Jan. 10-12, Feb. 1 (computed on basis of weather records and records for Molalla River near Canby), and those for periods of missing gage heights, Aug. 29, Sept. 6 (computed on basis of records for Molalla River near Canby), which are fair. No diversions above station; slight regulation at times during summer by mills on tributaries. Gage read twice daily to June 30, once daily thereafter.

Rating table, water year 1936-37 except periods of ice effect (gage height, in feet, and discharge, in second-feet)

0.3	36	2.0	322	5.0	960	12.0	3,350
.6	80	2.5	420	6.0	1,210	15.0	4,660
.9	127	3.0	520	8.0	1,810	18.0	6,630
1.2	177	4.0	732	10.0	2,540	20.0	8,480
1.6	247						

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	58	66	80	732	1,200	1,950	1,540	1,060	420	603	124	116
2	59	68	82	645	1,420	3,100	2,160	1,060	420	561	122	211
3	64	68	83	561	2,230	3,730	2,120	1,110	400	520	119	160
4	71	71	88	540	3,760	3,780	2,020	1,160	400	480	113	135
5	74	72	95	561	5,440	3,600	2,060	1,180	360	440	108	124
6	74	76	111	582	5,570	3,390	2,260	1,060	341	420	98	135
7	82	74	284	440	5,080	3,230	2,340	985	303	380	98	117
8	80	76	776	341	4,390	2,900	2,160	936	303	360	92	114
9	72	72	710	360	3,730	2,620	2,020	936	284	322	90	105
10	66	74	710	380	2,900	2,740	2,160	936	303	303	95	97
11	65	74	540	360	2,340	2,620	2,300	1,270	303	274	94	95
12	65	71	400	340	2,540	2,420	2,340	1,690	303	265	88	94
13	64	71	341	360	3,310	2,340	4,040	1,450	303	247	98	89
14	60	72	322	440	3,650	2,460	6,150	1,270	284	238	98	86
15	62	74	400	603	3,650	2,380	7,790	1,160	284	229	90	82
16	65	72	380	1,110	3,730	2,200	7,410	1,040	284	211	88	80
17	65	83	341	1,300	4,340	1,920	6,870	913	380	202	88	74
18	65	92	440	1,180	5,500	1,840	6,390	867	460	202	84	70
19	65	101	624	1,160	5,640	1,720	5,710	821	710	194	80	80
20	65	105	582	1,160	5,260	1,570	5,080	776	1,240	194	74	143
21	62	98	561	985	4,570	1,510	4,520	710	2,060	186	70	160
22	62	94	666	798	4,080	1,360	3,820	666	2,300	168	71	152
23	62	86	1,210	732	3,520	1,270	2,980	645	2,060	160	72	122
24	65	80	1,880	732	2,980	1,180	2,160	603	1,750	152	111	108
25	65	80	1,840	688	2,580	1,140	1,720	582	1,420	143	160	100
26	65	82	1,660	776	2,260	1,080	1,600	582	1,140	143	135	95
27	65	80	1,390	1,080	2,090	1,010	1,540	540	936	135	108	92
28	66	80	1,210	1,360	1,980	985	1,450	520	798	127	90	86
29	65	78	1,040	1,330	-	960	1,300	500	710	127	80	83
30	65	77	867	1,140	-	985	1,160	480	645	127	84	84
31	66	-	821	985	-	1,110	-	440	-	125	88	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off Inches	Run-off Acre-feet
October	2,049	82	58	66.1	0.134	0.15	4,060
November	2,367	105	66	78.9	.160	.18	4,690
December	20,534	1,880	80	662	1.34	1.54	40,730
Calendar year 1936	337,351	8,690	53	922	1.87	25.44	669,100
January	23,761	1,360	340	766	1.55	1.79	47,130
February	99,760	5,640	1,200	3,563	7.23	7.53	197,900
March	65,100	3,780	960	2,100	4.26	4.91	129,100
April	97,170	7,790	1,160	3,239	6.57	7.33	192,700
May	27,948	1,690	440	902	1.83	2.11	55,430
June	21,904	2,300	284	730	1.48	1.65	43,450
July	8,238	603	125	266	.540	.62	16,340
August	3,010	160	70	97.1	.197	.23	5,970
September	3,289	211	70	110	.223	.25	6,520
Water year 1936-37	375,130	7,790	58	1,028	2.09	28.29	744,000

Tualatin River near Willamette, Oreg.

Location.- Staff gage, lat. 45°21'10", long. 122°40'35", in SW¼ sec. 34, T. 2 S., R. 1 E., 300 feet above county bridge and 1 mile northwest of Willamette. Zero of gage is 86.52 feet above mean sea level (general adjustment of 1929).

Drainage area.- 710 square miles.

Records available.- July 1928 to September 1937.

Extremes.- Maximum discharge observed during year, 7,610 second-feet Apr. 18, 19 (gage height, 9.60 feet); minimum, 17 second-feet Oct. 1 (gage height, 0.68 foot).
1928-37: Maximum discharge, 23,300 second-feet Dec. 23, 1933 (gage height, 16.7 feet); minimum, 2 second-feet Aug. 14-21, 1928 (gage height, 0.25 foot).

Remarks.- Records of discharge of river are good except those for period of ice effect, Jan. 9-13, which were computed by comparison with records for Youngs River near Astoria, Trask River near Tillamook, and Luckiamute River near Hoskins and are fair. Records for discharge of Oswego Canal are fair. Canal diverts above station and returns water to Willamette River below station. Some regulation during period of low water by flashboards on crest of Oswego Canal diversion dam. Gage read twice daily.

Rating table, water year 1936-37 except period of ice effect (gage height, in feet, and discharge, in second-feet)

0.6	12	2.5	455	7.0	3,820
.9	33	3.0	700	8.0	5,100
1.2	68	4.0	1,290	9.0	6,610
1.6	142	5.0	1,990	10.0	8,320
2.0	260	6.0	2,820		

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	17	27	39	990	990	4,300	1,690	1,350	370	350	68	78
2	18	25	39	870	1,050	4,060	1,830	1,290	350	330	77	104
3	22	28	42	700	1,290	4,060	1,830	1,170	330	312	86	102
4	31	31	45	620	2,230	4,060	1,910	1,110	312	295	124	86
5	36	33	51	595	4,180	4,300	1,990	1,050	295	278	98	85
6	40	33	70	672	4,430	4,430	2,150	990	278	260	90	78
7	42	35	133	672	4,180	4,430	2,070	930	225	242	85	90
8	40	36	181	410	3,940	4,300	1,990	870	210	225	63	92
9	37	37	312	350	3,710	4,300	1,990	870	210	210	48	80
10	34	38	312	330	3,490	4,180	1,990	870	242	181	47	68
11	31	37	350	310	3,180	3,940	2,230	930	278	181	45	60
12	26	37	370	300	3,330	3,710	2,640	1,170	295	167	62	59
13	24	38	242	300	3,600	3,600	4,560	1,230	312	167	74	60
14	26	39	195	410	3,600	3,390	5,680	1,170	295	182	67	63
15	26	39	195	755	3,820	3,190	6,290	1,110	278	167	64	59
16	23	39	225	1,110	4,560	3,090	6,450	930	260	195	54	58
17	21	42	260	1,620	4,960	2,910	7,100	870	242	167	51	54
18	20	43	260	1,690	6,450	2,730	7,610	810	295	83	49	54
19	23	48	370	1,550	6,290	2,550	7,440	810	330	106	45	63
20	25	56	645	1,480	5,770	2,390	6,930	755	595	112	43	68
21	26	53	595	1,230	7,100	2,310	6,290	672	755	116	38	67
22	29	53	645	990	7,100	2,390	5,380	645	870	108	31	68
23	32	49	1,050	930	6,770	2,390	4,560	620	930	100	32	63
24	71	44	1,760	810	6,290	2,390	3,820	595	810	100	31	59
25	70	44	2,230	810	5,530	2,310	3,090	595	755	97	36	55
26	28	42	2,390	990	5,100	2,310	2,150	455	620	90	47	53
27	30	40	2,310	1,290	4,690	2,230	2,310	410	570	92	50	53
28	31	41	2,070	1,620	4,430	2,070	1,990	478	478	88	50	53
29	31	39	1,620	1,690	-	1,910	1,760	455	410	83	49	53
30	30	40	1,290	1,550	-	1,760	1,550	432	390	74	51	65
31	29	-	1,110	1,290	-	1,690	-	410	-	67	82	-

Month	River Only				River and Oswego Canal (combined)					
	Maximum	Minimum	Mean	Run-off in Acre-feet	Maximum	Minimum	Mean	Per square mile	Run-off Inches	Run-off Acre-feet
October	42	17	28.7	1,760	104	79	90.5	0.127	0.15	5,570
November	56	25	39.5	2,350	121	90	103	.145	.16	6,140
December	2,390	39	691	42,460	2,480	101	746	1.05	1.21	45,880
Calendar year 1936	15,900	17	1,197	868,800	16,000	79	1,257	1.77	24.09	912,400
January	1,690	300	933	57,390	1,760	300	950	1.34	1.54	58,390
February	7,100	990	4,398	244,200	7,100	1,040	4,475	6.30	6.56	248,500
March	4,430	1,690	3,151	193,700	4,570	1,750	3,247	4.57	5.27	199,600
April	7,610	1,550	3,642	216,700	7,840	1,610	3,762	5.30	5.91	223,900
May	1,350	410	840	51,670	1,390	485	894	1.26	1.45	54,990
June	930	210	422	25,090	1,020	282	492	.703	.78	29,720
July	350	67	168	10,320	422	129	231	.325	.37	14,220
August	124	31	59.3	3,640	184	88	119	.168	.19	7,290
September	104	53	68.3	4,070	166	100	121	.170	.19	7,210
Water year 1936-37	7,610	17	1,179	853,400	7,840	79	1,245	1.75	23.78	901,400

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 below Beaver Creek and 4½ miles northwest of Gales Creek. Zero of gage is 449.5 feet above mean sea level (Geological Survey plane-table survey).

Drainage area.- 33 square miles.

Records available.- September 1935 to September 1937.

Extremes.- Maximum discharge observed during year, 1,390 second-feet Feb. 17 (gage height, 4.96 feet); minimum observed, 7 second-feet Oct. 10, Nov. 29, Dec. 1 (gage height, 0.90 foot).

1935-37: Maximum discharge, 2,590 second-feet Jan. 12, 1936 (gage height, 6.8 feet, observed at peak); minimum observed, 6 second-feet Sept. 24, 1936 (gage height, 0.84 foot).

Remarks.- Records good except those for period of ice effect, Jan. 7-13, and periods of missing gage heights, Dec. 25, July 5, Aug. 21, 22, which were computed on basis of weather records and records for Lucklamute River near Hoskins and are fair. No diversions above station. Gage read twice daily to March 31, once daily thereafter.

Rating table, water year 1936-37 except period of ice effect (gage height, in feet, and discharge, in second-feet)

0.8	5	2.8	253
1.0	10	3.2	395
1.3	24	3.6	580
1.6	47	4.0	790
2.0	98	5.0	1,390
2.4	164		

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	8	8	7	57	59	580	174	95	42	47	20	20
2	8	8	8	52	53	960	164	89	41	44	19	15
3	8	8	10	49	79	735	155	86	39	42	18	14
4	9	8	10	61	106	555	164	80	37	39	17	14
5	8	8	13	51	129	555	164	75	37	36	17	21
6	8	8	21	44	106	508	164	75	36	34	16	16
7	8	8	39	40	92	440	155	69	34	36	16	14
8	8	8	44	36	82	335	146	80	34	33	16	13
9	8	8	32	32	72	395	146	69	34	31	17	13
10	7	8	22	32	69	374	164	69	37	30	17	12
11	8	8	18	30	240	335	164	174	37	30	17	11
12	8	8	17	28	354	335	164	138	34	30	16	11
13	8	8	45	34	268	316	960	121	31	28	15	10
14	8	8	35	38	216	282	960	113	31	24	15	10
15	8	8	25	155	204	253	1,020	98	31	27	14	9
16	8	8	27	106	440	227	680	95	37	27	14	9
17	8	13	76	96	960	204	462	86	34	24	12	10
18	8	9	113	98	680	183	335	80	47	24	11	9
19	8	9	84	86	395	174	268	72	53	24	10	12
20	8	8	59	80	282	183	227	69	80	22	11	11
21	8	8	82	70	316	183	204	67	98	22	11	9
22	8	8	282	65	530	174	183	62	80	22	13	9
23	8	8	530	59	462	183	164	57	106	21	17	10
24	8	8	268	58	418	164	146	57	98	21	15	9
25	8	8	190	62	374	155	138	55	89	20	13	9
26	8	8	155	61	354	155	138	53	75	20	12	9
27	8	8	121	58	316	138	121	51	67	18	12	9
28	8	8	106	56	316	129	113	47	57	19	11	9
29	8	7	88	50	-	146	106	47	53	19	11	9
30	8	8	79	47	-	138	98	45	51	18	13	10
31	8	-	67	47	-	174	-	44	-	18	24	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off Inches	Run-off Acre-feet
October	248	9	7	8.0	0.242	0.28	492
November	246	13	7	8.2	.248	.28	488
December	2,673	530	7	86.2	2.61	3.01	5,300
Calendar year 1936	39,491	1,900	6	108	3.27	44.52	78,320
January	1,838	155	28	59.3	1.80	2.08	3,650
February	7,972	960	53	285	8.64	9.00	15,810
March	9,668	960	129	312	9.45	10.90	19,180
April	8,247	1,020	98	275	8.33	9.29	16,360
May	2,418	174	44	78.0	2.36	2.72	4,800
June	1,560	106	31	52.0	1.58	1.76	3,090
July	850	47	18	27.4	.830	.96	1,690
August	460	24	10	14.8	.448	.52	912
September	346	21	9	11.5	.348	.39	686
Water year 1936-37	36,526	1,020	7	100	3.03	41.19	72,460

Oswego Canal near Oswego, Oreg.

Location.- Staff gage, lat. 45°23'30", long. 122°43'10", in SW¼ sec. 17, T. 2 S., R. 1 E., three-quarters of a mile below point of diversion from Tualatin River, 1 mile above Oswego Lake, and 3 miles southwest of Oswego. 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 1937.

Extremes.- Maximum discharge observed during year, 233 second-feet Apr. 19 (gage height, 7.68 feet); practically no flow at times.
1928-37: Maximum discharge, about 6,000 second-feet Dec. 23, 1933 (gage height, 16.1 feet); no flow at times.

Remarks.- Records fair. Discharge computed on basis of gage heights, discharge measurements, and backwater effect as indicated by Oswego Lake gage. Discharge for Mar. 2-5, June 20 interpolated. Oswego Canal diverts from Tualatin River in NW¼ sec. 20, three-quarters of a mile above gage; diversion dam is in NE¼ sec. 33, about 3 miles by river below canal. Both gages read once daily.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	62	65	62	47	51	126	65	43	72	72	62	62
2	62	65	62	49	57	120	67	53	72	70	62	62
3	62	35	62	0	60	115	70	51	75	70	65	62
4	62	65	62	0	95	109	72	49	72	70	60	62
5	62	65	62	0	147	104	72	47	72	70	60	62
6	62	65	60	0	140	98	75	47	72	67	57	62
7	62	65	65	0	133	140	75	47	70	37	55	62
8	62	65	60	0	126	140	75	47	72	67	51	65
9	62	65	60	0	117	137	75	47	72	62	49	62
10	62	65	60	0	110	133	75	47	72	62	55	60
11	62	65	60	0	107	123	83	49	72	62	57	60
12	62	65	60	0	114	120	95	53	75	62	62	62
13	62	62	62	0	120	114	155	55	72	62	62	47
14	60	62	47	0	123	110	185	53	75	62	62	47
15	62	62	41	0	0	104	194	51	75	62	62	47
16	62	62	41	0	0	98	203	49	78	57	62	45
17	62	62	41	0	0	95	223	47	80	57	60	47
18	62	62	41	0	0	92	228	47	90	57	60	47
19	60	65	41	0	0	86	233	45	78	62	62	47
20	35	35	41	0	0	72	213	45	84	62	62	47
21	62	35	33	0	0	62	203	43	89	65	60	47
22	62	35	47	0	0	0	198	43	92	65	57	47
23	62	62	47	0	0	80	151	43	92	62	57	47
24	62	62	60	0	101	80	101	41	89	62	57	47
25	62	62	75	49	159	80	92	72	86	62	57	47
26	62	62	86	51	147	80	72	75	83	62	60	47
27	62	62	75	57	140	80	62	75	80	62	62	47
28	62	62	65	65	130	72	62	78	78	60	62	47
29	62	62	57	65	-	67	60	78	78	60	60	47
30	62	62	49	62	-	65	57	75	75	62	60	47
31	62	-	45	57	-	62	-	78	-	62	60	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	1,918	62	60	61.9	3,800
November	1,908	65	62	63.6	3,780
December	1,725	86	33	55.6	3,420
Calendar year 1936	21,964	228	0	60.0	43,550
January	502	65	0	16.2	996
February	2,177	159	0	77.8	4,320
March	2,964	140	0	95.6	5,880
April	3,591	233	57	120	7,120
May	1,673	78	41	54.0	3,320
June	2,332	92	70	77.7	4,630
July	1,966	72	57	63.4	3,900
August	1,839	65	49	59.3	3,650
September	1,587	65	45	52.9	3,150
Water year 1936-37	24,182	233	0	66.3	47,970

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 below Pot Creek at lower end of Big Bottom, half a mile above site of proposed dam, and 28 miles southeast of Estacada.

Drainage area.- 132 square miles.

Records available.- April 1920 to September 1937.

Average discharge.- 17 years, 450 second-feet.

Extremes.- Maximum discharge during year, 2,900 second-feet Apr. 14 (gage height, 5.56 feet); minimum, 209 second-feet Jan. 20 (gage height, 1.48 feet).
1920-37: Maximum discharge, 6,750 second-feet Mar. 31, 1931 (gage height, 8.28 feet); minimum, 190 second-fet several days in August and September 1931 (gage height, 1.25 feet).

Remarks.- Records good except those for January and February, which are fair. No diversion or regulation above station. Base data furnished by Portland General Electric Co.

Rating tables, water year 1936-37 (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Jan. 14 to Mar. 1)

Oct. 1 to Mar. 1		Mar. 2 to Sept. 30			
1.6	244	1.6	221	3.5	1,050
1.9	336	1.9	310	4.0	1,400
2.2	446	2.2	415	.5	1,820
2.6	605	2.6	580	.0	2,300
		3.0	775	5.5	2,840

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	250	250	236	266	226	313	540	625	850	511	280	256
2	250	244	236	258	244	423	515	750	990	475	277	253
3	250	244	236	261	244	431	483	930	1,080	455	274	250
4	250	247	239	264	250	401	495	1,080	990	435	271	250
5	250	247	266	264	255	390	495	990	960	419	271	265
6	250	244	303	231	244	408	483	930	902	401	268	256
7	247	241	364	223	244	408	467	930	875	390	268	250
8	247	241	320	226	241	398	463	960	875	380	265	247
9	247	241	303	255	236	394	495	990	875	370	265	247
10	247	241	266	261	236	398	576	1,050	800	359	265	244
11	247	241	255	250	255	401	571	1,400	775	352	262	244
12	247	241	250	244	336	431	602	1,250	725	345	262	244
13	247	241	247	255	310	495	1,810	1,400	675	338	259	241
14	247	241	258	255	294	523	2,620	1,440	725	334	259	241
15	247	239	252	258	278	515	2,300	1,320	750	328	256	241
16	244	241	250	247	303	503	1,600	1,220	750	324	256	241
17	244	244	272	247	316	491	1,220	1,080	800	317	256	241
18	244	241	303	250	313	471	1,020	1,110	825	314	253	247
19	244	239	288	241	294	451	875	1,020	930	310	253	324
20	244	239	266	216	281	427	825	960	1,320	304	253	283
21	241	239	336	221	291	408	875	960	1,320	301	250	259
22	241	239	469	247	316	394	800	1,050	1,020	298	256	253
23	241	239	638	250	313	380	725	990	930	295	292	247
24	241	236	485	244	310	370	675	960	800	295	268	244
25	241	236	386	241	303	366	675	1,280	700	295	259	244
26	241	239	346	244	297	366	700	1,110	650	301	256	244
27	241	239	323	241	291	370	700	1,020	602	292	253	241
28	241	236	303	241	288	373	650	1,020	580	289	250	241
29	241	236	291	236	-	376	625	930	553	286	250	244
30	241	236	281	228	-	398	602	825	535	283	256	247
31	244	-	272	221	-	463	-	825	-	280	265	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off: Inches	Run-off: Acre-feet
October	7,597	250	241	245	1.86	2.14	15,070
November	7,222	250	236	241	1.83	2.04	14,320
December	9,540	638	236	308	2.33	2.69	18,920
Calendar year 1936	165,572	2,400	236	452	3.42	46.63	328,400
January	7,586	266	216	245	1.86	2.14	15,050
February	7,809	336	226	279	2.11	2.20	15,490
March	12,936	523	313	417	3.16	3.64	25,660
April	25,482	2,620	463	849	6.43	7.17	50,540
May	32,405	1,440	625	1,045	7.92	9.13	64,270
June	25,162	1,320	535	839	6.36	7.10	49,910
July	10,676	511	280	344	2.61	3.01	21,180
August	8,128	292	250	262	1.98	2.28	16,120
September	7,529	324	241	251	1.90	2.12	14,930
Water year 1936-37	162,072	2,620	216	444	3.36	45.66	321,500

WILLAMETTE RIVER BASIN

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 below power plant, 500 feet above Three Lynx Creek, and 17 miles southeast of Estacada. Zero of gage is 1,098 feet above mean sea level.
Drainage area.- 488 square miles.
Records available.- October 1911 to December 1913, October 1921 to September 1937.
Average discharge.- 18 years, 1,842 second-feet.
Extremes.- Maximum discharge during year, 16,700 second-feet Apr. 14 (gage height, 9.96 feet); minimum not recorded because stage was below elevation of inlet pipe; minimum daily discharge, 570 second-feet (estimated) Nov. 24, 26, Dec. 1.
1911-13, 1921-37; Maximum discharge, 34,800 second-feet Mar. 31, 1931 (gage height, 15.5 feet); minimum observed, 375 second-feet Aug. 10, 16, 1924, Sept. 20, 1936; minimum daily discharge, 536 second-feet Oct. 22, 1930.
Remarks.- Records good except those for periods when stage fell below elevation of inlet pipe due to regulation, Oct. 23, 24, 27-31, Nov. 3 to Dec. 5, Jan. 7, 11, 21, 22, 26, 27, Aug. 22, Sept. 16, 17, 25, which were based in part on records for other stations on Clackamas River and are fair. Water diverted from Oak Grove Fork is used in power plant just above station. Base data furnished by Portland General Electric Co.

Rating table, 1936-37 (gage height, in feet, and discharge, in second-feet)

Oct. 1 to Dec. 22		Dec. 23 to Sept. 30			
0.6	490	0.7	520	5.0	4,810
.9	595	1.1	690	6.0	6,520
1.2	745	1.5	930	7.0	8,730
1.6	995	2.0	1,290	8.0	11,200
2.0	1,270	3.0	2,260	10.0	16,700
2.5	1,690	4.0	3,440		
3.0	2,180				

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	660	636	570	853	650	1,640	2,890	2,590	3,440	1,890	865	793
2	660	660	595	823	706	3,010	2,710	3,440	3,960	1,740	865	775
3	660	600	600	823	712	2,770	2,370	4,660	4,100	1,640	853	745
4	680	600	600	865	781	2,420	2,370	4,660	3,700	1,500	847	751
5	670	625	750	841	829	2,420	2,420	4,100	3,440	1,500	829	799
6	655	625	995	690	793	2,710	2,260	3,700	3,310	1,550	829	769
7	650	625	1,430	650	775	2,420	2,100	3,700	3,310	1,370	829	745
8	655	605	1,240	690	751	2,320	2,100	3,830	3,190	1,330	817	734
9	640	620	1,270	793	723	2,200	2,260	3,960	3,190	1,290	823	723
10	631	610	930	787	718	2,260	2,890	4,240	2,890	1,250	817	723
11	640	630	811	700	781	2,260	2,890	5,950	2,710	1,210	811	706
12	640	590	769	701	1,340	2,650	3,110	5,270	2,540	1,210	799	723
13	631	600	740	745	1,500	3,310	11,900	5,770	2,420	1,180	793	701
14	636	590	835	763	1,250	3,190	15,000	5,770	2,540	1,140	793	690
15	640	590	805	829	1,100	3,010	11,000	5,110	2,710	1,100	775	685
16	626	620	769	793	1,420	2,770	6,930	4,520	2,770	1,100	775	715
17	626	640	990	769	1,600	2,540	5,110	4,240	2,890	1,070	763	665
18	631	625	1,270	781	1,740	2,370	4,240	4,380	3,310	1,070	757	696
19	645	610	1,200	734	1,420	2,150	3,700	3,960	3,960	1,040	763	930
20	636	600	995	680	1,210	1,990	3,440	3,700	5,950	1,040	763	835
21	636	590	1,320	660	1,250	1,740	3,700	3,700	5,770	965	775	751
22	660	600	2,080	715	1,550	1,790	3,310	3,960	4,380	1,000	755	728
23	610	600	3,960	728	1,550	1,600	3,010	3,700	3,700	965	930	712
24	610	570	2,890	701	1,500	1,550	2,770	3,700	3,190	930	859	706
25	622	580	1,940	723	1,460	1,460	2,830	4,380	2,770	965	769	680
26	670	570	1,640	710	1,370	1,460	3,010	3,960	2,540	965	769	680
27	610	580	1,370	700	1,330	1,460	2,890	3,700	2,320	930	757	680
28	600	600	1,180	690	1,290	1,460	2,710	3,700	2,260	930	751	685
29	595	580	1,100	670	-	1,600	2,480	3,440	2,150	898	740	685
30	615	590	1,000	650	-	1,740	2,420	3,070	1,990	898	769	706
31	600	-	965	650	-	2,200	-	3,070	-	898	841	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acre-feet
October	19,740	680	595	637	1.31	1.51	39,150
November	18,161	660	570	605	1.24	1.38	36,020
December	37,609	3,960	570	1,213	2.49	2.87	74,600
Calendar year 1936	641,295	14,200	570	1,752	3.59	48.87	1,272,000
January	22,907	865	650	739	1.51	1.74	45,440
February	32,099	1,740	650	1,146	2.35	2.45	63,670
March	68,470	3,310	1,460	2,209	4.53	5.22	135,800
April	120,820	15,000	2,100	4,027	8.25	9.20	239,600
May	127,930	5,950	2,590	4,127	8.46	9.75	253,700
June	97,400	5,950	1,990	3,247	6.65	7.42	193,200
July	36,564	1,890	898	1,179	2.42	2.79	72,520
August	24,881	930	740	803	1.65	1.90	49,350
September	21,916	930	665	731	1.50	1.67	43,470
Water year 1936-37	628,497	15,000	570	1,722	3.53	47.90	1,247,000

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 above backwater from Cazadero Dam of Portland General Electric Co. and 3 miles southeast of Cazadero. Zero of gage is 532.0 feet above mean sea level; published gage readings have been reduced to mean sea-level datum.

Drainage area.- 665 square miles.

Records available.- January 1909 to September 1937.

Average discharge.- 28 years, 2,599 second-feet.

Extremes.- Maximum discharge during year, 23,400 second-feet Apr. 14 (elevation, 545.65 feet); minimum, 412 second-feet (regulated) Nov. 25; minimum daily discharge, 659 second-feet Nov. 26.

1909-37: Maximum discharge, 60,800 second-feet Mar. 31, 1931 (elevation, 556.5 feet); minimum, 410 second-feet Oct. 20, 1925, Sept. 28, 1930, when power plant at Three Lynx was shut down (elevation, 532.03 feet); minimum daily discharge, 587 second-feet Aug. 17, 1930.

Remarks.- Records good. Some diurnal fluctuation during low water due to operation of Oak Grove power plant. Field data furnished by Portland General Electric Co.

Rating table, water year 1936-37 (gage height, in feet, and discharge, in second-feet)

532.5	535	532.0	5,660
533.0	750	540.0	9,260
533.5	1,020	542.0	13,900
534.0	1,350	544.0	19,000
535.0	2,130	546.0	24,500
536.0	3,090		

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	775	750	660	1,180	905	2,880	4,520	3,310	4,260	2,490	1,110	1,020
2	775	750	686	1,110	905	5,210	4,130	4,390	5,070	2,310	1,110	960
3	775	697	690	1,080	960	4,650	3,530	6,290	5,360	2,180	1,080	932
4	800	701	693	1,180	1,140	4,130	3,420	6,960	4,790	2,000	1,050	932
5	800	723	1,100	1,110	1,420	4,260	3,530	5,810	4,390	1,960	1,050	1,020
6	775	720	1,490	878	1,210	4,790	3,310	5,070	4,260	1,960	1,050	960
7	750	724	2,220	825	1,110	4,130	3,090	4,930	4,130	1,800	1,020	932
8	750	700	1,920	878	1,080	3,770	3,090	5,210	4,010	1,720	1,020	932
9	750	720	2,000	1,020	990	3,770	3,310	5,210	3,890	1,640	1,020	932
10	730	712	1,350	1,050	960	3,890	4,010	5,660	3,650	1,600	1,020	905
11	740	732	1,140	905	1,180	3,770	4,130	8,240	3,420	1,520	1,020	905
12	750	692	1,050	932	2,680	4,520	4,390	7,490	3,200	1,490	990	905
13	775	696	1,050	1,020	2,490	5,510	15,900	7,860	3,090	1,490	990	878
14	750	686	1,280	1,020	1,960	5,360	20,100	8,050	3,310	1,460	960	878
15	750	686	1,210	1,210	1,720	4,790	16,700	7,310	3,420	1,460	960	878
16	750	725	1,140	1,110	2,310	4,260	10,600	6,450	3,530	1,420	960	878
17	740	745	1,480	1,080	2,680	3,890	7,670	5,810	3,770	1,350	960	857
18	740	725	2,180	1,180	2,980	3,530	6,290	5,970	4,260	1,380	932	878
19	750	710	1,880	1,050	2,220	3,200	5,360	5,360	5,210	1,350	932	1,180
20	750	696	1,490	905	1,840	2,880	4,930	4,930	8,240	1,320	960	1,110
21	740	682	1,820	905	1,960	2,580	5,210	4,790	8,840	1,280	960	960
22	750	691	3,090	960	2,580	2,580	4,790	5,210	6,620	1,280	990	905
23	710	691	6,420	960	2,580	2,310	4,130	4,930	5,660	1,240	1,180	878
24	710	664	4,520	960	2,680	2,220	3,770	4,790	4,650	1,210	1,110	850
25	725	675	2,980	960	2,680	2,130	3,890	5,660	4,010	1,210	990	850
26	750	659	2,490	990	2,490	2,130	4,010	5,360	3,530	1,240	960	850
27	719	668	2,000	960	2,310	2,130	4,010	4,930	3,200	1,180	960	850
28	718	691	1,720	932	2,220	2,130	3,650	4,790	3,090	1,180	932	825
29	705	673	1,520	905	-	2,310	3,310	4,520	2,880	1,140	905	850
30	718	678	1,420	878	-	2,400	3,200	4,010	2,680	1,140	932	878
31	698	-	1,280	850	-	3,200	-,	3,890	2,680	1,110	1,110	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acre-feet
October	23,118	800	698	746	1.12	1.29	45,850
November	21,062	750	659	702	1.06	1.18	41,780
December	55,969	6,420	660	1,805	2.71	3.12	111,000
Calendar year 1936	869,990	20,500	659	2,377	3.57	48.61	1,726,000
January	30,983	1,210	825	999	1.50	1.73	61,450
February	52,240	2,980	905	1,866	2.81	2.93	103,600
March	109,310	5,510	2,130	3,526	5.30	6.11	216,800
April	171,980	20,100	3,090	5,733	8.62	9.62	341,100
May	173,190	8,240	3,310	5,587	8.40	9.68	343,500
June	130,420	8,840	2,680	4,347	6.54	7.30	258,700
July	47,110	2,490	1,110	1,520	2.29	2.64	93,440
August	31,223	1,180	905	1,007	1.51	1.74	61,930
September	27,568	1,180	825	919	1.38	1.54	54,680
Water year 1936-37	874,173	20,100	659	2,395	3.60	48.88	1,734,000

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 above Kink Creek, 1 mile above intake of Oak Grove power development of Portland General Electric Co., and 24 miles southeast of Estacada.

Drainage area.- 126 square miles.

Records available.- December 1923 to September 1937. 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.- 13 years (1924-37), 460 second-feet.

Extremes.- Maximum discharge during year, 1,720 second-feet Apr. 14 (gage height, 3.82 feet); minimum, 257 second-feet Jan. 29-31 (gage height, 1.68 feet).
1909-37: Maximum discharge, 5,000 second-feet Jan. 7, 1923 (gage height, 5.45 feet); 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. Base data furnished by Portland General Electric Co.

Rating table, water year 1936-37 (gage height, in feet, and discharge, in second-feet)

1.6	230	2.9	940
1.8	302	3.3	1,260
2.1	440	3.8	1,720
2.5	665		

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	291	279	272	287	261	316	506	659	772	512	340	319
2	291	275	272	283	264	367	490	744	793	490	340	315
3	291	275	272	279	268	362	470	877	814	475	340	315
4	298	275	272	283	272	353	470	956	779	465	340	315
5	294	275	336	283	268	358	465	912	765	450	336	319
6	291	275	327	275	264	372	455	884	737	445	336	315
7	291	275	353	272	264	367	440	898	717	435	331	310
8	291	275	327	264	268	367	455	919	717	430	331	310
9	291	275	319	279	268	362	485	926	724	420	331	310
10	291	275	291	275	268	367	545	948	704	415	331	310
11	291	275	283	272	268	376	528	1,060	665	405	327	310
12	291	275	283	272	275	405	551	1,020	635	400	327	306
13	291	275	283	275	275	450	1,180	1,100	617	395	327	306
14	287	275	287	275	272	465	1,530	1,140	623	390	327	302
15	287	275	283	287	275	455	1,530	1,100	665	385	327	302
16	287	275	283	275	275	450	1,220	1,060	665	381	323	302
17	287	275	315	272	283	440	1,060	1,020	641	381	323	302
18	287	275	336	272	283	425	926	1,020	647	381	323	306
19	283	272	306	268	283	415	856	964	672	376	323	319
20	283	272	294	264	283	410	814	919	779	372	323	310
21	283	272	323	261	302	395	849	912	807	367	323	302
22	283	272	358	264	315	381	765	919	730	362	331	302
23	283	272	528	264	306	372	710	891	710	362	340	302
24	283	272	430	264	302	362	684	877	647	358	327	298
25	283	272	372	264	302	358	704	1,010	611	358	323	298
26	279	272	344	264	302	353	717	940	587	358	323	298
27	279	272	327	264	294	358	704	891	563	353	319	298
28	279	272	315	264	294	362	672	863	540	353	319	298
29	279	272	302	257	-	372	641	835	528	349	315	298
30	279	272	302	257	-	390	629	786	518	344	323	302
31	279	-	294	257	-	445	-	765	-	344	327	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acre-feet
October	8,883	298	279	287	2.28	2.63	17,620
November	8,218	279	272	274	2.17	2.42	16,300
December	9,889	528	272	319	2.53	2.92	19,610
Calendar year 1936	166,572	1,460	272	455	3.61	49.18	330,400
January	8,392	287	257	271	2.15	2.48	16,650
February	7,854	315	261	280	2.22	2.31	15,580
March	12,029	465	315	388	3.08	3.55	23,860
April	22,051	1,530	440	735	5.83	6.50	43,740
May	28,815	1,140	659	930	7.38	8.51	57,150
June	20,372	814	518	679	5.39	6.01	40,410
July	12,311	512	344	397	3.15	3.63	24,420
August	10,176	340	315	328	2.60	3.00	20,180
September	9,199	319	298	307	2.44	2.72	18,250
Water year 1936-37	158,189	1,530	257	433	3.44	46.68	313,800

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 below mouth of Swift Creek and 4 miles east of Cougar. Zero of gage is 575.6 feet above mean sea level (general adjustment of 1929).

Drainage area.- 483 square miles.

Records available.- July 1910 to March 1912 (gage heights only), June 1924 to September 1937. July 1909 to June 1910, at site 1,000 feet above mouth of Swift Creek.

Average discharge.- 13 years (1924-37), 2,790 second-feet.

Extremes.- Maximum discharge during year, about 24,400 second-feet Apr. 14 (gage height, 12.08 feet), from rating curve extended above 5,000 second-feet; minimum, 526 second-feet Nov. 30 (gage height, 2.81 feet).

1910-12, 1924-37: Maximum discharge, 54,400 second-feet Dec. 21, 1933 (gage height, 15.7 feet, former datum), from rating curve extended above 15,000 second-feet; minimum, 454 second-feet Oct. 21, 1931 (gage height, 0.01 foot, former datum).

Remarks.- Records good except those above 10,000 second-feet, which are poor. No diversion or regulation.

Rating tables, water year 1936-37 (gage height, in feet, and discharge, in second-feet)

Oct. 1 to Apr. 13				Apr. 14 to Sept. 30			
2.5	355	5.0	2,500	3.0	510	7.0	6,300
3.0	640	6.0	4,040	3.5	950	8.0	8,800
3.5	990	7.0	5,950	4.0	1,480	9.0	11,950
4.0	1,390	8.0	8,500	4.5	2,050	10.0	15,600
4.5	1,900	9.0	11,600	5.0	2,700	11.0	19,700
				6.0	4,330	13.0	28,400

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	712	610	562	1,960	1,010	2,120	4,950	3,460	4,330	3,720	1,180	950
2	705	598	568	1,840	990	3,900	4,400	4,060	5,070	3,330	1,160	860
3	698	610	568	1,740	998	3,960	4,040	5,460	5,660	3,030	1,150	832
4	789	634	574	1,790	1,010	3,530	4,040	6,300	5,260	2,920	1,140	841
5	768	628	628	1,630	982	3,530	3,960	5,870	4,880	2,770	1,140	1,390
6	712	616	1,220	1,440	938	3,700	3,780	5,260	4,690	2,550	1,120	1,180
7	712	610	1,860	1,390	922	3,370	3,530	5,070	4,690	2,490	1,100	980
8	698	604	1,510	1,350	908	3,210	3,530	5,070	4,690	2,390	1,080	920
9	686	598	1,290	1,390	880	3,140	3,700	5,070	4,690	2,330	1,080	890
10	686	598	1,040	1,610	873	3,060	4,310	5,660	4,420	2,170	1,120	880
11	679	592	915	1,270	1,110	3,060	4,310	6,300	3,970	2,110	1,130	850
12	666	592	873	1,270	1,390	3,450	4,730	6,080	3,720	2,050	1,080	841
13	679	586	1,370	1,310	1,230	3,960	10,600	6,300	3,540	1,930	1,040	823
14	733	580	1,630	1,270	1,110	3,870	17,200	6,080	3,460	1,870	990	814
15	698	580	1,390	1,310	1,070	3,780	15,300	5,870	3,880	1,810	960	823
16	672	604	1,310	1,230	1,350	3,700	9,700	5,460	4,150	1,760	940	805
17	672	686	1,920	1,230	1,440	3,530	7,250	4,880	4,510	1,700	950	769
18	653	634	2,800	1,190	1,350	3,370	6,080	4,880	5,920	1,760	940	760
19	653	610	3,210	1,110	1,230	3,210	5,260	4,780	6,920	1,640	920	751
20	640	598	2,440	1,050	1,190	3,060	4,880	4,510	9,080	1,590	900	742
21	634	592	3,000	1,020	1,270	2,910	5,070	4,510	9,980	1,540	890	715
22	634	586	7,400	1,050	1,960	2,770	4,600	4,690	8,270	1,430	970	697
23	634	580	12,500	1,050	1,960	2,630	4,330	4,600	7,250	1,470	1,230	670
24	634	574	7,160	1,030	1,840	2,500	4,060	4,600	6,300	1,440	1,080	670
25	628	574	5,140	1,050	1,790	2,440	3,970	4,780	5,460	1,420	970	662
26	628	568	4,130	1,020	1,680	2,440	3,970	4,690	5,070	1,390	920	662
27	622	568	3,450	998	1,630	2,440	3,880	4,600	4,690	1,370	880	670
28	622	562	2,980	982	1,580	2,440	3,720	4,600	4,510	1,350	850	662
29	616	556	2,630	945	-	2,370	3,540	4,240	4,330	1,330	832	646
30	616	550	2,440	915	-	2,810	3,380	3,970	3,970	1,270	920	830
31	616	-	2,190	880	-	4,320	-	3,880	-	1,230	1,060	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acre-feet
October	20,795	789	616	671	1.39	1.60	41,250
November	17,878	686	550	596	1.23	1.37	35,460
December	80,698	12,500	562	2,603	5.39	6.21	160,100
Calendar year 1936	937,337	12,500	550	2,561	5.30	72.14	1,859,000
January	39,020	1,960	880	1,259	2.61	3.01	77,400
February	35,691	1,960	873	1,275	2.64	2.75	70,790
March	98,580	4,320	2,120	3,180	6.58	7.59	195,500
April	166,070	17,200	3,380	5,536	11.5	12.83	329,400
May	155,580	6,300	3,460	5,019	10.4	11.99	308,600
June	157,360	9,980	3,460	5,245	10.9	12.16	312,100
July	61,070	3,720	1,230	1,970	4.08	4.70	121,100
August	31,722	1,230	832	1,023	2.12	2.44	62,920
September	24,585	1,390	646	820	1.70	1.90	48,760
Water year 1936-37	889,049	17,200	550	2,436	5.04	68.55	1,763,000

Lewis River at Ariel, Wash.

Location.- Water-stage recorder, lat. 45°57', long. 122°34', in NW¼NE¼ sec. 4, T. 5 N., R. 2 E., at Ariel, half a mile below Ariel Dam and power plant. Zero of gage is 44 feet above mean sea level.

Drainage area.- 735 square miles.

Records available.- July 1922 to September 1937. July to November 1909, at site 3 miles upstream.

Average discharge.- 14 years (1923-37), 4,540 second-feet.

Extremes.- Maximum discharge during year, 49,100 second-feet Apr. 14 (gage height, 18.56 feet); minimum, 95 second-feet Sept. 12 (gage height, 0.86 foot),regulated; minimum daily discharge, 515 second-feet Nov. 1, regulated.
1909, 1922-37: Maximum discharge, 129,000 second-feet Dec. 22, 1933 (gage height, 35.0 feet, from floodmarks), from rating curve extended above 22,000 second-feet and from spillway-gate openings; no flow at times June 30, July 1-3, 6-9, 1931 (caused by regulation during construction of Ariel Dam); minimum mean daily discharge, 1 second-foot July 6, 1931, result of regulation.

Remarks.- Records good. Float frozen in well Jan. 19-25; discharge determined from power log. Water-stage recorder inspected by employees of Inland Power & Light Co. No diversions. Regulation caused by operation of power plant and storage in Lake Merwin Reservoir (capacity, 424,000 acre-feet; elevation of water surface, 204.3 feet at midnight Sept. 30, 1936, and 209.4 feet at midnight Sept. 30, 1937).

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	3,170	*515	875	3,700	3,430	3,430	10,800	5,660	5,620	5,280	*910	2,020
2	3,100	1,310	905	3,700	3,430	3,220	8,330	*5,790	6,810	4,700	1,800	1,900
3	3,100	1,230	979	*3,680	3,430	2,640	7,440	8,510	7,900	4,480	1,860	2,320
4	*2,980	1,160	1,120	3,580	3,430	2,800	*7,300	9,340	7,000	*3,910	1,700	2,630
5	2,910	905	850	3,740	3,430	2,600	7,180	9,150	6,530	3,700	1,640	*1,560
6	2,980	1,000	*785	3,700	3,300	2,130	7,170	7,450	*6,420	2,600	1,640	1,680
7	2,980	858	2,760	3,660	*3,300	*1,290	6,060	7,380	6,490	3,160	1,240	2,910
8	2,980	*555	3,100	3,650	3,300	2,430	6,360	7,650	5,020	2,840	*945	3,160
9	2,910	1,000	3,100	3,580	3,240	2,580	6,370	*7,540	5,660	2,980	1,710	2,780
10	2,840	940	3,100	*3,670	3,240	2,530	7,950	8,360	5,260	2,380	1,660	3,440
11	*2,660	837	3,100	3,550	3,300	2,580	*8,210	10,600	4,030	*2,060	1,540	3,350
12	2,660	1,300	3,040	3,540	3,300	2,460	7,980	9,860	3,440	3,000	1,560	*1,880
13	2,780	1,050	*2,480	3,610	3,300	2,000	21,200	9,820	*3,930	2,260	1,450	3,260
14	2,720	970	2,980	3,600	*3,240	*2,130	34,200	9,590	3,040	2,140	1,240	3,170
15	2,060	*675	3,100	3,500	2,300	7,760	31,100	8,980	4,580	2,270	*1,070	3,340
16	1,920	960	3,100	3,610	3,300	6,820	19,100	*8,240	5,490	2,340	1,660	3,340
17	1,460	885	3,100	*2,950	3,300	6,240	12,900	7,640	6,760	2,060	1,720	2,820
18	*943	815	3,170	3,480	3,300	5,840	*10,700	6,760	10,600	*1,670	1,610	2,860
19	1,840	1,010	3,240	3,500	3,300	5,600	8,620	7,000	12,100	2,080	1,710	*1,790
20	2,010	775	*3,240	3,500	3,300	5,430	8,240	6,330	*17,500	2,080	1,560	2,740
21	1,940	665	3,170	3,600	*3,060	*4,260	8,920	6,240	18,600	1,860	1,480	2,320
22	1,760	*600	3,170	3,450	2,780	5,500	7,980	6,860	14,300	1,620	*1,380	2,000
23	1,620	950	3,300	3,400	3,150	4,410	7,860	*6,490	12,300	1,780	1,660	2,460
24	1,800	860	3,020	*3,400	3,150	4,380	7,150	6,380	10,200	1,560	1,620	2,460
25	*1,660	840	2,260	3,400	3,180	4,040	*6,660	6,700	8,520	*1,420	2,300	2,120
26	1,960	670	2,860	3,560	3,430	4,110	6,860	6,640	7,780	1,750	1,720	*1,960
27	1,830	1,130	*2,780	3,560	3,430	4,180	6,500	6,500	*7,040	1,620	1,800	2,540
28	1,820	1,110	3,490	3,430	*3,430	*3,800	6,080	6,400	6,280	1,420	2,120	2,400
29	1,980	*785	3,700	3,430	-	3,940	5,670	6,060	6,260	1,840	*1,560	2,530
30	2,070	835	3,600	3,430	-	4,500	5,360	*5,370	5,270	1,940	2,080	2,680
31	1,300	-	3,700	*3,430	-	8,800	-	5,580	-	1,500	1,800	-

Month	Total second-foot days	Observed			Run-off in acre-feet	Gain or loss in storage in Lake Merwin Reservoir (acre-feet)	Adjusted for storage			
		Discharge in second-feet					Run-off in acre-feet	Discharge in second-feet		Run-off in inches
		Maximum	Minimum	Mean				Mean	Per square mile	
October	70,743	3,170	943	2,282	140,300	-111,900	28,400	462	0.630	0.73
November	27,195	1,310	515	906	53,940	-13,800	40,140	675	.921	1.03
December	83,174	3,700	785	2,683	165,000	+182,100	347,100	5,645	7.70	8.88
Calendar year 1936	1,420,287	26,100	515	3,881	2,817,000	+124,300	2,941,000	4,052	5.53	75.25
January	109,590	3,740	2,950	3,535	217,400	-95,500	121,900	1,983	2.71	3.12
February	92,080	3,430	2,780	3,289	182,600	-7,100	175,500	3,160	4.31	4.49
March	124,430	8,800	1,290	4,014	246,800	+159,500	406,300	6,606	9.02	10.40
April	306,250	34,200	5,360	10,210	607,400	-1,400	606,000	10,180	13.9	15.51
May	230,870	10,600	5,370	7,447	457,900	0	457,900	7,447	10.2	11.76
June	230,730	18,600	3,040	7,691	457,600	+13,600	471,200	7,919	10.8	12.05
July	76,300	5,280	1,420	2,461	151,300	+1,800	153,100	2,490	3.40	3.92
August	49,745	2,300	910	1,605	98 670	-19,700	78,970	1,284	1.75	2.02
September	76,420	3,440	1,560	2,547	151,600	-89,400	62,200	1,045	1.43	1.60
Water year 1936-37	1,477,527	34,200	515	4,048	2,931,000	+18,200	2,949,000	4,073	5.56	75.51

*Sunday.

Note- Elevation of water surface in Lake Merwin Reservoir was 204.3 feet at midnight Sept. 30, 1936, and 209.4 feet at midnight Sept. 30, 1937.

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 above Basket Creek and 1½ miles northeast of Heisson. Zero of gage is approximately 365 feet above mean sea level (general adjustment of 1929), by plane-table survey.

Drainage area.- 124 square miles.

Records available.- September 1929 to September 1937.

Extremes.- Maximum discharge during year, 9,260 second-feet Dec. 23 (gage height, 9.56 feet); minimum, 43 second-feet Nov. 30 (gage height, 0.23 foot).
1929-37: Maximum discharge, 15,600 second-feet Dec. 22, 1933 (gage height, 12.3 feet), from rating curve extended above 12,000 second-feet; minimum, 29 second-feet Nov. 3, 1935 (gage height, 0.04 foot).

Remarks.- Records excellent except those for periods of ice effect, Jan. 7-13, 21-23, 31 (computed on basis of gage heights and weather records), and those for May 20 to June 2 (computed on basis of records for Wind River near Carson and Naselle River near Naselle), which are poor. No diversion or regulation.

Rating table, water year 1936-37 (gage height, in feet, and discharge, in second-feet)

0.2	41	1.5	233	4.0	1,310	6.5	3,800
.4	57	2.0	365	4.5	1,650	7.0	4,550
.6	76	2.5	530	5.0	2,070	8.0	6,200
.8	100	3.0	745	5.5	2,550	9.0	8,050
1.0	133	3.5	1,010	6.0	3,130	10.0	10,100

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	55	60	47	512	281	2,490	1,810	770	250	413	103	222
2	54	56	50	460	318	4,090	1,370	1,070	300	374	96	142
3	55	55	62	419	329	3,070	1,280	1,340	338	341	90	112
4	151	60	81	460	738	2,720	1,400	1,190	289	321	86	110
5	123	64	224	410	758	2,720	1,510	922	268	302	85	363
6	75	57	1,280	362	570	2,500	1,400	770	256	276	85	266
7	64	54	1,460	260	478	2,020	1,280	770	247	258	86	194
8	61	51	1,070	200	413	1,810	1,250	720	240	244	83	160
9	59	51	1,000	210	374	1,810	1,510	720	240	231	88	144
10	54	51	571	230	350	1,650	1,810	940	258	218	103	122
11	54	51	413	230	927	1,730	1,620	1,220	238	207	109	104
12	56	51	335	210	1,620	2,240	1,780	980	224	203	87	100
13	59	51	852	240	1,130	2,350	5,090	980	203	203	84	95
14	86	49	1,160	278	870	1,770	6,350	820	198	196	86	83
15	75	50	870	561	822	1,400	4,460	695	215	184	77	79
16	64	51	745	410	1,740	1,250	2,780	530	294	170	73	82
17	59	86	1,420	413	2,320	1,160	2,070	570	561	160	70	80
18	57	63	2,020	495	1,860	980	1,650	530	1,600	159	67	80
19	56	57	1,540	386	1,280	870	1,340	495	1,860	155	66	84
20	57	55	1,070	332	1,040	795	1,250	450	2,800	142	64	80
21	56	52	1,580	250	1,210	745	1,440	410	2,830	133	64	77
22	56	52	4,170	260	2,200	695	1,480	400	2,070	129	78	75
23	55	50	6,300	270	2,070	672	1,400	370	1,650	124	126	74
24	55	49	3,140	278	2,250	650	1,280	350	1,310	119	112	71
25	56	48	2,160	291	2,160	610	1,250	450	1,040	115	82	68
26	53	48	1,650	338	1,810	630	1,190	400	820	108	73	67
27	52	47	1,250	307	1,540	650	1,040	360	672	109	69	68
28	51	47	980	284	1,370	610	922	320	590	114	66	65
29	51	47	820	254	-	590	795	280	512	112	64	66
30	53	47	720	233	-	771	720	240	460	104	125	136
31	59	-	610	200	-	1,420	-	200	-	106	487	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off: Inches	Run-off: Acre-feet
October	1,971	151	51	63.6	0.513	0.59	3,910
November	1,610	86	47	53.7	.433	.48	3,190
December	39,650	6,300	47	1,279	10.3	11.87	78,640
Calendar year 1936	242,885	6,300	47	664	5.35	72.80	481,800
January	10,043	561	200	324	2.61	3.01	19,920
February	32,828	2,320	281	1,172	9.45	9.84	65,110
March	47,468	4,090	590	1,531	12.3	14.18	94,150
April	54,527	6,350	720	1,818	14.7	16.40	108,200
May	20,362	1,340	200	657	5.30	6.11	40,390
June	22,833	2,830	198	761	6.14	6.85	45,290
July	6,030	413	104	195	1.57	1.81	11,960
August	3,034	487	64	97.9	.790	.91	6,020
September	3,469	363	65	116	.935	1.04	6,880
Water year 1936-37	243,825	6,350	47	668	5.39	73.09	483,700

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 above Skate Creek and half a mile northwest of Packwood.

Drainage area.- 287 square miles.

Records available.- September 1929 to September 1937. July 1911 to December 1919, at site 1 mile upstream.

Average discharge.- 16 years, 1,630 second-feet.

Extremes.- Maximum discharge during year, 9,220 second-feet Apr. 14; maximum gage height, 8.63 feet June 21; minimum discharge, 236 second-feet Jan. 31.
1911-19, 1929-37: Maximum discharge, 38,600 second-feet Dec. 21, 1933 (gage height, 13.0 feet); minimum, 160 second-feet Nov. 21, 1929 (gage height, 2.10 feet).

Remarks.- Records good except those for June 23-27, which were computed on basis of records for station near Mayfield and for Cispus River near Randle and are fair. Shifting-control method used May 4 to June 20. No diversion or regulation.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	439	331	295	544	290	675	1,330	1,560	4,360	4,040	776	627
2	430	313	277	506	294	1,080	1,230	2,280	6,040	3,430	760	606
3	410	310	274	482	286	1,230	1,080	4,360	6,400	3,030	808	599
4	511	331	274	506	290	1,220	1,040	5,250	5,150	3,130	872	620
5	426	328	298	460	290	1,380	1,010	3,670	4,540	2,700	912	848
6	402	319	627	393	282	1,590	950	2,990	4,470	2,270	848	760
7	402	310	621	384	278	1,430	877	2,790	4,910	2,270	808	683
8	410	304	537	384	274	1,270	868	2,480	5,170	2,410	768	697
9	414	307	558	406	266	1,180	960	2,380	4,310	2,390	753	690
10	426	307	460	388	262	1,150	1,110	2,530	4,210	2,300	944	648
11	394	307	416	375	318	1,160	1,100	2,440	3,470	2,220	1,110	641
12	372	304	393	370	330	1,330	1,120	2,400	3,440	2,140	1,000	634
13	376	304	569	380	306	1,550	2,430	3,310	3,580	1,980	928	606
14	480	313	632	370	302	1,490	5,660	4,280	3,550	1,730	753	599
15	430	316	565	375	298	1,360	6,240	3,760	4,180	1,630	648	592
16	422	319	506	357	326	1,320	3,670	3,420	4,230	1,730	641	571
17	444	414	551	348	334	1,280	2,640	3,050	3,880	1,860	711	526
18	430	362	1,230	348	334	1,200	2,180	3,240	4,740	2,350	760	502
19	406	366	2,200	330	334	1,080	1,970	3,200	5,450	1,800	746	490
20	386	366	1,460	302	326	970	2,010	2,700	7,210	1,550	718	496
21	380	349	1,400	302	375	877	2,250	2,890	8,280	1,450	697	479
22	372	337	2,530	318	613	832	1,940	3,520	6,360	1,390	697	415
23	383	325	2,750	318	704	752	1,720	3,070	5,900	1,350	760	380
24	398	328	2,010	310	712	696	1,540	3,200	5,600	1,370	704	380
25	398	328	1,550	310	712	664	1,580	4,150	4,800	1,430	669	395
26	386	331	1,250	310	688	680	1,760	3,870	4,350	1,380	655	425
27	376	325	1,050	298	648	680	1,720	3,860	4,450	1,310	599	440
28	369	319	895	294	624	712	1,620	3,900	4,560	1,230	557	430
29	372	313	778	286	-	736	1,490	3,100	4,960	1,120	557	367
30	358	301	704	270	-	823	1,430	2,660	4,400	992	620	384
31	346	-	632	258	-	1,110	-	3,010	-	856	676	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acre-feet
October	12,548	511	346	405	1.41	1.63	24,890
November	9,784	414	301	326	1.14	1.27	19,410
December	28,292	2,750	274	913	3.18	3.67	56,120
Calendar year 1936	562,775	8,110	274	1,538	5.36	72.93	1,116,000
January	11,282	544	258	364	1.27	1.46	22,380
February	11,096	712	262	396	1.38	1.44	22,010
March	33,507	1,590	664	1,081	3.77	4.35	66,460
April	56,525	6,240	868	1,884	6.56	7.32	112,100
May	99,320	5,250	1,560	3,204	11.2	12.91	197,000
June	146,950	8,280	3,440	4,898	17.1	19.08	291,500
July	60,838	4,040	856	1,963	6.84	7.89	120,700
August	23,455	1,110	557	757	2.64	3.04	46,520
September	16,530	848	367	551	1.92	2.14	32,790
Water year 1936-37	510,127	8,280	258	1,398	4.87	66.20	1,012,000

Cowlitz River near Mayfield, Wash.

Location.- Water-stage recorder, lat. 46°30'40", long. 122°36'50", in NE¼ sec. 24, T. 12 N., R. 1 E., 1 mile above Mill Creek and 2¼ miles west of Mayfield. Zero of gage is 226.6 feet above mean sea level (general adjustment of 1929).

Drainage area.- 1,400 square miles.

Records available.- April 1934 to September 1937. August 1910 to November 1911, at site 2½ miles upstream.

Extremes.- Maximum discharge during year, 29,900 second-feet Apr. 15 (gage height, 18.62 feet), from rating curve extended above 18,000 second-feet; minimum, 766 second-feet Nov. 30, Dec. 1 (gage height, 7.18 feet).

1910-11, 1934-37: Maximum discharge, 36,900 second-feet Nov. 6, 1934 (gage height, 20.1 feet), from rating curve extended above 18,000 second-feet; minimum, that of Nov. 30, Dec. 1, 1936.

Discharge known to have been greater during December 1933 but figure not determined.

Remarks.- Records good. No diversion or regulation.

Ratirg table, Apr. 15 to Sept. 30, 1937 (gage height, in feet, and discharge, in second-feet)

7.0	720	12.0	9,100
7.5	1,130	13.0	11,800
8.0	1,690	14.0	14,700
8.5	2,350	15.0	17,850
9.0	3,100	16.0	21,250
9.5	3,900	17.0	24,900
10.0	4,750	18.0	28,700
11.0	6,700	19.0	32,600

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,200	898	773	3,740	1,720	5,820	7,650	7,010	9,570	10,400	2,460	2,090
2	1,170	874	780	3,440	1,770	8,660	7,100	7,670	12,500	9,330	2,320	1,940
3	1,170	850	822	3,260	1,800	9,700	6,490	11,500	15,400	8,180	2,280	1,850
4	1,290	866	850	3,340	2,080	9,410	6,240	15,900	15,200	7,620	2,290	1,810
5	1,500	890	1,030	3,240	2,240	10,200	6,280	15,300	13,200	7,370	2,350	2,790
6	1,320	874	2,500	2,910	2,030	11,100	6,100	12,500	12,300	6,510	2,390	3,210
7	1,220	850	3,770	2,570	1,930	10,100	5,760	11,200	12,200	5,920	2,360	2,600
8	1,200	836	4,300	2,660	1,880	9,000	5,470	10,600	12,800	5,820	2,280	2,250
9	1,200	822	3,880	2,700	1,800	8,630	5,720	10,100	12,600	5,800	2,310	2,130
10	1,190	808	2,760	2,560	1,750	8,330	6,320	10,500	12,100	5,580	2,410	2,090
11	1,190	801	2,250	2,420	2,240	7,960	6,450	11,500	10,900	5,430	2,620	1,990
12	1,140	794	2,050	2,590	3,100	8,300	6,570	10,800	9,760	5,240	2,720	1,920
13	1,110	787	3,460	2,400	2,870	9,390	12,300	11,500	9,330	5,040	2,520	1,880
14	1,170	780	4,280	2,390	2,640	9,440	19,600	13,500	9,130	4,750	2,380	1,830
15	1,390	780	3,730	2,600	2,490	8,810	28,800	14,000	9,620	4,430	2,160	1,790
16	1,220	787	3,350	2,470	3,030	8,160	22,500	12,900	10,200	4,260	1,990	1,790
17	1,140	882	3,840	2,420	3,780	7,700	17,000	11,700	11,000	4,240	1,950	1,720
18	1,130	906	6,580	2,470	3,760	7,190	13,800	11,000	11,700	4,460	2,000	1,640
19	1,090	882	8,740	2,310	3,270	6,600	11,600	11,200	14,200	4,700	2,040	1,610
20	1,060	850	7,480	2,100	3,020	5,100	11,100	10,500	16,500	4,120	2,000	1,590
21	1,030	850	6,240	2,060	4,340	5,680	12,500	9,840	19,600	3,790	1,960	1,550
22	1,000	829	10,100	2,100	8,260	5,450	12,200	10,600	20,100	3,600	2,020	1,500
23	984	815	20,100	2,110	7,480	5,140	11,100	10,900	17,300	3,470	2,180	1,430
24	993	794	14,700	2,020	6,720	4,780	10,000	10,300	15,500	3,360	2,220	1,330
25	993	780	10,500	1,940	6,430	4,540	9,310	11,000	13,000	3,360	2,080	1,300
26	984	787	8,010	1,970	6,080	4,480	9,200	12,000	11,500	3,340	1,950	1,310
27	966	787	6,660	1,900	5,600	4,450	9,130	11,600	11,100	3,260	1,880	1,330
28	957	780	5,570	1,840	5,280	4,350	8,610	11,500	10,900	3,200	1,780	1,330
29	948	780	4,890	1,780	-	4,300	7,890	10,900	11,300	3,040	1,680	1,310
30	922	773	4,450	1,720	-	4,480	7,260	9,360	11,000	2,850	1,740	1,330
31	914	-	4,060	1,630	-	5,960	-	8,710	-	2,660	2,080	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acre-feet
October	34,791	1,500	914	1,122	0.801	0.92	69,010
November	24,792	906	773	826	.590	.66	49,170
December	162,505	20,100	773	5,242	3.74	4.31	322,300
Calendar year 1936	2,050,538	22,700	773	5,603	4.00	54.45	4,067,000
January	75,660	3,740	1,630	2,441	1.74	2.01	150,100
February	99,390	8,260	1,720	3,550	2.54	2.64	197,100
March	224,210	11,100	4,300	7,233	5.17	5.96	444,700
April	310,050	28,800	5,470	10,340	7.39	8.24	615,000
May	347,590	15,900	7,010	11,210	8.01	9.24	689,400
June	381,510	20,100	9,130	12,720	9.09	10.14	756,700
July	155,130	10,400	2,660	5,004	3.57	4.12	307,700
August	67,400	2,720	1,680	2,174	1.55	1.79	133,700
September	54,240	3,210	1,300	1,808	1.29	1.44	107,600
Water year 1936-37	1,937,268	28,800	773	5,308	3.79	51.47	3,842,000

Cowlitz River at Castle Rock, Wash.

Location.- Water-stage recorder, lat. 46°16'30", long. 122°55'0", in SE¼ sec. 10, T. 9 N., R. 2 W., at highway bridge in Castle Rock, 2½ miles below mouth of Toutle River and 14 miles above mouth. Zero of present gage is 19.73 feet above mean sea level (general adjustment of 1929).

Drainage area.- 2,210 square miles.

Records available.- December 1926 to September 1937.

Average discharge.- 10 years, 8,869 second-feet.

Extremes.- Maximum discharge during year, 49,000 second-feet Apr. 15 (gage height, 18.23 feet); minimum, 1,100 second-feet Dec. 1 (gage height, 5.50 feet).
1926-37: 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, 998 second-feet Nov. 7, 8, 1935.

Remarks.- Records excellent. No diversion or regulation.

Rating table, water year 1936-37 (gage height, in feet, and discharge, in second-feet)

5.0	700	11.0	13,550
5.5	1,100	12.0	17,440
6.0	1,570	14.0	26,300
7.0	2,990	16.0	36,300
8.0	4,900	18.0	47,600
9.0	7,400	19.0	53,600
10.0	10,300		

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,620	1,310	1,110	5,710	2,850	9,760	11,600	9,910	11,100	13,100	3,200	2,710
2	1,650	1,280	1,120	5,160	3,180	15,300	11,100	10,200	13,600	12,100	3,010	2,470
3	1,600	1,250	1,140	4,770	3,540	16,900	10,400	13,600	17,500	10,800	2,870	2,280
4	1,730	1,280	1,210	4,900	6,210	15,500	10,100	19,200	18,400	9,820	2,840	2,220
5	1,980	1,320	1,270	5,190	7,900	16,100	10,600	20,100	16,200	9,500	2,840	3,500
6	1,980	1,320	2,870	4,420	5,860	17,300	10,400	16,900	14,800	8,680	2,890	4,820
7	1,780	1,280	6,140	3,740	4,860	15,600	9,910	14,800	14,500	7,710	2,890	3,740
8	1,680	1,250	5,810	3,590	4,280	13,600	9,150	14,100	15,000	7,340	2,790	3,130
9	1,650	1,240	6,490	3,850	3,910	13,000	9,500	13,300	15,400	7,290	2,820	2,840
10	1,640	1,210	4,480	3,800	3,680	12,600	11,000	14,000	15,000	7,060	2,970	2,660
11	1,610	1,200	3,560	3,520	7,510	11,900	11,500	16,200	13,800	6,790	3,060	2,550
12	1,600	1,190	3,130	3,380	10,400	12,000	11,900	15,000	12,400	6,600	3,250	2,460
13	1,560	1,170	4,180	3,430	7,930	13,200	26,100	15,000	11,500	6,360	3,080	2,380
14	1,610	1,160	6,920	3,380	6,870	13,600	36,800	16,900	11,400	6,080	2,960	2,320
15	1,800	1,160	5,980	4,610	5,910	12,800	47,200	17,800	11,600	5,640	2,720	2,260
16	1,840	1,170	5,140	4,820	8,570	11,800	36,500	16,500	12,700	5,300	2,500	2,240
17	1,670	1,320	5,930	4,200	14,300	11,100	26,600	15,000	13,900	5,210	2,400	2,200
18	1,600	1,380	9,470	4,610	13,600	10,400	21,200	13,900	15,700	5,270	2,400	2,100
19	1,570	1,350	12,800	4,220	9,210	9,580	17,800	13,700	16,000	5,790	2,410	2,070
20	1,520	1,300	11,300	3,500	7,480	8,950	16,000	13,200	22,500	5,190	2,360	2,020
21	1,480	1,270	9,380	3,290	8,660	8,310	17,600	12,200	27,300	4,690	2,320	2,010
22	1,450	1,250	15,700	3,250	15,900	7,930	17,800	12,400	28,200	4,440	2,340	1,960
23	1,420	1,220	37,700	3,210	15,000	7,620	16,500	13,300	25,300	4,280	2,690	1,890
24	1,410	1,200	26,100	3,270	12,800	7,150	14,800	12,600	23.200	4,140	2,800	1,790
25	1,400	1,180	18,200	3,180	11,700	6,730	13,500	13,000	18,900	4,060	2,660	1,730
26	1,390	1,170	13,700	3,590	11,000	6,520	13,200	14,400	16,200	4,060	2,420	1,700
27	1,370	1,160	11,200	3,590	10,100	6,410	13,200	14,000	14,800	3,980	2,300	1,700
28	1,340	1,150	9,320	3,450	9,180	6,180	12,400	13,700	14,200	3,910	2,220	1,730
29	1,320	1,140	7,990	3,270	-	6,060	11,400	13,400	14,200	3,760	2,070	1,700
30	1,320	1,120	7,230	3,040	-	6,280	10,500	11,800	14,200	3,570	2,130	1,800
31	1,320	-	6,470	2,690	-	8,480	-	10,700	-	3,430	2,580	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acre-feet
October	48,910	1,980	1,320	1,578	0.714	0.82	97,010
November	37,000	1,380	1,120	1,233	.558	.62	73,390
December	263,040	37,700	1,110	8,485	3.84	4.43	521,700
Calendar year 1936	3,034,120	39,800	1,110	8,290	3.75	51.04	6,018,000
January	120,630	5,710	2,690	3,891	1.76	2.03	239,300
February	232,390	15,900	2,850	8,300	3.76	3.92	460,900
March	338,660	17,300	6,060	10,920	4.94	5.70	671,700
April	496,260	47,200	9,150	16,540	7.48	8.34	984,300
May	440,810	20,100	9,910	14,220	6.43	7.41	874,300
June	492,500	28,200	11,110	16,420	7.43	8.29	976,900
July	195,950	13,100	3,430	6,321	2.86	3.30	388,700
August	82,790	3,250	2,070	2,671	1.21	1.40	164,200
September	70,980	4,820	1,700	2,366	1.07	1.19	140,800
Water year 1936-37	2,819,930	47,200	1,110	7,726	3.50	47.45	5,593,000

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 above 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 September 1937.

Average discharge.- 12 years (1907-12, 1930-37), 252 second-feet.

Extremes.- Maximum discharge during year, 1,410 second-feet Apr. 14 (gage height, 5.96 feet); minimum, 30 second-feet Nov. 29, 30, Dec. 1 (gage height, 2.46 feet).
1907-17, 1930-37: 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 good except those for periods of ice effect, Jan. 6-13, 20-29, which were computed on basis of gage heights and weather records and are poor. No regulation. A small diversion a few hundred feet above gage for fish hatchery.

Rating tables, water year 1936-37 except periods of ice effect (gage height, in feet, and discharge, in second-feet)

Oct. 1 to Dec. 6		Dec. 7 to Sept. 30	
2.4	25	2.5	50
2.7	57	3.0	95
3.0	102	3.5	197
3.5	210	4.0	345
		4.5	550
		5.0	790
		5.5	1,080
		6.0	1,440

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	49	36	31	91	59	101	187	320	682	631	124	95
2	47	35	31	85	58	154	167	319	943	564	117	88
3	49	36	31	84	58	172	151	624	997	518	115	83
4	70	42	31	87	60	170	145	765	820	528	114	87
5	61	43	48	81	58	194	134	582	750	444	115	190
6	53	40	195	65	58	220	128	478	735	374	114	134
7	51	38	167	60	58	197	121	444	790	381	112	108
8	50	37	107	60	58	172	119	415	810	404	108	96
9	47	36	83	60	58	160	134	411	700	400	107	90
10	47	36	72	60	59	156	154	440	660	377	112	85
11	46	35	69	60	66	160	151	435	568	359	121	83
12	46	35	65	60	66	190	156	431	582	335	112	81
13	47	34	108	60	60	226	393	564	600	314	107	79
14	66	34	115	64	58	210	943	705	604	279	102	76
15	61	34	108	65	58	192	920	631	626	262	95	75
16	53	36	91	62	62	184	568	568	645	267	91	73
17	50	56	95	62	58	177	408	523	595	279	90	72
18	47	44	258	60	59	163	331	541	719	344	90	71
19	46	41	374	58	58	151	292	528	862	259	90	70
20	45	38	242	50	55	138	314	478	1,090	231	87	70
21	44	37	239	50	70	126	349	492	1,200	216	85	69
22	43	65	449	55	104	119	298	586	967	207	87	66
23	42	34	464	55	104	108	264	523	835	197	123	67
24	42	34	318	60	101	102	239	532	695	194	100	65
25	42	34	236	60	100	100	239	690	622	192	91	65
26	40	32	190	60	95	101	259	655	650	177	87	64
27	40	31	160	60	90	101	259	645	695	172	84	64
28	38	31	138	60	88	101	245	645	760	165	83	62
29	38	30	124	60	-	102	226	536	775	154	81	62
30	38	30	110	60	-	112	213	460	675	141	87	65
31	38	-	101	58	-	149	-	492	-	132	100	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acre-feet
October	1,476	70	38	47.6	0.850	0.98	2,930
November	1,096	56	30	36.5	.652	.73	2,170
December	4,850	464	31	156	2.79	3.22	9,620
Calendar year 1936	81,053	1,020	30	221	3.95	53.80	160,800
January	1,972	91	50	63.6	1.14	1.31	3,910
February	1,936	104	55	69.1	1.23	1.28	3,840
March	4,708	225	100	152	2.71	3.12	9,340
April	8,507	943	119	284	5.07	5.66	16,870
May	16,458	765	319	531	9.48	10.93	32,640
June	22,652	1,200	568	755	13.5	15.06	44,930
July	9,499	631	132	306	5.46	6.30	18,840
August	3,131	124	81	101	1.80	2.08	6,210
September	2,457	190	62	81.9	1.46	1.63	4,870
Water year 1936-37	78,742	1,200	30	216	3.86	52.30	156,200

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 below 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 September 1937.

Average discharge.- 20 years, 102 second-feet.

Extremes.- Maximum discharge observed during year, 529 second-feet June 21 (gage height, 3.81 feet); minimum, 19 second-feet Dec. 1.
1911-24, 1930-37: Maximum discharge, 1,400 second-feet Dec. 22, 1933 (gage height, 5.9 feet); minimum, that of Dec. 1, 1936.

Remarks.- Records fair. Discharge Jan. 30 to Feb. 9, Sept. 28-30 were computed on basis of weather records and records for Clear Fork of Cowlitz River near Packwood. Shifting-control method used Dec. 23 to Apr. 15, June 2-20. No diversions. Natural regulation by Packwood Lake.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	32	22	20	38	25	30	51	66	172	333	76	64
2	32	22	20	36	25	36	50	76	235	282	70	58
3	31	22	20	36	25	39	48	126	311	253	69	55
4	42	23	20	39	25	38	48	200	314	248	69	56
5	46	23	23	39	25	39	48	200	281	233	72	113
6	42	23	46	36	25	42	46	176	271	200	74	108
7	38	22	53	35	25	42	45	159	276	184	75	84
8	36	22	53	34	25	41	41	147	306	184	74	70
9	34	22	49	32	25	40	43	139	298	189	71	60
10	32	22	42	32	27	39	45	143	276	184	84	55
11	32	22	38	32	30	39	45	143	250	184	94	51
12	30	21	34	31	34	40	46	139	235	178	91	50
13	30	21	39	33	31	45	71	149	233	168	82	49
14	38	21	44	34	30	47	106	182	250	156	78	47
15	40	21	42	38	29	47	133	191	273	147	67	47
16	37	21	39	36	32	46	120	184	295	144	59	46
17	34	23	42	37	36	46	104	172	292	162	56	45
18	32	23	50	37	40	45	92	163	303	228	57	43
19	30	22	59	35	36	43	86	159	360	194	57	42
20	28	22	56	33	34	42	91	151	417	166	56	41
21	27	22	56	32	39	40	102	147	511	144	54	39
22	26	21	74	30	42	42	96	161	503	133	47	37
23	25	21	115	30	40	40	88	161	437	129	51	35
24	24	20	104	30	38	38	79	159	349	131	54	33
25	24	20	82	30	35	36	75	182	282	133	62	32
26	24	20	68	30	34	36	73	198	262	125	58	32
27	23	20	58	30	31	34	73	202	268	120	55	32
28	23	20	53	28	30	34	71	202	300	116	50	30
29	23	20	48	27	-	34	68	189	358	108	48	30
30	22	20	44	25	-	38	66	165	352	98	51	35
31	23	-	41	25	-	45	-	155	-	86	63	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acre-feet
October	960	46	22	31.0	1.65	1.90	1,900
November	644	23	20	21.5	1.14	1.27	1,280
December	1,532	115	20	49.4	2.63	3.03	3,040
Calendar year 1936	32,265	493	20	88.2	4.69	63.96	63,990
January	1,020	39	25	32.9	1.75	2.02	2,020
February	873	42	25	31.2	1.66	1.73	1,730
March	1,243	47	30	40.1	2.13	2.46	2,470
April	2,148	133	41	71.6	3.81	4.25	4,260
May	4,988	202	66	161	8.56	9.87	9,890
June	9,275	511	172	309	16.4	18.30	18,400
July	5,340	333	86	172	9.15	10.55	10,590
August	2,024	94	47	65.3	3.47	4.00	4,010
September	1,519	113	30	50.6	2.69	3.00	3,010
Water year 1936-37	31,566	511	20	86.5	4.60	62.38	62,600

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 above suspension bridge to Tower Rock ranger station and 8 miles southeast of Randle.

Drainage area.- 323 square miles.

Records available.- October 1910 to February 1912, September 1929 to September 1937.

Extremes.- Maximum discharge during year, 11,400 second-feet Apr. 14 (gage height, 9.29 feet), from rating curve extended above 3,000 second-feet; minimum, 183 second-feet Dec. 30 (gage height, 3.04 feet).
1910-12, 1929-37: Maximum discharge, 20,000 second-feet Dec. 22, 1933 (gage height, 12.7 feet), from rating curve extended above 8,000 second-feet; minimum, that of Dec. 30, 1936.

Remarks.- Records fair. Shifting-control method used Oct. 1 to Dec. 14. Discharge for Sept. 27, 28 interpolated. No diversion or regulation.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	333	271	235	599	310	542	1,240	1,840	2,900	2,530	578	485
2	333	266	240	542	315	813	1,220	2,520	3,740	2,180	572	476
3	327	266	245	526	282	868	1,170	4,350	4,300	1,980	578	476
4	408	276	245	518	310	945	1,160	5,390	3,920	1,920	590	485
5	363	282	276	489	282	1,170	1,120	3,740	3,470	1,850	597	808
6	345	271	394	447	271	1,340	1,080	3,220	3,300	1,660	597	646
7	345	276	510	440	271	1,200	1,050	2,980	3,300	1,580	578	536
8	351	271	434	440	266	1,120	1,060	2,830	3,300	1,560	566	505
9	333	271	388	447	260	1,160	1,220	2,760	3,300	1,540	566	480
10	345	266	345	434	260	1,160	1,400	2,830	3,140	1,470	584	472
11	339	266	327	420	276	1,200	1,380	2,760	2,680	1,440	639	472
12	321	260	315	414	304	1,510	1,490	2,760	2,460	1,410	590	464
13	339	260	375	420	288	1,840	4,620	3,380	2,390	1,340	548	456
14	401	260	420	401	282	1,840	7,820	3,920	2,320	1,280	515	448
15	345	260	440	394	282	1,640	7,840	3,650	2,600	1,230	495	448
16	321	266	408	375	271	1,580	5,080	3,470	2,680	1,200	500	436
17	327	293	434	375	333	1,500	3,860	3,060	2,600	1,160	515	430
18	315	276	510	363	321	1,400	3,110	3,060	2,760	1,230	515	422
19	310	266	720	339	310	1,280	2,600	3,060	3,300	1,030	510	422
20	304	266	653	304	304	1,190	2,520	2,900	4,300	910	500	419
21	293	260	712	327	321	1,100	2,520	2,980	5,100	870	495	408
22	288	255	2,650	363	394	1,050	2,280	3,300	4,590	840	505	405
23	293	250	5,020	357	414	967	2,050	3,060	4,100	812	515	398
24	288	250	2,730	339	440	890	1,910	2,980	3,470	840	476	394
25	282	245	1,700	333	468	824	1,980	3,300	3,060	850	468	402
26	282	245	1,330	333	461	857	2,120	3,220	2,830	830	472	405
27	276	240	1,110	327	454	857	2,050	3,220	2,680	830	460	403
28	266	240	923	327	447	901	1,980	3,220	2,680	785	456	400
29	266	240	824	321	-	934	1,770	2,830	2,760	692	452	398
30	271	235	760	298	-	1,000	1,740	2,390	2,600	653	472	412
31	271	-	662	276	-	1,110	-	2,460	-	604	495	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acre-feet
October	9,881	408	266	319	0.988	1.14	19,600
November	7,849	293	235	262	.811	.90	15,570
December	26,335	5,020	235	850	2.63	3.03	52,230
Calendar year 1936	462,961	5,600	235	1,265	3.92	53.34	918,200
January	12,288	599	276	396	1.23	1.42	24,370
February	9,197	468	260	328	1.02	1.06	18,240
March	35,788	1,840	542	1,154	3.57	4.12	70,980
April	72,440	7,840	1,050	2,415	7.48	8.34	143,700
May	97,440	5,390	1,840	3,143	9.73	11.22	193,300
June	96,630	5,100	2,320	3,221	9.97	11.12	191,700
July	39,106	2,530	804	1,261	3.90	4.50	77,570
August	16,399	639	452	529	1.64	1.89	32,530
September	13,811	808	394	460	1.42	1.58	27,390
Water year 1936-37	437,164	7,840	235	1,198	3.71	50.32	867,200

Toutle River near Silver Lake, Wash.

Location.- Water-stage recorder, lat. 46°20', long. 122°44', in SE¼ sec. 19, T. 10 N., R. 1 E., under highway bridge half a mile below junction of North and South Forks and 5 miles northeast of Silver Lake. Zero of gage is approximately 407.3 feet above mean sea level (general adjustment of 1929), by plane-table survey.

Drainage area.- 472 square miles.

Records available.- October 1919 to December 1923, September 1929 to September 1937. September 1909 to August 1912 at site 2 miles downstream.

Average discharge.- 13 years (1909-11, 1919-21, 1922-23, 1929-37), 2,064 second-feet.

Extremes.- Maximum discharge during year, 17,400 second-feet Dec. 22 (gage height, 13.18 feet); minimum, 351 second-feet Dec. 1 (gage height, 1.87 feet).
1909-12, 1919-23, 1929-37: Maximum discharge, 35,600 second-feet Mar. 2, 1910; maximum gage height recorded, 22.7 feet Dec. 23, 1933; minimum, 240 second-feet Nov. 21, 1929 (gage height, 1.67 feet).

Remarks.- Records fair for October to December, good for January to September. Shifting-control method used Oct. 16 to Nov. 6, Dec. 22. No diversion or regulation.

Rating table, Dec. 23, 1936, to Sept. 30, 1937 (gage height, in feet, and discharge, in second-feet)

1.5	245	4.0	1,940	9.0	10,340
2.0	430	5.0	3,490	10.0	11,980
2.5	685	6.0	5,550	11.0	13,680
3.0	1,050	7.0	7,200	12.0	15,380
3.5	1,470	8.0	8,740	13.0	17,080

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	440	377	355	1,560	813	2,690	3,290	2,110	2,000	2,050	643	608
2	435	364	364	1,380	876	4,700	2,750	2,240	2,520	1,890	608	525
3	445	364	381	1,340	883	4,480	2,520	3,010	2,840	1,790	586	501
4	665	410	406	1,420	1,280	3,810	2,590	3,600	2,670	1,700	565	496
5	616	435	516	1,340	1,470	4,370	2,670	3,100	2,440	1,600	555	1,470
6	512	405	1,720	1,130	1,210	4,260	2,670	2,670	2,370	1,520	560	1,280
7	480	381	2,460	1,040	1,090	3,490	2,520	2,590	2,370	1,420	570	890
8	460	375	1,900	1,010	1,020	2,920	2,300	2,590	2,440	1,380	555	737
9	450	368	1,750	1,090	946	2,920	2,590	2,670	2,520	1,340	586	667
10	445	364	1,120	1,020	914	2,840	3,290	3,290	2,590	1,250	649	620
11	435	361	910	922	1,900	2,670	3,290	3,920	2,240	1,210	631	598
12	430	361	822	890	2,440	2,920	3,410	3,390	2,170	1,170	586	576
13	435	361	1,720	946	1,940	3,390	8,460	3,490	2,000	1,170	565	555
14	568	361	2,100	946	1,650	3,290	11,000	3,490	1,940	1,130	560	550
15	574	364	1,720	1,340	1,560	3,010	11,300	3,200	2,050	1,050	530	535
16	490	371	1,450	1,210	2,490	2,670	7,500	2,840	2,240	1,020	511	520
17	465	483	2,140	1,130	3,460	2,440	5,890	2,670	2,590	994	506	515
18	445	423	2,820	1,210	2,640	2,240	4,800	2,520	3,690	1,010	511	506
19	435	395	2,820	1,050	1,940	2,050	3,920	2,440	4,260	986	511	506
20	425	392	2,250	876	1,700	1,940	3,600	2,240	4,900	906	511	506
21	410	381	2,380	869	2,220	1,940	3,920	2,110	5,720	855	501	501
22	410	375	6,770	922	3,100	1,790	3,810	2,240	5,190	820	535	496
23	410	368	11,400	890	3,100	1,740	3,600	2,170	4,590	792	737	478
24	400	368	6,230	906	2,920	1,700	3,200	2,110	4,140	771	661	473
25	395	364	4,480	890	2,840	1,600	3,100	2,370	3,390	750	581	469
26	390	364	3,390	946	2,750	1,560	3,010	2,370	2,920	730	530	469
27	382	361	2,750	898	2,370	1,520	2,840	2,300	2,670	718	501	469
28	382	361	2,300	862	2,170	1,470	2,590	2,240	2,520	711	496	469
29	377	358	2,050	820	-	1,420	2,370	2,110	2,520	686	492	469
30	372	355	1,890	771	-	1,600	2,240	1,940	2,240	655	525	559
31	372	-	1,700	730	-	2,370	-	1,840	-	655	667	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acre-feet
October	13,950	665	372	450	0.953	1.10	27,670
November	11,370	483	355	379	.803	.90	22,550
December	75,064	11,400	355	2,421	5.13	5.91	148,900
Calendar year 1936	677,990	12,000	354	1,852	3.92	53.43	1,345,000
January	32,354	1,560	730	1,044	2.21	2.55	64,170
February	53,692	3,460	813	1,918	4.06	4.23	106,500
March	81,810	4,700	1,420	2,639	5.59	6.44	162,300
April	121,040	11,300	2,240	4,035	8.55	9.54	240,100
May	81,870	3,920	1,840	2,641	5.60	6.46	162,400
June	88,740	5,720	1,940	2,958	6.27	7.00	176,000
July	34,728	2,050	655	1,120	2.37	2.73	68,880
August	17,525	737	492	565	1.20	1.38	34,760
September	18,013	1,470	469	600	1.27	1.42	35,730
Water year 1936-37	630,156	11,400	355	1,726	3.66	49.66	1,250,000

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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 above crest of Youngs River Falls, 2½ miles southwest of Olney, and 9 miles southeast of Astoria. Zero of gage is 62.64 feet above mean sea level (general adjustment of 1929).

Drainage area.- 32 square miles.

Records available.- January 1934 to September 1937. March 1916 to September 1917 (gage heights only), at site 3 miles upstream August 1927 to December 1933, at site ½ mile upstream.

Extremes.- Maximum discharge during year, 2,790 second-feet Feb. 17 (gage height, 10.60 feet); minimum, 6.6 second-feet Nov. 2, 3, (gage height, 0.78 foot).
1927-37: Maximum discharge, about 6,300 second-feet Nov. 24, 1927 (gage height, 6.52 feet, former site and datum); minimum, 4 second-feet Aug. 31 to Sept. 2, 1931.

Remarks.- Records excellent. No diversion or regulation above station. Water-stage recorder inspected by city engineer of Astoria.

Rating table, water year 1936-37 (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Dec. 1, 2)

0.8	6.9	4.0	230
1.0	9.8	5.0	450
1.4	17	6.0	720
1.8	28	7.0	1,050
2.1	39	8.0	1,450
2.5	59	10.0	2,450
3.0	97	12.0	3,640

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	8.0	7.2	9.6	101	139	364	202	95	35	55	12	22
2	8.2	6.9	11	89	204	588	166	87	33	49	12	16
3	8.4	7.2	15	83	248	438	166	82	31	44	12	14
4	11	8.6	16	130	663	330	209	78	29	44	11	13
5	10	8.4	32	128	562	287	267	79	27	40	11	16
6	9.0	8.4	135	99	400	226	308	66	26	36	11	19
7	8.3	8.0	223	86	287	176	248	65	26	34	12	16
8	8.0	7.5	274	81	230	154	190	107	26	31	11	13
9	7.7	7.2	197	81	195	192	168	111	26	29	14	13
10	7.2	7.0	104	73	182	148	287	306	27	28	15	12
11	7.0	7.0	80	65	1,280	134	258	375	25	27	14	11
12	7.0	7.0	67	61	810	126	491	230	23	28	13	11
13	8.0	6.9	194	82	500	120	1,290	170	22	28	13	10
14	13	6.9	160	105	341	108	1,600	138	21	27	13	9.6
15	12	6.9	125	690	319	97	935	116	21	26	11	8.9
16	10	7.6	125	375	690	90	615	103	23	24	11	8.9
17	8.8	14	474	364	1,700	85	425	93	26	22	10	9.0
18	8.2	12	624	412	840	80	308	82	80	21	9.6	9.2
19	7.7	9.6	585	287	512	79	239	75	83	20	9.5	9.5
20	7.6	8.6	308	209	400	82	217	69	122	18	9.4	9.6
21	7.3	8.3	319	164	735	88	267	63	109	17	9.2	9.2
22	7.2	8.2	1,340	138	970	78	287	59	90	17	12	8.6
23	7.2	7.9	1,010	150	600	77	248	54	363	16	26	8.6
24	7.2	7.5	550	184	438	82	210	50	308	15	21	8.4
25	7.2	7.2	375	210	330	74	178	48	174	15	18	8.2
26	7.2	7.0	308	298	308	70	163	46	125	15	15	8.2
27	7.2	6.9	219	287	239	66	138	43	100	14	12	8.2
28	7.2	6.9	168	239	202	63	127	42	82	14	11	8.2
29	7.0	6.9	149	184	-	60	115	47	71	13	11	8.6
30	7.0	7.0	142	149	-	82	103	43	63	13	26	128
31	7.2	-	118	129	-	239	-	38	-	13	35	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acre-feet
October	254.0	13	7.0	8.19	0.256	0.30	504
November	236.7	14	6.9	7.89	.247	.28	469
December	8,456.6	1,340	9.6	273	8.53	9.83	16,770
Calendar year 1936	56,073.1	2,400	6.9	153	4.78	65.23	111,2000
January	5,733	690	61	185	5.78	6.66	11,370
February	14,324	1,700	139	512	16.0	16.66	28,410
March	4,883	588	60	158	4.94	5.70	9,690
April	10,425	1,600	103	348	10.9	12.16	20,680
May	3,060	375	38	98.7	3.08	3.55	6,070
June	2,217	363	21	73.9	2.31	2.58	4,400
July	793	55	13	25.6	.800	.92	1,570
August	430.7	35	9.2	13.9	.434	.50	854
September	454.9	128	8.2	15.2	.475	.53	902
Water year 1936-37	51,267.9	1,700	6.9	140	4.38	59.67	101,700

WILSON RIVER BASIN

Wilson River near Tillamook, Oreg.

Location.- Staff gage, lat. 45°29', long. 123°43', in NW¼ sec. 18, T. 1 S., R. 8 W., 1 mile above North Fork and 7 miles east of Tillamook.

Drainage area.- 162 square miles.

Records available.- July 1931 to September 1937. December 1914 to November 1916 (incomplete), at site three-quarters of a mile downstream.

Extremes.- Maximum discharge observed during year, 16,600 second-feet Dec. 22 (gage height, 13.20 feet); minimum discharge observed, 67 second-feet Nov. 12-15. 1914-16, 1931-37: Maximum discharge, 30,000 second-feet Dec. 21, 1933 (gage height, 19.28 feet); minimum, 62 second-feet Oct. 6, 9, 10, 1932 (gage height, 0.36 foot).

Remarks.- Records fair. No diversion or regulation above gage. Gage read once daily.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	90	74	90	875	640	2,860	2,760	*800	450	*530	170	*210
2	90	74	94	805	705	6,210	*1,900	*770	425	*500	177	*180
3	*95	74	98	770	875	*5,600	*1,600	*760	400	*470	170	*160
4	*130	82	111	980	1,300	*4,300	*1,500	*740	378	450	164	152
5	*112	82	235	840	1,390	*4,000	1,550	*710	315	425	170	146
6	*100	86	805	805	1,020	*3,500	*1,600	*680	295	425	164	135
7	*94	86	1,750	*700	910	2,550	*1,700	*660	295	400	158	135
8	90	82	2,350	*640	875	2,550	*1,600	*700	275	400	158	135
9	90	74	2,050	*600	875	2,440	*1,500	*1,000	275	400	*165	*130
10	90	74	1,750	*580	840	2,340	1,550	*1,500	275	335	*180	*126
11	90	71	1,220	*540	3,440	2,240	1,740	3,190	295	335	170	*123
12	94	67	640	*500	*3,700	2,140	2,240	1,640	275	315	158	*121
13	94	67	1,570	*520	*3,200	2,140	8,110	1,370	275	315	146	*118
14	98	67	1,480	545	*2,300	1,940	10,700	1,200	275	295	140	*115
15	94	67	1,140	2,780	*2,200	1,740	9,210	*1,030	275	275	135	*112
16	90	92	1,140	*2,100	3,910	*1,600	5,170	*900	*300	275	135	108
17	86	155	2,890	1,480	*5,600	*1,340	3,750	*810	*500	275	135	105
18	86	116	4,510	1,300	*4,600	*1,200	*2,700	*760	*1,000	275	135	108
19	86	*110	3,330	1,140	3,080	*1,140	2,040	712	1,370	258	135	110
20	86	*105	2,150	1,140	3,410	*1,090	1,740	712	1,370	258	135	105
21	86	*100	2,150	910	3,860	1,040	*1,600	680	1,370	240	130	105
22	82	*95	8,310	805	5,420	1,040	*1,500	650	*1,280	222	*170	100
23	82	*92	9,580	*850	3,980	1,000	*1,400	620	*1,400	215	*290	95
24	78	*91	4,750	*900	3,750	1,000	*1,300	620	*1,180	205	*250	95
25	78	90	3,000	*950	3,410	960	*1,200	620	*1,000	205	*190	95
26	78	90	2,350	*1,050	3,190	960	*1,100	620	*860	200	*160	95
27	74	86	1,750	*960	3,080	960	*1,030	590	*780	191	*146	95
28	74	86	1,480	*870	2,860	922	*960	560	*700	191	*142	95
29	74	90	1,300	*800	-	885	*900	532	*640	184	*140	100
30	74	90	1,060	*730	-	885	*850	532	*580	177	*230	105
31	74	-	980	*670	-	2,550	-	478	-	170	*300	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acre-feet
October	2,739	130	74	88.4	0.546	0.63	5,430
November	2,615	155	67	87.2	.538	.60	5,190
December	66,113	9,580	90	2,133	13.2	15.22	131,100
Calendar year 1936	401,062	14,900	67	1,096	6.77	92.04	795,500
January	29,135	2,780	500	940	5.80	6.69	57,790
February	74,420	5,600	640	2,658	16.4	17.08	147,600
March	65,122	6,210	885	2,101	13.0	14.99	129,200
April	76,500	10,700	850	2,550	15.7	17.52	151,700
May	27,146	3,190	478	876	5.41	6.24	53,840
June	19,108	1,400	275	637	3.93	4.38	37,900
July	9,411	530	170	304	1.88	2.17	18,670
August	5,248	300	130	169	1.04	1.20	10,410
September	3,614	210	95	120	.741	.83	7,170
Water year 1936-37	381,171	10,700	67	1,044	6.44	87.58	756,000

*Computed on basis of records for Youngs River near Astoria and Trask River near Tillamook.

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 above Gold Creek and 6 miles east of Tillamook.

Drainage area.- 152 square miles.

Records available.- July 1931 to September 1937.

Extremes.- Maximum discharge during year, 10,500 second-feet Dec. 22 (gage height, 8.64 feet); minimum, 69 second-feet Nov. 26 to Dec. 1 (gage height, 0.46 foot).
1931-37: Maximum discharge, 20,000 second-feet Dec. 22, 1933 (gage height, 13.00 feet); minimum, 64 second-feet Oct. 3-9, 1932 (gage height, 0.50 foot).
Maximum stage known, about 17 feet, probably occurred during floods of November 1921, or Mar. 31, 1931 (discharge about 30,000 second-feet).

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

Rating tables, water year 1936-37 (gage height, in feet, and discharge, in second-feet)

Oct. 1 to Dec. 21		Dec. 22 to Sept. 30			
0.5	75	0.5	74	4.0	2,550
.7	110	1.0	210	5.0	4,030
1.0	190	1.5	410	6.0	5,700
1.3	295	2.0	650	7.0	7,480
1.6	425	2.5	955	8.0	9,350
2.0	630	3.0	1,380	9.0	11,300
2.5	940				
3.0	1,380				
3.5	1,920				
4.0	2,550				

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	87	81	70	732	640	2,960	1,540	694	338	473	175	175
2	86	78	75	666	656	4,850	1,280	678	329	446	166	154
3	87	78	87	630	683	4,030	1,190	678	320	419	160	140
4	118	82	106	790	1,150	3,030	1,330	656	304	401	154	140
5	106	82	422	760	1,190	3,100	1,480	615	296	378	151	145
6	92	82	902	630	992	2,890	1,480	580	284	356	148	137
7	87	81	1,640	585	885	2,290	1,540	575	276	342	151	129
8	87	76	1,400	580	790	1,920	1,380	630	270	329	145	126
9	84	76	1,480	565	732	2,160	1,280	605	266	312	160	123
10	82	75	880	530	705	2,040	1,540	1,080	280	304	169	121
11	81	75	658	496	2,160	1,810	1,590	1,640	280	292	160	118
12	81	75	540	478	3,030	1,760	1,990	1,150	266	288	145	116
13	84	75	968	560	2,220	1,760	5,700	955	248	276	145	113
14	100	74	1,020	600	1,760	1,590	6,950	852	245	270	145	108
15	100	72	817	2,500	1,700	1,330	5,870	760	245	262	137	106
16	87	84	823	1,700	2,890	1,190	3,870	705	262	256	134	104
17	84	120	1,800	1,380	4,950	1,070	2,750	678	316	252	132	101
18	82	88	2,890	1,330	4,320	992	2,100	620	839	245	129	99
19	82	82	2,100	1,110	2,680	920	1,700	580	885	238	126	108
20	81	80	1,430	920	2,100	885	1,430	550	1,240	231	123	104
21	81	76	1,760	820	2,750	852	1,430	520	1,190	220	123	94
22	80	75	5,760	790	4,350	820	1,380	496	992	214	134	94
23	80	72	7,480	790	3,480	790	1,240	473	1,110	206	256	94
24	80	70	3,950	820	2,750	790	1,150	455	955	203	214	92
25	80	70	2,550	852	2,360	760	1,030	442	820	196	154	90
26	80	69	1,980	920	2,100	732	1,030	428	732	186	140	90
27	78	69	1,540	852	1,920	700	920	406	650	178	132	90
28	78	69	1,240	790	1,810	683	852	392	585	175	129	90
29	78	69	1,070	732	-	666	790	388	540	175	123	92
30	78	69	955	661	-	790	732	365	505	172	210	200
31	80	-	820	625	-	1,480	-	352	-	172	259	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off: Inches	Run-off: Acre-feet
October	2,651	118	78	85.5	0.562	0.65	5,260
November	2,324	120	69	77.5	.510	.57	4,610
December	49,213	7,480	70	1,588	10.4	11.99	97,610
Calendar year 1936	324,226	11,000	69	886	5.83	79.19	643,100
January	26,194	2,500	478	845	5.56	6.41	51,960
February	57,753	4,950	640	2,063	13.6	14.16	114,600
March	51,640	4,850	666	1,666	11.0	12.68	102,400
April	58,544	6,950	732	1,951	12.8	14.28	116,100
May	19,998	1,640	352	645	4.24	4.89	39,670
June	15,868	1,240	245	529	3.48	3.88	31,470
July	8,467	473	172	273	1.80	2.08	16,790
August	4,829	259	123	156	1.03	1.19	9,580
September	3,493	200	90	116	.763	.85	6,930
Water year 1936-37	300,974	7,480	69	825	5.43	73.63	597,000

Nestucca River near McMinnville, Oreg.

Location.- Water-stage recorder, lat. 45°19', long. 123°28', in SW¼ sec. 8, T. 3 S., R. 6 W., half a mile below dam at outlet of Meadow Lake and 13 miles northwest of McMinnville.

Drainage area.- 12 square miles.

Records available.- October 1928 to September 1937.

Extremes.- Maximum discharge during year, 672 second-feet Apr. 14 (gage height, 3.73 feet); minimum, 2.0 second-feet Oct. 1, 2, Oct. 31 to Nov. 4.
1928-37: Maximum discharge, about 1,480 second-feet Dec. 22, 1933 (gage height, 5.10 feet), from rating curve extended above 800 second-feet; minimum, 1.0 second-foot Oct. 11, 1929.

Remarks.- Records good except those for period of missing gage heights, Jan. 7 to Mar. 1, which were computed on basis of recorded range in stage and records for Haskins Creek near McMinnville and Trask River near Tillamook and are fair. No diversions above gage. Flow regulated to a small extent by dam at outlet of Meadow Lake.

Rating table, water year 1936-37 (gage height, in feet, and discharge, in second-feet)

0.4	2.0	2.0	92
.6	4.4	2.5	182
.8	10	3.0	310
1.0	19	3.5	545
1.3	35	4.0	820
1.6	54		

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2.0	2.0	2.4	22	26	140	122	45	18	19	5.4	5.1
2	2.0	2.0	2.4	19	27	204	105	43	18	18	5.4	5.1
3	2.1	2.0	2.6	18	29	193	92	42	16	17	5.1	4.9
4	2.3	2.0	2.8	20	50	141	99	41	16	16	4.9	4.4
5	2.3	2.1	3.4	25	60	139	109	39	14	15	4.9	4.4
6	2.4	2.2	5.4	24	55	141	105	37	14	14	4.6	4.3
7	2.4	2.3	12	22	50	117	95	37	13	13	4.6	4.1
8	2.4	2.4	16	20	42	96	84	42	13	13	4.4	4.1
9	2.3	2.4	22	19	37	114	78	41	13	12	4.6	4.0
10	2.3	2.4	18	18	35	117	95	54	13	11	4.6	4.0
11	2.2	2.5	14	17	60	105	98	84	14	10	4.9	4.0
12	2.1	2.5	12	16	100	99	116	66	14	10	4.9	3.8
13	2.2	2.5	12	17	110	103	420	56	14	9.4	4.6	3.8
14	2.2	2.5	15	20	70	103	562	49	13	9.4	4.6	3.7
15	2.3	2.5	14	60	60	93	425	45	12	9.0	4.4	3.6
16	2.3	2.7	13	75	100	85	244	41	13	8.7	4.3	3.4
17	2.3	2.8	22	60	170	80	167	39	16	8.7	4.1	3.4
18	2.2	2.9	48	40	190	75	126	36	26	8.1	4.1	3.3
19	2.2	3.0	43	35	130	70	100	34	39	7.8	4.0	3.4
20	2.2	3.0	33	32	100	68	85	32	50	7.4	3.8	3.4
21	2.1	3.0	37	30	130	64	81	29	51	7.1	3.8	3.4
22	2.1	3.0	77	29	160	60	79	28	46	6.8	3.7	3.3
23	2.1	2.9	174	28	180	60	70	26	44	6.6	4.0	3.3
24	2.1	2.8	99	28	140	60	64	26	39	6.3	4.3	3.1
25	2.1	2.7	64	30	110	56	60	24	34	6.1	4.3	3.1
26	2.1	2.6	51	33	100	55	64	24	30	5.8	4.1	3.1
27	2.1	2.5	42	33	94	53	60	22	27	5.6	4.0	3.3
28	2.1	2.5	35	30	90	53	55	22	24	5.4	3.8	3.1
29	2.1	2.4	30	28	-	52	50	21	22	5.4	3.8	3.1
30	2.1	2.4	28	26	-	60	47	20	20	5.4	4.1	3.8
31	2.0	-	24	25	-	100	-	19	-	5.4	4.9	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off: Inches	Run-off: Acre-feet
October	67.7	2.4	2.0	2.18	0.182	0.21	134
November	75.5	3.0	2.0	2.52	.210	.23	150
December	974.0	174	2.4	31.4	2.62	3.02	1,930
Calendar year 1936	15,221.8	954	2.0	41.6	3.47	47.23	30,190
January	899	75	16	29.0	2.42	2.79	1,780
February	2,505	190	26	89.5	7.46	7.77	4,970
March	2,956	204	52	95.4	7.95	9.16	5,860
April	3,957	562	47	132	11.0	12.27	7,850
May	1,164	84	19	37.5	3.12	3.60	2,310
June	696	51	12	23.2	1.93	2.15	1,380
July	302.4	19	5.4	9.75	.812	.94	600
August	137.0	5.4	3.7	4.42	.368	.42	272
September	112.8	5.1	3.1	3.76	.313	.35	224
Water year 1936-37	13,846.4	562	2.0	37.9	3.16	42.91	27,460

Siletz River at Siletz, Oreg.

Location.- Wire-weight gage, lat. 44°43', long. 123°56', in SW¼ sec. 9, T. 10 S., R. 10 W., at highway bridge three-quarters of a mile southwest of Siletz.

Drainage area.- 204 square miles.

Records available.- November 1905 to May 1912, January 1924 to September 1937.

Average discharge.- 17 years (1906-11, 1925-37), 1,685 second-feet.

Extremes.- Maximum discharge observed during year, 16,100 second-feet Apr. 14 (gage height, 15.39 feet); minimum, 68 second-feet Nov. 29 to Dec. 1 (gage height, 0.81 foot).
1905-12, 1924-37: Maximum discharge, 34,600 second-feet Nov. 22, 1909; minimum, 51 second-feet Dec. 6, 7, 1929.
Maximum discharge known, 40,800 second-feet Nov. 20, 1921 (gage height, 31.6 feet at present site.

Remarks.- Records fair. Discharge for Apr. 12 computed on basis of records for station on Trask River near Tillamook. No diversions for irrigation above station. Flow regulated occasionally at low and medium stages by operation of logging pond at Valsetz. Gage read once daily.

Rating table, water year 1936-37 (gage height, in feet, and discharge, in second-feet)

0.6	44	4.0	1,470	12.0	11,100
1.0	100	5.0	2,230	14.0	14,000
1.5	230	6.0	3,160	16.0	17,000
2.0	410	8.0	5,560		
3.0	880	10.0	8,300		

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	90	76	68	1,090	1,400	3,260	3,060	830	478	730	184	195
2	90	76	69	980	1,750	6,620	2,580	830	455	680	181	149
3	89	75	78	930	1,910	4,910	2,310	780	455	635	173	139
4	94	76	132	930	2,860	3,700	2,760	780	432	590	168	134
5	127	87	230	1,270	3,700	3,160	2,580	730	410	568	165	184
6	102	90	930	1,090	3,060	3,060	2,580	730	410	545	162	195
7	96	89	2,400	930	2,580	2,600	2,490	730	390	522	165	165
8	92	81	1,210	930	1,910	2,200	2,070	880	370	500	162	151
9	90	76	1,750	880	1,750	2,400	2,070	930	370	478	170	129
10	89	74	1,470	880	1,610	1,990	2,400	1,030	370	432	195	115
11	85	72	680	830	1,910	1,910	2,400	2,960	370	410	173	107
12	85	72	500	730	7,320	1,680	3,600	1,910	370	390	170	104
13	83	70	730	730	4,530	1,610	13,000	1,610	350	390	165	100
14	87	72	1,030	880	3,260	1,610	16,100	1,400	330	370	157	94
15	104	70	930	4,780	2,760	1,540	13,100	1,330	330	330	149	98
16	96	70	880	3,810	5,950	1,400	7,600	1,210	432	312	141	100
17	90	139	2,150	2,960	5,560	1,210	5,040	1,030	930	330	136	94
18	87	144	4,050	2,760	9,140	1,090	3,370	980	2,860	312	134	89
19	85	89	3,590	2,310	5,300	1,030	2,580	830	2,960	295	129	90
20	81	80	3,260	1,990	4,780	1,270	2,150	780	6,080	278	127	96
21	80	78	3,060	1,680	4,290	1,540	1,830	780	5,170	260	124	98
22	81	75	8,000	1,610	3,700	1,470	1,750	680	3,260	260	144	94
23	80	72	11,500	1,470	3,370	1,400	1,470	680	2,960	245	165	96
24	78	72	6,210	1,270	2,860	1,610	1,400	680	2,230	230	179	94
25	78	70	3,480	1,210	2,580	1,470	1,270	780	1,990	230	139	94
26	76	70	2,400	1,990	2,490	1,400	1,210	635	1,470	230	134	92
27	76	69	2,150	1,910	2,310	1,330	1,090	590	1,270	216	127	90
28	75	69	1,680	1,750	2,230	1,270	1,030	568	980	201	122	89
29	75	68	1,610	1,610	-	1,210	980	545	880	195	120	85
30	76	68	2,150	1,470	-	1,210	930	522	830	190	124	90
31	78	-	1,210	1,400	-	2,310	-	500	-	190	350	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off Inches	Run-off Acre-feet
October	2,695	127	75	86.9	0.426	0.49	5,350
November	2,389	144	68	79.6	.390	.44	4,740
December	69,587	11,500	68	2,245	11.0	12.68	138,000
Calendar year 1936	451,577	19,600	68	1,234	6.05	82.36	895,700
January	49,060	4,780	730	1,583	7.76	8.95	97,310
February	96,870	9,140	1,400	3,460	17.0	17.70	192,100
March	64,470	6,620	1,030	2,080	10.2	11.76	127,900
April	106,800	16,100	930	3,560	17.5	19.52	211,900
May	29,250	2,960	500	944	4.63	5.34	58,020
June	40,192	6,080	330	1,340	6.57	7.33	79,720
July	11,544	730	190	372	1.82	2.10	22,900
August	4,934	350	120	159	.779	.90	9,790
September	3,450	195	85	115	.564	.63	6,840
Water year 1936-37	481,241	16,100	68	1,318	6.46	87.84	954,500

Siuslaw River above Wildcat Creek, at Austa, Oreg.

Location.- Staff gage, lat. 44°00', long. 123°39', in SW¼ sec. 16, T. 18 S., R. 8 W., a quarter of a mile above Wildcat Creek and Austa.

Drainage area.- 267 square miles.

Records available.- September 1931 to September 1937.

Extremes.- Maximum discharge observed during year, 7,660 second-feet Apr. 14 (gage height, 11.20 feet); minimum, 28 second-feet Oct. 19-27 (gage height, 1.16 feet).
1931-37: Maximum discharge observed, 12,900 second-feet Jan. 12, 1936 (gage height, 15.5 feet); minimum. 22 second-feet Sept. 4, 5, 1931, Sept. 22, 1934.

Remarks.- Records good except those for period of ice effect, Jan. 8-13, and periods of missing gage heights, Feb. 1, 7, 23, Sept. 19, which were computed on basis of records for Lake Creek at Triangle Lake and are fair. No diversion or regulation above gage. Gage read once daily, oftener during periods of high water.

Rating table, water year 1936-37 except period of ice effect (gage height, in feet, and discharge, in second-feet)

1.2	31	4.0	1,200
1.4	49	4.5	1,550
1.6	80	5.0	1,920
1.8	121	6.0	2,720
2.0	177	8.0	4,450
2.5	375	10.0	6,390
3.0	610	12.0	8,540
3.5	890		

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	31	31	30	191	1,200	2,080	890	585	250	420	117	84
2	31	31	30	159	2,320	3,820	1,070	535	242	398	117	84
3	30	30	30	137	3,120	3,120	1,200	510	227	352	117	77
4	33	31	31	129	5,490	2,400	1,480	488	220	330	112	73
5	34	31	39	235	5,390	2,080	1,620	465	212	330	108	70
6	34	31	52	250	3,280	1,760	1,620	442	205	290	103	70
7	33	32	147	153	2,200	1,480	1,550	420	202	290	99	66
8	33	33	117	130	1,620	1,270	1,410	442	198	270	99	63
9	31	33	131	120	1,690	1,270	1,340	420	208	250	99	63
10	31	33	108	110	1,480	1,340	1,620	465	330	242	99	65
11	31	33	80	105	1,760	1,200	1,920	1,130	398	235	95	63
12	31	33	60	100	4,450	1,200	1,760	1,070	420	220	95	63
13	31	33	52	100	3,370	1,130	5,690	950	420	212	91	62
14	30	31	47	205	2,800	1,070	7,660	720	420	205	84	62
15	30	30	43	1,340	2,400	950	7,230	610	330	191	82	57
16	30	31	43	1,340	3,730	890	5,190	535	398	191	80	55
17	30	33	52	1,010	4,900	830	3,550	510	465	191	80	53
18	30	33	121	1,340	5,790	775	2,400	465	610	177	80	52
19	28	33	99	1,270	4,180	720	1,920	442	1,070	177	78	62
20	28	33	80	890	3,370	890	1,620	420	2,720	171	77	80
21	28	33	97	560	2,400	1,270	1,340	375	2,480	165	77	70
22	28	33	153	442	2,240	1,200	1,200	352	1,840	159	77	68
23	28	33	585	352	2,100	1,130	1,070	330	1,550	147	84	66
24	28	32	665	352	2,080	1,130	950	330	1,200	147	95	62
25	28	31	510	310	2,080	1,070	890	375	950	142	84	57
26	28	31	352	535	2,000	950	830	330	775	142	82	53
27	28	31	442	950	1,840	890	775	330	665	137	73	53
28	30	31	375	1,070	1,620	830	720	310	560	131	66	53
29	30	30	290	1,010	-	830	665	290	510	126	66	52
30	30	30	242	830	-	720	610	270	465	121	68	52
31	30	-	212	665	-	692	-	250	-	121	80	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acre-feet
October	936	34	28	30.2	0.113	0.13	1,860
November	954	33	30	31.8	.119	.13	1,890
December	5,315	665	30	171	.640	.74	10,540
Calendar year 1936	212,573	11,000	28	581	2.18	29.64	421,600
January	16,390	1,340	100	529	1.98	2.28	32,510
February	80,900	5,790	1,200	2,889	10.8	11.25	160,500
March	40,897	3,820	692	1,322	4.95	5.71	81,300
April	61,790	7,660	610	2,060	7.72	8.61	122,600
May	15,166	1,130	250	489	1.83	2.11	30,080
June	20,540	2,720	198	685	2.57	2.87	40,740
July	6,680	420	121	215	.805	.93	13,250
August	2,764	117	66	89.2	.334	.39	5,480
September	1,910	84	52	63.7	.239	.27	3,790
Water year 1936-37	254,332	7,660	28	697	2.61	35.42	504,500

Lake Creek at Triangle Lake, Oreg.

Location.- Water-stage recorder, lat. 44°10', long. 123°34', in SW¼ sec. 20 (revised) T. 16 S., R. 7 W., 500 feet below outlet of Triangle Lake. Zero of gage is 672.41 feet above mean sea level (general adjustment of 1929).

Drainage area.- 50 square miles.

Records available.- August 1931 to September 1937.

Extremes.- Maximum discharge during year, 2,210 second-feet Apr. 14 (gage height, 6.03 feet); minimum, 8 second-feet Oct. 19-26 (gage height, 0.52 foot).
1931-37: Maximum discharge, 3,960 second-feet Dec. 22, 1934, and Jan. 13, 1936 (gage height, 8.1 feet); minimum, 7 second-feet Sept. 12, 13, 1935 (gage height, 0.47 foot).

Remarks.- Records good except those for period of doubtful stage-discharge relation, Feb. 12 to Apr. 14, and periods of missing gage heights Apr. 14-28, Aug. 1, 2, which were computed on basis of records for Siuslaw River above Wildcat Creek, at Austa and are fair. No diversion above gage. Flow regulated only by natural storage in Triangle Lake.

Rating table, water year 1936-37 (gage height, in feet, and discharge, in second-feet)

0.4	6.0	2.0	172
.6	10.5	2.5	304
.8	19	3.0	475
1.0	33	3.5	695
1.2	50	4.0	950
1.4	70	5.0	1,530
1.7	114	6.0	2,210

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	9	9	10	104	174	600	304	181	71	116	34	25
2	9	9	10	90	186	950	345	170	68	109	33	25
3	9	9	10	78	234	1,110	364	159	66	103	32	25
4	10	9	10	76	320	975	377	155	62	96	32	24
5	10	9	13	94	515	820	412	147	60	92	31	23
6	10	10	18	103	578	745	445	139	54	86	30	22
7	10	10	29	92	495	695	426	135	54	79	30	22
8	10	10	44	80	391	622	391	137	54	74	29	22
9	10	9	48	74	329	600	374	137	57	70	29	21
10	10	9	48	70	295	600	364	147	63	67	28	20
11	10	9	45	64	335	600	430	220	67	63	28	20
12	10	9	39	59	695	555	475	287	66	61	28	20
13	10	9	35	58	1,000	535	970	264	62	59	27	19
14	10	9	32	64	870	515	1,500	228	60	57	27	18
15	9	9	30	153	670	475	2,000	195	60	54	25	18
16	9	9	30	394	745	437	1,700	172	64	53	24	18
17	9	10	32	377	1,080	408	1,000	159	70	52	23	18
18	9	10	39	338	1,530	377	680	145	88	50	23	18
19	8	10	48	341	1,350	361	580	135	145	49	22	18
20	8	11	48	284	922	354	500	126	298	47	22	18
21	8	11	50	223	695	364	430	117	452	46	22	18
22	8	11	64	179	578	370	380	111	471	45	22	18
23	8	11	139	155	535	370	345	103	405	44	25	17
24	8	10	284	149	515	374	315	100	320	43	25	17
25	8	10	275	145	535	377	285	101	253	42	25	16
26	8	10	220	172	555	364	260	100	205	39	25	16
27	9	10	198	218	555	351	240	94	174	39	23	16
28	9	10	179	225	515	332	225	88	151	37	22	16
29	9	10	153	205	-	304	210	83	137	36	22	16
30	9	10	137	181	-	287	195	79	126	35	22	17
31	9	-	119	172	-	284	-	75	-	35	23	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off Inches	Run-off Acre-feet
October	282	10	8	9.1	0.182	0.21	559
November	291	11	9	9.7	.194	.22	577
December	2,436	284	10	78.6	1.57	1.81	4,830
Calendar year 1936	58,977	3,510	8	161	3.22	43.84	117,000
January	5,017	394	58	162	3.24	3.74	9,950
February	17,197	1,530	174	614	12.3	12.81	34,110
March	16,111	1,110	284	520	10.4	11.99	31,960
April	16,542	2,000	195	551	11.0	12.27	32,810
May	4,489	287	75	145	2.90	3.34	8,900
June	4,283	471	54	143	2.86	3.19	8,500
July	1,878	116	35	60.6	1.21	1.40	3,720
August	813	34	22	26.2	.524	.60	1,610
September	581	25	16	19.4	.388	.43	1,150
Water year 1936-37	69,920	2,000	8	192	3.84	52.01	138,700

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. Zero of gage is approximately 95 feet above mean sea level (Geological Survey river profile).

Drainage area.- 3,680 square miles.

Records available.- October 1905 to September 1937 (prior to November 1908, incomplete).

Average discharge.- 32 years, 7,034 second-feet.

Extremes.- Maximum discharge observed during year, 94,000 second-feet Apr. 14 (gage height, 26.6 feet); minimum discharge observed, 738 second-feet (regulated at Winchester) Oct. 22 (gage height, 0.96 foot).

1905-1937: Maximum discharge, 172,000 second-feet Feb. 21, 1927 (gage height, 41.0 feet, from floodmark); minimum discharge observed, 640 second-feet July 18, 1926 (gage height, 0.71 foot).

A flood in 1861 reached a stage of about 45.5 feet.

Remarks.- Records good except those for July 26-30, Sept. 15-18, which are fair. Some diversions for irrigation in South Umpqua River Basin, but low-water flow probably only slightly affected. Slight regulation by gates and racks of fish hatchery at Diamond Lake and power plant at Winchester does not ordinarily affect discharge at this station. Gage read twice daily.

Rating table, water year 1936-37 (gage height, in feet, and discharge, in second-feet)

1.0	770	5.0	2,130	15.0	39,700
1.5	1,220	6.0	8,300	17.0	48,400
2.0	1,730	7.0	10,900	19.0	57,300
2.5	2,300	9.0	17,000	21.0	66,600
3.0	2,930	11.0	23,800	23.0	76,100
4.0	4,340	13.0	31,500	26.0	91,000

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	895	850	834	1,520	7,000	9,300	12,400	6,530	4,840	3,740	1,370	1,050
2	895	850	834	1,420	20,000	22,800	22,000	7,160	4,670	3,460	1,320	1,130
3	886	886	834	1,270	16,700	25,300	19,000	8,790	4,670	3,190	1,320	1,070
4	886	886	850	1,180	18,600	18,000	15,400	10,400	4,840	3,060	1,270	1,050
5	886	886	850	1,220	22,800	18,000	16,100	10,100	4,670	2,860	1,270	1,040
6	886	904	850	1,370	15,400	20,600	16,100	9,300	4,500	2,800	1,220	1,030
7	877	904	1,060	1,420	13,000	18,000	14,200	8,540	4,180	2,540	1,220	1,030
8	877	904	1,320	1,320	7,600	15,800	12,700	8,060	4,030	2,420	1,200	1,030
9	868	904	1,680	1,100	6,330	18,300	11,800	7,380	4,030	2,300	1,190	1,030
10	868	886	1,570	1,110	5,930	24,600	14,200	7,160	6,330	2,180	1,180	1,020
11	868	886	1,570	1,420	5,930	19,000	13,900	8,060	6,950	2,060	1,170	1,010
12	868	886	1,210	1,420	8,540	16,700	13,000	11,200	6,950	1,900	1,160	994
13	868	868	1,120	1,160	15,800	17,700	22,200	10,100	5,330	1,950	1,140	994
14	868	868	1,030	1,320	15,400	17,700	84,500	9,560	5,550	1,840	1,120	976
15	868	868	985	1,520	13,900	16,700	79,000	9,300	5,190	1,840	1,100	967
16	868	868	994	1,270	10,900	13,900	54,600	9,040	5,190	1,780	1,090	949
17	868	868	994	2,600	12,100	12,100	33,900	7,380	6,130	1,730	1,080	940
18	859	868	994	2,600	19,600	11,200	24,200	7,830	6,740	1,730	1,070	949
19	859	868	1,050	3,740	20,300	10,600	18,300	10,100	7,600	1,680	1,050	967
20	859	868	1,180	3,460	13,600	9,820	15,100	10,400	10,400	1,570	1,040	985
21	949	868	1,190	2,540	10,900	10,400	14,500	8,790	17,000	1,520	1,030	1,010
22	762	859	1,140	2,000	9,300	10,900	13,600	7,830	13,600	1,520	1,030	1,030
23	794	850	1,270	1,780	9,560	10,400	11,500	7,380	10,900	1,520	1,030	1,010
24	834	850	1,900	1,730	10,100	11,500	10,400	7,160	9,040	1,470	1,030	1,030
25	850	850	2,000	1,900	12,100	12,700	9,820	7,160	7,380	1,420	1,020	1,000
26	868	842	3,190	2,540	12,700	11,500	9,560	7,600	6,330	1,420	1,020	976
27	850	842	2,420	4,500	10,600	10,400	9,040	7,160	5,370	1,420	1,020	958
28	850	842	2,300	6,130	9,560	9,820	8,540	6,530	4,840	1,420	1,010	940
29	850	834	2,000	5,010	-	9,560	7,600	6,130	4,500	1,370	1,010	931
30	850	834	1,780	3,600	-	8,790	7,160	5,550	4,180	1,370	1,000	931
31	850	-	1,620	3,060	-	9,040	-	5,010	-	1,370	994	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acre-feet
October	26,784	949	762	864	0.235	0.27	53,130
November	26,047	904	834	868	.236	.26	51,660
December	42,619	3,190	834	1,375	.374	.43	84,530
Calendar year 1936	2,330,040	87,000	762	6,366	1.73	23.55	4,622,000
January	68,230	6,130	1,100	2,201	.598	.69	135,300
February	354,250	22,800	5,930	12,650	3.44	3.58	702,600
March	451,130	25,300	8,790	14,550	3.95	4.55	894,800
April	614,320	84,500	7,160	20,480	5.57	6.21	1,218,000
May	252,690	11,200	5,010	8,151	2.21	2.55	501,200
June	196,930	17,000	4,030	6,564	1.78	1.99	390,600
July	62,450	3,740	1,370	2,015	.548	.63	123,900
August	34,774	1,370	994	1,122	.305	.35	68,970
September	30,027	1,130	931	1,001	.272	.30	59,560
Water year 1936-37	2,160,251	84,500	762	5,918	1.61	21.81	4,284,000

Cow Creek near Azalea, Oreg.

Location.- Staff gage, lat. 42°50', long. 123°11', in sec. 33, T. 31 S., R. 4 W., 4 miles northeast of Azalea.

Drainage area.- 76 square miles.

Records available.- April 1928 to September 1937 (incomplete prior to 1932).

Extremes.- Maximum discharge during year, 2,200 second-feet Apr. 13 (gage height, 7.30 feet, from floodmark), from rating curve extended above 1,200 second-feet; minimum, 7 second-feet Oct. 4.

1926-37: Maximum discharge, 4,000 second-feet (estimated) Jan. 2, 1933 (gage height, 7.8 feet); minimum, 4 second-feet Sept. 9-19, 1929, Aug. 26-28, 1931, Aug. 21 to Sept. 6, 1934.

Remarks.- Records fair. Staff gage read once daily. Minor diversions for irrigation above station.

Rating tables, water year 1936-37 (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Oct. 5 to Dec. 28)

Oct. 1 to Apr. 13				Apr. 14 to Sept. 30			
1.7	6.5	4.0	520	1.7	4.5	4.0	520
2.0	24	4.5	720	2.0	21	4.5	720
2.4	72	5.1	990	2.4	65	5.1	990
2.8	155	5.8	1,340	2.8	143	5.8	1,340
3.2	262	6.5	1,720	3.2	247	6.5	1,720
3.6	380			3.6	365		

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	8	9	10	10	20	194	412	138	55	40	16	14
2	8	9	10	10	22	380	276	155	52	37	15	12
3	8	9	10	11	26	349	220	180	49	35	15	11
4	7	9	11	13	54	262	207	180	46	34	14	11
5	9	9	12	14	52	319	194	155	43	33	14	13
6	9	9	14	13	48	290	180	134	40	31	15	12
7	8	9	16	12	43	234	155	127	39	30	15	12
8	8	9	17	12	37	262	155	112	41	28	14	12
9	8	9	15	10	33	482	220	105	206	27	13	12
10	8	9	14	11	29	290	207	105	107	24	12	12
11	8	9	11	11	41	248	180	103	94	23	12	10
12	8	9	11	12	49	319	168	105	92	23	12	10
13	8	9	11	12	63	290	1,430	105	79	24	12	10
14	8	9	10	14	70	234	1,140	101	73	23	12	10
15	8	9	11	15	50	207	940	92	67	22	11	10
16	8	9	15	15	63	180	560	86	65	22	10	9
17	9	9	16	15	85	168	365	83	64	21	10	9
18	8	9	13	15	128	155	304	318	71	20	10	9
19	8	9	12	17	88	141	275	206	81	20	10	18
20	8	9	11	17	53	132	261	141	88	18	10	18
21	8	9	13	18	57	168	275	118	99	17	10	13
22	8	9	16	19	63	155	220	101	92	17	10	12
23	8	9	31	19	81	165	180	90	76	16	12	12
24	8	9	24	18	110	180	180	85	67	18	11	12
25	8	9	21	18	121	168	167	127	69	19	10	11
26	8	9	18	17	119	155	167	99	54	36	10	11
27	8	9	18	18	98	146	167	83	51	21	10	11
28	8	9	15	19	128	130	155	78	45	18	10	10
29	8	10	14	21	-	128	143	70	44	17	10	11
30	8	10	13	21	-	137	134	65	23	17	10	11
31	8	-	12	20	-	148	-	59	-	16	16	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acre-feet
October	250	9	7	8.1	0.107	0.12	496
November	272	10	9	9.1	.120	.13	540
December	444	31	10	14.3	.188	.22	881
Calendar year 1936	31,502	2,440	7	86.1	1.13	15.42	62,480
January	467	21	10	15.1	.199	.23	926
February	1,831	128	20	65.4	.861	.90	3,630
March	6,806	482	128	220	2.89	3.33	13,500
April	9,637	1,430	134	321	4.22	4.71	19,110
May	3,706	318	59	120	1.58	1.82	7,350
June	2,062	206	23	68.7	.904	1.01	4,090
July	747	40	16	24.1	.317	.37	1,480
August	371	16	10	12.0	.158	.18	736
September	348	18	9	11.6	.153	.17	690
Water year 1936-37	26,941	1,430	7	73.8	.971	13.19	53,430

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 below mouth of Lake Creek and 30 miles southwest of Crescent. Zero of gage is about 4,090 feet above mean sea level (Geological Survey river-profile survey).

Drainage area.- 175 square miles.

Records available.- October 1927 to September 1937.

Average discharge.- 10 years, 356 second-feet.

Extremes.- Maximum discharge during year, 563 second-feet May 23 (gage height, 1.40 feet); minimum, 258 second-feet Nov. 29, 30 (gage height, 0.75 foot).
1927-37: Maximum discharge, 1,190 second-feet June 9, 1933 (gage height, 2.34 feet); minimum, 206 second-feet Dec. 9, 1931.

Remarks.- Records good except those for period recorder was not operating properly, Jan. 4 to Feb. 17, which were computed on basis of weather records, recorded range of stage, and records at other stations in Umpqua River Basin and are fair. No diversions above station; slight regulation at Diamond Lake.

Rating table, water year 1936-37 (gage height, in feet, and discharge, in second-feet)

0.6	206
.8	277
1.0	358
1.2	451
1.5	625

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	305	296	277	293	320	320	320	358	478	380	316	300
2	308	296	285	285	325	324	312	376	483	376	312	296
3	308	296	277	293	325	320	308	394	493	372	312	300
4	308	296	285	300	330	320	308	403	499	376	312	300
5	308	296	289	305	340	320	308	403	483	376	312	296
6	308	296	304	300	335	320	308	398	483	367	312	296
7	304	293	316	290	330	320	304	403	472	367	312	296
8	304	293	312	290	330	316	304	403	483	362	312	296
9	304	293	308	295	330	320	308	413	478	358	312	296
10	304	289	304	300	330	320	312	427	472	354	308	296
11	304	289	300	295	330	316	312	441	467	354	308	296
12	304	289	296	295	340	316	312	441	451	350	308	296
13	304	289	296	295	350	320	372	451	441	345	308	293
14	304	289	296	300	340	316	398	478	432	333	308	293
15	300	289	300	310	335	316	390	504	432	333	304	293
16	300	289	320	310	330	312	362	504	437	329	304	293
17	300	289	316	310	330	308	354	516	427	333	304	293
18	300	285	324	320	333	304	354	528	437	329	304	293
19	300	285	329	310	333	304	350	528	441	324	304	316
20	300	281	324	295	329	304	358	510	478	324	304	300
21	300	281	320	295	329	304	362	510	472	320	304	281
22	300	281	329	300	329	304	350	528	467	320	304	281
23	300	281	300	300	329	304	345	539	451	316	304	277
24	300	281	337	300	324	300	350	539	437	316	304	273
25	300	281	333	300	324	300	358	534	422	320	304	273
26	300	281	333	305	324	300	341	534	408	324	300	273
27	300	281	333	315	324	300	350	528	398	320	300	273
28	296	281	316	320	320	300	350	534	398	316	300	308
29	296	266	329	320	-	300	345	516	394	316	300	308
30	296	266	324	315	-	300	350	493	390	316	300	308
31	296	-	293	310	-	308	-	483	-	316	304	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acre-feet
October	9,364	308	296	302	1.73	1.99	18,570
November	8,598	296	266	287	1.64	1.83	17,050
December	9,605	337	277	310	1.77	2.04	19,050
Calendar year 1936	134,853	690	266	368	2.10	28.67	267,500
January	9,371	320	285	302	1.73	1.99	18,590
February	9,248	350	320	330	1.89	1.97	18,340
March	9,636	324	300	311	1.78	2.05	19,110
April	10,155	398	304	338	1.93	2.15	20,140
May	14,617	539	358	472	2.70	3.11	28,990
June	13,504	499	390	450	2.57	2.87	26,780
July	10,542	380	316	340	1.94	2.24	20,910
August	9,500	316	300	306	1.75	2.02	18,840
September	8,793	316	273	293	1.67	1.86	17,440
Water year 1936-37	122,933	539	266	337	1.93	26.12	243,800

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 below mouth of Clearwater River, half a mile above Toketee Falls, and 30 miles east of Hoaglin. Zero of gage is 2,373 feet above mean sea level.

Drainage area.- 337 square miles.

Records available.- February 1908 to July 1909, December 1914 to November 1917 (incomplete), July 1924 to September 1937.

Average discharge.- 12 years (1925-37), 844 second-feet.

Extremes.- Maximum discharge during year, 2,520 second-feet Apr. 14 (gage height, 3.35 feet); minimum, 540 second-feet Nov. 30, Dec. 3 (gage height, 0.76 foot).
1908-9, 1914-17, 1924-37: Maximum discharge, 3,600 second-feet Feb. 20, 1927 (gage height, 4.65 feet); minimum, 475 second-feet Nov. 27-29, Dec. 12, 14, 1931.

Remarks.- Records good except those for period of missing gage heights, Jan. 6 to Feb.14, which were computed on basis of recorded range of stage and records for other stations in North Umpqua River Basin, and are fair. No diversion above station; regulation at Diamond Lake has little effect on flow.

Rating table, water year 1936-37 (gage height, in feet, and discharge, in second-feet)

0.7	510	1.6	1,040
1.0	665	2.0	1,340
1.3	835	2.5	1,740
		3.0	2,170

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	626	600	555	570	580	654	1,080	1,080	1,260	970	698	638
2	626	595	565	565	580	714	970	1,220	1,300	942	687	626
3	626	595	555	570	590	676	874	1,420	1,340	921	687	626
4	626	600	570	590	605	682	848	1,500	1,340	907	682	632
5	626	595	610	595	620	726	848	1,380	1,300	894	682	632
6	626	595	616	560	610	748	817	1,340	1,260	868	682	626
7	621	590	654	550	605	726	793	1,300	1,260	854	682	621
8	621	585	632	550	600	748	787	1,300	1,260	842	676	621
9	616	585	605	570	600	823	842	1,300	1,260	829	676	616
10	616	585	585	590	590	805	880	1,340	1,260	817	670	610
11	610	585	575	570	595	770	848	1,500	1,260	805	665	610
12	616	585	570	560	610	793	854	1,540	1,180	793	660	605
13	610	580	570	560	626	823	1,810	1,660	1,140	797	660	600
14	305	580	570	560	605	823	2,170	1,700	1,140	770	654	600
15	605	580	570	590	600	793	2,120	1,660	1,140	758	654	595
16	600	580	590	580	610	770	1,660	1,660	1,180	753	654	595
17	600	580	600	580	621	753	1,380	1,620	1,140	753	648	595
18	605	575	605	600	621	726	1,260	1,740	1,220	753	648	600
19	605	570	600	580	610	714	1,180	1,660	1,260	736	648	660
20	600	570	595	560	605	692	1,180	1,580	1,540	731	643	621
21	600	565	610	555	605	682	1,220	1,540	1,500	726	643	585
22	605	565	621	560	605	670	1,140	1,580	1,420	726	648	580
23	605	565	626	570	605	670	1,080	1,580	1,300	720	654	575
24	605	565	648	570	610	670	1,080	1,580	1,220	720	648	570
25	600	565	626	560	621	660	1,110	1,580	1,140	731	643	570
26	600	565	626	560	610	665	1,110	1,540	1,110	748	638	576
27	600	560	621	570	605	670	1,110	1,500	1,080	736	638	575
28	600	560	600	590	616	670	1,080	1,460	1,040	714	632	600
29	600	550	610	570	-	676	1,000	1,380	1,040	709	632	610
30	595	545	610	560	-	692	1,000	1,300	1,000	704	638	616
31	600	-	570	560	-	775	-	1,260	-	698	654	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acre-feet
October	18,896	626	595	610	1.81	2.09	37,480
November	17,315	600	545	577	1.71	1.91	34,340
December	18,560	654	555	599	1.78	2.05	36,810
Calendar year 1936	318,123	1,940	545	869	2.58	35.10	631,000
January	17,675	600	550	570	1.69	1.95	35,060
February	16,959	625	580	606	1.80	1.87	33,640
March	22,459	823	654	724	2.15	2.48	44,550
April	34,131	2,170	787	1,138	3.38	3.77	67,700
May	45,800	1,740	1,080	1,477	4.38	5.05	90,840
June	36,890	1,540	1,000	1,230	3.65	4.07	73,170
July	24,415	970	698	788	2.34	2.70	48,430
August	20,424	698	632	659	1.96	2.26	40,510
September	18,185	660	570	606	1.80	2.01	36,070
Water year 1936-37	291,709	2,170	545	799	2.37	32.21	578,600

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 above mouth of Rock Creek and 5 miles northeast of Glide. Zero of gage is about 770 feet above mean sea level (Geological Survey river profile).

Drainage area.- 886 square miles.

Records available.- June 1924 to September 1937.

Average discharge.- 13 years, 2,211 second-feet.

Extremes.- Maximum discharge during year, 28,400 second-feet Apr. 14 (gage height, 14.32 feet); minimum, 575 second-feet Jan. 7 (gage height, 2.00 feet).
1924-37: Maximum discharge, 55,000 second-feet Feb. 20, 1927 (gage height, 20.18 feet); minimum, 521 second-feet Oct. 16, 1931 (gage height, 1.86 feet).

Remarks.- Records excellent except those for periods of ice effect, Jan. 7, 8, 12, 21, which were computed on basis of records for stations downstream and are fair. No diversion above station; slight regulation at Diamond Lake.

Rating table, water year, 1936-37 except periods of ice effect (gage height, in feet, and discharge, in second-feet)

2.0	575	3.6	1,620	5.5	3,750	9.0	11,100
2.2	655	4.0	1,980	6.0	4,530	10.0	13,700
2.5	805	4.5	2,490	7.0	6,420	12.0	20,000
2.8	1,000	5.0	3,060	8.0	8,630	14.0	27,200
3.2	1,300						

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	710	691	623	761	1,160	3,460	7,280	2,880	2,640	1,890	951	829
2	720	686	655	720	1,160	6,840	6,210	3,900	2,710	1,760	937	788
3	715	682	643	736	1,090	4,530	4,370	5,040	2,940	1,660	924	783
4	720	686	647	761	1,270	4,370	4,530	5,040	2,820	1,620	917	772
5	720	696	710	859	1,580	5,600	5,040	4,210	2,660	1,540	904	800
6	715	691	937	772	1,340	5,800	4,210	3,750	2,540	1,500	898	778
7	715	682	1,170	600	1,110	4,700	3,600	3,750	2,440	1,430	891	766
8	715	668	1,270	620	1,060	5,040	3,460	3,460	2,380	1,390	884	761
9	710	668	1,070	772	1,060	7,400	4,530	3,460	2,540	1,350	878	756
10	705	664	910	872	986	6,630	4,530	3,530	2,320	1,310	872	745
11	705	664	778	772	1,060	5,220	4,530	5,040	3,120	1,280	865	740
12	700	660	725	730	2,300	5,600	3,900	5,220	3,060	1,250	859	740
13	700	660	705	766	2,600	5,600	17,300	5,220	2,710	1,220	847	735
14	705	660	682	811	2,280	5,600	22,100	5,220	2,490	1,180	835	730
15	700	660	678	951	1,840	4,700	19,300	4,700	2,490	1,160	829	720
16	700	660	696	944	1,800	4,050	10,800	4,370	2,760	1,130	823	715
17	696	660	745	898	2,130	3,750	7,280	4,210	3,260	1,110	817	715
18	696	655	853	1,160	3,390	3,460	5,600	4,700	3,550	1,100	805	710
19	691	655	872	930	2,280	2,880	4,870	4,700	4,430	1,080	800	823
20	686	660	794	745	1,760	2,540	4,370	4,050	7,430	1,060	800	904
21	686	660	772	700	1,580	2,380	4,870	3,750	7,720	1,050	800	772
22	691	655	1,200	817	1,760	2,280	4,050	3,900	5,600	1,030	800	735
23	691	651	1,420	783	1,980	2,180	3,390	3,750	4,370	1,010	841	720
24	691	651	2,370	859	2,440	2,380	3,120	3,750	3,600	1,000	829	710
25	686	651	1,390	794	2,820	2,380	3,460	4,050	3,060	1,020	805	705
26	686	647	1,180	835	2,440	2,280	3,680	3,680	2,760	1,270	794	700
27	686	647	1,110	1,010	2,180	2,440	3,320	3,460	2,490	1,130	783	700
28	682	643	1,010	951	2,180	2,490	2,940	3,390	2,280	1,040	778	705
29	682	643	904	841	-	2,440	2,710	3,060	2,130	993	772	730
30	678	627	898	794	-	2,600	2,540	2,710	2,080	979	772	730
31	682	-	823	783	-	3,390	-	2,540	-	965	853	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off Inches	Run-off Acre-feet
October	21,665	720	678	699	0.789	0.91	42,970
November	19,883	696	627	663	.748	.83	39,440
December	29,240	2,370	623	943	1.06	1.22	58,000
Calendar year 1936	831,667	17,400	623	2,272	2.56	34.92	1,650,000
January	25,346	1,160	600	818	.923	1.06	50,270
February	50,636	3,390	986	1,808	2.04	2.12	100,400
March	125,010	7,400	2,180	4,033	4.55	5.25	248,000
April	181,890	22,100	2,540	6,063	6.84	7.63	360,800
May	124,490	5,220	2,540	4,016	4.53	5.22	246,900
June	97,780	7,720	2,080	3,259	3.68	4.11	193,900
July	38,507	1,890	965	1,242	1.40	1.61	76,380
August	26,163	951	772	844	.953	1.10	51,890
September	22,517	904	700	751	.848	.95	44,660
Water year 1936-37	763,127	22,100	600	2,091	2.36	32.01	1,514,000

North Umpqua River near Glide, Oreg.

Location.- Staff gage, lat. 43°18', long. 123°07', in SW¼ sec. 13, T. 26 S., R. 4 W., 1 mile west of Glide. Zero of gage is about 645 feet above mean sea level (Geological Survey river profile).
Drainage area.- 1,210 square miles.
Records available.- September 1915 to May 1920, October 1921 to October 1922, October 1927 to September 1937.
Average discharge.- 26 years (1905-8, 1909-18, 1923-37), 3,185 second-feet. Discharge 1905-15 estimated from records for stations near Oak Creek and at Winchester, 15 miles and 20 miles downstream, respectively.
Extremes.- Maximum discharge during year, 44,500 second-feet Apr. 14 (gage height, 14.3 feet, from graph based on gage readings and record for station above Rock Creek); minimum discharge observed, 672 second-feet Nov. 29 to Dec. 1 (gage height, 0.94 foot).
1915-20, 1921-22, 1927-37: Maximum discharge observed, 59,500 second-feet Mar. 19, 1932; minimum, 552 second-feet Aug. 27-30, Sept. 27, 1931.
Maximum stage known, 22.6 feet, Nov. 22, 1909 (estimated discharge, 90,000 second-feet).
Remarks.- Records fair. Discharge for Jan. 6-12, 17, 21, Jan. 30 to Feb. 3, Feb. 24, 25, 27, 28, Apr. 18, July 1-5, computed on basis of records for stations above Rock Creek and at Winchester. No diversions above gage; slight regulation at Diamond Lake. Gage read twice daily.

Rating tables, water year 1936-37 (gage height, in feet, and discharge, in second-feet)

Oct. 1 to Apr. 14

0.9	640	2.6	2,590	10.0	24,300
1.2	890	3.0	3,230	12.0	33,300
1.5	1,190	4.0	5,100	15.0	48,000
1.8	1,530	6.0	10,200		
2.2	2,030	8.0	16,600		

Apr. 15 to Sept. 30

0.9	610
1.2	860
1.5	1,180

Note.- Same as preceding table above 1.7 feet.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	736	720	672	881	1,600	5,530	11,400	3,930	2,820	2,250	1,030	920
2	752	736	688	881	1,700	11,100	9,020	4,700	3,230	2,100	1,000	851
3	752	736	704	890	1,600	7,920	6,430	6,200	3,400	2,000	960	851
4	768	744	744	960	1,900	7,660	6,910	6,430	3,230	1,920	950	880
5	768	784	818	1,040	1,770	8,740	6,670	5,310	2,900	1,840	940	851
6	768	752	1,090	900	1,770	8,460	5,530	4,900	2,900	1,770	960	833
7	760	752	1,590	700	1,590	6,910	5,100	4,700	2,740	1,650	950	815
8	752	720	1,590	750	1,530	7,400	4,700	4,500	2,590	1,590	940	806
9	752	720	1,360	850	1,410	11,700	4,900	4,500	3,140	1,530	940	797
10	752	720	1,040	960	1,410	9,900	5,970	4,900	3,660	1,480	920	788
11	752	720	845	900	1,650	7,660	6,200	7,150	3,930	1,450	900	770
12	752	720	792	880	3,930	8,190	5,530	6,910	3,750	1,420	900	770
13	752	720	768	990	4,120	7,920	25,800	6,670	3,320	1,400	890	754
14	768	720	736	1,090	3,750	7,920	38,500	6,430	2,980	1,340	880	754
15	752	704	712	1,090	2,900	6,910	32,000	5,970	3,140	1,290	860	746
16	744	704	827	1,140	2,160	5,970	17,300	5,530	3,480	1,280	860	738
17	736	704	872	1,100	2,900	5,100	12,700	5,100	3,930	1,280	842	746
18	736	704	890	1,300	5,530	4,500	9,000	6,430	4,500	1,290	860	779
19	736	704	890	1,140	3,570	3,930	6,670	6,200	6,200	1,250	860	910
20	736	704	890	1,040	2,740	3,570	6,200	5,310	10,500	1,170	842	1,030
21	736	704	1,090	900	2,440	3,400	6,430	4,900	11,400	1,160	851	860
22	736	688	1,300	920	2,440	3,230	5,530	4,700	8,190	1,150	880	797
23	728	688	1,530	890	2,900	3,060	4,700	4,500	5,530	1,140	930	770
24	720	688	4,120	970	3,400	3,570	4,310	4,500	4,500	1,070	910	762
25	720	688	2,440	1,040	4,000	3,570	4,700	5,100	3,750	1,300	860	746
26	720	688	1,590	1,040	3,750	3,400	5,100	4,700	3,320	1,590	860	738
27	720	688	1,190	1,140	3,300	3,230	4,500	4,310	2,980	1,310	851	754
28	720	688	1,090	1,190	3,500	3,230	4,120	3,930	2,900	1,150	842	754
29	720	672	1,090	1,140	-	3,230	3,230	3,480	2,440	1,090	824	770
30	720	672	1,040	1,050	-	3,570	3,400	3,230	2,370	1,050	870	770
31	720	-	920	1,000	-	4,500	-	2,980	-	1,000	982	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off Inches	Run-off Acre-feet
October	22,984	768	720	741	0.612	0.71	45,590
November	21,352	784	672	712	.588	.66	42,350
December	35,918	4,120	672	1,159	.958	1.10	71,240
Calendar year 1936	1,075,516	25,600	672	2,939	2.43	33.05	2,133,000
January	30,762	1,300	700	992	.820	.95	61,020
February	75,260	5,530	1,410	2,688	2.22	2.31	149,300
March	184,980	11,700	3,060	5,967	4.93	5.68	366,900
April	272,550	38,500	3,230	9,085	7.51	8.38	540,600
May	158,100	7,150	2,980	5,100	4.21	4.85	313,600
June	123,720	11,400	2,370	4,124	3.41	3.80	245,400
July	44,310	2,250	1,000	1,429	1.18	1.36	87,890
August	27,944	1,030	824	901	.745	.86	55,430
September	24,110	1,030	738	804	.664	.74	47,820
Water year 1936-37	1,021,990	38,500	672	2,800	2.31	31.40	2,027,000

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 below outlet of Diamond Lake and 35 miles north of Fort Klamath. Zero of gage is about 5,180 feet above mean sea level (Geological Survey river profile.

Drainage area.- 57 square miles.

Records available.- May 1922 to September 1925 (incomplete) and October 1926 to September 1937.

Average discharge.- 10 years (1926-29, 1930-37), 46.1 second-feet.

Extremes.- Maximum discharge during year, 84 second-feet Dec. 22 (gage height, 1.51 feet); minimum, 1 second-foot Oct. 11, Nov. 28, 29, Sept. 20-27.
1922-25, 1926-37: Maximum discharge, 146 second-feet June 1, 1925 (gage height, 2.13 feet, former site and datum); no flow Aug. 25-27, 1931.

Remarks.- Records fair except those for period of missing gage height, July 25 to Aug. 31, (computed on basis of weather records, recorded range of stage, and record of discharge of North Umpqua River below Lake Creek), and those for December, which are poor. Flow regulated by operation of gates and fish racks at lake outlet and, at times, by collection of moss on racks. No diversions for irrigation above station.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	27	20	18	50	63	57	55	57	43	24		16
2	27	20	19	49	63	57	56	54	47	24		20
3	26	20	19	49	63	58	56	54	42	25		19
4	25	20	19	49	63	58	56	47	47	33		19
5	25	20	18	54	63	57	55	47	35	32		16
6	26	15	19	54	63	56	55	36	38	32		19
7	24	13	21	54	63	55	56	39	35	31		19
8	24	13	21	54	63	54	56	50	34	31		19
9	25	13	22	54	63	51	55	51	29	30		19
10	26	14	23	55	63	49	56	52	26	30		19
11	25	13	23	56	63	49	57	55	38	30		19
12	27	14	24	55	64	48	57	56	37	30		18
13	27	14	24	56	64	47	66	55	36	21		17
14	26	15	24	57	64	47	77	55	28	18		17
15	26	14	28	57	64	47	80	46	28	18		17
16	27	14	38	57	64	47	80	42	32	18		19
17	28	15	30	57	63	47	79	42	32	18		18
18	26	15	39	57	63	48	77	38	33	18		18
19	26	15	38	57	63	48	75	50	34	18		19
20	25	15	38	57	62	49	74	48	37	18		8
21	26	15	37	58	61	49	73	50	38	17		3
22	25	15	41	58	60	50	73	48	40	16		2
23	25	15	48	58	60	50	70	41	42	16		1
24	24	15	49	60	58	51	69	37	40	16		1
25	24	15	48	60	58	52	68	30	35	17		1
26	24	15	50	60	57	54	48	48	28	17		1
27	23	15	51	61	57	54	60	46	26	16		17
28	22	9	50	61	57	54	58	48	26	16		35
29	21	2	50	61	-	54	56	47	23	16		34
30	20	12	51	62	-	54	57	41	27	16		35
31	20	-	49	62	-	54	-	50	-	16		-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off Inches	Run-off Acre-feet
October	772	28	20	24.9	0.437	0.50	1,530
November	440	20	2	14.7	.258	.29	873
December	1,029	51	18	33.2	.582	.67	2,040
Calendar year 1936	15,514	94	2	42.4	.744	10.11	30,770
January	1,749	62	49	56.4	.989	1.14	3,470
February	1,732	64	57	61.9	1.09	1.14	3,440
March	1,605	58	47	51.8	.909	1.05	3,180
April	1,912	80	48	63.7	1.12	1.25	3,790
May	1,460	57	30	47.1	.826	.95	2,900
June	1,036	47	23	34.5	.605	.68	2,050
July	678	33	16	21.9	.384	.44	1,340
August	558	-	-	*18	.316	.36	1,110
September	485	35	1	16.2	.284	.32	962
Water year 1936-37	13,456	80	1	36.9	.647	8.79	26,680

*Estimated.

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 above mouth of Trap Creek and 40 miles east of Glide. Zero of gage is about 3,760 feet above mean sea level (Geological Survey river profile).

Drainage area.- 40 square miles.

Records available.- October 1927 to September 1937 (prior to April 1928 incomplete).

Extremes.- Maximum discharge during year, 236 second-feet June 20 (gage height, 1.25 feet); minimum, 110 second-feet about Jan. 8, (gage height, 0.50 foot, from recorded range in stage).

1927-37: Maximum discharge, 380 second-feet June 9, 1933 (gage height, 2.02 feet); minimum, 91 second-feet Nov. 4-6, 27, Dec. 12, 29, 1931, Jan. 3, 1932.

Remarks.- Records good except those for periods of missing gage heights, Dec. 30 to Feb. 13, Aug. 31 to Sept. 9, which were computed on basis of recorded range of stage and records for other stations in North Umpqua River Basin and are fair. No diversion or regulation above station.

Rating tables, water year 1936-37 (gage height, in feet, and discharge, in second-feet)

Oct. 1 to Dec. 29		Feb. 14 to Sept. 30	
0.5	124	0.5	110
.6	138	.7	139
		.9	172
		1.1	208
		1.4	266

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	128	127	127	118	113	117	113	136	176	160	126	121
2	127	127	127	118	114	118	113	142	183	153	126	120
3	127	127	125	120	115	117	113	152	190	153	126	119
4	127	127	125	122	116	116	113	158	186	152	124	119
5	127	127	130	122	116	116	113	155	185	149	124	118
6	127	127	130	115	115	116	113	153	183	145	124	118
7	127	127	131	112	115	116	113	153	183	142	124	117
8	127	127	130	111	114	116	113	152	181	142	124	117
9	127	127	128	112	114	118	113	155	179	141	123	117
10	127	127	127	113	113	118	114	157	183	139	123	117
11	127	127	127	114	115	117	113	160	179	139	123	117
12	127	127	127	115	117	117	114	164	172	138	123	117
13	127	127	127	115	115	118	150	176	170	136	123	117
14	127	127	127	115	113	118	169	185	169	134	123	117
15	127	127	127	115	116	118	169	186	176	134	121	117
16	127	127	127	115	116	117	150	188	181	134	121	117
17	127	127	128	115	117	116	142	188	174	133	121	117
18	127	127	128	115	117	116	139	197	177	133	121	118
19	127	127	127	114	117	116	136	192	185	132	120	124
20	127	127	127	113	117	114	138	185	225	132	120	120
21	127	127	128	112	117	114	141	185	206	132	120	118
22	127	127	130	112	117	114	138	190	192	130	121	118
23	127	128	130	114	117	114	136	192	176	130	121	118
24	127	128	131	115	117	114	136	195	169	130	120	117
25	127	127	130	115	117	113	139	203	165	133	118	117
26	127	127	128	115	116	113	141	194	165	133	118	117
27	127	127	128	115	116	113	138	194	165	132	118	117
28	127	127	127	115	116	113	134	194	167	127	118	117
29	127	127	127	114	-	113	134	185	169	127	118	117
30	127	127	124	113	-	113	134	177	164	126	118	117
31	127	-	120	112	-	113	-	176	-	126	122	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acre-feet
October	3,938	128	127	127	3.18	3.67	7,810
November	3,812	128	127	127	3.18	3.55	7,560
December	3,955	131	120	128	3.20	3.69	7,840
Calendar year 1936	52,894	246	120	145	3.62	49.20	104,900
January	3,561	122	111	115	2.88	3.32	7,060
February	3,238	117	113	116	2.90	3.02	6,420
March	3,582	118	113	116	2.90	2.34	7,100
April	3,922	169	113	131	3.28	3.66	7,780
May	5,419	203	136	175	4.38	5.05	10,750
June	5,375	225	164	179	4.48	5.00	10,660
July	4,247	160	126	137	3.42	3.94	8,420
August	3,772	126	118	122	3.05	3.52	7,480
September	3,537	124	117	118	2.95	3.29	7,020
Water year 1936-37	48,358	225	111	132	3.30	45.05	95,900

South Fork of Coquille River at Powers, Oreg.

Location.- Wire-weight gage, lat. 42°53', long. 124°04', in NW¼ sec. 13, T. 31 S., R. 12 W., at bridge at Powers. Temporary staff gage 500 feet downstream used May 4 to Dec. 6, Dec. 20, 21, 1936.

Drainage area.- 169 square miles.

Records available.- October 1928 to September 1937. September 1916 to September 1926, at site half a mile upstream.

Average discharge.- 18 years (1916-26, 1929-37), 676 second-feet.

Extremes.- Maximum discharge during year, 15,200 second-feet Apr. 13 (gage height, 15.16 feet, from floodmark); minimum, 13 second-feet Nov. 28-30.
1916-26, 1928-37: Maximum discharge, 25,300 second-feet Oct. 31, 1924 (gage height, 17.5 feet, former site and datum); minimum, 13 second-feet Nov. 30 to Dec. 3, 1929, Oct. 4-13, 1932, Nov. 28-30, 1936.

Remarks.- Records fair. Gage read once daily, oftener during freshets. Discharge for period of missing gage heights, Feb. 28 to Mar. 9, computed on basis of records for North and Middle Forks of Coquille River near Myrtle Point. No diversion or regulation above gage.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	19	16	14	103	6,590	800	950	835	468	335	69	43
2	19	16	15	88	1,580	1,700	950	1,000	445	315	69	42
3	19	16	16	62	2,890	1,300	850	1,120	422	295	64	40
4	19	18	16	58	4,250	1,100	850	1,180	378	258	61	38
5	19	18	16	240	1,860	1,050	1,220	1,060	335	258	61	51
6	19	18	18	195	850	980	1,000	1,060	315	240	58	39
7	18	18	24	109	515	940	850	1,000	295	207	58	39
8	18	17	40	79	450	920	650	1,060	275	207	58	38
9	18	17	52	115	320	960	605	1,120	240	192	57	38
10	18	17	62	80	270	900	1,220	1,180	315	177	56	38
11	18	16	40	70	355	750	1,100	2,420	378	177	56	38
12	18	16	32	62	850	850	1,160	1,530	315	150	56	36
13	17	16	29	62	800	850	9,860	1,310	275	150	54	36
14	16	16	25	182	850	850	9,070	1,180	240	145	53	34
15	16	17	24	800	750	700	7,280	1,120	275	141	53	31
16	16	17	27	470	950	700	3,950	1,180	890	129	50	31
17	16	16	42	320	1,280	560	2,620	890	890	125	48	31
18	16	16	45	750	1,860	538	2,130	835	780	119	46	30
19	16	16	42	470	950	605	1,450	780	1,180	114	44	38
20	16	16	37	302	605	750	1,310	680	2,130	99	42	42
21	16	15	38	225	560	700	1,240	680	2,220	97	40	37
22	16	15	240	210	492	605	1,310	630	1,690	97	40	36
23	16	15	750	210	492	900	1,120	680	1,450	97	44	34
24	16	14	492	560	492	850	1,060	680	1,180	95	44	33
25	16	14	450	450	750	650	1,120	1,120	890	95	42	33
26	16	14	560	750	850	538	1,000	945	730	82	40	31
27	16	14	410	850	800	515	1,000	730	580	82	39	31
28	16	13	302	700	700	515	1,000	680	558	78	38	30
29	16	13	143	390	-	492	945	630	445	77	38	31
30	16	13	225	338	-	492	835	490	400	75	38	30
31	16	-	156	700	-	560	-	468	-	72	44	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off Inches	Run-off Acre-feet
October	527	19	16	17.0	0.101	0.12	1,050
November	473	18	13	15.8	.093	.10	938
December	4,382	750	14	141	.834	.96	8,690
Calendar year 1936	244,185	18,500	13	667	3.95	53.79	484,300
January	10,000	850	58	323	1.91	2.20	19,830
February	33,961	6,590	270	1,213	7.18	7.48	67,360
March	24,620	1,700	492	794	4.70	5.42	48,830
April	59,705	9,860	605	1,990	11.8	13.17	118,400
May	30,273	2,420	468	977	5.78	6.66	60,050
June	20,984	2,220	240	699	4.14	4.62	41,620
July	4,780	335	72	154	.911	1.05	9,480
August	1,560	69	38	50.3	.298	.34	3,090
September	1,079	51	30	36.0	.213	.24	2,140
Water year 1936-37	192,344	9,860	13	527	3.12	42.36	381,500

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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 below mouth of Indian Creek and 3¾ miles southeast of Myrtle Point. Zero of gage is 41.20 feet above mean sea level (general adjustment of 1929).

Drainage area.- 305 square miles.

Records available.- October 1930 to September 1937.

Extremes.- Maximum discharge during year, 11,100 second-feet Feb. 1 (gage height, 17.21 feet); minimum recorded, 7 second-feet Oct. 3, 5, 6.
1930-37: 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 discharge, 1 second-foot July 16, 17, 1931.
Maximum stage known, 25.8 feet, probably Oct. 31, 1924.

Remarks.- Records good except those above 3,000 second-feet, which are fair, and those for periods of missing gage heights, July 5-12, 21-30, Aug. 9-12, 14, 16, 18, 25, 26, Sept. 9-13, 15, 17-20, 22, 23, 25-29, which were estimated on basis of records for North Fork of Coquille River near Myrtle Point and recorded range in stage and are poor. Flow regulated completely during low-water periods and to some extent at all times by logging ponds above gage. No diversions above gage.

Rating tables, water year 1936-37 (gage height, in feet, and discharge, in second-feet)

Oct. 1 to Jan. 31		Feb. 1 to Sept. 30	
1.7	8	2.1	20
2.1	18	2.5	36
2.5	35	3.0	73
3.0	68	4.0	202
4.0	189	5.0	400
5.0	379	7.0	1,060
6.0	655	9.0	2,110
7.0	1,060	11.0	3,600
8.0	1,540	13.0	5,520
9.0	2,110	15.0	7,960
		17.0	10,800

Discharge, in second-feet, water years 1932-33 and 1936-37

1932-33

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	10	25	1,450	2,190	3,820	1,880	1,420	616	319	130	42	23
2	10	30	320	14,500	2,670	2,250	1,270	764	299	124	40	23
3	10	87	570	10,900	1,880	4,150	984	1,330	280	123	35	22
4	10	74	433	3,980	1,500	2,740	942	1,230	261	113	109	22
5	24	62	369	2,190	1,550	1,940	806	1,590	244	105	97	22
6	39	772	309	1,710	1,710	1,550	696	2,260	235	53	28	23
7	34	262	270	1,450	1,400	1,400	620	2,530	244	53	26	26
8	26	293	252	1,160	1,210	1,260	644	7,380	304	60	26	26
9	18	380	*200	1,010	1,120	1,120	759	6,340	1,000	68	27	22
10	13	261	*165	985	930	914	548	3,000	820	87	29	21
11	12	185	*155	840	893	1,300	1,110	1,940	605	87	29	19
12	11	140	*150	745	1,000	5,370	1,040	1,450	350	82	29	18
13	10	114	*145	710	1,210	3,420	1,040	1,210	496	81	26	18
14	11	108	*145	728	1,120	2,120	822	985	223	78	25	98
15	11	138	140	985	3,080	1,600	770	876	418	76	26	35
16	11	966	147	1,030	5,780	1,510	744	786	289	71	25	22
17	12	710	141	880	5,110	1,670	632	835	261	68	26	24
18	18	411	140	920	2,600	1,580	584	870	244	66	27	60
19	21	299	990	1,260	2,460	1,300	503	810	226	64	26	66
20	21	147	1,730	1,080	2,000	1,300	402	700	210	60	26	35
21	20	271	1,740	985	1,940	1,260	485	664	198	59	26	33
22	20	196	1,310	1,030	1,940	1,080	351	476	188	59	26	38
23	25	154	5,880	1,260	2,190	880	490	717	173	56	25	85
24	35	60	3,620	2,020	2,530	710	334	529	170	55	24	78
25	35	60	4,730	2,460	2,060	817	516	606	166	54	24	68
26	32	53	*5,500	3,540	1,880	706	384	529	162	52	24	64
27	30	77	*7,000	11,600	1,550	748	490	462	152	50	24	58
28	32	307	*5,000	4,800	1,660	1,480	342	411	148	48	23	66
29	40	1,150	*3,500	3,620	-	1,310	506	390	148	46	24	30
30	45	2,900	*2,700	3,330	-	1,310	442	359	131	44	24	29
31	59	-	*1,800	3,060	-	1,610	-	329	-	43	24	-

*Discharge supersedes that published in Water-Supply Paper 754 (page 135) and in Oregon State Engineer Bulletin No. 9 (page 482).

Discharge, in second-feet, Middle Fork of Coquille River near Myrtle Point, Oreg., water years 1932-33 and 1936-37 - Continued

1936-37

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	11	11	14	132	8,860	2,220	1,420	570	157	185	34	34
2	8	10	11	96	5,200	4,410	1,570	491	153	158	38	65
3	7	10	11	77	6,010	2,880	1,540	444	148	143	36	34
4	8	10	11	70	7,310	2,370	1,890	346	146	163	34	29
5	8	28	30	250	4,900	2,300	1,810	622	136	130	32	29
6	7	16	16	297	2,760	2,110	2,340	462	134	120	42	26
7	8	12	24	176	1,830	1,690	2,110	312	131	112	31	47
8	8	11	41	90	1,450	1,540	1,610	116	130	105	26	29
9	9	11	60	107	1,450	1,620	1,480	366	128	96	35	26
10	8	11	63	108	1,020	1,430	1,440	775	141	90	26	25
11	8	11	72	80	1,500	1,320	1,590	424	147	84	25	24
12	8	11	35	63	2,090	1,340	1,440	846	146	81	25	23
13	12	10	29	67	2,230	1,370	5,650	327	134	83	36	23
14	15	10	19	252	2,320	1,370	6,070	462	128	91	26	38
15	10	10	17	542	1,820	1,050	6,190	688	157	77	27	25
16	9	10	20	865	1,960	1,020	4,500	411	468	77	25	20
17	8	10	20	525	2,380	929	2,940	368	332	67	44	20
18	8	9	24	1,330	4,600	876	2,050	315	323	99	25	20
19	9	9	36	1,060	2,960	808	1,490	305	305	67	21	21
20	10	9	26	767	2,110	1,480	1,220	275	467	57	20	26
21	9	9	28	296	1,690	1,760	1,100	266	515	54	21	38
22	9	10	34	62	1,640	1,410	995	266	665	51	24	33
23	9	10	86	596	1,590	1,500	712	256	585	76	27	20
24	9	9	278	1,180	1,420	2,210	838	246	456	53	56	18
25	8	9	223	1,190	2,050	1,940	712	266	378	40	26	18
26	8	10	181	1,390	1,700	1,520	552	275	326	37	25	18
27	8	10	337	2,110	1,630	1,320	696	256	256	36	30	17
28	8	9	232	1,640	1,450	1,160	575	237	246	48	46	17
29	8	12	149	1,080	-	904	600	328	217	31	30	25
30	11	11	198	918	-	935	438	202	200	26	28	22
31	17	-	196	1,150	-	930	-	164	-	27	28	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acre-feet
October 1932	705	59	10	22.7	0.074	.09	1,400
November	10,692	2,900	25	356	1.17	1.30	21,200
December	51,501	7,000	140	1,660	5.44	6.27	102,000
Calendar year							
January 1933	86,958	14,500	710	2,800	9.18	10.60	172,000
February	58,793	5,780	893	2,100	6.89	7.18	117,000
March	52,285	5,370	706	1,690	5.54	6.39	104,000
April	20,676	1,420	334	689	2.26	2.52	41,000
May	42,974	7,380	329	1,390	4.56	5.26	85,500
June	8,964	1,000	131	299	.980	1.09	17,800
July	2,215	130	43	71.5	.234	.27	4,400
August	992	109	23	32.0	.105	.12	1,970
September	1,174	98	18	39.1	.128	.14	2,330
Water year 1932-33	337,929	14,500	10	926	3.04	41.23	670,600
October 1936	283	17	7	9.13	0.030	0.03	561
November	328	28	9	10.9	.036	.04	651
December	2,518	337	11	81.2	.266	.31	4,990
Calendar year 1936	239,888	16,900	7	655	2.15	29.24	475,800
January 1937	18,586	2,110	63	600	1.97	2.27	36,860
February	77,930	8,860	1,020	2,783	9.12	9.50	154,600
March	49,722	4,410	808	1,604	5.26	6.06	98,620
April	57,568	6,190	438	1,919	6.29	7.02	114,200
May	11,687	846	116	377	1.24	1.43	23,180
June	7,855	665	128	262	.859	.96	15,580
July	2,564	185	26	82.7	.271	.31	5,090
August	949	56	20	30.6	.100	.12	1,880
September	802	65	17	26.7	.088	.10	1,590
Water year 1936-37	230,792	8,860	7	632	2.07	28.15	457,800

Note.-Above records for water year 1932-33 supersede those published in Water-Supply Paper 754 (p. 135) and in Oregon State Engineer Bulletin No. 9 (p. 482).

North Fork of Coquille River near Myrtle Point, Oreg.

Location.- Water-stage recorder, lat. 43°06', long. 124°04', in NW¼ (revised) sec. 36, T. 28 S., R. 12 W., a quarter of a mile below junction with East Fork and 4½ miles northeast of Myrtle Point. Zero of gage is 12.22 feet above mean sea level.

Drainage area.- 276 square miles.

Records available.- October 1928 to September 1937. Prior to October 1930, at site 3½ miles downstream.

Extremes.- Maximum discharge during year, 8,460 second-feet Feb. 4 (gage height, 31.90 feet); minimum, 17 second-feet Oct. 19.
1928-37: Maximum discharge, 10,400 second-feet Jan. 3, 1933 (gage height, 35.7 second-feet); minimum, 17 second-feet Sept. 5, 1930, Oct. 19, 1936.
Maximum stage known, 41.2 feet, sometime during winter of 1909-10.

Remarks.- Records fair. Inlet from river to recorder well sluggish at times. No diversions above gage. Flow partly regulated by operation of logging ponds above station.

Rating tables, water year 1936-37 (gage height, in feet, and discharge, in second-feet)

Oct. 1 to Jan. 31				Feb. 1 to Sept. 30			
1.6	18	4.0	217	2.0	41	9.0	1,090
1.8	26	5.0	357	2.5	73	12.0	1,780
2.2	47	6.0	515	3.0	114	15.0	2,560
2.6	73	8.0	892	4.0	226	18.0	3,420
3.0	107	12.0	1,810	5.0	365	26.0	6,180
3.5	157	18.0	3,500	7.0	699	34.0	9,330

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	24	22	22	482	6,950	1,780	1,610	575	279	358	95	115
2	30	40	22	387	7,700	4,070	2,290	558	265	335	94	86
3	24	36	22	320	7,160	3,630	2,130	541	252	307	90	70
4	24	28	23	298	8,300	2,690	2,920	524	239	293	89	65
5	24	28	24	682	7,310	2,370	2,920	490	226	279	87	60
6	24	30	34	750	5,160	2,210	2,920	458	220	258	85	58
7	23	30	153	549	3,240	1,850	2,640	458	213	246	82	55
8	23	30	387	418	2,390	1,610	2,160	442	213	232	72	55
9	22	28	364	418	2,340	1,630	1,780	442	213	220	77	55
10	22	26	298	380	2,030	1,540	1,730	524	232	207	78	54
11	22	26	146	327	1,880	1,380	1,930	1,730	246	195	76	52
12	22	25	99	284	2,750	1,420	1,680	1,710	246	189	74	51
13	22	28	75	291	3,150	1,450	3,750	1,130	220	183	72	49
14	23	25	64	674	2,920	1,380	7,120	870	207	172	70	48
15	23	23	54	1,240	2,420	1,260	7,620	736	232	166	67	48
16	23	22	53	2,420	2,260	1,130	6,480	663	395	160	64	46
17	22	20	70	1,520	2,530	1,050	4,500	592	458	155	62	45
18	22	22	157	2,200	4,470	1,010	3,000	558	395	155	62	44
19	17	25	192	2,850	4,090	1,010	2,130	524	524	150	61	45
20	22	25	136	1,660	3,030	1,630	1,630	474	1,420	144	60	57
21	23	25	111	1,090	2,390	2,000	1,400	442	1,830	134	60	71
22	22	25	192	850	2,080	1,590	1,260	410	1,680	129	60	59
23	21	25	485	731	1,880	1,490	1,090	395	1,240	124	77	53
24	21	24	1,620	1,380	1,750	2,080	970	372	930	124	98	50
25	21	24	1,130	1,410	1,830	1,930	870	442	736	122	76	48
26	21	24	693	2,120	1,780	1,400	831	442	627	118	67	46
27	21	24	1,180	3,090	1,610	1,490	774	380	541	112	62	44
28	21	24	934	3,500	1,490	1,310	717	342	458	110	60	43
29	21	24	601	2,530	-	1,170	663	321	410	106	57	42
30	22	23	655	1,780	-	1,110	609	307	380	101	57	43
31	22	-	601	1,820	-	1,170	-	293	-	98	74	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off Inches	Run-off Acre-feet
October	694	30	17	22.4	0.081	0.09	1,380
November	781	40	20	26.0	.094	.10	1,550
December	10,597	1,620	22	342	1.24	1.43	21,020
Calendar year 1936	294,338	9,500	17	804	2.91	39.70	583,900
January	38,451	3,500	284	1,240	4.49	5.18	76,270
February	96,890	8,300	1,490	3,460	12.5	13.02	192,200
March	52,840	4,070	1,010	1,705	6.18	7.12	104,800
April	72,124	7,620	609	2,404	8.71	9.72	143,100
May	18,145	1,730	293	585	2.12	2.44	35,990
June	15,527	1,830	207	518	1.88	2.10	30,800
July	5,682	358	98	183	.663	.76	11,270
August	2,265	98	57	73.1	.265	.31	4,490
September	1,657	115	42	55.2	.200	.22	3,290
Water year 1936-37	315,653	8,300	17	865	3.13	42.49	626,200

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 above Bybee Creek and 2 miles northeast of Union Creek. Zero of gage is about 3,465 feet above mean sea level (Geological Survey river profile).

Drainage area.- 118 square miles.

Records available.- January 1930 to September 1937.

Extremes.- Maximum discharge during year, 1,670 second-feet Apr. 14 (gage height, 4.15 feet); minimum daily discharge 180 second-feet,(estimated) Jan. 7 (gage height affected by ice).
1930-37: Maximum discharge, 4,460 second-feet June 9, 1933 (gage height, 7.68 feet); minimum, that of Jan. 7, 1937.

Remarks.- Records good except those for period of ice effect, Dec. 27 to Feb. 19 which were computed on basis of weather records and records for station at Raygold, and are poor. No diversion or regulation above station. Water-stage recorder inspected by employee of The California Oregon Power Co.

Rating tables, water year 1936-37 except period of ice effect (gage height, in feet, and discharge, in second-feet)

Oct. 1 to Dec. 26		Feb. 20 to Sept. 30			
1.0	230	1.1	245	2.4	705
1.2	270	1.4	325	2.8	890
1.4	315	1.7	425	3.2	1,090
1.6	370	2.0	540	3.6	1,310
				4.1	1,610

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	276	268	260	230	250	262	540	660	940	532	304	275
2	276	266	262	210	260	292	476	840	1,020	504	301	270
3	274	266	258	220	250	280	404	1,060	1,060	484	298	268
4	274	270	262	240	260	282	376	1,140	1,020	468	295	270
5	274	270	276	260	250	290	362	990	965	450	292	278
6	272	270	298	210	250	313	340	915	915	432	290	268
7	272	268	343	160	240	310	328	915	890	418	288	265
8	270	268	335	190	240	316	337	890	818	408	290	265
9	270	268	290	210	245	372	380	915	865	397	288	262
10	270	268	274	230	250	394	400	890	940	390	288	262
11	270	268	268	250	255	352	376	1,170	890	380	285	262
12	270	268	266	240	260	358	376	1,200	795	372	285	262
13	270	268	264	250	265	380	1,110	1,340	728	366	282	260
14	270	268	264	270	270	383	1,550	1,400	705	358	280	258
15	270	268	264	270	265	362	1,310	1,340	750	352	280	260
16	270	268	264	260	260	346	890	1,310	795	346	280	258
17	268	268	266	270	250	343	705	1,260	728	343	278	258
18	270	266	266	240	260	325	640	1,340	828	337	278	260
19	270	266	266	210	255	322	620	1,200	899	334	275	316
20	270	264	264	190	255	307	640	1,120	1,310	331	275	280
21	270	264	270	210	258	298	728	1,120	1,120	328	275	268
22	270	264	310	250	255	290	640	1,230	990	322	278	262
23	270	264	322	280	258	290	600	1,200	865	319	282	260
24	270	262	322	260	258	288	600	1,260	750	319	278	260
25	270	262	282	250	258	278	682	1,340	705	322	275	260
26	268	262	262	260	255	278	728	1,200	660	343	272	258
27	268	260	270	250	252	282	660	1,200	620	346	270	258
28	266	260	260	250	255	288	620	1,200	600	319	270	258
29	266	260	260	250	-	292	580	1,060	600	313	268	258
30	266	260	255	240	-	301	580	940	560	310	270	258
31	268	-	240	240	-	343	-	915	-	307	288	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off Inches	Run-off Acre-feet
October	8,378	276	266	270	2.29	2.64	16,620
November	7,972	270	260	266	2.25	2.51	15,810
December	8,563	343	240	276	2.34	2.70	16,980
Calendar year 1936	168,244	1,730	240	460	3.90	53.01	333,700
January	7,370	280	180	238	2.02	2.33	14,620
February	7,139	270	240	255	2.16	2.25	14,160
March	9,817	394	262	317	2.69	3.10	19,470
April	18,578	1,550	328	619	5.25	5.86	36,850
May	34,560	1,400	660	1,115	9.45	10.90	68,550
June	25,331	1,310	560	844	7.15	7.98	50,240
July	11,550	532	307	373	3.16	3.64	22,910
August	8,758	304	268	283	2.40	2.77	17,370
September	7,957	316	258	265	2.25	2.51	15,780
Water year 1936-37	155,973	1,550	180	427	3.62	49.19	309,400

Rogue River above Prospect, Oreg.

Location.- Water-stage recorder, lat. 42°47', long. 122°30', in NE¼ sec. 19, T. 32 S., R. 3 E., 1½ miles above intake of diversion of The California Oregon Power Co., 2 miles northwest of Prospect, and 3 miles above Mill Creek. Zero of gage is about 2,620 feet above mean sea level (Geological Survey river profile).
Drainage area.- 332 square miles.
Records available.- July 1907 to February 1912 (incomplete), October 1923 to September 1937.
Average discharge.- 15 years (1910-11, 1923-37), 681 second-feet.
Extremes.- Maximum discharge during year, 4,520 second-feet Apr. 13 (gage height, 5.09 feet); minimum daily discharge 210 second-feet,(estimated) Jan. 7 (gage height affected by ice).
1907-12, 1923-37: Maximum discharge, above 9,300 second-feet Nov. 22, 1909 (gage height, about 7.0 feet); minimum discharge observed, 200 second-feet Nov. 20, 1931 (gage height, 1.07 feet).
Remarks.- Records good except those for periods of missing gage heights, Dec. 9, 10, July 17-20, and period of ice effect, Jan. 1 to Feb. 15, which were computed on basis of records for stations above and below this station, weather records, and electric output of Prospect no. 2 plant and are fair. No diversion or regulation above station. Water-stage recorder graph furnished by The California Oregon Power Co.

Rating table, water year 1936-37 except period of ice effect (gage height, in feet, and discharge, in second-feet)

1.1	205	3.0	1,550
1.4	315	3.5	2,150
1.8	520	4.0	2,850
2.2	795	4.5	3,600
2.6	1,140	5.0	4,360

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	338	328	315	280	300	351	1,230	1,230	1,440	803	405	351
2	338	324	320	260	310	465	1,160	1,600	1,550	747	400	346
3	338	324	303	280	300	443	892	2,080	1,600	701	390	342
4	338	324	311	300	310	426	787	2,280	1,550	673	385	346
5	338	328	338	320	300	470	763	1,960	1,440	645	385	360
6	338	328	385	270	310	544	715	1,720	1,390	612	385	346
7	338	324	454	210	290	526	652	1,720	1,340	593	380	338
8	333	324	476	220	290	544	659	1,600	1,240	574	380	333
9	333	324	380	250	300	715	787	1,660	1,340	562	375	328
10	333	324	340	300	310	763	934	1,600	1,500	538	375	328
11	333	320	324	310	310	659	892	2,150	1,440	526	375	328
12	333	320	315	310	330	680	843	2,280	1,290	514	370	324
13	333	320	311	310	340	739	3,230	2,490	1,180	504	365	324
14	328	320	311	340	350	771	3,900	2,560	1,120	492	365	324
15	328	320	315	330	350	715	3,150	2,420	1,170	467	360	324
16	328	320	320	320	351	666	2,080	2,350	1,290	487	356	324
17	328	320	320	330	346	645	1,550	2,220	1,190	479	356	320
18	328	320	324	310	356	600	1,340	2,420	1,290	471	351	320
19	328	315	324	260	346	568	1,290	2,150	1,440	464	351	400
20	328	315	324	230	342	532	1,340	1,960	2,080	456	351	380
21	328	315	328	240	338	504	1,500	1,960	1,900	448	351	346
22	328	315	400	300	333	482	1,340	2,080	1,660	443	351	338
23	328	315	410	340	333	465	1,180	2,020	1,440	432	356	328
24	328	315	465	320	333	454	1,170	2,080	1,240	421	356	324
25	328	315	370	310	338	438	1,340	2,280	1,140	432	351	328
26	324	311	346	320	328	426	1,440	2,020	1,060	470	346	328
27	324	311	356	310	328	454	1,340	1,960	987	470	346	324
28	324	311	342	300	333	465	1,180	2,020	934	438	346	324
29	324	311	338	300	-	487	1,070	1,780	918	426	342	324
30	324	307	338	280	-	504	1,050	1,500	867	416	342	324
31	324	-	299	290	-	606	-	1,440	-	410	365	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acre-feet
October	10,244	338	324	330	0.994	1.15	20,320
November	9,568	328	307	319	.961	1.07	18,980
December	10,802	476	299	348	1.05	1.21	21,430
Calendar year 1936	260,271	2,780	299	711	2.14	29.15	516,200
January	9,050	340	210	292	.880	1.01	17,950
February	9,105	356	290	325	.979	1.02	18,060
March	17,107	771	351	552	1.66	1.91	33,930
April	40,804	3,900	652	1,360	4.10	4.57	80,930
May	61,590	2,550	1,230	1,987	5.98	6.89	122,200
June	40,026	2,080	867	1,334	4.02	4.48	79,390
July	16,134	803	410	520	1.57	1.81	32,000
August	11,312	405	342	365	1.10	1.27	22,440
September	10,074	400	320	336	1.01	1.13	19,980
Water year 1936-37	245,816	3,900	210	673	2.03	27.52	487,600

Rogue River below South Fork of Rogue River, near Prospect, Oreg.

Location.- Water-stage recorder, lat. 42°42', long. 122°38', in NW¼ sec. 16, T. 33 S., R. 2 E., at bridge 6 miles southwest of Prospect. Zero of gage is about 1,708 feet above mean sea level (Geological Survey river profile).

Drainage area.- 643 square miles.

Records available.- April 1929 to September 1937.

Extremes.- Maximum discharge during year, 2,280 second-feet Apr. 13 (gage height, 6.42 feet); minimum recorded, 525 second-feet Dec. 1 (gage height, 0.01 foot); minimum daily discharge 670 second-feet, (estimated) Jan. 7.
1929-37: Maximum discharge, about 12,600 second-feet Mar. 19, 1932 (gage height, 8.7 feet); minimum stage and minimum daily discharge not determined, as stage falls too low at times to be recorded.

Remarks.- Records good except those for periods of missing gage heights, Dec. 31 to Jan. 9, Jan. 11-15, 20, 21, Feb. 15-19, 21-26, Sept. 23, which were computed from weather records and records for stations above and below this station, and are fair. Minor diversions for irrigation above station. Considerable diurnal fluctuation due to operation of power plant 4 miles upstream. Water-stage recorder graph furnished by The California Oregon Power Co.

Rating table, water year 1936-37 (gage height, in feet, and discharge, in second-feet)

0.2	620	2.0	2,020	4.0	4,570
.5	800	2.5	2,560	5.0	6,070
1.0	1,140	3.0	3,180	6.0	7,640
1.5	1,550	3.5	3,860		

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	881	860	806	760	812	937	2,620	2,400	2,860	1,970	1,100	965
2	874	854	824	800	830	1,220	2,500	2,920	2,980	1,820	1,100	958
3	888	860	806	740	788	1,140	2,070	3,720	3,240	1,780	1,100	951
4	881	860	800	800	881	1,100	1,920	4,140	3,180	1,680	1,100	958
5	881	854	854	800	860	1,180	1,820	3,720	2,980	1,680	1,070	979
6	881	867	958	700	830	1,260	1,730	3,310	2,860	1,600	1,070	951
7	860	830	1,000	670	812	1,220	1,640	3,240	2,800	1,560	1,040	923
8	874	874	1,100	700	806	1,300	1,600	3,050	2,680	1,500	1,050	930
9	848	854	937	820	800	1,460	1,820	3,120	2,980	1,460	1,060	930
10	860	830	867	881	806	1,600	2,070	2,980	3,240	1,460	1,040	916
11	874	836	860	860	824	1,420	2,020	3,720	3,240	1,420	1,030	902
12	860	848	860	840	895	1,460	1,920	4,000	2,920	1,420	1,030	930
13	874	860	848	820	895	1,600	5,840	4,280	2,620	1,380	1,030	909
14	848	836	842	840	895	1,680	7,480	4,570	2,560	1,340	972	902
15	848	860	848	900	880	1,550	6,680	4,420	2,680	1,300	1,030	902
16	842	824	842	860	840	1,460	4,720	4,420	2,980	1,300	1,010	895
17	860	854	830	882	860	1,420	3,720	4,140	2,740	1,260	979	888
18	874	842	848	895	1,000	1,420	3,240	4,420	2,860	1,260	965	881
19	848	836	842	836	920	1,300	2,980	4,000	2,980	1,260	951	993
20	874	842	842	720	860	1,260	2,920	3,720	4,140	1,220	979	993
21	874	830	830	700	840	1,220	3,240	3,580	3,720	1,220	979	923
22	860	800	916	820	860	1,140	2,920	3,860	3,440	1,220	972	916
23	874	854	937	888	860	1,140	2,620	3,860	3,120	1,180	958	910
24	854	824	1,070	848	920	1,220	2,500	4,000	2,740	1,180	986	902
25	854	824	923	830	1,000	1,180	2,740	4,280	2,560	1,180	972	902
26	881	824	909	824	920	1,140	2,980	3,860	2,450	1,220	965	902
27	874	818	895	824	860	1,180	2,800	3,720	2,340	1,220	965	895
28	867	812	881	794	867	1,220	2,500	3,720	2,230	1,180	937	895
29	860	818	867	830	-	1,300	2,340	3,440	2,180	1,100	951	895
30	848	806	867	800	-	1,220	2,230	2,920	2,070	1,180	944	902
31	854	-	800	794	-	1,460	-	2,860	-	1,100	986	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off: Inches	Run-off: Acre-feet
October	26,830	888	842	865	1.35	1.56	53,220
November	25,191	874	800	840	1.31	1.46	49,970
December	27,309	1,100	800	881	1.37	1.58	54,170
Calendar year 1936	591,155	5,020	800	1,615	2.51	34.23	1,173,000
January	25,082	900	670	809	1.26	1.45	49,750
February	24,221	1,000	788	865	1.35	1.41	48,040
March	40,407	1,680	937	1,303	2.03	2.34	80,150
April	88,180	7,480	1,600	2,939	4.57	5.10	174,900
May	114,390	4,570	2,400	3,690	5.74	6.62	226,900
June	86,370	4,140	2,070	2,879	4.48	5.00	171,300
July	42,640	1,970	1,100	1,375	2.14	2.47	84,580
August	31,321	1,100	937	1,010	1.57	1.81	62,120
September	27,698	993	881	923	1.44	1.61	54,940
Water year 1936-37	559,639	7,480	670	1,533	2.38	32.41	1,110,000

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 below dam and power house of The California Oregon Power Co., half a mile below Bear Creek, and 6 miles northwest of Central Point. Zero of gage is 1,124 feet above mean sea level (Geological Survey river profile).

Drainage area.- 2,020 square miles.

Records available.- August 1905 to September 1937.

Average discharge.- 32 years, 2,704 second-feet.

Extremes.- Maximum discharge during year, 26,100 second-feet Apr. 13 (gage height, 10.70 feet); minimum, about 555 second-feet Sept. 7 (gage height, -0.01 foot, which is elevation of bottom of inlet pipe but may have been lower than pipe); minimum daily discharge (estimated), 900 second-feet Jan. 8.

1905-37: Maximum discharge, 91,500 second-feet Feb. 21, 1927 (gage height, 24.8 feet); minimum discharge not recorded; minimum daily discharge, 616 second-feet Sept. 6, 1931.

Remarks.- Records good except those for periods of missing gage heights, Nov. 30, Dec. 1, Jan. 7-9, July 14-18, which were computed on basis of weather records and discharge at stations upstream, and are fair. Numerous diversions for irrigation above station. Diurnal fluctuation owing to operation of power plant immediately above station. Water-stage recorder graph furnished by The California Oregon Power Co.

Rating tables, water year 1936-37 (gage height, in feet, and discharge, in second-feet)

Oct. 1 to Dec. 31		Jan. 1 to Sept. 30					
0	560	0	560	2.0	2,420	5.0	7,970
.5	880	.5	880	2.5	3,150	6.0	10,400
1.0	1,320	1.0	1,300	3.0	3,960	7.0	13,300
1.5	1,870	1.5	1,810	4.0	5,840	9.0	19,900

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,010	1,100	1,020	1,050	1,210	2,780	7,680	3,880	3,710	2,420	1,260	1,110
2	1,020	1,030	1,020	1,080	1,390	4,480	7,620	4,300	3,630	2,290	1,210	1,090
3	1,010	1,050	1,020	1,020	1,390	3,630	5,640	5,240	3,790	2,160	1,210	1,070
4	1,060	1,030	1,040	1,160	3,240	3,310	4,850	5,840	3,710	2,040	1,210	1,070
5	992	1,050	1,070	1,120	3,000	3,790	4,660	5,640	3,550	1,980	1,160	1,120
6	1,020	1,060	1,270	1,160	1,980	4,130	4,390	5,040	3,310	1,920	1,160	1,110
7	1,020	1,060	1,270	1,000	1,760	3,470	3,790	4,660	3,230	1,860	1,160	1,100
8	1,000	1,060	1,370	900	1,540	3,550	3,470	4,480	3,150	1,760	1,160	1,090
9	1,000	1,040	1,270	1,100	1,490	4,390	4,390	4,300	3,550	1,700	1,110	1,120
10	1,020	1,050	1,180	1,260	1,490	4,390	4,480	4,220	4,660	1,640	1,160	1,100
11	1,050	1,030	1,110	1,160	1,760	3,710	4,480	4,480	4,850	1,640	1,120	1,100
12	968	1,030	1,090	1,110	3,000	3,710	4,130	5,240	4,480	1,890	1,120	1,100
13	1,020	1,040	1,080	1,090	3,080	3,960	16,000	5,440	3,880	1,830	1,110	1,050
14	1,000	1,040	1,060	1,160	3,710	4,220	19,500	5,840	3,630	1,820	1,110	1,030
15	1,020	1,040	1,080	1,210	2,420	3,630	17,800	5,640	3,630	1,440	1,120	1,010
16	1,020	1,020	1,080	1,120	2,290	3,230	12,100	5,440	4,040	1,440	1,100	992
17	1,020	1,030	1,080	1,120	2,290	2,920	8,420	5,240	3,960	1,400	1,110	992
18	1,040	1,030	1,090	1,160	3,230	2,920	6,890	7,030	3,710	1,340	1,080	984
19	984	1,020	1,080	1,160	2,360	2,560	6,260	6,890	4,130	1,390	1,080	1,210
20	1,030	1,030	1,110	1,020	2,040	2,630	5,640	5,840	4,850	1,340	1,060	1,340
21	1,030	1,030	1,030	912	1,980	2,560	5,840	5,240	5,240	1,340	1,050	1,160
22	1,050	1,020	1,110	1,060	2,100	2,630	5,440	5,240	4,850	1,300	1,060	1,120
23	1,030	1,020	1,220	1,210	2,160	2,780	4,850	5,240	4,390	1,300	1,070	1,080
24	1,040	1,030	1,640	1,260	2,630	3,960	4,480	5,040	3,880	1,260	1,090	1,080
25	1,020	1,020	1,420	1,080	3,150	3,550	4,660	5,640	3,470	1,300	1,070	1,060
26	1,040	1,020	1,320	1,160	2,630	2,920	4,850	5,640	3,150	1,340	1,090	1,070
27	1,040	1,020	1,420	1,160	2,290	3,880	4,850	5,040	2,920	1,390	1,060	1,060
28	1,060	1,010	1,320	1,120	2,290	3,550	4,480	5,040	2,780	1,300	1,060	1,060
29	1,060	1,010	1,220	1,120	-	3,150	4,040	4,660	2,630	1,260	1,090	1,050
30	1,080	1,010	1,270	1,120	-	3,080	3,790	4,130	2,630	1,210	1,030	1,040
31	1,080	-	1,180	1,100	-	3,150	-	3,880	-	1,260	1,100	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	31,834	1,080	968	1,027	63,140
November	31,030	1,100	1,010	1,034	61,550
December	36,540	1,640	1,020	1,179	72,480
Calendar year 1936	960,432	17,800	968	2,624	1,905,000
January	34,462	1,260	900	1,112	68,350
February	63,900	3,710	1,210	2,282	126,700
March	106,620	4,480	2,560	3,439	211,500
April	199,470	19,500	3,470	6,649	395,600
May	159,470	7,030	3,880	5,144	316,300
June	113,390	5,240	2,630	3,780	224,900
July	48,720	2,420	1,210	1,572	96,630
August	34,580	1,260	1,030	1,115	68,590
September	32,568	1,340	984	1,086	64,600
Water year 1936-37	892,584	19,500	900	2,445	1,770,000

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 above Imnaha Creek, 400 yards above South Fork diversion dam, and 6 miles southeast of Prospect.

Drainage area.- 52 square miles.

Records available.- October 1931 to September 1937.

Extremes.- Maximum discharge during year, 670 second-feet Apr. 15 (gage height, 3.74 feet); minimum not recorded; minimum daily discharge 35 second-feet (estimated) Jan.8. 1931-37: Maximum discharge, 1,100 second-feet Mar. 19, 1932 (gage height, 4.47 feet); minimum, 27 second-feet Oct. 1-21, 1931.

Remarks.- Records good except those for periods of ice effect, Jan. 1-3, 6-15, 19-24, 30, and period of missing gage heights, Sept. 20, 21, which were computed on basis of weather records and records for South Fork power canal and Middle Fork of Rogue River and are fair. Adjustment applied to gage-height record for effect of ice for short periods on Dec. 31, Jan. 29. No diversion or regulation above station. Water-stage recorder graph furnished by The California Oregon Power Co.

Rating table, water year 1936-37 except periods of ice effect (gage height, in feet, and discharge, in second-feet)

0.9	35
1.1	51
1.4	87
1.7	131
2.0	178
2.5	275
3.0	400
3.5	560
4.0	810

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	55	47	44	45	43	46	136	221	269	168	91	66
2	55	47	45	45	42	59	131	261	295	160	90	63
3	55	47	43	45.	42	53	108	332	330	157	88	61
4	55	47	44	46	46	52	100	382	322	149	87	62
5	55	47	46	46	46	53	98	355	298	144	84	62
6	54	47	60	45	45	57	93	330	273	140	84	61
7	53	47	67	40	44	56	87	318	263	137	83	60
8	53	46	66	35	43	56	90	295	243	134	81	59
9	53	46	55	41	42	65	95	298	335	131	80	58
10	52	46	51	46	42	67	108	273	352	126	80	57
11	51	46	48	48	45	63	107	332	385	124	79	56
12	51	46	45	48	47	66	107	370	318	120	76	56
13	51	46	45	47	47	73	300	431	275	119	76	56
14	51	46	45	47	47	74	513	470	259	114	74	55
15	51	46	45	46	46	72	534	458	298	112	74	54
16	51	46	45	46	45	67	360	446	312	110	73	52
17	50	46	44	45	44	67	292	422	273	107	72	53
18	49	46	44	45	46	63	257	434	275	107	71	53
19	49	46	44	45	45	61	239	378	288	101	69	65
20	48	46	44	40	44	59	243	358	395	102	69	64
21	48	46	44	42	44	58	275	365	325	100	68	63
22	48	45	46	54	44	56	243	390	312	93	69	63
23	48	45	50	50	44	55	221	395	267	97	69	61
24	48	45	54	48	44	55	219	402	237	94	68	60
25	47	45	49	47	44	54	247	420	219	101	67	59
26	47	45	48	46	44	54	263	378	207	103	66	57
27	47	45	47	46	43	55	241	372	193	101	65	56
28	47	44	46	44	43	55	215	375	185	93	63	56
29	47	44	46	44	-	56	197	338	181	95	62	56
30	47	44	46	44	-	57	193	278	176	94	62	56
31	47	-	46	44	-	65	-	265	-	93	71	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acre-feet
October	1,563	55	47	50.4	0.969	1.12	3,100
November	1,375	47	44	45.8	.881	.98	2,730
December	1,492	67	43	48.1	.925	1.07	2,960
Calendar year 1936	49,291	582	43	135	2.60	35.31	97,770
January	1,400	54	35	45.2	.869	1.00	2,780
February	1,241	47	42	44.3	.852	.89	2,460
March	1,849	74	46	59.6	1.15	1.33	3,670
April	6,312	534	87	210	4.04	4.51	12,520
May	11,142	470	221	359	6.90	7.96	22,100
June	8,360	395	176	279	5.37	5.99	16,580
July	3,647	168	93	118	2.27	2.62	7,230
August	2,311	91	62	74.5	1.43	1.65	4,580
September	1,760	66	52	58.7	1.13	1.26	3,490
Water year 1936-37	42,452	534	35	116	2.23	30.38	84,200

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 above mouth and 6 miles southeast of Prospect.

Drainage area.- 26 square miles.

Records available.- September 1931 to September 1937.

Extremes.- Maximum daily discharge during year 130 second-feet, (estimated) May 14; minimum, 15 second-feet Jan. 8.
1931-37: Maximum discharge observed, 237 second-feet Mar. 19, 1932 (gage height, 2.10 feet); minimum, 11 second-feet Dec. 14, 1931 (gage height, 0.46 foot).

Remarks.- Records fair except those for March to June, which are poor. Staff gage read only once a week, discharge for intervening days and for the two days of ice effect, Jan. 20, 27, computed on basis of records for stations on South Fork of Rogue River and South Fork power canal. No diversion or regulation above station. Gage readings furnished by The California Oregon Power Co.

Rating table, water year 1936-37 except period of ice effect (gage height, in feet, and discharge, in second-feet)

0.6	18
.8	31
1.0	48
1.3	81
1.6	127

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	21	22	21	19	19	19	37	90	77	62	29	*24
2	21	22	*21	18	19	22	36	96	*81	59	29	23
3	21	22	21	18	*19	*20	31	110	88	58	29	24
4	21	*22	21	18	21	20	29	128	84	55	*28	24
5	21	22	22	18	21	20	28	*118	*78	54	28	23
6	21	22	24	*18	20	21	27	110	74	52	28	23
7	*21	22	27	16	20	20	*25	105	72	*50	28	23
8	21	22	26	15	19	20	27	100	68	48	27	*23
9	21	22	*23	17	19	22	29	100	*84	47	27	23
10	21	22	22	19	*20	*22	33	95	88	45	27	23
11	21	*22	21	18	21	21	32	102	96	44	*27	23
12	21	22	20	18	23	22	33	*107	85	43	27	23
13	21	22	20	*18	23	24	70	120	79	41	26	22
14	*21	22	*20	18	23	25	*120	130	76	*40	26	22
15	21	22	21	18	22	25	125	127	86	39	26	*22
16	21	22	*23	19	22	23	110	125	*87	38	26	22
17	21	22	22	19	*22	*23	100	117	80	37	25	22
18	21	*22	21	19	22	23	92	122	81	37	*25	*22
19	22	22	20	18	21	23	87	*113	84	36	25	25
20	22	22	19	*16	20	23	88	105	110	35	25	24
21	*22	22	19	18	20	22	*98	106	98	*34	24	24
22	22	22	19	21	20	22	92	107	94	33	25	*23
23	22	21	*20	20	20	22	88	107	*87	32	25	23
24	22	21	22	19	*20	*22	88	107	80	31	24	23
25	22	*21	21	19	20	21	96	110	75	34	*24	23
26	22	21	20	19	20	21	100	*102	72	35	24	23
27	*22	21	19	*20	20	21	94	100	67	32	24	23
28	*22	21	19	20	19	21	*87	100	66	*31	23	23
29	22	21	19	20	-	21	85	91	65	31	23	*23
30	22	21	*19	20	-	21	84	80	*64	30	*23	23
31	22	-	19	20	-	*23	-	76	-	30	26	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off Inches	Run-off Acre-feet
October	664	22	21	21.4	0.823	0.95	1,320
November	652	22	21	21.7	.835	.93	1,290
December	651	27	19	21.0	.808	.93	1,290
Calendar year 1936	15,172	150	19	41.5	1.60	21.69	30,080
January	573	21	15	18.5	.712	.82	1,140
February	575	23	19	20.5	.788	.82	1,140
March	675	25	19	21.8	.838	.97	1,340
April	2,071	125	25	69.0	2.65	2.96	4,110
May	3,306	130	76	107.	4.12	4.75	6,560
June	2,426	110	64	80.9	3.11	3.47	4,810
July	1,273	62	30	41.1	1.58	1.82	2,520
August	803	29	23	25.9	.996	1.15	1,590
September	691	25	22	23.0	.885	.99	1,370
Water year 1936-37	14,360	130	15	39.3	1.51	20.56	28,480

*Gage read on this date.

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 below headgate at diversion dam and 5 miles southeast of Prospect. Zero of gage is about 3,357 feet above mean sea level.

Records available.- April 1932 to September 1937.

Extremes.- Maximum discharge during year, 172 second-feet Apr. 13 (gage height, 3.54 feet); minimum, 2.0 second-feet Apr. 25.
1932-37: Maximum discharge, 175 second-feet May 31, June 17, 1933; no flow at times.

Remarks.- Records good except those for periods of missing gage heights, Nov. 10, Dec. 26, 27, 29, and of ice effect, Jan. 6-10, 20-24, which were computed on basis of partial gage heights, weather records, records for South Fork of Rogue River and Immaha Creek, and output of power plant below gage. Those for periods of missing gage heights are fair; those for periods of ice effect are poor. Shifting-control method used most of year. This canal, completed in March 1932, diverts water from South Fork of Rogue River 200 feet below mouth of Immaha Creek for use at power plant located in W½ sec. 1, T. 33 S., R. 3 E., from which it may be wasted into Middle Fork of Rogue River or mingled with other diversions in Main power canal. Water-stage recorder graph furnished by The California Oregon Power Co.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	61	59	58	59	52	65	110	164	160	154	111	80
2	60	58	59	58	53	75	125	165	161	153	109	77
3	60	59	58	60	53	67	133	166	161	152	106	76
4	61	59	59	60	60	66	126	165	160	151	105	77
5	60	59	65	59	56	66	124	164	160	154	104	77
6	60	59	74	50	56	71	118	163	142	156	103	75
7	60	59	80	40	54	69	112	162	157	155	103	74
8	60	59	80	40	54	71	114	162	158	153	101	72
9	59	59	69	45	52	80	124	162	158	153	99	72
10	59	59	64	53	54	80	142	160	158	153	99	71
11	59	60	63	55	54	77	108	159	159	150	98	70
12	59	60	60	55	58	81	138	159	158	148	98	70
13	59	61	59	54	59	89	160	159	105	145	96	69
14	58	61	60	54	59	91	154	160	156	142	95	68
15	58	61	60	52	58	87	152	160	157	140	93	67
16	58	60	59	50	56	84	154	161	157	137	91	67
17	58	60	60	52	57	83	156	160	156	136	89	66
18	58	60	60	52	57	78	154	160	158	136	87	66
19	59	60	60	50	55	75	155	158	158	131	86	79
20	59	61	59	46	55	74	154	158	159	129	85	72
21	59	60	61	49	56	74	161	160	159	126	83	69
22	59	60	64	65	56	71	164	160	159	126	83	67
23	59	59	68	58	57	71	163	160	157	125	82	66
24	58	59	71	56	58	70	163	160	157	125	82	65
25	58	59	66	52	57	69	87	159	157	127	80	64
26	58	58	62	54	57	69	159	160	156	126	78	63
27	58	58	63	54	57	71	164	161	155	123	78	63
28	57	59	60	54	59	71	163	161	156	119	77	62
29	57	59	60	53	-	72	162	160	156	117	76	62
30	58	59	59	54	-	74	163	155	155	115	76	62
31	58	-	59	54	-	84	-	157	-	113	86	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	1,824	61	57	58.8	3,620
November	1,783	61	58	59.4	3,540
December	1,959	80	58	63.2	3,890
Calendar year 1936	37,801	170	0	103	74,970
January	1,647	65	40	53.1	3,270
February	1,569	60	52	56.0	3,110
March	2,325	91	66	75.0	4,610
April	4,262	164	87	142	8,450
May	4,980	166	155	161	9,880
June	4,665	161	105	156	9,250
July	4,270	156	113	138	8,470
August	2,839	111	76	91.6	5,630
September	2,088	80	62	69.6	4,140
Water year 1936-37	34,211	166	40	93.7	67,860

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 below diversion dam and intake of Middle Fork of Rogue River power canal and 4½ miles southeast of Prospect.

Drainage area.- 57 square miles.

Records available.- May 1925 to September 1937.

Average discharge.- 12 years, 164 second-feet, including Middle Fork power canal.

Extremes.- Maximum combined discharge of river and power canal during year, 726 second-feet Apr. 15 (river gage height, 2.47 feet); minimum not recorded; minimum combined daily discharge, 85 second-feet (estimated) Jan. 7.
1925-37: Maximum discharge, 1,300 second-feet Mar. 19, 1932 (gage height, 3.55 feet); minimum, 72 second-feet Aug. 24 to Sept. 5, 1931.

Remarks.- Records good except those estimated, which are fair. They include flow of canal. Discharge of river estimated for Dec. 23, Jan. 7-15, June 15, July 4-6; that of canal estimated for Jan. 7-14, 21-27. Flow regulated since Nov. 19, 1931, by operation of head gates at diversion dam of power canal, which diverts water around station; practically no storage above diversion dam. Water-stage recorder graph furnished by The California Oregon Power Co.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	118	115	107	108	100	112	263	249	308	233	137	117
2	117	114	107	106	102	124	243	290	373	220	133	116
3	117	114	107	107	99	116	218	345	369	212	133	115
4	118	114	109	108	111	123	207	369	359	206	132	117
5	118	114	120	108	105	126	197	332	336	201	130	117
6	117	114	129	100	103	131	190	312	322	196	130	115
7	116	113	139	85	101	128	182	298	310	190	129	114
8	116	113	126	90	102	132	184	274	327	184	128	114
9	115	112	117	100	101	146	195	282	357	179	127	114
10	115	112	112	115	100	144	202	270	354	175	127	114
11	115	111	110	110	102	140	203	360	358	172	126	113
12	115	111	109	109	110	149	202	373	316	166	125	113
13	115	110	108	108	109	159	454	405	294	162	125	113
14	115	110	107	108	106	164	605	437	298	159	124	113
15	114	110	107	108	103	159	616	420	349	154	123	112
16	114	110	108	105	103	147	463	397	373	154	121	112
17	116	110	108	105	104	148	384	378	329	152	121	113
18	115	109	110	107	104	140	340	385	354	151	120	114
19	116	109	109	105	103	137	311	345	368	148	121	127
20	116	109	108	100	102	133	305	335	482	146	121	117
21	115	109	110	95	103	131	324	339	401	144	121	114
22	115	109	113	104	103	126	300	368	393	143	121	113
23	115	109	119	108	104	125	285	373	333	142	120	113
24	114	109	119	105	106	126	276	380	297	142	120	111
25	114	109	112	105	104	122	293	378	276	145	119	110
26	113	109	112	104	103	122	304	338	265	152	118	109
27	113	109	112	104	102	125	281	352	258	146	120	109
28	114	109	109	103	104	125	257	366	254	142	118	109
29	113	109	108	102	-	126	239	332	258	139	118	110
30	114	109	109	102	-	129	231	296	243	137	118	108
31	115	-	108	102	-	146	-	296	-	137	123	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acre-feet
October	3,573	118	113	115	2.02	2.33	7,090
November	3,324	115	109	111	1.95	2.18	6,590
December	3,488	139	107	113	1.98	2.28	6,920
Calendar year 1936	66,162	448	107	181	3.18	43.17	131,200
January	3,226	115	85	104	1.82	2.10	6,400
February	2,999	110	99	104	1.82	1.90	5,750
March	4,161	164	112	134	2.35	2.71	8,250
April	8,754	616	182	292	5.12	5.71	17,360
May	10,674	437	249	344	6.04	6.96	21,170
June	9,914	482	243	330	5.79	6.46	19,660
July	5,129	233	137	165	2.89	3.33	10,170
August	3,849	137	118	124	2.18	2.51	7,630
September	3,406	127	108	114	2.00	2.23	6,760
Water year 1936-37	62,397	616	85	171	3.00	40.70	123,800

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 below headgate at diversion dam and 4⅛ miles southeast of Prospect. Zero of gage is about 2,632 feet above mean sea level.

Records available.- November 1931 to September 1937.

Extremes.- Maximum discharge during year, 172 second-feet Apr. 10 (gage height, 3.22 feet); maximum stage, 4.14 feet (affected by ice), Jan. 7; minimum, 0.3 second-foot Apr. 23.

1932-37: Maximum discharge, 196 sec nd-feet Feb. 3, 1935 (gage height, 3.50 feet); no flow at times.

Remarks.- Records excellent for March to September; good for October to February, except those for periods of ice effect, Jan. 7-14, 21-27, which were computed on basis of records for other stations near Prospect, and are fair. 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. Water-stage recorder graph furnished by The California Oregon Power Co.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	115	113	102	106	100	111	103	109	103	117	132	114
2	115	112	105	104	102	122	78	111	103	123	130	114
3	115	112	105	105	99	115	78	113	103	133	130	113
4	115	112	106	106	110	122	79	113	103	133	129	115
5	115	112	112	106	104	125	79	66	116	133	127	114
6	114	112	116	98	103	130	79	2	140	132	126	113
7	114	111	127	84	101	127	105	8	128	131	125	112
8	114	111	124	89	102	130	163	56	122	135	124	112
9	113	111	116	99	101	142	164	130	122	139	123	112
10	113	111	111	114	100	139	118	49	122	139	123	112
11	113	110	109	109	102	136	81	1	123	139	122	111
12	113	110	108	108	110	144	80	1	123	140	122	111
13	113	109	107	107	109	104	79	1	123	142	122	111
14	113	109	106	107	106	69	75	1	122	142	121	111
15	112	109	106	107	103	69	66	52	121	144	120	110
16	112	109	107	105	103	111	63	137	121	148	119	110
17	114	108	107	105	104	137	62	136	121	147	119	111
18	113	107	109	107	104	134	62	136	122	146	118	112
19	114	107	108	105	103	133	37	89	122	144	119	121
20	114	107	108	100	102	130	3	1	123	142	119	114
21	113	107	109	94	103	128	2	1	123	140	119	112
22	113	107	112	104	103	124	?	62	123	139	119	111
23	113	107	118	108	104	123	42	135	122	138	118	111
24	112	107	118	105	106	124	108	120	121	138	118	109
25	112	107	112	105	104	121	108	104	122	138	117	109
26	111	107	112	104	103	121	108	103	123	146	115	108
27	111	107	112	104	102	123	108	103	123	142	115	108
28	112	107	109	103	104	123	108	103	121	138	114	108
29	112	107	108	102	-	124	108	103	118	136	114	108
30	112	107	109	102	-	127	109	103	117	135	115	107
31	113	-	107	102	-	135	-	103	-	134	118	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	3,508	115	111	113	6,960
November	3,272	113	107	109	6,490
December	3,425	127	102	110	6,790
Calendar year 1936	37,697	166	3	103	74,770
January	3,204	114	84	103	6,360
February	2,897	110	99	103	5,750
March	3,803	144	69	123	7,540
April	2,457	164	2	81.9	4,870
May	2,352	137	1	75.9	4,670
June	3,596	140	103	120	7,130
July	4,273	148	117	138	8,480
August	3,752	132	114	121	7,440
September	3,344	121	107	111	6,630
Water year 1936-37	39,883	164	1	109	79,110

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 1937. Prior to October 1928, in NE¼ sec. 24, T. 32 S., R. 3 E.

Average discharge.- 12 years, 96.9 second-feet.

Extremes.- Maximum daily discharge during year, 500 second-feet (estimated) Apr. 14; minimum, 40 second-feet (estimated) Jan. 7.
1925-37: Maximum discharge observed, 1,200 second-feet Mar. 11, 1928; minimum, 34 second-feet Sept. 3, 4, 25, Oct. 9, 16, 1931.

Remarks.- Records fair except those for January and April to July, which are poor. Stage-discharge relation affected by ice Jan. 9, 22. One diversion for irrigation above station. Gage read once a week; discharge computed for intervening days on basis of records for stations on Middle Fork and Rogue River near Prospect. Gage readings furnished by The California Oregon Power Co.

Rating table, water year 1936-37 except periods of ice effect (gage height, in feet, and discharge, in second-feet)

0.8	50	1.4	138	2.0	297
1.0	73	1.6	182	2.2	375
1.2	102	1.8	234	2.5	505

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	56	52	49	*51	50	62	170	160	240	163	78	62
2	*56	52	49	50	50	70	*151	210	290	*157	77	61
3	56	52	49	51	50	66	137	250	280	152	76	*61
4	56	52	*49	52	56	72	126	270	*258	145	75	62
5	55	52	54	52	*52	*74	115	250	250	145	74	63
6	55	*52	60	45	51	83	106	230	*240	142	*73	62
7	54	52	68	40	50	82	102	*215	245	140	72	61
8	54	52	62	42	52	92	110	200	260	134	71	61
9	*54	52	57	*48	51	104	*117	210	280	*130	70	61
10	54	51	54	54	52	103	123	200	290	125	68	*61
11	54	51	*52	52	56	*100	118	260	*280	120	67	60
12	54	51	51	51	*62	103	117	280	255	115	66	60
13	53	*51	51	51	60	107	300	300	240	110	*65	60
14	53	51	*50	50	58	110	500	*312	240	105	65	60
15	53	51	51	*49	56	*102	450	300	270	100	64	59
16	*53	51	52	48	55	96	*320	290	290	*96	64	59
17	53	50	52	48	55	96	260	280	260	94	63	*59
18	53	50	*53	49	54	90	230	290	*287	92	63	*59
19	53	50	53	47	*54	*86	210	270	300	90	62	65
20	52	*50	52	45	54	84	195	260	400	88	*62	62
21	52	50	55	42	54	82	210	*252	320	86	62	60
22	52	50	58	*46	54	80	190	270	310	85	62	60
23	*52	50	62	52	55	78	*177	280	280	*84	62	59
24	52	49	58	51	56	76	170	290	255	83	61	*59
25	52	49	*56	51	55	74	180	280	*231	85	61	59
26	52	49	55	51	*54	*72	190	260	215	88	61	58
27	52	*49	54	51	54	72	172	270	200	85	*61	58
28	*52	49	53	50	55	73	160	*280	195	82	61	58
29	52	49	52	49	-	74	150	260	190	80	61	58
30	*52	49	52	48	-	76	*146	240	175	*79	60	58
31	52	-	52	50	-	85	-	230	-	79	63	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acre-feet
October	1,653	56	52	53.3	1.33	1.53	3,280
November	1,518	52	49	50.6	1.26	1.41	3,010
December	1,675	68	49	54.0	1.35	1.56	3,320
Calendar year 1936	38,661	335	49	106	2.65	35.95	76,680
January	1,516	54	40	48.9	1.22	1.41	3,010
February	1,515	62	50	54.1	1.35	1.41	3,000
March	2,624	110	62	84.6	2.12	2.44	5,200
April	5,702	500	102	190	4.75	5.30	11,310
May	7,949	312	160	256	6.40	7.38	15,770
June	7,826	400	175	261	6.52	7.27	15,520
July	3,359	163	79	108	2.70	3.11	6,660
August	2,050	78	60	66.1	1.65	1.90	4,070
September	1,805	65	58	60.2	1.50	1.67	3,580
Water year 1936-37	39,192	500	40	107	2.68	36.39	77,730

*Gage read on this date.

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 below headgate at diversion dam and 2 miles east of Prospect. Zero of gage is 2,612 feet above mean sea level.

Records available.- November 1931 to September 1937.

Extremes.- Maximum discharge during year, 102 second-feet Apr. 1 (gage height, 3.22 feet); minimum, 6 second-feet Apr. 19-30.
1931-37: Maximum discharge, 116 second-feet Nov. 6, 1932; no flow part of Sept. 24, 25, 1932.

Remarks.- Records excellent except those for period of missing gage heights, Jan. 7, 8, 20-22, which were computed on basis of recorded range of stage and discharge at other canal and river stations and are fair. This canal, completed in October 1932, diverts water from Red Blanket Creek into main power canal to supplement flow of Rogue River above Prospect diversion dam. Water-stage recorder graph furnished by The California Oregon Power Co.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	57	55	52	53	52	67	89	10	9	6	78	63
2	57	54	52	52	54	84	88	11	8	6	78	63
3	56	54	52	54	52	74	89	11	8	36	77	63
4	56	54	53	54	60	72	88	11	9	54	77	65
5	56	54	60	54	56	77	88	11	9	61	74	63
6	55	54	69	46	54	83	87	11	8	85	72	60
7	54	54	76	40	53	81	92	11	8	97	72	59
8	54	54	70	43	54	86	97	11	8	98	71	60
9	54	54	62	59	52	93	100	11	9	97	71	62
10	54	54	57	65	52	93	95	11	8	96	70	62
11	54	54	55	62	53	92	92	10	8	95	69	62
12	54	54	54	57	60	94	92	11	8	97	69	62
13	55	53	54	58	60	95	93	11	8	96	69	62
14	54	52	53	58	60	95	81	11	8	94	69	61
15	54	52	53	55	56	94	72	11	8	93	69	61
16	52	52	54	53	56	93	71	11	8	91	68	60
17	52	52	54	52	56	91	71	11	8	90	68	60
18	52	52	54	56	59	90	32	12	8	89	66	60
19	52	52	54	52	56	88	6	11	8	87	63	75
20	52	52	54	35	54	85	6	10	8	87	63	66
21	52	53	54	55	55	84	6	8	8	86	63	63
22	52	53	59	66	55	80	6	8	7	85	64	62
23	52	53	61	63	56	80	6	8	7	83	64	61
24	52	52	70	57	57	82	6	8	7	81	63	60
25	52	52	59	54	58	78	6	9	7	84	63	59
26	54	52	59	54	58	78	6	9	7	86	62	60
27	54	52	58	54	58	83	6	9	8	83	62	61
28	54	52	56	53	60	82	6	9	8	80	62	61
29	54	52	55	52	-	81	6	9	8	78	62	62
30	54	52	56	52	-	83	6	9	7	78	63	61
31	54	-	53	52	-	87	-	9	-	78	65	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	1,668	57	52	53.8	3,310
November	1,589	55	52	53.0	3,150
December	1,782	76	52	57.5	3,530
Calendar year 1936	18,168	98	4	49.6	36,030
January	1,670	66	35	53.9	3,310
February	1,566	60	52	55.9	3,110
March	2,625	95	67	84.7	5,210
April	1,589	100	6	53.0	3,150
May	315	12	8	10.2	625
June	238	9	7	7.9	472
July	2,457	98	6	79.3	4,870
August	2,106	78	62	67.9	4,180
September	1,859	75	59	62.0	3,690
Water year 1936-37	19,464	100	6	53.3	38,610

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 below outlet of Red Blanket power canal, 1 mile east of Prospect, and 1.6 miles above diversion dam on Rogue River. Zero of gage is 2,599.0 feet above mean sea level (general adjustment of 1929).

Records available.- November 1931 to September 1937.

Extremes.- Maximum discharge during year, 401 second-feet July 12 (gage height, 4.17 feet); minimum, 13 second-feet Apr. 25.
1931-37: Maximum discharge, 423 second-feet June 22, 1936; no flow at times.

Remarks.- Records good except those for periods of ice effect, Jan. 7, 20, 21, which were computed on basis of incomplete data on tributary canals and are poor. Discharge is based largely on combined flow of tributary canals. 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. Water-stage recorder graph furnished by The California Oregon Power Co.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	238	228	208	220	205	249	310	100	94	282	330	270
2	235	225	213	210	207	295	296	103	94	294	328	266
3	234	221	210	217	206	265	307	105	94	333	324	263
4	235	221	214	220	230	263	295	104	93	352	320	269
5	234	221	232	220	213	277	301	79	190	359	314	267
6	231	220	261	194	212	290	292	36	282	378	310	263
7	230	220	284	165	208	284	310	39	211	392	307	260
8	228	216	278	178	210	298	375	168	147	396	306	259
9	228	214	249	189	207	328	379	298	147	398	302	260
10	227	210	235	235	208	327	351	175	163	398	300	256
11	225	210	227	227	211	318	283	35	175	398	298	256
12	227	211	223	217	234	328	319	34	240	398	295	256
13	228	213	220	217	234	298	186	33	218	398	292	255
14	228	213	217	214	233	265	156	33	277	394	292	253
15	228	213	216	211	222	258	138	146	286	389	289	252
16	227	217	216	205	221	290	134	304	286	389	286	251
17	228	218	217	206	226	319	132	192	286	384	284	248
18	228	220	223	213	230	313	93	126	284	383	280	249
19	228	220	224	204	222	308	53	98	284	376	276	289
20	228	217	221	170	217	298	32	34	286	371	274	266
21	225	217	227	150	216	294	32	32	289	367	273	255
22	225	217	241	232	217	288	32	125	289	362	273	252
23	227	218	249	222	220	286	49	274	289	359	274	249
24	224	217	268	213	222	289	95	170	286	354	272	246
25	225	217	238	208	225	280	55	96	288	359	270	246
26	224	214	234	211	225	277	92	94	290	371	266	245
27	224	213	232	212	222	289	95	95	292	365	263	246
28	223	213	225	208	229	288	95	95	290	351	265	246
29	223	211	223	206	-	288	94	130	289	344	263	246
30	223	211	225	204	-	292	94	260	288	339	265	246
31	223	-	216	205	-	314	-	158	-	335	283	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	7,061	239	223	228	14,010
November	6,490	225	210	216	12,870
December	7,166	284	208	231	14,210
Calendar year 1936	85,612	423	7	234	169,800
January	6,403	235	150	207	12,700
February	6,132	234	205	219	12,160
March	9,056	328	249	292	17,960
April	5,475	379	32	182	10,860
May	3,771	304	32	122	7,480
June	7,027	292	93	234	13,940
July	11,368	398	282	367	22,550
August	8,974	330	263	289	17,800
September	7,685	289	245	256	15,240
Water year 1936-37	86,608	398	32	237	171,800

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 below 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, and March 1925 to September 1937. August 1922 to March 1925 at site at Butte Falls.

Average discharge.- 21 years (1910-11, 1917-37), 156 second-feet.

Extremes.- Maximum discharge during year, 946 second-feet Apr. 15 (gage height, 2.31 feet); minimum, 58 second-feet Sept. 17 (gage height, 0.46 foot).
1910-11, 1915, 1917-37: Maximum discharge, 2,470 second-feet Feb. 20, 1927 (gage height, 4.05 feet); minimum, 39 second-feet Oct. 14, 1931 (gage height, 0.32 foot).

Remarks.- Records good except those for periods of missing gage heights, Jan. 2-5, 7-11, 17, 18, 21-25, Jan. 28 to Feb. 1, Feb. 4-8, 10-15, Mar. 10-15 (computed on basis of weather records and unpublished records for Big Butte Springs near Butte Falls), and Aug. 18-23 (interpolated), all of which are fair. Diversions above station for irrigation and, since 1927, for Medford municipal supply.

Rating table, water year 1936-37 (gage height, in feet, and discharge, in second-feet)

0.4	47	1.6	483
.6	86	2.0	735
.8	135	2.4	1,010
1.2	271		

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	71	69	73	76	73	175	349	218	143	130	80	71
2	71	69	76	76	76	254	414	222	143	127	80	69
3	69	67	73	76	76	191	339	233	141	125	78	69
4	69	67	76	76	76	185	299	250	138	119	78	71
5	67	67	78	76	75	204	276	242	132	117	76	73
6	67	67	82	71	73	218	280	226	127	112	78	71
7	69	67	84	71	73	204	254	218	125	107	78	69
8	69	67	84	71	73	201	246	204	127	104	76	69
9	69	67	82	71	73	229	276	201	166	102	76	69
10	71	67	78	71	73	214	276	198	185	102	76	67
11	71	65	76	71	73	182	263	198	204	100	73	65
12	71	65	76	71	85	178	254	194	194	98	73	65
13	71	67	73	71	95	185	543	198	172	93	71	63
14	69	67	76	71	95	185	709	201	163	93	71	63
15	67	67	76	71	94	176	884	204	172	91	71	63
16	67	67	76	71	93	172	702	201	178	91	69	63
17	67	67	73	71	95	172	555	188	169	93	69	61
18	69	67	73	71	109	166	477	276	172	98	69	63
19	69	67	76	71	102	155	420	242	178	93	69	76
20	69	65	76	71	98	146	386	212	194	93	70	78
21	69	65	76	67	100	143	386	198	194	91	70	73
22	69	65	76	67	109	149	360	191	172	86	71	73
23	69	67	80	67	112	152	323	191	175	84	71	69
24	71	69	93	67	130	157	304	185	178	84	71	67
25	71	71	84	67	135	157	290	212	169	84	71	67
26	71	71	82	67	125	155	290	201	163	91	71	67
27	71	73	82	67	119	172	285	185	155	86	69	65
28	69	73	80	67	135	175	267	175	143	84	69	67
29	67	73	78	67	-	172	242	169	143	82	69	65
30	67	73	78	68	-	175	226	160	141	82	69	65
31	69	-	71	70	-	178	-	152	-	82	73	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	2,145	71	67	69.2	4,250
November	2,038	73	65	67.9	4,040
December	2,417	93	71	78 0	4,790
Calendar year 1936	54,217	970	63	148	107,500
January	2,186	76	67	70.5	4,340
February	2,645	135	73	94.5	5,250
March	5,577	254	143	180	11,060
April	11,175	884	226	372	22,170
May	6,345	276	152	205	12,590
June	4,856	204	125	162	9,630
July	3,026	130	82	97.6	6,000
August	2,255	80	69	72.7	4,470
September	2,036	78	61	67.9	4,040
Water year 1936-37	46,701	884	61	128	92,630

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South Fork of Little Butte Creek near Lakecreek, 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 above intake of Rogue River Valley Canal and 1½ miles southeast of Lakecreek.

Records available.- April 1921 to September 1937. November 1910 to April 1913, at site in sec. 11, T. 37 S., R. 2 E., 5 miles above Lakecreek.

Average discharge.- 17 years (1911-12, 1921-37), 88.8 second-feet.

Extremes.- Maximum discharge during year, 1,280 second-feet Apr. 15 (gage height, 4.21 feet); minimum, 7 second-feet Jan. 6, 7.
1910-13, 1921-37: Maximum discharge, 3,000 second-feet (estimated) Dec. 30, 1924 (gage height, 5.25 feet); minimum, 2 second-feet Aug. 10, 1931 (gage height, 0.97 foot).

Remarks.- Records fair. Discharge for periods of ice effect, Jan. 9-14, 22-26, Jan. 30 to Feb. 9, and period of missing gage heights, Mar. 5-18, computed on basis of records for North Fork of Little Butte Creek at Fish Lake and above Medford intake. Diversions for irrigation above station.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	16	15	19	18	34	83	409	283	182	66	19	20
2	17	15	19	19	34	118	318	307	165	59	18	19
3	18	15	18	20	34	85	226	341	159	55	17	17
4	17	15	18	21	35	87	202	376	146	51	18	17
5	18	15	21	20	37	100	196	345	131	48	16	17
6	15	15	26	15	32	92	192	320	119	42	17	16
7	12	17	24	11	30	91	170	307	111	40	17	16
8	12	17	30	15	30	91	176	291	114	37	16	16
9	13	18	28	16	30	138	206	291	175	35	16	15
10	14	17	23	20	29	100	206	283	210	34	16	14
11	14	18	19	21	54	92	180	275	248	33	15	13
12	15	18	19	21	94	98	180	275	210	29	15	14
13	14	19	19	20	87	156	703	287	178	29	15	14
14	15	19	18	20	92	142	870	299	168	29	16	14
15	15	18	17	20	58	110	990	307	192	28	15	13
16	15	19	17	19	46	86	556	307	217	28	14	14
17	15	19	16	19	60	96	409	299	185	27	14	12
18	16	18	15	20	78	90	350	414	168	25	13	13
19	16	19	15	20	52	87	324	428	159	24	12	24
20	17	18	15	22	44	80	324	359	155	23	13	23
21	16	18	15	24	46	76	350	324	137	23	14	19
22	16	18	15	24	52	94	303	320	152	22	15	17
23	16	17	18	24	61	100	287	307	128	21	16	16
24	15	16	22	23	80	118	287	299	111	22	16	16
25	15	16	19	22	83	126	312	354	100	22	17	16
26	15	17	18	21	67	110	320	333	93	23	17	16
27	15	18	19	20	60	161	320	287	84	22	17	16
28	14	17	19	29	60	149	299	271	77	21	16	16
29	14	17	19	32	-	132	271	251	77	20	16	16
30	15	18	19	33	-	120	263	221	77	20	16	16
31	15	-	18	34	-	137	-	199	-	19	18	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	470	18	12	15.2	932
November	516	19	15	17.2	1,020
December	597	30	15	19.3	1,180
Calendar year 1936	39,190	681	12	107	77,710
January	663	34	11	21.4	1,320
February	1,499	94	29	53.5	2,970
March	3,345	161	76	108	6,630
April	10,199	990	170	340	20,230
May	9,560	428	199	308	18,960
June	4,428	248	77	148	8,780
July	977	66	19	31.5	1,940
August	490	19	12	15.8	972
September	485	24	12	16.2	962
Water year 1936-37	33,229	990	11	91.0	65,900

Fish Lake Reservoir near Lakecreek, Oreg.

Location.- 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 Lakecreek. Zero of gage is at mean sea level (irrigation-district datum).

Drainage area.- 17 square miles.

Records available.- December 1915 to September 1937.

Extremes.- Maximum contents observed during year, 6,584 acre-feet July 2 (elevation, 4,823.63 feet); minimum observed, 816 acre-feet Sept. 19 (elevation, 4,805.52 feet). 1915-37: Maximum contents, 7,642 acre-feet June 19, 1936 (elevation, 4,826.28 feet); reservoir practically empty at times.

Remarks.- Records good. Staff gage read once daily. Water is diverted during summer from Fourmile Lake in Klamath River Basin through Cascade Canal into Fish Lake. Permanent dam at outlet of Fish Lake completed in fall of 1915; storage began in November 1915.

Elevation and contents, water year October 1936 to September 1937

Date	Elevation (feet)	Contents (acre-feet)	Change in contents during month (acre-feet)
Sept. 30	4,811.95	2,557	-
Oct. 31	4,813.75	3,110	+553
Nov. 30	4,815.60	3,707	+597
Dec. 31	4,817.10	4,209	+502
Jan. 31	4,818.42	4,665	+456
Feb. 28	4,819.11	4,906	+241
Mar. 31	4,819.44	5,022	+116
Apr. 30	4,820.30	5,330	+308
May 31	-	*6,279	+949
June 30	4,823.60	6,572	+293
July 31	4,816.85	4,124	-2,448
Aug. 31	4,806.38	1,021	-3,103
Sept. 30	4,807.18	1,221	+200
The year	—	—	-1,336

*Interpolated between readings May 28 and June 1.

North Fork of Little Butte Creek at Fish Lake, near Lakecreek, Oreg.

Location.- Water-stage recorder, lat. 42°23', long. 122°21', in S½ sec. 4, T. 37 S., R. 4 E., half a mile below outlet of Fish Lake and 18 miles east of Lakecreek.

Drainage area.- 18 square miles.

Records available.- October 1914 to September 1937.

Average discharge.- 22 years (1915-37), 31.0 second-feet.

Extremes.- Maximum discharge during year, 141 second-feet Aug. 7 (gage height, 1.69 feet); practically no flow Sept. 25-30.
1914-1937: Maximum discharge, 158 second-feet July 10, 1930; practically no flow at times.

Remarks.- Records good except those for some of the periods of missing gage heights, Sept. 12-15, 17-24, 30, which were computed on basis of discharge measurement for Sept. 16 and records for North Fork of Little Butte Creek above Medford intake and are fair. Discharge for the remaining periods of missing gage heights Jan. 2-6, 8-15, Mar. 1-5, Apr. 13, 14, 20 interpolated. Flow regulated by storage in Fish Lake Reservoir. In September 1923 Cascade Canal began diverting water from Fourmile Lake in Klamath River Basin into Fish Lake Basin; no diversions from creek above station.

Rating tables, water year 1936-37 (gage height, in feet, and discharge in second-feet)

Oct. 1 to Feb. 28

0.2	0.4
.4	4.0
.6	10
.8	21
1.0	39

Mar. 6 to Sept. 30

0.2	0.4	1.3	71
.4	2.9	1.6	123
.6	8.5		
.8	18		
1.0	32		

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	38	10	12	15	16	16	16	22	28	29	102	58
2	38	10	12	15	16	16	16	22	28	36	101	44
3	38	10	13	15	16	16	16	23	28	48	101	34
4	38	10	13	15	16	16	16	24	28	51	106	33
5	31	10	14	15	16	16	16	24	28	68	117	33
6	27	10	14	15	16	16	16	24	28	71	119	32
7	27	10	14	15	16	16	16	24	28	82	129	30
8	27	10	14	15	16	16	16	24	28	82	137	26
9	27	10	14	15	16	16	16	25	28	87	133	27
10	27	10	14	15	16	16	16	25	28	94	129	27
11	18	10	14	15	16	16	16	25	28	101	127	26
12	12	10	14	15	16	16	16	25	28	102	125	26
13	12	10	14	15	16	16	16	26	28	108	123	26
14	12	12	14	15	16	15	17	26	28	127	123	25
15	12	12	14	15	16	15	18	26	28	125	114	26
16	12	12	14	15	16	15	18	26	28	117	110	38
17	11	12	14	15	17	16	18	26	28	117	108	39
18	7	12	14	16	17	16	18	28	28	123	102	40
19	8	12	14	16	17	16	18	27	28	123	97	46
20	8	12	14	16	18	16	18	27	28	125	96	11
21	8	12	14	16	17	16	19	27	28	125	94	6
22	8	12	14	16	17	16	19	27	28	125	94	5
23	8	12	14	16	17	16	19	27	28	125	92	3
24	9	12	14	16	17	16	20	27	28	125	92	2
25	9	12	14	16	17	16	20	28	28	127	94	0
26	9	12	14	16	17	16	21	28	28	123	94	0
27	9	12	14	16	17	16	21	28	28	121	92	0
28	9	12	15	16	17	16	21	28	28	117	96	0
29	10	12	15	16	-	16	21	28	28	114	94	0
30	10	12	15	16	-	16	21	28	28	108	84	0
31	10	-	15	16	-	16	-	28	-	102	68	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	529	38	7	17.1	1,050
November	334	12	10	11.1	662
December	432	15	12	13.9	857
Calendar year 1936	13,099	122	7	35.8	25,970
January	479	16	15	15.5	950
February	461	18	16	16.5	914
March	493	16	15	15.9	978
April	535	21	16	17.8	1,060
May	803	28	22	25.9	1,590
June	840	28	28	28.0	1,670
July	3,128	127	29	101	6,200
August	3,293	137	68	106	6,530
September	663	58	0	22.1	1,320
Water year 1936-37	11,990	137	0	32.8	23,780

North Fork of Little Butte Creek above Medford intake, near Lakecreek, Oreg.

Location.- Water-stage recorder, lat. 42°24', long. 122°32', in SW¼ sec. 25, T. 36 S., R. 2 E., 300 yards above point of diversion to pipe line formerly used for water supply for Medford and since 1927 for irrigation, and 4½ miles east of Lakecreek.

Records available.- September 1911 to March 1913 (incomplete), May 1922 to September 1928 (incomplete), and October 1931 to September 1937, in reports of Geological Survey; September 1911 to March 1913 and May 1922 to September 1937 in reports of State engineer.

Average discharge.- 11 years (1911-12, 1922-23, 1928-37), 63.3 second-feet.

Extremes.- Maximum discharge during year, 199 second-feet Apr. 15 (gage height, 2.46 feet); minimum, 22 second-feet Sept. 25-30.
1911-13, 1922-28, 1931-37: Maximum discharge, 680 second-feet (estimated) Dec. 30, 1924 (gage height, 3.30 feet); minimum, 11 second-feet (estimated) Oct. 29 to Nov. 8, 1931.

Remarks.- Records good. Flow regulated by storage in Fish Lake Reservoir. Small diversions above station for irrigation; some water diverted into Fish Lake from Fourmile Lake since September 1923.

Rating tables, water year 1936-37 (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used July 14 to Aug. 30)

Oct. 1 to Apr. 15		Apr. 16 to July 4		July 5 to Sept. 30	
1.6	24	1.8	41	1.6	26
1.8	47	2.0	74	1.8	49
2.0	83	2.2	121	2.0	84
2.3	155	2.4	178	2.3	156
2.6	238				

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	58	32	35	37	40	60	132	74	64	57	128	80
2	58	32	37	37	40	63	103	76	64	63	125	71
3	58	32	37	37	40	58	92	76	63	76	125	59
4	60	32	37	38	44	60	90	76	63	78	128	57
5	57	33	42	38	43	61	87	74	61	106	135	55
6	49	33	39	34	43	60	85	72	61	108	140	55
7	47	33	40	28	43	60	77	72	63	118	140	54
8	49	33	42	32	43	60	75	70	63	118	148	51
9	47	33	39	35	43	67	77	70	76	120	146	49
10	47	33	37	36	44	63	73	70	78	120	143	51
11	43	33	37	37	53	61	67	68	78	128	143	49
12	33	33	37	38	60	63	63	66	68	130	143	49
13	34	34	37	38	57	71	119	66	66	130	140	49
14	33	34	37	38	53	65	134	66	66	143	140	48
15	33	34	37	38	47	60	174	64	68	143	135	49
16	33	34	37	38	46	58	126	63	70	135	128	62
17	33	34	37	38	50	60	101	64	68	133	125	62
18	30	34	37	39	50	58	92	94	70	133	125	63
19	30	34	37	38	46	57	89	83	70	130	123	67
20	30	34	37	38	44	53	85	74	70	138	120	33
21	31	34	37	41	47	57	87	70	68	140	120	28
22	31	34	37	40	49	60	78	70	70	138	120	28
23	31	35	40	40	55	58	74	70	66	138	118	26
24	31	35	39	34	58	65	74	70	64	140	118	24
25	31	35	38	27	58	61	74	87	63	140	118	23
26	31	35	38	29	53	60	76	83	61	140	116	22
27	32	35	39	38	50	73	78	78	61	140	116	22
28	32	35	38	38	53	69	78	74	61	138	116	22
29	32	35	38	38	-	63	74	72	61	135	111	22
30	33	35	38	38	-	61	74	70	59	130	108	22
31	32	-	38	39	-	69	-	70	-	128	99	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	1,209	60	30	39.0	2,400
November	1,012	35	32	33.7	2,010
December	1,175	42	35	37.9	2,330
Calendar year 1936	25,891	147	30	70.7	51,360
January	1,134	41	27	36.6	2,250
February	1,352	60	40	48.3	2,680
March	1,914	73	53	61.7	3,800
April	2,708	174	63	90.3	5,370
May	2,252	94	63	72.6	4,470
June	1,984	78	59	66.1	3,940
July	3,811	143	57	123	7,560
August	3,938	146	99	127	7,810
September	1,352	80	22	45.1	2,680
Water year 1936-37	23,841	174	22	65.3	47,300

Diversions from Little Butte Creek near Lakecreek, Oreg.

The following canals divert from Little Butte Creek and its tributaries near Lakecreek:

Hanley South and Hanley North canals, from North Fork of Little Butte Creek in SE¼ sec. 26, T. 36 S., R. 2 E. Water used to irrigate land on both sides of Little Butte Creek near Lakecreek.

Rogue River Valley Canal, from South Fork of Little Butte Creek in SE¼ sec. 29, T. 36 S., R. 2 E., and from North Fork of Little Butte Creek 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 creek below Phoenix.

Eagle Point Canal, from Little Butte Creek in SE¼ sec. 31, T. 35 S., R. 1 E. Water used for irrigation of lands near Eagle Point.

Many smaller diversions from Little Butte Creek and its tributaries.

Records partly estimated for all canals.

Records available April 1929 to September 1937; records of some of the canals published separately prior to 1929.

Diversions, in acre-feet, water year October 1936 to September 1937

Month	Hanley South Canal	Hanley North Canal	Rogue River Valley Canal below junction of intakes	Eagle Point Canal
October....	180	344	2,020	783
April.....	-	-	1,080	424
May.....	552	535	2,880	960
June.....	547	355	4,980	992
July.....	536	785	7,680	1,000
August.....	581	708	6,600	994
September..	425	398	2,810	783

Note.- Probably some flow in canals for months for which no record is given.

Emigrant Gap Reservoir near Ashland, Oreg.

Location.- 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, 6 miles southeast of Ashland. Zero of gage is at mean sea level (surveys of Talent Irrigation District.)

Records available.- December 1924 to September 1937.

Extremes.- 1935-36: Maximum contents observed during year, 8,483 acre-feet Feb. 21 (elevation, 2,174.1 feet); minimum, 300 acre-feet (estimated) Oct. 1.

1936-37: Maximum contents observed during year, 8,388 acre-feet May 4 (gage height, 2,173.7 feet); minimum (estimated), 450 acre-feet Oct. 1, Sept. 30.

1924-37: Maximum contents, 8,748 acre-feet Feb. 20, 1927 (elevation, 2,175.2 feet); no storage at times.

Remarks.- Records good. Records for July to September 1936 supersede those published in Water-Supply Paper 814. Emigrant Gap Reservoir was completed in 1924 by Talent Irrigation District to provide water for lands under East and Talent laterals in vicinity of Talent. Capacity of reservoir below spillway crest (elevation 2,173.5 feet) is 8,342 acre-feet. Natural flow into reservoir may be augmented by water stored in Hyatt Prairie Reservoir and released through Keene Creek Canal in Klamath River Basin, records of which are published in Water-Supply Paper 831.

Gage heights and contents, 1935-37

1935-36				1937			
Date	Elevation (feet)	Contents (acre-feet)	Change in contents (acre-feet)	Date	Elevation (feet)	Contents (acre-feet)	Change in contents (acre-feet)
Sept.30	-	300	-	Feb. 28	-	*1,545	+1,095
Nov. 30	-	511	+211	Mar. 31	-	*6,197	+4,652
Dec. 31	-	*1,233	+722	Apr. 30	2,172.9	8,201	+2,004
Jan. 31	2,168.1	7,136	+5,903	May 31	-	*8,147	-54
Feb. 29	2,171.9	7,971	+835	June 30	2,172.85	8,190	+43
Mar. 31	2,172.9	8,201	+230	July 31	-	*3,842	-4,348
Apr. 30	2,173.3	8,294	+93	Aug. 31	2,122.0	1,335	-2,507
May 31	-	*8,031	-263	Sept. 30	-	450	-885
June 30	2,167.9	7,094	-937				
July 31	-	*3,825	-3,269	Water year 1936-37.....			0
Aug. 31	-	*1,509	-2,316				
Sept.30	-	*450	-1,059				
Water year 1935-36.....			+150				

*Estimated.

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 below Emigrant Gap Reservoir Dam and 6 miles southeast of Ashland.

Records available.- January 1920 to May 1924 (incomplete), October 1924 to September 1937.

Extremes.- Maximum discharge during period, 1,600 second-feet Apr. 15 (gage height, 5.22 feet from floodmark), from rating curve extended above 250 second-feet; no flow Sept. 22-30, little or no flow Oct. 1 to Apr. 9.
1920-1937: Maximum discharge, 5,260 second-feet Feb. 20, 1927; no flow at times.

Remarks.- Records poor. Practically all flow Oct. 1 to Apr. 9 stored at Emigrant Gap Reservoir (possibly some leakage past dam, no record kept). Reservoir began to spill water Apr. 10. Daily discharge for Apr. 10-16, 18-25, July 3-7, 9-19, 21-28, July 30 to Aug. 2, Aug. 4-9 computed on basis of floodmark of Apr. 15 and records for Bear Creek at Medford and Talent lateral near Ashland; that for June 7, 9-26 interpolated. Diversions for irrigation above station; principal canals are Ashland lateral and East lateral. This Creek receives water from Klamath River Basin through Keene Creek Canal. Flow regulated since December 1924 by storage in Emigrant Gap Reservoir.

Rating table, water year 1936-37 (gage height, in feet, and discharge, in second-feet)

0.2	0.6	1.6	71
.4	2.6	2.0	124
.6	6.4	2.4	203
.8	13	3.0	360
1.2	37	3.5	560

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1							*0	23	2.4	1.4	25	5.1
2							*0	47	2.2	1.4	26	3.4
3							*0	60	2.2	1.4	26	3.6
4							*0	79	2.2	1.4	29	3.9
5							*0	74	2.1	1.4	33	3.9
6							*0	65	2.1	1.4	35	3.9
7							*0	58	2.0	1.4	36	3.9
8							*0	39	1.9	25	35	2.0
9							*0	41		26	35	.7
10							30	40		26	34	.6
11							70	36		26	35	.6
12							120	41		34	36	4.6
13							180	44		35	36	9.2
14							410	43		36	31	14
15							450	36		36	29	20
16							310	25		36	29	22
17							214	17	2.8	36	29	21
18							70	29		36	24	18
19							110	44		36	22	6.0
20							60	34		36	22	.4
21							80	20		39	21	.4
22							85	11		38	22	0
23							50	6.2		38	24	0
24							55	3.2		40	24	0
25							70	2.4		40	22	0
26							39	2.2		32	20	0
27							59	2.2	3.6	38	16	0
28							66	2.2	2.5	37	7.2	0
29							64	2.2	1.4	29	6.2	0
30							24	2.2	1.4	27	8.1	0
31							-	2.4	-	26	8.1	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	-	-	-	-	-
November	-	-	-	-	-
December	-	-	-	-	-
Calendar year					
January	-	-	-	-	-
February	-	-	-	-	-
March	-	-	-	-	-
April	2,616	450	0	87.2	5,190
May	931.2	79	2.2	30.0	1,850
June	76.4	3.6	1.4	2.55	152
July	817.8	40	1.4	26.4	1,620
August	785.6	36	6.2	25.3	1,560
September	147.2	22	0	4.91	292
The period	5,374.2	-	-	-	10,660

*Possibly about 1 second-foot from leakage past dam, disregarded.

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 above Main Street Bridge in Medford.

Records available.- March 1915 to September 1937(prior to April 1927, incomplete).

Average discharge.- 16 years (1920-26, 1927-37), 60.2 second-feet.

Extremes.- Maximum discharge during year, 1,860 second-feet Apr. 13 (gage height, 3.78 feet); minimum, 6.1 second-feet Oct. 29 to Nov. 1 (gage height, 0.27 foot).
1915-37: Maximum discharge, 10,200 second-feet Feb. 20, 1927 (gage height, 10.15 feet); practically no flow at times.

Remarks.- Records fair. Discharge for period of ice effect Jan. 6-9, and of missing gage height, Mar. 24, estimated on basis of records for South Fork of Little Butte Creek near Lakecreek. Diversions for irrigation above station. Flow partly regulated since December 1924 by storage in Emigrant Gap Reservoir.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	8.8	6.1	21	12	19	37	244	139	88	29	20	21
2	8.8	6.2	24	11	23	69	288	169	65	22	18	19
3	9.3	6.3	22	11	24	70	149	201	62	19	14	15
4	10	6.4	22	11	200	77	118	238	57	16	14	15
5	11	6.2	24	12	101	136	99	225	55	15	13	18
6	13	8.2	30	10	47	139	86	201	48	19	12	17
7	11	9.0	32	8	36	99	75	183	53	17	14	16
8	9.3	9.5	34	7	30	110	72	162	55	12	15	15
9	8.2	11	34	10	28	164	97	151	102	12	16	13
10	8.2	9.0	33	13	26	127	94	151	221	11	15	13
11	7.5	7.8	31	13	28	97	97	139	193	11	14	11
12	7.0	8.2	19	13	39	86	175	129	209	13	12	10
13	7.0	8.5	14	13	43	82	644	134	159	10	12	9.8
14	7.0	8.2	9.3	13	86	79	884	131	139	10	11	9.5
15	6.8	8.2	8.0	15	46	63	900	124	139	9.5	11	8.9
16	7.0	8.2	7.8	15	35	54	748	120	169	8.7	11	8.7
17	6.8	8.2	7.2	15	32	50	432	102	183	9.2	11	8.7
18	6.5	8.2	7.2	15	42	49	295	229	169	8.9	11	10
19	6.8	8.2	7.2	16	36	42	420	338	151	10	12	22
20	7.0	8.0	7.2	13	30	36	209	247	162	11	11	28
21	6.8	8.0	7.0	13	28	34	256	205	145	10	10	24
22	6.8	7.8	7.0	13	28	37	270	190	131	11	11	24
23	7.8	8.0	9.0	13	30	42	183	183	120	10	11	24
24	8.2	8.2	14	14	45	68	193	176	98	11	12	24
25	9.0	8.2	16	14	57	104	238	209	76	12	13	24
26	7.2	8.2	14	17	42	79	221	213	58	24	11	22
27	7.2	8.2	14	18	37	142	201	186	55	18	12	22
28	6.4	8.2	15	17	32	139	225	169	46	18	12	22
29	6.1	8.5	17	16	-	124	205	153	37	17	11	22
30	6.1	14	15	14	-	104	179	137	42	16	11	22
31	6.1	-	13	15	-	101	-	113	-	18	14	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	244.7	13	6.1	7.89	485
November	246.9	14	6.1	8.23	490
December	534.9	34	7.0	17.3	1,060
Calendar year 1936	32,228.1	1,140	6.1	88.1	63,920
January	410	18	7	13.2	813
February	1,250	200	19	44.6	2,480
March	2,642	164	34	85.2	5,240
April	8,297	900	72	277	16,460
May	5,447	338	102	176	10,800
June	3,287	221	37	110	6,520
July	438.3	29	8.7	14.1	869
August	395	20	10	12.7	783
September	518.6	28	8.7	17.3	1,030
Water year 1936-37	23,711.4	900	6.1	65.0	47,030

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 chiefly on the 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 used to supplement flow of Medford Irrigation District Canal for irrigation of 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.

Many smaller canals divert from Bear Creek and tributaries.

Records available April 1929 to September 1937, records of some of the canals published separately prior to 1929.

Discharge for all canals except Bear Creek Canal partly estimated.

Diversions, in acre-feet, water year October 1936 to September 1937.

Month	Ashland lateral	East lateral	Talent lateral	Phoenix Canal	Bear Creek Canal
October.....	-	0	77	291	430
November....	-	0	52	311	112
December....	-	0	-	478	0
January.....	-	0	-	-	0
February....	-	0	-	-	0
March.....	-	0	-	-	0
April.....	69	202	119	186	0
May.....	288	1,870	902	830	0
June.....	378	1,000	1,230	626	794
July.....	1,070	3,110	2,070	526	587
August.....	972	2,680	1,690	468	789
September...	390	865	458	408	959
The year or period...	3,167	9,727	-	-	3,671

Note.- Slight flow in Ashland lateral in October, probably none November to March; probably some flow in Talent lateral and Phoenix Canal during months omitted.

Applegate River near Ruch, Oreg.

Location.- Water-stage recorder, lat. 42°11', long. 123°03', in sec. 15, T. 39 S., R. 3 W., at Cameron Bridge, 1½ miles above mouth of Little Applegate River and 4½ miles south of Ruch.

Records available.- June 1911 to September 1914, and September 1925 to September 1937.

Average discharge.- 14 years (1911-14, 1925-26, 1927-37), 291 second-feet.

Extremes.- Maximum discharge during year, 6,360 second-feet Apr. 13 (gage height, 7.3 feet, from floodmarks), from rating curve extended above 3,500 second-feet; minimum, 16 second-feet Oct. 20-22 (gage height, 0.44 foot).

1911-14, 1925-37: Maximum discharge, 20,000 second-feet (estimated) Feb. 20, 1927 (gage height, 16.0 feet), from rating curve extended above 8,000 second-feet; minimum, 7 second-feet Sept. 2, 1929 (gage height, 0.26 foot).

Remarks.- Records good except those for periods of ice effect, Jan. 7-13, Jan. 28 to Feb. 1, and of missing gage heights, Jan. 21-25, Apr. 13-15, July 18-26, Aug. 3-6, which were computed on basis of weather records, discharge measurements for Jan. 20, and records for Illinois River at Kerby and are fair. Diversions for irrigation above station.

Rating tables, water year 1936-37 except for periods of ice effect (gage height, in feet, and discharge, in second-feet)

Oct. 1 to Apr. 12						Apr. 16 to Sept. 30			
0.4	13	2.5	865	5.0	3,420	0.7	23	2.2	530
.8	62	3.0	1,270	6.0	4,650	1.0	63	2.6	810
1.5	269	3.5	1,750	7.0	5,950	1.4	163	3.0	1,130
2.0	528	4.0	2,260			1.9	315	3.5	1,580

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	19	22	28	41	35	191	603	716	778	285	74	42
2	19	19	32	35	38	429	681	946	866	260	76	40
3	20	19	30	42	50	258	516	1,220	938	245	70	37
4	21	27	31	44	153	235	440	1,310	834	226	66	38
5	20	32	31	48	147	317	418	1,090	746	215	63	40
6	20	32	34	42	98	370	402	1,010	709	204	60	43
7	20	34	41	39	70	303	365	1,050	674	190	58	39
8	20	34	48	37	60	336	370	906	618	187	58	37
9	20	34	42	35	55	610	412	906	660	173	55	37
10	19	34	38	36	55	547	429	826	625	170	53	38
11	19	34	35	38	57	429	396	1,050	560	163	52	32
12	19	32	34	41	83	457	376	1,360	530	157	52	32
13	19	32	34	44	103	468	5,400	1,490	488	148	55	31
14	19	32	34	47	100	451	4,500	1,440	476	144	52	31
15	18	34	34	45	93	407	3,000	1,360	482	141	50	31
16	19	34	35	42	88	370	1,880	1,310	560	132	47	31
17	17	34	35	37	93	350	1,360	1,180	506	129	46	32
18	17	35	34	34	141	312	1,130	1,310	459	123	46	31
19	17	34	34	34	113	282	1,010	1,130	494	115	42	37
20	16	30	34	34	93	258	1,010	1,050	834	110	40	42
21	16	30	35	33	93	250	1,130	1,090	730	104	42	37
22	17	30	44	31	96	224	946	1,180	578	101	42	34
23	23	30	59	30	106	231	826	1,180	500	98	43	33
24	26	30	127	30	122	258	802	1,260	442	96	39	33
25	24	30	70	31	132	258	914	1,260	398	95	38	34
26	20	30	66	34	119	242	914	1,090	372	92	38	35
27	19	29	68	35	108	258	794	1,090	362	89	39	37
28	19	29	57	34	113	261	681	1,050	338	80	40	39
29	20	28	45	33	-	269	618	946	329	80	43	38
30	23	28	47	32	-	282	618	778	306	82	44	37
31	23	-	44	33	-	331	-	754	-	80	40	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	608	26	16	19.6	1,210
November	912	35	19	30.4	1,810
December	1,360	127	28	43.9	2,700
Calendar year 1936	121,648	2,600	16	332	241,300
January	1,151	48	30	37.1	2,280
February	2,614	153	35	93.4	5,180
March	10,244	610	191	330	20,320
April	32,941	5,400	365	1,098	65,340
May	34,338	1,490	716	1,108	68,110
June	17,192	938	306	573	34,100
July	4,514	285	80	146	8,950
August	1,563	76	38	50.4	3,100
September	1,078	43	31	35.9	2,140
Water year 1936-37	108,515	5,400	16	297	215,200

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. Zero of gage is about 1,218 feet above mean sea level (Geological Survey river profile).

Drainage area.- 367 square miles.

Records available.- March 1926 to September 1937.

Average discharge.- 11 years, 983 second-feet.

Extremes.- Maximum discharge during year, 26,100 second-feet Apr. 13 (gage height, 20.16 feet); minimum, 31 second-feet Oct. 10-17.
1926-37: Maximum discharge, 50,000 second-feet (estimated) Feb. 20, 1927 (gage height, 19.6 feet, former site and datum), from rating curve extended above 30,000 second-feet; minimum, 13 second-feet Sept. 10-15, 1934.

Remarks.- Records good. Discharge for period of missing gage heights, Aug. 12-15, computed on basis of records for Applegate River near Ruch. Diversions for irrigation above station.

Rating tables, water year 1936-37 (gage height, in feet, and discharge, in second-feet)

Oct. 1 to Apr. 14

0.6	24	3.0	780	10.0	7,300
1.0	71	4.0	1,410	15.0	15,800
1.5	176	6.0	2,920	20.0	25,700
2.0	315	8.0	4,800		

Apr. 15 to Sept. 30

1.0	34	4.0	1,200
1.5	134	6.0	2,760
2.0	268	8.0	4,770
3.0	640		

Note - Same as preceding table above 8.6 feet.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	33	35	46	255	980	3,600	3,540	1,170	765	407	80	37
2	33	35	46	222	1,520	5,380	3,270	1,330	765	379	80	38
3	33	36	47	198	1,440	2,920	2,440	1,540	765	348	78	38
4	34	37	46	188	5,470	2,360	2,200	1,580	715	311	69	43
5	33	38	48	249	3,540	2,440	2,360	1,400	665	298	67	46
6	33	40	50	261	1,900	2,600	2,440	1,300	640	280	65	48
7	33	39	57	222	1,300	2,040	2,040	1,300	595	265	65	46
8	33	39	66	191	1,010	2,040	1,900	1,260	550	243	63	44
9	33	39	65	181	862	2,600	2,040	1,260	530	226	63	44
10	32	39	61	196	752	2,440	2,920	1,400	550	198	63	43
11	31	39	58	176	820	2,040	2,680	2,410	550	177	65	40
12	31	39	57	171	2,680	1,970	2,490	1,970	530	175	65	38
13	31	39	57	169	2,840	2,120	21,200	1,850	482	162	68	37
14	31	39	57	204	2,520	1,970	16,600	1,650	466	146	62	37
15	33	40	57	255	1,830	1,760	10,900	1,540	482	142	57	37
16	33	39	65	360	2,120	1,550	5,700	1,470	790	136	53	37
17	31	39	75	303	2,360	1,440	3,900	1,330	790	134	51	37
18	32	40	71	332	3,450	1,300	3,030	1,230	740	129	48	36
19	33	41	69	360	2,120	1,410	2,580	1,200	1,140	124	48	38
20	33	42	66	303	1,520	1,760	2,330	1,110	2,330	117	43	42
21	34	42	65	258	1,300	1,900	2,410	1,080	1,890	108	42	43
22	34	41	65	249	1,240	1,620	2,090	1,110	1,260	106	42	42
23	34	41	152	233	1,240	1,900	1,770	1,080	1,050	101	42	38
24	33	42	835	235	1,340	2,360	1,610	1,110	872	92	43	37
25	34	45	421	235	1,410	1,830	1,650	1,360	740	90	44	34
26	34	45	555	364	1,200	1,650	1,580	1,300	640	88	43	34
27	34	45	890	703	1,040	1,720	1,400	1,140	572	81	43	34
28	34	52	515	703	1,270	1,580	1,260	1,080	510	78	40	33
29	34	51	354	506	-	1,550	1,140	990	463	75	40	33
30	34	48	346	405	-	1,620	1,110	872	435	78	36	33
31	35	-	303	389	-	1,900	-	790	-	78	36	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	1,023	35	31	33.0	2,030
November	1,226	52	35	40.9	2,430
December	5,685	890	46	183	11,240
Calendar year 1936	345,839	15,800	30	945	686,000
January	9,076	703	169	293	18,000
February	51,074	5,470	752	1,824	101,300
March	65,380	5,380	1,300	2,109	129,700
April	112,580	21,200	1,110	3,753	223,300
May	41,212	2,410	790	1,329	81,740
June	23,272	2,330	435	776	46,160
July	5,372	407	75	173	10,660
August	1,704	80	36	55.0	3,380
September	1,167	48	33	38.9	2,310
Water year 1936-37	318,751	21,200	31	873	632,200

Ground-water overflow through numerous 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 that is not served by diversions from the river. The water users have a vital interest in the amount and variation of ground-water overflow because (1) the acreage of irrigable land in the basin is greater than can be watered from the Walla Walla River in every year, (2) the variation in spring discharge depends on the range in stream flow and the time and place of irrigation on the upper part of the fan, and (3) the springs are fed from a body of ground water from which irrigation wells also draw a considerable supply.

A survey made in May and June, 1933, listed 57 springs or spring groups in the area.[1/] 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, ground-water levels and discharge are being measured periodically at representative wells and at the 18 principal springs or spring groups.

A noteworthy feature of the springs is their occurrence in three parallel zones that are concentric about the apex of the alluvial fan. 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 the McCoy Bridge, to springs in the vicinity of Dugger Creek. Within this zone are fully three-fourths of the springs in the Walla Walla River Basin. The intermediate and outer spring zones, each of which contains only a few springs, are about 2 miles and 4 miles, respectively, beyond the inner zone.

The following table lists the measurements of spring discharge thus far available. It indicates that the yearly variation in the discharge of individual springs is as much as 91 percent of the maximum discharge. The average yearly variation has been about 58 percent of the maximum discharge. This variation follows fluctuations in elevation of the ground-water table, which in turn depend chiefly upon the height of ground-water waves that are created by successive freshets in the Walla Walla River and that pass outward through the alluvial fan as the freshets wane. Other fluctuations in elevation of the ground-water table are caused by deep infiltration of water applied to the land for irrigation and, in lesser degree, to deep infiltration of rainfall and to pumpage from irrigation wells.

Discharge measurements of springs in the Walla Walla River Basin, Oregon-Washington during the years 1932, 1933, 1935-36, and 1936-37

Springs of the inner zone

Nicholas Spring, NE¼NE¼ sec. 24, T. 6 N., R. 35 E., 150 feet above confluence of spring channel and Walla Walla River, Oreg.

Date	Discharge	Date	Discharge	Date	Discharge	Date	Discharge	Date	Discharge
	Sec.-ft.		Sec.-ft.		Sec.-ft.		Sec.-ft.		Sec.-ft.
1933		1935		1936		1936		1937	
June 14	1.69	Dec. 9	0.50	June 25	1.15	Dec. 11	0.33	July 5	0.91
21	1.21	1936		July 10	1.05	1937		24	.66
22	1.11	Jan. 10	1.23	28	.64	Feb. 16	.93	Aug. 14	.53
30	1.17	Feb. 10	.99	Aug. 11	.39	Mar. 13	1.67	27	.22
July 25	.88	Mar. 7	2.00	31	.29	Apr. 17	2.04	Sept.18	.24
Aug. 29	.71	Apr. 13	.38	Sept.17	.36	May 8	1.59		
1935		May 9	1.49	Oct. 9	.39	22	1.69		
Nov. 9	.97	June 5	1.43	Nov. 13	.42	June 12	.83		

[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 of springs in the Walla Walla River Basin, Oregon-Washington during the years 1932, 1933, 1935-36, and 1936-37--Continued

Springs of the inner zone--Continued

Big Spring Branch (west prong), SE¼NW¼ sec. 24, T. 6 N., R. 35 E., at Ballou residence, above bridge over county road, Oreg.

Date	Discharge	Date	Discharge	Date	Discharge	Date	Discharge	Date	Discharge
	Sec.-ft.		Sec.-ft.		Sec.-ft.		Sec.-ft.		Sec.-ft.
1932		1933		1936		1936		1937	
Aug. 1	6.05	Sept. 1	4.80	Jan. 10	8.12	Aug. 31	3.74	May 8	12.2
Aug. 22	5.18	16	6.25	Feb. 8	8.10	Sept.17	6.02	22	15.5
Sept.10	5.26	30	8.83	Mar. 7	17.09	Oct. 9	6.38	June 12	15.5
1933		Oct. 14	6.50	Apr. 13	10.66	Nov. 13	3.22	29	13.0
June 3	14.85	Nov. 4	5.34	May 8	16.51	Dec. 11	2.35	July 24	5.77
20	15.85	Dec. 7	6.13	June 5	17.89	1937		Aug. 14	4.05
July 5	12.80	1935		25	9.50	Jan. 22	7.05	27	3.27
18	7.75	Nov. 8	4.88	July 10	6.42	Feb. 15	12.6	Sept.18	4.84
Aug. 1	6.05	Dec. 7	2.16	28	5.15	Mar. 13	9.64		
18	4.91			Aug. 11	3.33	Apr. 17	8.27		

Big Spring Branch (east prong), NE¼SW¼ sec. 24, T. 6 N., R. 35 E., above head of small reservoir supplying two diversion pumps, Oreg.

1933		1936		1936		1936		1937	
June 12	4.75	Jan. 10	2.82	July 10	2.30	Dec. 11	1.41	May 24	4.07
22	4.34	Feb. 10	3.77	24	1.79	1937		June 12	4.72
July 19	3.37	Mar. 7	4.08	Aug. 11	1.93	Jan. 22	2.70	July 5	2.90
23	2.79	Apr. 13	3.74	31	1.67	Feb. 16	3.77	24	2.08
1935		May 9	4.33	Sept.17	2.19	Mar. 15	4.00	Aug. 14	1.67
Nov. 8	2.14	June 5	4.33	Oct. 9	2.68	Apr. 17	3.92	31	1.72
Dec. 7	1.11	25	3.07	Nov. 13	1.62	May 8	3.60	Sept.18	1.94

Engle Spring, NW¼SE¼ sec. 23, T. 6 N., R. 35 E., in channel below diversion dam and in diversion ditch, Oreg.

1933		1933		1936		1936		1937	
June 5	3.93	Oct. 14	3.14	Mar. 7	3.82	Sept.17	2.92	May 8	3.06
21	3.14	Nov. 4	2.56	Apr. 13	2.60	Oct. 9	3.62	24	3.68
July 8	3.35	Dec. 11	2.92	May 9	4.15	Nov. 16	2.68	June 12	3.95
18	3.24	1935		June 5	3.36	Dec. 11	2.43	30	3.15
Aug. 7	2.57	Nov. 8	2.91	25	3.34	1937		July 24	3.01
18	2.89	Dec. 7	2.02	July 10	2.91	Jan. 22	3.43	Aug. 14	2.66
Sept. 2	2.76	1936		28	3.20	Feb. 16	3.72	27	2.34
16	3.07	Jan. 10	2.95	Aug. 11	2.73	Mar. 15	3.53	Sept.20	3.21
30	4.73	Feb. 10	2.87	31	2.20	Apr. 17	2.90		

Downing Spring, SE¼SW¼ sec. 23, T. 6 N., R. 35 E., at weir, 200 feet below spring orifice, Oreg.

1933		1933		1936		1936		1937	
June 3	2.56	Nov. 1	1.42	Feb. 10	1.58	Sept.17	2.28	May 24	2.44
20	2.80	4	1.34	Mar. 7	2.88	Oct. 12	1.71	June 12	2.63
July 5	2.46	8	1.42	Apr. 13	1.74	Nov. 16	.24	29	2.60
18	2.18	10	1.44	May 9	2.22	Dec. 11	.43	July 24	1.22
Aug. 9	1.88	Dec. 7	1.50	June 5	2.63	1937		Aug. 14	.94
18	1.66	1935		25	2.23	Jan. 22	1.70	27	1.83
28	1.66	Nov. 8	1.14	July 10	1.80	Feb. 15	2.78	Sept.18	1.66
Sept.12	2.18	Dec. 7	0	28	1.21	Mar. 15	1.22		
26	2.85	1936		Aug. 11	1.25	Apr. 17	.79		
Oct. 12	1.92	Jan. 10	1.26	31	1.46	May 8	1.07		

Haun Spring, NW¼SE¼ sec. 23, T. 6 N., R. 35 E., at Haun farm, 50 feet upstream from highway crossing, Oreg.

1933		1933		1936		1936		1937	
June 5	1.56	Oct. 14	1.43	Mar. 7	1.93	Sept.17	1.77	May 8	1.66
21	1.18	Nov. 6	1.16	Apr. 13	1.70	Oct. 12	1.37	24	1.88
July 8	1.47	Dec. 7	1.16	May 9	1.84	Nov. 16	1.17	June 12	1.95
19	1.40	1935		June 5	2.14	Dec. 11	1.15	29	1.86
Aug. 1	1.30	Nov. 8	1.44	25	1.85	1937		July 24	1.15
18	1.28	Dec. 7	.65	July 10	1.30	Jan. 22	1.32	Aug. 14	1.04
Sept. 2	1.15	1936		28	1.33	Feb. 15	1.65	27	.91
16	1.50	Jan. 10	1.63	Aug. 11	1.02	Mar. 15	1.51	Sept.18	1.40
30	1.62	Feb. 10	1.88	31	.91	Apr. 17	1.34		

Discharge measurements of springs in the Walla Walla River Basin, Oregon-Washington during the years 1932, 1933, 1935-36, and 1936-37--Continued

Springs of the intermediate and outer zones

McEvoy Spring, SE¼NW¼ sec. 10, T. 6 N., R. 35 E., at McEvoy farm and 200 feet upstream from Walla Walla Valley Traction Co., Wash.

Date	Discharge	Date	Discharge	Date	Discharge	Date	Discharge	Date	Discharge
	Sec.-ft.		Sec.-ft.		Sec.-ft.		Sec.-ft.		Sec.-ft.
1933		1933		1936		1936		1937	
June 5	3.68	Oct. 14	3.85	Mar. 6	4.74	Sept.18	4.13	May 8	3.59
20	5.64	Nov. 6	3.24	Apr. 11	3.48	Oct. 9	4.50	22	4.05
July 5	5.77	Dec. 9	2.85	May 9	5.15	Nov. 13	3.51	June 12	6.07
18	4.65	1935		June 5	6.22	Dec. 11	3.73	July 5	5.15
Aug. 1	3.91	Nov. 8	4.23	25	5.20	1937		24	5.50
18	3.50	Dec. 7	2.56	July 10	4.68	Jan. 22	4.00	Aug. 11	3.35
Sept. 1	3.28	1936		28	5.09	Feb. 15	5.26	31	3.75
16	3.93	Jan. 11	3.63	Aug. 13	3.77	Mar. 13	5.05	Sept.20	4.32
30	4.56	Feb. 8	4.06	29	2.98	Apr. 17	3.78		

Lewis Spring, NW¼NW¼ sec. 23, T. 6 N., R. 35 E., below road crossing, Oreg.

1933		1936		1936		1936		1937	
June 12	2.38	Jan. 11	1.79	July 10	1.71	Dec. 11	2.07	May 22	2.24
July 25	2.46	Feb. 8	2.12	28	1.55	1937		June 12	2.28
Sept.25	2.40	Mar. 7	2.15	Aug. 11	1.78	Jan. 22	2.10	29	2.31
1935		Apr. 13	1.66	31	1.82	Feb. 15	2.83	July 24	1.98
Nov. 8	1.71	May 8	2.33	Sept.17	2.42	Mar. 13	2.79	Aug. 14	2.01
Dec. 7	1.63	June 5	2.48	Oct. 9	2.44	Apr. 17	1.89	27	2.17
		25	1.91	Nov. 13	2.06	May 8	1.82	Sept.19	2.03

Unnamed spring, NW¼NE¼ sec. 16, T. 6 N., R. 35 E., at a small diversion structure, Wash.

1933		1933		1936		1936		1937	
June 3	2.51	Oct. 13	2.74	Mar. 6	*4.88	Sept.18	2.92	June 12	3.64
20	3.25	Nov. 4	2.53	Apr. 11	3.45	Oct. 9	3.95	July 5	4.00
July 5	3.20	6	2.42	May 9	3.04	Dec. 11	3.58	24	*4.16
18	2.84	Dec. 9	3.14	June 4	4.02	1937		Aug. 11	2.74
Aug. 1	2.73	1935		25	4.23	Jan. 22	3.27	31	2.99
18	2.68	Nov. 8	4.05	July 10	3.51	Feb. 15	3.54	Sept.20	2.18
31	2.80	Dec. 7	3.66	28	3.27	Apr. 17	2.91		
Sept.16	2.76	1936		Aug. 13	3.05	May 8	4.23		
30	3.47	Feb. 8	4.76	29	2.19	22	3.51		

*Includes slight inflow from irrigation above spring.

East Mud Creek (west prong) SW¼SW¼ sec. 22, T. 6 N., R. 35 E., at weir, Oreg.

1932		1933		1933		1936		1937	
Aug. 23	1.8	July 6	2.54	Sept. 2	1.79	June 26	2.95	Apr. 13	2.00
Sept.10	1.7	6	2.59	9	1.97	July 10	2.52	May 8	2.22
1933		8	2.71	16	2.11	25	2.22	21	2.38
June 6	2.94	11	2.77	1935		Aug. 11	1.60	June 12	2.49
12	3.10	15	2.77	Nov. 8	3.61	27	1.56	July 5	2.40
13	3.15	18	2.58	Dec. 7	1.95	Sept.17	1.80	23	2.14
14	3.19	19	2.80	1936		Oct. 8	2.26	Aug. 11	1.47
16	3.10	22	2.57	Jan. 11	4.27	Nov. 16	1.03	28	1.12
19	2.73	25	2.75	Feb. 8	2.51	Dec. 11	2.74	31	1.42
20	2.75	Aug. 1	2.55	Mar. 6	3.58	1937		Sept.18	1.61
23	3.05	5	2.52	Apr. 9	3.29	Jan. 16	1.59		
28	3.19	8	2.26	May 9	3.74	Feb. 13	3.08		
July 3	2.84	26	2.11	June 5	3.09	Mar. 15	1.75		

East Mud Creek (east prong), SE¼SW¼ sec. 22, T. 6 N., R. 35 E., in diversion ditch, 150 feet below diversion dam, Oreg,

1932		1935		1936		1936		1937	
Aug. 23	1.0	Nov. 8	2.27	June 5	1.86	Nov. 16	1.08	May 21	1.44
Sept.10	1.2	Dec. 7	1.41	26	1.53	Dec. 11	1.77	June 12	1.63
1933		1936		July 10	1.49	1937		July 5	1.91
June 6	2.05	Jan. 11	2.23	25	1.60	Jan. 16	.89	23	1.44
12	2.56	Feb. 8	1.70	Aug. 11	.95	Feb. 13	2.61	Aug. 11	.96
20	2.23	Mar. 6	5.13	27	.71	Mar. 15	2.03	28	1.06
July 6	1.92	Apr. 9	1.66	Sept.17	.77	Apr. 13	1.06	Sept.18	1.37
25	1.80	May 9	1.92	Oct. 8	1.22	May 8	1.00		

Discharge measurements of springs in the Walla Walla River Basin, Oregon-Washington during the years 1932, 1933, 1935-36, and 1936-37--Continued

Springs of the intermediate and outer zones--Continued

East Mud Creek (branch of), SW¼SW¼ sec. 16, T. 6 N., R. 35 E., near Lockwood residence, Oreg.

Date	Discharge	Date	Discharge	Date	Discharge	Date	Discharge	Date	Discharge
	Sec.-ft.		Sec.-ft.		Sec.-ft.		Sec.-ft.		Sec.-ft.
1933		1933		1936		1936		1937	
June 5	4.73	Oct. 13	3.25	Mar. 6	4.23	Sept.18	1.41	May 8	4.44
21	4.60	Nov. 6	4.33	Apr. 9	4.46	Oct. 9	1.92	22	4.49
July 5	4.76	Dec. 9	4.76	May 9	4.52	Nov. 13	2.35	June 11	4.78
18	4.54	1935		June 4	5.04	Dec. 11	3.02	July 5	5.57
Aug. 1	3.80	Nov. 8	2.59	25	5.67	1937		24	4.37
18	2.85	Dec. 7	3.07	July 10	4.62	Jan. 22	3.24	Aug. 11	2.71
Sept. 1	2.20	1936		28	3.19	Feb. 15	3.58	31	1.70
15	2.50	Jan. 11	3.95	Aug. 13	2.38	Mar. 13	4.67	Sept.18	1.51
30	2.67	Feb. 6	4.35	29	1.95	Apr. 17	4.07		

South Mud Creek, SE¼NW¼ sec. 28, T. 6 N., R. 35 E., at Von der Ahe farm, Oreg.

1933		1933		1936		1936		1937	
June 5	3.50	Nov. 7	3.18	Apr. 11	2.46	Oct. 8	1.53	May 21	3.40
20	3.80	Dec. 9	3.21	May 8	3.18	Nov. 12	3.58	June 11	4.22
July 5	4.18	1935		June 4	4.16	Dec. 12	2.51	July 5	4.18
18	3.83	Nov. 7	3.10	25	3.85	1937		23	[illegible]7
Aug. 24	1.92	Dec. 5	3.18	July 10	2.74	Jan. 16	1.92	Aug. 10	1.40
Sept. 1	1.86	1936		25	2.06	Feb. 13	1.[illegible]	31	1.12
15	1.71	Jan. 9	2.32	Aug. 11	1.42	Mar. 15	2.11	Sept.16	1.48
30	2.01	Feb. 6	1.75	27	1.18	Apr. 13	2.70		
Oct. 13	2.40	Mar. 6	1.48	Sept.17	1.23	May 7	3.03		

Johnson Creek, SE¼NW¼ sec. 29, T. 6 N., R. 35 E., at two weirs, Oreg.

1932		1933		1935		1936		1937	
Aug. 23	2.2	Aug. 17	2.96	Dec. 5	2.74	Aug. 13	1.68	Apr. 13	3.27
Sept.10	1.9	24	2.44	1936		23	2.46	May 7	3.82
1933		31	2.49	Jan. 6	3.00	Sept.17	1.86	21	4.53
May 29	3.56	Sept.18	2.40	Feb. 6	3.03	Oct. 8	2.32	June 11	3.16
June 13	3.72	30	2.68	Mar. 6	2.84	Nov. 12	3.15	July 6	4.12
21	3.86	Oct. 15	3.26	Apr. 11	3.03	Dec. 10	3.70	Aug. 10	2.48
July 10	3.66	Nov. 7	3.97	May 8	3.42	1937		31	2.58
18	3.53	Dec. 7	4.29	June 4	3.58	Jan. 16	3.13	Sept.17	1.43
19	3.47	1935		25	3.81	Feb. 13	2.70		
31	3.25	Nov. 7	3.00	July 10	3.10	Mar. 13	3.29		

Dugger Creek, NW¼NW¼ sec. 32, T. 6 N., R. 35 E., at two weirs, Oreg.

1932		1933		1935		1936		1937	
Aug. 23	4.61	Aug. 14	7.31	Dec. 5	9.80	Aug. 11	5.38	May 7	10.8
Sept.10	3.72	17	6.83	1936		27	4.87	21	9.96
1933		24	6.11	Jan. 9	9.51	Sept.17	5.03	June 11	11.0
June 1	9.46	31	6.11	Feb. 6	7.67	Oct. 8	6.19	July 23	9.17
10	9.09	Sept.15	6.11	Mar. 5	4.97	Nov. 12	8.03	Aug. 6	6.43
17	9.24	26	6.59	Apr. 9	5.78	Dec. 11	8.45	10	5.98
23	10.19	Oct. 12	7.31	May 8	6.17	1937		31	4.90
July 10	10.67	Nov. 7	7.80	June 4	9.74	Jan. 16	8.21	Sept.17	5.04
18	10.13	Dec. 7	9.54	25	9.70	Feb. 13	6.76		
Aug. 2	8.11	1935		July 10	9.22	Mar. 13	8.83		
10	7.35	Nov. 7	9.26	25	7.83	Apr. 13	10.2		

Schwartz Spring Branch (south prong), SW¼SE¼ sec. 23, T. 6 N., R. 34 E., at weirs, Oreg.

1933		1933		1936		1936		1937	
June 6	4.78	Sept.15	3.15	Feb. 6	8.06	Sept.17	3.43	May 21	6.44
8	6.40	29	3.12	Mar. 5	5.82	Oct. 8	2.49	June 11	5.87
13	6.79	Oct. 13	2.97	Apr. 11	5.46	Nov. 13	3.19	28	9.02
22	5.34	Nov. 7	3.60	May 8	5.15	Dec. 10	4.87	July 23	5.67
24	5.47	Dec. 8	4.46	June 4	8.40	1937		Aug. 10	3.46
July 6	5.29	1935		25	6.54	Jan. 16	5.33	31	3.18
15	4.88	Nov. 7	3.18	July 10	5.00	Feb. 13	4.59	Sept.17	2.74
Aug. 1	4.05	Dec. 5	3.43	25	5.05	Mar. 13	*7.84		
17	3.64	1936		Aug. 11	3.35	Apr. 13	5.86		
31	3.57	Jan. 9	4.71	27	3.47	May 7	6.62		

*Includes slight inflow from irrigation above the spring.

Discharge measurements of springs in the Walla Walla River Basin, Oregon-Washington during the years 1932, 1933, 1935-36, and 1936-37--Continued

Springs of the intermediate and outer zones--Continued

Schwartz Spring Branch (north prong), NE¼SW¼ sec. 23, T. 6 N., R. 34 E., in diversion ditch from spring, Oreg.

Date	Discharge	Date	Discharge	Date	Discharge	Date	Discharge	Date	Discharge
	Sec.-ft.		Sec.-ft.		Sec.-ft.		Sec.-ft.		Sec.-ft.
1933		1933		1936		1936		1937	
June 6	4.78	Oct. 13	4.78	Mar. 5	5.61	Sept.17	4.72	May 7	3.98
13	3.82	Nov. 7	4.58	Apr. 11	4.73	Oct. 8	4.07	21	4.60
22	3.98	Dec. 8	4.80	May 8	4.84	Nov. 13	4.40	June 11	5.06
July 6	3.80	1935		June 4	5.01	Dec. 10	4.85	28	5.72
Aug. 1	3.98	Nov. 7	5.09	25	7.78	1937		July 23	†3.12
17	4.38	Dec. 5	4.31	July 10	4.59	Jan. 16	5.22	Aug. 10	3.49
31	3.71	1936		25	5.01	Feb. 13	5.06	31	4.72
Sept.15	3.89	Jan. 9	4.97	Aug. 11	4.57	Mar. 13	3.57	Sept.18	3.77
29	4.47	Feb. 6	5.25	27	4.24	Apr. 13	4.60		

†Not adjusted for diversion above the measuring section.

South Mud Creek, SW¼SE¼ sec. 13, T. 6 N., R. 34 E., at Krumbaugh farm, Oreg.

1932		1933		1936		1936		1937	
Aug. 23	5.5	Sept.15	5.06	Feb. 6	7.74	Sept.17	4.57	May 21	6.12
Sept.10	5.4	29	4.90	Mar. 6	6.02	Oct. 8	3.73	June 11	10.7
12	5.4	Oct. 13	5.21	Apr. 11	6.62	Nov. 13	5.02	28	8.98
1933		Nov. 7	5.90	May 8	7.78	Dec. 10	5.33	July 23	6.84
June 21	7.76	Dec. 8	10.22	June 4	6.62	1937		Aug. 10	5.13
July 5	7.66	1935		25	7.04	Jan. 16	6.50	31	7.35
19	6.65	Nov. 7	3.97	July 10	6.85	Feb. 13	5.83	Sept.17	4.91
Aug. 5	6.64	Dec. 5	5.02	25	5.68	Mar. 13	6.35		
17	5.02	1936		Aug. 11	4.38	Apr. 13	6.49		
31	5.68	Jan. 11	8.07	27	3.34	May 7	5.94		

Note.- Measurements by U. S. Geological Survey, Oregon State Water Resources Department, and Washington Department of Conservation and Development.

In addition to the records of stream flow obtained at gaging stations and reported in the preceding pages, measurements of flow were made at a number of other points, as shown by the following table:

Miscellaneous discharge measurements in Pacific slope basins in Oregon and in lower Columbia River Basin during water year October 1936 to September 1937

Umatilla River Basin, Oreg.

Date	Stream	Tributary to or diverting from-	Locality	Discharge
				Sec.-ft.
Aug. 22	Umatilla River.	Columbia River..	NE¼ sec. 5, T. 2 N., R. 35 E., above City of Pendleton Springs.	43.0
22	.....do.....	.....do.....	At Mission, 5 miles above Pendleton.....	30.7

John Day River Basin, Oreg.

June 20	Jeff Davis Creek.	John Day River..	NW¼ sec. 28, T. 12 S., R. 34 E., at John Day Highway crossing.	*0.2
Apr. 8	.....do.....	.....do.....	NW¼ sec. 17, T. 13 S., R. 34 E. at John Day Highway crossing.	1.9
8	Dads Creek.....	.....do.....	NE¼ sec. 6, T. 13 S., R. 34 E., at John Day Highway crossing.	5.7
June 29	.....do.....	.....do.....	SE¼ sec. 6, T. 13 S., R. 34 E., at John Day Highway crossing.	*.2
Apr. 8	Dixie Creek.....	.....do.....	NW¼ sec. 11, T. 13 S., R. 33 E., at Highway crossing.	3.2
June 29	.....do.....	.....do.....	SW¼ sec. 2, T. 13 S., R. 33 E., at John Day Highway crossing.	*.6
Apr. 8	Bear Creek.....	.....do.....	SW¼ sec. 8, T. 13 S., R. 33 E., at John Day Highway crossing.	1.8
June 30	.....do.....	.....do.....	NW¼ sec. 17, T. 13 S., R. 33 E., at John Day Highway crossing.	*.8
30	Indian Creek....	.....do.....	NW¼ sec. 18, T. 13 S., R. 33 E., at John Day Highway crossing.	3.6
July 1	Moon Creek.....	.....do.....	NW¼ sec. 29, T. 13 S., R. 29 E., at John Day Highway crossing.	*.6
1	Fields Creek....	.....do.....	SE¼ sec. 14, T. 13 S., R. 28 E., at highway crossing.	*.2
1	South Fork of John Day River.	.....do.....	At Dayville.....	2.4
1	Battle Creek....	.....do.....	NE¼ sec. 24, T. 12 S., R. 26 E., at highway crossing.	*.1
1	Cottonwood Creek.	.....do.....	NW¼ sec. 28, T. 12 S., R. 26 E., at highway crossing.	3.0
1	Mountain Creek..	Rock Creek.....	SE¼ sec. 16, T. 12 S., R. 25 E., at mouth.	6.4
1	Marshall Creek..	Mountain Creek..	SE¼ sec. 7, T. 12 S., R. 23 E., at highway crossing.	*.5
1	Squaw Creek.....	Middle Fork of John Day River.	NW¼ sec. 34, T. 11 S., R. 35½ E., at highway crossing.	6.0
1	Summit Creek....	Squaw Creek.....	NE¼ sec. 34, T. 11 S., R. 35½ E., at highway crossing.	*.3
Apr. 8	Clear Creek.....	Middle Fork of John Day River.	NW¼ sec. 34, T. 11 S., R. 35 E., at John Day Highway crossing.	4.3
July 1	.....do.....	.....do.....	.....do.....	6.0
1	Bridge Creek....	.....do.....	SE¼ sec. 32, T. 11 S., R. 35 E., at highway crossing.	5.4
1	Keyes Creek.....	Bridge Creek....	SE¼ sec. 36, T. 11 S., R. 21 E., at mouth.	*.9
1	West Branch of Bridge Creek.	.....do.....	NE¼ sec. 20, T. 11 S., R. 21 E., near Mitchell.	3.8

*Estimated.

Deschutes River Basin, Oreg.

Oct. 22	Sisters Domestic Water District Ditch.	Squaw Creek.....	SW¼ sec. 36, T. 15 S., R. 9 E., near Sisters.	0.63
22	Pole Creek.....	.....do.....	.....do.....	8.44
22	.....do.....	.....do.....	.....do.....	7.87

Columbia River Basin between Deschutes River and Sandy River, Oreg.-Wash.

Aug. 9	Fifteenmile Creek	Columbia River..	SW¼ sec. 31 T. 2 N., R. 14 E., at mouth, Oreg.	0.2
9	Threemile Creek..	.....do.....	NE¼ sec. 12, T. 1 N., R. 13 E., at county road crossing, Oreg.	*.2
9	Mosier Creek.....	.....do.....	Mouth, at Mosier, Oreg.	*.8
9	Rock Creek.....	.....do.....	.....do.....	0
9	Perham Creek.....	.....do.....	NE¼ sec. 36, T. 3 N., R. 9 E., at mouth, Oreg.	*.8
Oct. 17	Viento Creek.....	.....do.....	SE¼ sec. 34, T. 3 N., R. 9 E., at Viento, Oreg.	*.7
9	.....do.....	.....do.....	At mouth, Oreg.	*1.6
9	Starvation Creek.	.....do.....	NW¼ sec. 3, T. 2 N., R. 9 E., at highway crossing, Oreg.	*1.3
9	Cabin Creek.....	.....do.....	NE¼ sec. 4, T. 2 N., R. 9 E., at highway crossing, Oreg.	*.4
Oct. 17	Warren Creek.....	.....do.....	NW¼ sec. 4, T. 2 N., R. 9 E., near mouth, Oreg.	Trace
Aug. 9	.....do.....	.....do.....	.....do.....	*.3

*Estimated.

76127 O—38——12

Miscellaneous discharge measurements in Pacific slope basins in Oregon and in lower Columbia River Basin during water year October 1936 to September 1937--Cont.

Columbia River Basin between Deschutes River and Sandy River, Oreg.-Wash.--Cont.

Date	Stream	Tributary to or diverting from-	Locality	Discharge
				Sec.-ft.
Oct. 17	Lindsey Creek....	Columbia River..	NE¼ sec. 5, T. 2 N., R. 9 E., near mouth, Oreg.	1.2
Aug. 9	.....do.....	.....do.....	.....do.....	*1.7
9	Summit Creek.....	.....do.....	NW¼ sec. 5, T. 2 N., R. 9 E., at highway crossing, Oreg.	*.7
9	Harpham Creek....	.....do.....	SW¼SE¼ sec. 36, T. 3 N., R. 8 E., at highway crossing, Oreg.	*.2
9	.....do.....	.....do.....	NW¼ sec. 1, T. 2 N., R. 8 E., near mouth, Oreg.	0
Apr. 29	Little Wind River	Wind River.....	300 feet above mouth near Carson, Wash.	33.0
Oct. 17	Ruckel Creek.....	Columbia River..	NW¼ sec. 23, T. 2 N., R. 7 E., at mouth, Oreg.	Trace
Aug. 9	.....do.....	.....do.....	.....do.....	*.2
Oct. 17	Tanner Creek.....	.....do.....	Bonneville, at mouth, Oreg.	1.8

*Estimated.

Sandy River Basin, Oreg.

Sept. 7	Alder Creek.....	Sandy River.....	SW¼ sec. 20, T. 2S S., R. 6 E., at mouth	4.5
Oct. 26	Sandy River Canal	.....do.....	At intake, near Marmot.	229
Apr. 10	.....do.....	.....do.....	.....do.....	536

Willamette River Basin, Oreg.

Oct. 24	White Branch Creek.	Lost Creek.....	SW¼ sec. 19, T. 16 S., R. 7 E., at highway crossing.	1.6
24	Yale Creek.....	.....do.....	NE¼ sec. 15, T. 16 S., R. 6 E.	Trace
24	Elk Creek.....	McKenzie River..	SE¼ sec. 29, T. 16 S., R. 4 E., at mouth.	*.6
24	Mill Creek.....	.....do.....	SE¼ sec. 18, T. 16 S., R. 5 E., at mouth.	1.4
Sept.20	Norton Creek.....	Marys River.....	SW¼ sec. 23, T. 11 S., R. 7 W., near Blodgett.	*.1
20	Tum Tum Creek....	.....do.....	SE¼ sec. 20, T. 11 S., R. 7 W., near Blodgett.	3.3
20	Gellatly Creek...	.....do.....	SE¼ sec. 20, T. 11 S., R. 6 W., at highway crossing.	*.3
20	Woods Creek.....	.....do.....	SW¼ sec. 3, T. 12 S., R. 6 W., at county-road crossing.	*.7
20	Wells Creek.....	.....do.....	SW¼ sec. 21, T. 12 S., R. 6 W., near Philomath.	1.4
20	Greasy Creek.....	Wells Creek.....	NW¼ sec. 6, T. 13 S., R. 6 W., near Philomath.	*.9
20	Kisor Creek.....	Greasy Creek....	NE¼ sec. 2, T. 13 S., R. 7 W., at highway crossing.	*.4
20	Dinner Creek.....	.....do.....	NW¼ sec. 1, T. 13 S., R. 7 W., near Philomath.	*.4
20	Cedar Creek.....	.....do.....	NW¼ sec. 6, T. 13 S., R. 6 W., near Philomath.	*.3
20	Rock Creek.....	Wells Creek.....	NE¼ sec. 29, T. 12 S., R. 6 W., at highway crossing.	*.2
20	Oak Creek.....	Marys River.....	NE¼ sec. 3, T. 12 S., R. 5 W., at Corvallis.	*.4
20	Dixon Creek.....	Willamette River	NW¼ sec. 35, T. 11 S., R. 5 W., at Corvallis.	0
23	Calapooya River..	.....do.....	At Albany, 1/3 mile above tailrace of power plant.	70
July 15	.....do.....	.....do.....	At mouth, at Albany, below tailrace of power plant.	418
Sept.23	Albany Power Canal.	South Santiam River.	At Albany.	201
Apr. 13	Mill Creek.....	Willamette River	SE¼ sec. 18, T. 8 S., R. 2 W., near Salem.	3,030
Oct. 1	.....do.....	.....do.....	At mouth, below gage on Willamette River at Salem.	44.8
July 14	.....do.....	.....do.....	.....do.....	28.8
Nov. 19	Labish Creek.....	.....do.....	NW¼ sec. 35, T. 6 S., R. 3 W.	2.7
19	.....do.....	.....do.....	NW¼ sec. 35, T. 6 S., R. 3 W., below Ford Creek.	5.2
Sept.16	South Yamhill River.	Yamhill River...	SE¼ sec. 33, T. 5 S., R. 8 W., at highway crossing.	1.9
16	Hanchet Creek....	South Yamhill River.	NW¼ sec. 30, T. 5 S., R. 8 W., at highway crossing.	*.1
16	Cedar Creek.....	.....do.....	SE¼ sec. 32, T. 5 S., R. 8 W., at highway crossing.	*.1
16	Crooked Creek....	.....do.....	SW¼ sec. 34, T. 5 S., R. 8 W., at highway crossing.	*.1
16	Agency Creek.....	.....do.....	NW¼ sec. 1, T. 5 S., R. 8 W., at mouth.	2.4
16	Rogue River.....	.....do.....	SW¼ sec. 10, T. 6 S., R. 8 W., at highway crossing.	1.1
16	Jackass Creek....	Rogue River.....	SE¼ sec. 10, T. 6 S., R. 8 W., at mouth.	*.3
16	Rock Creek.....	South Yamhill River.	At mouth, at Grand Ronde.	2.9
16	Casper Creek.....	.....do.....	NW¼ sec. 8, T. 5 S., R. 7 W., at mouth.	*.3
16	Gold Creek.....	.....do.....	NW¼ sec. 22, T. 6 S., R. 7 W., near Grand Ronde.	*.4

*Estimated.

Miscellaneous discharge measurements in Pacific slope basins in Oregon and in lower Columbia River Basin during water year October 1936 to September 1937--Cont.

Willamette River Basin, Oreg.--Continued

Date	Stream	Tributary to or diverting from-	Locality	Discharge
				Sec.-ft.
Sept.16	Mill Creek.....	South Yamhill River.	At highway crossing at Buell.....	2.2
16	Gooseneck Creek.	Mill Creek.....	NW¼ sec. 28, T. 6 S., R. 6 W., at mouth.	*.2
16	Salt Creek.....	.....do.....	At highway crossing at Salt Creek.	*.3
July 16	Milk Creek.....	Molalla River....	SW¼ sec. 26, T. 4 S., R. 2 E., near Union Mills.	27.0
Aug. 4	.....do.....	.....do.....	NE¼ sec. 27, T. 4 S., R. 2 E., 150 feet above Cedar Creek.	22.0
27	.....do.....	.....do.....	.....do.....	29.2
4	.....do.....	.....do.....	SW¼ sec. 21, T. 4 S., R. 2 E., below Union Mill tailrace.	56.8
27	.....do.....	.....do.....	.....do.....	39.4
4	Cedar Creek.....	Milk Creek.....	NE¼ sec. 27, T. 4 S., R. 2 E., at mouth.	2.8
27	.....do.....	.....do.....	.....do.....	2.7
June 11	Buckner Creek...	.....do.....	NE¼ sec. 16, T. 45 S., R. 2 E., near mouth.	5.0
Sept.10	Butte Creek.....	Pudding River....	At highway crossing near mouth.	17.6
10	Rock Creek.....	.....do.....	NW¼ sec. 7, T. 5 S., R. 1 E., near Needy.	1.2
10	Bear Creek.....	Rock Creek.....	SW¼ sec. 30, T. 4 S., R. 1 E., near Needy.	1.4
July 30	Mill Creek.....	Pudding River....	At mouth, at Aurora.	7.0
Sept.23	.....do.....	.....do.....	.....do.....	7.6
Oct. 9	Eagle Creek.....	Clackamas River..	NW¼ sec. 5, T. 3 S., R. 4 E., at boy-scout camp.	26.1
July 14	.....do.....	.....do.....	.....do.....	72.9
Aug. 6	.....do.....	.....do.....	.....do.....	36.0
Sept. 3	.....do.....	.....do.....	.....do.....	36.3

*Estimated.

Columbia River Basin below Willamette River, Oreg.

Sept.14	Hunt Creek.....	Columbia River...	NE¼ sec. 17, T. 8, R. 6 W., near Wauna.	*0.2
14	Gnat Creek.....	.....do.....	NE¼ sec. 24, T. 8 N., R. 7 W., at highway bridge.	4.8
14	Big Noise Creek.	Gnat Creek.....	NE¼ sec. 14, T. 8 N., R. 7 W., at highway bridge.	.5
14	Rock Creek.....	.....do.....	SW¼ sec. 14, T. 8 N., R. 7 W., at highway bridge.	*.6
14	Warrens Creek...	Columbia River...	SE¼ sec. 16, T. 8 N., R. 7 W., at highway bridge.	*.2
14	Big Creek.....	.....do.....	SE¼ sec. 18, T. 8 N., R. 7 W., at highway bridge.	23.1
14	Little Creek....	Big Creek.....	SW¼ sec. 18, T. 8 N., R. 7 W., at highway bridge.	*.2
14	Farris Creek....	Columbia River...	SW¼ sec. 23, T. 8 N., R. 8 W., at highway bridge.	Trace
14	Bear Creek.....	.....do.....	SW¼ sec. 22, T. 8 N., R. 8 W., at highway bridge.	1.6
14	Marys Creek.....	.....do.....	NE¼ sec. 21, T. 8 N., R. 8 W., at Svensen.	*.1
14	Twilight Creek..	.....do.....	NE¼ sec. 20, T. 8 N., R. 8 W., at highway crossing, near Svensen.	Trace
14	Mill Creek.....	.....do.....	SE¼ sec. 11, T. 8 N., R. 9 W., at Astoria.	*.1
14	Klaskanine River	Youngs River.....	NW¼ sec. 12, T. 6 N., R. 8 W., at bridge 7½ miles southeast of Olney.	1.4
14	.....do.....	.....do.....	NE¼ sec. 13, T. 7 N., R. 9 W., above North Fork of Klaskanine River near Olney.	6.3
14	North Fork of Klaskanine River.	Klaskanine River.	NW¼ sec. 34, T. 7 N., R. 8 W., at highway crossing.	2.0
14	.....do.....	.....do.....	NE¼ sec. 13, T. 7 N., R. 9 W., near Olney.	7.2
14	North Fork of North Fork of Klaskanine River.	North Fork of Klaskanine River	SW¼ sec. 17, T. 7 N., R. 8 W., at road crossing.	*.3

*Estimated.

Coastal streams between Columbia River and Siletz River, Oreg.

Sept. 9	East Fork of Neacoxie Creek.	Neacoxie Creek...	NE¼ sec. 8, T. 7 N., R. 10 W.	1.5
10	Johnson Creek...	Necanicum River..	NE¼ sec. 23, T. 5 N., R. 10 W., at highway crossing.	.5
10	Vollmer Creek...	.....do.....	NW¼ sec. 14, T. 5 N., R. 10 W., at highway crossing.	.8
10	Williamson Creek	.....do.....	NE¼ sec. 33, T. 6 N., R. 10 W., at highway crossing.	.6
10	Beerman Creek...	.....do.....	.....do.....	1.4
10	O'Hanna (Oneawanna) Creek.	.....do.....	SW¼ sec. 10, T. 6 N., R. 10 W., near Seaside.	*1.5

*Estimated.

Miscellaneous discharge measurements in Pacific slope basins in Oregon and in Lower Columbia River Basin during water year October 1936 to September 1937.--Cont.

Coastal streams between Columbia River and Siletz River, Oreg.--Continued

Date	Stream	Tributary to or diverting from-	Locality	Discharge
				Sec.-ft.
Sept.10	Necanicum River..	Pacific Ocean.....	SE¼ sec. 23, T. 5 N., R. 9 W., at highway crossing, near Necanicum.	2.8
10	.....do.....	.....do.....	NE¼ sec. 4, T. 5 N., R. 10 W., near Seaside.	26.6
10	Bergsvik Creek...	Necanicum River....	SE¼ sec. 23, T. 5 N., R. 9 W., at mouth.	1.6
10	Joe Creek.....	Bergsvik Creek.....	NE¼ sec. 26, T. 5 N., R. 9 W., at highway crossing.	*.4
10	Little Humbug Creek.	Necanicum River....	NE¼ sec. 22, T. 5 N., R. 9 W., at highway bridge.	.9
10	North Fork of Necanicum River.	.....do.....	NW¼ sec. 21, T. 5 N., R. 9 W., at highway bridge.	3.2
10	Alder Creek.....	.....do.....	NW¼ sec. 21, T. 5 N., R. 9 W., near Necanicum.	*.1
10	Lindsley Creek...	.....do.....	NW¼ sec. 20, T. 5 N., R. 9 W., at highway bridge.	*.3
10	Mail (Mill) Creek	.....do.....	SW¼ sec. 24, T. 5 N., R. 10 W., at highway bridge.	1.5
14	Nehalem River....	Pacific Ocean.....	At Vernonia, below Pebble Creek.	27.0
15	East Fork of Nehalem River.	Nehalem River.....	NE¼ sec. 23, T. 5 N., R. 4 W., at highway crossing.	2.9
15	Oak Ranch Creek..	.....do.....	NE¼ sec. 3, T. 5 N., R. 4 W., at mouth.	1.0
15	Cedar Creek.....	.....do.....	SW¼ sec. 34, T. 6 N., R. 4 W., at highway crossing.	*.05
15	Maple (Bob) Creek	.....do.....	NW¼ sec. 34, T. 6 N., R. 4 W., at highway crossing.	*.4
15	Battle Creek.....	Nehalem River.....	NE¼ sec. 30, T. 6 N., R. 4 W., at highway crossing.	*.3
15	Ford Creek.....	.....do.....	SE¼ sec. 14, T. 6 N., R. 5 W., at mouth.	*.6
15	Lundgren Creek...	.....do.....	SW¼ sec. 13, T. 6 N., R. 5 W., at highway crossing.	.9
15	Lyons Creek.....	.....do.....	SE¼ sec. 14, T. 6 N., R. 5 W., at highway crossing.	*.1
15	Deep Creek.....	Nehalem River.....	SE¼ sec. 30, T. 6 N., R. 5 W., near Birkenfeld.	*.4
15	Sager Creek.....	.....do.....	SW¼ sec. 23, T. 6 N., R. 6 W., at highway crossing.	Trace
15	Squaw Creek.....	.....do.....	NE¼ sec. 33, T. 6 N., R. 6 W., at highway crossing.	Trace
14	Fishhawk Creek...	.....do.....	NW¼ sec. 11, T. 5 N., R. 7 W., near Jewell.	3.8
14	North Fishhawk Creek.	Fishhawk Creek.....	SW¼ sec. 32, T. 6 N., R. 7 W., near Jewell.	*2.0
14	Hamilton Creek...	North Fishhawk Creek.	SE¼ sec. 32, T. 6 N., R. 7 W., at mouth.	1.0
14	Beneke Creek.....	Fishhawk Creek.....	NE¼ sec. 11, T. 5 N., R. 7 W., at mouth.	2.9
15	Buster Creek.....	Nehalem River.....	SE¼ sec. 23, T. 5 N., R. 7 W., at mouth.	12.0
15	Cow Creek.....	Nehalem River.....	NE¼ sec. 28, T. 5 N., R. 7 W., at county-road crossing.	.6
15	Kline Creek.....	Cow Creek.....	NW¼ sec. 27, T. 5 N., R. 7 W., at county-road crossing.	*.1
15	Humbug Creek.....	Nehalem River.....	SW¼ sec. 30, T. 5 N., R. 7 W., near Elsie.	2.9
15	West Humbug Creek	Humbug Creek.....	NW¼ sec. 26, T. 5 N., R. 8 W., near Elsie.	1.0
15	Beaver Creek.....	West Humbug Creek..	NW¼ sec. 26, T. 5 N., R. 8 W., at mouth.	*1.0
15	East Humbug Creek	Humbug Creek.....	NW¼ sec. 25, T. 5 N., R. 8 W., at mouth.	.8
15	Cedar Creek.....	.....do.....	NW¼ sec. 5, T. 4 N., R. 7 W., at Elsie.	*.1
15	North Fork of Nehalem River.	Nehalem River.....	SE¼ sec. 17, T. 5 N., R. 8 W., at highway crossing.	*.4
10	.....do.....	.....do.....	SW¼ sec. 22, T. 4 N., R. 9 W., 200 feet below highway crossing.	23.0
10	Soapstone Creek..	North Fork of Nehalem River.....	SW¼ sec. 22, T. 4 N., R. 9 W., at mouth.	8.8
10	Jack Horner Creek	Soapstone Creek....	SW¼ sec. 15, T. 4 N., R. 9 W., at highway bridge.	1.4
10	Rack Heap Creek..	North Fork of Nehalem River.	NW¼ sec. 7, T. 3 N., R. 9 W., at highway crossing.	*.2
10	Big Rack Heap Creek.	.....do.....	SE¼ sec. 7, T. 3 N., R. 9 W., at highway crossing.	*.6
10	Little Rack Heap Creek.	.....do.....	NW¼ sec. 18, T. 3 N., R. 9 W., at highway crossing.	*.3
10	Vosberg Creek....	Nehalem River.....	SE¼ sec. 3, T. 2 N., R. 10 W., at highway crossing.	*.2
13	Neahkahnie Creek.	.....do.....	NE¼ sec. 29, T. 3 N., R. 10 W., at county-road crossing.	*.6
10	Jetty Creek.....	Pacific Ocean.....	NW¼ sec. 16, T. 2 N., R. 10 W., at highway crossing.	1.8
10	Miami River.....	.....do.....	NW¼ sec. 14, T. 1 N., R. 10 W., near Garibaldi.	27.7
10	Kilchis River....	.....do.....	SW¼ sec. 7, T. 1 S., R. 9 W., near Tillamook.	46.0
10	Tillamook River..	.....do.....	SE¼ sec. 7, T. 2 S., R. 9 W., near Tillamook.	20.0
10	Munson Creek.....	Simmons Creek.....	NW¼ sec. 28, T. 2 S., R. 9 W., at highway crossing.	1.0

*Estimated.

Miscellaneous discharge measurements in Pacific slope basins in Oregon and in Lower Columbia River Basin during water year October 1936 to September 1937--Cont.

Coastal streams between Columbia River and Siletz River, Oreg.--Continued

Date	Stream	Tributary to or diverting from-	Locality	Discharge
				Sec.-ft.
Sept.11	Simmons Creek....	Tillamook River....	SW¼ sec. 21, T. 2 S., R. 9 W., at highway crossing.	1.0
11	Fawcett Creek....	.....do.....	At highway crossing at mouth.	1.6
11	Killam Creek.....	.....do.....	SE¼ sec. 16, T. 2 S., R. 9 W., at mouth.	1.7
10	Anderson Creek...	.....do.....	SE¼ sec. 6, T. 2 S., R. 9 W., at highway crossing.	*.05
10	South Prairie Creek.	.....do.....	SE¼ sec. 6, T. 2 S., R. 9 W., at highway crossing.	*.1
13	Fall Creek.....	Pacific Ocean.....	NW¼ sec. 30, T. 1 S., R. 10 W., at county-road crossing.	*.7
13	O'Hara Creek.....	.....do.....	SW¼ sec. 32, T. 1 S., R. 10 W.	*.2
13	Yager Creek.....	.....do.....	NW¼ sec. 4, T. 2 S., R. 10 W., at county-road crossing.	*.2
13	Whisky Creek.....	.....do.....	SE¼ sec. 4, T. 2 S., R. 10 W., at county-road crossing.	2.2
9	Sand Creek.....	.....do.....	SW¼ sec. 16, T. 3 S., R. 10 W., at county-road crossing.	2.2
9	Jewell Creek.....	Sand Creek.....	NW¼ sec. 21, T. 3 S., R. 10 W., at county-road crossing.	1.2
9	Birtiss Creek....	Pacific Ocean.....	NE¼ sec. 29, T. 3 S., R. 10 W., at county-road crossing.	*.4
11	Nestucca River...	.....do.....	SE¼ sec. 36, T. 3 S., R. 10 W., 1½ miles below Beaver.	81.1
11	Beaver Creek.....	Nestucca River.....	NW¼ sec. 18, T. 3 S., R. 9 W., below East and West Forks of Beaver Creek.	13.2
11	West Fork of Beaver Creek.	Beaver Creek.....	NW¼ sec. 18, T. 3 S., R. 9 W., at highway crossing.	3.2
11	Tiger Creek.....	West Fork of Beaver Creek.	SW¼ sec. 7, T. 3 S., R. 9 W., at Hemlock.	*.4
11	East Fork of Beaver Creek.	Beaver Creek.....	NW¼ sec. 18, T. 3 S., R. 9 W., at mouth.	10.0
11	West Creek.....	Nestucca River.....	SE¼ sec. 30, T. 3 S., R. 9 W., at mouth.	.8
11	Sailing Creek....	.....do.....	NE¼ sec. 36, T. 3 S., R. 10 W., at mouth.	*.4
11	Farmer Creek.....	.....do.....	NE¼ sec. 1, T. 4 S., R. 10 W., at mouth.	1.1
16	Three Rivers.....	.....do.....	NW¼ sec. 13, T. 4 S., R. 10 W., at Hebo.	21.7
16	Baxter Creek.....	Louie Creek.....	NE¼ sec. 28, T. 5 S., R. 9 W., at highway crossing.	*.2
16	Alder Creek.....	Three Rivers.....	NW¼ sec. 4, T. 5 S., R. 9 W., at highway crossing.	1.4
16	Rock Creek.....	Alder Creek.....	NW¼ sec. 9, T. 5 S., R. 9 W., at highway crossing.	*.1
16	Woods Creek.....	.....do.....	NW¼ sec. 4, T. 5 S., R. 9 W., at highway crossing.	*.2
16	Cedar Creek.....	Three Rivers.....	At mouth, at Hebo.	3.2
16	Clear Creek.....	Nestucca River.....	SW¼ sec. 27, T. 4 S., R. 10 W., at highway crossing.	1.4
16	Little Nestucca River.	.....do.....	NW¼ sec. 15, T. 5 S., R. 10 W., near Oretown.	17.8
16	Pheasant Creek...	Little Nestucca River.	NW¼ sec. 7, T. 6 S., R. 8 W., at highway crossing.	0
16	Sourgrass Creek..	.....do.....	Mouth, at Dolph.	*.3
16	Louie Creek.....	.....do.....	SE¼ sec. 28, T. 5 S., R. 9 W., at highway crossing.	*.4
16	Bear Creek.....	.....do.....	NE¼ sec. 14, T. 6 S., R. 9 W., at highway crossing.	Trace
16	Neskowin Creek...	Pacific Ocean.....	SE¼ sec. 36, T. 5 S., R. 11 W., near Neskowin.	5.4
16	Kingston Creek...	Neskowin Creek.....	SE¼ sec. 9, T. 6 S., R. 10 W., at highway crossing.	Trace
16	Lewis Creek.....	.....do.....	NW¼ sec. 9, T. 6 S., R. 10 W., at highway crossing.	*.4
16	Jim Creek.....	.....do.....	NE¼ sec. 8, T. 6 S., R. 10 W., at highway crossing.	*.3
16	Prospect Creek...	.....do.....	NW¼ sec. 5, T. 6 S., R. 10 W., at highway crossing.	*.1
16	Hawk Creek.....	.....do.....	SW¼ sec. 25, T. 5 S., R. 11 W., at highway crossing.	.9
16	Alder Creek.....	.....do.....	NE¼ sec. 25, T. 5 S., R. 11 W., at highway crossing.	*.6
16	Salmon River.....	Pacific Ocean.....	SW¼ sec. 33, T. 6 S., R. 10 W., near Otis.	34.4
16	Little Salmon River.	Salmon River.....	NW¼ sec. 14, T. 6 S., R. 9 W., near Rose Lodge.	*.1
16	Indian Creek.....	.....do.....	SW¼ sec. 16, T. 6 S., R. 9 W., at highway crossing.	0
17	Sulphur Creek....	.....do.....	SE¼ sec. 20, T. 6 S., R. 9 W., near Rose Lodge.	*.6
17	Prairie Creek....	.....do.....	SE¼ sec. 20, T. 6 S., R. 9 W., at mouth.	*1.0
16	Alderbrook Creek.	.....do.....	SE¼ sec. 25, T. 6 S., R. 10 W., at highway crossing.	*.8
16	Widow Creek.....	.....do.....	SW¼ sec. 25, T. 6 S., R. 10 W., at highway crossing.	*.3
16	Slickrock Creek..	.....do.....	NW¼ sec. 35, T. 6 S., R. 10 W., at Rose Lodge.	9.2

*Estimated.

Miscellaneous discharge measurements in Pacific slope basins in Oregon and in Lower Columbia River Basin during water year October 1936 to September 1937--Cont.

Coastal streams between Columbia River and Siletz River, Oreg.--Continued

Date	Stream	Tributary to or diverting from-	Locality	Discharge
				Sec.-ft.
Sept.16	Bear (McMullen) Creek.	Salmon River.....	SW¼ sec. 34, T. 6 S., R. 10 W., at highway crossing.	1.9
16	Deer Creek.....	.....do.....	NW¼ sec. 29, T. 6 S., R. 10 W., at highway crossing.	1.0
16	Baxter Creek....	.....do.....	SW¼ sec. 30, T. 6 S., R. 10 W., at highway crossing.	*.05
16	Frazer Creek....	.....do.....	SE¼ sec. 25, T. 6 S., R. 11 W., at highway crossing.	*.1
16	Sam Creek.....	.....do.....	NW¼ sec. 30, T. 6 S., R. 10 W., at county-road crossing.	*.3
16	Rowdy Creek.....	.....do.....	NE¼ sec. 23, T. 6 S., R. 11 W., at mouth.	*.2

*Estimated.

Siletz River Basin, Oreg.

Sept.18	Sijota Creek....	Siletz River.....	SW¼ sec. 10, T. 8 S., R. 11 W., at highway crossing.	*0.1
18	Schooner Creek..	.....do.....	SW¼ sec. 30, T. 7 S., R. 10 W., at county-road crossing.	14.0

*Estimated.

Coastal streams between Siletz River and Umpqua River, Oreg.

Sept.18	Schoolhouse Creek.	Pacific Ocean.....	NE¼ sec. 21, T. 8 S., R. 11 W., at highway crossing.	*0.2
18	Depoe Creek.....	.....do.....	NE¼ sec. 8, T. 9 S., R. 11 W., at mouth.	.8
18	Rocky Creek.....	.....do.....	NE¼ sec. 19, T. 9 S., R. 11 W., at highway crossing at mouth.	1.9
18	Miner Creek.....	.....do.....	SE¼ sec. 32, T. 9 S., R. 11 W., at highway crossing at mouth.	*.3
18	Johnson Creek...	.....do.....	NE¼ sec. 5, T. 10 S., R. 11 W., at highway crossing at mouth.	*.3
18	Spencer Creek...	.....do.....	SE¼ sec. 5, T. 10 S., R. 11 W., at highway crossing at mouth.	*1.0
18	Wade Creek.....	.....do.....	SE¼ sec. 8, T. 10 S., R. 11 W., at highway crossing at mouth.	*.4
18	Cole Creek.....	.....do.....	NE¼ sec. 17, T. 10 S., R. 11 W., at highway crossing at mouth.	*.6
18	Moloch Creek....	.....do.....	SW¼ sec. 17, T. 10 S., R. 11 W., at highway crossing at mouth.	*.5
18	Schooner Creek..	.....do.....	SW¼ sec. 20, T. 10 S., R. 11 W., at highway crossing at mouth.	*.2
18	Little Creek....	.....do.....	NE¼ sec. 32, T. 10 S., R. 11 W., at mouth.	*.5
18	Big Creek.....	.....do.....	NE¼ sec. 32, T. 10 S., R. 11 W., at highway crossing at mouth.	*.6
20	Yaquina River...	.....do.....	SW¼ sec. 31, T. 10 S., R. 9 W., near Chitwood.	10.8
20	Little Elk Creek	Yaquina River.....	SE¼ sec. 11, T. 11 S., R. 9 W., near Eddyville.	*.8
20	Wakefield Creek.	Little Elk Creek...	NE¼ sec. 18, T. 11 S., R. 8 W., at highway crossing.	*.2
20	Hayes Creek.....	Yaquina River.....	NW¼ sec. 33, T. 10 S., R. 9 W., at highway crossing.	*.1
20	Thornton Creek..	.....do.....	SW¼ sec. 31, T. 10 S., R. 9 W., at mouth.	*.3
20	Simpson Creek...	.....do.....	NE¼ sec. 36, T. 10 S., R. 10 W., at mouth.	*.6
20	Olalla Creek....	.....do.....	SE¼ sec. 5, T. 11 S., R. 10 W., near Toledo.	*.4
20	Salal Creek.....	Olalla Creek.....	SE¼ sec. 33, T. 10 S., R. 10 W., near Toledo.	*.4
20	Wessel Creek....	Yaquina River.....	SE¼ sec. 31, T. 10 S., R. 10 W., near Toledo.	*1.2
20	Beaver Creek....	.....do.....	SW¼ sec. 12, T. 11 S., R. 11 W., at highway crossing.	*.4
21	Henderson Creek.	Pacific Ocean.....	NE¼ sec. 30, T. 11 S., R. 11 W., at highway crossing.	*.8
21	Grant Creek.....	.....do.....	NE¼ sec. 31, T. 11 S., R. 11 W., at highway crossing.	*.5
21	Moore Creek.....	.....do.....	SE¼ sec. 31, T. 11 S., R. 11 W., at highway crossing.	*.7
21	Theal Creek.....	.....do.....	NW¼ sec. 6, T. 12 S., R. 11 W., at highway crossing.	1.3
21	Lost Creek.....	.....do.....	NW¼ sec. 7, T. 12 S., R. 11 W., at highway crossing.	*.6
21	Alsea River.....	.....do.....	SW¼ sec. 3, T. 14 S., R. 9 W., 8 miles west of Alsea.	74.5
25	North Fork of Alsea River.	Alsea River.....	NE¼ sec. 29, T. 13 S., R. 7 W., at highway crossing.	15.9
25	Crooked (Spencer) Creek	North Fork of Alsea River.	SW¼ sec. 15, T. 13 S., R. 7 W., near Philomath.	1.8
25	Alder Creek.....	Crooked Creek.....	NE¼ sec. 10, T. 13 S., R. 7 W., at highway crossing.	*.4
25	Yew Creek.....	.....do.....	SE¼ sec. 10, T. 13 S., R. 7 W., at highway crossing near Alsea.	*.8
25	Zahn Creek.....	.....do.....	SW¼ sec. 15, T. 13 S., R. 7 W., at highway crossing.	*.3

*Estimated.

Miscellaneous discharge measurements in Pacific slope basins in Oregon and in Lower Columbia River Basin during water year October 1936 to September 1937--Cont.

Coastal streams between Siletz and Umpqua River, Oreg.--Continued

Date	Stream	Tributary to or diverting from-	Locality	Discharge
				Sec.-ft.
Sept.21	South Fork of Alsea River.	Alsea River.....	SE¼ sec. 12, T. 14 S., R. 8 W., above Bummer Creek.	15.0
21	Mill Creek.....	.....do.....	NE¼ sec. 2, T. 14 S., R. 8 W., at mouth.	1.3
21	Malby Creek.....	.....do.....	SW¼ sec. 9, T. 13 S., R. 8 W., at mouth.	*.1
21	Digger Creek.....	.....do.....	SW¼ sec. 6, T. 14 S., R. 8 W., at mouth.	.8
21	Fall Creek.....	.....do.....	SW¼ sec. 1, T. 14 S., R. 9 W., at mouth.	6.1
21	Bear Creek.....	.....do.....	SW¼ sec. 3, T. 14 S., R. 9 W., at mouth.	*.3
21	Five Rivers.....	.....do.....	NW¼ sec. 17, T. 14 S., R. 9 W., near Denzer.	20.8
21	Lobster Creek....	Five Rivers.....	SW¼ sec. 19, T. 14 S., R. 9 W., at mouth.	5.0
21	Elk Creek.....	.....do.....	SE¼ sec. 18, T. 14 S., R. 10 W., at mouth.	*.3
21	Bear Creek.....	.....do.....	NW¼ sec. 17, T. 14 S., R. 9 W., at mouth.	*.8
21	Scott Creek.....	Alsea River.....	NW¼ sec. 31, T. 13 S., R. 9 W., at mouth.	4.0
22	Divinity Creek...	Pacific Ocean.....	SW¼ sec. 14, T. 14 S., R. 12 W., at mouth.	*.7
22	Salmon Creek.....	.....do.....	NW¼ sec. 23, T. 14 S., R. 12 W., at mouth.	*.8
22	Yachats River....	.....do.....	SW¼ sec. 31, T. 14 S., R. 11 W., near Yachats.	27.2
22	Cape Creek.....	.....do.....	SE¼ sec. 3, T. 15 S., R. 12 W., at highway crossing at mouth.	*.3
22	Gwynn Creek.....	.....do.....	SE¼ sec. 10, T. 15 S., R. 12 W., at highway crossing at mouth.	*.4
22	Cummins Creek....	.....do.....	SE¼ sec. 10, T. 15 S., R. 12 W., at highway crossing at mouth.	*.9
22	Bob Creek.....	.....do.....	NE¼ sec. 22, T. 15 S., R. 12 W., at highway crossing at mouth.	1.5
22	Agate Creek.....	.....do.....	NE¼ sec. 27, T. 15 S., R. 12 W., at highway crossing at mouth.	*.3
22	Tenmile Creek....	.....do.....	NW¼ sec. 35, T. 15 S., R. 12 W., near Yachats.	11.4
22	Squaw Creek.....	.....do.....	NW¼ sec. 3, T. 16 S., R. 12 W., at highway crossing at mouth.	*.3
22	Nancy Creek.....	.....do.....	NW¼ sec. 10, T. 16 S., R. 12 W., at highway crossing at mouth.	*.05
22	Rock Creek.....	.....do.....	NW¼ sec. 15, T. 16 S., R. 12 W., at highway crossing at mouth.	1.9
22	Big Creek.....	.....do.....	SE¼ sec. 15, T. 16 S., R. 12 W., at highway crossing at mouth.	2.6
22	China Creek.....	.....do.....	NW¼ sec. 22, T. 16 S., R. 12 W., at highway crossing at mouth.	*.6
22	Blowout Creek....	.....do.....	NW¼ sec. 27, T. 16 S., R. 12 W., at highway crossing at mouth.	*.3
22	Cape Creek.....	.....do.....	SW¼ sec. 34, T. 16 S., R. 12 W., at highway crossing at mouth.	8.1
22	Horse Creek.....	.....do.....	SW¼ sec. 3, T. 17 S., R. 12 W., at highway crossing at mouth.	*.8
22	Berry Creek.....	.....do.....	NW¼ sec. 15, T. 17 S., R. 12 W., at highway crossing at mouth.	1.6
22	Lily Creek.....	Pacific Ocean through Lily Lake	NE¼ sec. 22, T. 17 S., R. 12 W., at highway crossing at mouth.	*.3
22	Marr Creek.....	Pacific Ocean through Marr Lake	NE¼ sec. 22, T. 17 S., R. 12 W., at highway crossing at mouth.	Trace
22	Sutton Creek.....	Pacific Ocean.....	NW¼ sec. 35, T. 17 S., R. 12 W., at highway crossing at mouth.	4.5
23	Conrad Creek.....	Lake Creek.....	SW¼ sec. 11, T. 16 S., R. 7 W., at highway crossing at mouth.	Trace
23	Swamp Creek.....	.....do.....	NW¼ sec. 17 T., 16 S., R. 7 W., at mouth.	*.3
23	Pontius (Druggs) Creek.	Swamp Creek.....	NW¼ sec. 7, T. 16 S., R. 7 W., at highway crossing.	0
23	Little Lake Creek	Lake Creek.....	NE¼ sec. 19, T. 16 S., R. 7 W., at mouth.	*.2
23	Spring Canyon Creek.	.....do.....	SE¼ sec. 19, T. 16 S., R. 7 W., at mouth.	*.05
23	Greenleaf Creek..	.....do.....	SE¼ sec. 2, T. 17 S., R. 8 W., at highway crossing.	3.8
23	Wheeler Creek....	.....do.....	SW¼ sec. 4, T. 17 S., R. 8 W., at highway crossing at mouth.	*.1
23	Nelson Creek.....	.....do.....	NW¼ sec. 16, T. 17 S., R. 8 W., near Greenleaf.	1.2
23	Chappell Creek...	Siuslaw River.....	SE¼ sec. 7, T. 17 S., R. 8 W., at highway crossing at mouth.	*.2
23	Hula Creek.....	Lake Creek.....	NW¼ sec. 13, T. 17 S., R. 9 W., at mouth.	*.3
23	Johnson Creek....	.....do.....	NE¼ sec. 14, T. 17 S., R. 9 W., at mouth.	*.2
23	Deadwood Creek...	.....do.....	NE¼ sec. 15, T. 17 S., R. 9 W., at mouth.	9.7

*Estimated.

Miscellaneous discharge measurements in Pacific slope basins in Oregon and in Lower Columbia River Basin during water year October 1936 to September 1937--Cont.

Coastal streams between Siletz and Umpqua River, Oreg.--Continued

Date	Stream	Tributary to or diverting from-	Locality	Discharge
				Sec.-ft.
Sept.23	Green Creek.....	Lake Creek.....	NE¼ sec. 16, T. 17 S., R. 9 W., at mouth.	*1.0
23	Indian Creek.....	.....do.....	NW¼ sec. 20, T. 17 S., R. 9 W., at mouth.	21.5
23	Camp Creek.....	Siuslaw River.....	SE¼ sec. 30, T. 17 S., R. 9 W., at mouth.	*.05
23	Cleveland Creek..	.....do.....	NW¼ sec. 25, T. 17 S., R. 10 W., at mouth.	*.2
23	Thompson Creek...	.....do.....	SW¼ sec. 23, T. 17 S., R. 10 W., at mouth.	*.6
23	Walker Creek.....	.....do.....	SW¼ sec. 27, T. 17 S., R. 10 W., at mouth.	*.3
23	Hollenbeck Creek.	.....do.....	NW¼ sec. 2, T. 18 S., R. 10 W., at mouth.	*.1
23	Rice Creek.....	.....do.....	NE¼ sec. 11, T. 18 S., R. 10 W., at mouth.	*.1
23	Park Creek.....	.....do.....	SW¼ sec. 11, T. 18 S., R. 10 W., at mouth.	*.05
23	Divide Creek.....	.....do.....	SW¼ sec. 7, T. 18 S., R. 10 W., at mouth.	1.9
23	Whisky Creek.....	.....do.....	SE¼ sec. 11, T. 18 S., R. 11 W., at mouth.	*.2
23	Patterson Creek..	.....do.....	NW¼ sec. 21, T. 18 S., R. 11 W., at highway crossing.	Trace
23	Skunk Hollow Creek.	.....do.....	SW¼ sec. 20, T. 18 S., R. 11 W., along highway at Cushman.	*.3
23	North Fork of Siuslaw River.	.....do.....	NE¼ sec. 34, T. 17 S., R. 11 W., 2 miles southwest of Minerva.	17.2
23	Condon Creek.....	North Fork of Siuslaw River.	SE¼ sec. 33, T. 17 S., R. 11 W., 3 miles southwest of Minerva.	2.4
23	Lindsley Creek...	.....do.....	SW¼ sec. 7, T. 18 S., R. 11 W., at county-road crossing.	Trace
23	Haring Creek.....	Lindsley Creek....	SE¼ sec. 7, T. 18 S., R. 11 W., at county-road crossing.	Trace
23	Munsel Creek.....	North Fork of Siuslaw River.	NW¼ sec. 25, T. 18 S., R. 12 W., at county-road crossing.	*.5
28	Woahink Creek....	Siltcoos Lake.....	NW¼ sec. 27, T. 19 S., R. 12 W., at county-road crossing.	1.6
28	Elbow Creek.....	Tahkenitch Lake...	NE¼ sec. 32, T. 20 S., R. 12 W., at highway crossing.	*.3
28	Tahkenitch Creek.	Pacific Ocean.....	NE¼ sec. 29, T. 20 S., R. 12 W., at highway crossing.	12.8

*Estimated.

Umpqua River Basin, Oreg.

Sept.26	Elk Creek.....	Umpqua River.....	NW¼ sec. 17, T. 22 S., R. 5 W., at Drain.	7.8
24	.....do.....	.....do.....	At mouth, at Elkton.	21.3
24	Hardscrabble Creek.	Elk Creek.....	SE¼ sec. 11, T. 22 S., R. 6 W., at mouth.	*.1
24	Jack Creek.....	.....do.....	SE¼ sec. 10, T. 22 S., R. 6 W., at mouth.	*.2
24	Parker Creek.....	.....do.....	NE¼ sec. 17, T. 22 S., R. 6 W., at highway crossing.	*.2
24	Hancock Creek....	.....do.....	NE¼ sec. 21, T. 22 S., R. 7 W., at mouth.	*.1
24	Paradise Creek...	Umpqua River.....	NE¼ sec. 9, T. 22 S., R. 8 W., at mouth.	1.5
24	Weatherly Creek..	.....do.....	NW¼ sec. 14, T. 22 S., R. 9 W., at mouth.	*.6
24	Burchard Creek...	.....do.....	NW¼ sec. 15, T. 22 S., R. 9 W., at mouth.	*.1
24	Golden Creek.....	.....do.....	NE¼ sec. 8, T. 22 S., R. 9 W., at mouth.	*.1
24	Wells Creek.....	.....do.....	NW¼ sec. 8, T. 22 S., R. 9 W., at mouth.	*.3
24	Luder Creek.....	.....do.....	NW¼ sec. 21, T. 22 S., R. 10 W., at mouth.	0
24	Charlotte Creek..	.....do.....	NW¼ sec. 8, T. 22 S., R. 10 W., at mouth.	0
24	Indian Charlie Creek.	.....do.....	SW¼ sec. 8, T. 22 S., R. 10 W., at mouth.	Trace
24	Providence Creek.	.....do.....	SE¼ sec. 4, T. 22 S., R. 12 W., at highway crossing.	*.1
28	Winchester Creek.	.....do.....	SW¼ sec. 7, T. 22 S., R. 12 W., at Winchester Bay.	2.2
28	Silver Creek.....	Winchester Creek..	NW¼ sec. 8 T., 22 S., R. 12 W., near Winchester Bay.	*.1

*Estimated.

Coastal streams between Umpqua River and Rogue River, Oreg.

Sept.28	Tenmile Creek....	Pacific Ocean.....	Above Eel Creek, 1 mile west of Lakeside.	0
28	Eel Creek.....	Tenmile Creek.....	At mouth, 1 mile west of Lakeside.	2.4
28	Clear Creek.....	Eel Creek.....	NW¼ sec. 36, T. 22 S., R. 13 W., near Lakeside.	*.2

*Estimated.

Miscellaneous discharge measurements in Pacific slope basins in Oregon and in Lower Columbia River Basin during water year October 1936 to September 1937--Cont.

Coastal streams between Umpqua River and Rogue River, Oreg.--Continued

Date	Stream	Tributary to or diverting from-	Locality	Discharge
				Sec.-ft.
Sept.29	East Fork of Millicoma River	Millicoma River...	NE¼ sec. 5, T. 25 S., R. 11 W., near Allegany.	2.0
29	Marlow Creek....	East Fork of Millicoma River..	SE¼ sec. 5, T. 25 S., R. 11 W., at mouth.	*.4
29	West Fork of Millicoma River	Millicoma River.	SE¼ sec. 6, T. 25 S., R. 11 W., near mouth.	5.3
29	Deton Creek.....	.....do.....	NE¼ sec. 13, T. 25 S., R. 12 W., at mouth.	Trace
29	Mart Davis Creek	.....do.....	SW¼ sec. 23, T. 25 S., R. 12 W., at mouth.	*.7
29	Bridges Creek...	.....do.....	SE¼ sec. 22, T. 25 S., R. 12 W., at mouth.	*.2
30	Middle Fork of Coquille River.	Coquille River....	At highway crossing 2½ miles southwest of Camas Valley.	*.6
30	Holmes Creek....	Middle Fork of Coquille River.	SW¼ sec. 36, T. 29 S., R. 9 W., at mouth.	*.05
30	Mystic Creek....	Coquille River....	NE¼ sec. 2, T. 30 S., R. 9 W., at mouth.	*.05
30	Bear Creek.....	.....do.....	SE¼ sec. 9, T. 30 S., R. 9 W., at mouth.	Trace
30	Slater Creek....	Middle Fork of Coquille River.	NE¼ sec. 18, T. 30 S., R. 9 W., at mouth.	*.1
30	Panther Creek...	.....do.....	NW¼ sec. 18, T. 30 S., R. 9 W., at mouth.	*.1
30	Rock Creek.....	.....do.....	NE¼ sec. 3, T. 30 S., R. 10 W., at mouth.	2.7
30	Tanner Creek....	.....do.....	NE¼ sec. 30, T. 29 S., R. 10 W., at mouth.	*.1
30	Big Creek.....	.....do.....	SE¼ sec. 28, T. 29 S., R. 11 W., at mouth.	1.4
30	King Creek.....	.....do.....	SE¼ sec. 20, T. 29 S., R. 11 W., at mouth.	*.1
30	Enticott Creek..	.....do.....	SE¼ sec. 24, T. 29 S., R. 12 W., at mouth.	*.1
30	Mill Creek.....	.....do.....	SE¼ sec. 22, T. 29 S., R. 12 W., at mouth.	0
30	Grady Creek.....	Coquille River....	SW¼ sec. 32, T. 28 S., R. 12 W., at Norway.	0
30	Gray Creek.....	.....do.....	SE¼ sec. 30, T. 28 S., R. 12 W., at highway crossing.	0
30	Glen Aiken Creek	.....do.....	NW¼ sec. 19, T. 28 S., R. 12 W., at highway crossing.	*.2
30	Rink Creek.....	.....do.....	NW¼ sec. 7, T. 28 S., R. 12 W., at highway crossing.	0
30	Cunningham Creek	.....do.....	SE¼ sec. 36, T. 27 S., R. 13 W., at highway crossing.	*.8
30	Budd Creek.....	Cunningham Creek..	SW¼ sec. 36, T. 27 S., R. 13 W., at Coquille highway crossing.	*.2
30	Beaver Creek....	Coquille River....	NW¼ sec. 15, T. 27 S., R. 13 W., at Coaledo.	0
30	Fat Elk Creek...	.....do.....	SW¼ sec. 10, T. 28 S., R. 13 W., at county-road crossing.	*.3
30	Alder Creek.....	.....do.....	SE¼ sec. 18, T. 28 S., R. 13 W., at mouth.	0
30	Lampa Creek.....	.....do.....	SW¼ sec. 30, T. 28 S., R. 13 W., at mouth.	0
30	Bear Creek.....	.....do.....	SE¼ sec. 27, T. 28 S., R. 14 W., near Bandon.	1.4
30	Fairy Creek.....	.....do.....	SE¼ sec. 29, T. 28 S., R. 14 W., at State fish hatchery.	1.4

*Estimated.

Rogue River Basin, Oreg.

Aug. 18	Slate Creek.....	Applegate River...	SW¼ sec. 17, T. 37 S., R. 7 W., at highway crossing.	*0.25
18	Butcherknife Creek.	Slate Creek.....	SW¼ sec. 17, T. 37 S., R. 7 W., at mouth.	*.05
18	Waters Creek....	.....do.....	SW¼ sec. 9, T. 37 S., R. 7 W., at highway crossing.	*.1
18	Minnie Creek....	.....do.....	NW¼ sec. 1, T. 37 S., R. 7 W., at mouth.	0
18	Holton Creek....	Illinois River....	NE¼ sec. 9, T. 39 S., R. 8 W., at Kerby.	0
18	Reeves Creek....	.....do.....	NE¼ sec. 33, T. 38 S., R. 8 W., at highway crossing.	Trace
18	Deer Creek.....	.....do.....	NE¼ sec. 15, T. 38 S., R. 8 W., at highway crossing.	3.2
18	Clear Creek.....	Deer Creek.....	SW¼ sec. 2, T. 38 S., R. 8 W., at mouth.	*.4

*Estimated.

INDEX

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