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SURFACE WATER SUPPLY *of the* UNITED STATES 1935

PART 14 PACIFIC SLOPE BASINS IN OREGON AND LOWER COLUMBIA RIVER BASIN

NATHAN C. GROVER, Chief Hydraulic Engineer
G. H. CANFIELD and G. L. PARKER
District Engineers

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PACIFIC SLOPE BASINS IN OREGON AND LOWER COLUMBIA RIVER BASIN

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 year ending September 30, 1935. The work was begun in 1888 in connection with special studies relating to irrigation. In the execution of the work, measurements of stream flow have been made at about 7,020 points in the United States and also at many points in Alaska and the Hawaiian Islands. In July 1935, 3,020 gaging stations were being maintained by the Geological Survey and the cooperating organizations. Many miscellaneous discharge measurements were made at other points.

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-foot" is an abbreviation for "cubic feet per second." A second-foot is 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 the 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 information in regard to the location and type of gage, 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 in regard to the general accuracy of the records. "Excellent" indicates that, in general, the daily records are accurate within 5 percent; "good", within 10 percent; "fair", within 15 percent; and "poor", within 20 percent or more.

The monthly means for any station may represent with high accuracy the quantity of



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.

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.

In order to permit greater refinement in analysis and comparison of records for adjacent stations, the following changes in computation procedure were followed in preparing some of the records published in the series of reports for 1934 and all the records for 1935: (a) Mean monthly discharge above 1,000 second-feet and monthly run-off above 10,000 acre-feet are expressed to four significant figures instead of three significant figures, as formerly; (b) monthly run-off in acre-feet is computed from the total second-foot-days for the month and not from the mean discharge for the month; (c) drainage areas above 1,000 square miles, if measured on topographic maps, or if otherwise warranted, are expressed to four significant figures instead of three as formerly.

PUBLICATIONS

The results of stream-flow measurements are now published annually in 14 parts (parts 12, 13, and 14 were formerly 12-A, 12-B, and 12-C), 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 United States 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., 801 National Loan & Exchange Bank Building.
 Ocala, Fla., Post Office Building.
 Montgomery, Ala., Post Office Building.
 Chattanooga, Tenn., 217 Post Office 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., 403 Post Office Building.
 Salt Lake City, Utah, 303 Federal Building.
 Idaho Falls, Idaho, 228 Federal Building.
 Boise, Idaho, 429 Federal Building.
 Helena, Mont., 421 Federal Building.
 Tacoma, Wash., 406 Federal Building.
 Portland, Oreg., 608 Post Office Building.
 San Francisco, Calif., 303 Customhouse.
 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, United States 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 United States 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.

Stream-flow data in reports of the United States Geological Survey—Continued

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

Report	Character of data	Year
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 12.

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 reports containing records obtained prior to 1904 has been published in Water-Supply Paper 119.

The following table gives, by years and drainage basins, the numbers of the papers on surface-water supply published from 1899 to 1935. 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, 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. Special papers containing compilation of records previously published and also records not contained in the annual series of water-supply papers have been published for some States and drainage basins. For example, stream-flow records for the New-Kanawha River Basin in part 3 from 1895 to 1920 are contained in Water-Supply Paper 536.

Numbers of water-supply papers containing results of stream measurements, 1899-1935
(For basins included, see p. 9)

Year	1	2	3	4	5	6	7	8	9	10	11	12-A (12-A)	12-B (12-B)	13 (13-C)
1899 a...	35	b 35, 36	36	36	c 36, 37	37	37	37	d 37, 38	38, e 39	38, f 39	38	38	38
1900 g...	47, h 48	48, i 49	49	49	j 49, 50	50	50	50	50	51	51	51	51	51
1901 k...	65, 76	65, 76	66, 76	66, 76	k 66, 66, 76	66, 76	66, 76	66, 76	66, 76	66, 76	66, 76	66, 76	66, 76	66, 76
1902 m...	82	p 82, 83	83	m 82, 83	k 82, 83	84	84	84	84	85	85	85	85	85
1903 o...	124, p 125, q 126	q 126, 127	128	129	k 126, 130	130, r 131	k 128, 131	132	133	133, s 134	134	135	135	135
1904 r...	169	170	171	172	172	172	k 169, 173	174	175, t 177, 178	s 177	177	178	178	178
1905 u...	205	206	207	208	208	208	k 206, 209	210	211, t 213, 215, s 213	213	213	214	214	214
1906 v...	243	244	245	246	246	246	k 245, 247	248	249, 250, s 251	251	252	252	252	252
1907 w...	263	264	265	266	266	266	267	268	269, 270, s 271	271	272	272	272	272
1908 x...	281	282	283	284	285	286	287	288	289	290	291	292	292	292
1909 y...	321	322	323	324	325	326	327	328	329	330	331	332	332	332
1910 z...	351	352	353	354	355	356	357	358	359	360	361	362-A	362-B	362-C
1911 a...	381	382	383	384	385	386	387	388	389	390	391	392	393	394
1912 b...	401	402	403	404	405	406	407	408	409	410	411	412	413	414
1913 c...	431	432	433	434	435	436	437	438	439	440	441	442	443	444
1914 d...	461	462	463	464	465	466	467	468	469	470	471	472	473	474
1915 e...	491	492	493	494	495	496	497	498	499	500	501	502	503	504
1916 f...	521	522	523	524	525	526	527	528	529	530	531	532	533	534
1917 g...	551	552	553	554	555	556	557	558	559	560	561	562	563	564
1918 h...	581	582	583	584	585	586	587	588	589	590	591	592	593	594
1919 i...	611	612	613	614	615	616	617	618	619	620	621	622	623	624
1920 j...	641	642	643	644	645	646	647	648	649	650	651	652	653	654
1921 k...	671	672	673	674	675	676	677	678	679	680	681	682	683	684
1922 l...	699	697	698	699	700	701	702	703	704	705	706	707	708	709
1923 m...	711	712	713	714	715	716	717	718	719	720	721	722	723	724
1924 n...	728	729	730	731	732	733	734	735	736	737	738	739	740	741
1925 o...	742	743	744	745	746	747	748	749	750	751	752	753	754	755
1926 p...	756	757	758	759	760	761	762	763	764	765	766	767	768	769
1927 q...	771	772	773	774	775	776	777	778	779	780	781	782	783	784
1928 r...	785	786	787	788	789	790	791	792	793	794	795	796	797	798
1929 s...	799	800	801	802	803	804	805	806	807	808	809	810	811	812
1930 t...	813	814	815	816	817	818	819	820	821	822	823	824	825	826
1931 u...	827	828	829	830	831	832	833	834	835	836	837	838	839	840
1932 v...	841	842	843	844	845	846	847	848	849	850	851	852	853	854
1933 w...	855	856	857	858	859	860	861	862	863	864	865	866	867	868
1934 x...	869	870	871	872	873	874	875	876	877	878	879	880	881	882
1935 y...	883	884	885	886	887	888	889	890	891	892	893	894	895	896

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 Kings and Kern Rivers and south Pacific slope basins.
f 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.
g Monthly discharge for 1900 in 22d Annual Report, part 4.
h Wessickton and Schuykill 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.
l Lake Ontario and tributaries to St. Lawrence River proper.
m Hudson Bay only.
n New England rivers only.
o Hudson River to Hudson Bay.
p Platte River to Hadwin River, inclusive.
q Platte and Kansas Rivers.
r The Great Basin in California, except Truckee and Carson River Basins.
s Below junction with Oila River.
t Rogue, Umoqua, and Siletz Rivers only.

The following table contains a list of gaging stations for the area covered by this report at which records of discharge were collected during the year ending September 30, 1935, by agencies other than the Geological Survey. The records for these stations are not contained in the publications of the Geological Survey.

Records of discharge collected by agencies other than the Geological Survey

Stream	Location	Period	Remarks
Big Butte Springs..	5 miles southeast of Butte Falls, Oreg.....	1929-35	Unpublished.
Big Marsh Creek....	Hoey ranch, near Crescent, Oreg.....	1924, 1928-35	1924, 1928-30 published in State engineer Bull. 8; 1931-35 unpublished.
Cable Creek.....	6 miles east of Ukiah, Oreg.....	*1932-35	Unpublished.
Camas Creek.....	Above Cable Creek, 6 miles east of Ukiah, Oreg.....	*1932-35	...Do
Clear Creek.....	Above Wapinitia Irrigation Co.'s canal, near Wapinitia, Oreg.....	1934-35	...Do
Deschutes River....	1½ miles southwest of Cline Falls, Oreg.....	*1928-35	1928-29 published in State engineer Bull. 8; 1930-35 unpublished.
Eagle Creek.....	Log Cabin Camp, near Estacada, Oreg.....	1933-35	Unpublished.
Grave Creek.....	1 mile below Placer, Oreg.....	*1929-35	1929-30 published in State engineer Bull. 8; 1931-35 unpublished.
Jumpoff Joe Creek..	8 miles northeast of Merlin, Oreg.....	*1929-35	1929 published in State engineer Bull. 8; 1930-35 unpublished.
Little Butte Creek.	At Lake Creek, Oreg.....	1927-35	1927-30 published in State engineer Bull. 8; 1931-35 unpublished.
McKay Creek.....	9 miles north of Prineville, Oreg.....	*1924-35	1926-30 published in State engineer Bull. 8; 1931-35 unpublished.
North Fork of Big Butte Creek.....	2 miles northeast of Butte Falls, Oreg.....	1928-35	Records to 1930 published in State engineer Bull. 8; 1931-35 unpublished.
North Fork of Butter Creek.....	6 miles above Pine City, Oreg. Prior to Apr. 9, 1928 gage was 5 miles downstream....	1921-35	Records to 1930 published in State engineer Bulls. 7 and 8; 1931-35 unpublished.
North Fork of Little Butte Creek	Above Rogue River Valley Canal, near Lake Creek, Oreg.	*1931-35	Unpublished.
North Fork of Walla Walla River	Near mouth, 5 miles southeast of Milton, Oreg.....	1929-35	Records to 1930 published in State engineer Bull. 8; 1931-35 unpublished.
Ochoco Creek.....	Below Ochoco Reservoir, near Prineville, Oreg.....	1919-35	...Do
Rancheria Creek....	Mouth, near Butte Falls, Oreg.....	1935	Unpublished.
South Fork of Little Butte Creek	Big Elk Ranger Station, Oreg.....	*1931-35	...Do
South Fork of Walla Walla River.....	Above Milton power diversion, 5 miles southeast of Milton, Oreg.....	*1929-35	1929-30 published in State engineer Bull. 8; 1931-35 unpublished.
Walla Walla River..	Milton, Oreg.....	1932-35	Unpublished.

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

Note.- Records for stations listed in above table were collected by Oregon State engineer.

COOPERATION

The work was done in cooperation with the States as follows: In Oregon with Charles E. Stricklin, State engineer; and in Washington with the Department of Conservation and Development, E. F. Banker, director, and Charles J. Bartholet, supervisor of hydraulics.

Acknowledgments are also due to the United States Weather Bureau and to the Corps of Engineers, United States Army, for financial assistance in collecting records published herein.

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

DIVISION OF WORK

Funds for the rehabilitation of gaging stations, repairs, replacement of equipment, and improvement of records were allocated by the Public Works Administration from funds made available by the National Industrial Recovery Act.

DIVISION OF WORK

The data for 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

Columbia River at The Dalles, Oreg.

Location.- Water-stage recorder, lat. 45°39', long. 120°57'50", above Celilo Falls, with supplemental staff gage at The Dalles, 15 miles downstream. Prior to May 2, 1935, staff gage above Celilo Falls. Beginning Oct. 1, 1934, gage readings above Celilo Falls are elevations above mean sea level by general adjustment of 1929.

Drainage area.- 237,000 square miles (above The Dalles).

Records available.- June 1878 to September 1935; maximum stages 1858 to 1877.

Average discharge.- 57 years (1878-1935), 200,500 second-feet.

Extremes.- Maximum discharge during year, 480,000 second-feet June 10; minimum, 61,800 second-feet Jan. 22 (gage height, 128.2 feet on gage above Celilo Falls). Maximum gage height, 141.36 feet on gage above Celilo Falls and 29.4 feet on gage at The Dalles June 10.

1858-1935: Maximum discharge, 1,170,000 second-feet June 8, 1894 (gage height, 59.6 feet on gage at The Dalles and 180.1 feet, present datum, on gage above Celilo Falls; minimum, 40,000 second-feet Jan. 18, 21, 1930, Feb. 3, 4, 1932 (gage height, 126.4 feet, present datum, on gage above Celilo Falls).

Remarks.- Records excellent. Storage and diversions for irrigation are only a small part of total run-off. Records obtained in cooperation with U. S. Weather Bureau and Corps of Engineers, U. S. Army.

Rating table, water year 1934-35 (gage height, in feet, and discharge in second-feet)

128.1	59,900	129.5	89,800	132.0	153,000	135.0	247,000	139.0	390,000
128.5	67,100	130.0	101,000	133.0	181,000	136.0	282,000	141.0	468,000
129.0	77,300	131.0	126,000	134.0	212,000	137.0	318,000	143.0	541,000

Discharge, in second-feet, water year October 1934 to September 1935

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	81,800	81,800	103,000	88,800	118,000	93,600	103,000	206,000	435,000	365,000	261,000	128,000
2	81,800	81,800	103,000	88,800	118,000	93,600	103,000	212,000	453,000	365,000	267,000	128,000
3	79,500	79,500	101,000	86,400	116,000	91,200	101,000	218,000	457,000	358,000	254,000	126,000
4	77,300	81,800	101,000	84,100	116,000	93,600	98,500	215,000	457,000	354,000	250,000	123,000
5	77,300	86,400	98,500	84,100	116,000	93,600	96,000	212,000	450,000	354,000	243,000	121,000
6	77,300	86,400	96,000	81,800	116,000	93,600	93,600	216,000	450,000	354,000	236,000	121,000
7	73,100	86,400	96,000	81,800	116,000	91,200	93,600	220,000	453,000	347,000	230,000	121,000
8	73,100	91,200	96,000	81,800	116,000	91,200	93,600	226,000	469,000	343,000	223,000	118,000
9	73,100	98,500	93,600	81,800	116,000	88,800	96,000	243,000	472,000	336,000	219,000	118,000
10	71,100	101,000	91,200	86,400	113,000	88,800	101,000	250,000	476,000	332,000	212,000	118,000
11	69,100	106,000	88,800	88,800	111,000	86,400	108,000	257,000	472,000	329,000	206,000	116,000
12	67,100	106,000	88,800	88,800	111,000	86,400	113,000	261,000	465,000	322,000	200,000	116,000
13	67,100	106,000	86,400	86,400	108,000	84,100	116,000	261,000	465,000	318,000	193,000	113,000
14	65,200	103,000	84,100	84,100	106,000	81,800	121,000	257,000	461,000	311,000	187,000	113,000
15	63,400	103,000	81,800	81,800	103,000	84,100	131,000	257,000	461,000	311,000	184,000	113,000
16	63,400	103,000	84,100	79,500	101,000	116,000	147,000	261,000	461,000	304,000	178,000	111,000
17	65,200	103,000	84,100	77,300	101,000	121,000	158,000	264,000	461,000	300,000	175,000	111,000
18	67,100	103,000	84,100	77,300	101,000	116,000	184,000	275,000	453,000	297,000	170,000	108,000
19	67,100	103,000	86,400	77,300	98,500	113,000	184,000	286,000	450,000	297,000	170,000	108,000
20	69,100	103,000	86,400	69,100	96,000	111,000	175,000	289,000	446,000	297,000	167,000	108,000
21	71,100	103,000	88,800	65,200	93,600	108,000	170,000	289,000	438,000	293,000	164,000	108,000
22	73,100	103,000	91,200	61,800	93,600	106,000	175,000	293,000	427,000	293,000	161,000	108,000
23	73,100	103,000	91,200	65,200	93,600	106,000	181,000	314,000	424,000	293,000	158,000	108,000
24	73,100	103,000	96,000	71,100	96,000	101,000	200,000	343,000	416,000	289,000	156,000	106,000
25	77,300	101,000	101,000	71,100	98,500	98,500	200,000	376,000	409,000	289,000	150,000	106,000
26	77,300	101,000	103,000	79,500	98,500	96,000	196,000	398,000	401,000	282,000	147,000	101,000
27	81,800	101,000	101,000	101,000	96,000	96,000	193,000	401,000	375,000	275,000	142,000	101,000
28	81,800	103,000	101,000	116,000	96,000	96,000	187,000	401,000	383,000	272,000	136,000	97,800
29	91,200	103,000	96,000	126,000	-	98,500	193,000	409,000	376,000	268,000	134,000	97,200
30	86,400	106,000	93,800	126,000	-	101,000	200,000	416,000	368,000	268,000	134,000	94,800
31	84,100	-	91,200	121,000	-	101,000	-	427,000	-	264,000	131,000	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acre-feet
October.....	2,308,000	91,200	63,400	74,480	0.314	0.36	4,580,000
November.....	2,938,800	106,000	79,500	97,960	.413	.46	5,829,000
December.....	2,886,500	103,000	81,800	93,170	.393	.45	5,729,000
Calendar year 1934.....	71,803,200	453,000	63,400	196,700	.830	11.26	142,400,000
January.....	2,659,900	126,000	81,600	85,800	.362	.42	5,276,000
February.....	2,963,500	118,000	93,600	105,800	.446	.46	5,878,000
March.....	3,027,000	121,000	81,800	97,960	.412	.48	6,004,000
April.....	4,309,300	200,000	93,600	143,600	.606	.68	8,547,000
May.....	8,961,000	427,000	206,000	289,100	1.22	1.41	17,770,000
June.....	13,199,000	476,000	368,000	440,000	1.56	2.08	26,180,000
July.....	9,880,000	365,000	264,000	312,500	1.32	1.52	19,200,000
August.....	5,828,000	261,000	131,000	168,000	.793	.91	11,560,000
September.....	3,566,800	128,000	94,800	112,200	.473	.53	6,678,000
Water year 1934-35.....	62,130,300	476,000	61,800	170,200	.718	9.76	123,200,000

Note.- Discharge, May 2, partly estimated.

WALLA WALLA RIVER BASIN

South Fork of Walla Walla River near Milton, Oreg.

Location.- Water-stage recorder, lat. 45°50', long. 118°10'10", in NE½ sec. 15, T. 4 N., R. 37 E., 1 mile above Pacific Power & Light Co.'s penstock intake and 13 miles southeast of Milton. Zero of gage is about 2,050 feet above mean sea level, determined from U. S. 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 1935. At station 7 miles downstream November 1903 to May 1906.

Average discharge.- 12 years (1904-5, 1908-15, 1931-35), 170 second-feet.

Extremes.- Maximum discharge during year, 476 second-feet Apr. 16 (gage height, 2.11 feet); minimum, 94 second-feet at times in September (gage height, 0.92 foot).

1903-17, 1931-35: 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, referred to present gage, Mar. 31, 1931.

Remarks.- Records good. Discharge estimated for Oct. 9-21, Jan. 20, Feb. 20-24, Mar.

1-10, by comparison with unpublished records of South Fork of Walla Walla River above Milton City intake. No diversions or regulation above station.

Rating table, water year 1934-35 (gage height, in feet, and discharge, in second-feet)

0.8	83	1.2	139	1.6	239	2.0	415
1.0	104	1.4	163	1.8	320	2.2	525

Discharge, in second-feet, water year October 1934 to September 1935

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	103	115	135	130	186	135	193	291	243	126	101	96
2	101	120	130	128	181	134	178	274	233	120	100	96
3	101	135	130	126	176	132	167	275	220	118	100	96
4	101	133	133	128	169	131	162	299	217	117	99	96
5	101	143	130	131	162	128	166	324	217	117	100	96
6	101	133	126	145	156	124	150	329	217	120	99	96
7	101	126	120	167	150	123	165	320	214	118	99	96
8	101	126	118	172	143	120	203	316	208	114	98	96
9	100	118	115	160	135	115	208	324	200	112	98	96
10	100	115	117	147	133	115	206	303	190	112	98	96
11	101	114	115	145	133	117	217	278	183	109	98	96
12	101	112	117	137	130	143	266	266	200	106	98	96
13	101	109	118	133	130	295	342	270	183	101	98	96
14	102	109	124	128	124	291	338	278	193	104	98	96
15	103	109	124	126	120	227	365	291	176	107	98	96
16	104	107	126	126	118	198	448	299	162	106	98	96
17	105	106	126	122	120	153	360	295	154	106	99	96
18	105	110	126	118	126	167	312	286	160	104	101	96
19	105	122	145	114	128	145	312	286	145	104	99	96
20	106	131	366	113	130	126	347	303	135	104	98	96
21	107	139	303	114	160	118	375	334	133	104	98	96
22	107	135	278	115	195	115	307	362	130	104	96	96
23	104	130	230	124	200	115	278	334	124	104	96	96
24	107	124	208	139	170	117	258	303	130	104	96	96
25	131	137	190	165	158	139	266	282	126	104	96	96
26	117	141	178	178	152	150	286	274	126	103	96	96
27	110	143	150	181	145	147	295	270	122	101	96	96
28	109	139	141	181	141	162	291	262	120	101	96	96
29	107	135	147	181	-	239	261	262	133	101	96	96
30	107	137	147	188	-	236	312	266	135	101	96	96
31	107	-	131	188	-	214	-	258	-	100	96	-

Month	Second-feet-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acres-feet
October.....	3,336	167	100	106	1.61	1.66	6,620
November.....	3,756	143	107	125	1.87	2.09	7,450
December.....	4,845	386	115	156	2.33	2.69	9,610
Calendar year 1934.....	54,473	407	97	149	2.22	30.28	108,000
January.....	4,448	188	113	143	2.13	2.46	8,820
February.....	4,171	200	118	149	2.22	2.51	8,270
March.....	4,501	295	115	158	2.36	2.72	9,720
April.....	8,052	448	150	268	4.00	4.46	15,970
May.....	9,107	352	262	294	4.39	5.06	18,060
June.....	5,115	243	120	170	2.54	2.83	10,150
July.....	3,352	126	100	108	1.61	1.86	6,650
August.....	3,034	101	96	97.9	1.48	1.68	6,020
September.....	2,862	96	96	95.4	1.42	1.68	5,680
Water year 1934-35.....	56,979	448	95	156	2.33	31.60	113,000

Umatilla River above Meacham Creek, near Gibbon, Oreg.

Location.— Water-stage recorder, lat. 45°43'20", long. 118°19'40", in sec. 21, T. 3 N., R. 36 E., at highway bridge 2½ miles above Meacham Creek and 3 miles northeast of Gibbon.

Records available.— April 1933 to September 1935.

Extremes.— Maximum discharge during year, 1,300 second-feet Apr. 16 (gage height, 2.24 feet); minimum, 28 second-feet Sept. 27 (gage height, 0.08 foot).
1933-35: Maximum discharge, 1,930 second-feet Dec. 22, 1933 (gage height, 2.82 feet); minimum, that of Sept. 27, 1935.

Remarks.— Records fair. Discharge estimated because of ice Jan. 19-24. No diversions or regulation above station.

Rating tables, water year 1934-35 except period of ice effect
(gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Nov. 8-18)

Table for Oct. 1 to Dec. 20

0.1	24	1.4	550
.3	65	1.8	860
.6	158	2.3	1,360
1.0	321	2.8	1,930

Table for Dec. 21 to Sept. 30

0.0	16	1.1	341
.2	48	1.4	523
.5	112	1.8	855
.8	212	2.3	1,360

Discharge, in second-feet, water year October 1934 to September 1935

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	38	51	204	135	318	148	313	664	208	64	40	36
2	38	56	177	129	300	141	261	554	190	59	41	36
3	38	66	166	124	278	141	232	502	172	57	41	36
4	37	81	168	121	266	141	212	488	165	57	41	36
5	37	130	169	121	228	141	201	523	155	57	41	36
6	37	120	169	155	205	129	194	538	148	55	40	36
7	37	95	151	236	182	121	208	495	141	53	40	36
8	37	89	140	265	165	128	377	460	135	52	40	34
9	37	81	130	232	151	115	435	441	124	52	38	34
10	38	73	123	190	141	107	393	423	118	48	38	36
11	38	70	120	179	135	107	399	388	124	48	36	36
12	38	65	120	165	135	110	592	346	121	46	36	36
13	42	65	120	148	132	208	902	336	115	45	36	36
14	42	63	123	138	124	383	837	318	100	45	36	38
15	47	63	123	132	115	346	864	323	87	45	36	40
16	42	58	123	126	110	291	1,190	332	83	45	41	40
17	42	58	120	121	107	269	902	336	79	45	45	38
18	42	63	123	112	107	240	722	327	76	43	40	36
19	44	120	140	100	110	220	656	309	72	41	40	36
20	47	204	927	85	116	201	731	309	70	40	38	34
21	49	240	740	110	138	196	855	323	70	40	36	34
22	47	200	748	125	197	188	664	341	66	40	36	34
23	65	154	495	125	248	165	640	327	66	40	36	33
24	123	134	377	160	240	155	600	295	66	41	36	33
25	95	220	332	224	208	165	585	269	62	41	36	33
26	68	276	286	256	166	155	577	244	62	41	38	31
27	60	256	240	265	168	144	577	236	61	41	36	30
28	56	220	208	274	155	168	539	226	62	41	36	30
29	54	216	182	276	—	341	523	220	70	41	38	31
30	51	220	165	295	—	423	624	232	76	41	36	31
31	47	—	144	327	—	372	—	224	—	40	36	—
Month				Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet				
October.....				1,513	123	37	48.8	3,000				
November.....				3,808	276	51	127	7,550				
December.....				7,592	927	120	245	15,060				
Calendar year 1934.....				57,758	1,320	35	158	114,600				
January.....				5,443	327	65	176	10,600				
February.....				4,960	318	107	177	9,840				
March.....				6,127	423	107	198	12,160				
April.....				16,804	1,190	194	560	33,330				
May.....				11,351	664	220	366	22,510				
June.....				3,144	208	61	105	6,240				
July.....				1,444	64	40	46.6	2,860				
August.....				1,192	45	36	38.1	2,340				
September.....				1,046	40	30	34.8	2,070				
Water year 1934-35.....				64,412	1,190	30	176	127,800				

UMATILLA RIVER BASIN

Umatilla River at Pendleton, Oreg.

(Formerly published as Umatilla River above McKay Creek, near Pendleton, Oreg.)

Location.- Water-stage recorder, lat. 45°40'15", long. 118°47'35", in NE¼ sec. 10, T. 2 N., R. 32 E., at Pendleton, 2½ miles above mouth of McKay Creek. Prior to Oct. 1, 1934, water-stage recorder about 2½ miles downstream.

Records available.- February 1891 to July 1892, May 1903 to June 1905, October 1934 to September 1935. Comparable records about 2½ miles downstream May 1921 to September 1934.

Average discharge.- 12 years (1923-35), 444 second-feet.

Extremes.- Maximum discharge during year, 3,180 second-feet Apr. 16 (gage height, 3.99 feet); minimum, 14 second-feet Aug. 14, 15 (gage height, 0.53 foot).
1891-92, 1903-6, 1921-35: Maximum discharge (estimated), 13,500 second-feet 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 good. Small diversions for irrigation above station.

Rating table, water year 1934-35 (gage height, in feet, and discharge, in second-feet)

0.5	11	1.1	175	2.0	690	3.0	1,590
.7	41	1.4	315	2.3	930	3.5	2,420
.9	100	1.7	490	2.6	1,250	4.0	3,180

Discharge, in second-feet, water year October 1934 to September 1935

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	35	81	480	359	728	348	939	1,330	280	97	33	19
2	35	81	382	332	690	332	805	1,140	280	87	33	19
3	37	87	348	315	662	326	705	1,100	237	74	27	19
4	37	100	370	300	620	332	634	913	214	71	29	18
5	37	132	394	295	581	320	800	913	205	68	27	17
6	37	171	370	305	536	310	568	904	201	69	24	18
7	33	175	337	436	490	295	568	854	196	63	24	19
8	35	159	300	516	454	290	562	773	184	63	26	19
9	29	162	270	536	418	270	1,220	728	175	63	24	18
10	27	144	251	490	376	260	1,190	690	159	57	22	17
11	29	136	237	454	359	246	1,110	614	148	52	21	16
12	27	129	237	424	342	246	1,330	555	152	49	21	17
13	33	118	237	382	320	290	2,060	522	159	44	17	18
14	39	111	260	359	305	620	2,130	490	148	41	16	19
15	46	107	265	320	275	690	1,920	478	107	37	15	24
16	44	104	270	305	256	614	2,940	484	140	39	18	26
17	46	100	270	295	242	568	2,670	503	132	39	19	29
18	46	100	276	285	237	542	1,990	490	122	37	26	29
19	46	107	305	232	237	490	1,660	460	107	37	27	29
20	49	246	1,570	175	246	472	1,660	436	100	29	26	27
21	57	359	2,060	192	290	442	1,920	430	90	27	24	26
22	63	376	1,920	218	348	412	1,660	442	84	26	21	26
23	60	328	1,420	218	480	376	1,590	442	81	26	17	24
24	100	295	1,030	255	494	359	1,570	418	74	26	19	29
25	148	316	862	406	460	364	1,490	376	74	29	18	29
26	125	478	735	510	430	364	1,430	348	71	31	21	29
27	107	522	634	581	394	348	1,350	320	63	26	17	29
28	97	490	555	607	370	359	1,230	310	63	24	19	29
29	90	448	496	620	-	574	1,120	306	74	25	17	24
30	84	448	454	656	-	1,120	1,150	320	64	26	19	26
31	81	-	400	705	-	1,100	-	310	-	26	19	-
Month						Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet		
October.....						1,759	148	27	56.7	5,490		
November.....						8,597	522	81	250	13,080		
December.....						17,544	2,060	237	572	35,590		
Calendar year 1934.....						118,563	3,540	14	325	255,100		
January.....						12,072	705	175	389	23,940		
February.....						11,610	728	237	415	23,030		
March.....						13,679	1,120	246	441	27,130		
April.....						41,971	2,940	568	1,400	83,250		
May.....						18,396	1,330	305	593	36,490		
June.....						4,244	280	63	141	8,420		
July.....						1,408	97	24	45.4	2,790		
August.....						686	33	15	22.1	1,360		
September.....						686	29	16	22.9	1,560		
Water year 1934-35.....						131,054	2,940	15	359	259,900		

Umatilla River at Yoakum, Oreg.

(Published as Umatilla River above Furnish Reservoir, near Yoakum, Oreg., 1915-34)

Location.— Water-stage recorder, lat. 45°40'40", long. 119°2', 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. Prior to Oct. 1, 1934, at site 5 miles upstream.

Drainage area.— 1,280 square miles (revised).

Records available.— May 1903 to August 1916 (flow slightly affected by storage in Furnish Reservoir since about 1910); October 1934 to September 1935. At site 5 miles upstream, above Furnish Reservoir, June 1915 to September 1934.

Average discharge.— 32 years, 677 second-feet.

Extremes.— Maximum discharge during year, 3,460 second-feet Apr. 16 (gage height, 5.44 feet); minimum, 17 second-feet Sept. 6-14.

1903-35: Maximum discharge, about 20,000 second-feet (revised) May 30, 1906 (gage height, about 15.0 feet, from flood marks, former datum); minimum, 12 second-feet Aug. 10-12, 1908.

Remarks.— Records good. Discharge estimated for Oct. 1-5, 7-10, Jan. 3-8, July 7, 8, by comparison with discharge at stations above. Diversions for irrigation above station. Flow regulated to some extent by operation of mills at Pendleton, and since 1927 by storage in McKay Reservoir. Furnish Reservoir Dam was built about 1910; capacity increased to 5,500 second-feet in 1915; dam removed in 1934.

Rating tables, water year 1934-35 (gage height, in feet, and discharge, in second-feet)

Table for Oct. 6 to Apr. 16

1.0	31	2.5	497	4.0	1,620
1.3	76	3.0	775	4.6	2,290
1.6	147	3.5	1,150	5.6	3,680
2.0	281				

Table for Apr. 17 to Sept. 30

0.8	18	1.6	174	3.0	625
1.0	38	2.0	316	3.5	1,180
1.3	91	2.5	532	4.0	1,620
				4.6	2,290

Discharge, in second-feet, water year October 1934 to September 1935

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	37	89	507	387	624	401	1,040	1,380	328	290	265	26
2	37	89	464	367	803	370	845	1,220	316	280	285	28
3	40	93	405	340	756	357	723	1,100	305	279	285	22
4	41	102	418	320	716	357	656	995	301	283	265	20
5	40	120	459	310	656	349	617	960	316	294	261	18
6	40	153	436	315	606	336	585	960	312	305	261	17
7	39	168	396	450	560	320	560	925	312	295	254	17
8	38	165	353	535	516	316	787	856	305	265	254	17
9	38	159	320	585	469	304	1,330	780	320	275	234	17
10	31	153	297	540	418	281	1,330	742	332	279	250	17
11	31	136	277	492	401	270	1,200	700	312	283	243	17
12	33	136	259	478	383	282	1,380	640	332	275	247	17
13	35	123	248	423	357	281	2,050	584	339	283	247	17
14	39	113	277	392	352	592	2,890	542	320	279	247	17
15	46	113	289	353	300	559	2,000	527	328	279	257	18
16	48	108	293	332	277	775	3,030	522	328	279	257	21
17	48	106	300	308	266	698	2,890	546	328	286	272	22
18	50	108	300	293	251	650	2,170	553	324	286	263	27
19	50	118	328	266	244	585	1,760	518	324	286	276	27
20	50	199	1,420	196	244	545	1,760	494	320	279	268	27
21	54	332	2,050	216	277	516	2,000	480	309	272	265	27
22	61	401	1,940	251	332	483	1,830	494	301	268	257	26
23	63	370	1,470	226	464	446	1,670	498	301	265	188	26
24	62	328	1,110	262	526	418	1,670	475	305	279	177	24
25	136	328	922	396	511	423	1,570	444	301	283	177	24
26	125	502	775	531	483	498	1,520	405	301	283	174	25
27	115	580	668	617	450	392	1,430	371	298	279	171	25
28	106	575	596	662	428	392	1,340	355	286	261	132	27
29	102	511	526	686	-	604	1,300	328	286	268	46	28
30	95	507	478	730	-	1,280	1,180	359	290	272	32	27
31	93	-	432	789	-	1,240	-	351	-	272	29	-
Month						Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet		
October.....						1,843	136	31	59.5	3,660		
November.....						6,985	580	69	233	13,650		
December.....						19,012	2,050	246	613	37,710		
Calendar year												
January.....						13,038	789	196	481	25,860		
February.....						12,550	824	244	459	25,490		
March.....						15,530	1,280	262	501	30,800		
April.....						44,553	3,030	560	1,490	88,370		
May.....						20,098	1,380	328	648	39,860		
June.....						9,360	359	266	313	18,600		
July.....						8,692	305	251	280	17,240		
August.....						6,838	283	29	221	13,560		
September.....						665	28	17	22.2	1,320		
Water year 1934-35.....						159,484	3,030	17	437	316,300		

UMATILLA RIVER BASIN

Umatilla River near Umatilla, Oreg.

Location.— Water-stage recorder, lat. 45°54'10", long. 119°19'40", in NW¼ sec. 21, T. 5 N., R. 28 E., 1½ miles below West Division Main Canal of Umatilla project and 2 miles above Umatilla and mouth of river.

Drainage area.— 2,290 square miles (revised).

Records available.— October 1903 to September 1935.

Average discharge.— 31 years (1904-35), 514 second-feet.

Extremes.— Maximum discharge during year, 2,740 second-feet Apr. 17 (gage height, 4.93 feet); minimum, 7 second-feet Nov. 1-7.

1903-35: Maximum discharge, 19,600 second-feet May 31, 1906 (gage height, 11.0 feet); no flow at times.

Remarks.— Records good above and fair below 300 second-feet, except estimates, which are poor. Stage-discharge relation affected by ice Jan. 19-26. Several diversions for irrigation above station; Brownell Canal diverts below. Flow regulated by storage in McKay and Cold Springs Reservoirs.

Rating table, Dec. 21, 1934, to Sept. 30, 1935, except period of ice effect (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used July 22 to Sept. 30)

1.9	3	3.4	510
2.1	9	3.8	900
2.4	29	4.2	1,440
2.7	88	4.6	2,100
3.9	220	5.0	2,850

Discharge, in second-feet, water year October 1934 to September 1935

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	11	10	334	299	671	240	552	662	8	16	15	15
2	11	7	314	252	680	209	*330	642	8	16	15	15
3	10	7	307	226	642	187	*210	454	8	15	15	15
4	7	7	262	209	614	170	*140	299	8	16	15	15
5	10	7	262	182	570	118	*125	272	8	16	15	15
6	10	7	294	170	510	121	118	266	8	15	15	15
7	10	8	281	204	482	121	111	204	8	16	15	15
8	10	8	255	355	408	108	341	152	8	16	15	15
9	10	9	226	422	365	101	900	101	8	17	15	15
10	10	9	203	430	306	85	996	67	8	18	15	14
11	10	9	183	385	272	60	878	37	8	17	15	14
12	10	9	164	362	246	52	889	18	8	16	15	14
13	10	9	159	327	220	29	1,280	17	9	16	15	14
14	10	9	159	286	187	40	1,760	14	11	15	15	14
15	11	9	155	246	165	494	1,690	14	13	15	15	14
16	11	8	159	246	147	561	1,900	14	13	15	15	14
17	11	8	155	240	130	446	2,650	13	13	15	15	14
18	11	8	155	198	114	385	1,900	11	13	16	15	13
19	11	8	164	*185	108	299	1,410	10	13	16	15	13
20	11	8	262	*170	101	220	1,180	11	15	17	15	13
21	11	8	1,840	*185	101	176	1,290	9	13	16	15	13
22	11	28	1,700	*210	125	130	1,400	9	13	16	15	13
23	12	49	1,600	*200	176	91	*1,250	9	12	17	15	13
24	12	39	1,050	*230	327	49	*1,100	9	12	17	15	13
25	23	24	845	*300	355	104	*1,050	9	13	17	15	13
26	68	60	680	*380	327	121	*950	9	14	17	15	13
27	81	226	586	462	278	80	856	9	14	17	15	13
28	75	341	562	510	262	45	801	8	15	16	15	13
29	65	354	408	544	-	25	871	8	16	14	15	13
30	41	354	408	570	-	322	595	8	16	14	15	13
31	13	-	355	604	-	662	-	8	-	14	15	-
Month						Second-foot-days	Maximum	Minimum	Mean		Run-off in acre-feet	
October.....						616	81	10	19.9		1,220	
November.....						1,607	341	7	55.6		3,190	
December.....						14,451	1,840	155	466		28,620	
Calendar year 1934.....						82,002.9	3,080	.2	225		162,800	
January.....						9,588	604	170	309		19,020	
February.....						8,849	580	101	316		17,550	
March.....						5,829	662	23	188		11,560	
April.....						29,213	2,550	111	974		87,940	
May.....						3,375	662	8	109		6,690	
June.....						332	16	8	11.1		659	
July.....						491	18	14	15.8		974	
August.....						465	15	15	15.0		922	
September.....						416	15	13	13.9		826	
Water year 1934-35.....						75,210	2,550	7	208		149,200	

*Estimated.

McKay Creek near Pilot Rock, Oreg.

Location.- Water-stage recorder, lat. 45°33'10", long. 118°46'20", in SE¼ sec. 23, T. 1 N., R. 32 E., 1 mile above backwater from McKay Dam and 6 miles northeast of Pilot Rock.

Records available.- May to August 1921, October 1926 to September 1935.

Extremes.- Maximum discharge during year, 490 second-feet Dec. 20 (gage height, 3.08 feet); no flow at times.
1921, 1926-35: Maximum discharge, 6,000 second-feet Apr. 1, 1931 (gage height, 10.4 feet); no flow at times.

Remarks.- Records fair except those estimated, which are poor. Stage-discharge relation affected by ice Jan. 21, 22. Numerous small diversions for irrigation above station; none between station and McKay Reservoir.

Rating table, water year 1934-35 except period of ice effect
(gage height, in feet, and discharge, in second-feet)

0.8	0.1	2.2	160
1.0	7	2.5	245
1.3	23	2.9	360
1.6	51	3.1	500
1.9	94	3.3	605

Discharge, in second-feet, water year October 1934 to September 1935

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1			69	56	106	61	170	181	10	-		
2			61	50	100	58	160	160	9	0.5		
3			53	47	94	56	136	136	7			
4			64	43	89	57	129	136	4			
5			79	40	82	55	127	134	3			
6			74	40	77	52	125	96	2			
7		.9	62	49	73	51	129	79	2			
8		.9	53	56	64	52	220	69	1	.9		
9		.9	46	77	59	50	238	59	1			
10		.9	40	76	56	50	312	52	1	.9		
11			38	76	53	50	296	50	.6			
12			33	73	50	51	300	47	.6			
13			29	66	47	104	300	42	.1			
14			31	59	43	165	292	36	.3			
15			35	56	40	163	276	32	.3			
16		2	36	50	36	150	436	28				
17		2	40	47	35	141	387	26				
18		5	47	42	34	127	336	23				
19		7	63	40	34	116	292	21				
20		14	423	26	36	108	270	19				
21		32	352	*29	41	100	300	18				
22		*30	288	*30	59	91	266	17				
23		29	211	31	74	86	288	15				
24		25	170	50	76	82	296	12				
25		28	136	98	73	77	273	10				
26		66	118	118	70	73	252	8				
27		69	102	121	66	69	223	9				
28		86	87	118	63	71	200	10				
29		74	77	114	-	155	176	13				
30		77	70	110	-	194	178	14				
31		-	59	110	-	186	-	13				
Month				Second-foot-days		Maximum	Minimum	Mean	Run-off in acre-feet			
October.....				-		-	-	-	-			
November.....				557.6		86	-	18.6	1,110			
December.....				3,046		423	29	98.3	6,040			
Calendar year 1934.....				17,680.5		432	0	48.4	35,070			
January.....				2,005		121	26	64.7	3,980			
February.....				1,730		106	34	61.8	3,430			
March.....				2,901		194	50	93.6	5,750			
April.....				7,423		436	125	247	14,720			
May.....				1,567		181	8	50.5	3,110			
June.....				46.2		10	-	1.54	92			
July.....				*3.1		-	-	*.1	6			
August.....				-		-	-	-	-			
September.....				-		-	-	-	-			
Water year 1934-35.....				19,278.9		436	0	52.8	38,240			

*Estimated.

Note.- Practically no flow during months left blank.

UMATILLA RIVER BASIN

McKay Reservoir near Pendleton, Oreg.

Location.- Staff gage, lat. 45°36'30", long. 118°47'40", 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 1935.

Extremes.- Maximum observed contents during year, 43,180 acre-feet May 14 (elevation, 1,292.5 feet); minimum (estimated), 3,060 acre-feet Sept. 30.
1930-35: Maximum contents, 69,920 acre-feet Mar. 22, 1932 (gage height, 1,318.85 feet); minimum, that of Sept. 30, 1935.

Remarks.- Records good except those for January to May, which are poor. 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, has a capacity of 67,700 acre-feet at elevation 1,317.0 feet and stores water for irrigation of lands along Umatilla River near Echo, Stanfield, and Hermiston. Gage-height record furnished by U. S. Bureau of Reclamation.

Elevation and contents, water year October 1934 to September 1935

Date	Elevation (feet)	Contents (acre-feet)	Change in contents during month (acre-feet)
Oct. 1	1,219.0	3,427	-----
Nov. 1	1,218.5	3,288	-139
Dec. 1	1,227.5	6,204	+2,916
Jan. 1	1,245	12,350	+6,146
Feb. 1	1,243	12,350	0
Mar. 1	1,253	17,110	+4,760
Apr. 1	1,269	26,220	+9,110
May 1	1,290.5	41,530	+15,310
June 1	1,290.5	41,530	0
July 1	1,277	31,460	-10,070
Aug. 1	1,251	16,100	-15,360
Sept. 1	1,218	3,153	-12,947
Oct. 1	1,217.6	3,051	-102
The year			-376

McKay Creek near Pendleton, Oreg.

Location.- Water-stage recorder, lat. 45°36'40", 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 1935.

Average discharge.- 14 years (1919-23, 1924-27, 1928-35), 93.9 second-feet.

Extremes.- Maximum discharge during year, 275 second-feet Aug. 16 (gage height, 1.25 feet); no flow at times.

1918-35: Maximum discharge, 3,250 second-feet Feb. 10, 1921; no flow at times.

Remarks.- Records good. Discharge interpolated for Apr. 16-19, May 5-8, Aug. 27. Discharge records since 1932 do not include flow diverted by irrigation canal at gage. Diversions for irrigation above McKay Reservoir use total summer flow. Flow completely regulated since 1927 by storage in McKay Reservoir.

Rating table, water year 1934-35 (gage height, in feet, and discharge, in second-feet)

0	0	.8	117
.2	9	1.0	177
.4	36	1.2	252
.6	71	1.4	350

Discharge, in second-feet, water year October 1934 to September 1935

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1							0	2	19	194	244	
2								5	36	194	244	
3							0	6	55	205	244	
4							2	6	84	224	244	
5							3	6	102	232	244	
6							6	6	104	232	240	
7							2	6	112	236	240	
8							2	6	117	238	256	
9							4	6	145	232	232	
10							11	6	151	236	226	
11							9	6	165	232	232	
12							9	6	174	232	256	
13							8	6	155	240	240	
14							8	6	151	248	240	
15							8	6	151	248	244	
16							8	6	180	248	261	
17							8	6	191	248	270	
18							8	6	202	248	262	
19							8	6	206	248	240	
20							4	8	208	248	240	
21							0	21	208	246	256	
22							0	21	216	244	216	
23							0	21	236	252	151	
24							0	21	236	261	151	
25							0	16	232	261	151	
26							0	16	232	261	151	
27							1	16	232	257	148	
28							1	16	236	252	18	
29							1	16	228	246	0	
30							1	16	208	257	0	
31							-	16	-	248	0	
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 1934.....							25,354	289	0	69.5	0	
January.....							0	0	0	0	0	
February.....							0	0	0	0	0	
March.....							0	0	0	0	0	
April.....							111	11	0	3.7	220	
May.....							313	21	2	10.1	621	
June.....							4,984	236	19	165	9,850	
July.....							7,450	261	194	240	14,780	
August.....							6,073	270	0	196	12,050	
September.....							0	0	0	0	0	
Water year 1934-35.....							18,911	270	0	51.8	37,520	

Birch Creek at Rieth, Oreg.

Location.- Water-stage recorder, lat. 45°39'10", long. 118°52'45", in SE¼ sec. 13, T. 2 N., R. 31 E., a quarter of a mile above mouth and half a mile southwest of Rieth.

Records available.- May 1921 to September 1923, April 1927 to September 1935; incomplete prior to 1929.

Extremes.- Maximum discharge during year, 268 second-feet Apr. 16 (gage height, 2.85 feet); no flow at times.

1921-23, 1927-35: Maximum discharge, 1,640 second-feet Jan. 29, 1928 (gage height, 6.00 feet, former site and datum); no flow at times.

Remarks.- Records poor. Discharge estimated for Dec. 15-19 from weather records and comparison with flow at other stations; interpolated Dec. 21. Diversions for irrigation above station.

Discharge, in second-feet, water year October 1934 to September 1935

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1			0	16	29	19	21	91	0			
2			0	16	30	18	21	92	0			
3			0	16	32	17	18	74	0			
4			0	16	32	18	16	63	0			
5			0	16	31	16	16	57	0			
6			0	15	31	16	16	48	0			
7			0	17	32	17	12	39	0			
8			0	16	30	16	19	32	0			
9			0	15	29	16	33	26	.2			
10			0	16	27	16	40	27	.3			
11			0	16	29	15	58	29	.6			
12			0	16	27	14	79	23	.6			
13			0	16	24	13	135	22	.7			
14			0	16	22	14	145	12	.6			
15				16	21	17	145	11	.6			
16			2	16	20	21	230	9	.3			
17				16	18	23	208	10	.3			
18				14	16	25	160	10	.6			
19				13	14	21	141	6	.6			
20			4	14	15	22	141	4	.5			
21			5	14	16	22	165	2.2	.4			
22			6	13	16	24	152	1.7	.3			
23			9	11	17	24	129	.5	.3			
24			14	11	19	21	121	.4	.3			
25			16	12	19	19	112	.5	.3			
26			17	13	18	18	104	.5	.2			
27			18	16	18	16	107	.4	.1			
28			19	19	18	13	98	.1	0			
29			18	22	-	14	91	0	0			
30			18	24	-	14	89	0	0			
31			18	26	-	19	-	0	-			
Month						Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet		
October.....						-	-	-	-	-		
November.....						-	-	-	-	-		
December.....						172	19	0	5.6	341		
Calendar year 1934.....						5,045.4	170	0	13.8	10,020		
January.....						493	26	11	16.9	978		
February.....						650	32	14	23.2	1,290		
March.....						558	25	13	18.0	1,110		
April.....						2,814	230	12	93.8	5,680		
May.....						681.3	91	0	22.0	1,350		
June.....						7.4	-	.7	0	.25		
July.....						-	-	-	-	-		
August.....						-	-	-	-	-		
September.....						-	-	-	-	-		
Water year 1934-35.....						5,375.7	230	0	14.7	10,680		

Note.- Practically no flow during months left blank.

Diversions from Umatilla River between Furnish Reservoir 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 SW $\frac{1}{4}$ sec. 22, T. 3 N., R. 29 E., to feed Cold Springs Reservoir of U. S. Bureau of Reclamation. Western Land & Irrigation Co.'s canal diverts from left bank of Umatilla River in NE $\frac{1}{4}$ sec. 21, T. 3 N., R. 29 E.; gage 1 mile below intake. Allen Canal diverts from right bank of Western Land & Irrigation Co.'s canal half a mile below head gate of that canal. Dillon Canal diverts from left bank of Umatilla River in sec. 5, T. 3 N., R. 29 E. Maxwell Canal diverts from right bank of Umatilla River in SW $\frac{1}{4}$ sec. 28, T. 4 N., R. 28 E., and also at times receives water from Cold Springs Reservoir. West Division Main Canal diverts from left bank of Umatilla River in SW $\frac{1}{4}$ 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 $1\frac{1}{2}$ miles above mouth of Umatilla River.

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

Records are available from March 1926 to September 1935; records for some of the canals published separately prior to 1926.

Diversions, in acre feet, water year October 1934 to September 1935

Month	Furnish Canal	Umatilla project feed canal	Western Land & Irrigation Co.'s canal	Allen Canal	Dillon Canal	Maxwell Canal	West Division Main Canal	Brownell Canal
October		391	0	*	125	1,050	5,850	0
November	*	7,740	1,070	*	*	819	4,570	0
December		15,040	1,810	*	*	0	0	0
January		11,960	85	*	*	0	0	0
February		14,390	48	*	*	36	0	0
March	887	12,500	4,210	676	*	1,390	4,070	0
April	4,330	8,620	10,960	1,430	137	2,910	7,920	464
May	6,990	9,460	12,240	1,220	783	4,620	9,430	940
June	5,850	0	10,550	1,140	490	2,700	8,770	1,020
July	5,340	0	10,170	1,010	395	2,110	9,400	1,060
August	3,580	0	8,260	647	250	1,530	9,190	1,120
September	0	0	2	984	149	1,240	7,100	1,070
The year or period	26,950	80,101	59,405	7,290		18,505	66,300	5,674

*Probably some flow; amount unknown.

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

JOHN DAY RIVER BASIN

John Day River at Prairie City, Oreg.

Location.- Staff gage, lat. 44°27'20", long. 118°43'20", 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 mean sea level by general adjustment of 1929.

Records available.- October 1926 to September 1935. At station below outlet of Prairie power canal October 1916 to September 1917, March 1925 to September 1926.

Extremes.- Maximum discharge observed during year, 210 second-feet Apr. 16 (gage height, 1.44 feet); minimum, 5 second-feet Sept. 1-6.
1926-35: Maximum discharge (estimated), 1,550 second-feet Mar. 19, 1932 (gage height, 4.7 feet); minimum, 2 second-feet Dec. 8, 21, 22, 1932, Aug. 10, 1934.

Remarks.- Records fair. Diversions above station for irrigation and for power. (See record for Prairie power canal.) Gage readings made by employee of West Coast Power Co.

Rating table, water year 1934-35 (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Oct. 1 to Apr. 14)

0.2	3.8	1.2	154
.4	16	1.6	246
.6	39	2.0	355
.9	90	3.0	710

Discharge, in second-feet, water year October 1934 to September 1935

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	46	31	27	10	21	16	19	109	103	31	7	5
2	45	32	26	10	19	16	19	92	92	24	7	5
3	45	32	27	9	18	14	20	77	73	20	6	5
4	48	36	32	14	19	14	26	52	54	18	6	5
5	48	36	29	14	19	15	51	48	51	18	6	5
6	23	35	27	14	19	13	44	50	48	23	7	5
7	14	32	27	16	19	16	38	35	44	31	6	6
8	14	29	26	15	17	15	48	27	42	26	10	6
9	26	26	25	10	15	13	44	27	42	23	11	6
10	40	25	25	10	14	13	40	30	36	21	12	8
11	38	25	25	12	15	14	36	27	36	14	12	13
12	24	25	26	9	14	14	44	29	42	12	11	13
13	10	25	27	13	14	14	54	32	51	11	10	14
14	10	25	31	14	14	16	68	29	77	12	10	15
15	8	25	29	14	13	17	122	23	42	13	10	12
16	8	25	25	14	14	17	210	26	34	16	9	13
17	17	25	27	13	15	17	165	46	30	14	9	14
18	21	25	26	12	16	16	132	50	23	14	8	26
19	20	25	29	12	17	14	130	39	17	13	8	24
20	22	26	64	9	19	16	130	38	15	14	11	25
21	22	27	62	9	19	15	143	34	14	14	14	21
22	27	25	56	24	19	13	132	40	15	15	14	8
23	30	26	34	27	19	16	132	79	13	16	15	16
24	69	25	23	29	17	15	109	96	16	16	12	27
25	45	31	17	19	13	15	94	96	17	14	10	29
26	34	27	16	18	14	13	86	94	18	13	10	31
27	31	29	15	20	16	14	99	98	14	13	8	32
28	32	27	13	19	15	15	96	92	16	12	7	32
29	32	30	14	19	-	18	105	109	32	8	6	19
30	29	27	15	21	-	19	117	154	29	7	6	32
31	30	-	10	20	-	20	-	128	-	7	7	-

Month	River only				River and Prairie power canal			
	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet	Maximum	Minimum	Mean
October.....	908	69	8	29.3	1,800	101	41	53.4
November.....	840	35	25	28.0	1,670	69	55	61.1
December.....	853	64	10	27.5	1,690	102	61	70.3
Calendar year 1934..	7,732	202	4	21.2	15,330	265	5	58.5
January.....	469	29	9	15.1	930	83	60	70.7
February.....	463	21	13	16.5	915	80	64	71.6
March.....	473	20	13	15.3	938	76	68	71.6
April.....	2,542	210	19	84.7	5,040	264	75	142
May.....	1,908	154	23	61.5	3,780	219	77	119
June.....	1,136	103	13	37.9	2,250	162	45	85.5
July.....	503	31	7	16.2	998	63	20	37.9
August.....	253	14	6	9.1	561	39	6	16.0
September.....	472	32	5	15.7	936	32	5	16.0
Water year 1934-35...	10,850	210	5	29.7	21,510	264	5	67.8

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

Location.— Water-stage recorder, 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 north-west of Dayville. Zero of gage is 2,232.10 feet above mean sea level by general adjustment of 1929.

Records available.— April 1926 to September 1935.

Extremes.— Maximum discharge during water year 1931-32, about 6,000 second-feet, revised, Mar. 19 (gage height, 14.0 feet); minimum, 5 second-feet several days in August.

Maximum discharge during water year 1934-35, 1,480 second-feet Apr. 17 (gage height, 7.19 feet); minimum, 1.4 second-feet Sept. 5, 6 (gage height, 1.02 feet).

1926-35: Maximum discharge, about 6,000 second-feet, revised, Mar. 19, 1932 (gage height, 14.0 feet); minimum, 1 second-foot several days in August and September 1930.

Remarks.— Records good except those between 25 and 200 second-feet or above 4,000 second-feet, and those estimated from other records of discharge in John Day River Basin, which are fair. Numerous diversions for irrigation above station.

Discharge, in second-feet, water year October 1931 to September 1932

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	11	73	115	152	*120	*1,000	1,580	1,400	595	97	8	6
2	12	74	126	130	*90	*800	1,520	1,350	535	75	7	6
3	9	77	131	122	*96	638	1,900	1,520	538	58	7	7
4	10	79	133	131	*110	570	1,750	1,560	512	52	7	7
5	12	79	130	136	*130	540	1,600	1,520	500	50	6	8
6	12	77	128	146	*150	988	1,400	1,480	512	43	6	8
7	11	76	126	144	*160	1,520	1,240	1,480	500	38	7	8
8	11	78	124	140	*160	1,550	1,180	1,440	454	*30	6	8
9	12	90	124	144	*160	1,470	1,130	1,400	407	22	6	7
10	12	99	124	162	160	1,040	1,160	1,400	374	21	7	6
11	13	99	117	166	159	1,000	1,360	1,360	342	19	7	6
12	13	99	115	208	156	940	1,600	1,400	332	16	7	6
13	13	102	123	192	155	860	1,800	1,440	362	16	7	6
14	12	105	98	*160	136	880	1,850	1,520	415	15	6	8
15	8	108	115	*135	*110	1,210	1,750	1,440	580	14	6	7
16	7	108	104	*145	*100	1,160	1,650	1,280	550	13	5	8
17	9	115	129	160	*100	1,810	1,600	1,130	500	12	6	9
18	11	117	167	178	*100	3,040	1,520	1,050	452	11	6	9
19	15	115	174	224	*110	5,440	1,440	1,090	407	10	5	8
20	20	116	156	208	*130	4,490	1,400	1,130	385	10	5	12
21	20	115	159	185	*150	2,600	1,240	1,200	362	11	5	13
22	20	99	172	170	*160	1,950	1,180	1,240	321	9	5	14
23	20	105	167	162	172	1,650	1,090	1,050	292	6	5	13
24	21	104	160	147	185	1,730	975	940	264	8	5	12
25	27	120	151	153	286	1,850	*970	818	229	8	6	11
26	48	124	148	172	742	1,550	*1,000	730	206	7	5	11
27	62	122	150	167	1,250	1,480	*1,100	685	184	7	5	11
28	68	120	169	156	*1,500	1,440	*1,200	640	163	6	5	10
29	72	110	163	155	*1,200	1,440	*1,300	655	145	6	5	11
30	74	106	147	166	-	1,360	1,360	655	129	6	6	12
31	75	-	153	151	-	1,400	-	610	65	7	6	-
Month						Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet		
October.....						740	75	7	23.9	1,470		
November.....						3,011	124	73	100	5,970		
December.....						4,268	174	98	138	8,470		
Calendar year 1931.....						54,701.8	1,570	1.5	150	108,400		
January.....						4,947	224	122	160	9,610		
February.....						8,236	1,500	90	284	16,340		
March.....						49,366	5,440	540	1,592	97,920		
April.....						42,115	1,900	970	1,404	83,530		
May.....						36,783	1,560	610	1,187	72,980		
June.....						11,563	595	123	365	22,930		
July.....						701	97	6	22.6	1,390		
August.....						185	8	5	6.0	367		
September.....						267	14	6	8.9	530		
Water year 1931-32.....						162,182	5,440	5	443	321,700		

*Estimated.

Note.— Above records supersede those published in Water-Supply Paper 739.

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

(Continued)

Rating table, water year 1934-35 (gage height, in feet, and discharge, in second-feet)

0.8	0.1	1.7	38	3.2	230	5.0	630
1.0	1.0	2.0	66	3.6	306	5.5	780
1.2	6.0	2.4	112	4.0	390	6.0	955
1.4	17	2.8	166	4.5	506	6.5	1,150
						7.0	1,580

Discharge, in second-feet, water year October 1934 to September 1935

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	5.1	70	146	158	258	239	316	675	401	32	4.6	2.4
2	5.4	70	146	146	267	239	306	645	368	32	4.8	2.4
3	5.7	75	144	148	276	248	306	568	336	30	5.1	2.2
4	7.0	78	162	176	379	248	347	506	276	31	4.5	2.0
5	8.0	90	162	187	266	230	424	470	248	31	4.2	1.6
6	6.5	95	141	186	286	222	435	470	213	30	4.5	1.6
7	6.0	89	139	192	266	213	424	458	192	29	3.9	2.6
8	5.1	88	145	197	276	230	458	424	178	28	3.3	2.4
9	5.4	86	146	180	268	213	506	390	170	26	3.3	2.2
10	5.7	82	144	185	230	195	482	368	165	26	3.9	2.2
11	5.7	78	145	168	230	195	470	358	145	26	2.6	2.0
12	5.7	81	148	168	239	197	494	*344	138	21	2.8	2.2
13	7.0	85	163	169	230	222	542	*330	169	16	2.6	2.4
14	6.0	84	165	170	230	326	618	316	258	16	2.4	2.6
15	7.0	81	165	168	213	306	750	306	296	16	2.4	2.8
16	8.5	80	163	182	194	286	1,330	296	248	16	2.2	2.2
17	11	80	162	165	194	286	1,380	306	205	15	2.2	1.8
18	12	82	162	165	213	276	1,110	326	184	13	2.2	2.0
19	13	89	160	137	222	258	990	306	166	9.5	2.6	2.2
20	13	95	*189	110	230	258	955	286	134	9.0	2.4	2.6
21	16	108	*248	130	248	248	990	267	108	8.5	2.2	3.0
22	25	110	*286	160	248	230	990	267	84	6.5	2.8	2.8
23	29	108	267	192	268	230	920	296	74	16	2.7	2.2
24	37	116	248	189	248	230	815	326	65	10	2.0	3.0
25	62	126	230	186	230	222	735	326	57	4.8	2.2	3.0
26	70	135	222	187	205	230	675	316	51	5.7	2.4	3.3
27	69	141	213	197	222	222	690	316	39	4.5	2.8	3.9
28	69	145	195	205	230	222	690	316	35	5.1	3.3	4.2
29	70	148	183	222	-	276	690	326	31	4.2	2.8	4.2
30	69	148	189	230	-	336	690	424	31	4.2	2.4	4.5
31	66	-	178	248	-	326	-	458	-	5.1	2.4	-
Month				Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet				
October.....				730.6	70	5.1	25.6	1,450				
November.....				2,941	148	75	95.0	5,390				
December.....				5,526	286	139	178	10,950				
Calendar year 1934.....				42,398.7	565	1.2	116	84,090				
January.....				5,453	248	110	176	10,820				
February.....				5,886	379	194	246	13,660				
March.....				7,659	336	195	247	15,190				
April.....				20,528	1,380	306	684	40,720				
May.....				11,786	675	267	360	23,380				
June.....				5,065	401	31	169	10,060				
July.....				529.1	32	4.2	17.1	1,050				
August.....				94.2	5.1	2.0	3.04	187				
September.....				79.1	4.5	1.6	2.64	167				
Water year 1934-35.....				67,277.2	1,380	1.6	184	133,500				

John Day River at Service Creek, Oreg.

Location.— Water-stage recorder, lat. $44^{\circ}47'35''$, long. $120^{\circ}10''$, in NE $\frac{1}{4}$ sec. 18, T. 9 S., R. 23 E., a quarter of a mile below 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 by general adjustment of 1929.

Records available.— October 1929 to September 1935.

Extremes.— Maximum discharge during year, 8,020 second-feet Apr. 18 (gage height, 9.28 feet); minimum, 26 second-feet Sept. 7, 8.
1929-35: Maximum discharge, 28,900 second-feet Mar. 19, 1932 (gage height, 16.75 feet); minimum, 20 second-feet Sept. 5, 1931.

Remarks.— Records excellent except those for Mar. 4-9, which are good and were estimated by comparison with John Day River at McDonald Ferry. Many diversions for irrigation above station.

Rating table, water year 1934-35 (gage height, in feet, and discharge, in second-feet)

0.2	20	1.3	179	3.0	780	6.0	3,040
.4	39	1.8	245	3.5	1,080	7.0	4,180
.7	75	2.0	365	4.0	1,380	8.0	5,600
1.0	123	2.5	550	5.0	2,120	10.0	9,600

Discharge, in second-feet, water year October 1934 to September 1935

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	71	213	354	438	970	855	1,920	4,310	2,120	404	76	34
2	71	215	340	421	1,000	910	1,680	3,940	1,960	410	75	36
3	70	227	324	358	1,000	940	1,480	3,480	1,780	386	75	35
4	67	240	321	446	1,000	940	1,560	3,280	1,590	344	72	35
5	66	248	368	466	1,030	910	1,750	3,280	1,490	324	72	33
6	72	265	375	550	1,150	740	2,200	3,480	1,450	327	66	29
7	74	279	300	590	1,180	760	2,040	3,450	1,580	318	65	27
8	76	262	248	635	1,090	800	2,840	3,370	1,510	327	68	27
9	76	285	250	590	970	740	3,590	3,150	1,240	348	54	29
10	72	276	291	463	805	635	2,840	3,150	1,150	305	54	30
11	71	273	291	421	755	635	2,640	3,040	1,030	273	50	29
12	68	260	258	362	780	705	2,940	2,840	940	252	50	29
13	71	250	285	456	780	805	3,370	2,550	940	222	49	29
14	72	245	354	462	780	2,010	3,940	2,460	1,210	207	47	29
15	70	240	414	498	730	1,920	4,180	2,370	1,210	183	44	28
16	71	238	435	510	658	1,590	6,450	2,370	1,210	169	43	28
17	74	236	404	486	590	1,520	7,020	2,450	1,000	163	42	29
18	81	240	404	466	612	1,450	5,600	2,640	855	167	44	30
19	86	245	375	414	658	1,240	4,850	2,280	780	159	50	31
20	92	255	418	321	658	1,180	4,710	2,120	705	144	50	31
21	95	268	510	240	730	1,150	5,440	2,120	635	133	50	30
22	100	288	928	337	780	1,030	5,760	2,280	570	126	50	30
23	116	294	1,090	463	1,000	910	4,850	2,450	510	121	49	31
24	138	282	860	550	1,000	940	4,180	2,460	482	109	49	32
25	175	291	780	550	855	910	3,700	2,880	442	120	45	35
26	320	306	705	590	755	1,030	3,700	2,120	407	109	46	36
27	344	330	658	635	705	970	3,940	2,040	375	116	42	37
28	273	351	612	658	780	910	4,060	1,920	351	108	39	35
29	243	358	530	680	-	1,030	3,940	1,830	330	100	34	34
30	224	348	502	730	-	1,800	3,940	2,840	330	90	33	35
31	222	-	506	855	-	2,120	-	2,370	-	82	31	-
Month						Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet		
October.....						3,721	544	66	120	7,380		
November.....						8,110	358	213	270	16,090		
December.....						14,512	1,090	248	468	28,780		
Calendar year 1934.....						220,841	2,500	33	605	438,000		
January.....						15,681	855	240	505	31,080		
February.....						23,801	1,180	390	880	47,210		
March.....						34,085	2,120	635	1,100	67,610		
April.....						111,100	7,020	1,480	3,703	220,400		
May.....						84,780	4,310	1,880	2,735	168,200		
June.....						29,753	2,120	330	992	59,010		
July.....						6,644	410	82	214	13,180		
August.....						1,605	76	31	51.8	3,180		
September.....						943	37	27	31.4	1,970		
Water year 1934-35.....						334,715	7,020	27	917	664,000		

John Day River at McDonald Ferry, Oreg.

Location.— Water-stage recorder, lat. 45°35'20", long. 120°24'30", 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 1935.

Average discharge.— 30 years (1905-35), 1,936 second-feet.

Extremes.— Maximum discharge during year, 7,760 second-feet Apr. 17 (gage height, 5.90 feet); minimum, 20 second-feet Sept. 11 (gage height, 1.00 foot).
1904-35: Maximum discharge, 24,900 second-feet Mar. 20, 1932 (gage height, 10.6 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 below 50 second-feet, which are fair. Diversions for irrigation above station.

Rating table, water year 1934-35 (gage height, in feet, and discharge, in second-feet)

0.7	0	1.5	160	2.8	1,210	4.5	4,090
.9	10	1.8	320	3.2	1,740	5.0	5,280
1.1	33	2.1	520	3.6	2,560	5.5	6,620
1.3	84	2.4	775	4.0	3,070	6.0	8,060

Discharge, in second-feet, water year October 1934 to September 1935

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	44	252	356	512	784	757	2,120	3,970	2,280	356	105	33
2	46	236	350	512	902	813	2,040	4,200	2,120	350	98	32
3	48	226	350	460	986	880	1,770	3,980	1,960	368	88	32
4	50	221	356	400	1,010	922	1,570	3,460	1,770	412	75	29
5	54	221	344	412	1,010	954	1,570	3,280	1,610	400	72	29
6	57	231	332	426	1,020	968	1,610	3,160	1,460	374	63	28
7	63	242	338	452	1,060	922	2,120	3,260	1,360	544	57	26
8	60	252	374	568	1,190	804	2,200	3,460	1,330	320	60	25
9	63	263	356	592	1,140	775	2,550	3,560	1,290	320	57	25
10	60	280	309	628	1,060	822	3,760	3,160	1,230	297	54	24
11	60	292	269	600	954	804	3,070	3,070	1,170	303	52	21
12	66	292	263	528	832	739	2,790	2,980	1,080	309	52	24
13	63	280	303	432	775	885	2,980	2,790	986	274	48	25
14	63	286	309	412	794	730	3,480	2,620	1,030	247	39	28
15	63	269	286	412	804	1,170	3,980	2,440	1,160	231	37	28
16	60	263	320	482	775	2,120	4,320	2,360	1,170	215	37	28
17	60	263	374	634	739	1,700	6,480	2,560	1,260	200	37	28
18	60	268	412	617	878	1,520	6,760	2,560	1,110	185	39	28
19	66	268	412	438	817	1,470	5,540	2,530	954	160	37	28
20	69	252	406	258	842	1,340	4,790	2,560	842	162	37	33
21	78	252	400	258	712	1,250	4,870	2,120	775	148	35	35
22	78	258	400	505	712	1,190	5,280	2,040	712	140	33	33
23	81	263	445	512	739	1,130	5,620	2,120	634	131	30	32
24	88	274	902	490	822	1,030	4,910	2,280	576	545	32	32
25	88	292	954	560	1,030	954	4,440	2,440	528	660	32	32
26	91	297	822	685	964	966	3,870	2,280	490	314	32	32
27	102	303	757	660	870	944	3,660	2,120	452	180	32	33
28	119	309	703	668	804	1,070	3,570	2,040	419	127	32	33
29	252	326	660	694	-	975	4,090	1,890	406	119	33	32
30	314	344	617	721	-	933	3,980	1,860	374	112	35	30
31	274	-	544	739	-	1,280	-	1,780	-	112	35	-
Month						Second-foot-days	Maximum	Minimum	Mean		Run-off in acre-feet	
October.....						2,740	314	44	88.4		5,430	
November.....						8,055	344	221	268		15,980	
December.....						14,023	954	263	452		27,810	
Calendar year 1934.....						220,224	2,280	13	603		436,800	
January.....						16,265	739	258	525		32,260	
February.....						24,423	1,190	617	872		48,440	
March.....						32,655	2,120	685	1,053		64,770	
April.....						109,870	6,760	1,870	3,662		217,900	
May.....						84,010	4,200	1,780	2,710		166,600	
June.....						32,568	2,280	374	1,085		84,580	
July.....						8,405	660	112	271		16,670	
August.....						1,603	105	30	48.5		2,980	
September.....						878	35	21	29.2		1,740	
Water year 1934-35.....						335,383	6,760	21	919		665,200	

Strawberry Creek above South Fork, near Prairie City, Oreg.

Location.- Water-stage recorder, lat. 44°20'10", long. 118°39'20", in SW $\frac{1}{4}$ sec. 20, T. 14 S., R. 34 E., 100 feet above mouth of South Fork of Strawberry Creek and 8 $\frac{1}{2}$ miles south of Prairie City.

Records available.- October 1930 to September 1935.

Extremes.- Maximum discharge during year, 62 second-feet May 24 (gage height, 1.95 feet); minimum, 1.4 second-feet Oct. 13-17.

1930-35: Maximum discharge, 150 second-feet June 9, 1933; minimum, 1.4 second-feet Jan. 8, 19, Oct. 7-21, 23, 24, 28-28, 1931, Oct. 13-17, 1934.

Remarks.- Records fair. Discharge estimated because of ice Jan. 20. No diversions above station. Some natural regulation by Strawberry Lake.

Rating table, water year 1934-35 (gage height, in feet, and discharge, in second-feet)

0.2	0	1.5	18
.9	.9	1.7	33
1.1	4.0	1.9	55
1.3	8.7	2.2	102

Discharge, in second-feet, water year October 1934 to September 1935

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1.7	2.2	3.1	2.7	2.2	1.8	2.2	12	56	18	6.7	3.8
2	1.7	2.1	3.1	2.7	2.2	1.8	2.2	11	56	17	6.7	3.6
3	1.7	2.1	3.1	2.6	2.2	1.7	2.2	11	56	16	6.4	3.6
4	1.7	2.2	3.1	2.7	2.2	1.7	2.4	11	55	16	6.2	3.5
5	1.7	2.6	2.9	2.7	2.2	1.8	2.4	12	55	15	6.2	3.6
6	1.7	2.7	2.9	2.7	2.2	1.8	2.4	14	56	14	6.2	3.5
7	1.9	2.9	2.9	2.6	2.2	1.8	2.4	15	56	13	6.0	3.3
8	1.7	2.9	2.9	2.6	2.1	1.8	2.6	16	56	12	6.0	3.3
9	1.7	2.9	2.9	2.4	2.1	1.8	2.4	17	56	12	5.8	3.1
10	1.6	2.9	2.9	2.4	1.9	1.8	2.4	19	53	12	5.8	3.1
11	1.6	2.9	2.9	2.6	2.1	1.8	2.4	19	50	11	5.5	2.7
12	1.6	2.9	2.9	2.4	2.1	1.8	2.7	20	48	11	5.3	2.7
13	1.4	2.9	2.9	2.4	2.1	1.9	3.6	21	47	11	5.3	2.6
14	1.4	2.9	2.9	2.4	2.1	1.9	4.2	22	47	11	5.1	2.6
15	1.4	3.1	2.9	2.4	1.9	1.9	7.7	24	43	11	5.1	2.6
16	1.4	3.1	2.9	2.4	1.9	1.9	9.1	27	42	9.8	4.9	2.4
17	1.6	3.1	2.9	2.4	1.9	1.9	8.4	31	39	9.4	4.9	2.4
18	1.6	3.1	2.9	2.4	1.9	1.9	7.7	31	36	9.4	4.9	2.4
19	1.6	3.1	2.9	2.2	1.9	1.9	7.4	31	34	9.1	4.7	2.2
20	1.8	2.9	3.1	2.0	1.9	2.1	8.2	33	31	8.7	4.7	2.2
21	2.2	2.9	3.1	2.2	1.9	2.1	9.8	38	28	8.4	4.7	2.2
22	1.7	2.9	2.9	2.4	1.9	2.1	9.8	47	26	8.2	4.4	2.2
23	1.9	2.9	2.9	2.4	1.8	2.2	9.1	56	25	8.0	4.4	2.2
24	2.4	2.9	2.9	2.2	1.8	2.2	8.4	60	24	7.7	4.2	2.2
25	1.9	2.9	2.9	2.2	1.8	2.2	6.2	60	24	7.7	4.2	2.2
26	1.9	2.9	2.9	2.2	1.8	2.2	6.7	60	22	7.4	4.0	2.1
27	1.8	2.9	2.7	2.2	1.8	2.1	9.8	59	22	7.2	4.0	2.1
28	1.8	3.1	2.7	2.2	1.8	2.1	11	58	21	7.2	4.0	2.1
29	1.9	3.1	2.7	2.2	-	2.1	12	58	21	7.0	4.0	2.1
30	2.1	3.1	2.7	2.2	-	2.1	12	58	19	7.0	4.0	2.1
31	2.1	-	2.7	2.2	-	2.2	-	58	-	7.0	3.8	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October.....	54.2	2.4	1.4	1.75	108
November.....	85.1	3.1	2.1	2.84	169
December.....	90.1	3.1	2.7	2.91	179
Calendar year 1934.....	2,943.3	33	1.4	8.06	5,840
January.....	74.3	2.7	2.0	2.40	147
February.....	55.9	2.2	1.8	2.00	111
March.....	60.4	2.2	1.7	1.95	120
April.....	183.7	12	2.2	6.12	364
May.....	1,009	60	11	32.5	2,000
June.....	1,206	58	19	40.2	2,390
July.....	329.2	18	7.0	10.6	853
August.....	158.1	6.7	3.6	5.10	314
September.....	80.6	3.8	2.1	2.69	180
Water year 1934-35.....	3,886.6	60	1.4	9.28	6,720

Prairie power canal at Prairie City, Oreg.

Location.- Staff gage, lat. 44°27', 118°42'20", 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 1935.

Average discharge.- 10 years, 44.3 second-feet.

Extremes.- Maximum discharge observed during year, 65 second-feet May 29, 30 (gage height, 2.96 feet); no flow at times.
1925-35: Maximum discharge, 71 second-feet Dec. 10, 1929; no flow at times.

Remarks.- Records fair except those estimated for Oct. 4-15, Sept. 14-16, which are poor. 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 gaging station on John Day River at Prairie City. Gage readings made by employee of West Coast Power Co.

Discharge, in second-feet, water year October 1934 to September 1935

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0	32	36	59	59	54	56	54	59	23	32	0
2	0	32	36	56	56	56	59	59	56	27	32	0
3	0	32	36	59	56	54	56	56	56	30	30	0
4	0	32	36	59	56	56	59	56	59	30	32	0
5	0	32	36	56	56	56	59	56	56	32	32	0
6	24	32	36	59	56	56	56	56	56	23	32	0
7	34	32	36	59	56	56	56	54	54	32	24	0
8	35	32	36	56	56	59	59	56	59	30	0	0
9	20	32	36	56	54	56	59	56	56	27	0	0
10	6	32	36	59	51	59	59	56	56	23	0	0
11	8	32	36	56	51	56	56	56	56	16	0	0
12	24	32	36	54	54	34	59	56	62	16	0	0
13	31	32	36	56	54	56	56	56	62	16	0	0
14	31	30	36	54	54	56	59	51	51	16	0	2
15	33	32	41	54	51	56	56	54	56	16	0	5
16	33	32	36	51	54	59	54	56	54	16	0	2
17	27	32	36	51	56	56	56	62	51	16	0	0
18	30	32	36	48	56	56	59	59	46	6	0	0
19	30	32	41	51	56	59	56	56	41	7	0	0
20	30	34	36	54	56	56	56	54	36	9	0	0
21	32	32	36	56	59	56	54	56	36	8	0	0
22	32	32	41	54	56	59	54	59	36	13	0	0
23	30	32	49	54	59	56	56	59	32	15	0	0
24	32	32	56	54	56	56	56	62	30	18	0	0
25	32	36	56	56	54	54	56	59	32	27	0	0
26	32	36	59	56	54	56	59	62	32	27	0	0
27	32	36	56	59	51	56	56	62	32	30	0	0
28	32	36	56	59	56	59	56	62	32	30	0	0
29	32	36	56	56	-	56	59	65	41	32	0	0
30	32	36	56	56	-	56	56	65	41	30	0	0
31	32	-	56	56	-	56	-	62	-	32	0	-
Month				Second-foot-days		Maximum	Minimum	Mean	Run-off in acre-feet			
October.....				746		35	0	24.1	1,480			
November.....				992		38	30	33.1	1,970			
December.....				1,327		59	36	42.8	2,630			
Calendar year 1934.....				13,606		69	0	37.5	27,000			
January.....				1,723		59	48	55.6	3,420			
February.....				1,543		59	51	55.1	3,060			
March.....				1,748		59	54	56.3	3,460			
April.....				1,707		59	54	56.9	3,390			
May.....				1,792		65	51	57.8	3,550			
June.....				1,428		62	30	47.6	2,830			
July.....				673		32	6	21.7	1,330			
August.....				214		32	0	6.3	424			
September.....				9		5	0	.5	18			
Water year 1934-35.....				13,900		65	0	38.1	27,560			

North Fork of John Day River near Dale, Oreg.

Location.— Water-stage recorder, lat. 44°59'50", long. 118°56'40", in SE¼ sec. 25, T. 8 S., R. 31 E., three-eighths of a mile below Desolation Creek and 1¼ miles northeast of Dale. Zero of gage is 2,775.85 feet above mean sea level by general adjustment of 1929.

Records available.— October 1929 to September 1935.

Extremes.— Maximum discharge during year, 1,660 second-feet May 1, 6, 7 (gage height, 5.4 feet); minimum, 24 second-feet Sept. 10.
1929-35: Maximum discharge, 4,990 second-feet May 14, 1932 (gage height, 8.4 feet); minimum, 10 second-feet Dec. 11, 12, 1932.

Remarks.— Records fair except those estimated for December to February, which are poor. Discharge estimated from climatological data and comparison with discharge at other stations in John Day River Basin Dec. 7-21, 30, 31, Jan. 1-7, 10-31, Feb. 1-8, 11-14, when stage was affected by ice, and June 22 to July 8, when clock was stopped. Small diversions for irrigation above station; no regulation.

Rating table, water year 1934-35 except periods of ice effect
(gage height, in feet, and discharge, in second-feet)

1.7	18	2.7	159	4.2	755
1.9	33	3.0	240	4.6	1,010
2.1	54	3.4	390	5.0	1,310
2.4	96	3.8	560	5.5	1,750

Discharge, in second-feet, water year October 1934 to September 1935

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	32	74	58	120	125	100	211	1,520	975	220	56	41
2	36	77	58	100	120	91	182	1,270	850	210	56	37
3	42	73	80	90	115	94	195	1,190	792	180	55	33
4	43	74	98	95	110	85	192	1,230	738	160	52	35
5	41	80	51	160	120	67	211	1,440	710	150	47	35
6	39	91	36	170	185	80	195	1,620	710	155	50	33
7	38	88	25	190	120	96	217	1,670	710	170	50	32
8	36	88	35	176	115	96	273	1,480	660	160	48	31
9	37	91	60	109	111	66	275	1,480	635	148	47	30
10	39	82	65	60	102	88	247	1,480	560	136	45	27
11	37	73	45	55	120	90	303	1,380	515	128	41	31
12	37	66	60	100	126	96	366	1,190	497	119	39	31
13	37	66	75	90	120	115	488	1,120	533	107	41	31
14	39	67	100	120	115	145	605	1,080	533	100	43	31
15	41	67	110	110	108	150	929	1,150	528	94	42	31
16	44	76	85	105	107	143	1,480	1,230	454	100	42	30
17	44	72	86	100	115	141	1,010	1,350	398	96	45	27
18	44	72	70	90	100	123	890	1,150	370	90	48	31
19	45	73	85	55	100	117	850	1,040	334	86	51	31
20	46	74	130	50	96	132	1,080	1,040	300	82	54	32
21	53	76	250	70	96	115	1,520	1,150	278	79	50	33
22	56	69	370	100	106	104	1,230	1,270	260	70	46	31
23	67	73	289	125	96	119	1,010	1,350	250	74	43	32
24	158	72	234	150	94	109	820	1,230	235	83	41	27
25	182	72	198	130	79	113	820	1,120	220	85	40	31
26	111	73	119	115	90	107	1,010	1,040	205	73	38	31
27	95	73	98	120	109	98	1,230	975	190	67	40	31
28	73	66	86	120	107	115	1,230	910	180	62	42	32
29	66	76	107	120	-	152	1,310	880	186	58	39	32
30	67	64	120	125	-	231	1,520	1,150	215	59	40	32
31	69	-	125	130	-	247	-	1,040	-	56	43	-
Month					Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet			
October.....					1,784	182	32	57.5	3,540			
November.....					2,238	91	64	74.6	4,440			
December.....					3,397	370	25	110	6,740			
Calendar year 1934.....					79,295	1,050	22	217	157,300			
January.....					3,440	190	50	111	6,890			
February.....					3,044	125	79	109	6,040			
March.....					3,625	247	66	117	7,190			
April.....					21,694	1,520	168	730	43,450			
May.....					38,135	1,620	880	1,230	75,640			
June.....					14,020	975	180	467	27,810			
July.....					3,457	220	56	112	6,860			
August.....					1,414	56	38	45.6	2,800			
September.....					952	41	27	31.7	1,890			
Water year 1934-35.....					97,400	1,620	25	267	193,200			

North Fork of John Day River at Monument, Oreg.

Location.- Water-stage recorder, lat. 44°48'50", long. 119°25'40", in E½ sec. 1, T. 9 S., R. 27 E., just below entrance to canyon three-quarters of a mile west of Monument.

Records available.- March 1925 to September 1935.

Extremes.- Maximum discharge during year, 8,440 second-feet Apr. 16 (gage height, 7.85 feet); minimum, 44 second-feet Sept. 12 (gage height, 1.35 feet).
1925-35: Maximum discharge, 22,000 second-feet Mar. 18, 1932 (gage height, 14.8 feet); minimum, 7 second-feet Nov. 24, 1931 (gage height, 0.78 foot).

Remarks.- Records good except those affected by ice Jan. 18-27, which are fair and were estimated by comparison with records for stations at Service Creek and near Dayville. Small diversions for irrigation above station.

Rating tables, water year 1934-35 except period of ice effect
(gage height, in feet, and discharge, in second-feet)

Table for Oct. 1 to Jan. 27

1.3	28	2.4	305
1.6	72	2.8	495
2.0	167	3.2	765

Table for Jan. 28 to Sept. 30

1.3	37	2.8	505	4.5	1,990
1.6	81	3.2	775	5.0	2,520
2.0	173	3.6	1,110	6.0	3,770
2.4	317	4.0	1,490	7.0	5,190
				8.0	6,780

Discharge, in second-feet, water year October 1934 to September 1935

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	65	119	159	273	644	610	1,390	3,250	1,540	374	83	57
2	62	126	134	227	637	644	1,160	2,820	1,390	361	85	58
3	58	134	134	223	644	679	1,160	2,460	1,240	317	85	53
4	65	132	176	220	644	658	1,160	2,410	1,200	287	81	50
5	69	142	192	313	693	653	1,540	2,520	1,160	260	78	47
6	70	150	112	301	831	478	1,540	2,780	1,160	246	76	49
7	67	189	70	333	752	500	1,540	2,760	1,100	253	71	53
8	64	159	74	321	672	529	2,940	2,580	1,040	297	74	50
9	64	153	107	265	559	478	2,520	2,520	999	253	71	50
10	62	186	109	207	450	400	1,990	2,520	871	236	67	50
11	65	145	84	161	425	450	2,040	2,360	799	217	66	47
12	64	134	103	258	456	461	2,300	2,140	752	199	64	45
13	62	124	136	244	478	1,040	2,880	1,990	823	180	60	46
14	62	122	185	265	445	1,940	3,180	1,940	855	165	54	46
15	67	124	210	265	405	1,390	3,380	1,940	1,010	154	56	46
16	69	126	185	262	349	1,200	5,800	1,990	768	145	58	49
17	70	132	188	251	353	1,160	4,450	2,090	624	144	60	49
18	76	134	159	200	387	1,000	3,640	1,990	572	134	60	46
19	74	134	179	140	387	911	3,250	1,790	517	126	63	45
20	74	139	214	100	400	871	3,510	1,740	472	119	66	49
21	78	150	372	150	445	799	4,320	1,790	440	113	67	51
22	84	153	832	200	591	686	3,900	1,940	410	106	67	53
23	96	142	588	250	745	644	3,380	2,090	378	102	61	53
24	129	139	473	320	604	658	2,820	1,940	357	98	57	51
25	244	147	420	330	523	679	2,640	1,790	337	110	56	50
26	254	145	591	360	435	752	2,760	1,690	321	117	55	49
27	173	170	341	400	483	665	3,060	1,590	302	106	53	50
28	139	170	289	430	535	651	3,000	1,490	297	100	61	51
29	124	161	248	435	-	1,020	3,000	1,440	290	94	53	54
30	116	164	258	500	-	1,740	3,120	1,740	349	90	53	56
31	114	-	273	591	-	1,640	-	1,690	-	83	54	-
Month				Second-foot-days		Maximum	Minimum	Mean	Run-off in acre-feet			
October.....				2,880		254	56	92.9	5,710			
November.....				4,285		170	119	143	8,500			
December.....				7,355		832	70	237	14,590			
Calendar year 1934.....				164,840		1,920	32	452	327,000			
January.....				8,315		591	100	284	17,480			
February.....				14,982		631	349	556	29,720			
March.....				25,886		1,940	400	835	51,340			
April.....				35,480		5,800	1,160	2,783	165,800			
May.....				65,780		3,250	1,440	2,121	130,400			
June.....				22,533		1,540	287	744	44,300			
July.....				5,576		374	83	180	11,060			
August.....				2,008		85	51	64.6	3,970			
September.....				1,501		57	45	50.0	2,980			
Water year 1934-35.....				244,856		5,800	45	671	485,800			

Middle Fork of John Day River at Ritter, Oreg.

Location.- Water-stage recorder, lat. 44°53'20", long. 119°8'30", in NW¼ sec. 8, T. 8 S., R. 30 E., at bridge half a mile south of Ritter.

Records available.- October 1929 to September 1935.

Extremes.- Maximum discharge during year, 1,470 second-feet Apr. 15 or 16 (gage height, 5.2 feet, from flood marks); minimum, 3 second-feet Aug. 28 (gage height, 1.42 feet). 1929-35: Maximum discharge, 4,000 second-feet Mar. 19, 1932 (gage height, 7.78 feet); minimum, 1.0 second-foot Dec. 10, 1932.

Remarks.- Records good except those estimated and those below 10 second-feet, which are fair. Small diversions for irrigation above station.

Rating table, water year 1934-35 (gage height, in feet, and discharge, in second-feet)

1.3	1.2	2.4	80	4.0	555
1.5	4.8	2.6	154	4.5	870
1.8	18	3.2	255	5.0	1,290
2.1	41	3.6	395		

Discharge, in second-feet, water year October 1934 to September 1935

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	18	35	38	44	106	87	*280	*600	*350	92	21	4
2	19	35	36	31	99	87	255	*540	*330	87	21	5
3	20	35	49	26	95	97	261	*500	*300	72	20	5
4	22	38	53	46	99	95	306	*500	*270	61	19	6
5	21	42	38	60	110	74	482	*520	*250	56	19	10
6	20	45	19	77	111	68	432	530	243	58	17	8
7	20	45	19	77	108	92	396	*510	*250	71	17	10
8	21	42	23	71	101	88	498	*500	*200	68	17	10
9	22	42	33	42	74	71	443	*500	*175	58	16	10
10	21	40	23	27	70	72	396	*490	*160	53	14	10
11	20	38	21	49	85	78	*400	*460	184	48	13	9
12	21	36	32	38	87	85	*450	*430	*150	44	11	9
13	21	36	50	52	80	124	*550	*410	*160	40	9	9
14	22	35	57	56	78	200	*550	596	*170	36	9	9
15	23	35	56	53	68	203	*800	432	*200	36	11	9
16	23	39	53	56	53	193	*1,240	*450	*150	32	10	9
17	23	38	48	52	66	176	942	*460	*135	28	9	9
18	23	37	46	51	74	161	741	*420	123	27	9	9
19	23	37	52	41	71	146	660	*390	*112	26	10	12
20	24	42	70	32	77	150	678	*360	*102	24	9	11
21	25	48	134	58	85	144	798	374	*95	23	8	12
22	30	46	150	87	*90	121	702	*410	*85	22	6	12
23	35	43	110	90	*95	132	627	*430	*78	20	5	13
24	51	43	94	92	*85	123	550	*410	*70	21	4	13
25	56	43	*82	85	*60	126	505	*390	64	24	5	12
26	51	48	74	78	*70	148	525	*370	61	26	4	12
27	39	50	60	80	88	144	*580	*360	58	26	4	12
28	36	46	45	80	87	146	*600	343	57	23	4	12
29	35	48	49	83	-	*190	*600	*340	65	23	4	14
30	34	44	64	92	-	*300	*620	*400	88	20	4	16
31	35	-	51	110	-	*350	-	*380	-	21	4	-
Month						Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet		
October.....						884	88	18	28.5	1,750		
November.....						1,229	50	35	41.0	2,440		
December.....						1,734	180	19	55.9	3,440		
Calendar year 1934.....						33,180	378	3	90.9	65,810		
January.....						1,916	110	26	61.8	3,800		
February.....						2,372	111	53	84.7	4,700		
March.....						4,271	350	68	138	8,470		
April.....						16,970	1,240	265	866	33,660		
May.....						13,605	600	340	459	26,990		
June.....						4,685	350	57	156	9,290		
July.....						1,266	92	20	40.8	2,510		
August.....						353	21	4	10.7	660		
September.....						301	16	4	10.0	597		
Water year 1934-35.....						49,566	1,240	4	136	98,310		

*Estimated by comparison with flow at other stations in John Day River Basin.

Fox Creek at gorge near Fox, Oreg.

(The lower part of this stream is named Cottonwood Creek.)

Location.- Water-stage recorder, lat. $44^{\circ}37'$, long. $119^{\circ}15'40''$, in NW $\frac{1}{4}$ sec. 17, T. 11 S., R. 29 E., at head of gorge 6 miles southwest of Fox.

Records available.- October 1930 to September 1935.

Extremes.- Maximum discharge during year, 244 second-feet Apr. 20, caused by failure of dam upstream (gage height, 2.62 feet); no flow at times.
1930-35: Maximum discharge, 800 second-feet Mar. 18, 1932 (gage height, 4.55 feet); no flow at times.

Remarks.- Records fair except those below 1 second-foot, and those estimated for Jan. 30 to Feb. 4 because of ice, which are poor. Several diversions for irrigation in valley above station.

Rating table, water year 1934-35 except period of ice effect
(gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Oct. 17, Nov. 1 to Jan. 30, May 21 to July 31)

0.3	0	.9	5.2	73
.5	.3	1.2	17	146
.7	1.8	1.5	38	239

Discharge, in second-feet, water year October 1934 to September 1935

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1		0.1	0.1	0.1	2.5	11	5.4	45	3.8	0.1		
2		.1	.1	.1	4.0	9.8	5.0	37	1.9	.1		
3		.1	.1	.1	6.0	7.3	6.1	32	1.2	.1		
4		.1	.1	.2	7.0	5.2	14	30	.9	.1		
5		.1	.1	.2	7.3	4.8	36	28	.7	0		
6		.1	.1	.3	8.0	4.2	38	28	.5	.1		
7		.1	.1	.3	6.1	5.4	44	26	.4	.1		
8		.1	.1	.2	7.3	5.4	117	24	.3	.1		
9		.1	.2	.2	7.0	5.6	65	22	.3	.1		
10		.1	.1	.1	6.1	4.8	31	20	.2	0		
11		.1	.3	.2	5.0	5.4	25	19	.2	0		
12		.1	.1	.1	4.0	16	25	18	.2	0		
13		.1	.1	.1	2.2	23	27	14	.3	0		
14		.1	.1	.1	2.6	18	29	13	1.3	0		
15		.1	.1	.1	2.5	10	59	12	1.4	0		
16		.1	.1	.1	2.3	9.4	153	12	.9	0		
17		.1	.1	.1	2.2	8.0	93	25	.6	0		
18		.1	.1	.1	2.2	7.0	58	18	.4	0		
19		.1	.1	.1	1.5	6.1	48	13	.3	0		
20		.1	1.0	.1	2.3	5.0	62	10	.3	0		
21		.1	3.2	.1	5.0	4.0	76	7.3	.2	0		
22		.1	1.2	.1	19	1.8	70	6.4	.2	0		
23		.1	.4	.2	16	3.4	63	5.4	.1	0		
24		.1	.3	.2	11	4.6	47	5.2	.1	0		
25		.1	.2	.2	8.6	4.4	38	4.6	.1	0		
26		.1	.2	.2	8.0	3.2	37	3.8	.1	0		
27		.1	.2	.1	6.7	4.0	41	3.4	.1	0		
28		.1	.1	.2	8.0	4.0	40	3.1	.1	0		
29		.1	.1	.2	-	5.0	39	3.1	.1	0		
30		.1	.1	.3	-	5.6	45	4.2	.1	0		
31		-	.1	1.0	-	5.2	-	4.2	-	-		
Month						Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet		
October.....						0	0	0	0	0		
November.....						3.0	.1	.1	.10	6.0		
December.....						9.3	3.2	.1	.30	18		
Calendar year 1934.....						585.8	30	0	1.60	1,160		
January.....						5.7	1.0	.1	.18	11		
February.....						170.4	19	1.5	6.09	338		
March.....						216.6	23	1.8	6.89	430		
April.....						1,436.5	153	5.0	47.9	2,860		
May.....						494.7	45	3.1	16.0	981		
June.....						17.3	3.8	.1	.58	34		
July.....						.8	.1	0	.03	1.6		
August.....						0	0	0	0	0		
September.....						0	0	0	0	0		
Water year 1934-35.....						2,354.3	153	0	6.45	4,670		

Crane Prairie Reservoir near Lapine, Oreg.

Location.— Staff gage, lat. 43°45'20", long. 121°46'50", at reservoir dam in NW¼ sec. 16, T. 21 S., R. 8 E., 15 miles northwest of Lapine. Zero of gage is 4,400.0 feet above mean sea level.

Records available.— November 1922 to September 1935.

Extremes.— Maximum contents during year, 40,860 acre-feet June 7 (gage height, 41.94 feet); no storage Oct. 2, 3.
1922-35: Maximum contents, 50,830 acre-feet Jan. 10-13, 1924 (gage height, 44.10 feet); no storage at times.

Remarks.— Records good except those interpolated for Dec. 31, Jan. 31, Feb. 28, Mar. 31, which are fair. Reservoir was completed by North Canal Co. in 1922; gates were first closed Nov. 4, 1922. Capacity of reservoir is 55,200 acre-feet at spillway crest at gage height 45 feet. 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 1934 to September 1935

Date	Gage height (feet)	Contents (acre-feet)	Change in contents during month (acre-feet)
Sept. 30	29.20	0	
Oct. 31	32.20	5,814	+5,814
Nov. 30	35.40	15,310	+9,496
Dec. 31		22,800	+7,490
Jan. 31		26,000	+3,200
Feb. 28		28,180	+2,180
Mar. 31		32,640	+4,460
Apr. 30	41.28	37,960	+5,320
May 31	41.86	40,500	+2,540
June 30	40.90	35,900	-4,600
July 31	37.10	21,280	-14,620
Aug. 31	33.76	10,100	-11,180
Sept. 30	32.50	6,582	-3,518
The year			+6,582

Deschutes River at Crane Prairie, near Lapine, Oreg.

Location.- Water-stage recorder, lat. 43°45'20", long. 121°46'50", 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, February 1922 to September 1935.

Average discharge.- 14 years (1914-15, 1922-35), 206 second-feet.

Extremes.- Maximum discharge during year, 539 second-feet July 22 (gage height, 2.32 feet); minimum, 5 second-feet Oct. 5 (gage height, 0.25 foot).
1914-17, 1922-35: 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. Flow partly regulated since Nov. 4, 1922, by storage in Crane Prairie Reservoir.

Rating table, Oct. 3, 1934, to Sept. 30, 1935 (gage height, in feet, and discharge, in second-feet)

0.3	7	1.3	189
.5	23	1.6	279
.7	51	2.0	417
1.0	111	2.4	570

Discharge, in second-feet, water year October 1934 to September 1935

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	163	12	13	*16	*17	18	*20	32	186	439	421	388
2	169	12	13	*16	17	*18	*20	33	186	439	406	388
3	60	12	13	16	*17	*18	*20	35	192	439	410	388
4	7	12	13	*16	*17	*18	*20	36	215	436	421	385
5	7	12	14	*16	*17	*18	*20	40	233	436	436	388
6	14	12	14	*16	*17	*18	*20	42	239	432	436	381
7	39	12	14	*16	*17	*18	20	44	251	432	447	381
8	99	13	14	16	*17	*18	*20	45	264	436	447	381
9	133	13	15	*16	*17	*18	*20	48	267	447	439	399
10	130	13	15	*16	17	18	*20	51	273	447	443	424
11	130	13	15	*16	*17	*18	*20	51	292	447	465	428
12	135	13	15	*16	*17	*18	*20	55	296	443	469	428
13	107	13	15	*16	*17	*18	*20	65	289	443	469	432
14	104	13	15	*16	*17	*18	*20	158	286	447	473	403
15	83	13	15	16	*17	*18	*20	175	282	466	473	336
16	46	13	15	*16	*17	*19	*20	175	286	496	473	329
17	22	14	15	*16	*17	*19	*20	175	286	500	473	326
18	19	15	15	*16	*17	*19	*20	175	286	500	477	326
19	*20	15	15	*16	*17	*19	20	175	286	508	473	326
20	20	15	15	*16	17	19	20	175	286	527	465	322
21	18	15	15	*16	*17	*19	19	175	286	535	450	322
22	18	15	15	*16	*17	*19	18	175	292	523	436	322
23	12	14	15	*16	*17	*19	21	175	302	447	436	322
24	9	14	15	*16	*17	*19	31	189	306	439	436	319
25	9	14	*15	16	*17	*19	30	221	315	450	432	319
26	9	14	*15	*16	*17	*19	31	209	378	454	432	315
27	9	14	*15	*16	*17	*19	31	186	395	454	432	312
28	9	14	*15	*16	*17	*19	31	183	456	454	432	312
29	9	13	*15	*16	-	*19	31	183	456	450	428	309
30	9	13	*15	*16	-	19	31	183	459	432	428	292
31	9	-	*15	*16	-	*19	-	183	-	428	410	-
Month							Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet	
October.....							1,627	169	7	52.5	3,230	
November.....							400	15	12	15.3	793	
December.....							453	-	13	14.6	899	
Calendar year 1934.....							67,897	490	7	186	134,700	
January.....							496	16	16	16.0	984	
February.....							476	17	17	17.0	944	
March.....							574	19	18	18.5	1,140	
April.....							674	31	-	22.5	1,340	
May.....							3,847	221	32	124	7,630	
June.....							8,765	439	186	292	17,390	
July.....							14,225	535	428	459	28,210	
August.....							13,768	477	406	444	27,310	
September.....							10,700	452	292	357	21,220	
Water year 1934-35.....							56,005	535	7	153	111,100	

*Interpolated.

Deschutes River at Pringle Falls, near Lapine, Oreg.

Location.- Water-stage recorder, lat. 43°44'20", long. 121°36'50", in SW $\frac{1}{4}$ 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 1935.

Average discharge.- 12 years (1923-35), 713 second-feet.

Extremes.- Maximum discharge during year, 1,080 second-feet July 23 (gage height, 2.58 feet); minimum, 496 second-feet Jan. 3 (gage height, 1.33 feet).
1915-17, 1922-35: Maximum discharge, 1,170 second-feet June 21-27, 29, 30, 1917; minimum, 341 second-feet during period when recorder was stopped, Feb. 1-14, 1932.

Remarks.- Records good. Discharge interpolated for period Feb. 19 to Mar. 7. No diversions above station. Flow regulated to small extent since 1922 by storage in Crane Prairie Reservoir.

Rating table, water year 1934-35 (gage height, in feet, and discharge, in second-feet)

1.3	485	2.2	975
1.5	558	2.4	975
1.7	640	2.6	1,080
2.0	775		

Discharge, in second-feet, water year October 1934 to September 1935

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	668	513	510	506	528	531	531	562	698	955	960	910
2	667	516	510	510	528	531	531	558	698	950	940	905
3	649	524	510	510	528	531	539	558	698	950	940	905
4	510	528	510	510	528	531	539	558	716	945	940	900
5	506	520	510	510	531	531	539	558	739	945	960	900
6	510	513	510	513	531	531	535	562	752	945	955	900
7	531	510	510	524	531	531	543	562	752	945	975	895
8	550	510	506	513	531	531	547	566	775	945	975	895
9	632	510	502	513	531	531	535	566	775	965	975	895
10	632	510	506	513	531	528	535	566	775	965	955	930
11	632	510	506	516	531	528	535	570	800	965	986	940
12	632	510	506	520	531	528	539	578	815	965	1,000	940
13	627	510	506	524	535	531	543	582	805	970	1,000	940
14	602	510	506	524	535	531	547	627	800	975	1,000	940
15	611	513	506	520	528	531	550	694	800	980	1,010	870
16	574	510	506	528	531	528	547	694	800	1,010	1,010	835
17	539	513	506	539	531	528	543	698	800	1,020	1,010	830
18	531	513	502	531	531	528	543	694	800	1,020	1,010	825
19	528	513	513	516	531	528	547	694	800	1,020	1,000	825
20	528	513	531	528	531	535	547	694	800	1,060	992	825
21	547	510	520	531	531	531	550	690	800	1,060	980	820
22	531	510	516	520	531	528	550	690	810	1,050	960	820
23	539	506	516	524	531	528	560	690	815	1,020	955	820
24	535	506	513	520	531	528	554	690	815	960	950	820
25	516	513	510	520	531	531	558	721	815	970	950	820
26	513	510	516	524	531	531	558	739	870	936	955	820
27	510	513	513	524	531	528	558	703	900	992	955	820
28	510	506	513	524	531	528	558	703	945	936	960	820
29	510	506	516	528	-	531	562	708	955	992	965	820
30	510	513	516	528	-	531	566	703	955	975	950	820
31	513	-	510	528	-	531	-	703	-	960	950	-
Month						Second-foot-days	Maximum	Minimum	Mean		Run-off in acre-feet	
October.....						17,383	667	510	561		34,480	
November.....						15,362	528	506	512		30,470	
December.....						15,831	531	502	511		31,400	
Calendar year 1934.....						265,703	990	502	722		525,100	
January.....						16,139	539	506	521		32,010	
February.....						14,861	535	528	531		29,480	
March.....						16,429	536	528	530		32,590	
April.....						16,379	566	531	545		32,490	
May.....						19,881	739	558	641		39,430	
June.....						24,078	955	698	803		47,750	
July.....						30,456	1,060	945	982		60,410	
August.....						30,133	1,010	940	972		59,770	
September.....						26,005	940	820	867		51,560	
Water year 1934-35.....						242,937	1,060	502	666		481,900	

Deschutes River at Benham Falls, near Bend, Oreg.

Location.— Water-stage recorder, lat. 43°56'20", long. 121°25'10", 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 1914, August 1920 to September 1921, February 1924 to September 1935.

Average discharge.— 19 years (1905-13, 1924-35), 1,390 second-feet.

Extremes.— Maximum discharge during year, 1,880 second-feet July 23 (gage height, 1.98 feet); minimum, 715 second-feet Jan. 20, 21 (gage height, -0.05 foot).

1909-13, 1920-21, 1924-35: Maximum discharge (estimated), 5,000 second-feet Nov. 27, 1909 (gage height not determined); minimum, 890 second-feet Feb. 8, 9, 1933 (gage height, -0.14 foot).

Remarks.— Records good except those for Jan. 1-3, 19, which are fair and were estimated on basis of records for station below Lava Island. Minor diversions for irrigation above station. Some regulation since 1922 caused by storage in Crane Prairie and Crescent Lake Reservoirs.

Rating table, water year 1934-35 (gage height,
in feet, and discharge, in second-feet)

(Shifting-control method used Nov. 1 to Dec. 24, July 24 to Sept. 30)

-0.2	675	.5	905	1.4	1,340
0	730	.8	1,040	1.8	1,560
.2	790	1.1	1,190	2.2	1,800

Discharge, in second-feet, water year October 1934 to September 1935

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	972	857	913	890	865	913	958	1,220	1,360	1,420	1,530	1,340
2	976	861	905	870	889	913	963	1,240	1,360	1,420	1,530	1,320
3	981	869	921	860	889	913	968	1,240	1,360	1,420	1,500	1,320
4	954	893	925	873	893	913	963	1,240	1,340	1,440	1,500	1,320
5	857	905	921	946	901	917	968	1,240	1,340	1,470	1,470	1,290
6	841	905	913	897	913	913	981	1,220	1,340	1,500	1,470	1,290
7	841	909	925	913	925	905	990	1,220	1,340	1,500	1,500	1,290
8	857	913	921	921	921	905	1,020	1,240	1,340	1,500	1,500	1,290
9	891	901	901	905	913	893	1,020	1,240	1,340	1,500	1,500	1,290
10	937	889	893	897	909	893	990	1,240	1,360	1,530	1,500	1,290
11	945	881	901	893	905	893	990	1,240	1,360	1,530	1,500	1,290
12	945	877	909	893	913	897	986	1,260	1,360	1,630	1,500	1,290
13	937	873	909	897	905	901	990	1,290	1,390	1,530	1,500	1,290
14	933	866	921	889	909	921	1,020	1,290	1,390	1,530	1,500	1,290
15	917	873	925	885	897	933	1,040	1,360	1,360	1,530	1,500	1,290
16	917	881	917	881	885	933	1,060	1,420	1,360	1,530	1,500	1,240
17	893	881	925	885	893	929	1,090	1,420	1,360	1,590	1,500	1,190
18	861	893	917	869	897	921	1,090	1,390	1,360	1,620	1,500	1,190
19	845	905	921	900	901	917	1,090	1,390	1,360	1,620	1,500	1,160
20	846	909	958	730	905	913	1,090	1,390	1,360	1,620	1,500	1,160
21	865	917	990	772	913	917	1,120	1,390	1,320	1,620	1,470	1,160
22	877	909	972	885	917	901	1,140	1,390	1,320	1,660	1,470	1,160
23	873	909	1,020	961	913	901	1,160	1,360	1,290	1,660	1,440	1,160
24	897	905	1,040	917	905	905	1,160	1,360	1,320	1,660	1,420	1,160
25	893	909	1,040	857	897	901	1,160	1,360	1,320	1,590	1,390	1,160
26	877	921	976	861	893	909	1,140	1,390	1,290	1,590	1,390	1,160
27	893	925	976	865	905	917	1,140	1,390	1,340	1,590	1,360	1,160
28	893	941	941	869	913	897	1,160	1,390	1,360	1,560	1,360	1,140
29	877	941	921	873	-	901	1,190	1,390	1,390	1,560	1,360	1,140
30	861	921	901	877	-	921	1,220	1,390	1,420	1,560	1,360	1,140
31	845	-	901	881	-	941	-	1,360	-	1,560	1,340	-
Month						Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet		
October.....						27,766	981	841	896	55,110		
November.....						26,942	941	857	898	53,440		
December.....						29,019	1,040	893	936	57,560		
Calendar year 1934.....						421,593	1,470	841	1,155	836,200		
January.....						27,231	981	730	878	54,010		
February.....						25,304	925	885	904	50,190		
March.....						28,247	981	893	911	56,030		
April.....						31,852	1,220	958	1,062	63,180		
May.....						40,960	1,420	1,220	1,321	81,240		
June.....						40,510	1,420	1,290	1,350	80,360		
July.....						47,910	1,650	1,420	1,545	95,030		
August.....						45,360	1,530	1,340	1,463	89,970		
September.....						36,970	1,340	1,140	1,232	75,350		
Water year 1934-35.....						408,091	1,650	730	1,118	809,400		

Deschutes River below Lava Island, near Bend, Oreg.

Location.- Water-stage recorder, lat. 44°, long. 121°22'30", 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 1935.

Extremes.- Maximum discharge during year, 1,450 second-feet July 24 (gage height, 1.30 feet); minimum (estimated), 692 second-feet Jan. 20, 1926-35: 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. Arnold Canal diverts water for irrigation above station. Flow regulated by storage in Crescent Lake and Crane Prairie Reservoirs.

Rating tables, water year 1934-35 (gage height, in feet, and discharge, in second-feet)

Table for Oct. 1 to Jan. 20

0.1	585	.9	1,140
.3	680	1.1	1,310
.5	810	1.4	1,590
.7	970		

Table for Jan. 21 to Sept. 30

0.2	630	.8	1,020
.4	735	1.0	1,180
.6	865	1.2	1,360
		1.4	1,550

Discharge, in second-feet, water year October 1934 to September 1935

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	882	826	818	858	844	802	880	1,030	1,160	1,210	1,380	1,230
2	882	834	810	818	844	802	888	1,040	1,140	1,220	1,380	1,220
3	890	850	826	810	861	830	898	1,040	1,130	1,220	1,380	1,200
4	882	874	854	826	861	844	895	1,040	1,130	1,220	1,370	1,200
5	768	890	826	906	851	851	895	1,040	1,120	1,250	1,360	1,190
6	747	882	818	874	865	844	902	1,030	1,120	1,280	1,370	1,180
7	747	874	826	874	872	844	918	1,020	1,120	1,290	1,380	1,180
8	761	882	826	898	872	837	932	1,030	1,120	1,290	1,380	1,180
9	775	866	803	892	865	825	932	1,030	1,120	1,290	1,380	1,180
10	826	803	795	866	858	830	925	1,030	1,140	1,300	1,370	1,180
11	842	768	775	866	851	825	910	1,030	1,160	1,320	1,370	1,180
12	842	761	768	866	858	830	910	1,040	1,160	1,330	1,380	1,190
13	834	761	768	866	851	837	910	1,060	1,160	1,320	1,380	1,190
14	834	775	803	858	851	851	925	1,070	1,170	1,310	1,380	1,180
15	818	796	818	858	844	865	940	1,120	1,160	1,310	1,390	1,180
16	850	796	810	858	830	865	972	1,170	1,160	1,310	1,380	1,160
17	866	796	818	858	837	865	988	1,170	1,160	1,340	1,380	1,110
18	826	803	810	842	844	851	988	1,170	1,160	1,360	1,380	1,090
19	810	818	818	775	844	851	956	1,160	1,150	1,400	1,380	1,070
20	810	826	874	722	844	844	956	1,160	1,160	1,400	1,380	1,070
21	826	826	914	741	851	851	972	1,160	1,120	1,400	1,370	1,060
22	842	826	906	830	858	837	988	1,160	1,110	1,410	1,350	1,060
23	842	818	946	918	858	823	1,020	1,150	1,100	1,430	1,320	1,050
24	866	810	994	902	851	830	1,020	1,140	1,110	1,440	1,310	1,050
25	866	826	906	816	837	844	1,010	1,140	1,120	1,410	1,300	1,040
26	834	834	936	809	837	844	996	1,150	1,120	1,400	1,280	1,040
27	866	834	930	802	844	851	988	1,170	1,140	1,390	1,260	1,040
28	866	860	906	802	823	802	988	1,160	1,150	1,400	1,250	1,040
29	842	850	882	802	-	783	1,000	1,170	1,170	1,400	1,250	1,040
30	834	842	858	802	-	802	1,020	1,160	1,200	1,390	1,250	1,040
31	826	-	866	823	-	837	-	1,160	-	1,390	1,240	-
Month				Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet				
October.....				25,802	890	747	832	51,180				
November.....				24,797	890	761	827	49,160				
December.....				26,371	994	788	851	52,310				
Calendar year 1934.....				380,508	1,350	747	1,042	754,700				
January.....				26,028	918	722	840	51,630				
February.....				25,796	872	823	850	47,180				
March.....				25,893	865	783	835	51,360				
April.....				26,512	1,020	880	950	56,550				
May.....				34,200	1,170	1,020	1,103	67,830				
June.....				34,230	1,200	1,100	1,141	67,890				
July.....				41,450	1,440	1,210	1,337	82,210				
August.....				41,730	1,390	1,240	1,346	82,770				
September.....				33,820	1,230	1,040	1,127	67,080				
Water year 1934-35.....				366,619	1,440	722	1,004	727,200				

Deschutes River below Bend, Oreg.

Location.- Water-stage recorder, lat. 44°5', long. 121°18'30", in SE $\frac{1}{4}$ 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 1935.

Average discharge.- 21 years, 714 second-feet.

Extremes.- Maximum discharge during year, 1,030 second-feet Dec. 25 (gage height, 2.90 feet); minimum, 9 second-feet Apr. 29 (gage height, 0.76 foot).

1914-35: Maximum discharge, 2,500 second-feet Dec. 7, 1921 (gage height, 3.9 feet); minimum, 1 second-foot Aug. 25, 1930.

Maximum discharge of river in this vicinity since 1905, 4,820 second-feet Nov. 27, 1909.

Remarks.- Records good except those estimated and those below 350 second-feet, which are fair. Stage affected by ice Jan. 19, 20, and discharge estimated on basis of records for other stations on river; discharge interpolated for June 4. 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 1934-35 except period of ice effect
(gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Apr. 27 to May 5, June 2 to July 20)

0.6	4	1.2	51	2.0	325	2.8	940
.8	11	1.5	112	2.2	460	3.1	1,220
1.0	27	1.7	179	2.5	680	3.4	1,530

Discharge, in second-feet, water year October 1934 to September 1935

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	107	696	832	886	832	704	425	131	312	86	157	100
2	107	744	823	859	823	728	439	137	134	93	131	98
3	124	760	814	823	823	823	432	157	128	95	118	107
4	145	787	823	850	832	850	411	145	115	90	98	112
5	128	766	850	913	841	841	404	128	102	98	95	102
6	82	787	805	859	886	832	460	102	102	93	105	105
7	86	778	796	868	895	814	635	84	107	84	110	100
8	95	787	814	913	895	832	665	107	105	93	105	100
9	112	787	814	904	895	832	752	118	105	95	102	100
10	107	736	823	895	877	832	913	121	102	95	100	95
11	110	704	814	895	877	832	778	115	102	98	100	98
12	98	688	796	868	877	841	635	110	110	95	100	105
13	98	696	805	895	877	850	446	128	121	90	107	102
14	100	696	823	877	868	868	446	118	157	99	105	107
15	93	752	650	877	814	877	411	121	147	102	102	140
16	364	805	377	868	832	856	425	187	131	98	100	134
17	446	680	425	877	814	886	459	187	128	105	105	105
18	396	590	404	859	823	868	425	128	118	107	105	115
19	344	620	411	775	832	868	338	105	112	110	105	105
20	325	605	665	730	850	859	264	100	110	105	107	95
21	332	620	913	841	752	859	286	105	80	154	107	100
22	344	397	886	704	453	850	303	102	70	240	107	100
23	377	364	913	598	446	841	314	102	66	308	98	98
24	411	439	976	635	467	796	286	88	65	446	100	100
25	425	672	1,010	502	460	552	255	88	80	474	98	100
26	377	868	967	446	545	432	221	546	84	404	98	100
27	397	877	958	635	720	425	220	474	84	275	102	95
28	411	877	940	796	787	404	120	450	98	245	100	100
29	397	886	904	787	-	269	126	474	102	217	112	100
30	377	868	895	787	-	245	124	488	98	179	110	102
31	370	-	886	805	-	364	-	446	-	172	107	-
Month						Second-foot-days	Maximum	Minimum	Mean		Run-off in acre-feet	
October.....						7,877	446	82	248		15,230	
November.....						21,382	886	384	713		42,410	
December.....						24,612	1,010	377	794		48,820	
Calendar year 1934.....						145,737	1,150	32	399		289,100	
January.....						24,845	913	446	801		49,280	
February.....						21,693	895	446	775		43,030	
March.....						22,760	886	245	754		45,140	
April.....						12,598	913	120	413		24,580	
May.....						5,900	546	84	190		11,700	
June.....						3,275	312	65	112		6,690	
July.....						5,044	474	84	163		10,000	
August.....						3,296	157	95	106		6,540	
September.....						3,120	140	95	104		6,190	
Water year 1934-35.....						156,102	1,010	65	428		309,600	

Deschutes River near Madras, Oreg.

Location.- Water-stage recorder, lat. 44°42'30", long. 121°14'10", 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, from river profile.

Records available.- October 1923 to September 1935.

Average discharge.- 12 years, 4,126 second-feet.

Extremes.- Maximum discharge during year, 6,090 second-feet Apr. 17 (gage height, 3.42 feet); minimum, 3,370 second-feet Oct. 8 (gage height, 1.67 feet).
1923-35: 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 good. Discharge estimated Nov. 5-10 by comparison with record for Deschutes River at Moody. Diversions for irrigation in upper river basin.

Rating table, water year 1934-35 (gage height, in feet, and discharge, in second-feet)

1.4	3,010	3.0	5,410
1.8	3,550	3.5	6,260
2.2	4,130	4.0	7,110
2.6	4,750	5.0	8,900

Discharge, in second-feet, water year October 1934 to September 1935

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	3,470	3,830	4,360	4,510	4,430	4,360	4,750	4,510	4,280	3,760	3,620	3,480
2	3,440	4,130	4,360	4,510	4,510	4,280	4,830	4,430	4,130	3,690	3,620	3,480
3	3,400	4,200	4,360	4,430	4,510	4,430	4,990	4,360	4,060	3,690	3,550	3,480
4	3,450	4,200	4,360	4,510	4,510	4,510	4,990	4,280	3,960	3,690	3,510	3,470
5	3,450	4,250	4,360	4,510	4,510	4,510	4,910	4,280	4,060	3,690	3,490	3,480
6	3,450	4,400	4,360	4,510	4,590	4,510	4,830	4,280	4,060	3,690	3,480	3,470
7	3,410	4,400	4,280	4,590	4,590	4,430	4,990	4,280	4,060	3,690	3,480	3,470
8	3,380	4,500	4,280	4,590	4,590	4,430	5,240	4,200	4,130	3,620	3,480	3,450
9	3,420	4,400	4,280	4,510	4,590	4,430	5,580	4,200	4,060	3,620	3,490	3,470
10	3,440	4,300	4,280	4,510	4,590	4,360	5,580	4,130	3,980	3,620	3,480	3,470
11	3,420	4,130	4,280	4,510	4,590	4,360	5,410	4,130	3,980	3,620	3,470	3,470
12	3,420	4,130	4,280	4,510	4,590	4,360	5,240	4,060	3,980	3,620	3,470	3,450
13	3,380	4,130	4,280	4,510	4,590	4,510	5,410	4,060	3,980	3,620	3,470	3,480
14	3,400	4,200	4,280	4,430	4,510	4,510	5,410	4,060	3,980	3,620	3,480	3,510
15	3,410	4,200	4,280	4,360	4,430	4,670	5,580	4,060	3,900	3,690	3,470	3,550
16	3,400	4,280	4,060	4,430	4,430	4,830	5,750	4,060	3,900	3,690	3,480	3,560
17	3,620	4,280	3,900	4,430	4,430	4,750	6,090	4,060	3,900	3,620	3,480	3,550
18	3,760	4,130	3,900	4,430	4,430	4,830	5,750	4,060	3,900	3,620	3,480	3,510
19	3,690	4,060	3,980	4,360	4,430	4,670	5,240	3,980	3,980	3,620	3,490	3,510
20	3,690	4,060	4,670	4,130	4,430	4,670	5,070	3,980	3,980	3,620	3,480	3,490
21	3,830	4,060	5,070	4,200	4,430	4,590	5,070	3,960	3,900	3,620	3,490	3,480
22	3,690	4,060	5,070	4,360	4,280	4,590	5,240	3,980	3,900	3,760	3,510	3,480
23	3,830	3,900	4,910	4,200	4,060	4,510	5,070	3,980	3,760	4,060	3,510	3,470
24	4,430	3,830	4,910	4,360	4,130	4,510	4,910	3,980	3,760	4,430	3,490	3,450
25	4,200	4,060	4,910	4,430	4,130	4,510	4,830	3,900	3,760	4,130	3,480	3,450
26	3,980	4,280	4,910	4,280	4,130	4,280	4,590	3,900	3,760	4,060	3,470	3,440
27	3,830	4,430	4,750	4,200	4,280	4,200	4,590	4,280	3,760	3,900	3,480	3,440
28	3,760	4,430	4,750	4,430	4,430	4,200	4,670	4,360	3,830	3,830	3,490	3,440
29	3,760	4,430	4,670	4,510	-	4,200	4,590	4,360	3,620	3,760	3,490	3,440
30	3,760	4,430	4,590	4,430	-	4,130	4,590	4,360	3,830	3,690	3,510	3,440
31	3,760	-	4,590	4,430	-	4,510	-	4,360	-	3,620	3,490	-
Month						Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet		
October.....						112,530	4,430	3,380	3,624	222,900		
November.....						126,120	4,600	3,830	4,204	280,200		
December.....						136,520	5,070	3,900	4,462	274,400		
Calendar year 1934.....						1,425,680	5,410	3,370	3,906	2,828,000		
January.....						137,110	4,590	4,130	4,423	272,000		
February.....						124,150	4,590	4,060	4,454	246,200		
March.....						135,650	4,830	4,130	4,469	274,800		
April.....						135,790	6,090	4,590	5,126	306,000		
May.....						128,900	4,510	3,900	4,158	255,700		
June.....						118,370	4,280	3,760	3,946	234,800		
July.....						115,960	4,430	3,620	3,741	230,000		
August.....						108,380	3,620	3,470	3,496	215,000		
September.....						104,320	3,550	3,440	3,477	206,900		
Water year 1934-35.....						1,506,300	6,090	3,380	4,127	2,988,000		

DESCHUTES RIVER BASIN

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 187.43 feet above mean sea level by general adjustment of 1929.

Drainage area.- 10,500 square miles.

Records available.- July 1906 to September 1935. October 1897 to December 1899 at station near Moro, 10 miles above mouth.

Average discharge.- 30 years (1898-99, 1906-35), 5,903 second-feet.

Extremes.- Maximum discharge during year, 9,400 second-feet Dec. 22 (gage height, 3.89 feet); minimum, 3,870 second-feet Oct. 9 (gage height, 2.18 feet).
1897-99, 1906-35: 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 except those for Apr. 5-29, May 2, 4, 5, 8-14, 18, which are fair and were estimated on basis of records for station near Madras. Diversions for irrigation in upper river basin. Water-stage recorder inspected by employee of Eastern Oregon Land Co.

Rating table, water year 1934-35 (gage height, in feet, and discharge, in second-feet)

2.0	3,280	2.6	4,780	3.3	7,080
2.2	3,710	2.8	5,380	3.6	8,210
2.4	4,210	3.0	6,030	4.0	9,800

Discharge, in second-feet, water year October 1934 to September 1935

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	3,730	4,110	5,230	5,540	5,540	5,230	5,540	6,370	5,860	4,490	4,000	3,830
2	3,710	4,350	5,080	5,380	5,700	5,230	5,700	6,300	5,700	4,350	4,030	3,810
3	3,710	4,640	5,080	5,380	5,700	5,080	5,860	6,200	5,380	4,210	4,000	3,810
4	3,690	4,780	5,080	5,380	5,700	5,230	5,860	6,200	5,230	4,210	3,930	3,810
5	3,730	4,930	4,930	5,380	5,700	5,230	5,800	6,200	5,230	4,180	3,900	3,780
6	3,730	5,230	4,930	5,380	5,700	5,230	5,750	6,200	5,380	4,160	3,880	3,810
7	3,730	5,230	4,930	5,380	5,700	5,230	6,000	6,200	5,380	4,160	3,880	3,810
8	3,690	5,350	4,780	5,700	5,700	5,230	6,400	6,100	5,380	4,130	3,880	3,810
9	3,690	5,230	4,780	5,540	5,540	5,080	6,700	6,000	5,380	4,130	3,850	3,810
10	3,710	5,080	4,780	5,380	5,540	4,930	6,700	5,900	5,230	4,130	3,850	3,810
11	3,710	4,780	4,780	5,230	5,540	4,930	6,500	5,800	5,080	4,110	3,850	3,780
12	3,710	4,640	4,780	5,230	5,540	4,930	6,300	5,700	5,080	4,110	3,850	3,780
13	3,710	4,640	4,780	5,230	5,540	5,380	6,500	5,700	5,080	4,080	3,830	3,780
14	3,690	4,640	4,780	5,230	5,540	5,540	6,500	5,700	5,080	4,110	3,830	3,810
15	3,690	4,640	4,780	5,080	5,380	5,540	6,700	5,700	4,930	4,130	3,830	3,880
16	3,710	4,640	4,780	5,080	5,230	5,860	7,000	5,700	4,780	4,130	3,830	3,880
17	3,710	4,780	4,350	5,230	5,230	5,860	7,300	5,700	4,780	4,130	3,830	3,900
18	3,950	4,640	4,350	5,080	5,230	5,700	6,900	5,700	4,780	4,050	3,830	3,880
19	3,980	4,490	4,490	4,930	5,230	5,540	6,500	5,700	4,780	4,030	3,850	3,830
20	3,980	4,640	6,390	4,780	5,230	5,540	6,400	5,540	4,780	4,030	3,830	3,880
21	4,000	4,640	7,830	4,640	5,380	5,540	6,400	5,540	4,640	4,030	3,830	3,830
22	4,210	4,640	9,000	5,230	5,380	5,380	6,600	5,700	4,490	4,000	3,850	3,810
23	4,080	4,490	8,020	5,860	5,230	5,380	6,500	5,700	4,490	4,180	3,830	3,810
24	4,490	4,350	7,450	6,370	4,930	5,230	6,400	5,700	4,350	4,640	3,830	3,780
25	5,540	4,490	7,080	6,720	5,080	5,380	6,300	5,540	4,350	4,780	3,810	3,780
26	4,780	4,930	6,720	6,200	5,080	5,700	6,100	5,380	4,350	4,490	3,810	3,780
27	4,490	5,080	6,370	5,700	4,930	5,230	6,100	5,540	4,350	4,490	3,810	3,780
28	4,210	5,230	6,030	5,540	5,080	5,230	6,300	5,860	4,350	4,350	3,830	3,780
29	4,160	5,230	6,030	5,860	-	5,080	6,200	5,860	4,350	4,210	3,830	3,780
30	4,130	5,230	5,860	5,700	-	5,230	6,200	6,030	4,490	4,130	3,830	3,780
31	4,110	-	5,700	5,540	-	5,230	-	5,880	-	4,030	3,850	-
Month	Second-foot-days				Maximum	Minimum	Mean	Run-off in acre-feet				
October.....	123,160				5,540	3,690	3,973	244,300				
November.....	143,800				5,380	4,110	4,793	285,200				
December.....	173,950				9,000	4,350	5,611	345,000				
Calendar year 1934.....	1,714,810				10,200	3,620	4,698	3,401,000				
January.....	169,220				6,720	4,640	5,459	335,600				
February.....	151,300				5,700	4,930	5,404	300,100				
March.....	165,130				5,860	4,930	5,327	327,500				
April.....	190,010				7,300	5,540	6,334	376,900				
May.....	181,220				6,370	5,380	5,849	359,600				
June.....	147,510				5,860	4,350	4,917	292,600				
July.....	130,390				4,780	4,000	4,206	258,600				
August.....	119,670				4,030	3,810	3,860	237,400				
September.....	114,370				3,900	3,780	3,812	226,800				
Water year 1934-35.....	1,809,830				9,000	3,690	4,958	3,590,000				

Odell Creek near Crescent, Oreg.

Location.- Water-stage recorder, lat. 43°32'55", long. 121°57'40", in SW $\frac{1}{4}$ sec. 25, T. 23 S., R. 6 E., at outlet of Odell Lake, $\frac{3}{4}$ miles north of Crescent Lake and 14 miles northwest of Crescent.

Drainage area.- 39 square miles.

Records available.- August 1911 to August 1914 (incomplete), December 1923 to June 1924, May 1933 to September 1935.

Extremes.- Maximum discharge during period May to September, 1933, 380 second-feet June 11 (gage height, 1.51 feet); minimum, 20 second-feet June 7 (gage height, 0.42 foot); minimum mean daily discharge, 28 second-feet Sept. 15.

Maximum discharge during water year 1933-34, 188 second-feet Apr. 2 (gage height, 1.02 feet); minimum, 12 second-feet while clock was stopped, during period Sept. 7-30 (gage height, 0.19 foot).

Maximum discharge during water year 1934-35, 212 second-feet Apr. 14 (gage height, 1.08 feet); minimum, 15 second-feet Oct. 16, 17 (gage height, 0.26 foot).

1911-14, 1923-24, 1933-35: Maximum discharge, 390 second-feet June 14, 1912 (gage height, 1.90 feet, at former gage); minimum, that of September 1934.

Remarks.- Records fair except those estimated Sept. 7-30, 1934, Jan. 4 to Feb. 2, July 6-12, 1935, which are poor. No diversions above station. Discharge regulated at times by debris collecting on fish racks or by boards used to change lake level at summer resort docks, at outlet of Odell Lake.

Rating tables, water years 1933-35 (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used May 27 to June 18, 1933)

Table for May 27 to June 18, 1933 Table for June 19, 1933 to Sept. 30, 1935

0.4	18	.8	80	1.3	260	0.2	12	.6	52	1.2	265
.6	40	1.0	142	1.6	405	.4	25	.8	107	1.6	470

Discharge, in second-feet, water year October 1932 to September 1935

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1									54	180	74	33
2									97	205	71	33
3									66	200	69	33
4									135	185	66	34
5									96	188	64	33
6									74	176	62	34
7									96	172	62	33
8									132	172	59	32
9									245	169	57	33
10									330	146	57	33
11									365	128	57	32
12									335	114	52	33
13									330	107	52	32
14									340	104	52	29
15									345	124	52	26
16									340	118	52	27
17									345	114	49	29
18									356	110	50	29
19									280	107	52	32
20									225	101	47	36
21									260	101	42	36
22									208	107	41	42
23									194	107	41	39
24									196	101	41	57
25									195	95	39	52
26									186	92	38	57
27								54	160	92	39	52
28								57	172	88	41	54
29								59	194	82	39	52
30								50	151	76	35	52
31								45	-	74	34	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acres-feet
October.....							
November.....							
December.....							
Calendar year							
January.....							
February.....							
March.....							
April.....							
May 27-31.....	265	59	45	53.0	1.36	0.25	526
June.....	6,536	365	54	218	5.59	6.24	12,960
July.....	3,941	208	74	127	3.26	3.76	7,820
August.....	1,586	74	34	51.2	1.31	1.51	3,150
September.....	1,129	57	26	37.6	.964	1.08	2,240
The period.....	-	-	-	-	-	-	26,700

Note.- The above records supersede those published in Water-Supply Paper 754.

Odell Creek near Crescent, Oreg.

(Continued)

Discharge, in second-feet, water year October 1933 to September 1934

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	50	66	52	92	88	62	69	79	54	42	27	19
2	50	54	52	95	85	66	122	76	52	41	26	19
3	46	98	59	118	82	71	176	76	52	41	26	19
4	41	128	57	118	79	69	161	74	52	39	24	19
5	33	118	57	107	76	76	142	74	52	39	24	19
6	34	107	71	107	76	85	135	74	57	39	24	19
7	32	101	85	101	74	86	132	71	57	38	23	
8	23	95	82	98	74	86	128	71	57	36	23	
9	22	88	76	95	76	85	114	71	54	36	23	
10	23	85	74	92	74	82	110	69	54	36	22	
11	21	79	74	95	71	79	104	66	54	35	22	
12	21	76	79	95	69	79	101	64	52	34	21	
13	30	74	85	92	69	79	98	62	50	34	21	
14	27	71	92	101	66	76	95	59	49	34	20	
15	26	71	104	95	64	76	95	59	49	33	20	
16	35	66	95	92	62	74	95	57	47	33	20	
17	39	64	98	88	62	71	92	57	47	33	19	
18	30	62	107	88	62	71	88	54	47	32	19	
19	37	62	107	88	62	71	88	54	46	32	19	
20	23	59	107	95	62	62	88	54	44	30	19	
21	59	59	104	101	59	49	88	54	44	29	19	
22	64	59	104	104	59	41	88	52	42	29	19	
23	35	57	104	124	62	34	88	52	41	29	19	
24	29	57	101	135	59	44	88	52	41	29	19	
25	27	52	101	128	59	54	88	54	41	29	19	
26	25	54	98	118	62	47	85	54	41	29	19	
27	27	54	95	114	64	50	82	57	41	29	19	
28	28	62	92	107	64	69	82	54	42	29	19	
29	69	57	95	104	-	79	79	57	42	28	19	
30	110	54	95	98	-	92	79	59	42	28	19	
31	88	-	92	92	-	79	-	57	-	27	19	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acre-feet
October.....	1,222	110	21	39.4	1.01	1.16	2,420
November.....	2,189	128	52	73.0	1.87	2.09	4,340
December.....	2,694	107	52	86.9	2.23	2.57	5,340
Calendar year 1933.....	-	-	-	-	-	-	-
January.....	3,177	135	88	102	2.62	3.02	6,300
February.....	1,921	88	59	68.6	1.76	1.83	3,810
March.....	2,148	92	34	69.3	1.78	2.05	4,260
April.....	3,060	176	69	103	2.64	2.94	6,110
May.....	1,923	79	52	62.0	1.59	1.83	3,810
June.....	1,443	57	41	48.1	1.23	1.37	2,880
July.....	1,032	42	27	33.5	.854	.96	2,050
August.....	860	27	19	21.0	.538	.62	1,290
September.....	546	-	-	18.2	.467	.52	1,080
Water year 1933-34.....	22,025	176	-	60.3	1.55	20.96	43,670

Note.- The above records supersede those published in Water-Supply Paper 769.

Odell Creek near Crescent, Oreg.

(Continued)

Discharge, in second-feet, water year October 1934 to September 1935

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	16	50	69	98	53	39	32	82	121	95	36	27
2	16	54	62	92	52	39	30	79	118	92	35	27
3	17	62	59	85	52	39	29	76	114	85	35	27
4	17	66	54	80	50	39	52	74	114	82	34	27
5	17	66	52	76	49	39	69	74	118	76	33	26
6	19	66	50	78	49	39	69	74	124	74	33	24
7	17	64	49	90	49	39	76	74	132	72	32	24
8	17	66	47	84	49	39	76	74	135	70	32	25
9	18	64	46	78	47	39	69	76	132	68	32	25
10	18	62	46	73	47	38	66	74	128	65	30	25
11	19	62	46	70	47	38	66	71	124	63	29	24
12	18	59	44	72	44	38	64	74	121	61	29	23
13	18	59	44	72	46	36	76	74	121	59	30	23
14	16	57	44	69	46	38	155	76	121	57	29	23
15	17	57	44	68	44	36	180	79	114	59	27	23
16	15	57	46	70	44	35	169	79	110	59	25	25
17	15	57	47	76	44	35	161	85	107	57	25	24
18	16	62	47	88	44	35	142	85	104	54	24	24
19	16	64	54	80	44	35	128	85	101	52	23	24
20	17	64	66	74	44	36	118	88	98	49	23	24
21	26	64	74	70	44	38	114	88	98	49	24	25
22	32	64	82	67	44	39	107	95	98	47	25	25
23	36	66	92	64	42	41	110	98	92	47	25	25
24	54	64	98	62	41	39	104	104	85	47	24	24
25	50	74	82	60	41	44	95	107	82	47	25	23
26	49	76	82	58	41	44	88	110	79	46	25	23
27	47	82	82	57	39	41	85	110	76	44	26	23
28	47	74	82	56	39	41	79	114	76	41	27	22
29	46	69	88	55	-	38	82	124	92	41	28	23
30	46	71	104	54	-	38	82	132	98	41	28	23
31	46	-	101	53	-	34	-	124	-	39	27	-
Month				Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off			
									Inches	Acre-feet		
October.....				818	54	15	26.3	0.674	0.78	1,620		
November.....				1,922	82	50	64.1	1.64	1.83	3,810		
December.....				1,985	104	44	64.0	1.64	1.89	3,930		
Calendar year 1934.....				20,641	176	-	56.6	1.45	19.66	40,930		
January.....				2,229	98	53	71.9	1.84	2.12	4,420		
February.....				1,275	53	39	45.5	1.17	1.22	2,530		
March.....				1,166	44	34	38.3	0.982	1.13	2,350		
April.....				2,773	180	29	92.4	2.37	2.64	5,600		
May.....				2,759	132	71	89.0	2.23	2.63	5,470		
June.....				3,233	135	76	108	2.77	3.09	6,410		
July.....				1,838	95	39	59.3	1.52	1.75	3,650		
August.....				880	56	23	28.4	0.728	0.84	1,750		
September.....				730	27	22	24.3	0.623	0.70	1,450		
Water year 1934-35.....				21,624	180	15	59.2	1.52	20.62	42,890		

DESCHUTES RIVER BASIN

Little Deschutes River near Lapine, Oreg.

Location.- Water-stage recorder, lat. 43°41'20", long. 121°30'10", in SW $\frac{1}{4}$ sec. 2, T. 22 S., R. 10 E., at bridge at former town of Rosland, 1 $\frac{1}{2}$ miles north of Lapine. Zero of gage is 4,192.81 feet above mean sea level by general adjustment of 1929.

Records available.- September 1910 to October 1913 (incomplete), June to November 1918, August to October 1920, May 1924 to September 1935.

Average discharge.- 11 years (1924-35), 142 second-feet.

Extremes.- Maximum discharge during year, 410 second-feet May 13, 14 (gage height, 4.25 feet); minimum recorded, 20 second-feet Oct. 12-15 (gage height, 1.02 feet).
1910-13, 1918, 1920, 1924-35: Maximum discharge, 792 second-feet June 13, 1933 (gage height, 8.43 feet); minimum, 8 second-feet Sept. 2, 3, 1931 (gage height, 0.71 foot).

Remarks.- Records good except those for April, July, August, which are fair, and those for December to March, which are poor. Gage heights Jan. 10 to Feb. 8 affected by ice. Estimated discharge based on records at other stations in Deschutes River Basin. Small diversions for irrigation above station. Flow regulated since August 1922 by storage in Crescent Lake Reservoir.

Discharge, in second-feet, water year October 1934 to September 1935

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	21	50	67	*75	*95	*88	132	360	544	135	274	102
2	21	54	80	*70	*100	*88	124	368	544	132	266	100
3	22	69	95	*70	*105	*90	120	352	320	182	252	97
4	23	88	90	*95	*112	*85	128	344	296	237	259	96
5	23	104	*86	*120	*120	80	149	344	282	237	259	93
6	23	123	*82	*90	*118	73	156	544	268	244	259	93
7	24	128	*78	*100	*115	76	145	352	282	252	261	91
8	24	107	*75	*110	*110	68	150	360	282	244	91	
9	23	86	*70	*107	*105	77	153	368	259	252	259	90
10	21	72	*68	*101	*100	*79	138	385	274	244	259	70
11	21	65	*70	*93	*98	*80	129	364	282	237	252	57
12	21	60	*72	*90	*97	*85	138	402	282	230	237	54
13	20	56	*76	*88	*100	*92	159	410	269	228	237	51
14	21	54	*78	*85	*105	*103	170	402	244	216	223	51
15	20	55	*79	*80	*115	*100	202	402	237	259	223	51
16	21	56	*79	*75	130	90	237	385	230	296	216	51
17	21	64	79	*70	137	82	244	385	223	296	209	53
18	21	69	*85	*67	142	82	230	376	209	296	202	51
19	22	74	*100	*65	144	85	237	385	189	289	186	50
20	23	74	*120	*61	144	*85	252	386	176	282	189	50
21	31	71	*120	*40	137	*75	282	368	163	296	182	49
22	38	72	*150	*80	142	*75	304	352	157	296	176	48
23	56	70	*170	*140	128	*75	304	336	151	304	170	47
24	64	71	*170	*95	112	*75	282	328	145	380	163	47
25	94	75	*135	*75	110	*80	266	344	143	358	189	46
26	118	80	*115	*70	*100	84	266	360	137	312	113	46
27	94	100	*100	*73	*97	63	289	360	133	296	109	46
28	72	87	*95	*78	*93	66	312	352	131	266	106	45
29	61	69	*90	*80	-	93	320	360	129	289	104	44
30	55	86	*87	*85	-	113	344	360	131	289	102	44
31	51	-	*85	*90	-	136	-	352	-	282	102	-
Month						Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet		
October.....						1,168	118	20	37.7	2,320		
November.....						2,296	128	50	76.2	4,550		
December.....						2,946	170	67	96.0	5,840		
Calendar year 1934.....						40,488	244	16	111	80,290		
January.....						2,568	140	21	82.8	5,090		
February.....						3,211	144	93	116	6,370		
March.....						2,623	136	63	84.6	5,200		
April.....						6,262	344	120	212	12,620		
May.....						1,375	410	328	367	22,660		
June.....						6,840	344	189	221	13,170		
July.....						8,069	328	132	260	16,000		
August.....						6,223	274	102	201	12,340		
September.....						1,906	102	44	63.5	3,780		
Water year 1934-35.....						55,377	410	20	152	109,800		

*Estimated.

†Discharge measurement.

Crescent Lake Reservoir near Crescent, Oreg.

Location.— Staff gage, lat. 43°30'10", long. 121°58'20", at reservoir dam in sec. 11, T. 24 S., R. 6 E., 14 miles west of Crescent. Zero of gage is 4,826.0 feet above mean sea level.

Records available.— August 1922 to September 1935.

Extremes.— Maximum contents during year, 41,730 acre-feet June 29, 30 (gage height, 11.55 feet); minimum, 18,010 acre-feet Sept. 22 (gage height, 5.10 feet).

1922-35: Maximum contents, 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 fair. Contents estimated for July 31, Aug. 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 by Deschutes County Municipal Improvement District through its canal diverting from Deschutes River at Bend for irrigation of lands near Tumalo. Capacity of reservoir is 66,050 acre-feet at spillway crest at gage height 23.0 feet.

Stage and contents, water year October 1934 to September 1935

Date	Gage height (feet)	Contents (acre-feet)	Change in contents during month (acre-feet)
Sept. 30	6.50	23,060	
Oct. 31	6.80	24,140	+1,080
Nov. 30	7.50	26,690	+2,550
Dec. 31	8.10	28,900	+2,210
Jan. 31	8.60	30,740	+1,840
Feb. 28	8.80	30,740	0
Mar. 31	8.65	30,920	+180
Apr. 30	8.90	31,850	+930
May 31	10.30	37,060	+5,210
June 30	11.55	41,730	+4,670
July 31		30,000	-11,730
Aug. 31		20,000	-10,000
Sept. 30	5.50	19,450	-550
The year			-3,610

Crescent Creek at Crescent Lake, near Crescent, Oreg.

Location.- Water-stage recorder, lat. 43°30'10", long. 121°58'20", in sec. 11, T. 24 S., R. 6 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 1935.

Average discharge.- 10 years (1911-14, 1928-35), 39.2 second-feet.

Extremes.- Maximum discharge during year, 254 second-feet July 19 (gage height, 2.42 feet); no flow most of year.

1911-15, 1927-35: Maximum discharge, 313 second-feet July 9, 1923; no flow at times.

Remarks.- Records excellent. Flow regulated since 1922 by storage in Crescent Lake Reservoir, this storage being released July 1 to Sept. 8 for Deschutes County Municipal Improvement District Canal near Bend.

Rating table, water year 1934-35 (gage height, in feet, and discharge, in second-feet)

1.0	46	1.8	136
1.2	63	2.0	169
1.4	84	2.2	208
1.6	109	2.5	272

Discharge, in second-feet, water year October 1934 to September 1935

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1										26	218	58
2										152	225	57
3										152	231	56
4										150	225	56
5										149	218	55
6										147	212	54
7										147	213	54
8										146	221	24
9										146	218	0
10										146	208	0
11										144	202	0
12										144	194	0
13										175	188	0
14										251	182	0
15										251	159	0
16										229	166	0
17										227	160	0
18										229	150	0
19										237	141	0
20										246	135	0
21										240	126	0
22										235	122	0
23										235	91	0
24										233	60	0
25										251	60	0
26										187	59	0
27										229	59	0
28										229	59	0
29										229	59	0
30										228	59	-
31										228	56	
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 1934.....	11,112					181	0	30.4	22,030			
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.....	5,955					246	26	192	11,810			
August.....	4,691					231	58	151	9,500			
September.....	414					58	0	15.8	821			
Water year 1934-35.....	11,060					246	0	30.3	21,850			

Diversions from Deschutes River near Bend, Oreg.

The following canals divert from Deschutes River between gaging station at Benham Falls and station below Bend: Arnold Canal diverts from right bank of Deschutes River at head of Lava Island, in SW $\frac{1}{4}$ 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 NE $\frac{1}{4}$ sec. 13, T. 18 S., R. 11 E.; water used for irrigation of lands east of Bend. Beginning Oct. 1, 1932, record of flow of Central Oregon Canal obtained above intake of Pilot Butte Canal. Deschutes County Municipal Improvement District Canal diverts from left bank in NE $\frac{1}{4}$ 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 NE $\frac{1}{4}$ sec. 29, T. 17 S., R. 12 E.; water used to irrigate lands north of Bend, mostly near Redmond. No other diversions between gaging stations at Benham Falls and below Bend.

Records are available from October 1926 to September 1935; records for each of these canals published separately prior to 1926.

Diversions, in acre-feet, water year October 1934 to September 1935

Month	Arnold Canal	Central Oregon Canal	Deschutes County Municipal Improvement District Canal	North Canal	Swalley Canal	Total
October	1,990	9,880	3,750	17,510	4,050	36,950
November	303	3,380	3,210	1,900	454	9,247
December	194	2,060	0	2,060	573	4,887
January	389	1,620	0	1,570	452	4,031
February	44	1,890	547	1,530	504	4,605
March	422	2,690	549	2,540	502	6,699
April	1,160	13,090	4,120	10,870	2,510	31,540
May	5,260	20,650	3,120	25,840	5,400	60,450
June	5,460	25,740	982	27,490	6,500	66,172
July	5,680	28,660	6,760	27,730	6,570	75,360
August	3,680	29,590	8,610	29,250	6,700	77,730
September	3,760	27,860	216	25,430	5,460	62,726
The year	28,338	167,060	31,734	175,420	39,875	440,427

DESCHUTES RIVER BASIN

Tumalo Creek near Bend, Oreg.

Location.- Water-stage recorder, lat. 44°5'20", long. 121°22'10", in SE¼ sec. 23, T. 17 S., R. 11 E., a quarter of a mile above diversion dam of feed canal of Tumalo project, 4 miles above mouth, and 4 miles northwest of Bend.

Drainage area.- 57 square miles.

Records available.- November 1913 to September 1934; also during winters from October 1906 to April 1913, except 1909 and 1910.

Average discharge.- 20 years (1913-21, 1923-35), 81.1 second-feet.

Extremes.- Maximum discharge during year, 296 second-feet July 23 (gage height, 2.34 feet); minimum, 12 second-feet Sept. 1-3 (gage height, 0.90 foot).
1906-8, 1911-35: Maximum discharge, 1,420 second-feet about Jan. 6, 1923 (gage height, 4.55 feet); minimum, 4.0 second-feet Oct. 28, 1922 (gage height, 0.55 foot).

Remarks.- Records fair except those for Jan. 14-20, which are poor. Stage-discharge relation affected by ice at times Dec. 5 to Mar. 27. Columbia Southern Canal diverts above station. Canal discharge estimated for Nov. 23 to Mar. 20, Mar. 22 to Apr. 19, Apr. 25-28, June 9-12, Sept. 2-3; estimates of canal discharge poor.

Discharge, in second-feet, water year October 1934 to September 1935

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	54	82	23	*26	24	25	26	40	144	*80	29	14
2	54	66	25	26	24	25	25	39	137		28	14
3	54	65	23	*26	24	25	26	36	134		26	19
4	51	69	24	27	24	25	25	44	150		28	58
5	51	103	*24	*26	24	25	25	60	173		25	58
6	51	100	24	25	24	25	25	67	190		25	58
7	52	88	22	25	24	23	25	76	204		25	56
8	52	106	20	25	25	*23	25	78	222		24	56
9	52	96	22	*25	*25	*24	24	82	165		*24	58
10	54	87	*23	*25	*25	*26	23	83	162		*23	58
11	52	80	25	26	25	25	24	80	162	*23	56	
12	54	76	25	*25	*24	26	24	78	173	*21	58	
13	52	78	23	24	24	30	25	78	165	*19	56	
14	52	87	22	*23	25	27	26	87	144	*19	60	
15	52	111	22	*23	*24	26	28	*107	114	*19	63	
16	52	87	24	*22	23	26	28	*112	123	16	60	
17	52	82	24	*20	24	26	27	*106	140	17	60	
18	52	76	25	*18	24	27	28	*94	150	18	59	
19	52	72	29	*15	24	*26	29	*100	176	18	59	
20	55	72	69	*25	24	26	32	*108	132	59	17	59
21	69	72	60	33	25	*26	33	*130	127	75	17	60
22	58	69	55	30	25	*26	32	140	147	76	16	59
23	66	49	43	30	24	26	*30	142	120	179	17	60
24	137	25	39	32	*24	25	*30	137	*115	116	16	59
25	87	24	36	30	*24	26	*30	150		73	16	59
26	72	22	35	27	*25	*26	*33	157		62	16	59
27	63	23	33	26	25	*25	33	160	54	16	59	
28	60	23	*32	25	25	25	36	160	47	16	60	
29	59	22	32	25	-	28	40	157	43	15	59	
30	62	22	28	24	-	28	42	140	46	16	58	
31	76	-	*27	24	-	27	-	147	-	44	15	-

Month	Tumalo Creek				Run-off in acre-feet	Columbia Southern Canal (acre-feet)	Combined run-off in acre-feet
	Second- foot- days	Discharge in second-feet					
		Maximum	Minimum	Mean			
October.....	1,859	137	51	60.0	3,690	0	3,690
November.....	2,033	111	22	67.8	4,030	656	4,686
December.....	940	69	20	30.3	1,860	2,150	4,010
Calendar year 1934.....	25,008	240	14	68.5	49,606	17,216	66,822
January.....	783	33	15	25.3	1,550	2,150	3,700
February.....	681	25	23	24.3	1,350	1,940	3,290
March.....	798	30	23	25.7	1,580	2,170	3,750
April.....	859	42	23	28.6	1,700	2,550	4,250
May.....	3,177	180	38	102	6,300	4,990	11,290
June.....	4,349	222	-	145	8,650	5,770	14,400
July.....	2,394	179	43	77.2	4,750	4,180	8,930
August.....	622	29	15	20.1	1,230	3,240	4,470
September.....	1,635	63	14	54.5	3,240	258	3,498
Water year 1934-35.....	20,130	222	14	55.2	39,910	30,036	69,946

*Estimated.

Squaw Creek near Sisters, Oreg.

Location.- Water-stage recorder, lat. 44°14', long. 121°34'15", 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.- Irrigation seasons 1913-25, October 1925 to September 1935. July 1906 to May 1913 at station below intake of McCallister Ditch and 700 feet downstream.

Average discharge.- 23 years (1906-18, 1919-20, 1925-35), 105 second-feet.

Extremes.- Maximum discharge during year, 386 second-feet June 7 (gage height, 2.06 feet); minimum discharge, 41 second-feet Feb. 25; minimum gage height, 0.90 foot Oct. 13, 19. 1906-35: Maximum discharge (estimated), 1,940 second-feet Nov. 22, 1909 (gage height, 7.5 feet, former site and datum); minimum, 19 second-feet Dec. 6, 1922.

Remarks.- Records good except those estimated because of ice effect, Dec. 31, Jan. 1, 3, 4, 15, 16, 18-21, Feb. 9, 10, 16, and those estimated because of missing gage-height record, Feb. 25-27. Pole Creek, a tributary above station, has been entirely diverted from its natural channel near mouth for irrigation of lands near Sisters.

Rating table, Jan. 22 to Sept. 30, 1935, except periods
of ice effect (gage height, in feet, and discharge,
in second-feet)

(Shifting-control method used Sept. 1-30)

0.0	33	1.3	230
1.1	62	1.9	312
1.3	101	2.2	455
1.5	157		

Discharge, in second-feet, water year October 1934 to September 1935

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	60	96	67	67	57	51	51	86	215	157	129	97
2	52	73	66	66	59	51	51	86	215	157	138	101
3	48	71	66	66	59	51	49	90	219	168	138	101
4	48	94	62	67	59	51	49	97	242	171	132	97
5	52	154	67	67	59	51	49	111	270	171	126	90
6	54	122	66	69	59	49	49	118	283	166	132	90
7	57	112	62	69	57	49	51	121	304	160	135	90
8	67	140	59	69	57	46	51	121	312	154	126	88
9	75	110	56	66	57	49	49	129	254	157	135	95
10	75	92	66	69	57	51	46	129	254	164	135	97
11	73	84	62	66	57	46	51	121	254	174	124	93
12	59	84	59	71	57	66	52	118	274	185	124	86
13	49	98	59	69	57	73	57	124	254	200	132	82
14	49	102	59	66	57	62	59	132	226	211	126	88
15	49	117	57	65	56	57	59	145	196	242	108	95
16	48	92	56	64	55	54	59	145	222	230	101	106
17	49	88	52	59	54	54	57	138	222	203	99	86
18	48	82	54	55	54	54	59	132	258	203	101	86
19	46	73	76	54	54	54	66	135	270	188	104	86
20	51	78	175	65	54	54	73	148	234	192	104	84
21	80	75	151	75	54	54	75	168	242	198	111	84
22	52	75	114	73	54	56	69	198	250	185	118	84
23	90	73	100	69	52	52	69	192	219	215	108	80
24	184	73	94	76	52	52	67	192	203	203	99	76
25	117	84	90	66	50	51	69	200	207	185	101	73
26	96	71	88	62	50	51	76	203	211	174	108	71
27	78	75	86	59	51	51	76	211	215	171	114	73
28	75	71	85	59	51	51	80	219	254	187	114	71
29	73	71	80	59	-	59	84	242	238	151	118	71
30	86	69	76	59	-	54	86	211	182	154	111	73
31	119	-	70	59	-	51	-	211	-	145	101	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October.....	2,159	184	46	69.6	4,280
November.....	2,899	154	69	90.0	5,350
December.....	2,381	175	52	76.8	4,720
Calendar year 1934.....	36,745	315	44	101	72,860
January.....	2,025	76	54	65.3	4,020
February.....	1,549	59	50	55.3	3,070
March.....	1,659	73	48	55.5	3,290
April.....	1,840	88	48	61.3	3,650
May.....	4,671	242	86	151	9,280
June.....	7,199	312	182	240	14,280
July.....	5,585	242	145	180	11,070
August.....	3,650	138	99	118	7,840
September.....	2,598	108	71	86.5	5,150
Water year 1934-35.....	36,011	312	46	104	75,380

DESCHUTES RIVER BASIN

Crooked River near Culver, Oreg.

Location.- Staff gage, lat. 44°32'40", long. 121°15'50", in SW¼ sec. 11, T. 12 S., R. 12 E., just below Cove power plant and 3 miles northwest of Culver.

Records available.- October 1917 to September 1935.

Average discharge.- 18 years, 1,370 second-feet.

Extremes.- Maximum discharge recorded during year, 3,090 second-feet Apr. 17 (gage height, 2.90 feet); minimum, 1,170 second-feet Aug. 11, 15, 21 (gage height, 0.44 foot).

1917-35: Maximum discharge, 7,320 second-feet Feb. 6, 1925 (gage height, 5.6 feet); minimum, 970 second-feet July 12 to Sept. 5, 1921.

Remarks.- Records excellent. Discharge interpolated Mar. 12, 13, 17, 18, 28, 27. Flow regulated slightly by storage in Ochoco Reservoir. Summer flow above Prineville diverted for irrigation. Springs increase flow about 1,000 second-feet in a few miles above station. Gage readings furnished by Pacific Power & Light Co.

Rating table, water year 1934-35 (gage height, in feet, and discharge, in second-feet)

0.5	1,100	2.0	2,220
.6	1,250	2.5	2,670
1.0	1,490	3.0	3,210
1.6	1,640		

Discharge, in second-feet, water year October 1934 to September 1935

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,190	1,180	1,250	1,250	1,310	1,370	1,980	2,060	1,240	1,190	1,240	1,190
2	1,180	1,180	1,250	1,250	1,340	1,400	2,060	1,910	1,230	1,190	1,220	1,190
3	1,180	1,180	1,250	1,250	1,340	1,400	2,140	1,640	1,240	1,180	1,220	1,180
4	1,180	1,180	1,240	1,250	1,340	1,370	2,300	1,770	1,240	1,180	1,220	1,190
5	1,190	1,180	1,240	1,280	1,340	1,400	2,060	1,700	1,230	1,190	1,200	1,190
6	1,180	1,180	1,240	1,280	1,370	1,400	1,980	1,630	1,220	1,180	1,190	1,190
7	1,180	1,180	1,230	1,280	1,370	1,370	2,060	1,630	1,210	1,190	1,190	1,180
8	1,180	1,180	1,230	1,280	1,400	1,370	2,060	1,630	1,210	1,180	1,190	1,190
9	1,180	1,180	1,230	1,280	1,400	1,370	2,480	1,630	1,190	1,190	1,180	1,180
10	1,180	1,180	1,230	1,280	1,400	1,370	2,390	1,660	1,200	1,180	1,180	1,190
11	1,180	1,180	1,230	1,280	1,340	1,370	2,060	1,560	1,190	1,180	1,170	1,180
12	1,180	1,180	1,230	1,280	1,340	1,370	2,060	1,490	1,190	1,190	1,180	1,180
13	1,180	1,180	1,230	1,280	1,310	1,370	2,670	1,460	1,190	1,190	1,180	1,190
14	1,180	1,180	1,230	1,280	1,310	1,370	2,670	1,460	1,190	1,180	1,180	1,190
15	1,180	1,180	1,230	1,280	1,310	1,370	2,770	1,400	1,220	1,190	1,170	1,180
16	1,180	1,180	1,230	1,280	1,310	1,630	2,670	1,370	1,200	1,180	1,180	1,190
17	1,180	1,180	1,250	1,280	1,310	1,580	3,060	1,370	1,200	1,180	1,180	1,190
18	1,180	1,180	1,250	1,280	1,310	1,540	2,670	1,370	1,190	1,190	1,180	1,190
19	1,180	1,180	1,250	1,280	1,310	1,490	2,480	1,370	1,200	1,190	1,180	1,210
20	1,180	1,180	1,250	1,280	1,310	1,430	2,480	1,370	1,200	1,180	1,180	1,220
21	1,180	1,180	1,250	1,250	1,310	1,430	2,570	1,340	1,190	1,180	1,170	1,210
22	1,180	1,180	1,250	1,250	1,310	1,430	2,570	1,340	1,190	1,180	1,180	1,200
23	1,180	1,180	1,250	1,250	1,310	1,430	2,580	1,310	1,190	1,180	1,180	1,190
24	1,180	1,180	1,400	1,280	1,310	1,370	2,220	1,310	1,200	1,190	1,180	1,200
25	1,180	1,180	1,340	1,310	1,430	1,370	2,140	1,280	1,190	1,310	1,190	1,190
26	1,180	1,180	1,280	1,310	1,370	1,370	1,980	1,250	1,190	1,240	1,180	1,190
27	1,180	1,180	1,250	1,310	1,310	1,370	2,140	1,250	1,180	1,240	1,180	1,180
28	1,180	1,180	1,250	1,310	1,340	1,370	2,140	1,240	1,190	1,230	1,190	1,190
29	1,180	1,200	1,250	1,310	-	1,400	2,060	1,250	1,180	1,220	1,180	1,190
30	1,180	1,250	1,250	1,310	-	1,370	1,980	1,250	1,190	1,240	1,190	1,180
31	1,180	-	1,250	1,310	-	1,630	-	1,230	-	1,240	1,200	-
Month	Second-foot-days				Maximum		Minimum		Mean		Run-off in acre-feet	
October.....	36,580				1,180		1,180		1,180		72,560	
November.....	36,490				1,400		1,190		1,183		70,890	
December.....	38,790				1,250		1,230		1,261		76,440	
Calendar year 1934.....	446,960				1,560		1,180		1,226		886,500	
January.....	39,680				1,310		1,250		1,280		79,700	
February.....	37,460				1,430		1,310		1,338		74,900	
March.....	43,880				1,630		1,370		1,415		87,030	
April.....	69,620				3,090		1,980		2,321		136,100	
May.....	45,650				2,060		1,230		1,472		90,310	
June.....	36,070				1,240		1,180		1,208		71,540	
July.....	37,680				1,700		1,180		1,215		74,740	
August.....	36,820				1,240		1,170		1,168		73,030	
September.....	35,720				1,220		1,180		1,191		70,860	
Water year 1934-35.....	495,420				3,090		1,170		1,352		978,700	

Metolius River near Grandview, Oreg.

Location.- Staff gage, lat. 44°36'40", long. 121°27'10", in NE¼ sec. 19, T. 11 S., R. 11 E., at Montgomery ranch, 8 miles northwest of Grandview.

Records available.- October 1921 to September 1935.

Average discharge.- 14 years, 1,459 second-feet.

Extremes.- Maximum discharge recorded during year, 2,200 second-feet Oct. 24, Dec. 20 (gage height, 1.10 feet); minimum, 1,260 second-feet Oct. 1-20 (gage height, 0.30 foot).

1921-35: 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 interpolated Nov. 6. No diversions or regulation above station.

Rating table, water year 1934-35 (gage height, in feet, and discharge, in second-feet)

0.1	1,080	1.1	2,200
.4	1,370	1.5	2,780
.7	1,700	2.0	3,550

Discharge, in second-feet, water year October 1934 to September 1935

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,260	1,350	1,390	1,480	1,460	1,390	1,540	1,540	1,700	1,590	1,440	1,370
2	1,260	1,350	1,370	1,480	1,440	1,390	1,480	1,540	1,700	1,590	1,440	1,370
3	1,260	1,370	1,370	1,480	1,440	1,390	1,480	1,540	1,700	1,590	1,410	1,370
4	1,260	1,390	1,370	1,480	1,440	1,390	1,480	1,540	1,700	1,590	1,410	1,370
5	1,260	1,390	1,370	1,480	1,460	1,390	1,480	1,590	1,760	1,590	1,410	1,370
6	1,260	1,520	1,370	1,480	1,460	1,390	1,480	1,590	1,820	1,540	1,410	1,370
7	1,260	1,460	1,350	1,540	1,460	1,390	1,480	1,590	1,820	1,540	1,410	1,370
8	1,260	1,480	1,350	1,480	1,460	1,370	1,540	1,590	1,820	1,540	1,410	1,370
9	1,260	1,410	1,350	1,480	1,460	1,370	1,480	1,590	1,820	1,540	1,410	1,370
10	1,260	1,410	1,330	1,460	1,440	1,370	1,480	1,590	1,760	1,540	1,410	1,370
11	1,260	1,370	1,330	1,460	1,440	1,370	1,480	1,590	1,760	1,540	1,410	1,370
12	1,260	1,350	1,330	1,460	1,440	1,490	1,490	1,590	1,760	1,540	1,410	1,350
13	1,260	1,350	1,330	1,440	1,440	1,460	1,480	1,590	1,760	1,540	1,410	1,350
14	1,260	1,350	1,330	1,440	1,440	1,480	1,480	1,590	1,700	1,590	1,410	1,350
15	1,260	1,370	1,330	1,410	1,440	1,440	1,480	1,590	1,700	1,590	1,410	1,390
16	1,260	1,350	1,330	1,410	1,410	1,440	1,540	1,640	1,700	1,590	1,390	1,370
17	1,260	1,350	1,330	1,410	1,440	1,440	1,480	1,640	1,700	1,540	1,390	1,370
18	1,260	1,350	1,330	1,410	1,440	1,440	1,480	1,590	1,700	1,540	1,390	1,350
19	1,260	1,390	1,330	1,390	1,410	1,440	1,480	1,590	1,640	1,480	1,390	1,350
20	1,260	1,350	2,200	1,350	1,410	1,410	1,480	1,590	1,640	1,480	1,370	1,350
21	1,390	1,350	1,890	1,350	1,410	1,410	1,540	1,640	1,640	1,640	1,370	1,350
22	1,300	1,350	1,920	1,390	1,440	1,410	1,540	1,700	1,640	1,480	1,370	1,350
23	1,480	1,350	1,700	1,440	1,440	1,410	1,540	1,700	1,590	1,480	1,370	1,350
24	2,200	1,350	1,700	1,480	1,410	1,410	1,540	1,700	1,590	1,540	1,370	1,350
25	1,540	1,350	1,640	1,480	1,370	1,410	1,480	1,700	1,590	1,480	1,370	1,350
26	1,370	1,370	1,640	1,480	1,370	1,480	1,480	1,700	1,590	1,480	1,370	1,330
27	1,350	1,370	1,590	1,480	1,370	1,460	1,480	1,700	1,590	1,480	1,370	1,300
28	1,330	1,370	1,590	1,480	1,410	1,460	1,480	1,700	1,590	1,480	1,390	1,300
29	1,390	1,390	1,590	1,480	-	1,440	1,540	1,700	1,590	1,480	1,390	1,300
30	1,280	1,390	1,590	1,450	-	1,480	1,540	1,780	1,580	1,460	1,390	1,300
31	1,280	-	1,590	1,460	-	1,540	-	1,750	-	1,460	1,390	-
Month						Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet		
October.....						41,000	2,200	1,260	1,323	81,320		
November.....						41,550	1,590	1,350	1,358	82,410		
December.....						46,120	2,200	1,530	1,488	91,480		
Calendar year 1934.....						530,420	2,630	1,260	1,453	1,062,000		
January.....						44,980	1,540	1,550	1,451	89,220		
February.....						40,050	1,450	1,370	1,430	79,440		
March.....						44,150	1,540	1,370	1,424	87,570		
April.....						44,940	1,540	1,490	1,498	89,140		
May.....						50,460	1,760	1,640	1,628	100,100		
June.....						50,660	1,820	1,590	1,699	100,500		
July.....						47,350	1,590	1,480	1,523	93,940		
August.....						43,290	1,440	1,370	1,396	85,980		
September.....						40,560	1,390	1,300	1,352	80,450		
Water year 1934-35.....						535,120	2,200	1,260	1,466	1,061,000		

Lake Creek near Sisters, Oreg.

Location.- Water-stage recorder, lat. 44°25'40", long. 121°43'30", in SW¼ (revised), 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 by U. S. Geological Survey topographic map.

Drainage area.- 20.5 square miles.

Records available.- April 1915 to September 1935. Occasional readings during summers of 1911 to 1913.

Average discharge.- 19 years (1915-18, 1919-35), 52.3 second-feet.

Extremes.- Maximum discharge during year, 120 second-feet June 2 (gage height, 2.12 feet); minimum (regulated), 15 second-feet Oct. 17 (gage height, 0.74 foot); minimum mean daily discharge, 24 second-feet Sept. 5-7.
1911-13, 1915-35: Maximum discharge, 302 second-feet Jan. 10, 1923 (gage height, 2.58 feet); minimum, 14 second-feet Oct. 17, 1933; minimum mean daily discharge, 15 second-feet July 29, 30, 1932.

Remarks.- Records good except those for May and June, which are fair. No diversions above station. Occasional regulation by storage in Suttle Lake.

Rating table, water year 1934-35 (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used May 3 to June 21)

0.7	14	1.4	50	1.9	104
.9	20	1.7	80	2.1	130
1.1	29				

Discharge, in second-feet, water year October 1934 to September 1935

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	26	29	50	65	39	35	36	57	93	48	31	29
2	26	33	49	58	39	34	37	59	98	48	30	27
3	26	43	47	54	39	34	39	65	106	48	30	26
4	26	52	46	48	39	35	42	68	100	46	29	26
5	26	41	46	50	38	35	44	66	97	44	29	24
6	26	31	47	63	38	34	43	60	94	44	28	24
7	26	29	42	66	38	34	44	70	92	42	28	24
8	26	31	41	53	38	34	45	77	92	40	29	25
9	26	31	41	52	36	34	44	78	92	42	28	26
10	26	32	40	50	34	33	42	79	92	41	26	26
11	26	32	40	50	36	33	41	80	92	41	26	25
12	26	33	39	52	38	35	41	81	88	40	26	27
13	26	35	38	52	42	36	41	81	87	39	26	28
14	26	34	38	50	41	36	41	81	81	36	28	35
15	26	34	37	48	40	37	43	81	78	36	30	37
16	26	33	38	57	38	36	48	82	74	36	30	34
17	26	34	44	59	37	37	47	86	72	36	30	35
18	26	34	46	57	37	36	47	87	68	34	29	31
19	26	36	49	53	36	36	47	86	66	34	28	29
20	27	37	59	44	36	39	47	90	63	33	28	29
21	37	38	53	41	38	40	49	88	62	33	28	28
22	38	39	66	41	38	39	51	88	50	33	29	26
23	46	38	80	41	38	39	58	90	44	34	28	26
24	61	38	93	41	37	38	60	92	48	36	28	26
25	44	47	92	41	36	45	58	96	49	34	30	26
26	35	50	97	40	35	49	56	98	50	33	30	26
27	29	57	93	40	35	49	54	98	50	33	29	26
28	29	54	87	40	36	47	51	98	49	31	29	26
29	29	51	85	40	-	42	53	97	49	31	28	27
30	29	51	84	40	-	34	56	91	49	31	26	29
31	28	-	77	40	-	35	-	91	-	31	28	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October.....	926	61	26	29.9	1,840
November.....	1,157	57	29	36.6	2,090
December.....	1,786	97	37	57.6	3,540
Calendar year 1934.....	17,015	160	24	46.6	33,740
January.....	1,526	66	40	49.2	3,030
February.....	1,052	42	34	37.6	2,090
March.....	1,159	49	33	37.4	2,500
April.....	1,404	60	26	46.8	2,780
May.....	2,553	98	57	82.4	5,060
June.....	2,227	108	44	74.2	4,420
July.....	1,166	48	31	37.6	2,310
August.....	882	31	26	28.5	1,750
September.....	831	37	24	27.7	1,650
Water year 1934-35.....	16,669	108	24	45.7	33,060

White River below Tygh Valley, Oreg.

Location.- Water-stage recorder, lat. 45°14'30", long. 121°5'30", in NW¼ sec. 8, T. 4 S., R. 14 E., just below Pacific Power & Light Co.'s plant at White River Falls and 4½ miles below Tygh Valley.

Drainage area.- 393 square miles.

Records available.- October 1917 to September 1935.

Average discharge.- 18 years, 430 second-feet.

Extremes.- Minimum discharge during water year 1933-34, 49 second-feet (revised) Dec. 5 (gage height, 0.2 foot).

Maximum discharge during water year 1934-35, 4,340 second-feet Dec. 20 (gage height, 7.00 feet); minimum (estimated), 33 second-feet Sept. 5 (gage height, -0.19 foot); minimum mean daily discharge, 100 second-feet Oct. 15.

1917-35: 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 mean daily discharge, 75 second-feet Sept. 1, 1924.

Remarks.- Records good except those estimated Jan. 19-21, Aug. 12-25, which are fair. 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.

Rating table, water year 1934-35 (gage height, in feet, and discharge, in second-feet)

0.8	90	1.6	201	2.8	600	4.5	1,710
1.0	110	1.8	250	3.2	780	5.0	2,190
1.2	134	2.1	340	3.6	1,000	6.0	3,220
1.4	162	2.4	445	4.0	1,280	7.0	4,540

Discharge, in second-feet, water year October 1934 to September 1935

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	106	176	420	520	620	386	500	1,060	805	325	150	115
2	107	266	368	480	600	372	480	1,060	755	285	142	114
3	108	292	354	445	600	364	445	970	708	268	137	112
4	106	304	358	438	580	361	445	970	685	248	134	110
5	105	480	328	462	580	354	442	1,060	708	240	132	110
6	102	520	310	462	580	340	410	1,160	755	230	130	110
7	102	600	298	520	560	337	410	1,100	755	223	128	115
8	104	708	286	462	540	328	445	1,030	755	215	130	112
9	108	520	292	420	500	318	442	1,060	682	211	130	117
10	106	420	285	396	462	301	410	1,030	620	199	130	116
11	106	358	262	386	480	298	420	970	600	197	128	118
12	106	319	265	368	462	372	480	910	580	190	127	118
13	103	295	262	350	462	685	580	855	580	186	126	116
14	102	289	268	337	431	662	662	880	520	180	125	121
15	100	286	259	316	396	640	640	940	500	184	124	132
16	102	288	259	337	378	580	662	970	462	176	123	127
17	103	259	274	325	364	580	620	910	431	167	122	123
18	103	262	274	316	368	500	620	880	406	166	130	118
19	104	280	307	290	375	480	662	830	382	160	127	117
20	107	313	2,890	260	378	460	755	830	361	168	124	118
21	152	347	2,240	300	406	445	805	910	340	158	122	116
22	187	328	2,440	560	462	417	755	1,060	334	156	121	114
23	173	322	1,760	830	462	403	730	1,000	310	158	120	112
24	600	304	1,400	1,240	438	396	685	910	295	156	119	110
25	361	428	1,100	1,130	417	560	685	855	280	154	118	110
26	316	442	1,000	1,000	410	540	730	855	274	154	117	110
27	232	438	830	890	396	480	805	855	274	152	117	110
28	225	417	708	830	396	480	855	855	277	150	118	110
29	180	428	708	730	-	560	910	910	289	150	118	109
30	173	417	640	685	-	560	1,030	910	325	143	118	109
31	166	-	560	640	-	540	-	880	-	138	117	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October.....	4,833	600	100	156	9,590
November.....	11,076	708	176	369	21,970
December.....	22,003	2,890	259	710	45,640
Calendar year 1934.....	144,877	2,940	88	396	287,000
January.....	16,715	1,240	260	539	33,150
February.....	13,103	820	364	468	25,990
March.....	14,097	685	298	465	27,980
April.....	16,520	1,030	410	617	36,730
May.....	29,475	1,160	830	951	58,480
June.....	16,008	805	274	500	29,770
July.....	8,875	325	138	190	11,650
August.....	3,904	150	117	128	7,740
September.....	3,447	132	109	115	6,840
Water year 1934-35.....	168,056	2,890	100	433	316,500

CLICKITAT RIVER BASIN

Clickitat River near Glenwood, Wash.

Location.- Water-stage recorder, lat. 46°5'30", long. 121°15'30", in SE $\frac{1}{4}$ sec. 14, T. 7 N., R. 12 E., half a mile below Dairy Creek and 5 miles north of Glenwood. Zero of gage lowered 1.0 foot July 15, 1934, but gage heights published in Water-Supply Paper 769 refer to datum used prior to that date.

Drainage area.- 356 square miles.

Records available.- December 1910 to September 1935 (incomplete). October 1909 to December 1910 at a point 1 mile upstream.

Average discharge.- 18 years (1909-20, 1928-35), 857 second-feet.

Extremes.- Maximum discharge during year, 2,680 second-feet Nov. 6 (gage height, 3.82 feet); minimum, 344 second-feet Sept. 25-27; minimum gage height, 0.82 foot Oct. 14. 1909-35: Maximum discharge, 9,870 second-feet Dec. 22, 1933 (gage height, 7.9 feet, present datum); minimum discharge, 204 second-feet Nov. 28, 1931.

Remarks.- Records excellent except those for Jan. 18-22, which are fair and were estimated because of ice, and those for June 17-24, which were interpolated and are good. No diversions or regulation.

Rating tables, water year 1934-35 except period of ice effect
(gage height, in feet, and discharge, in second-feet)

Table for Oct. 1 to Nov. 6

Table for Nov. 7 to Sept. 30

0.8	375	2.5	1,550	0.8	285	1.6	695	3.0	1,850
1.0	450	3.0	2,030	1.0	360	1.8	820	3.5	2,560
1.5	720	3.5	2,570	1.2	455	2.0	980		
2.0	1,100			1.4	565	2.5	1,400		

Discharge, in second-feet, water year October 1934 to September 1935

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	403	801	625	673	836	593	619	1,490	1,950	994	613	445
2	400	774	601	667	836	577	583	1,490	1,850	916	613	445
3	396	750	601	661	836	577	595	1,540	1,800	924	613	440
4	396	744	577	655	828	571	601	1,620	1,850	916	583	425
5	400	1,860	559	637	836	559	583	1,760	1,950	908	577	420
6	403	2,520	553	631	828	577	571	1,850	2,050	860	583	445
7	406	2,260	547	619	813	577	571	1,850	2,050	852	577	425
8	422	1,850	535	607	775	547	577	1,850	2,050	806	571	425
9	434	1,440	517	565	764	535	571	1,900	1,900	778	577	430
10	438	1,180	523	547	757	541	577	1,850	1,850	771	577	410
11	442	1,030	547	607	764	535	607	1,760	1,800	785	553	400
12	406	924	583	583	757	613	687	1,720	1,670	799	571	352
13	389	894	565	577	750	644	761	1,720	1,670	844	583	378
14	392	980	547	559	718	799	860	1,720	1,670	900	553	398
15	392	1,030	541	553	679	750	900	1,800	1,620	916	517	392
16	389	908	535	559	673	724	940	1,900	1,490	900	485	400
17	392	844	535	553	673	718	924	1,800	1,440	888	480	374
18	392	813	535	508	679	686	940	1,760	1,400	813	505	369
19	392	806	565	485	661	679	1,020	1,760	1,350	792	490	378
20	422	771	1,060	430	649	679	1,140	1,800	1,300	755	495	374
21	520	744	1,310	480	655	643	1,140	2,000	1,250	771	517	374
22	486	785	1,360	565	667	637	1,100	2,250	1,200	778	511	364
23	530	792	1,140	730	643	631	1,050	2,200	1,160	792	490	360
24	922	744	1,040	916	619	637	1,010	2,050	1,110	784	480	356
25	1,500	744	940	1,140	601	637	1,040	2,000	1,060	724	475	352
26	1,420	704	908	1,140	607	631	1,140	2,000	1,030	679	485	360
27	1,030	698	828	1,060	613	613	1,220	2,050	1,140	655	500	360
28	801	667	799	988	601	625	1,260	2,050	1,140	625	523	364
29	702	649	785	932	-	679	1,310	2,100	1,140	619	517	369
30	890	649	730	884	-	643	1,440	2,050	1,040	631	485	369
31	774	-	711	862	-	631	-	2,050	-	625	475	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acre-feet
October.....	17,481	1,800	389	564	1.58	1.82	34,670
November.....	30,335	2,520	649	1,011	2.94	3.17	60,170
December.....	22,232	1,360	517	717	2.01	2.32	44,100
Calendar year 1934.....	368,189	3,620	389	1,009	2.83	38.45	730,300
January.....	21,340	1,140	430	688	1.93	2.22	42,350
February.....	20,121	836	601	719	2.02	2.10	39,910
March.....	19,677	844	535	635	1.78	2.05	39,080
April.....	26,513	1,440	677	877	2.46	2.74	52,130
May.....	57,740	2,350	1,490	1,663	5.28	6.03	114,800
June.....	45,980	2,050	1,050	1,533	4.31	4.81	91,800
July.....	24,760	964	619	799	2.24	2.58	49,110
August.....	16,584	613	475	535	1.50	1.73	32,690
September.....	11,781	445	362	393	1.10	1.23	23,370
Water year 1934-35.....	314,344	2,520	352	861	2.42	32.90	623,500

Klickitat River at Pitt, Wash.

Location.— Staff gage, lat. 45°48', long. 121°12', in NE¼ sec. 32, T. 4 N., R. 13 E., at Pitt, 3 miles southwest of Klickitat and 10½ miles above mouth.

Drainage area.— 1,160 square miles.

Records available.— October 1928 to September 1935 (discontinued). Comparable records at former station at Klickitat July 1909 to January 1912. Statement in previous water-supply papers that records at former station near Lysle are comparable with those for present site is in error.

Extremes.— Maximum discharge observed during water year 1933-34, 21,000 second-feet Dec. 22 (gage height, 12.5 feet); minimum mean daily discharge, 665 second-feet Oct. 13, 15, 16; minimum gage height, 1.24 feet Oct. 16.
Maximum discharge observed during water year 1934-35, 5,830 second-feet Dec. 21 (gage height, 5.85 feet); minimum, 665 second-feet Oct. 18, 19 (gage height, 1.47 feet).

1909-12, 1928-35: Maximum observed discharge, that of Dec. 22, 1933; minimum, 485 second-feet Dec. 28-31, 1930 (gage height, 0.88 foot).

Remarks.— Records good except those above 5,000 second-feet, which are fair. Minor diversions for irrigation above station; no regulation.

Rating table, Dec. 23, 1933, to Sept. 30, 1935 (gage height, in feet, and discharge, in second-feet)

1.4	650	2.2	1,350	3.0	2,150	5.0	4,650	7.0	7,900	9.0	11,600
1.6	800	2.4	1,550	3.5	2,870	5.5	5,370	7.5	9,850	10.0	13,900
1.8	970	2.6	1,750	4.0	3,300	6.0	6,150	8.0	9,800	11.0	16,100
2.0	1,150	2.8	1,950	4.5	3,950	6.5	7,000	8.5	10,900	12.0	18,400

Discharge, in second-feet, water year October 1933 to September 1934

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	790	1,150	755	4,650	3,430	1,850	2,910	1,850	1,250	1,060	925	840
2	755	1,480	755	4,790	3,300	2,550	2,870	1,750	1,250	1,060	970	840
3	755	2,080	755	10,200	3,300	2,350	2,550	1,750	1,250	1,060	1,100	800
4	755	1,730	755	9,040	3,040	2,250	2,350	1,750	1,200	1,060	925	840
5	755	1,380	790	6,830	2,910	2,250	2,350	1,850	1,250	1,060	880	840
6	755	1,190	4,530	5,370	2,790	2,910	2,280	1,950	1,250	1,060	925	800
7	755	1,110	2,770	4,650	2,790	2,870	2,350	1,750	1,560	1,060	925	800
8	755	1,030	1,970	4,080	3,040	2,550	2,350	1,750	1,350	1,020	880	800
9	755	1,030	1,850	3,820	2,670	2,350	2,350	1,650	1,350	970	880	800
10	720	990	6,120	3,820	2,560	2,350	2,350	1,650	1,350	1,020	880	840
11	720	950	4,700	3,580	2,450	2,250	2,350	1,550	1,250	970	880	840
12	720	950	5,040	3,580	2,350	2,250	2,350	1,550	1,250	970	880	760
13	685	910	4,360	3,690	2,250	2,250	2,450	1,550	1,250	1,020	880	800
14	720	870	3,540	3,580	2,250	2,250	2,580	1,550	1,200	970	880	800
15	685	870	2,950	3,300	2,150	2,350	2,450	1,550	1,250	1,020	925	880
16	685	830	2,480	3,560	2,150	2,250	2,450	1,650	1,200	1,020	925	760
17	720	830	2,480	4,510	2,050	2,250	2,350	1,550	1,150	1,020	925	760
18	720	830	6,300	3,690	2,050	2,150	2,250	1,450	1,150	970	880	760
19	755	830	7,920	4,280	2,050	2,150	2,250	1,450	1,100	970	880	760
20	1,110	830	8,480	5,070	2,050	2,150	2,250	1,450	1,100	970	840	760
21	950	830	12,100	4,930	1,950	2,150	2,350	1,350	1,100	925	880	760
22	910	830	19,600	5,220	1,950	2,050	2,350	1,350	1,100	880	880	760
23	1,330	870	16,300	11,000	1,950	2,050	2,450	1,350	1,060	880	880	800
24	1,280	830	12,600	8,090	1,950	2,050	2,350	1,350	1,060	925	880	760
25	1,110	870	9,420	6,490	1,850	1,950	2,350	1,450	1,020	925	880	720
26	990	830	7,180	5,370	1,750	1,950	2,250	1,450	1,080	925	880	720
27	990	830	5,990	4,930	1,850	2,050	2,150	1,450	1,080	1,020	880	720
28	1,150	790	5,070	4,370	1,850	2,910	2,050	1,450	1,020	1,060	880	720
29	1,850	790	5,370	3,950	-	3,580	2,050	1,450	1,020	1,020	880	720
30	1,850	790	5,220	3,690	-	3,300	1,950	1,550	1,080	970	840	720
31	1,380	-	4,930	3,560	-	3,300	-	1,350	-	925	840	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off Inches	Run-off Acre-feet
October.....	28,860	1,850	685	931	0.803	0.93	57,240
November.....	30,150	2,080	790	1,005	.886	.97	59,800
December.....	173,030	19,600	755	5,682	4.81	5.54	343,200
Calendar year 1933.....	844,255	19,600	590	2,054	1.77	24.04	1,487,000
January.....	157,850	11,000	3,300	5,092	4.39	5.06	313,100
February.....	66,730	3,430	1,750	2,383	2.05	2.14	132,400
March.....	73,720	3,660	1,850	2,378	2.05	2.36	146,200
April.....	70,600	2,910	1,950	2,350	2.03	2.28	139,600
May.....	49,550	1,950	1,350	1,556	1.35	1.66	96,300
June.....	35,310	1,350	1,020	1,177	1.01	1.13	70,640
July.....	30,785	1,080	880	993	.856	.99	61,060
August.....	27,765	1,100	840	696	.772	.89	55,110
September.....	23,480	880	720	783	.675	.75	46,670
Water year 1933-34.....	766,750	19,600	685	2,101	1.61	24.58	1,521,000

Note.— The above records supersede those published in Water-Supply Paper 769.

Klickitat River at Pitt, Wash.

(Continued)

Discharge, in second-feet, water year October 1934 to September 1935

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	720	1,250	1,350	2,050	2,560	1,750	1,850	2,450	2,560	1,350	925	800
2	720	1,200	1,250	1,950	2,560	1,750	1,750	2,350	2,450	1,250	925	840
3	720	1,250	1,250	1,850	2,350	1,750	1,750	2,350	2,350	1,250	970	860
4	720	1,350	1,250	1,950	2,350	1,650	1,850	2,450	2,250	1,200	925	840
5	720	2,150	1,150	1,950	2,350	1,650	1,750	2,560	2,350	1,250	925	840
6												
7	720	3,430	1,150	2,150	2,250	1,650	1,650	2,790	2,560	1,250	925	840
8	720	3,300	1,100	2,050	2,150	1,650	1,650	2,790	2,560	1,250	925	800
9	760	2,910	1,100	1,950	2,050	1,550	1,650	2,670	2,560	1,200	925	800
10	760	2,250	1,100	1,750	1,950	1,550	1,650	2,670	2,550	1,150	925	800
11	760	1,950	1,100	1,650	1,950	1,550	1,650	2,790	2,250	1,150	925	800
12	800	1,650	1,060	1,650	1,950	1,450	1,650	2,670	2,250	1,100	880	800
13	720	1,550	1,100	1,550	1,850	1,550	1,650	2,450	2,150	1,150	880	800
14	720	1,450	1,060	1,550	1,950	1,850	1,850	2,350	2,050	1,200	925	760
15	720	1,550	1,080	1,550	1,850	1,950	2,050	2,450	2,050	1,250	925	800
16	720	1,650	1,080	1,550	1,750	1,950	2,050	2,450	2,050	1,250	925	760
17	720	1,550	1,060	1,350	1,650	1,950	2,150	2,670	1,950	1,250	840	800
18	720	1,450	1,060	1,350	1,650	1,850	2,050	2,450	1,750	1,250	840	800
19	720	1,450	1,150	1,350	1,850	1,750	2,050	2,350	1,750	1,150	840	800
20	760	1,450	3,040	970	1,650	1,750	2,150	2,350	1,750	1,100	840	720
21	925	1,350	4,090	1,150	1,750	1,650	2,250	2,560	1,650	1,100	840	760
22	925	1,350	3,950	1,850	2,050	1,650	2,250	2,910	1,650	1,100	880	760
23	925	1,450	3,560	2,560	2,050	1,650	2,250	2,790	1,550	1,200	880	760
24	1,200	1,350	3,300	3,820	1,950	1,650	2,050	2,670	1,550	1,150	840	720
25	1,850	1,350	2,910	4,090	1,950	1,850	2,050	2,560	1,450	1,050	840	720
26	1,950	1,350	2,910	3,820	1,850	1,850	2,150	2,560	1,450	1,050	840	720
27	1,550	1,350	2,670	3,560	1,850	1,750	2,150	2,560	1,550	1,020	840	720
28	1,250	1,350	2,250	3,170	1,850	1,750	2,150	2,670	1,550	1,020	970	720
29	1,100	1,350	3,040	2,910	-	1,950	2,250	2,670	1,550	925	880	720
30	1,020	1,350	2,350	2,790	-	1,950	2,350	2,670	1,450	970	840	760
31	1,100	-	2,150	2,560	-	1,950	-	2,670	-	970	880	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acres-feet
October.....	28,435	1,950	720	917	0.791	0.91	56,400
November.....	49,740	3,430	1,200	1,658	1.43	1.60	98,680
December.....	58,060	4,090	1,080	1,874	1.62	1.87	115,200
Calendar year 1934.....	670,965	11,000	720	1,838	1.58	21.52	1,331,000
January.....	65,460	4,090	970	2,111	1.82	2.10	129,800
February.....	55,420	2,560	1,650	1,979	1.71	1.78	109,900
March.....	53,950	1,950	1,450	1,740	1.50	1.73	107,000
April.....	58,800	2,350	1,650	1,980	1.69	1.89	116,800
May.....	79,700	2,910	2,350	2,671	2.22	2.56	158,100
June.....	58,140	2,560	1,450	1,971	1.70	1.90	117,500
July.....	35,775	1,350	925	1,154	.995	1.15	70,960
August.....	27,600	970	840	890	.767	.88	54,740
September.....	23,360	880	720	779	.672	.75	46,530
Water year 1934-35.....	595,460	4,090	720	1,651	1.41	19.12	1,181,000

Hood River near Hood River, Oreg.

Location.— Water-stage recorder, lat. 45°20', long. 121°30'40", in SE¼ sec. 36, T. 3 N., R. 10 E., at Powderdale, a quarter of a mile above Pacific Power & Light Co.'s plant and three-quarters of a mile south of Hood River. Prior to Nov. 13, 1934, water-stage recorder 220 feet upstream at same datum. Zero of gage is 108.23 feet above mean sea level by general adjustment of 1929.

Drainage area.— 329 square miles.

Records available.— March 1913 to September 1935.

Average discharge.— 63 years, 1,090 second-feet (including flow of Pacific Power & Light Co.'s conduit).

Extremes.— Maximum discharge during year, 9,500 second-feet Dec. 20 (gage height, 7.01 feet); minimum observed, 26 second-feet Oct. 18 (gage height, 1.45 feet).
1913-35: 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).

Remarks.— Records good except those for Oct. 1 to Nov. 12 and those estimated by comparison with discharge of West Fork of Hood River Jan. 21, May 13-16, which are poor. Diversions for irrigation above station. Pacific Power & Light Co.'s conduit diverts water around gage. Low-water flow regulated by pondage at sawmill at Dee. Water-stage recorder inspected by employees of Pacific Power & Light Co.

Rating tables, water year 1934-35 (gage height, in feet, and discharge, in second-feet)

Table for Oct. 1 to Nov. 12						Table for Nov. 13 to Sept. 30					
1.5	17	2.5	230	4.0	1,190	1.5	34	2.5	325	4.0	2,050
2.0	102	3.0	430	6.0	4,300	2.0	143	3.0	690	6.0	6,440

Discharge, in second-feet, water year October 1934 to September 1935

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	49	844	1,510	1,220	1,220	823	936	1,350	812	632	92	39
2	38	1,590	1,300	1,030	1,190	790	834	1,140	845	459	58	40
3	32	2,210	1,090	948	1,190	823	780	1,080	760	398	54	42
4	41	2,500	1,030	948	1,040	730	823	1,140	770	358	59	58
5	43	2,600	823	1,010	1,060	663	780	1,310	878	310	52	47
6		2,650	760	1,490	1,020	672	750	1,310	960	282	50	49
7	41	2,940	720	1,380	948	645	601	1,140	1,010	280	52	46
8	29	2,440	663	1,190	900	690	770	1,090	998	256	52	48
9	44	1,590	672	1,010	889	618	720	1,140	878	200	54	49
10	33	1,170	560	912	936	730	690	1,100	856	188	60	51
11	29	990	520	889	845	512	720	960	856	120	103	50
12	40	846	520	823	812	1,420	845	1,020	760	122	58	55
13	32	710	498	845	912	1,060	790	770	175	63	42	42
14	36	770	490	720	845	1,610	1,080	900	740	261	60	48
15	33	801	536	681	790	1,310	972	960	672	307	51	58
16	33	672	618	654	770	1,150	1,100	1,020	627	274	55	80
17	32	609	730	663	801	1,130	948	1,020	560	206	57	47
18	27	663	770	600	780	900	889	948	559	180	58	66
19	36	924	2,200	520	790	867	860	936	552	112	54	47
20	97	1,330	6,120	419	856	823	1,090	936	463	98	59	46
21	437	1,440	5,540	520	1,120	770	1,170	1,040	474	154	57	48
22	314	1,270	4,340	1,220	1,450	730	1,120	1,180	488	120	68	48
23	1,180	1,090	3,460	1,890	1,310	710	1,180	996	404	146	67	46
24	3,120	1,140	3,360	3,360	1,230	845	1,020	889	375	126	60	46
25	1,990	1,680	2,560	2,950	1,020	1,550	1,010	845	309	110	117	46
26	1,560	1,280	2,380	2,560	936	1,190	1,100	889	298	76	67	41
27	770	1,420	1,860	2,200	878	984	1,140	856	314	84	74	38
28	655	1,380	1,640	1,800	823	960	1,180	867	359	76	51	39
29	408	1,760	1,720	1,610	-	1,280	1,150	924	572	52	58	39
30	403	1,640	1,560	1,460	-	1,190	1,550	900	818	50	40	39
31	507	-	1,680	1,310	-	1,040	-	867	-	60	42	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October.....	11,936	3,120	27	385	23,680
November.....	45,149	2,940	609	1,438	85,580
December.....	51,810	6,120	490	1,671	102,800
Calendar year 1934.....	342,307	7,890	27	938	679,000
January.....	38,822	3,360	419	1,252	77,000
February.....	27,361	1,460	770	977	54,270
March.....	30,355	2,200	512	979	60,210
April.....	28,938	1,350	690	965	57,400
May.....	31,623	1,350	846	1,017	62,520
June.....	19,776	1,010	298	659	39,220
July.....	6,244	632	50	201	12,380
August.....	1,902	117	40	61.4	3,770
September.....	1,442	80	38	46.1	2,860
Water year 1934-35.....	293,259	6,120	27	803	581,700

Combined discharge, in second-feet, of Hood River and Pacific Power & Light Co.'s conduit near
near Hood River, Oreg., for water year October 1934 to September 1935

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	421	1,190	1,820	1,440	1,530	1,100	1,260	1,720	1,180	1,010	556	335
2	408	1,920	1,820	1,560	1,510	1,040	1,160	1,520	1,170	852	478	354
3	397	2,550	1,420	1,270	1,440	1,040	1,110	1,480	1,130	792	446	340
4	410	2,850	1,390	1,280	1,390	1,010	1,160	1,530	1,150	721	444	344
5	407	3,030	1,230	1,340	1,390	976	1,110	1,660	1,270	678	417	332
6	411	3,210	1,130	1,780	1,340	958	1,080	1,680	1,360	653	411	331
7	417	3,310	1,050	1,710	1,260	910	1,070	1,650	1,410	624	410	337
8	433	2,770	961	1,510	1,200	898	1,110	1,490	1,390	613	385	328
9	487	1,930	931	1,360	1,170	877	1,060	1,500	1,280	597	401	333
10	466	1,520	887	1,280	1,100	812	1,050	1,460	1,250	582	422	340
11	459	1,280	862	1,230	1,150	812	1,090	1,330	1,240	560	413	322
12	452	1,140	869	1,170	1,130	1,710	1,220	1,250	1,160	562	391	316
13	414	1,030	850	1,100	1,220	2,480	1,380	1,140	1,150	620	403	319
14	397	1,090	831	1,060	1,110	1,920	1,390	1,250	1,110	701	406	319
15	410	1,110	844	1,040	1,060	1,610	1,340	1,340	1,040	747	368	478
16	418	1,000	847	1,030	1,020	1,410	1,480	1,400	938	714	348	522
17	400	938	1,060	1,010	1,010	1,300	1,350	1,390	916	646	346	435
18	395	854	1,100	978	1,060	1,200	1,270	1,320	925	590	408	408
19	384	1,240	2,540	921	1,080	1,180	1,320	1,250	938	552	383	412
20	510	1,660	6,460	829	1,150	1,110	1,470	1,300	867	538	354	406
21	843	1,760	5,860	917	1,400	1,040	1,530	1,420	865	539	353	414
22	694	1,590	4,650	1,600	1,700	1,010	1,500	1,650	890	560	355	417
23	1,630	1,420	3,660	2,250	1,560	975	1,580	1,360	798	586	347	411
24	3,570	1,370	3,660	3,700	1,400	1,110	1,410	1,250	759	566	331	407
25	2,550	1,890	2,780	3,280	1,310	1,840	1,380	1,220	713	550	307	400
26	1,720	1,610	2,660	2,890	1,240	1,490	1,480	1,200	704	511	329	399
27	1,150	1,760	2,190	2,400	1,160	1,280	1,540	1,210	723	518	350	414
28	975	1,720	1,940	2,110	1,130	1,280	1,530	1,240	768	497	373	393
29	819	2,010	2,040	1,930	-	1,590	1,520	1,300	968	461	419	405
30	801	1,960	1,760	1,760	-	1,490	1,740	1,240	1,180	453	391	405
31	857	-	1,680	1,820	-	1,370	-	1,230	-	469	362	-
Month	Second-foot-days		Maximum		Minimum		Mean		Run-off in acre-feet			
October.....	23,903		3,570		384		771		47,410			
November.....	52,702		3,310		854		1,757		104,500			
December.....	61,412		6,460		831		1,981		121,800			
Calendar year 1934.....	445,220		8,170		274		1,220		883,000			
January.....	49,145		3,700		829		1,585		97,480			
February.....	35,220		1,700		1,010		1,258		69,860			
March.....	38,798		2,460		812		1,252		76,950			
April.....	39,670		1,740		1,050		1,322		78,680			
May.....	42,760		1,720		1,140		1,379		84,790			
June.....	31,220		1,410		704		1,041		61,920			
July.....	19,022		1,010		453		614		37,730			
August.....	12,099		536		307		390		24,000			
September.....	11,414		522		316		380		22,640			
Water year 1934-35.....	417,355		6,460		307		1,143		827,800			

West Fork of Hood River near Dee, Oreg.

Location.— Water-stage recorder, lat. 45°35'50", long. 121°38'20", 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 864.11 feet above mean sea level.

Drainage area.— 98 square miles.

Records available.— August 1913 to September 1915 (incomplete); June 1932 to September 1935.

Extremes.— Maximum discharge during year, 8,060 second-feet Dec. 20 (gage height, 9.60 feet); minimum, 126 second-feet Oct. 14 (gage height, 1.83 feet).
1913-15, 1932-35: Maximum discharge, 12,900 second-feet Dec. 22, 1933 (gage height, 12.4 feet); minimum, 100 second-feet Sept. 29, 30, 1915.

Remarks.— Records good. Discharge extrapolated for Aug. 27, 28. Diversion for irrigation above station; no regulation.

Revision of record, January, 1934.— Daily discharge for Jan. 20, 2,100 second-feet; mean monthly discharge, 1,712 second-feet; run-off, 105,300 acre-feet. Revised mean discharge for water year 1933-34, 683 second-feet; run-off, 494,500 acre-feet. These values supersede those published in Water Supply Paper 769.

Rating tables, water year 1934-35 (gage height, in feet, and discharge, in second-feet)

Table for Oct. 1 to Dec. 19

1.5	102	3.0	590
2.0	211	4.0	1,180
2.5	375	5.0	1,870

Table for Dec. 20 to Sept. 30

1.6	116	3.0	570	6.0	2,730
2.0	198	4.0	1,120	7.0	3,620
2.5	350	5.0	1,840	8.0	5,190

Discharge, in second-feet, water year October 1934 to September 1935

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	134	706	1,030	610	670	462	555	912	570	590	227	142
2	136	1,280	822	550	645	439	506	802	580	475	193	140
3	134	1,790	795	525	605	454	480	775	560	402	184	142
4	130	1,980	768	535	585	414	475	802	575	366	179	140
5	128	2,030	640	590	575	398	457	912	645	336	174	144
6	130	1,490	576	685	550	366	454	895	695	512	176	140
7	134	1,990	527	802	516	374	444	802	870	295	174	140
8	144	1,580	482	695	488	354	452	775	645	279	170	156
9	151	1,030	443	615	462	340	439	775	570	264	170	134
10	140	768	415	555	439	329	448	748	565	252	174	134
11	138	625	403	530	475	326	468	670	550	246	168	130
12	140	540	399	493	468	1,100	600	610	511	249	168	127
13	134	500	383	462	468	1,460	720	610	502	262	172	130
14	128	514	387	430	448	1,120	720	670	480	302	168	169
15	132	509	399	418	418	665	695	720	457	292	167	174
16	136	439	419	414	398	748	802	695	406	275	151	196
17	150	415	595	598	410	695	670	748	379	244	149	149
18	130	591	665	374	448	606	670	720	366	230	191	142
19	128	717	2,010	343	457	565	695	695	370	221	166	144
20	220	1,090	4,590	322	545	530	802	720	340	221	167	140
21	387	1,150	4,160	406	748	484	830	830	329	221	155	138
22	294	1,000	2,730	940	912	457	802	830	356	224	155	134
23	1,130	680	2,060	1,420	802	428	668	720	318	224	151	134
24	2,140	850	2,100	2,370	695	493	748	670	295	216	145	132
25	1,350	1,150	1,460	1,920	610	720	720	620	262	206	144	129
26	940	970	1,360	1,580	555	605	802	645	279	201	144	129
27	600	1,030	1,060	1,220	516	520	830	620	285	193	144	129
28	460	1,000	912	1,030	488	570	802	620	295	193	144	129
29	365	1,210	858	865	—	802	802	645	426	184	164	130
30	358	1,150	748	802	—	695	1,000	615	645	161	159	129
31	368	—	670	720	—	620	—	590	—	191	147	—

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October.....	11,187	2,140	128	361	22,190
November.....	30,754	2,030	391	1,025	61,000
December.....	54,866	4,590	383	1,126	69,160
Calendar year 1934.....	216,394	4,590	116	593	429,200
January.....	23,829	2,370	322	769	47,260
February.....	15,414	912	398	560	30,570
March.....	18,356	1,460	328	592	36,410
April.....	22,746	1,000	434	658	39,170
May.....	22,481	912	590	724	44,530
June.....	13,946	695	279	465	27,660
July.....	6,365	590	181	270	16,590
August.....	5,120	227	144	165	10,160
September.....	4,196	196	127	140	8,320
Water year 1934-35.....	208,229	4,590	127	570	413,000

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

Location.— Venturi meter, lat. 45°42'15", long. 121°30'20", in NE½ 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 1935. At station on tailrace of old plant, October 1913 to September 1914, January 1916 to July 1922.

Average discharge.— 13 years, 337 second-feet.

Extremes.— Maximum discharge during year, 500 second-feet Dec. 31, Feb. 2; no flow when power plant was occasionally shut down.
1913-14, 1916-35: Maximum discharge, 510 second-feet Dec. 30, 1932.

Remarks.— Records good. Discharge determined from hourly readings of Venturi meter checked by occasional discharge measurements. Pacific Power & Light Co.'s conduit diverts from Hood River in SE½ sec. 11, T. 2 N., R. 10 E., immediately below mouth of Neal Creek. Water is returned to river in NE½ sec. 36, T. 3 N., R. 10 E., being diverted around the gage on Hood River near Hood River. Meter readings furnished by Pacific Power & Light Co.

Discharge, in second-feet, water year October 1934 to September 1935

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	372	345	515	222	313	276	319	386	372	376	444	296
2	368	354	220	322	319	254	329	385	326	373	420	294
3	365	359	336	320	284	221	350	386	369	394	392	296
4	369	352	357	332	349	290	358	390	381	363	355	286
5	364	434	406	325	354	313	333	348	388	368	365	285
6	370	359	368	290	315	266	329	373	399	371	361	282
7	369	369	331	331	315	265	266	411	399	344	358	299
8	404	354	328	318	305	208	340	393	398	357	343	280
9	443	359	269	354	279	259	342	365	387	387	347	284
10	433	346	327	366	162	82	356	363	395	394	362	299
11	430	290	342	339	304	300	369	368	380	440	310	272
12	412	299	349	343	314	291	374	233	385	440	333	281
13	392	324	352	256	308	255	316	354	383	445	340	277
14	361	322	341	356	268	306	333	348	372	440	349	329
15	377	309	308	356	275	300	366	378	364	440	317	450
16	385	329	229	377	245	258	379	378	311	440	293	442
17	368	329	333	344	206	165	379	366	355	440	299	398
18	368	191	334	378	284	295	379	373	366	440	350	340
19	348	321	336	401	289	293	362	316	384	440	329	365
20	413	332	339	410	294	285	390	364	384	440	295	360
21	406	321	325	397	282	272	361	380	391	385	296	365
22	380	317	306	381	247	277	375	366	402	440	287	369
23	450	326	202	356	245	265	397	360	394	440	280	365
24	446	228	298	336	175	267	388	363	384	440	271	361
25	368	197	220	325	288	295	365	371	404	440	190	354
26	364	329	282	333	300	297	375	313	406	433	255	358
27	381	338	329	195	286	307	400	358	409	434	283	376
28	320	341	295	309	308	322	346	371	409	421	322	354
29	411	247	322	320	-	312	373	378	396	409	361	366
30	398	320	202	310	-	299	385	337	359	403	351	366
31	350	-	322	313	-	326	-	359	-	409	320	-
Month						Second-foot-days	Maximum	Minimum	Mean		Run-off in acre-feet	
October.....						11,968	460	320	386		23,730	
November.....						9,558	434	191	319		18,980	
December.....						9,612	406	202	310		19,070	
Calendar year 1934.....						102,932	450	0	292		204,200	
January.....						10,295	410	195	332		20,420	
February.....						7,861	349	162	281		15,590	
March.....						8,431	328	82	272		16,720	
April.....						10,692	400	266	356		21,210	
May.....						11,232	411	233	362		22,890	
June.....						11,450	409	311	368		22,710	
July.....						12,776	448	344	412		26,340	
August.....						10,197	444	190	329		20,230	
September.....						9,972	442	261	332		19,780	
Water year 1934-35.....						124,042	450	82	340		246,000	

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, October 1929 to September 1935 in reports of U. S. Geological Survey; November 1919 to September 1920 in State Water-Supply Bulletin 5.

Average discharge.- 17 years, 981 second-feet.

Extremes.- Maximum discharge during year, 2,770 second-feet Dec. 21 (gauge height, 5.17 feet); minimum, 550 second-feet Oct. 17 (gauge height, 1.52 feet).
1909-20, 1929-35: Maximum discharge, 10,500 second-feet Dec. 22, 1933 (gauge height, 11.0 feet); minimum, 340 second-feet Dec. 30, 1930 (gauge height, 0.64 foot).

Remarks.- Records good. Numerous diversions for irrigation near Trout Lake. Springs increase flow by a large amount in a few miles above station.

Rating table, water year 1934-35 (gauge height, in feet, and discharge, in second-feet)

1.4	525	2.2	761	3.0	1,100	3.8	1,610	4.6	2,240
1.6	577	2.4	836	3.2	1,210	4.0	1,760	4.8	2,410
1.8	634	2.6	915	3.4	1,330	4.2	1,920	5.0	2,590
2.0	695	2.8	1,006	3.6	1,470	4.4	2,090	5.5	3,070

Discharge, in second-feet, water year October 1934 to September 1935

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	591	797	1,050	1,180	1,530	1,080	1,000	1,360	1,580	1,120	797	680
2	591	915	982	1,150	1,330	1,080	982	1,360	1,600	1,080	779	695
3	591	1,030	960	1,120	1,530	1,050	960	1,330	1,470	1,050	779	680
4	877	1,080	958	1,150	1,300	1,050	982	1,360	1,440	1,050	761	680
5	877	1,530	915	1,150	1,300	1,030	960	1,440	1,500	1,030	761	664
6	577	2,240	895	1,210	1,270	1,030	938	1,500	1,580	1,000	761	664
7	577	2,590	975	1,210	1,240	1,030	938	1,500	1,640	1,000	761	664
8	577	2,240	885	1,180	1,210	1,000	938	1,470	1,640	982	761	649
9	591	1,640	855	1,150	1,150	960	915	1,470	1,580	960	761	664
10	591	1,330	835	1,120	1,120	960	915	1,470	1,500	960	761	664
11	591	1,180	835	1,100	1,120	938	938	1,400	1,540	938	761	649
12	591	1,100	855	1,100	1,120	1,030	960	1,330	1,470	938	761	634
13	564	1,030	835	1,080	1,120	1,180	1,030	1,270	1,440	915	761	620
14	564	1,030	835	1,050	1,100	1,240	1,080	1,300	1,440	938	744	620
15	564	1,030	816	1,030	1,080	1,150	1,080	1,360	1,440	938	727	634
16	564	982	816	1,030	1,080	1,100	1,080	1,400	1,360	915	727	634
17	564	938	816	1,030	1,080	1,080	1,080	1,400	1,300	895	727	634
18	564	915	835	1,000	1,080	1,050	1,080	1,440	1,270	895	727	634
19	564	938	938	960	1,100	1,050	1,100	1,440	1,240	875	727	634
20	605	982	1,540	915	1,100	1,050	1,120	1,440	1,210	855	711	634
21	711	1,000	2,220	915	1,150	1,030	1,150	1,500	1,180	855	695	634
22	711	1,080	2,590	*1,000	1,240	1,000	1,180	1,640	1,180	855	695	634
23	779	1,150	2,180	*1,200	1,210	1,000	1,150	1,680	1,150	855	695	634
24	960	1,150	1,920	*1,500	1,150	1,030	1,100	1,610	1,120	835	695	620
25	1,180	1,180	1,720	*1,700	1,120	1,100	1,100	1,540	1,100	835	695	620
26	1,560	1,150	1,680	*1,600	1,100	1,080	1,150	1,540	1,100	835	680	620
27	1,080	1,120	1,540	*1,560	1,100	1,080	1,210	1,680	1,100	835	680	620
28	875	1,100	1,440	1,500	1,100	1,050	1,240	1,640	1,100	816	695	620
29	761	1,080	1,400	1,470	-	1,080	1,270	1,680	1,120	816	695	620
30	727	1,080	1,300	1,400	-	1,050	1,330	1,610	1,150	797	695	608
31	727	-	1,240	1,360	-	1,030	-	1,610	-	797	695	-
Month												
Second-foot-days												
Maximum												
Minimum												
Mean												
Run-off in acre-feet												
October.....	21,446											
November.....	36,547											
December.....	37,491											
Calendar year 1934.....	6,030											
January.....	37,110											
February.....	36,730											
March.....	35,638											
April.....	31,956											
May.....	46,070											
June.....	40,440											
July.....	28,465											
August.....	22,670											
September.....	18,258											
Water year 1934-35.....	396,421											

*Estimated.

WIND RIVER BASIN

Wind River near Carson, Wash.

Location.- Water-stage recorder, lat. 45°44'10", long. 121°48'10", in SW¼ 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.- 224 square miles.

Records available.- December 1934 to September 1935.

Extremes.- Maximum discharge during period of record, 8,190 second-feet Dec. 21 (gage height, 14.6 feet); minimum, 170 second-feet Sept. 30 (gage height, 2.37 feet).

Remarks.- Records good except those for Dec. 1-12, Sept. 7-16, which are fair and those above 3,000 second-feet, which are poor. Discharge Dec. 1-7, 9, Sept. 7-16, estimated on basis of records for East Fork of Lewis River near Heisson. No diversions or regulation.

Rating table, water year 1934-35 (gage height, in feet, and discharge, in second-feet)

2.4	176	3.6	370	6.0	1,200	9.5	3,550
2.6	204	3.8	414	6.5	1,450	10.0	3,950
2.8	234	4.0	470	7.0	1,750	10.5	4,350
3.0	265	4.5	550	7.5	2,070	11.0	4,750
3.2	293	5.0	605	8.0	2,420	12.0	5,390
3.4	333	5.5	1,000	9.0	3,150	13.0	6,590

Discharge, in second-feet, water year October 1934 to September 1935

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1			2,300	1,690	1,870	1,200	1,120	1,870	960	530	290	212
2			1,900	1,510	1,870	1,180	1,040	1,690	940	470	273	212
3			1,700	1,400	1,750	1,120	980	1,630	900	440	265	204
4			1,600	1,450	1,630	1,080	1,000	1,690	900	427	265	204
5			1,500	1,750	1,630	1,000	980	1,870	960	414	265	197
6			1,400	2,140	1,510	1,000	960	1,870	1,000	402	265	197
7			1,300	2,000	1,400	1,000	960	1,690	980	391	257	195
8			1,200	1,810	1,300	940	980	1,630	900	391	257	193
9			1,140	1,570	1,200	880	960	1,630	840	380	249	191
10			1,080	1,400	1,120	840	980	1,570	860	370	249	190
11			1,040	1,350	1,120	805	1,080	1,400	822	360	249	190
12			1,000	1,250	1,120	1,380	1,400	1,300	770	351	242	190
13			860	1,120	1,300	2,840	1,690	1,250	735	342	242	200
14			822	1,040	1,250	2,560	1,690	1,300	735	342	242	250
15			840	1,040	1,160	2,140	1,570	1,350	700	333	234	230
16			860	1,000	1,090	1,810	1,630	1,350	665	324	234	210
17			1,000	940	1,120	1,630	1,510	1,400	630	315	234	204
18			1,120	880	1,200	1,450	1,400	1,400	612	315	249	197
19			2,020	805	1,300	1,350	1,400	1,300	575	306	249	197
20			5,240	735	1,400	1,300	1,300	1,300	560	296	234	190
21			6,270	789	1,950	1,160	1,870	1,400	545	298	234	190
22			5,420	1,570	2,810	1,120	1,950	1,450	545	290	226	190
23			4,430	2,280	2,700	1,040	2,000	1,350	515	290	226	190
24			3,870	3,830	2,210	1,280	1,610	1,250	485	290	226	190
25			4,450	3,830	1,810	1,810	1,690	1,160	470	281	219	186
26			3,820	3,470	1,570	1,510	1,810	1,160	470	281	219	183
27			3,070	3,070	1,400	1,300	1,870	1,160	470	273	219	183
28			2,650	2,650	1,300	1,200	1,810	1,120	470	281	219	176
29			2,490	-	-	1,300	1,750	1,120	470	273	212	176
30			2,070	2,070	-	1,300	1,950	1,080	545	273	212	176
31			1,810	1,930	-	1,200	-	1,000	-	273	212	-
Month			Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off				
								Inches		Acres-feet		
October.....												
November.....												
December.....			70,232	6,270	822	2,266	10.1	11.64		139,300		
Calendar year												
January.....			54,699	3,630	735	1,764	7.88	9.06		108,500		
February.....			45,180	2,610	1,080	1,542	6.88	7.16		85,650		
March.....			41,705	2,840	805	1,345	6.00	6.92		82,720		
April.....			45,430	2,000	960	1,448	6.46	7.21		86,140		
May.....			45,740	1,870	1,000	1,411	6.30	7.26		86,760		
June.....			21,077	1,000	470	703	5.14	3.50		41,810		
July.....			10,604	530	273	342	1.63	1.76		21,080		
August.....			7,468	290	212	241	1.08	1.24		14,810		
September.....			6,993	250	176	196	.875	.98		11,690		
The period.....				-	-	-	-	-		678,400		

Sandy River near Marmot, Oreg.

Location.- Water-stage recorder, lat. 45°23'10", long. 122°8', 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 1935. Combined discharge of Sandy River below dam and canal gives same results January 1916 to June 1919.

Average discharge.- 24 years, 1,346 second-feet.

Extremes.- Maximum discharge during year, about 13,400 second-feet Dec. 20 (gage height, 10.85 feet); minimum, 228 second-feet Oct. 1, 4, 5 (gage height, 1.83 feet).
1911-35: 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 February to September; fair October to January, except those above 5,000 second-feet, which are poor. No diversions or regulation above station. Water-stage recorder inspected by employee of Portland General Electric Co.

Discharge, in second-feet, water year October 1934 to September 1935

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	232	1,050	2,280	1,530	2,100	1,010	1,490	2,750	1,330	1,250	587	327
2	235	2,030	1,980	1,410	2,150	975	1,330	2,300	1,290	975	490	319
3	235	2,940	1,880	1,370	2,100	942	1,250	2,200	1,220	880	460	315
4	232	3,060	1,930	1,410	1,950	910	1,330	2,250	1,220	790	438	319
5	232	3,440	1,690	1,670	1,850	880	1,410	2,420	1,220	730	420	311
6	238	2,710	1,610	2,250	1,750	850	1,290	2,350	1,250	655	420	315
7	260	3,990	1,380	2,100	1,530	850	1,290	2,150	1,220	670	416	311
8	270	3,440	1,250	1,850	1,370	790	1,290	2,100	1,140	654	402	303
9	294	2,380	1,160	1,620	1,250	790	1,180	2,100	1,040	625	406	303
10	290	1,830	1,080	1,450	1,140	730	1,180	2,000	1,010	609	420	307
11	278	1,460	1,080	1,330	1,220	730	1,410	1,750	1,010	598	393	299
12	290	1,260	1,190	1,180	1,180	2,990	1,900	1,620	975	609	358	291
13	263	1,160	1,190	1,110	1,290	3,850	2,100	1,620	942	664	398	291
14	242	1,080	1,190	1,040	1,180	2,640	2,000	1,750	942	692	388	359
15	255	1,080	1,190	1,010	1,080	2,050	1,900	1,900	910	697	353	458
16	260	985	1,220	975	1,040	1,750	2,150	1,850	850	642	347	485
17	249	955	1,460	942	1,040	1,620	1,850	1,850	790	562	347	355
18	235	925	1,510	910	1,180	1,450	1,750	1,750	790	540	315	315
19	232	1,420	3,980	790	1,220	1,330	1,850	1,660	760	520	384	311
20	382	1,880	9,800	702	1,290	1,250	2,050	1,700	724	525	357	303
21	782	2,030	7,160	820	1,660	1,140	2,150	1,900	719	525	353	303
22	628	1,780	5,990	1,370	2,100	1,080	2,050	1,950	730	530	357	299
23	2,440	1,640	4,730	2,050	1,750	1,040	2,200	1,700	675	540	359	291
24	5,030	1,560	5,190	3,870	1,490	1,080	2,000	1,570	648	530	343	283
25	2,540	3,310	3,850	3,310	1,330	1,750	1,950	1,530	631	510	339	275
26	1,780	2,660	3,310	2,870	1,220	1,450	2,150	1,490	635	480	347	275
27	1,220	3,310	2,580	2,640	1,140	1,250	2,250	1,450	648	475	353	275
28	985	2,710	2,250	2,470	1,080	1,410	2,100	1,410	680	480	371	271
29	838	2,600	2,300	2,250	-	2,300	2,100	1,450	580	442	354	271
30	782	2,490	1,900	2,150	-	2,550	2,930	1,490	1,370	442	375	267
31	782	-	1,660	2,050	-	1,700	-	1,370	-	465	339	-
Month				Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off			
									Inches	Acre-feet		
October.....				23,015	5,030	232	742	2.83	3.26	45,650		
November.....				63,165	3,990	975	2,106	5.04	8.97	125,300		
December.....				80,580	9,800	1,080	2,609	9.96	11.48	160,400		
Calendar year 1934.....				462,272	9,800	228	1,266	4.83	65.63	916,900		
January.....				52,099	3,570	702	1,681	6.42	7.40	103,300		
February.....				40,680	2,150	1,040	1,453	5.55	5.78	80,690		
March.....				44,637	3,850	730	1,440	5.50	6.34	88,540		
April.....				53,880	2,930	1,180	1,796	6.85	7.64	106,900		
May.....				57,390	2,750	1,370	1,851	7.06	8.14	113,800		
June.....				28,244	1,370	631	941	3.69	4.00	56,020		
July.....				19,368	1,250	442	625	2.59	2.76	38,420		
August.....				12,218	587	339	394	1.50	1.73	24,230		
September.....				9,387	485	267	313	1.19	1.33	18,620		
Water year 1934-35.....				484,963	9,800	232	1,329	5.07	68.83	961,900		

SANDY RIVER BASIN

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

Location.— Water-stage recorder, lat. 45°27'20", long. 122°14'50", 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 by U. S. Geological Survey river profile.

Drainage area.— 440 square miles.

Records available.— October 1929 to September 1935. At site three-quarters of a mile upstream April 1910 to September 1914.

Extremes.— Maximum discharge during year, 32,500 second-feet Dec. 20 (gage height, 14.8 feet); minimum, 97 second-feet Oct. 6, 8 (gage height, 0.81 foot); minimum mean daily discharge, 170 second-feet Aug. 18, 1910-14, 1929-35; 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 mean daily discharge, 129 second-feet Oct. 4, 1931.

Remarks.— Records good. No diversions for irrigation above station; about 50,000 acre-feet annually diverted from Bull Run River by Portland Water Bureau. Flow regulated by Bull Run power plant of Portland General Electric Co.

Rating table, water year 1934-35 (gage height, in feet, and discharge, in second-feet)

0.5	50	5.0	5,650
2.0	450	10	14,100
4.0	1,850	12	21,000
6.0	4,450	15	33,300

Discharge, in second-feet, water year October 1934 to September 1935

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	350	1,570	5,020	2,590	3,690	1,620	2,550	4,740	1,790	2,580	732	462
2	357	3,950	4,020	2,450	3,370	1,530	2,500	3,790	1,630	1,750	694	324
3	225	7,040	3,320	2,150	3,410	1,350	2,080	3,500	1,710	1,520	594	445
4	307	7,260	4,020	2,220	3,410	1,630	2,400	3,510	1,660	981	421	443
5	292	6,170	3,350	2,820	3,170	1,440	2,700	3,610	1,600	1,250	537	504
6	301	6,190	2,700	4,060	2,950	1,440	2,450	3,690	1,660	1,290	532	431
7	399	10,000	2,490	4,150	2,650	1,410	2,160	3,320	1,600	678	460	337
8	333	8,560	2,160	3,670	2,170	1,180	2,400	3,110	1,500	975	495	292
9	360	5,020	1,860	2,970	2,040	985	2,080	3,220	1,360	872	671	341
10	359	3,490	1,840	2,630	1,750	954	2,000	3,020	1,340	811	567	339
11	376	2,570	1,760	2,340	2,080	1,270	2,230	2,650	1,230	875	199	438
12	384	2,090	1,790	2,210	2,030	4,680	2,930	2,240	1,270	741	440	433
13	344	1,950	1,860	1,830	2,260	8,410	3,510	2,380	1,100	734	486	449
14	359	1,760	1,860	1,970	2,070	6,400	3,280	2,660	1,230	729	459	461
15	350	1,610	1,720	1,760	1,690	4,030	3,060	2,510	1,340	761	662	550
16	364	1,660	2,040	2,020	1,780	3,270	3,940	2,760	1,000	888	632	570
17	336	1,360	2,660	2,240	1,670	2,880	3,260	2,800	1,120	725	345	481
18	346	1,330	2,810	1,870	1,930	2,620	2,860	2,810	1,020	662	170	470
19	358	2,830	7,880	1,350	2,020	2,300	3,110	2,510	880	721	537	366
20	652	4,470	20,700	1,140	2,210	2,110	3,540	2,560	944	652	396	332
21	900	4,870	13,500	1,300	3,280	1,990	3,750	2,820	980	458	382	409
22	942	3,810	10,800	1,910	4,530	1,860	3,480	2,890	908	630	451	294
23	3,720	3,350	8,170	2,740	3,500	1,610	4,140	2,560	553	601	439	349
24	12,300	3,070	9,130	6,060	2,720	1,750	3,510	2,240	945	591	490	411
25	6,610	6,190	6,820	6,380	2,410	3,540	3,230	2,190	836	617	358	429
26	4,120	5,380	6,030	5,620	2,110	2,800	3,300	2,000	744	629	416	409
27	2,440	7,040	4,510	4,920	1,910	2,280	3,290	2,110	714	657	400	422
28	1,840	5,980	3,690	4,550	1,760	2,340	3,370	2,020	798	440	404	301
29	1,500	5,780	4,020	4,150	-	4,100	3,420	1,880	1,230	491	509	282
30	1,260	5,580	3,450	3,880	-	3,780	5,030	2,120	2,160	580	494	369
31	1,140	-	2,960	3,660	-	2,970	-	2,010	-	519	442	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acres-feet
October.....	43,954	12,300	282	1,418	3.22	3.71	87,180
November.....	135,930	10,000	1,330	4,464	10.1	11.27	265,600
December.....	149,410	20,700	1,720	4,620	11.0	12.68	296,400
Calendar year 1934.....	840,790	20,700	242	2,504	5.24	71.12	1,668,000
January.....	93,490	6,380	1,140	3,015	6.85	7.90	185,400
February.....	71,170	4,330	1,670	2,542	5.78	6.02	141,200
March.....	79,609	8,410	954	2,568	5.84	6.73	157,900
April.....	91,350	5,030	2,006	3,045	6.92	7.72	181,200
May.....	86,860	4,740	1,890	2,706	6.33	7.36	171,300
June.....	37,052	2,160	555	1,235	2.81	3.14	73,490
July.....	26,428	2,580	440	853	1.94	2.24	52,420
August.....	14,794	732	170	477	1.08	1.24	29,340
September.....	12,111	570	288	404	.918	1.02	24,020
Water year 1934-35.....	839,648	20,700	170	2,500	5.23	70.97	1,655,000

Little Zigzag River at Twin Bridges, near Rhododendron, Oreg.

Location.— Water-stage recorder, lat. 45°16'50", long. 121°48'30", probably in sec. 15 of unsurveyed T. 3 S., R. 8 E., 500 feet above upper of Twin Bridges on Mount Hood Loop highway and 5½ miles east of Rhododendron. Zero of gage is 2,903.7 feet above mean sea level.

Drainage area.— 3.7 square miles.

Records available.— March 1926 to September 1935.

Extremes.— Maximum discharge during year, 90 second-feet Dec. 19 (gage height, 2.52 feet); minimum, 19 second-feet Sept. 30.
1926-35: Maximum discharge (estimated), 250 second-feet Mar. 31, 1931 (gage height, about 3.5 feet); minimum, 15 second-feet Feb. 1-13, 16-18, 1932.

Remarks.— Records fair. Daily discharge estimated for Dec. 7-17, from records of weather and discharge of Salmon River near Government Camp. No diversions or regulation above station.

Rating table, water year 1934-35 (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Oct. 1 to Dec. 19, Mar. 26 to Apr. 7)

1.7	16	2.0	32
1.8	20	2.2	51
1.9	25	2.4	74

Discharge, in second-feet, water year October 1934 to September 1935

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	20	22	25	24	29	22	23	31	31	27	24	20
2	20	24	24	23	29	22	22	31	29	25	23	21
3	20	25	26	23	28	22	22	31	28	24	23	20
4	20	28	26	23	27	22	22	32	29	24	22	20
5	20	26	26	23	28	22	22	33	29	24	22	21
6	20	25	25	24	27	22	22	32	28	24	22	20
7	20	31	25	23	26	22	22	31	28	24	22	20
8	20	25	26	23	26	22	22	32	27	24	22	21
9	20	24	25	22	25	22	22	32	26	24	22	21
10	20	22	25	23	25	22	22	31	26	24	22	20
11	20	21	25	22	25	22	24	29	26	24	22	20
12	20	21	25	23	24	34	24	29	26	24	22	20
13	20	20	25	23	24	29	24	31	25	24	22	20
14	20	20	26	23	24	25	24	31	26	24	22	22
15	20	20	26	22	24	24	24	34	26	24	22	22
16	20	20	26	22	24	23	24	33	25	24	22	22
17	20	20	26	22	24	23	23	33	25	24	22	21
18	20	20	26	22	24	22	24	33	25	24	22	20
19	20	22	46	22	25	22	24	32	25	24	22	20
20	23	23	43	22	25	22	26	33	25	24	22	20
21	25	22	44	23	26	22	25	35	24	24	22	20
22	23	22	33	24	24	22	24	34	24	23	22	20
23	45	22	29	29	23	22	24	33	24	23	22	20
24	46	22	31	30	23	22	24	32	24	23	22	20
25	30	28	26	27	22	22	25	32	24	23	22	20
26	24	24	26	26	23	22	26	32	24	22	21	20
27	23	25	24	26	23	22	27	32	24	22	21	20
28	22	24	24	26	22	24	27	31	24	23	21	20
29	21	26	24	26	-	27	28	32	27	22	21	20
30	20	26	23	26	-	24	38	33	32	22	20	19
31	20	-	24	27	-	24	-	31	-	23	20	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acres-foot
October.....	702	46	20	22.6	6.11	7.04	1,390
November.....	700	31	20	23.3	6.30	7.05	1,390
December.....	854	46	23	27.5	7.43	8.57	1,690
Calendar year 1934.....	10,049	59	20	27.5	7.43	101.00	19,910
January.....	744	30	22	24.0	6.49	7.48	1,480
February.....	698	29	22	24.9	6.73	7.01	1,380
March.....	719	34	22	23.2	6.27	7.23	1,430
April.....	730	38	22	24.3	6.57	7.33	1,450
May.....	991	35	29	32.0	8.65	9.97	1,970
June.....	786	32	24	26.2	7.08	7.90	1,560
July.....	734	27	22	23.7	6.41	7.39	1,460
August.....	678	24	20	21.9	5.92	6.82	1,340
September.....	610	22	19	20.3	5.46	6.12	1,210
Water year 1934-35.....	8,946	46	19	24.5	6.62	89.96	17,750

Salmon River near Government Camp, Oreg.

Location.— Water-stage recorder, lat. 45°18', 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.

Drainage area.— 8.7 square miles.

Records available.— May 1910 to May 1912, April 1926 to September 1935.

Average discharge.— 10 years, (1910-11, 1926-35) 41.3 second-feet.

Extremes.— Maximum discharge during year, 377 second-feet Dec. 20 (gage height, 2.78 feet); minimum, 13 second-feet Oct. 4-7, 14, 15 (gage height, 0.34 foot).
1910-12, 1926-35: Maximum discharge, 650 second-feet Dec. 22, 1933 (gage height, 3.61 feet); minimum, 12 second-feet Nov. 21, 1929, Oct. 19, 1930.

Remarks.— Records good. Discharge estimated Dec. 15-17 by comparison with discharge below Linney Creek. No diversions or regulation above station.

Rating table, water year 1934-35 (gage height, in feet, and discharge, in second-feet)

0.1	5	1.4	98
.5	22	1.9	167
.9	52	2.4	270

Discharge, in second-feet, water year October 1934 to September 1935

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	14	38	38	38	43	30	34	78	81	64	38	24
2	14	44	36	37	46	30	33	74	78	58	35	23
3	14	45	40	35	46	30	35	75	75	54	32	23
4	14	56	39	35	44	30	32	70	80	52	31	23
5	13	67	35	35	45	29	32	87	84	51	30	23
6	13	63	33	35	44	28	31	85	85	50	30	23
7	14	98	32	33	42	28	32	82	85	49	30	22
8	14	70	30	32	39	28	31	82	82	50	29	21
9	14	54	30	31	38	28	32	84	75	47	29	21
10	14	46	30	30	37	27	35	77	76	47	30	21
11	14	42	30	30	37	27	42	74	73	46	28	20
12	14	38	32	30	36	64	50	70	74	46	28	20
13	14	36	32	30	35	61	56	74	73	46	29	19
14	13	36	33	29	35	48	54	79	75	47	28	25
15	14	36	32	29	33	42	53	86	71	46	27	25
16	16	32	33	29	32	38	50	78	66	43	26	28
17	15	32	34	29	33	38	45	80	63	41	26	21
18	14	32	31	28	36	36	50	78	62	39	31	20
19	14	42	95	28	35	35	56	77	59	38	30	21
20	25	50	163	28	35	35	61	82	56	37	28	20
21	36	44	146	31	38	33	56	90	58	35	28	20
22	25	43	86	43	38	32	48	90	57	35	28	20
23	77	41	68	54	35	32	44	83	54	37	27	20
24	106	43	67	56	32	32	44	80	54	37	26	20
25	55	73	55	48	31	30	50	81	53	35	26	19
26	39	47	52	43	30	31	57	81	53	34	26	18
27	31	47	47	42	30	30	58	82	53	33	27	18
28	28	45	44	42	30	35	59	83	54	34	26	18
29	26	50	42	41	-	54	64	86	67	32	27	18
30	26	43	42	42	-	42	94	89	85	31	26	18
31	26	-	40	42	-	38	-	81	-	35	24	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acres-feet
October.....	766	106	13	24.7	2.84	3.27	1,580
November.....	1,433	98	32	47.8	5.49	6.12	2,840
December.....	1,547	163	30	49.9	5.74	6.62	3,070
Calendar year 1934.....	15,892	182	13	43.5	5.00	67.90	31,530
January.....	1,115	56	28	36.0	4.14	4.77	2,210
February.....	1,034	46	30	36.9	4.24	4.42	2,050
March.....	1,101	64	27	35.5	4.08	4.70	2,180
April.....	1,416	94	31	47.2	5.43	6.06	2,810
May.....	2,507	90	70	80.9	9.30	10.72	4,970
June.....	2,085	85	55	68.8	7.91	8.82	4,080
July.....	1,529	64	31	42.9	4.93	5.68	2,640
August.....	884	38	24	28.5	3.28	3.78	1,750
September.....	632	28	18	21.1	2.43	2.71	1,260
Water year 1934-35.....	15,827	163	13	43.4	4.99	67.67	31,380

Salmon River below Linney Creek, Oreg.

Location.—Water-stage recorder, lat. 45°13'20", long. 121°51'40", 200 feet below Linney Creek, 9 miles southeast of Welches, and 11 miles downstream from gaging station on Salmon River near Government Camp.

Drainage area.— 54 square miles.

Records available.— October 1927 to September 1935.

Extremes.— Maximum discharge during year, 1,720 second-feet Dec. 20 (gage height, 4.20 feet); minimum, 48 second-feet Oct. 11-15 (gage height, 0.25 foot).
1927-35: Maximum discharge, 4,070 second-feet Mar. 31, 1931 (gage height, 5.81 feet); minimum, 44 second-feet Nov. 21, 1929 (gage height, 0.27 foot).

Remarks.— Records good. No diversions or regulation above station.

Rating tables, water year 1934-35 (gage height, in feet, and discharge, in second-feet)

Table for Oct. 1-17

0.2 40
4 67
.7 115

Table for Oct. 18 to Sept. 30

0.3 45 1.2 186 2.5 685
5 65 1.6 310 3.0 960
.8 107 2.0 460 4.0 1,590

Discharge, in second-feet, water year October 1934 to September 1935

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	50	139	263	228	253	164	189	620	357	208	101	66
2	50	240	222	213	266	164	179	680	359	167	91	65
3	52	263	225	202	273	153	176	576	317	154	88	65
4	50	283	231	200	276	147	172	595	314	145	86	64
5	49	339	202	197	279	143	169	630	314	139	85	64
6	49	290	184	202	276	139	162	630	310	134	84	63
7	49	417	172	186	266	136	172	600	300	132	82	63
8	50	357	162	172	237	132	169	595	296	132	81	61
9	52	266	152	162	222	123	160	595	266	127	79	61
10	49	219	143	156	210	125	174	568	253	123	79	60
11	48	191	143	156	210	125	210	512	243	120	78	60
12	52	169	147	149	200	303	266	480	237	117	77	60
13	50	156	145	143	189	376	307	480	237	115	76	60
14	48	152	149	139	176	300	317	492	234	113	77	65
15	48	149	147	137	164	260	310	516	231	112	76	70
16	52	134	162	156	160	234	321	500	210	110	74	75
17	52	132	172	127	162	222	324	504	200	104	74	64
18	50	130	164	128	172	205	310	492	191	102	81	60
19	50	200	404	120	176	197	353	488	186	100	77	58
20	69	234	1,240	113	176	189	413	480	176	98	74	58
21	128	234	1,020	136	200	176	421	504	174	98	74	58
22	88	216	822	181	213	169	372	516	172	96	74	56
23	320	205	615	250	191	160	353	460	164	98	73	56
24	554	205	625	300	179	162	342	462	160	96	73	56
25	237	406	484	279	169	162	364	440	154	95	70	55
26	164	296	433	256	164	156	421	433	152	94	70	54
27	125	310	364	245	158	149	452	421	147	92	70	54
28	107	279	324	243	156	172	460	410	147	92	70	54
29	98	339	293	240	-	273	492	410	179	89	69	54
30	91	296	269	240	-	240	660	413	243	89	70	53
31	89	-	250	243	-	213	-	379	-	91	68	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acre-feet
October.....	3,020	554	48	97.4	1.80	2.08	5,990
November.....	7,246	417	130	242	4.48	5.00	14,370
December.....	10,308	1,240	143	353	6.17	7.11	20,450
Calendar year 1934.....	71,301	1,240	48	195	3.61	49.14	141,400
January.....	5,880	300	113	190	3.52	4.06	11,660
February.....	5,763	279	156	206	3.81	3.97	11,430
March.....	5,853	376	125	189	3.50	4.04	11,610
April.....	9,190	660	160	306	5.67	6.33	18,230
May.....	15,761	630	379	598	9.41	10.85	31,860
June.....	6,893	357	147	230	4.28	4.75	13,670
July.....	3,582	208	69	116	2.15	2.48	7,100
August.....	2,399	101	68	77.4	1.43	1.65	4,760
September.....	1,812	75	53	60.4	1.12	1.25	3,590
Water year 1934-35.....	77,707	1,240	48	213	3.94	53.57	154,100

SANDY RIVER BASIN

Salmon River at Welches, Oreg.

Location.- Staff gage, lat. 45°19'10", long. 121°57'10", in S¹/₄ sec. 9, T. 3 S., R. 7 E., just below Sheeny Creek and three-quarters of a mile southeast of Welches.

Drainage area.- 100 square miles.

Records available.- August 1913 to September 1914, July 1920 to September 1921, April 1925 to September 1935.

Average discharge.- 12 years, 441 second-feet.

Extremes.- Maximum discharge observed during year, 3,790 second-feet Dec. 21 (gage height, 5.45 feet); minimum, 68 second-feet Oct. 5-7 (gage height, 0.55 foot).
1913-14, 1920-21, 1925-35: Maximum discharge (estimated), 13,000 second-feet Mar. 31, 1931 (gage height, 9.80 feet, at former gage 500 feet downstream); minimum, 65 second-feet Dec. 3-8, 1929, Aug. 31 to Sept. 3, 1931.

Remarks.- Records good except those for Oct. 24, Jan. 21, June 22-25, July 28-30, Sept. 5-13, which are fair and were estimated on basis of records for station below Linney Creek. No diversion or regulation above station.

Rating tables, water year 1934-35 (gage height, in feet, and discharge, in second-feet)

Table for Oct. 1-23

0.5	55	1.4	375
.7	110	1.7	505
.9	190	2.0	640
1.1	265	2.3	790

Table for Oct. 24 to Sept. 30

0.6	74	1.7	460	3.5	1,590
.7	95	2.0	600	4.0	2,070
.9	150	2.3	760	4.5	2,640
1.1	215	2.7	1,010	5.0	3,260
1.4	330	3.1	1,280	5.5	3,930

Discharge, in second-feet, water year October 1934 to September 1935

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	70	215	705	460	760	310	460	1,070	550	550	160	84
2	75	820	650	438	760	310	415	945	482	290	120	78
3	75	1,070	650	392	705	310	392	520	460	250	115	78
4	70	880	678	415	650	310	370	580	460	215	115	78
5	68	945	600	438	650	290	415	945	438	208	108	76
6	68	705	460	625	625	270	392	945	438	198	100	75
7	98	1,350	415	800	575	250	415	820	438	187	100	75
8	75	1,350	370	505	528	232	415	880	415	198	100	74
9	80	820	330	438	460	250	370	520	370	180	100	73
10	75	528	310	392	415	232	392	820	370	180	100	72
11	70	415	310	392	460	232	482	760	350	174	100	72
12	90	370	350	350	415	1,680	705	705	350	165	95	72
13	80	350	350	330	438	1,350	820	650	330	156	95	72
14	70	310	350	290	392	945	820	705	330	160	95	78
15	70	310	370	290	350	678	1,010	820	330	160	95	100
16	80	270	370	290	330	575	820	760	310	144	95	120
17	80	270	505	270	350	528	678	820	270	138	91	108
18	75	250	438	270	415	482	650	760	270	132	100	81
19	70	625	625	250	438	460	678	705	250	126	95	84
20	215	760	3,390	250	438	370	820	705	250	126	91	84
21	460	820	3,790	355	550	370	820	760	232	120	91	78
22	295	600	2,520	625	760	350	760	820	220	126	84	78
23	790	528	2,240	820	575	330	820	705	215	120	84	82
24	1,600	482	2,520	1,280	452	310	705	650	205	126	84	78
25	760	1,210	1,510	1,070	415	650	760	650	200	120	78	78
26	482	1,070	945	1,010	392	415	820	625	194	120	78	78
27	350	650	820	945	350	370	820	575	187	115	82	78
28	270	880	678	820	330	415	820	575	201	115	84	78
29	215	945	650	820	-	880	760	575	270	112	84	74
30	180	880	575	705	-	660	1,140	650	370	112	84	74
31	165	-	528	705	-	528	-	575	-	120	84	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acre-foot
October.....	7,191	1,600	68	232	2.32	2.68	14,240
November.....	20,678	1,350	215	689	6.89	7.69	41,010
December.....	29,012	3,790	310	936	9.36	10.79	57,540
Calendar year 1934.....	154,040	3,790	68	422	4.22	57.35	305,500
January.....	16,840	1,280	280	543	5.43	6.26	33,400
February.....	14,008	760	330	500	5.00	5.21	27,780
March.....	15,332	1,680	232	495	4.95	5.71	30,410
April.....	19,744	1,140	370	668	6.68	7.34	39,160
May.....	25,495	1,070	575	758	7.58	8.74	46,600
June.....	9,735	550	187	324	3.24	3.62	19,310
July.....	5,023	350	112	162	1.62	1.87	9,980
August.....	2,977	180	78	96.0	.960	1.11	5,900
September.....	2,420	120	72	80.7	.807	.90	4,800
Water year 1934-35.....	166,445	3,790	68	456	4.56	61.92	330,100

Bull Run Reservoir near Bull Run, Oreg.

Location.- Water-stage recorder, lat. 45°29', long. 122°4'50", in SW $\frac{1}{4}$ sec. 16, T. 1 S., R. 8 E., at Bear Creek Dam of City of Portland, 8 $\frac{1}{2}$ miles northeast of Bull Run. Gage readings are elevations above mean sea level.

Records available.- October 1928 to September 1935.

Extremes.- Maximum contents during year, 29,380 acre-feet Dec. 20 (gage height, 1,045.09 feet); minimum, 22,330 acre-feet Oct. 20 (gage height, 1,023.37 feet).
1928-35: Maximum contents, 31,600 acre-feet Mar. 31, 1931 (gage height, 1,047.40 feet); minimum, 20,530 acre-feet Oct. 4, 1931.

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

Stage and contents, water year October 1934 to September 1935

Date	Gage height (feet)	Contents (acre-feet)	Change in contents during month (acre-feet)
Sept. 30	1,025.07	22,920	-----
Oct. 31	1,036.76	27,230	+4,310
Nov. 30	1,038.41	27,870	+ 640
Dec. 31	1,037.23	27,410	- 460
Jan. 31	1,037.64	27,670	+ 260
Feb. 28	1,037.04	27,340	- 330
Mar. 31	1,037.42	27,490	+ 150
Apr. 30	1,038.02	27,720	+ 230
May 31	1,037.14	27,370	- 350
June 30	1,037.61	27,520	+ 150
July 31	1,036.97	26,920	- 600
Aug. 31	1,032.18	25,490	-1,430
Sept. 30	1,026.12	23,290	-2,200
The year			+ 370

Bull Run River below Bull Run Reservoir, Oreg.

Location.- Water-stage recorder, lat. 45°29', long. 122°4'50", in SW $\frac{1}{4}$ sec. 16, T. 1 S., R. 6 E., at Bull Run Reservoir, 8 $\frac{1}{2}$ miles northeast of Bull Run. Prior to Oct. 1, 1934, water-stage recorder at gaging cable half a mile downstream, at point to which all discharges are referred.

Drainage area.- 77 square miles.

Records available.- October 1929 to September 1935.

Extremes.- Maximum discharge during year, 11,000 second-feet Dec. 20 (gage height, 9.06 feet); minimum, 28 second-feet part of Oct. 22, 23.
1929-35: 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 fair except those for Oct. 1-22, which are poor. Daily discharge estimated for Apr. 17, 22; for other days determined by combining discharge through valves near base of dam and flow over crest of dam. No diversions above station. Flow regulated by storage in Bull Run Lake and Bull Run Reservoir. Records of reservoir stage and valve openings furnished by Portland Water Bureau.

Discharge, in second-feet, water year October 1934 to September 1935

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	71	537	1,370	470	792	377	536	1,140	413	760	122	103
2	73	1,420	984	425	866	354	464	691	451	510	124	103
3	73	2,150	959	383	832	332	401	776	401	392	112	103
4	70	2,260	1,060	407	732	321	464	776	377	532	108	102
5	60	2,200	800	620	711	299	607	624	377	288	106	105
6	60	1,650	655	941	641	277	542	860	401	255	101	102
7	60	2,860	529	891	555	272	490	746	380	240	99	102
8	60	2,260	464	732	490	266	477	704	343	235	114	102
9	60	1,240	413	600	425	250	413	732	311	220	119	102
10	58	784	377	516	371	225	413	690	299	200	119	102
11	60	600	366	464	401	225	441	594	288	190	119	102
12	60	470	377	413	432	1,330	620	516	266	174	119	102
13	60	401	377	360	522	2,540	704	516	253	160	119	105
14	60	386	371	407	490	1,500	690	568	260	148	119	102
15	60	383	407	430	419	1,080	648	620	288	171	112	102
16	62	371	464	674	395	816	776	620	255	156	103	102
17	60	343	843	843	377	704	700	634	235	136	103	102
18	60	326	851	533	432	594	648	704	215	129	103	102
19	59	966	2,900	290	464	513	646	634	205	126	94	105
20	52	1,550	5,980	244	535	470	746	620	196	126	88	102
21	48	1,600	4,170	242	866	425	891	665	192	126	94	101
22	34	1,240	2,160	180	1,240	377	940	704	177	125	106	101
23	702	1,040	2,000	118	934	360	1,100	594	164	121	103	101
24	4,440	950	2,540	1,240	711	365	675	529	164	120	103	101
25	2,320	1,600	1,650	1,540	581	574	732	490	160	122	103	104
26	1,500	1,370	1,370	1,370	503	536	792	490	156	119	103	101
27	808	1,700	1,040	1,190	438	438	624	464	151	110	103	101
28	510	1,600	800	1,080	392	467	925	436	140	90	103	101
29	365	1,700	718	950	-	942	792	441	266	88	103	100
30	288	1,460	600	856	-	808	1,100	464	714	95	103	100
31	238	-	510	792	-	634	-	451	-	90	103	-

Month	Observed			Change in contents, Bull Run Reservoir, in acre-feet	Corrected 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.....	4,440	34	403	24,780	+4,310	29,090	473	6.14	7.08
November.....	2,860	326	1,244	74,020	+640	74,660	1,255	16.3	18.19
December.....	5,980	368	1,247	76,690	-460	76,230	1,240	16.1	18.56
Calendar year 1934....	5,980	34	570	412,880	-180	412,700	570	7.40	100.47
January.....	1,540	118	652	40,070	+160	40,230	654	8.49	9.79
February.....	1,240	371	591	32,820	-230	32,590	587	7.62	7.94
March.....	2,540	225	602	37,030	+140	37,170	605	7.86	9.06
April.....	1,100	401	660	40,460	+240	40,700	684	8.88	9.91
May.....	1,140	438	642	39,460	-360	39,110	636	8.26	9.52
June.....	714	140	283	16,860	+150	17,010	286	3.71	4.14
July.....	760	88	199	12,210	-600	11,610	189	2.45	2.82
August.....	124	88	107	6,600	-1,430	5,170	84.1	1.09	1.26
September.....	105	100	102	6,080	-2,200	3,880	65.2	.847	.94
Water year 1934-35..	5,980	34	562	407,080	+370	407,450	563	7.31	99.21

Bull Run River near Bull Run, Oreg.

Location.- Water-stage recorder, lat. 45°27'20", long. 122°7'20", in SE¼ sec. 25, T. 1 S., R. 5 E., 1½ miles above intake of Portland water-supply pipe line and 5 miles east of Bull Run.

Drainage area.- 102 square miles.

Records available.- January 1895 to September 1935.

Average discharge.- 28 years (1907-35), 751 second-feet.

Extremes.- Maximum discharge during year, 12,500 second-feet Dec. 20 (gage height, 10.2 feet); minimum, 74 second-feet Oct. 18 (gage height, 0.61 foot).
1895-1935: Maximum discharge, 20,800 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. Water-stage recorder graph furnished by Portland Water Bureau.

Rating tables, water year 1934-35 (gage height, in feet, and discharge, in second-feet)

Table for Oct. 1 to 23				Table for Oct. 24 to Sept. 30			
0.5	58	2.1	575	0.7	100	2.5	855
.9	124	2.5	770	.9	145	3.0	1,160
1.3	235	3.0	1,070	1.3	260	4.0	1,970
1.7	395	4.0	1,940	1.7	420	5.0	3,070
				2.1	610		

Discharge, in second-feet, water year October 1934 to September 1935

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	90	874	1,890	692	1,160	510	748	1,390	506	1,020	168	116
2	88	2,020	1,460	632	1,230	470	638	1,090	515	692	160	116
3	88	3,070	1,340	585	1,160	456	580	986	460	535	142	116
4	88	3,190	1,500	610	1,020	434	775	988	442	454	135	116
5	82	3,190	1,120	925	988	402	665	1,060	452	371	128	118
6	82	2,360	955	1,330	825	380	775	1,060	456	351	125	116
7	82	4,100	775	1,300	805	375	720	925	442	311	118	116
8	82	5,010	665	1,120	692	347	692	895	398	303	132	118
9	82	1,700	585	925	585	327	616	895	363	274	140	114
10	82	1,160	510	775	520	311	595	835	363	246	138	114
11	83	865	474	692	595	299	654	720	343	232	138	114
12	88	692	496	610	621	1,730	895	643	311	216	138	114
13	86	585	498	535	775	3,190	1,060	643	295	204	140	116
14	86	555	492	555	692	1,920	1,060	692	319	190	138	128
15	88	545	535	590	616	1,420	955	775	335	213	132	135
16	93	492	595	841	560	1,120	1,230	748	292	210	120	140
17	90	452	955	1,020	555	986	1,060	605	264	160	118	120
18	86	429	1,020	681	632	835	895	865	242	168	125	118
19	85	1,530	3,130	398	665	748	895	775	228	152	116	120
20	120	2,070	7,280	331	775	665	988	748	216	132	110	114
21	182	2,020	4,960	335	1,260	575	1,120	605	207	150	110	114
22	150	1,580	3,870	343	1,660	525	1,160	805	195	148	122	114
23	1,290	1,540	2,710	319	1,300	488	1,420	692	188	145	120	114
24	5,490	1,230	3,510	1,550	1,020	510	1,160	610	182	145	120	112
25	3,190	1,970	2,170	1,920	835	865	1,020	586	175	150	120	116
26	1,970	1,740	1,640	1,700	720	805	1,090	570	170	145	120	114
27	1,160	2,320	1,380	1,580	616	643	1,120	540	170	140	120	116
28	805	2,020	1,120	1,420	565	720	1,090	515	170	128	118	116
29	610	2,270	1,060	1,300	-	1,300	1,020	525	343	114	118	114
30	492	2,020	925	1,200	-	1,120	1,540	540	1,000	128	118	114
31	444	-	775	1,120	-	895	-	520	-	125	116	-
Month	Observed					Corrected for storage						
	Discharge in second-feet				Run-off in acre-feet	Change in contents, Bull Run Reservoir, in acre-feet	Run-off in acre-feet	Discharge in second-feet				Run-off in square miles
	Maximum	Minimum	Mean					Mean	Per square mile			
October.....	5,490	82	566	34,780	+4,310	39,090	636	6.24	7.19			
November.....	4,100	429	1,707	101,600	+640	102,240	1,718	16.8	16.74			
December.....	7,280	474	1,615	99,300	-490	98,840	1,607	15.6	16.22			
Calendar year 1934....	7,280	80	740	535,910	-180	535,730	740	7.25	98.54			
January.....	1,920	319	901	55,410	+160	55,570	904	8.86	10.22			
February.....	1,660	520	841	46,700	-230	46,470	837	8.21	8.55			
March.....	3,190	299	816	50,330	+140	50,470	821	8.06	9.28			
April.....	1,640	580	948	56,400	+240	56,640	952	9.33	10.41			
May.....	1,380	515	782	48,070	-350	47,720	776	7.61	6.77			
June.....	1,000	170	335	19,920	+150	20,070	337	3.30	3.68			
July.....	1,020	114	287	15,770	-600	15,170	247	2.42	2.79			
August.....	168	110	128	7,660	-1,430	6,430	105	1.03	1.19			
September.....	140	112	117	6,980	-2,200	4,780	80.5	.787	.68			
Water year 1934-35...	7,280	82	750	543,120	+370	543,490	751	7.36	99.92			

Little Sandy River near Bull Run, Oreg.

Location.— Water-stage recorder, lat. 45°25', long. 122°10'20", in NE $\frac{1}{4}$ 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, by 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 1935.

Average discharge.— 18 years (1919-35), 141 second-feet.

Extremes.— Maximum discharge during year, 2,480 second-feet Dec. 20 (gage height, 7.0 feet); minimum, 12 second-feet Oct. 8, Sept. 28-30.

1911-13, 1919-35: Maximum discharge, 3,950 second-feet Nov. 20, 1921 (gage height, 9.18 feet); minimum, 10 second-feet Sept. 17, 1924, Sept. 2-6, 1931, Sept. 30, Oct. 1-11, 1932.

Remarks.— Records fair. No diversions or regulation above station. Water-stage recorder graph furnished by Portland General Electric Co.

Rating table, water year 1934-35 (gage height, in feet, and discharge, in second-feet)

1.8	8	2.7	77	4.5	580
2.0	17	3.0	120	5.0	840
2.2	30	3.5	225	5.5	1,180
2.4	46	4.0	380		

Discharge, in second-feet, water year October 1934 to September 1935

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	12	109	271	142	218	94	150	295	109	250	55	14
2	13	248	250	150	232	86	132	222	104	141	33	14
3	14	435	256	122	215	84	123	205	87	106	26	14
4	13	536	268	135	192	81	175	212	82	85	25	14
5	12	485	200	173	180	77	188	220	77	71	24	14
6	12	373	165	258	157	72	165	205	72	62	22	14
7	12	710	141	238	155	71	155	180	67	60	21	14
8	15	478	122	215	115	66	150	178	61	59	20	14
9	16	259	107	182	100	62	134	178	56	50	19	14
10	14	171	97	157	90	59	130	155	58	45	19	13
11	13	150	96	144	117	58	141	154	53	42	18	13
12	16	107	112	127	114	349	175	123	50	40	18	13
13	16	91	117	112	118	447	205	135	50	36	18	14
14	14	96	122	103	109	295	195	148	54	33	17	25
15	15	96	134	98	100	220	195	190	55	32	17	36
16	18	82	142	96	96	182	274	155	48	30	17	46
17	16	76	190	87	100	167	205	132	44	29	18	24
18	15	73	173	84	114	146	180	175	42	28	17	14
19	14	210	790	76	115	132	188	163	40	26	24	16
20	50	307	1,120	71	159	120	209	155	38	26	20	15
21	120	301	650	80	259	107	212	167	36	25	18	14
22	97	225	483	130	286	96	202	153	35	24	17	14
23	482	175	380	171	208	91	228	127	54	24	17	14
24	928	169	553	163	97	200	112	32	23	16	13	
25	373	345	356	286	141	185	192	107	31	23	16	12
26	210	262	320	265	125	169	215	106	30	22	16	12
27	132	471	240	250	110	144	220	98	29	22	16	12
28	96	359	200	240	101	187	205	93	31	24	16	12
29	75	373	210	230	-	274	200	93	32	25	15	12
30	64	307	182	228	-	218	471	122	346	21	16	12
31	60	-	159	212	-	175	-	104	-	25	15	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acres-feet
October.....	8,987	928	12	95.4	4.15	4.78	5,370
November.....	8,047	710	73	268	11.7	15.08	15,960
December.....	6,891	1,120	96	277	12.0	13.83	17,040
Calendar year 1934.....	46,361	1,120	11	127	5.52	74.97	91,960
January.....	5,117	295	71	185	7.17	8.27	10,180
February.....	4,167	236	90	149	6.48	6.75	8,270
March.....	4,593	447	58	148	6.45	7.41	9,110
April.....	5,813	471	123	194	6.45	9.40	11,530
May.....	4,885	295	93	158	6.87	7.92	9,690
June.....	1,933	346	29	64.4	2.80	3.12	3,830
July.....	1,437	230	21	49.0	2.09	2.41	2,950
August.....	637	55	15	20.5	.891	1.03	1,260
September.....	496	46	12	16.2	.704	.79	964
Water year 1934-35.....	48,713	1,120	12	125	5.78	73.76	96,620

Middle Fork of Willamette River at Eula, Oreg.

Location.- Water-stage recorder, lat. 43°50', long. 122°37'10", 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. Prior to Aug. 12 staff gage at same location and datum. Zero of gage is 880.89 feet above mean sea level by general adjustment of 1929.

Drainage area.- 950 square miles.

Records available.- July 1923 to September 1935.

Average discharge.- 11 years (1923-28, 1927-35), 2,322 second-feet.

Extremes.- Maximum discharge observed during year, 27,500 second-feet Dec. 20 (gage height, 12.1 feet); minimum, 535 second-feet Oct. 1, 2, 5-19 (gage height, 1.1 feet).

1923-35: 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, owing to logging operations upstream. Gage-height record collected in cooperation with U.S. Weather Bureau.

Rating table, water year 1934-35 (gage height, in feet, and discharge, in second-feet)

1.0	490	3.0	1,980	6.0	6,320	10.0	17,300
1.5	755	3.5	2,510	7.0	6,160	12.0	27,000
2.0	1,100	4.0	3,120	8.0	10,400		
2.5	1,510	5.0	4,610	9.0	13,400		

Discharge, in second-feet, water year October 1934 to September 1935

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	555	1,030	5,790	3,400	5,620	2,610	3,260	5,110	3,120	1,780	755	602
2	535	2,400	4,450	3,120	5,790	2,400	2,990	4,450	2,990	1,510	755	586
3	640	5,280	3,680	2,620	5,980	2,290	2,740	4,130	2,740	1,420	755	590
4	585	4,770	3,400	2,620	5,620	2,290	4,130	3,980	2,990	1,340	719	585
5	535	7,040	3,120	2,740	5,450	2,180	6,140	4,130	3,690	1,260	719	585
6	535	4,450	2,620	2,740	4,940	2,080	5,110	4,290	4,130	1,260	719	585
7	535	3,400	2,620	6,500	4,450	2,180	4,450	4,130	4,130	1,180	707	580
8	535	2,990	2,620	6,140	3,980	2,080	4,940	4,130	3,540	1,180	702	575
9	535	2,510	2,510	4,450	3,680	2,080	4,770	3,980	3,120	1,100	690	570
10	535	2,180	2,400	3,540	3,120	1,980	4,130	3,980	2,740	1,100	679	570
11	535	1,980	2,400	3,120	3,400	1,890	3,690	3,690	2,620	1,060	673	575
12	535	1,780	2,400	2,860	3,260	1,880	3,690	3,260	2,510	1,100	668	570
13	535	1,600	2,400	2,620	3,680	2,290	3,880	2,990	2,400	1,100	662	570
14	535	1,510	2,400	2,400	3,400	2,620	3,690	3,120	2,400	1,100	656	566
15	535	2,080	2,460	2,400	3,120	2,620	4,400	2,990	2,400	1,060	656	565
16	535	1,780	2,460	2,290	2,860	2,620	7,400	3,260	2,400	1,030	656	640
17	535	1,690	2,860	2,290	2,740	2,620	6,320	3,400	1,980	995	662	618
18	535	1,780	2,620	2,180	2,740	2,510	5,280	2,990	1,980	925	662	602
19	535	3,120	4,450	1,980	2,990	2,400	4,610	2,990	1,880	925	656	590
20	565	2,990	20,100	1,880	3,540	2,290	4,770	3,400	1,980	890	651	585
21	1,100	2,740	14,500	1,780	4,290	2,180	4,610	3,830	1,780	862	646	585
22	1,420	3,400	11,200	1,780	4,130	2,080	4,290	4,130	1,600	862	640	585
23	1,780	3,120	9,430	1,980	3,680	2,080	4,770	4,130	1,600	890	640	580
24	7,040	3,980	9,430	2,180	3,400	2,080	4,610	3,540	1,510	960	634	575
25	2,990	8,980	7,960	4,290	2,990	2,290	4,290	3,540	1,510	960	624	570
26	1,880	7,960	7,400	4,770	2,740	3,830	4,610	3,540	1,420	890	624	565
27	1,510	7,580	6,320	5,450	2,620	3,260	4,610	3,400	1,420	848	612	560
28	1,260	6,320	5,280	5,620	2,620	2,990	4,770	3,260	1,780	820	607	550
29	1,030	6,140	4,290	5,450	-	2,860	4,940	3,400	1,780	794	612	545
30	1,030	5,280	4,290	5,280	-	3,260	5,450	3,540	1,780	761	624	545
31	960	-	3,620	5,280	-	3,400	-	3,260	-	781	607	-
<hr/>												
Month				Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off			
									Inches	Acre-feet		
October.....				32,905	7,040	535	1,061	1.12	1.28	65,270		
November.....				111,860	8,980	1,030	6,729	3.83	4.36	221,900		
December.....				161,890	20,100	2,400	5,248	5.49	6.33	320,700		
Calendar year 1934.....				605,588	20,100	517	2,207	2.32	31.53	1,569,000		
January.....				105,750	6,500	1,780	3,411	3.59	4.14	209,800		
February.....				106,810	5,960	2,680	3,615	4.02	4.18	211,900		
March.....				76,110	3,830	1,880	2,455	2.58	2.97	151,000		
April.....				137,800	7,400	2,740	4,593	4.83	5.35	273,300		
May.....				113,960	5,110	2,990	3,676	3.87	4.44	226,000		
June.....				71,450	4,130	1,420	2,332	2.51	2.80	141,700		
July.....				32,763	1,780	781	1,057	1.11	1.28	64,980		
August.....				20,671	755	607	667	.702	.81	41,000		
September.....				17,539	693	545	585	.656	.69	34,790		
Water year 1934-35.....				999,308	20,100	535	2,710	2.85	36.73	1,962,000		

WILLAMETTE RIVER BASIN

Willamette River at Springfield, Oreg.

Location.- Water-stage recorder, lat. 44°2'45", long. 123°1'40", in SE $\frac{1}{4}$ sec. 34, T. 17 S., R. 3 W., at highway bridge at Springfield. Zero of gage is 424.16 feet above mean sea level by general adjustment of 1929.

Drainage area.- 2,030 square miles.

Records available.- November 1911 to September 1913, October 1928 to September 1935. At Eugene, 4 miles downstream, June 1919 to September 1928.

Average discharge.- 17 years (1912-13, 1919-35), 4,961 second-feet.

Extremes.- Maximum discharge during year, 46,300 second-feet Dec. 20 (gage height, 14.6 feet); minimum, 590 second-feet Oct. 2 (gage height, 1.42 feet).
1911-13, 1919-35: 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 known, 22.0 feet at Eugene Jan. 25, 1903.

Remarks.- Records good except those for Dec. 5 to Feb. 19, which are fair. Slight diurnal fluctuation during low water, owing to logging operations in basin of Middle Fork of Willamette River. No diversions above station.

Rating table, water year 1934-35 (gage height, in feet, and discharge, in second-feet)

1.4	575	3.4	3,010	7.0	13,000
1.7	615	3.8	3,770	8.0	16,700
2.0	1,100	4.2	4,650	10.0	25,200
2.3	1,420	4.6	5,600	12.0	34,100
2.6	1,790	5.0	6,610	14.0	43,400
3.0	2,350	6.0	9,450		

Discharge, in second-feet, water year October 1934 to September 1935

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	606	1,470	14,100	10,200	10,800	6,610	6,610	9,450	3,880	2,350	896	690
2	598	3,480	11,100	8,300	10,800	6,100	5,980	6,240	3,670	2,130	878	682
3	566	8,020	8,880	7,130	10,500	5,600	5,720	7,130	2,570	1,600	860	692
4	747	11,100	7,670	6,350	10,200	6,720	7,950	6,350	3,670	1,720	869	674
5	674	14,100	7,700	6,600	9,220	6,350	11,900	6,220	3,880	1,600	860	674
6												
7	628	8,530	6,350	6,860	8,300	5,860	10,800	6,350	4,310	1,540	842	674
8	612	8,580	5,200	18,300	7,670	6,220	9,450	6,220	4,310	1,460	833	666
9	612	6,000	5,200	20,400	6,670	6,220	10,100	5,850	4,200	1,470	824	666
10	612	4,200	5,200	16,200	6,110	6,100	10,100	5,720	3,770	1,430	815	666
	612	3,570	6,200	10,600	5,200	5,480	9,140	5,600	3,380	1,390	790	666
11	612	3,010	4,770	8,600	5,200	5,000	7,950	5,240	3,190	1,330	761	658
12	605	2,660	4,360	7,950	6,350	5,240	7,670	4,880	3,100	1,300	764	658
13	612	2,500	4,360	7,400	8,240	6,610	7,400	4,420	3,010	1,270	747	658
14	612	2,420	4,560	6,610	8,300	7,400	7,130	4,310	2,920	1,240	747	658
15	612	3,460	4,560	6,220	7,410	8,240	7,950	4,310	2,740	1,210	738	781
16	605	3,770	4,160	7,130	6,600	7,670	13,400	4,420	2,680	1,210	730	651
17	612	3,280	4,560	7,670	6,110	7,400	13,000	4,540	2,500	1,170	730	781
18	612	3,190	4,880	6,600	6,110	7,130	10,400	4,540	2,350	1,140	730	730
19	606	7,100	7,400	6,110	5,870	6,350	8,850	4,090	2,280	1,100	747	698
20	606	9,450	30,900	5,640	6,610	6,610	7,950	3,980	2,280	1,070	738	682
21	1,190	10,100	39,800	5,420	9,140	6,480	7,950	4,090	2,130	1,060	730	666
22	2,740	8,530	31,800	5,420	8,830	5,850	7,670	4,760	2,130	1,040	722	666
23	3,110	9,450	25,800	7,670	8,240	5,980	9,450	5,120	2,060	1,030	714	666
24	15,200	9,450	29,200	12,200	7,400	5,720	10,100	4,650	1,920	1,110	706	658
25	7,670	16,000	25,800	14,800	6,350	7,920	8,850	4,420	1,790	1,110	706	658
26	4,090	20,800	18,700	14,800	5,720	14,400	7,950	4,420	1,720	1,030	706	650
27	2,740	16,700	16,900	14,400	5,650	10,400	7,950	4,310	1,720	1,000	698	660
28	2,130	15,200	14,200	14,100	6,610	8,240	7,670	4,090	1,660	972	698	650
29	1,720	13,000	12,200	13,000	-	7,670	7,400	4,090	1,920	934	698	650
30	1,640	12,200	13,900	12,200	-	8,240	6,530	4,420	2,280	924	690	650
31	1,420	-	12,600	11,500	-	7,400	-	4,310	-	914	690	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acres-feet
October.....	56,006	15,200	598	1,607	0.890	1.03	111,100
November.....	237,610	20,800	1,470	7,920	3.90	4.86	471,300
December.....	393,670	39,800	4,160	12,700	6.26	7.22	781,000
Calendar year 1934.....	1,538,275	39,800	582	4,214	2.06	28.20	3,051,000
January.....	305,580	20,400	5,420	9,557	4.66	5.60	606,100
February.....	210,610	10,800	5,200	7,622	3.71	3.86	417,700
March.....	216,200	14,400	5,000	6,974	3.44	3.97	428,800
April.....	262,930	13,400	5,720	8,764	4.32	4.32	521,600
May.....	160,640	9,450	3,980	5,179	2.55	2.94	318,400
June.....	84,820	4,310	1,660	2,827	1.39	1.65	168,200
July.....	40,124	2,350	914	1,294	.637	.73	79,680
August.....	23,686	896	690	764	.376	.43	46,960
September.....	20,459	851	650	682	.336	.37	40,580
Water year 1934-35.....	2,012,327	39,800	598	5,513	2.72	36.97	3,991,000

Willamette River at Albany, Oreg.

Location.— Water-stage recorder, lat. 44°38'20", long. 123°6'20", 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 by general adjustment of 1929. Prior to Nov. 14, 1934, staff gage at same datum 300 feet upstream.

Drainage area.— 4,840 square miles.

Records available.— November 1878 to April 1882, January 1892 to September 1935; some fragmentary records 1883 to 1888.

Average discharge.— 40 years (1895-1935), 13,760 second-feet.

Extremes.— Maximum discharge during year, 73,200 second-feet Dec. 23 (gage height, 17.70 feet); minimum, 2,210 second-feet Oct. 1-20 (gage height, 0.3 foot).
1878-82, 1892-1935: 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, 0.28 foot).
Maximum stage known, 36.0 feet Dec. 8, 1861 (estimated discharge, 274,000 second-feet).

Remarks.— Records 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 1934-35 (gage height, in feet, and discharge, in second-feet)

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

Discharge, in second-feet, water year October 1934 to September 1935

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2,210	5,080	32,400	42,000	85,300	18,700	20,100	19,400	10,500	6,270	3,250	2,640
2	2,210	5,320	33,200	33,200	24,800	17,900	17,900	20,100	9,900	6,410	3,180	2,620
3	2,210	7,250	28,800	27,200	24,600	16,500	16,500	17,900	9,600	5,860	3,140	2,620
4	2,210	13,700	24,200	23,800	24,200	15,800	16,900	16,200	9,300	5,460	3,090	2,600
5	2,210	24,600	21,200	22,300	22,700	16,600	20,100	15,100	9,300	5,190	3,090	2,600
6	2,210	34,400	19,000	22,700	21,200	17,300	24,600	14,800	9,900	5,060	3,000	2,600
7	2,210	24,600	16,500	20,400	20,100	15,500	25,400	15,100	10,500	4,800	2,980	2,620
8	2,210	19,000	15,100	42,400	18,700	19,000	21,800	14,800	10,500	4,800	2,980	2,620
9	2,210	17,200	14,100	43,700	16,900	18,700	22,300	14,100	10,200	4,800	2,910	2,620
10	2,210	14,800	13,100	36,000	15,600	18,300	21,600	13,700	9,300	4,670	2,880	2,620
11	2,210	12,100	12,100	29,200	14,800	16,500	19,700	15,400	8,700	4,420	2,840	2,620
12	2,210	10,500	12,400	25,700	16,200	15,800	18,500	12,700	5,400	4,420	2,840	2,620
13	2,210	9,300	12,400	24,200	19,000	17,200	17,600	12,100	8,110	4,290	2,790	2,620
14	2,210	9,500	13,100	22,300	23,100	19,000	17,200	11,400	7,860	4,160	2,770	2,790
15	2,210	9,600	13,400	20,500	22,700	20,800	17,200	11,100	7,530	4,160	2,750	2,880
16	2,210	11,100	13,100	21,200	20,100	21,200	18,700	11,100	7,530	4,040	2,770	3,270
17	2,210	11,100	13,400	24,600	17,900	20,100	24,200	11,400	7,110	3,920	2,770	3,200
18	2,210	10,500	15,500	25,000	17,200	19,000	23,800	11,800	6,970	3,800	2,770	3,040
19	2,210	11,800	16,500	22,700	16,500	17,900	20,800	11,600	6,690	3,800	2,790	2,840
20	2,210	20,800	24,600	19,700	16,200	17,200	18,700	10,800	6,560	3,680	2,620	2,710
21	2,420	26,500	45,500	17,600	18,700	19,000	17,900	10,500	6,410	3,560	2,750	2,660
22	3,320	30,000	67,800	19,000	23,800	18,700	17,900	10,800	6,130	3,560	2,730	2,640
23	6,130	29,200	72,600	19,400	24,600	17,900	17,900	11,800	6,000	3,560	2,680	2,620
24	6,130	30,000	64,900	22,300	23,400	17,600	20,800	12,100	5,860	3,560	2,640	2,670
25	25,000	28,400	58,300	27,600	21,200	22,700	20,800	11,400	5,720	3,560	2,620	2,610
26	19,400	34,800	56,200	50,800	19,000	30,000	19,400	11,100	5,590	3,560	2,620	2,460
27	11,400	42,400	49,700	30,800	17,900	36,500	18,300	10,800	5,460	3,440	2,600	2,440
28	8,400	39,000	46,000	30,800	18,700	30,800	17,900	10,800	5,320	3,440	2,600	2,400
29	6,690	36,500	46,000	30,000	-	25,700	17,200	10,500	5,320	3,320	2,600	2,400
30	5,590	32,400	51,100	28,000	-	23,100	17,200	10,800	5,720	3,320	2,600	2,560
31	5,060	-	80,700	26,900	-	21,900	-	11,100	-	3,300	2,620	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acres-feet
October.....	145,740	25,000	2,210	4,637	0.988	1.10	286,100
November.....	615,230	42,400	5,060	20,540	4.24	4.73	1,222,000
December.....	972,900	72,600	12,100	31,380	6.48	7.47	1,930,000
Calendar year 1934.....	4,257,650	72,600	2,210	11,660	2.41	32.69	8,445,000
January.....	842,000	43,700	17,600	27,160	5.61	6.47	1,670,000
February.....	564,800	25,300	14,800	20,170	4.17	4.34	1,120,000
March.....	625,600	36,500	15,800	20,180	4.17	4.81	1,241,000
April.....	586,200	24,600	16,500	19,540	4.04	4.51	1,163,000
May.....	400,100	20,100	10,500	12,910	2.67	3.08	793,600
June.....	331,940	10,500	5,320	7,751	1.60	1.73	460,000
July.....	132,190	6,410	3,300	4,264	.681	1.02	262,200
August.....	87,420	3,250	2,600	2,820	.583	.67	173,400
September.....	79,910	3,270	2,560	2,664	.560	.61	158,600
Water year 1934-35.....	6,232,930	72,600	2,210	14,470	2.99	40.59	10,480,000

Willamette River at Salem, Oreg.

Location.— Water-stage recorder, lat. 44°58'40", long. 123°2'30", 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 by general adjustment of 1929. Prior to Nov. 7, 1934, staff gage 300 feet downstream at same datum.

Drainage area.— 7,280 square miles.

Records available.— October 1909 to December 1918, October 1927 to September 1935.

Average discharges.— 15 years (1909-18, 1927-35), 22,090 second-feet.

Extremes.— Maximum discharge during year, 119,000 second-feet Dec. 23 (gage height, 18.56 feet); minimum, 2,800 second-feet Oct. 2, 3, 18, 17; minimum gage height, -4.0 feet Sept. 10-13.

1909-18, 1927-35: 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).

Maximum known discharge (estimated), 500,000 second-feet Dec. 1, 1881 (gage height, about 39 feet). Flood of Feb. 5, 1890, reached a stage of 37.1 feet.

Remarks.— Records good. 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 1934-35 (gage height, in feet, and discharge, in second-feet)

Table for Oct. 1 to Dec. 22

-3.5	3,230	+2.0	19,300
-2.5	5,110	4.0	27,300
-1.5	7,790	6.0	37,100
0.0	12,400	8.0	49,100

Table for Dec. 23 to Sept. 30

0	12,900	8.0	49,100
+1.0	16,200	10.0	62,500
2.0	19,900	12.0	76,700
4.0	28,300	15.0	102,000
6.0	37,300	20.0	162,000

Discharge, in second-feet, water year October 1934 to September 1935

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2,940	9,280	55,700	69,500	40,500	28,700	33,200	33,200	16,900	9,830	4,460	3,400
2	2,800	11,100	53,000	54,300	39,900	27,800	30,100	33,200	16,200	11,100	4,270	3,400
3	2,800	20,700	46,500	44,000	39,900	25,600	27,400	30,100	15,500	9,830	4,270	3,290
4	2,940	35,000	39,300	37,800	39,400	24,800	27,800	27,400	14,900	8,590	4,270	3,290
5	3,080	49,100	34,500	35,900	35,800	25,200	31,400	25,600	14,800	8,010	4,100	3,290
6	3,080	55,700	30,500	35,400	35,000	25,600	35,900	25,600	15,200	7,440	4,100	3,180
7	2,940	47,800	27,300	52,400	33,200	27,800	35,500	25,600	15,900	7,180	3,940	3,180
8	2,940	42,800	24,700	63,200	31,000	28,700	33,200	24,800	15,600	7,150	3,940	3,290
9	2,940	39,300	25,100	65,300	27,800	27,800	32,800	25,600	15,900	7,150	3,940	3,180
10	2,940	50,500	21,100	57,000	25,200	26,900	31,900	23,100	15,200	6,990	3,790	3,080
11	2,940	24,700	20,400	45,800	23,900	24,800	30,100	22,700	13,800	6,630	3,790	3,080
12	2,940	20,700	21,500	39,900	25,600	23,900	29,300	21,500	13,100	6,380	3,790	3,080
13	2,940	18,500	20,700	42,800	30,100	25,500	29,300	19,900	13,100	6,140	3,790	3,080
14	2,940	17,400	21,900	34,100	35,000	29,400	28,800	18,800	12,800	5,600	3,560	3,290
15	2,940	18,200	21,900	31,400	34,600	26,300	28,300	18,900	12,400	5,900	3,520	3,520
16	2,800	18,500	21,100	31,900	31,400	26,800	29,200	19,200	12,100	5,670	3,520	3,940
17	2,800	19,500	21,900	35,500	28,700	24,100	33,700	19,200	11,400	5,670	3,520	4,100
18	2,940	17,800	25,200	35,900	27,400	32,300	35,000	19,900	10,800	5,480	3,520	4,100
19	2,940	17,800	27,300	33,200	26,900	30,100	31,900	19,500	10,500	5,240	3,520	3,790
20	2,940	31,000	50,900	29,600	26,600	29,200	29,200	18,000	10,100	5,240	3,520	3,650
21	3,080	45,800	67,800	26,900	31,000	30,100	28,300	17,700	9,850	5,030	3,650	3,520
22	5,110	49,100	103,000	29,600	39,400	29,200	28,700	18,400	9,510	5,030	3,520	3,520
23	8,980	53,000	118,000	31,900	42,600	28,300	29,600	19,900	9,200	4,830	3,520	3,520
24	24,700	52,400	113,000	35,800	39,400	27,400	32,300	19,500	8,890	4,830	3,520	3,400
25	51,100	49,800	105,000	46,900	55,000	38,800	32,800	18,400	8,590	4,830	3,520	3,400
26	40,400	59,000	93,000	49,800	31,400	57,000	31,000	17,700	8,010	4,830	3,400	3,290
27	24,300	68,100	84,500	50,900	29,200	65,300	30,100	17,700	7,720	4,640	3,400	3,290
28	17,100	69,500	73,700	49,100	29,200	49,600	30,100	17,500	7,440	4,640	3,290	3,290
29	13,400	63,200	75,100	47,800	-	41,000	28,700	16,900	7,440	4,450	3,290	3,290
30	11,100	55,700	87,000	44,600	-	37,800	28,700	16,900	8,010	4,450	3,290	3,180
31	9,560	-	82,100	42,800	-	35,900	-	17,500	-	4,450	3,290	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acres-feet
October.....	267,330	51,100	2,800	8,624	1.18	1.36	550,800
November.....	1,110,760	69,600	9,280	37,030	5.09	5.68	2,205,000
December.....	1,650,700	118,000	20,400	52,600	7.23	8.34	3,254,000
Calendar year 1934.....	7,208,700	121,000	2,760	19,750	2.71	36.84	14,500,000
January.....	1,331,400	69,500	26,900	42,950	5.90	6.80	2,641,000
February.....	916,200	42,800	23,900	32,720	4.49	4.68	1,817,000
March.....	1,026,900	58,300	23,900	33,130	4.55	5.25	2,037,000
April.....	921,800	35,900	27,400	30,730	4.22	4.71	1,828,000
May.....	667,500	33,200	16,900	21,530	2.96	3.41	1,324,000
June.....	361,740	16,900	7,440	12,080	1.66	1.85	717,500
July.....	193,400	11,100	4,450	6,239	.857	.99	385,600
August.....	114,900	4,450	3,290	3,706	.503	.59	227,900
September.....	101,910	4,100	3,080	3,397	.467	.52	202,100
Water year 1934-35.....	8,644,340	118,000	2,800	23,680	3.25	44.18	17,150,000

Salt Creek near Oakridge, Oreg.

Location.— Water-stage recorder, lat. 43°43'45", long. 122°25'25", in SW $\frac{1}{4}$ sec. 23, T. 21 S., R. 3 E., 0.7 mile above mouth and 2 miles southeast of Oakridge.

Drainage area.— 113 square miles.

Records available.— July 1913 to September 1914, October 1933 to September 1935.

Extremes.— Maximum discharge during year, 2,170 second-feet Dec. 20 (gage height, 5.92 feet); minimum, 83 second-feet Oct. 11 (gage height, 1.31 feet).
1913-14, 1933-35: Maximum discharge, that of Dec. 20, 1934; minimum, 77 second-feet July 17, 1934; minimum mean daily discharge, 82 second-feet Sept. 20, 21, 1934.

Remarks.— Records good except those for Oct. 27-30, Nov. 14-18, which are fair and were estimated on basis of records for station on Salmon Creek. No diversions above station; slight regulation. Water-stage recorder inspected by employee of U. S. Forest Service.

Rating tables, water year 1934-35 (gage height, in feet, and discharge, in second-feet)

Table for Oct. 1 to Dec. 19					Table for Dec. 20 to Sept. 30				
1.2	70	2.4	510	4.5	1,280	1.5	80	2.7	380
1.4	95	2.7	405	5.0	1,580	1.7	105	3.1	540
1.6	126	3.1	550	5.5	1,910	1.9	145	3.5	715
1.8	152	3.5	720			2.1	195	4.0	970
2.1	228	4.0	985			2.4	260	4.5	1,270

Discharge, in second-feet, water year October 1934 to September 1935

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	85	147	419	310	432	228	274	540	500	524	108	95
2	91	174	355	283	440	217	259	480	492	277	106	93
3	98	266	316	265	440	211	292	445	476	256	105	93
4	90	316	301	262	412	211	388	456	520	239	108	93
5	87	354	275	265	400	206	452	464	580	222	103	92
6	86	298	253	289	380	200	408	500	625	211	103	92
7	86	249	246	468	352	206	416	495	625	203	103	92
8	86	256	235	448	317	200	440	488	602	192	103	92
9	85	216	221	362	236	195	415	500	520	180	103	92
10	85	195	211	310	268	182	375	496	468	172	102	91
11	85	180	206	284	286	182	359	468	468	168	102	91
12	86	170	204	265	283	192	356	456	464	165	100	92
13	85	166	204	244	304	217	356	424	444	163	100	91
14	85	166	200	228	289	239	370	426	428	158	100	95
15	85	220	221	217	271	239	466	452	396	158	99	100
16	85	200	221	214	256	242	602	468	370	151	99	96
17	85	190	246	208	253	244	520	450	356	144	99	95
18	85	180	236	203	253	233	472	448	342	177	99	93
19	85	206	509	192	256	225	440	428	352	133	99	92
20	94	209	1,550	180	283	222	444	444	328	128	98	93
21	152	233	1,300	182	304	208	448	496	314	124	98	92
22	140	228	1,000	182	301	203	420	580	314	124	96	92
23	196	256	810	211	283	205	436	590	299	135	96	92
24	398	226	760	286	265	200	408	540	274	128	96	91
25	221	572	648	334	247	289	388	540	256	120	96	91
26	162	475	580	370	236	331	400	540	250	117	95	90
27	140	492	500	412	230	289	428	520	244	115	95	90
28	130	430	434	428	236	274	456	580	256	115	95	88
29	120	458	404	428	-	289	464	560	352	110	96	88
30	115	458	380	444	-	304	560	602	370	110	96	88
31	113	-	348	432	-	292	-	540	-	110	95	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acres-feet
October.....	3,627	398	85	117	1.04	1.20	7,190
November.....	8,155	572	147	272	2.41	2.69	16,180
December.....	15,926	1,650	204	449	3.97	4.58	27,620
Calendar year 1934.....	61,116	1,650	62	222	1.96	26.71	160,900
January.....	9,209	468	180	297	2.63	3.03	18,270
February.....	8,563	440	230	306	2.71	2.82	16,980
March.....	7,173	331	182	231	2.04	2.35	14,230
April.....	12,496	602	259	417	3.69	4.12	24,790
May.....	16,342	602	424	495	4.38	5.05	30,430
June.....	12,275	626	244	409	3.62	4.04	24,350
July.....	5,027	324	110	154	1.45	1.67	10,090
August.....	3,050	108	95	92.7	382	1.02	6,130
September.....	2,765	100	88	92.2	616	.91	5,480
Water year 1934-35.....	101,708	1,650	85	279	2.47	33.48	201,700

Salmon Creek near Oakridge, Oreg.

Location.— Water-stage recorder, lat. 43°45'25", long. 122°22'55", in SW $\frac{1}{4}$ sec. 7, T. 21 S., R. 4 E., a quarter of a mile above Slide Creek and 4 miles east of Oakridge.

Drainage area.— 116 square miles.

Records available.— October 1933 to September 1935. At station 2 miles downstream, below Flat Creek, February 1913 to September 1914. At station 1 mile below present gage October 1914 to October 1919.

Extremes.— Maximum discharge during water year 1933-34, 2,160 second-feet (revised) Jan. 23 (gage height, 4.72 feet).

Maximum discharge during water year 1934-35, 3,550 second-feet Dec. 20 (gage height, 6.09 feet); minimum, 107 second-feet Oct. 15, Sept. 28-30 (gage height, 1.15 feet).

1913-19, 1933-35: Maximum discharge, 8,400 second-feet (estimated) Jan. 12, 1918; minimum, 98 second-feet Oct. 30, 1915.

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

Records published for 1933-34 should be increased from 1 percent at 800 second-feet to 13 percent at 1,720 second-feet.

Rating table, water year 1934-35 (gage height, in feet, and discharge, in second-feet)

1.1	98	2.4	500	4.5	1,980
1.3	135	2.8	695	5.0	2,440
1.6	190	3.2	930	5.5	2,940
1.8	270	3.6	1,220	6.1	3,550
2.1	375	4.0	1,540		

Discharge, in second-feet, water year October 1934 to September 1935

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	111	218	750	486	780	375	399	750	496	330	152	120
2	124	294	630	461	810	361	387	670	482	296	152	120
3	131	468	555	431	810	358	423	615	473	280	152	118
4	118	695	522	419	780	350	640	595	504	267	152	118
5	114	780	478	407	750	340	780	630	560	256	148	116
6	112	615	451	464	695	333	670	670	595	246	146	116
7	112	504	447	645	645	350	645	645	560	243	146	116
8	112	473	443	615	590	316	670	635	550	239	141	116
9	111	411	423	552	527	308	625	640	491	227	141	116
10	109	358	407	473	482	294	575	620	447	224	137	116
11	109	322	403	443	500	291	540	580	443	218	135	116
12	111	294	411	411	486	316	545	532	436	215	137	116
13	111	277	427	387	421	350	560	514	419	212	135	116
14	109	267	460	368	468	383	595	519	407	209	135	124
15	109	294	431	350	439	391	760	536	391	206	135	131
16	112	267	423	347	419	387	1,000	550	375	201	135	124
17	111	260	460	340	415	387	870	570	364	196	146	120
18	109	253	427	326	419	376	780	522	350	193	135	118
19	107	308	304	306	431	361	722	496	350	183	133	116
20	135	347	3,040	291	466	354	695	504	333	185	133	116
21	198	447	2,160	288	565	356	695	565	322	183	131	114
22	180	411	1,620	284	565	326	645	645	322	183	129	114
23	349	407	1,300	316	532	322	670	635	305	206	129	114
24	1,000	411	1,260	383	491	316	645	685	291	196	127	112
25	496	1,260	1,070	478	455	403	620	570	280	183	127	112
26	330	1,040	930	545	431	447	640	570	277	180	126	111
27	256	1,040	810	630	407	403	670	550	270	175	124	109
28	218	870	695	670	399	383	695	636	280	163	124	109
29	196	870	625	695	-	399	722	565	336	158	124	107
30	180	810	580	750	-	423	780	570	347	155	122	107
31	176	-	527	722	-	415	-	527	-	154	122	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acres-feet
October.....	5,845	1,000	107	186	1.63	1.88	11,590
November.....	15,271	1,280	218	506	4.39	4.90	30,280
December.....	24,069	3,040	403	776	6.69	7.71	47,740
Calendar year 1934.....	121,682	3,040	107	333	2.87	39.03	241,400
January.....	14,252	750	284	460	3.97	4.68	28,270
February.....	15,268	810	399	545	4.70	4.89	30,280
March.....	13,133	447	291	359	3.09	3.56	22,080
April.....	19,658	1,000	397	665	5.65	6.30	38,980
May.....	18,110	750	496	594	5.03	5.80	35,920
June.....	12,085	595	270	403	3.47	3.87	23,970
July.....	6,572	330	154	212	1.83	2.11	13,040
August.....	4,211	152	122	136	1.17	1.35	8,350
September.....	3,478	131	107	116	1.00	1.12	6,900
Water year 1934-35.....	149,947	3,040	107	411	3.54	48.07	297,400

Coast Fork of Willamette River at Saginaw, Oreg.

Location.— Chain gage, lat. 43°50'5", long. 123°2'30", 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 by general adjustment of 1929.

Drainage area.— 529 square miles.

Records available.— October 1923 to September 1935 (incomplete 1924-27).

Extremes.— Maximum discharge during water year 1933-34, 12,400 second-feet Jan. 23 (gage height, 8.9 feet, from graph based on gage readings); minimum, 31 second-feet Aug. 24 (gage height, 0.74 foot).
Maximum discharge observed during water year 1934-35, 15,600 second-feet Dec. 20 (gage height, 9.88 feet); minimum, 25 second-feet Sept. 10-12 (gage height, 0.70 foot).
1923-35: Maximum discharge, 28,800 second-feet Feb. 20, 1927 (gage height, 12.9 feet); minimum, 7 second-feet July 31, 1928.

Remarks.— Records fair except those estimated and those for October 1933, July to September 1934, which are poor. No diversions or regulation above station. Gage-height record collected in cooperation with U. S. Weather Bureau.

Rating table, water years 1933-35 (gage height, in feet, and discharge, in second-feet)

0.7	25	1.7	440	3.5	2,270	6.0	5,950
.9	60	2.0	675	4.0	2,900	7.0	7,710
1.1	115	2.5	1,150	4.5	3,580	8.0	10,000
1.4	250	3.0	1,690	5.0	4,310	9.0	12,700

Discharge, in second-feet, water year October 1933 to September 1934

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	109	398	164	675	1,560	319	3,580	357	250	109	52	34
2	103	308	191	595	1,100	900	3,580	399	272	97	52	34
3	97	308	240	2,270	850	1,050	2,390	555	272	103	56	34
4	91	515	344	2,770	850	* 700	2,270	398	283	85	56	37
5	86	261	344	1,800	* 800	* 900	1,360	500	294	80	56	37
6	85	230	426	1,360	* 750	3,440	1,300	675	440	85	56	37
7	80	192	4,010	900	* 750	1,910	1,150	635	440	80	56	37
8	80	155	1,580	850	*1,200	1,250	850	675	440	80	52	37
9	80	147	850	718	*1,120	1,000	760	805	384	80	56	40
10	80	127	675	635	* 950	850	675	675	344	80	56	40
11	80	123	470	850	* 850	718	635	675	331	75	52	40
12	75	109	635	900	* 750	* 500	555	440	250	70	52	40
13	75	103	*900	2,510	* 670	* 400	485	426	210	60	52	40
14	75	97	2,390	4,010	* 595	* 340	470	370	191	65	52	44
15	75	109	2,390	3,030	555	* 300	440	344	173	65	52	44
16	75	97	1,690	2,270	515	* 270	398	305	164	65	52	40
17	75	97	1,260	1,910	515	240	370	294	155	65	52	37
18	75	97	5,790	1,900	485	340	294	147	60	48	37	40
19	75	97	4,620	2,390	440	200	318	283	139	65	48	37
20	75	109	3,860	4,310	398	182	294	272	151	60	48	37
21	85	131	2,900	3,720	370	191	283	250	123	60	44	40
22	91	109	2,900	5,270	364	173	283	294	123	60	44	40
23	85	97	2,510	9,750	412	173	357	240	115	60	40	40
24	85	91	1,910	6,630	398	191	455	250	115	60	32	48
25	85	97	1,470	4,010	370	240	370	220	155	56	40	48
26	91	86	*1,280	2,640	331	250	357	220	147	56	40	44
27	91	103	*1,060	2,150	384	294	344	240	139	56	40	44
28	109	109	900	*1,800	318	675	331	220	139	56	37	40
29	675	147	805	1,470	-	1,470	331	220	109	52	37	40
30	515	182	675	1,560	-	1,050	283	220	103	56	37	40
31	318	-	675	1,360	-	5,440	-	230	-	56	37	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acres-feet
October.....	3,675	675	75	125	0.236	0.27	7,690
November.....	5,614	398	85	160	*.302	.34	9,550
December.....	49,694	5,780	164	1,609	3.04	3.50	98,960
Calendar year 1933.....	480,669	17,700	48	1,317	2.49	33.78	953,400
January.....	75,713	9,750	595	2,475	4.68	5.40	152,200
February.....	18,470	1,560	318	680	1.25	1.53	36,650
March.....	25,789	3,440	173	767	1.45	1.67	47,180
April.....	25,618	3,580	263	854	1.61	1.80	50,010
May.....	11,960	805	220	356	.750	.84	23,720
June.....	6,558	440	103	219	.414	.46	13,010
July.....	2,157	109	52	69.6	.132	.15	4,280
August.....	1,484	56	32	47.9	.091	.10	2,940
September.....	1,187	48	34	39.6	.075	.08	2,350
Water year 1933-34.....	226,518	9,750	32	621	1.17	15.92	449,300

*Estimated.

Note.— Records for water year 1933-34 supersede those published in Water-Supply Paper 769.

Coast Fork of Willamette River at Saginaw, Oreg.

(Continued)

Discharge, in second-feet, water year October 1934 to September 1935

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	40	200	4,310	3,440	2,770	2,030	*1,600	2,270	426	240	52	37
2	40	1,690	3,030	2,150	2,510	1,800	1,580	1,690	344	200	52	40
3	56	5,780	2,270	1,800	2,150	1,580	2,390	1,360	331	182	48	37
4	52	3,580	1,910	1,800	1,910	1,470	3,860	1,360	318	164	48	37
5	48	3,860	*1,500	2,030	1,690	1,580	2,510	*1,200	318	155	48	38
6	48	1,800	1,360	1,800	1,580	1,580	2,640	1,100	305	147	48	31
7	40	1,150	1,100	7,170	1,360	1,800	2,270	950	283	139	*48	31
8	40	900	1,050	5,950	1,200	1,800	2,640	900	272	139	48	28
9	40	675	950	3,580	1,200	*1,600	2,390	850	240	123	48	28
10	40	635	850	2,770	1,150	1,470	2,270	760	230	115	48	25
11	40	384	*800	1,910	1,150	1,470	1,800	718	220	109	48	25
12	40	391	*790	1,910	1,360	1,470	1,800	675	220	103	48	25
13	40	370	*760	1,800	2,150	1,800	1,690	515	210	97	48	28
14	40	357	760	1,690	2,150	2,150	1,680	555	200	91	44	28
15	40	850	760	1,580	1,910	2,150	*2,000	675	200	91	44	56
16	40	1,000	1,000	2,030	1,690	2,150	4,460	675	200	*82	40	60
17	44	905	1,150	2,150	1,690	2,150	3,720	555	182	80	40	70
18	44	718	2,150	1,690	1,470	1,800	2,640	675	164	75	40	52
19	44	2,900	4,940	1,580	1,690	1,800	2,150	515	155	75	40	56
20	44	2,770	11,000	*1,400	1,690	1,690	1,800	440	155	75	44	48
21	103	3,030	7,530	*1,250	2,030	1,580	1,690	470	147	75	44	44
22	718	2,270	7,900	*1,200	2,030	1,470	2,510	500	147	70	48	44
23	515	3,150	6,810	1,360	1,580	1,690	1,910	470	200	70	40	40
24	6,480	2,900	7,530	5,610	1,580	2,770	2,270	426	182	70	*34	37
25	1,050	5,780	7,530	5,950	1,300	2,770	2,150	398	164	70	31	34
26	555	6,120	5,610	5,270	1,200	4,010	2,030	384	123	65	31	34
27	455	4,460	4,620	4,940	1,200	4,310	1,800	370	115	65	37	31
28	294	4,160	3,580	4,160	1,910	2,510	1,580	398	115	60	34	31
29	220	3,720	2,900	3,860	-	*1,700	1,470	398	147	56	34	31
30	182	3,030	4,010	3,300	-	*1,900	1,800	412	250	56	34	28
31	131	-	3,440	3,300	-	*1,700	-	370	-	52	34	-
Month		Second-foot-days		Maximum	Minimum	Mean	Per square mile	Run-off				
								Inches	Acre-feet			
October.....		11,543		6,460	40	372	0.703	0.81	22,900			
November.....		69,446		6,120	200	2,315	4.38	4.69	137,700			
December.....		103,890		11,000	760	3,351	6.33	7.30	206,100			
Calendar year 1934.....		352,813		11,000	32	967	1.83	24.80	699,900			
January.....		90,430		7,170	1,200	2,917	5.51	6.35	179,400			
February.....		47,500		2,770	1,150	1,699	3.19	3.32	93,820			
March.....		61,750		4,310	1,470	1,992	3.77	4.35	122,500			
April.....		67,000		4,460	1,470	2,233	4.22	4.71	132,900			
May.....		23,034		2,270	370	743	1.40	1.61	45,690			
June.....		6,563		426	115	219	.414	.46	13,020			
July.....		3,191		240	52	105	.195	.22	6,350			
August.....		1,325		52	31	42.7	.081	.09	2,630			
September.....		1,134		70	25	37.8	.071	.08	2,550			
Water year 1934-35.....		486,605		11,000	25	1,333	2.52	34.19	965,200			

*Estimated.

McKenzie River at McKenzie Bridge, Oreg.

Location.— Water-stage recorder, lat. 44°11', long. 122°7'30", in NE¼ sec. 18, T. 16 S., R. 6 E., 1.7 miles east of McKenzie Bridge. Zero of gage is 1,418.92 feet above mean sea level by general adjustment of 1929.

Drainage area.— 353 square miles (at measuring section three-quarters of a mile above gage).

Records available.— August 1910 to September 1935.

Average discharge.— 16 years (1913-14, 1915-16, 1918-21, 1922-25, 1926-35), 1,844 second-feet.

Extremes.— Maximum discharge during year, 5,210 second-feet Dec. 21 (gage height, 3.93 feet); minimum, 932 second-feet Oct. 14-19 (gage height, 0.94 foot).
1910-35: Maximum discharge, 18,000 second-feet Jan. 6, 1923 (gage height, 8.3 feet from high-water marks at former gage at highway bridge); minimum, 806 second-feet Oct. 20, 1931.

Remarks.— Records good except those for May 23 to June 19, which are fair and were estimated on basis of records for station near Vida. No diversions or regulation above station. Water-stage recorder inspected by employee of U. S. Forest Service.

Rating table, water year 1934-35 (gage height, in feet, and discharge, in second-feet)

0.9	910	1.7	1,600	3.0	3,560
1.0	965	2.0	1,980	3.4	4,270
1.2	1,110	2.3	2,390	3.8	5,020
1.4	1,280	2.6	2,860		

Discharge, in second-feet, water year October 1934 to September 1935

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	938	1,310	2,320	1,850	1,660	1,440	1,490	2,260	2,060	1,540	1,230	1,090
2	948	1,540	2,180	1,780	1,780	1,440	1,490	2,110	2,000	1,490	1,230	1,090
3	943	2,110	2,110	1,720	1,780	1,580	1,490	2,040	1,950	1,490	1,220	1,080
4	938	2,560	2,040	1,660	1,780	1,380	1,660	2,110	2,050	1,490	1,210	1,080
5	938	2,700	1,920	1,660	1,780	1,370	1,780	2,180	2,160	1,440	1,210	1,070
6	938	2,110	1,850	1,720	1,780	1,350	1,720	2,250	2,200	1,440	1,200	1,070
7	943	1,980	1,780	1,720	1,720	1,340	1,720	2,280	2,200	1,440	1,190	1,070
8	943	1,980	1,720	1,660	1,660	1,310	1,600	2,180	2,150	1,440	1,180	1,060
9	943	1,780	1,660	1,600	1,600	1,290	1,660	2,260	2,030	1,380	1,190	1,060
10	943	1,660	1,600	1,600	1,640	1,270	1,600	2,260	1,900	1,380	1,180	1,050
11	943	1,600	1,600	1,540	1,540	1,280	1,600	2,110	1,860	1,380	1,170	1,050
12	938	1,540	1,600	1,490	1,540	1,360	1,660	2,040	1,860	1,370	1,170	1,050
13	938	1,490	1,600	1,490	1,540	1,440	1,720	2,040	1,790	1,360	1,170	1,050
14	932	1,490	1,600	1,440	1,540	1,440	1,720	2,040	1,710	1,350	1,160	1,060
15	932	1,490	1,540	1,440	1,490	1,440	1,780	2,110	1,680	1,340	1,160	1,060
16	932	1,440	1,600	1,380	1,490	1,440	1,920	2,110	1,650	1,330	1,150	1,060
17	932	1,440	1,660	1,380	1,490	1,440	1,850	2,150	1,630	1,320	1,150	1,050
18	932	1,440	1,600	1,360	1,490	1,380	1,720	2,110	1,620	1,310	1,150	1,040
19	932	1,780	2,210	1,340	1,490	1,380	1,780	2,040	1,620	1,300	1,140	1,040
20	960	1,920	4,740	1,310	1,600	1,360	1,780	2,110	1,600	1,300	1,130	1,030
21	1,050	2,110	4,740	1,300	1,720	1,340	1,850	2,250	1,600	1,290	1,130	1,030
22	1,010	2,110	4,080	1,280	1,780	1,330	1,850	2,390	1,600	1,290	1,130	1,020
23	1,460	2,180	3,370	1,340	1,720	1,310	1,920	2,320	1,540	1,280	1,130	1,020
24	2,460	2,040	3,290	1,440	1,560	1,310	1,880	2,250	1,540	1,290	1,120	1,010
25	1,600	3,200	2,940	1,490	1,600	1,600	1,850	2,200	1,540	1,270	1,120	1,010
26	1,320	2,860	2,780	1,540	1,540	1,540	1,920	2,200	1,540	1,260	1,110	1,010
27	1,240	2,940	2,540	1,600	1,490	1,490	1,980	2,180	1,490	1,260	1,110	1,000
28	1,210	2,620	2,320	1,600	1,490	1,490	2,040	2,180	1,540	1,280	1,110	1,020
29	1,200	2,540	2,260	1,600	-	1,540	2,040	2,250	1,540	1,250	1,100	1,010
30	1,150	2,460	2,110	1,600	-	1,540	2,320	2,250	1,540	1,240	1,090	1,000
31	1,180	-	1,980	1,600	-	1,540	-	2,180	-	1,240	1,090	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acres-feet
October.....	33,696	2,480	932	1,087	3.08	3.55	66,840
November.....	60,300	3,200	1,310	2,010	6.99	6.35	119,600
December.....	71,350	4,740	1,540	2,501	6.52	7.52	141,500
Calendar year 1934.....	582,195	6,550	932	1,695	4.52	61.34	1,155,000
January.....	47,530	1,880	1,280	1,533	4.34	5.00	94,270
February.....	45,220	1,780	1,490	1,618	4.58	4.77	89,530
March.....	43,560	1,600	1,260	1,406	3.98	4.59	86,400
April.....	55,420	2,320	1,490	1,781	5.05	5.63	106,000
May.....	67,360	2,390	2,040	2,173	6.16	7.10	133,600
June.....	83,200	2,200	1,490	1,773	5.02	5.60	105,600
July.....	41,810	1,540	1,240	1,549	3.82	4.40	82,930
August.....	55,830	1,230	1,090	1,186	3.27	3.77	71,070
September.....	31,340	1,090	1,000	1,045	2.96	3.30	62,160
Water year 1934-35.....	584,656	4,740	932	1,602	4.54	61.58	1,160,000

WILLAMETTE RIVER BASIN

McKenzie River near Vida, Oreg.

Location.- Water-stage recorder, lat. 44°7'30", long. 122°28'10", 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 by general adjustment of 1929.

Drainage area.- 930 square miles.

Records available.- September 1924 to September 1935. At Martin Rapids (gage heights only) June 1910 to March 1911.

Average discharge.- 11 years (1924-35), 3,638 second-feet.

Extremes.- Maximum discharge during year, 23,400 second-feet Dec. 20 (gage height, 8.22 feet); minimum, 1,400 second-feet Oct. 14, 19 (gage height, 0.49 foot).
1924-35: 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 (estimated discharge, 60,000 second-feet).

Remarks.- Records excellent except those for Oct. 10 to Dec. 7, which are fair and were based chiefly on readings of tail-water gage at Leaburg power plant. Discharge interpolated July 6. No diversion or regulation above station. Water-stage recorder inspected by Eugene Water Board.

Rating table, water year 1934 (gage height, in feet, and discharge, in second-feet)

0.5	1,410	1.6	3,020	3.5	7,240	5.5	13,200
.7	1,670	2.0	3,720	4.0	8,600	6.0	15,000
1.0	2,080	2.5	4,730	4.5	10,100	7.0	18,900
1.3	2,540	3.0	5,950	5.0	11,600	8.0	22,600

Discharge, in second-feet, water year October 1934 to September 1935

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,410	2,680	6,510	4,620	6,200	3,630	4,000	6,350	4,300	3,020	1,940	1,680
2	1,460	4,200	5,620	4,500	6,460	3,460	3,820	5,580	4,200	2,730	1,940	1,670
3	1,530	7,240	5,040	4,000	6,720	3,450	3,910	5,080	4,100	2,700	1,940	1,670
4	1,450	8,840	4,740	3,910	6,200	3,360	5,460	5,080	4,300	2,620	1,940	1,660
5	1,420	8,600	4,440	4,000	6,080	3,280	6,460	5,450	4,620	2,540	1,870	1,660
6	1,410	5,700	4,150	5,480	5,820	3,190	5,580	5,700	4,730	2,540	1,870	1,640
7	1,410	4,620	4,010	5,460	5,450	3,190	5,320	5,450	4,730	2,540	1,870	1,640
8	1,420	4,730	3,250	5,700	4,840	3,100	5,320	5,320	4,510	2,460	1,670	1,640
9	1,420	4,100	3,630	4,840	4,300	3,020	4,960	5,450	4,100	2,460	1,670	1,630
10	1,440	3,540	3,450	4,500	4,000	2,940	4,510	5,200	3,820	2,380	1,670	1,630
11	1,420	3,280	3,450	4,000	4,200	2,660	4,400	4,960	3,720	2,380	1,670	1,630
12	1,450	3,020	3,450	3,920	4,200	3,450	4,730	4,510	3,720	2,380	1,670	1,620
13	1,440	2,900	3,840	3,630	4,730	4,200	4,960	4,400	3,540	2,300	1,670	1,600
14	1,400	2,840	3,630	3,450	4,400	4,200	5,080	4,510	3,450	2,300	1,670	1,680
15	1,420	2,960	3,450	3,560	4,100	4,000	5,700	4,620	3,360	2,300	1,670	1,790
16	1,450	2,780	3,450	3,560	3,820	3,320	6,980	4,730	3,280	2,300	1,800	1,700
17	1,440	2,780	4,000	3,280	3,820	3,720	6,080	5,080	3,190	2,230	1,800	1,660
18	1,420	2,720	3,920	3,190	3,910	3,650	5,450	4,730	3,100	2,230	1,800	1,620
19	1,400	2,940	6,260	3,020	4,100	4,480	5,200	4,510	3,100	2,160	1,800	1,620
20	1,680	6,170	19,900	2,860	4,750	3,450	5,200	4,510	3,020	2,160	1,790	1,600
21	2,420	7,020	16,500	2,860	5,950	3,280	5,450	4,960	2,940	2,160	1,770	1,580
22	2,230	5,840	17,300	2,660	5,820	3,190	5,200	5,450	2,940	2,160	1,770	1,580
23	5,110	6,170	11,000	3,540	5,820	3,100	6,200	5,320	2,680	2,160	1,760	1,580
24	10,100	5,680	11,300	4,730	4,620	3,100	5,700	4,960	2,780	2,160	1,760	1,580
25	4,740	10,600	9,170	5,320	4,200	5,180	5,320	4,540	2,700	2,080	1,740	1,680
26	3,100	9,020	8,320	5,680	3,910	5,080	5,680	4,840	2,700	2,080	1,740	1,570
27	2,540	9,210	7,240	6,080	3,720	4,200	5,820	4,730	2,620	2,080	1,720	1,550
28	2,230	7,560	6,200	6,080	3,720	3,910	5,700	4,620	2,700	2,080	1,720	1,570
29	2,080	7,020	5,820	5,950	-	4,300	5,700	4,840	2,940	2,010	1,720	1,670
30	2,010	6,680	5,680	6,080	-	4,620	6,720	4,840	3,020	2,010	1,710	1,550
31	2,010	-	5,080	5,950	-	4,500	-	4,620	-	2,010	1,700	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acre-feet
October.....	67,540	10,100	1,400	2,172	2.34	2.70	133,600
November.....	163,680	10,800	2,620	5,466	5.87	6.55	324,700
December.....	203,770	19,900	3,450	6,573	7.07	8.15	404,200
Calendar year 1934.....	1,297,670	21,500	1,400	3,555	3.92	51.87	2,574,000
January.....	136,590	6,460	2,860	4,406	4.74	5.46	270,900
February.....	155,220	6,780	3,720	4,829	5.19	5.40	268,200
March.....	113,650	2,660	3,666	3.66	3.94	4.54	225,400
April.....	160,500	6,980	3,820	5,350	5.75	6.42	318,300
May.....	155,220	6,330	4,400	5,007	5.38	6.20	307,900
June.....	105,090	4,730	2,620	3,503	3.77	4.21	208,400
July.....	71,770	3,020	2,010	2,315	2.49	2.87	142,400
August.....	56,420	1,940	1,700	1,820	1.96	2.28	111,900
September.....	46,770	1,790	1,550	1,626	1.75	1.95	96,730
Water year 1934-35.....	1,418,020	19,900	1,400	3,885	4.18	56.77	2,813,000

Long Tom River at Monroe, Oreg.

Location.- Staff gage, lat. $44^{\circ}18'55''$, long. $123^{\circ}17'45''$, in NE $\frac{1}{4}$ sec. 33, T. 14 S., R. 5 W., at Monroe, a quarter of a mile below mouth of Shafer Creek. Zero of gage is 261.97 feet above mean sea level.

Drainage area.- 391 square miles.

Records available.- November 1920 to September 1935; incomplete prior to 1928.

Average discharge.- 12 years (1921-25, 1927-35), 687 second-feet.

Extremes.- Maximum discharge observed during year, 7,860 second-feet Dec. 31 (gage height, 13.86 feet); minimum, 13 second-feet Oct. 3-5, 10-13, 17, Sept. 6, 7, 9-13.

1920-35: Maximum discharge, about 18,600 second-feet Jan. 7, 1923; minimum, 8 second-feet Sept. 5-19, 23, 1924.

Maximum stage known, about 19.5 feet in February 1890.

Remarks.- Records fair. No diversions above station. Some fluctuation at low stages owing to pondage at mill dam at Monroe.

Rating tables, water year 1934-35 (gage height, in feet, and discharge, in second-feet) (Shifting-control method used Oct. 1-23)

Table for Oct. 1 to Nov. 20

0.2	9	1.6	145	4.0	635
.4	18	2.0	206	5.0	885
.6	31	2.5	294	6.0	1,160
.9	59	3.0	396	7.0	1,460
1.2	93	3.5	510	8.0	1,760

Table for Nov. 21 to Sept. 30

0.3	12	2.0	225	7.0	1,460
.5	24	2.5	305	8.0	1,800
.7	43	3.0	388	9.0	2,150
.9	66	4.0	564	10.0	2,520
1.2	106	5.0	840	12.0	4,100
1.6	164	6.0	1,140	14.0	6,100

Discharge, in second-feet, water year October 1934 to September 1935

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	14	76	2,180	5,700	1,050	1,490	1,260	321	127	59	31	16
2	14	118	2,370	3,950	930	1,200	1,050	321	127	61	31	16
3	13	256	2,180	2,980	810	1,060	930	305	120	64	31	16
4	13	510	1,870	2,440	725	990	900	275	113	59	31	15
5	13	1,040	1,490	2,150	676	1,140	900	257	108	55	30	14
6	14	1,130	1,440	1,940	629	1,590	870	241	99	54	28	14
7	16	1,220	930	2,980	584	1,870	725	241	92	52	27	13
8	15	1,040	780	3,680	562	1,900	725	225	79	52	24	14
9	14	760	652	3,950	497	2,150	900	217	86	56	23	13
10	13	560	562	3,260	468	2,010	870	209	86	56	23	13
11	13	440	518	2,650	458	1,690	750	202	86	54	22	13
12	13	375	518	2,260	606	1,430	606	194	86	51	21	13
13	13	314	562	2,440	900	1,430	540	194	86	48	20	13
14	14	354	750	2,400	1,390	1,360	497	194	79	45	20	18
15	14	585	960	2,150	1,490	1,390	477	186	79	45	20	28
16	14	735	870	2,330	1,230	1,390	458	179	79	37	20	24
17	13	835	900	2,750	990	1,230	458	179	79	37	20	46
18	14	785	810	3,180	870	1,020	440	179	79	38	20	43
19	14	1,160	990	3,180	750	990	405	186	79	37	20	33
20	19	2,040	1,590	2,600	676	1,020	371	172	76	35	20	26
21	25	2,860	2,260	2,120	930	1,530	354	164	69	33	18	23
22	49	3,350	3,180	2,120	1,460	2,050	371	158	71	35	20	21
23	76	3,450	3,680	2,260	1,760	1,870	440	149	64	33	20	21
24	166	3,110	4,100	2,180	1,690	1,660	477	142	64	33	19	21
25	221	3,110	3,810	2,150	1,630	2,150	518	142	64	31	18	21
26	275	2,800	3,450	2,260	1,360	2,860	477	134	61	31	17	21
27	275	2,440	3,450	2,150	1,230	3,680	422	134	61	30	17	20
28	166	2,150	3,810	1,900	1,390	3,450	371	127	59	31	16	17
29	105	1,980	3,320	1,560	-	2,650	337	127	59	31	16	17
30	87	1,830	6,370	1,390	-	1,900	321	127	60	30	16	16
31	76	-	7,860	1,200	-	1,590	-	127	-	29	16	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acre-feet
October.....	1,801	275	13	58.1	6.149	0.17	3,570
November.....	41,413	3,450	76	1,380	3.53	3.94	82,140
December.....	70,312	7,860	518	2,288	5.80	6.69	139,500
Calendar year 1934.....	223,308	7,860	12	612	1.57	21.24	442,900
January.....	80,260	5,700	1,200	2,589	6.62	7.63	159,200
February.....	27,731	1,760	458	990	2.53	2.64	55,000
March.....	53,730	3,680	990	1,733	4.43	5.11	106,600
April.....	18,220	1,260	321	607	1.55	1.73	36,140
May.....	6,004	321	127	194	.496	.57	11,910
June.....	2,475	127	59	82.5	.211	.24	4,910
July.....	1,342	64	29	43.3	.111	.13	2,660
August.....	675	31	16	21.8	.056	.06	1,340
September.....	600	46	13	20.0	.051	.06	1,190
Water year 1934-35.....	304,663	7,860	13	534	2.13	28.97	604,200

WILLAMETTE RIVER BASIN

North Santiam River at Detroit, Oreg.

Location.— Water-stage recorder, lat. 44°43'25", long. 122°8'5", 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.— 226 square miles.

Records available.— January 1907 to October 1909, October 1928 to September 1935. Comparable records at gage above Boulder Creek near Hoover August 1910 to October 1913.

Extremes.— Maximum discharge during year, 6,120 second-feet Dec. 20 (gage height, 6.42 feet); minimum, 343 second-feet Oct. 5 (gage height, 0.56 foot).
1907-9, 1928-35: 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. Discharge interpolated Aug. 19. No diversions or regulation above station. Water-stage recorder inspected by employee of U. S. Forest Service.

Rating tables, water year 1934-35 (gage height, in feet, and discharge, in second-feet)

Table for Oct. 1 to Dec. 19

0.5	325	1.7	810
.7	390	2.1	1,040
.9	460	2.5	1,290
1.1	540	3.0	1,660
1.4	665	3.5	2,070

Table for Dec. 20 to Sept. 30

0.5	315	1.7	810
.7	370	4.0	2,560
.9	435	4.5	3,120
1.1	510	5.0	3,780
1.4	650	6.0	5,390

Discharge, in second-feet, water year October 1934 to September 1935

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	349	699	1,400	1,070	1,220	920	1,010	1,940	1,460	892	470	400
2	352	950	1,220	980	1,320	892	950	1,730	1,430	810	466	400
3	356	1,570	1,130	950	1,430	865	950	1,650	1,400	782	463	400
4	349	1,860	1,100	920	1,400	838	1,070	1,650	1,500	755	456	397
5	343	2,200	1,010	950	1,430	810	1,160	1,810	1,610	700	452	394
6	346	1,770	950	1,010	1,430	782	1,130	1,880	1,690	675	452	394
7	349	1,570	920	1,010	1,380	782	1,130	1,770	1,690	650	449	391
8	352	1,730	892	980	1,280	728	1,160	1,730	1,610	650	449	388
9	359	1,430	855	920	1,160	700	1,100	1,770	1,430	625	449	388
10	358	1,190	868	865	1,100	675	1,040	1,770	1,380	625	452	388
11	355	1,040	838	838	1,070	675	1,070	1,570	1,380	600	442	382
12	358	920	855	855	1,040	699	1,160	1,460	1,290	625	442	382
13	352	955	920	810	1,040	1,160	1,290	1,460	1,220	650	446	379
14	346	838	980	755	980	1,160	1,360	1,500	1,190	650	446	414
15	349	892	950	755	920	1,100	1,400	1,610	1,130	650	435	446
16	355	810	950	755	892	1,040	1,500	1,610	1,070	625	432	442
17	349	788	1,070	728	865	1,010	1,400	1,730	1,040	578	428	404
18	346	735	1,040	700	892	1,010	1,360	1,610	1,010	555	452	397
19	346	1,010	1,520	675	892	892	1,360	1,500	1,010	550	442	394
20	425	1,160	4,870	650	980	892	1,460	1,540	950	545	432	388
21	642	1,290	4,380	650	1,160	838	1,500	1,730	920	537	428	385
22	540	1,320	3,640	650	1,290	810	1,460	1,940	920	537	428	382
23	980	1,860	2,650	755	1,280	782	1,460	1,810	855	528	421	376
24	1,940	1,260	2,450	920	1,160	782	1,560	1,650	810	510	414	378
25	1,220	2,020	2,020	980	1,100	1,190	1,320	1,610	782	506	414	378
26	892	1,770	1,850	1,010	1,040	1,070	1,430	1,650	782	498	418	373
27	688	1,810	1,610	1,040	980	950	1,540	1,610	782	494	424	375
28	600	1,610	1,430	1,070	950	980	1,540	1,610	810	494	428	370
29	580	1,610	1,380	1,100	-	1,100	1,610	1,690	950	482	428	370
30	540	1,540	1,280	1,160	-	1,130	1,980	1,650	950	478	414	370
31	520	-	1,130	1,160	-	1,070	-	1,540	-	474	407	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acres-foot
October.....	18,236	1,940	543	584	2.32	2.68	32,210
November.....	39,534	2,200	675	1,321	5.85	6.68	78,610
December.....	48,118	4,870	838	1,552	6.87	7.92	95,440
Calendar year 1934.....	344,207	6,500	543	943	4.17	56.67	682,700
January.....	27,654	1,160	650	892	3.95	4.55	54,880
February.....	31,621	1,430	855	1,123	5.03	5.21	62,780
March.....	29,532	1,190	675	920	4.07	4.69	56,590
April.....	30,260	1,980	950	1,309	5.79	6.46	77,870
May.....	51,710	1,940	1,460	1,668	7.38	8.51	102,600
June.....	35,011	1,690	782	1,167	5.16	5.76	69,440
July.....	18,731	892	474	604	2.67	3.08	37,150
August.....	13,683	470	407	438	1.94	2.24	26,940
September.....	11,713	446	370	390	1.73	1.93	23,250
Water year 1934-35.....	361,805	4,870	543	991	4.38	59.56	717,600

North Santiam River at Mehama, Oreg.

Location.— Water-stage recorder, lat. 44°47'20", long. 123°37'10", in NW¼ sec. 18, T. 9 S., R. 2 E., at Mehama, half a mile below Little North Santiam River. Zero of gage is 601.78 feet above mean sea level by 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 1935.

Average discharge.— 18 years (1905-6, 1911-14, 1921-35), 3,293 second-feet.

Extremes.— Maximum discharge during year, 34,100 second-feet Dec. 20 (gage height, 11.7 feet); minimum, 400 second-feet Oct. 13 (gage height, 1.36 feet); minimum mean daily discharge, 518 second-feet Oct. 15.

1905-7, 1910-14, 1921-35: 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 mean daily discharge, 420 second-feet Sept. 18, 1924.

Remarks.— Records good except those above 10,000 second-feet, which are fair. Slight regulation of low-water flow by 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 1934-35 (gage height, in feet, and discharge, in second-feet) (Shifting-control method used Oct. 1-23)

1.5	475	3.5	3,040	6.0	9,150
1.7	620	4.0	4,030	6.5	10,800
2.0	985	4.5	5,140	7.0	12,600
2.5	1,440	5.0	6,550	8.0	16,800
3.0	2,160	5.5	7,690	10.0	28,700

Discharge, in second-feet, water year October 1934 to September 1935

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	546	2,660	6,350	3,320	5,370	2,850	3,620	6,350	3,040	2,580	772	590
2	553	5,490	5,260	3,320	5,980	2,670	3,250	5,140	2,940	1,920	754	590
3	581	7,970	4,670	3,040	5,980	2,670	3,140	4,680	2,650	1,670	734	582
4	560	8,280	4,350	2,940	5,490	2,580	3,720	4,690	3,040	1,550	727	568
5	546	9,450	3,920	3,420	5,370	2,490	4,570	5,140	3,420	1,400	718	568
6	539	6,610	3,520	4,280	5,260	2,320	4,030	5,260	3,520	1,320	700	560
7	539	7,410	3,320	4,680	4,680	2,240	3,820	4,800	3,520	1,270	700	568
8	553	8,260	3,140	4,240	4,030	2,160	3,820	4,460	3,520	1,280	694	560
9	567	5,730	2,940	3,620	3,520	2,000	3,520	4,570	2,650	1,210	676	560
10	553	4,350	2,670	3,250	3,140	1,920	3,520	4,460	2,650	1,150	676	560
11	539	3,520	2,580	3,040	3,250	1,850	3,320	3,920	2,690	1,120	668	560
12	553	3,040	2,850	2,760	3,140	3,960	4,030	3,520	2,490	1,120	660	552
13	553	2,670	2,940	2,490	3,720	6,870	4,690	3,420	2,400	1,170	652	552
14	532	2,490	3,140	2,320	3,320	5,610	4,680	3,620	2,240	1,170	644	512
15	518	2,670	2,940	2,240	3,040	4,800	4,680	3,920	2,160	1,160	636	790
16	553	2,400	2,850	2,240	2,850	4,140	5,370	3,920	2,000	1,130	628	727
17	553	2,240	3,320	2,160	2,850	3,820	4,690	4,140	1,920	1,030	636	684
18	539	2,080	3,720	2,000	3,140	3,420	4,240	3,920	1,850	965	608	612
19	525	4,460	6,870	1,850	3,320	3,250	4,140	3,520	1,850	935	678	598
20	665	6,550	25,500	1,710	3,980	3,040	4,570	3,520	1,710	925	652	575
21	2,170	6,870	15,400	1,790	5,490	2,780	4,800	4,140	1,640	915	644	575
22	2,010	6,480	13,400	2,080	5,980	2,580	4,680	4,680	1,640	905	656	568
23	7,210	7,140	10,400	3,380	5,260	2,490	5,260	4,240	1,620	885	628	545
24	15,800	6,100	11,100	6,980	4,460	2,490	4,800	3,720	1,400	856	620	552
25	7,970	9,780	8,550	6,100	3,820	7,140	4,570	3,520	1,540	838	618	552
26	5,020	7,970	7,410	5,850	3,420	5,610	5,020	3,620	1,320	828	605	552
27	3,250	8,850	6,220	5,730	3,140	4,240	5,490	3,620	1,310	809	605	545
28	2,400	7,410	5,260	5,610	3,040	3,820	5,140	3,420	1,570	818	605	538
29	1,920	7,410	5,730	5,260	-	4,460	5,020	3,620	1,700	809	612	531
30	1,700	6,870	5,020	5,370	-	4,680	6,610	3,620	2,490	781	612	524
31	1,580	-	4,140	5,140	-	4,030	-	3,320	-	765	605	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acres-foot
October.....	62,077	15,800	518	2,002	3.01	3.47	123,100
November.....	173,000	9,780	2,080	5,787	8.67	9.67	345,100
December.....	187,880	23,500	2,580	6,061	9.11	10.50	372,700
Calendar year 1934.....	1,078,125	24,700	518	2,954	4.44	60.24	2,138,000
January.....	111,480	6,100	1,710	3,596	5.41	6.24	221,100
February.....	115,960	5,980	2,850	4,141	6.23	6.49	230,000
March.....	108,940	7,140	1,850	3,614	5.28	6.09	216,900
April.....	132,570	6,610	3,140	4,419	6.65	7.42	262,900
May.....	128,480	6,350	3,320	4,145	6.25	7.16	254,800
June.....	69,010	3,520	1,310	2,287	3.41	3.80	134,900
July.....	35,272	2,580	765	1,138	1.71	1.97	69,960
August.....	20,447	772	605	660	.992	1.14	40,560
September.....	17,450	790	524	582	.875	.98	54,610
Water year 1934-35.....	1,161,566	23,500	518	3,182	4.78	64.95	2,304,000

Breitenbush River above French Creek, near Detroit, Oreg.

Location.— Water-stage recorder, lat. 44°45', long. 122°8'5", 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 1935. October 1910 to October 1913, fragmentary record below French Creek, comparable except for inflow from French Creek.

Extremes.— Maximum discharge during year, 7,060 second-feet Dec. 20 (gage height, 8.4 feet); minimum, 96 second-feet Oct. 11, 12 (gage height, 0.45 foot).
1932-35: 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. No diversions or regulation above station. Water-stage recorder inspected by employee of U. S. Forest Service.

Rating table, water year 1934-35 (gage height, in feet, and discharge, in second-feet)

0.4	90	1.3	260	3.0	1,060	6.0	3,870
.6	117	1.6	355	3.5	1,400	7.0	5,140
.8	148	2.0	510	4.0	1,780		
1.0	186	2.5	760	5.0	2,720		

Discharge, in second-feet, water year October 1934 to September 1935

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	102	549	820	510	850	466	546	1,060	625	398	178	122
2	107	910	678	474	970	446	619	910	625	348	170	120
3	110	1,260	625	438	1,000	434	514	850	600	341	166	120
4	104	1,530	625	438	910	414	625	910	678	327	164	118
5	102	1,860	555	462	970	390	600	1,030	790	311	161	117
6	100	1,350	519	494	940	389	578	1,030	820	296	157	117
7	100	1,460	486	478	790	355	800	940	820	281	155	116
8	103	1,470	454	454	705	341	800	910	760	278	152	114
9	102	940	418	414	625	324	555	910	625	269	150	114
10	99	705	394	386	578	314	528	850	600	263	148	113
11	98	578	398	376	555	308	555	760	600	266	146	113
12	100	494	450	355	537	762	705	678	578	293	145	113
13	100	450	494	334	555	1,090	820	678	555	317	142	115
14	98	426	502	317	524	880	820	732	528	320	140	134
15	100	442	490	311	474	705	820	790	474	314	140	157
16	107	386	510	311	450	650	850	790	450	290	138	148
17	102	362	600	299	450	578	760	790	466	252	138	130
18	99	352	578	281	506	542	705	705	446	233	152	123
19	98	600	1,400	266	532	514	732	678	474	223	146	118
20	177	850	4,660	255	600	478	850	705	422	223	137	117
21	400	940	3,160	265	760	450	880	880	406	223	134	116
22	302	970	2,320	272	850	438	820	1,000	426	216	132	114
23	1,490	1,000	1,620	440	732	414	850	850	363	208	130	113
24	3,080	880	1,620	760	650	570	790	732	338	201	129	111
25	1,580	1,660	1,190	790	578	910	790	732	327	195	128	111
26	910	1,220	1,030	760	528	650	910	760	341	188	126	110
27	542	1,160	850	760	494	555	1,030	760	348	184	124	107
28	406	970	732	760	478	600	970	732	386	190	124	106
29	330	1,000	678	732	-	705	970	790	490	182	124	106
30	293	970	625	790	-	678	1,160	732	482	176	124	104
31	281	-	555	790	-	625	-	650	-	176	123	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acres-feet
October.....	11,702	3,060	98	377	3.49	4.02	23,210
November.....	27,724	1,860	352	924	8.56	9.55	54,990
December.....	30,126	4,660	394	972	9.00	10.38	59,760
Calendar year 1934.....	198,895	5,270	95	545	5.05	68.44	394,500
January.....	14,770	790	255	476	4.41	5.08	29,300
February.....	18,591	1,000	450	564	6.15	6.40	35,870
March.....	16,955	1,090	308	547	5.06	5.83	33,650
April.....	22,452	1,160	514	748	6.93	7.73	44,530
May.....	25,354	1,060	650	818	7.57	8.73	50,290
June.....	15,842	820	327	528	4.89	5.46	31,420
July.....	7,982	398	176	257	2.38	2.74	15,830
August.....	4,421	178	123	143	1.32	1.62	8,770
September.....	5,555	167	104	118	1.09	1.22	7,010
Water year 1934-35.....	199,454	4,660	98	546	5.06	68.66	395,600

Little North Santiam River near Mehama, Oreg.

Location.— Staff and wire-weight gages, lat. 44°47'30", long. 122°34'20", in NW¼ sec. 18, 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 by general adjustment of 1929.

Drainage area.— 110 square miles.

Records available.— October 1931 to September 1935. Comparable records at station 4 miles upstream July to September 1924, July to September 1931.

Extremes.— Maximum discharge observed during year, 10,400 second-feet Oct. 24 (gage height, 10.96 feet); minimum, 24 second-feet Sept. 12, 13 (gage height, 2.11 feet). Maximum stage on Dec. 20 was probably higher than on Oct. 24.
1924, 1931-35: 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 during periods of rapidly changing stage, which are poor. No regulation or diversions above station.

Rating table, water year 1934-35 (gage height, in feet, and discharge, in second-feet)

2.0	15	3.4	203	6.0	1,620
2.2	32	3.8	330	6.5	2,160
2.4	51	4.2	500	7.0	2,800
2.6	72	4.6	695	8.0	4,400
2.8	95	5.0	905	9.0	6,240
3.1	138	5.5	1,210	11.0	10,400

Discharge, in second-feet, water year October 1934 to September 1935

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	31	695	1,530	795	1,440	522	745	1,280	390	645	51	29
2	32	1,820	1,210	695	1,530	478	645	960	390	410	50	29
3	32	2,280	1,020	645	1,360	478	620	850	370	278	50	28
4	36	2,160	1,020	595	1,280	455	905	850	390	216	50	28
5	32	2,400	1,020	850	1,210	432	1,080	960	432	190	49	28
6	30	1,360	795	1,620	1,080	410	850	960	432	178	49	28
7	32	2,530	695	1,360	905	410	795	795	455	167	47	28
8	31	2,530	645	1,140	745	370	745	745	370	178	43	28
9	30	1,440	595	960	645	330	695	795	295	156	41	28
10	30	1,020	522	795	570	330	646	695	260	138	41	27
11	28	795	500	695	595	312	695	645	260	130	41	25
12	30	645	570	645	545	1,140	905	522	260	122	39	24
13	32	570	595	620	795	2,400	1,080	478	260	122	38	24
14	32	500	570	500	695	1,530	960	595	260	115	37	47
15	32	500	522	455	620	1,140	905	695	278	102	37	68
16	37	455	645	455	570	960	1,140	645	230	95	36	78
17	40	410	905	410	620	905	960	695	216	89	34	78
18	33	370	795	370	745	795	795	695	205	83	43	50
19	32	1,080	1,620	1,080	795	695	795	870	178	83	47	36
20	51	2,280	7,390	312	1,020	645	905	695	167	83	40	36
21	745	2,040	4,400	350	1,440	570	1,020	695	156	78	37	34
22	645	1,720	3,090	478	1,530	522	905	695	156	72	36	34
23	7,000	1,820	2,400	1,140	1,140	500	1,210	620	147	70	36	32
24	7,790	1,620	3,890	2,160	950	478	1,020	478	130	65	34	30
25	3,080	3,400	2,160	2,160	795	2,040	1,020	478	130	61	34	30
26	1,620	1,820	1,820	1,930	645	1,360	1,140	500	122	61	32	29
27	905	2,940	1,210	1,820	620	960	1,140	478	122	59	30	28
28	620	1,820	745	1,720	595	850	1,020	455	122	61	29	28
29	500	2,160	1,360	1,530	-	1,080	960	500	190	68	32	27
30	410	1,720	1,080	1,530	-	1,080	1,620	500	216	60	29	27
31	560	-	960	1,620	-	850	-	432	-	54	28	-
Month				Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off			
									Inches	Acres-feet		
October.....				24,338	7,790	28	785	7.14	8.23	48,270		
November.....				47,100	3,400	370	1,670	14.3	15.95	93,420		
December.....				46,279	7,390	500	1,493	13.6	15.68	91,790		
Calendar year 1934.....				257,132	7,790	21	704	6.40	67.01	510,000		
January.....				30,425	2,160	312	981	8.92	10.28	60,550		
February.....				25,380	1,530	545	906	8.24	8.66	50,540		
March.....				28,027	2,400	312	807	7.34	8.46	49,640		
April.....				27,920	1,620	620	931	8.46	9.44	56,380		
May.....				20,858	1,280	432	673	6.12	7.06	41,370		
June.....				7,887	455	122	253	2.30	2.67	15,050		
July.....				4,287	645	54	138	1.25	1.44	8,500		
August.....				1,220	51	26	39.4	.368	.41	2,420		
September.....				1,046	78	24	34.6	.317	.35	2,070		
Water year 1934-35.....				261,465	7,790	24	716	6.51	68.46	518,600		

WILLAMETTE RIVER BASIN

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 (revised) above Hamilton Creek. Zero of gage is 370.2 feet above mean sea level. Prior to Nov. 13, staff gage at same location and datum.

Drainage area.— 640 square miles.

Records available.— July 1905 to March 1907, October 1910 to December 1911, July 1923 to September 1935.

Average discharge.— 13 years (1905-6, 1923-35), 2,745 second-feet.

Extremes.— Maximum discharge during year, 29,900 second-feet Dec. 20 (gage height, 13.25 feet); minimum, 111 second-feet Sept. 10-13 (gage height, 2.00 feet). 1905-7, 1910-11, 1923-35: Maximum discharge, 70,000 second-feet Mar. 31, 1931 (gage height, 22.0 feet); minimum, 100 second-feet several days in September, October, November, 1925.

Remarks.— Records good. Discharge estimated Nov. 12. No diversions or regulation above station. Gage-height record collected in cooperation with U. S. Weather Bureau.

Rating table, water year 1934-35 (gage height, in feet, and discharge, in second-feet)

2.0	111	2.9	680	4.5	2,830	7.0	8,610
2.2	178	3.2	1,000	5.0	3,770	8.0	11,600
2.4	280	3.6	1,490	5.5	4,850	9.0	14,300
2.6	420	4.0	2,040	6.0	6,000	10.0	18,100
						12.0	25,300

Discharge, in second-feet, water year October 1934 to September 1935

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	141	1,240	6,490	4,180	6,000	3,010	3,570	5,290	1,580	1,280	235	139
2	141	4,390	5,180	3,570	6,490	2,740	3,100	4,080	1,490	934	230	132
3	141	10,700	4,280	3,190	6,490	2,660	3,100	3,480	1,410	740	224	132
4	215	5,290	4,080	3,010	5,760	2,680	4,390	3,280	1,460	652	215	126
5	160	8,330	3,480	3,570	5,620	2,500	6,000	3,480	1,620	585	201	123
6	141	6,000	3,100	5,280	5,060	2,340	4,940	3,570	1,680	542	192	120
7	141	6,740	2,830	7,780	4,500	2,420	4,390	3,190	1,610	517	187	120
8	141	6,740	2,580	6,490	3,970	2,260	4,280	3,010	1,450	551	183	117
9	141	4,390	2,420	5,180	3,260	2,120	3,970	3,010	1,260	500	183	114
10	141	3,190	2,260	4,180	2,830	1,970	3,480	2,830	1,140	460	178	111
11	141	2,830	2,120	3,770	3,100	1,630	3,260	2,580	1,110	456	178	111
12	141	2,300	2,190	3,360	3,100	4,020	3,670	2,260	1,080	420	178	111
13	141	1,970	2,120	3,010	4,080	7,260	2,120	2,120	1,050	405	178	111
14	141	1,830	2,190	2,740	3,970	5,760	3,970	2,190	978	362	174	141
15	141	2,120	2,040	2,500	3,280	5,160	4,180	2,340	999	368	171	360
16	141	1,900	1,900	2,580	2,920	4,500	5,180	2,340	901	345	171	352
17	148	1,760	2,740	2,580	2,920	4,080	4,500	2,500	868	352	171	306
18	148	1,660	2,920	2,260	3,100	3,670	3,670	2,420	813	318	178	215
19	141	4,620	5,040	2,040	3,190	3,190	5,670	2,120	791	312	201	178
20	148	7,260	21,300	1,630	4,080	3,100	3,570	2,040	750	300	201	160
21	1,120	8,050	14,500	1,900	6,240	2,630	3,770	2,260	710	293	174	152
22	2,190	6,990	12,800	2,120	6,490	2,680	3,480	2,580	680	264	167	148
23	10,700	7,510	10,700	3,010	5,640	2,580	4,390	2,340	652	274	160	141
24	17,600	6,990	13,200	5,640	4,610	2,500	4,180	2,040	614	268	160	139
25	7,260	14,200	10,400	6,490	3,870	7,500	3,770	1,900	576	263	156	132
26	3,380	10,100	8,330	6,490	3,360	6,990	3,870	1,900	551	258	152	129
27	2,190	11,600	6,990	6,740	3,100	4,830	4,180	1,830	534	252	148	126
28	1,490	8,330	5,640	6,490	3,190	4,080	3,870	1,760	526	252	148	123
29	1,240	7,510	6,740	6,240	-	4,390	3,770	1,830	670	265	141	117
30	1,120	6,740	6,490	6,240	-	4,720	5,060	1,830	1,080	226	141	114
31	1,000	-	5,060	5,680	-	4,080	-	1,750	-	241	138	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acres-foot
October.....	52,114	17,500	141	1,681	2.63	3.03	105,400
November.....	174,860	14,200	1,240	5,775	9.02	10.06	343,700
December.....	188,110	21,300	1,900	5,975	9.18	10.68	361,200
Calendar year 1934.....	912,414	21,300	126	2,500	3.91	55.03	1,810,000
January.....	130,360	7,780	1,830	4,206	6.57	7.57	258,600
February.....	119,960	6,490	2,630	4,264	5.69	6.87	237,900
March.....	114,240	7,600	1,830	3,685	5.75	6.64	226,600
April.....	121,430	6,000	3,100	4,048	6.32	7.05	240,900
May.....	80,130	5,290	1,730	2,585	4.04	4.66	158,900
June.....	30,623	1,680	526	1,021	1.60	1.78	60,740
July.....	13,277	1,260	241	428	.669	.77	26,350
August.....	5,514	235	138	178	.278	.32	10,940
September.....	4,608	360	111	155	.239	.27	9,120
Water year 1934-35.....	1,027,616	21,300	111	2,615	4.40	59.70	2,038,000

Middle Santiam River near Foster, Oreg.

Location.- Water-stage recorder, lat. 44°27'30", long. 122°31'30", in SE 1/4 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 1935.

Extremes.- Maximum discharge during year, 21,700 second-feet Dec. 20 (gage height, 15.2 feet); minimum, 87 second-feet Sept. 12, 13, 29, 30 (gage height, 1.39 feet). 1931-35: Maximum discharge, 29,500 second-feet Mar. 18, 1932 (gage height, 17.84 feet); minimum, 62 second-feet Oct. 9, 1932.

Remarks.- Records good except those for Oct. 4 to Nov. 12, Nov. 15 to Jan. 6, Jan. 21 to Feb. 28, which are poor and were estimated on basis of records for station at Waterloo. No regulation or diversions above station.

Rating table, water year 1934-35 (gage height, in feet, and discharge, in second-feet)

1.3	58	3.0	405	5.5	1,940
1.5	80	3.5	600	6.0	2,400
1.7	105	4.0	855	6.5	2,920
2.0	152	4.5	1,160	7.0	3,510
2.5	260	5.0	1,530	7.5	4,190

Discharge, in second-feet, water year October 1934 to September 1935

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	70					1,530	1,730	2,600	800	622	133	78
2	80					1,370	1,530	2,080	772	480	129	76
3	102					1,300	1,610	1,810	745	375	125	75
4				1,850		1,220	2,450	1,850	828	353	122	73
5						1,160	2,920	2,030	910	504	118	72
6						1,090	2,400	1,980	910	282	116	70
7				2,810		1,060	2,160	1,770	855	293	113	69
8			2,980	2,400		970	2,080	1,690	745	307	111	68
9				1,980		910	1,850	1,690	645	288	109	68
10				1,690		855	1,690	1,670	600	248	106	68
11				1,530		828	1,690	1,370	578	233	104	68
12				1,370		3,230	2,120	1,200	555	224	102	67
13				1,230		4,190	2,260	1,160	515	214	98	67
14			1,160	1,120		3,030	2,210	1,230	507	203	97	114
15			1,060	1,060		2,600	2,350	1,340	491	194	96	240
16				1,030		2,160	2,810	1,340	454	188	95	192
17		1,070		970		1,940	2,550	1,450	426	180	95	149
18				882		1,730	2,030	1,300	399	174	106	108
19				800		1,570	1,940	1,160	384	170	113	95
20				745		1,450	2,030	1,200	363	165	101	87
21						1,300	2,120	1,370	345	159	96	84
22						1,230	2,080	1,530	336	156	92	81
23						1,120	2,400	1,300	315	152	90	79
24						1,160	2,160	1,090	295	149	87	76
25						4,050	2,030	1,060	279	145	85	74
26						2,810	2,260	1,060	274	142	84	73
27						2,080	2,400	1,030	265	140	82	70
28						1,850	2,160	1,000	268	152	81	69
29						2,260	2,160	1,030	416	147	80	67
30						2,300	2,920	670	370	137	80	67
31						1,980	-	882	-	133	80	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acres-feet
October.....	30,212	-	-	975	3.80	4.15	59,920
November.....	102,140	-	-	3,405	12.6	14.06	202,600
December.....	101,680	-	-	3,280	12.1	13.95	201,700
Calendar year 1934.....	517,155	15,000	64	1,417	5.23	70.97	1,026,000
January.....	64,267	-	745	2,073	7.65	8.82	127,500
February.....	65,560	-	-	2,270	8.38	8.73	126,100
March.....	56,243	4,190	828	1,814	6.69	7.71	111,600
April.....	64,900	2,920	1,530	2,163	7.98	8.90	128,700
May.....	44,142	2,600	882	1,424	5.25	6.05	87,550
June.....	16,945	910	265	531	1.96	2.19	31,630
July.....	7,039	622	133	227	.838	.97	13,960
August.....	3,126	133	80	101	.373	.45	6,200
September.....	2,644	240	67	88.1	.325	.36	5,240
Water year 1934-35.....	555,998	-	67	1,523	5.62	76.32	1,105,000

*Estimated.

Albany power canal near Lebanon, Oreg.

Location.— Staff gage, lat. 44°32'55", long. 122°54'20", in SW $\frac{1}{4}$ 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 1935. February to December 1919 at station near Albany.

Extremes.— Maximum discharge observed during year, 304 second-feet Apr. 17, 22-26, May 1-10 (gage height, 3.50 feet); no flow part of day Sept. 20.
1919, 1926-35: Maximum discharge, that of Apr. 17, 22-26, May 1-10, 1935; no flow at times.

Remarks.— Records fair. Gage read about three times a week; discharge estimated or interpolated on days gage was not read. This canal diverts from South Santiam River at Lebanon and discharges into Calapooya River at mouth. Lebanon Ditch discharges into canal just below canal intake. Water is used for power and water supply at Albany. Gage readings furnished by Mountain States Power Co.

Discharge, in second-feet, water year October 1934 to September 1935

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	135	266	82	278	278	284	284	304	296	291	189	94
2	130	266	82	278	280	284	286	304	293	291	186	82
3	125	266	82	272	282	284	291	304	291	291	182	90
4	120	266	82	266	284	284	288	304	294	288	179	86
5	116	266	82	270	284	284	284	304	298	284	175	82
6	116	266	82	274	284	284	284	304	294	284	165	82
7	116	266	82	278	284	284	284	304	291	284	155	82
8	116	266	82	278	284	284	284	304	291	284	150	80
9	109	266	82	278	284	284	284	304	291	284	145	78
10	102	133	82	272	284	284	284	304	291	284	142	76
11	102	53	82	266	284	284	284	302	291	281	138	74
12	102	53	82	261	284	284	284	300	291	278	135	74
13	102	53	82	256	284	284	286	298	291	270	128	74
14	102	53	82	252	284	284	289	298	291	262	120	100
15	102	53	82	247	284	284	291	298	291	254	116	230
16	102	53	139	242	284	284	298	298	291	248	112	236
17	102	53	278	242	284	284	304	298	291	242	112	211
18	107	53	266	242	284	284	298	298	288	242	112	186
19	112	53	254	250	284	284	291	298	284	242	112	170
20	112	53	254	258	284	284	295	298	286	240	112	110
21	254	53	254	266	284	284	300	298	287	238	112	148
22	266	53	258	266	284	284	304	298	288	236	114	142
23	266	53	262	266	282	286	304	298	290	228	116	135
24	266	63	266	275	280	289	304	298	291	219	113	128
25	260	72	266	284	278	291	304	293	291	216	110	120
26	254	82	266	284	281	288	304	289	291	214	107	105
27	264	78	272	284	284	284	302	284	291	212	104	90
28	274	74	278	284	284	288	300	288	291	210	102	86
29	284	78	278	281	-	291	298	291	291	208	100	82
30	275	82	278	278	-	289	301	284	291	200	98	78
31	266	-	278	278	-	286	-	298	-	192	96	-
Month	Second-foot-days				Maximum	Minimum	Mean	Run-off in acre-feet				
October.....	5,159				284	102	166	10,230				
November.....	3,745				266	53	125	7,430				
December.....	5,377				278	82	173	10,670				
Calendar year 1934.....	-				-	-	204	147,300				
January.....	8,306				284	242	268	16,470				
February.....	7,925				284	278	283	15,720				
March.....	8,840				291	284	285	17,530				
April.....	8,798				304	284	293	17,460				
May.....	9,255				304	284	296	18,360				
June.....	8,727				298	284	291	17,310				
July.....	7,797				291	192	252	15,470				
August.....	4,037				199	96	130	8,010				
September.....	3,421				236	74	114	6,790				
Water year 1934-35.....	81,385				304	53	225	161,400				

Luckiamute River near Hoskins, Oreg.

Location.- Water-stage recorder, lat. 44°43'10", long. 123°30'10", in NE¼ sec. 11, T. 10 S., R. 7 W., a quarter of a mile below Benton County line and ¾ miles northwest of Hoskins. Zero of gage is 378.7 feet above mean sea level by river profile survey.

Drainage area.- 34 square miles.

Records available.- May 1934 to September 1935.

Extremes.- Maximum discharge during year, 2,000 second-feet Dec. 20 (gage height, 7.50 feet); minimum, 8 second-feet Sept. 9.

1934-35: Maximum discharge, that of Dec. 20, 1934; minimum, 7 second-feet Sept. 2-5, 10, 21, 22, 1934.

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

Rating table, water year 1934-35 (gage height, in feet, and discharge, in second-feet)

0.6	5	3.0	390
0.8	9	3.5	535
1.1	22	4.0	685
1.4	52	4.5	855
1.7	96	5.0	1,030
2.0	150	5.5	1,210
2.5	265	6.5	1,600

Discharge, in second-feet, water year October 1934 to September 1935

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	8	378	505	520	255	191	238	122	39	30	16	9
2	9	680	445	445	235	175	214	115	39	26	14	9
3	11	960	378	378	214	178	226	108	37	24	14	9
4	9	872	328	378	202	182	235	103	35	21	14	9
5	9	1,210	280	365	189	184	216	96	34	21	14	8
6	8	1,110	245	625	169	228	202	91	32	20	14	8
7	8	1,140	216	685	156	288	191	86	32	22	13	8
8	8	890	198	580	148	262	180	83	33	22	12	8
9	9	595	178	475	137	230	165	78	33	21	11	8
10	8	415	165	390	131	207	156	76	32	19	11	8
11	8	328	182	365	148	193	148	72	30	18	11	8
12	8	272	175	315	171	972	139	70	29	18	11	8
13	8	252	163	285	298	1,110	133	65	28	17	11	8
14	8	278	152	255	300	670	127	64	28	16	11	43
15	8	278	150	240	282	505	124	61	29	16	11	25
16	8	252	167	255	250	402	126	68	30	15	11	35
17	8	228	189	242	233	352	115	86	28	15	11	18
18	8	228	214	216	211	310	108	66	26	14	19	14
19	8	715	551	200	193	288	103	60	26	14	14	12
20	64	802	1,450	189	202	282	106	56	24	14	12	12
21	104	685	1,210	221	270	258	124	52	23	14	11	11
22	85	640	1,140	445	378	280	234	49	22	13	11	11
23	659	685	1,320	995	378	250	315	49	22	13	10	11
24	700	670	1,030	995	328	468	252	48	21	14	10	10
25	960	685	732	715	282	1,170	216	46	21	13	9	10
26	580	595	732	565	248	785	189	45	20	13	9	10
27	315	655	625	460	230	520	165	43	20	13	9	9
28	216	565	565	390	209	415	150	43	23	16	9	9
29	188	460	925	340	-	352	140	44	20	16	9	9
30	156	508	820	310	-	306	137	43	39	15	10	9
31	191	-	625	278	-	270	-	40	-	16	9	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acres-feet
October.....	4,556	960	8	141	4.15	4.78	8,640
November.....	18,028	1,210	228	601	17.7	19.75	35,760
December.....	16,055	1,450	150	518	15.2	17.52	31,840
Calendar year							
January.....	13,117	995	189	423	12.4	14.30	26,020
February.....	5,445	378	131	230	6.76	7.04	12,760
March.....	12,265	1,170	175	396	11.6	13.37	24,350
April.....	5,174	315	103	172	5.06	5.64	10,260
May.....	2,128	122	40	68.6	2.02	2.33	4,220
June.....	881	46	20	29.4	.865	.97	1,750
July.....	539	30	13	17.4	.512	.59	1,070
August.....	361	19	9	11.6	.341	.39	716
September.....	366	43	8	12.2	.359	.40	726
Water year 1934-35.....	79,715	1,450	8	218	6.41	87.08	168,100

WILLAMETTE RIVER BASIN

South Yamhill River near Willamina, Oreg.

Location.- Water-stage recorder, lat. 45°3'10", long. 123°30'10", 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 by general adjustment of 1929.

Drainage area.- 136 square miles.

Records available.- May 1934 to September 1935.

Extremes.- Maximum discharge during year, 5,830 second-feet Nov. 6 (gage height, 8.40 feet); minimum, 5 second-feet Sept. 23 (gage height, 0.38 foot).

Remarks.- Records good except those for May 10-15, 17-21, which are fair and were estimated on basis of records for Willamina Creek. Slight occasional regulation during summer by operation of mill pond upstream; no diversions above gage.

Rating table, water year 1934-35 (gage height, in feet, and discharge, in second-feet)

0.6	11	3.0	650
.9	43	4.0	1,460
1.2	101	5.0	2,190
1.6	213	6.0	3,120
2.0	355	7.0	4,180
2.5	585	9.0	6,600

Discharge, in second-feet, water year October 1934 to September 1935

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	17	1,120	1,740	1,640	712	565	822	367	67	99	31	16
2	17	1,840	1,460	1,330	660	505	712	331	85	74	31	16
3	22	2,820	1,240	1,150	565	500	740	294	80	60	27	12
4	22	2,820	1,030	1,150	520	540	1,030	273	76	55	26	15
5	19	4,650	850	1,120	467	550	980	266	72	50	23	11
6	18	4,750	712	2,460	422	635	765	239	66	48	23	11
7	18	5,350	620	2,190	375	850	712	226	62	48	22	11
8	19	3,220	530	1,740	339	740	635	216	64	52	21	11
9	21	1,950	462	1,390	308	660	565	213	64	48	20	12
10	22	1,330	418	1,150	287	600	500	200	68	42	19	11
11	20	1,030	426	1,120	369	555	462	165	64	39	20	12
12	20	795	431	970	477	1,720	440	170	58	38	19	12
13	18	765	397	822	1,270	2,110	418	160	58	35	18	12
14	18	940	367	740	1,030	1,560	395	155	56	34	17	54
15	19	1,000	355	685	580	1,330	383	150	60	27	17	50
16	20	795	379	740	768	1,120	436	150	56	27	17	44
17	22	712	480	712	740	1,000	379	150	56	29	18	35
18	22	635	540	620	655	850	339	155	55	28	20	26
19	27	1,180	1,300	535	620	795	315	140	49	28	28	21
20	196	1,330	3,740	480	610	822	308	135	48	28	22	19
21	418	1,390	4,020	779	610	740	426	130	46	28	20	18
22	367	1,950	3,630	2,450	1,460	740	655	124	46	28	18	20
23	1,900	2,110	3,960	2,920	1,300	685	1,090	121	43	28	17	14
24	2,190	1,810	3,320	3,220	1,090	1,480	822	114	43	28	17	14
25	2,270	1,880	2,560	2,540	940	3,630	685	106	42	27	16	15
26	1,670	1,640	2,630	1,880	795	2,640	590	101	40	26	15	15
27	970	1,810	2,030	1,530	740	1,810	520	92	39	26	14	13
28	635	1,630	1,950	1,240	660	1,660	467	94	39	33	17	13
29	467	1,300	3,520	1,060	-	1,330	431	94	60	33	11	13
30	422	1,700	2,720	910	-	1,120	413	101	116	28	14	13
31	635	-	2,030	795	-	970	-	92	-	27	15	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acres-feet
October.....	12,581	2,270	17	404	2.97	3.42	24,840
November.....	56,135	5,350	635	1,871	13.8	15.40	111,300
December.....	49,437	4,020	355	1,695	11.7	13.49	98,060
Calendar year							
January.....	42,068	3,220	480	1,387	9.98	11.51	83,440
February.....	20,009	1,460	287	715	5.26	5.48	39,690
March.....	34,642	3,630	500	1,117	8.21	9.46	68,710
April.....	17,368	1,090	308	579	4.26	4.75	34,450
May.....	5,364	367	92	173	1.27	1.46	10,640
June.....	1,801	116	39	601	.441	.49	3,670
July.....	1,202	99	26	363	.286	.35	2,360
August.....	613	31	11	394	.146	.17	1,280
September.....	557	54	11	364	.137	.15	1,100
Water year 1934-35.....	241,717	5,350	11	662	4.87	66.11	479,400

Willamina Creek near Willamina, Oreg.

Location.— Water-stage recorder, lat. 45°8'40", long. 123°29'40", in N $\frac{1}{2}$ sec. 13, T. 5 S., R. 7 W., 4 miles north of Willamina. Zero of gage is 316.1 feet above mean sea level by river profile survey.

Drainage area.— 64 square miles.

Records available.— June 1934 to September 1935.

Extremes.— Maximum discharge during year, 2,780 second-feet Dec. 20 (gage height, 6.43 feet); minimum, 9 second-feet Sept. 9 (gage height, 0.16 foot).
1934-35: Maximum discharge, that of Dec. 20, 1934; minimum, 9 second-feet Sept. 3, 4, 1934, Sept. 9, 1935.

Remarks.— Records excellent. No regulations or diversions above station.

Rating table, water year 1934-35 (gage height, in feet, and discharge, in second-feet)

0.1	7.5	2.5	405
.3	13.9	3.0	585
.5		3.5	800
.8	38	4.0	1,050
1.2	88	4.5	1,350
1.6	158	5.0	1,640
2.0	250	5.5	2,000

Discharge, in second-feet, water year October 1934 to September 1935

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	12	310	875	665	492	304	426	176	63	44	23	12
2	14	719	710	585	458	277	377	164	60	38	19	12
3	16	1,000	605	528	426	271	370	156	58	34	18	11
4	14	1,290	510	492	388	265	377	147	54	31	18	10
5	13	1,570	433	475	355	259	346	139	52	30	17	10
6	12	1,480	367	1,020	325	256	319	134	47	28	16	10
7	12	1,780	322	1,020	295	340	301	126	46	35	15	10
8	14	1,210	256	850	265	304	280	121	49	38	16	10
9	16	778	256	688	242	277	256	118	49	32	15	10
10	15	545	232	565	224	256	240	114	49	28	14	10
11	13	426	250	545	259	247	229	111	46	26	14	10
12	13	346	245	475	301	972	224	106	45	25	13	10
13	12	310	229	419	605	1,120	222	101	45	23	12	12
14	12	337	217	370	545	800	210	99	45	21	13	33
15	12	352	212	346	492	665	202	98	45	21	13	22
16	14	301	214	340	430	565	205	99	42	21	13	25
17	14	274	268	310	405	510	189	118	40	20	13	18
18	13	253	298	280	384	440	178	99	38	20	19	16
19	13	458	731	253	358	412	172	91	37	20	17	15
20	80	528	1,820	240	352	391	170	85	35	19	14	14
21	109	545	1,680	280	458	361	198	80	32	19	13	14
22	94	625	1,540	732	625	352	286	79	32	18	13	14
23	498	710	1,710	1,000	605	334	394	76	32	18	13	14
24	510	710	1,390	1,150	528	592	322	75	31	19	12	13
25	697	778	1,080	1,150	458	1,100	277	72	30	18	12	13
26	433	755	1,100	1,000	405	875	247	69	29	18	12	12
27	242	1,050	900	850	367	710	227	66	28	18	11	11
28	174	875	778	710	337	665	210	65	30	23	10	10
29	139	710	1,020	625	-	605	200	68	43	20	12	10
30	125	831	900	565	-	545	189	66	52	18	13	10
31	154	-	755	528	-	475	-	64	-	20	13	-

Month	Second-foot-days	Maximum	Minimum	Mean	Pe. square mile	Run-off	
						Inches	Acre-feet
October.....	3,509	697	12	113	1.77	2.04	6,960
November.....	21,856	1,780	253	729	11.4	12.72	43,350
December.....	21,933	1,820	212	708	11.1	12.60	43,500
Calendar year							
January.....	19,056	1,150	240	615	9.61	11.08	37,800
February.....	11,384	625	224	407	6.36	6.62	22,580
March.....	15,575	1,120	247	502	7.84	9.04	30,890
April.....	7,843	426	170	261	4.08	4.55	15,560
May.....	3,182	176	64	103	1.61	1.96	6,310
June.....	1,382	63	28	42.7	.667	.74	2,540
July.....	763	44	18	24.6	.384	.44	1,510
August.....	446	23	10	14.4	.225	.26	885
September.....	401	33	10	13.4	.209	.23	795
Water year 1934-35.....	107,230	1,820	10	294	4.59	62.36	212,700

WILLAMETTE RIVER BASIN

Haskins Creek above Idlewild Creek, near McMinnville, Oreg.

Location.- Water-stage recorder, lat. 45°20', long. 123°24'10", in SW 1/4 sec. 2, T. 3 S., R. 6 W., 2 miles above Idlewild Creek and 13 miles northwest of McMinnville.

Drainage area.- 2.3 square miles.

Records available.- October 1933 to September 1935.

Extremes.- Maximum discharge during year, 124 second-feet Nov. 7 and Dec. 21 (gage height, 2.02 feet); minimum, 0.6 second-foot Sept. 7, 8.
1933-35: Maximum discharge, about 315 second-feet Dec. 21, 1933 (gage height, 3.41 feet); minimum, that of Sept. 7, 8, 1935.

Remarks.- Records good except those for Oct. 25-29, Dec. 13-28, which were estimated by comparison with records at station 2 miles below. No diversions or regulation above station. Water-stage recorder inspected at times by employees of city of McMinnville.

Rating table, water year 1934-35 (gage height, in feet, and discharge, in second-feet)

0.6	0.5	0.9	3.8	1.3	27
.7	1.2	1.0	6.2	1.7	77
.8	2.3	1.1	11	2.1	137

Discharge, in second-feet, water year October 1934 to September 1935

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.9	23	49	26	35	19	25	14	4.6	3.0	1.5	1.0
2	1.3	44	42	24	35	17	23	14	4.4	2.7	1.4	.9
3	1.2	63	37	22	34	17	22	12	4.2	2.4	1.3	.8
4	1.0	71	31	24	31	16	23	12	4.0	2.3	1.3	.8
5	1.0	91	27	25	30	14	22	11	3.8	2.3	1.3	.8
6	.9	90	23	54	27	14	21	11	3.6	2.1	1.2	.8
7	1.1	112	21	46	25	14	20	10	3.8	2.5	1.2	.8
8	1.7	74	18	40	22	12	19	9.5	3.8	2.4	1.2	.8
9	1.4	49	17	34	21	12	17	9.5	3.8	2.3	1.1	.8
10	1.2	35	15	28	19	12	17	9.0	3.8	2.1	1.1	.8
11	1.2	26	16	26	22	12	17	8.5	3.6	2.0	1.1	.8
12	1.2	22	14	23	23	70	17	8.0	3.4	1.9	1.1	.8
13	1.2	20	13	22	36	80	18	7.5	3.4	1.7	1.0	1.0
14	1.2	20	12	20	34	56	19	7.5	3.4	1.6	1.1	2.8
15	1.2	19	12	18	29	44	19	7.0	3.3	1.7	1.1	1.4
16	1.2	18	13	17	26	36	20	7.0	3.3	1.6	1.1	1.4
17	1.2	17	19	17	26	31	18	8.0	3.3	1.5	1.3	1.1
18	1.1	17	20	15	24	28	17	7.0	3.1	1.5	1.5	1.1
19	1.3	25	42	14	24	28	16	6.6	3.0	1.5	1.1	1.0
20	7.0	30	70	14	24	22	16	6.2	2.8	1.5	1.1	1.0
21	11	32	90	25	28	20	19	5.9	2.8	1.4	1.0	1.0
22	8.0	48	88	45	39	19	24	5.9	2.8	1.4	1.0	1.0
23	36	51	90	67	38	17	29	5.6	2.6	1.4	1.0	1.0
24	32	46	75	70	32	27	27	5.1	2.6	1.4	1.0	.8
25	50	44	62	66	28	42	24	5.1	2.4	1.4	1.0	.8
26	33	44	66	58	25	35	22	4.9	2.3	1.4	.9	.8
27	19	54	50	50	22	30	20	4.9	2.3	1.4	.9	.8
28	14	50	45	44	21	29	19	4.9	2.4	1.5	.9	.8
29	12	44	38	40	-	29	17	4.9	3.4	1.4	1.0	.8
30	12	51	31	38	-	28	15	4.6	3.8	1.4	1.0	.8
31	14	-	29	36	-	27	-	4.6	-	1.5	2.0	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acres-foot
October.....	270.5	50	0.9	8.73	3.80	4.38	537
November.....	1,330	112	17	44.3	19.3	21.53	2,640
December.....	1,175	90	12	37.9	16.5	19.02	2,330
Calendar year 1934.....	5,001.2	112	.7	13.7	5.96	80.93	9,920
January.....	1,048	70	14	33.8	14.7	16.95	2,080
February.....	780	39	19	27.9	12.1	12.60	1,550
March.....	852	130	12	17.5	12.0	13.83	1,690
April.....	602	29	15	20.1	8.74	9.75	1,190
May.....	241.7	14	4.6	7.80	3.39	3.91	479
June.....	99.6	4.6	2.3	3.32	1.44	1.61	198
July.....	56.2	3.0	1.4	1.81	.787	.91	111
August.....	34.8	1.5	.9	1.12	.487	.56	69
September.....	29.5	2.8	.8	.98	.426	.48	59
Water year 1934-35.....	6,519.3	112	.8	17.9	7.78	105.53	12,930

Haskins Creek near McMinnville, Oreg.

Location.- Water-stage recorder, lat. 45°18'50", long. 123°22'10", 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 1935.

Extremes.- Maximum discharge during year, 211 second-feet Dec. 21 (gage height, 2.38 feet); minimum, 1.5 second-feet Sept. 7-10 (gage height, 0.61 foot).
1928-35: Maximum discharge, 610 second-feet Mar. 31, 1931 (gage height, 4.00 feet); minimum, 1.0 second-foot Oct. 8, 1932 (gage height, 0.55 foot).

Remarks.- Records good except those for Jan. 6-11, Apr. 22-26, May 6, 7, which are fair and were estimated on basis of records for station 2 miles upstream. No diversions or regulation above station. Water-stage recorder graph furnished by city of McMinnville.

Rating tables, water year 1934-35 (gage height, in feet, and discharge, in second-feet)

Table for Oct. 1 to Dec. 20

0.5	0.6
.7	2.4
.9	6.6
1.1	16

Table for Dec. 21 to Sept. 30

0.6	1.4	1.5	55
.8	4.6	1.8	100
1.0	11.8	2.1	154
1.2	23	2.5	237

Discharge, in second-feet, water year October 1934 to September 1935

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2.4	40	94	59	63	38	51	24	8.9	6.1	3.5	2.0
2	2.4	85	90	54	62	33	47	22	8.9	5.5	2.9	1.9
3	2.1	113	68	48	59	32	45	21	8.4	4.9	2.9	1.9
4	2.0	126	57	56	54	31	46	20	8.0	4.6	2.9	1.8
5	1.7	166	50	55	51	30	42	19	7.6	4.4	2.9	1.8
6	1.6	154	44	100	47	34	40	18	7.3	4.2	2.7	1.8
7	1.6	176	38	90	42	36	39	18	7.3	5.2	2.7	1.8
8	2.4	124	35	80	39	32	35	17	7.3	5.2	2.6	1.8
9	2.3	83	31	70	35	29	33	17	7.0	4.6	2.4	1.8
10	2.0	60	28	60	32	28	31	16	7.0	4.4	2.4	1.8
11	1.8	45	30	54	36	27	30	16	6.7	4.4	2.4	1.8
12	2.0	39	28	47	43	156	30	15	6.4	4.0	2.3	1.8
13	2.0	34	26	42	75	168	30	15	6.4	3.8	2.3	2.0
14	2.0	39	25	38	62	112	30	15	6.4	3.5	2.3	6.4
15	2.1	37	24	36	54	87	31	14	6.4	3.5	2.3	3.1
16	2.2	33	26	34	46	70	31	14	6.4	3.3	2.3	3.1
17	2.3	33	36	31	47	63	29	15	6.1	3.1	2.6	2.4
18	2.1	35	38	29	43	56	28	12	6.1	3.3	3.3	2.2
19	2.2	55	80	29	42	51	28	11	5.8	3.1	2.4	2.2
20	15	61	131	28	41	48	27	11	5.8	3.1	2.3	2.2
21	20	61	166	39	54	43	30	10	5.5	3.1	2.2	2.2
22	14	91	158	80	75	43	41	10	5.5	2.9	2.0	2.2
23	61	98	164	110	72	40	50	10	5.5	3.1	2.2	2.2
24	52	83	139	126	62	84	46	10	5.5	3.1	2.2	2.2
25	84	77	119	122	54	121	42	11	5.5	3.1	2.2	2.0
26	55	77	126	108	48	89	38	11	5.2	3.1	2.0	2.0
27	31	101	105	94	43	74	32	10	4.9	3.1	2.0	1.9
28	22	91	89	82	40	70	29	10	5.5	3.5	2.0	1.8
29	18	78	80	76	-	66	28	9.7	7.6	3.1	2.0	1.8
30	18	98	69	70	-	61	25	9.7	7.6	3.1	2.2	1.8
31	25	-	65	66	-	56	-	9.7	-	3.3	2.0	-
Month				Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off			
									Inches	Acre-feet		
October.....				454.2	84	1.6	14.7	2.58	2.97	901		
November.....				2,390	176	33	79.7	14.0	15.62	4,740		
December.....				2,249	166	24	72.5	12.7	14.64	4,460		
Calendar year 1934.....				10,783.5	191	1.3	29.5	5.18	70.34	21,390		
January.....				2,013	126	28	64.9	11.4	13.14	3,990		
February.....				1,421	75	32	50.8	8.91	9.28	2,820		
March.....				1,898	158	27	61.2	10.7	12.34	3,760		
April.....				1,064	51	25	35.5	6.23	6.95	2,110		
May.....				441.1	24	9.7	14.2	2.49	2.87	875		
June.....				198.5	8.9	4.9	6.62	1.16	1.29	394		
July.....				118.7	6.1	2.9	3.63	.672	.77	235		
August.....				75.4	3.5	2.0	2.43	.426	.49	150		
September.....				55.7	6.4	1.8	2.19	.384	.43	130		
Water year 1934-35.....				12,388.6	176	1.6	33.9	5.95	80.79	24,560		

WILLAMETTE RIVER BASIN

Molalla River near Canby, Oreg

Location.- Water-stage recorder, lat. $45^{\circ}14'30''$, long. $122^{\circ}41'$, in NE $\frac{1}{4}$ sec. 9, T. 4 S., R. 1 E., at bridge $1\frac{1}{2}$ miles south of Canby. Zero of gage is 104.56 feet above mean sea level by general adjustment of 1929.

Drainage area.- 323 square miles.

Records available.- August 1928 to September 1935.

Extremes.- Maximum discharge during year, 6,750 second-feet Dec. 20 (gage height, 7.35 feet); minimum, 32 second-feet Sept. 11 (gage height, 1.43 feet); minimum mean daily discharge, 38 second-feet Sept. 7.
1928-35: Maximum discharge, 22,300 second-feet Mar. 31, 1931 (gage height, 14.7 feet); minimum, that of Sept. 11, 1934; minimum mean daily discharge, that of Sept. 7, 1934.

Remarks.- Records excellent. A few small irrigation diversions above gage.

Rating table, water year 1934-35 (gage height, in feet, and discharge, in second-feet)

1.4	25	3.0	1,010
1.6	89	3.5	1,430
1.8	175	4.0	1,910
2.0	280	5.0	3,090
2.3	475	6.0	4,490
2.6	695	8.0	7,780

Discharge, in second-feet, water year October 1934 to September 1935

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	64	524	2,400	2,230	1,910	954	1,380	2,060	538	695	114	53
2	64	1,340	1,960	1,810	2,060	882	1,210	1,610	517	517	110	60
3	71	2,820	1,710	1,560	2,010	858	1,130	1,340	475	398	97	67
4	64	2,280	1,680	1,520	1,760	890	1,380	1,250	447	322	93	57
5	67	3,220	1,430	1,910	1,660	866	1,610	1,250	447	280	110	53
6	64	2,180	1,250	2,400	1,520	842	1,480	1,250	468	247	93	53
7	53	2,830	1,170	3,630	1,340	874	1,380	1,170	454	236	89	38
8	67	3,220	1,050	2,960	1,170	834	1,430	1,050	419	264	85	47
9	57	2,120	946	2,280	1,010	818	1,380	1,010	366	252	82	57
10	64	1,520	558	1,810	998	748	1,300	936	353	215	82	47
11	64	1,210	334	1,610	970	710	1,250	898	316	200	71	44
12	75	994	890	1,480	896	1,050	1,380	802	304	160	78	41
13	97	890	858	1,300	1,130	2,230	1,520	755	292	166	85	50
14	82	850	898	1,170	1,090	1,960	1,480	748	269	167	71	53
15	89	898	842	1,050	994	1,760	1,380	810	310	152	64	101
16	75	826	842	1,050	930	1,560	1,520	834	274	139	64	134
17	71	770	1,050	1,050	938	1,480	1,380	866	269	139	71	139
18	75	718	1,090	930	1,010	1,300	1,250	906	247	130	67	110
19	75	1,650	1,430	834	1,050	1,170	1,210	794	230	122	101	89
20	93	2,580	5,260	748	1,210	1,170	1,210	740	210	118	97	85
21	488	2,520	4,790	874	1,610	1,090	1,340	778	195	118	75	71
22	710	2,400	4,940	1,340	2,010	1,010	1,300	826	185	122	71	67
23	1,320	2,700	3,910	1,710	1,860	986	1,560	740	180	114	71	78
24	5,630	2,230	4,190	2,640	1,610	1,050	1,560	650	175	114	67	71
25	2,120	2,460	3,630	3,020	1,380	4,030	1,430	582	175	110	60	60
26	1,340	2,400	3,490	2,830	1,210	3,420	1,430	575	157	114	71	71
27	882	2,900	3,020	2,640	1,130	2,280	1,520	552	157	105	64	60
28	635	2,520	5,400	2,460	1,050	1,860	1,430	524	152	105	57	64
29	503	2,260	4,130	2,230	-	1,910	1,300	517	175	126	57	57
30	412	2,230	4,190	2,120	-	1,860	1,910	568	274	110	57	60
31	379	-	2,830	1,960	-	1,610	-	582	-	110	60	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off Inches	Run-off Acre-feet
October.....	13,850	3,630	53	447	1.38	1.59	27,470
November.....	57,680	3,220	524	1,923	5.95	6.64	114,400
December.....	69,948	5,260	834	2,256	6.98	8.05	138,700
Calendar year 1934.....	347,298	6,750	48	952	2.95	39.97	688,800
January.....	57,156	3,630	748	1,844	5.71	6.58	113,400
February.....	37,418	2,060	898	1,356	4.14	4.31	74,220
March.....	44,062	4,030	710	1,421	4.40	5.07	87,400
April.....	42,040	1,910	1,130	1,401	4.34	4.84	83,390
May.....	28,023	2,060	517	904	2.80	3.23	55,580
June.....	9,030	538	152	301	.932	1.04	17,910
July.....	6,177	695	105	199	.616	.71	12,250
August.....	2,434	114	57	73.5	.243	.28	4,830
September.....	2,037	139	38	67.5	.210	.23	4,040
Water year 1934-35.....	369,855	5,260	38	1,013	3.14	42.57	733,600

Pudding River at Aurora, Oreg.

Location.-- Wire-weight gage, lat. 45°14', long. 122°45', in SE $\frac{1}{4}$ sec. 12, T. 4 S., R. 1 W.; at highway bridge at Aurora, half a mile above mouth of Mill Creek. Prior to Oct. 2, 1934, staff gage at same location and datum was used. Zero of gage is 76.79 feet above mean sea level by general adjustment of 1929.

Drainage area.-- 493 square miles.

Records available.-- October 1928 to September 1935.

Extremes.-- Maximum discharge observed during year, 7,320 second-feet Dec. 30 (gage height, 18.85 feet); minimum, 37 second-feet Sept. 9, 12 (gage height, 0.24 foot). 1928-35: Maximum discharge, 10,200 second-feet Dec. 23, 1933 (gage height, 21.64 feet); minimum, that of Sept. 9, 12, 1935. Maximum known stage, 25.0 feet Jan. 9, 1923 (discharge, about 14,500 second-feet).

Remarks.-- Records good except those for June to September, which are fair. No diversions above station. Slight regulation at times in summer by mills on tributaries.

Rating table, water year 1934-35 (gage height, in feet, and discharge, in second-feet) (Shifting-control method used June 1 to Sept. 30)

0.3	36	2.5	420	10.0	2,540
.6	80	3.0	520	12.0	3,350
.9	127	4.0	752	15.0	4,660
1.2	177	5.0	960	18.0	6,630
1.6	247	6.0	1,210	21.0	9,510
2.0	322	8.0	1,810		

Discharge, in second-feet, water year October 1934 to September 1935

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	80	420	2,820	5,710	1,660	1,450	1,880	1,110	322	186	88	47
2	71	710	2,620	5,260	1,570	1,270	1,630	1,040	303	229	86	49
3	66	1,270	2,420	4,710	1,540	1,180	1,450	913	284	211	92	52
4	68	1,750	2,020	4,080	1,480	1,180	1,540	821	265	186	90	49
5	68	2,120	1,690	3,430	1,360	1,390	1,750	798	247	168	88	46
6	74	2,300	1,480	3,140	1,240	1,390	1,720	776	238	152	82	43
7	72	2,260	1,330	4,760	1,160	1,510	1,610	732	220	143	77	43
8	71	2,860	1,180	4,810	1,080	1,660	1,420	688	211	143	77	40
9	65	2,860	1,080	4,480	960	1,570	1,420	645	202	152	66	37
10	65	2,160	985	3,950	890	1,420	1,270	624	194	136	62	39
11	68	1,630	915	3,230	913	1,240	1,160	582	194	160	62	39
12	71	1,270	1,180	2,740	1,140	1,180	1,080	540	186	143	59	37
13	71	1,110	1,330	2,540	1,450	1,810	1,080	520	196	135	54	39
14	77	1,040	1,300	2,160	2,060	2,120	1,060	500	177	124	52	143
15	78	1,160	1,300	1,840	1,950	2,230	1,040	480	177	114	52	152
16	80	1,300	1,240	1,750	1,630	2,090	1,040	480	186	108	52	168
17	71	1,150	1,240	2,120	1,480	1,810	1,110	490	177	103	53	143
18	74	1,040	1,540	2,230	1,420	1,720	985	500	168	97	53	143
19	74	1,060	1,540	2,080	1,390	1,570	913	520	160	94	52	152
20	86	2,200	2,460	1,780	1,330	1,540	867	460	152	90	62	86
21	135	2,740	3,910	1,480	1,500	1,780	867	440	143	90	76	74
22	341	2,660	4,570	2,160	2,230	1,720	960	420	135	88	74	71
23	540	2,940	4,910	2,500	2,500	1,570	1,080	400	127	83	66	68
24	1,210	2,940	4,960	2,700	2,340	1,690	1,330	380	127	82	60	65
25	2,090	2,700	4,860	2,960	1,950	2,860	1,210	360	127	82	60	62
26	1,750	2,700	4,760	2,980	1,630	4,300	1,140	341	124	82	62	60
27	1,160	2,700	4,860	2,740	1,510	4,390	1,060	322	119	83	47	56
28	798	2,900	4,660	2,500	1,510	3,990	1,010	322	113	82	46	54
29	603	2,740	4,610	2,160	-	3,390	960	284	116	83	53	59
30	500	2,540	7,140	1,950	-	2,700	960	303	127	84	50	56
31	440	-	6,790	1,810	-	2,160	-	303	-	89	49	-
Month				Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off			
									Inches	Acre-feet		
October.....				11,017	2,090	65	355	0.720	0.83	21,850		
November.....				59,240	2,940	420	1,975	4.01	4.47	117,500		
December.....				88,098	7,140	913	2,842	5.76	6.64	174,700		
Calendar year 1934.....				405,425	7,140	47	1,111	2.25	30.59	804,100		
January.....				92,740	5,710	1,480	2,992	6.07	7.00	185,900		
February.....				45,973	2,500	890	1,535	3.11	3.24	85,240		
March.....				61,880	4,390	1,180	1,996	4.05	4.67	122,700		
April.....				36,502	1,680	867	1,217	2.47	2.76	72,400		
May.....				17,054	1,110	284	551	1.12	1.29	33,690		
June.....				5,807	322	113	184	.373	.42	10,920		
July.....				3,852	229	82	124	.252	.29	7,640		
August.....				2,002	92	46	64.6	.131	.15	3,970		
September.....				2,172	168	37	72.4	.147	.16	4,510		
Water year 1934-35.....				423,067	7,140	37	1,159	2.35	31.92	839,000		

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 85.9 feet above mean sea level, by surveys of State Emergency Relief Administration.

Drainage area.- 710 square miles.

Records available.- July 1928 to September 1935.

Discharge.- Maximum discharge observed during year, 9,860 second-feet Dec. 30 (gage height, 10.84 feet); minimum, 6 second-feet Aug. 20 (gage height, 0.48 foot).
1928-35: 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 good except those for Oct. 1-20, July 15 to Sept. 30, which are poor. Oswego Canal diverts from Tualatin River above station and returns water to Willamette River below station. Some regulation in low-water season by flashboards on crest of Oswego Canal diversion dam.

Rating table, water year 1934-35 (gage height, in feet, and discharge, in second-feet; (Shifting-control method used Oct. 1-20, Aug. 1 to Sept. 30)

0.3	4	1.6	170	4.0	1,290	8.0	5,100
.6	16	2.0	280	5.0	1,990	10.0	8,320
.8	43	2.5	470	6.0	2,820	12.0	12,400
1.2	86	3.0	705	7.0	3,820	14.0	16,900
						16.7	25,300

Discharge, in second-feet, water year October 1934 to September 1935

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	34	990	4,560	8,880	5,530	2,470	3,820	930	315	121	38	11
2	33	1,290	4,560	8,320	4,960	2,230	3,490	930	315	125	38	11
3	30	1,090	4,430	7,440	4,180	1,990	2,990	870	315	125	38	11
4	28	2,550	4,300	6,450	3,710	1,830	3,000	815	298	125	31	12
5	29	3,390	4,180	5,830	3,290	1,760	2,820	760	280	119	26	14
6	35	4,060	3,710	5,530	3,090	1,760	2,730	705	265	109	30	12
7	42	4,960	3,890	5,530	2,730	1,830	2,470	685	265	111	41	12
8	40	5,950	3,190	5,530	2,390	2,310	2,470	605	250	113	51	11
9	38	7,270	2,820	5,240	2,070	2,550	2,250	605	265	121	61	11
10	42	7,780	2,470	5,100	1,910	2,550	1,690	560	250	125	66	11
11	47	7,440	2,230	4,960	1,690	2,470	1,690	560	250	121	51	12
12	48	6,930	2,150	4,560	1,620	2,550	1,550	538	250	103	45	12
13	45	6,130	2,150	4,430	2,150	3,190	1,560	518	260	92	31	12
14	42	5,380	2,070	3,940	2,730	3,710	1,410	515	235	90	15	16
15	40	4,430	1,990	3,710	2,820	3,820	1,410	492	235	86	8	30
16	38	3,710	1,910	3,600	2,820	3,940	1,350	470	235	72	8	71
17	35	3,390	2,070	3,600	2,730	4,060	1,290	470	220	61	8	81
18	38	3,190	2,310	3,390	2,640	3,940	1,170	470	220	53	7	78
19	42	3,000	2,640	3,190	2,390	3,710	1,110	470	220	45	7	55
20	66	3,000	3,390	2,910	2,510	3,490	1,110	470	220	38	7	44
21	135	3,000	4,430	2,730	2,250	3,290	1,050	450	220	35	9	35
22	265	3,000	5,980	3,000	2,390	3,090	1,050	410	208	33	17	28
23	560	3,190	6,770	3,820	2,550	3,000	1,170	390	195	35	23	28
24	760	3,490	7,610	4,300	2,730	2,910	1,350	370	182	42	22	26
25	1,050	3,600	8,320	4,960	2,820	3,600	1,410	370	170	44	16	28
26	1,230	3,820	8,880	5,680	2,820	3,820	1,290	350	135	43	7	26
27	1,350	4,060	9,070	6,130	2,820	3,940	1,230	350	40	43	8	25
28	1,290	4,180	9,260	6,610	2,730	4,180	1,170	350	48	43	12	22
29	1,290	4,300	9,660	6,290	-	4,300	1,050	332	71	42	12	20
30	1,170	4,430	9,860	6,130	-	4,180	990	315	86	43	13	20
31	870	-	9,860	5,830	-	4,060	-	315	-	43	11	-

Month	River only				River and Oswego Canal (combined)					
	Maxi- mum	Mini- mum	Mean	Run-off in acre-feet	Maxi- mum	Mini- mum	Mean	Per square mile	Run-off	
									Inches	Acre-feet
October.....	1,350	28	347	21,350	1,440	86	412	0.580	0.67	25,350
November.....	7,780	990	4,121	245,200	7,730	1,050	4,156	5.85	6.53	247,300
December.....	9,860	1,910	4,539	297,600	9,870	1,920	4,845	6.82	7.86	297,900
Calendar year 1934	9,860	101,625	1,777,000	9,870	59	1,667	2.35	31.86	1,207,000	
January.....	8,880	2,730	5,065	312,600	8,890	2,730	5,089	7.17	8.27	312,900
February.....	5,530	1,620	2,616	156,400	5,530	1,640	2,840	4.00	4.16	157,700
March.....	4,300	1,760	5,114	191,500	4,310	1,820	5,143	4.43	5.11	193,200
April.....	3,820	990	1,780	105,900	3,830	995	1,804	2.54	2.83	107,400
May.....	930	315	529	32,500	935	355	547	.770	.89	33,610
June.....	315	40	218	12,970	337	71	247	.346	.39	14,670
July.....	125	33	77.5	4,760	187	95	140	.197	.23	8,600
August.....	66	7	24.4	1,500	128	63	84.0	.118	.14	5,170
September.....	81	11	26.2	1,560	146	73	89.1	.125	.14	5,300
Water year 1934-35..	9,860	7	1,911	1,384,000	9,870	63	1,946	2.74	37.22	1,409,000

Oswego Canal near Oswego, Oreg.

Location.- Staff gage, lat. 45°23'30", long. 122°43'10", in SW $\frac{1}{4}$ sec. 17, T. 2 S., R. 1 E., 3 miles southwest of Oswego.

Records available.- October 1928 to September 1935.

Extremes.- Maximum discharge observed during year, 169 second-feet Nov. 6 (gage height, 6.58 feet); practically no flow at times.

1928-35: Maximum discharge, about 6,000 second-feet Dec. 23, 1933 (gage height, 16.1 feet); no flow at times.

Remarks.- Records fair except these estimated, which are poor. Oswego Canal diverts from Tualatin River in NW $\frac{1}{4}$ sec. 20, three-quarters of a mile above gage; diversion dam is in NE $\frac{1}{4}$ sec. 33, about 3 miles below head of canal.

Discharge, in second-feet, water year October 1934 to September 1935

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	58	62	9	7	3	84	12	*5	22	65	65	62
2	58	65	9	6	3	75	19	*5	22	62	65	62
3	58	120	9	5	3	65	62	*5	20	62	65	62
4	58	127	2	4	3	65	78	9	22	62	57	62
5	58	127	*2	7	3	70	97	9	20	62	57	62
6	58	169	*0	7	3	65	81	9	20	62	57	62
7	58	58	*0	7	3	67	81	10	20	62	62	62
8	58	48	*0	6	3	84	75	13	20	62	62	62
9	58	* 0	0	6	3	38	46	12	20	62	62	62
10	58	* 2	*0	6	3	14	36	11	20	62	62	62
11	58	* 2	*0	6	4	* 5	* 5	16	22	62	49	62
12	58	* 6	*0	6	23	11	12	23	22	60	53	62
13	58	19	0	6	25	13	12	24	24	60	53	62
14	58	36	*3	*6	11	12	11	24	25	60	55	62
15	58	33	*5	4	11	14	11	24	28	60	55	62
16	58	31	9	4	11	13	11	24	28	60	55	65
17	58	30	9	4	11	13	* 5	24	28	60	55	65
18	55	28	9	3	11	13	* 5	24	28	60	57	65
19	55	22	10	3	11	13	10	23	28	60	60	65
20	60	8	11	3	76	13	11	23	28	62	60	65
21	65	9	* 5	3	75	13	* 0	23	28	62	62	65
22	67	10	9	3	81	13	* 0	22	28	62	62	65
23	75	* 2	* 5	3	90	12	* 0	23	28	65	62	65
24	87	* 0	10	3	93	14	* 0	22	30	65	62	65
25	87	* 0	13	3	93	13	10	22	30	65	62	62
26	90	* 1	13	3	4	13	10	22	31	65	62	62
27	90	* 1	14	3	4	13	* 5	22	31	65	62	62
28	87	* 2	10	3	4	13	* 5	22	62	65	62	62
29	78	9	* 5	3	-	13	* 5	22	62	65	62	62
30	67	9	7	3	-	13	* 5	22	62	65	62	62
31	65	-	7	3	-	14	-	20	-	65	62	-
Month						Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet		
October.....						2,014	90	55	65.0	3,990		
November.....						1,036	169	0	34.5	2,050		
December.....						185	14	0	6.0	367		
Calendar year 1934.....						15,175	219	0	41.6	30,090		
January.....						138	7	3	4.5	274		
February.....						667	93	3	23.8	1,320		
March.....						891	84	5	28.7	1,770		
April.....						720	97	9	24.0	1,430		
May.....						559	24	5	18.0	1,110		
June.....						859	62	20	28.6	1,700		
July.....						1,936	65	60	62.5	3,840		
August.....						1,848	65	49	59.6	3,670		
September.....						1,867	65	62	62.9	3,740		
Water year 1934-35.....						12,740	169	0	34.9	25,260		

*Estimated.

WILLAMETTE RIVER BASIN

Clackamas River at Big Bottom, Oreg.

Location.- Water-stage recorder, lat. 45°1'20", long. 121°54'50", in sec. 26, T. 6 S., R. 7 E., just below Pot Creek at lower end of Big Bottom, half a mile above proposed dam site, and 28 miles southeast of Estacada.

Drainage area.- 132 square miles.

Records available.- April 1920 to September 1935.

Average discharge.- 15 years (1920-35), 450 second-feet.

Extremes.- Maximum discharge during year, 1,910 second-feet Dec. 21 (gage height, 4.62 feet); minimum, 248 second-feet Oct. 7-11 (gage height, 1.52 feet); 1920-35: Maximum discharge, 6,750 second-feet Mar. 31, 1931 (gage height, 8.28 feet); minimum, 190 second-feet several days in August and September 1931 (gage height, 1.25 feet).

Remarks.- Records poor. Discharge estimated Jan. 2, 8-31, Feb. 1, 23-28, Mar. 1-3, 5-31, Apr. 1, 2, Sept. 3-5, 9-17. No regulation or diversions above station. Field data furnished by Portland General Electric Co.

Rating tables, water year 1934-35 (gage height, in feet, and discharge, in second-feet)

Table for Oct. 1 to Nov. 4

1.4	215
1.6	270
1.9	368
2.1	456
2.4	566
3.0	850

Table for Nov. 5 to Sept. 30

1.4	195
1.6	244
1.9	336
2.4	525
3.0	780
4.0	1,400
5.0	2,300

Discharge, in second-feet, water year October 1934 to September 1935

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	249	410	565	485	490	410	460	830	905	412	261	255
2	249	578	505	474	485	410	460	758	780	382	279	255
3	252	745	485	462	505	450	450	735	753	364	275	255
4	249	770	481	458	505	404	458	758	780	357	275	255
5	249	855	450	477	525	400	473	830	830	350	272	255
6	249	690	431	485	525	390	458	685	880	343	272	255
7	246	735	412	473	525	380	466	655	880	340	272	255
8	246	790	393	455	505	375	455	830	830	340	259	252
9	248	805	378	440	485	370	473	855	735	329	259	252
10	246	525	360	420	473	365	468	855	690	323	266	252
11	246	473	357	400	469	360	462	805	668	320	266	252
12	252	455	354	390	466	500	485	758	645	313	264	252
13	252	408	357	370	473	540	525	755	625	308	264	252
14	249	397	354	360	454	620	565	758	605	303	264	270
15	249	404	350	355	435	500	565	805	585	300	264	290
16	255	378	357	360	423	480	585	830	545	297	264	275
17	252	371	397	350	416	470	565	880	525	294	264	265
18	252	364	382	340	416	460	565	830	505	294	266	261
19	249	458	492	330	416	450	565	780	477	294	266	265
20	300	525	1,180	320	423	440	605	805	458	281	264	258
21	424	545	1,420	340	466	430	645	880	446	288	261	258
22	362	605	1,250	370	505	420	645	990	435	288	261	255
23	555	625	960	400	500	410	645	930	419	288	261	255
24	850	585	880	440	480	450	625	880	404	284	258	255
25	600	758	758	470	460	550	605	955	393	284	258	255
26	487	663	735	470	440	500	625	880	386	281	258	252
27	393	690	645	465	430	460	668	880	378	281	258	252
28	351	605	605	460	420	480	690	855	375	284	258	252
29	327	625	585	460	-	510	712	905	404	281	258	252
30	318	605	545	460	-	500	805	905	419	278	258	252
31	315	-	525	470	-	480	-	830	-	278	255	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acres-feet
October.....	10,080	880	246	323	2.45	2.82	19,870
November.....	17,217	855	354	474	4.35	4.85	34,150
December.....	17,948	1,420	350	579	4.39	5.06	35,600
Calendar year 1934.....	169,225	2,920	246	464	3.52	47.67	335,600
January.....	13,009	485	320	420	3.18	3.67	25,800
February.....	13,105	525	418	468	3.55	3.70	25,990
March.....	13,319	550	350	446	4.35	3.90	27,410
April.....	16,793	605	450	559	4.23	4.72	33,290
May.....	25,962	990	735	837	6.34	7.31	51,490
June.....	17,665	880	375	589	4.44	4.98	35,040
July.....	9,567	412	278	312	2.36	2.72	19,170
August.....	8,216	261	252	265	2.01	2.32	16,300
September.....	7,712	290	252	267	1.95	2.18	15,300
Water year 1934-35.....	171,123	1,420	246	469	3.55	48.23	339,400

Clackamas River above Three Lynx Creek, Oreg.

Location.- Water-stage recorder, lat. 45°7'30", long. 122°4'30", in NE¼ sec. 21, T. 5 S., R. 6 E., 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 1935.

Average discharge.- 16 years (1911-13, 1921-35), 1,853 second-feet.

Extremes.- Maximum discharge during year, 11,000 second-feet Dec. 20 (gage height, 7.90 feet); minimum not recorded; minimum mean daily discharge (estimated), 590 second-feet Oct. 6.

1911-13, 1921-35: Maximum discharge, 34,800 second-feet Mar. 31, 1931 (gage height, 15.5 feet); minimum, 375 second-feet Aug. 10, 16, 1924; minimum mean daily discharge, 536 second-feet Oct. 22, 1930.

Remarks.- Records good except those for Oct. 1-20, Jan. 26 to Feb. 3, Aug. 13-31, Sept. 3-30, which are poor and were estimated on basis of records for stations above and below. Water diverted from Oak Grove Fork is used in power plant on Clackamas River just above station. Field data furnished by Portland General Electric Co.

Rating tables, water year 1934-35 (gage height, in feet, and discharge, in second-feet)

Table for Oct. 1 to Dec. 19

0.7	570	2.0	1,310	4.0	3,360
1.0	700	2.5	1,710	5.0	4,780
1.5	970	3.0	2,210	6.0	6,600

Table for Dec. 20 to Sept. 30

0.7	535	2.0	1,300	4.0	3,360
1.0	660	2.5	1,710	5.0	4,780
1.5	955	3.0	2,210	6.0	6,600

Discharge, in second-feet, water year October 1934 to September 1935

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	600	1,580	2,760	2,000	2,700	1,660	2,050	3,620	2,600	1,620	838	710
2	600	2,650	2,320	1,850	2,800	1,660	1,850	3,240	2,480	1,380	807	700
3	620	3,890	2,210	1,710	2,800	1,820	1,900	3,000	2,430	1,280	807	690
4	610	3,830	2,160	1,760	2,700	1,660	1,800	3,000	2,540	1,090	777	700
5	600	4,780	1,950	1,850	2,760	1,580	1,850	3,360	2,700	1,230	789	680
6	590	3,240	1,800	2,050	2,700	1,500	1,800	3,490	2,820	1,120	765	670
7	620	3,360	1,620	2,160	2,540	1,460	1,800	3,240	2,820	1,090	795	660
8	620	3,620	1,540	1,950	2,320	1,380	1,950	3,120	2,600	1,120	765	660
9	620	2,650	1,890	1,850	2,160	1,340	1,850	3,240	2,320	1,060	765	670
10	610	2,100	1,420	1,710	1,950	1,260	1,760	3,240	2,260	1,020	777	660
11	610	1,800	1,540	1,660	2,000	1,340	1,760	2,940	2,160	1,020	738	650
12	630	1,620	1,340	1,580	1,900	1,340	1,950	2,700	2,050	988	738	650
13	640	1,460	1,580	1,500	2,000	2,700	2,260	2,650	2,000	955	730	640
14	610	1,380	1,420	1,460	1,950	2,600	2,430	2,760	1,900	955	720	630
15	610	1,390	1,580	1,420	1,760	2,380	2,430	2,940	1,900	955	730	650
16	630	1,310	1,580	1,420	1,710	2,160	2,540	3,000	1,710	955	720	750
17	610	1,240	1,710	1,580	1,660	2,050	2,480	3,120	1,660	922	740	700
18	610	1,200	1,620	1,540	1,760	1,900	2,520	3,000	1,620	890	740	680
19	610	2,050	2,160	1,260	1,780	1,800	2,320	2,760	1,540	890	750	680
20	720	2,650	8,380	1,160	1,900	1,760	2,540	2,880	1,460	877	740	670
21	1,380	2,880	7,950	1,260	2,380	1,580	2,760	3,120	1,420	864	710	680
22	1,280	3,000	7,240	1,500	2,820	1,580	2,760	3,620	1,420	877	710	660
23	2,620	3,360	5,110	1,660	2,600	1,500	2,680	3,240	1,300	858	710	680
24	5,500	2,880	4,940	2,600	2,320	1,540	2,650	3,000	1,300	844	730	670
25	3,000	3,890	4,030	3,000	2,160	3,300	2,540	2,880	1,260	838	700	680
26	2,100	3,490	3,990	3,000	1,950	2,700	2,700	2,940	1,230	838	710	660
27	1,500	3,820	3,240	2,760	1,850	2,160	3,000	2,940	1,230	838	700	660
28	1,200	3,120	2,820	2,700	1,760	2,050	3,000	2,880	1,230	851	710	650
29	1,170	2,940	2,760	2,650	-	2,320	3,000	2,940	1,300	838	700	650
30	1,030	3,000	2,430	2,600	-	2,260	3,490	2,880	1,460	838	710	640
31	1,000	-	2,210	2,600	-	2,160	-	2,700	-	825	710	-
Month				Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off			
									Inches	Acres-feet		
October.....				34,150	5,800	590	1,102	2.26	2.61	87,740		
November.....				79,970	4,780	1,200	2,666	5.46	6.09	158,600		
December.....				87,860	8,380	1,340	2,854	5.81	6.70	174,300		
Calendar year 1934.....				649,326	13,100	-	1,779	3.65	49.49	1,288,000		
January.....				59,320	3,000	1,160	1,914	3.92	4.52	117,700		
February.....				61,670	2,820	1,660	2,202	4.51	4.70	122,300		
March.....				58,800	3,300	1,260	1,997	3.89	4.48	113,600		
April.....				70,320	3,490	1,780	2,244	4.80	5.56	139,500		
May.....				94,440	3,620	2,650	3,046	6.24	7.19	187,300		
June.....				56,620	2,820	1,230	1,937	3.87	4.32	112,300		
July.....				30,686	1,620	825	990	2.03	2.34	60,860		
August.....				23,031	838	700	743	1.52	1.75	45,680		
September.....				20,380	860	640	679	1.39	1.55	40,420		
Water year 1934-35.....				677,247	8,380	590	1,855	3.80	51.61	1,343,000		

Clackamas River near Cazadero, Oreg.

Location.— Water-stage recorder, lat. 45°14'30", long. 122°16'30", 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 1935.

Average discharge. 28 years, 2,614 second-feet.

Extremes.— Maximum discharge during year, 15,600 second-feet Dec. 20 (gage height, 542.56 feet); minimum, 465 second-feet Sept. 27 (gage height, 531.94 feet); minimum mean daily discharge, 646 second-feet Oct. 6.
1909-35: Maximum discharge, 60,800 second-feet Mar. 31, 1931 (gage height, 558.5 feet); minimum, 410 second-feet Oct. 20, 1925, Sept. 28, 1930, caused by shut-down in power plant at Three Lynx (gage height, 532.03 feet); minimum mean daily discharge, 567 second-feet Aug. 17, 1930.

Remarks.— Records good. Some diurnal fluctuation during low water owing to operation of Oak Grove power plant. Field data furnished by Portland General Electric Co.

Rating tables, water year 1934-35 (gage height, in feet, and discharge, in second-feet)

Table for Oct. 1 to Dec. 19

Table for Dec. 20 to Sept. 30

532.2	530	533.5	1,140	536.0	3,290	531.9	455	534.0	1,530	538.0	5,980
532.6	670	534.0	1,460	538.0	5,970	532.4	620	535.0	2,320	540.0	9,700
533.0	866	535.0	2,270	540.0	9,700	533.0	920	536.0	3,320	542.0	14,200

Discharge, in second-feet, water year October 1934 to September 1935

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	666	1,970	4,250	2,890	4,080	2,230	2,990	5,070	3,100	2,230	1,000	800
2	670	3,510	3,510	2,690	4,270	2,140	2,690	4,400	2,990	1,820	948	770
3	684	5,650	3,280	2,500	4,270	2,140	2,590	4,020	2,890	1,670	948	760
4	674	5,140	3,170	2,500	4,020	2,180	2,590	4,020	2,890	1,460	948	770
5	670	6,810	2,850	2,790	3,900	2,060	2,790	4,270	3,100	1,530	920	760
6	646	4,640	2,650	3,500	3,780	1,980	2,690	4,530	3,320	1,420	904	745
7	679	5,200	2,360	3,650	3,540	1,940	2,690	4,270	3,320	1,360	887	745
8	674	5,650	2,180	3,210	3,100	1,900	2,790	4,020	3,100	1,360	887	745
9	679	3,990	2,000	2,890	2,890	1,820	2,690	4,140	2,790	1,330	882	765
10	662	3,060	1,960	2,590	2,590	1,700	2,500	4,020	2,690	1,270	887	740
11	662	2,550	1,840	2,410	2,690	1,820	2,590	3,660	2,500	1,240	848	725
12	668	2,220	1,920	2,280	2,500	3,140	2,990	3,320	2,410	1,210	848	720
13	697	2,000	1,960	2,100	2,700	4,660	3,320	3,320	2,320	1,180	848	706
14	666	1,680	2,040	2,020	2,500	4,140	3,430	3,320	2,180	1,150	826	740
15	666	1,840	1,960	1,900	2,410	3,660	3,450	3,660	2,140	1,120	854	966
16	697	1,680	1,960	1,940	2,280	3,210	3,660	3,660	2,020	1,120	826	892
17	674	1,640	2,360	1,860	2,280	2,990	3,450	3,900	1,980	1,090	854	821
18	666	1,630	2,360	1,740	2,500	2,790	3,210	3,780	1,860	1,060	860	776
19	666	2,920	5,540	1,670	2,500	2,590	3,210	3,540	1,780	1,060	870	765
20	633	3,760	12,100	1,530	2,590	2,410	3,540	3,540	1,700	1,060	860	765
21	1,800	4,250	11,000	1,670	3,210	2,230	3,780	3,900	1,670	1,060	816	775
22	1,640	4,140	10,500	2,180	3,900	2,100	3,780	4,400	1,670	1,030	826	755
23	3,810	4,610	7,910	2,690	3,660	2,020	4,020	4,020	1,530	1,030	821	780
24	8,590	3,870	6,100	4,400	3,210	2,060	3,780	3,660	1,530	1,030	832	765
25	4,590	6,130	6,300	5,070	2,690	4,820	3,540	3,430	1,460	1,030	785	776
26	2,850	5,500	5,980	4,920	2,690	4,020	3,780	3,540	1,390	1,000	805	745
27	2,090	6,130	4,790	4,660	2,600	3,100	4,140	3,540	1,390	1,000	790	736
28	1,600	4,920	4,140	4,530	2,320	2,990	4,020	3,430	1,390	1,030	800	730
29	1,480	4,610	4,270	4,270	-	3,660	4,020	3,540	1,660	1,000	790	730
30	1,290	4,610	3,780	4,020	-	3,660	5,070	3,540	1,900	976	796	706
31	1,230	-	3,210	3,900	-	3,210	-	3,320	-	976	796	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acres-foot
October.....	44,659	8,590	646	1,441	2.17	2.80	88,580
November.....	116,000	6,810	1,530	3,967	5.82	6.49	230,190
December.....	129,530	12,100	1,840	4,198	6.30	7.26	287,500
Calendar year 1934.....	866,922	17,100	616	2,375	3.57	48.47	1,719,000
January.....	90,990	5,070	1,530	2,935	4.41	5.08	180,500
February.....	85,890	4,270	2,280	3,068	4.61	4.80	170,400
March.....	86,370	4,820	1,700	2,764	4.14	4.77	169,500
April.....	99,780	5,070	2,500	3,326	5.00	5.68	197,900
May.....	119,780	6,070	3,320	3,832	5.76	6.64	235,600
June.....	66,470	3,320	1,390	2,216	3.33	3.72	131,800
July.....	37,990	2,230	976	1,225	1.84	2.12	75,550
August.....	26,555	1,000	765	867	1.29	1.49	52,670
September.....	22,972	966	706	766	1.16	1.28	45,660
Water year 1934-35.....	925,256	12,100	646	2,535	3.81	51.73	1,835,000

Oak Grove Fork above power plant intake, Oreg.

Location.- Water-stage recorder, lat. 45°4'30", long. 121°57'15", in SW 1/4 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.- 128 square miles.

Records available.- December 1922 to September 1935. At site 1 mile downstream, below Kink Creek, May 1909 to December 1923 (incomplete). Records comparable except for slight inflow from springs and Kink Creek.

Average discharge.- 11 years (1924-35), 463 second-feet.

Extremes.- Maximum discharge during year, 1,420 second-feet Dec. 21 (gage height, 3.46 feet); minimum, 271 second-feet Oct. 10-19 (gage height, 1.69 feet).

1909-35: Maximum discharge, 5,000 second-feet Jan. 7, 1923 (gage height, 5.45 feet); minimum, 236 second-feet Oct. 15, 18, 19, 1931 (gage height, 1.42 feet).

Remarks.- Records good. Discharge estimated Sept. 25-30, by comparison with other records in Clackamas River Basin. Discharge includes flow of Spring Creek, just below gage. No diversions or regulation above station. Field data furnished by Portland General Electric Co.

Rating table, water year 1934-35 (gage height, in feet, and discharge, in second-feet)

1.6	240	2.5	680
1.8	312	3.0	1,030
2.1	450	3.5	1,460

Discharge, in second-feet, water year October 1934 to September 1935

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	278	329	478	505	461	415	440	858	728	461	337	312
2	278	368	440	483	472	415	430	789	704	425	337	312
3	278	425	440	472	483	410	435	782	680	410	337	312
4	274	461	450	466	488	405	440	796	680	400	353	312
5	274	500	425	461	500	405	435	838	680	386	333	312
6	274	425	410	472	500	391	425	859	686	386	333	312
7	274	478	395	456	494	391	435	858	680	362	333	312
8	274	461	386	440	478	382	450	858	662	362	329	312
9	274	410	377	425	466	377	430	845	632	377	329	308
10	271	382	372	410	456	372	430	838	608	377	329	308
11	271	363	368	410	461	368	435	810	590	372	329	308
12	271	360	363	405	461	488	472	782	578	372	329	308
13	271	341	363	395	461	505	505	775	560	368	325	304
14	271	337	363	386	440	500	532	789	549	368	325	316
15	271	333	363	386	425	478	532	831	533	369	325	316
16	271	329	363	391	410	466	544	858	516	359	325	312
17	271	325	377	386	410	461	532	858	500	354	325	308
18	271	325	368	377	415	445	558	838	488	354	329	308
19	271	386	528	388	420	440	566	810	472	354	325	304
20	293	406	1,110	354	430	435	614	824	461	350	325	304
21	341	420	1,190	388	456	420	658	866	450	350	320	304
22	304	440	1,070	391	472	410	608	894	445	346	320	304
23	450	435	866	410	461	400	608	866	435	341	320	301
24	538	435	859	450	445	425	590	838	425	341	316	301
25	359	560	740	456	435	472	602	824	420	341	316	300
26	316	505	716	456	430	425	644	817	420	337	316	300
27	297	516	644	450	425	410	680	810	410	337	316	299
28	293	483	602	450	420	440	680	796	410	337	316	299
29	289	500	608	450	-	488	716	803	425	337	316	298
30	289	510	572	450	-	478	866	782	461	337	312	298
31	289	-	527	456	-	461	-	754	-	337	312	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acres-Feet
October.....	9,246	538	271	298	2.37	2.73	18,340
November.....	12,537	580	325	418	3.32	3.70	24,870
December.....	17,153	1,190	363	553	4.39	5.06	33,950
Calendar year 1934.....	168,831	1,860	271	463	3.67	49.83	334,900
January.....	13,235	505	354	427	3.39	3.91	26,260
February.....	12,675	500	410	453	3.60	3.75	25,140
March.....	13,378	505	368	432	3.43	3.95	26,530
April.....	16,282	566	425	542	4.30	4.80	32,240
May.....	25,467	894	754	822	6.52	7.52	50,510
June.....	18,293	728	410	543	4.31	4.81	32,320
July.....	11,332	461	337	366	2.90	3.34	22,480
August.....	10,072	337	312	325	2.58	2.97	19,980
September.....	9,204	316	298	307	2.44	2.72	18,260
Water year 1934-35.....	166,824	1,190	271	457	3.63	49.26	330,900

Lewis River near Cougar, Wash.

Location.— Water-stage recorder, lat. 48°3'30", long. 122°12'50", in SE $\frac{1}{4}$ sec. 29, T. 7 N., R. 5 E., 1 mile below Swift Creek and 4 miles east of Cougar. Prior to Dec. 28, 1934, water-stage recorder on opposite bank with datum 2.02 feet higher than that of present gage.

Drainage area.— 483 square miles.

Records available.— July 1910 to March 1912 (gage heights only), June 1924 to September 1935, July 1909 to June 1910 at site 1,000 feet above Swift Creek.

Average discharge.— 11 years (1924-35), 2,846 second-feet.

Extremes.— Maximum discharge during year, 21,800 second-feet Nov. 5 (gage height, 9.33 feet, former datum); minimum, 577 second-feet Oct. 17, 18 (gage height, 0.82 foot, former datum).

1910-12, 1924-35: Maximum discharge, 54,400 second-feet Dec. 21, 1933 (gage height, 15.7 feet, former datum); minimum, 454 second-feet Oct. 21, 1931 (gage height, 0.01 foot, former datum).

Remarks.— Records good except those for Dec. 10-18, 20, 22, 23, 25, Jan. 4-21, Mar. 15 to Apr. 15, which are fair and were estimated on basis of records for Toutle River near Silver Lake. No diversions or regulation.

Discharge, in second-feet, water year October 1934 to September 1935.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	625	3,990	4,700	3,100	4,890	2,800	2,750	4,680	4,380	2,590	1,070	855
2	651	5,540	4,200	3,020	5,000	2,660	2,600	4,460	4,250	2,360	1,070	841
3	651	7,000	3,920	2,800	5,110	2,590	2,450	4,360	4,060	2,260	1,030	834
4	625	7,730	3,640	3,300	5,000	2,460	2,300	4,680	4,360	2,200	1,030	827
5	613	17,200	3,370	4,000	4,890	2,320	2,400	5,220	5,110	2,140	995	827
6	613	16,700	3,040	5,000	4,570	2,260	2,360	5,550	5,990	1,960	995	848
7	613	19,200	2,800	4,600	4,860	2,260	2,300	5,330	6,120	1,910	995	837
8	690	13,700	2,650	4,000	3,860	2,140	2,250	5,110	5,330	1,860	995	815
9	732	9,050	2,580	3,600	3,590	2,020	2,200	5,220	4,780	1,800	995	799
10	690	6,500	2,500	3,200	3,340	1,960	2,220	5,220	4,890	1,740	995	813
11	670	5,350	2,700	2,950	3,180	1,910	2,250	4,780	4,780	1,740	960	799
12	644	4,500	2,800	2,750	3,020	2,990	2,700	4,360	4,360	1,740	960	795
13	616	4,020	2,800	2,550	3,100	4,460	5,500	4,260	4,260	1,800	960	799
14	607	4,020	2,700	2,400	2,890	4,160	3,600	4,460	4,360	1,910	960	995
15	607	3,820	2,600	2,300	2,660	3,800	3,650	4,890	4,060	1,860	925	995
16	595	3,280	2,600	2,280	2,520	3,500	3,260	5,000	3,590	1,740	918	995
17	583	2,880	2,700	2,200	2,680	3,300	3,100	5,330	3,340	1,640	925	876
18	577	3,040	3,500	2,000	2,730	3,100	3,020	5,220	3,260	1,540	960	820
19	607	12,950	11,700	1,850	2,800	2,950	3,100	5,000	3,180	1,440	960	606
20	1,360	3,640	11,000	1,700	2,860	2,850	3,500	5,000	2,950	1,360	918	771
21	1,820	3,730	11,300	2,800	3,500	2,750	3,860	5,780	5,020	1,310	918	771
22	2,000	4,910	9,600	3,590	4,890	2,700	3,860	6,610	3,100	1,310	911	764
23	3,850	6,750	9,000	4,060	4,370	2,650	3,770	6,120	2,890	1,270	904	750
24	6,850	7,560	7,860	6,870	4,160	2,850	3,500	5,550	2,660	1,250	865	743
25	12,400	7,850	6,600	7,400	3,770	3,200	3,500	5,220	2,560	1,190	869	729
26	10,200	6,750	6,500	6,870	3,420	3,100	3,860	5,220	2,590	1,150	876	729
27	6,090	6,020	5,240	6,120	3,100	3,000	4,160	5,440	2,730	1,150	883	722
28	4,390	5,350	4,900	5,650	2,950	3,000	4,260	5,550	2,890	1,150	897	715
29	3,410	5,020	4,460	5,330	-	3,200	4,360	5,550	3,020	1,110	890	715
30	2,880	5,130	3,770	5,000	-	3,000	4,570	5,110	2,900	1,070	865	709
31	2,720	-	3,420	4,690	-	2,900	-	4,690	-	1,070	862	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acre-feet
October.....	69,962	12,400	577	2,267	4.67	5.38	138,800
November.....	209,783	19,200	2,360	6,793	14.3	17.5	404,200
December.....	150,050	11,300	2,500	4,840	10.0	11.53	297,600
Calendar year 1934.....	1,191,248	24,200	577	3,264	6.76	91.75	2,565,000
January.....	118,190	7,400	1,700	3,813	7.89	9.10	234,400
February.....	103,300	5,110	2,520	3,659	7.64	7.96	204,900
March.....	89,540	4,460	1,910	2,866	6.33	6.84	176,200
April.....	95,200	4,870	2,200	3,178	6.67	7.33	188,600
May.....	158,980	6,610	4,260	5,128	10.6	12.22	315,300
June.....	115,570	6,120	2,590	3,852	7.98	8.90	229,200
July.....	50,560	2,590	1,070	1,631	3.38	3.90	100,300
August.....	26,427	1,070	862	949	1.96	2.22	56,570
September.....	24,272	995	709	809	1.67	1.96	46,140
Water year 1934-35.....	1,808,111	19,200	577	3,310	6.85	95.01	2,996,000

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.— 733 square miles.

Records available.— July 1922 to September 1935, July to November 1909 for station 3 miles upstream.

Average discharge.— 12 years (1923-35), 4,619 second-feet.

Extremes.— Maximum discharge during year, 38,000 second-feet Nov. 6 (gage height, 16.13 feet); minimum, 224 second-feet Sept. 2 (gage height, 1.36 feet); minimum mean daily discharge, 266 second-feet.

1909, 1922-35: Maximum discharge, 129,000 second-feet Dec. 22, 1933 (gage height, 35.0 feet, from high-water marks); 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. Water-stage recorder inspected by employees of Inland Power & Light Co. Discharge estimated May 23, 24, 28-31, June 1-11. No diversions. Regulation caused by operation of power plant and storage in Lake Merwin Reservoir (capacity, 424,000 acre-feet).

Rating tables, water year 193-35 (gage height, in feet, and discharge, in second-feet)

Table for Oct. 1 to Nov. 5

2.5	670	6.0	4,760
3.0	1,030	7.0	6,800
3.5	1,510	8.0	8,900
4.0	2,060	9.0	11,450
5.0	3,300	10.0	14,550

Table for Nov. 6 to Sept. 30

2.0	500	11.0	17,850
3.0	1,220	12.0	21,300
4.0	3,560	13.0	24,900
5.0	6,880	14.0	29,000
6.0	11,800	15.0	33,300
7.0	17,850		

Discharge, in second-feet, water year October 1934 to September 1935

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2,780	3,070	8,980	5,450	8,280	4,560	4,150	6,580		3,360	1,760	750
2	3,240	5,220	6,220	5,450	5,140	3,690	3,450	6,180		2,900	1,740	266
3	3,200	16,100	6,460	4,930	9,680	3,710	3,140	5,650		2,700	1,310	1,970
4	2,020	14,200	7,180	5,310	8,260	4,220	3,140	5,910		2,650	682	2,490
5	1,690	28,800	6,140	6,610	7,220	3,140	3,530	6,560		2,520	1,420	2,650
6	1,560	28,700	4,720	8,120	6,540	3,290	3,430	7,770	5,400	2,880	2,080	2,960
7	1,360	32,400	2,400	7,080	6,920	3,220	3,240	6,480		1,760	2,160	2,870
8	1,820	22,100	3,550	5,990	5,670	3,240	3,590	6,650		2,540	2,020	1,520
9	1,480	15,200	4,210	5,020	5,060	2,860	3,090	6,590		3,010	1,750	2,760
10	1,610	10,200	3,780	4,910	4,440	2,450	3,100	6,350		3,300	1,480	2,990
11	1,570	8,420	3,660	5,020	5,260	2,940	3,170	6,160		2,760	616	3,090
12	1,900	8,290	3,670	4,440	4,560	7,490	3,670	4,820	4,480	3,080	1,520	3,080
13	1,350	6,800	3,690	4,110	4,880	13,900	4,990	5,630	5,000	2,380	2,040	3,060
14	935	5,600	3,630	3,310	5,360	8,750	4,990	5,280	4,620	1,080	2,090	2,780
15	1,630	5,490	3,690	3,620	4,330	7,220	5,060	5,330	4,920	2,390	1,950	1,370
16	1,740	4,620	3,850	3,550	3,740	6,370	5,190	6,690	3,700	2,640	1,840	2,360
17	1,830	3,760	4,180	3,420	4,660	5,800	4,800	5,990	4,320	2,650	1,830	3,020
18	1,740	4,420	4,390	2,860	4,700	5,330	4,960	6,580	3,690	1,720	694	3,000
19	1,900	8,780	9,700	2,420	4,360	4,950	4,340	6,140	2,900	1,280	1,260	3,050
20	1,530	6,840	21,800	1,970	4,750	4,950	5,040	5,760	2,420	1,080	1,910	3,110
21	1,140	7,800	25,200	4,050	6,920	4,650	6,060	6,420	2,240	616	1,680	2,700
22	1,860	8,560	28,600	8,880	9,130	4,110	6,180	7,550	1,930	1,060	1,680	1,520
23	1,700	11,000	18,600	9,130	8,780	5,810	6,400	6,950	2,360	1,760	1,710	2,880
24	1,970	13,400	16,800	16,200	6,630	4,540	5,740	6,250	2,780	1,740	1,540	3,260
25	2,460	13,400	12,600	15,000	6,840	4,390	5,250	5,620	2,940	1,670	616	3,220
26	2,150	11,800	12,400	13,200	5,060	3,990	5,670	5,800	3,280	1,660	1,860	3,200
27	1,560	10,800	10,300	11,100	5,510	3,970	6,650	5,840	2,960	1,310	2,290	3,160
28	1,120	10,100	8,470	9,910	4,660	3,740	5,930	6,000	3,000	643	2,340	3,060
29	2,030	9,460	8,100	9,000	-	3,940	6,290	6,100	3,090	1,340	2,400	1,770
30	2,040	9,020	6,610	8,900	-	3,690	6,160	5,750	3,280	1,640	2,390	2,920
31	2,940	-	6,540	8,320	-	4,090	-	5,360	-	2,100	2,120	-

Month	Observed			Run-off in acre-feet	Gain or loss in storage in Lake Merwin Reservoir in acre-feet	Corrected for storage			
	Discharge in second-feet					Run-off in acre-feet	Mean	Per square mile	Run-off in inches
	Maximum	Minimum	Mean						
October.....	3,240	935	1,865	114,700	+150,500	265,200	4,513	5.88	6.78
November.....	32,400	3,070	11,180	665,100	+15,300	680,400	11,450	15.6	17.40
December.....	26,200	2,400	8,529	524,400	+2,100	526,500	8,563	11.7	13.49
Calendar year 1934..	41,100	335	5,405	3,914,000	+1,300	3,915,000	5,407	7.38	100.10
January.....	16,200	1,970	6,686	411,100	-100	411,000	6,684	9.12	10.51
February.....	9,130	3,740	6,047	335,800	-200	335,600	6,043	8.24	8.58
March.....	13,900	2,430	4,753	292,200	+2,300	294,500	4,790	6.53	7.53
April.....	6,560	3,090	4,679	278,400	+2,200	280,600	4,716	6.43	7.16
May.....	7,770	4,820	6,148	378,000	+800	378,800	6,156	8.40	9.68
June.....	1,250	1,930	4,107	244,400	+10,900	255,300	4,890	5.85	6.53
July.....	3,360	616	2,093	128,700	-5,200	123,500	2,009	2.74	3.16
August.....	2,400	616	1,698	104,400	-23,300	71,100	1,156	1.58	1.92
September.....	3,260	266	2,644	151,400	-86,600	64,800	1,089	1.49	1.66
Water year 1934-35..	32,400	266	5,012	3,829,000	+58,400	3,687,000	5,093	6.95	94.31

East Fork of Lewis River near Heisson, Wash.

Location.- Water-stage recorder, lat. 45°50', long. 122°28', in N $\frac{1}{2}$ sec. 17, T. 4 N., R. 3 E., just above Basket Creek and $1\frac{1}{2}$ miles northeast of Heisson.

Drainage area.- 124 square miles.

Records available.- September 1929 to September 1935.

Extremes.- Maximum discharge during year, 10,500 second-feet Dec. 21 (gage height, 10.18 feet); minimum, 35 second-feet Sept. 29 (gage height, 0.12 foot).
1929-35: Maximum discharge, 15,600 second-feet Dec. 22, 1933 (gage height, 12.3 feet); minimum, 33 second-feet Sept. 3, 1934.

Remarks.- Records excellent. No diversions or regulation.

Rating table, water year 1934-35 (gage height, in feet, and discharge, in second-feet)

0.0	27	1.2	157	3.0	710	6.0	3,040
.2	41	1.4	200	3.5	980	6.5	3,710
.4	57	1.6	246	4.0	1,260	7.0	4,440
.6	74	1.8	295	4.5	1,590	7.5	5,250
.8	95	2.0	346	5.0	1,990	8.0	6,120
1.0	121	2.5	495	5.5	2,470	8.5	7,050

Discharge, in second-feet, water year October 1934 to September 1935

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	50	1,080	2,120	1,140	1,290	535	898	842	253	240	106	48
2	51	2,100	1,660	1,060	1,290	478	788	688	241	196	80	46
3	94	2,920	1,520	952	1,170	495	735	642	221	172	70	43
4	64	3,220	1,380	1,090	1,010	478	898	642	218	161	70	43
5	56	4,270	1,170	1,590	898	460	898	698	228	135	67	43
6	53	4,070	1,010	2,200	788	495	815	665	225	124	63	46
7	52	5,430	842	1,240	665	620	815	555	214	121	61	45
8	62	3,370	735	1,620	575	535	788	515	193	136	59	40
9	66	2,020	665	1,320	495	478	710	515	176	117	59	40
10	55	1,420	598	1,090	460	445	735	478	205	107	56	41
11	52	1,120	598	1,040	581	430	938	416	178	102	56	41
12	55	898	620	898	495	2,600	1,320	387	165	94	52	41
13	57	760	575	735	760	3,200	1,350	387	165	86	50	44
14	54	698	555	642	665	2,220	1,140	416	178	81	51	125
15	52	642	598	620	575	1,700	980	416	168	79	51	71
16	52	555	598	575	535	1,380	980	401	148	78	55	65
17	51	515	760	515	622	1,290	815	445	133	77	55	55
18	50	495	905	460	760	1,090	688	450	126	76	59	61
19	51	1,100	2,140	416	815	1,010	698	373	128	73	68	49
20	459	1,860	5,280	373	815	925	788	370	115	71	55	47
21	755	1,660	6,940	626	1,120	788	870	401	108	68	51	48
22	760	1,980	4,720	2,170	1,620	735	989	387	108	66	48	48
23	2,410	2,170	3,940	2,540	1,380	698	1,140	330	107	65	47	47
24	2,690	1,660	3,560	3,710	1,090	1,110	1,010	300	105	68	47	46
25	3,840	2,320	2,520	3,100	870	1,350	925	298	101	66	44	44
26	2,260	2,080	2,740	2,470	735	1,090	952	288	100	65	42	45
27	1,240	2,170	2,080	2,040	665	898	898	282	96	64	42	39
28	790	1,990	1,740	1,740	598	1,080	815	275	97	85	44	37
29	575	2,060	1,900	1,620	-	1,450	760	278	154	72	47	37
30	478	2,220	1,480	1,420	-	1,260	925	278	252	67	50	38
31	430	-	1,290	1,260	-	1,090	-	256	-	77	50	-
Month				Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off			
									Inches	Acres-feet		
October.....				17,782	3,840	50	573	4.62	5.33	35,230		
November.....				59,443	5,430	495	1,981	16.0	17.85	117,900		
December.....				57,017	6,940	535	1,839	14.8	17.06	113,100		
Calendar year 1934.....				275,911	6,940	35	756	6.10	82.75	547,200		
January.....				42,872	3,710	373	1,383	11.2	12.91	65,040		
February.....				23,545	1,620	460	834	6.73	7.01	49,300		
March.....				32,403	3,200	430	1,045	8.43	9.72	64,270		
April.....				27,051	1,350	698	902	7.27	8.11	53,660		
May.....				13,534	842	288	440	3.55	4.09	27,040		
June.....				4,897	253	96	163	1.31	1.46	9,710		
July.....				3,081	240	64	99.4	.802	.92	6,110		
August.....				1,773	106	42	57.2	.461	.53	3,520		
September.....				1,447	125	37	48.2	.389	.45	2,870		
Water year 1934-35.....				284,725	6,940	37	780	6.29	85.42	564,700		

Cowlitz River at Packwood, Wash.

Location.- Water-stage recorder, lat. 46°36'40", long. 121°40'45", in SE¼ sec. 18, 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 1935. July 1911 to December 1919, 1 mile upstream.

Average discharge.- 14 years (1911-19, 1929-35), 1,854 second-feet.

Extremes.- Maximum discharge during year, 26,500 second-feet Nov. 5 (gauge height, 11.08 feet); minimum, 221 second-feet Oct. 19 (gauge height, 2.44 feet).
1911-19, 1929-35: Maximum discharge, 36,800 second-feet Dec. 21, 1933 (gauge height, 13.0 feet); minimum, 160 second-feet Nov. 21, 1929 (gauge height, 2.10 feet).

Remarks.- Records good. No diversions or regulation.

Discharge, in second-feet, water year October 1934 to September 1935

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	290	3,560	1,180	954	2,630	909	738	2,060	3,240	2,270	965	730
2	295	3,100	1,080	963	3,240	864	695	1,960	3,140	2,080	927	723
3	305	2,950	1,070	946	3,240	837	688	1,960	3,040	2,200	927	723
4	260	2,950	1,040	954	2,930	810	674	2,250	3,900	2,140	828	709
5	255	15,100	990	1,020	2,630	770	674	2,730	5,270	2,040	762	674
6	275	10,600	954	1,040	2,380	746	641	2,930	6,090	1,860	770	686
7	295	11,100	936	972	2,140	730	688	2,530	6,510	2,040	794	667
8	449	6,530	945	918	1,860	688	616	2,630	5,610	1,850	828	674
9	579	3,680	918	855	1,620	660	616	2,830	4,490	1,650	864	674
10	516	2,730	891	810	1,440	641	628	2,730	5,400	1,760	873	654
11	495	2,210	1,020	610	1,390	641	686	2,270	4,620	1,880	794	686
12	418	1,970	1,670	762	1,280	966	873	2,040	4,250	2,180	882	535
13	345	2,130	1,670	730	1,220	2,200	1,340	2,160	4,620	2,630	954	546
14	315	2,830	1,600	688	1,120	1,930	1,490	2,510	4,870	3,040	864	702
15	305	3,040	1,300	661	1,040	1,580	1,490	3,040	4,250	3,040	730	695
16	265	2,080	1,210	667	990	1,400	1,540	2,930	3,350	2,730	647	819
17	250	1,640	1,190	647	1,040	1,270	1,370	2,530	3,140	2,290	667	610
18	241	1,420	1,160	628	1,080	1,110	1,270	2,420	3,460	1,990	855	640
19	260	1,280	1,390	597	1,080	1,060	1,300	2,400	3,570	1,780	716	546
20	832	1,250	3,960	551	1,160	990	1,570	2,630	3,040	1,680	709	540
21	838	1,190	5,850	641	1,300	918	1,570	4,020	3,350	1,680	709	530
22	854	1,350	4,700	1,270	1,510	855	1,440	4,740	3,680	1,800	730	514
23	928	1,530	3,140	1,830	1,440	810	1,340	3,790	2,830	1,780	695	509
24	7,590	1,640	2,470	4,120	1,890	802	1,250	3,240	2,440	1,610	641	493
25	17,100	1,600	1,990	7,090	1,180	786	1,280	3,140	2,490	1,420	660	483
26	9,130	1,480	1,770	5,540	1,080	738	1,530	3,570	3,040	1,240	702	473
27	4,390	1,410	1,480	4,140	1,020	709	1,670	4,020	3,460	1,110	746	478
28	3,100	1,290	1,310	3,460	954	802	1,680	4,250	3,680	1,100	828	478
29	2,530	1,210	1,220	3,140	-	819	1,770	4,370	3,350	1,020	864	498
30	2,340	1,220	1,110	2,830	-	786	2,090	3,680	2,730	1,010	802	509
31	2,880	-	1,020	2,730	-	762	-	3,460	-	1,020	738	-
Month				Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off			
									Inches	Acres-foot		
October.....				55,925	17,100		1,901	6.62	7.63	116,900		
November.....				96,150	15,100		1,190	3,875	11.2	12.50	190,700	
December.....				52,064	5,850		891	1,679	5.85	6.74	103,200	
Calendar year 1934.....				732,672	17,100		240	2,008	7.00	95.03	1,454,000	
January.....				52,983	7,090		551	1,709	5.95	6.86	105,100	
February.....				45,264	3,240		954	1,617	5.63	5.86	89,820	
March.....				29,589	2,200		641	954	3.32	3.33	58,690	
April.....				35,149	2,090		616	1,172	4.08	4.55	69,780	
May.....				92,020	4,740		1,960	2,968	10.3	11.67	182,500	
June.....				117,110	6,510		2,440	3,904	13.6	16.17	232,300	
July.....				87,900	3,040		1,010	1,868	6.61	7.50	114,800	
August.....				24,469	963		641	789	2.75	3.17	48,530	
September.....				18,000	819		473	600	2.09	2.33	35,700	
Water year 1934-35.....				679,633	17,100		241	1,862	6.49	88.01	1,348,000	

COWLITZ RIVER BASIN

Cowlitz River at Mossy Rock, Wash.

Location.- Wire-weight gage, lat. 46°33', long. 122°29'30", in sec. 1, T. 12 N., R. 2 E., at Harmony Bridge, 1 mile north of Mossy Rock.

Drainage area.- 1,170 square miles.

Records available.- January 1912 to September 1917 (incomplete), March 1926 to September 1935 (discontinued).

Average discharge.- 14 years, 5,142 second-feet.

Extremes.- Maximum discharge observed during year, 31,000 second-feet Nov. 6 (gage height, 17.56 feet); minimum, 804 second-feet Oct. 17-19; minimum gage height, 1.98 feet Sept. 27-29.
1912-17, 1926-35: Maximum discharge observed, 81,000 second-feet Dec. 22, 1933 (gage height, 36.55 feet); minimum, 630 second-feet Nov. 21-24, Dec. 3, 5-8, 1929.

Remarks.- Records fair. No diversions or regulation.

Rating tables, water year 1934-35 (gage height, in feet, and discharge, in second-feet)

Table for Oct. 1 to Nov. 5

2.0	702	4.5	3,800	8.0	9,500
2.2	910	5.0	4,550	10.0	13,300
2.5	1,250	5.5	5,300	12.0	17,700
3.0	1,850	6.0	6,100	14.0	22,300
3.5	2,450	7.0	7,600	17.0	29,500
4.0	3,100				

Table for Nov. 6 to Sept. 30

2.0	920	4.0	3,130
2.2	1,120	5.0	4,550
2.5	1,420	7.0	7,800
3.0	1,950	12.0	17,700
3.5	2,500	17.0	29,500

Discharge, in second-feet, water year October 1934 to September 1935

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	857	5,620	7,120	5,620	11,200	4,110	4,110	6,950	8,140	5,790	2,390	1,580
2	857	7,120	6,440	5,620	10,200	3,970	3,930	6,780	7,800	5,150	2,280	1,520
3	910	6,950	6,100	5,620	11,000	3,830	3,830	6,610	7,460	4,850	2,170	1,520
4	910	6,780	5,780	5,460	10,400	3,690	3,550	6,790	7,800	4,850	2,170	1,520
5	857	12,300	5,620	5,620	9,500	3,550	3,550	7,460	8,990	4,700	2,060	1,420
6	804	30,000	5,300	6,100	8,990	3,410	3,550	8,480	10,800	4,650	1,950	1,420
7	804	29,000	5,150	6,100	8,140	3,270	3,270	8,510	11,700	4,250	1,840	1,420
8	857	24,700	5,150	5,780	7,460	3,270	3,270	7,800	11,700	4,400	1,840	1,420
9	910	16,800	5,150	5,300	6,780	3,130	3,130	7,970	10,200	3,970	1,950	1,320
10	1,080	12,300	4,850	5,150	6,100	3,000	3,000	8,140	9,160	3,970	1,950	1,320
11	1,080	9,850	4,700	4,850	5,780	2,870	3,130	7,630	9,850	3,970	1,950	1,320
12	1,080	8,480	5,460	4,700	5,620	3,410	3,410	6,780	8,820	4,110	1,840	1,270
13	1,080	7,630	6,270	4,250	5,300	5,780	4,400	6,440	8,650	4,400	1,840	1,420
14	910	7,290	6,270	4,110	5,000	6,780	5,300	6,780	8,820	5,000	1,950	1,320
15	857	7,970	5,780	3,970	4,700	6,610	5,620	7,630	9,820	5,000	1,840	1,620
16	857	7,290	5,460	3,830	4,400	5,940	5,780	8,310	7,970	4,850	1,620	1,520
17	804	6,440	5,300	3,690	4,400	5,460	5,460	7,970	6,950	4,700	1,620	1,620
18	804	6,270	5,150	3,550	4,550	5,150	5,300	7,630	6,780	4,250	1,730	1,320
19	804	5,460	5,460	5,410	4,560	4,850	5,150	7,460	8,790	3,830	1,950	1,220
20	910	5,300	11,800	3,130	4,550	4,700	5,460	7,460	6,610	3,690	1,620	1,170
21	1,850	5,300	15,000	3,130	4,850	4,400	5,940	8,480	6,100	3,410	1,620	1,020
22	2,580	5,300	19,300	4,110	5,460	4,250	5,780	10,800	6,780	3,410	1,520	1,070
23	3,100	6,440	15,200	8,310	5,780	3,970	5,620	10,200	6,270	3,550	1,620	1,020
24	4,550	6,610	12,700	9,670	5,460	3,830	5,150	9,160	5,620	3,410	1,520	1,020
25	22,100	7,120	11,900	15,700	5,150	4,110	5,150	8,650	5,300	3,130	1,420	1,020
26	24,200	7,120	10,600	16,600	4,850	3,970	5,300	8,480	5,460	3,000	1,320	1,020
27	13,700	7,290	9,500	13,900	4,550	3,830	5,780	8,990	5,780	2,740	1,520	920
28	8,650	6,950	8,140	12,700	4,400	3,830	5,940	9,330	6,270	2,620	1,520	920
29	6,610	6,950	7,290	12,100	-	4,400	6,270	9,670	6,270	2,600	1,620	920
30	5,000	6,780	6,780	10,600	-	4,400	6,440	9,330	6,270	2,390	1,620	970
31	4,700	-	6,100	10,000	-	4,250	-	8,650	-	2,390	1,620	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acre-feet
October.....	115,072	24,200	804	3,712	3.17	3.66	228,200
November.....	289,410	30,000	5,300	9,647	8.25	9.20	574,000
December.....	240,920	19,300	4,700	7,772	6.64	7.66	477,900
Calendar year 1934.....	2,141,632	40,800	804	5,868	5.02	68.07	4,248,000
January.....	212,680	16,600	3,130	6,861	5.86	6.76	421,800
February.....	179,120	11,200	4,400	6,397	5.47	5.70	355,500
March.....	132,160	6,780	2,870	4,263	3.64	4.20	262,100
April.....	141,470	6,440	3,000	4,716	4.03	4.60	280,600
May.....	251,110	10,800	6,440	8,100	6.92	7.98	469,100
June.....	253,920	11,700	5,300	7,797	6.66	7.43	464,000
July.....	122,820	5,780	2,390	3,962	3.39	3.91	245,600
August.....	55,590	2,390	1,320	1,793	1.53	1.76	110,300
September.....	37,850	1,620	920	1,262	1.08	1.20	75,070
Water year 1934-35.....	2,012,122	30,000	840	5,513	4.71	65.96	3,991,000

Cowlitz River near Mayfield, Wash.

Location.— Water-stage recorder, lat. 46°30'40", long. 122°36'50", in NE $\frac{1}{4}$ sec. 24, T. 12 N. R. 1 E., 1 mile above Mill Creek and 2 $\frac{1}{2}$ miles west of Mayfield. Zero of gage is 226.6 feet above mean sea level.

Drainage area.— 1,400 square miles.

Records available.— April 1934 to September 1935. August 1910 to November 1911 at site 2 $\frac{1}{2}$ miles upstream.

Extremes.— Maximum discharge during year, 36,900 second-feet Nov. 6 (gage height, 20.1 feet); minimum, 930 second-feet Oct. 19 (gage height, 7.58 feet).

1910-11, 1934-35: Maximum discharge, that of Nov. 6, 1934; minimum, that of Oct. 19, 1934.

Discharge known to have been greater during December 1933.

Remarks.— Records excellent except those above 20,000 second-feet, which are fair. No diversions or regulation.

Rating tables, water year 1934-35 (gage height, in feet, and discharge, in second-feet)

Table for Oct. 1 to Nov. 5

7.5	850	10.0	4,570	15.0	17,800
8.0	1,390	11.0	6,500	16.0	21,250
8.5	2,060	12.0	8,780	18.0	28,700
9.0	2,810	13.0	11,410	20.0	36,500
9.5	3,670	14.0	14,500		

Table for Nov. 6 to Sept. 30

7.7	1,210	10.0	4,570
8.0	1,550	12.0	8,780
8.5	2,190	15.0	17,800
9.0	2,910	20.0	36,500

Discharge, in second-feet, water year October 1934 to September 1935

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	970	7,740	9,530	7,150	12,300	4,750	5,120	7,600	8,540	6,290	2,470	1,740
2	980	11,100	8,540	7,150	12,900	4,480	4,750	8,060	5,500	2,400	1,670	
3	1,040	11,700	8,060	7,600	13,500	4,390	4,480	7,150	7,830	5,120	2,260	1,670
4	1,050	11,400	7,830	7,600	12,500	4,300	4,300	7,370	7,830	5,120	2,260	1,610
5	980	19,400	7,150	8,540	11,700	4,040	4,390	8,300	9,030	4,950	2,120	1,610
6	960	35,700	6,500	9,530	10,600	3,960	4,210	9,280	11,100	4,750	2,000	1,610
7	960	33,800	6,290	8,780	9,790	3,870	4,040	9,030	12,000	4,390	2,000	1,610
8	970	28,700	6,090	8,060	8,540	3,700	3,870	8,540	12,300	4,480	2,000	1,540
9	1,050	21,000	5,890	7,150	7,600	3,540	3,760	8,540	10,800	4,210	2,000	1,530
10	1,260	15,000	5,690	6,500	6,930	3,380	3,580	8,780	9,790	3,960	2,000	1,530
11	1,220	11,700	5,690	6,090	6,930	3,300	3,700	8,300	10,300	3,960	2,060	1,500
12	1,190	9,790	6,500	5,690	6,500	6,040	4,210	7,370	9,280	4,040	1,930	1,440
13	1,160	8,780	7,150	5,310	6,290	9,280	5,500	6,930	9,030	4,300	2,000	1,420
14	1,070	8,540	7,150	4,930	5,890	9,530	6,290	7,150	9,030	4,750	2,060	1,800
15	1,030	9,030	6,710	4,750	5,500	8,540	6,500	8,060	9,580	5,120	2,000	1,930
16	1,020	8,300	6,090	4,670	5,120	7,600	6,710	8,780	8,060	5,120	1,860	1,930
17	970	7,150	6,500	4,480	5,310	6,930	6,500	8,780	7,150	4,750	1,740	1,860
18	950	6,500	6,500	4,210	5,500	6,500	6,090	8,300	6,930	4,210	1,860	1,670
19	940	6,090	8,020	3,960	5,500	6,090	5,890	8,060	6,930	3,870	2,060	1,480
20	1,260	6,090	17,400	3,700	5,690	5,690	6,090	7,830	6,710	3,620	1,860	1,440
21	2,190	6,500	21,100	4,120	6,090	5,310	6,930	9,030	6,290	3,460	1,740	1,400
22	3,220	6,500	24,500	10,300	7,150	4,930	6,950	10,800	6,710	3,460	1,740	1,350
23	4,390	8,540	20,600	14,200	7,370	4,750	6,710	11,400	6,710	3,460	1,740	1,330
24	10,200	9,280	17,800	15,500	6,710	4,750	6,090	10,000	5,890	3,460	1,740	1,300
25	28,100	10,000	15,500	20,600	6,090	5,120	5,890	9,030	5,310	3,220	1,610	1,260
26	28,600	9,790	14,500	20,900	5,690	4,930	6,090	8,780	5,500	2,980	1,610	1,230
27	19,400	9,790	12,300	15,500	5,310	4,670	6,500	9,530	5,390	2,760	1,610	1,220
28	12,000	9,280	10,600	16,500	5,120	4,750	6,950	9,790	6,290	2,680	1,670	1,210
29	8,540	9,280	9,790	14,800	-	5,500	6,930	10,000	6,500	2,610	1,800	1,210
30	6,710	9,280	8,780	13,500	-	5,500	7,150	10,000	6,710	2,470	1,860	1,220
31	6,090	-	7,830	12,900	-	5,120	-	9,030	-	2,400	1,800	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acre-feet
October.....	150,420	28,600	940	4,852	3.47	4.00	299,400
November.....	365,750	35,700	6,090	12,190	8.71	9.72	725,500
December.....	312,580	24,500	5,690	10,080	7.20	8.30	620,000
Calendar year							
January.....	287,570	20,900	3,700	9,276	6.63	7.64	570,400
February.....	214,220	13,500	5,120	5,261	5.46	5.69	424,900
March.....	165,140	9,530	3,300	5,327	3.80	4.38	327,600
April.....	166,190	7,150	3,620	5,540	3.96	4.42	329,600
May.....	269,910	11,400	6,950	8,675	6.20	7.15	533,400
June.....	241,850	12,300	5,310	8,061	5.76	6.43	479,700
July.....	125,450	6,290	2,400	4,047	2.69	3.33	248,800
August.....	59,860	2,470	1,610	1,951	1.38	1.59	118,700
September.....	45,330	1,930	1,210	1,511	1.08	1.20	89,910
Water year 1934-35.....	2,403,250	35,700	940	6,584	4.70	63.88	4,767,900

COWLITZ RIVER BASIN

Cowlitz River at Castle Rock, Wash.

Location.— Water-stage recorder, lat. 46°16'30", long. 122°55', 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 according to 1929 level-net adjustment.
Datum lowered 5.0 feet June 14, 1934, but gage heights prior to Oct. 1, 1934, were reduced to former datum.

Drainage area.— 2,210 square miles.

Records available.— December 1928 to September 1935.

Extremes.— Maximum discharge during year, 61,800 second-feet Nov. 6 (gage height, 20.39 feet); minimum, 1,280 second-feet Oct. 19 (gage height, 6.21 feet).
1928-35: Maximum discharge observed, 139,000 second-feet Dec. 23, 1933 (gage height, 31.6 feet, present datum); minimum, 1,230 second-feet Nov. 23, 1929.

Remarks.— Records excellent except those for Aug. 5 to Sept. 23, which are good. No diversions or regulation.

Rating table, water year 1934-35 (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Aug. 5 to Sept. 23)

6.2	1,250	8.5	5,600	11.0	12,800	14.0	24,900
6.5	1,700	9.0	6,740	11.5	14,620	15.0	29,900
7.0	2,500	9.5	8,040	12.0	16,500	16.0	35,300
7.5	3,470	10.0	9,500	12.5	18,470	18.0	47,000
8.0	4,500	10.5	11,050	13.0	20,500	20.0	59,300

Discharge, in second-feet, water year October 1934 to September 1935

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,310	11,800	18,500	13,900	18,100	7,230	8,040	9,500	10,400	8,040	3,980	2,680
2	1,320	18,900	15,400	12,600	18,100	6,740	7,490	9,500	9,800	6,980	3,770	2,590
3	1,370	23,100	13,900	13,900	18,900	6,510	6,980	9,200	9,500	6,510	3,670	2,500
4	1,430	21,300	13,200	13,500	18,100	6,510	6,740	9,200	9,200	6,280	3,670	2,500
5	1,380	35,300	11,700	16,600	16,900	6,280	6,740	10,100	10,400	6,050	3,370	2,420
6	1,320	58,100	10,400	29,200	15,700	6,280	6,740	11,400	12,400	5,880	3,370	2,420
7	1,300	58,100	9,800	20,100	13,900	6,280	6,280	11,400	14,200	5,490	3,370	2,420
8	1,340	45,200	9,200	16,500	12,400	6,050	6,280	10,700	14,200	5,490	3,370	2,420
9	1,380	31,000	8,900	13,500	11,000	5,600	5,820	10,400	13,200	5,380	3,270	2,330
10	1,550	22,200	8,320	11,700	9,800	5,380	5,600	10,700	11,700	5,050	3,270	2,250
11	1,610	17,700	8,320	10,700	9,800	5,270	5,600	10,400	11,700	4,830	3,370	2,330
12	1,560	14,600	10,700	10,100	9,500	5,070	5,050	9,500	11,000	4,840	3,270	2,170
13	1,550	13,200	11,400	9,200	11,700	17,300	7,230	8,610	10,400	5,050	3,270	2,250
14	1,490	12,800	10,700	8,320	10,700	16,500	8,610	8,610	10,700	5,490	3,470	3,470
15	1,400	13,500	10,100	7,760	9,200	15,000	8,900	9,500	11,000	6,050	3,470	3,770
16	1,400	12,800	9,500	7,760	8,320	12,900	9,200	10,700	10,100	6,280	3,270	3,270
17	1,360	11,000	9,800	7,230	8,040	11,400	9,500	10,700	8,610	6,050	3,070	3,070
18	1,310	9,800	10,400	6,740	8,610	10,400	9,900	10,700	9,040	5,800	3,170	2,500
19	1,260	9,200	14,600	6,280	8,320	9,500	8,320	10,100	8,040	5,270	3,570	2,010
20	1,910	8,900	29,600	5,820	8,320	9,200	8,610	9,800	8,040	5,160	3,370	1,850
21	3,110	10,100	34,800	8,760	9,200	8,610	9,800	10,400	7,490	5,050	3,070	1,850
22	5,270	11,300	40,400	42,900	12,400	8,040	10,100	12,800	7,760	5,050	2,870	1,840
23	7,600	16,100	39,300	35,900	13,200	7,490	10,400	14,200	8,040	5,050	2,780	1,840
24	14,600	16,900	32,000	29,900	11,400	8,320	9,500	12,400	7,230	5,160	2,680	1,840
25	41,400	17,700	26,800	32,000	9,800	11,700	8,610	11,000	6,510	5,050	2,500	1,800
26	45,200	18,500	26,400	31,500	8,900	10,700	8,610	10,700	6,280	4,940	2,500	1,730
27	29,800	18,500	22,600	27,300	8,320	9,200	8,900	11,000	6,740	4,720	2,680	1,720
28	18,200	17,300	19,300	24,400	7,760	8,320	9,500	11,400	6,980	4,500	2,590	1,670
29	15,200	17,300	20,100	21,900	-	8,900	9,500	11,700	7,760	4,400	2,780	1,660
30	10,100	16,900	17,700	20,100	-	9,200	9,500	12,100	8,040	4,180	2,970	1,680
31	8,610	-	15,000	18,900	-	8,610	-	11,000	-	4,080	2,870	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acres-feet
October.....	225,530	45,200	1,260	7,275	3.29	3.79	447,300
November.....	608,800	58,100	8,900	22,200	9.18	10.24	1,208,000
December.....	538,840	40,400	6,320	17,380	7.86	9.06	1,069,000
Calendar year 1934.....	3,775,830	71,700	1,260	10,340	4.68	63.52	7,490,000
January.....	527,970	42,900	5,820	17,030	7.71	8.89	1,047,000
February.....	326,590	18,900	7,760	11,660	5.26	5.50	647,400
March.....	379,290	17,300	5,270	9,009	4.08	4.70	554,000
April.....	242,050	10,400	5,600	8,068	3.65	4.07	480,100
May.....	329,720	14,200	8,610	10,640	4.81	5.54	654,000
June.....	285,460	14,200	6,280	9,515	4.31	4.81	566,200
July.....	167,990	8,040	4,080	5,419	2.45	2.82	333,200
August.....	98,700	3,980	2,600	3,184	1.44	1.66	195,800
September.....	68,860	3,770	1,660	2,295	1.04	1.16	136,600
Water year 1934-35.....	3,699,590	58,100	1,260	10,140	4.59	62.24	7,339,000

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, August 1930 to September 1935.

Average discharge.-- 10 years (1907-12, 1930-35), 280 second-feet.

Extremes.-- Maximum discharge during year, 2,900 second-feet Oct. 25 (gage height, 7.53 feet); minimum, 34 second-feet probably Oct. 19 (gage height, 2.50 feet, from recorded range of stage).

1907-17, 1930-35: Maximum discharge, 8,030 second-feet Dec. 22, 1933 (gage height, 11.7 feet); minimum, that of Oct. 19, 1934.

Remarks.-- Records good. Discharge Oct. 17-22 estimated on basis of recorded range of stage and records for Cowlitz River at Packwood. No regulation. Small diversion a few hundred feet above gage for fish hatchery.

Discharge, in second-feet, water year October 1934 to September 1935

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	40	456	231	180	431	174	127	306	580	400	169	62
2	42	417	222	180	492	161	122	303	560	376	164	76
3	46	410	213	180	500	169	115	294	560	403	161	76
4	44	448	210	160	452	156	113	500	645	392	154	71
5	42	1,640	205	193	424	146	110	349	810	372	141	71
6	39	1,640	196	188	400	134	108	396	890	345	139	78
7	39	1,560	190	177	365	131	106	396	920	355	139	70
8	42	1,120	185	166	339	129	104	399	835	339	139	66
9	42	712	177	154	306	122	99	400	712	315	134	65
10	42	560	171	141	282	110	99	403	735	327	136	66
11	41	452	169	144	261	106	93	372	690	349	131	66
12	41	392	193	134	246	126	95	333	668	375	124	65
13	42	362	213	129	228	249	148	318	712	417	129	66
14	41	362	216	124	216	258	177	327	760	438	127	65
15	39	454	210	122	202	245	185	375	668	431	113	97
16	36	368	208	119	190	225	193	406	560	392	106	99
17	37	315	205	115	185	219	193	403	516	355	106	78
18	35	282	199	108	185	208	193	392	540	321	154	68
19	34	255	237	95	185	199	193	386	540	294	117	62
20	50	245	690	87	190	190	202	400	468	279	106	60
21	80	237	827	138	205	180	222	516	540	276	102	57
22	150	240	679	230	222	164	219	668	560	276	99	54
23	273	261	498	346	225	169	213	645	468	282	95	53
24	928	273	400	568	219	174	205	580	431	264	91	52
25	2,110	276	333	712	208	164	196	560	445	237	87	50
26	1,090	279	306	645	196	148	199	622	500	205	87	49
27	625	267	267	560	188	141	225	645	520	196	86	47
28	459	255	240	516	182	136	240	668	540	202	86	46
29	378	245	222	490	-	146	258	712	540	185	89	45
30	349	234	202	452	-	144	291	645	442	180	87	45
31	375	-	190	428	-	134	-	600	-	182	84	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acres-feet
October.....	7,533	2,110	34	246	4.39	5.06	15,140
November.....	16,013	1,640	234	500	8.93	9.96	29,780
December.....	8,694	827	169	280	5.00	5.76	17,240
Calendar year 1934.....	111,549	2,280	34	306	5.46	74.01	221,200
January.....	7,990	712	87	258	4.61	5.32	15,850
February.....	7,724	500	182	276	4.93	5.13	15,320
March.....	5,157	258	106	166	2.96	3.41	10,230
April.....	5,043	291	93	168	3.00	3.55	10,000
May.....	14,109	712	294	456	8.12	9.36	27,990
June.....	18,373	920	431	612	10.9	12.16	36,440
July.....	9,762	438	180	315	5.62	6.48	19,360
August.....	3,682	169	84	119	2.12	2.44	7,300
September.....	1,973	99	45	65.8	1.18	1.32	3,910
Water year 1934-35.....	105,153	2,110	34	288	5.14	69.75	208,600

COWLITZ RIVER BASIN

Lake Creek near Packwood, Wash.

Location.- Water-stage recorder, lat. $46^{\circ}35'55''$, long. $121^{\circ}34'15''$, 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 1935.

Average discharge.- 18 years (1911-24, 1930-35), 104 second-feet.

Extremes.- Maximum discharge observed during year, 517 second-feet at some time in period Nov. 5-8 (gage height, 3.87 feet, from recorded range of stage), both stage and discharge may have been greater at some time in period Oct. 25-27. Minimum, 25 second-feet Oct. 15 (gage height, 1.80 feet).

1911-24, 1930-35: Maximum discharge, 1,400 second-feet Dec. 22, 1933 (gage height, 5.9 feet); minimum, that of Oct. 15, 1934.

Maximum stage recorded, 6.0 feet (former datum) Dec. 18, 1917 (discharge not determined).

Remarks.- Records good except those for Oct. 23-31, Nov. 1-3, 5-8, which are fair and were estimated on basis of records for Clear Fork of Cowlitz River near Packwood. No diversions. Natural regulation in Packwood Lake.

Discharge, in second-feet, water year October 1934 to September 1935

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	30	120	82	71	130	52	50	72	183	172	90	56
2	31	110	78	68	142	50	47	72	172	148	86	55
3	32	105	75	67	156	50	45	74	166	134	80	52
4	30	102	72	65	154	49	44	80	174	130	74	51
5	29	125	67	65	146	48	44	93	208	126	67	50
6	28	160	65	72	134	47	44	107	261	118	64	51
7	27	210	64	68	122	47	43	113	302	122	63	51
8	26	350	63	65	107	46	42	117	317	118	62	49
9	27	350	62	59	95	44	41	122	280	107	65	47
10	27	231	59	56	87	42	40	124	256	103	65	46
11	26	182	62	56	87	43	40	122	246	104	63	45
12	26	152	71	54	82	53	42	113	231	118	64	42
13	26	140	78	52	77	67	49	107	256	150	72	42
14	26	148	83	49	74	71	54	109	277	191	72	46
15	26	166	80	49	87	69	55	118	277	215	65	58
16	26	148	79	52	64	63	58	124	231	210	58	64
17	26	128	79	54	64	59	57	122	195	191	53	60
18	26	111	77	52	64	56	56	117	185	170	77	52
19	26	102	86	49	61	55	55	111	189	152	79	47
20	31	98	181	47	61	55	58	113	183	140	71	44
21	36	93	257	55	64	52	63	134	178	136	65	42
22	45	92	285	93	67	49	64	174	189	140	60	40
23	70	92	238	126	66	47	64	191	178	146	59	38
24	120	92	197	138	63	49	60	183	160	140	55	36
25	230	98	158	168	59	58	57	174	148	126	52	35
26	450	96	138	200	57	60	58	172	158	109	51	33
27	190	96	113	191	55	56	58	183	176	96	52	33
28	120	88	96	176	54	57	61	189	195	98	55	32
29	100	93	92	162	-	61	63	195	210	95	60	31
30	100	82	86	146	-	57	67	195	200	89	62	30
31	110	-	78	135	-	52	-	191	-	87	59	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acre-feet
October.....	2,125	450	26	68.5	3.64	4.20	4,210
November.....	4,128	360	82	138	7.34	8.19	8,190
December.....	3,301	285	59	106	5.64	6.50	6,550
Calendar year 1934.....	38,582	590	26	106	5.64	76.35	76,510
January.....	2,763	200	47	89.1	4.74	5.46	5,480
February.....	2,459	156	54	87.8	4.67	4.86	4,880
March.....	1,664	71	42	53.7	2.86	3.30	3,300
April.....	1,580	67	40	52.7	2.80	3.12	3,130
May.....	4,111	195	72	133	7.07	8.15	8,180
June.....	6,581	317	148	213	11.5	12.61	12,660
July.....	4,181	215	67	136	7.18	8.28	8,290
August.....	2,018	90	51	65.1	3.46	3.99	4,000
September.....	1,358	64	30	45.3	2.41	2.69	2,690
Water year 1934-35.....	36,069	450	26	98.6	5.26	71.35	71,530

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 1935.

Extremes.- (Maximum and minimum figures for water year 1933-34 not revised).

Maximum discharge, water year 1934-35, 11,900 second-feet Nov. 5 (gage height, 9.3 feet); minimum, 220 second-feet Oct. 18, 19 (gage height, 3.00 feet).
1910-12, 1929-35: Maximum discharge, 20,000 second-feet Dec. 22, 1933 (gage height, 12.7 feet); minimum, that of Oct. 18, 19, 1934.

Remarks.- Records good except those for Oct. 7, 10-14, 1933, which are fair and were estimated on basis of records for Cowlitz River at Packwood. No diversions or regulation.

Rating table, Dec. 22, 1933, to Sept. 30, 1935 (gage height, in feet, and discharge, in second-feet)

3.0	220	4.0	1,050	6.0	4,410	10.0	13,500
3.2	340	4.2	1,250	6.5	5,500	11.0	15,900
3.4	490	4.5	1,650	7.0	6,600	12.0	18,300
3.6	650	5.0	2,450	8.0	9,900	13.0	20,800
3.8	840	5.5	3,370	9.0	11,200		

Discharge, in second-feet, water year October 1933 to September 1934

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	659	2,300	752	3,790	2,270	1,410	3,470	1,270	1,030	850	424	431
2	645	3,340	760	3,680	2,270	3,140	2,780	1,210	920	820	466	354
3	612	4,980	768	5,940	2,190	2,690	2,430	1,210	830	830	520	354
4	586	3,790	752	5,300	2,040	2,270	2,190	1,320	830	820	438	375
5	568	2,900	961	4,620	1,890	2,700	2,040	2,520	840	820	410	354
6	568	2,370	4,380	3,790	1,780	3,990	1,960	2,190	900	840	410	334
7	562	1,950	4,100	3,070	1,790	3,370	1,960	1,890	900	850	403	328
8	556	1,720	2,970	2,520	1,890	2,790	2,040	1,690	910	940	396	298
9	544	1,560	5,870	2,190	1,790	2,430	2,040	1,540	940	766	396	310
10	528	1,390	11,000	2,190	1,650	2,190	1,890	1,430	940	677	403	347
11	513	1,260	8,500	1,890	1,580	2,040	1,820	1,420	973	605	389	304
12	497	1,180	9,040	1,750	1,510	1,960	1,960	1,370	995	528	382	340
13	481	1,080	6,640	1,810	1,410	2,040	2,110	1,360	962	528	389	368
14	466	1,030	4,600	1,720	1,340	2,110	2,190	1,370	951	544	396	322
15	450	980	5,370	1,560	1,290	2,110	2,110	1,410	940	552	403	299
16	497	964	2,600	1,890	1,300	2,040	2,040	1,390	910	579	417	292
17	526	918	2,830	2,430	1,300	1,820	1,890	1,280	920	614	431	280
18	614	872	5,260	2,190	1,280	1,710	1,740	1,180	910	536	389	292
19	1,050	842	5,260	4,750	1,270	1,640	1,790	1,160	860	512	382	274
20	1,530	842	7,470	6,830	1,250	1,690	1,890	1,170	850	496	382	268
21	1,140	850	13,500	5,500	1,230	1,680	1,960	1,110	850	466	389	290
22	1,490	956	19,000	7,080	1,210	1,680	2,110	1,100	860	438	389	292
23	2,370	1,020	13,300	10,400	1,180	1,600	2,110	1,170	820	431	389	290
24	2,150	940	7,300	7,060	1,150	1,420	1,890	1,290	780	445	396	262
25	1,890	910	5,280	5,060	1,110	1,360	1,890	1,300	760	473	382	286
26	1,560	865	4,410	3,990	1,070	1,280	1,690	1,320	790	504	410	256
27	1,560	850	3,680	3,370	1,210	1,490	1,640	1,340	790	536	410	256
28	2,050	820	3,270	2,880	1,220	2,030	1,630	1,280	810	520	396	250
29	4,600	790	4,840	2,520	-	4,200	1,500	1,300	820	498	403	256
30	3,620	775	5,390	2,430	-	4,100	1,390	1,320	830	452	438	262
31	2,820	-	4,730	2,270	-	3,880	-	1,190	-	417	424	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acres-feet
October.....	38,682	4,600	450	1,248	3.86	4.45	76,720
November.....	44,924	4,880	775	1,497	4.63	5.17	89,110
December.....	172,583	19,000	752	5,967	17.2	19.83	342,300
Calendar year 1933.....	713,532	19,000	450	1,955	6.05	92.16	1,415,000
January.....	116,640	10,400	1,560	3,759	11.6	13.37	231,200
February.....	42,470	2,270	1,070	1,517	4.70	4.89	84,240
March.....	70,450	4,200	1,290	2,273	7.04	8.12	139,700
April.....	60,130	3,470	1,390	2,004	6.20	6.92	119,300
May.....	43,090	2,520	1,100	1,390	4.30	4.96	95,470
June.....	26,411	1,030	760	880	2.72	3.04	52,390
July.....	18,750	850	417	605	1.87	2.16	37,190
August.....	12,652	820	382	408	1.26	1.45	25,090
September.....	9,173	431	250	306	.987	1.06	18,190
Water year 1933-34.....	656,855	19,000	250	1,797	5.56	75.42	1,301,000

Note.- The above records supersede those published in Water-Supply Paper 769.

Cispus River near Randle, Wash.

(Continued)

Discharge, in second-feet, water year October 1934 to September 1935

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	262	1,360	1,430	1,230	2,270	920	830	2,190	2,520	1,360	668	375
2	268	1,510	1,300	1,180	2,520	880	780	2,110	2,350	1,230	650	354
3	268	1,560	1,250	1,120	2,520	860	770	2,190	2,350	1,230	641	341
4	260	1,560	1,190	1,110	2,350	830	740	2,350	2,600	1,190	605	354
5	238	8,120	1,120	1,110	2,270	800	740	2,690	3,070	1,130	587	340
6	238	9,130	1,100	1,100	2,110	600	713	2,970	3,570	1,060	569	368
7	244	8,900	1,090	1,040	1,890	770	704	2,690	3,780	1,050	587	354
8	256	6,390	1,070	984	1,710	740	704	2,600	3,470	1,020	587	361
9	292	4,100	1,050	930	1,540	713	686	2,690	2,780	962	587	354
10	292	2,880	1,020	900	1,410	704	695	2,600	2,880	940	605	340
11	280	2,270	1,050	900	1,320	686	770	2,350	2,780	940	560	310
12	274	1,890	1,300	850	1,230	840	973	2,110	2,520	962	569	292
13	250	1,690	1,370	830	1,180	1,370	1,340	2,040	2,520	1,030	605	298
14	238	1,810	1,320	790	1,070	1,460	1,500	2,190	2,600	1,160	573	382
15	232	1,760	1,250	790	1,020	1,340	1,500	2,520	2,350	1,170	536	417
16	232	1,520	1,180	810	973	1,230	1,560	2,690	2,040	1,090	504	431
17	226	1,390	1,160	770	984	1,160	1,460	2,600	1,890	995	496	375
18	226	1,290	1,150	750	1,010	1,030	1,390	2,430	1,820	930	560	347
19	226	1,240	1,360	722	1,030	984	1,430	2,350	1,820	900	528	354
20	361	1,220	3,570	686	1,040	951	1,650	2,520	1,640	870	496	347
21	552	1,180	4,520	740	1,090	900	1,740	3,070	1,640	860	496	347
22	623	1,480	4,410	1,180	1,270	860	1,620	3,780	1,760	860	480	340
23	713	1,810	3,370	1,280	1,280	830	1,600	3,470	1,600	870	480	334
24	2,080	1,710	2,690	1,940	1,180	830	1,410	2,970	1,470	850	473	322
25	5,390	1,720	2,270	3,070	1,110	820	1,430	2,780	1,420	820	480	310
26	4,620	1,620	2,190	3,070	1,060	780	1,630	2,880	1,470	760	466	310
27	2,620	1,580	1,890	2,780	1,020	760	1,810	2,970	1,510	731	431	304
28	1,660	1,470	1,710	2,520	973	810	1,820	3,070	1,580	731	431	310
29	1,270	1,390	1,890	2,350	-	920	1,390	3,170	1,560	704	438	322
30	1,070	1,470	1,450	2,270	-	880	2,110	2,880	1,520	686	417	304
31	1,050	-	1,320	2,270	-	860	-	2,690	-	677	396	-
Month				Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off			
									Inches	Acres-feet		
October.....				26,691	5,390	226	861	2.67	3.08	52,940		
November.....				77,020	9,130	1,180	2,587	7.95	8.87	152,800		
December.....				53,740	4,520	1,020	1,734	5.37	6.19	106,600		
Calendar year 1934				557,117	10,400	226	1,526	4.72	64.11	1,105,000		
January.....				42,072	3,070	686	1,367	4.20	4.84	83,450		
February.....				40,430	2,520	973	1,444	4.47	4.66	80,190		
March.....				28,318	1,460	686	913	2.83	3.26	56,170		
April.....				37,895	2,110	686	1,263	3.91	4.36	75,180		
May.....				82,610	3,780	2,040	2,665	8.25	9.51	163,900		
June.....				66,880	3,780	1,420	2,229	6.90	7.70	132,700		
July.....				29,768	1,360	877	960	2.97	3.42	59,040		
August.....				16,506	668	396	532	1.65	1.90	32,740		
September.....				10,317	431	292	344	1.07	1.19	20,460		
Water year 1934-35.....				512,247	9,130	226	1,403	4.34	58.98	1,016,000		

Toutle River near Silver Lake, Wash.

Location.- Water-stage recorder, lat. 46°20', long. 122°44', in SE $\frac{1}{4}$ sec. 19, T. 10 N., R. 1 E., under highway bridge half a mile below junction of North and South Forks, 5 miles northeast of Silver Lake.

Drainage area.- 472 square miles.

Records available.- October 1919 to December 1923, September 1929 to September 1935. September 1909 to August 1912 at site 2 miles downstream.

Average discharge.- 11 years (1909-11, 1919-21, 1922-23, 1929-35), 2,120 second-feet.

Extremes.- Maximum discharge during year, 19,500 second-feet Nov. 5 (gage height, 14.38 feet); minimum, 305 second-feet Oct. 19 (gage height, 1.75 feet).
1909-12, 1919-23, 1929-35: 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 good. Discharge estimated from contracted gage-height graph Feb. 22-24. No diversions or regulation.

Rating tables, water year 1934-35 (gage height, in feet, and discharge in second-feet)

Table for Oct. 1 to Nov. 5				Table for Nov. 6 to Sept. 30			
2.0	430	6.0	5,700	1.5	260	5.0	3,460
2.5	725	7.0	7,220	2.0	455	6.0	5,260
3.0	1,070	8.0	8,740	2.5	730	7.0	7,200
3.5	1,570	9.0	10,340	3.0	1,070	8.0	8,740
4.0	2,290	10.0	11,980	3.5	1,530	10.0	11,980
5.0	3,890	11.0	13,680	4.0	2,050	12.0	15,380

Discharge, in second-feet, water year October 1934 to September 1935

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	320	3,500	4,040	3,140	3,860	1,890	2,110	2,050	1,690	1,630	588	450
2	325	5,170	3,360	3,140	4,040	1,780	2,000	1,940	1,630	1,450	577	446
3	390	6,360	3,140	3,300	3,960	1,730	1,890	1,890	1,580	1,330	555	446
4	370	5,640	2,920	3,380	3,700	1,680	1,780	1,880	1,580	1,240	550	432
5	335	13,700	2,700	4,040	3,460	1,630	1,880	2,000	1,630	1,150	540	428
6	325	15,200	2,490	4,870	3,220	1,580	1,830	2,050	1,940	1,070	530	419
7	315	12,000	2,360	4,390	2,920	1,690	1,730	2,000	2,000	1,030	520	414
8	335	7,940	2,930	3,620	2,630	1,630	1,750	1,890	1,890	1,010	505	410
9	370	5,180	2,170	3,140	2,420	1,530	1,630	1,940	1,730	969	505	397
10	360	4,040	2,050	2,840	2,230	1,430	1,530	1,940	1,780	920	505	397
11	340	3,460	2,170	2,700	2,290	1,430	1,530	1,890	1,680	892	505	393
12	335	2,990	2,560	2,560	2,170	2,430	1,730	1,730	1,630	857	510	389
13	355	2,770	2,490	2,290	2,420	4,210	2,000	1,680	1,630	844	510	402
14	330	2,630	2,170	2,170	2,290	3,780	2,050	1,890	1,580	871	510	391
15	330	2,560	2,170	2,050	2,110	3,360	2,050	1,890	1,580	878	505	398
16	335	2,360	2,050	2,050	2,050	2,990	2,050	1,890	1,480	844	500	700
17	325	2,170	2,170	1,940	2,110	2,770	2,110	1,940	1,380	796	500	572
18	315	2,050	2,290	1,830	2,170	2,490	2,110	1,940	1,330	766	540	505
19	315	2,050	3,340	1,680	2,110	2,360	2,050	1,830	1,330	760	555	470
20	564	2,230	1,890	1,890	2,170	2,230	2,050	1,780	1,240	718	520	450
21	1,280	2,290	8,600	2,160	2,360	2,110	2,230	1,940	1,200	676	510	432
22	2,210	2,920	8,740	10,400	3,300	2,000	2,230	2,110	1,240	658	505	419
23	2,260	3,950	7,940	8,740	3,220	1,880	2,290	2,050	1,200	646	500	402
24	6,320	3,780	6,680	7,790	2,770	2,050	2,170	1,830	1,110	634	500	393
25	12,300	4,120	5,490	7,650	2,420	2,560	2,050	1,730	1,060	634	495	389
26	9,540	4,040	5,900	6,860	2,230	2,230	2,050	1,730	1,040	610	495	381
27	4,960	3,950	4,580	5,700	2,110	2,230	2,050	1,780	1,050	594	495	376
28	3,370	3,700	4,040	4,970	2,000	2,230	2,050	1,780	1,110	594	490	372
29	2,850	3,780	4,120	4,480	-	2,700	2,000	1,830	1,240	588	485	368
30	2,370	3,950	3,620	4,210	-	2,420	2,050	1,780	1,480	560	470	368
31	2,060	-	3,140	3,950	-	2,230	-	1,730	-	555	460	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acre-feet
October.....	57,029	12,300	315	1,840	3.90	4.50	113,100
November.....	140,480	15,200	2,050	4,683	9.92	11.07	278,600
December.....	120,660	8,740	2,050	3,892	8.25	9.51	239,500
Calendar year 1934.....	813,797	18,000	305	2,230	4.72	64.10	1,614,000
January.....	123,620	10,400	1,580	3,988	8.45	9.74	245,200
February.....	74,730	4,040	2,000	2,669	5.65	5.88	148,200
March.....	69,450	4,210	1,430	2,240	4.75	5.48	137,800
April.....	59,000	2,290	1,530	1,967	4.17	4.65	117,000
May.....	55,020	2,110	1,680	1,872	3.97	4.58	115,100
June.....	44,020	2,000	1,040	1,467	3.11	3.47	87,510
July.....	26,754	1,630	555	863	1.83	2.11	53,070
August.....	15,935	588	460	514	1.09	1.26	31,610
September.....	13,719	891	368	457	.968	1.08	27,210
Water year 1934-35.....	803,417	15,200	315	2,201	4.66	63.33	1,594,000

YOUNGS RIVER BASIN

Youngs River near Astoria, Oreg.

Location.— Water-stage recorder, lat. 46°4', 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 by general adjustment of 1929.

Drainage area.— 32 square miles.

Records available.— January 1934 to September 1935; August 1927 to December 1933 at site 1 mile upstream; March 1916 to September 1917 (stage only) at site 3 miles upstream.

Extremes.— Maximum discharge during year, 3,390 second-feet Jan. 22 (gage height, 11.6 feet); minimum, 5.9 second-feet Sept. 9-12.

1927-35: Maximum discharge, about 6,300 second-feet Nov. 24, 1927 (gage height at former gage, 6.52 feet); minimum, 4 second-feet Aug. 31 to Sept. 2, 1931.

Remarks.— Records good except those estimated Nov. 21-28, Dec. 28 to Jan. 5, which are fair. No diversions or regulation above station. Water-stage recorder inspected by city engineer of Astoria.

Rating tables, water year 1934-35 (gage height, in feet, and discharge, in second-feet)

Table for Oct. 1-19

1.1	8.5
1.2	11
1.3	13
1.4	16
1.6	22

Table for Oct. 20 to Sept. 30

0.7	5.6	1.6	22	3.5	150	7.0	1,050
.8	6.9	1.8	28	4.0	230	8.0	1,450
1.0	9.8	2.0	35	4.5	330	10.0	2,450
1.2	13.1	2.5	59	5.0	450	12.0	3,540
1.4	17	3.0	97	6.0	720		

Discharge, in second-feet, water year October 1934 to September 1935

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	12	382	562	300	129	119	173	76	27	63	11	8.6
2	11	612	425	280	117	108	146	70	26	41	10	7.7
3	13	660	319	260	106	131	129	64	23	35	9.4	7.2
4	13	761	239	250	97	139	119	59	21	28	10	6.8
5	12	1,970	190	300	91	144	120	55	20	27	9.2	6.6
6	11	1,370	187	1,050	84	165	104	57	18	24	8.6	6.5
7	10	840	134	675	78	267	95	48	17	24	8.4	6.2
8	14	512	119	462	72	205	87	46	18	25	8.2	6.0
9	17	341	108	341	68	166	82	45	18	20	8.0	5.9
10	14	248	98	267	64	143	76	44	22	18	7.9	5.9
11	13	192	103	341	98	134	74	43	18	16	8.0	5.9
12	13	166	110	298	138	971	75	40	18	15	7.5	5.9
13	12	195	101	258	412	932	71	37	18	14	7.2	16
14	12	319	98	217	308	690	64	36	17	13	7.6	122
15	11	308	96	197	248	438	64	37	17	13	7.6	47
16	11	239	94	219	195	319	62	37	18	13	7.3	44
17	11	198	111	184	248	308	67	71	18	12	7.6	29
18	11	163	251	156	205	239	60	54	17	12	11	22
19	11	154	960	134	166	248	57	41	18	11	11	17
20	192	221	1,120	120	154	239	61	37	16	11	9.2	15
21	204	250	1,280	985	302	214	135	35	15	11	7.9	14
22	400	500	970	2,610	810	230	233	33	14	10	7.5	13
23	703	800	1,130	1,130	562	217	330	31	14	10	7.3	13
24	1,280	700	900	810	364	704	230	30	14	10	6.9	12
25	1,900	700	705	550	256	900	172	28	13	9.8	6.9	11
26	995	600	900	400	202	575	137	27	13	9.6	6.9	10
27	488	700	550	298	161	389	116	26	12	9.6	6.8	9.6
28	287	500	450	239	137	375	101	25	12	9.6	6.6	8.8
29	196	352	450	198	-	319	91	26	19	9.4	10	8.3
30	153	536	400	168	-	248	85	26	76	8.9	11	8.4
31	167	-	350	143	-	205	-	26	-	9.6	9.6	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acres-feet
October.....	7,199	1,900	10	232	7.25	6.36	14,280
November.....	15,479	1,970	154	516	16.1	17.96	30,700
December.....	13,460	1,260	94	434	13.6	15.68	26,700
Calendar year 1934.....	69,615.4	1,970	5.9	190	5.94	80.82	138,000
January.....	13,840	2,610	120	446	13.9	16.03	27,460
February.....	5,974	810	64	210	6.56	6.93	11,650
March.....	10,412	971	108	336	10.5	12.11	20,650
April.....	3,436	330	87	115	3.59	4.00	6,820
May.....	1,308	76	25	42.2	1.32	1.62	2,590
June.....	587	76	12	19.6	.612	.68	1,180
July.....	542.5	63	6.9	17.5	.547	.63	1,080
August.....	262.3	11	6.8	8.45	.264	.30	520
September.....	499.3	122	5.9	16.6	.519	.58	990
Water year 1934-35.....	72,899.1	2,610	5.9	200	6.25	64.68	145,000

WILSON RIVER BASIN

Wilson River near Tillamook, Oreg.

Location.- Staff gage, lat. 45°29'10", long. 123°43'30", 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 1935. December 1914 to November 1916 (incomplete) at station three-quarters of a mile downstream.

Extremes.- Maximum discharge observed during year, 14,300 second-feet Jan. 22 (gage height, 11.96 feet); minimum, 73 second-feet Sept. 11 (gage height, 0.54 foot).
1914-16, 1931-35: Maximum discharge, 30,000 second-feet Dec. 21, 1933 (gage height, 19.28 feet); minimum, 82 second-feet Oct. 6, 9, 10, 1932 (gage height, 0.36 foot).

Remarks.- Records fair. No diversions or regulation above gage.

Rating tables, water year 1934-35 (gage height, in feet, and discharge, in second-feet)

Table for Oct. 1 to Dec. 20

0.7	68	3.5	1,930
1.0	130	4.0	2,450
1.5	220	5.0	3,550
1.6	435	6.0	4,750
1.9	520	7.0	6,070
2.2	720	8.0	7,510
2.6	1,050	10.0	10,700
3.0	1,430	12.0	14,300

Table for Dec. 21 to Sept. 30

0.5	65	2.2	800
.7	108	2.6	1,120
1.0	168	3.5	1,950
1.3	295	4.0	2,460
1.6	435	7.0	6,070
1.9	605	12.0	14,300

Discharge, in second-feet, water year October 1934 to September 1935

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	106	2,670	3,220	*2,100	1,570	*1,000	1,570	765	238	*320	128	90
2	130	4,030	2,560	2,050	1,480	*900	1,380	698	220	*230	123	90
3	130	7,060	2,340	1,850	1,390	*860	*1,300	*650	220	*250	118	*88
4	120	7,210	1,830	1,850	1,210	*840	1,210	635	220	*230	118	87
5	116	12,100	1,830	2,350	1,060	835	1,210	605	204	*220	113	85
6	111	10,700	1,430	5,010	980	870	1,060	575	*200	*210	108	85
7	111	10,000	1,230	5,550	935	1,030	950	518	*200	*200	108	83
8	287	6,490	980	*2,500	750	950	910	490	*220	*210	103	81
9	244	3,440	880	1,750	665	800	*870	462	*210	195	99	77
10	206	2,450	800	2,150	665	*740	*850	462	255	182	99	77
11	173	1,930	840	1,750	800	730	*900	462	204	176	99	73
12	161	1,630	760	1,390	800	6,380	1,210	435	204	176	99	77
13	126	1,430	760	1,300	1,950	7,960	1,210	435	188	171	99	99
14	126	1,530	760	1,080	*1,750	*4,800	*1,000	410	158	*162	99	182
15	145	1,530	760	1,030	*1,400	*3,000	*850	435	188	154	99	275
16	145	1,330	760	*1,000	1,210	2,150	*950	605	188	149	99	410
17	130	1,230	*1,050	910	1,480	2,050	835	545	182	143	99	255
18	130	1,230	1,430	835	1,480	1,660	730	518	176	143	143	188
19	136	1,430	3,930	730	1,480	1,660	698	*410	171	138	138	176
20	1,630	2,450	6,890	698	1,570	1,480	*680	*370	171	138	123	169
21	3,220	2,340	9,210	1,660	1,950	*1,300	*900	*340	165	133	108	156
22	3,440	4,880	8,890	11,500	4,030	1,210	1,750	*330	165	133	99	143
23	8,760	5,140	8,890	10,200	3,330	1,120	2,250	318	159	128	99	133
24	10,000	4,390	6,770	11,200	3,330	1,850	1,850	295	154	128	94	123
25	12,100	4,270	*6,000	8,570	2,350	3,790	1,570	295	149	128	94	118
26	9,050	3,330	*5,200	4,750	1,480	2,670	1,300	275	143	128	94	116
27	5,790	3,790	3,790	3,110	1,300	*2,200	*1,100	275	141	128	94	108
28	2,560	3,220	3,220	*2,500	1,120	*2,200	990	255	171	128	90	108
29	1,930	*2,800	3,110	2,150	-	2,670	950	*245	220	133	*105	108
30	1,630	3,220	2,560	1,850	-	2,050	870	238	362	138	*100	103
31	1,680	-	2,850	1,750	-	1,750	-	238	-	138	*95	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acres-feet
October.....	64,690	12,100	106	2,087	12.9	14.87	128,300
November.....	119,250	12,100	1,230	3,975	24.5	27.33	256,400
December.....	95,530	2,210	750	3,691	19.1	22.02	190,100
Calendar year 1934.....	536,993	12,100	78	1,471	9.08	123.30	1,065,000
January.....	95,123	11,500	698	3,068	18.9	21.79	168,700
February.....	43,385	4,030	650	1,549	9.56	9.86	86,050
March.....	65,206	7,960	730	2,059	12.6	14.53	125,400
April.....	33,938	2,250	660	1,131	6.98	7.79	67,310
May.....	15,689	765	238	438	2.70	3.11	26,960
June.....	5,876	362	141	196	1.21	1.35	11,660
July.....	5,290	320	128	171	1.06	1.22	10,490
August.....	3,226	143	90	106	.654	.75	6,520
September.....	3,953	410	73	132	.815	.91	7,840
Water year 1934-35.....	547,410	12,100	73	1,500	9.26	125.63	1,066,000

*Estimated by comparison with records of Trask River and Youngs River.

TRASK RIVER BASIN

Trask River near Tillamook, Oreg.

Location.- Water-stage recorder, lat. 45°28'40", long. 123°43'30", in NW¼ sec. 30, 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 1935.

Extremes.- Maximum discharge during year, 11,700 second-feet Dec. 20 (gage height, 9.21 feet); minimum, 80 second-feet Sept. 11, 12 (gage height, 0.52 foot).
1931-35: Maximum, 20,000 second-feet Dec. 22, 1933 (gage height, 13.00 feet); minimum, 84 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 except those for Jan. 2-9, which are fair and were estimated on basis of records for station on Wilson River. No diversions or regulation above station.

Rating tables, water year 1934-35 (gage height, in feet, and discharge, in second-feet)

Table for Oct. 1 to Dec. 19			
0.5	70	3.0	1,330
.7	105	3.5	1,870
.9	150	4.0	2,520
1.1	205	4.5	3,260
1.4	315	5.0	4,030
1.5	495	6.0	5,700
2.2	715	7.0	7,480
2.6	990	8.0	9,350

Table for Dec. 20 to Sept. 30			
0.5	75	3.5	1,920
.7	110	4.0	2,550
1.0	190	4.5	3,250
1.3	295	5.0	4,030
1.6	425	6.0	5,700
2.0	530	7.0	7,480
2.5	940	8.0	9,350
3.0	1,380		

Discharge, in second-feet, water year October 1934 to September 1935

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	95	2,080	2,880	1,860	1,280	841	1,480	697	252	412	158	92
2	109	3,480	2,360	1,750	1,190	787	1,280	646	241	299	135	90
3	135	5,530	1,990	1,700	1,100	787	1,240	597	227	259	128	88
4	109	6,040	1,700	1,700	972	769	1,330	565	224	230	125	87
5	103	8,970	1,430	2,000	872	739	1,240	540	217	217	120	87
6	101	8,020	1,240	4,500	805	781	1,140	525	211	205	118	86
7	99	8,780	1,070	3,200	739	925	1,060	495	205	205	115	84
8	142	5,530	938	2,000	680	811	972	470	208	214	115	82
9	150	3,400	852	1,400	824	739	880	450	202	196	112	81
10	125	2,320	774	1,590	586	691	841	435	227	187	110	81
11	119	1,700	760	1,540	721	680	841	415	202	178	108	80
12	113	1,380	741	1,280	745	4,990	910	394	202	172	108	81
13	109	1,240	679	1,140	1,810	5,870	932	376	199	163	106	87
14	105	1,240	644	995	1,380	3,480	853	356	190	158	104	255
15	105	1,200	644	925	1,190	2,550	811	358	190	155	104	190
16	107	1,070	679	918	1,060	2,040	835	353	193	152	102	238
17	105	990	641	1,100	1,100	1,930	751	405	193	145	106	160
18	101	901	1,110	775	1,100	1,540	691	415	184	142	158	135
19	103	1,330	3,410	709	1,020	1,430	646	356	181	140	130	128
20	826	1,810	7,660	653	1,020	1,280	641	340	175	138	112	118
21	1,330	2,120	7,660	1,060	1,330	1,140	823	327	172	138	108	112
22	1,810	2,960	6,380	5,530	2,620	1,100	1,330	315	169	135	104	110
23	6,340	4,030	6,940	5,700	2,350	1,060	2,040	299	166	135	100	108
24	7,300	3,790	5,870	6,220	1,810	2,010	1,840	291	163	132	98	104
25	7,480	3,790	4,350	4,850	1,430	3,530	1,330	283	160	132	96	100
26	6,040	3,180	4,680	3,710	1,190	2,750	1,140	275	160	130	94	98
27	3,250	3,550	3,550	2,820	1,060	2,040	988	267	155	132	92	94
28	1,990	3,020	2,820	2,290	940	2,100	865	263	158	140	90	90
29	1,430	2,520	2,690	1,820	-	2,290	808	267	281	132	102	90
30	1,150	2,730	2,420	1,640	-	2,040	753	263	495	130	95	90
31	1,150	-	2,040	1,430	-	1,760	-	252	-	148	96	-
Month			Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off				
								Inches	Acre-feet			
October.....			42,231	7,480	95	1,362	8.96	10.33	85,760			
November.....			96,671	8,970	901	3,239	21.6	24.10	195,700			
December.....			82,371	7,660	644	2,667	17.5	20.18	163,400			
Calendar year 1934.....			418,953	8,970	79	1,148	7.55	102.51	831,000			
January.....			68,657	6,220	663	2,215	14.6	16.83	136,200			
February.....			32,734	2,620	586	1,169	7.69	8.01	64,950			
March.....			55,460	5,870	680	1,789	11.8	13.60	110,000			
April.....			31,098	2,040	641	1,037	6.82	7.61	61,680			
May.....			12,402	697	252	400	2.63	3.03	24,600			
June.....			6,202	485	155	207	1.36	1.52	12,300			
July.....			5,451	412	130	176	1.16	1.34	10,810			
August.....			3,454	168	80	111	.730	.84	6,850			
September.....			3,528	255	90	111	.730	.81	6,600			
Water year 1934-35.....			442,057	8,970	80	1,211	7.97	108.20	876,800			

Nestucca River near McMinnville, Oreg.

Location.- Water-stage recorder, lat. 45°19'10", long. 123°27'40", in SW $\frac{1}{4}$ 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 1935.

Extremes.- Maximum discharge during year, 1,050 second-feet Mar. 12 (gage height, 4.20 feet); minimum, 1.5 second-feet Sept. 11-13 (gage height, 0.38 foot).

1928-35: Maximum discharge, 1,850 second-feet Dec. 22, 1933 (gage height, 5.10 feet); minimum, 1.0 second-foot Oct. 11, 1929.

Remarks.- Records fair except those for Oct. 9-16, Jan. 21 to Mar. 6, which are poor and were estimated on basis of records for station on Haskins Creek. No diversions above gage. Flow regulated to a small extent by dam at outlet of Meadow Lake.

Rating table, water year 1934-35 (gage height, in feet, and discharge, in second-feet)

0.3	1.0	2.2	103
.5	2.4	2.6	175
.7	4.8	3.0	305
1.0	11.5	3.5	570
1.4	30	4.0	900
1.8	87		

Discharge, in second-feet, water year October 1934 to September 1935

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2.0	75	162	74	80	54	77	40	10	7.0	3.3	2.0
2	2.1	157	132	68	78	45	68	36	10	7.0	3.3	2.0
3	2.2	395	110	64	73	42	64	34	9.7	6.6	3.3	1.9
4	2.2	370	92	69	66	40	70	31	9.1	6.2	3.2	1.9
5	2.2	612	76	79	59	40	67	29	8.8	6.1	3.1	1.8
6	2.2	528	63	155	55	45	63	28	8.3	5.8	3.0	1.8
7	2.2	582	55	164	50	49	61	26	7.7	5.8	2.8	1.7
8	2.2	323	49	129	45	45	57	25	7.7	5.9	2.8	1.6
9	3.0	162	44	104	40	41	53	24	7.4	5.9	2.7	1.6
10	4.0	106	40	86	36	38	50	22	7.7	5.8	2.6	1.5
11	3.0	78	41	79	40	38	49	22	7.7	5.4	2.6	1.5
12	2.5	62	45	69	50	449	52	20	7.4	5.3	2.5	1.5
13	2.0	56	40	61	110	395	58	20	7.2	5.0	2.4	1.5
14	2.0	67	37	53	90	273	59	18	7.0	4.7	2.2	2.1
15	1.9	66	37	51	73	166	58	18	7.0	4.4	2.2	2.6
16	1.9	59	39	51	60	124	60	18	7.0	4.3	2.2	3.1
17	1.8	55	45	48	60	109	55	22	7.0	4.0	2.2	3.2
18	2.2	51	63	43	55	93	51	23	6.8	3.9	2.4	3.2
19	3.8	89	118	37	52	82	48	20	6.6	3.8	2.6	3.1
20	11	128	516	36	50	76	47	18	6.6	3.6	2.6	2.8
21	18	132	444	45	64	64	57	16	6.2	3.4	2.5	2.7
22	48	178	406	90	120	62	73	15	6.1	3.4	2.4	2.6
23	134	195	510	160	115	55	100	14	5.9	3.3	2.4	2.5
24	187	157	375	230	95	84	87	13	5.8	3.2	2.3	2.4
25	188	153	234	220	63	173	75	13	5.8	3.1	2.2	2.2
26	162	135	234	198	72	135	64	12	5.6	3.1	2.2	2.2
27	89	198	178	162	64	103	56	11	5.4	3.1	2.1	2.1
28	55	162	136	127	57	95	50	11	5.3	3.2	2.0	1.9
29	39	147	118	106	-	97	46	11	5.6	3.2	2.0	1.8
30	35	149	95	92	-	92	43	11	6.8	3.1	2.0	1.8
31	43	-	79	85	-	84	-	11	-	3.1	2.0	-
Month		Second-foot-days		Maximum	Minimum	Mean	Per square mile		Run-off			
									Inches	Acres-feet		
October.....		1,024.4		188	1.8	33.0	2.75		3.17	2,030		
November.....		5,649		612	51	188	15.7		17.52	11,200		
December.....		4,623		516	37	149	12.4		14.30	9,170		
Calendar year 1934.....		19,759.8		612	1.5	54.1	4.61		61.31	39,200		
January.....		3,034		230	36	97.9	8.16		9.41	6,020		
February.....		1,892		120	36	67.6	5.63		5.66	3,750		
March.....		5,290		449	38	106	8.83		10.18	6,530		
April.....		1,618		100	43	60.6	5.05		5.63	3,610		
May.....		632		40	11	20.4	1.70		1.96	1,250		
June.....		215.4		10	5.3	7.18	.598		.67	427		
July.....		141.7		7.0	3.1	4.57	.361		.44	281		
August.....		78.1		3.3	2.0	2.62	.210		.24	165		
September.....		64.6		3.2	1.5	2.15	.179		.20	128		
Water year 1934-35.....		22,462.2		612	1.5	61.5	5.12		69.58	44,550		

Siletz River at Siletz, Oreg.

Location.- Wire-weight gage, lat. 44°43', long. 123°55'40", 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 1935.

Average discharge.- 15 years (1906-11, 1925-35), 1,740 second-feet.

Extremes.- Maximum discharge observed during year, 15,000 second-feet Nov. 7 (gage height, 14.71 feet); minimum, 64 second-feet Aug. 28 (gage height, 0.68 foot).
1905-12, 1924-35: Maximum discharge, 34,600 second-feet Nov. 22, 1909; minimum, 51 second-feet Dec. 8, 7, 1929.
Maximum discharge known, 40,800 second-feet Nov. 20, 1921 (gage height, 31.6 feet at present gage).

Remarks.- Records fair. No diversions for irrigation above station. Flow regulated occasionally at low and medium stages by operation of logging pond at Valsetz.

Rating tables, water year 1934-35 (gage height, in feet, and discharge, in second-feet)

Table for Oct. 1 to Nov. 6

0.5	55	5.0	2,230
1.0	110	6.0	3,160
1.5	215	8.0	5,560
2.0	390	10.0	8,300
3.0	880	12.0	11,100
4.0	1,470	15.0	15,500

Table for Nov. 7 to Sept. 30

0.6	54	3.0	880
1.0	113	4.0	1,470
1.5	230	8.0	5,560
2.0	410	15.0	15,500

Discharge, in second-feet, water year October 1934 to September 1935

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	80	3,480	3,260	3,260	1,540	1,150	1,540	980	295	312	155	84
2	94	4,050	2,860	2,490	1,470	1,060	1,400	930	295	260	140	82
3	102	7,040	2,490	2,230	1,470	980	1,330	830	275	245	132	84
4	92	8,020	2,070	2,400	1,330	1,210	1,990	780	245	201	150	80
5	83	9,420	1,750	2,310	1,150	1,210	1,830	680	230	194	128	80
6	80	9,560	1,610	4,910	1,090	1,330	1,610	635	216	184	119	81
7	78	12,070	1,330	4,530	930	1,470	612	216	245	215	117	80
8	85	8,300	1,090	3,590	880	1,400	1,330	590	230	230	113	78
9	87	6,080	1,030	2,860	730	1,330	1,210	568	230	189	111	78
10	80	3,160	980	2,230	680	1,270	1,030	545	245	178	108	77
11	82	2,580	1,030	2,310	1,030	1,270	980	500	246	169	103	77
12	81	2,070	1,030	1,990	1,090	5,820	950	478	230	169	101	78
13	78	1,680	980	1,880	1,750	9,660	980	432	230	158	103	84
14	78	2,070	930	1,460	1,750	5,170	980	410	216	153	99	455
15	79	2,070	930	1,470	1,540	3,700	980	410	230	145	98	260
16	78	1,750	1,030	1,470	1,470	3,160	930	410	216	136	99	455
17	65	1,610	1,210	1,470	1,400	2,490	880	635	216	150	106	191
18	73	1,610	1,270	1,270	1,270	1,900	880	845	201	132	148	155
19	74	4,530	5,060	1,210	1,210	1,750	790	500	194	134	124	147
20	982	5,040	11,100	980	880	1,680	750	478	164	138	116	140
21	1,260	4,780	8,860	1,090	1,610	1,540	980	410	181	138	108	130
22	1,080	5,430	8,300	3,370	2,960	1,610	1,400	390	171	136	93	124
23	6,600	5,690	9,000	7,040	2,670	1,540	2,230	350	171	136	86	115
24	8,680	4,780	8,020	7,500	2,150	1,680	1,750	330	167	140	84	110
25	10,100	4,910	5,430	5,300	1,680	7,460	1,400	312	162	136	82	108
26	6,080	5,560	5,950	4,170	1,540	4,910	1,270	312	160	136	81	104
27	3,160	4,780	4,530	3,160	1,470	4,410	1,210	295	164	134	81	103
28	3,070	3,810	3,370	2,670	1,270	2,960	1,150	295	171	167	84	101
29	1,470	3,160	7,320	2,830	-	2,580	1,090	295	260	145	82	96
30	1,330	3,490	2,070	2,070	-	2,150	1,030	312	350	138	84	93
31	1,830	-	4,060	1,750	-	1,910	-	295	-	140	86	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acres-feet
October.....	46,101	10,100	73	1,487	7.29	8.40	91,440
November.....	143,100	12,600	1,610	4,770	23.4	28.11	293,800
December.....	113,160	11,100	930	3,650	17.9	20.64	224,400
Calendar year 1934.....	583,084	12,600	56	1,597	7.83	106.28	1,156,000
January.....	86,510	7,600	980	2,791	13.7	15.79	171,600
February.....	40,310	2,960	480	1,429	7.00	7.29	79,350
March.....	91,290	8,860	980	2,622	12.9	14.87	161,200
April.....	37,400	2,230	780	1,247	6.11	6.82	74,180
May.....	15,544	980	295	501	2.46	2.84	30,830
June.....	6,599	350	160	220	1.08	1.20	13,090
July.....	5,249	312	130	160	.828	.95	10,410
August.....	3,272	155	64	106	.520	.60	6,490
September.....	3,930	455	77	151	.642	.72	7,800
Water year 1934-35.....	582,165	12,600	64	1,595	7.82	106.23	1,155,000

Siuslaw River above Wildcat Creek, at Austa, Oreg.

Location.- Staff gage, lat. 44°, long. 123°39'20", in SW¼ sec. 18, 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 1935.

Extremes.- Maximum discharge observed during year, 7,660 second-feet Dec. 29 (gage height, 11.20 feet); minimum, 24 second-feet Oct. 14-19 (gage height, 1.09 feet).
1931-35: Maximum discharge observed, 10,800 second-feet Jan. 2, 1933 (gage height, 13.90 feet); minimum, 22 second-feet Sept. 4, 5, 1931, Sept. 22, 1934.

Remarks.- Records good. No diversions or regulation above gage.

Rating table, water year 1934-35 (gage height, in feet, and discharge, in second-feet)

1.0	19	4.0	1,170
1.2	31	4.5	1,500
1.4	61	5.0	1,850
1.6	80	6.0	2,650
1.8	123	7.0	3,500
2.0	180	8.0	4,400
2.5	375	9.0	5,380
3.0	610	10.0	6,380
3.5	870	11.0	7,440

Discharge, in second-feet, water year October 1934 to September 1935

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	27	290	2,010	2,810	1,110	990	1,050	498	174	100	54	34
2	25	560	1,780	2,090	1,060	990	930	465	162	96	54	33
3	30	1,600	1,290	1,640	990	930	870	442	162	92	54	33
4	30	1,850	1,050	1,430	950	930	815	420	150	84	49	32
5	30	1,710	870	1,290	870	1,230	760	375	150	80	49	31
6	28	930	760	1,870	815	1,850	710	330	150	80	47	30
7	28	995	660	3,230	760	2,260	710	330	145	80	47	30
8	28	510	560	3,080	710	1,930	710	330	139	80	44	30
9	28	465	510	2,350	660	1,640	760	330	139	80	44	30
10	27	375	465	1,780	585	1,430	710	290	128	80	44	29
11	25	310	442	1,500	610	1,360	660	290	128	80	44	28
12	25	270	420	1,430	710	1,710	610	290	128	77	40	28
13	25	220	420	1,430	1,170	1,930	560	290	150	74	40	28
14	24	352	465	1,870	1,290	1,430	535	250	128	74	38	160
15	24	615	560	1,500	1,290	1,230	585	250	123	74	38	160
16	24	760	535	1,710	1,060	1,170	610	250	123	70	38	96
17	24	610	585	2,490	930	1,110	585	270	123	70	36	67
18	24	585	610	2,010	815	1,110	560	250	118	64	36	54
19	24	3,050	1,870	1,640	760	990	535	250	118	61	38	47
20	30	3,140	3,500	1,360	710	1,050	498	215	105	61	40	40
21	232	2,010	3,410	1,170	930	1,290	610	215	105	59	38	38
22	232	1,780	3,680	1,290	1,060	1,570	585	215	100	59	38	38
23	930	2,490	4,040	2,250	1,230	1,710	1,170	208	100	59	37	36
24	1,870	2,650	3,590	2,810	1,170	1,710	1,050	201	100	56	37	38
25	660	2,010	2,730	2,410	1,110	4,040	900	194	96	56	36	36
26	330	1,640	2,650	2,090	990	4,040	720	187	96	56	36	36
27	201	1,640	2,970	1,850	870	2,650	610	160	92	54	35	36
28	134	1,570	2,970	1,570	930	1,850	585	180	96	54	33	36
29	94	1,360	6,260	1,430	-	1,500	535	174	100	54	34	33
30	105	1,290	6,880	1,290	-	1,290	510	180	105	55	34	33
31	118	-	4,040	1,230	-	1,170	-	180	-	56	34	-
Month		Second-foot-days		Maximum	Minimum	Mean	Per square mile	Run-off				
								Inches	Acro-feet			
October.....		5,136		1,570	24	166	0.622	0.72	10,190			
November.....		37,367		3,140	280	1,245	4.66	5.20	74,100			
December.....		61,502		6,280	420	1,977	7.40	8.53	121,600			
Calendar year 1934.....		210,769		6,280	22	577	2.16	29.36	418,000			
January.....		57,250		3,230	1,170	1,847	6.92	7.98	113,600			
February.....		26,095		1,290	565	932	3.49	3.63	61,760			
March.....		50,080		4,040	930	1,615	6.06	6.98	99,330			
April.....		21,028		1,170	488	701	2.63	2.93	41,710			
May.....		8,619		468	174	275	1.03	1.19	16,900			
June.....		3,733		174	92	124	.464	.52	7,400			
July.....		2,175		100	54	70.2	.263	.30	4,310			
August.....		1,289		54	33	40.9	.153	.18	2,520			
September.....		1,290		150	28	43.0	.161	.18	2,560			
Water year 1934-35.....		275,234		6,280	24	754	2.82	36.34	546,000			

SIUSLAH RIVER BASIN

Lake Creek at Triangle Lake, Oreg.

Location.- Water-stage recorder, lat. 44°9'30", long. 123°34', in NW¼ sec. 29, T. 16 S., R. 7 W., 500 feet below outlet of Triangle Lake.

Drainage area.- 50 square miles.

Records available.- August 1931 to September 1935.

Extremes.- Maximum discharge during year, 1,290 second-feet Mar. 26 (gage height, 4.61 feet); minimum, 7 second-feet Sept. 12, 13 (gage height, 0.47 foot).

1931-35: Maximum discharge, 3,960 second-feet Dec. 22, 1934 (gage height, 8.14 feet); minimum, that of Sept. 12, 13, 1935.

Remarks.- Records good. No diversions above gage. Flow regulated by natural storage in Triangle Lake.

Rating table, water year 1934-35 (gage height, in feet, and discharge, in second-feet)

0.4	6	2.0	172
.6	10.5	2.5	304
.8	18	3.0	475
1.0	29	3.5	695
1.2	44	4.0	950
1.4	66	4.5	1,290
1.7	113		

Discharge, in second-feet, water year October 1934 to September 1935

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	10	111	495	845	423	228	354	131	42	29	14	9
2	10	234	535	695	399	212	313	122	42	27	14	9
3	10	412	495	578	374	208	290	113	41	25	14	9
4	10	555	426	515	351	215	278	106	40	25	13	9
5	10	645	364	475	329	225	275	101	39	24	13	9
6	10	600	313	535	304	258	250	94	39	23	13	9
7	10	467	278	770	284	354	234	91	37	25	13	9
8	10	391	244	922	261	415	225	86	36	24	12	9
9	10	341	220	870	239	384	212	82	35	24	12	9
10	10	281	200	745	218	335	200	79	35	23	12	9
11	10	228	190	622	215	295	186	76	34	22	11	8
12	10	190	198	555	215	329	177	72	34	21	11	7
13	9	177	198	475	258	475	168	70	33	20	10	7
14	9	184	198	430	315	555	162	67	33	20	10	13
15	9	223	198	397	326	515	166	67	32	20	10	20
16	9	244	198	377	304	456	164	65	32	19	10	26
17	9	234	210	377	272	408	157	67	32	18	10	25
18	9	225	242	354	244	374	149	69	32	17	10	24
19	9	381	304	320	225	345	141	66	32	16	10	21
20	11	695	475	290	210	341	137	62	30	16	10	20
21	22	795	670	264	220	335	145	60	26	15	10	18
22	40	720	820	261	253	335	159	56	26	15	10	16
23	76	670	950	361	287	341	205	54	27	14	10	15
24	236	695	975	555	295	351	236	52	27	14	10	14
25	316	670	895	645	278	622	220	50	26	14	9	13
26	228	622	820	645	258	1,140	193	48	25	14	9	13
27	157	578	795	622	244	1,020	170	46	25	14	9	12
28	113	535	770	578	239	745	149	43	25	14	9	11
29	86	495	845	535	-	578	141	43	26	14	9	10
30	73	460	975	495	-	471	137	44	30	14	9	10
31	76	-	950	452	-	401	-	43	-	14	9	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acre-feet
October.....	1,617	316	9	52.2	1.04	1.20	5,210
November.....	13,058	795	111	435	8.70	9.71	25,900
December.....	15,446	975	190	498	9.96	11.48	30,640
Calendar year 1934.....	66,287	1,120	8	182	3.64	49.32	131,500
January.....	16,560	922	261	534	10.7	12.34	32,030
February.....	7,840	423	210	280	5.60	5.83	15,550
March.....	13,266	1,140	208	428	8.56	9.87	26,510
April.....	5,993	354	137	200	4.00	4.46	11,990
May.....	2,230	131	43	71.9	1.44	1.66	4,420
June.....	978	42	25	32.5	.650	.72	1,940
July.....	594	29	14	19.2	.384	.44	1,180
August.....	355	14	9	10.8	.216	.25	664
September.....	390	26	7	13.0	.260	.29	774
Water year 1934-35.....	78,295	1,140	7	215	4.30	58.25	155,300

Umpqua River near Elkton, Oreg.

Location.- Staff gage, lat. 43°34'50", long. 123°33'30", 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 by U. S. Geological Survey river profile.

Drainage area.- 3,680 square miles.

Records available.- October 1905 to September 1935; incomplete prior to November 1908.

Average discharge.- 30 years, 7,080 second-feet.

Extremes.- Maximum discharge during year, 76,800 second-feet Dec. 20 or 21 (gage height 23.1 feet, from flood marks); minimum, 786 second-feet Oct. 19, 20 (gage height, 1.02 feet).

1905-35: Maximum discharge, 172,000 second-feet Feb. 21, 1927 (gage height, 41.0 feet); minimum, 640 second-feet July 18, 1928 (gage height, 0.71 feet).
A flood in 1861 reached a stage of about 45.5 feet.

Remarks.- Records good. Some diversions for irrigation in South Umpqua River Basin, but low-water flow probably only slightly affected. No regulation.

Rating table, water year 1934-35 (gage height, in feet, and discharge, in second-feet)

1.0	770	3.0	2,930	7.0	10,900	15.0	39,700
1.5	1,220	4.0	4,340	9.0	17,000	17.0	46,400
2.0	1,730	5.0	6,130	11.0	23,800	19.0	57,300
2.5	2,300	6.0	8,300	13.0	31,500	21.0	66,600

Discharge, in second-feet, water year October 1934 to September 1935

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	810	2,670	22,800	16,400	15,100	11,500	10,900	11,200	4,030	2,000	1,140	958
2	810	3,320	19,000	13,300	14,500	10,400	9,300	11,200	3,880	1,900	1,140	958
3	818	8,740	13,600	11,200	13,600	9,300	9,820	3,740	1,840	1,120	958	
4	818	15,100	10,600	9,300	13,000	8,540	9,040	8,790	3,740	1,730	1,120	940
5	886	17,300	8,790	8,790	12,100	9,820	11,800	8,060	3,740	1,680	1,120	940
6	880	11,800	7,600	8,540	11,200	12,100	12,700	7,600	3,880	1,570	1,100	922
7	818	7,600	8,740	18,600	10,400	11,600	10,400	7,600	4,030	1,570	1,100	922
8	818	8,560	6,130	33,100	9,300	10,600	11,500	7,160	3,740	1,520	1,080	922
9	818	4,340	5,560	22,800	8,300	10,600	13,000	6,950	2,600	1,520	1,060	922
10	818	3,740	5,010	16,100	7,160	9,300	11,200	6,330	3,460	1,520	1,070	913
11	818	2,930	4,670	13,600	6,740	8,300	9,820	5,930	3,190	1,470	1,060	913
12	818	2,480	4,500	11,800	7,830	7,600	9,300	5,740	3,050	1,470	1,060	904
13	818	2,300	5,010	11,800	9,820	7,530	8,790	5,370	2,930	1,420	1,050	904
14	818	2,300	5,370	10,900	12,100	9,040	8,540	5,010	2,800	1,420	1,030	922
15	818	2,670	5,560	10,100	12,700	11,600	9,820	4,840	2,740	1,420	1,030	931
16	818	4,180	5,370	12,700	10,600	10,400	18,300	4,840	2,670	1,370	1,030	1,010
17	818	4,670	5,370	15,400	9,300	9,560	21,400	4,840	2,600	1,320	1,030	985
18	818	5,370	6,130	16,400	9,040	9,040	17,000	4,670	2,480	1,270	1,010	931
19	794	8,300	7,830	10,600	8,790	8,300	13,500	4,670	2,420	1,270	1,010	922
20	786	16,400	44,000	9,560	8,790	8,300	11,200	4,340	2,360	1,220	1,010	922
21	1,020	12,100	62,800	8,300	10,100	10,400	10,600	4,340	2,240	1,220	994	940
22	1,620	11,800	41,000	9,820	10,100	9,560	10,100	4,500	2,180	1,210	994	922
23	2,300	12,100	32,700	13,600	9,300	10,400	10,400	4,840	2,120	1,200	994	922
24	7,600	13,300	33,100	17,000	8,540	10,400	12,700	4,840	2,000	1,200	994	922
25	12,700	14,800	40,600	19,300	7,600	10,400	12,100	4,670	1,950	1,200	976	913
26	5,930	34,700	30,300	22,400	6,950	17,700	10,900	4,500	1,840	1,200	976	904
27	3,740	21,400	29,900	21,400	6,950	18,300	10,100	4,340	1,760	1,200	976	904
28	2,540	19,300	22,800	20,000	9,560	13,600	9,560	4,340	1,730	1,180	976	904
29	2,060	19,600	18,300	18,600	-	11,800	9,040	4,340	1,780	1,180	976	904
30	1,780	20,600	22,800	17,300	-	11,800	10,400	4,180	1,900	1,160	976	904
31	2,180	-	21,400	16,400	-	13,000	-	4,030	-	1,160	958	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acres-feet
October.....	59,758	12,700	786	1,928	0.524	0.60	118,800
November.....	308,460	34,700	2,300	10,280	2.79	3.11	611,800
December.....	555,320	62,800	4,500	17,910	4.87	5.62	1,101,000
Calendar year 1934.....	1,851,400	62,800	754	5,072	1.38	18.70	3,672,000
January.....	465,110	33,100	8,300	15,000	4.08	4.70	922,500
February.....	279,470	15,100	6,740	9,981	2.71	2.82	554,300
March.....	350,890	18,300	7,600	10,670	2.90	3.34	656,300
April.....	341,510	21,400	8,300	11,380	3.09	3.45	677,400
May.....	183,890	11,200	4,030	5,932	1.61	1.86	364,700
June.....	84,610	4,030	1,730	2,820	.766	.85	167,800
July.....	43,610	2,000	1,160	1,407	.382	.44	86,500
August.....	32,180	1,140	958	1,037	.282	.33	65,790
September.....	27,838	1,010	904	928	.252	.28	55,220
Water year 1934-35.....	2,712,616	62,800	786	7,432	2.02	27.40	5,280,000

UMPQUA RIVER BASIN

Cow Creek near Azalea, Oreg.

Location.- Staff gage, lat. 42°49'40", long. 123°10'42", in sec. 33, T. 31 S., R. 4 W., 4 miles northeast of Azalea.

Records available.- April 1926 to September 1935 (incomplete).

Extremes.- Maximum discharge observed during year, 755 second-feet Jan. 7 (gage height, 4.2 feet); minimum, 7 second-feet Sept. 30.

1928-35: Maximum discharge (estimated), 4,000 second-feet Jan. 2, 1933 (gage height, 7.8 feet); minimum, 4 second-feet Sept. 9-19, 1929, Aug. 28-28, 1931, Aug. 21 to Sept. 6, 1934.

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

Rating tables, water year 1934-35 (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Oct. 1-20)

Table for Oct. 1 to Jan. 6

1.5	3	2.6	122
1.6	5	2.8	172
1.8	12	3.0	232
2.0	27	3.3	334
2.2	52	3.6	455
2.4	83	3.9	600

Table for Jan. 7 to Sept. 30

1.7	6.5	2.8	157
1.8	10.1	3.0	215
2.0	24	3.3	317
2.2	44	3.6	443
2.4	72	3.9	590
2.6	110	4.2	755

Discharge, in second-feet, water year October 1934 to September 1935

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	8	30	201	172	299	132	174	168	35	18	10	9
2	8	46	134	144	281	121	160	132	32	16	10	9
3	8	151	116	124	247	121	179	112	29	15	10	9
4	9	97	108	129	231	106	174	104	28	16	10	9
5	9	97	97	169	215	100	163	100	28	14	10	9
6	9	41	83	149	200	96	165	90	26	14	10	9
7	11	39	77	755	174	119	179	81	25	15	9	9
8	11	34	69	356	165	110	200	72	25	14	8	8
9	11	23	78	247	147	104	174	70	24	14	8	8
10	11	22	61	179	119	95	163	64	24	14	9	8
11	12	21	54	152	215	94	157	62	23	14	9	8
12	12	21	49	137	174	104	144	57	23	13	8	8
13	14	22	52	123	160	110	140	56	22	13	8	9
14	13	28	64	112	147	152	137	53	23	12	8	9
15	13	37	58	104	123	130	336	52	23	11	8	18
16	14	31	61	100	114	128	420	49	22	11	9	10
17	15	28	67	98	106	125	264	49	22	10	9	9
18	16	26	72	94	102	121	215	47	20	11	9	9
19	17	248	299	86	100	117	179	44	20	10	9	9
20	20	99	600	83	110	114	168	42	18	10	9	9
21	97	97	352	77	106	112	157	41	18	11	8	9
22	49	83	600	76	104	117	142	40	18	16	8	8
23	46	80	390	104	104	114	137	38	17	18	8	8
24	75	159	500	215	96	119	121	36	17	36	8	8
25	26	248	390	317	86	317	112	36	17	16	8	8
26	25	156	600	356	83	317	106	35	16	14	8	8
27	22	316	370	420	98	215	100	33	15	13	8	8
28	18	175	265	398	144	200	108	33	15	12	8	8
29	16	195	390	356	-	215	157	35	16	11	37	8
30	16	201	282	356	-	231	215	37	20	11	20	7
31	17	-	216	317	-	200	-	37	-	11	10	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acres-feet
October.....	660	97	8	21.0	0.276	0.32	1,290
November.....	2,841	316	21	94.7	1.25	1.40	5,640
December.....	6,766	600	49	218	2.87	3.31	13,400
Calendar year 1934.....	20,038	600	4	54.9	.722	9.79	39,740
January.....	6,505	755	76	210	2.76	3.18	12,900
February.....	4,248	299	83	152	2.00	2.08	8,430
March.....	4,457	317	94	144	1.89	2.18	8,840
April.....	5,236	420	100	175	2.30	2.57	10,590
May.....	1,908	168	35	61.5	.809	.93	3,780
June.....	600	35	15	22.0	.289	.32	1,310
July.....	434	35	10	14.0	.184	.21	861
August.....	314	37	8	10.1	.133	.15	623
September.....	264	18	7	8.8	.116	.13	524
Water year 1934-35.....	34,270	755	7	93.9	1.24	16.78	67,990

North Umpqua River below Lake Creek, Oreg.

Location.- Water-stage recorder, lat. $43^{\circ}18'35''$, long. $122^{\circ}10'50''$, in NW $\frac{1}{4}$ sec. 13, T. 28 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 by U. S. Geological Survey river profile.

Drainage area.- 175 square miles.

Records available.- October 1927 to September 1935.

Extremes.- Maximum discharge during year, 681 second-feet May 24, 25 (gage height, 1.53 feet); minimum, 283 second-feet Nov. 1 (gage height, 0.76 foot).
1927-35: Maximum discharge, 1,190 second-feet June 9, 1933 (gage height, 2.34 feet); minimum, 206 second-feet Dec. 9, 1931.

Remarks.- Records good. Discharge estimated for Jan. 28-30 by comparison with daily discharge of Clearwater River and North Umpqua River above Toketsee Falls. No diversions or regulation above station.

Rating table, water year 1934-35 (gage height, in feet, and discharge, in second-feet)

0.6	206
0.8	279
1.0	363
1.2	463
1.5	640
1.8	860
2.2	1,190

Discharge, in second-feet, water year October 1934 to September 1935

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	279	275	271	346	337	320	324	469	604	410	346	324
2	279	271	271	350	337	320	320	452	592	401	346	324
3	283	291	271	354	337	320	329	474	586	401	346	324
4	279	304	271	377	337	320	337	490	592	396	346	324
5	304	312	275	368	337	320	337	503	604	391	342	320
6	295	316	295	368	337	320	324	532	622	386	342	320
7	287	306	308	372	337	320	333	544	628	382	342	320
8	291	304	304	363	333	316	333	544	628	382	342	320
9	291	300	300	354	333	316	333	562	604	377	342	320
10	295	300	300	359	329	316	329	568	580	372	342	320
11	291	295	295	368	329	316	333	568	568	372	337	320
12	295	295	295	359	329	316	333	562	562	372	337	320
13	295	295	300	359	329	316	342	550	544	372	337	320
14	295	295	304	359	324	316	350	550	532	372	337	320
15	295	295	312	359	324	312	372	556	520	372	337	320
16	295	295	350	359	324	312	377	568	514	372	337	320
17	291	300	350	350	324	312	377	574	503	368	337	316
18	291	300	354	350	324	308	382	568	480	368	337	316
19	283	295	386	346	320	308	391	562	474	363	337	316
20	295	295	452	346	320	308	401	580	463	363	337	316
21	320	291	415	353	320	312	405	592	458	359	333	312
22	308	283	405	359	320	312	401	622	458	359	333	308
23	342	279	386	353	320	312	405	647	447	363	333	316
24	366	275	382	359	320	312	401	647	436	353	333	316
25	342	300	377	354	312	316	396	647	431	359	333	316
26	320	283	377	352	320	316	410	647	426	359	333	316
27	304	279	377	350	320	320	431	640	426	359	333	312
28	287	275	372	348	320	447	628	421	354	329	312	312
29	279	279	372	346	-	324	463	647	426	350	329	308
30	275	275	372	344	-	324	480	634	421	350	329	308
31	271	-	359	342	-	324	-	616	-	350	324	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acre-feet
October.....	9,243	386	271	298	1.70	1.96	18,330
November.....	8,760	316	271	292	1.67	1.86	17,380
December.....	10,458	452	271	337	1.93	2.22	20,740
Calendar year 1934.....	122,685	463	271	336	1.92	26.06	243,300
January.....	11,046	377	342	356	2.03	2.34	21,910
February.....	9,153	337	312	327	1.87	1.95	18,150
March.....	9,804	324	308	316	1.81	2.09	19,450
April.....	11,196	480	320	373	2.13	2.38	22,210
May.....	17,733	647	452	572	3.27	3.77	35,170
June.....	16,550	628	421	518	2.96	3.30	30,840
July.....	11,517	410	350	372	2.13	2.46	22,640
August.....	10,448	346	324	337	1.93	2.22	20,720
September.....	9,524	324	308	317	1.81	2.02	18,690
Water year 1934-35.....	134,432	647	271	368	2.10	28.57	266,600

North Umpqua River at Toketee Falls, Oreg.

Location.- Water-stage recorder, lat. 43°15'50", long. 122°25'15", 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 1935.

Average discharge.- 10 years (1925-35), 846 second-feet.

Extremes.- Maximum discharge during year, 2,430 second-feet Dec. 20 (gage height, 3.33 feet); minimum, 560 second-feet Oct. 1 (gage height, 0.79 foot).

1908-9, 1914-17, 1924-35: Maximum discharge, 3,600 second-feet Feb. 20, 1927 (gage height, 4.65 feet); minimum recorded, 475 second-feet Nov. 27-29, Dec. 12, 14, 1931.

Remarks.- Records good except those for Sept. 19-30, which are fair and were estimated on basis of records at stations above and below. No diversions or regulation above station.

Rating tables, water year 1934-35 (gage height, in feet, and discharge, in second-feet)

Table for Oct. 1 to Dec. 20

0.7	510	2.0	1,370
1.0	680	2.5	1,770
1.3	870	3.0	2,170
1.6	1,080		

Table for Dec. 21 to Sept. 30

0.7	510	2.0	1,340
1.0	665	2.5	1,740
1.3	835		
1.6	1,040		

Discharge, in second-feet, water year October 1934 to September 1935

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	560	656	605	861	1,000	829	823	1,500	1,380	884	714	654
2	576	668	766	835	1,040	823	823	1,380	1,340	874	709	648
3	582	792	746	829	1,080	823	880	1,380	1,340	861	709	648
4	565	912	734	661	1,080	817	970	1,380	1,340	845	704	648
5	582	884	716	842	1,080	806	1,040	1,460	1,420	842	704	643
6	582	818	740	868	1,080	793	970	1,500	1,460	829	698	643
7	576	753	766	963	1,040	793	1,000	1,500	1,460	823	698	636
8	576	734	772	928	1,000	781	1,040	1,500	1,420	811	692	636
9	576	716	766	868	970	770	970	1,540	1,340	805	692	638
10	576	696	766	842	935	753	956	1,540	1,260	799	687	632
11	576	686	772	848	935	758	956	1,500	1,280	793	687	632
12	582	674	792	899	921	758	970	1,420	1,220	793	682	632
13	582	674	824	817	907	770	1,040	1,380	1,180	787	682	626
14	562	680	677	799	874	793	1,110	1,380	1,180	781	682	636
15	582	666	867	793	842	787	1,340	1,420	1,140	793	682	638
16	582	692	881	799	842	775	1,420	1,420	1,110	775	682	632
17	576	704	912	781	829	781	1,340	1,460	1,080	754	682	621
18	576	710	864	770	829	764	1,280	1,380	1,080	756	682	616
19	570	753	1,180	753	854	764	1,280	1,380	1,040	753	676	610
20	604	753	2,170	736	900	764	1,300	1,380	1,040	758	676	610
21	692	779	1,900	758	923	753	1,500	1,460	1,000	753	670	605
22	656	779	1,660	753	935	748	1,260	1,540	1,000	753	670	600
23	792	772	1,460	775	914	748	1,220	1,580	970	758	670	610
24	1,020	760	1,420	775	887	736	1,180	1,540	956	753	670	605
25	753	1,180	1,260	793	854	770	1,180	1,540	942	736	670	605
26	674	1,020	1,180	823	854	764	1,220	1,540	928	731	670	600
27	644	940	1,116	880	842	758	1,300	1,500	914	726	660	600
28	614	870	1,040	914	842	764	1,340	1,460	914	726	665	600
29	598	864	1,000	928	-	793	1,420	1,500	949	720	665	595
30	587	864	970	956	-	829	1,500	1,460	928	714	660	595
31	592	-	914	963	-	829	-	1,480	-	714	654	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acres-feet
October.....	19,185	1,020	560	619	1.84	2.12	38,080
November.....	26,453	1,180	656	782	2.32	2.59	46,520
December.....	31,660	2,170	716	1,021	3.03	3.49	62,780
Calendar year 1934.....	287,707	2,170	560	788	2.34	31.77	570,700
January.....	25,940	963	736	837	2.48	2.86	51,450
February.....	26,094	1,080	829	932	2.77	2.88	51,760
March.....	24,193	829	750	780	2.31	2.66	47,920
April.....	34,386	1,500	823	1,146	3.40	3.79	66,210
May.....	46,540	1,580	1,380	1,463	4.34	5.00	89,930
June.....	34,591	1,460	914	1,153	3.42	3.82	68,610
July.....	24,225	894	714	781	2.32	2.68	48,050
August.....	21,144	714	654	682	2.02	2.33	41,940
September.....	18,700	654	595	623	1.86	2.06	37,090
Water year 1934-35.....	328,903	2,170	560	901	2.67	36.28	652,400

North Umpqua River above Rock Creek, near Glide, Oreg.

Location.- Water-stage recorder, lat. 43°19'40", long. 123°10", 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 by U. S. Geological Survey river profile.

Drainage area.- 886 square miles.

Records available.- June 1924 to September 1935.

Average discharge.- 11 years, 2,207 second-feet.

Extremes.- Maximum discharge during year, 23,500 second-feet Dec. 20 (gage height, 12.97 feet); minimum, 619 second-feet Oct. 1 (gage height, 2.11 feet).
1924-35: 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 good. No irrigation diversions or regulation above station.

Rating table, water year 1934-35 (gage height, in feet, and discharge, in second-feet)

1.9	540	3.2	1,300	5.0	3,060	8.0	8,630
2.2	555	3.6	1,620	5.5	3,750	9.0	11,100
2.5	595	4.0	1,950	6.0	4,530	10.0	13,700
2.8	1,000	4.5	2,490	7.0	6,420	12.0	20,000

Discharge, in second-feet, water year October 1934 to September 1935

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	619	1,000	4,700	2,760	5,410	2,710	3,000	4,700	2,380	1,420	898	778
2	631	2,760	3,680	2,490	5,410	2,540	2,710	3,900	2,330	1,340	898	761
3	682	5,220	2,940	2,280	5,410	2,360	3,000	3,530	2,280	1,260	865	761
4	655	5,800	2,710	2,280	4,070	2,330	4,530	3,390	2,330	1,220	865	756
5	643	5,040	2,440	2,660	4,700	2,280	5,600	3,530	2,490	1,220	865	750
6	651	2,880	2,230	3,080	4,530	2,180	4,370	3,680	2,660	1,180	865	750
7	639	2,060	2,280	3,170	4,060	2,280	4,050	3,530	2,660	1,180	869	745
8	639	1,710	2,280	5,800	3,600	2,230	4,700	3,320	2,490	1,140	853	740
9	635	1,600	2,150	4,210	3,120	2,060	4,210	3,320	2,280	1,100	847	735
10	635	1,540	1,940	3,260	2,760	1,940	3,600	3,260	2,130	1,100	835	730
11	631	1,220	1,890	2,880	3,000	1,940	3,320	3,060	2,080	1,100	829	730
12	631	1,140	1,940	2,600	3,320	2,080	3,290	2,820	2,030	1,070	829	725
13	631	1,100	1,940	2,320	3,750	2,600	3,460	2,710	1,890	1,070	823	725
14	631	1,100	2,180	2,230	3,460	3,190	3,680	2,710	1,890	1,040	823	735
15	631	1,800	2,080	2,130	2,940	2,940	5,180	2,710	1,800	1,070	817	778
16	631	1,620	1,940	2,180	2,710	2,660	7,500	2,710	1,760	1,070	817	761
17	631	1,540	2,440	2,180	2,820	2,600	5,800	2,820	1,710	1,040	817	745
18	627	1,680	2,440	1,980	3,120	2,360	4,700	2,660	1,620	1,000	823	735
19	623	4,680	5,820	1,800	3,320	2,230	4,210	2,640	1,620	1,000	817	730
20	668	4,060	18,300	1,710	3,750	2,230	4,050	2,640	1,580	965	811	725
21	1,070	4,210	11,300	1,660	4,530	2,060	3,900	2,710	1,540	965	805	720
22	1,340	3,460	9,350	1,710	3,900	1,980	3,680	3,060	1,500	965	800	720
23	2,640	4,060	7,500	2,030	3,530	1,980	4,700	3,060	1,460	965	794	715
24	6,420	3,600	10,100	3,260	3,060	2,030	4,530	2,880	1,420	1,000	794	720
25	2,640	9,260	7,940	4,370	2,710	3,160	4,050	2,620	1,380	965	788	715
26	1,600	6,630	6,420	4,870	2,490	4,700	4,050	2,820	1,540	965	783	715
27	1,140	6,420	5,220	5,600	2,380	3,320	4,210	2,710	1,540	930	778	710
28	965	5,220	4,210	5,600	2,540	2,860	4,050	2,600	1,540	930	783	705
29	865	5,600	3,680	5,220	-	3,460	4,050	2,710	1,460	930	823	705
30	823	5,040	3,530	5,600	-	4,060	4,700	2,660	1,460	898	817	700
31	817	-	5,190	5,220	-	3,530	-	2,490	-	898	788	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acres-feet
October.....	32,884	6,420	619	1,061	1.20	1.38	65,220
November.....	102,710	9,260	1,000	3,424	3.86	4.31	203,700
December.....	140,680	18,300	1,890	4,538	5.12	5.90	279,000
Calendar year 1934.....	716,990	18,300	619	1,964	2.22	30.08	1,422,000
January.....	104,290	8,170	1,660	3,361	3.79	4.37	206,700
February.....	101,120	5,410	2,380	3,614	4.08	4.25	200,700
March.....	80,970	4,700	1,940	2,612	2.95	3.40	160,600
April.....	126,980	7,500	2,710	4,233	4.78	5.33	261,900
May.....	95,960	4,700	2,490	3,031	3.42	3.94	156,400
June.....	55,540	2,660	1,340	1,878	2.12	2.36	111,700
July.....	32,996	1,420	898	1,064	1.20	1.38	65,450
August.....	25,609	898	778	826	.932	1.07	50,790
September.....	22,020	778	700	734	.823	.92	43,680
Water year 1934-35.....	920,539	18,300	619	2,522	2.85	38.61	1,826,000

UMPQUA RIVER BASIN

North Umpqua River near Glide, Oreg.

Location.- Staff gage, lat. 43°18'15", long. 123°7'15", in SW $\frac{1}{4}$ sec. 13, T. 26 S., R. 4 W., 1 mile west of Glide. Zero of gage is about 645 feet above mean sea level by U. S. 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 1935.

Average discharge.- 24 years (1905-8, 1909-18, 1923-35), 3,205 second-feet (partly estimated from records near Oakcreek and at Winchester).

Extremes.- Maximum discharge observed during year, 39,500 second-feet Dec. 20 (gage height, 13.3 feet); minimum, 872 second-feet Oct. 1, 9-19 (gage height, 0.94 foot). 1916-20, 1921-22, 1927-35: Maximum recorded discharge, 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 good except those for June 5-7, July 22-29, Aug. 28-31, which are fair and were estimated on basis of records for station above Rock Creek. No diversions or regulation above gage.

Rating table, water year 1934-35 (gage height, in feet, and discharge, in second-feet)

0.5	570	2.6	2,590	8.0	16,600
1.1	800	3.0	3,250	10.0	24,300
1.4	1,090	4.0	5,100	12.0	33,300
1.8	1,530	5.0	7,400		
2.2	2,030	6.0	10,200		

Discharge, in second-feet, water year October 1934 to September 1935

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	672	1,140	7,400	3,930	7,400	3,570	4,120	6,900	2,690	1,530	930	800
2	688	4,120	5,970	3,670	7,400	3,570	3,750	5,100	2,690	1,360	930	800
3	696	9,900	4,310	3,230	7,400	3,230	4,120	4,500	2,440	1,360	930	800
4	712	6,670	3,670	3,230	6,430	3,230	5,970	4,120	2,440	1,300	930	800
5	688	6,200	3,230	3,930	6,200	3,060	7,660	4,310	2,600	1,240	920	800
6	688	3,750	3,060	5,970	5,550	2,900	5,750	4,500	2,750	1,240	910	792
7	688	2,740	2,900	12,700	5,100	3,230	5,530	4,120	2,750	1,300	910	784
8	672	2,160	2,740	7,920	4,500	3,230	6,430	3,930	2,690	1,240	890	784
9	680	1,900	2,440	5,970	3,750	2,900	5,530	3,750	2,440	1,190	890	776
10	672	1,650	2,300	4,700	3,400	2,740	4,900	3,570	2,300	1,140	881	768
11	672	1,410	2,300	3,930	4,310	2,590	4,310	3,400	2,160	1,140	872	768
12	672	1,360	2,300	3,570	5,550	2,900	4,900	3,230	2,030	1,090	854	768
13	672	1,240	2,300	5,230	5,550	3,750	4,700	3,060	1,900	1,090	836	768
14	672	1,410	2,590	3,060	4,900	4,700	4,700	3,060	1,900	1,040	836	818
15	672	1,900	2,440	2,900	4,120	4,310	7,150	3,060	1,770	1,140	836	872
16	672	1,900	2,440	3,230	3,750	3,930	9,900	3,060	1,770	1,090	536	800
17	672	1,770	2,900	2,900	3,930	3,750	8,460	3,060	1,770	1,040	836	792
18	672	1,900	3,570	2,690	4,310	3,400	6,910	3,060	1,770	1,040	836	784
19	672	6,430	7,920	4,310	3,230	6,200	6,900	2,900	1,710	1,040	836	776
20	728	5,670	31,000	2,300	4,700	3,060	5,310	2,740	1,650	990	836	768
21	1,300	5,310	17,700	2,300	5,970	2,900	5,100	3,060	1,590	990	836	768
22	1,590	4,700	14,600	2,440	5,100	2,900	4,900	3,230	1,530	1,000	836	768
23	3,060	5,530	12,700	3,230	4,500	2,900	6,910	3,400	1,470	1,020	827	762
24	9,900	5,970	17,300	6,530	4,310	4,060	5,970	3,060	1,470	1,050	818	762
25	3,930	16,600	12,400	5,970	3,750	4,120	5,530	2,900	1,470	1,010	818	762
26	1,900	10,500	10,200	7,920	3,230	7,400	5,530	3,060	1,410	1,000	818	736
27	1,410	8,190	8,190	8,460	3,400	4,700	5,310	2,900	1,410	970	818	736
28	1,240	7,660	6,200	7,920	3,570	4,120	5,100	2,740	1,410	960	840	736
29	1,040	9,020	5,750	7,660	-	5,100	5,100	2,900	1,590	950	870	728
30	950	7,920	5,310	7,400	-	5,970	6,200	2,740	1,590	930	860	720
31	990	-	4,900	7,150	-	4,900	-	2,740	-	930	820	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acres-foot
October.....	40,942	9,900	672	1,321	1.09	1.26	81,210
November.....	115,920	16,600	1,140	4,897	4.05	4.52	291,400
December.....	212,930	31,000	2,300	6,869	5.68	6.55	422,300
Calendar year 1934.....	935,489	31,000	664	2,563	2.12	28.75	1,856,000
January.....	151,280	12,700	2,300	4,880	4.03	4.65	300,100
February.....	136,330	7,400	3,230	4,069	4.02	4.19	270,400
March.....	115,350	5,970	2,590	3,721	3.08	3.55	228,800
April.....	171,950	9,900	3,750	5,732	4.74	5.29	341,100
May.....	107,460	6,200	2,740	3,466	2.86	3.30	213,100
June.....	58,860	2,750	1,410	1,962	1.62	1.81	116,700
July.....	34,410	1,530	930	1,110	.917	1.06	68,280
August.....	28,696	930	818	861	.712	.82	52,950
September.....	23,266	872	720	776	.641	.72	46,160
Water year 1934-35.....	1,226,944	31,000	672	3,360	2.78	37.78	2,432,000

Lake Creek at Diamond Lake, near Fort Klamath, Oreg.

Location.- Water-stage recorder, lat. 43°11'10", long. 122°9'55", in SW¼ sec. 30, T. 27 S., R. 6 E., 280 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 by U. S. Geological Survey river profile.

Drainage area.- 57 square miles.

Records available.- May 1922 to September 1925, October 1926 to September 1935; incomplete prior to 1927.

Extremes.- Maximum discharge during year, 106 second-feet Dec. 22 (gage height, 1.73 feet); minimum, 1 second-foot Sept. 22 (gage height, 0.18 foot); minimum daily discharge, 4 second-feet Nov. 1.
1922-25, 1926-35: Maximum discharge, 146 second-feet June 1, 1925 (gage height, 2.13 feet at a former gage); no flow Aug. 25-27, 1931.

Remarks.- Records good except those for October to January, which are fair. 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.

Rating table, water year 1934-35 (gage height, in feet, and discharge, in second-feet) (Shifting-control method used Oct. 23 to Jan. 26)

0.3	2.0	1.1	39
.5	6.1	1.3	62
.7	11.6	1.6	101
.9	22	1.9	148

Discharge, in second-feet, water year October 1934 to September 1935

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	16	4	19	84	69	60	60	44	41	33	34	31
2	20	10	21	84	67	58	58	42	41	32	34	30
3	20	17	23	86	66	58	57	56	43	32	34	29
4	29	23	25	86	64	58	58	52	41	31	35	29
5	48	46	37	88	63	60	58	52	43	31	33	28
6	40	73	43	88	62	60	55	51	43	30	32	28
7	41	68	50	93	62	60	60	49	43	30	32	28
8	49	66	49	93	61	60	61	38	44	30	32	28
9	59	61	48	91	60	61	61	42	46	29	32	28
10	50	60	47	88	60	60	60	42	43	29	31	28
11	50	58	46	87	60	60	60	40	44	29	31	28
12	58	55	44	88	61	58	56	37	42	30	30	26
13	57	54	46	87	63	57	55	29	39	30	29	28
14	56	42	46	86	63	57	55	24	49	30	28	28
15	56	48	69	86	62	57	55	28	56	33	29	28
16	55	61	90	86	61	55	56	23	56	33	34	28
17	61	61	95	88	61	55	56	27	54	33	30	27
18	44	56	98	90	61	55	54	31	39	32	31	26
19	42	48	95	90	61	55	55	38	36	32	31	26
20	51	47	95	88	58	55	55	40	35	32	31	26
21	60	41	94	87	60	55	55	34	35	33	31	26
22	63	20	100	83	60	55	56	35	35	36	32	27
23	62	10	88	83	60	55	58	36	34	38	36	37
24	74	8	90	82	60	55	58	38	34	38	31	36
25	68	9	88	79	60	55	49	36	34	38	34	36
26	56	9	90	78	58	55	50	35	33	37	33	35
27	35	7	93	78	60	55	56	35	33	37	33	35
28	20	7	93	74	60	55	56	34	34	36	32	35
29	16	16	93	72	-	58	56	40	35	35	32	34
30	14	15	94	72	-	61	56	40	34	35	32	34
31	6	-	86	70	-	60	-	41	-	34	31	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acres-feet
October.....	1,357	74	6	43.8	0.768	0.89	2,690
November.....	1,100	73	4	36.7	.644	.72	2,180
December.....	2,095	100	19	67.6	1.19	1.37	4,160
Calendar year 1934.....	14,144	100	4	38.8	.681	9.24	28,080
January.....	2,612	93	70	84.3	1.48	1.71	5,180
February.....	1,723	69	58	61.5	1.08	1.12	3,420
March.....	1,778	61	55	67.4	1.01	1.16	3,530
April.....	1,695	61	49	66.5	.991	1.11	3,360
May.....	1,188	55	23	38.3	.672	.77	2,560
June.....	1,219	86	33	40.6	.712	.79	2,420
July.....	1,018	38	29	32.8	.575	.66	2,020
August.....	988	36	28	31.9	.560	.65	1,960
September.....	893	37	26	29.8	.523	.58	1,770
Water year 1934-35.....	17,666	100	4	48.4	.849	11.63	35,050

Clearwater River above Trap Creek, Oreg.

Location.— Water-stage recorder, lat. 43°14'50", long. 122°17'20", in SE 1/4 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 by U. S. Geological Survey river profile.

Drainage area.— 40 square miles.

Records available.— October 1927 to September 1935.

Extremes.— Maximum discharge during year, 218 second-feet May 22 (gage height, 1.07 feet); minimum, 125 second-feet Oct. 1, 4-6, 8-19 (gage height, 0.50 foot).
1927-35: 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 Oct. 19-27, Jan. 26, 27, which were estimated on basis of records on North Umpqua River, and those for Dec. 20 to Jan. 25, which are fair. No diversions or regulation above station.

Rating table, water year 1934-35 (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Dec. 21 to Jan. 25)

0.4	111	1.0	205
.6	140	1.2	241
.8	171	1.4	280

Discharge, in second-feet, water year October 1934 to September 1935

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	125	134	131	136	150	131	130	188	196	163	137	131
2	128	131	130	154	150	130	130	188	195	160	137	130
3	126	134	130	154	150	131	131	165	193	160	137	130
4	125	136	128	136	131	131	134	186	198	168	137	130
5	125	136	128	134	132	130	136	191	205	167	137	130
6	125	132	128	136	132	130	134	198	210	155	137	130
7	126	131	128	136	132	130	137	200	209	154	136	130
8	125	130	128	132	132	130	138	202	203	152	136	128
9	125	130	128	131	132	130	137	203	191	152	136	128
10	125	128	128	131	132	130	137	203	186	150	136	128
11	125	128	126	131	134	130	138	206	188	150	136	128
12	125	128	126	131	132	130	138	196	182	150	136	128
13	125	128	128	131	132	130	142	196	185	152	134	128
14	125	130	130	131	131	130	146	195	181	152	134	130
15	125	136	130	131	131	130	155	198	176	155	134	128
16	125	131	130	131	131	130	168	200	174	150	134	128
17	125	131	130	130	131	130	167	202	174	148	134	128
18	126	131	130	130	131	130	168	196	173	146	132	128
19	125	131	144	130	131	130	161	195	174	144	132	128
20	125	130	176	128	131	130	166	196	173	144	132	126
21	126	130	168	128	131	130	168	203	171	143	132	126
22	130	130	161	128	132	128	168	210	173	143	132	126
23	135	130	167	130	131	130	166	212	169	143	132	126
24	145	131	154	128	131	130	165	210	165	142	131	126
25	135	146	148	128	131	130	165	210	165	142	131	126
26	130	136	146	128	131	130	168	212	165	140	131	126
27	128	134	143	128	131	128	173	207	163	140	131	126
28	128	132	142	128	131	128	176	205	166	138	131	126
29	128	132	142	128	-	130	185	209	174	138	131	126
30	128	132	140	128	-	130	190	205	168	137	131	126
31	130	-	137	128	-	130	-	198	-	137	131	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acre-feet
October.....	3,948	145	125	127	3.18	3.67	7,830
November.....	3,675	148	126	132	3.30	3.65	7,860
December.....	4,275	176	126	138	3.45	3.98	8,480
Calendar year 1934	52,031	200	125	143	3.68	48.38	103,200
January.....	4,054	136	128	131	3.28	3.78	8,040
February.....	3,677	134	130	131	3.28	3.42	7,290
March.....	4,027	131	128	130	3.25	3.75	7,990
April.....	4,587	190	130	153	3.82	4.26	9,100
May.....	6,196	212	185	200	5.00	5.76	12,290
June.....	5,451	210	163	182	4.55	5.08	10,810
July.....	4,595	163	137	148	3.70	4.27	9,110
August.....	4,148	137	131	134	3.55	3.86	8,230
September.....	3,835	131	126	128	3.20	3.57	7,610
Water year 1934-35.....	52,732	212	125	145	3.62	49.08	104,600

South Fork of Coquille River at Powers, Oreg.

Location.- Wire-weight gage, lat. 42°53'10", long. 124°4'15", in NW¼ sec. 13, T. 31 S., R. 12 W., at highway bridge at Powers.

Drainage area.- 189 square miles.

Records available.- October 1923 to September 1935. September 1916 to September 1926 at site half a mile upstream.

Average discharge.- 16 years (1916-26, 1929-35), 680 second-feet.

Extremes.- Maximum discharge observed during year, 7,230 second-feet Nov. 4 (gage height, 10.55 feet); minimum, 15 second-feet Sept. 12, 13.
1916-26, 1928-35: 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.

Remarks.- Records poor. No diversions or regulation above gage. Temporary gage at railroad bridge 100 feet upstream and to different datum used May 10 to Dec. 29, 1934.

Rating tables, water year 1934-35 (gage height, in feet, and discharge, in second-feet)

Table for Oct. 1 to Dec. 29

2.4	32	5.0	1,070
2.7	83	6.0	1,770
3.0	150	7.0	2,610
3.5	300	9.0	4,870
4.0	505	11.0	7,590
4.5	770		

Table for Dec. 30 to Sept. 30

0.5	14	3.0	750
.8	45	3.5	1,000
1.1	92	4.0	1,290
1.5	190	5.0	1,990
2.0	325	6.0	2,860
2.5	520	8.0	5,100

Discharge, in second-feet, water year October 1934 to September 1935

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	35	950	2,010	1,480	1,690	1,410	1,110	610	138	69	32	19
2	35	1,700	1,550	1,170	1,690	1,170	1,110	480	135	62	32	18
3	40	3,990	1,210	1,050	1,620	1,170	1,290	400	126	61	31	18
4	35	5,990	1,010	1,910	1,480	1,000	1,550	400	118	58	30	18
5	35	2,610	690	2,230	1,290	1,050	1,620	400	97	58	29	18
6	35	1,420	770	1,830	1,170	1,170	1,350	400	96	58	29	18
7	35	950	660	1,170	1,170	1,760	1,350	400	101	61	29	18
8	35	688	555	5,680	950	1,550	1,410	342	103	59	28	17
9	35	530	505	2,760	900	1,170	1,350	342	99	56	27	17
10	35	438	482	1,550	750	950	1,290	325	96	53	27	17
11	35	375	460	1,350	900	650	1,110	308	94	51	27	16
12	34	355	438	1,230	850	750	1,170	275	92	51	26	15
13	34	950	375	1,170	950	1,230	1,230	245	87	48	24	15
14	34	1,930	1,230	1,230	1,170	1,170	1,230	230	94	45	25	21
15	34	2,250	530	1,410	1,000	1,230	1,290	230	90	46	25	48
16	34	1,420	505	1,910	750	1,170	1,550	230	89	44	25	37
17	34	890	555	2,070	750	1,110	1,290	230	84	40	25	28
18	34	890	530	1,170	750	1,000	1,230	218	77	39	25	24
19	34	1,850	1,350	900	750	950	1,000	205	76	37	25	21
20	59	2,340	2,340	900	950	1,050	650	192	73	35	25	18
21	950	2,090	3,100	850	950	950	850	180	72	35	24	18
22	715	2,090	2,610	1,230	1,230	1,410	600	190	72	37	24	18
23	2,430	2,520	2,750	1,410	1,110	1,230	1,480	168	70	37	24	18
24	1,930	2,090	2,900	1,910	950	1,290	1,230	155	67	37	24	18
25	890	4,230	2,250	2,150	850	5,230	1,050	155	65	35	23	18
26	482	2,340	3,200	2,070	950	3,450	900	150	62	37	22	18
27	355	1,850	3,090	1,990	1,690	1,990	850	142	61	37	22	17
28	235	1,630	2,250	1,910	1,910	1,410	900	142	61	35	21	16
29	190	1,350	3,750	1,910	-	1,350	850	135	62	34	20	18
30	220	1,930	2,860	1,910	-	1,290	800	138	67	33	20	-
31	365	-	2,150	1,830	-	1,170	-	145	-	33	19	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acres-feet
October.....	9,514	2,430	34	307	1.82	2.10	18,870
November.....	54,636	5,990	355	1,921	10.8	12.05	108,400
December.....	46,950	3,750	375	1,579	9.34	10.77	97,090
Calendar year 1934.....	202,553	5,990	14	555	3.29	44.61	401,900
January.....	55,950	5,780	850	1,805	10.7	12.34	111,000
February.....	31,070	1,910	750	1,110	6.57	6.84	61,630
March.....	43,310	5,230	750	1,397	8.27	9.53	85,900
April.....	35,090	1,620	800	1,170	6.92	7.72	69,400
May.....	8,152	610	135	263	1.56	1.80	16,170
June.....	2,626	138	61	87.5	.518	.68	5,210
July.....	1,421	69	33	45.8	.271	.31	2,820
August.....	789	32	19	25.5	.151	.17	1,560
September.....	598	48	15	19.9	.118	.13	1,190
Water year 1934-35.....	292,106	5,990	15	800	4.73	64.34	579,400

COQUILLE RIVER BASIN

Middle Fork of Coquille River near Myrtle Point, Oreg.

Location.— Water-stage recorder, lat. $43^{\circ}1'30''$, long. $124^{\circ}4'55''$, in $S\frac{1}{2}$ sec. 26, T. 29 S., R. 12 W., a third of a mile below mouth of Indian Creek and $3\frac{1}{2}$ miles south-east of Myrtle Point. Zero of gage is 41.20 feet above mean sea level by general adjustment of 1929.

Drainage area.— 305 square miles.

Records available.— October 1930 to September 1935.

Extremes.— Maximum discharge during year, 12,200 second-feet Dec. 20 (gage height, 18.8 feet); minimum recorded, 9 second-feet Sept. 12, 13, 29, 30.
1930-35: Maximum discharge, 23,600 second-feet Jan. 2, 1933 (gage height, 22.5 feet); minimum mean daily discharge, 1 second-foot July 16, 17, 1931.
Maximum stage known, 25.8 feet probably Oct. 31, 1924.

Remarks.— Records good except those estimated by comparison with discharge of North and South Forks of Coquille River, which 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 table, water year 1934-35 (gage height, in feet, and discharge, in second-feet)

1.0	0	3.0	61	6.0	655
1.5	5	3.5	113	7.0	1,060
1.7	8	4.0	189	8.0	1,540
2.1	18	4.5	278	9.0	2,110
2.5	32	5.0	379	10.0	2,800

Discharge, in second-feet, water year October 1934 to September 1935

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	14	616	3,290	2,440	*1,400	1,540	1,040	395	53	32	22	15
2	12	995	2,440	1,750	*1,300	1,210	609	682	62	37	24	*14
3	12	1,930	1,690	1,390	*1,150	1,110	1,110	368	80	38	23	*13
4	14	1,540	1,290	1,340	*1,020	1,280	925	520	561	42	21	12
5	16	1,340	1,020	1,640	925	1,990	945	327	65	45	15	15
6	14	825	825	1,710	745	*2,050	905	443	28	42	20	12
7	13	423	672	5,050	609	*2,600	1,020	268	32	36	20	11
8	12	561	570	5,000	788	*2,500	1,380	398	31	34	19	10
9	12	558	482	2,880	430	*2,300	1,180	151	29	36	21	10
10	15	307	434	1,930	656	*2,000	1,100	404	34	36	17	10
11	15	259	390	1,540	725	*1,800	987	221	286	36	20	10
12	15	232	358	1,540	725	1,690	825	117	42	100	20	9
13	14	384	412	1,930	1,360	*1,500	725	156	42	214	20	9
14	12	925	638	2,110	2,230	*1,600	672	357	39	24	*18	10
15	12	1,750	570	1,750	1,640	*1,800	690	203	60	21	*17	11
16	12	1,100	525	*2,200	1,240	*1,700	1,020	374	70	24	15	12
17	12	745	540	*3,700	1,020	1,490	1,100	173	82	25	*16	13
18	11	602	525	*3,500	785	992	948	94	66	24	*16	14
19	12	2,160	4,660	*2,500	934	1,390	688	310	74	23	17	16
20	13	1,690	10,100	*1,600	708	1,340	761	216	71	25	17	14
21	29	1,390	6,930	*1,250	639	1,850	765	72	58	27	*17	12
22	86	1,590	5,280	1,440	655	1,630	655	72	44	31	*16	12
23	995	2,110	6,560	*1,900	745	1,870	926	73	39	30	16	11
24	3,020	2,110	6,480	*2,300	745	1,590	1,170	69	259	28	16	12
25	1,060	6,410	4,520	*2,500	690	2,280	1,020	67	62	26	16	11
26	495	4,090	4,860	*2,300	655	4,760	874	64	24	26	*16	11
27	259	2,800	4,520	*2,100	968	2,720	730	550	14	27	*16	10
28	214	2,230	3,560	1,950	2,160	1,970	574	68	21	23	*15	10
29	181	2,050	4,980	*1,800	-	1,540	635	27	22	25	15	9
30	163	2,440	4,550	1,640	-	1,220	722	34	27	26	*15	9
31	206	-	3,760	*1,500	-	1,380	-	44	-	23	*15	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acre-feet
October.....	6,969	3,020	11	225	0.738	0.85	13,820
November.....	45,750	6,410	232	1,525	5.00	5.58	90,740
December.....	88,511	10,100	358	2,865	9.36	10.79	175,600
Calendar year 1934.....	227,921	10,100	7	624	2.05	27.80	452,100
January.....	68,180	5,050	1,250	2,199	7.21	8.31	135,200
February.....	27,525	2,230	430	983	3.22	3.55	54,600
March.....	56,592	4,760	992	1,826	5.99	6.91	112,200
April.....	26,704	1,380	574	890	2.92	3.26	52,970
May.....	7,307	682	27	236	.774	.89	14,480
June.....	2,399	561	14	80.0	.232	.29	4,750
July.....	1,184	214	21	38.2	.125	.14	2,350
August.....	551	24	15	17.8	.068	.07	1,090
September.....	345	16	9	11.5	.038	.04	684
Water year 1934-35.....	332,016	10,100	9	910	2.98	40.48	668,500

*Estimated.

North Fork of Coquille River near Myrtle Point, Oreg.

Location.- Water-stage recorder, lat. 43°6'10", long. 124°4'25", in NE¼ sec. 36, T. 28 S., R. 12 W., a quarter of a mile below junction with East Fork and 4¼ 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 1935. Prior to October 1930 at site 3¼ miles downstream.

Extremes.- Maximum discharge during year, 8,710 second-feet Dec. 20 (gage height, 31.74 feet); minimum, 19 second-feet Sept. 14.

1928-35: Maximum discharge, 10,400 second-feet Jan. 3, 1933 (gage height, 35.7 second-feet); minimum, 17 second-feet Sept. 5, 1930.

Maximum stage known, 41.2 feet during winter of 1909-10.

Remarks.- Records good except those for October to April, which are poor. Inlet from river to recorder well sluggish or closed at times during winter. Discharge estimated Feb. 3-5 by comparison with discharge of Middle and South Forks of Coquille River. No diversions above gage. Flow partly regulated by operation of logging ponds above station.

Rating table, water year 1934-35 (gage height, in feet, and discharge, in second-feet)

1.5	15	3.5	157	7.0	693	16.0	2,880	29.0	7,600
1.8	26	4.0	217	8.0	992	18.0	3,500	32.0	8,520
2.2	47	4.5	284	10.0	1,340	20.0	4,170		
2.6	73	5.0	357	12.0	1,810	23.0	5,250		
3.0	107	6.0	515	14.0	2,320	26.0	6,410		

Discharge, in second-feet, water year October 1934 to September 1935

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	27	637	3,250	3,900	1,240	1,590	1,150	712	174	100	44	26
2	26	1,520	2,910	2,590	1,150	1,270	1,020	637	168	100	43	25
3	26	3,320	2,290	2,010	1,050	1,110	1,000	583	187	90	42	25
4	29	3,120	1,780	1,810	950	1,310	1,020	549	152	83	40	24
5	34	2,760	1,430	1,590	870	1,960	1,110	498	146	78	39	24
6	34	1,860	1,180	1,590	810	2,110	1,090	466	141	76	38	23
7	30	1,240	1,000	4,520	770	2,970	1,070	450	131	76	36	22
8	26	892	871	6,180	731	2,790	1,220	418	131	84	36	22
9	24	712	770	4,520	655	2,480	1,180	402	131	87	36	22
10	22	601	693	3,180	601	2,140	1,070	380	126	78	35	22
11	21	515	637	2,450	790	1,790	956	357	122	72	34	21
12	21	466	601	2,290	892	1,550	871	342	123	69	34	20
13	21	637	619	2,590	1,490	1,520	770	327	126	67	32	20
14	21	1,290	750	2,880	2,210	1,590	731	312	126	66	32	22
15	21	2,010	693	2,760	1,780	1,880	693	305	126	63	30	63
16	21	1,570	655	3,060	1,430	1,810	770	298	124	60	30	60
17	21	1,110	750	4,000	1,190	1,640	810	298	121	68	28	47
18	21	934	770	4,000	1,020	1,550	693	291	113	56	30	37
19	22	2,280	2,640	3,310	913	1,360	637	263	108	54	30	32
20	37	2,560	7,680	2,160	892	1,590	601	250	102	54	33	29
21	241	2,160	7,680	1,710	871	1,930	693	243	97	54	32	28
22	532	2,080	6,680	2,060	871	1,980	750	280	94	53	31	27
23	979	3,290	6,410	2,320	1,000	2,260	1,240	217	90	52	30	26
24	5,940	3,370	7,000	2,610	1,040	1,910	1,450	210	87	52	29	25
25	3,220	5,290	6,180	2,730	956	2,550	1,150	204	85	52	28	24
26	1,500	5,900	5,250	2,590	871	5,210	956	198	83	50	27	23
27	892	4,030	5,440	2,320	1,070	3,660	830	192	82	49	26	22
28	601	3,220	4,610	2,010	1,930	2,420	731	186	85	46	26	22
29	402	2,640	5,090	1,760	-	1,860	731	180	113	47	26	21
30	357	2,480	6,250	1,520	-	1,550	770	192	157	46	25	20
31	342	-	5,180	1,360	-	1,340	-	186	-	45	25	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acre-feet
October.....	15,513	5,940	21	500	1.81	2.09	30,770
November.....	64,484	5,900	456	2,149	7.79	8.69	127,900
December.....	98,079	7,880	601	3,464	11.5	13.26	194,500
Calendar year 1934.....	307,920	7,880	19	844	3.06	41.54	610,700
January.....	84,400	6,180	1,880	2,723	9.87	11.38	167,400
February.....	30,023	2,210	601	1,072	3.88	4.04	59,550
March.....	62,490	5,210	1,110	2,016	7.30	8.42	123,900
April.....	27,763	1,450	601	925	3.35	3.74	55,070
May.....	10,376	712	180	335	1.21	1.40	20,580
June.....	3,621	174	82	121	.438	.49	7,180
July.....	2,019	100	45	65.1	.236	.27	4,000
August.....	1,009	44	25	32.5	.118	.14	2,000
September.....	824	53	20	27.6	.100	.11	1,630
Water year 1934-35.....	400,601	7,880	20	1,098	3.98	54.03	794,500

ROGUE RIVER BASIN

Rogue River above Bybee Creek, Oreg.

Location.— Water-stage recorder, lat. 42°56'20", long. 122°25'40", 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 by U. S. Geological Survey river profile. Prior to Nov. 22, 1934, water-stage recorder 200 feet downstream with different datum and control.

Drainage area.— 118 square miles.

Records available.— January 1930 to September 1935.

Extremes.— Maximum discharge during year, 1,970 second-feet Dec. 20 (gage height, 4.70 feet); minimum, 228 second-feet Oct. 13, 14 (gage height, 0.39 foot).
1930-35: Maximum discharge, 4,480 second-feet June 9, 1933 (gage height, 7.68 feet); minimum, 186 second-feet Nov. 18, 1931 (gage height, 0.23 foot).

Remarks.— Records good except those for Nov. 5-22, Dec. 20, 21, and those estimated by comparison with discharge of Rogue River above Prospect, Jan. 20-23, Mar. 23 to Apr. 26, which are fair. No diversions or regulation above station. Water-stage recorder inspected by employee of The California Oregon Power Co.

Rating tables, water year 1934-35 (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Nov. 5-22)

Table for Oct. 1 to Nov. 22

0.2	190
.5	255
.8	350
1.1	420
1.5	550
2.0	740

Table for Nov. 23 to Sept. 30

1.2	270	2.6	780
1.4	315	2.8	860
1.6	370	3.0	960
1.8	440	3.3	1,140
2.0	520	3.6	1,310
2.2	600	4.0	1,550
2.4	690	4.7	1,970

Discharge, in second-feet, water year October 1934 to September 1935

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	248	435	398	426	364	367	420	905	905	452	312	280
2	255	450	377	412	338	364	420	830	905	433	310	280
3	258	498	364	402	412	364	500	830	905	422	308	280
4	250	568	358	398	426	361	580	855	980	412	308	280
5	248	568	349	394	444	352	600	1,010	1,060	402	305	280
6	242	480	343	391	472	346	520	1,120	1,090	391	305	280
7	245	455	343	448	484	343	540	1,090	1,040	384	302	280
8	240	420	343	398	480	338	600	1,060	980	377	302	280
9	238	405	340	380	460	332	540	1,120	880	370	298	280
10	232	390	340	367	440	325	500	1,090	805	364	295	278
11	232	375	349	361	430	325	500	1,010	805	358	292	278
12	230	360	364	358	416	328	540	930	780	355	292	278
13	230	375	402	358	412	332	600	930	758	355	290	278
14	230	390	484	349	398	345	700	955	690	346	290	286
15	230	620	472	343	377	332	1,000	980	645	370	290	288
16	232	465	444	358	374	328	1,100	980	645	346	290	282
17	232	480	448	315	370	330	880	980	622	338	290	280
18	232	465	412	328	367	325	780	930	622	335	290	278
19	232	480	610	335	377	325	800	905	600	332	286	276
20	278	455	1,670	350	398	325	850	955	580	330	288	276
21	435	480	1,400	340	416	320	820	1,090	580	330	286	276
22	320	450	1,090	340	419	315	750	1,230	560	332	286	276
23	378	468	880	360	405	312	700	1,200	560	355	286	274
24	760	416	780	345	394	310	650	1,140	512	358	284	274
25	435	748	690	355	380	360	850	1,170	492	358	282	274
26	348	622	645	352	377	360	750	1,140	484	325	280	274
27	333	520	580	355	377	350	830	1,060	476	322	280	272
28	333	464	540	340	380	360	905	1,040	472	320	282	272
29	325	436	504	346	-	380	1,010	1,090	508	318	292	272
30	328	426	488	352	-	430	1,010	1,010	484	318	282	270
31	375	-	448	358	-	440	-	930	-	315	280	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acres-foot
October.....	9,184	760	230	296	2.51	2.89	18,220
November.....	14,064	748	360	469	3.97	4.43	27,900
December.....	17,255	1,670	540	587	4.72	5.44	34,220
Calendar year 1934.....	159,687	1,670	230	437	3.70	50.32	316,800
January.....	11,212	448	315	362	3.07	3.54	22,240
February.....	11,437	484	364	408	3.46	3.60	22,680
March.....	10,722	440	310	346	2.93	3.38	21,270
April.....	21,015	1,100	420	700	5.93	6.62	41,680
May.....	31,565	1,250	830	1,018	8.63	9.95	62,610
June.....	21,425	1,090	472	714	6.05	6.75	42,500
July.....	11,067	452	315	357	3.03	3.49	21,950
August.....	9,065	312	280	292	2.47	2.85	17,980
September.....	8,330	288	270	278	2.36	2.63	16,520
Water year 1934-35.....	176,341	1,670	230	483	4.09	55.57	349,800

Rogue River above Prospect, Oreg.

Location.- Water-stage recorder, lat. 42°46'30", long. 122°30' in NE $\frac{1}{4}$ sec. 19, T. 32 S., R. 5 E., 1 $\frac{1}{2}$ miles above intake of diversion of The California Oregon Power Co., 3 miles above Mill Creek, and 2 miles northwest of Prospect. Zero of gage is about 2,620 feet above mean sea level by river profile.

Drainage area.- 332 square miles.

Records available.- July 1907 to February 1912 (incomplete), October 1923 to September 1935.

Average discharge.- 13 years (1910-11, 1923-35), 678 second-feet.

Extremes.- Maximum discharge during year, about 4,050 second-feet Dec. 20 (gage height, 4.79 feet); minimum, 285 second-feet Oct. 12-20 (gage height, 1.30 feet).
1907-12, 1923-35: Maximum discharge, about 9,300 second-feet Nov. 22, 1909 (gage height, about 7.0 feet); minimum, 200 second-feet Nov. 20, 1931 (gage height, 1.07 feet).

Remarks.- Records good. No diversions or regulation above station. Water-stage recorder graph furnished by The California Oregon Power Co.

Rating table, water year 1934-35 (gage height, in feet, and discharge, in second-feet)

1.3	285	2.6	1,100
1.4	325	2.8	1,310
1.6	415	3.0	1,530
1.8	515	3.3	1,890
2.0	630	3.6	2,280
2.2	765	4.0	2,850
2.4	920	4.4	3,450

Discharge, in second-feet, water year October 1934 to September 1935

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	289	537	737	702	802	643	723	1,650	1,310	624	402	361
2	289	624	669	669	372	624	716	1,420	1,270	594	406	356
3	301	832	624	643	938	618	840	1,400	1,260	576	402	356
4	301	983	612	658	965	612	1,050	1,420	1,350	564	402	352
5	293	1,010	582	650	1,020	585	1,080	1,650	1,480	554	402	352
6	293	788	564	636	1,060	576	947	1,830	1,630	542	397	352
7	293	662	559	840	1,060	564	956	1,770	1,480	532	392	348
8	297	612	564	744	1,010	548	1,080	1,710	1,400	520	388	348
9	297	576	564	662	929	542	938	1,770	1,240	515	388	348
10	293	537	570	643	856	515	864	1,770	1,130	505	364	343
11	289	515	582	624	832	515	856	1,590	1,110	495	384	343
12	285	505	618	612	789	515	929	1,480	1,080	480	379	343
13	285	495	682	594	765	526	1,050	1,420	1,040	475	379	343
14	285	515	825	570	709	559	1,220	1,420	956	470	374	352
15	285	840	780	564	656	584	1,890	1,480	880	495	374	374
16	285	656	758	548	643	542	2,080	1,480	956	465	374	352
17	285	676	618	500	636	548	1,530	1,480	940	455	374	352
18	285	702	744	515	643	537	1,380	1,390	810	445	374	348
19	285	872	1,070	526	676	532	1,400	1,340	818	440	374	343
20	317	780	3,380	515	751	532	1,530	1,420	780	435	370	348
21	576	772	2,780	526	802	520	1,480	1,590	758	440	370	348
22	475	825	2,260	526	618	510	1,290	1,830	751	450	370	348
23	515	856	1,710	564	780	505	1,180	1,830	716	480	366	343
24	1,180	780	1,710	548	730	500	1,070	1,650	682	470	361	343
25	662	1,710	1,770	537	688	570	1,070	1,710	662	440	356	338
26	505	1,310	1,590	559	676	618	1,270	1,710	650	425	356	338
27	460	1,040	1,100	612	656	576	1,550	1,530	643	420	356	338
28	450	898	974	652	662	562	1,590	1,480	636	415	361	334
29	430	818	904	636	624	524	1,770	1,530	669	415	384	334
30	420	788	848	723	-	716	1,830	1,420	656	410	366	354
31	450	-	758	744	-	744	-	1,310	-	406	361	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acres-foot
October.....	11,955	1,180	285	386	1.16	1.34	23,710
November.....	23,504	1,710	495	783	2.36	2.63	46,620
December.....	32,726	3,380	559	1,056	3.18	3.67	64,910
Calendar year 1934.....	232,070	3,380	285	636	1.92	26.00	460,300
January.....	19,122	840	500	617	1.86	2.14	37,930
February.....	22,423	1,060	636	801	2.41	2.51	44,480
March.....	17,655	744	500	570	1.72	1.98	35,020
April.....	37,149	2,080	718	1,238	3.73	4.16	73,680
May.....	48,480	1,830	1,310	1,564	4.71	5.43	96,160
June.....	29,443	1,530	636	981	2.95	3.29	58,400
July.....	14,952	624	408	482	1.45	1.67	29,680
August.....	11,726	406	356	378	1.14	1.31	23,260
September.....	10,412	374	354	347	1.05	1.17	20,650
Water year 1934-35.....	279,547	3,380	285	766	2.31	31.30	554,500

Rogue River below South Fork of Rogue River, near Prospect, Oreg.

Location.— Water-stage recorder, lat. 42°42', long. 122°35'40", in NW¼ sec. 16, T. 33 S., R. 2 E., at bridge 6 miles southwest of Prospect. Zero of gage is about 1,706 feet above mean sea level by river profile.

Drainage area.— 643 square miles.

Records available.— April 1929 to September 1935.

Extremes.— Maximum discharge during year, 7,640 second-feet Dec. 20 (gage height, 6.00 feet); minimum, 508 second-feet Oct. 5 (gage height, -0.03 foot). Minimum mean daily discharge, 666 second-feet Oct. 11.
1929-35: Maximum discharge, about 12,800 second-feet Mar. 19, 1932 (gage height, 8.7 feet); minimum stage and minimum discharge not determined, as stage falls too low to be recorded at times

Remarks.— Records good except those for Jan. 20-24, Aug. 29, Sept. 3-5, 8-10, 16-19, which are fair and were estimated on basis of records for stations above and below. Minor irrigation diversions above station. Considerable diurnal fluctuation owing to operation of power plant 4 miles upstream. Water-stage recorder graph furnished by The California Oregon Power Co.

Rating table, water year 1934-35 (gage height, in feet, and discharge, in second-feet)

-0.1	475	3.0	3,180
+ .5	800	4.0	4,870
1.0	1,140	5.0	6,070
1.5	1,550	6.0	7,640
2.0	2,020	7.4	10,000

Discharge, in second-feet, water year October 1934 to September 1935

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	722	1,100	1,680	1,680	1,780	1,550	1,600	3,310	2,740	1,550	1,060	923
2	716	1,220	1,500	1,600	1,970	1,500	1,640	2,980	2,680	1,460	1,050	916
3	746	1,500	1,420	1,550	1,970	1,460	1,680	2,860	2,620	1,420	1,040	914
4	710	1,730	1,380	1,550	2,020	1,460	2,020	2,800	2,800	1,380	1,030	912
5	696	1,820	1,340	1,600	2,120	1,420	2,180	3,120	2,980	1,380	1,040	911
6	752	1,500	1,260	1,500	2,180	1,380	1,970	3,440	3,120	1,380	1,030	909
7	722	1,340	1,260	2,020	2,180	1,420	2,020	3,440	3,120	1,340	1,020	909
8	740	1,260	1,220	1,920	2,120	1,340	2,280	3,310	2,920	1,340	1,010	907
9	716	1,180	1,220	1,730	1,970	1,340	2,020	3,440	2,620	1,300	1,010	906
10	722	1,140	1,260	1,640	1,870	1,260	1,920	3,440	2,400	1,300	1,000	904
11	686	1,100	1,220	1,600	1,870	1,340	1,920	3,180	2,400	1,260	1,000	902
12	752	1,050	1,220	1,550	1,820	1,260	2,020	2,920	2,540	1,220	986	902
13	686	1,040	1,340	1,500	1,780	1,300	2,120	2,680	2,280	1,220	986	902
14	758	1,060	1,640	1,460	1,680	1,340	2,340	2,920	2,180	1,120	987	902
15	716	1,460	1,640	1,420	1,600	1,340	3,440	2,920	2,020	1,260	1,000	965
16	710	1,260	1,640	1,380	1,550	1,340	4,140	2,980	1,970	1,220	1,010	910
17	728	1,300	1,730	1,300	1,550	1,340	3,240	2,920	1,970	1,160	972	890
18	768	1,340	1,600	1,300	1,550	1,340	2,920	2,740	1,920	1,180	972	880
19	704	1,680	2,300	1,260	1,550	1,300	2,920	2,680	1,920	1,180	972	876
20	812	1,500	6,370	1,240	1,640	1,340	3,050	2,600	1,870	1,140	966	874
21	1,140	1,500	5,620	1,280	1,730	1,300	2,980	3,050	1,620	1,140	966	874
22	1,100	1,550	4,280	1,340	1,780	1,300	2,740	3,440	1,820	1,260	968	874
23	1,070	1,600	3,440	1,400	1,730	1,260	2,620	3,440	1,730	1,220	966	860
24	2,180	1,500	3,580	1,330	1,640	1,260	2,400	3,240	1,680	1,220	961	860
25	1,590	3,060	3,120	1,300	1,600	1,380	2,340	3,310	1,600	1,140	944	874
26	1,060	2,560	2,860	1,340	1,550	1,500	2,560	3,240	1,600	1,140	937	867
27	979	2,230	2,450	1,420	1,500	1,380	2,920	3,050	1,600	1,100	937	860
28	951	1,970	2,250	1,550	1,550	1,380	3,050	2,980	1,600	1,100	916	848
29	930	1,870	2,070	1,600	-	1,460	3,440	3,120	1,600	1,070	923	842
30	916	1,820	1,970	1,640	-	1,550	3,590	2,920	1,600	1,070	930	836
31	972	-	1,820	1,680	-	1,640	-	2,740	-	1,070	923	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acres-feet
October.....	27,232	2,180	686	878	1.37	1.58	54,010
November.....	46,240	3,060	1,040	1,541	2.40	2.68	91,720
December.....	67,680	6,370	1,220	2,183	3.40	3.92	134,600
Calendar year 1934.....	481,698	6,370	686	1,319	2.05	27.88	955,200
January.....	46,680	2,020	1,240	1,506	2.34	2.70	92,590
February.....	49,760	2,180	1,500	1,777	2.76	2.87	98,680
March.....	42,780	1,640	1,260	1,380	2.15	2.48	84,850
April.....	76,070	4,140	1,600	2,556	3.94	4.40	150,900
May.....	95,500	3,440	2,880	3,084	4.80	5.53	189,600
June.....	65,620	3,120	1,600	2,184	3.40	3.79	150,000
July.....	38,420	1,550	1,070	1,239	1.93	2.22	76,200
August.....	30,439	1,060	916	982	1.53	1.76	60,370
September.....	26,701	965	836	890	1.38	1.54	52,960
Water year 1934-35.....	613,102	6,370	686	1,680	2.61	35.47	1,216,000

Rogue River at Raygold, near Central Point, Oreg.

Location.— Water-stage recorder, lat. 42°26'15", long. 122°59'10", 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 by river profile.

Drainage area.— 2,020 square miles.

Records available.— August 1905 to September 1935.

Average discharge.— 30 years, 2,714 second-feet.

Extremes.— Maximum discharge during year, 12,700 second-feet Dec. 20 (gage height, 6.85 feet); minimum, 664 second-feet Oct. 1 (gage height, 0.19 foot); minimum mean daily discharge, 808 second-feet Oct. 14.

1905-35: Maximum discharge, 91,500 second-feet Feb. 21, 1927 (gage height, 24.8 feet); minimum discharge not recorded; minimum mean daily discharge, 616 second-feet Sept. 6, 1931.

Remarks.— Records good except those for Apr. 2-5, which are fair and were estimated on basis of records for station below South Fork. Discharge interpolated Sept. 1. 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 1934-35 (gage height, in feet, and discharge, in second-feet)

Table for Oct. 1-23

0.0	565
0.5	875
1.0	1,290
1.5	1,790

Table for Oct. 24 to Sept. 30

0.0	560	3.0	3,960
0.5	880	4.0	5,840
1.0	1,320	5.0	7,970
1.5	1,870	6.0	10,400
2.0	2,500		

Discharge, in second-feet, water year October 1934 to September 1935

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	831	1,270	4,300	3,490	4,220	3,120	3,120	6,470	3,260	1,750	1,130	1,010
2	830	1,530	3,260	3,120	4,130	2,840	3,100	5,440	3,260	1,700	1,130	1,020
3	851	2,110	2,700	2,910	4,220	2,630	3,400	5,040	3,120	1,640	1,130	984
4	858	2,630	2,600	2,840	4,130	2,840	4,100	4,850	3,120	1,580	1,180	988
5	843	2,840	2,300	3,060	4,130	2,910	4,500	4,850	3,260	1,580	1,090	984
6	820	2,240	2,110	2,980	4,130	2,700	3,800	5,040	3,420	1,480	1,130	984
7	872	1,810	1,990	7,230	4,040	2,770	3,800	5,040	3,420	1,560	1,090	968
8	855	1,640	1,930	6,260	4,130	2,910	5,240	4,850	3,190	1,530	1,080	1,020
9	860	1,630	1,870	4,300	3,800	2,630	4,660	4,850	3,060	1,420	1,070	976
10	851	1,420	1,870	3,420	3,420	2,630	4,130	4,850	2,770	1,420	1,040	960
11	857	1,370	1,810	2,980	4,130	2,440	3,800	4,480	2,700	1,420	1,020	992
12	829	1,320	1,810	2,910	4,040	2,440	3,800	4,220	2,700	1,420	1,030	984
13	862	1,320	1,870	2,840	5,040	2,630	3,880	4,040	2,630	1,320	1,010	984
14	808	1,270	2,440	2,770	4,850	2,840	4,040	3,880	2,500	1,270	1,000	1,010
15	861	1,680	2,600	2,630	3,800	3,190	5,930	3,880	2,370	1,380	984	1,100
16	857	1,750	2,300	2,910	3,420	2,840	8,890	3,880	2,240	1,370	1,010	1,040
17	854	1,700	2,910	3,190	3,340	2,770	7,100	3,800	2,300	1,320	1,080	1,070
18	828	1,870	2,560	3,260	3,190	2,700	5,640	3,640	2,180	1,220	1,060	1,060
19	879	5,190	4,410	2,700	3,190	2,560	5,440	3,490	2,180	1,270	1,020	1,000
20	890	2,910	9,920	2,500	3,260	2,630	5,240	3,490	2,110	1,220	1,010	984
21	1,290	2,630	10,200	2,500	3,420	2,840	5,240	3,640	2,050	1,220	1,020	1,000
22	1,680	2,630	8,190	2,440	3,340	2,700	4,850	3,880	1,990	1,370	1,020	1,020
23	1,380	2,980	6,680	2,770	3,260	2,910	4,850	4,040	2,050	1,370	1,020	996
24	2,720	2,770	7,100	3,480	3,190	2,840	4,480	3,680	1,930	1,370	1,040	976
25	2,240	5,660	7,310	3,880	2,980	2,980	4,130	3,720	1,810	1,320	1,010	976
26	1,680	5,660	7,310	3,960	2,840	3,800	4,130	3,880	1,810	1,270	968	952
27	1,320	5,040	6,470	4,390	2,770	3,260	4,390	3,640	1,810	1,220	1,010	960
28	1,820	4,480	5,040	4,660	3,190	2,980	4,480	3,490	1,750	1,220	1,020	960
29	1,220	5,440	4,660	4,480	-	3,120	5,040	3,490	1,750	1,220	1,050	1,020
30	1,130	4,660	4,660	4,660	-	3,340	6,680	3,640	1,810	1,180	1,110	936
31	1,180	-	3,960	4,300	-	3,340	-	3,340	-	1,150	1,020	-
Month						Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet		
October.....						33,976	2,720	808	1,068	67,390		
November.....						79,150	5,660	1,270	2,536	167,000		
December.....						128,940	10,200	1,810	4,159	255,700		
Calendar year 1934.....						673,090	10,200	734	1,844	1,335,000		
January.....						109,400	7,230	2,440	3,529	217,000		
February.....						103,670	5,040	2,770	3,702	205,600		
March.....						99,130	3,800	2,440	2,875	176,800		
April.....						142,080	8,890	3,100	4,736	231,800		
May.....						130,720	6,470	3,340	4,217	259,300		
June.....						74,540	3,420	1,750	2,426	147,800		
July.....						42,780	1,750	1,130	1,280	84,850		
August.....						32,572	1,180	968	1,051	64,610		
September.....						29,854	1,100	936	994	59,170		
Water year 1934-35.....						996,792	10,200	808	2,731	1,977,000		

Mill Creek near Prospect, Oreg.

Location.- Staff gage, lat. 42°45'10", long. 122°28'40", in SE $\frac{1}{4}$ sec. 29, T. 32 S., R. 3 E., at power-canal crossing a third of a mile northeast of Prospect. Zero of gage is about 2,587 feet above mean sea level.

Drainage area.- 32 square miles.

Records available.- August to October 1910, May 1925 to September 1935 (discontinued).

Average discharge.- 10 years (1925-35), 58.9 second-feet.

Extremes.- Maximum mean daily discharge during year (estimated), 200 second-feet Dec. 20; minimum, 25 second-feet Oct. 1, 4-18.
1910, 1925-35: Maximum mean daily discharge, 200 second-feet Feb. 20, 1927, Jan. 23, Dec. 20, 1934; minimum, 24 second-feet Sept. 4-25, Oct. 2-16, 1931.

Remarks.- Records poor. Gage read once a week, discharge estimated for intervening days. A ditch above station diverts 1 or 2 second-feet for use at Prospect; no regulation. Gage readings furnished by The California Oregon Power Co.

Rating table, water year 1934-35 (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Oct. 1 to Dec. 14)

0.5	23	1.6	93
.7	32	2.0	129
1.0	49	2.5	180
1.3	69		

Discharge, in second-feet, water year October 1934 to September 1935

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	25	37	50	66	60	61	62	127	127	54	36	34
2	26	36	49	64	63	60	64	124	125	50	36	34
3	26	43	47	62	66	59	72	124	125	48	36	33
4	25	50	46	60	67	58	78	125	126	46	35	33
5	25	58	43	60	69	56	81	130	130	45	35	33
6	25	60	42	60	70	55	78	134	133	44	35	33
7	25	44	41	59	71	54	80	135	129	44	35	33
8	25	39	40	64	72	54	84	135	124	43	34	33
9	25	35	39	61	70	53	82	136	115	42	34	33
10	25	33	39	59	69	52	81	134	108	42	34	33
11	25	32	40	58	67	52	81	132	107	41	34	33
12	25	32	41	56	66	52	81	129	105	41	34	33
13	25	32	43	54	65	53	84	127	102	41	34	34
14	25	33	45	52	62	55	90	129	98	41	34	35
15	25	43	47	51	69	56	120	131	94	45	34	36
16	25	38	46	50	58	55	130	130	90	42	34	35
17	25	38	48	49	58	55	124	129	86	40	34	34
18	25	38	47	50	57	54	120	125	82	39	34	34
19	26	39	80	50	58	53	120	122	84	38	34	34
20	37	38	200	49	60	53	124	122	78	36	34	34
21	43	38	124	49	63	52	120	125	75	38	34	34
22	37	42	105	49	65	52	114	136	72	40	34	34
23	55	49	100	49	64	52	106	135	68	40	34	34
24	90	60	100	49	62	51	102	134	64	39	34	34
25	50	100	98	49	61	56	101	135	62	38	34	33
26	38	85	94	49	60	55	106	135	60	38	34	33
27	32	70	90	50	60	52	110	133	58	38	34	33
28	31	62	85	52	61	52	120	130	58	37	34	33
29	31	58	78	54	-	56	130	135	60	37	34	33
30	31	54	72	56	-	60	130	132	58	37	34	33
31	34	-	68	58	-	62	-	129	-	56	34	33

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acres-feet
October.....	991	90	25	32.0	1.00	1.15	1,970
November.....	1,396	100	32	46.5	1.45	1.82	2,770
December.....	2,088	200	39	67.4	2.11	2.43	4,140
Calendar year 1934.....	17,798	200	25	48.8	1.52	20.68	35,310
January.....	1,707	68	49	55.1	1.72	1.98	3,390
February.....	1,783	72	57	63.7	1.99	2.07	3,540
March.....	1,700	62	61	54.8	1.71	1.97	3,370
April.....	2,975	130	62	99.2	3.10	3.46	5,900
May.....	4,039	136	122	130	4.06	4.68	8,010
June.....	2,803	133	58	93.4	2.92	3.26	5,560
July.....	1,282	54	35	41.4	1.29	1.49	2,540
August.....	1,064	36	34	34.3	1.07	1.23	2,110
September.....	1,008	36	33	33.6	1.06	1.17	2,000
Water year 1934-35.....	22,836	200	25	62.6	1.96	26.51	45,300

South Fork of Rogue River above Imnaha Creek, near Prospect, Oreg.

Location.- Water-stage recorder, lat. 42°41'50", long. 122°27'15", 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 1935.

Extremes.- Maximum discharge during year, 875 second-feet Dec. 20 (gage height, 3.75 feet); minimum, 33 second-feet Oct. 6, 9-19 (gage height, 0.87 foot).
1931-35: Maximum discharge, 1,100 second-feet Mar. 19, 1932 (gage height, 4.47 feet); minimum, 27 second-feet Oct. 1-21, 1931; minimum gage height, 0.81 foot Oct. 4, 9-21, 1931.

Remarks.- Records good. Discharge estimated Sept. 19-21, by comparison with flow of Rogue River above Prospect and Middle Fork of Rogue River. No diversions or regulation above station. Water-stage recorder graph furnished by The California Oregon Power Co.

Rating table, water year 1934-35 (gage height, in feet, and discharge, in second-feet)

0.8	28	1.4	87	2.5	270
1.0	42	1.7	131	3.0	390
1.2	61	2.0	178	3.5	560

Discharge, in second-feet, water year October 1934 to September 1935

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	34	53	131	131	87	102	97	328	290	132	80	60
2	35	73	118	126	91	101	95	290	280	128	79	59
3	36	113	108	122	100	100	107	280	280	125	77	59
4	34	124	104	120	106	98	120	290	302	122	77	58
5	34	132	98	118	113	97	131	328	328	119	77	58
6	33	112	94	113	120	95	125	352	340	118	76	58
7	34	95	91	124	122	97	137	355	328	114	76	57
8	34	86	90	113	126	94	151	352	302	112	74	57
9	33	79	86	108	125	93	138	378	270	108	73	56
10	33	71	83	106	120	90	134	365	240	107	72	56
11	33	65	80	104	122	90	137	340	240	106	72	56
12	33	61	79	101	119	90	148	315	240	101	71	55
13	33	60	83	98	119	88	159	328	231	98	71	55
14	33	60	110	97	113	91	175	315	222	97	69	58
15	33	76	112	95	110	87	250	328	202	97	69	59
16	33	74	110	94	107	84	302	328	193	94	69	56
17	33	76	122	90	106	84	260	328	192	91	68	55
18	33	76	112	91	104	83	260	290	183	90	68	56
19	33	81	207	91	104	83	260	280	190	88	67	55
20	40	76	535	90	107	83	270	300	181	87	66	54
21	61	79	468	88	112	84	260	330	175	88	66	53
22	53	98	352	84	112	83	240	355	172	94	66	51
23	74	90	270	84	110	83	222	355	164	91	65	51
24	167	83	270	87	108	80	213	352	154	90	65	49
25	94	291	231	84	104	83	213	352	149	87	63	49
26	63	222	208	83	104	84	240	352	144	86	63	49
27	53	181	188	83	102	81	270	328	142	86	63	48
28	48	164	170	83	104	83	290	315	138	84	63	47
29	46	164	157	83	-	87	340	340	140	83	63	46
30	44	148	149	84	-	91	340	328	138	83	62	46
31	46	-	138	84	-	97	-	302	-	81	61	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acre-feet
October.....	1,425	167	33	46.0	0.888	1.02	2,830
November.....	3,143	291	53	105	2.02	2.25	6,230
December.....	5,154	535	79	166	3.19	3.68	10,220
Calendar year 1934	31,630	535	32	86.7	1.67	22.62	62,730
January.....	3,059	131	83	98.7	1.90	2.19	6,070
February.....	3,077	126	87	110	2.12	2.21	6,100
March.....	2,766	102	80	89.2	1.72	1.98	5,490
April.....	6,074	340	95	202	3.68	4.33	12,050
May.....	10,209	378	280	329	6.33	7.30	20,250
June.....	6,550	340	138	218	4.19	4.68	12,990
July.....	3,087	132	81	99.6	1.92	2.21	6,120
August.....	2,153	80	61	69.5	1.34	1.54	4,270
September.....	1,626	60	46	54.2	1.04	1.16	3,250
Water year 1934-35	48,323	535	33	132	2.54	34.55	95,650

Imnaha Creek near Prospect, Oreg.

Location.- Staff gage, lat. $42^{\circ}42'$, long. $122^{\circ}27'10''$, in NE $\frac{1}{4}$ sec. 18, T. 33 S., R. 4 E., 400 yards above mouth and 6 miles southeast of Prospect.

Drainage area.- 28 square miles.

Records available.- September 1931 to September 1935.

Extremes.- Maximum mean daily discharge during year (estimated), 150 second-feet Dec. 20; minimum, 15 second-feet Oct. 7-19.
1931-35: Maximum discharge recorded, 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 poor. Staff gage read only once a week, discharge estimated for intervening days. No diversions or regulation above station. Gage readings furnished by The California Oregon Power Co.

Rating table, water year 1934-35 (gage height, in feet, and discharge, in second-feet)

0.4	9	1.3	83
.6	18	1.6	127
.8	28	2.0	212
1.0	50	2.5	367

Discharge, in second-feet, water year October 1934 to September 1935

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	16	18	29	48	35	45	40	127	66	38	23	19
2	16	18	28	47	36	45	41	115	64	37	23	19
3	16	19	27	45	37	45	44	104	64	36	23	19
4	16	21	26	44	39	44	49	100	66	36	22	19
5	16	23	26	43	41	44	52	106	71	35	22	19
6	16	20	26	42	43	44	50	110	74	34	22	19
7	15	18	26	46	48	43	54	106	73	33	22	19
8	15	17	25	43	51	43	60	111	70	32	22	19
9	15	17	25	41	52	42	60	105	64	31	22	19
10	15	16	24	41	50	41	59	98	60	31	22	19
11	15	16	24	40	50	40	59	94	58	30	21	19
12	15	16	23	39	50	39	60	90	58	30	21	19
13	15	16	24	39	48	40	64	90	56	29	21	19
14	15	16	27	38	47	39	74	88	52	28	21	19
15	15	21	25	38	46	39	100	88	49	29	21	19
16	15	20	26	37	45	39	110	86	48	28	21	19
17	15	20	27	45	37	45	39	104	82	48	21	19
18	15	20	25	35	45	39	96	78	48	27	20	19
19	15	21	41	36	45	39	96	76	49	27	20	19
20	17	21	150	35	46	39	95	76	47	26	20	19
21	19	21	150	35	46	38	94	80	46	27	20	18
22	17	22	100	34	46	37	93	83	45	27	20	18
23	21	23	95	34	45	37	92	84	44	26	20	18
24	27	22	85	35	45	36	91	82	43	26	19	18
25	21	45	75	35	45	38	90	82	42	25	19	18
26	18	39	69	34	46	37	92	82	41	25	19	18
27	17	34	64	34	46	36	95	80	41	24	19	18
28	16	32	60	35	46	36	110	80	40	24	19	18
29	16	32	56	37	37	130	82	40	23	23	19	18
30	16	30	52	35	-	39	130	74	39	23	19	18
31	18	-	50	34	-	39	-	68	-	23	19	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acre-feet
October.....	514	27	15	16.6	0.638	0.74	1,020
November.....	674	45	16	22.5	.966	.97	1,340
December.....	1,480	150	23	47.7	1.63	2.11	2,940
Calendar year 1934.....	9,814	150	15	26.9	1.03	14.04	19,490
January.....	1,189	49	33	38.4	1.48	1.71	2,360
February.....	1,264	52	35	45.1	1.73	1.80	2,510
March.....	1,237	45	36	39.9	1.53	1.76	2,450
April.....	2,385	130	40	79.5	3.06	3.41	4,730
May.....	2,807	127	68	90.5	3.48	4.01	5,870
June.....	1,606	74	39	53.5	2.06	2.30	3,190
July.....	897	38	23	28.9	1.11	1.28	1,780
August.....	642	23	18	20.7	.795	.92	1,270
September.....	560	19	18	18.7	.719	.80	1,110
Water year 1934-35.....	15,255	150	15	41.8	1.61	21.81	30,270

South Fork power canal near Prospect, Oreg.

(Formerly published as South Fork of Rogue River power canal near Prospect, Oreg.)

Location.— Water-stage recorder, lat. 42°42'50", long. 122°24'20", in E½ sec. 12, T. 33 S., R. 3 E., 1 mile below head gate 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 1935.

Extremes.— Maximum discharge during year, 165 second-feet May 11-26; maximum gage height, 3.32 feet Feb. 8; no flow part of Jan. 20.
1932-35: Maximum discharge, 175 second-feet May 31, June 17, 1933; no flow at times.

Remarks.— Records fair. This canal, completed in March 1932, diverts water from South Fork of Rogue River 200 feet below mouth of Innaha Creek for use at power plant located in W½ sec. 1, T. 33 S., R. 3 E., from which water may be wasted into Middle Fork of Rogue River or mingled with other diversions in main power canal. Water-stage recorder graph furnished by The California Oregon Power Co.

Discharge, in second-feet, water year October 1934 to September 1935

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	44	69	136	140	113	145	3	1	160	150	89	71
2	47	85	126	140	118	140	1	1	160	145	68	71
3	48	126	113	136	126	140	4	1	155	145	87	70
4	46	136	109	136	136	140	56	1	160	145	67	69
5	45	140	105	136	145	136	136	1	160	140	87	69
6	44	122	101	136	155	136	136	1	153	140	85	69
7	46	101	97	140	155	49	140	1	160	131	84	69
8	47	94	94	136	160	1	53	1	160	126	83	68
9	46	86	90	131	160	2	1	1	160	126	82	68
10	45	60	89	126	155	3	1	1	160	126	82	67
11	45	74	88	126	155	65	1	97	160	122	81	66
12	45	72	86	126	155	118	1	165	160	118	80	66
13	46	71	90	122	155	118	1	165	155	113	80	66
14	46	71	118	118	160	122	1	165	155	113	80	69
15	46	87	118	118	145	113	1	165	155	113	60	68
16	46	84	118	118	145	113	1	165	155	105	80	65
17	48	86	131	113	145	113	1	165	155	105	77	65
18	48	88	122	113	145	113	1	165	155	101	77	63
19	48	94	140	109	145	109	1	165	155	101	77	62
20	56	89	150	94	145	113	1	165	155	97	77	62
21	80	90	145	105	150	77	1	165	150	101	77	61
22	69	101	140	101	150	6	1	165	150	105	76	61
23	86	101	133	105	150	6	1	165	150	101	76	60
24	145	94	155	109	150	6	1	165	150	101	75	59
25	101	136	155	105	145	7	1	165	150	97	74	59
26	72	134	150	105	145	7	1	160	150	94	74	58
27	62	145	150	105	145	7	1	160	150	90	74	57
28	58	140	145	105	145	7	1	160	150	89	75	56
29	56	140	145	105	-	7	1	160	150	88	77	56
30	54	140	145	109	-	7	1	160	145	89	75	56
31	58	-	140	109	-	7	-	160	-	89	74	-
Month						Second-foot-days	Maximum	Minimum	Mean		Run-off in acre-feet	
October.....						1,773	145	44	57.2		3,520	
November.....						3,076	145	69	103		6,100	
December.....						3,624	155	86	123		7,580	
Calendar year 1934.....						31,890	160	21	87.4		63,240	
January.....						3,677	140	94	119		7,290	
February.....						4,088	160	113	146		8,110	
March.....						2,133	145	1	68.8		4,230	
April.....						551	140	1	18.4		1,090	
May.....						3,377	165	1	109		6,700	
June.....						4,843	160	145	155		9,210	
July.....						3,506	150	88	113		6,950	
August.....						2,470	89	74	79.7		4,900	
September.....						1,926	71	56	64.2		3,820	
Water year 1934-35.....						35,040	165	1	96.0		69,500	

ROGUE RIVER BASIN

Middle Fork of Rogue River near Prospect, Oreg.

Location.- Water-stage recorder, lat. $42^{\circ}44'$, long. $122^{\circ}24'20''$, in NE $\frac{1}{4}$ 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 $4\frac{1}{2}$ miles southeast of Prospect.

Drainage area.- 57 square miles.

Records available.- May 1925 to September 1935.

Average discharge.- 10 years, 162 second-feet.

Extremes.- Maximum combined discharge of river and canal during year, 786 second-feet Dec. 20 (river gage height, 2.69 feet); minimum, 89 second-feet Oct. 1, 6, 9.
1925-35: 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. Discharge of canal estimated Oct. 9, Apr. 6-9. 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. Records published include flow of canal. Water-stage recorder graph furnished by The California Oregon Power Co.

Discharge, in second-feet, water year October 1934 to September 1935

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	89	135	178	185	191	163	153	283	309	195	133	116
2	94	132	162	171	204	161	155	266	309	187	129	116
3	94	153	156	167	206	158	170	258	315	179	129	116
4	91	170	148	167	198	154	184	266	342	178	129	116
5	90	193	140	165	211	140	192	297	373	176	129	113
6	89	170	139	164	212	139	189	321	387	174	129	113
7	93	167	139	182	212	140	201	321	376	167	129	113
8	91	141	136	173	209	140	210	321	359	166	129	113
9	89	133	134	167	200	136	204	332	315	165	125	112
10	90	127	134	163	194	131	201	327	291	162	125	112
11	90	122	133	162	191	131	201	306	294	164	125	113
12	90	122	134	160	188	131	207	291	297	163	124	113
13	90	122	139	150	185	136	216	283	285	163	125	113
14	92	123	162	144	179	136	231	291	262	163	125	119
15	94	154	162	144	168	136	294	301	242	182	125	116
16	92	134	187	144	165	134	317	294	242	171	121	113
17	91	134	163	139	165	137	287	277	242	163	121	114
18	90	134	162	139	163	134	273	289	242	187	121	112
19	90	140	297	131	163	134	277	289	262	152	121	113
20	108	139	657	131	166	134	280	278	261	147	121	113
21	126	139	556	132	171	134	277	313	251	152	121	112
22	106	146	417	132	171	134	259	354	248	156	122	112
23	163	146	333	134	171	134	245	350	238	156	121	113
24	263	144	333	135	168	130	228	336	228	147	122	109
25	146	314	294	138	165	144	228	347	223	142	121	109
26	119	249	272	136	163	139	241	341	224	137	117	109
27	109	231	249	147	163	134	263	331	223	137	117	109
28	105	210	228	155	165	134	273	328	221	137	117	109
29	103	210	216	163	-	139	301	352	221	135	121	109
30	101	192	204	174	-	149	301	321	211	134	117	109
31	117	-	189	179	-	161	-	300	-	133	117	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acre-feet
October.....	3,997	263	89	106	1.66	2.14	6,540
November.....	4,616	314	122	161	2.82	3.16	9,550
December.....	6,906	657	133	223	3.91	4.51	13,700
Calendar year 1934.....	53,720	657	88	147	2.58	35.04	106,600
January.....	4,773	185	131	154	2.70	3.11	9,470
February.....	5,109	212	163	182	3.19	3.32	10,130
March.....	4,327	163	130	140	2.46	2.84	8,580
April.....	7,058	317	153	235	4.12	4.60	14,000
May.....	9,504	354	266	307	5.39	6.21	18,860
June.....	8,283	387	211	276	4.64	5.40	16,430
July.....	4,938	195	133	159	2.79	3.22	9,790
August.....	3,829	133	117	123	2.16	2.49	7,590
September.....	3,881	119	109	113	1.98	2.21	6,710
Water year 1934-35.....	66,219	657	89	181	3.18	43.20	131,300

Middle Fork power canal near Prospect, Oreg.

(Formerly published as Middle Fork of Rogue River power canal near Prospect, Oreg.)

Location.— Water-stage recorder, lat. 42°44'5", long. 122°24'20", in NE¼ sec. 1, T. 33 S., R. 3 E., 1,000 feet below head gate at diversion dam and 4¼ miles southeast of Prospect. Zero of gage is about 2,632 feet above mean sea level.

Records available.— November 1931 to September 1935.

Extremes.— Maximum discharge during year, 196 second-feet Feb. 3 (gage height, 3.50 feet); minimum, 0.5 second-foot Dec. 28, May 3, 4.
1932-35: Maximum discharge, that of Feb. 3, 1935; no flow at times.

Remarks.— Records good. Discharge interpolated Oct. 9, Apr. 6-9. 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 1934 to September 1935

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.		
1	87	0.9	64	159	182	3	1	0.6	94	164	132	116		
2	91	51	146	154	191	3	41	.6	94	164	129	116		
3	90	56	146	154	168	3	120	.5	94	159	128	116		
4	89	2	141	154	128	64	37	70	94	159	128	116		
5	88	2	136	154	132	128	1	159	94	159	128	112		
6														
7	87	2	136	154	76	136	1	159	94	159	128	112		
8	90	2	136	154	3	136	1	159	94	154	128	112		
9	89	86	136	154	3	136	.9	159	94	154	128	112		
10	87	128	132	154	3	132	.9	159	94	154	124	112		
	88	124	132	154	3	128	.9	159	94	154	124	112		
11														
12	88	120	132	154	3	128	.8	90	94	159	124	112		
13	88	120	132	154	3	128	.7	.9	94	159	124	112		
14	88	120	136	124	3	132	.7	.8	94	159	124	112		
15	90	120	154	94	3	132	.7	.8	94	159	124	116		
	92	136	146	141	3	132	.7	.8	94	172	124	116		
16														
17	89	128	150	141	3	132	.7	.8	94	164	120	112		
18	88	128	154	136	3	136	.7	.6	94	159	120	112		
19	88	129	146	136	3	132	.7	.7	94	164	120	110		
20	86	132	136	118	3	132	.6	.7	94	160	120	112		
	104	132	42	128	3	132	.6	20	93	146	120	112		
21														
22	124	132	1	128	3	132	.6	92	137	150	120	112		
23	106	136	1	128	3	132	.6	92	168	154	120	112		
24	128	136	.7	128	3	132	.6	92	168	154	120	112		
25	146	136	.7	128	3	128	.6	92	166	146	120	108		
	76	72	.6	132	3	141	.6	93	168	141	120	108		
26														
27	1	1	.5	132	3	136	.6	93	168	136	116	108		
28	1	1	.6	141	3	132	.6	94	168	136	116	108		
29	1	1	.6	150	3	83	.6	94	168	136	116	108		
30	1	1	.6	159	-	1	.6	94	168	132	120	108		
31	1	-	.7	168	-	1	.6	94	168	132	116	108		
	1	1	106	172	-	1	-	94	-	132	116	-		
Month					Second-foot-days		Maximum		Minimum		Mean		Run-off in acre-feet	
October.....					2,377		146		1		76.7		4,710	
November.....					2,354.9		136		.9		77.8		4,630	
December.....					2,746.0		154		.5		88.6		6,450	
Calendar year 1934.....					35,167.9		164		.5		96.4		69,750	
January.....					4,437		172		94		143		6,600	
February.....					943		191		3		33.7		1,870	
March.....					3,204		141		1		103		6,360	
April.....					217.6		120		.6		7.25		432	
May.....					2,166.0		159		.5		69.9		4,800	
June.....					3,528		168		93		115		7,006	
July.....					4,710		172		132		152		9,540	
August.....					3,796		132		116		122		7,530	
September.....					3,354		116		108		112		6,650	
Water year 1934-35.....					35,813.5		191		.5		92.6		67,070	

Red Blanket Creek near Prospect, Oreg.

Location.- Staff gage, lat. 42°46'40", long. 122°25'40", 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 1935. Prior to October 1928 in NE¼ sec. 24, T. 32 S., R. 3 E.

Average discharge.- 10 years, 94.8 second-feet.

Extremes.- Maximum mean daily discharge during year (estimated), 380 second-feet Dec. 20; minimum, 40 second-feet Oct. 1, 5-19.

1925-35: Maximum discharge recorded, 1,200 second-feet Mar. 11, 1928; minimum, 34 second-feet Sept. 3, 4, 25, Oct. 9, 16, 1931.

Remarks.- Records poor. One irrigation diversion above station. Gage read only once a week, discharge estimated for intervening days. Gage readings furnished by The California Oregon Power Co.

Rating table, water year 1934-35 (gage height, in feet, and discharge, in second-feet)

0.6	36	1.2	107	1.8	254
0.8	55	1.4	141	2.0	297
1.0	78	1.6	182	2.2	375

Discharge, in second-feet, water year October 1934 to September 1935

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	40	75	101	100	102	94	94	160	175	114	74	59
2	41	74	94	98	105	92	97	150	175	110	74	59
3	42	88	90	96	110	90	104	145	180	107	74	58
4	41	98	85	95	116	87	114	150	200	105	73	58
5	40	110	82	95	122	84	123	170	230	104	72	57
6	40	100	80	95	127	83	110	190	240	100	70	57
7	40	90	79	105	130	82	112	185	234	98	67	57
8	40	80	78	98	128	82	120	182	220	96	66	57
9	40	74	76	95	124	81	112	200	190	94	56	57
10	40	71	77	94	118	80	110	194	180	94	56	57
11	40	68	78	92	114	78	110	180	180	92	56	57
12	40	66	80	92	112	78	113	175	180	91	55	57
13	40	65	84	90	109	80	118	170	175	90	55	57
14	40	66	96	88	104	83	130	180	169	90	54	58
15	40	80	92	88	98	81	160	190	160	100	64	60
16	40	66	96	88	96	80	180	180	150	95	64	58
17	40	70	100	88	95	80	165	171	145	90	64	57
18	40	70	92	88	94	80	180	165	145	86	64	57
19	40	76	170	88	95	79	182	180	155	84	57	57
20	50	74	380	85	98	78	160	170	150	82	63	57
21	65	74	335	85	102	77	150	185	149	83	63	57
22	56	64	240	85	106	77	140	200	144	87	63	56
23	90	95	200	86	104	77	133	200	140	84	63	56
24	150	94	190	86	101	76	130	194	136	82	63	56
25	80	180	170	86	98	85	130	200	132	80	62	55
26	67	150	150	86	96	84	136	194	128	78	61	55
27	60	134	140	88	94	80	140	189	124	78	60	55
28	58	120	134	90	94	80	150	184	123	76	60	55
29	57	114	124	92	-	84	170	200	123	76	62	55
30	56	109	114	95	-	90	170	180	122	76	60	55
31	62	-	106	98	-	92	-	173	-	75	60	-
Month				Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off			
									Inches	Acre-feet		
October.....				1,615	160	40	52.1	1.30	1.50	3,200		
November.....				2,717	180	65	90.6	2.28	2.52	5,350		
December.....				4,015	380	77	130	3.25	3.75	7,960		
Calendar year 1934.....				29,533	380	40	80.9	2.02	27.45	58,570		
January.....				2,827	105	65	91.2	2.28	2.63	5,610		
February.....				2,992	130	94	107	2.68	2.79	5,830		
March.....				2,554	94	76	82.4	2.06	2.38	5,070		
April.....				3,980	180	94	133	3.32	3.70	7,890		
May.....				5,566	200	145	180	4.50	5.19	11,040		
June.....				4,959	240	122	165	4.12	4.60	9,840		
July.....				2,796	114	75	90.2	2.26	2.61	5,560		
August.....				2,022	74	60	65.2	1.83	1.88	4,010		
September.....				1,706	60	55	56.9	1.42	1.68	3,380		
Water year 1934-35.....				37,749	380	40	103	2.68	35.13	74,970		

Red Blanket power canal near Prospect, Oreg.

(Formerly published as Red Blanket Creek power canal near Prospect, Oreg.)

Location.— Water-stage recorder, lat. 42°45'20", long. 122°26'50", in SE¼ sec. 27, T. 32 S., R. 3 E., 200 yards below head gate 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 1935.

Extremes.— Maximum discharge during year, 106 second-feet Dec. 1, 20 (gage height, 3.26 feet); minimum, 2 second-feet Oct. 25-31, June 6, 17-22.
1931-35: Maximum discharge, 116 second-feet Nov. 6, 1932; no flow part of Sept. 24, 25, 1932.

Remarks.— Records good. Discharge estimated Nov. 18, Jan. 20, Aug. 25. 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 1934 to September 1935

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	40	72	98	95	95	95	95	3	3	92	72	58
2	42	77	95	95	98	92	95	3	3	95	70	59
3	44	92	89	98	95	92	95	3	3	95	67	60
4	42	95	89	98	95	89	98	3	3	95	67	58
5	42	95	85	95	95	86	84	3	3	95	67	58
6	42	92	85	95	73	86	19	3	2	95	67	58
7	43	86	83	98	36	86	6	3	3	92	67	58
8	42	80	83	98	33	83	6	3	3	95	66	58
9	40	76	83	98	32	83	6	3	3	92	65	58
10	37	73	80	98	32	80	6	3	3	92	64	58
11	38	70	80	98	33	80	5	3	3	89	64	58
12	39	68	83	95	33	80	5	3	3	89	64	59
13	40	67	86	95	33	83	5	3	3	89	63	58
14	40	69	95	92	52	86	5	3	3	86	63	61
15	40	80	92	92	89	86	6	3	3	89	63	60
16	40	72	92	92	92	83	5	3	3	86	63	57
17	40	77	98	89	95	86	5	3	2	83	63	56
18	40	84	92	86	95	83	4	3	2	83	63	56
19	40	92	102	86	95	83	4	3	2	80	63	56
20	54	89	98	82	98	83	4	3	2	80	62	56
21	76	89	95	83	98	83	4	3	2	80	62	56
22	69	92	95	80	95	83	4	3	56	86	62	56
23	80	95	92	83	95	83	4	3	95	63	61	56
24	95	92	92	86	95	80	4	3	95	80	62	56
25	46	98	92	86	95	86	4	3	92	77	62	54
26	2	98	92	89	95	89	4	3	95	77	61	54
27	2	95	92	95	95	83	3	3	95	76	61	54
28	2	95	92	95	95	83	3	3	95	76	61	53
29	2	95	95	95	-	86	4	3	95	76	61	54
30	2	95	98	95	-	92	4	3	92	74	59	54
31	41	-	95	95	-	95	-	3	-	73	58	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October.....	1,242	95	2	40.1	2,460
November.....	2,553	98	67	85.1	5,060
December.....	2,814	102	80	90.8	5,580
Calendar year 1934.....	34,319	164	2	94.0	68,060
January.....	2,857	98	80	92.2	5,670
February.....	2,162	98	32	77.2	4,290
March.....	2,648	95	80	85.4	5,250
April.....	576	98	3	19.2	1,140
May.....	93	3	3	3.0	184
June.....	887	95	2	28.9	1,720
July.....	2,650	95	73	85.5	5,260
August.....	1,973	72	58	63.6	3,210
September.....	1,707	61	53	56.9	3,390
Water year 1934-35.....	22,142	102	2	60.7	45,910

Main power canal below all feeders, near Prospect, Oreg.

Location.- Water-stage recorder, lat. 42°45'10", long. 122°28'20", in SW¼ sec. 28, T. 32 S., R. 3 E., 0.8 mile below outlet of Red Blanket Creek 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 by general adjustment of 1929.

Records available.- November 1931 to September 1935.

Extremes.- Maximum discharge during year, 407 second-feet Jan. 7; maximum gage height, 4.22 feet Oct. 24; no flow from 3 p.m., Apr. 26 to 10 a.m., May 2.
1931-35: Maximum discharge, that of Jan. 7, 1935; no flow at times.

Remarks.- Records fair. Discharge estimated Oct. 28-30. 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 1934 to September 1935

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	174	77	310	399	375	119	107	0	88	391	297	252
2	180	176	375	399	391	115	137	4	88	391	290	245
3	185	286	359	391	383	112	245	6	87	391	282	245
4	180	245	351	399	367	243	162	49	87	391	282	236
5	180	252	335	399	375	367	89	153	88	391	282	236
6	174	244	327	391	308	375	47	153	88	391	282	231
7	180	197	320	391	190	298	33	163	138	391	282	238
8	180	261	320	399	190	238	21	163	260	383	282	238
9	174	304	312	399	190	238	9	153	260	383	274	238
10	174	282	304	391	190	231	9	159	260	375	274	236
11	174	274	304	391	190	287	9	170	252	375	274	238
12	174	287	304	355	190	343	8	147	260	367	274	239
13	180	260	320	361	190	351	8	147	252	359	274	238
14	180	267	375	320	204	359	8	147	260	359	274	252
15	180	312	367	367	245	359	10	147	260	367	274	245
16	180	290	359	359	252	359	9	153	252	359	274	238
17	180	304	383	359	252	359	8	153	252	351	274	259
18	180	304	367	351	252	359	8	153	252	355	287	231
19	180	327	375	327	252	351	8	153	252	335	257	231
20	216	320	297	320	252	351	8	147	252	335	267	231
21	290	320	245	327	260	320	8	113	282	335	260	231
22	248	335	238	320	206	258	8	81	355	351	260	231
23	290	343	224	327	121	238	8	82	391	335	260	251
24	334	327	245	355	119	251	8	82	391	327	260	224
25	169	312	245	335	118	245	7	82	391	320	260	224
26	3	245	252	335	187	252	1	83	391	320	260	224
27	2	252	252	351	180	238	0	83	391	312	252	224
28	1	252	252	359	122	188	0	84	391	304	252	217
29	1	252	252	359	-	95	0	82	391	297	252	217
30	1	252	260	367	-	102	0	85	391	297	245	217
31	48	-	343	375	-	107	-	87	-	297	245	-
Month												
	Second-foot-days			Maximum			Minimum			Mean		
October.....	5,062			384			1			163		
November.....	8,119			343			77			271		
December.....	9,572			383			224			309		
Calendar year 1934.....	92,481			384			1			253		
January.....	11,276			399			320			364		
February.....	6,551			391			118			234		
March.....	8,068			375			95			260		
April.....	993			245			0			32.8		
May.....	3,445			170			0			111		
June.....	7,747			391			82			258		
July.....	10,915			391			297			352		
August.....	8,352			297			245			269		
September.....	7,021			252			217			254		
Water year 1934-35.....	87,111			399			0			259		
										172,800		

South Fork of Big Butte Creek near Butte Falls, Oreg.

Location.— Water-stage recorder, lat. $42^{\circ}32'10''$, long. $122^{\circ}33'10''$, in SW $\frac{1}{4}$ 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, March 1925 to September 1935. August 1922 to March 1925 at station at Butte Falls.

Average discharge.— 19 years (1910-11, 1917-35), 158 second-feet.

Extremes.— Maximum discharge during year, 520 second-feet Dec. 20, 21 (gage height, 1.85 feet); minimum, 52 second-feet Oct. 8, 11-13 (gage height, 0.43 foot).
1910-11, 1915, 1917-35: 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 Nov. 4, 5, 28 to Dec. 3, which are fair and were estimated by comparison with flow at nearby stations. Diversions above station for irrigation and Medford municipal supply.

Rating tables, water year 1934-35 (gage height, in feet, and discharge, in second-feet)

Table for Oct. 1 to Dec. 20

0.4	47	1.2	284
.6	86	1.4	368
.8	141	1.6	465
1.0	208	1.8	576

Table for Dec. 21 to Sept. 30

0.4	46	1.2	313
.6	86	1.4	400
.8	152	1.6	494
1.0	230		

Discharge, in second-feet, water year October 1934 to September 1935

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	60	73	160	222	317	218	246	374	163	105	68	60
2	60	89	146	210	326	206	242	343	152	102	65	58
3	58	132	132	194	330	206	250	322	145	102	68	58
4	58	126	126	214	339	210	267	305	134	98	70	60
5	58	90	121	222	366	202	288	300	128	98	70	60
6	58	82	115	218	365	198	276	300	128	98	70	60
7	58	78	109	418	347	206	296	300	128	95	70	60
8	58	76	107	400	356	194	339	288	131	92	70	60
9	58	73	102	339	326	190	317	275	131	86	68	60
10	61	69	99	292	300	179	292	267	128	86	70	61
11	58	67	99	271	322	179	279	255	124	84	68	63
12	58	67	96	246	305	182	271	242	120	81	68	63
13	58	65	96	226	305	190	271	230	117	81	68	61
14	60	67	115	214	284	218	267	222	117	81	68	65
15	61	73	121	202	263	234	330	218	117	81	68	63
16	63	73	124	194	269	234	418	218	120	79	70	61
17	63	84	144	162	259	250	400	218	117	77	68	61
18	63	84	121	171	255	222	382	206	111	74	61	61
19	65	115	261	156	259	218	365	190	111	74	70	61
20	66	118	445	152	279	218	352	182	108	74	68	61
21	86	107	484	145	284	222	356	182	108	81	68	63
22	89	104	437	145	279	210	334	182	105	95	70	63
23	89	112	409	146	276	214	350	182	105	86	70	63
24	107	115	418	160	269	202	300	175	105	84	68	61
25	86	190	428	160	242	202	279	171	102	81	68	61
26	76	187	423	171	226	226	271	171	102	79	65	60
27	71	201	378	210	218	210	271	163	98	77	65	60
28	69	193	317	250	230	210	279	160	98	77	63	60
29	67	191	296	275	-	210	330	163	102	74	63	60
30	65	176	284	309	-	222	368	175	105	70	61	60
31	67	-	246	317	-	242	-	175	-	70	60	-
Month					Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet			
October.....					2,077	107	58	67.0	4,120			
November.....					3,276	201	65	109	6,500			
December.....					6,959	484	96	224	13,800			
Calendar year 1934.....					33,566	484	51	92.0	66,580			
January.....					7,033	418	145	227	13,950			
February.....					8,165	365	218	292	16,200			
March.....					6,504	242	179	210	12,900			
April.....					9,266	418	142	309	18,360			
May.....					7,154	374	180	231	14,190			
June.....					3,580	163	98	119	7,060			
July.....					2,622	105	70	84.6	5,200			
August.....					2,098	70	60	67.6	4,160			
September.....					1,828	65	58	60.9	3,630			
Water year 1934-35.....					60,540	484	58	166	120,100			

South Fork of Little Butte Creek near Lakecreek, Oreg.

Location.- Water-stage recorder, lat. $42^{\circ}24'30''$, long. $122^{\circ}36'$, in SE $\frac{1}{4}$ sec. 29, T. 36 S., R. 2 E., a quarter of a mile above intake of Rogue River Valley Canal and $1\frac{1}{2}$ miles southeast of Lakecreek.

Records available.- April 1921 to September 1935. At station in sec. 11, T. 37 S., R. 2 E., 5 miles above Lakecreek, November 1910 to April 1913.

Average discharge.- 15 years (1911-12, 1921-35), 87.3 second-feet.

Extremes.- Maximum discharge during year, 748 second-feet Apr. 16 (gage height, 3.26 feet); minimum, 10 second-feet Oct. 1, 2.
1910-13, 1921-35: Maximum discharge (estimated), 3,000 second-feet Dec. 30, 1924 (gage height, 5.25 feet); minimum, 2 second-feet Aug. 10, 1931 (gage height, 0.97 foot).

Remarks.- Records good. Discharge for June 22-26 estimated from record at diversion below. Diversions for irrigation above station.

Rating tables, water year 1934-35 (gage height, in feet, and discharge, in second-feet)

Table for Oct. 1 to Dec. 19

1.1	6.3	1.8	93
1.2	10.5	2.0	144
1.4	27	2.2	204
1.6	54	2.4	276

Table for Dec. 20 to Sept. 30

1.1	10.0	2.0	158
1.2	13.5	2.3	276
1.3	18.5	2.6	412
1.4	27	2.9	560
1.6	54	3.2	720
1.8	94		

Discharge, in second-feet, water year October 1934 to September 1935

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	10	18	125	114	176	111	180	654	123	32	18	16
2	12	21	98	106	180	103	165	525	111	31	18	16
3	14	34	78	100	184	106	191	465	100	26	18	16
4	12	34	72	103	180	109	226	412	87	25	18	16
5	12	29	61	106	188	103	247	393	81	24	18	16
6	12	23	56	108	191	97	222	393	76	24	18	16
7	13	22	54	316	203	108	268	379	72	24	16	16
8	13	20	48	191	259	108	365	356	67	24	16	16
9	12	19	44	140	230	108	293	347	63	24	16	15
10	12	18	42	111	203	92	272	334	59	24	16	16
11	12	17	40	108	251	97	269	311	56	23	16	16
12	12	14	38	97	230	106	272	294	52	22	16	16
13	12	16	45	92	251	120	285	272	51	21	16	17
14	12	17	98	85	207	151	307	263	51	21	15	18
15	12	25	82	81	173	154	422	259	46	21	15	19
16	12	24	89	76	154	140	638	255	45	22	16	18
17	13	29	112	74	148	137	475	283	44	20	18	17
18	14	27	87	74	137	123	426	238	39	20	18	16
19	14	39	211	72	134	114	403	216	38	20	16	16
20	16	37	403	68	148	120	393	207	34	18	16	15
21	25	39	384	68	140	123	389	207	33	20	15	15
22	25	40	358	79	140	114	347	214	32	27	15	16
23	24	58	307	148	134	123	329	211	31	29	15	16
24	31	48	352	154	123	114	294	199	31	25	15	15
25	24	147	311	158	108	137	276	188	28	24	15	14
26	21	128	365	173	108	191	276	184	26	23	16	14
27	19	156	263	195	106	148	289	165	27	21	16	14
28	17	150	203	199	111	140	302	151	30	20	15	14
29	17	182	180	199	-	162	412	149	31	18	16	14
30	15	156	165	199	-	188	556	162	32	18	16	15
31	16	-	137	184	-	191	-	148	-	18	16	-
Month						Second-foot-days	Maximum	Minimum	Mean		Run-off in acre-feet	
October.....						485	51	10	15.6		962	
November.....						1,587	182	14	52.9		3,150	
December.....						4,888	403	38	158		9,700	
Calendar year 1934.....						15,807.3	403	6	45.3		31,360	
January.....						3,978	316	68	128		7,690	
February.....						4,797	259	106	171		9,510	
March.....						3,937	191	92	127		7,610	
April.....						9,791	658	165	326		19,420	
May.....						8,815	654	148	284		17,480	
June.....						1,596	123	26	53.2		3,170	
July.....						709	32	18	22.9		1,410	
August.....						506	18	15	16.3		1,000	
September.....						474	19	14	15.8		940	
Water year 1934-35.....						41,563	654	10	114		82,440	

Fish Lake Reservoir near Lakecreek, Oreg.

Location.- Staff gage, lat. 42°22'40", long. 122°20'50", in SW¼ sec. 3, T. 37 S., R. 4 E., at reservoir outlet 18 miles east of Lakecreek. Gage reads elevation above sea level, irrigation district datum.

Drainage area.- 17 square miles.

Records available.- December 1915 to September 1935.

Extremes.- Maximum contents observed during year, 6,135 acre-feet June 7 (elevation, 4,822.46 feet); minimum, 101 acre-feet Oct. 11-18 (elevation, 4,801.00 feet).
1915-35: Maximum contents, 7,535 acre-feet June 26, 1933 (elevation, 4,826.02 feet); minimum contents practically zero.

Remarks.- Records good. 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.

Stage and contents, water year October 1934 to September 1935

Date	Gage height (feet)	Contents (acre-feet)	Change in contents during month (acre-feet)
Sept. 30	4,801.00	101	-
Oct. 31	4,804.10	510	+409
Nov. 30	4,803.25	1,500	+990
Dec. 31	4,811.40	2,392	+892
Jan. 31	4,813.10	2,908	+516
Feb. 28	4,814.04	3,203	+295
Mar. 31	4,814.96	3,497	+294
Apr. 30	4,817.00	4,175	+678
May 31	4,821.68	5,839	+1,664
June 30	4,819.37	5,175	-664
July 31	4,816.85	4,124	-1,051
Aug. 31	4,807.28	1,246	-2,878
Sept. 30	4,805.20	742	-504
The year			+641

North Fork of Little Butte Creek at Fish Lake, near Lakecreek, Oreg.

Location.- Water-stage recorder, lat. $42^{\circ}22'50''$, long. $122^{\circ}21'30''$, in $S\frac{1}{2}$ 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 1935; incomplete prior to 1917.

Extremes.- Maximum discharge during year, 118 second-feet July 21 (gage height, 1.56 feet); practically no flow Oct. 23 to Dec. 19.
1914-35: Maximum discharge, 158 second-feet July 10, 1930; practically no flow at times.

Remarks.- Records fair except those for Oct. 23 to Jan. 6, which are poor. Discharge interpolated Dec. 31 to Jan. 5. Flow regulated by storage in Fish Lake Reservoir. Beginning in October 1923 Cascade Canal has diverted water from Fourmile Lake in Klamath River Basin into Fish Lake Basin; no diversions from creek above station.

Rating tables, water year 1934-35 (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Aug. 18 to Sept. 14)

Table for Oct. 1 to June 6

0.2	0.4	.8	21
.4	3.9	1.0	37
.6	10	1.2	59

Table for June 7 to Sept. 30

0.2	0.4	1.0	43
.4	4.6	1.2	64
.6	13	1.4	91
.8	26	1.6	123

Discharge, in second-feet, water year October 1934 to September 1935

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	25		0	5	9	10	12	22	33	83	100	54
2	24		0	5	9	10	12	22	33	81	102	54
3	24		0	6	10	10	12	23	33	80	103	53
4	24		0	6	10	10	12	24	33	76	102	56
5	24		0	6	10	10	12	24	33	76	100	55
6	24		0	6	10	10	12	27	40	92	106	57
7	24		0	6	10	10	12	27	64	94	106	60
8	24		0	6	10	10	12	29	70	90	98	63
9	24		0	7	10	10	12	29	76	88	100	62
10	24		0	7	10	10	12	31	76	87	102	60
11	24		0	7	10	10	12	32	80	85	100	54
12	24		0	7	10	10	12	32	80	84	98	53
13	24		0	7	10	10	12	32	84	84	102	54
14	24		0	7	10	11	13	32	85	86	103	53
15	24		0	8	10	11	14	32	84	86	102	50
16	25		0	8	10	11	14	33	70	88	97	50
17	24		0	9	10	11	15	33	59	88	94	43
18	24		0	9	10	11	15	33	78	91	97	40
19	24		2	9	10	11	16	33	64	97	96	39
20	24		2	9	10	11	16	33	87	108	98	39
21	24		2	9	10	11	17	33	92	111	83	39
22	11		3	9	10	11	17	33	94	96	78	39
23	0		3	9	10	11	18	33	102	84	77	39
24	0		4	9	10	11	19	33	106	85	74	39
25	0		4	9	10	11	19	33	104	96	73	39
26	0		4	9	10	11	19	33	100	98	73	39
27	0		4	9	10	11	20	33	96	97	69	39
28	0		5	9	10	11	20	33	92	96	69	42
29	0		5	9	-	11	22	33	91	96	67	43
30	0		5	9	-	11	22	33	85	96	63	43
31	0		5	9	-	12	-	33	-	98	56	-
Month						Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet		
October.....						517	25	0	16.7	1,030		
November.....						0	0	0		0		
December.....						49	5	0	1.5	95		
Calendar year 1934.....						12,811	125	0	35.1	25,400		
January.....						239	9	5	7.7	474		
February.....						278	10	9	9.9	551		
March.....						329	13	10	10.6	658		
April.....						451	22	12	15.0	895		
May.....						946	33	22	30.5	1,880		
June.....						2,254	106	33	75.1	4,470		
July.....						2,801	111	76	90.4	5,660		
August.....						2,778	106	56	88.6	5,510		
September.....						1,455	63	39	48.5	2,890		
Water year 1934-35.....						12,096	111	0	33.1	24,010		

North Fork of Little Butte Creek above Medford intake, near Lakecreek, Oreg.

Location.—Water-stage recorder, lat. 42°24'20", long. 122°32'20", in SW¼ sec. 25, T. 36 S., R. 2 E., 300 yards above diversion to pipe line formerly used for water supply for Medford and since 1927 for irrigation and ¼ miles east of Lakecreek.

Records available.—September 1911 to March 1913, May 1922 to September 1928, October 1931 to September 1935; incomplete prior to 1931.

Extremes.—Maximum discharge during year, 189 second-feet Apr. 16 (gage height, 2.34 feet); minimum, 15 second-feet at times Oct. 28-31, Nov. 8-14.
1911-13, 1922-28, 1931-35: Maximum discharge (estimated), 680 second-feet Dec. 30, 1924 (gage height, 3.30 feet); minimum (estimated), 11 second-feet Oct. 29 to Nov. 8, 1931.

Remarks.—Records good except those for Aug. 28 to Sept. 1, which are fair and were estimated by comparison with discharge below Fish Lake. Flow regulated by storage in Fish Lake Reservoir. Small irrigation diversions above station.

Rating tables, water year 1934-35 (gage height, in feet, and discharge, in second-feet)

Table for Oct. 1 to June 6

Table for June 7 to Sept. 30

1.4	15	1.9	70	1.8	53
1.5	21	2.0	91	1.9	69
1.6	28	2.1	117	2.0	88
1.7	39	2.2	145	2.1	109
1.8	53			2.2	132

Discharge, in second-feet, water year October 1934 to September 1935

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	39	16	36	46	68	53	70	109	70	116	123	73
2	42	17	28	45	68	52	68	96	68	114	125	73
3	42	24	27	43	68	53	70	94	68	114	123	73
4	42	20	27	46	68	55	76	91	68	111	123	71
5	40	17	25	47	68	53	76	91	68	101	120	71
6	40	16	24	60	68	50	70	91	70	125	123	73
7	42	16	24	91	67	52	89	94	96	123	125	78
8	40	15	25	65	78	52	104	94	105	118	120	82
9	40	15	24	58	67	53	94	94	109	114	118	80
10	39	15	24	52	62	52	83	94	114	116	116	78
11	39	15	23	52	76	53	78	89	111	116	116	75
12	38	15	22	49	70	55	76	85	111	114	111	67
13	39	15	26	47	74	55	76	85	114	111	116	67
14	39	16	35	46	67	60	72	83	116	116	114	71
15	38	19	29	45	62	57	94	83	114	118	114	63
16	40	16	32	45	58	65	134	85	96	116	109	63
17	39	18	34	45	58	65	101	85	94	116	109	63
18	38	19	30	45	56	60	91	83	103	118	109	58
19	38	22	87	43	58	68	85	80	111	125	109	53
20	40	20	104	42	62	60	83	78	116	130	103	53
21	49	20	87	42	60	60	85	78	123	144	92	53
22	37	20	76	46	60	58	80	78	125	123	92	53
23	23	27	60	58	68	62	87	76	130	111	92	53
24	22	23	36	58	58	68	80	76	134	107	92	53
25	17	52	78	56	56	67	76	74	134	120	92	53
26	16	32	94	60	55	68	76	74	134	123	92	53
27	15	46	68	65	53	63	76	72	130	123	92	53
28	15	43	58	67	56	63	87	72	130	123	90	55
29	15	42	56	65	-	55	96	72	130	123	88	56
30	15	40	56	70	-	68	114	74	120	119	85	56
31	15	-	50	68	-	70	-	72	-	120	75	-
Month						Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet		
October.....						1,033	49	15	33.3	2,050		
November.....						691	52	15	23.0	1,370		
December.....						1,486	104	22	47.9	2,950		
Calendar year 1934.....						22,361	164	15	61.3	44,350		
January.....						1,670	91	42	53.9	3,310		
February.....						1,779	78	53	63.5	3,630		
March.....						1,824	70	50	58.3	3,620		
April.....						2,549	134	68	85.0	5,060		
May.....						2,602	109	72	95.9	5,160		
June.....						3,212	134	68	107	6,370		
July.....						3,667	144	101	118	7,270		
August.....						3,308	125	75	107	6,560		
September.....						1,923	82	53	64.1	3,810		
Water year 1934-35.....						25,743	144	15	70.5	51,060		

ROGUE RIVER BASIN

Diversions from Little Butte Creek near Lakecreek, Oreg.

Hanley South and Hanley North Canals divert from North Fork of Little Butte Creek in SE $\frac{1}{4}$ 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 diverts from South Fork of Little Butte Creek in SE $\frac{1}{4}$ sec. 29, T. 36 S., R. 2 E., and from North Fork of Little Butte Creek in NE $\frac{1}{4}$ 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 diverts from Little Butte Creek in SE $\frac{1}{4}$ sec. 31, T. 35 S., R. 1 E.; water used for irrigation of lands near Eagle Point. There are many other smaller diversions from Little Butte Creek and tributaries.

Records available from April 1929 to September 1935; records of some of the canals published separately prior to 1929.

Diversions, in acre-feet, water year October 1934 to September 1935

Month	Hanley South Canal	Hanley North Canal	Rogue River Valley Canal below junction of intakes	Eagle Point Canal
October	-	-	*1,140	-
May	-	-	4,650	722
June	456	553	7,310	1,030
July	450	510	8,450	1,010
August	404	503	5,510	1,020
September	389	587	2,660	1407
The period	1,679	2,253	-	4,189

*Oct. 1-21 only; probably no flow Oct. 22-31.

†Sept. 1-13 only; no record Sept. 14-30.

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°9'35", long. 122°36'15", in SE $\frac{1}{4}$ sec. 20, T. 39 S., R. 2 E., at Emigrant Gap Dam of Talent Irrigation District 6 miles southeast of Ashland. Gage reads sea-level elevation.

Records available.- December 1924 to September 1935.

Extremes.- Maximum contents observed during year, 8,412 acre-feet Apr. 8 (elevation, 2,173.8 feet); no storage in early part of October.
1924-35: Maximum contents, 8,748 acre-feet Feb. 20, 1927 (elevation, 2,175.2 feet); no storage at times.

Remarks.- Records good. 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. 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 791.

Gage height and contents, water year October 1934 to September 1935

Date	Gage height (feet)	Contents (acre-feet)	Change in contents (acre-feet)
Sept. 30	-	0	-
Dec. 31	-	*1,530	+1,530
Jan. 31	-	*3,730	+2,200
Feb. 28	-	*5,980	+2,250
Mar. 31	-	*8,276	+2,296
Apr. 30	75.1	8,248	-28
May 31	70.2	7,590	-658
June 30	-	*5,466	-2,124
July 31	43.0	3,200	-2,266
Aug. 31	17.5	1,070	-2,130
Sept. 30	-	*300	-770
The year			+300

*Interpolated.

Note.- Probably no storage in October and November.

Emigrant Creek near Ashland, Oreg.

Location.- Water-stage recorder, lat. 42°9'50", long. 122°36'15", 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 1935.

Extremes.- Maximum discharge during year (estimated), 1,000 second-feet during morning of Mar. 30 (gage height not recorded); no flow at times.

1920-35: Maximum discharge, 5,260 second-feet Feb. 20, 1927; no flow at times.

Remarks.- Records fair except those estimated, Jan. 1 to Mar. 29, June 23, July 22-26, which are fair. Practically all flow Oct. 1 to Mar. 29 stored in Emigrant Gap Reservoir. Diversions for irrigation above station; principal canals are Ashland lateral and East lateral. Keene Creek Canal diverts water into Emigrant Creek from Klamath River Basin. Flow regulated since December 1924 by storage in Emigrant Gap Reservoir.

Rating table, Mar. 30 to Sept. 30, 1935, (gage height, in feet, and discharge, in second-feet)

0.4	0.2	1.0	17	1.9	98
.6	2.7	1.3	36	2.2	143
.8	8.5	1.6	65	2.6	220

Discharge, in second-feet, water year October 1934 to September 1935

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1							48	53	0	18	25	9.7
2							30	37	0	18	25	8.9
3							23	29	0	17	25	8.5
4							42	28	1.7	17	24	8.9
5							47	18	12	17	22	9.3
6							40	14	12	15	22	10
7							65	13	12	12	22	10
8							177	6.4	11	12	24	10
9							106	6.4	11	17	26	10
10							55	6.4	11	17	27	10
11							108	1.1	11	18	27	9.7
12							62	0	15	18	27	6.6
13							55	0	20	18	27	5.7
14							55	0	20	24	27	6.8
15						*0.2	61	0	20	23	27	9.7
16							126	0	21	23	26	8.5
17							133	0	21	24	25	8.2
18							125	0	21	26	23	7.8
19							114	0	22	31	22	5.4
20							114	0	23	32	20	1.6
21							94	0	23	31	17	0
22							82	0	22	*29	12	0
23							74	0	*22	*27	7.4	0
24							81	0	22	*26	7.4	0
25							16	0	20	*24	7.1	0
26							20	0	15	*22	7.4	0
27							41	0	14	20	11	0
28							19	0	19	19	14	0
29							44	0	19	18	14	0
30						54	66	0	18	20	11	0
31						36	-	0	-	22	10	-
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 1934.....						1,371.9	27	0	3.76	2,720		
January.....						*3.1	-	-	*1	6.1		
February.....						*2.8	-	-	*1	5.6		
March.....						97.8	54	-	3.15	194		
April.....						2,119	177	16	70.6	4,200		
May.....						212.3	53	0	6.85	421		
June.....						468.7	23	0	15.3	910		
July.....						655	32	12	21.1	1,300		
August.....						611.3	27	7.1	19.7	1,210		
September.....						165.6	10	0	5.52	328		
Water year 1934-35.....						4,325.6	177	0	11.9	8,670		

*Estimated.

Bear Creek at Medford, Oreg.

Location.- Water-stage recorder, lat. 42°19'20", long. 122°52'15", in NW¼ sec. 30, T. 37 S., R. 1 W., just above Main Street Bridge, in Medford.

Records available.- March 1915 to September 1935; incomplete prior to April 1927.

Average discharge.- 14 years (1920-26, 1927-35), 57.8 second-feet.

Extremes.- Maximum discharge during year, 740 second-feet Mar. 30 (gage height, 2.60 feet); minimum, 2.7 second-feet Oct. 1-5, 13-15 (gage height, 0.21 foot).

1915-35: Maximum discharge, 10,200 second-feet Feb. 20, 1927 (gage height, 10.15 feet); practically no flow at times.

Remarks.- Records fair except those for Nov. 23 to Dec. 10, June 17 to July 7, Sept. 24-29, which are poor. Discharge estimated for Mar. 21, 22, May 7, July 8. Diversions for irrigation above station. Flow partly regulated since December 1924 by storage in Emigrant Gap Reservoir.

Rating tables, water year 1934-35 (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Nov. 23 to Dec. 9, July 9 to Aug. 26)

Table for Oct. 1 to Dec. 9

0.2	2.5	1.2	39
.4	6.3	1.4	57
.6	12	1.6	86
.8	19	1.8	124
1.0	28	2.0	167

Table for Dec. 10 to Sept. 30

0.2	5.2	1.4	86
.4	7.3	1.6	128
.6	11.5	1.8	200
.8	21	2.0	295
1.0	36	2.3	485
1.2	56		

Discharge, in second-feet, water year October 1934 to September 1935

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2.7	9.6	61	52	101	76	131	260	33	13	7.2	7.5
2	2.7	9.9	35	47	99	72	131	204	27	12	7.3	7.7
3	3.0	12	29	43	99	66	121	161	24	11	7.5	7.9
4	2.8	15	25	42	94	69	145	148	21	11	7.9	8.4
5	3.5	13	24	44	97	60	170	140	12	10	8.8	7.7
6	3.3	13	22	45	97	57	151	103	12	9.9	9.4	7.7
7	3.8	13	19	142	94	62	154	100	11	9.9	9.7	7.5
8	4.5	13	19	148	119	63	408	96	9.7	9.3	9.4	7.1
9	4.8	12	18	90	110	59	382	83	9.7	8.6	8.4	6.9
10	4.8	11	16	69	86	55	260	70	11	9.2	9.4	7.1
11	3.6	11	15	59	128	60	260	64	11	9.9	8.1	7.1
12	3.3	10	14	57	148	64	240	60	9.9	8.4	7.7	7.5
13	2.8	10	14	53	140	69	200	53	9.9	7.2	7.9	7.2
14	2.7	10	27	52	128	75	191	29	11	7.7	7.9	8.1
15	3.0	11	44	49	101	83	209	22	11	7.5	7.7	7.9
16	3.5	14	35	66	90	81	344	14	10	7.2	8.2	7.2
17	3.5	14	40	86	83	86	317	16	11	7.5	8.4	7.7
18	4.3	14	33	81	81	78	227	14	10	7.7	8.1	7.1
19	3.8	17	35	60	81	69	178	10	9.0	8.2	8.1	7.2
20	5.9	19	103	55	81	72	187	9.9	8.6	9.7	8.1	6.9
21	15	18	114	54	80	80	232	10	8.4	10	8.1	6.6
22	25	17	90	53	72	76	170	10	8.8	11	7.9	6.7
23	57	21	76	69	69	90	145	24	9.4	12	7.5	6.6
24	32	23	105	119	64	94	140	33	9.9	12	7.5	6.3
25	24	32	119	123	57	92	140	38	13	11	7.3	6.3
26	17	80	134	121	59	116	112	36	13	8.8	7.5	6.2
27	13	60	140	123	60	99	116	36	13	9.2	8.1	6.1
28	11	82	94	137	76	92	134	34	14	8.8	7.9	5.9
29	9.9	126	75	119	-	94	142	28	12	8.2	7.9	5.8
30	9.3	81	66	126	-	151	285	36	13	8.2	8.2	5.9
31	9.0	-	57	110	-	140	-	38	-	7.9	8.1	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October.....	294.5	57	2.7	9.50	584
November.....	771.5	126	9.6	25.7	1,530
December.....	1,698	140	14	54.8	3,370
Calendar year 1934.....	6,971.2	140	1.8	19.1	13,830
January.....	2,494	148	42	80.5	4,950
February.....	2,594	148	57	92.6	5,150
March.....	2,500	151	55	80.6	4,960
April.....	6,022	408	112	201	11,940
May.....	1,979.9	260	9.9	63.9	3,930
June.....	386.3	33	8.4	12.9	766
July.....	292.0	13	7.2	9.42	879
August.....	250.8	9.7	7.2	8.09	497
September.....	211.8	8.4	5.8	7.06	420
Water year 1934-35.....	19,494.8	408	2.7	53.4	38,680

Diversions in Bear Creek Basin, Oreg.

Ashland lateral of Talent Irrigation District diverts from Sampson Creek in SW $\frac{1}{4}$ sec. 26, T. 39 S., R. 2 E., for irrigation of lands near Ashland; most of flow is contributed by Keene Creek Canal, which diverts from Keene Creek in Klamath River Basin. East lateral of Talent Irrigation District diverts from Emigrant Gap Reservoir in SE $\frac{1}{4}$ sec. 20, T. 39 S., R. 2 E., for irrigation of lands chiefly on the east side of Bear Creek Valley above Medford. Talent lateral of Talent Irrigation District diverts from Bear Creek in SW $\frac{1}{4}$ sec. 33, T. 38 S., R. 1 E., for irrigation of lands near Talent. Phoenix Canal diverts from Bear Creek in NW $\frac{1}{4}$ sec. 23, T. 38 S., R. 1 W., to supplement flow of Medford Irrigation District Canal for irrigation of lands west of Bear Creek. Bear Creek Canal diverts from Bear Creek at Medford for irrigation of lands west of Bear Creek near Central Point. Numerous smaller diversions from Bear Creek and tributaries.

Records available from April 1929 to September 1935; records for some of the canals published separately prior to 1929.

Records for Ashland and East laterals good; those for Talent lateral and Phoenix Canal fair except those estimated, which are poor; those for Bear Creek Canal poor. Discharge partly estimated for all canals.

Diversions, in acre-feet, water year October 1934 to September 1935

Month	Ashland lateral	East lateral	Talent lateral	Phoenix Canal	Bear Creek Canal
April	0	1,330	-	-	-
May	290	1,710	1,010	815	32
June	877	2,080	1,850	439	480
July	679	2,500	1,580	401	475
August	833	1,950	1,350	341	441
September	441	436	472	291	402
The period	3,120	9,786	6,262	2,287	1,830

Note.- No flow in Ashland and East laterals and probably little or no flow in the other canals during months omitted.

ROGUE RIVER BASIN

Applegate River near Ruch, Oreg.

Location.- Water-stage recorder, lat. 42°10'40", long. 123°2'50", 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, September 1925 to September 1935.

Average discharge.- 12 years (1911-14, 1925-28, 1927-35), 286 second-feet.

Extremes.- Maximum discharge during year, 1,710 second-feet Apr. 29 (gage height, 3.32 feet); minimum, 12 second-feet Oct. 1-4 (gage height, 0.36 foot).
1911-14, 1925-35: Maximum discharge (estimated), 20,000 second-feet Feb. 20, 1927 (gage height, 16.0 feet); minimum, 7 second-feet Sept. 2, 1929 (gage height, 0.26 foot).

Remarks.- Records good except those for July 27-31, Aug. 1, 3-6, 8-19, which are fair. Diversions for irrigation above station.

Rating tables, water year 1934-35 (gage height, in feet, and discharge, in second-feet)

Table for Oct. 1 to Apr. 28

0.3	8	1.4	237
.4	15	1.6	315
.5	35	1.8	405
.6	68	2.0	510
1.0	113	2.5	845
1.2	170	3.0	1,260

Table for Apr. 29 to Sept. 30

0.4	13	1.6	315
.6	31	1.8	420
.8	62	2.0	545
1.0	108	2.5	940
1.2	165	3.0	1,410
1.4	231		

Discharge, in second-feet, water year October 1934 to September 1935

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	12	255	350	280	534	387	522	994	559	132	45	39
2	12	245	311	246	552	382	482	872	532	127	44	32
3	12	522	275	230	570	359	590	838	556	124	42	27
4	13	504	254	252	590	369	694	899	566	119	44	23
5	13	570	237	287	622	345	654	1,070	601	116	45	22
6	13	324	220	264	642	338	583	1,210	587	119	47	22
7	20	230	209	450	516	351	637	1,150	545	113	48	17
8	18	185	199	440	596	328	776	1,080	482	106	47	19
9	18	153	192	350	540	324	642	1,120	409	100	45	19
10	15	143	186	307	477	307	558	1,100	360	96	42	17
11	14	113	166	287	472	303	528	932	355	93	41	16
12	14	106	192	275	455	303	552	838	345	83	38	16
13	14	103	230	264	440	328	648	804	335	79	35	16
14	14	121	320	241	400	354	763	838	306	77	32	17
15	15	279	287	230	374	369	1,120	821	284	72	30	24
16	17	237	267	241	360	346	1,120	821	262	70	30	20
17	22	220	267	237	346	346	898	738	250	60	29	20
18	22	245	234	226	342	333	830	682	231	59	28	21
19	22	415	248	209	364	320	912	682	228	57	27	21
20	25	320	387	199	396	328	1,000	762	211	57	23	23
21	230	275	528	196	420	311	944	1,006	200	60	22	23
22	186	315	534	192	410	303	808	1,000	191	77	23	23
23	108	369	415	212	387	303	714	914	171	75	23	21
24	248	307	378	279	364	295	654	821	159	72	22	19
25	183	494	361	333	342	346	668	864	153	60	24	21
26	106	522	382	396	328	430	792	838	150	55	26	21
27	81	440	364	460	351	396	1,040	738	144	54	29	19
28	70	374	328	499	382	392	1,170	675	141	52	42	19
29	63	415	320	510	-	435	1,560	860	135	50	90	20
30	61	392	307	570	-	516	1,270	601	132	48	52	21
31	161	-	275	552	-	540	-	545	-	48	39	-
Month				Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet				
October.....				1,822	248	12	56.8	3,610				
November.....				9,191	570	103	306	18,230				
December.....				9,253	534	186	298	18,550				
Calendar year 1934.....				71,067	1,500	9	195	140,900				
January.....				9,703	570	192	313	19,250				
February.....				12,672	642	388	453	25,130				
March.....				11,108	540	295	356	22,030				
April.....				24,181	1,560	482	806	47,960				
May.....				26,803	1,210	545	865	53,180				
June.....				9,530	601	132	318	18,900				
July.....				2,510	132	48	81.0	4,980				
August.....				1,154	90	22	37.2	2,290				
September.....				637	38	16	21.2	1,260				
Water year 1934-35.....				118,564	1,560	12	325	235,200				

Illinois River at Kerby, Oreg.

Location.— Water-stage recorder, lat. 42°12'40", long. 123°39'20", 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, from U. S. Geological Survey river profile. Prior to Nov. 3, 1934, staff gage 1 mile upstream.

Drainage area.— 367 square miles (333 square miles at site used to Nov. 2, 1934).

Records available.— March 1926 to September 1935.

Extremes.— Maximum discharge during year, 8,020 second-feet Jan. 7 (gage height, 10.60 feet); minimum, 18 second-feet Sept. 30.

1926-35: Maximum discharge (estimated), 50,000 second-feet Feb. 20, 1927 (gage height, 19.6 feet, former site and datum); minimum, 13 second-feet Sept. 10-15, 1934.

Remarks.— Records good except those for Feb. 28-28, Mar. 1, 3-23, 25, 26, Apr. 6-8, 11-24, which were estimated by comparison with Applegate River and are fair. Diver-sions for irrigation above station.

Rating tables, water year 1934-35 (gage height, in feet, and discharge, in second-feet)

Table for Oct. 1 to Nov. 2

0.0	S	3.0	562
.5	56	4.0	1,100
1.0	116	5.0	1,910
1.5	195	6.0	3,020
2.0	286	7.0	4,520
2.5	399		

Table for Nov. 3 to Sept. 30

1.0	16	5.0	1,870
1.5	105	6.0	2,720
2.0	235	7.0	3,700
2.5	390	8.0	4,770
3.0	570	9.0	5,940
3.5	790	10.0	7,240
4.0	1,110		

Discharge, in second-feet, water year October 1934 to September 1935

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	21	2,420	2,030	2,110	2,540	2,060	1,950	1,510	478	134	54	30
2	21	2,100	1,670	1,670	2,630	2,110	1,750	1,320	460	132	50	28
3	21	4,440	1,560	1,390	2,540		2,110	1,180	453	124	48	26
4	21	3,700	1,140	1,910	2,540		2,460	1,180	450	119	44	27
5	21	2,540	970	2,720	2,630		2,460	1,320	456	117	44	27
6	20	1,610	845	2,270	2,630		1,860	1,390	453	115	42	27
7	20	1,000	740	7,370	2,450		2,300	1,320	435	110	42	27
8	20	790	695	5,220	2,450		2,860	1,220	400	105	40	27
9	27	650	630	3,300	2,190		2,030	1,220	383	105	40	27
10	27	570	590	2,560	1,830		1,790	1,140	357	101	40	26
11	27	495	570	1,950	1,830			1,000	344	98	39	27
12	27	460	530	1,870	1,870			905	328	94	39	27
13	27	512	590	2,030	2,270	1,650		945	315	87	38	27
14	27	935	672	1,870	1,830			818	300	90	36	33
15	27	2,030	630	1,710	1,830			790	282	83	33	33
16	27	1,320	740	2,190	1,590			740	273	70	32	34
17	28	1,000	1,040	2,630	1,470			740	255	64	32	34
18	30	1,320	905	2,110	1,470		2,300	672	241	62	32	34
19	32	5,680	1,320	1,650	1,550			650	232	60	32	34
20	33	3,600	1,990	1,290	1,990			650	227	58	32	34
21	1,040	2,720	2,190	1,140	2,190			718	221	58	32	34
22	1,640	2,810	2,190	1,110	2,190			765	204	62	30	34
23	1,660	3,600	2,450	1,470	2,110			640	191	64	30	34
24	2,220	2,810	2,360	1,950	1,710	1,360		650	180	64	28	34
25	970	4,110	1,950	2,110	1,470	1,700	1,510	672	170	64	30	33
26	647	3,200	3,000	2,110	1,400	2,000	1,750	650	162	58	27	33
27	399	2,810	3,300	2,190	1,640	2,190	1,870	610	149	56	28	30
28	327	2,360	2,630	2,270	1,900	1,990	1,950	570	136	58	30	30
29	286	2,030	3,600	2,360	-	2,110	2,030	550	136	58	30	27
30	334	2,110	4,330	2,900	-	2,360	1,790	530	134	56	30	25
31	3,860	-	2,900	2,720	-	2,190	-	495	-	56	28	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October.....	13,955	3,860	20	450	27,680
November.....	65,735	5,580	460	2,191	130,400
December.....	50,587	4,530	550	1,631	100,500
Calendar year 1934.....	275,208	7,160	13	754	545,900
January.....	71,840	7,370	1,110	2,317	142,500
February.....	57,100	2,630	1,400	2,039	113,300
March.....	54,720	2,360	-	*1,765	108,500
April.....	64,450	-	-	*2,148	127,800
May.....	27,560	1,610	995	869	54,500
June.....	8,804	478	134	293	17,460
July.....	2,582	134	56	83.3	5,120
August.....	1,112	54	27	35.9	2,210
September.....	904	34	25	30.1	1,790
Water year 1934-35.....	419,319	7,370	20	1,149	831,700

*Discharge partly estimated.

MISCELLANEOUS DISCHARGE MEASUREMENTS

In addition to the records of stream flow obtained at gaging stations and reported in the preceding pages, measurements of flow are 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 the year ending Sept. 30, 1935

Umatilla River Basin, Oreg.

Date	Stream	Tributary to or diverting from	Locality	Discharge
				Sec.-ft.
May 31	McKay Creek....	Umatilla River.	NW $\frac{1}{4}$ sec. 8, T. 2 N., R. 32 E., near Pendleton.	21.1
16	Butter Creek....	....do.....	NE $\frac{1}{4}$ sec. 33, T. 2 N., R. 27 E., near Pine City.	6.6
Apr. 6	....do.....	....do.....	....do.....	14.5
May 2	....do.....	....do.....	....do.....	27.6

Willow Creek Basin, Oreg.

Apr. 11	Rhea Creek....	Willow Creek...	Mouth, near Iona.....	46.9
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Deschutes River Basin, Oreg.

Oct. 2	Deschutes River	Columbia River.	NW $\frac{1}{4}$ sec. 8, T. 22 S., R. 9 E., at Wiskup dam site.	692
2	Davis Creek....	Deschutes River	SE $\frac{1}{4}$ sec. 10, T. 22 S., R. 8 E., near mouth	184
May 21	Swamp Creek....	Squaw Creek....	NW $\frac{1}{4}$ sec. 13, T. 14 S., R. 9 E., near Sisters.	1.5
24	....do.....	....do.....	....do.....	2.2
June 4	....do.....	....do.....	....do.....	1.7
7	....do.....	....do.....	....do.....	1.3
10	....do.....	....do.....	....do.....	3.2
May 21	Swamp Ranch	Swamp Creek....	SE $\frac{1}{4}$ sec. 9, T. 14 S., R. 9 E., at head of swamp near Sisters.	1.4
21	Big Spring.....	....do.....	SW $\frac{1}{4}$ sec. 11, T. 14 S., R. 9 E., at Black Butte Ranch.	5.6

Wind River Basin, Wash.

Dec. 31	Little Wind River.	Wind River....	SW $\frac{1}{4}$ sec. 22, T. 3 N., R. 8 E., at mouth, near Carson.	72.2
June 6	....do.....	....do.....	....do.....	4.0

Sandy River Basin, Oreg.

Mar. 31	Still Creek....	Salmon River...	Elevation 4,240 feet, 2,000 feet northeast of Mazama Lodge, near Government Camp.	1.8
Aug. 26	Linney Creek...	....do.....	Mouth, near Welches.....	27.0

Willamette River Basin, Oreg.

Sept. 7	Marys River....	Willamette River	Highway crossing at Blodgett.....	*1.5
7	Tum Tum Creek..	Marys River....	SE $\frac{1}{4}$ sec. 20, T. 11 S., R. 7 W., near Blodgett.	1.9
9	Wells Creek....	....do.....	NW $\frac{1}{4}$ sec. 21, T. 12 S., R. 6 W., near Philomath.	2.7
Aug. 17	Calapooya River	Willamette River	Mouth, below Albany power canal.....	129
Dec. 29	Mill Creek....	....do.....	Above bifurcation works near penitentiary annex, at Salem.	+3,680
Sept. 4	Agency Creek...	South Fork of Yamhill River.	Grande Ronde Agency, near mouth.....	1.9
5	Rock Creek.....	....do.....	Mouth, at Grande Ronde.....	2.9
24	Molalla River..	Willamette River	N $\frac{1}{2}$ sec. 6, T. 7 S., R. 3 E., above Palkey dam site, near Molalla.	29.4
Aug. 17	Crystal Springs	....do.....	At East Side Pacific Highway Bridge, 0.1 mile north of Bybee Street, Portland.	13.3

Columbia River Basin below Willamette River

Nov. 22	Tilton River...	Cowlitz River..	NE $\frac{1}{4}$ sec. 3, T. 12 N., R. 2 E., 1,500 feet above mouth, Wash.	1,160
Apr. 13	....do.....	....do.....	....do.....	1,440
Sept. 18	....do.....	....do.....	....do.....	172
Aug. 27	Gnat Creek....	Columbia River.	NE $\frac{1}{4}$ sec. 24, T. 8 N., R. 7 W., at highway bridge, Oreg.	5.8
27	Rock Creek.....	Gnat Creek....	SW $\frac{1}{4}$ sec. 14, T. 8 N., R. 7 W., at highway bridge, Oreg.	2.4
27	Big Creek.....	Columbia River.	SE $\frac{1}{4}$ sec. 18, T. 8 N., R. 7 W., at highway bridge, Oreg.	20.1
29	Klaskanine River	Youngs River...	NE $\frac{1}{4}$ sec. 13, T. 7 N., R. 9 W., below forks at Olney, Oreg.	7.8
28	South Fork of Klaskanine River.	Klaskanine River.	SW $\frac{1}{4}$ sec. 16, T. 6 N., R. 7 W., Oreg.....	2.6
28	North Fork of Klaskanine River.	....do.....	NW $\frac{1}{4}$ sec. 28, T. 7 N., R. 8 W., above Borth Falls, Oreg.	2.6
28	....do.....	....do.....	NE $\frac{1}{4}$ sec. 18, T. 7 N., R. 8 W., below North Fork of North Fork of Klaskanine River, Oreg.	4.7
29	Lewis and Clark River.	Columbia River.	SW $\frac{1}{4}$ sec. 31, T. 7 N., R. 9 W., above tide-water, Oreg.	16.9

*Estimated.

†Includes diversion from North Santiam River through Salem Ditch.

Miscellaneous discharge measurements in Pacific slope basins in Oregon and in lower Columbia River Basin during the year ending Sept. 30, 1955--Continued.

Coastal streams between Columbia River and Umpqua River, Oreg.

Date	Stream	Tributary to or diverting from	Locality	Discharge Sec.-ft.
Aug. 30	Necanicum River	Pacific Ocean...	SR ₂ sec. 23, T. 5 N., R. 9 W., at Necanicum	2.2
30	.....do.....	.....do.....	NR ₂ sec. 4, T. 5 N., R. 10 W., near Seaside	18.5
30	Bergsvik Creek.	Necanicum River.	Mouth, at Necanicum.....	1.0
30	Little Humbug Creek.	.....do.....	NR ₂ sec. 22, T. 5 N., R. 9 W., at bridge	2.0
30	North Fork of Necanicum River	.....do.....	NR ₂ sec. 21, T. 5 N., R. 9 W., at mouth....	2.4
30	Beerman Creek...	.....do.....	NR ₂ sec. 33, T. 6 N., R. 10 W., at highway crossing.	1.3
28	Nehalem Creek..	Pacific Ocean...	Vernonia, below Pebbles Creek.....	14.1
28	.....do.....	.....do.....	NR ₂ sec. 33, T. 6 N., R. 6 W., below Squaw Creek, 5 miles southwest of Birkeland.	31.1
28	East Fork of Nehalem River.	Nehalem River...	Mouth, 5 miles northeast of Vernonia.....	3.4
28	Oak Ranch Creek	.....do.....	Mouth, 5 miles southeast of Mist.....	5.0
28	Little Fish Hawk Creek.	.....do.....	NR ₂ sec. 11, T. 5 N., R. 7 W., below Benake Creek.	2.4
28	Buster Creek...	.....do.....	SR ₂ sec. 23, T. 5 N., R. 7 W., at mouth....	3.0
29	Cow Creek.....	.....do.....	NR ₂ sec. 28, T. 5 N., R. 7 W., above Kline Creek.	3.2
29	Humbug Creek...	.....do.....	NR ₂ sec. 5, T. 4 N., R. 7 W., at Elsie....	8.7
30	North Fork of Nehalem River.	.....do.....	SR ₂ sec. 22, T. 4 N., R. 9 W., above Soapstone Creek.	17.4
30	Soapstone Creek	North Fork of Nehalem River.	SR ₂ sec. 18, T. 4 N., R. 9 W., 1 mile above mouth.	2.0
Sept. 3	Jetty Creek....	Pacific Ocean...	SR ₂ sec. 17, T. 2 N., R. 10 W., near mouth.	1.6
3	Miami River....	.....do.....	NR ₂ sec. 22, T. 1 N., R. 10 W., 2 miles east of Garibaldi.	19.8
3	Kilohis River...	.....do.....	SR ₂ sec. 7, T. 1 S., R. 9 W., 3 miles north of Tillamook.	43.4
3	Tillamook River	.....do.....	SR ₂ sec. 8, T. 2 S., R. 9 W., 4 miles southeast of Tillamook.	8.7
3	Beaver Creek...	Nestucca River..	NR ₂ sec. 18, T. 3 S., R. 9 W., above West Fork.	7.6
3	West Fork of Beaver Creek.	Beaver Creek....	NR ₂ sec. 18, T. 3 S., R. 9 W., at mouth....	2.4
3	Farmer Creek...	Nestucca River..	Sec. 1, T. 4 S., R. 10 W., at highway crossing.	1.9
3	Nestucca River.	Pacific Ocean...	SR ₂ sec. 36, T. 3 S., R. 10 W., 1½ miles below Beaver.	57.8
4	Three Rivers...	Nestucca River..	At Hobo, below Cedar Creek.....	18.8
4	Cedar Creek....	Three Rivers...	Mouth, at Hobo.....	2.9
4	Little Nestucca River.	Pacific Ocean...	NR ₂ sec. 15, T. 5 S., R. 10 W., near Oretown.	15.9
4	Neskowin Creek.	.....do.....	NR ₂ sec. 6, T. 6 S., R. 10 W., near Neskowin.	4.8
5	Salmon River...	.....do.....	SR ₂ sec. 29, T. 6 S., R. 10 W., half a mile east of Otis.	25.1
5	Sulphur Creek...	Salmon River...	SR ₂ sec. 20, T. 6 S., R. 9 W., at mouth....	1.3
5	Widow Creek....	.....do.....	SR ₂ sec. 26, T. 6 S., R. 10 W., at mouth....	3.2
5	Slickcreek Creek	.....do.....	NR ₂ sec. 35, T. 6 S., R. 10 W., at mouth....	9.6
5	McMullen Creek.	.....do.....	SR ₂ sec. 34, T. 6 S., R. 10 W., at mouth....	3.6
5	Schooner Creek.	Pacific Ocean...	Sec. 30, T. 7 S., R. 10 W., at bridge.....	12.2
5	Cedar Creek....	Siletz River....	SR ₂ sec. 8, T. 9 S., R. 11 W., near mouth....	3.2
5	Spencer Creek...	Pacific Ocean...	Sec. 5, T. 10 S., R. 11 W., at highway bridge.	1.8
7	Yaquina River...	.....do.....	SR ₂ sec. 31, T. 10 S., R. 9 W., at railroad bridge, near Chitwood.	3.1
9	Alsea River....	.....do.....	SR ₂ sec. 3, T. 14 S., R. 9 W.....	35.1
9	North Fork of Alsea River.	Alsea River....	NR ₂ sec. 29, T. 13 S., R. 7 W., above Crooked Creek.	6.9
9	Crooked Creek (Spencer).	North Fork of Alsea River.	SR ₂ sec. 15, T. 13 S., R. 7 W., near Alsea.	3.4
9	South Fork of Alsea River.	Alsea River....	SR ₂ sec. 12, T. 14 S., R. 8 W., above Swamp Creek.	7.4
9	Fall Creek.....	.....do.....	SR ₂ sec. 1, T. 14 S., R. 9 W., at mouth....	6.9
9	Scott Creek....	.....do.....	Sec. 31, T. 13 S., R. 9 W., at mouth....	4.8
9	Darkey Creek...	.....do.....	Sec. 28, T. 13 S., R. 11 W., at mouth....	1.1
9	Yachats River...	Pacific Ocean...	SR ₂ sec. 31, T. 14 S., R. 11 W., at mouth....	1.1
10	Cummings Creek.	.....do.....	Mouth, near Yachats.....	1.2
10	Fennile Creek...	.....do.....	NR ₂ sec. 35, T. 15 S., R. 12 W., above Mill Creek.	3.0
10	Big Creek.....	.....do.....	Sec. 15, T. 16 S., R. 12 W., at highway bridge near mouth.	1.9
10	Cape Creek....	.....do.....	SR ₂ sec. 34, T. 18 S., R. 12 W., at mouth..	5.9
10	Sutton Creek...	.....do.....	Highway bridge below Sutton Lake, near Heosta.	2.2
12	Siuslaw River...	.....do.....	SR ₂ sec. 23, T. 17 S., R. 10 W., 3 miles west of Swisshome.	64.1
12	Greenleaf Creek	Lake Creek.....	Highway crossing near mouth, 4 miles south-west of Triangle Lake.	3.6
12	Deadwood Creek.	.....do.....	SR ₂ sec. 11, T. 17 S., R. 9 W., 1 mile above mouth.	6.0
12	Indian Creek	.....do.....	Mouth, 2 miles north of Swisshome.....	8.4
13	North Fork of Siuslaw River.	Siuslaw River...	NR ₂ sec. 34, T. 17 S., R. 11 W., 2 miles southwest of Minerva.	8.4
13	McLeod Creek..	North Fork of Siuslaw River.	SR ₂ sec. 24, T. 17 S., R. 11 W., 1 mile northeast of Minerva.	1.1

Miscellaneous discharge measurements in Pacific slope basins in Oregon and in lower Columbia River Basin during the year ending Sept. 30, 1935--Continued.

Umpqua River Basin, Oreg.

Date	Stream	Tributary to or diverting from-	Locality	Discharge Sec.-ft.
Sept. 7	Rook Creek.....	North Umpqua River.	Mouth, near Glide.....	16.2
11	Calapooya Creek	Umpqua River....	NW $\frac{1}{4}$ sec. 13, T. 25 S., R. 6 W., at bridge 2 $\frac{1}{2}$ miles west of Sutherlin.	8.0
11	Mill Creek.....	.....do.....	SE $\frac{1}{4}$ sec. 27, T. 22 S., R. 10 W., 3 miles southwest of Scottsburg.	4.8

Coastal streams between Umpqua River and Rogue River, Oreg.

Sept. 15	Eel Creek.....	Tennile Creek...	Sec. 13, T. 23 S., R. 13 W., at mouth.....	3.2
15	East Fork of Milliloma River.	Milliloma River.	SE $\frac{1}{4}$ sec. 33, T. 24 S., R. 11 W., near Allegany.	69.3
15	West Fork of Milliloma River.	.....do.....	SE $\frac{1}{4}$ sec. 6, T. 25 S., R. 11 W., near mouth.	35.9
18	Rook Creek.....	Middle Fork of Coquille River.	Mouth, near Remote.....	2.2
16	Johnson Creek..	Pacific Ocean...	NW $\frac{1}{4}$ sec. 6, T. 29 S., R. 14 W., at highway bridge.	1.0
16	Crooked Creek..	.....do.....	NW $\frac{1}{4}$ sec. 7, T. 29 S., R. 14 W., at highway bridge.	1.2
16	Floras Creek...	.....do.....	SE $\frac{1}{4}$ sec. 3, T. 31 S., R. 15 W., at highway bridge.	9.2
16	Willow Creek...	Floras Creek....	Highway crossing at Denmark.....	4.0
16	Sixes River....	Pacific Ocean...	SW $\frac{1}{4}$ sec. 9, T. 32 S., R. 15 W., above Crystal Creek.	31.1
16	Crystal Creek..	Sixes River.....	NE $\frac{1}{4}$ sec. 9, T. 32 S., R. 15 W., near mouth.	2.2
16	Elk River.....	Pacific Ocean...	NW $\frac{1}{4}$ sec. 21, T. 32 S., R. 15 W., at highway crossing.	71.1
16	Hubbard Creek..	.....do.....	Mouth, 1 mile east of Port Orford.....	4.0
16	Brush Creek....	.....do.....	NE $\frac{1}{4}$ sec. 26, T. 33 S., R. 16 W., 1 mile above mouth.	9.1
16	Beet Trap Creek	Brush Creek....	SE $\frac{1}{4}$ sec. 36, T. 33 S., R. 15 E., at mouth..	2.4
16	Euchre Creek...	Pacific Ocean...	Mouth, near Wedderburn.....	12.8

Rogue River Basin, Oreg.

Apr. 29	Power canal headrace.	Rogue River.....	Above forebay of California Oregon Power Co.'s plant near Prospect.	*570
Feb. 16	Ginger Creek...	South Fork of Big Butte Creek	Mouth, below spill from fish hatchery, near Butte Falls.	10.2
Sept. 25	Elliot Creek...	Applegate River.	Mouth, at Oregon-California line.....	10.7
25	Carberry Creek.	.....do.....	NE $\frac{1}{4}$ sec. 10, T. 41 S., R. 4 W., at mouth.....	6.3
Aug. 8	Little Apple- gate River.	.....do.....	Sec. 10, T. 39 S., R. 3 W., at mouth.....	11.7
Sept. 24	.....do.....	.....do.....	.....do.....	5.5

Coastal streams south of Rogue River, Oreg.

Sept. 17	Hunter Creek...	Pacific Ocean...	Mouth, at highway crossing near Gold Beach.	3.8
17	Pistol River...	.....do.....	SW $\frac{1}{4}$ sec. 21, T. 38 S., R. 14 W.	18.9
17	Chetco River...	.....do.....	SE $\frac{1}{4}$ sec. 34, T. 40 S., R. 13 W., below Jack Creek, near Harbor.	120
17	Winchuck River.	.....do.....	SE $\frac{1}{4}$ sec. 24, T. 41 S., R. 13 E., above South Fork, near Harbor.	11.8

*Output of power plants; 4,600 kilowatts from plant 1; 17,500 kilowatts from one unit in plant 2.

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