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SURFACE WATER SUPPLY *of the* UNITED STATES

1936

PACIFIC SLOPE BASINS IN WASHINGTON AND UPPER COLUMBIA RIVER BASINS

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Prepared in cooperation with the States of
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SURFACE WATER SUPPLY OF PACIFIC SLOPE BASINS IN WASHINGTON AND UPPER COLUMBIA RIVER
BASIN, 1936

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, 1936. The work was begun in 1888 in connection with special studies relating to irrigation. Measurements of stream flow have been made at about 7,200 points in the United States and also at many points in Alaska and the Hawaiian Islands. In July 1936, 3,160 gaging stations were being maintained by the Geological Survey and the cooperating organizations. Many miscellaneous discharge measurements were made at other points.

In the execution of the work many State and private organizations have cooperated, either by furnishing data or by assisting in collecting data. Acknowledgments for cooperation of the first kind are made in connection with the description of each station affected; cooperation of the second kind is acknowledged on page 13.

DEFINITION OF TERMS

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

"Second-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-foot 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 the type of gage, its latitude and longitude determined from the best available maps, and information in regard to diversions that decrease the flow at the gage, artificial regulation from pondage or storage, and the accuracy of the records. Under "Average discharge" is given the average discharge for the number of years indicated. It is given only for stations for which there are 10 or more complete years of record. Information under "Extremes" gives the maximum discharge and gage height; the minimum discharge if there is little or no regulation; the minimum daily discharge if there is extensive regulation, and also the minimum discharge if useful; and the minimum gage height except when it is of no importance. Unless otherwise qualified, the maximum discharge corresponds to the crest stage obtained by use of a water-stage recorder or a nonrecording gage read at the time of the crest. Likewise the minimum represents the lowest discharge unless otherwise qualified.

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

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

ACCURACY OF FIELD DATA AND COMPUTED RESULTS

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

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



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.

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 water flowing past the gage, but the figures showing discharge per square mile and depth in inches may be subject to gross errors caused by the inclusion of large noncontributing districts in the measured drainage area, by lack of information concerning water diverted for irrigation or other use, or by inability to interpret the effect of artificial regulation of the flow of the river above the station. "Second-feet per square mile" and "run-off in inches" are therefore not computed if such errors appear probable. The computations are also omitted for stations on streams draining areas in which the annual rainfall is less than 20 inches.

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

The table of monthly discharge gives a general idea of the flow at the station. The table of daily discharge allows more detailed studies of the variation in flow. It should be borne in mind, however, that the observations in each succeeding year may be expected to throw new light on data previously published, and that greater degrees of refinement in computations and records may be warranted with increased data and use of improved equipment.

PUBLICATIONS

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

- Part 1. North Atlantic slope basins (St. John River to York River).
2. South Atlantic slope and eastern Gulf of Mexico basins (James River to Mississippi River).
3. Ohio River Basin.
4. St. Lawrence River Basin.
5. Hudson Bay and upper Mississippi River basins.
6. Missouri River Basin.
7. Lower Mississippi River Basin.
8. Western Gulf of Mexico basins.
9. Colorado River Basin.
10. The Great Basin.
11. Pacific slope basins in California.
12. Pacific slope basins in Washington and upper Columbia River Basin.
13. Snake River Basin.
14. Pacific slope basins in Oregon and lower Columbia River Basin.

Water-supply papers and other publications of the 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., 226 Federal Building.

Harrisburg, Pa., 490 Education Building.
 Charlottesville, Va., University of Virginia.
 South Charleston, W. Va., Naval Ordnance Plant.
 Asheville, N. C., 220 Post Office Building.
 Columbia, S. C., 119 United States Courthouse.
 Atlanta, Ga., Georgia School of Technology.
 Ocala, Fla., Post Office Building.
 Montgomery, Ala., Post Office Building.
 Chattanooga, Tenn., 442 Post Office Building.
 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., 308 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., 606 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.....	1884 to Sept. 1890.
11th A, pt. 2	Monthly discharge and descriptive information	1884 to June 30, 1891.
12th A, pt. 2	.....do.....	1884 to Dec. 31, 1892.
13th A, pt. 3	.....do.....	1888 to Dec. 31, 1893.
14th A, pt. 2	Monthly discharge (long-time records, 1871-93).....	1893-94.
B 131.....	Descriptions, measurements, gage heights, and ratings.	
16th A, pt. 2	Descriptive information only.....	1895.
B 140.....	Descriptions, measurements, gage heights, ratings, and monthly discharge (also many data covering earlier years).	
W 11.....	Gage heights (also gage heights for earlier years)	1896.
18th A, pt. 4	Descriptions, measurements, ratings, and monthly discharge (also similar data for some earlier years).	1895-96.
W 15.....	Descriptions, measurements, and gage heights, eastern United States, eastern Mississippi River, and Missouri River above junction with Kansas River.	1897.
W 16.....	Descriptions, measurements, and gage heights, western Mississippi River below junction of Missouri and Platte Rivers, and western United States.	1897.
19th A, pt. 4	Descriptions, measurements, ratings, and monthly discharge (also some long-time records).	1897.
W 27.....	Measurements, ratings, and gage heights, eastern United States, eastern Mississippi River, and Missouri River.	1898.
W 28.....	Measurements, ratings, and gage heights, Arkansas River and western United States.	1898.
20th A, pt. 4	Monthly discharge (also for many earlier years)....	1898.
W 35 to 39...	Descriptions, measurements, gage heights, and ratings.	1899.
21st A, pt. 4	Monthly discharge.....	1899.
W 47 to 52...	Descriptions, measurements, gage heights, and ratings.	1900.
22d A, pt. 4.	Monthly discharge.....	1900.
W 65, 66.....	Descriptions, measurements, gage heights, and ratings.	1901.
W 75.....	Monthly discharge.....	1901.

Note.- The reports which contain records after 1901 are given in the table on page 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 1936. 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, 1899-1936
(For basins included see p. 9.)

Year	1	2	3	4	5	6	7	8	9	10	11	12	13	14
1899 a....	35	b 35, 36	36	36	c 36, 37	37	37	37	d 37, 38	38, e 39	39, f 39	39	39	39
1900 g....	47, h 48	48	48	48	49	49	50	50	50	51	51	51	51	51
1901 i....	65	65	65	65	k 65, 66	66	66	66	66	66	66	66	66	66
1902 j....	82	b 82, 83	83	83	83	83	84	84	84	85	85	85	85	85
1903 k....	97	b 97, 98	98	98	k 98, 99	99	99	99	100	100	100	100	100	100
1904 l....	o 124, p 125	q 126	128	129	k 128, 130	130, r 131	131	132	133	133, s 134	134	135	135	135
1905 m....	o 165, p 166	q 167	163	170	171	k 169, 173	174	174	175, t 177	176, s 177	177	178	178	178
1906 n....	o 203, p 204	q 203	205	206	207	208	209	210	211, t 213	212, s 213	213	214	214	214
1907 o....	o 201, p 202	q 203	241	242	243	244	245	246	249	250, s 251	251	252	252	252
1908 p....	261	262	263	264	265	266	267	268	269	270, s 271	271	272	272	272
1909 q....	281	282	283	284	285	286	287	288	289	290	291	292	292	292
1910 r....	301	302	303	304	305	306	307	308	309	310	311	312	312	312
1911 s....	321	322	323	324	325	326	327	328	329	330	331	332	332	332
1912 t....	341	342	343	344	345	346	347	348	349	350	351	352	352	352
1913 u....	361	362	363	364	365	366	367	368	369	370	371	372	372	372
1914 v....	381	382	383	384	385	386	387	388	389	390	391	392	392	392
1915 w....	401	402	403	404	405	406	407	408	409	410	411	412	413	414
1916 x....	431	432	433	434	435	436	437	438	439	440	441	442	443	444
1917 y....	451	452	453	454	455	456	457	458	459	460	461	462	463	464
1918 z....	471	472	473	474	475	476	477	478	479	480	481	482	483	484
1919 a....	501	502	503	504	505	506	507	508	509	510	511	512	513	514
1920 b....	521	522	523	524	525	526	527	528	529	530	531	532	533	534
1921 c....	541	542	543	544	545	546	547	548	549	550	551	552	553	554
1922 d....	561	562	563	564	565	566	567	568	569	570	571	572	573	574
1923 e....	581	582	583	584	585	586	587	588	589	590	591	592	593	594
1924 f....	601	602	603	604	605	606	607	608	609	610	611	612	613	614
1925 g....	621	622	623	624	625	626	627	628	629	630	631	632	633	634
1926 h....	641	642	643	644	645	646	647	648	649	650	651	652	653	654
1927 i....	661	662	663	664	665	666	667	668	669	670	671	672	673	674
1928 j....	681	682	683	684	685	686	687	688	689	690	691	692	693	694
1929 k....	696	697	698	699	700	701	702	703	704	705	706	707	708	709
1930 l....	711	712	713	714	715	716	717	718	719	720	721	722	723	724
1931 m....	726	727	728	729	730	731	732	733	734	735	736	737	738	739
1932 n....	741	742	743	744	745	746	747	748	749	750	751	752	753	754
1933 o....	756	757	758	759	760	761	762	763	764	765	766	767	768	769
1934 p....	771	772	773	774	775	776	777	778	779	780	781	782	783	784
1935 q....	801	802	803	804	805	806	807	808	809	810	811	812	813	814

a Rating tables and index to Water-Supply Papers 35-39 contained in Water-Supply Paper 39. Tables of monthly discharge for 1899 in 21st Annual Report, part 4.

b James River only.

c Gallatin River.

d Green and Gunnison Rivers and Colorado River above Gunnison River.

e Mojave River only.

f Kings and Kern Rivers and south Pacific slope basins.

g Rating tables and index to Water-Supply Papers 40-42 and data on precipitation.

h Rating tables and index to Water-Supply Paper 62.

i Monthly discharge for 1900 in 22d Annual Report, part 4.

j Mississippian and Schuylkill Rivers to James River.

k Scioto River.

j Loup, Platte, and Elkhorn Rivers and tributaries below Platte River.

k Tributaries of Mississippi River from east.

m Lake Ontario and tributaries to St. Lawrence River proper.

n Hudson Bay only.

o New England rivers only.

p Hudson River to Delaware River, inclusive.

q Susquehanna River to Yackin River, inclusive.

r Snake and Kansas Rivers.

s Great Basin, except Truckee and Carson River Basins.

t Red and Snake with Gila River.

u Rogue, Umpqua, and Siletz Rivers only.

RECORDS OF DISCHARGE COLLECTED BY AGENCIES OTHER THAN THE GEOLOGICAL SURVEY

Records of discharge of Reservation Drain at Alfalfa, Wash., for the period 1923-36 were collected by the United States Office of Indian Affairs and have not been published. Records for some earlier years were published in water-supply papers of the United States Geological Survey.

Unpublished records of discharge for 1936 and earlier years have been collected by the United States Bureau of Reclamation for numerous canals in Washington in connection with irrigation projects.

COOPERATION

The work was done under cooperative agreements with the several States as follows: In Idaho with the Department of Reclamation, R. W. Faris, commissioner; in Montana with the office of the State engineer, J. S. James; in Washington with the Department of Conservation and Development, E. F. Banker, director, succeeded by J. B. Fink as acting director, and C. J. Bartholet, supervisor of hydraulics, Division of Water Resources; with the cities of Aberdeen, Everett, Seattle, and Tacoma; with King and Pierce Counties, through the Intercounty River Improvement Commission; with Skagit and Whatcom Counties; and with Wenatchee Reclamation District.

Acknowledgment of financial assistance in collecting records published herein is due also to the United States Department of State, United States Bureau of Reclamation, United States Forest Service, United States Office of Indian Affairs, and United States Weather Bureau.

Full cooperation exists between this organization and the Dominion Water and Power Bureau, Department of Mines and Resources, Canada. On waters adjacent to the international boundary certain stations are maintained jointly by the United States and Canada under the terms of the Boundary Waters Treaty of 1909, and others are maintained under a subsequent agreement between the two Governments. The records from all these stations are obtained in such a manner as to be equally acceptable and available in either country. These stations are herein designated "international gaging stations."

Assistance in collecting the records was also rendered by the following municipalities, corporations, and individuals; In Idaho by the Washington Water Power Co.; in Montana by the Rocky Mountain Power Co.; in Washington by the Chelan Copper Mining Co., Chelan Electric Co., Columbia Basin Commission, Crown Zellerbach Corporation, Grays Harbor Railway & Light Co., Hugh L. Cooper Co., West Coast Power Co., the Puget Sound Power & Light Co., the Washington Water Power Co., and the Western Washington Electric Light & Power Co.

DIVISION OF WORK

The data for stations in the several States were collected and prepared for publication under supervision of district engineers as follows: In Idaho (except Clark Fork at Priest River) and for Clark Fork near Heron, Mont., Flathead River at Flathead, British Columbia, and Kootenai River at Newgate, British Columbia, and near Rexford, Mont., T. R. Newell; in Montana, except those noted above, W. A. Lamb; in Washington and for Clark Fork at Priest River, Idaho, G. L. Parker.

Basins between Columbia River and Puget Sound

NASELLE RIVER BASIN

Naselle River near Naselle, Wash.

Location.- Staff gage, lat. $46^{\circ}22'$, long. $123^{\circ}44'$, in SW $\frac{1}{4}$ sec. 1, T. 10 N., R. 9 W., $\frac{1}{2}$ miles above Salmon Creek and $\frac{3}{4}$ miles east of Naselle.

Drainage area.- 66 square miles.

Records available.- May 1929 to September 1936.

Extremes.- Maximum discharge observed during year, 5,940 second-feet Jan. 12 (gage height, 11.6 feet); minimum, 36 second-feet Sept. 30 (gage height, 1.90 feet).

1929-36: Maximum discharge observed, 10,400 second-feet Jan. 22, 1935 (gage height, 15.9 feet, from floodmarks) from rating curve extended above 3,000 second-feet; minimum, 22 second-feet Oct. 8, 7, 1929; minimum gage height, 1.72 feet Aug. 29, 1935.

Remarks.- Records good except those above 3,000 second-feet, which are poor. Gage read twice daily. No diversions or regulation.

Rating tables, water year 1935-36 (gage height, in feet, and discharge, in second-feet)

Oct. 1 to Jan. 12

Jan. 13 to Sept. 30

1.9	49	5.0	1,120	1.9	36	5.0	1,170
2.2	86	6.0	1,715	2.2	76	6.0	1,770
2.5	142	7.0	2,370	2.5	141	7.0	2,370
3.0	285	8.0	3,070	3.0	286	8.0	3,070
3.5	426	10.0	4,590	3.5	465	9.0	3,790
4.0	620	12.0	6,300	4.0	670	11.0	5,400

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	56	86	237	2,170	224	1,060	388	93	170	144	74	141
2	53	86	211	2,790	224	810	353	95	170	141	73	76
3	53	85	211	2,650	195	670	319	117	184	210	70	56
4	58	83	187	3,790	187	585	286	210	167	270	66	50
5	53	80	176	2,240	195	485	270	370	157	319	63	48
6	51	78	309	1,360	239	425	254	319	141	302	62	47
7	50	75	501	1,060	224	388	254	224	319	270	60	46
8	49	113	620	1,060	195	715	254	187	670	239	60	45
9	49	187	540	1,010	195	860	239	164	465	224	60	45
10	49	129	540	1,060	195	670	224	151	338	195	60	44
11	49	237	705	2,510	195	585	224	141	336	224	57	43
12	83	660	955	5,580	195	715	210	136	302	189	56	52
13	123	463	705	2,790	187	860	189	127	270	175	55	73
14	164	294	540	1,590	173	1,060	173	173	286	162	54	99
15	132	463	463	1,290	164	1,290	162	224	319	151	54	57
16	117	540	408	1,010	157	960	151	406	370	141	52	50
17	117	501	340	860	151	715	146	270	465	136	52	47
18	102	408	294	760	141	585	141	224	406	127	52	47
19	102	340	265	760	141	485	141	353	353	117	50	46
20	106	294	251	760	151	406	136	545	319	117	50	45
21	119	265	237	670	388	370	127	505	286	110	48	44
22	117	251	211	585	1,410	336	117	465	254	104	47	45
23	110	540	199	505	760	319	117	406	224	97	52	45
24	102	501	211	465	545	286	117	353	195	95	57	43
25	96	426	265	406	505	254	117	302	187	93	55	40
26	86	390	340	353	1,230	485	117	270	173	91	50	38
27	86	356	540	319	5,310	1,170	113	254	210	84	47	38
28	134	324	705	302	2,580	860	104	224	224	80	45	38
29	121	294	705	286	1,410	625	99	224	170	76	45	37
30	99	265	1,120	254	-	505	95	210	157	76	45	36
31	92	-	1,780	224	-	425	-	189	-	76	45	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acres-feet
October.....	2,778	164	49	89.6	1.36	1.57	5,510
November.....	8,814	660	75	294	4.45	4.96	17,480
December.....	14,771	1,780	176	476	7.21	8.31	29,300
Calendar year 1935.....	134,154	10,400	36	368	5.58	75.62	266,100
January.....	41,469	5,580	224	1,338	20.3	23.40	82,250
February.....	17,866	5,310	141	616	9.33	10.06	35,440
March.....	19,864	1,280	254	644	9.76	11.25	39,600
April.....	5,337	338	95	188	2.95	3.13	11,130
May.....	7,931	545	93	256	3.88	4.47	15,730
June.....	8,337	670	141	278	4.21	4.70	16,540
July.....	4,835	319	76	156	2.36	2.72	9,590
August.....	1,716	74	45	55.4	.839	.97	3,400
September.....	1,561	141	36	52.0	.788	.88	3,100
Water year 1935-36.....	135,679	5,580	36	371	5.62	76.47	269,100

North River near Raymond, Wash.

Location.- Water-stage recorder, lat. 46°49', long. 123°51', in sec. 6, T. 15 N., R. 9 W., $1\frac{1}{2}$ miles above Salmon Creek and 10 miles northwest of Raymond.

Records available.- August 1927 to September 1936.

Extremes.- Maximum discharge during year, 7,890 second-feet Feb. 28 (gage height, 7.43 feet); minimum, 58 second-feet Oct. 9, 10, 11, Sept. 29, 30 (gage height, 1.44 feet). 1927-36: Maximum discharge, about 35,000 second-feet Dec. 10, 1933 (gage height, 15.8 feet, from floodmarks) from rating curve extended above 6,300 second-feet; minimum mean daily discharge, 28 second-feet Aug. 17, 1928, Sept. 25, 1930; both the result of regulation.

Remarks.- Records excellent. Splash dam 800 feet above gage no longer operating. Gage-height record collected in cooperation with, and many discharge measurements furnished by Western Washington Electric Light & Power Co.

Rating table, water year 1935-36 (gage height, in feet, and discharge, in second-feet)

1.5	65	5.0	2,870
2.0	164	5.5	3,660
2.5	312	6.0	4,600
3.0	620	6.5	5,660
3.5	1,060	7.0	6,850
4.0	1,600	7.5	8,160
4.5	2,200		

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	64	140	279	3,320	620	3,800	1,160	267	283	257	114	153
2	62	122	264	4,500	580	2,730	1,010	270	282	248	110	202
3	62	112	248	4,800	541	2,140	907	329	292	254	106	190
4	62	104	236	5,550	520	1,780	826	401	329	376	104	129
5	59	98	221	5,890	506	1,490	730	826	325	421	102	102
6	60	98	232	4,630	527	1,270	671	862	296	392	100	91
7	62	96	648	2,730	537	1,100	628	654	407	312	98	83
8	60	151	1,080	2,400	705	1,320	620	492	1,180	279	96	79
9	58	201	934	2,590	580	1,960	580	421	1,440	257	95	76
10	58	224	844	2,800	549	1,780	541	371	988	267	93	71
11	56	276	941	3,940	541	1,540	527	334	799	267	88	68
12	82	499	1,260	7,020	513	1,660	506	305	662	273	86	68
13	112	549	1,320	7,620	485	2,140	465	392	557	257	84	90
14	209	403	997	6,710	471	2,730	427	342	492	239	83	104
15	196	434	806	3,850	427	3,240	397	518	485	221	81	125
16	196	541	696	2,940	397	2,940	376	612	604	207	81	116
17	164	637	604	2,460	376	2,200	360	637	773	196	81	93
18	140	628	520	2,140	360	1,720	346	485	790	182	78	83
19	129	458	458	1,960	351	1,440	346	452	705	172	76	78
20	125	355	403	2,020	338	1,220	334	478	588	167	75	73
21	120	305	366	2,080	342	1,060	316	458	506	162	71	70
22	114	282	342	1,900	1,360	943	305	440	446	157	70	70
23	108	565	329	1,600	3,080	853	296	414	392	150	71	87
24	100	688	378	1,440	2,080	773	292	371	351	146	76	65
25	95	604	642	1,220	1,490	696	292	336	325	140	84	64
26	90	478	950	1,070	2,570	844	325	312	305	136	84	60
27	86	414	1,440	961	6,990	2,020	312	296	302	133	78	58
28	160	360	1,900	907	7,890	2,730	305	279	321	131	71	58
29	185	325	1,720	835	6,500	2,140	292	286	309	125	68	56
30	227	302	1,660	739	-	1,660	279	305	279	120	65	56
31	174	-	2,400	680	-	1,360	-	305	-	116	83	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October.....	3,475	227	56	112	6,890
November.....	10,449	688	96	348	20,730
December.....	25,170	2,400	221	812	49,920
Calendar year 1935.....	306,008	22,000	38	838	607,000
January.....	93,302	7,620	680	3,010	185,100
February.....	42,328	7,890	338	1,480	83,950
March.....	55,279	3,800	696	1,763	109,600
April.....	14,771	1,160	279	492	29,300
May.....	13,152	862	267	424	26,090
June.....	15,819	1,440	279	527	31,380
July.....	6,759	421	116	218	13,410
August.....	2,652	114	65	85.5	5,260
September.....	2,698	202	56	89.9	5,350
Water year 1935-36.....	285,852	7,890	56	781	567,000

Chehalis River near Grand Mound, Wash.

Location.— Water-stage recorder, lat. 46°47', long. 123°2', in NE¼ sec. 22 T. 15 N., R. 3 W., at Meadow, 1½ miles southwest of Grand Mound. Zero of gage is 123.27 feet above mean sea level.

Drainage area.— 928 square miles.

Records available.— October 1928 to September 1936.

Extremes.— Maximum discharge during year, 36,300 second-feet Jan. 13 (gage height, 16.77 feet); minimum, 175 second-feet Oct. 8 (gage height, 2.52 feet).
1928-36: Maximum discharge observed, 45,000 second-feet Dec. 21, 1933 (gage height, 17.9 feet, present datum); minimum discharge, 126 second-feet Aug. 29, 1935 (gage height, 2.36 feet).

Remarks.— Records excellent except those for Dec. 5-15, computed on basis of records for Satsop River near Satsop and North River near Raymond, which are poor. Cities of Centralia and Chehalis divert about 15 second-feet from Newaukum River, a tributary, for municipal use. No noticeable regulation.

Rating tables, water year 1935-36 (gage height, in feet, and discharge, in second-feet)

Oct. 1 to Dec. 31

Jan. 1 to Sept. 30

2.5	168	5.5	3,020	2.5	182	7.0	5,500
2.9	325	6.0	3,760	3.0	420	8.0	7,200
3.5	685	6.5	4,580	3.5	790	9.0	9,000
4.0	1,060	7.0	5,400	4.0	1,250	11.0	13,400
4.5	1,600	8.0	7,200	4.5	1,830	13.0	19,400
5.0	2,290	9.0	9,000	5.0	2,500	15.0	27,420
				5.5	3,200	17.0	37,460
				6.0	3,950		

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	185	320	678	9,000	1,700	16,000	3,580	889	1,020	745	328	256
2	192	294	626	11,700	1,570	10,800	2,990	844	1,010	668	292	556
3	195	272	594	12,600	1,450	8,100	2,710	907	1,190	684	292	464
4	188	264	555	14,400	1,420	6,350	2,430	1,220	1,470	790	297	328
5	213	260	520	20,100	1,460	5,020	2,090	2,930	1,360	880	286	301
6	202	260	1,000	16,800	1,940	4,100	1,900	3,800	1,240	826	286	265
7	182	255	1,600	11,200	2,560	3,500	1,830	2,780	2,820	709	286	260
8	178	255	2,500	9,100	1,900	3,350	1,830	2,020	9,710	660	283	243
9	188	361	1,900	8,820	1,760	5,500	1,760	1,640	9,190	620	285	247
10	185	522	2,250	8,460	1,700	5,180	1,640	1,400	6,440	613	269	226
11	182	448	2,600	11,900	1,640	4,400	1,640	1,200	4,550	817	269	222
12	199	496	3,000	18,100	1,580	4,700	1,640	1,070	5,420	835	269	222
13	305	914	3,200	32,600	1,640	5,500	1,840	997	2,640	652	260	235
14	424	771	2,400	27,400	1,420	6,350	1,560	1,190	2,090	606	260	324
15	562	698	1,850	19,400	1,920	8,100	1,450	1,530	1,830	578	269	396
16	516	1,720	1,490	15,900	1,240	7,200	1,370	1,990	2,330	536	269	328
17	392	2,220	1,270	11,400	1,240	5,840	1,340	2,160	3,350	501	247	274
18	340	1,560	1,100	8,640	1,110	4,700	1,280	1,700	3,280	468	269	247
19	316	1,100	970	7,560	1,060	3,800	1,220	1,500	2,570	456	252	247
20	302	869	883	6,860	1,050	3,200	1,140	1,560	2,020	414	239	218
21	316	744	827	6,520	1,120	2,920	1,090	1,700	1,640	420	239	222
22	355	678	778	5,500	7,000	2,570	1,060	2,020	1,390	384	235	231
23	318	961	737	4,560	15,900	2,290	1,030	1,900	1,230	390	235	222
24	269	2,220	764	3,950	11,100	2,160	1,020	1,580	1,100	378	260	218
25	290	1,780	986	3,350	7,380	1,960	1,030	1,360	1,020	378	306	204
26	268	1,320	1,370	2,920	7,490	1,960	1,050	1,230	952	366	274	214
27	255	1,070	2,220	2,640	16,400	6,140	1,040	1,120	889	338	252	204
28	268	914	4,740	2,430	27,900	11,000	1,020	1,050	952	349	235	214
29	462	834	4,100	2,160	24,300	8,100	988	1,030	943	328	222	204
30	478	737	3,940	1,960	-	5,840	934	1,180	799	333	218	214
31	380	-	8,100	1,830	-	4,560	-	1,070	-	322	207	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acres-feet
October.....	9,113	562	178	294	0.317	0.37	18,080
November.....	25,107	2,220	255	837	.902	1.01	49,600
December.....	59,548	8,100	520	1,921	2.07	2.39	116,100
Calendar year 1935.....	780,833	36,300	131	2,139	2.30	31.32	1,549,000
January.....	319,840	32,600	1,830	10,320	11.1	12.80	634,400
February.....	149,080	27,900	1,050	5,141	5.54	5.98	295,700
March.....	171,180	16,000	1,960	5,622	5.95	6.68	339,500
April.....	47,302	3,580	934	1,577	1.70	1.90	93,820
May.....	48,567	3,800	844	1,567	1.69	1.95	96,330
June.....	74,465	9,710	799	2,482	2.67	2.98	147,700
July.....	17,044	880	322	550	.593	.68	33,810
August.....	8,176	328	207	264	.284	.33	16,220
September.....	8,026	556	204	268	.289	.32	15,920
Water year 1935-36.....	937,448	32,600	178	2,561	2.76	37.57	1,859,000

Satsop River near Satsop, Wash.

Location.— Staff gage, lat. 47°0', long. 123°30', in sec. 36, T. 18 N., R. 7 W., 1 mile west of Satsop.

Drainage area.— 315 square miles.

Records available.— March 1929 to September 1936.

Extremes.— Maximum discharge observed during year, 16,600 second-feet Jan. 4 (gage height, 11.0 feet); minimum discharge, 255 second-feet Oct. 10; minimum gage height, 2.36 feet Aug. 30.

1929-36: Maximum discharge, 52,500 second-feet Jan. 22, 1935 (gage height, 18.0 feet, from floodmarks) from rating curve extended above 17,000 second-feet; minimum, 203 second-feet Sept. 21, 22, 1930.

Remarks.— Records good except those for Feb. 20-23, computed on basis of records for Chehalis River near Grand Mound, and those for periods of rapidly changing discharge, which are poor. Discharge interpolated Oct. 13, Dec. 22, June 13, July 11. Gage read to hundredths once daily. No diversions or regulation.

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	300	390	920	9,390	1,540	5,200	1,540	830	745	745	365	1,020
2	291	369	840	11,000	1,430	4,010	1,540	975	745	705	385	665
3	291	355	900	7,120	1,380	3,460	1,430	1,120	788	745	373	520
4	286	344	760	16,600	1,320	2,780	1,320	1,430	788	970	361	418
5	286	338	720	8,410	1,430	2,490	1,220	2,760	745	1,020	349	385
6	282	333	1,000	6,220	1,430	2,230	1,220	1,990	745	1,070	337	361
7	273	333	1,720	5,000	1,270	1,990	1,220	1,650	1,320	920	349	337
8	273	355	2,070	5,800	1,270	5,000	1,170	1,320	2,350	920	325	320
9	264	467	1,720	6,220	1,220	4,490	1,120	1,170	2,110	745	325	305
10	255	411	2,070	5,200	1,170	3,280	1,120	1,070	1,760	745	315	295
11	275	495	2,340	7,290	1,170	2,780	1,430	1,020	1,760	745	315	285
12	322	1,850	2,790	15,500	1,120	3,460	1,320	1,020	1,540	745	315	275
13	561	1,320	2,200	11,200	1,070	3,820	1,220	970	1,380	745	315	385
14	800	1,230	1,850	7,290	1,020	5,200	1,170	1,220	1,220	665	315	590
15	682	1,720	1,720	8,970	1,020	5,000	1,120	1,320	1,430	665	315	450
16	720	2,070	1,620	6,430	970	4,010	1,070	1,540	1,990	590	315	418
17	840	1,720	1,820	4,800	920	3,460	1,070	1,220	2,630	590	305	379
18	1,100	1,420	1,420	4,200	875	2,940	1,020	1,220	2,360	555	300	349
19	960	1,230	1,320	3,820	875	2,490	1,020	1,320	1,870	555	300	337
20	645	1,050	1,230	4,010	900	2,360	970	1,220	1,650	555	295	325
21	682	960	1,230	3,640	2,850	2,110	920	1,170	1,320	520	290	305
22	608	880	1,160	3,110	9,000	1,770	875	1,120	1,220	520	285	305
23	570	1,620	1,100	2,760	4,800	1,650	875	1,070	1,170	485	315	300
24	495	1,620	1,320	2,630	2,490	1,540	875	970	1,070	450	367	285
25	467	1,520	3,300	2,230	2,110	1,370	875	970	970	450	315	275
26	453	1,320	6,020	2,110	5,000	2,230	875	875	970	450	295	266
27	425	1,230	5,360	2,110	14,700	3,110	1,020	830	920	450	285	266
28	532	1,230	4,290	1,990	7,070	2,360	970	788	875	418	275	262
29	467	1,050	3,480	1,760	6,220	1,370	875	788	788	418	266	262
30	425	960	5,800	1,650	-	1,760	875	830	745	418	257	262
31	404	-	7,560	1,650	-	1,650	-	788	-	418	285	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acre-feet
October.....	15,232	1,100	255	491	1.56	1.80	30,210
November.....	30,170	2,070	333	1,006	3.19	3.56	59,840
December.....	71,230	7,560	720	2,298	7.30	8.42	141,300
Calendar year 1935.....	694,657	45,900	205	1,903	6.04	82.09	1,378,000
January.....	180,030	16,600	1,650	5,807	18.4	21.21	357,100
February.....	77,640	14,700	875	2,677	8.50	9.17	154,000
March.....	92,360	6,200	1,540	2,990	9.46	10.91	183,200
April.....	33,345	1,540	875	1,112	3.53	3.94	66,140
May.....	36,504	2,780	788	1,178	3.74	4.31	72,400
June.....	39,854	2,650	745	1,328	4.22	4.71	79,050
July.....	19,992	1,070	418	645	2.05	2.36	39,650
August.....	9,829	385	257	317	1.01	1.16	19,500
September.....	11,207	1,020	262	374	1.19	1.33	22,250
Water year 1935-36.....	617,413	16,600	255	1,687	5.36	72.88	1,225,000

Wynoochee River at Oxbow, near Aberdeen, Wash.

Location.- Water-stage recorder, lat. 47°19'30", long. 123°38'20", in sec. 12, T. 21 N., R. 8 W., 1 mile below Oxbow and 24 miles northeast of Aberdeen. Discharge measurements made $1\frac{1}{2}$ miles above.

Drainage area.- About 65 square miles, above discharge measuring section.

Records available.- May 1925 to September 1936.

Average discharge.- 11 years, 780 second-feet.

Extremes.- Maximum discharge during year, 6,830 second-feet Jan. 1 (gage height, 18.13 feet); minimum, 119 second-feet Sept. 30 (gage height, 2.50 feet).
1925-36: Maximum discharge, about 18,000 second-feet Jan. 22, 1935 (gage height, 30.3 feet, from floodmarks) from rating curve extended above 5,300 second-feet; minimum, 76 second-feet Sept. 23, 1930 (gage height, 2.09 feet).

Remarks.- Records excellent. No diversions or regulation.

Rating table, water year 1935-36 (gage height, in feet, and discharge, in second-feet)

2.2	93	9.0	1,650
3.0	165	10.0	1,990
4.0	305	11.0	2,370
5.0	520	12.0	2,810
6.0	770	13.0	3,360
7.0	1,048	14.0	3,960
8.0	1,340	16.0	5,350

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	176	193	385	5,110	496	1,560	439	520	406	364	212	583
2	170	187	354	3,830	462	1,280	417	606	406	354	206	316
3	165	182	334	2,370	450	1,140	406	1,270	417	354	206	239
4	165	176	314	5,160	428	964	385	1,400	385	716	199	206
5	160	170	305	2,760	428	824	364	2,060	374	1,050	193	187
6	155	170	546	1,820	417	744	354	1,310	364	890	187	176
7	150	170	1,440	1,650	385	693	374	936	506	618	187	170
8	150	206	1,140	1,780	374	1,680	374	797	1,180	520	182	160
9	146	218	936	1,680	364	1,620	354	693	1,210	473	176	155
10	146	187	1,080	1,590	344	1,110	374	668	908	532	176	150
11	150	326	1,430	2,060	334	1,020	532	668	1,020	556	170	146
12	279	797	1,400	3,110	324	1,430	580	630	770	496	170	155
13	672	508	1,020	2,410	314	1,190	580	618	643	473	165	193
14	593	396	852	1,850	305	1,190	544	824	606	428	165	199
15	386	854	770	2,590	287	1,220	508	1,110	932	406	165	170
16	380	1,220	744	1,880	278	1,110	618	1,090	1,920	374	160	160
17	693	936	770	1,430	270	1,050	643	797	2,130	354	160	155
18	797	668	643	1,190	262	908	643	693	1,430	344	155	146
19	593	532	580	1,110	254	824	718	718	1,050	324	155	146
20	462	450	532	1,220	262	797	618	718	852	314	155	142
21	385	406	484	1,080	402	770	593	630	718	296	150	137
22	334	417	450	964	1,860	693	568	606	668	297	150	146
23	305	880	439	880	899	630	532	568	593	279	170	137
24	278	824	926	824	643	580	544	556	556	270	182	137
25	262	668	2,560	744	544	544	630	544	508	262	160	132
26	239	630	2,600	668	2,410	643	718	544	473	254	150	128
27	232	544	2,450	693	4,130	718	630	520	473	246	146	128
28	262	484	1,720	655	1,780	606	544	473	439	239	142	124
29	232	439	1,400	606	1,750	556	544	496	406	232	142	124
30	218	406	2,630	568	-	508	532	450	385	225	137	119
31	206	-	2,930	532	-	473	-	417	-	218	231	-
Month						Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet		
October.....						9,541	797	146	308	18,920		
November.....						14,244	1,220	170	475	28,250		
December.....						34,164	2,930	305	1,102	67,760		
Calendar year 1935.....						308,851	16,000	97	846	612,600		
January.....						54,827	5,160	532	1,769	108,700		
February.....						21,456	4,130	254	740	42,560		
March.....						29,075	1,680	473	938	57,670		
April.....						15,660	718	354	522	31,060		
May.....						23,930	2,060	417	772	47,460		
June.....						22,728	2,130	364	758	45,080		
July.....						12,737	1,050	218	411	25,280		
August.....						5,304	231	137	171	10,520		
September.....						5,266	583	119	176	10,440		
Water year 1935-36.....						248,932	5,160	119	680	493,700		

Quinault River at Quinault Lake, Wash.

Location.- Water-stage recorder, lat. 47°27'30", long. 123°53'30", in sec. 25, T. 23 N., R. 10 W., at outlet of Quinault Lake, 4 miles southwest of Quinault.

Drainage area.- 264 square miles.

Records available.- October 1911 to December 1922, July to November 1924, September 1925 to November 1932, May 1933 to September 1936. Monthly discharge, October 1911 to September 1933, in State Water-Supply Bulletin 5.

Average discharge.- 25 years, 2,728 second-feet.

Extremes.- Maximum discharge during year, 11,300 second-feet Jan. 4 (gage height, 9.17 feet); minimum, 462 second-feet Sept. 30 (gage height, 2.34 feet).

1911-22, 1924-32, 1933-36: Maximum discharge, 37,000 second-feet Dec. 12, 1921 (gage height, 16.3 feet, former datum); minimum, 285 second-feet Sept. 20, 1924 (gage height, 0.74 foot, former datum).

Remarks.- Records excellent. No diversions. Slight regulation caused by natural storage in lake.

Rating table, water year 1935-36 (gage height, in feet, and discharge, in second-feet)

2.3	440	5.0	3,250
2.5	555	5.5	4,000
3.0	900	6.0	4,820
3.5	1,400	7.0	6,730
4.0	1,960	8.0	8,860
4.5	2,580	9.2	11,800

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	799	892	1,620	8,440	1,680	4,820	1,380	2,710	2,970	2,080	954	1,180
2	771	844	1,510	10,500	1,560	4,160	1,290	2,840	2,780	2,020	909	1,460
3	744	792	1,360	8,440	1,510	3,760	1,220	2,960	2,780	2,020	884	1,320
4	718	764	1,260	10,100	1,460	3,320	1,160	5,350	2,640	2,380	868	1,150
5	693	737	1,220	10,300	1,590	2,900	1,110	6,730	2,580	3,040	852	1,000
6	678	711	1,360	7,360	1,400	2,580	1,050	6,320	2,520	3,250	836	884
7	652	685	2,060	5,540	1,320	2,380	1,060	5,170	2,760	2,900	813	806
8	646	724	2,780	4,820	1,260	3,060	1,060	4,160	3,920	2,680	792	744
9	626	799	2,840	4,480	1,220	4,480	1,040	3,620	4,820	2,520	764	698
10	614	792	2,970	4,160	1,160	4,000	1,070	3,290	4,480	2,260	737	659
11	607	872	3,540	4,480	1,120	3,460	1,240	3,250	4,650	2,260	718	620
12	733	1,140	4,820	5,920	1,060	3,920	1,510	3,320	4,320	2,200	704	607
13	1,210	1,260	4,320	6,730	1,020	4,000	1,730	3,390	3,760	2,080	692	626
14	1,840	1,240	3,620	5,730	963	4,000	1,900	4,000	3,540	1,960	678	640
15	1,780	1,560	3,110	5,920	918	4,000	1,960	4,650	3,840	1,940	659	640
16	1,680	2,450	2,780	5,920	884	3,690	2,200	5,350	6,340	1,730	652	620
17	2,020	2,840	2,640	4,820	852	3,390	2,640	4,820	9,110	1,680	633	594
18	2,580	2,640	2,450	4,000	826	3,040	2,970	4,160	8,440	1,620	620	568
19	2,640	2,260	2,260	3,460	806	2,710	3,150	3,840	6,320	1,560	600	549
20	2,320	1,960	2,020	3,390	799	2,450	3,250	3,540	4,990	1,510	594	525
21	2,020	1,730	1,900	3,250	852	2,260	3,110	3,250	4,320	1,510	581	519
22	1,780	1,690	1,780	2,970	1,870	2,140	3,040	3,040	3,840	1,460	581	549
23	1,560	1,900	1,680	2,780	2,380	1,960	2,900	2,970	3,620	1,380	626	555
24	1,400	2,200	1,910	2,580	2,200	1,840	2,840	2,970	3,320	1,300	662	543
25	1,270	2,000	4,220	2,450	1,960	1,730	3,040	3,110	3,040	1,230	633	525
26	1,170	2,200	6,730	2,260	2,770	1,730	3,180	3,320	2,780	1,160	600	513
27	1,100	2,140	6,940	2,200	6,730	1,840	3,110	3,620	2,640	1,110	581	495
28	1,150	1,960	6,320	2,140	6,320	1,780	2,900	3,540	2,520	1,070	562	478
29	1,130	1,780	5,170	2,020	5,170	1,730	2,710	3,460	2,320	1,040	543	473
30	1,050	1,730	5,170	1,900	-	1,620	2,710	3,320	2,200	1,010	525	462
31	972	-	6,940	1,780	-	1,510	-	3,110	-	981	591	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acres-feet
October.....	38,958	2,640	607	1,257	4.76	5.49	77,270
November.....	45,482	2,840	685	1,516	5.74	6.40	90,210
December.....	99,340	6,940	1,220	3,205	12.1	13.95	197,000
Calendar year 1935.....	1,007,381	32,900	490	2,760	10.5	141.95	1,998,000
January.....	150,840	10,500	1,780	4,866	18.4	21.21	299,200
February.....	53,462	6,730	799	1,844	6.98	7.63	108,000
March.....	90,260	4,820	1,510	2,912	11.0	12.68	179,000
April.....	65,560	3,250	1,040	2,119	8.03	8.96	126,100
May.....	120,280	6,730	2,710	3,680	14.7	16.95	238,800
June.....	118,180	9,110	2,200	3,939	14.9	16.62	234,400
July.....	66,541	3,250	981	1,824	6.91	7.97	112,100
August.....	21,434	954	525	691	2.62	3.02	42,510
September.....	21,002	1,460	462	700	2.65	2.96	41,660
Water year 1935-36.....	879,339	10,500	462	2,403	9.10	123.74	1,744,000

Queets River near Clearwater, Wash.

Location.— Water-stage recorder, lat. 47°32', long. 124°19', in SW¼ sec. 36, T. 24 N., R. 13 W., on Quinault Indian Reservation, 4 miles southwest of Clearwater. Zero of gage is 14.5 feet above mean sea level (based on river survey). Aug. 24 to Oct. 24, 1935, temporary staff gage at same site.

Drainage area.— 454 square miles.

Records available.— September 1930 to September 1936.

Extremes.— Maximum discharge during year, 33,700 second-feet Jan. 4 (gage height, 16.81 feet); minimum, 590 second-feet Aug. 31 (gage height, 4.70 feet).
1930-36: Maximum discharge, about 100,000 second-feet Jan. 22, 1935 (gage height, 27.0 feet, present datum, from floodmarks) from rating curve extended above 31,000 second-feet; minimum, 450 second-feet Aug. 23, 24, 1931; minimum gage height, 3.58 feet (present datum) Oct. 11, 1932.

Remarks.— Records good. Discharge interpolated Oct. 5, 6, 19. No diversions or regulation.

Rating tables, water year 1935-36 (gage height, in feet, and discharge, in second-feet)

Oct. 1 to Jan. 3				Jan. 4 to Sept. 30			
5.0	620	10.0	8,790	4.5	490	8.0	4,180
5.5	950	12.0	15,030	5.0	770	10.0	8,790
6.0	1,360	14.0	22,500	5.5	1,100	12.0	15,030
7.0	2,470	16.0	30,400	6.0	1,520	14.0	22,500
8.0	4,120			7.0	2,610	16.0	30,400

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	852	1,100	1,860	23,600	2,240	9,330	2,020	2,180	2,130	1,810	1,030	7,000
2	824	1,020	1,700	19,900	2,130	6,780	1,850	2,470	2,080	1,810	995	2,460
3	804	985	1,600	13,600	2,080	6,310	1,760	4,370	2,300	2,240	995	1,560
4	784	950	1,450	26,700	1,910	4,770	1,650	5,410	2,080	5,860	995	1,260
5	754	915	1,400	14,800	2,020	3,920	1,560	10,200	2,020	6,540	995	1,100
6	724	880	2,750	3,330	2,300	3,660	1,520	6,680	2,020	5,190	960	995
7	693	859	8,570	8,790	1,910	3,660	1,820	4,570	3,050	3,500	890	960
8	693	1,586	6,310	3,790	1,810	12,000	1,820	3,660	7,510	2,890	860	890
9	674	2,170	4,840	8,010	1,310	11,100	1,660	3,190	8,270	2,540	830	830
10	632	1,400	5,850	7,020	1,710	7,020	1,820	2,890	6,080	2,750	830	800
11	668	2,730	7,790	9,930	1,610	6,160	4,320	2,960	5,630	3,120	830	758
12	1,660	5,080	8,180	20,700	1,560	9,890	3,660	2,750	4,180	2,750	800	830
13	6,080	2,970	6,540	14,200	1,480	9,890	3,190	2,750	3,600	2,890	800	926
14	3,220	2,210	5,500	10,200	1,390	11,700	2,820	4,000	3,420	2,420	800	995
15	2,340	5,940	4,840	16,100	1,340	9,890	2,480	5,420	5,730	2,180	770	860
16	1,800	8,270	4,420	11,100	1,300	7,760	2,960	6,800	13,000	2,080	746	770
17	1,630	6,080	4,320	9,270	1,260	6,540	2,960	4,180	14,700	1,960	734	716
18	7,510	4,020	3,480	6,540	1,220	5,190	2,960	3,420	9,100	1,810	722	692
19	4,990	3,060	2,970	6,310	1,180	4,370	3,420	3,420	6,080	1,760	710	674
20	2,470	2,540	2,600	8,010	1,180	3,920	2,820	3,190	4,770	1,760	716	662
21	2,030	2,150	2,340	6,310	1,790	3,580	2,540	2,960	4,000	1,660	710	668
22	1,750	2,150	2,150	5,080	10,000	3,120	2,480	3,130	3,560	1,560	686	1,140
23	1,550	3,570	2,030	4,770	4,570	2,820	2,300	2,820	3,260	1,490	798	910
24	1,500	3,220	5,740	4,000	5,120	2,540	2,240	2,680	2,820	1,390	1,010	770
25	1,400	3,220	14,000	5,500	2,610	2,500	2,890	2,750	2,540	1,300	770	722
26	1,320	3,570	11,600	3,120	15,100	3,900	2,960	2,750	2,360	1,260	698	674
27	1,220	2,890	10,800	3,740	18,800	4,570	2,610	2,820	2,360	1,220	674	656
28	2,110	2,470	8,010	3,660	9,330	3,540	2,300	2,480	2,540	1,180	662	638
29	1,600	2,150	6,310	2,960	14,100	2,750	2,300	2,750	2,130	1,180	656	632
30	1,320	1,800	11,400	2,660	-	2,420	2,360	2,480	1,960	1,100	620	614
31	1,180	-	16,100	2,420	-	2,180	-	2,300	-	1,100	2,040	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acre-feet
October.....	60,982	7,510	632	1,967	4.33	4.99	121,000
November.....	81,939	8,270	859	2,731	6.02	6.72	162,500
December.....	176,850	16,100	1,400	5,708	12.6	14.53	350,800
Calendar year 1935.....	1,895,998	-	480	5,195	11.4	155.50	3,761,000
January.....	294,140	26,700	2,420	9,428	20.9	24.10	583,400
February.....	112,790	18,800	1,180	3,989	8.57	9.24	225,700
March.....	181,380	16,000	2,180	5,851	12.9	14.87	359,800
April.....	74,110	4,320	1,520	2,470	5.44	6.07	147,000
May.....	114,720	10,200	2,180	3,701	8.15	9.40	227,500
June.....	135,280	14,700	1,960	4,509	9.93	11.08	268,300
July.....	72,260	6,540	1,100	2,331	5.13	5.91	145,300
August.....	26,332	2,040	620	849	1.87	2.16	52,230
September.....	33,161	7,000	614	1,105	2.43	2.71	65,770
Water year 1935-36.....	1,863,944	26,700	614	3,727	8.21	111.78	2,705,000

Hoh River near Spruce, Wash.

Location.- Water-stage recorder, lat. 47°48', long. 124°6', in sec. 34, T. 27 N., R. 11 W., 2½ miles below Spruce and 5 miles below South Fork.

Drainage area.- 193 square miles.

Records available.- August 1928 to September 1936.

Average discharge.- 10 years, 2,019 second-feet.

Extremes.- Maximum discharge during year, 9,840 second-feet Jan. 4 (gage height, 9.85 feet); minimum, 463 second-feet Nov. 4, 6 (gage height, 1.20 feet).

1928-36: Maximum discharge, about 40,000 second-feet Nov. 5, 1934 (gage height, 21.2 feet, from high-water mark in gage structure) from rating curve extended above 8,000 second-feet (gage observer noted water higher on this day than at any other time during his 43 years of residence on the stream); minimum discharge, 247 second-feet Nov. 14, 15, 1929; minimum gage height, that of Nov. 4, 6, 1935.

Remarks.- Records excellent except those for Oct. 1 to Nov. 15, based upon staff gage readings, which are fair. Discharge interpolated Oct. 1, 6, 19, 20, Nov. 3. Discharge Oct. 13, 27, Nov. 10 computed on basis of records for Soleduck River near Fairholm and Queets River near Clearwater. No diversions or artificial regulation.

Rating table, water year 1935-36 (gage height, in feet, and discharge, in second-feet)

1.2	463	4.5	2,400
1.5	565	5.0	2,550
2.0	775	6.0	3,930
2.5	1,040	7.0	5,190
3.0	1,340	8.0	6,520
3.5	1,650	9.0	8,260
4.0	2,000	10.0	10,260

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	901	547	875	5,580	1,130	3,270	930	1,860	2,160	1,860	1,280	3,760
2	902	495	800	5,330	1,040	2,350	875	2,200	2,080	2,000	1,280	1,930
3	850	467	752	4,290	1,010	2,850	850	3,490	2,160	2,240	1,430	1,460
4	800	479	707	8,340	958	2,320	800	3,710	2,080	3,940	1,490	1,310
5	775	479	625	5,210	958	2,000	775	4,410	2,060	3,930	1,520	1,280
6	752	463	1,190	3,490	930	1,860	752	3,270	2,160	3,220	1,370	1,160
7	729	479	2,190	3,050	850	1,790	850	2,580	2,850	2,490	1,220	1,040
8	775	623	1,930	3,050	825	4,070	850	2,240	3,620	2,240	1,160	902
9	685	625	1,630	2,650	800	3,560	825	2,080	3,620	2,080	1,160	825
10	664	550	2,320	2,580	752	2,670	875	2,160	3,490	2,150	1,220	775
11	685	875	2,950	3,380	729	2,660	1,370	2,320	3,710	2,320	1,220	729
12	1,310	1,160	3,000	5,740	707	3,380	1,680	2,240	2,950	2,240	1,250	775
13	2,400	875	2,240	4,450	685	3,050	1,760	2,490	2,670	2,160	1,250	752
14	1,370	775	1,800	3,800	664	3,160	1,720	3,540	2,950	1,930	1,190	729
15	1,100	1,570	1,720	5,330	643	2,950	1,650	3,600	4,190	1,760	1,130	603
16	902	2,240	1,650	3,930	623	2,580	2,160	3,490	6,550	1,720	1,100	585
17	1,796	1,650	1,680	3,050	603	2,320	2,490	2,580	7,320	1,720	1,100	585
18	2,950	1,430	1,430	2,490	584	2,080	2,490	2,320	4,650	1,650	1,070	684
19	2,340	1,190	1,310	2,400	565	1,860	2,580	2,320	3,490	1,790	1,070	707
20	1,740	1,010	1,160	2,580	584	1,790	2,240	2,000	2,950	1,930	1,190	729
21	1,130	930	1,070	2,320	804	1,680	2,160	1,930	2,850	1,930	1,160	800
22	958	958	1,010	2,160	2,310	1,520	2,160	1,930	2,950	1,860	1,040	1,250
23	825	1,460	958	2,060	1,430	1,400	2,000	2,000	2,850	1,620	1,010	902
24	775	1,310	2,110	1,930	1,130	1,510	2,000	2,080	2,490	1,460	1,100	875
25	729	1,280	4,530	1,720	1,010	1,190	2,320	2,320	2,320	1,310	958	800
26	635	1,400	4,010	1,580	3,230	1,490	2,160	2,580	2,240	1,340	958	685
27	670	1,250	3,270	1,650	3,930	1,460	1,930	3,050	2,160	1,400	1,010	685
28	1,100	1,070	2,580	1,550	2,760	1,280	1,760	2,670	2,080	1,430	1,100	752
29	775	985	2,160	1,400	3,820	1,160	1,720	2,580	1,930	1,460	1,130	752
30	643	958	2,940	1,280	-	1,070	1,760	2,320	1,930	1,430	958	707
31	584	-	3,820	1,220	-	985	-	2,490	-	1,370	1,520	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acres-feet
October.....	33,294	2,950	584	1,074	5.56	6.41	56,040
November.....	30,013	2,240	463	1,000	5.18	5.78	59,530
December.....	60,587	4,530	685	1,954	10.1	11.64	120,200
Calendar year 1935.....	719,736	22,500	463	1,972	10.2	138.72	1,428,000
January.....	99,810	8,340	1,220	3,220	16.7	19.25	198,000
February.....	36,064	3,930	585	1,244	6.45	6.96	71,550
March.....	67,715	4,070	985	2,164	11.3	13.03	134,300
April.....	48,492	2,580	752	1,615	8.37	9.34	96,180
May.....	80,850	4,410	1,860	2,608	13.5	15.56	160,400
June.....	92,050	7,320	1,930	3,069	15.9	17.74	182,600
July.....	61,980	3,940	1,310	1,999	10.4	11.99	122,900
August.....	36,644	1,520	958	1,182	6.12	7.06	72,680
September.....	29,468	3,760	565	982	5.09	5.58	58,450
Water year 1935-36.....	676,977	8,340	463	1,850	9.59	130.44	1,343,000

Soleduck River near Fairholm, Wash.

Location.- Water-stage recorder, lat. 48°2'30", long. 123°57'30", in lot 4, sec. 35, T. 30 N., R. 10 W., 300 feet below South Fork and 7 miles southwest of Fairholm.

Drainage area.- 79 square miles.

Records available.- October 1917 to September 1921, October 1933 to September 1936.

Extremes.- Maximum discharge during year, 4,410 second-feet Jan. 4 (gage height, 6.48 feet); minimum, 82 second-feet Sept. 30 (gage height, 1.29 feet).

1917-21, 1933-36: Maximum discharge, 24,300 second-feet Dec. 21, 1933 (gage height, 14.9 feet) from rating curve extended above 5,000 second-feet; minimum, 58 second-feet Sept. 29, Oct. 2, 3, 1918 (gage height, 0.48 foot, former datum).

Remarks.- Records excellent except those for period of ice effect, Feb. 14-19, computed on basis of gage heights and weather records, which are fair. Discharge interpolated Apr. 9-14. No diversions or regulation.

Rating table, water year 1935-36 except period of ice effect (gage height, in feet, and discharge, in second-feet)

1.3	85	3.5	900
1.5	111	4.0	1,260
2.0	228	5.0	2,200
2.5	391	6.0	3,580
3.0	600		

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	115	148	267	1,920	380	1,140	270	856	568	387	177	566
2	111	142	246	1,790	355	1,060	258	802	545	387	169	248
3	108	137	231	1,380	345	1,110	249	1,080	572	421	164	174
4	106	135	220	3,500	328	830	237	1,110	568	671	162	144
5	105	129	214	1,750	321	666	234	1,300	554	686	155	131
6	104	129	367	1,140	308	591	228	970	580	630	160	124
7	102	129	791	935	280	567	252	794	755	486	148	116
8	98	171	630	970	280	1,780	243	704	935	432	144	110
9	96	220	541	900	264	1,480	236	674	879	395	140	108
10	95	160	890	879	252	970	349	710	794	410	135	104
11	98	278	1,060	1,220	243	988	402	788	800	418	131	106
12	247	359	1,040	2,110	234	1,180	456	740	680	406	129	127
13	503	283	716	1,560	220	970	509	851	625	391	127	133
14	415	237	577	1,180	208	886	562	1,180	680	359	125	133
15	318	498	537	1,640	200	788	615	1,080	810	331	120	116
16	246	1,000	524	1,180	200	734	872	1,060	1,200	315	115	108
17	442	671	507	879	200	656	1,000	752	1,750	302	110	102
18	676	465	441	716	200	577	970	686	1,170	266	108	100
19	406	373	391	680	208	541	935	680	886	277	105	96
20	338	318	359	800	211	520	818	600	764	267	102	93
21	295	286	335	716	236	494	812	586	704	258	102	96
22	249	302	311	698	582	457	824	610	698	249	100	124
23	225	421	299	794	366	425	716	600	645	234	110	106
24	208	395	565	698	299	399	758	605	572	225	110	96
25	195	414	1,000	605	270	373	865	698	524	217	104	91
26	182	445	886	545	760	399	800	782	490	208	99	87
27	177	380	716	545	1,110	377	692	844	465	203	98	86
28	249	328	610	507	770	348	620	716	441	200	95	86
29	195	308	528	457	1,460	321	625	728	418	195	93	84
30	169	292	798	425	-	299	640	640	402	190	93	84
31	157	-	970	402	-	286	-	635	-	182	182	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acre-feet
October.....	7,030	676	95	227	2.67	3.31	13,940
November.....	9,543	1,000	129	318	4.03	4.50	18,930
December.....	17,567	1,060	214	567	7.18	8.28	34,840
Calendar year 1935.....	241,244	14,200	71	661	8.37	113.60	478,500
January.....	33,521	3,500	402	1,081	13.7	15.79	66,490
February.....	11,088	1,460	200	362	4.84	5.22	21,980
March.....	22,234	1,780	266	717	9.08	10.47	44,100
April.....	17,087	1,000	228	570	7.22	8.06	33,890
May.....	24,661	1,300	566	796	10.1	11.64	48,910
June.....	21,514	1,760	402	717	9.08	10.13	42,670
July.....	10,619	686	182	343	4.34	5.00	21,060
August.....	3,902	177	93	126	1.59	1.83	7,740
September.....	3,679	566	84	129	1.63	1.82	7,690
Water year 1935-36.....	182,645	3,500	84	499	6.32	86.05	362,200

Elwha River at McDonald Bridge, near Port Angeles, Wash.

Location.— Water-stage recorder, lat. 48°3'20", long. 123°34'55", in NE¼ sec. 33, T. 30 N., R. 7 W., at McDonald Bridge, 8 miles southwest of Port Angeles. Prior to May 2, 1936, gage on opposite bank, 300 feet below. Zero of former gage was 207.4 feet (revised) above mean sea level (general adjustment of 1929). Zero of present gage is 200.00 feet above mean sea level (general adjustment of 1929).

Drainage area.— 262 square miles.

Records available.— October 1897 to December 1901, October 1918 to September 1936.

Average discharge.— 22 years, 1,484 second-feet.

Extremes.— Maximum discharge observed during year, 4,680 second-feet Jan. 4 (gage height, 5.47 feet, former site and datum); minimum, 33 second-feet Dec. 1, 2, 8, 9, 15, 16, 24, 25 (gage height, -0.07 foot, former site and datum, result of regulation); minimum daily discharge, 36 second-feet Dec. 24, result of regulation.

1897-1901, 1918-36: Maximum discharge, 26,700 second-feet Dec. 21, 1933 (gage height, 10.5 feet, former site and datum, from floodmarks); minimum daily discharge, 11 second-feet Sept. 18, 25, 1932.

Remarks.— Records excellent except those for discharges below 400 second-feet, which are fair, and those for Nov. 16-30, computed on basis of plant superintendent's report of flow at Glines Canyon, which are poor. Flow regulated for power by operation of Glines Canyon Reservoir (capacity at elevation 610 feet, 38,650 acre-feet). Flow that is diverted through power house is returned to river above gage. One discharge measurement and reservoir gage heights furnished by Crown-Zellerbach Corporation.

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	593	549	*279	2,470	770	*1,290	896	2,070	2,610	1,590	1,020	899
2	592	554	440	2,780	*390	1,450	958	2,340	2,290	1,690	*697	1,030
3	594	*340	627	2,000	450	1,760	1,050	*3,510	2,270	1,750	582	992
4	603	398	512	3,620	722	1,530	932	3,640	2,180	2,030	765	1,050
5	579	526	534	*2,470	629	1,380	*448	3,130	2,090	*1,740	788	1,020
6	*373	528	512	1,820	582	1,560	461	2,540	2,290	1,580	920	*533
7	364	520	620	1,740	538	1,750	678	2,200	*2,810	1,500	917	61
8	593	524	*358	1,510	516	*1,060	680	2,110	3,170	1,600	826	526
9	660	514	788	1,510	*300	1,810	704	2,030	2,800	1,630	*672	781
10	590	*300	1,080	1,570	378	1,510	754	*2,060	2,430	1,450	798	710
11	534	398	1,060	1,580	519	1,530	844	2,430	2,730	1,450	804	690
12	548	494	1,350	*1,350	670	1,810	*411	2,570	2,450	*1,080	962	604
13	*335	509	1,290	1,880	667	1,640	600	2,830	2,240	1,370	796	*502
14	545	518	1,340	1,710	570	1,570	1,140	4,100	*2,770	1,420	887	622
15	814	526	*898	2,200	414	*1,280	1,170	3,650	2,850	1,390	958	599
16	756	650	742	1,780	*167	1,240	1,230	3,320	3,900	1,390	*372	568
17	722		1,120	1,820	390	1,320	1,930	*2,550	4,240	1,540	532	596
18	702		1,030	1,270	604	1,420	2,960	2,420	3,160	1,390	693	636
19	1,020		794	*869	521	1,420	*1,930	2,580	2,580	*813	670	492
20	*618		682	1,350	550	1,200	2,360	2,200	2,410	748	651	*350
21	448	650	638	1,400	590	1,070	2,350	1,960	*2,290	1,050	709	398
22	637		*644	1,250	490	*845	2,340	1,980	2,560	1,140	671	624
23	577		626	1,210	*220	690	2,360	2,080	2,580	1,090	*400	650
24	646		36	1,180	425	976	2,180	*2,160	2,330	922	588	600
25	761		1,360	1,180	624	942	2,290	2,370	2,070	830	598	596
26	697	650	2,100	*570	966	943	*2,000	3,260	1,840	*834	654	528
27	*471		1,820	772	1,360	988	1,940	3,230	1,790	848	611	*252
28	416		1,340	1,160	1,560	1,040	1,620	3,340	*1,550	972	616	422
29	617		*1,070	1,080	1,800	*612	1,770	3,050	1,630	1,030	658	612
30	568		1,300	990	-	742	1,660	2,650	1,640	1,030	*296	566
31	687	-	1,580	968	-	984	-	*2,690	-	974	375	-

Month	Observed					Gain or loss in storage in Glines Canyon Reservoir (acre-feet)	Corrected for storage		
	Discharge in second-feet			Run-off in acre-feet	Run-off in acre-feet		Discharge in second-feet		Run-off in inches
	Maxi- mum	Mini- mum	Mean				Mean	Per square mile	
October.....	1,020	364	604	37,110	-320	36,790	598	2.28	2.63
November.....	-	-	565	33,620	+1,050	34,670	583	2.23	2.49
December.....	2,100	36	921	56,650	+2,400	59,050	960	3.66	4.22
Calendar year 1935	14,200	36	1,512	1,094,000	+130	1,095,000	1,512	5.77	78.24
January.....	3,620	570	1,592	97,860	-2,550	95,310	1,550	5.92	6.82
February.....	1,800	167	635	36,520	+1,520	38,040	661	2.52	2.72
March.....	1,810	612	1,270	78,080	-2,230	75,850	1,234	4.71	5.43
April.....	2,960	411	1,435	85,380	+3,180	88,560	1,488	5.68	6.34
May.....	4,100	1,950	2,682	164,900	0	164,900	2,682	10.2	11.76
June.....	4,240	1,550	2,469	146,900	-70	146,830	2,467	9.42	10.51
July.....	2,030	748	1,279	78,650	-940	77,710	1,264	4.82	5.56
August.....	1,020	296	687	42,250	-430	41,760	679	2.59	2.99
September.....	1,050	61	617	36,710	-5,680	31,030	521	1.99	2.22
Water year 1935-36	4,240	36	1,232	894,600	-4,130	890,500	1,227	4.68	63.69

*Sunday.

DOSEWALLIPS RIVER BASIN

Dosewallips River near Brinnon, Wash.

Location.- Water-stage recorder, lat. $47^{\circ}43'$, long. $123^{\circ}0'$, in SW $\frac{1}{4}$ sec. 24, T. 26 N., R. 3 W., half a mile above Corrigena ranger station and $5\frac{1}{2}$ miles northwest of Brinnon.

Drainage area.- 109 square miles.

Records available.- October 1930 to September 1936.

Extremes.- Maximum discharge during year, 2,460 second-feet June 16 (gage height, 5.35 feet); minimum, 107 second-feet Nov. 2 (gage height, 1.97 feet).
1930-36: Maximum discharge, about 10,900 second-feet Nov. 5, 1934 (gage height, 9.57 feet) from rating curve extended above 4,500 second-feet; minimum, 88 second-feet Oct. 16, 1930 (gage height, 1.77 feet).

Remarks.- Records excellent. No diversions or regulation.

Rating table, water year 1935-36 (gage height, in feet, and discharge, in second-feet)

2.0	112	3.5	705
2.3	180	4.0	1,030
2.7	321	4.5	1,480
3.0	450	5.0	2,030

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	157	116	175	595	207	379	167	620	885	565	275	405
2	152	112	167	645	198	368	162	760	852	590	267	256
3	154	112	157	545	195	414	154	1,160	920	610	278	201
4	154	112	152	705	189	379	152	1,250	820	700	278	156
5	150	112	150	635	186	357	150	1,030	820	650	282	183
6	145	114	195	510	180	313	150	852	852	560	271	177
7	143	118	257	436	172	290	154	694	1,190	505	249	167
8	147	118	242	388	170	350	154	645	1,190	490	238	154
9	136	124	214	375	164	410	154	645	992	455	231	147
10	128	112	214	379	162	354	172	666	920	460	234	141
11	130	126	393	470	159	333	233	790	955	455	231	139
12	191	132	422	580	169	350	371	852	855	418	224	143
13	217	122	313	510	150	321	432	920	820	410	228	139
14	204	118	260	450	150	305	460	1,560	835	405	214	154
15	183	192	234	550	145	286	485	1,220	1,060	384	210	128
16	164	220	217	480	143	271	688	920	1,750	379	204	122
17	268	175	220	388	141	252	852	790	1,910	384	198	120
18	405	150	207	333	141	242	885	760	1,250	375	192	126
19	267	156	192	298	139	228	920	760	992	364	195	126
20	214	150	183	282	139	228	760	683	885	405	198	130
21	186	128	180	271	158	231	732	625	852	405	198	139
22	164	143	180	278	271	224	760	630	920	384	183	159
23	159	192	175	305	214	220	732	672	920	354	180	139
24	152	195	261	302	189	210	672	732	820	321	177	139
25	145	192	510	282	175	201	661	885	760	305	167	130
26	141	204	565	284	354	195	620	1,030	705	298	164	122
27	139	201	700	252	525	192	605	1,290	885	302	164	120
28	174	183	535	242	401	198	565	1,240	615	302	175	118
29	143	183	470	231	375	189	555	1,110	585	302	177	120
30	120	186	565	224	-	183	570	1,030	585	294	167	116
31	118	-	525	214	-	175	-	1,030	-	282	187	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acre-feet
October.....	5,350	405	118	173	1.59	1.83	10,610
November.....	4,458	220	112	149	1.37	1.53	8,840
December.....	9,230	700	150	298	2.73	3.15	18,310
Calendar year 1935	169,020	4,890	112	463	4.25	57.67	335,200
January.....	12,419	705	214	401	3.68	4.24	24,630
February.....	5,951	525	139	205	1.88	2.03	11,800
March.....	8,648	414	175	279	2.56	2.95	17,150
April.....	14,027	885	150	468	4.29	4.79	27,820
May.....	27,871	1,560	620	899	8.25	9.51	55,280
June.....	28,283	1,910	585	943	8.65	9.65	56,100
July.....	13,153	700	282	424	3.69	4.48	26,050
August.....	6,536	262	164	214	1.95	2.26	13,150
September.....	4,626	405	116	154	1.41	1.57	9,180
Water year 1935-36.....	140,632	1,910	112	384	3.52	47.99	278,900

North Fork of Skokomish River below Staircase Rapids, near Hoodsport, Wash.

Location.- Staff gage, lat. 47°31', long. 123°20', in NW¼ sec. 4, T. 23 N., R. 5 W., 2 miles above Dry Creek and 11½ miles northwest of Hoodsport.

Drainage area.- 60 square miles.

Records available.- July 1924 to September 1936.

Average discharge.- 12 years, 464 second-feet.

Extremes.- Maximum discharge during year, 2,410 second-feet June 17 (gage height, 5.32 feet); minimum, 54 second-feet Sept. 29, 30 (gage height, 1.52 feet).
1924-36: Maximum discharge, about 23,300 second-feet Nov. 5, 1934 (gage height, 14.4 feet, from floodmarks) from rating curve extended above 3,200 second-feet; minimum, 16 second-feet Sept. 23, 1930 (gage height, 1.12 feet).

Remarks.- Records good. Discharge interpolated Nov. 3. Gage read to hundredths once daily. No diversions or regulation.

Rating table, water year 1935-36 (gage height, in feet, and discharge, in second-feet)

1.5	51	3.5	810
1.7	81	4.0	1,200
2.0	138	4.5	1,640
2.3	216	5.0	2,110
2.6	321	5.5	2,630
3.0	500		

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	109	95	248	1,640	302	555	184	645	615	384	166	216
2	106	93	216	1,370	266	615	179	810	615	384	156	147
3	102	92	202	880	266	585	171	1,460	615	384	154	111
4	102	91	187	1,730	248	475	171	1,280	555	880	152	98
5	98	90	182	1,120	248	450	161	1,460	555	960	150	78
6	95	90	321	810	248	428	161	960	585	555	145	86
7	93	90	880	675	216	585	171	775	740	450	138	83
8	91	113	500	675	216	615	179	675	810	405	132	81
9	91	115	405	645	202	675	174	675	775	384	125	78
10	88	113	528	675	187	475	202	708	775	384	123	75
11	84	134	740	880	187	475	283	810	775	384	121	71
12	405	232	845	810	182	645	405	810	675	342	123	76
13	646	156	555	708	177	555	475	845	615	342	117	106
14	384	134	450	675	138	500	500	1,370	645	302	115	98
15	248	321	384	880	161	450	475	1,200	1,200	302	111	84
16	202	555	342	675	161	405	708	960	1,730	283	109	78
17	342	384	384	528	152	362	810	775	2,410	266	106	71
18	384	266	342	555	147	321	845	708	1,280	266	102	71
19	248	216	302	450	143	321	845	740	920	266	102	71
20	202	187	283	450	138	321	708	708	775	248	100	68
21	187	182	283	450	147	321	708	645	708	232	98	65
22	161	187	266	450	375	321	708	615	708	232	95	78
23	153	202	248	500	880	283	675	615	645	216	96	68
24	143	321	384	450	740	266	615	675	585	216	104	65
25	130	405	1,200	450	740	248	675	740	528	202	98	62
26	125	362	1,460	405	880	248	675	775	500	202	91	59
27	117	321	1,730	405	880	248	615	920	475	187	90	59
28	171	283	1,040	384	555	232	555	775	450	179	85	57
29	121	283	775	362	615	216	885	845	450	174	84	54
30	104	283	1,120	321	-	202	585	675	405	177	84	54
31	98	-	1,280	321	-	187	-	645	-	174	78	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acre-feet
October.....	5,626	645	84	181	3.02	3.48	11,160
November.....	6,396	555	90	213	3.55	3.96	12,590
December.....	18,082	1,730	182	583	9.72	11.21	35,870
calendar year 1935.....	170,359	6,830	75	487	7.78	105.67	337,900
January.....	21,329	1,730	321	698	11.5	13.26	42,310
February.....	10,097	880	138	348	5.80	6.26	20,030
March.....	12,585	675	187	406	6.77	7.80	24,960
April.....	14,203	845	161	473	7.88	8.79	28,170
May.....	26,299	1,460	615	848	14.1	16.26	52,160
June.....	23,119	2,410	405	771	12.6	14.26	45,860
July.....	10,382	960	174	334	5.57	6.42	20,550
August.....	3,552	168	79	115	1.92	2.21	7,050
September.....	2,487	216	54	82.2	1.37	1.55	4,890
Water year 1935-36.....	154,117	2,410	54	421	7.02	95.46	305,700

South Fork of Skokomish River near Union, Wash.

Location.- Water-stage recorder, lat. 47°20'30", long. 123°16'30", in NE¼ sec. 2, T. 21 N., R. 5 W., 5 miles above Vance Creek and 8 miles west of Union.

Drainage area.- 81 square miles.

Records available.- August 1931 to September 1936.

Extremes.- Maximum discharge during year, 5,830 second-feet Feb. 27 (gage height, 8.21 feet); minimum, 92 second-feet Sept. 30 (gage height, 4.60 feet).
1931-36: Maximum discharge, 17,000 second-feet Jan. 22, 1935 (gage height, 11.0 feet) from rating curve extended above 4,000 second-feet; minimum, 71 second-feet Oct. 11, 1932.

Remarks.- Records good except those for Jan. 21 to Feb. 23, Mar. 3-21, Sept. 10, 11, computed on basis of records for North Fork of Skokomish River below Staircase Rapids, near Hoodsport, and Wynoochee River at Oxbow, near Aberdeen, and those above 3,000 second-feet, which are poor. No diversions or regulation.

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	127	165	348	3,900	450	1,600	385	420	350	301	150	259
2	124	158	329	3,500	425	1,370	357	488	350	287	150	180
3	121	155	316	2,230	400	1,250	343	945	378	280	146	159
4	121	152	303	3,820	375	1,120	322	1,130	357	458	146	128
5	118	148	296	2,700	350	1,000	308	1,600	336	605	150	117
6	116	145	471	1,860	340	875	294	1,080	322	625	146	112
7	116	145	1,380	1,630	330	750	294	790	371	468	143	110
8	113	152	1,860	1,860	320	1,600	294	652	614	399	143	108
9	110	158	843	2,050	310	1,400	287	572	687	357	139	108
10	108	148	883	1,910	300	1,000	294	540	598	350	139	106
11	108	194	1,410	2,440	290	900	364	532	688	364	136	100
12	185	500	1,520	2,700	280	1,250	444	516	548	308	134	110
13	403	394	974	2,270	270	1,100	476	508	476	294	131	139
14	471	311	782	1,840	260	1,050	468	652	444	268	131	143
15	332	801	678	2,800	250	1,020	436	806	576	251	128	126
16	281	1,120	630	2,180	240	1,000	584	880	1,320	234	126	115
17	418	834	630	1,540	230	900	580	652	2,070	228	123	110
18	467	599	574	1,250	225	800	580	564	1,410	217	120	108
19	394	474	522	1,070	230	750	598	597	959	203	120	102
20	337	397	487	1,070	250	700	548	679	733	198	120	102
21	291	358	456	980	300	660	516	580	616	194	117	100
22	258	372	444	900	1,500	625	508	532	556	189	115	100
23	232	711	426	830	800	580	460	492	500	184	120	98
24	214	737	817	760	614	532	444	468	460	180	126	96
25	206	603	2,370	690	550	500	492	468	420	171	117	96
26	199	535	2,500	625	2,210	500	516	460	392	164	112	96
27	191	476	2,600	625	4,420	516	492	460	378	161	110	96
28	206	433	1,890	625	2,110	476	436	420	357	161	110	94
29	191	395	1,630	575	1,810	452	420	436	336	157	108	94
30	176	374	2,900	525	-	420	413	399	315	153	108	94
31	169	-	2,800	475	-	406	-	371	-	153	118	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acres-feet
October.....	6,903	471	108	223	2.75	3.17	13,690
November.....	12,144	1,120	145	405	5.00	5.58	24,090
December.....	33,304	2,900	296	1,074	13.3	15.33	66,060
Calendar year 1935.....	260,228	14,300	83	713	8.80	119.62	516,200
January.....	52,210	3,900	475	1,684	20.8	23.98	103,600
February.....	20,439	4,420	225	705	8.70	9.38	40,540
March.....	27,102	1,600	406	874	10.3	12.45	52,760
April.....	12,895	598	237	430	5.31	5.92	25,570
May.....	19,869	1,600	371	634	7.83	9.03	39,010
June.....	17,927	2,070	315	698	7.38	8.23	35,560
July.....	8,562	625	153	276	3.41	3.93	16,980
August.....	3,982	150	108	128	1.58	1.82	7,900
September.....	3,486	269	94	116	1.43	1.60	6,910
Water year 1935-36.....	218,621	4,420	94	697	7.37	100.42	433,700

Nisqually River near Alder, Wash.

Location.- Water-stage recorder, lat. $46^{\circ}46'$, long. $122^{\circ}15'$, in SW $\frac{1}{4}$ sec. 23, T. 15 N., R. 4 E., $2\frac{1}{4}$ miles southeast of Alder.

Drainage area.- 250 square miles.

Records available.- August 1931 to September 1936.

Extremes.- Maximum discharge during year, 6,230 second-feet Jan. 12 (gage height, 6.85 feet); minimum, 142 second-feet Nov. 3 (gage height, 1.31 feet).

1931-36: Maximum discharge, 25,000 second-feet Dec. 22, 1933 (gage height, 13.2 feet) from rating curve extended above 10,000 second-feet; minimum, that of Nov. 3, 1935.

Remarks.- Records excellent. No diversions or regulation. Gage-height record collected in cooperation with city of Tacoma.

Rating table, water year 1935-36 (gage height, in feet, and discharge, in second-feet)

1.3	140	3.8	1,800
1.5	191	4.2	2,000
1.7	256	4.5	2,450
2.0	374	5.0	3,010
2.3	527	5.5	3,830
2.6	715	6.0	4,700
3.0	980	6.5	5,650
3.4	1,260		

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	432	171	426	1,930	748	2,720	696	1,690	1,640	1,050	650	902
2	404	158	393	3,160	692	2,520	663	1,790	1,560	1,120	689	631
3	398	161	370	2,510	663	2,400	656	2,110	1,740	1,120	754	467
4	383	171	343	5,330	663	2,160	631	2,850	1,640	1,190	793	516
5	348	166	335	4,190	631	1,840	612	3,660	1,610	1,120	826	516
6	356	163	361	2,630	637	1,600	605	3,010	1,680	910	760	527
7	361	174	608	2,060	568	1,420	631	2,340	3,910	878	637	538
8	383	197	812	1,640	539	1,690	663	1,940	4,700	878	574	491
9	357	308	689	1,590	545	2,220	644	1,790	3,400	786	612	461
10	323	246	910	2,060	527	1,840	702	1,940	2,720	645	613	457
11	285	246	1,020	3,490	510	1,560	845	2,280	2,340	1,030	605	396
12	263	384	1,120	4,930	539	1,840	1,080	2,340	2,160	845	612	407
13	292	357	947	4,280	505	1,510	1,220	2,460	2,000	819	624	344
14	267	292	800	2,800	462	1,480	1,420	2,860	1,840	786	612	370
15	331	336	702	2,400	446	1,420	1,560	2,660	1,990	760	592	323
16	260	472	624	1,890	421	1,260	2,230	2,940	1,890	780	556	261
17	300	426	556	1,560	416	1,220	2,720	2,260	1,740	838	533	285
18	274	357	500	1,380	421	1,120	2,790	1,940	1,460	845	522	296
19	296	312	457	1,340	412	1,050	2,460	2,160	1,340	845	522	323
20	267	281	426	1,690	407	1,020	2,220	1,940	1,340	910	488	416
21	270	267	407	1,690	536	980	2,180	1,890	1,390	910	562	452
22	249	225	393	2,250	945	2,400	1,890	1,890	1,610	845	551	562
23	232	810	374	1,460	1,700	910	2,220	1,840	1,600	806	478	431
24	225	960	384	1,380	1,260	845	2,160	1,840	1,510	741	478	472
25	229	767	650	1,260	1,050	806	2,460	2,000	1,340	644	388	452
26	242	676	832	1,120	1,440	845	2,160	2,220	1,260	663	365	382
27	236	644	945	1,080	3,440	1,120	1,890	2,460	1,220	715	393	418
28	263	568	1,080	1,020	2,990	1,020	1,790	2,160	1,120	728	472	443
29	246	505	945	910	2,390	878	1,740	2,160	945	741	545	444
30	219	457	1,120	845	-	793	1,740	1,890	980	708	505	442
31	203	-	1,740	793	-	806	-	1,890	-	676	498	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acre-feet
October.....	9,194	432	203	297	1.19	1.37	18,240
November.....	11,537	980	158	378	1.51	1.88	22,490
December.....	21,272	1,740	335	686	2.74	3.16	42,190
Calendar year 1935.....	347,224	7,180	158	951	3.80	51.64	688,700
January.....	66,298	5,330	793	2,139	8.56	9.87	131,500
February.....	27,798	3,440	407	959	3.84	4.14	55,140
March.....	45,618	2,720	793	1,407	5.63	6.49	86,520
April.....	45,768	2,790	605	1,526	6.10	6.81	90,760
May.....	69,200	3,660	1,690	2,232	8.93	10.30	137,300
June.....	55,565	4,700	945	1,846	7.38	8.23	109,800
July.....	26,582	1,190	644	867	3.45	3.95	52,780
August.....	17,309	826	365	574	2.30	2.65	36,560
September.....	15,447	902	281	448	1.79	2.00	26,870
Water year 1935-36.....	407,688	5,330	158	1,114	4.46	60.65	808,700

Little Nisqually River near Alder, Wash.

Location.- Water-stage recorder, lat. 46°47'20", long. 122°18'45", in NW¼ sec. 16, T. 15 N., R. 4 E., 1,500 feet above mouth, 3,000 feet above diversion dam of Tacoma municipal power plant on Nisqually River, and 1½ miles southwest of Alder.

Drainage area.- 28.5 square miles.

Records available.- August 1920 to September 1936.

Average discharge.- 16 years, 124 second-feet.

Extremes.- Maximum discharge during year, 1,370 second-feet Jan. 12 (gage height, 4.93 feet); minimum, 6.0 second-foot Nov. 2 (gage height, 0.62 foot).
1920-36: Maximum discharge, 2,430 second-foot Dec. 20, 21, 1933 (gage height, 6.8 feet); minimum, 0.9 second-foot July 17, 1926; minimum gage height, 0.55 foot Sept. 1, 2, 1934.

Remarks.- Records excellent except those below 40 second-feet, which are fair. Discharge determined from recorded range of stage Mar. 24-27 and interpolated May 22, July 31, Aug. 16-22. No diversions or regulation. Gage-height record collected in cooperation with the city of Tacoma.

Rating tables, water year 1935-36 (gage height, in feet, and discharge, in second-feet)

Oct. 1 to Dec. 30				Dec. 31 to Sept. 30			
0.5	2.0	2.5	360	0.6	5.4	2.5	370
.7	10.4	3.0	540	.8	18	3.0	550
.9	25			1.0	38	3.5	750
1.2	54			1.2	61	4.0	960
1.5	99			1.5	107	4.5	1,185
2.0	212			2.0	221	5.0	1,420

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	8.0	11	40	639	69	461	67	107	74	40	17	32
2	7.5	9.8	35	781	62	425	64	115	78	39	17	32
3	7.5	11	33	525	60	397	61	136	100	44	17	13
4	9.2	12	31	1,140	59	300	57	230	97	50	16	15
5	9.2	12	29	690	57	232	56	477	88	45	15	14
6	8.6	12	42	373	57	190	55	360	89	40	14	13
7	8.0	12	142	288	51	161	60	245	381	39	14	11
8	7.5	14	173	291	50	258	67	180	531	36	14	10
9	7.0	24	135	303	49	354	68	145	324	35	13	10
10	7.0	18	180	449	47	254	87	132	218	38	12	9.8
11	7.0	29	243	870	45	200	141	128	163	47	11	9.8
12	17	75	299	1,140	47	221	198	118	126	39	11	11
13	20	57	200	836	41	203	224	124	105	37	11	17
14	33	45	137	494	42	200	218	168	98	34	11	22
15	38	70	105	418	39	188	208	177	100	30	11	17
16	28	94	87	322	39	161	262	237	113	28	11	14
17	24	90	73	232	39	147	268	178	113	25	11	12
18	22	70	62	185	38	130	243	139	100	24	11	12
19	21	55	55	165	38	116	195	154	88	23	10	11
20	20	47	49	192	38	109	165	147	80	22	10	11
21	22	42	45	192	53	109	168	143	72	22	10	10
22	19	45	42	178	779	104	172	130	65	22	10	9.8
23	17	243	39	175	444	95	149	118	60	22	10	9.8
24	16	240	46	163	251	88	156	105	56	22	17	9.2
25	15	147	72	141	180	81	195	95	51	20	10	8.6
26	14	99	120	122	314	97	152	88	49	20	9.8	8.6
27	14	78	204	109	924	134	126	82	49	19	9.2	8.6
28	19	62	246	97	722	111	120	75	49	17	9.2	8.6
29	17	52	173	87	475	92	124	88	44	17	9.2	8.0
30	14	45	350	80	-	80	115	76	42	17	8.6	8.0
31	13	-	531	74	-	74	-	74	-	17	9.2	-
Month				Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off			
									Inches	Acres-feet		
October.....				489.5	38	7.0	15.8	0.554	0.64	971		
November.....				1,820.8	243	9.8	60.7	2.13	2.38	3,610		
December.....				4,018	531	29	130	4.56	5.26	7,970		
Calendar year 1935.....				35,972.2	1,650	4.4	98.6	3.46	46.94	71,350		
January.....				11,751	1,140	74	379	13.3	15.33	23,310		
February.....				5,109	924	38	176	6.18	6.66	10,130		
March.....				5,762	461	74	186	6.53	7.53	11,430		
April.....				4,241	268	55	141	4.95	5.52	8,410		
May.....				4,751	477	74	153	5.37	6.19	9,420		
June.....				3,693	531	42	120	4.21	4.70	7,150		
July.....				929	50	17	30.0	1.05	1.21	1,840		
August.....				369.2	17	8.6	11.9	.418	.48	732		
September.....				390.8	32	8.0	13.0	.456	.51	775		
Water year 1935-36.....				43,234.3	1,140	7.0	118	4.14	56.41	85,750		

Puyallup River near Orting, Wash.

Location.- Water-stage recorder, lat. 47°2'30", long. 122°12'20", in SW $\frac{1}{4}$ sec. 17, T. 18 N., R. 5 E., 4 miles south of Orting.

Drainage area.- 154 square miles.

Records available.- September 1931 to September 1936.

Extremes.- Maximum discharge during year, 4,850 second-feet June 7 (gage height, 6.95 feet); minimum discharge, 92 second-feet Sept. 14; minimum gage height, 3.52 feet Nov. 3.

1931-36: Maximum discharge, not determined, occurred Dec. 9 or 10, 1933; minimum, 86 second-feet Oct. 19, 1935, result of regulation; minimum daily discharge, 147 second-feet Sept. 16, 17, 1936.

Remarks.- Records fair except those for Aug. 4-24, determined by comparison with record for Carbon River near Fairfax and White River at Greenwater, which are poor. Water diverted for Electron plant of Puget Sound Power & Light Co. returned to river above gage. Slight regulation is due to pondage in connection with Electron power plant.

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	437	168	267	597	339	1,500	413	728	1,110	579	469	700
2	399	166	267	992	317	1,220	385	856	1,110	700	538	560
3	371	161	255	944	312	1,150	378	1,080	1,220	720	720	490
4	371	171	252	2,200	312	992	371	1,720	1,160	720	848	455
5	357	166	252	1,940	306	824	371	1,940	1,100	588	800	441
6	350	174	263	1,190	312	704	371	1,420	1,160	615	675	406
7	322	185	317	944	287	597	413	1,160	3,550	554	555	357
8	350	199	413	800	300	848	446	922	3,600	588	430	300
9	295	297	344	716	287	1,100	428	920	2,290	680	460	272
10	287	208	350	836	279	848	454	1,000	1,750	793	455	250
11	252	230	339	1,260	279	728	562	1,240	1,600	918	445	229
12	275	279	373	1,640	283	872	728	1,240	1,490	680	440	229
13	241	248	322	1,660	263	788	800	1,360	1,350	633	460	165
14	248	227	267	1,200	263	728	836	1,900	1,230	597	470	184
15	267	230	263	1,140	255	668	860	1,600	1,260	546	440	161
16	238	271	259	956	248	586	1,200	1,720	1,340	579	420	147
17	283	265	252	812	241	574	1,350	1,220	1,350	579	420	147
18	263	234	241	692	244	496	1,310	1,060	882	633	420	177
19	238	220	234	728	234	462	1,100	1,360	859	760	400	245
20	214	217	224	1,060	238	454	980	1,060	793	720	420	283
21	227	220	217	968	259	454	1,000	1,090	804	514	440	277
22	244	238	217	836	1,120	428	1,140	1,090	894	476	370	272
23	220	406	214	788	956	406	1,030	1,000	1,030	700	340	211
24	199	454	224	680	656	371	1,060	1,030	870	615	360	261
25	199	378	300	574	540	364	1,310	1,160	930	483	294	225
26	205	379	378	488	656	413	1,090	1,390	870	462	288	184
27	202	385	339	471	1,180	836	992	1,780	782	522	294	197
28	227	334	406	454	1,430	680	836	1,460	700	530	300	229
29	208	300	317	413	1,240	562	764	1,600	579	562	320	206
30	190	279	317	385	-	488	740	1,350	597	538	310	239
31	179	-	692	364	-	454	-	1,260	-	476	310	-
Month				Maximum	Minimum	Mean	Per square mile	Run-off				
				foot-days				Inches	Acres	feet		
October.....				8,378	437	179	270	1.75	2.02	16,620		
November.....				7,668	454	161	256	1.66	1.95	15,210		
December.....				9,400	692	214	303	1.97	2.27	18,640		
Calendar year 1935.....				200,672	3,370	161	550	3.57	48.42	397,800		
January.....				28,728	2,200	364	927	6.02	6.94	56,980		
February.....				13,636	1,430	234	470	3.05	3.29	27,050		
March.....				21,595	1,500	364	697	4.55	5.22	42,830		
April.....				23,718	1,350	371	791	5.14	5.74	47,040		
May.....				39,756	1,940	728	1,282	8.32	9.59	78,850		
June.....				38,520	3,600	579	1,275	8.28	9.24	75,890		
July.....				19,060	918	462	615	3.99	4.60	37,800		
August.....				13,911	848	288	449	2.92	3.37	27,590		
September.....				8,499	700	147	283	1.84	2.05	16,860		
Water year 1935-36.....				232,609	3,600	147	636	4.13	56.18	461,400		

Puyallup River at Puyallup, Wash.

Location.- Water-stage recorder, lat. 47°12'20", long. 122°19'30", in NE¼ sec. 20, T. 20 N., R. 4 E., 1 mile northwest of Puyallup. Zero of gage is at mean sea level (general adjustment of 1929). Prior to Oct. 1, 1935, water-stage recorder at site 500 feet above, datum 9.81 feet higher.

Drainage area.- 914 square miles.

Records available.- May 1914 to September 1936.

Average discharge.- 22 years, 3,302 second-feet.

Extremes.- Maximum discharge during year, 14,000 second-feet June 8 (gage height, 16.49 feet); minimum daily discharge (estimated), 500 second-feet Nov. 3.

1914-36: Maximum discharge, about 57,000 second-feet Dec. 10, 1933 (gage height, 31.0 feet, present datum); minimum, probably below 350 second-feet Nov. 24, 28, Dec. 1, 3-5, 1929, caused by regulation.

Remarks.- Records good except those for Oct. 1 to Nov. 8, computed on basis of occasional staff readings, record of discharge through Dieringer power plant, and records of tributaries, which are poor. All diversions returned to river above gage. Beginning with records for October 1934, monthly discharge has been corrected for regulation of large part of flow of White River in Lake Tapps. Results of Lake Tapps storage regulation and records of flow through Dieringer power plant furnished by Puget Sound Power & Light Co. Some pondage on upper Puyallup River and other tributaries.

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,800	800	*1,040	2,320	2,510	*5,980	2,580	4,300	5,860	3,070	2,530	2,790
2	1,550	700	1,440	3,920	*2,010	5,560	4,220	5,660	5,180	3,240	*1,960	2,870
3	1,750	*800	1,480	4,380	2,570	5,500	2,490	*4,780	6,520	3,530	3,020	2,250
4	1,500	750	1,500	7,630	2,670	4,750	2,180	7,520	6,490	2,630	3,230	2,160
5	2,000	700	1,400	*10,300	2,640	3,730	*1,500	9,390	5,690	*3,260	3,280	2,020
6	*1,000	700	1,410	6,440	2,660	3,110	2,040	7,360	5,470	3,610	3,070	*1,590
7	1,650	700	1,280	4,630	2,840	2,690	2,190	5,930	*9,590	3,370	2,810	1,370
8	1,700	900	*1,530	3,420	2,580	*2,820	1,970	6,040	12,900	3,200	2,400	1,950
9	1,650	1,210	1,640	3,000	*1,670	5,400	1,820	5,890	9,770	3,060	*1,680	2,080
10	1,500	*974	1,650	3,200	2,230	4,380	1,880	*5,560	7,960	3,430	2,780	2,110
11	1,250	1,190	1,700	5,460	2,250	3,630	1,860	7,560	7,170	3,910	2,820	2,060
12	1,150	1,520	1,630	*5,980	2,120	4,200	*2,160	7,940	6,860	*3,840	2,800	1,900
13	*720	1,540	1,520	7,240	2,140	3,900	3,420	8,360	5,820	3,600	2,930	*1,510
14	1,150	1,390	1,610	5,520	2,190	3,490	4,030	9,920	*5,840	3,250	2,970	1,900
15	1,050	1,390	*1,240	5,140	2,050	*3,150	4,140	9,500	6,360	3,300	2,610	1,800
16	1,100	1,450	1,450	4,340	*1,540	3,190	5,520	9,080	6,180	3,250	*1,670	1,610
17	1,000	*1,200	1,430	3,660	2,070	3,680	7,580	*6,640	6,620	3,300	2,630	1,750
18	1,050	1,450	1,430	3,100	1,890	3,380	7,440	6,000	5,470	2,950	2,660	1,790
19	870	1,400	1,440	*2,630	1,820	3,200	*5,750	7,150	4,910	*2,670	2,660	1,580
20	*700	1,350	1,390	5,820	1,930	3,060	5,730	6,470	4,440	3,540	2,680	*1,340
21	1,100	1,300	1,220	5,910	1,990	2,690	5,500	6,020	*4,350	3,580	2,490	1,970
22	1,100	1,340	*997	4,700	3,870	*2,000	6,470	5,590	5,020	3,410	2,250	2,130
23	1,050	1,420	1,370	4,080	*3,530	2,590	5,950	4,990	4,870	3,160	*1,530	1,990
24	1,050	*1,650	1,330	3,670	2,940	2,510	5,860	*4,220	5,100	3,080	2,070	2,050
25	950	1,880	1,240	2,960	2,520	2,640	5,620	6,090	2,610	1,920	2,060	2,060
26	850	1,890	1,840	*2,400	3,080	2,840	*5,330	6,670	5,660	*1,940	1,990	1,740
27	*600	1,830	1,960	3,080	5,150	3,870	5,440	7,680	5,330	2,820	2,150	*1,240
28	1,280	1,260	1,910	3,120	7,050	3,630	4,790	7,520	*3,280	2,990	2,210	1,740
29	1,000	1,410	*1,480	2,770	4,790	*2,790	4,380	7,320	3,080	3,020	2,040	1,910
30	1,050	1,350	1,800	2,780	-	2,990	4,160	5,650	2,940	3,030	*1,520	1,770
31	950	-	2,610	2,710	-	2,780	-	*5,160	-	2,940	2,200	-

Month	Observed				Gain or loss in storage in Lake Tapps (acre-feet)	Corrected for storage			
	Discharge in second-feet			Run-off in acre-feet		Run-off in acre-feet	Discharge in second-feet		Run-off in inches
	Maximum	Minimum	Mean				Mean	Per square mile	
October.....	2,000	600	1,193	73,370	-13,780	59,590	969	1.06	1.22
November.....	1,890	500	1,238	73,690	+4,960	78,650	1,322	1.45	1.62
December.....	2,610	997	1,499	92,170	+3,680	96,750	1,557	1.70	1.96
Calendar year 1935	22,100	500	2,831	2,050,000	-27,680	2,022,000	2,793	3.06	41.49
January.....	10,300	2,320	4,396	270,300	+23,550	293,800	4,778	5.23	6.03
February.....	7,050	1,540	2,734	157,300	-28,920	128,400	2,232	2.44	2.63
March.....	5,980	2,000	3,540	217,600	+10,330	227,900	3,706	4.05	4.67
April.....	7,580	1,500	4,115	244,900	+17,490	262,400	4,410	4.82	5.38
May.....	9,920	4,220	6,647	408,700	+2,070	410,800	6,681	7.31	8.43
June.....	12,900	2,940	6,061	360,700	-140	360,600	6,060	6.63	7.40
July.....	3,910	1,940	3,191	198,200	+2,070	198,300	3,225	3.53	4.07
August.....	3,280	1,520	2,438	149,900	-13,640	136,300	2,217	2.43	2.80
September.....	2,870	1,240	1,909	113,600	-17,350	96,250	1,618	1.77	1.98
Water year 1935-36	12,900	500	3,249	2,358,000	-9,780	2,349,000	3,235	3.54	48.19

*Sunday.

Carbon River near Fairfax, Wash.

Location.- Water-stage recorder, lat. 47°1'30", long. 122°2'0", in SW $\frac{1}{4}$ sec. 22, T. 18 N., R. 6 E., 1 $\frac{1}{4}$ miles northwest of Fairfax.

Drainage area.- 32 square miles.

Records available.- March 1929 to September 1936. November 1910 to July 1912 at station 1 $\frac{1}{4}$ miles upstream.

Extremes.- Maximum discharge during year, 2,550 second-feet June 7 (gage height, 4.51 feet); minimum, 81 second-feet Nov. 2 (gage height, 0.81 foot).
1910-12, 1929-36: Maximum discharge, about 8,030 second-feet Dec. 9, 1933 (gage height, 10.2 feet) from rating curve extended above 500 second-feet; minimum (estimated), 40 second-feet Jan. 20, 1930 (stage-discharge relation affected by ice).

Remarks.- Records fair. Some water diverted for use in lumber industry but returned to river above gage.

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	163	90	172	468	182	670	176	556	733	517	314	495
2	157	87	163	712	167	574	167	640	733	534	330	403
3	151	84	151	604	163	592	163	761	782	604	372	286
4	151	84	143	1,420	163	495	157	1,060	775	604	382	259
5	153	83	137	1,140	153	410	155	1,020	768	562	400	270
6	151	84	139	684	147	354	159	761	852	465	359	247
7	145	88	176	528	135	310	178	640	2,110	455	306	229
8	139	120	193	445	131	459	137	574	1,740	435	282	200
9	139	182	180	400	131	580	189	586	1,180	425	302	182
10	131	139	240	474	122	435	217	705	1,010	534	294	172
11	124	175	240	775	118	377	333	859	928	628	282	157
12	118	202	236	761	126	405	450	866	896	495	286	165
13	118	174	208	761	110	364	512	944	866	460	310	147
14	133	165	193	598	115	334	568	1,200	810	435	306	145
15	139	165	182	534	112	298	598	1,060	824	400	274	137
16	124	157	172	440	112	278	824	1,120	852	430	252	128
17	172	145	165	377	110	278	928	817	831	450	243	126
18	145	133	159	334	106	251	904	761	691	440	247	124
19	155	124	147	397	103	232	747	976	622	450	243	130
20	145	117	143	652	103	226	664	761	634	465	270	139
21	145	113	141	580	122	232	691	789	652	475	274	153
22	129	127	137	495	316	225	775	817	733	450	240	193
23	117	272	133	466	240	214	712	775	754	420	205	240
24	110	352	143	405	193	202	761	796	747	372	232	217
25	108	282	214	354	180	193	904	896	698	334	191	193
26	106	282	342	306	228	252	740	1,020	664	330	184	159
27	103	270	315	286	453	322	658	1,100	634	346	200	149
28	138	229	330	262	500	255	586	984	544	350	217	153
29	122	202	266	226	515	220	550	960	470	359	232	155
30	108	184	301	211	-	198	544	845	49	350	217	147
31	102	-	480	193	-	184	-	810	-	342	220	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acre-feet
October.....	4,140	172	102	134	1.63	1.88	8,210
November.....	4,891	352	83	163	1.99	2.22	9,700
December.....	6,541	480	133	205	2.50	2.88	12,580
Calendar year 1935.....	123,337	2,040	83	338	4.12	55.97	244,600
January.....	16,287	1,420	193	525	6.40	7.38	32,300
February.....	5,354	515	103	185	2.28	2.44	10,620
March.....	10,417	670	184	336	4.10	4.73	20,660
April.....	15,197	928	155	507	6.18	6.90	30,140
May.....	26,459	1,200	556	854	10.4	11.99	52,480
June.....	25,028	2,110	470	834	10.2	11.38	49,640
July.....	13,936	628	330	450	5.49	6.33	27,640
August.....	8,466	400	184	273	3.33	3.84	16,790
September.....	5,890	485	124	196	2.39	2.67	11,680
Water year 1935-36.....	142,406	2,110	83	389	4.74	64.64	282,400

White River at Greenwater, Wash.

Location.- Water-stage recorder, lat. 47°6'50", long. 121°38'50", in SE¼ sec. 10, T. 19 N., R. 9 E., three-quarters of a mile southeast of Greenwater and above mouth of Greenwater River.

Drainage area.- 216 square miles.

Records available.- March 1929 to September 1936. September 1911 to May 1912 fragmentary, for a station 2 miles above, published as White River near Enumclaw, Wash.

Extremes.- Maximum discharge during year, 2,470 second-feet May 14, June 7 (gage height, 4.59 feet); minimum, 120 second-feet Nov. 2 (gage height, 1.69 feet).
1911-12, 1929-36: Maximum discharge, 12,100 second-feet Dec. 21, 1933 (gage height, 9.38 feet); minimum, that of Nov. 2, 1935.

Remarks.- Records good. No diversions or regulation.

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	416	164	217	508	293	857	329	1,290	1,800	1,070	734	832
2	398	160	213	782	261	854	313	1,440	1,440	1,110	776	622
3	398	193	213	666	275	902	308	1,600	1,540	1,000	832	566
4	404	213	213	1,180	288	790	298	1,830	1,440	1,140	892	587
5	404	205	213	1,280	284	680	293	1,890	1,390	1,030	876	622
6	398	205	214	820	275	638	288	1,600	1,540	932	797	601
7	368	213	261	688	247	582	284	1,340	2,200	916	713	566
8	392	221	284	589	247	775	284	1,240	2,070	884	685	524
9	356	256	261	535	284	1,000	284	1,240	1,950	846	713	475
10	315	221	293	576	261	812	308	1,390	1,830	900	706	440
11	300	221	298	738	247	702	443	1,710	1,830	916	699	428
12	315	243	303	820	247	695	631	1,890	1,830	811	692	410
13	285	230	275	902	222	652	834	2,010	1,770	832	713	356
14	295	209	261	724	222	610	1,000	2,400	1,710	804	720	326
15	285	217	252	652	222	562	1,120	2,200	1,770	762	664	305
16	266	221	243	569	214	521	1,540	1,950	1,710	804	636	290
17	261	209	239	515	210	508	1,830	1,600	1,660	868	636	295
18	256	197	231	469	247	469	1,890	1,490	1,590	858	629	326
19	280	201	218	476	261	443	1,660	1,830	1,290	916	608	344
20	261	189	206	631	235	450	1,540	1,540	1,530	856	636	366
21	270	189	206	656	256	475	1,600	1,390	1,400	940	657	404
22	243	197	206	603	412	443	1,770	1,340	1,550	924	580	517
23	234	280	206	562	329	425	1,660	1,340	1,680	853	531	461
24	234	295	218	515	279	400	1,600	1,390	1,550	776	580	468
25	234	261	318	469	261	378	1,600	1,660	1,390	741	496	416
26	234	256	344	425	284	406	1,490	1,950	1,330	741	496	374
27	234	248	361	419	469	437	1,390	2,330	1,140	762	559	392
28	266	238	363	383	535	412	1,290	2,260	1,080	790	601	398
29	238	230	339	344	603	383	1,240	2,010	988	804	608	398
30	221	221	344	334	-	355	1,240	1,830	1,040	790	552	398
31	213	-	508	313	-	344	-	1,830	-	755	545	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acres-feet
October.....	9,274	416	213	299	1.36	1.59	18,390
November.....	6,603	295	160	220	1.02	1.14	13,100
December.....	8,341	508	206	269	1.25	1.44	16,540
Calendar year 1935.....	271,052	4,000	160	743	3.44	46.66	537,600
January.....	19,152	1,280	313	618	2.86	3.30	37,990
February.....	8,470	803	210	292	1.35	1.46	16,800
March.....	17,940	1,000	344	579	2.68	3.09	35,580
April.....	30,357	1,890	284	1,012	4.69	5.25	60,210
May.....	62,610	2,400	1,240	1,704	7.69	9.10	104,700
June.....	46,438	2,200	988	1,548	7.17	8.00	92,110
July.....	27,321	1,140	741	881	4.06	4.70	54,190
August.....	20,562	892	496	663	3.07	3.54	40,780
September.....	13,527	832	290	451	2.09	2.33	26,830
Water year 1935-36.....	260,795	2,400	160	713	3.30	44.92	517,200

Greenwater River at Greenwater, Wash.

Location.— Water-stage recorder, lat. 47°9'15", long. 121°38'0", in NW¼ sec. 11, T. 19 N., R. 9 E., 1 mile above mouth and 1 mile east of Greenwater.

Drainage area.— 75 square miles.

Records available.— September 1911 to August 1912 (fragmentary), May 1929 to September 1936.

Extremes.— Maximum discharge during year, 840 second-feet May 5 (gage height, 4.48 feet); minimum, 30 second-feet Oct. 11 (gage height, 2.13 feet).
1911-12, 1929-36: Maximum discharge, 4,140 second-feet Dec. 9, 1933 (gage height, 9.24 feet, former site and datum); minimum, 23 second-feet Oct. 7, 1934 (gage height, 2.06 feet).

Remarks.— Records excellent except those for discharges above 1,000 second-feet, which are fair. Stage-discharge relation affected by ice Feb. 8-10, 14-17. No diversions or regulation.

Rating tables, water year 1935-36 (gage height, in feet, and discharge, in second-feet)

Oct. 1 to Jan. 4

Jan. 5 to Sept. 30

2.0	18	2.8	129	2.2	38	3.0	169
2.2	38	3.0	174	2.4	58	3.5	355
2.4	64	3.5	371	2.6	89	4.0	585
2.6	94			2.8	126	4.5	840

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	32	34	54	122	94	259	105	535	499	162	71	59
2	31	32	51	218	89	286	98	585	481	156	71	56
3	32	31	48	192	86	360	96	630	550	161	69	50
4	35	32	46	344	82	324	93	735	522	149	68	48
5	36	32	43	476	80	262	89	812	481	149	66	46
6	34	32	43	278	77	229	87	710	450	141	65	44
7	32	34	57	192	71	198	87	605	522	132	62	43
8	32	41	70	154	69	259	87	530	550	126	61	43
9	31	60	67	136	66	409	87	499	535	124	59	42
10	31	50	72	149	65	333	103	522	512	124	59	42
11	31	48	75	212	64	270	156	610	486	134	56	42
12	36	55	75	222	64	243	248	680	458	130	56	42
13	38	54	68	290	61	225	364	710	432	120	56	42
14	37	48	65	218	58	201	445	785	409	116	54	45
15	39	50	61	172	57	184	486	760	396	113	54	45
16	39	48	59	147	56	167	685	710	568	107	52	43
17	39	46	55	126	55	162	785	630	351	103	51	42
18	37	42	52	115	55	149	785	580	320	100	51	41
19	43	39	50	122	54	143	685	635	290	98	51	40
20	50	37	48	282	61	143	635	595	278	96	49	40
21	54	36	47	320	50	151	680	550	266	93	49	39
22	48	37	47	251	52	147	735	525	247	91	48	42
23	41	59	46	222	57	141	685	504	240	87	49	40
24	39	71	80	198	54	132	660	490	225	86	66	39
25	41	64	68	172	61	126	735	512	215	84	55	38
26	41	65	72	154	57	134	710	555	205	82	50	37
27	39	72	72	143	85	147	635	615	198	80	48	36
28	54	68	77	130	124	143	585	625	192	79	47	35
29	50	63	74	116	144	128	535	625	181	77	46	35
30	41	68	72	109	-	118	512	570	169	74	45	35
31	37	-	110	103	-	130	-	530	-	72	46	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acre-feet
October.....	1,200	54	31	38.7	0.616	0.59	2,380
November.....	1,438	72	31	47.9	.639	.71	2,850
December.....	1,894	110	43	61.1	.815	.94	3,760
Calendar year 1935.....	67,982	1,230	31	186	2.48	33.71	134,800
January.....	6,085	476	103	196	2.61	3.01	12,070
February.....	2,038	144	50	70.3	.937	1.01	4,040
March.....	6,303	409	118	203	2.71	3.12	12,500
April.....	12,658	785	87	422	5.63	6.28	25,110
May.....	18,950	812	490	611	8.15	9.40	37,590
June.....	11,028	550	169	368	4.91	5.48	21,870
July.....	3,436	162	72	111	1.48	1.71	6,820
August.....	1,729	71	45	55.8	.744	.86	3,430
September.....	1,271	59	35	42.4	.565	.63	2,520
Water year 1935-36.....	68,030	812	31	186	2.48	33.74	134,900

Green River near Palmer, Wash.

Location.- Water-stage recorder, lat. 47°17'40", long. 121°49'20", in SW¼NW¼ sec. 20, T. 21 N., R. 8 E., 1½ miles above intake of Tacoma water-supply system and 4 miles southeast of Palmer.

Drainage area.- 231 square miles.

Records available.- October 1931 to September 1936.

Extremes.- Maximum discharge during year, 7,080 second-feet Jan. 4 (gage height, 12.37 feet); minimum, 107 second-feet Oct. 10, 11 (gage height, 4.54 feet).
1931-36: Maximum discharge, 33,600 second-feet Dec. 9, 1933 (gage height, 19.4 feet); minimum discharge, 81 second-feet Sept. 4, 5, 1934: minimum gage height, 4.00 feet Sept. 4, 1933.

Remarks.- Records excellent except those for Oct. 1-9, 18-29, computed on basis of records for South Fork of Snoqualmie River at North Bend, which are poor, and those for period of doubtful gage height, Feb. 13-18, which are fair. No diversions or regulation.

Rating table, water year 1935-36 (gage height, in feet, and discharge, in second-feet)

4.5	95	6.5	1,120	9.5	3,260
4.7	162	7.0	1,420	10.0	3,860
4.9	260	7.5	1,720	10.5	4,460
5.2	410	8.0	2,040	11.0	5,060
5.5	570	8.5	2,390	11.5	5,720
6.0	845	9.0	2,760		

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	115	186	493	2,310	702	2,760	696	2,040	1,270	435	200	265
2	115	172	460	3,820	647	2,600	664	2,250	1,270	420	186	235
3	115	167	420	2,850	625	3,380	636	2,460	1,540	440	176	196
4	115	162	395	4,440	603	2,740	614	2,680	1,480	450	167	167
5	115	158	370	5,170	586	2,180	608	3,150	1,530	445	162	158
6	110	154	360	2,820	576	1,840	614	2,600	1,240	415	158	147
7	110	154	466	2,110	537	1,600	674	2,180	1,760	390	156	139
8	110	210	570	1,720	526	2,310	818	1,900	2,180	380	158	135
9	110	325	620	1,480	526	3,150	845	1,780	1,970	375	162	128
10	107	295	845	1,540	526	2,390	982	1,970	1,720	400	154	128
11	107	320	900	2,180	520	1,970	1,540	2,320	1,540	435	151	128
12	128	445	872	2,320	466	1,970	1,900	2,320	1,590	380	151	139
13	132	435	762	2,530	425	1,640	2,320	2,460	1,240	360	147	147
14	147	390	669	2,040	415	1,720	2,390	2,600	1,150	345	162	210
15	162	415	603	1,780	410	1,540	2,460	2,460	1,180	330	162	215
16	158	498	559	1,480	410	1,390	3,380	2,680	1,060	305	154	186
17	151	471	515	1,270	405	1,270	3,860	2,180	1,040	285	151	167
18	170	415	476	1,090	400	1,150	3,740	1,900	965	275	143	164
19	190	375	450	1,420	395	1,060	3,050	2,460	845	260	135	147
20	210	345	420	3,380	400	1,060	2,680	2,180	790	250	135	147
21	220	320	405	2,870	400	1,120	2,760	2,390	762	240	132	143
22	210	320	395	2,180	435	1,060	3,050	2,600	718	230	139	172
23	195	445	375	1,840	410	982	2,680	2,320	686	225	154	162
24	175	608	400	1,600	375	900	2,530	2,040	642	220	196	147
25	160	603	498	1,420	370	818	2,950	2,040	598	215	181	143
26	160	652	586	1,240	731	1,040	2,680	2,110	559	210	158	135
27	160	735	734	1,120	2,090	1,360	2,390	2,180	548	205	151	132
28	280	696	1,120	962	2,320	1,090	2,110	1,970	520	200	147	128
29	295	614	928	872	2,090	928	1,970	1,720	482	220	139	128
30	230	554	900	818	-	845	1,970	1,480	455	225	139	128
31	210	-	2,270	762	-	762	-	1,530	-	210	147	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acres-foot
October.....	4,972	295	107	160	0.693	0.80	9,860
November.....	11,639	735	154	388	1.68	1.87	23,090
December.....	19,836	2,270	360	640	2.77	3.19	39,340
Calendar year 1935.....	305,847	10,000	107	838	3.63	49.25	606,600
January.....	63,254	5,170	762	2,040	8.83	10.18	125,500
February.....	19,321	2,320	370	665	2.88	3.11	38,320
March.....	50,825	3,380	752	1,640	7.10	8.19	100,800
April.....	59,561	3,860	608	1,985	9.59	9.58	118,100
May.....	68,950	3,150	1,330	2,224	9.63	11.10	136,800
June.....	32,920	2,180	455	1,097	4.75	5.30	65,300
July.....	9,775	450	200	315	1.36	1.57	19,390
August.....	4,855	200	132	157	.680	.78	9,630
September.....	4,756	265	128	159	.688	.77	9,430
Water year 1935-36.....	350,664	5,170	107	958	4.15	56.44	695,600

Cedar River at Cedar Falls, Wash.

Location.- Water-stage recorder, lat. 47°25'10", long. 121°47'20", in sec. 4., T. 22 N., R. 8 E., three-quarters of a mile below Seattle municipal power plant at Cedar Falls.

Drainage area.- 83 square miles.

Records available.- April 1914 to September 1936.

Average discharge.- 22 years, 308 second-feet.

Extremes.- Maximum discharge during year, 1,940 second-feet May 16 (gage height, 7.96 feet); minimum, 41 second-feet Dec. 4, result of regulation.

1914-36: Maximum discharge, 6,290 second-feet Dec. 19, 1917; maximum gage height, 11.5 feet Dec. 22, 1933; no flow Nov. 25, 1917, Aug. 18, 1923, result of regulation.

Remarks.- Records excellent. All diversions returned to river above gage. Flow partly regulated in Cedar Lake Reservoir for power-plant operation. Gage-height record collected in cooperation with city of Seattle, which furnished some discharge measurements.

Rating table, water year 1935-36 (gage height, in feet, and discharge, in second-feet)

5.0	45	6.5	540
5.5	125	7.0	980
6.0	295	7.5	1,480

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

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	64	58	65	436	524	525	291	219	548	204	108	70
2	65	57	61	478	516	596	169	160	490	227	101	62
3	72	58	62	558	474	595	219	246	483	212	148	60
4	64	56	61	460	490	588	211	229	437	223	119	63
5	59	56	64	481	472	560	224	254	433	129	134	60
6	58	56	60	484	487	504	205	270	424	208	129	62
7	59	56	60	484	393	402	219	334	546	210	116	60
8	60	62	61	560	222	435	200	362	595	190	98	60
9	58	60	61	570	177	357	225	393	632	188	76	59
10	59	63	74	534	164	411	268	566	636	194	106	60
11	60	64	94	501	154	414	245	434	596	147	122	62
12	66	67	106	660	125	369	202	508	539	184	122	64
13	66	69	122	516	190	374	206	577	448	216	132	62
14	68	62	75	527	170	310	198	692	512	172	148	70
15	65	68	96	496	145	327	177	831	448	198	98	66
16	70	70	80	522	182	358	180	1,170	433	194	84	64
17	60	68	122	500	222	350	192	1,400	420	183	132	66
18	65	65	130	500	153	369	134	1,150	378	204	137	61
19	62	62	116	598	222	357	94	1,100	367	150	75	64
20	82	63	161	581	206	383	199	1,020	402	184	79	61
21	74	64	128	548	215	306	208	1,020	224	171	84	66
22	88	88	74	552	224	332	244	1,110	256	154	76	63
23	63	64	96	540	187	381	224	1,120	242	162	76	60
24	60	64	92	532	191	362	225	994	241	156	78	62
25	56	66	103	480	214	360	205	940	235	104	72	60
26	58	66	96	472	274	385	194	932	233	91	71	62
27	62	69	187	542	288	396	180	928	315	161	67	60
28	72	74	185	516	437	348	212	866	226	166	64	60
29	74	68	244	530	558	424	208	768	222	136	70	67
30	68	66	252	534	-	362	199	564	205	129	74	60
31	60	-	350	546	-	369	-	821	-	133	72	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acres-feet
October.....	1,998	88	56	64.5			3,960
November.....	1,929	88	56	64.3			3,830
December.....	3,537	350	60	114			7,020
Calendar year 1935.....	88,551	2,970	42	242	2.92	39.64	175,300
January.....	16,238	660	436	524			32,210
February.....	8,266	558	125	285			16,400
March.....	12,629	596	306	407			25,050
April.....	6,155	291	94	205			12,210
May.....	22,056	1,400	180	711			43,750
June.....	12,216	636	205	407			24,230
July.....	5,380	227	91	174			10,670
August.....	3,068	148	64	99.0			6,090
September.....	1,876	70	59	62.5			3,720
Water year 1935-36.....	95,548	1,400	56	261	3.14	42.74	189,100

Cedar River near Landsberg, Wash.

Location.- Water-stage recorder, lat. 47°23'35", long. 121°56'50", in sec. 17, T. 22 N., R. 7 E., 1½ miles above intake of Seattle water-supply system at Landsberg.

Drainage area.- 136 square miles.

Records available.- April 1914 to September 1936. Staff gage 2 miles downstream July 1895 to September 1898, staff gage at water-supply intake March 1901 to April 1912; monthly discharge August 1895 to April 1912, May 1914 to September 1933, published in State Water-Supply Bulletin no. 5. All records comparable.

Average discharge.- 38 years (1895-1911, 1914-36), 708 second-feet.

Extremes.- Maximum discharge during year, 1,900 second-feet May 17 (gage height, 3.44 feet); minimum, 228 second-feet Nov. 7 (gage height, 0.93 foot).

1895-98, 1901-12, 1914-36: Maximum discharge observed, 13,600 second-feet Nov. 19, 1911 (gage height, 9.7 feet, former site and datum); minimum discharge, 83 second-feet Sept. 19, 1898.

Remarks.- Records excellent. All diversions except Rock Creek returned to river above station. Rock Creek entering naturally just above gage has been diverted to a point below municipal water-supply intake to lessen danger of pollution. Part of table of monthly discharge corrected for estimated amount of Rock Creek diversions, based on 5 discharge measurements, 62 observations of stage, and difference of flow recorded for stations near Landsberg and at Cedar Falls. Flow partly controlled by storage and release of water at Cedar Lake reservoir. Gage-height record collected in cooperation with city of Seattle.

Rating table, water year 1935-36 (gage height, in feet, and discharge, in second-feet)

0.9	218	2.0	740	3.5	1,950
1.2	325	2.5	1,065		
1.5	460	3.0	1,470		

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	288	245	262	878	903	1,230	721	587	1,020	576	418	390
2	285	245	262	1,040	891	1,210	565	565	964	566	407	368
3	291	245	256	982	871	1,200	609	658	975	553	442	346
4	288	242	256	1,130	866	1,170	610	675	948	621	424	340
5	279	238	261	1,090	850	1,100	614	744	892	514	444	336
6	274	236	260	952	846	1,010	599	724	874	556	445	336
7	276	236	294	901	768	899	616	760	1,070	572	424	334
8	274	242	294	921	600	970	612	778	1,130	550	412	331
9	274	254	286	920	533	900	620	786	1,190	546	389	330
10	271	245	309	920	526	918	670	941	1,180	549	411	328
11	268	250	330	988	506	928	669	835	1,110	514	427	326
12	267	289	345	1,180	481	937	666	888	1,040	544	430	332
13	264	278	353	1,060	523	880	633	948	926	544	437	332
14	274	260	309	990	522	814	638	1,050	997	518	444	376
15	270	270	305	956	484	825	603	1,170	912	535	400	372
16	272	297	316	942	516	825	612	1,430	896	520	396	337
17	264	290	302	908	558	832	626	1,600	876	522	422	330
18	268	276	332	879	492	824	592	1,450	806	534	436	320
19	262	263	322	1,010	542	804	524	1,470	798	468	361	316
20	263	254	344	1,250	537	822	596	1,590	822	500	364	314
21	275	252	342	1,100	548	748	616	1,590	644	494	380	315
22	280	278	284	1,040	608	764	650	1,490	661	481	366	320
23	252	280	276	996	546	795	630	1,480	636	484	370	312
24	248	300	296	962	532	762	648	1,580	538	474	332	308
25	242	292	336	908	558	765	632	1,350	628	430	360	308
26	240	294	308	874	708	816	618	1,310	622	414	357	307
27	240	300	374	938	974	847	581	1,320	704	470	348	304
28	298	297	440	912	1,130	771	588	1,280	610	479	349	302
29	282	280	465	909	1,160	834	592	1,240	598	448	350	308
30	258	272	506	909	-	776	582	1,060	583	439	357	300
31	249	-	808	915	-	772	-	1,230	-	440	354	-

Month	Observed				Diverted by Rock Creek (estimated) (acre-feet)	Corrected for diversion			
	Discharge in second-feet			Run-off in acre-feet		Run-off in acre-feet	Discharge in second-feet		Run-off in inches
	Maxi- mum	Mini- mum	Mean				Mean	Per square mile	
October.....	298	240	270	16,580	244	16,820	274		
November.....	300	236	267	15,880	674	16,550	278		
December.....	808	256	337	20,740	1,170	21,910	356		
Calendar year 1935	4,000	236	586	424,300	13,310	437,600	604	4.46	60.27
January.....	1,250	874	979	60,210	4,670	64,880	1,055		
February.....	1,160	481	675	38,830	1,770	40,600	706		
March.....	1,230	748	896	55,080	3,060	58,140	946		
April.....	721	526	617	36,740	1,620	38,360	645		
May.....	1,600	565	1,096	87,420	1,760	69,170	1,125		
June.....	1,190	583	859	51,100	1,600	52,600	894		
July.....	621	414	515	31,640	510	32,150	523		
August.....	445	348	398	24,450	250	24,700	402		
September.....	390	300	329	19,590	361	19,950	335		
Water year	1,600	236	604	438,300	17,580	455,800	628	4.62	62.88

South Fork of Skykomish River near Index, Wash.

Location.- Water-stage recorder, lat. 47°48'20", long. 121°32'40", in NE¼ sec. 29, T. 27 N., R. 10 E., 600 feet above Sunset Falls, 2 miles above North Fork, and 2 miles southeast of Index.

Drainage area.- 355 square miles.

Records available.- October 1902 to September 1905, April 1911 to September 1936.

Average discharge.- 28 years, 2,378 second-feet.

Extremes.- Maximum discharge observed during year, 11,800 second-feet May 16 (gage height, 11.60 feet); minimum, 360 second-feet Oct. 11, 12 (gage height, 1.81 feet). 1902-5, 1911-36: Maximum discharge observed, about 57,000 second-feet Dec. 18, 1917 (gage height, 22.6 feet, at former site); minimum, 214 second-feet Oct. 15-21, 23, 1925.

Remarks.- Records excellent except those for period of ice effect, Feb. 3-24, which were computed on basis of gage heights and weather records and are poor. Discharge Nov. 22, 23, Apr. 14-18, computed on basis of records for Skykomish River near Gold Bar and North Fork of Skykomish River at Index. No diversions or regulation.

Rating table, water year 1935-36 (gage height, in feet, and discharge, in second-feet)

1.8	357	5.0	2,430
2.0	410	6.0	3,350
2.5	575	7.0	4,450
3.0	850	8.0	5,840
3.5	1,200	9.0	7,400
4.0	1,600	10.0	9,000
		11.0	10,700

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	394	478	935	3,110	595	2,790	690	5,240	5,540	2,340	642	1,530
2	391	456	800	4,570	571	2,610	651	6,290	5,250	2,340	625	365
3	386	450	722	3,760	560	3,760	625	7,080	7,080	2,250	624	658
4	388	444	555	4,940	540	3,050	611	7,720	5,840	2,610	624	583
5	391	438	628	5,240	530	2,340	595	8,040	5,240	2,700	615	548
6	386	432	611	3,060	510	2,000	591	6,440	5,690	2,160	603	530
7	378	432	782	2,260	500	1,840	692	4,960	7,880	1,920	587	608
8	378	566	1,170	2,080	480	2,600	970	4,090	9,000	1,800	567	498
9	373	1,380	1,360	1,840	480	3,980	935	4,210	7,080	1,640	556	478
10	365	790	1,960	1,840	470	2,700	1,160	4,960	6,290	1,800	548	468
11	362	670	1,960	2,200	460	2,160	2,380	6,760	5,990	2,000	545	456
12	375	1,060	1,920	2,970	460	2,430	3,450	7,080	5,690	1,720	533	468
13	458	935	1,600	2,880	450	2,340	3,980	8,040	5,240	1,520	537	481
14	432	758	1,320	2,160	440	2,120	3,500	9,850	5,240	1,440	530	580
15	575	770	1,080	2,260	440	2,080	3,200	8,840	5,690	1,280	519	512
16	491	1,260	900	1,880	430	1,800	6,000	10,400	5,390	1,240	508	481
17	750	1,440	800	1,520	430	1,600	8,000	7,240	5,840	1,200	505	468
18	695	1,040	710	1,200	420	1,400	9,000	5,990	4,330	1,120	501	465
19	800	800	651	1,160	420	1,240	6,760	7,720	3,760	1,080	491	462
20	830	660	615	1,640	410	1,240	6,140	6,440	3,870	1,080	488	450
21	746	620	591	1,680	420	1,350	6,440	6,440	4,090	1,040	488	444
22	665	650	579	1,480	420	1,240	7,560	6,920	4,450	1,000	481	562
23	575	850	587	1,440	430	1,080	6,290	6,140	4,570	935	475	541
24	533	1,440	595	1,360	440	970	5,840	6,440	4,090	865	530	488
25	523	1,310	1,200	1,160	441	900	5,990	7,560	3,550	800	545	468
26	515	2,160	1,760	1,000	900	1,250	5,540	8,840	3,250	752	512	447
27	491	1,960	1,680	935	2,700	1,580	4,830	9,510	3,150	754	488	435
28	661	1,600	2,160	830	2,200	1,200	4,450	8,840	2,790	715	484	435
29	762	1,240	1,640	734	2,610	970	4,450	7,080	2,520	700	481	432
30	603	1,040	1,620	690	-	830	4,700	5,840	2,430	665	468	421
31	526	-	2,250	661	-	752	-	6,140	-	665	468	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acres-feet
October.....	16,379	861	362	528	1.49	1.72	32,490
November.....	28,129	2,160	432	938	2.64	2.94	55,790
December.....	35,731	2,250	567	1,153	3.25	3.75	70,870
Calendar year 1935.....	754,700	26,200	362	2,068	5.83	79.06	1,497,000
January.....	64,510	5,240	651	2,081	5.86	6.76	128,000
February.....	20,157	2,700	410	695	1.96	2.11	39,980
March.....	58,322	3,980	752	1,881	5.30	6.11	115,700
April.....	116,023	9,000	591	3,857	10.9	12.15	230,100
May.....	217,140	10,400	4,090	7,005	19.7	22.71	450,700
June.....	150,500	9,000	2,430	5,017	14.1	15.73	298,500
July.....	44,132	2,700	665	1,424	4.01	4.62	87,530
August.....	16,571	642	468	555	1.51	1.74	32,870
September.....	16,092	1,530	421	556	1.51	1.68	31,920
Water year 1935-36.....	785,686	10,400	362	2,141	6.03	82.03	1,554,000

Skykomish River near Gold Bar, Wash.

Location.- Water-stage recorder, lat. $47^{\circ}50'15''$, long. $121^{\circ}40'0''$, in SW $\frac{1}{4}$ sec. 9, T. 27 N., R. 9 E., 2 miles southeast of Gold Bar. Zero of gage is 210.01 feet above mean sea level (subject to correction for general adjustment of 1929).

Drainage area.- 535 square miles.

Records available.- September 1928 to September 1936.

Extremes.- Maximum discharge during year, 19,400 second-feet May 16 (gage height, 10.91 feet); minimum, 532 second-feet Oct. 12 (gage height, 2.92 feet).
1928-36: Maximum discharge, 79,000 second-feet Dec. 21, 1933 (gage height, 21.3 feet); minimum, 392 second-feet Oct. 2, 3, 1929.

Remarks.- Records excellent except those for period of ice effect, Feb. 15-19, computed on basis of gage heights and weather records, which are poor.

Rating tables, water year 1935-36 except period of ice effect (gage height, in feet, and discharge, in second-feet)

Oct. 1 to June 7					June 8 to Sept. 30				
2.9	520	6.0	4,350		3.0	630	6.0	4,350	
3.0	580	7.0	6,400		3.5	1,000	7.0	6,400	
3.5	940	8.0	8,900		4.0	1,450	8.0	8,900	
4.0	1,430	9.0	12,000		4.5	2,010	9.0	12,000	
4.5	2,010	10.0	15,650		5.0	2,680	10.0	15,650	
5.0	2,680	11.0	19,800						

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	628	940	1,710	5,370	1,190	4,640	1,350	7,550	8,060	3,540	1,140	2,900
2	616	850	1,540	7,310	1,120	3,980	1,270	9,500	8,190	3,620	1,100	1,640
3	610	810	1,430	5,980	1,100	5,960	1,230	10,700	10,700	3,620	1,090	1,220
4	604	802	1,320	8,200	1,060	4,840	1,200	11,700	8,330	4,260	1,090	1,020
5	598	778	1,240	8,210	1,090	3,620	1,180	12,000	7,800	4,440	1,090	936
6	598	749	1,220	4,840	1,070	3,130	1,160	9,800	8,610	3,370	1,060	872
7	592	742	1,520	3,620	976	2,830	1,330	7,550	12,400	3,060	1,020	825
8	580	954	2,080	3,290	976	3,780	1,660	6,400	14,500	2,900	960	772
9	574	2,120	2,540	2,900	958	6,190	1,600	6,400	11,000	2,680	936	737
10	550	1,430	2,980	2,900	940	4,260	1,900	7,550	9,500	2,630	920	716
11	538	1,270	3,060	3,450	886	3,370	3,880	9,800	9,200	3,130	912	695
12	580	1,730	3,060	4,640	859	3,800	5,770	10,700	8,900	2,680	904	744
13	756	1,650	2,610	4,540	818	3,620	6,400	12,300	8,060	2,470	896	825
14	714	1,430	2,200	3,450	786	3,290	5,770	15,300	3,330	2,340	888	960
15	1,120	1,480	1,950	3,620	770	3,290	6,400	13,400	8,610	2,140	864	880
16	931	2,080	1,710	3,060	750	2,830	9,800	16,900	8,550	2,080	840	802
17	1,640	2,540	1,540	2,540	740	2,540	12,070	11,000	9,910	2,010	810	758
18	1,600	1,890	1,430	2,140	730	2,270	12,000	9,900	8,620	1,950	802	758
19	1,710	1,600	1,320	2,010	710	2,010	10,100	12,000	5,980	1,890	780	730
20	1,770	1,380	1,240	2,610	707	2,010	8,900	9,800	6,190	1,830	765	702
21	1,540	1,250	1,190	2,610	714	2,140	9,500	10,100	6,400	1,830	772	695
22	1,430	1,280	1,160	2,400	931	2,010	11,400	10,700	7,070	1,770	758	1,160
23	1,220	1,760	1,140	2,270	886	1,890	9,200	9,800	7,070	1,660	737	1,090
24	1,090	2,400	1,210	2,200	802	1,710	8,330	9,800	6,400	1,500	906	888
25	1,050	2,270	2,120	2,010	770	1,600	9,200	11,700	5,560	1,400	944	825
26	1,030	3,290	3,060	1,830	1,460	1,960	8,330	13,700	5,240	1,300	832	832
27	958	3,130	2,830	1,710	4,120	2,540	7,310	14,500	4,840	1,300	772	716
28	1,620	2,540	3,450	1,540	3,560	2,010	6,840	13,400	4,350	1,260	744	702
29	1,540	2,140	2,680	1,430	4,200	1,710	6,840	10,700	3,890	1,260	737	695
30	1,240	1,830	2,610	1,330	-	1,540	7,070	8,900	3,710	1,220	723	676
31	1,060	-	3,760	1,290	-	1,430	-	9,200	-	1,170	723	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acres-feet
October.....	31,087	1,770	538	1,003	1.87	2.16	61,660
November.....	48,915	3,290	742	1,630	3.05	3.40	97,020
December.....	62,700	3,760	1,140	2,023	3.78	4.36	124,400
Calendar year 1935.....	1,232,341	45,900	538	3,376	6.31	85.65	2,444,000
January.....	105,300	8,210	1,290	3,597	6.35	7.32	208,900
February.....	35,679	4,200	707	1,230	2.30	2.48	70,770
March.....	92,850	6,190	1,430	2,994	5.60	6.46	184,100
April.....	179,590	12,700	1,160	5,886	11.2	12.50	356,200
May.....	331,750	16,900	6,400	10,700	20.0	23.06	658,000
June.....	235,270	14,500	3,710	7,776	14.5	16.18	462,700
July.....	72,510	4,440	1,170	2,339	4.37	5.04	143,800
August.....	27,515	1,140	723	888	1.66	1.91	54,580
September.....	27,771	2,900	676	926	1.73	1.93	55,080
Water year 1935-36.....	1,248,907	16,900	538	3,412	6.38	86.80	2,477,000

North Fork of Skykomish River at Index, Wash.

Location.- Wire-weight gage, lat. 47°49'20", long. 121°32'50" in SE¼ sec. 17, T. 27 N., R. 10 E., on highway bridge at Index, 1½ miles above mouth. Prior to Sept. 9, 1930, chain gage at same site and datum.

Drainage area.- 149 square miles.

Records available.- August 1910 to September 1922, February 1929 to September 1936.

Average discharge.- 19 years, 1,226 second-feet.

Extremes.- Maximum discharge observed during year, 4,830 second-feet June 8 (gage height, 5.13 feet); minimum, not determined, occurred during period of ice effect.

1910-22, 1929-36: Maximum discharge observed, about 21,000 second-feet Feb. 26, 1932 (gage height, 10.5 feet), possibly as much as 26,500 second-feet Dec. 21, 1933 (from unofficial reports of comparative stages); minimum, 78 second-feet Sept. 25, 1930.

Remarks.- Records fair except those for period of ice effect, Feb. 5-24, which were computed on basis of gage heights and weather records and are poor. Gage read to hundredths once daily. No diversions or regulation.

Rating tables, water year 1935-36 except period of ice effect (gage height, in feet, and discharge, in second-feet)

Oct. 1 to Nov. 25				Nov. 26 to Sept. 30			
2.1	60	2.8	690	2.2	80	3.0	890
2.4	235	3.2	1,330	2.4	200	3.5	1,630
				2.7	500	4.0	2,520
						4.5	3,500
						5.0	4,600
						6.0	7,090

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	171	292	572	2,050	281	1,320	310	*2,360	*2,550	*1,180	360	*1,300
2	171	282	500	2,140	263	1,170	290	2,900	*2,800	*1,220	350	584
3	171	254	456	1,790	254	1,630	281	3,300	*3,400	*1,230	350	390
4	171	254	412	2,520	245	1,400	272	3,500	*2,650	1,630	350	320
5	171	244	380	2,050	230	1,030	254	3,500	*2,570	1,470	350	281
6	171	235	370	1,320	220	890	254	2,900	*2,800	1,170	360	245
7	163	227	572	1,030	200	792	290	2,140	*4,200	1,100	310	245
8	163	264	834	960	180	*1,060	390	1,790	*4,750	1,030	290	218
9	148	548	792	834	170	1,550	370	1,960	*3,600	960	281	192
10	142	407	848	778	160	1,170	478	2,240	*3,300	960	263	178
11	142	385	960	960	150	960	*1,500	2,710	*3,250	1,100	263	162
12	179	612	960	1,320	140	1,100	2,050	2,900	3,100	890	263	178
13	219	500	848	1,100	120	1,030	1,960	3,500	*2,900	820	263	218
14	205	476	698	890	120	890	1,880	4,600	*2,900	778	245	310
15	418	524	608	1,030	120	834	2,900	3,500	*2,900	698	236	254
16	292	762	560	806	110	724	3,100	4,600	*3,150	698	218	218
17	*840	762	478	711	110	646	3,600	3,100	*3,050	711	218	200
18	*850	651	423	548	100	548	3,100	2,710	*2,360	672	227	192
19	806	524	380	806	100	512	2,900	3,930	*2,120	646	218	178
20	664	452	360	698	100	536	2,710	3,100	*2,170	646	209	170
21	625	407	330	672	100	572	2,900	3,300	*2,320	633	209	162
22	524	464	330	596	110	524	3,300	3,300	*2,520	633	209	*600
23	452	335	330	633	120	512	2,710	3,100	*2,520	560	185	330
24	385	835	350	596	120	478	*2,600	*3,370	*2,280	500	272	291
25	385	835	848	500	148	512	2,900	3,300	*2,000	434	281	245
26	363	*950	1,170	548	300	536	2,420	4,150	*1,880	412	236	209
27	320	*1,010	890	478	890	596	2,240	4,600	*1,700	401	218	192
28	*650	*870	1,100	390	806	467	2,140	4,370	*1,500	380	200	185
29	524	698	862	350	1,470	390	2,050	3,300	*1,300	380	192	178
30	418	608	890	330	-	370	2,140	*2,950	*1,250	370	192	170
31	541	-	1,400	310	-	320	-	*2,950	-	370	178	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acre-feet
October.....	11,242	850	142	363	2.44	2.81	22,300
November.....	16,167	1,010	227	539	3.62	4.04	32,070
December.....	20,611	1,400	330	662	4.44	5.12	40,680
Calendar year 1935.....	407,732	16,200	142	1,117	7.50	101.82	808,700
January.....	29,744	2,520	310	959	6.44	7.42	59,000
February.....	7,437	1,470	100	256	1.72	1.86	14,750
March.....	25,069	1,630	320	809	5.43	6.26	49,720
April.....	53,889	3,500	254	1,796	12.1	13.50	106,900
May.....	99,930	4,600	1,790	3,224	21.6	24.90	198,200
June.....	79,940	4,750	1,250	2,565	17.9	19.97	158,600
July.....	24,682	1,630	370	796	5.34	6.16	48,960
August.....	7,996	360	178	258	1.73	1.99	15,860
September.....	8,686	1,500	162	286	1.92	2.14	17,030
Water year 1935-36.....	385,192	4,750	100	1,052	7.06	96.17	764,100

*Discharge computed on basis of one gage reading daily and graph of difference between flow of Skykomish River at Gold Bar and South Fork near index.

Troublesome Creek near Index, Wash.

Location.- Water-stage recorder, lat. $47^{\circ}54'0''$, long. $121^{\circ}23'50''$, in NE $\frac{1}{4}$ sec. 21, T. 28 N., R. 11 E. (unsurveyed), a quarter of a mile above mouth and 9 miles north-east of Index.

Drainage area.- 10.4 square miles, at measuring section.

Records available.- July 1929 to September 1936.

Extremes.- Maximum discharge during year, 486 second-feet May 16 (gage height, 2.87 feet); minimum, 12 second-feet Feb. 21-25, Apr. 9.
1929-36: Maximum discharge, 2,300 second-feet Dec. 21, 1933 (gage height, 7.0 feet) from rating curve extended above 750 second-feet; maximum gage height, 7.54 feet Feb. 26, 1932; minimum discharge, 11 second-feet Jan. 30, 1930.

Remarks.- Records fair. No diversions or regulation.

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	25	32	46	165	20	143	15	174	236	122	59	164
2	25	27	42	308	18	112	15	213	246	127	57	112
3	26	22	37	234	17	170	14	249	296	133	60	85
4	26	19	33	304	16	138	13	268	236	179	62	68
5	25	17	29	322	15	96	13	279	208	179	63	62
6	25	17	27	163	15	82	13	233	213	133	61	56
7	24	16	34	99	14	67	13	179	305	113	56	51
8	22	13	45	56	14	98	13	143	439	107	52	49
9	22	24	49	74	14	198	12	133	333	100	45	45
10	21	25	64	66	14	114	16	165	265	105	45	40
11	20	26	37	71	13	85	45	210	271	109	45	37
12	20	35	138	91	13	55	110	238	254	98	46	37
13	20	37	81	110	13	83	167	285	241	91	46	40
14	20	34	60	87	13	71	141	340	241	87	45	44
15	24	37	51	86	13	60	165	330	249	80	45	36
16	26	64	45	66	13	49	272	428	268	78	42	52
17	38	90	42	52	13	44	354	276	294	81	40	25
18	55	112	37	45	13	40	346	223	231	83	39	27
19	77	68	32	40	13	35	274	291	189	86	38	25
20	77	44	29	40	13	36	244	261	177	91	37	26
21	67	35	26	40	12	37	254	235	189	96	37	25
22	57	35	26	40	12	35	274	260	226	98	37	51
23	49	45	25	42	12	30	235	244	249	91	35	49
24	43	51	27	39	12	28	216	246	233	86	42	45
25	38	55	40	35	12	25	251	279	216	72	41	42
26	34	69	56	32	18	27	215	330	196	63	39	40
27	30	73	66	29	58	23	186	368	184	61	38	36
28	40	67	83	26	76	21	167	337	167	61	38	33
29	42	56	76	24	113	18	160	276	136	61	39	32
30	40	50	67	22	-	17	165	244	126	61	39	30
31	35	-	92	21	-	16	-	268	-	59	49	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acre-feet
October.....	1,093	77	20	35.3	3.39	3.91	2,170
November.....	1,298	112	16	43.3	4.16	4.64	2,570
December.....	1,592	138	25	51.4	4.94	5.70	3,160
Calendar year 1935.....	37,900	1,140	16	104	10.0	135.54	75,190
January.....	2,659	322	21	92.2	8.87	10.23	5,670
February.....	612	113	12	21.1	2.03	2.19	1,210
March.....	2,083	198	16	67.2	6.46	7.45	4,130
April.....	4,379	354	12	146	14.0	15.62	8,690
May.....	7,998	428	133	258	24.8	28.59	15,860
June.....	7,134	439	126	238	22.9	25.55	14,150
July.....	2,990	179	59	95.6	9.28	10.70	5,930
August.....	1,420	65	35	45.8	4.40	5.07	2,820
September.....	1,446	164	25	49.2	4.63	5.17	2,870
Water year 1935-36.....	34,904	439	12	95.4	9.17	124.82	69,230

Sultan River near Startup, Wash.

Location.- Water-stage recorder, lat. 47°58'30", long. 121°46'30", in NE¼ sec. 28, T. 29 N., R. 8 E., 1½ miles above intake of Everett water-supply system and 7½ miles north of Startup.

Drainage area.- 75 square miles.

Records available.- May 1934 to September 1936.

Extremes.- Maximum discharge during year, 5,400 second-feet May 18 (gage height, 10.42 feet); minimum, probably less than 80 second-feet sometime Feb. 8-20, when stage-discharge relation was affected by ice.

1934-36: Maximum discharge, 15,600 second-feet Oct. 24, 1934 (gage height, 16.05 feet) from rating curve extended above 3,000 second-feet; minimum, 66 second-feet Sept. 7, 1934 (gage height, 3.52 feet).

Remarks.- Records excellent except those for period of ice effect, Feb. 8-20, which were computed on basis of gage heights and weather records and are poor. No diversions or regulation.

Rating table, water year 1935-36 except period of ice effect (gage height, in feet, and discharge, in second-feet)

3.5	78	5.0	356	7.5	1,760
3.7	97	5.5	535	8.0	2,230
4.0	133	6.0	755	8.5	2,780
4.3	181	6.5	1,020	9.0	3,400
4.6	245	7.0	1,360	9.5	4,080

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	110	220	391	2,640	238	1,540	216	1,290	905	429	152	1,420
2	107	197	338	2,470	216	1,180	203	1,640	1,030	444	149	458
3	105	181	300	1,600	203	2,070	193	1,900	1,390	485	147	278
4	104	168	270	3,740	195	1,180	185	2,430	990	951	147	216
5	102	161	245	2,310	191	530	179	2,550	932	817	146	183
6	100	155	284	1,090	185	730	179	2,060	1,020	535	141	165
7	98	152	573	630	165	638	273	1,320	1,680	433	136	150
8	95	455	664	890	150	1,360	344	1,050	3,020	391	129	139
9	94	619	805	730	140	1,730	292	1,020	1,870	350	124	130
10	91	353	990	660	130	938	605	1,150	1,400	409	121	123
11	91	317	830	1,060	120	800	1,860	1,440	1,400	535	120	116
12	145	658	905	1,400	110	1,400	1,980	1,440	1,220	398	116	134
13	168	535	730	1,090	100	1,010	1,770	1,680	1,080	350	115	215
14	176	402	575	760	95	805	1,400	1,650	1,050	317	114	309
15	586	449	469	1,110	95	730	1,660	2,230	1,260	286	110	234
16	272	899	396	732	90	595	2,600	3,840	1,710	281	108	193
17	739	872	344	535	85	555	2,440	1,770	1,730	278	106	177
18	649	546	306	426	80	462	2,230	1,430	1,240	268	104	172
19	682	415	275	608	85	419	1,760	2,160	960	265	102	155
20	532	341	252	855	85	440	1,640	1,680	905	265	100	140
21	496	300	238	660	126	462	1,850	2,130	680	260	98	136
22	419	338	236	555	636	402	1,940	2,330	932	250	98	496
23	326	847	227	535	401	356	1,620	1,650	880	229	105	284
24	281	1,100	272	481	260	317	1,580	1,560	755	207	254	205
25	260	934	802	412	214	289	2,400	1,640	660	187	155	176
26	245	1,080	1,320	356	915	418	1,760	1,800	615	176	139	160
27	218	990	1,010	400	2,240	460	1,480	1,770	575	172	121	147
28	708	705	1,130	391	1,080	335	1,290	1,560	535	168	113	139
29	447	535	852	325	1,670	284	1,290	1,180	462	167	107	130
30	320	444	900	289	-	252	1,320	990	440	163	104	125
31	260	-	1,630	262	-	234	-	990	-	158	173	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acre-feet
October.....	8,928	749	91	288	3.84	4.43	17,710
November.....	15,368	1,100	152	512	6.83	7.62	30,480
December.....	18,591	1,630	227	600	8.00	9.22	36,670
Calendar year 1935.....	243,260	12,000	91	666	8.88	120.65	482,400
January.....	30,213	3,740	262	975	13.0	14.99	59,930
February.....	10,300	2,240	80	355	4.73	5.10	20,430
March.....	23,241	2,070	234	760	10.0	11.53	46,100
April.....	38,439	2,600	179	1,281	17.1	19.08	76,240
May.....	53,560	3,840	990	1,728	23.0	26.52	106,200
June.....	33,726	3,020	440	1,124	15.0	16.74	66,890
July.....	10,624	951	158	343	4.57	5.27	21,070
August.....	3,984	254	98	129	1.72	1.98	7,900
September.....	7,105	1,420	116	287	3.16	3.53	14,090
Water year 1935-36.....	254,079	3,840	80	694	9.25	126.01	503,900

SNOHOMISH RIVER BASIN

Snoqualmie River near Tolt, Wash.

Location.- Water-stage recorder, lat. 47°39'55", long. 121°55'30", in sec. 9, T. 25 N., R. 7 E., 100 feet below highway bridge and 1 mile northwest of Tolt. Zero of gage is 42.96 feet above mean sea level (general adjustment of 1929).

Drainage area.- 605 square miles.

Records available.- February 1929 to September 1936.

Extremes.- Maximum discharge during year, 18,100 second-feet May 16; minimum discharge, 371 second-feet Oct. 10; minimum gage height, 3.16 feet Aug. 30.
1929-36: Maximum discharge, about 51,000 second-feet Feb. 28, 1932; minimum discharge, 354 second-feet Sept. 9, 13, 1935; minimum gage height, 0.34 foot Sept. 11, 1930.

Remarks.- Records good. Low-water flow diverted for power purposes at Snoqualmie Falls but returned to river above gage. Some regulation of flow caused by operation of power plants.

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	514	1,270	2,900	8,360	2,370	8,680	2,170	5,000	5,300	2,560	904	1,900
2	533	1,160	2,630	11,700	2,200	6,750	2,060	5,960	5,040	2,560	884	2,130
3	504	1,110	2,460	9,330	2,080	8,050	2,060	7,460	7,240	2,560	866	1,330
4	504	996	2,200	10,800	2,030	6,840	2,000	8,680	6,100	2,920	866	1,000
5	514	984	2,170	13,800	1,980	5,230	1,950	10,600	5,170	3,690	820	885
6	486	996	2,170	7,750	2,000	4,340	2,000	9,000	5,430	2,920	794	778
7	486	984	2,470	5,830	1,640	3,830	2,150	6,480	7,590	2,470	799	744
8	477	1,270	3,260	5,230	1,560	4,230	2,720	5,230	13,200	2,270	785	686
9	477	3,510	3,540	4,660	1,570	6,890	2,540	5,000	10,600	2,110	749	644
10	459	2,510	4,100	4,550	1,570	5,110	2,540	5,470	7,640	2,250	744	622
11	441	2,050	4,440	6,080	1,490	4,230	3,760	6,610	7,090	2,920	702	598
12	459	2,820	4,230	7,750	1,460	5,110	5,590	6,750	6,370	2,650	680	686
13	730	3,290	3,830	9,000	1,360	5,000	5,960	7,170	5,830	2,250	677	636
14	760	2,730	3,450	6,340	1,280	4,660	5,350	9,000	5,430	2,040	702	1,400
15	972	2,460	3,080	5,960	1,230	4,440	5,470	8,360	5,960	1,880	629	7,420
16	972	3,200	2,810	5,230	1,180	3,930	7,760	14,300	5,830	1,770	714	1,140
17	1,030	3,790	2,630	4,550	1,160	3,830	9,000	9,680	6,940	1,690	630	999
18	1,550	3,100	2,460	4,030	1,140	3,450	9,000	6,800	5,300	1,600	622	684
19	1,650	2,640	2,280	3,950	1,080	3,170	7,320	9,680	4,550	1,360	612	868
20	1,710	2,370	2,150	3,360	1,140	3,060	6,480	8,460	4,320	1,430	618	659
21	1,550	2,120	2,060	7,460	1,210	3,170	6,610	9,100	4,320	1,350	568	725
22	1,460	2,120	1,970	5,710	2,170	3,080	7,750	10,800	4,440	1,370	586	912
23	1,270	2,900	1,890	4,880	2,510	2,810	6,610	8,780	4,440	1,310	577	1,400
24	1,110	4,200	1,980	4,440	1,920	2,630	5,960	7,540	4,000	1,240	836	1,000
25	1,070	3,590	3,000	3,830	1,700	2,460	6,750	7,840	3,590	1,120	1,010	853
26	1,100	5,310	4,230	3,450	2,350	2,540	6,210	8,460	3,390	1,070	766	779
27	996	5,710	4,030	3,260	6,660	3,250	5,590	9,100	3,200	1,060	699	768
28	1,700	4,440	5,590	3,260	7,750	2,900	5,000	8,150	3,100	1,010	614	718
29	2,250	3,640	4,130	2,900	6,000	2,630	4,770	6,800	2,830	979	619	648
30	1,680	3,170	3,830	2,720	-	2,460	4,880	5,560	2,650	970	573	634
31	1,390	-	7,200	2,540	-	2,280	-	5,430	-	926	592	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acres-feet
October.....	30,804	2,250	441	994	1.64	1.89	61,100
November.....	80,440	5,710	984	2,681	4.43	4.94	158,600
December.....	99,170	7,200	1,890	3,199	5.29	6.10	196,700
Calendar year 1935.....	1,113,360	35,300	441	3,050	5.04	68.42	2,208,000
January.....	187,690	13,800	2,540	6,055	10.0	11.53	372,300
February.....	65,990	7,750	1,080	2,207	3.65	3.94	126,800
March.....	131,070	8,680	2,280	4,228	6.99	8.06	260,000
April.....	143,010	9,000	1,950	4,954	8.18	9.10	293,600
May.....	243,250	14,300	5,000	7,847	13.0	14.99	482,600
June.....	167,090	13,200	2,650	5,570	9.21	10.28	331,400
July.....	58,305	3,690	926	1,881	3.11	3.58	115,600
August.....	22,199	1,010	568	716	1.18	1.36	44,030
September.....	28,696	2,130	598	363	1.59	1.77	57,310
Water year 1935-36.....	1,260,914	14,300	441	3,445	5.69	77.54	2,501,000

North Fork of Snoqualmie River near Snoqualmie Falls, Wash.

Location.- Water-stage recorder, lat. 47°37'10", long. 121°42'35", in SW¹/₄ sec. 30, T. 25 N., R. 9 E., 1 mile above Calligan Creek and 8 miles northeast of Snoqualmie Falls.

Drainage area.- 65 square miles.

Records available.- August 1929 to September 1936.

Extremes.- Maximum discharge during year, 3,350 second-feet May 16 (gage height, 9.76 feet); minimum, 50 second-feet Oct. 11, 12 (gage height, 2.31 feet).
1929-36: Maximum discharge, about 8,020 second-feet Feb. 26, 1932 (gage height, 17.5 feet) from rating curve extended above 1,500 second-feet; minimum, 30 second-feet Sept. 17-19, 1929 (gage height, 1.91 feet).

Remarks.- Records good except those for period of ice effect, Feb. 14-20, computed on basis of gage heights and weather records, and those above 2,500 second-feet, which are poor. No diversions or regulation.

Rating table, water year 1935-36 except period of ice effect (gage height, in feet, and discharge, in second-feet)

2.5	49	4.5	477
2.5	67	5.0	650
2.7	86	6.0	1,080
3.0	125	7.0	1,600
3.5	211	8.0	2,200
4.0	329	9.0	2,800

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	71	154	324	1,360	222	1,170	201	855	750	298	96	740
2	63	140	286	1,870	201	900	193	1,160	769	298	92	364
3	66	130	255	1,140	197	1,400	184	1,560	1,160	321	88	216
4	64	124	230	1,850	193	859	175	1,900	770	514	86	164
5	63	117	215	1,430	189	580	170	1,780	685	532	82	138
6	62	112	217	740	182	494	168	1,260	810	348	79	122
7	59	115	340	562	166	430	187	855	1,650	293	77	108
8	56	291	461	528	161	786	246	710	2,260	265	76	99
9	54	613	461	477	156	1,090	228	790	1,330	241	72	91
10	53	329	667	528	150	598	300	1,010	1,040	301	72	85
11	51	292	580	855	146	510	805	1,180	990	450	70	61
12	56	609	598	1,010	142	770	1,080	1,130	855	316	68	98
13	111	461	445	925	132	615	1,040	1,330	750	265	66	147
14	103	342	370	598	130	528	878	1,600	770	237	65	280
15	204	362	321	562	125	477	1,010	1,620	922	215	63	232
16	136	510	279	461	125	414	1,600	2,560	989	203	62	197
17	295	494	250	399	120	584	1,600	1,610	1,070	189	61	177
18	311	356	228	337	120	342	1,480	1,020	710	178	58	178
19	351	291	207	521	125	319	1,130	1,720	615	170	58	166
20	303	246	193	1,330	125	326	1,060	1,180	615	163	56	136
21	284	224	182	935	131	348	1,260	1,540	625	154	55	121
22	246	269	178	632	316	319	1,360	1,510	650	146	54	257
23	197	667	173	545	273	289	1,010	1,160	589	140	55	230
24	173	752	199	477	211	265	1,040	1,130	610	132	157	166
25	161	700	578	399	180	248	1,130	1,240	446	126	142	143
26	153	1,300	794	342	248	298	968	1,360	414	121	94	128
27	138	977	682	329	851	348	855	1,300	399	115	82	117
28	363	598	895	324	775	286	770	1,100	370	111	76	107
29	296	445	477	289	964	253	790	810	324	107	72	99
30	217	370	477	265	-	230	832	690	313	104	69	93
31	180	-	1,040	246	-	213	-	730	-	99	71	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acres-feet
October.....	4,945	363	51	160	2.46	2.84	9,810
November.....	12,390	1,300	112	413	6.35	7.08	24,680
December.....	12,602	1,040	173	407	6.26	7.22	25,000
Calendar year 1935.....	153,765	4,880	51	421	6.48	88.01	305,000
January.....	22,266	1,870	246	718	11.0	12.68	44,160
February.....	7,046	954	120	243	3.74	4.03	13,980
March.....	16,089	1,400	213	519	7.98	9.20	31,910
April.....	23,750	1,600	166	792	12.2	13.61	47,110
May.....	38,680	2,560	690	1,248	19.2	22.14	76,720
June.....	24,129	2,260	313	804	12.4	13.83	47,860
July.....	7,132	532	99	230	3.54	4.08	14,150
August.....	2,373	157	54	76.5	1.18	1.36	4,710
September.....	5,272	740	61	176	2.71	3.02	10,460
Water year 1935-36.....	176,674	2,560	51	483	7.43	101.09	350,400

North Fork of Snoqualmie River near North Bend, Wash.

Location.-- Water-stage recorder, lat. 47°32'20", long. 121°44'20", in NE¼ sec. 26, T. 24 N., R. 8 E., 2 miles above mouth and 3½ miles northeast of North Bend.

Drainage area.-- 105 square miles.

Records available.-- July 1907 to September 1928, February 1929 to September 1936.

Average discharge.-- 26 years, 698 second-feet.

Extremes.-- Maximum discharge recorded during year, 3,730 second-feet May 16 (gage height, 6.12 feet); minimum, 85 second-feet Oct. 11, 12 (gage height, 1.64 feet). 1907-28, 1929-36: Maximum discharge, about 11,500 second-feet Oct. 24 or 25, 1934 (gage height, 11.4 feet, from apparent range of stage) from rating curve extended above 2,500 second-feet; water above gage Nov. 18, 19, 23, 24, 29, 30, 1909; stage and discharge may have exceeded those of 1934. Minimum discharge, 54 second-feet Aug. 31, Sept. 1, 1930, Sept. 1, 1934.

Remarks.-- Records fair. Discharge for Nov. 22-26 computed on basis of records for station near Snoqualmie Falls. No diversions or regulation.

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	106	234	610	2,000	400	1,680	312	1,200	1,010	396	149	787
2	104	211	547	2,680	367	1,350	297	1,570	1,030	386	142	493
3	101	192	505	1,900	350	1,960	286	1,900	1,570	410	138	305
4	100	179	465	2,560	336	1,350	273	2,520	1,080	593	132	239
5	99	169	450	2,040	328	959	262	2,460	934	686	129	206
6	96	161	450	1,190	316	798	262	1,840	1,060	480	125	180
7	93	164	602	928	290	700	276	1,270	1,960	405	121	162
8	92	319	788	870	276	1,030	354	1,020	2,700	367	118	149
9	89	790	828	798	269	1,430	341	1,040	1,900	341	113	140
10	88	460	1,080	846	259	878	423	1,250	1,440	410	103	130
11	85	416	986	1,260	250	748	1,030	1,570	1,330	583	102	125
12	92	778	986	1,520	242	1,060	1,520	1,520	1,150	452	99	144
13	146	622	780	1,460	233	910	1,520	1,740	1,030	386	97	190
14	148	490	668	986	225	798	1,320	2,060	1,010	345	97	374
15	274	516	586	926	214	727	1,460	1,960	1,180	312	96	336
16	192	696	525	776	200	637	2,280	3,020	1,200	293	94	290
17	342	675	480	688	200	595	2,280	1,740	1,430	276	92	259
18	354	515	435	607	198	535	2,180	1,360	995	259	91	256
19	450	425	402	723	190	496	1,740	2,180	870	260	90	227
20	407	376	380	1,960	186	502	1,570	1,820	830	239	88	203
21	380	341	358	1,620	211	524	1,790	2,060	814	227	87	180
22	337	420	350	1,150	464	491	1,960	2,060	830	216	86	328
23	273	900	341	986	420	447	1,520	1,620	769	206	90	316
24	240	1,000	380	862	328	420	1,520	1,520	674	196	189	239
25	223	930	807	741	290	391	1,680	1,620	607	188	203	206
26	214	2,000	1,170	643	371	436	1,420	1,790	547	180	140	186
27	192	1,520	1,070	601	1,060	502	1,250	1,740	524	173	123	169
28	487	1,080	1,440	583	1,030	436	1,130	1,460	491	169	113	153
29	444	820	869	518	1,280	386	1,130	1,160	436	162	106	142
30	337	689	841	480	-	354	1,180	959	415	155	102	134
31	273	-	1,640	442	-	328	-	986	-	151	102	-
Month				Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off			
									Inches	Acres-feet		
October.....				6,888	487	85	222	2.11	2.43	13,660		
November.....				18,088	2,000	161	603	5.74	6.40	35,880		
December.....				21,819	1,640	341	704	6.70	7.72	43,280		
Calendar year 1935.....				232,207	5,940	85	636	6.06	82.19	460,600		
January.....				35,342	2,680	442	1,140	10.9	12.57	70,100		
February.....				10,783	1,280	186	372	3.54	3.82	21,390		
March.....				28,848	1,960	328	769	7.32	8.44	47,300		
April.....				34,566	2,280	262	1,152	11.0	12.27	68,560		
May.....				51,815	3,020	959	1,671	15.9	18.33	102,800		
June.....				31,806	2,700	415	1,060	10.1	11.27	63,090		
July.....				9,892	666	181	319	3.04	3.50	19,620		
August.....				3,557	203	86	115	1.10	1.27	7,060		
September.....				7,248	787	125	242	2.30	2.57	14,380		
Water year 1935-36.....				255,652	3,020	85	699	6.66	90.59	507,100		

South Fork of Snoqualmie River at North Bend, Wash.

Location.- Water-stage recorder, lat. $47^{\circ}29'20''$, long. $121^{\circ}47'10''$, in SE $\frac{1}{4}$ sec. 9, T. 23 N., R. 8 E., half a mile south of North Bend and $3\frac{1}{2}$ miles above mouth.

Drainage area.- 84 square miles.

Records available.- July 1907 to September 1926, February 1929 to September 1936.

Average discharge.- 26 years, 541 second-feet.

Extremes.- Maximum discharge during year, 2,420 second-feet May 16 (gage height, 5.96 feet); minimum, 88 second-feet Oct. 9-11 (gage height, 1.26 feet).
1907-26, 1929-36: Maximum discharge recorded, 7,620 second-feet Oct. 25, 1934 (gage height, 11.2 feet) from rating curve extended above 2,000 second-feet; water above gage Nov. 3, 4, 19, 23, 29, 1909; stage and discharge may have exceeded that of 1934. Minimum discharge, 63 second-feet Oct. 22, 1925 (gage height, 1.14 feet).

Remarks.- Records good. Discharge May 20-24 computed on basis of records for Green River near Palmer. No diversions or regulation.

Rating tables, water year 1935-36 (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Apr. 16 to May 4)

Oct. 1 to Apr. 15				May 5 to Sept. 30			
1.2	78	3.0	650	1.3	90	3.0	630
1.5	134	3.5	930	1.5	129	3.5	870
2.0	273	4.0	1,230	2.0	260	4.0	1,140
2.5	443	5.0	1,830	2.5	435	5.0	1,740
						6.0	2,420

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	92	146	299	960	312	900	308	930	870	473	212	220
2	92	136	273	1,380	299	810	295	1,140	920	465	206	203
3	92	132	248	990	292	1,080	292	1,260	1,320	465	203	157
4	92	128	227	1,390	285	930	286	1,410	1,110	481	200	140
5	91	124	212	1,590	269	725	283	1,500	998	512	195	131
6	89	121	206	960	289	628	286	1,200	1,050	454	192	125
7	89	121	248	700	267	548	302	945	1,440	420	190	121
8	89	140	286	605	233	711	318	820	1,860	401	182	117
9	89	239	315	535	242	1,080	325	845	1,500	390	177	113
10	88	204	436	562	248	750	345	970	1,320	401	172	111
11	88	195	504	750	239	628	478	1,200	1,230	424	169	111
12	100	251	473	1,020	230	700	700	1,230	1,140	386	164	117
13	115	261	418	1,020	218	650	870	1,350	1,050	367	162	127
14	109	239	379	725	209	628	840	1,560	1,020	353	157	179
15	126	254	338	675	195	569	930	1,440	1,110	336	155	167
16	124	345	305	569	187	515	1,380	2,000	998	322	150	150
17	128	352	276	495	181	494	1,590	1,230	998	315	146	140
18	146	305	258	432	184	445	1,590	1,020	870	305	146	135
19	151	267	239	464	179	411	1,320	1,560	795	299	142	131
20	156	236	227	610	179	411	1,200	1,200	770	289	135	125
21	163	215	212	610	179	439	1,230	1,450	745	262	131	119
22	150	212	204	650	230	414	1,410	1,700	770	279	129	125
23	148	248	198	582	209	393	1,170	1,500	770	273	131	135
24	132	322	204	535	190	372	1,110	1,300	745	260	146	123
25	128	328	236	484	184	352	1,230	1,290	675	254	146	115
26	128	432	292	439	334	396	1,140	1,470	610	244	133	111
27	126	540	352	414	813	450	990	1,560	570	235	127	109
28	211	462	496	390	870	396	870	1,320	532	232	119	105
29	221	379	396	362	675	365	840	1,050	504	226	117	103
30	181	328	395	338	-	341	870	695	492	220	115	101
31	161	-	848	331	-	325	-	920	-	214	117	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acres-feet
October.....	3,903	221	88	126	1.50	1.73	7,740
November.....	7,662	540	121	255	3.04	3.39	15,200
December.....	10,001	848	198	323	3.85	4.44	19,840
Calendar year 1935.....	173,719	4,080	88	476	5.67	76.95	344,600
January.....	21,960	1,590	331	708	8.43	9.72	43,560
February.....	8,442	870	179	291	3.46	3.73	16,740
March.....	17,848	1,080	325	575	6.86	7.91	35,400
April.....	24,798	1,590	283	827	9.85	10.99	49,190
May.....	39,265	2,000	820	1,267	15.1	17.41	77,880
June.....	28,782	1,860	492	959	11.4	12.72	57,090
July.....	10,577	512	214	341	4.06	4.68	20,980
August.....	4,866	212	115	157	1.87	2.16	9,650
September.....	3,966	220	101	132	1.57	1.75	7,870
Water year 1935-36.....	182,070	2,000	88	497	5.92	80.63	361,100

STILLAGUAMISH RIVER BASIN

South Fork of Stillaguamish River near Granite Falls, Wash.

Location.- Water-stage recorder, lat. 48°6'10", long. 121°56'40", in SW¼ sec. 8, T. 30 N., R. 7 E., 2 miles northeast of Granite Falls.

Drainage area.- 119 square miles.

Records available.- July 1928 to September 1936.

Extremes.- Maximum discharge during year, 7,820 second-feet May 16 (gage height, 9.88 feet); minimum, 112 second-feet Oct. 11; minimum gage height, 3.35 feet Aug. 21.
1928-36: Maximum discharge, about 26,700 second-feet Feb. 26, 1932 (gage height, 19.7 feet, from graph based on gage readings) from rating curve extended above 6,000 second-feet; minimum, 66 second-feet Sept. 4, 1930 (gage height, 3.05 feet).

Remarks.- Records excellent except those for period of ice effect, Feb. 13-20, computed on basis of gage heights and weather records, and those above 5,000 second-feet, which are good. No diversions or regulation.

Rating tables, water year 1935-36 except period of ice effect (gage height, in feet, and discharge, in second-feet)

Oct. 1 to Feb. 26				Feb. 27 to Sept. 30			
3.2	70	5.0	795	3.0	55	5.5	1,240
3.5	145	6.0	1,600	3.5	165	6.0	1,700
4.0	290	7.0	2,800	4.0	325	7.0	2,900
4.5	504	8.0	4,250	4.5	545	8.0	4,450
				5.0	860	9.0	6,080

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	148	300	484	4,040	352	2,320	381	1,560	1,080	540	212	1,730
2	142	268	436	3,900	311	1,750	361	1,920	1,280	556	206	691
3	137	250	386	2,280	308	2,720	349	2,300	1,660	648	203	380
4	137	235	352	2,160	308	1,620	337	3,080	1,160	1,300	206	297
5	137	226	329	3,240	294	1,160	325	3,730	1,080	1,040	205	240
6	135	214	464	1,460	294	1,000	329	3,050	1,200	699	200	212
7	127	209	1,000	1,250	274	895	413	1,760	2,410	556	191	194
8	122	616	1,480	1,420	281	2,160	594	1,330	4,450	515	180	180
9	119	848	1,250	1,090	265	2,490	510	1,240	2,290	472	188	168
10	116	436	1,420	986	256	1,260	922	1,420	1,600	522	165	157
11	114	362	1,170	2,070	250	1,180	2,420	1,700	1,860	759	162	149
12	185	927	1,420	2,680	241	2,340	2,480	1,700	1,510	540	160	180
13	301	706	994	1,770	210	1,800	2,250	1,980	1,280	472	157	319
14	231	520	762	1,210	200	1,330	1,750	2,380	1,200	432	152	451
15	531	838	624	1,940	190	1,200	1,830	3,180	1,300	397	149	314
16	341	1,670	535	1,150	170	1,000	2,690	4,960	1,960	377	146	253
17	936	1,480	470	580	170	930	2,830	2,010	2,160	369	141	221
18	946	806	422	694	160	764	2,690	1,540	1,460	361	138	212
19	802	590	373	866	180	692	2,060	2,850	1,120	353	133	197
20	736	480	337	1,360	190	732	1,900	2,010	1,040	349	130	182
21	706	413	316	994	221	777	2,120	2,210	1,000	345	128	171
22	600	446	304	802	1,870	654	2,300	2,830	1,040	333	130	610
23	441	1,320	304	756	843	572	1,800	1,800	1,000	314	133	389
24	368	1,620	374	700	520	525	1,840	1,700	895	287	331	283
25	333	1,300	956	601	413	490	3,320	1,840	797	263	269	237
26	306	1,380	1,940	530	1,360	629	2,240	2,010	732	246	191	212
27	284	1,130	1,220	556	3,790	739	1,760	2,010	699	237	160	188
28	970	608	1,640	578	1,730	550	1,510	1,850	732	234	146	174
29	611	641	884	470	2,940	477	1,560	1,420	636	230	138	165
30	436	535	1,550	422	-	428	1,600	1,160	567	230	136	160
31	352	-	2,170	390	-	397	-	1,200	-	221	150	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acres-feet
October.....	11,854	970	114	382	5.21	5.70	25,610
November.....	21,566	1,870	208	720	6.75	6.75	42,840
December.....	26,090	2,170	304	842	7.08	8.16	51,750
Calendar year 1935.....	327,105	18,400	109	896	7.53	102.25	648,800
January.....	43,265	4,040	390	1,396	11.7	13.49	85,810
February.....	18,611	3,790	170	642	5.39	5.81	36,910
March.....	35,401	2,720	397	1,142	9.60	11.07	70,220
April.....	47,471	3,320	325	1,582	13.3	14.84	94,160
May.....	65,670	4,960	1,150	2,118	17.8	20.52	130,300
June.....	41,198	4,450	687	1,373	11.5	12.33	61,720
July.....	14,197	1,300	221	458	3.65	4.44	28,150
August.....	5,314	531	128	171	1.44	1.66	10,540
September.....	9,306	1,730	149	310	2.61	2.91	16,460
Water year 1935-36.....	339,973	4,960	114	929	7.81	106.18	674,400

South Fork of Stillaguamish River near Arlington, Wash.

Location.- Staff gage, lat. 46°11'40", long. 122°5'45", in NW¼ sec. 7, T. 31 N., R. 8 E., 1½ miles east of Arlington.

Drainage area.- 254 square miles.

Records available.- December 1928 to November 1936 (discontinued).

Extremes.- Maximum discharge observed during the period October 1935 to November 1936, 11,200 second-feet May 16 (gage height, 8.35 feet); minimum, 206 second-feet Nov. 2-4, 1936 (gage height, 1.70 feet).

1928-36: Maximum discharge observed, about 35,000 second-feet Feb. 28, 1932 (gage height, 14.4 feet); minimum, 108 second-feet Sept. 6, 1930; minimum gage height, that of Nov. 2-4, 1936.

Remarks.- Records good. Gage read to hundredths once daily. No diversions or regulation. Station discontinued because easement could not be obtained for its reconstruction.

Rating tables, period October 1935 to November 1936 (gage height, in feet, and discharge, in second-feet)

Oct. 1, 1935, to Jan. 3, 1936

Jan. 4, 1936, to Nov. 5, 1936

2.0	175	1.7	206	5.0	3,400
2.5	325	2.0	290	6.0	5,480
3.0	605	2.5	495	7.0	7,800
4.0	1,550	3.0	820	8.0	10,200
5.0	3,070	4.0	1,850		
6.0	5,100				
7.0	7,500				
7.5	8,800				

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	250	475	890	6,930	560	5,480	820	2,370	1,720	740	306	*2,500
2	250	395	760	8,020	780	3,590	740	2,850	1,610	820	290	*1,200
3	235	370	680	4,470	700	6,370	740	3,790	*2,800	520	290	610
4	235	325	605	8,760	700	3,400	670	*4,500	1,950	*1,700	290	445
5	235	325	535	6,840	670	2,370	670	6,370	1,720	1,610	290	380
6	220	305	570	3,210	700	1,950	640	6,370	1,830	1,060	290	323
7	220	305	*1,300	2,680	640	1,720	670	3,400	*3,000	820	275	306
8	220	*1,100	1,790	2,680	640	2,800	1,180	2,370	7,320	740	260	290
9	220	1,790	2,060	2,220	610	4,190	990	2,220	4,190	670	260	275
10	208	760	2,370	2,080	550	2,370	1,390	2,220	2,520	*740	246	260
11	208	605	1,550	4,190	550	1,830	*3,250	2,680	3,400	1,280	246	246
12	208	1,130	2,370	4,610	522	4,610	3,790	2,680	2,680	900	246	260
13	535	1,360	1,550	4,190	495	3,400	4,190	3,030	2,080	700	246	*500
14	325	982	1,330	2,520	550	2,370	3,030	3,790	1,950	610	232	*600
15	935	*1,500	1,080	3,990	445	2,620	2,850	*4,500	1,830	550	232	550
16	505	2,370	935	2,680	422	1,950	4,610	8,760	2,680	522	232	400
17	890	3,260	802	2,080	445	2,080	5,040	3,400	3,590	522	232	360
18	1,180	1,550	720	1,720	495	1,610	4,820	2,370	2,520	495	232	342
19	1,180	1,130	642	3,210	445	1,390	3,400	4,820	1,830	470	219	323
20	1,180	890	570	3,400	422	1,500	2,850	3,210	1,720	470	219	290
21	1,030	760	505	2,520	1,080	1,610	3,400	3,590	1,610	445	219	275
22	1,030	720	505	1,950	3,400	1,340	3,990	5,480	1,610	445	219	*600
23	720	*1,700	475	1,830	2,080	1,180	3,030	3,400	1,610	422	219	*800
24	570	3,450	505	1,610	1,390	1,080	2,680	2,680	1,390	380	*450	400
25	535	1,790	1,180	1,390	1,080	690	7,080	2,680	1,230	360	445	342
26	475	2,210	4,890	1,280	*1,700	1,180	3,400	3,030	1,130	342	306	323
27	420	2,210	1,790	1,130	9,760	1,610	3,030	3,210	1,080	323	260	290
28	1,550	1,550	2,710	1,390	4,610	1,280	2,520	2,680	990	323	232	275
29	1,030	1,230	1,440	1,130	4,820	1,080	2,370	2,220	990	323	232	260
30	720	982	*1,700	990	-	940	2,520	1,830	860	323	219	260
31	535	-	3,450	900	-	900	-	1,950	-	306	*300	-
Month				Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off			
									Inches	Acres-feet		
October.....				18,054	1,550	208	582	2.29	2.64	35,810		
November.....				37,549	3,450	305	1,252	4.93	5.50	74,480		
December.....				42,259	4,890	475	1,363	5.37	6.19	83,820		
Calendar year 1935.....				570,772	30,200	208	1,564	6.16	83.63	1,132,000		
January.....				96,650	8,760	900	3,118	12.3	14.18	191,700		
February.....				40,561	8,760	422	1,399	5.51	5.94	80,450		
March.....				70,690	6,370	900	2,280	8.98	10.35	140,200		
April.....				80,360	7,080	640	2,679	10.5	11.71	159,400		
May.....				108,450	8,760	1,830	3,498	13.8	15.91	215,100		
June.....				65,440	7,320	860	2,181	8.59	9.58	129,800		
July.....				20,251	1,700	306	653	2.57	2.96	40,170		
August.....				8,234	450	219	266	1.05	1.21	16,330		
September.....				14,485	2,500	246	483	1.90	2.12	28,730		
Water year 1935-36.....				602,983	8,760	208	1,647	6.48	88.29	1,196,000		

*Discharge computed on basis of one gage reading and shape of daily discharge graph for station near Granite Falls.

STILLAGUAMISH RIVER BASIN

South Fork of Stillaguamish River near Arlington, Wash.

(Continued)

Discharge, in second-feet, October to November 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	246	219										
2	246	206										
3	232	206										
4	610	206										
5	560	232										
6	380	-										
7	323	-										
8	290	-										
9	260	-										
10	260	-										
11	246	-										
12	232	-										
13	232	-										
14	1,180	-										
15	1,340	-										
16	640	-										
17	470	-										
18	380	-										
19	360	-										
20	323	-										
21	290	-										
22	290	-										
23	275	-										
24	260	-										
25	260	-										
26	246	-										
27	232	-										
28	232	-										
29	232	-										
30	232	-										
31	219	-										
Month				Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off			
									Inches	Acre-feet		
October.....				11,598	1,340	219	374	1.47	1.70	23,000		
November 1-5.....				1,069	232	206	214	.843	.16	2,120		
December.....				-	-	-	-	-	-	-		
Calendar year												
January.....												
February.....												
March.....												
April.....												
May.....												
June.....												
July.....												
August.....												
September.....												
The period.....										25,120		

North Fork of Stillaguamish River near Arlington, Wash.

Location.— Water-stage recorder, lat. 48°15'45", long. 122°2'45", in SE¼NW¼ sec. 16, T. 32 N., R. 6 E., 6 miles above mouth and 6 miles northeast of Arlington.

Drainage area.— 282 square miles.

Records available.— July 1928 to September 1936.

Extremes.— Maximum discharge during year, 10,800 second-feet Jan. 4 (gage height, 9.08 feet); minimum, 218 second-feet sometime Aug. 25-31 (gage height, 1.87 feet, from recorded range of stage).

1928-36: Maximum discharge, 27,700 second-feet Feb. 26, 1932 (gage height, 12.7 feet); minimum, 156 second-feet Sept. 1, 1931; minimum gage height, 1.33 feet Sept. 7, 1934.

Remarks.— Records excellent except those for June 28 to July 4, July 7, 8, Aug. 4, 13-18, 21-24, 27-31 (computed on basis of recorded range of stage and records for South Fork near Granite Falls and Sauk River above Whitechuck River), which are fair. Discharge Aug. 9-11 determined by interpolation. No diversions or regulation.

Rating tables, water year 1935-36 (gage height, in feet, and discharge, in second-feet)

Oct. 1 to Jan. 3				Jan. 4 to Sept. 30			
2.0	217	4.0	995	1.5	120	3.5	930
2.5	366	5.0	1,810	2.0	257	4.0	1,140
3.0	539	6.0	2,940	2.5	422	5.0	2,000
3.5	740	8.0	7,000	3.0	607	6.0	5,040

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	288	426	908	5,060	806	4,500	830	2,550	1,760	820	367	2,050
2	279	386	808	6,400	759	3,220	752	2,810	2,320	850	360	981
3	273	382	740	3,660	736	3,910	759	3,040	2,680	1,080	368	568
4	273	376	718	7,300	736	2,930	759	3,830	2,050	1,400	380	457
5	267	366	635	5,350	736	2,350	736	5,060	1,810	1,180	353	398
6	264	350	884	3,050	714	2,000	736	4,260	1,810	930	346	363
7	268	347	1,500	2,700	607	1,760	852	3,020	2,450	820	336	333
8	256	849	1,840	2,980	628	3,170	1,100	2,450	3,810	700	327	304
9	250	1,490	1,630	2,650	670	3,920	930	2,300	2,880	691	321	282
10	241	718	2,920	2,400	607	2,600	1,510	2,400	2,380	691	315	263
11	236	635	2,260	3,520	607	2,200	3,240	2,700	3,330	930	310	257
12	277	1,440	2,590	4,390	588	3,540	3,040	2,700	2,600	806	304	322
13	588	1,190	1,810	4,310	530	3,160	3,040	2,920	2,100	691	320	442
14	486	830	1,400	2,920	512	2,760	2,760	3,220	1,900	648	300	670
15	575	1,070	1,130	3,460	493	2,980	2,600	3,570	1,860	607	280	493
16	468	2,720	965	2,820	475	2,500	3,470	4,520	2,450	588	270	387
17	1,760	2,680	880	2,350	475	2,250	3,890	2,920	3,250	568	260	356
18	1,700	1,540	908	1,900	493	1,860	3,890	2,400	2,810	549	260	317
19	1,040	1,030	718	1,850	475	1,680	3,220	3,260	2,150	530	267	291
20	855	830	675	2,650	475	1,720	2,920	2,760	1,760	530	261	279
21	785	740	655	2,350	530	1,630	3,100	2,780	1,580	530	250	266
22	675	740	635	2,000	2,940	1,420	3,430	3,290	1,540	512	240	642
23	575	1,280	615	1,900	1,890	1,300	2,920	2,600	1,460	493	230	512
24	521	2,170	695	1,720	1,140	1,140	2,810	2,550	1,300	467	400	387
25	486	1,820	1,470	1,460	905	1,060	3,360	2,650	1,140	443	346	336
26	444	2,160	2,960	1,260	2,250	1,340	2,980	2,810	1,020	422	288	301
27	413	1,810	2,010	1,220	4,940	1,420	2,700	2,960	990	408	270	276
28	848	1,400	2,040	1,180	3,090	1,140	2,450	2,760	1,400	401	260	257
29	718	1,130	1,450	1,020	5,810	990	2,500	2,350	1,000	398	260	264
30	557	965	1,960	930	-	905	2,600	2,000	880	377	220	248
31	466	-	2,930	880	-	855	-	2,000	-	377	250	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acres-feet
October.....	17,132	1,760	236	553	1.96	2.26	33,980
November.....	33,970	2,720	347	1,132	4.01	4.47	67,360
December.....	43,229	2,960	615	1,394	4.94	5.70	85,740
Calendar year 1935.....	534,942	21,300	225	1,466	5.20	70.62	1,061,000
January.....	88,020	7,300	880	2,839	10.1	11.64	174,600
February.....	35,717	5,910	475	1,232	4.37	4.71	70,840
March.....	68,210	4,600	855	2,200	7.80	8.99	135,300
April.....	69,914	3,890	736	2,350	8.26	9.22	138,700
May.....	91,330	5,060	2,000	2,948	10.4	11.99	181,300
June.....	60,420	3,810	880	2,014	7.14	7.97	119,800
July.....	20,437	1,400	377	659	2.34	2.70	40,540
August.....	9,277	400	220	299	1.06	1.22	18,400
September.....	13,272	2,050	248	442	1.57	1.75	26,320
Water year 1935-36.....	550,928	7,300	220	1,505	5.34	72.62	1,093,000

Skagit River near Hope, British Columbia

.(International gaging station)

Location.- Water-stage recorder, lat. 49°3', long. 121°5', just below Galena Creek, 4 miles above the international boundary, and 40 miles southeast of Hope.

Drainage area.- 370 square miles.

Records available.- October 1934 to September 1936; March 1915 to September 1922 in Canadian water-resources papers.

Extremes.- Maximum discharge during year, 5,070 second-feet May 31 (gage height, 7.90 feet); minimum, 110 second-feet Feb. 17-19, when stage-discharge relation was affected by ice.

1915-22, 1934-36: Maximum discharge, 7,560 second-feet June 17, 1916; minimum, that of Feb. 17-19, 1936.

Remarks.- Records good except those for period of ice effect, Jan. 29 to Feb. 25, which were computed on basis of gage heights and records for station near Newhalem and are poor. No diversions or regulation. This station is maintained in cooperation with the city of Seattle and is one of the international gaging stations maintained by Canada under agreement with the United States.

Rating tables, water year 1935-36 except period of ice effect (gage height, in feet, and discharge, in second-feet)

Oct. 1 to May 30

May 31 to Sept. 30

2.0	55	4.5	1,220	2.0	64	4.5	1,220
2.5	175	5.0	1,620	2.5	175	5.0	1,620
3.0	365	6.0	2,520	3.0	338	6.0	2,520
3.5	590	7.0	3,710	3.5	573	7.0	3,710
4.0	870	8.0	5,250	4.0	860	8.0	5,250

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	217	193	249	196	130	138	199	2,970	4,000	324	327	288
2	213	178	237	205	130	148	193	3,260	3,640	800	320	292
3	209	181	233	205	125	175	190	3,320	3,570	824	320	255
4	205	184	221	209	125	196	184	3,410	2,870	818	320	259
5	199	190	209	209	125	193	181	3,530	2,490	798	316	233
6	196	190	225	202	125	193	178	3,040	2,330	719	306	227
7	193	187	221	196	125	193	184	2,620	2,440	674	295	217
8	193	193	217	193	125	205	193	2,370	2,520	651	285	208
9	190	202	221	190	125	257	196	2,310	2,260	639	278	199
10	187	196	233	190	120	257	217	2,450	2,150	622	275	190
11	184	190	257	193	120	257	424	2,930	2,140	612	271	184
12	190	184	257	196	120	277	792	3,250	2,120	573	271	187
13	193	181	245	199	120	289	1,140	3,570	1,960	542	271	184
14	193	175	233	196	115	285	1,390	4,440	1,870	521	265	175
15	196	184	225	196	115	281	1,470	4,440	1,820	501	262	172
16	190	184	217	193	115	273	1,870	3,780	1,750	460	262	166
17	221	184	209	193	110	265	2,720	3,190	1,790	465	255	163
18	293	175	202	187	110	257	3,600	2,970	1,600	460	252	160
19	285	169	190	187	110	249	3,680	3,410	1,430	456	256	160
20	253	163	187	181	115	249	3,180	3,110	1,340	456	255	158
21	241	160	187	178	115	261	3,140	2,670	1,280	460	252	158
22	229	163	184	178	115	257	3,440	2,470	1,300	451	246	199
23	217	160	181	187	115	253	3,290	2,420	1,320	432	236	193
24	209	160	184	190	115	245	3,180	2,530	1,290	409	230	178
25	205	163	190	184	115	241	3,080	2,790	1,200	387	224	175
26	202	184	199	172	125	237	2,890	3,370	1,120	370	224	166
27	209	190	199	166	118	233	2,870	4,140	1,040	358	220	158
28	317	187	196	157	118	225	2,570	4,290	995	354	217	158
29	269	202	196	130	132	213	2,640	4,130	918	354	214	155
30	217	257	196	130	-	206	2,690	4,470	860	346	211	152
31	205	-	193	130	-	199	-	4,850	-	338	211	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acres-feet
October.....	6,720	317	184	217	0.59	0.68	13,300
November.....	5,509	257	160	184	.60	.58	10,900
December.....	6,593	257	181	213	.58	.67	13,100
Calendar year 1935.....	341,219	5,200	160	935	2.53	34.33	676,800
January.....	5,718	209	130	184	.50	.58	11,300
February.....	3,473	132	110	120	.32	.35	6,890
March.....	7,206	289	138	232	.63	.73	14,300
April.....	51,571	3,600	178	1,720	4.65	5.19	102,000
May.....	102,480	4,850	2,310	3,310	8.95	10.32	203,000
June.....	57,383	4,000	860	1,910	5.18	5.76	114,000
July.....	16,684	824	355	535	1.45	1.67	33,100
August.....	8,149	327	211	265	.71	.82	16,200
September.....	5,749	292	152	192	.52	.58	11,400
Water year 1935-36.....	277,235	4,850	110	757	2.05	27.91	549,000

Skagit River near Newhalem, Wash.

Location.- Water-stage recorder, lat. 48°45', long. 121°2', in sec. 30, T. 38 N., R. 14 E., 1½ miles above Ruby Creek and 11 miles northeast of Newhalem.

Drainage area.- 765 square miles, of which 390 square miles is in Canada.

Records available.- March 1930 to September 1936.

Extremes.- Maximum discharge during year, 12,000 second-feet May 31 (gage height, 11.1 feet); minimum, not determined, occurred during period of ice effect, 1930-33; Maximum discharge, 25,700 second-feet Feb. 27, 1932 (gage height, 15.9 feet); minimum, 366 second-feet Dec. 5, 1929 (result of discharge measurement).

Remarks.- Records excellent except those for period of ice effect, Feb. 6-10, 13-22, computed on basis of one discharge measurement, gage heights, and weather records, which are fair. No diversions or regulation. Gage-height record collected in cooperation with city of Seattle, which furnished results of many discharge measurements.

Rating table, water year 1935-36 (gage height, in feet, and discharge, in second-feet)

3.5	325	6.0	2,420	9.0	7,270
4.0	590	6.5	3,100	9.5	8,360
4.5	920	7.0	3,800	10.0	9,470
5.0	1,350	7.5	4,550	10.5	10,620
5.5	1,840	8.0	5,350	11.0	11,800
		8.5	6,270		

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	878	650	731	759	557	524	738	6,670	10,200	2,550	1,400	1,520
2	864	608	717	801	546	557	717	7,270	9,020	2,620	1,400	1,350
3	857	602	704	815	540	731	704	7,480	9,240	2,820	1,440	1,160
4	829	602	692	850	540	808	692	7,700	7,270	3,170	1,540	1,120
5	815	602	668	829	546	808	680	8,140	6,070	3,030	1,490	1,130
6	801	602	674	794	524	808	680	6,870	5,700	2,620	1,440	1,120
7	787	596	704	780	480	801	698	5,880	6,270	2,360	1,550	1,060
8	836	602	717	773	486	898	710	5,350	6,470	2,240	1,260	952
9	787	614	731	752	496	1,150	731	5,030	5,700	2,240	1,220	871
10	745	596	843	752	502	1,090	822	5,190	5,350	2,180	1,220	815
11	731	596	899	780	508	1,070	1,330	6,270	6,070	2,240	1,260	769
12	780	590	913	822	496	1,220	2,210	7,070	5,880	2,060	1,260	752
13	808	579	857	864	480	1,220	3,310	7,920	5,190	1,950	1,300	710
14	773	568	822	850	464	1,170	3,950	9,930	5,030	1,900	1,260	686
15	766	596	787	836	447	1,130	4,100	9,930	5,030	1,790	1,220	656
16	784	620	752	794	436	1,110	4,710	8,800	4,870	1,740	1,170	632
17	823	620	717	766	425	1,080	6,870	7,270	5,190	1,740	1,130	608
18	1,440	602	698	731	425	1,030	9,240	6,670	4,400	1,740	1,130	632
19	1,220	584	674	717	430	1,000	9,240	7,270	3,800	1,790	1,140	644
20	1,020	562	650	698	442	992	8,140	7,070	3,660	1,900	1,170	644
21	928	552	638	668	452	1,020	7,700	5,880	3,660	1,950	1,170	668
22	857	552	626	656	458	1,010	8,140	5,350	3,800	1,950	1,120	1,080
23	808	557	614	656	464	976	8,140	5,190	4,100	1,840	1,030	871
24	780	562	632	662	447	936	7,700	5,550	4,100	1,690	976	822
25	745	579	674	662	456	899	7,070	6,070	3,660	1,540	944	766
26	731	614	717	650	458	899	6,470	7,270	3,450	1,440	952	692
27	710	638	745	632	474	878	6,070	9,020	3,240	1,440	976	662
28	885	632	738	614	462	857	5,880	9,470	3,030	1,440	992	680
29	857	644	724	584	496	808	5,700	9,240	2,750	1,490	1,000	686
30	752	704	724	584	-	780	6,070	9,930	2,620	1,490	968	656
31	692	-	710	579	-	752	-	11,800	-	1,440	936	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acre-feet
October.....	26,089	1,440	692	842	1.10	1.27	51,750
November.....	18,025	704	552	601	.786	.88	35,750
December.....	22,492	913	614	726	.949	1.09	44,610
Calendar year 1935	926,952	15,400	552	2,540	3.32	45.08	1,839,000
January.....	22,710	864	579	733	.958	1.10	45,040
February.....	13,907	557	425	480	.627	.66	27,580
March.....	28,015	1,220	524	936	1.22	1.41	57,550
April.....	229,212	9,240	680	4,307	5.63	6.28	256,300
May.....	228,350	11,800	5,030	7,366	9.63	11.10	452,900
June.....	154,820	10,200	2,620	5,161	6.75	7.53	307,100
July.....	62,590	3,170	1,440	2,013	2.63	3.03	123,700
August.....	36,864	1,540	936	1,189	1.55	1.79	73,120
September.....	25,404	1,520	608	847	1.11	1.24	50,390
Water year 1935-36.....	769,276	11,800	425	2,102	2.75	37.40	1,526,000

Skagit River at Newhalem, Wash.

Location.- Water-stage recorder, lat. 48°40', long. 121°15', in SE½ sec. 21, T. 37 N., R. 12 E., at city of Seattle power plant, a quarter of a mile above Newhalem Creek at Newhalem. Zero of gage is 400 feet above mean sea level (subject to correction for general adjustment of 1929).

Drainage area.- 1,160 square miles, of which 390 square miles is in Canada.

Records available.- December 1908 to May 1914, October 1920 to September 1936. Monthly discharge October 1908 to September 1933 published in State Water-Supply Bulletin 5. Average discharge - 28 years, 4,451 second-feet.

Extremes.- Maximum discharge during year, 22,400 second-feet May 31 (gage height, 89.27 feet); minimum, 153 second-feet Sept. 29 (gage height, 78.78 feet, result of regulation); minimum daily discharge, 463 second-feet Feb. 22.

1908-14, 1920-38: Maximum discharge, 60,000 second-feet Dec. 12, 1921 (gage height, 94.2 feet); minimum, less than 90 second-feet Jan. 27, Aug. 25, 1930, caused by regulation; minimum daily discharge, 136 second-feet Aug. 24, 1930.

Remarks.- Records excellent. Water diverted 3 miles above station returns to river at Seattle power plant just above station. Entire low-water flow may be carried through plant. Flow partly controlled by storage and release of water at tunnel intake and above Diablo Dam. Capacity of Diablo Reservoir, 91,300 acre-feet at elevation 1,205 feet. Part of table of monthly discharge corrected for storage. Gage-height record collected in cooperation with city of Seattle, which furnished results of several discharge measurements.

Rating table, water year 1935-36 (gage height, in feet, and discharge, in second-feet)

79.5	400	82.0	2,330	85.0	7,150
80.0	640	82.5	2,830	86.0	9,820
80.5	945	83.0	3,620	87.0	12,890
81.0	1,330	83.5	4,400	88.0	16,700
81.5	1,790	84.0	5,200	89.0	21,000

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2,570	1,220	*938	950	1,120	*731	1,180	10,400	15,900	4,910	3,160	3,640
2	2,560	1,120	1,190	1,390	*850	1,200	1,090	11,600	16,700	5,090	*2,880	2,910
3	2,450	*778	1,110	1,390	1,530	1,390	1,060	*11,800	16,000	5,640	3,410	2,550
4	2,550	1,240	1,110	1,390	1,550	1,370	1,010	12,300	11,300	6,240	3,660	2,500
5	2,170	1,230	1,100	*1,030	1,570	1,360	*1,030	12,700	10,300	*6,950	3,540	2,380
6	*1,940	1,240	1,150	1,450	1,620	1,430	1,100	11,200	9,750	5,150	3,340	*2,220
7	2,320	1,260	1,060	1,480	1,150	1,450	1,110	9,040	*11,500	4,750	3,040	2,690
8	2,370	1,300	*896	1,320	1,040	*1,130	1,120	8,000	12,100	4,560	2,660	2,480
9	2,590	1,200	1,180	1,350	*838	1,850	1,130	7,650	9,900	4,680	*2,570	2,440
10	2,330	*967	1,570	1,380	1,420	1,680	1,590	*8,180	8,840	4,550	2,910	2,270
11	2,530	1,190	1,620	1,270	1,380	1,740	2,200	10,300	11,500	4,510	2,860	1,680
12	2,150	1,220	1,580	*642	1,370	1,810	*2,010	11,700	9,930	*2,860	2,890	1,350
13	*1,530	1,250	1,510	1,440	1,090	1,850	2,550	13,300	9,500	3,740	3,070	*784
14	2,430	1,230	1,380	1,480	702	1,820	2,510	16,800	*9,140	3,850	2,880	986
15	2,410	1,280	*1,040	1,430	616	*1,420	2,630	16,500	9,290	3,560	2,700	992
16	2,380	1,210	1,370	1,410	*538	1,940	2,960	13,300	9,190	3,310	*2,440	909
17	2,670	*890	1,220	1,530	706	1,890	3,600	*11,100	10,100	3,580	2,630	903
18	2,770	1,230	1,210	1,170	707	1,830	13,800	9,900	7,510	3,650	2,800	890
19	2,310	1,220	1,180	*591	538	1,810	13,900	11,700	8,250	*3,540	2,520	772
20	*1,950	1,200	1,070	1,370	624	1,820	12,300	10,600	6,020	4,300	2,540	*617
21	2,450	1,140	916	1,400	706	1,810	11,700	9,210	*6,720	4,860	2,710	1,400
22	2,430	1,250	*658	1,340	463	*1,350	12,500	8,500	7,510	4,560	2,760	3,040
23	2,590	1,070	1,200	1,390	*504	1,830	12,100	8,540	8,350	4,000	*2,160	2,420
24	2,080	*826	1,280	1,520	545	1,860	11,500	*6,930	7,990	3,750	2,530	2,380
25	1,600	1,050	806	1,190	769	1,870	10,600	10,600	7,060	3,200	2,440	2,280
26	1,250	1,200	1,260	*884	*938	1,870	*6,720	13,200	6,510	*2,920	2,140	2,010
27	*1,220	1,180	1,100	1,410	996	1,870	8,090	16,000	6,330	3,180	1,820	*1,630
28	1,630	604	1,160	1,380	666	1,700	9,080	16,200	*5,430	2,900	1,970	2,240
29	1,460	1,110	*864	1,350	501	*1,100	8,910	15,400	5,020	3,290	2,120	2,090
30	1,460	958	1,240	1,350	-	1,400	9,400	16,900	4,880	3,220	*1,920	2,220
31	1,560	-	1,250	1,310	-	1,240	-	*20,600	-	3,110	2,320	-

Month	Observed				Gain or loss in storage in Diablo Reservoir (acre-feet)	Corrected for storage			
	Discharge in second-feet			Run-off in acre-feet		Run-off in acre-feet	Discharge in second-feet		Run- off in inches
	Maxi- mum	Mini- mum	Mean				Mean	Per square mile	
October.....	2,770	1,220	2,103	129,300	-35,850	93,450	1,520	1.31	1.51
November.....	1,300	604	1,131	67,310	-11,010	56,300	946	.816	.91
December.....	1,620	658	1,168	71,840	+2,040	73,880	1,202	1.04	1.20
Calendar year	24,800	604	4,364	3,159,000	-53,060	3,106,000	4,290	3.70	50.21
January.....	1,480	591	1,279	78,620	-3,290	75,330	1,225	1.06	1.22
February.....	1,620	463	930	53,490	-13,720	39,770	681	.596	.64
March.....	1,940	731	1,584	98,010	-2,070	95,940	1,560	1.34	1.54
April.....	13,900	1,010	5,679	337,900	+70,930	408,800	6,870	5.92	6.60
May.....	20,600	7,650	12,010	738,700	-630	738,100	12,000	10.3	11.87
June.....	16,700	4,880	9,211	548,100	+160	548,300	9,214	7.94	8.86
July.....	6,240	2,860	4,105	252,400	+880	253,300	4,120	3.56	4.09
August.....	3,660	1,820	2,684	165,000	-	165,000	2,684	2.31	2.66
September.....	3,640	772	1,929	114,800	-9,290	105,500	1,773	1.53	1.71
Water year	20,600	463	3,658	2,655,000	-1,850	2,654,000	3,655	3.15	42.81

*Sunday.

†Discharge determined from power load.

Skagit River near Concrete, Wash.

Location.- Water-stage recorder, lat. 48°32', long. 121°46', in sec. 16, T. 35 N., R. 8 E., at dikes 2 miles below Baker River and 2½ miles southwest of Concrete. Zero of gage is 183 feet above mean sea level (subject to correction for general adjustment of 1929).

Drainage area.- 2,700 square miles, of which 390 square miles is in Canada.

Records available.- September 1924 to September 1936.

Average discharge.- 12 years, 14,590 second-feet.

Extremes.- Maximum discharge during year, 60,000 second-feet June 3 (gage height, 15.0 feet); minimum, 3,920 second-feet Sept. 21 (gage height, 0.95 foot).

1924-36.- Maximum discharge, 147,000 second-feet Feb. 27, 1932 (gage height, 27.3 feet); minimum, probably less than 2,160 second-feet during period Oct. 1-24, 1925, when recorder was not operating and when gates in Baker River Dam were closed for first time.

High-water marks at gage height 56.6 feet indicate a flood of 500,000 second-feet about 1815. Records of other floods prior to establishment of station are given in Water-Supply Paper 612.

Remarks.- Records excellent. All diversions returned to river above gage. At low stages flow partly controlled by storage at power plants on Baker River and on upper Skagit River. Capacity of Lake Shannon Reservoir, on Baker River, 156,200 acre-feet at elevation 435 feet. Capacity of Diablo Reservoir, on upper Skagit River, 91,300 acre-feet at elevation 1,205 feet. Part of table of monthly discharge corrected for storage.

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	7,100	6,100	*5,900	7,790	6,350	*8,480	6,560	34,400	45,300	17,000	10,300	12,500
2	6,900	5,900	5,700	12,200	*5,740	8,300	6,350	32,600	41,100	18,600	*10,000	10,700
3	6,900	*5,700	5,700	11,200	5,550	10,600	6,140	*33,900	52,400	20,200	10,400	8,750
4	6,900	5,320	5,700	13,700	5,940	10,200	5,740	35,300	37,300	23,100	11,000	8,460
5	6,700	5,130	5,510	*14,300	5,940	9,040	*5,000	38,500	31,800	*23,400	11,000	8,500
6	*6,500	5,130	5,510	11,400	6,140	8,230	5,180	33,100	31,900	17,900	10,800	*7,480
7	6,300	5,130	5,510	10,400	6,140	7,660	5,550	27,500	*36,800	16,000	10,000	7,470
8	6,300	4,940	*5,900	9,960	5,740	*8,320	5,550	23,300	42,800	15,600	9,490	7,580
9	6,500	5,130	6,300	9,540	*5,360	12,800	5,360	22,100	36,200	15,200	*9,120	7,630
10	6,500	*5,130	7,700	8,960	5,180	10,900	5,940	*22,700	32,300	15,200	9,300	7,500
11	6,500	4,940	8,120	9,850	5,360	9,800	10,600	27,800	40,000	17,100	9,460	6,930
12	6,300	4,940	8,200	*11,100	5,360	11,500	*12,400	31,500	37,800	*13,100	9,400	6,500
13	*6,500	5,130	7,460	12,200	5,360	11,600	15,000	35,800	34,200	12,800	9,570	*5,940
14	6,300	5,130	6,660	10,800	5,000	10,900	14,600	46,500	*32,200	12,700	9,510	5,590
15	6,900	5,130	*6,500	11,600	4,820	*9,820	14,600	47,200	34,000	12,200	9,240	5,580
16	7,100	5,320	6,300	10,700	*4,820	10,100	18,300	45,200	34,400	11,800	*8,920	5,460
17	8,810	*5,900	6,300	9,500	4,820	9,780	23,700	*34,500	40,600	12,000	8,580	5,340
18	10,600	6,100	6,500	8,500	4,640	9,180	33,600	28,600	31,400	12,400	8,720	5,410
19	8,760	6,100	6,100	*7,530	4,820	8,620	*33,600	35,100	24,800	*12,000	8,440	5,400
20	*7,620	5,900	5,900	7,960	4,820	8,480	30,500	32,600	23,000	13,500	8,540	*5,220
21	7,520	5,510	5,700	7,840	4,820	8,180	29,800	28,000	*24,000	13,900	8,820	5,410
22	7,300	5,320	*5,510	7,110	5,180	*7,280	28,700	27,600	28,700	13,900	8,880	9,000
23	7,300	5,320	5,130	7,660	*6,140	7,670	28,400	27,100	30,600	12,800	*8,040	7,960
24	7,100	*5,320	5,320	7,610	5,740	7,550	31,600	*27,800	29,600	11,700	7,720	7,450
25	6,900	5,510	5,510	7,100	5,550	7,410	32,600	32,800	25,700	10,700	7,880	7,220
26	6,500	6,790	7,350	*6,780	5,740	7,400	*36,600	39,900	24,700	*9,840	7,900	6,820
27	*6,300	6,790	7,640	7,000	7,940	7,430	40,000	50,300	24,000	10,300	7,420	*5,950
28	6,700	6,500	7,220	6,780	7,220	7,160	38,300	49,700	*22,000	10,300	7,550	6,500
29	6,900	6,100	*6,500	6,780	7,940	*6,780	38,100	44,400	18,200	10,700	7,770	6,560
30	6,500	6,100	6,900	6,780	-	6,560	36,000	41,500	17,700	10,600	*7,300	6,700
31	6,300	-	7,190	6,560	-	6,780	-	*52,200	-	10,400	7,430	-
Month	Observed				Gain or loss in storage		Corrected for storage					
	Discharge in second-feet			Run-off in acre-feet	in Diablo and Lake Shannon Reservoirs (acre-feet)		Run-off in acre-feet	Discharge in second-feet			Run-off in inches	
	Maxi-mum	Mini-mum	Mean					Mean	Per square mile			
October.....	10,600	6,300	7,010	431,000	-67,560		363,400	5,910	2.19	2.52		
November.....	8,790	4,940	5,582	332,200	-37,950		294,200	4,944	1.83	2.04		
December.....	8,200	5,130	6,369	391,600	+15,960		407,600	6,629	2.46	2.54		
Calendar year 1935	120,000	4,940	13,670	9,899,000	-129,600		9,769,000	13,490	5.00	67.83		
January.....	14,300	6,560	9,264	569,600	+19,410		589,000	9,579	3.55	4.09		
February.....	7,940	4,640	5,661	325,600	-61,300		264,300	4,595	1.70	1.83		
March.....	12,800	6,560	8,855	544,400	+18,530		562,900	9,155	3.39	3.91		
April.....	40,000	5,000	20,150	1,199,000	+138,500		1,338,000	22,490	8.33	9.21		
May.....	52,200	22,100	35,150	2,161,000	+9,970		2,171,000	35,510	13.1	15.10		
June.....	52,400	17,700	32,180	1,915,000	-6,420		1,926,000	32,550	12.0	13.39		
July.....	25,400	9,840	14,090	866,700	-50,420		860,300	13,990	5.18	5.97		
August.....	11,000	7,300	8,984	552,400	-55,650		501,900	8,163	3.02	3.48		
September.....	12,300	5,220	7,114	423,300	-		367,700	6,179	2.29	2.56		
Water year 1935-36	52,400	4,640	13,380	9,712,000	-67,400		9,645,000	13,290	4.92	67.02		

*Sunday.

Ruby Creek near Newhalem, Wash.

Location.- Water-stage recorder, lat. 48°44', long. 121°2', in sec. 31, T. 38 N., R. 14 E., 1 mile above mouth and 10½ miles northeast of Newhalem.

Drainage area.- 210 square miles.

Records available.- June 1919 to March 1920, April 1930 to September 1936.

Extremes.- Maximum discharge during year, 4,850 second-feet June 2 (gage height, 13.92 feet); minimum, not determined, probably occurred during period of ice effect.

1919-20, 1930-36: Maximum discharge, 6,730 second-feet Feb. 27, 1932 (gage height, 14.15 feet); minimum, not determined, occurred during period Dec. 24, 1930, to Jan. 1, 1931, when stage-discharge relation was affected by ice.

Remarks.- Records excellent except those for period of ice effect, Jan. 29 to Mar. 10, computed on basis of one discharge measurement, gage heights, and weather records, which are poor. No diversions or regulations. Gage-height record collected in cooperation with city of Seattle, which furnished results of many discharge measurements.

Rating tables, water year 1935-36 except period of ice effect (gage height, in feet, and discharge, in second-feet)

Oct. 1 to May 13				May 14 to Sept. 30			
6.4	64	8.0	296	6.6	100	8.5	477
6.6	77	8.5	421	6.9	132	9.0	622
6.9	100	9.0	560	7.2	179	10.0	1,000
7.2	140	10.0	885	7.5	239	11.0	1,550
7.5	190	11.0	1,350	8.0	354	12.0	2,400
		13.0	3,500			14.0	5,000

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	164	98	107	118	90	100	101	1,810	2,760	708	318	346
2	161	100	103	131	88	102	99	2,020	3,430	742	318	248
3	159	102	101	125	87	105	98	2,070	2,960	780	342	212
4	159	105	100	126	86	108	98	2,170	2,200	742	354	212
5	158	108	99	125	85	112	98	2,120	1,930	672	342	212
6	153	113	99	114	84	118	99	1,700	1,890	590	318	206
7	146	109	102	110	70	125	106	1,460	2,350	559	294	188
8	153	116	102	108	70	132	112	1,320	2,250	559	274	165
9	145	108	105	106	76	140	114	1,350	1,930	530	263	150
10	137	102	128	106	80	146	164	1,660	1,850	530	268	140
11	132	103	122	109	84	161	392	2,020	1,890	516	274	130
12	142	103	113	114	79	173	568	2,220	1,850	477	274	128
13	146	102	107	119	72	170	710	2,620	1,690	464	279	122
14	143	100	103	110	71	158	780	3,310	1,770	464	268	119
15	145	104	99	110	70	150	856	3,010	1,730	440	252	116
16	131	107	98	103	73	146	1,250	2,500	1,620	427	241	111
17	142	104	99	103	76	143	1,780	2,110	1,660	427	228	108
18	182	99	95	98	78	134	2,280	2,110	1,300	440	226	110
19	182	96	94	98	80	131	1,930	2,400	1,140	452	228	114
20	159	97	94	98	83	140	1,770	2,060	1,140	477	235	116
21	151	103	98	98	84	154	1,770	1,730	1,190	490	237	121
22	137	101	97	99	85	143	1,980	1,620	1,350	464	218	204
23	134	101	95	102	86	136	1,850	1,660	1,420	440	200	147
24	137	103	101	103	86	130	1,770	1,850	1,300	390	188	137
25	137	108	107	100	87	125	1,650	2,280	1,140	342	177	128
26	134	113	113	93	92	124	1,490	2,880	1,040	330	187	117
27	130	109	110	103	95	118	1,380	3,190	980	342	188	113
28	168	105	108	94	97	113	1,380	3,070	880	354	202	119
29	125	108	104	93	98	106	1,420	3,070	742	354	200	120
30	104	110	104	92	-	105	1,600	3,500	725	342	185	114
31	96	-	103	90	-	101	-	3,850	-	330	181	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acres-foot
October.....	4,498	188	96	145	0.690	0.80	8,920
November.....	3,136	116	96	105	.600	.66	6,220
December.....	3,210	128	94	104	.495	.57	6,370
Calendar year 1935.....	248,071	3,170	94	680	3.24	44.01	492,000
January.....	3,298	131	90	106	.505	.58	6,540
February.....	2,392	98	70	82.5	.393	.42	4,740
March.....	4,049	173	100	131	.624	.72	8,030
April.....	29,675	2,280	98	989	4.71	5.26	58,860
May.....	70,640	3,850	1,320	2,279	10.9	12.57	140,100
June.....	50,087	3,430	725	1,670	7.95	8.87	99,350
July.....	15,174	780	330	489	2.33	3.69	30,100
August.....	7,759	354	177	250	1.19	1.37	15,390
September.....	4,573	346	108	152	.724	.81	9,070
Water year 1935-36.....	198,491	3,850	70	542	2.58	35.22	393,700

Thunder Creek near Newhalem, Wash.

Location.— Water-stage recorder, lat. 48°40', long. 121°4', in SE $\frac{1}{4}$ sec. 23, T. 37 N., R. 13 E., unsurveyed, half a mile above backwater from Diablo Reservoir and 8 miles east of Newhalem.

Drainage area.— 98 square miles.

Records available.— October 1930 to September 1936.

Extremes.— Maximum discharge during year, 3,800 second-feet May 30 (gage height, 8.30 feet); minimum, not determined, probably occurred during period of ice effect.
1930-36: Maximum discharge, 8,760 second-feet Feb. 26, 1932 (gage height, 11.3 feet) from rating curve extended above 2,000 second-feet; minimum, not determined, occurred during period of ice effect.

Remarks.— Records excellent October to Jan. 7, June 10 to Sept. 30; good Feb. 1 to June 9, except those for period of ice effect, Feb. 1-24, computed on basis of partial gage-height graph and weather records, and those for Apr. 10-31, May 1-16, 23-31, June 1-4, 6-9, computed on basis of partial gage-height record and records for Ruby Creek near Newhalem, which are poor. No diversions or regulation. Gage-height record collected in cooperation with city of Seattle, which furnished results of many discharge measurements.

Rating table, water year 1935-36 except period of ice effect (gage height, in feet, and discharge, in second-feet)

1.7	50	3.5	425	5.5	1,300
2.0	90	4.0	600	6.0	1,620
2.5	165	4.5	810	7.0	2,440
3.0	295	5.0	1,050	8.0	3,440

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	576	129	120	125	64	68	98	890	2,000	1,100	1,020	1,600
2	541	121	112	129	61	68	97	1,100	2,500	1,250	1,130	925
3	520	120	107	129	60	98	84	1,150	1,500	1,390	1,330	930
4	502	121	104	129	59	102	80	1,200	1,390	1,630	1,440	1,020
5	502	118	102	127	59	104	80	1,150	1,300	1,560	1,320	1,080
6	455	118	100	121	54	107	80	970	1,300	1,100	1,220	1,000
7	490	118	105	116	50	104	85	810	1,800	1,050	1,050	855
8	580	151	104	112	54	127	92	670	1,600	1,050	954	650
9	397	125	105	109	58	168	93	650	1,330	1,080	978	587
10	344	112	121	107	65	150	107	847	1,330	1,120	1,070	468
11	332	111	116	111	74	142	320	1,010	1,760	1,080	1,150	370
12	312	111	116	114	69	150	385	1,180	1,690	950	1,130	344
13	268	107	107	112	64	148	460	1,220	1,460	975	1,150	279
14	257	104	102	107	57	140	510	1,960	1,580	1,000	1,050	246
15	241	109	98	105	50	133	560	1,700	1,620	950	1,020	217
16	210	112	95	98	52	129	950	1,280	1,820	975	950	202
17	494	105	93	97	53	127	1,700	1,080	1,560	1,100	950	256
18	692	98	93	92	53	121	3,000	975	1,200	1,150	878	378
19	406	93	90	92	53	116	1,700	1,200	1,020	1,290	950	427
20	286	90	87	90	53	118	1,100	1,000	1,080	1,490	1,080	454
21	246	88	65	87	53	123	1,150	832	1,220	1,480	1,100	665
22	213	90	55	88	53	121	1,220	832	1,630	1,430	925	1,320
23	198	95	82	90	53	118	1,140	832	1,920	1,240	765	600
24	198	100	90	90	53	112	1,050	1,050	1,760	1,080	720	720
25	200	109	125	87	54	109	910	1,400	1,550	925	657	470
26	200	123	158	84	56	107	790	1,900	1,520	931	769	402
27	196	111	148	84	57	104	700	2,400	1,420	1,050	883	459
28	290	107	136	79	56	100	700	2,200	1,180	1,130	956	539
29	185	112	125	70	66	93	710	2,200	1,000	1,180	975	520
30	152	125	121	65	-	90	750	2,600	1,000	1,110	783	451
31	144	-	116	65	-	90	-	3,200	-	1,100	911	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acres-foot
October.....	10,627	692	144	343	3.50	4.04	21,080
November.....	3,313	131	88	110	1.12	1.25	6,570
December.....	3,348	153	82	108	1.10	1.27	6,640
Calendar year 1935.....	225,097	5,300	82	617	6.30	85.46	446,500
January.....	3,111	129	65	100	1.02	1.18	6,170
February.....	1,663	74	50	57.3	.595	.63	3,300
March.....	3,587	168	68	116	1.19	1.36	7,110
April.....	20,671	3,000	80	689	7.03	7.84	41,000
May.....	41,618	3,200	670	1,339	13.7	15.79	82,350
June.....	45,460	2,500	1,000	1,515	15.5	17.29	90,170
July.....	35,736	1,630	925	1,153	11.8	13.60	70,880
August.....	31,264	1,440	657	1,009	10.8	11.87	62,010
September.....	18,424	1,600	202	614	6.27	7.00	36,540
Water year 1935-36.....	218,722	3,200	50	596	6.10	83.12	433,800

Stetattle Creek near Newhalem, Wash.

Location.— Water-stage recorder, lat. 48°44', long. 121°10', in NE $\frac{1}{4}$ sec. 6, T. 37 N., R. 13 E., 4,000 feet above mouth and 5 $\frac{1}{2}$ miles northeast of Newhalem.

Drainage area.— 21.4 square miles.

Records available.— September 1933 to September 1936. December 1913 to March 1914, December 1914 to April 1915, comparable records at a point half a mile below.

Extremes.— Maximum discharge during year, 1,010 second-feet June 2 (gage height, 4.78 feet); minimum, 14 second-feet Feb. 23 (gage height, 0.64 foot).

1913-15, 1933-36: Maximum discharge, 4,520 second-feet Nov. 5, 1934 (gage height, 10.4 feet) from rating curve extended above 400 second-feet; minimum, that of Feb. 23, 1938.

Remarks.— Records good except those for periods of ice effect, Feb. 7-18, 22, 28, 29, which were computed on basis of gage heights and weather records and are poor, and those for Sept. 6-19, which were computed on basis of records for Ruby Creek near Newhalem and are fair. No diversions or regulation. Gage-height record collected in cooperation with city of Seattle, which furnished results of several discharge measurements.

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	51	46	94	112	29	69	35	414	356	228	101	168
2	50	38	83	129	26	84	33	428	542	246	101	86
3	49	36	74	134	24	114	32	412	374	288	109	70
4	48	34	66	126	24	96	30	454	296	327	114	66
5	43	32	61	124	24	84	30	401	321	241	109	67
6	40	32	66	103	22	83	29	306	348	197	101	65
7	40	31	88	91	18	75	40	251	400	153	89	60
8	40	48	113	91	18	132	50	232	379	177	76	50
9	36	45	115	85	19	166	53	264	348	179	77	45
10	33	35	208	83	19	124	117	340	323	189	80	40
11	32	35	188	107	20	112	330	396	647	201	83	40
12	64	36	164	126	18	138	399	396	397	158	86	35
13	67	35	129	131	16	127	391	484	348	150	89	35
14	73	34	109	107	16	115	365	586	362	149	81	35
15	72	42	92	93	16	105	369	401	365	136	76	35
16	64	65	81	77	15	92	506	359	420	136	71	30
17	394	69	73	67	15	81	587	296	364	149	68	30
18	396	58	66	58	15	71	652	305	263	152	67	30
19	195	49	60	54	15	67	464	381	248	158	69	35
20	142	42	54	50	15	69	428	291	271	170	72	37
21	114	39	52	45	15	72	444	255	307	174	71	65
22	93	38	52	48	15	66	524	293	350	165	63	143
23	76	51	50	57	16	60	437	291	353	144	58	61
24	77	59	63	58	16	54	385	321	323	120	54	53
25	81	77	132	54	16	51	329	366	288	100	51	46
26	75	113	174	49	20	53	298	457	281	98	55	40
27	85	103	142	42	27	51	291	450	258	102	58	39
28	155	92	122	38	37	50	313	376	244	106	59	40
29	89	97	102	36	52	45	351	395	216	114	65	40
30	68	104	96	33	-	39	376	394	214	109	54	38
31	58	-	96	31	-	37	-	625	-	108	80	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acre-feet
October.....	2,899	396	32	93.5	4.37	5.04	5,750
November.....	1,614	113	31	53.8	2.51	2.80	3,200
December.....	3,067	208	50	98.9	4.62	5.33	6,080
Calendar year 1935.....	60,598	2,330	31	166	7.76	105.33	120,200
January.....	2,438	134	31	78.6	3.67	4.23	4,840
February.....	600	52	15	20.7	.967	1.04	1,190
March.....	2,582	166	37	83.3	3.89	4.48	5,120
April.....	8,698	652	29	290	15.6	15.17	17,250
May.....	11,611	625	232	375	17.5	20.18	23,030
June.....	10,226	947	214	341	15.9	17.74	20,280
July.....	5,154	327	98	166	7.76	8.95	10,220
August.....	2,382	114	51	76.8	3.69	4.14	4,720
September.....	1,624	168	30	54.1	2.53	2.82	3,220
Water year 1935-36.....	52,885	652	15	144	6.73	91.92	104,900

Cascade River at Marblemount, Wash.

Location.- Water-stage recorder, lat. 48°31'45", long. 121°23'30", in SW¼ sec. 9, T. 35 N., R. 11 E., 2 miles east of Marblemount.

Drainage area.- 180 square miles.

Records available.- September 1928 to September 1936.

Extremes.- Maximum discharge during year, 5,760 second-feet June 2 (gage height, 7.07 feet); minimum, 185 second-feet Feb. 20, 21 (gage height, 1.42 feet).
1928-36: Maximum discharge, 12,900 second-feet Feb. 26, 1932 (gage height, 9.88 feet); minimum, 149 second-feet Nov. 15, 1929; minimum gage height, 1.37 feet Oct. 14, 1932; stage and discharge may have been lower during January or February 1929, when stage-discharge relation was affected by ice.

Remarks.- Records excellent. No diversions or regulation.

Rating tables, water year 1935-36 (gage height, in feet, and discharge, in second-feet)

Oct. 1 to June 2				June 3 to Sept. 30			
1.4	161	3.5	1,030	1.7	278	4.0	1,460
1.6	220	4.0	1,360	2.0	370	4.5	1,680
1.9	298	5.0	2,290	2.5	565	5.0	2,330
2.2	400	6.0	3,680	3.0	820	6.0	3,680
2.5	525	7.0	5,560	3.5	1,120	7.0	5,550
3.0	755						

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	436	236	284	469	266	396	261	1,930	3,080	1,500	850	1,430
2	416	227	275	638	256	432	253	2,290	3,850	1,660	880	795
3	408	222	269	615	248	592	248	2,350	3,740	1,820	970	630
4	404	220	269	705	248	552	243	2,600	2,550	2,050	1,000	790
5	366	220	275	730	253	498	238	2,470	2,330	1,840	970	735
6	372	220	301	592	246	472	236	1,880	2,560	1,500	910	534
7	393	251	304	530	225	440	253	1,520	3,140	1,420	790	516
8	351	264	298	489	225	555	261	1,360	3,000	1,420	735	592
9	314	234	379	456	225	755	264	1,360	2,550	1,360	735	464
10	301	236	379	444	218	615	380	1,520	2,440	1,360	735	405
11	320	243	393	476	216	570	832	2,080	2,930	1,420	760	354
12	327	238	351	556	210	730	1,120	2,290	2,800	1,220	760	328
13	304	232	320	566	204	660	1,290	2,860	2,500	1,150	790	315
14	327	248	301	512	200	615	1,290	3,940	2,670	1,180	735	344
15	295	292	286	512	200	615	1,360	3,360	2,740	1,090	710	325
16	710	292	278	460	200	548	2,220	3,000	2,840	1,120	685	312
17	962	266	266	424	196	516	3,000	2,080	3,030	1,180	660	284
18	660	256	256	382	192	464	3,280	1,930	2,120	1,180	640	306
19	494	261	248	368	187	428	2,530	2,720	1,820	1,220	620	322
20	412	259	251	362	187	428	2,180	2,130	1,860	1,340	665	334
21	362	256	251	351	189	432	2,290	1,840	2,150	1,340	710	374
22	362	251	246	372	225	408	2,600	1,930	2,590	1,280	635	1,040
23	324	266	271	400	202	390	2,240	1,880	2,690	1,150	556	529
24	334	281	404	396	190	372	2,030	2,060	2,510	1,030	620	500
25	317	286	400	368	189	358	1,080	2,620	2,240	880	529	430
26	289	266	348	351	202	358	1,700	3,530	2,140	850	547	377
27	446	289	298	372	225	354	1,560	4,110	1,980	880	567	395
28	340	275	269	320	227	317	1,520	3,850	1,780	910	635	430
29	292	266	304	301	365	292	1,660	3,280	1,540	940	630	409
30	266	281	344	289	-	281	1,790	3,680	1,500	910	534	370
31	246	-	393	284	-	269	-	4,200	-	910	642	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acres-feet
October.....	12,170	962	246	393	2.18	2.51	24,140
November.....	7,654	292	220	255	1.42	1.58	15,180
December.....	9,611	404	246	307	1.71	1.97	18,860
Calendar year 1935.....	333,501	6,550	220	914	5.08	68.90	661,500
January.....	14,090	730	284	455	2.53	2.92	27,950
February.....	6,416	365	187	221	1.23	1.33	12,730
March.....	14,712	755	269	475	2.64	3.04	29,180
April.....	41,029	3,280	236	1,368	7.60	8.48	81,380
May.....	78,670	4,200	1,360	2,538	14.1	16.26	156,000
June.....	78,670	3,850	1,500	2,522	14.0	15.62	150,100
July.....	39,110	2,050	650	1,262	7.01	8.08	77,570
August.....	22,825	1,000	529	717	3.98	4.59	44,080
September.....	14,989	1,450	284	500	2.78	3.10	29,730
Water year 1935-36.....	336,246	4,200	187	919	5.11	69.48	666,900

Sauk River above Whitechuck River, near Darrington, Wash.

Location.- Water-stage recorder, lat. 48°10'0", long. 121°27'45", in NW¼ sec. 24, T. 31 N., R. 10 E., half a mile above Whitechuck River and 9½ miles southeast of Darrington.

Drainage area.- 152 square miles.

Records available.- August to November 1910 (fragmentary gage heights), October 1917 to September 1922, August 1928 to September 1936.

Average discharge.- 15 years (1917-22, 1928-36), 1,147 second-feet.

Extremes.- Maximum discharge during year, 4,400 second-feet May 16 (gage height, 6.26 feet); minimum, not determined, occurred during period of ice effect; minimum daily discharge, 130 second-feet Feb. 14, 15.
1917-22, 1928-36: Maximum discharge, 23,000 second-feet Dec. 12, 1921 (gage height, 14.65 feet) from rating curve extended above 3,000 second-feet; minimum daily discharge, that of Feb. 14, 15, 1936; minimum gage height, 2.01 feet Oct. 2, 3, 1929.

Remarks.- Records good except those for periods of ice effect, Feb. 7-10, 13-20, which were computed on basis of gage heights and weather records and are poor. No diversions or regulation.

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	245	250	378	1,090	268	798	310	2,140	2,690	1,350	491	1,170
2	241	237	356	1,520	250	782	300	2,540	2,800	1,380	485	579
3	237	225	330	1,180	241	974	286	2,840	3,520	1,450	515	433
4	233	217	315	1,630	233	839	276	3,000	2,540	1,700	528	384
5	225	209	300	1,540	237	694	268	3,080	2,530	1,540	515	362
6	221	209	315	965	233	606	266	2,540	2,470	1,220	479	330
7	209	205	437	766	180	548	266	2,080	3,240	1,130	444	315
8	209	268	562	758	190	834	310	1,820	3,560	1,090	400	286
9	201	351	541	670	190	1,240	305	1,700	3,000	1,020	389	264
10	189	281	638	614	200	920	424	1,680	2,690	1,040	378	246
11	181	276	662	798	197	806	966	2,340	2,760	1,080	378	234
12	226	330	718	1,020	193	1,030	1,290	2,690	2,620	958	372	242
13	250	325	598	965	160	929	1,450	3,160	2,470	882	384	246
14	254	290	507	766	130	830	1,340	3,880	2,540	858	367	264
15	325	335	449	920	130	758	1,450	3,560	2,620	786	356	246
16	272	474	407	686	140	670	2,260	3,800	2,780	778	340	226
17	481	507	373	541	150	614	2,920	2,690	2,990	802	350	214
18	565	338	345	455	150	541	3,160	2,330	2,260	802	325	222
19	583	335	325	443	150	514	2,690	3,000	1,680	810	315	222
20	520	300	305	462	150	514	2,400	2,540	1,880	842	310	226
21	431	276	295	437	154	534	2,540	2,200	2,130	850	320	222
22	373	276	290	431	356	488	2,920	2,200	2,400	818	310	447
23	315	351	286	449	295	462	2,620	2,200	2,470	730	295	345
24	290	494	310	437	241	437	2,400	2,400	2,200	643	335	295
25	286	494	480	407	221	407	2,470	2,840	2,000	560	355	272
26	276	576	702	378	394	443	2,270	3,560	1,820	534	305	242
27	263	548	678	362	866	443	2,010	3,970	1,760	534	295	230
28	492	488	694	340	638	395	1,940	3,800	1,600	534	295	222
29	401	431	569	310	806	368	1,940	3,240	1,580	528	300	218
30	330	401	590	295	-	345	2,010	2,840	1,580	522	286	210
31	286	-	702	281	-	320	-	3,060	-	509	303	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acre-feet
October.....	9,580	583	181	309	2.03	2.54	19,000
November.....	10,354	576	205	345	2.27	2.53	20,540
December.....	14,458	718	286	466	3.07	3.54	28,680
Calendar year 1935	358,902	12,700	181	983	6.47	87.97	711,900
January.....	21,916	1,630	281	707	4.65	5.36	43,470
February.....	7,743	866	130	267	1.76	1.90	15,360
March.....	20,084	1,240	320	648	4.26	4.91	39,840
April.....	46,079	3,160	268	1,535	10.1	11.27	91,400
May.....	85,940	3,970	1,700	2,772	18.2	20.98	170,500
June.....	72,680	3,660	1,380	2,419	15.9	17.74	144,000
July.....	28,220	1,700	509	910	5.99	6.91	55,970
August.....	11,480	628	286	370	2.43	2.80	22,770
September.....	9,414	1,170	210	314	2.07	2.31	18,670
Water year 1935-36	337,848	3,970	130	923	6.07	82.59	670,200

Sauk River near Sauk, Wash.

Location.-- Water-stage recorder, lat. 48°25'15", long. 121°33'45", in NW¼ sec. 19, T. 34 N., R. 10 E., 5 miles above mouth and 5 miles southeast of Sauk. Zero of gage is about 267 feet above mean sea level (general adjustment of 1929) determined by plane-table survey.

Drainage area.-- 714 square miles.

Records available.-- July 1928 to September 1936. August 1910 to August 1912, various gages between a point 1 mile below and a point 5 miles above present site. Early discharge measurements all made at point 5 miles above.

Extremes.-- Maximum discharge during year, 16,600 second-feet June 3 (gage height, 8.33 feet); minimum, 944 second-feet Nov. 6-8 (gage height, 2.64 feet). 1910-12, 1928-36: Maximum discharge, 68,500 second-feet Feb. 28, 1932 (gage height, 15.83 feet); minimum, 572 second-feet Dec. 5, 1929 (gage height, 2.62 feet); discharge may have been less sometime Jan. 10-27, 1930, when stage-discharge relation was affected by ice.

Remarks.-- Records excellent. Discharge May 10-12 computed on basis of records for station above Whitechuck River. No diversions or regulation.

Rating table, water year 1935-36 (gage height, in feet, and discharge, in second-feet)

2.8	900	5.0	4,690
3.0	1,120	5.5	6,090
3.5	1,750	6.0	7,660
4.0	2,550	7.0	11,050
4.5	3,530	8.0	15,200

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,490	1,200	1,570	3,780	1,520	3,860	1,590	7,020	11,400	5,640	2,640	4,770
2	1,390	1,040	1,490	5,940	1,440	3,530	1,530	8,460	11,900	6,240	2,640	2,840
3	1,360	1,020	1,410	4,560	1,420	4,440	1,490	9,300	14,300	6,560	2,640	2,200
4	1,370	999	1,350	6,620	1,410	3,860	1,450	9,990	10,700	7,020	2,930	2,040
5	1,360	977	1,290	6,270	1,410	3,220	1,420	10,700	9,640	7,500	2,930	2,040
6	1,320	955	1,390	4,080	1,400	2,930	1,400	8,960	9,990	6,240	2,740	1,960
7	1,240	944	1,750	3,320	1,390	2,640	1,450	7,180	12,200	5,500	2,460	1,890
8	1,300	1,080	2,200	3,220	1,370	3,520	1,540	6,240	13,400	5,560	2,280	1,700
9	1,240	1,610	2,120	3,020	1,340	4,950	1,490	5,940	11,400	5,980	2,200	1,840
10	1,130	1,250	2,640	2,740	1,250	3,640	1,750	6,300	10,700	4,950	2,280	1,460
11	1,100	1,200	2,550	3,540	1,200	3,220	3,330	7,800	11,000	5,080	2,280	1,290
12	1,120	1,480	2,740	4,560	1,190	4,200	4,320	9,000	10,700	4,690	2,280	1,320
13	1,310	1,440	2,200	4,560	1,180	3,970	4,950	10,300	9,990	4,320	2,370	1,240
14	1,170	1,300	1,960	3,530	1,190	3,640	4,690	13,800	10,300	3,970	2,200	1,290
15	1,440	1,440	1,750	4,320	1,090	3,640	4,950	13,000	10,700	3,530	2,120	1,220
16	1,260	2,120	1,630	3,640	1,050	3,220	7,180	13,800	11,000	3,640	2,040	1,120
17	1,810	2,200	1,540	2,930	1,040	3,020	9,640	9,990	12,400	3,750	1,960	1,090
18	2,120	1,710	1,460	2,460	1,050	2,740	11,000	8,460	8,960	3,750	1,960	1,170
19	2,120	1,460	1,370	2,280	1,020	2,460	8,300	11,000	7,820	3,750	1,820	1,230
20	1,960	1,310	1,340	2,460	1,010	2,460	8,300	9,300	7,820	3,970	1,890	1,200
21	1,680	1,230	1,300	2,370	1,040	2,550	6,300	8,300	6,460	3,970	2,040	1,280
22	1,500	1,220	1,290	2,280	1,980	2,370	9,640	8,460	9,640	3,660	1,890	2,350
23	1,360	1,500	1,260	2,280	1,750	2,200	8,630	6,300	10,300	3,530	1,740	1,750
24	1,290	2,040	1,350	2,280	1,440	2,120	8,140	8,630	9,990	3,220	1,820	1,680
25	1,300	1,890	1,960	2,120	1,310	1,960	8,140	10,300	8,630	2,840	1,680	1,490
26	1,240	2,200	2,640	1,960	1,710	2,040	7,500	12,600	8,140	2,740	1,680	1,290
27	1,180	2,120	2,370	1,890	3,640	2,040	6,710	15,200	7,660	2,740	1,720	1,200
28	1,750	1,890	2,460	1,820	3,020	1,890	6,400	14,700	6,710	2,840	1,820	1,280
29	1,650	1,700	2,040	1,720	3,770	1,750	6,400	13,000	5,640	2,930	1,890	1,290
30	1,370	1,620	2,120	1,670	-	1,700	6,710	11,800	5,640	2,840	1,750	1,230
31	1,230	-	2,550	1,610	-	1,620	-	13,400	-	2,740	1,700	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acres-feet
October.....	44,150	2,120	1,100	1,424	1.99	2.29	87,570
November.....	44,045	2,200	944	1,468	2.06	2.30	87,560
December.....	57,090	2,740	1,260	1,842	2.58	2.97	113,200
Calendar year 1935.....	1,397,565	46,300	944	3,829	5.36	72.79	2,772,000
January.....	99,830	6,620	1,610	3,220	4.51	5.20	198,000
February.....	44,650	3,770	1,010	1,539	2.16	2.35	88,520
March.....	91,400	4,950	1,220	2,948	4.13	4.76	161,300
April.....	159,230	11,000	1,400	5,311	7.44	8.30	316,000
May.....	311,230	15,200	5,940	10,040	14.1	16.26	617,300
June.....	297,130	14,300	5,640	9,904	13.9	15.51	569,300
July.....	154,790	7,500	2,740	4,548	6.09	7.02	267,400
August.....	66,590	2,930	1,680	2,148	3.01	3.47	132,100
September.....	49,340	4,770	1,090	1,645	2.30	2.57	97,860
Water year 1935-36.....	1,599,555	15,200	944	3,824	5.36	72.98	2,776,000

Nooksack River near Glacier, Wash.

Location.- Water-stage recorder, lat. $48^{\circ}54'30''$, long. $121^{\circ}59'30''$, in NE $\frac{1}{4}$ sec. 2, T. 39 N., R. 6 E., 600 feet below mouth of Canyon Creek and $2\frac{1}{2}$ miles northwest of Glacier.

Drainage area.- 195 square miles.

Records available.- February 1934 to September 1936. September 1910 to September 1911, fragmentary, from staff gage at practically same site.

Extremes.- Maximum discharge during year, 4,240 second-feet June 11; maximum gage height, 5.55 feet June 16; minimum discharge, probably less than 140 second-feet sometime Feb. 6-26, when stage-discharge relation was affected by ice.
1910-11, 1934-36: Maximum discharge recorded, 8,810 second-feet Nov. 5, 1934 (gage height, 7.42 feet); minimum discharge, 130 second-feet Oct. 17, 1934 (gage height, 0.77 foot).

Remarks.- Records poor. Discharges for periods of ice effect, Feb. 6-10, 12-18, 21-26, were computed on basis of gage heights and weather records. Water diverted for Excelsior power plant of Puget Sound Power & Light Co. returned to river above gage. Regulation due to operation of plant produces only slight effect at gage.

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	639	674	639	933	360	828	296	1,780	2,620	1,560	900	2,540
2	646	686	590	1,340	360	837	287	1,990	2,940	1,500	1,020	890
3	570	695	519	1,180	366	1,110	282	2,140	2,940	1,790	1,120	569
4	507	653	483	1,540	366	794	274	2,360	2,320	2,380	1,130	620
5	471	625	454	1,450	355	746	300	2,280	2,110	1,790	1,080	612
6	438	590	501	1,050	240	625	296	1,920	2,320	1,440	1,030	586
7	438	544	538	770	140	532	345	1,670	2,700	1,300	910	527
8	483	597	513	653	170	736	372	1,450	2,540	1,240	820	431
9	454	551	495	625	200	927	355	1,370	2,460	1,250	880	391
10	432	460	625	590	230	681	570	1,420	2,320	1,560	940	361
11	501	454	618	688	278	625	1,770	1,730	3,620	1,790	940	333
12	695	454	632	837	260	802	1,650	1,850	2,700	1,310	920	455
13	528	448	551	909	240	723	1,720	2,250	2,180	1,210	980	407
14	460	448	513	770	220	660	1,590	3,360	2,180	1,150	900	399
15	448	538	489	716	210	646	1,530	3,020	2,320	1,070	840	391
16	394	639	483	611	190	674	1,990	2,780	2,990	1,140	782	407
17	1,300	604	483	538	180	625	2,600	2,040	2,680	1,200	746	479
18	2,100	519	460	483	160	532	2,840	1,980	1,910	1,240	773	511
19	990	471	438	465	150	513	2,280	2,460	1,670	1,310	920	447
20	746	443	404	483	145	564	2,060	1,920	1,610	1,400	960	190
21	667	416	394	460	190	544	2,060	1,730	1,670	1,410	930	251
22	590	421	388	538	260	454	2,600	1,850	2,100	1,280	782	800
23	544	438	377	618	230	421	2,280	1,790	1,980	1,150	728	333
24	513	465	443	604	210	394	1,920	1,920	1,980	1,040	692	407
25	501	590	695	538	180	377	1,780	2,180	1,790	980	638	333
26	477	674	770	489	260	377	1,590	2,780	1,670	970	710	319
27	686	525	653	465	360	366	1,460	3,360	1,610	1,010	782	399
28	1,340	489	632	432	372	345	1,380	3,440	1,730	1,040	840	519
29	794	634	590	399	925	320	1,470	2,940	1,370	1,020	840	560
30	709	716	653	394	-	310	1,720	3,190	1,320	950	692	503
31	702	-	716	377	-	300	-	3,190	-	920	808	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acres-feet
October.....	20,763	2,100	394	670	3.44	3.97	41,180
November.....	16,453	716	416	549	2.82	3.15	32,650
December.....	16,739	770	377	540	2.77	3.19	33,200
Calendar year 1935.....	372,063	7,290	270	1,019	5.23	70.94	738,000
January.....	21,945	1,540	377	708	3.63	4.18	43,530
February.....	7,807	925	140	269	1.58	1.49	15,480
March.....	18,388	1,110	300	593	3.04	3.50	36,470
April.....	41,667	2,840	274	1,389	7.12	7.94	82,650
May.....	70,140	3,440	1,370	2,263	11.6	13.37	139,100
June.....	66,350	3,620	1,320	2,212	11.3	12.61	131,600
July.....	40,000	2,380	920	1,290	6.62	7.63	79,340
August.....	27,033	1,150	638	872	4.47	5.15	53,620
September.....	15,960	2,540	180	532	2.73	3.05	31,660
Water year 1935-36.....	363,255	3,620	140	992	5.09	69.23	720,500

Nooksack River at Deming, Wash.

Location.- Water-stage recorder, lat. 48°48'35", long. 122°12'15", in lot 12, sec. 6, T. 38 N., R. 5 E., 800 feet below the South Fork and 1 mile southeast of Deming. Prior to Sept. 19, 1935, staff gage at same site but different datum. All gage heights refer to present datum.

Drainage area.- 580 square miles.

Records available.- July 1935 to September 1936. September to December 1910 gage heights from staff gage 1 1/8 miles below. December 1910 to March 1911 gage heights from staff gage at Nugents' bridge, 4 miles below Deming.

Extremes.- Maximum discharge during period July 1935 to September 1936, 12,100 second-feet May 4 (gage height, 8.75 feet); minimum, probably less than 600 second-feet some time during period of ice effect in February.

Remarks.- Records good except those for July 1-19, 1935, period of ice effect, Feb. 7-23 (computed on basis of gage heights and weather records), and June 1-14, which are poor. Staff gage read to hundredths once or twice daily until Sept. 19, 1935. No diversions. Limited regulation at power plant at Excelsior has slight if any effect at this station.

Rating table, water year 1935-36 except period of ice effect (gage height, in feet, and discharge, in second-feet)

4.0	730	6.5	4,870
4.5	1,250	7.0	6,210
5.0	1,910	7.5	7,650
5.5	2,700	8.0	9,280
6.0	3,700	8.5	11,020

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										*3,500	1,670	*1,450
2										*3,000	1,670	*1,400
3										*2,700	1,740	1,420
4										*2,400	*1,550	1,370
5										*2,450	1,360	1,320
6										*2,350	1,300	1,300
7										*2,400	1,270	1,220
8										*2,250	1,310	*1,250
9										*2,200	1,410	1,220
10										*2,100	1,420	1,090
11										*2,250	*1,400	980
12										*3,000	1,670	890
13										*2,500	1,840	2,060
14										*4,000	1,770	8,000
15										*3,950	1,350	*4,500
16										*3,400	1,170	5,000
17										*3,100	1,080	3,280
18										*2,750	*1,500	2,620
19										*2,650	1,170	*2,250
20										2,450	1,140	1,910
21										*2,750	1,190	1,770
22										3,070	1,260	1,670
23										3,270	1,190	1,600
24										2,980	1,000	1,440
25										2,450	*1,150	1,300
26										2,060	1,190	1,200
27										1,670	1,420	1,190
28										*2,800	1,550	1,280
29										1,980	1,590	1,370
30										1,730	1,560	1,350
31										1,980	1,520	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acre-feet
October.....							
November.....							
December.....							
Calendar year							
January.....							
February.....							
March.....							
April.....							
May.....							
June.....							
July.....	82,440	4,000	1,670	2,659	4.58	5.28	163,500
August.....	43,410	1,840	1,000	1,400	2.41	2.78	86,100
September.....	58,700	8,000	890	1,957	3.37	3.76	116,400
The period							366,000

*Computed on basis of records for station near Glacier, Middle Fork of Nooksack River near Deming and South Fork of Nooksack River near Wickersham.

Nooksack River at Deming, Wash.

(Continued)

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,300	1,500	2,060	3,960	1,460	6,510	1,240	5,660	16,000	3,070	1,660	7,690
2	1,260	1,390	1,840	6,350	1,360	5,130	1,180	6,490	17,500	2,980	1,730	3,280
3	1,200	1,330	1,700	4,630	1,350	7,300	1,140	6,770	17,000	3,070	1,840	2,060
4	1,160	1,260	1,570	6,720	1,330	5,070	1,090	8,480	16,500	3,280	1,910	1,770
5	1,140	1,200	1,480	7,570	1,300	3,810	1,070	10,300	14,900	3,700	1,840	1,740
6	1,130	1,170	1,770	4,820	1,190	3,170	1,050	8,300	15,100	3,480	1,710	1,700
7	1,120	1,140	2,100	3,920	850	2,790	1,340	5,730	15,300	3,070	1,560	1,530
8	1,200	1,840	2,140	3,700	860	4,270	1,690	4,620	17,000	2,880	1,460	1,310
9	1,070	2,540	1,840	3,590	870	5,740	1,550	4,380	16,750	2,700	1,450	1,190
10	970	1,770	2,530	3,480	890	3,810	2,670	5,000	15,500	2,620	1,490	1,090
11	1,020	1,670	2,450	4,580	800	3,270	9,080	5,800	19,000	2,980	1,520	980
12	2,020	2,060	2,700	6,020	730	4,740	7,570	6,070	17,000	3,070	1,520	1,560
13	2,060	2,060	2,140	6,010	660	4,380	6,920	7,060	15,000	2,880	1,600	1,270
14	1,840	1,760	1,840	4,280	600	3,810	5,930	9,260	15,000	2,700	1,490	1,270
15	1,910	2,060	1,690	4,380	620	3,480	5,260	8,420	5,130	2,530	1,440	1,060
16	1,600	2,880	1,590	3,810	630	3,170	6,990	9,170	16,000	2,370	1,360	950
17	4,700	2,790	1,530	3,270	640	2,980	8,280	5,920	6,350	2,290	1,320	960
18	6,810	2,210	1,450	2,790	650	2,620	8,600	5,260	5,820	2,290	1,330	1,070
19	4,020	1,840	1,360	2,700	650	2,450	6,920	7,240	4,380	2,290	1,350	980
20	2,790	1,640	1,300	3,070	660	2,450	6,350	5,520	4,150	2,290	1,490	970
21	2,450	1,530	1,260	2,980	700	2,370	6,630	5,520	4,260	2,290	1,480	1,050
22	2,060	1,520	1,240	2,880	1,360	2,210	7,550	6,350	4,870	2,290	1,320	2,210
23	1,770	1,870	1,190	3,070	1,250	1,980	6,920	5,520	4,370	2,290	1,230	1,550
24	1,630	1,840	1,460	2,880	1,080	1,840	6,210	5,660	4,380	2,210	1,200	1,460
25	1,630	2,200	2,790	2,530	940	1,700	6,070	6,210	3,920	2,060	1,120	1,520
26	1,450	2,980	4,070	2,290	1,770	1,770	5,520	7,260	3,700	1,980	1,160	1,170
27	1,530	2,530	2,980	2,140	3,480	1,690	5,260	8,280	3,590	1,910	1,240	1,170
28	4,060	2,140	2,530	1,980	2,790	1,550	4,870	7,960	4,150	1,740	1,330	1,280
29	8,700	2,210	2,140	1,840	7,650	1,410	5,130	6,890	3,700	1,710	1,350	1,270
30	2,060	2,370	2,290	1,700	-	1,330	5,660	6,490	3,170	1,660	1,180	1,100
31	1,730	-	2,980	1,520	-	1,290	-	7,650	-	1,600	1,260	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acre-feet
October.....	65,290	6,810	970	2,042	3.52	4.06	125,500
November.....	57,090	2,980	1,140	1,903	3.28	3.66	113,200
December.....	61,910	4,070	1,190	1,997	3.44	3.97	122,800
Calendar year							
January.....	115,540	7,570	1,620	3,727	6.43	7.41	229,200
February.....	39,110	7,650	600	1,349	2.33	2.51	77,570
March.....	100,080	7,300	1,280	3,228	5.57	6.42	198,500
April.....	145,840	9,080	1,050	4,861	8.38	9.35	289,300
May.....	209,240	10,300	4,380	6,750	11.6	13.37	415,000
June.....	157,990	9,000	3,170	5,266	9.08	10.13	318,400
July.....	79,920	3,700	1,600	2,525	4.35	5.02	155,300
August.....	44,950	1,910	1,120	1,450	2.50	2.88	89,160
September.....	47,810	7,690	950	1,594	2.75	3.07	94,830
Water year 1935-36.....	1,121,130	10,300	600	3,063	5.28	71.85	2,224,000

†Computed on basis of records for station near Glacier and South Fork of Nooksack River near Wickersham.

South Fork of Nooksack River near Wickersham, Wash.

Location.- Water-stage recorder, lat. 48°39'50", long. 122°7'50", in lot 2, sec. 26, T. 37 N., R. 5 E., three-quarters of a mile above Skookum Creek and 4 miles east of Wickersham.

Drainage area.- 103 square miles.

Records available.- May 1934 to September 1936.

Extremes.- Maximum discharge during year, 3,770 second-feet May 4 (gage height, 6.51 feet); minimum, 100 second-feet Aug. 31 (gage height, 2.33 feet).
1934-36: Maximum discharge, 11,200 second-feet Nov. 5, 1934 (gage height, 9.95 feet); minimum, that of Aug. 31, 1936.

Remarks.- Records excellent except those for period of ice effect, Feb. 3-21, which were computed on basis of gage heights and weather records and are poor. No diversions or regulation.

Rating tables, water year 1935-36 except period of ice effect (gage height, in feet, and discharge, in second-feet)

Oct. 1 to May 4

May 5 to Sept. 30

2.3	139	4.0	930
2.5	182	4.5	1,350
2.7	235	5.0	1,800
3.0	335	5.5	2,360
3.5	580		

2.3	95	4.0	915
2.5	135	4.5	1,350
2.7	187	5.0	1,800
3.0	300	5.5	2,360
3.5	555	6.0	3,030

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	164	262	430	1,700	300	1,470	286	1,400	1,030	456	157	1,170
2	159	253	388	1,940	286	1,170	279	1,580	1,720	446	152	412
3	157	247	351	1,260	260	1,530	268	1,620	1,530	501	152	217
4	155	232	328	2,230	280	1,070	259	2,440	1,170	660	149	176
5	155	227	310	1,690	300	815	256	2,960	1,050	593	147	154
6	155	221	456	1,020	240	689	253	2,030	1,100	456	142	145
7	153	215	754	858	190	616	329	1,350	1,390	405	140	155
8	153	467	645	850	140	1,450	398	1,100	2,010	372	135	129
9	151	614	578	794	160	1,510	367	1,110	1,350	345	133	126
10	147	363	986	738	190	898	817	1,300	1,260	370	123	122
11	156	351	822	1,120	230	796	2,300	1,480	1,900	798	128	122
12	410	572	962	1,580	260	1,260	1,710	1,530	1,350	456	126	152
13	412	496	647	1,590	240	1,050	1,580	1,760	1,120	372	124	237
14	440	393	526	1,030	230	898	1,300	2,120	1,100	340	124	261
15	399	541	465	1,260	210	829	1,220	2,120	1,040	309	120	207
16	331	970	480	954	200	731	1,800	2,240	1,270	292	120	176
17	1,660	804	425	724	180	640	1,960	1,400	1,930	279	117	154
18	1,760	532	384	586	190	556	1,960	1,350	1,400	275	115	145
19	756	425	355	556	200	520	1,530	2,020	1,020	254	113	135
20	550	367	328	668	210	544	1,440	1,440	931	247	111	126
21	495	332	321	634	220	526	1,580	1,580	915	239	109	128
22	402	339	314	610	648	470	1,900	1,900	923	228	109	363
23	347	456	300	629	455	430	1,530	1,530	836	213	117	206
24	314	538	531	586	321	406	1,400	1,530	739	200	124	162
25	293	697	1,090	490	275	375	1,440	1,620	646	190	113	142
26	268	1,020	1,750	440	711	402	1,300	1,760	588	184	111	131
27	266	745	1,060	420	1,110	380	1,260	1,800	614	179	108	122
28	858	550	829	393	838	351	1,220	1,760	984	173	104	117
29	453	480	640	359	2,200	324	1,350	1,350	581	170	104	113
30	343	475	828	339	-	307	1,400	1,220	501	167	102	109
31	293	-	1,100	321	-	296	-	1,260	-	165	126	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acres-foot
October.....	12,755	1,760	147	411	3.99	4.60	25,300
November.....	14,187	1,020	218	473	4.59	5.12	28,140
December.....	19,333	1,750	300	624	6.06	6.99	38,350
Calendar year 1935.....	240,284	8,550	103	658	6.39	86.79	476,600
January.....	28,368	2,230	321	915	8.88	10.24	56,270
February.....	11,455	2,200	140	395	5.85	4.15	22,720
March.....	23,309	1,530	296	752	7.30	8.42	45,230
April.....	34,891	2,300	253	1,156	11.2	12.50	68,810
May.....	51,660	2,960	1,100	1,666	16.2	18.68	102,500
June.....	34,000	2,010	501	1,133	11.0	12.27	67,440
July.....	10,327	798	165	333	3.23	3.72	20,480
August.....	3,860	157	102	125	1.21	1.40	7,660
September.....	6,123	1,170	109	204	1.98	2.21	12,140
Water year 1935-36.....	250,068	2,960	102	683	6.63	90.28	496,000

COLUMBIA RIVER

Columbia River at Trail, British Columbia

(International gaging station)

Location.— Cable gage, lat. 49°6', long. 117°42', on highway bridge at Trail, 12 miles above international boundary and mouth of Clark Fork.

Drainage area.— 34,000 square miles.

Records available.— April 1913 to September 1936.

Average discharge.— 23 years, 71,740 second-feet.

Extremes.— Maximum discharge observed during year, 271,000 second-feet June 4 (gage

height, 37.72 feet); minimum, 10,200 second-feet Feb. 20 (gage height, 6.72 feet).

1913-36: Maximum discharge observed, 312,000 second-feet June 14, 15, 1913 (gage

height, 41.6 feet); minimum observed, 9,600 second-feet Mar. 28, 1917.

Remarks.— Records good. Small amount of water diverted above station for irrigation. Slight fluctuation at low water caused by operation of power plant on Kootenai River. Natural storage in numerous lakes affects flow. This station is one of the international gaging stations maintained by Canada under agreement with the United States. Gage read to hundredths twice daily.

Rating table, water year 1935-36 (gage height, in feet, and discharge, in second-feet)

6.5	9,600	12.0	33,000	26.0	144,000
7.0	11,100	14.0	44,900	29.0	174,000
7.5	12,760	16.0	59,800	32.0	205,500
8.0	14,460	18.0	73,700	35.0	238,000
9.0	18,000	20.0	89,500	38.0	274,000
10.0	22,300	24.0	125,000		

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	45,200	28,600	18,700	15,600	13,900	11,200	13,400	92,500	226,000	155,000	105,000	70,900
2	43,500	27,300	18,600	15,600	13,800	*11,300	13,100	95,300	246,000	160,000	104,000	70,700
3	42,300	26,400	18,500	15,600	13,800	*11,400	12,800	99,400	264,000	156,000	102,000	69,900
4	41,100	25,600	18,400	15,600	13,700	11,600	13,000	104,000	271,000	152,000	100,000	69,200
5	40,200	25,000	18,200	15,600	13,400	11,700	12,700	109,000	270,000	151,000	98,200	67,900
6	39,200	25,000	17,900	15,400	13,400	12,000	12,400	116,000	265,000	149,000	96,300	67,500
7	38,600	24,300	17,700	15,200	13,200	12,100	12,400	121,000	257,000	148,000	96,100	66,500
8	38,000	24,000	17,500	15,000	13,000	12,400	12,500	126,000	247,000	145,000	94,400	66,100
9	37,600	23,800	17,400	14,900	12,800	12,600	12,700	131,000	237,000	142,000	94,200	65,600
10	37,000	23,600	17,300	15,000	12,700	12,700	12,400	134,000	227,000	139,000	93,600	64,700
11	36,700	23,400	17,300	15,100	12,600	12,800	12,700	137,000	218,000	139,000	92,900	63,400
12	36,500	23,200	17,300	15,200	12,400	13,000	13,800	142,000	212,000	137,000	91,700	62,200
13	35,800	23,000	17,200	15,100	12,200	13,200	15,000	144,000	207,000	135,000	91,500	60,300
14	35,600	22,400	17,100	15,100	12,000	13,300	15,800	145,000	204,000	133,000	91,200	58,600
15	35,100	21,900	17,000	15,000	11,700	13,400	17,200	154,000	200,000	131,000	91,100	56,000
16	34,400	21,300	16,900	15,000	11,600	13,500	19,000	159,000	196,000	129,000	89,800	53,200
17	33,600	21,000	16,900	15,000	11,200	13,600	22,100	164,000	194,000	127,000	89,800	50,400
18	33,400	20,700	16,900	14,900	10,900	13,600	28,000	167,000	191,000	125,000	89,700	47,500
19	33,600	20,600	16,800	14,900	10,600	13,600	29,600	171,000	189,000	123,000	88,400	45,100
20	33,900	20,500	16,700	14,700	10,200	13,800	35,700	173,000	186,000	121,000	87,400	44,300
21	33,300	20,100	16,500	14,600	10,300	14,200	39,300	174,000	181,000	121,000	85,900	42,600
22	33,000	19,800	16,400	14,500	10,600	13,600	44,300	172,000	175,000	120,000	84,200	40,900
23	32,800	19,600	16,300	14,400	10,800	13,800	51,200	171,000	171,000	120,000	82,500	40,400
24	32,200	19,400	16,200	14,300	10,700	13,800	59,000	168,000	166,000	121,000	82,300	40,200
25	31,600	19,200	16,000	14,300	10,600	13,900	66,300	167,000	165,000	121,000	81,200	39,700
26	31,400	19,100	16,000	14,200	10,600	13,600	72,000	166,000	165,000	121,000	78,900	40,000
27	31,200	19,100	16,000	14,100	10,700	13,700	76,400	167,000	167,000	118,000	76,900	40,000
28	31,300	19,200	16,000	14,000	10,800	13,800	81,300	170,000	168,000	116,000	76,500	39,900
29	31,700	19,000	16,700	13,800	11,000	13,700	85,300	179,000	169,000	112,000	73,900	39,500
30	30,600	18,800	16,700	13,800	11,000	13,700	89,700	182,000	167,000	109,000	72,200	39,200
31	29,100	-	15,600	14,000	-	13,600	-	209,000	-	107,000	71,000	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acre-feet
October.....	1,099,700	45,200	29,100	35,500	1.04	1.20	2,180,000
November.....	664,700	28,600	18,800	22,200	.65	.73	1,320,000
December.....	525,400	16,700	15,500	17,000	.50	.58	1,040,000
Calendar year 1935.....	25,948,200	238,000	15,600	71,090	2.09	28.38	51,490,000
January.....	459,600	15,600	13,800	14,800	.44	.61	911,000
February.....	345,000	13,900	10,200	11,900	.35	.38	684,000
March.....	404,000	14,200	11,200	13,000	.38	.44	801,000
April.....	999,200	88,700	12,400	33,300	.98	1.09	1,980,000
May.....	4,621,200	209,000	92,500	149,000	4.38	5.06	9,170,000
June.....	6,200,000	271,000	165,000	207,000	6.09	6.90	12,350,000
July.....	4,091,000	165,000	107,000	132,000	3.88	4.47	8,110,000
August.....	2,751,600	105,000	71,000	88,800	2.61	3.01	5,460,000
September.....	1,623,200	70,900	39,200	54,100	1.59	1.77	3,220,000
Water year 1935-36.....	23,785,100	271,000	10,200	65,000	1.91	26.03	47,200,000

*Interpolated.

Columbia River at Kettle Falls, Wash.

Location.— Water-stage recorder, lat. 48°37'20", long. 118°7'10", in northwest corner lot 1, sec. 14, T. 36 N., R. 37 E., 3½ miles above mouth of Colville River at Kettle Falls. Gage datum is mean sea level (subject to correction for general adjustment of 1929).

Drainage area.— 64,500 square miles.

Records available.— April 1913 to September 1936.

Average discharge.— 23 years, 100,700 second-feet.

Extremes.— Maximum discharge during year, 374,000 second-feet June 4, 5 (gage height, 1,194.97 feet); minimum daily discharge, 14,800 second-feet Feb. 20, during period of ice effect.

1913-36: Maximum discharge, 468,000 second-feet June 14, 15, 1913 (gage height, 34.2 feet, from floodmarks, referred to U. S. Weather Bureau gage at Marcus); minimum (estimated because of ice effect), 13,000 second-feet Jan. 18-21, 1930.

Maximum discharge during 1894 flood, 700,000 second-feet, based on information from several sources.

Remarks.— Records excellent except those for Dec. 6-8, and those for period of ice effect, Jan. 28 to Feb. 27, which were computed on basis of gage heights and weather records and are poor. Numerous diversions above gage for irrigation, but amount very small in proportion to flow past gage. Slight fluctuation at extreme low water caused by operation of power plant on Kootenai River. No other regulation except the effect of natural storage in numerous lakes above gage.

Rating table, water year 1935-36 except period of ice effect (gage height, in feet, and discharge, in second-feet)

1,165.0	14,850	1,168.0	27,250	1,171.0	45,300	1,175.0	75,100	1,185.0	139,900
1,166.0	18,450	1,169.0	32,800	1,172.0	52,000	1,178.0	102,800	1,188.0	235,000
1,167.0	22,750	1,170.0	38,600	1,173.0	59,250	1,180.0	124,800	1,195.0	372,500

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	54,800	37,600	26,800	22,800	20,000	17,700	24,100	161,000	322,000	214,000	124,000	79,400
2	53,400	36,400	26,400	22,800	19,600	18,100	24,100	165,000	343,000	206,000	122,000	79,400
3	52,000	35,800	26,400	22,800	19,200	18,400	22,500	172,000	362,000	200,000	120,000	78,500
4	50,600	35,200	26,400	22,800	18,400	19,200	22,500	179,000	374,000	196,000	118,000	78,600
5	49,900	33,400	26,400	23,200	18,100	19,600	22,800	188,000	371,000	195,000	116,000	77,600
6	48,600	33,400	26,000	22,800	18,100	20,600	22,300	194,000	365,000	190,000	114,000	76,800
7	47,900	32,800	26,000	22,800	17,700	21,400	21,800	199,000	356,000	185,000	113,000	75,100
8	46,600	32,200	25,500	22,800	17,700	21,600	21,800	203,000	345,000	183,000	112,000	75,100
9	46,000	32,200	25,400	22,800	17,700	22,300	21,800	206,000	335,000	180,000	110,000	74,200
10	46,000	31,600	25,400	22,800	17,700	22,800	21,800	212,000	322,000	176,000	109,000	73,400
11	45,300	31,600	25,400	22,800	17,300	23,200	21,800	217,000	312,000	175,000	107,000	72,600
12	44,600	31,600	25,000	23,200	17,300	23,200	23,200	223,000	302,000	174,000	106,000	70,100
13	44,000	31,600	25,400	23,200	17,000	23,600	25,400	223,000	296,000	171,000	105,000	68,500
14	44,000	30,400	25,400	22,800	17,000	24,100	28,800	235,000	290,000	167,000	105,000	66,900
15	44,000	30,400	25,000	22,800	16,600	23,600	35,400	244,000	284,000	163,000	104,000	65,300
16	43,400	29,600	24,600	22,800	16,200	24,100	38,800	251,000	279,000	160,000	104,000	63,000
17	42,700	29,300	24,600	22,800	15,900	24,100	44,600	256,000	275,000	153,000	103,000	60,000
18	42,000	29,300	24,600	22,800	15,500	24,600	54,800	260,000	271,000	155,000	102,000	57,800
19	42,000	29,300	24,600	22,800	15,200	24,100	66,100	271,000	267,000	151,000	101,000	55,600
20	42,000	28,200	24,100	22,300	14,800	24,600	77,600	271,000	260,000	148,000	99,600	53,400
21	42,000	28,200	23,600	22,300	15,200	25,000	84,500	271,000	261,000	146,000	97,600	52,000
22	42,000	28,200	23,600	21,800	15,600	24,600	92,600	269,000	242,000	145,000	95,600	50,600
23	40,800	27,800	23,200	21,800	15,900	24,100	105,000	267,000	235,000	145,000	93,600	49,600
24	40,800	27,800	23,200	21,800	16,200	24,600	114,000	263,000	230,000	143,000	92,600	47,900
25	40,800	27,800	23,200	21,800	16,600	24,600	127,000	262,000	225,000	143,000	90,800	47,900
26	40,100	27,800	23,200	21,800	16,600	24,600	140,000	260,000	225,000	142,000	89,900	47,900
27	39,400	27,200	23,200	21,400	17,000	24,100	146,000	262,000	223,000	140,000	88,100	48,600
28	38,800	27,200	22,800	21,000	17,300	23,600	148,000	265,000	222,000	136,000	86,300	47,900
29	40,100	27,200	22,800	21,000	17,300	23,600	152,000	275,000	220,000	133,000	83,600	47,900
30	39,400	26,800	22,800	21,000	-	24,100	156,000	286,000	217,000	128,000	82,800	47,200
31	38,800	-	22,800	20,600	-	24,100	-	304,000	-	126,000	80,200	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acres-feet
October.....	1,372,800	54,800	38,800	44,280	0.687	0.79	2,723,000
November.....	918,100	37,600	26,800	30,600	.474	.53	1,821,000
December.....	763,800	26,800	22,800	24,640	.382	.44	1,515,000
Calendar year 1935.....	36,469,900	335,000	22,800	99,920	1.55	21.03	72,340,000
January.....	692,900	23,200	20,500	22,350	.347	.40	1,374,000
February.....	494,600	20,000	14,800	17,080	.264	.28	981,000
March.....	708,000	28,000	17,700	22,840	.364	.41	1,404,000
April.....	1,902,700	156,000	21,800	63,420	.983	1.10	3,774,000
May.....	7,321,000	304,000	181,000	236,200	3.66	4.22	14,520,000
June.....	8,621,000	374,000	217,000	287,400	4.46	4.98	17,100,000
July.....	5,075,000	214,000	126,000	163,700	2.64	2.92	10,070,000
August.....	3,175,700	124,000	80,200	102,400	1.59	1.83	6,299,000
September.....	1,897,600	79,400	47,200	62,920	.976	1.09	3,744,000
Water year 1935-36.....	32,933,200	374,000	14,800	89,980	1.40	19.00	65,320,000

Columbia River at Grand Coulee, Wash.

Location.— Water-stage recorder, lat. 47°58'0", long. 118°58'45", opposite lot 4, sec. 36, T. 29 N., R. 30 E., in highway bridge pier no. 3, 2,500 feet below Grand Coulee dam site, at Grand Coulee. Zero of gage is at mean sea level (subject to correction for general adjustment of 1929). Prior to Dec. 31, 1935, gage was on right bank 1,500 feet below.

Drainage area.— 74,100 square miles.

Records available.— June to December 1923, June 1928 to September 1936; monthly discharge April 1913 to June 1923, January 1924 to May 1928.

Average discharge.— 23 years, 109,200 second-feet.

Extremes.— Maximum discharge during year, 387,000 second-feet June 4 (elevation, 974.42 feet); minimum, probably less than 19,500 second-feet sometime during period of ice effect.

1913-36: Maximum discharge, 492,000 second-feet June 15, 1913 (determined from records at other gaging stations); minimum (estimated), less than 16,000 second-feet in January 1930, when stage-discharge relation was affected by ice.

Maximum discharge during flood of June 1894 (estimated), 725,000 second-feet.

Remarks.— Records good October to December, excellent thereafter except those for period of ice effect, Jan. 27 to Mar. 2, which were computed on basis of weather records and records for station at Kettle Falls and for Spokane River below Little Falls and are poor. Diversions for irrigation above station are small in proportion to flow past gage. Some diurnal fluctuation caused by operation of power plants on Spokane River.

Rating tables, water year 1935-36 except period of ice effect (gage height, in feet, and discharge, in second-feet)

Oct 1 to Dec. 31			Jan. 1 to Sept. 30		
935.0	27,700	933.0	19,560	942.0	62,200
935.5	29,700	934.0	22,960	944.0	74,500
936.0	31,800	935.0	26,900	946.0	88,200
937.0	36,550	936.0	31,150	948.0	104,000
938.0	41,550	937.0	35,700	950.0	120,000
939.0	46,550	938.0	40,700	952.0	136,000
940.0	52,000	939.0	45,700		
941.0	57,500	940.0	51,200		
942.0	63,000	941.0	56,700		

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	58,600	40,600	29,300	25,300	23,500	27,000	31,600	191,000	326,000	222,000	130,000	82,600
2	57,000	39,600	28,900	26,900	23,000	26,000	30,700	194,000	345,000	218,000	126,000	82,600
3	56,400	38,600	29,700	26,500	22,500	28,100	30,700	199,000	366,000	212,000	125,000	81,900
4	55,300	37,600	29,300	26,500	22,000	27,300	28,500	205,000	382,000	206,000	123,000	81,200
5	54,200	37,000	29,300	26,500	22,000	28,900	28,500	211,000	385,000	201,000	121,000	80,500
6	53,600	36,000	29,300	27,300	22,500	28,900	28,500	221,000	380,000	198,000	119,000	79,100
7	52,600	35,000	28,900	26,500	22,500	29,400	27,700	227,000	373,000	195,000	118,000	77,800
8	51,400	34,600	28,100	26,500	22,500	28,900	27,700	230,000	360,000	192,000	116,000	76,400
9	50,900	34,600	27,300	26,500	23,000	30,200	28,100	235,000	356,000	188,000	114,000	76,400
10	49,800	34,000	28,100	26,900	23,000	30,700	27,700	239,000	347,000	184,000	113,000	75,800
11	48,700	34,600	28,100	26,500	22,500	35,800	27,700	243,000	335,000	182,000	112,000	74,500
12	47,600	34,600	28,100	26,100	22,500	33,800	29,800	248,000	323,000	181,000	111,000	74,500
13	46,600	34,000	27,700	26,900	22,000	33,000	32,500	252,000	317,000	178,000	110,000	71,900
14	45,600	33,600	27,700	27,700	22,000	32,500	35,200	257,000	309,000	176,000	109,000	70,000
15	45,600	32,700	27,300	27,700	21,000	33,500	40,700	263,000	303,000	171,000	107,000	68,600
16	46,000	32,700	26,900	27,700	20,500	34,300	47,900	273,000	295,000	167,000	106,000	66,800
17	45,600	32,200	27,300	27,700	21,000	33,400	55,600	280,000	288,000	165,000	106,000	63,800
18	44,600	31,400	27,500	27,700	20,000	33,800	63,300	286,000	283,000	161,000	106,000	62,200
19	43,600	31,800	27,700	27,700	19,500	33,000	75,800	287,000	280,000	158,000	105,000	60,000
20	43,600	31,800	27,300	26,900	19,500	33,400	92,000	294,000	274,000	155,000	104,000	57,200
21	43,600	31,400	27,300	26,500	19,500	33,400	106,000	296,000	269,000	152,000	102,000	54,500
22	44,000	30,900	26,900	26,900	20,000	33,800	116,000	296,000	261,000	150,000	101,000	54,000
23	43,600	30,900	26,900	26,900	20,000	33,000	127,000	292,000	250,000	149,000	95,400	52,800
24	43,600	30,500	26,100	26,900	20,000	33,000	138,000	288,000	243,000	148,000	96,000	51,200
25	43,600	30,100	26,100	26,900	20,000	33,000	150,000	284,000	238,000	146,000	96,000	50,600
26	42,600	30,100	25,300	26,100	20,500	32,000	166,000	280,000	234,000	147,000	94,400	50,600
27	41,600	30,500	25,700	26,000	21,000	33,000	177,000	280,000	231,000	145,000	92,800	50,100
28	40,600	30,100	25,700	25,500	22,000	32,000	182,000	282,000	230,000	143,000	90,400	49,600
29	41,600	29,300	25,300	25,000	22,500	31,600	184,000	287,000	230,000	139,000	89,200	50,600
30	42,000	29,700	24,900	25,000	-	32,500	188,000	284,000	226,000	136,000	85,400	50,600
31	41,600	-	26,100	24,500	-	31,200	-	308,000	-	131,000	83,500	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acres-feet
October.....	1,465,700	58,600	40,600	47,280	0.638	0.74	2,907,000
November.....	1,001,100	40,600	29,300	33,370	.450	.50	1,886,000
December.....	849,300	29,700	24,900	27,400	.370	.43	1,685,000
Calendar year 1935	39,685,800	352,000	24,900	108,700	1.47	19.93	76,720,000
January.....	824,200	27,700	24,500	26,590	.559	.41	1,635,000
February.....	622,500	23,500	19,500	21,470	.290	.31	1,235,000
March.....	980,700	35,800	26,000	31,640	.427	.49	1,945,000
April.....	2,324,200	188,000	27,700	77,470	1.06	1.17	4,610,000
May.....	8,022,000	308,000	191,000	258,800	3.49	4.02	15,910,000
June.....	9,039,000	385,000	226,000	301,300	4.07	4.54	17,930,000
July.....	5,298,000	222,000	131,000	170,800	2.30	2.66	10,500,000
August.....	3,308,900	150,000	85,300	106,700	1.44	1.66	6,563,000
September.....	1,978,400	82,600	49,600	65,950	.890	.99	3,924,000
Water year 1935-36	35,712,000	385,000	19,500	97,570	1.32	17.91	70,830,000

Columbia River at Trinidad, Wash.

Location.— Water-stage recorder, lat. 47°13'30", long. 120°0'50", in SE $\frac{1}{4}$ sec. 13, T. 20 N., R. 22 E., half a mile southwest of Trinidad and 12 miles below Rock Island Dam. Zero of gage is 500 feet above mean sea level (subject to correction for general adjustment of 1929).

Drainage area.— 89,700 square miles.

Records available.— October 1930 to September 1936; January to December 1910 (gage heights only), May 1913 to December 1916 at Wenatchee; January 1917 at Beverly; January 1917 to September 1930 at Vernita.

Average discharge.— 23 years, 120,000 second-feet.

Extremes.— Maximum discharge during year, 413,000 second-feet June 5 (gage height, 48.55 feet); minimum, not determined, occurred during period of ice effect.

1913-36: Maximum discharge, 528,000 second-feet June 15, 16, 1913 (gage height, 45.7 feet, on original U. S. Weather Bureau gage at Wenatchee); minimum, 4,120 second-feet Feb. 10, 1932 (gage height, 11.40 feet), caused by regulation. Maximum discharge known, about 740,000 second-feet June 7, 1894.

Remarks.— Records excellent except those for period of ice effect, Feb. 8-29, which were computed on basis of two discharge measurements, gage heights, and weather records and are poor. Considerable water diverted for irrigation above gage, but amount small in proportion to flow past gage. Some diurnal fluctuation at low stage as result of operation of Rock Island power plant. Artificial regulation at Coeur d'Alene and Chelan Lakes. No other regulation except the effect of natural storage in numerous lakes above gage.

Rating table, water year 1935-36 (gage height, in feet, and discharge, in second-feet)

16.5	21,970	22.0	51,600	31.0	126,000
17.0	24,100	23.0	58,100	34.0	159,000
18.0	28,600	24.0	65,000	37.0	197,000
19.0	33,600	25.0	79,800	40.0	242,000
20.0	39,200	28.0	97,000	44.0	314,000
21.0	45,500	30.0	116,000	49.0	423,000

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	64,500	45,900	34,100	29,100	28,600	24,100	33,100	197,000	334,000	228,000	132,000	86,300
2	65,600	45,300	34,100	29,100	28,100	25,100	33,100	203,000	352,000	223,000	128,000	86,300
3	62,200	43,400	33,100	29,100	27,700	31,500	32,000	203,000	368,000	218,000	126,000	85,400
4	60,800	42,200	33,600	31,000	27,200	30,500	35,100	214,000	406,000	212,000	125,000	84,600
5	59,400	41,600	33,600	29,600	27,200	31,000	31,000	223,000	411,000	210,000	123,000	83,800
6	58,100	41,000	33,600	29,600	26,300	31,000	30,000	229,000	404,000	203,000	121,000	83,000
7	56,800	39,800	33,600	31,000	23,700	31,500	30,500	236,000	401,000	198,000	119,000	81,400
8	55,500	39,200	33,100	31,500	24,000	31,500	30,000	240,000	399,000	196,000	117,000	79,800
9	54,800	38,600	32,600	30,000	24,500	32,000	29,600	242,000	385,000	192,000	116,000	79,800
10	53,600	38,000	31,500	30,500	25,000	33,600	30,000	245,000	374,000	188,000	114,000	79,000
11	52,900	37,500	32,000	30,500	24,500	33,100	30,500	252,000	358,000	184,000	113,000	78,200
12	52,200	38,000	32,600	30,500	24,500	36,900	30,000	259,000	346,000	181,000	112,000	77,400
13	51,600	38,600	32,600	29,600	24,000	36,300	32,600	266,000	338,000	179,000	111,000	75,800
14	51,000	38,000	32,600	29,600	24,000	35,800	36,300	275,000	330,000	176,000	110,000	75,800
15	50,300	38,000	31,000	31,000	23,500	34,700	39,200	284,000	324,000	174,000	109,000	72,800
16	50,300	37,500	32,000	30,500	23,500	35,200	44,100	290,000	318,000	170,000	108,000	72,000
17	50,300	37,500	31,000	30,500	23,500	36,300	52,900	297,000	308,000	166,000	107,000	69,900
18	50,300	36,300	31,000	30,500	23,500	35,200	63,600	299,000	299,000	163,000	106,000	67,800
19	49,000	35,800	31,000	29,600	23,000	35,800	74,200	303,000	293,000	159,000	106,000	65,700
20	48,400	36,300	31,500	31,000	23,000	34,700	88,000	304,000	286,000	158,000	106,000	63,600
21	47,800	36,300	31,000	31,000	23,000	35,200	104,000	306,000	281,000	155,000	105,000	61,500
22	48,400	36,300	30,500	29,600	22,500	35,200	118,000	308,000	275,000	152,000	103,000	58,800
23	48,400	35,800	30,500	30,000	22,500	35,200	129,000	304,000	270,000	150,000	102,000	57,400
24	48,400	35,200	30,000	30,500	22,500	34,700	141,000	301,000	281,000	149,000	99,700	56,800
25	47,800	34,700	30,000	29,600	22,000	34,700	152,000	299,000	280,000	148,000	97,900	54,800
26	47,800	34,100	29,600	30,000	22,500	34,700	164,000	299,000	242,000	148,000	97,000	54,200
27	47,200	34,700	29,600	28,600	23,000	34,100	179,000	299,000	236,000	146,000	96,100	54,200
28	46,500	35,200	29,600	28,600	23,000	34,700	187,000	303,000	236,000	146,000	94,500	54,200
29	45,500	34,700	29,600	28,100	23,500	34,100	192,000	306,000	234,000	142,000	92,500	53,600
30	45,900	34,100	29,600	28,600	23,000	32,000	194,000	310,000	231,000	139,000	90,700	53,600
31	46,500	-	29,100	28,600	-	33,600	-	318,000	-	135,000	88,000	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acres-feet
October.....	1,615,400	64,300	45,300	52,110	0.581	0.67	3,204,000
November.....	1,139,600	45,900	34,100	37,990	.424	.47	2,260,000
December.....	979,300	34,100	29,100	31,590	.352	.41	1,942,000
Calendar year 1935.....	45,164,900	576,000	29,100	118,500	1.32	17.90	85,610,000
January.....	928,000	31,500	28,600	29,940	.334	.39	1,841,000
February.....	703,800	28,600	22,000	24,270	.271	.29	1,396,000
March.....	1,037,000	36,900	24,100	33,450	.373	.43	2,057,000
April.....	2,565,800	194,000	29,600	76,790	.879	.98	4,689,000
May.....	9,417,000	318,000	197,000	271,500	3.05	3.49	16,690,000
June.....	9,570,000	411,000	231,000	319,000	3.56	3.97	18,980,000
July.....	5,368,000	228,000	135,000	175,800	1.94	2.24	10,690,000
August.....	3,375,200	132,000	88,000	106,900	1.21	1.40	6,695,000
September.....	2,107,500	86,300	53,600	70,250	.783	.87	4,180,000
Water year 1935-36.....	37,624,600	411,000	22,000	102,800	1.15	15.61	74,620,000

Kootenai River at Newgate, British Columbia

(International gaging station)

Location.— Two staff gages, one on main river and one on slough, lat. 49°1', long. 115°10', at highway bridges 0.7 mile northwest of Newgate and 0.9 mile north of the international boundary.

Drainage area.— 7,660 square miles.

Records available.— October 1930 to September 1936.

Extremes.— Maximum discharge observed during year, 49,100 second-feet June 1; minimum, 994 second-feet Feb. 7.

1930-36: Maximum discharge observed, 83,500 second-feet June 18, 1933; minimum, that of Feb. 7, 1936.

Remarks.— Records good except those for period of ice effect, Jan. 28-30, which are fair and were computed from gage heights, weather records, and comparison with record for station at Rexford. Gages read to hundredths once daily. Records give total flow of main channel and slough. This station is one of the international gaging stations maintained by Canada under agreement with the United States.

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	3,970	2,450	2,570	2,330	1,330	2,110	1,950	13,700	49,100	12,400	6,530	4,310
2	3,800	2,270	2,500	2,350	1,190	2,410	1,870	15,100	46,300	11,700	6,430	4,530
3	3,770	2,050	2,440	2,320	1,130	2,520	1,830	17,100	44,500	11,800	6,350	4,670
4	3,770	2,100	2,350	2,290	1,270	2,670	1,770	18,000	25,800	11,500	6,250	4,730
5	3,770	2,350	2,270	2,140	1,190	2,620	1,830	20,200	25,100	12,200	6,230	4,650
6	3,800	2,530	2,060	1,890	1,060	2,460	1,880	24,500	23,000	11,900	6,180	4,530
7	3,590	2,990	2,020	1,770	994	2,450	1,930	22,100	21,800	11,200	6,100	4,790
8	3,640	3,090	2,130	1,860	1,160	2,390	1,960	21,300	20,400	10,200	6,050	4,670
9	3,930	3,060	2,310	2,000	1,270	2,600	2,190	22,400	19,300	10,200	5,950	4,530
10	3,880	3,050	2,520	2,220	1,420	2,560	2,220	24,300	18,600	9,780	5,830	4,350
11	3,790	3,050	2,570	2,200	1,440	2,380	2,850	26,400	18,800	10,200	5,710	4,170
12	3,590	2,990	2,500	2,180	1,470	2,260	3,800	29,900	19,900	10,900	5,640	4,000
13	3,590	2,960	2,410	2,220	1,520	2,240	5,530	29,900	22,200	10,200	5,640	3,800
14	3,580	2,990	2,380	2,240	1,570	2,160	6,450	31,000	22,300	9,590	5,640	3,730
15	3,580	3,060	2,360	2,180	1,640	2,130	7,240	37,700	20,900	9,310	5,640	3,680
16	3,600	3,030	2,290	2,110	1,610	2,160	7,900	40,800	21,400	9,120	5,660	3,660
17	3,560	2,910	2,230	2,010	1,580	2,110	8,660	33,300	22,100	8,850	5,730	3,560
18	3,530	2,940	2,180	1,870	1,630	2,040	11,500	27,100	22,100	8,610	5,500	3,410
19	3,780	2,740	2,130	1,620	1,650	2,060	14,860	24,500	19,200	8,430	5,330	3,380
20	3,890	2,720	2,070	1,850	1,730	2,160	18,200	23,100	16,900	8,290	5,260	3,350
21	3,670	2,660	1,990	2,000	1,770	2,310	17,100	25,600	15,900	8,320	5,150	3,300
22	3,540	2,730	1,980	1,840	1,810	2,230	16,400	20,900	15,400	8,350	5,020	3,290
23	3,470	2,540	1,990	2,040	1,890	2,180	17,700	18,900	15,700	8,480	4,650	3,260
24	3,420	2,610	2,010	2,280	1,850	2,080	16,800	18,500	16,400	8,220	4,850	3,230
25	3,400	2,740	2,060	2,250	1,840	2,010	15,700	18,100	17,000	8,040	4,850	3,630
26	3,420	2,730	2,160	2,060	1,820	1,920	15,400	22,600	17,500	7,920	4,850	3,410
27	3,450	2,720	2,270	1,740	1,850	1,890	14,700	25,800	15,800	7,240	4,750	3,410
28	3,510	2,690	2,440	1,700	1,910	1,870	13,900	34,500	15,300	6,580	4,450	3,410
29	3,350	2,640	2,400	1,600	1,970	1,840	13,100	41,200	14,500	6,750	4,610	3,260
30	3,120	2,620	2,370	1,500	—	1,820	12,900	46,100	13,000	6,580	4,430	3,170
31	2,660	—	2,360	1,440	—	1,860	—	48,400	—	6,560	4,210	—

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acres-feet
October.....	111,420	3,970	2,660	3,590	0.47	0.54	221,000
November.....	82,610	3,090	2,050	2,760	.36	.40	164,000
December.....	70,350	2,570	1,980	2,270	.30	.35	140,000
Calendar year 1935.....	3,612,800	45,200	1,580	9,900	1.29	17.52	7,160,000
January.....	61,630	2,350	1,380	1,990	.26	.30	122,000
February.....	44,594	1,970	994	1,640	.20	.22	88,400
March.....	68,580	2,670	1,820	2,210	.29	.33	136,000
April.....	259,860	18,200	1,770	8,660	1.13	1.26	515,000
May.....	825,200	48,400	13,700	26,600	3.47	4.00	1,640,000
June.....	659,200	49,100	15,000	22,000	2.87	3.20	1,310,000
July.....	289,240	18,400	6,580	9,330	1.22	1.41	574,000
August.....	169,650	6,530	4,210	5,470	.71	.82	336,000
September.....	116,370	4,850	3,170	3,980	.51	.57	231,000
Water year 1935-36.....	2,758,904	49,100	994	7,540	.98	13.34	5,480,000

Kootenai River near Rexford, Mont.

(International gaging station)

Location.— Wire-weight gage, lat. 48°52', long. 115°14', in sec. 21, T. 36 N., R. 28 W., at highway bridge 300 feet below Sullivan Creek and 1.1 miles southwest of Rexford. Prior to Jan. 1, 1935, chain gage and staff gage at same site and datum.

Drainage area.— 8,420 square miles.

Records available.— March 1929 to September 1936.

Extremes.— Maximum discharge observed during year, 48,400 second-feet June 1 (gage height, 11.93 feet); minimum daily discharge, 1,100 second-feet Feb. 7; minimum gage height, 0.25 foot Feb. 3.

1929-36: Maximum discharge, 87,300 second-feet June 18, 1933 (gage height, 15.70 feet); minimum discharge and gage height, those for 1936.

Remarks.— Records good except those for periods of ice effect, Nov. 3, Dec. 22, Feb. 2-29, which are fair and were computed on basis of gage heights, observer's notes, weather records and comparison with records for stations at Newgate, Libby, and Leona. Gage read twice daily. No diversions or regulation. This station is one of the international gaging stations maintained by the United States under agreement with Canada.

Rating tables, water year 1935-36 except periods of ice effect (gage height, in feet, and discharge, in second-feet)

Oct. 1 to May 17						May 18 to Sept. 30					
0.4	1,500	4.0	7,520	7.6	21,090	1.9	3,230	5.5	11,600	9.1	27,740
1.0	2,270	4.6	9,380	8.2	24,350	2.5	4,240	6.1	13,580	9.7	31,580
1.6	3,110	5.2	11,130	8.8	27,850	3.1	5,380	6.7	15,780	10.3	35,760
2.2	4,050	5.8	13,100	9.4	31,650	3.7	6,670	7.3	18,270	10.9	40,240
2.8	5,150	6.4	15,410	10.0	35,770	4.3	8,140	7.9	21,120	11.5	45,020
3.4	6,410	7.0	18,080	10.6	40,250	4.9	9,790	8.5	24,260	12.0	49,240

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	4,220	2,830	2,900	2,620	1,560	2,200	1,740	14,600	48,400	12,600	6,900	4,600
2	4,140	2,410	2,900	2,620	1,400	3,110	2,000	15,400	47,500	11,600	6,670	4,700
3	4,140	2,400	2,830	2,620	1,350	3,280	2,000	17,200	43,400	11,600	6,670	4,790
4	4,220	2,480	2,760	2,620	1,400	3,180	1,870	19,000	33,600	11,600	6,560	5,080
5	4,220	2,830	2,650	2,620	1,350	3,040	2,000	22,700	26,500	12,600	6,440	5,180
6	4,140	3,040	2,340	2,060	1,250	2,830	1,940	26,600	23,700	12,600	6,440	5,480
7	3,960	3,260	2,200	2,060	1,100	2,760	2,060	25,600	23,700	11,900	6,330	4,980
8	4,050	3,480	2,480	2,200	1,200	2,760	2,200	23,800	22,700	11,300	6,440	5,080
9	3,960	3,640	2,760	2,340	1,250	2,760	2,270	23,800	21,100	11,000	6,220	4,880
10	4,050	3,260	2,830	2,480	1,500	2,760	2,480	25,500	20,100	10,400	6,110	4,700
11	4,050	3,180	2,830	2,550	1,550	2,620	2,480	28,400	20,100	10,400	6,000	4,420
12	3,960	3,480	2,830	2,550	1,600	2,550	3,640	31,600	20,600	11,300	5,900	4,330
13	4,050	3,410	2,830	2,550	1,650	2,550	3,560	32,500	22,700	11,000	5,900	4,150
14	4,050	3,340	2,760	2,550	1,700	2,410	6,410	32,300	23,700	10,400	5,790	4,060
15	3,960	3,180	2,690	2,550	1,750	2,410	7,580	37,200	22,700	9,790	5,790	3,990
16	3,880	3,260	2,620	2,410	1,700	2,410	7,820	42,600	22,100	9,500	5,790	3,890
17	3,960	3,340	2,550	2,410	1,700	2,340	8,840	37,200	22,700	9,500	5,800	3,720
18	3,880	3,110	2,480	2,270	1,750	2,410	10,800	34,300	23,200	8,940	5,790	3,640
19	3,960	3,040	2,410	2,000	1,800	2,200	14,600	27,700	21,600	8,940	5,680	3,470
20	4,220	3,040	2,270	1,870	1,850	2,340	18,600	26,000	18,300	8,670	5,680	3,310
21	4,220	3,040	2,000	1,940	1,900	2,410	19,000	26,000	17,000	8,670	5,360	3,390
22	4,220	2,970	1,800	2,000	1,950	2,480	18,100	23,700	16,200	8,670	5,180	3,310
23	3,960	3,040	2,000	2,340	2,000	2,340	19,000	21,600	16,200	8,670	5,080	3,310
24	3,880	3,110	2,200	2,410	2,000	2,270	19,000	19,600	17,000	8,670	5,180	3,390
25	3,720	2,970	2,410	2,480	1,950	2,270	18,100	20,100	17,800	8,670	5,080	3,720
26	3,720	3,040	2,620	2,480	1,950	2,200	17,600	22,700	17,800	8,140	5,080	3,640
27	3,720	2,970	2,760	2,130	2,000	2,200	16,700	27,100	17,000	7,880	5,080	3,390
28	3,720	2,970	2,830	1,670	2,050	2,130	15,400	32,900	15,800	7,380	4,700	3,390
29	3,640	2,970	2,760	1,600	2,100	2,000	14,600	38,000	15,400	7,140	4,700	3,390
30	3,410	2,900	2,690	1,740	-	1,940	13,800	44,200	14,300	6,900	4,610	3,230
31	3,110	-	2,690	1,680	-	1,870	-	47,500	-	6,900	4,700	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acres-feet
October.....	122,390	4,220	3,110	3,948	0.469	0.54	242,800
November.....	91,990	3,640	2,400	3,066	.364	.41	182,500
December.....	79,580	2,900	1,800	2,567	.305	.35	157,800
Calendar year 1935.....	3,770,210	46,700	1,700	10,330	1.23	16.62	7,478,000
January.....	70,820	2,620	1,680	2,285	.271	.31	140,500
February.....	48,310	2,100	1,100	1,666	.198	.21	95,820
March.....	77,010	3,260	1,870	2,484	.295	.34	152,700
April.....	277,690	19,000	1,740	9,256	1.10	1.23	560,800
May.....	867,100	47,500	14,600	27,970	3.32	3.83	1,780,000
June.....	692,900	48,400	14,300	23,100	2.74	3.06	1,374,000
July.....	303,060	12,600	6,900	9,775	1.16	1.34	601,100
August.....	177,770	6,900	4,610	5,735	.681	.79	362,600
September.....	122,590	5,480	3,320	4,086	.485	.54	243,200
Water year 1935-36.....	2,931,210	48,400	1,100	8,009	.951	12.96	5,814,000

Kootenai River at Libby, Mont.

Location.- Water-stage recorder, lat. 48°24', long. 115°33', in NW¼ sec. 3, T. 30 N., R. 31 W., 1,200 feet below highway bridge at Libby.

Drainage area.- 11,000 square miles.

Records available.- October 1910 to September 1936.

Average discharge.- 26 years, 11,700 second-feet.

Extremes.- Maximum discharge during year, 49,400 second-feet June 1 (gage height, 12.18 feet); minimum, 1,280 second-feet Feb. 5-10 (estimated on account of ice effect).

1910-36: Maximum discharge, 130,000 second-feet June 21, 1916 (gage height, 19.17 feet); minimum, 895 second-feet Jan. 11, 1930 (discharge measurement, ice present).

Remarks.- Records good except those for period of ice effect, Jan. 21 to Mar. 1, which were computed on basis of one discharge measurement, gage heights, and weather records and are fair. No diversions above station.

Rating table, water year 1935-36 (gage height, in feet, and discharge, in second-feet)

0.5	1,200	2.0	4,500	6.0	17,700	10.0	36,550
.6	1,400	2.5	5,800	6.5	19,750	10.5	39,320
.8	1,800	3.0	7,200	7.0	21,850	11.0	42,170
1.0	2,200	3.5	8,700	7.5	24,050	11.5	45,110
1.2	2,640	4.0	10,300	8.0	26,350	12.0	48,140
1.4	3,080	4.5	12,000	8.5	28,750	12.5	51,260
1.6	3,540	5.0	13,800	9.0	31,250		
1.8	4,020	5.5	15,700	9.5	33,650		

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	4,500	2,970	3,080	2,790	1,550	2,290	2,220	19,800	48,800	14,600	6,920	4,630
2	4,380	2,570	3,080	2,840		2,680	2,240	21,400	48,100	13,100	6,920	4,630
3	4,260	2,550	3,080	2,790		3,420	2,490	22,700	45,700	12,400	6,780	4,630
4	4,260	2,640	2,970	2,790		4,140	2,380	24,500	39,300	12,400	6,640	4,760
5	4,140	3,190	2,860	2,750		4,140	2,330	28,500	30,800	12,400	6,640	5,150
6	4,260	3,540	2,770	2,490	1,280	3,900	2,350	30,800	25,900	13,100	6,500	5,150
7	4,140	3,650	2,640	2,050		3,540	2,400	30,200	25,400	13,100	6,500	5,280
8	4,140	3,900	2,600	1,900		3,300	2,620	27,800	25,400	12,400	6,360	4,690
9	4,140	4,140	2,790	*2,080		3,540	2,860	27,800	24,000	11,700	6,360	5,020
10	4,140	3,660	2,970	2,270		3,660	3,080	28,800	22,700	11,300	6,220	4,890
11	4,140	3,540	2,970	2,460	1,690	3,540	3,540	31,800	21,800	10,600	6,080	4,500
12	4,140	3,780	3,080	*2,480		3,300	4,760	35,500	21,800	11,000	5,940	4,380
13	4,140	3,780	3,080	2,510		3,300	6,920	36,000	23,200	11,700	5,940	4,260
14	4,140	3,660	2,970	2,750		3,300	9,340	36,000	25,000	11,000	5,800	4,140
15	4,140	3,780	2,970	*2,660		3,080	11,000	35,800	24,500	10,600	5,800	4,020
16	4,140	3,660	2,790	2,550	1,730	3,080	11,700	44,500	23,600	10,300	5,940	3,900
17	4,020	3,540	2,790	*2,430		2,970	12,700	43,300	24,000	9,980	5,940	3,900
18	4,020	3,540	2,730	2,310		2,970	16,100	37,100	24,500	9,660	5,940	3,780
19	4,020	3,420	2,640	*2,060		2,970	20,600	32,300	24,000	9,340	5,800	3,660
20	4,260	3,540	2,620	1,820		2,860	24,500	29,800	21,800	9,020	5,670	3,660
21	4,380	3,420	2,290	1,740	1,960	2,970	26,400	29,200	19,300	9,020	5,540	3,420
22	4,350	3,300	1,650	*1,720	2,040	2,970	25,400	27,800	18,100	9,020	5,410	3,540
23	4,140	3,300	2,030	1,700	2,040	2,970	26,400	25,400	17,700	9,020	5,280	3,420
24	4,020	3,300	2,770	*1,760	2,040	2,860	26,000	25,500	17,700	9,020	5,150	3,300
25	3,900	3,190	2,750	1,820	2,140	2,790	25,900	23,200	18,500	8,700	5,150	3,540
26	3,900	3,300	2,680	*1,710	2,160	2,710	25,400	24,500	19,300	8,400	5,150	3,780
27	3,900	3,300	2,820	1,600	2,160	2,770	23,600	28,300	18,900	8,400	5,150	3,660
28	3,780	3,190	2,970	1,560	2,140	2,710	22,300	33,800	17,700	7,800	5,020	3,540
29	3,900	3,190	2,860	*1,530	2,120	2,570	20,600	39,300	16,900	7,350	4,760	3,660
30	3,780	3,190	2,860	1,500	-	2,490	19,600	44,500	16,100	7,060	4,500	3,540
31	3,540	-	2,840	1,560	-	2,420	-	47,500	-	6,920	4,500	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acres-feet
October.....	127,140	4,500	3,540	4,101	0.373	0.43	252,200
November.....	101,740	4,140	2,550	3,391	.308	.34	201,800
December.....	86,300	3,080	1,800	2,784	.253	.29	171,200
Calendar year 1935.....	4,248,930	51,800	1,800	11,640	1.06	14.37	8,428,000
January.....	66,980	2,840	1,500	2,161	.196	.23	132,900
February.....	50,110	2,160	-	1,728	.157	.17	99,390
March.....	96,210	4,140	2,290	3,104	.282	.33	190,600
April.....	388,730	26,800	2,220	12,960	1.18	1.32	771,000
May.....	974,300	47,500	19,800	31,430	2.86	3.30	1,932,000
June.....	750,500	48,800	16,100	25,020	2.27	2.53	1,489,000
July.....	320,410	14,600	6,920	10,340	.940	1.08	635,500
August.....	160,300	6,920	4,500	5,616	.529	.61	357,600
September.....	124,650	5,280	3,300	4,154	.378	.42	247,200
Water year 1935-36.....	3,267,350	48,800	-	8,927	.612	11.06	6,491,000

*Interpolated.

Kootenai River at Leonia, Idaho

Location.— Water-stage recorder, lat. 48°37', long. 116°3', in SW¼ sec. 17, T. 33 N., R. 34 W., at Leonia, 450 feet east of Montana-Idaho State line and half a mile above mouth of Boulder Creek. Zero of gage is 1,700.00 feet above mean sea level, U. S. Coast and Geodetic Survey datum.

Drainage area.— 11,740 square miles.

Records available.— March 1928 to September 1936.

Extremes.— Maximum discharge during year, 54,200 second-feet June 1 (water-surface elevation, 1,813.29 feet); minimum discharge, 1,160 second-feet Feb. 9 (water-surface elevation, 1,798.83 feet).

1928-36: Maximum discharge, 95,500 second-feet June 18, 1933 (water-surface elevation, 1,818.11 feet); minimum, that of Feb. 9, 1936; minimum water-surface elevation, 1,797.56 feet Dec. 10, 1929.

Floods of June 1894 and 1916 reached elevations of 1,824.6 and 1,821.6 feet, respectively (information furnished by Great Northern Railway Co.).

Remarks.— Records excellent except those for periods of ice effect or missing gage heights, Nov. 10, 11, Dec. 7, 20-25, Jan. 28-28, and Feb. 11 to Mar. 12, which are fair, and were computed on basis of discharge measurements, gage heights, weather records, and comparison with records for stations at Libby and at Bonners Ferry. No regulation or diversions above station.

Rating table, water year 1935-36 (gage height, in feet, and discharge, in second-feet) (Shifting-control method used Apr. 11 to May 6)

Oct. 1 to May 6												May 7 to Sept. 30											
1,798.8	1,130	1,803.0	11,600	1,807.2	24,940	1,800.2	3,790	1,805.0	18,320	1,809.8	35,840	1,799.4	1,940	1,803.6	13,400	1,807.8	27,080	1,800.9	5,400	1,805.5	20,300	1,810.4	38,560
1,800.0	3,110	1,804.2	15,220	1,808.4	29,310	1,801.4	7,140	1,806.2	22,330	1,811.0	41,490	1,800.6	4,630	1,804.8	17,080	1,809.0	31,680	1,802.0	8,910	1,806.9	24,390	1,811.6	44,560
1,801.2	6,300	1,805.4	13,950	1,809.6	34,080	1,802.6	10,720	1,807.4	26,490	1,812.2	47,840	1,801.8	8,020	1,808.0	20,900	1,810.2	36,720	1,803.8	12,580	1,808.0	28,640	1,812.6	51,230
1,802.4	9,800	1,806.6	22,880	1,810.6	38,580	1,803.8	14,380	1,808.6	30,900	1,813.4	54,920	1,802.4	9,800	1,806.6	22,880	1,810.6	38,580	1,804.4	16,460	1,809.2	33,290		

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	4,930	3,630	3,530	3,220	1,960	2,900	2,660	26,100	53,700	15,600	7,460	5,150
2	4,870	3,270	3,510	3,290	1,680	3,300	2,620	28,000	53,100	14,100	7,430	5,180
3	4,820	2,870	3,440	3,250	1,630	3,900	2,830	29,700	50,300	13,300	7,340	5,230
4	4,760	2,680	3,390	3,220	1,740	5,300	2,810	32,500	43,600	13,200	7,280	5,290
5	4,710	3,290	3,250	3,220	1,650	5,400	2,760	36,200	34,300	13,400	7,170	5,660
6	4,710	3,630	2,980	3,160	1,690	5,100	2,780	38,200	28,900	13,900	7,110	5,610
7	4,760	3,860	2,900	2,850	1,550	4,600	2,830	37,800	28,000	13,800	7,020	5,940
8	4,580	4,140	2,980	2,700	1,820	4,400	3,070	35,400	28,300	13,300	6,810	5,520
9	4,630	4,390	3,090	2,810	1,450	4,400	3,340	34,900	27,100	12,600	6,380	5,570
10	4,630	4,700	3,270	2,980	1,590	4,700	3,730	39,400	25,600	12,200	6,320	5,430
11	4,630	4,200	3,390	3,070	1,700	4,400	4,470	40,300	24,500	11,700	6,680	5,200
12	4,710	4,060	3,440	3,220	1,700	4,100	5,660	44,400	24,100	11,600	6,560	5,040
13	4,740	4,140	3,410	3,320	1,800	3,880	6,250	44,600	24,700	12,400	6,470	4,900
14	4,660	4,060	3,390	3,200	1,800	3,700	12,000	44,700	26,500	12,000	6,420	4,940
15	4,660	4,060	3,340	3,250	1,900	3,630	14,300	47,200	26,600	11,200	6,360	4,730
16	4,600	4,040	3,220	3,130	1,900	3,510	15,700	51,900	25,600	10,900	6,360	4,820
17	4,550	4,010	3,110	3,070	2,000	3,450	17,900	51,600	25,900	10,600	6,440	4,540
18	1,500	3,930	3,070	2,960	2,000	3,440	22,200	43,900	26,200	10,300	6,500	4,460
19	4,630	3,860	2,980	2,810	2,100	3,440	28,000	37,900	26,000	9,990	6,360	4,330
20	4,850	3,600	2,800	2,120	2,100	3,360	32,100	34,500	23,900	9,780	6,240	4,250
21	4,900	3,730	2,600	2,250	2,200	3,410	33,600	33,400	21,200	9,540	6,100	4,120
22	4,870	3,660	2,300	2,450	2,200	3,480	33,600	31,900	19,500	9,570	5,980	4,020
23	4,790	3,630	2,000	2,700	2,300	3,510	34,900	29,600	18,900	9,540	5,780	4,020
24	4,600	3,700	2,400	2,930	2,400	3,380	34,600	27,600	18,900	9,450	5,690	3,990
25	4,470	3,700	2,700	3,040	2,500	3,270	34,100	26,700	19,500	9,300	5,720	4,020
26	4,390	3,660	2,980	2,900	2,600	3,180	33,700	27,800	20,300	9,120	5,690	4,220
27	4,330	3,660	3,090	2,900	2,700	3,200	31,400	30,900	19,900	8,850	5,630	4,170
28	4,330	3,630	3,180	2,600	2,800	3,180	29,200	36,100	16,700	8,460	5,520	4,090
29	4,360	3,580	3,270	2,240	2,800	3,020	27,000	41,900	17,900	8,010	5,370	4,070
30	4,310	3,560	3,270	2,090	-	2,910	25,700	47,500	17,200	7,720	5,160	4,020
31	3,680	-	3,220	1,970	-	2,760	-	51,700	-	7,550	5,090	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acres-feet
October.....	143,160	4,930	3,880	4,618	0.293	0.45	264,000
November.....	112,950	4,700	2,680	3,765	.321	.36	224,000
December.....	95,500	3,530	2,000	3,061	.262	.30	189,400
Calendar year 1935.....	4,881,180	63,200	1,900	13,370	1.14	15.46	9,682,000
January.....	89,310	3,320	1,970	2,881	.245	.28	177,100
February.....	57,840	2,800	1,320	1,994	*.170	.13	114,700
March.....	116,180	5,400	2,750	3,748	.319	.37	230,400
April.....	507,810	34,900	2,620	16,930	1.44	1.61	1,007,000
May.....	1,161,000	51,900	26,100	37,450	3.19	3.68	2,303,000
June.....	818,900	53,700	17,200	27,300	2.53	2.60	1,624,000
July.....	342,980	15,600	7,550	11,060	.942	1.09	680,300
August.....	197,560	7,460	5,090	6,373	.543	.63	391,900
September.....	142,330	5,840	3,990	4,744	.404	.45	282,300
Water year 1935-36.....	3,785,520	63,700	1,320	10,340	.881	12.00	7,508,000

Kootenai River at Boom Camp, near Bonners Ferry, Idaho

Location.- Water-stage recorder, lat. 49°42'5", long. 116°14'30", in NW¼ sec. 29, T. 62 N., R. 2 E., 600 feet east of Boom Camp, 3½ miles upstream from Bonners Ferry, and 4 miles downstream from Moyie River. Zero of gage is 1,700.00 feet above mean sea level, United States Coast and Geodetic Survey datum (erroneously published in Water-Supply Papers 767 and 792).

Records available.- October 1927 to September 1936. From April 1925 to September 1927 records were collected by Dominion Water and Power Bureau of the Department of Mines and Resources, Canada.

Extremes.- Maximum water-surface elevation during year, 1,769.49 feet May 17; minimum, 1,755.62 feet Feb. 2.
1927-36: Maximum water-surface elevation recorded, 1,776.58 feet June 18, 1933; minimum, that of Feb. 9, 1936.

Remarks.- Records excellent. Elevations affected by backwater from Kootenay Lake from about Apr. 26 to June 21.

Daily gage height, in feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	57.63	57.12	56.97	56.81	56.38	57.37	56.57	63.94	69.23	61.03	58.64	57.72
2	57.61	56.89	56.96	56.85	56.19	57.47	56.51	64.33	69.37	60.64	58.63	57.75
3	57.58	56.72	56.93	56.83	56.08	57.67	56.60	64.66	69.07	60.41	58.61	57.78
4	57.56	56.71	56.91	56.82	56.04	57.87	56.62	65.17	68.12	60.36	58.58	57.80
5	57.54	56.76	56.92	56.81	56.01	57.88	56.60	65.88	66.30	60.39	58.54	57.95
6	57.52	57.01	57.09	56.76	56.01	57.75	56.60	66.22	64.74	60.54	58.51	58.05
7	57.56	57.15	56.85	56.62	55.89	57.57	56.62	66.16	64.22	60.53	58.48	58.04
8	57.46	57.31	56.73	56.54	55.92	57.45	56.75	65.73	64.23	60.40	58.44	57.90
9	57.51	57.50	56.75	56.55	55.81	57.49	56.93	65.55	63.97	60.23	58.43	57.91
10	57.50	57.80	56.84	56.66	55.96	57.59	57.18	65.82	63.68	60.11	58.41	57.86
11	57.50	57.31	56.91	56.72	56.05	57.46	57.57	66.61	63.24	59.96	58.35	57.76
12	57.55	57.27	56.93	56.79	56.19	57.31	58.30	67.50	63.11	59.90	58.31	57.67
13	57.57	57.32	56.94	56.87	56.40	57.24	59.41	67.71	63.15	60.11	58.26	57.61
14	57.53	57.29	56.91	56.83	55.43	57.22	60.52	67.77	63.46	60.03	58.24	57.60
15	57.54	57.27	53.88	56.94	56.43	57.14	61.12	68.22	63.56	59.83	58.23	57.54
16	57.51	57.26	56.82	56.79	56.50	57.07	61.47	69.01	63.34	59.71	58.23	57.49
17	57.50	57.24	56.75	56.73	56.67	57.04	62.03	69.33	63.35	59.63	58.25	57.45
18	57.47	57.20	56.89	56.67	56.79	57.00	63.01	68.19	63.40	59.56	58.28	57.41
19	57.54	57.15	57.06	56.61	56.82	57.00	64.24	66.88	63.37	59.46	58.23	57.35
20	57.64	57.02	56.95	56.51	56.95	56.97	65.03	65.95	62.97	59.40	58.18	57.30
21	57.68	57.10	56.92	56.30	57.00	57.01	65.30	65.52	62.37	59.32	58.12	57.26
22	57.66	57.06	56.47	56.37	57.02	57.04	65.36	65.18	61.96	59.33	58.07	57.18
23	57.62	57.04	56.20	56.52	57.13	57.06	65.65	64.60	61.79	59.32	57.99	57.18
24	57.53	57.07	56.53	56.64	57.18	56.97	65.68	64.06	61.77	59.30	57.95	57.14
25	57.47	57.07	56.79	56.69	57.20	56.92	65.66	63.80	61.87	59.26	57.97	57.17
26	57.42	57.05	56.72	56.69	57.20	56.87	65.71	63.94	62.04	59.19	57.95	57.31
27	57.39	57.06	56.74	56.82	57.18	56.88	65.22	64.54	62.00	59.11	57.94	57.30
28	57.40	57.04	56.79	56.73	57.19	56.86	64.69	65.52	61.73	59.00	57.90	57.25
29	57.40	57.01	56.84	56.49	57.23	56.78	64.20	66.65	61.52	58.84	57.82	57.24
30	57.36	56.99	56.83	56.36	-	56.71	63.39	67.67	61.37	58.74	57.76	57.22
31	57.16	-	56.81	56.29	-	56.61	-	68.58	-	58.68	57.69	-

Note.- Add 1,700.00 feet to obtain elevations above mean sea level.

Kootenai River at Bonners Ferry, Idaho

Location.- Wire gage, lat. 48°42'0", long. 116°18'45", in NE¼ sec. 27, T. 62 N., R. 1 E., on highway bridge at Bonners Ferry. Zero of gage is 1,743.005 feet above mean sea level, U. S. Coast and Geodetic Survey datum.

Drainage area.- 13,000 square miles.

Records available.- October 1927 to September 1936. May to October 1904 at point three-quarters of a mile downstream. Gage-height records collected by U. S. Weather Bureau May 1904 to September 1927.

Extremes.- Maximum daily discharge during year, 55,700 second-feet May 17 and June 1; maximum water-surface elevation, 1,766.81 feet June 2; minimum daily discharge, 1,300 second-feet Feb. 8; minimum water-surface elevation, 1,741.80 feet Apr. 2.
1927-36: Maximum discharge, 99,800 second-feet June 18, 1933; maximum water-surface elevation, 1,774.98 feet June 19, 1933; minimum discharge, that of Feb. 8, 1936; minimum water-surface elevation, 1,741.14 feet Dec. 5, 1929.
Maximum elevation known, 1,777.2 feet in June 1894.

Remarks.- Records of discharge excellent except those for periods of ice effect, Nov. 1-4, 10, 11, Dec. 5-7, 18-26, Jan. 23 to Mar. 4, which were computed on basis of four discharge measurements, gage heights, weather records, and comparison with records for station at Leonia and are fair. Gage-height records good. Discharge obtained from rating for station at Boom Camp except during period of backwater from Kootenay Lake, Apr. 26 to June 20, when discharge was obtained by slope computations. Discharge measurements are made at station near Bonners Ferry. No artificial regulation or diversions above station.

Elevations, in feet, 1935-36

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	44.38	43.54	42.98	42.64	42.07	43.94	41.88	57.66	66.50	53.18	47.28	44.78
2	44.34	43.40	42.96	42.72	42.24	43.88	41.86	58.32	66.78	52.50	47.27	44.94
3	44.29	43.06	42.92	42.70	42.56	43.89	41.96	59.03	66.60	52.10	47.10	44.87
4	44.24	43.11	42.87	42.71	42.86	44.18	42.01	59.92	65.68	51.79	47.00	44.88
5	44.20	43.12	42.88	42.69	42.87	44.12	42.01	61.18	63.66	51.65	46.92	44.97
6	44.12	43.21	42.91	42.64	42.98	43.71	41.96	61.90	61.67	51.64	46.82	45.08
7	44.16	43.27	42.96	42.46	43.14	43.38	41.98	61.98	60.70	51.60	46.70	44.99
8	44.07	43.46	42.74	42.35	43.28	43.17	42.13	61.48	60.50	51.33	46.82	44.96
9	44.03	43.44	42.70	42.32	43.57	43.16	42.30	61.22	60.12	51.04	46.57	44.90
10	43.99	43.44	42.74	42.46	43.74	43.21	42.58	61.49	59.46	50.78	46.50	44.84
11	43.94	43.34	42.84	42.55	43.91	43.08	42.94	62.70	58.80	50.55	46.42	44.71
12	43.96	43.32	42.88	42.59	44.00	43.00	44.11	64.00	58.36	50.40	46.32	44.52
13	44.00	43.45	42.90	42.72	44.27	42.83	45.63	64.42	58.22	50.53	46.24	44.42
14	43.94	43.40	42.87	42.64	44.31	42.84	47.46	64.58	58.38	50.41	46.22	44.32
15	43.93	43.35	42.82	42.66	44.29	42.73	48.98	65.20	58.54	50.04	46.16	44.28
16	43.90	43.35	42.75	42.62	44.36	42.66	49.86	66.16	58.12	49.85	46.06	44.20
17	43.86	43.30	42.64	42.56	44.50	42.66	51.00	66.70	57.96	49.60	46.04	44.12
18	43.84	43.28	42.76	42.50	44.46	42.58	52.96	65.55	58.00	49.44	46.00	44.01
19	43.86	43.23	42.78	42.46	44.48	42.61	55.66	63.98	57.92	49.26	45.99	44.00
20	44.04	43.20	42.59	42.31	44.52	42.50	57.86	62.81	57.38	49.08	45.84	43.88
21	44.10	43.22	42.56	42.06	44.60	42.64	58.74	61.99	56.34	48.92	45.70	43.82
22	44.07	43.10	42.44	42.11	44.56	42.58	59.16	61.54	55.55	48.80	45.63	43.74
23	44.00	43.08	42.28	42.26	44.58	42.60	59.74	60.70	55.10	48.69	45.42	43.74
24	43.90	43.03	42.47	42.39	44.53	42.52	60.16	59.83	54.82	48.59	46.37	43.68
25	43.81	43.07	42.76	42.43	44.52	42.46	60.14	59.33	54.85	48.52	45.36	43.83
26	43.75	43.06	42.70	42.37	44.56	42.36	60.58	59.30	54.96	48.43	45.32	43.79
27	43.68	43.09	42.70	42.46	44.30	42.35	60.00	59.94	54.88	48.24	45.28	43.78
28	43.70	43.06	42.71	42.40	44.10	42.34	59.14	61.24	54.50	48.02	45.20	43.69
29	43.64	43.02	42.74	42.32	43.90	42.28	58.30	62.86	54.04	47.76	45.04	43.64
30	43.58	43.00	42.72	42.22	-	42.18	57.70	64.34	53.74	47.58	44.94	43.66
31	43.50	-	42.66	42.34	-	42.08	-	65.55	-	47.41	44.60	-

Note.- Add 1,700.00 feet to obtain elevations above mean sea level.

KOOTENAI RIVER BASIN

Discharge, in second-feet, of Kootenai River at Bonners Ferry, Idaho, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	5,050	3,800	3,630	3,320	2,000	3,100	2,890	29,600	55,700	16,000	7,690	5,260
2	5,000	3,400	3,610	3,400	1,900	3,500	2,790	31,800	55,400	14,400	7,660	5,330
3	4,930	3,000	3,550	3,360	1,900	4,100	2,940	33,900	53,000	13,600	7,600	5,400
4	4,890	2,800	3,510	3,340	1,900	5,500	2,980	37,000	47,600	13,400	7,510	5,450
5	4,840	3,230	3,400	3,320	1,800	5,650	2,940	41,200	38,800	13,500	7,400	5,820
6	4,800	3,710	3,200	3,230	1,700	5,330	2,940	43,000	31,900	14,100	7,320	6,080
7	4,890	4,000	3,100	2,980	1,500	4,910	2,980	42,500	30,200	14,000	7,230	6,050
8	4,660	4,330	3,170	2,840	1,300	4,640	3,210	39,700	30,600	13,500	7,120	5,700
9	4,770	4,600	3,210	2,860	1,400	4,730	3,550	38,800	29,400	12,900	7,090	5,720
10	4,750	4,900	3,380	3,050	1,600	4,960	4,060	40,300	27,700	12,400	7,040	5,600
11	4,750	4,330	3,510	3,160	1,800	4,660	4,910	44,800	26,200	11,900	6,880	5,350
12	4,860	4,250	3,550	3,280	1,800	4,330	6,740	49,200	25,700	11,700	6,770	5,140
13	4,910	4,350	3,570	3,430	1,900	4,180	10,000	49,700	26,000	12,400	6,630	5,000
14	4,820	4,290	3,510	3,360	1,900	4,140	14,000	49,500	27,500	12,200	6,580	4,980
15	4,840	4,250	3,450	3,380	2,000	3,970	16,400	51,400	27,900	11,500	6,550	4,840
16	4,770	4,230	3,340	3,280	2,000	3,830	17,900	55,200	26,900	11,000	6,550	4,730
17	4,750	4,180	3,210	3,170	2,100	3,770	20,400	55,700	27,000	10,800	6,600	4,640
18	4,680	4,100	3,200	3,070	2,100	3,690	25,300	49,000	27,200	10,500	6,690	4,550
19	4,840	4,000	3,100	2,960	2,200	3,690	32,400	43,100	27,000	10,200	6,550	4,420
20	5,070	3,730	3,000	2,790	2,200	3,630	37,200	39,100	25,000	10,000	6,420	4,310
21	5,160	3,890	2,800	2,440	2,300	3,710	38,900	37,300	22,100	9,750	6,260	4,230
22	5,120	3,810	2,600	2,550	2,300	3,770	39,500	35,700	20,100	9,790	6,130	4,060
23	5,030	3,770	2,200	2,800	2,400	3,810	41,200	32,900	19,300	9,750	5,920	4,060
24	4,820	3,830	2,600	3,010	2,500	3,630	41,200	30,200	19,200	9,690	5,820	3,970
25	4,680	3,830	2,900	3,100	2,600	3,530	41,200	29,100	19,700	9,530	5,880	4,040
26	4,570	3,790	3,100	3,000	2,700	3,430	40,500	29,900	20,500	9,340	5,820	4,330
27	4,510	3,810	3,190	2,900	2,800	3,450	37,300	33,000	20,300	9,090	5,800	4,310
28	4,530	3,770	3,280	2,800	2,900	3,410	34,100	38,400	19,000	8,750	5,700	4,200
29	4,530	3,710	3,380	2,500	3,000	3,260	31,100	44,800	18,100	8,270	5,500	4,180
30	4,440	3,670	3,360	2,200	-	3,140	29,400	49,600	17,500	7,980	5,350	4,140
31	4,020	-	3,320	2,100	-	2,960	-	53,600	-	7,800	5,190	-
Month				Second-foot-days		Maximum	Minimum	Mean	Per square mile	Run-off		
										Inches	Acre-feet	
October.....				148,280		5,160	4,020	4,783	0.368	0.42	294,100	
November.....				117,360		4,900	2,800	3,912	.301	.34	232,800	
December.....				99,930		3,630	2,200	3,224	.248	.29	198,200	
Calendar year 1935				5,347,990		69,000	2,000	14,650	1.13	15.31	10,610,000	
January.....				92,980		3,430	2,100	2,999	.231	.27	184,400	
February.....				60,500		3,000	1,300	2,086	.160	.17	120,000	
March.....				124,410		5,650	2,960	4,013	.309	.36	246,800	
April.....				590,730		41,200	2,790	19,690	1.51	1.68	1,172,000	
May.....				1,279,000		55,700	29,100	41,260	3.17	3.66	2,537,000	
June.....				882,500		55,700	17,500	28,750	2.21	2.47	1,711,000	
July.....				349,740		16,000	7,800	11,280	.888	1.00	693,700	
August.....				203,250		7,690	5,190	6,558	.504	.58	403,100	
September.....				145,890		6,080	3,970	4,863	.374	.42	289,400	
Water year 1935-36.....				4,074,570		55,700	1,300	11,130	.866	11.66	8,082,000	

Kootenai River near Bonners Ferry, Idaho

Location.- Water-stage recorder, lat. 48°41'55", long. 116°20'40", in NW¼ sec. 28, T. 62 N., R. 1 E., 1.8 miles downstream from highway bridge at Bonners Ferry. Zero of gage is 1,700.00 feet above mean sea level, U. S. Coast and Geodetic Survey datum.

Drainage area.- 13,000 square miles.

Records available.- May 1928 to September 1936.

Extremes.- Maximum water-surface elevation during year, 1,766.27 feet June 2; minimum, 1,740.31 feet Feb. 9.
1928-36: Maximum water-surface elevation, 1,774.17 feet June 20, 1933; minimum, that of Feb. 9, 1936.

Remarks.- Records excellent except those for Apr. 21-24, which are good. Elevations affected by backwater from Kootenai Lake.

Elevations, in feet, 1935-36

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	43.68	42.42	42.08	41.70	41.08	41.49	40.78	57.19	65.91	52.88	46.92	44.25
2	43.62	42.25	42.05	41.83	41.00	41.61	40.79	57.84	66.23	52.27	46.88	44.38
3	43.54	42.03	42.02	41.91	40.88	41.90	40.85	58.51	66.06	51.76	46.73	44.34
4	43.47	42.02	42.00	41.87	40.91	42.24	40.88	59.40	65.20	51.48	46.62	44.32
5	43.42	42.08	41.96	41.90	40.88	42.46	40.79	60.60	63.35	51.34	46.52	44.40
6	43.36	42.30	41.84	41.86	40.88	42.38	40.75	61.32	61.42	51.37	46.38	44.43
7	43.39	42.42	41.96	41.74	40.56	42.16	40.79	61.43	60.42	51.30	46.29	44.41
8	43.33	42.46	41.91	41.57	40.51	41.91	40.34	60.99	60.19	51.05	46.19	44.39
9	43.23	42.60	41.88	41.53	40.39	41.97	41.04	60.70	59.82	50.77	46.14	44.29
10	43.21	42.44	41.86	41.57	40.44	41.95	41.31	61.04	59.17	50.49	46.07	44.20
11	43.17	42.46	41.96	41.65	40.53	41.87	41.79	62.12	58.50	50.28	45.99	44.11
12	43.14	42.52	42.00	41.76	40.50	41.78	42.73	63.44	58.07	50.12	45.90	43.92
13	43.14	42.53	42.02	41.82	40.49	41.65	44.40	63.88	57.92	50.21	45.80	43.78
14	43.11	42.46	42.00	41.84	40.58	41.63	46.47	64.07	58.02	50.10	45.61	43.70
15	43.08	42.40	41.97	41.82	40.59	41.56	48.12	64.66	58.18	49.77	45.74	43.65
16	43.07	42.37	41.90	41.80	40.54	41.49	49.10	65.58	57.80	49.57	45.64	43.56
17	43.02	42.33	41.84	41.73	40.60	41.51	50.28	66.11	57.60	49.33	45.59	43.48
18	42.99	42.34	41.84	41.73	40.62	41.46	52.25	65.09	57.64	49.14	45.64	43.40
19	43.13	42.32	41.86	41.67	40.66	41.40	54.90	63.56	57.56	48.94	45.59	43.32
20	43.23	42.20	41.83	41.58	40.64	41.41	56.88	62.30	57.03	48.78	45.40	43.21
21	43.25	42.22	41.75	41.49	40.77	41.48	57.81	61.58	56.08	48.60	45.24	43.16
22	43.23	42.18	41.69	41.41	40.81	41.45	58.22	61.06	55.27	48.49	45.12	43.18
23	43.18	42.16	41.56	41.43	40.96	41.48	58.85	60.30	54.78	48.39	44.94	43.11
24	43.06	42.17	41.54	41.51	41.02	41.40	59.41	59.48	54.51	48.24	44.92	43.05
25	42.98	42.14	41.91	41.56	41.06	41.32	59.55	58.96	54.51	48.17	44.90	43.18
26	42.90	42.15	41.83	41.48	41.07	41.20	59.92	58.93	54.61	48.08	44.86	43.09
27	42.83	42.17	41.81	41.52	41.12	41.26	59.40	59.54	54.48	47.91	44.77	43.08
28	42.89	42.14	41.81	41.54	41.18	41.24	58.61	60.81	54.07	47.70	44.67	43.02
29	42.86	42.09	41.85	41.28	41.29	41.13	57.80	62.34	53.72	47.43	44.54	42.99
30	42.78	42.10	41.82	41.19	-	41.09	57.20	63.78	53.42	47.22	44.56	42.93
31	42.55	-	41.77	41.23	-	40.95	-	64.99	-	47.05	44.28	-

Note.- Add 1,700.00 feet to obtain elevations above mean sea level.

KOOTENAI RIVER BASIN

Kootenai River at Klockmann ranch, near Bonners Ferry, Idaho

Location.- Water-stage recorder, lat. 48°47'40", long. 116°22'50", in SE¼ sec. 19., T. 63 N., R. 1 E., at Klockmann ranch, 800 feet south of viaduct on Kootenai Valley Branch of Great Northern Railway and 8 miles north of Bonners Ferry. Zero of gage is 1,700.00 feet above mean sea level, U. S. Coast and Geodetic Survey datum.

Records available.- May 1928 to September 1936.

Extremes.- Maximum water-surface elevation during year, 1,764.46 feet June 2; minimum, 1,740.01 feet Feb. 17.

1928-36: Maximum water-surface elevation, 1,771.24 feet June 20, 1933; minimum, 1,739.99 feet Jan. 2, 1931.

Remarks.- Records good except those for Feb. 16-20 and those for May 24-27, June 4-13 (estimated by comparison with elevations for stations near Bonners Ferry and Copeland), which are fair. Elevations affected by backwater from Kootenay Lake.

Elevation, in feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	43.12	41.87	41.61	41.25	40.74	40.48	40.35	55.60	64.00	52.13	46.39	43.80
2	43.08	41.78	41.58	41.35	40.66	40.60	40.37	56.16	64.39	51.57	46.34	43.90
3	43.00	41.60	41.56	41.36	40.57	40.84	40.41	56.80	64.33	51.11	46.18	43.86
4	42.92	41.58	41.55	41.37	40.56	41.08	40.41	57.63	63.65	50.82	46.09	43.82
5	42.86	41.50	41.49	41.42	40.52	41.28	40.36	58.75	62.06	50.65	45.99	43.83
6	42.82	41.69	41.40	41.35	40.50	41.28	40.31	59.45	60.40	50.63	45.89	43.87
7	42.82	41.75	41.45	41.25	40.28	41.20	40.33	59.63	59.45	50.54	45.78	43.84
8	42.79	41.77	41.44	41.17	40.26	41.11	40.41	59.27	59.19	50.31	45.67	43.86
9	42.66	41.86	41.44	41.16	40.18	41.17	40.47	59.02	58.81	50.06	45.62	43.76
10	42.63	41.78	41.45	41.20	40.18	41.19	40.62	59.32	58.21	49.81	45.56	43.69
11	42.60	41.79	41.50	41.22	40.20	41.13	40.92	60.28	57.59	49.64	45.47	43.62
12	42.55	41.84	41.52	41.22	40.11	41.08	41.58	61.52	57.16	49.48	45.38	43.45
13	42.53	41.85	41.55	41.32	40.07	40.98	42.85	61.98	56.97	49.50	45.30	43.32
14	42.50	41.80	41.52	41.30	40.11	40.96	44.62	62.22	56.97	49.39	45.32	43.24
15	42.49	41.75	41.50	41.29	40.11	40.93	46.20	62.78	57.07	49.11	45.24	43.18
16	42.48	41.76	41.45	41.28	40.05	40.87	47.19	63.58	56.71	48.91	45.15	43.11
17	42.46	41.76	41.43	41.26	40.05	40.94	48.32	64.11	56.52	48.71	45.10	43.04
18	42.44	41.78	41.40	41.26	40.05	40.88	50.19	63.34	56.51	48.52	45.12	42.96
19	42.54	41.78	41.36	41.21	40.04	40.85	52.82	62.05	56.41	48.34	45.05	42.88
20	42.58	41.71	41.33	41.15	40.03	40.84	54.98	60.92	55.96	48.18	44.86	42.79
21	42.58	41.70	41.27	41.08	40.09	40.91	55.96	60.22	55.12	48.02	44.74	42.76
22	42.57	41.69	41.24	41.07	40.12	40.87	56.42	59.76	54.39	47.89	44.61	42.73
23	42.54	41.87	41.13	41.10	40.16	40.88	58.99	59.08	53.94	47.78	44.46	42.71
24	42.46	41.67	41.17	41.14	40.20	40.82	57.48	58.36	53.66	47.64	44.43	42.66
25	42.40	41.66	41.34	41.14	40.22	40.76	57.55	57.88	53.62	47.56	44.40	42.78
26	42.33	41.67	41.31	41.09	40.22	40.68	57.97	57.78	53.67	47.47	44.36	42.66
27	42.28	41.68	41.29	41.09	40.25	40.72	57.57	58.26	53.55	47.31	44.26	42.65
28	42.32	41.67	41.29	41.08	40.29	40.70	56.87	59.29	53.20	47.11	44.16	42.59
29	42.26	41.62	41.32	40.91	40.38	40.64	56.17	60.65	52.88	46.88	44.05	42.55
30	42.13	41.62	41.29	40.84	-	40.59	55.64	61.99	52.59	46.69	43.92	42.49
31	42.02	-	41.28	40.84	-	40.47	-	63.13	-	46.51	43.83	-

Note.- Add 1,700.00 feet to obtain elevations above mean sea level.

Kootenai River near Copeland, Idaho.

(International gaging station)

Location.- Water-stage recorder, lat. 48°54'45", long. 116°25'0", in NW¼NW¼SW¼ sec. 12, T. 64 N., R. 1 W., at Andrews ranch, three-quarters of a mile below Mission Creek and 1½ miles northwest of Copeland. Zero of gage is 1,700.00 feet above mean sea level, U. S. Coast and Geodetic Survey datum.

Drainage area.- 13,400 square miles.

Records available.- May 1929 to September 1936. Gage-height records only October 1927 to May 1929. Gage-height records collected by Dominion Water and Power Bureau, Department of Mines and Resources, Canada, April 1925 to September 1927.

Extremes.- Maximum daily discharge during year, 57,700 second-feet May 17; maximum water-surface elevation, 1,761.87 feet June 3; minimum daily discharge, 1,350 second-feet Feb. 8 (during ice period); minimum water-surface elevation, 1,739.89 feet Feb. 20.

1929-36: Maximum daily discharge, 90,500 second-feet June 19, 1933; minimum, that of Feb. 8, 1936.

1927-36: Maximum water-surface elevation, 1,767.98 feet June 20, 1933; minimum, 1,739.59 feet Jan. 25, 1930.

Remarks.- Records excellent except those for periods of ice effect, Oct. 31 to Nov. 20, Dec. 5-9, Dec. 18 to Jan. 21, and Jan. 27 to Mar. 7 (computed on basis of three discharge measurements and by comparison with records for station at Bonners Ferry), which are fair. Records of water-surface elevations excellent except those during periods Oct. 29 to Nov. 14, Feb. 7-10, 13-20, Mar. 27-29, Apr. 2 and 3, which are fair. Elevations affected by backwater from Kootenay Lake. Discharge computed from a mean elevation-fall-discharge diagram on basis of fall between stations near Bonners Ferry and near Copeland and discharge measurements made at station near Copeland.

This is one of the international gaging stations maintained by the United States under agreement with Canada.

Elevation, in feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	42.83	41.68	41.43	41.09	40.71	40.30	40.24	53.53	61.24	51.30	46.05	43.58
2	42.77	41.62	41.40	41.19	40.65	40.34	40.26	53.96	61.73	50.87	45.99	43.66
3	42.72	41.49	41.39	41.21	40.66	40.50	40.29	54.51	61.83	50.48	45.84	43.62
4	42.65	41.41	41.38	41.22	40.53	40.63	40.28	55.22	61.42	50.20	45.75	43.58
5	42.61	41.46	41.34	41.28	40.49	40.76	40.24	56.16	60.31	50.02	45.65	43.55
6	42.55	41.50	41.26	41.21	40.46	40.80	40.18	56.78	59.98	49.94	45.55	43.55
7	42.53	41.52	41.28	41.14	40.25	40.78	40.20	57.02	58.12	49.81	45.45	43.54
8	42.51	41.51	41.28	41.08	40.20	40.74	40.25	56.84	57.81	49.61	45.36	43.56
9	42.40	41.57	41.28	41.07	40.15	40.61	40.27	56.69	57.47	49.40	45.29	43.49
10	42.37	41.50	41.29	41.09	40.15	40.82	40.36	56.95	56.93	49.19	45.24	43.42
11	42.34	41.52	41.33	41.10	40.18	40.77	40.55	57.72	56.39	49.06	45.15	43.37
12	42.27	41.56	41.36	41.10	40.10	40.76	40.84	58.72	56.00	48.91	45.08	43.21
13	42.24	41.58	41.37	41.16	40.05	40.72	41.74	59.22	55.76	48.87	45.00	43.08
14	42.23	41.51	41.36	41.16	40.05	40.68	42.96	59.50	55.65	48.76	45.01	43.00
15	42.22	41.47	41.34	41.16	40.00	40.68	44.21	60.04	55.67	48.52	44.95	42.94
16	42.21	41.49	41.32	41.15	40.00	40.62	45.09	60.72	55.38	48.35	44.86	42.89
17	42.19	41.52	41.30	41.14	39.95	40.70	46.08	61.21	55.18	48.18	44.81	42.82
18	42.17	41.55	41.27	41.15	39.90	40.66	47.66	60.80	55.13	48.00	44.80	42.75
19	42.28	41.53	41.23	41.10	39.90	40.63	49.97	59.87	54.99	47.82	44.72	42.69
20	42.27	41.49	41.20	41.06	39.90	40.62	51.94	58.97	54.64	47.68	44.57	42.62
21	42.26	41.50	41.15	41.03	39.97	40.69	52.84	58.35	53.99	47.53	44.45	42.59
22	42.26	41.49	41.13	41.01	39.98	40.64	53.40	57.95	53.40	47.42	44.34	42.61
23	42.22	41.48	41.07	41.00	40.02	40.64	53.96	57.42	52.98	47.30	44.20	42.51
24	42.17	41.48	41.07	41.03	40.04	40.60	54.50	56.82	52.70	47.17	44.17	42.51
25	42.13	41.46	41.16	41.02	40.06	40.55	54.66	56.40	52.62	47.10	44.14	42.59
26	42.07	41.47	41.14	40.99	40.07	40.51	55.14	56.26	52.59	47.01	44.08	42.48
27	42.03	41.48	41.13	40.98	40.11	40.55	54.94	56.56	52.47	46.86	43.99	42.47
28	42.03	41.48	41.13	40.98	40.12	40.50	54.45	57.28	52.18	46.68	43.90	42.43
29	42.00	41.44	41.14	40.84	40.20	40.45	55.92	56.33	51.95	46.49	43.80	42.39
30	41.88	41.44	41.11	40.80	-	40.43	55.55	59.41	51.67	46.33	43.69	42.32
31	41.78	-	41.11	40.78	-	40.30	-	60.39	-	46.17	43.62	-

Note.- Add 1,700.00 feet to obtain elevations above mean sea level.

KOOTENAI RIVER BASIN

Discharge, in second-feet, of Kootenai River near Copeland, Idaho,
water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	5,170	3,850	3,710	3,400	2,050	3,250	2,950	32,100	55,900	16,500	7,780	5,220
2	5,140	3,450	3,680	3,450	1,950	3,650	2,940	34,300	55,600	15,000	7,820	5,470
3	5,000	3,050	3,620	3,450	1,950	4,250	3,040	36,200	55,500	13,900	7,720	5,450
4	4,960	2,850	3,590	3,400	1,950	5,650	3,160	36,000	48,900	13,600	7,550	5,500
5	4,900	3,300	3,450	3,400	1,850	5,800	2,980	45,000	40,800	13,600	7,470	5,880
6	4,860	3,900	3,250	3,300	1,750	5,450	3,020	44,900	33,400	14,200	7,230	5,980
7	5,000	4,100	3,150	3,050	1,550	5,050	3,100	44,400	30,800	14,500	7,200	5,940
8	4,860	4,400	3,250	2,900	1,350	4,900	3,380	42,000	31,100	13,800	7,100	5,830
9	4,820	4,700	3,300	2,900	1,450	4,920	3,610	40,600	30,200	13,200	7,120	5,670
10	4,830	4,950	3,390	3,100	1,650	4,840	4,080	41,700	28,600	12,600	7,020	5,540
11	4,790	4,400	3,580	3,250	1,850	4,720	4,950	45,800	26,800	12,000	6,970	5,350
12	4,840	4,300	3,630	3,350	1,850	4,500	6,700	50,600	25,900	11,900	6,850	5,130
13	4,930	4,400	3,670	3,500	1,950	4,230	10,200	51,200	26,200	12,500	6,710	5,020
14	4,860	4,350	3,640	3,450	1,950	4,210	14,900	51,100	27,400	12,400	6,720	4,970
15	4,800	4,300	3,590	3,450	2,050	4,080	18,300	52,700	28,400	11,700	6,630	4,970
16	4,780	4,300	3,440	3,350	2,050	4,040	20,100	56,300	27,300	11,400	6,520	4,770
17	4,690	4,250	3,300	3,250	2,150	3,920	22,700	57,700	27,000	10,900	6,480	4,700
18	4,650	4,150	3,300	3,150	2,150	3,870	27,700	51,700	27,500	10,700	6,710	4,630
19	4,800	4,050	3,150	3,050	2,250	3,780	34,300	44,900	27,700	10,400	6,780	4,510
20	5,130	3,800	3,050	2,850	2,500	3,850	38,200	40,300	25,900	10,200	6,510	4,340
21	5,220	3,950	2,850	2,500	2,400	3,860	40,100	38,200	22,800	9,930	6,290	4,250
22	5,150	3,860	2,650	2,700	2,400	3,890	40,200	36,600	20,700	9,840	6,160	4,250
23	5,100	3,850	2,250	2,790	2,500	3,950	41,900	33,900	19,800	9,840	5,900	4,150
24	4,850	3,850	2,650	2,950	2,600	3,940	43,200	31,400	19,500	9,630	5,920	4,090
25	4,720	3,810	2,950	3,150	2,700	3,740	43,300	30,000	19,900	9,570	5,920	4,310
26	4,610	3,810	3,150	3,000	2,850	3,500	43,400	30,500	20,700	9,480	5,980	4,310
27	4,510	3,850	3,250	3,000	2,950	3,570	40,500	33,300	20,500	9,280	5,930	4,310
28	4,670	3,770	3,350	2,900	3,050	3,630	37,300	38,400	19,300	9,000	5,830	4,230
29	4,650	3,710	3,450	2,550	3,150	3,450	34,200	44,000	18,500	8,450	5,630	4,230
30	4,550	3,740	3,450	2,250	-	3,390	32,100	49,300	17,900	8,100	5,280	4,220
31	4,100	-	3,400	2,150	-	3,290	-	55,400	-	7,920	5,200	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acre-feet
October.....	149,920	5,220	4,100	4,836	0.361	0.42	297,400
November.....	118,930	4,950	2,850	3,964	.296	.33	235,900
December.....	102,140	3,710	2,250	3,295	.246	.28	202,600
Calendar year 1935.....	5,452,360	67,100	2,160	14,940	1.11	15.14	10,810,000
January.....	94,970	3,500	2,150	3,064	.229	.26	188,400
February.....	62,650	3,150	1,350	2,160	.161	.17	124,300
March.....	129,060	5,800	3,250	4,163	.311	.36	256,000
April.....	626,510	43,400	2,940	20,880	1.56	1.74	1,243,000
May.....	1,319,500	57,700	30,000	42,560	3.18	3.67	2,617,000
June.....	878,600	55,900	17,900	29,290	2.19	2.44	1,743,000
July.....	355,840	16,500	7,920	11,480	.857	.99	705,800
August.....	204,930	7,820	5,200	6,611	.493	.57	406,500
September.....	147,220	5,980	4,090	4,907	.366	.41	292,000
Water year 1935-36.....	4,190,260	57,700	1,350	11,450	.854	11.64	8,312,000

Kootenai River at Port Hill, Idaho

(International gaging station)

Location.— Water-stage recorder, lat. 49°0'0", long. 116°30'10", in SW¼ sec. 8, T. 85 N., R. 1 W., 300 feet south of international boundary at Port Hill. Zero of gage is 1,700.00 feet above mean sea level, U. S. Coast and Geodetic Survey datum, and 1,699.80 feet above mean sea level, datum of Geodetic Survey of Canada (adjustment of 1928).

Drainage area.— 13,700 square miles.

Records available.— April 1928 to September 1936. Gage-height records only May to July 1904; October 1927 to April 1928. Gage-height records collected by Dominion Water and Power Bureau, Department of Mines and Resources, Canada, October 1924 to September 1927.

Extremes.— Maximum daily discharge during year, 59,800 second-feet May 17; maximum water-surface elevation, 1,759.41 feet June 3; minimum daily discharge, 1,380 second-feet Feb. 8; minimum water-surface elevation, 1,739.67 feet Feb. 20.

1928-36: Maximum daily discharge, 93,200 second-feet June 19, 1933; minimum daily discharge, that of Feb. 8, 1936; maximum water-surface elevation, 1,763.92 feet June 20, 1933; minimum, 1,739.32 feet Jan. 28, 1930.

Maximum elevation known, 1,772.7 feet June 1894.

Remarks.— Discharge records good except those for periods Oct. 31 to Nov. 20, Dec. 5-9, Dec. 18 to Jan. 21, and Jan. 27 to Mar. 7, which are fair. Records of water-surface elevation excellent. Discharge records include flow of Boundary Creek and represent entire flow passing international boundary. Elevations affected by backwater from Kootenay Lake. Discharge records obtained by adding tributary inflow to discharge for station near Copeland. Breaches in dike of the Reclamation Farm were closed during March 1936, and no flow passed through them during year. Forest Service roadway dike along south side of Boundary Creek channel remained intact throughout year.

This is one of the international gaging stations maintained by the United States under agreement with Canada.

Elevation, in feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	42.55	41.47	41.20	40.85	40.49	40.01	40.02	51.76	58.66	50.58	45.73	43.33
2	42.49	41.42	41.16	40.82	40.42	40.06	40.02	52.10	59.26	50.26	45.64	43.36
3	42.43	41.30	41.15	40.94	40.35	40.17	40.03	52.55	59.37	49.92	45.50	43.36
4	42.38	41.27	41.14	40.96	40.32	40.25	40.04	53.11	59.21	49.65	45.42	43.30
5	42.32	41.24	41.11	41.01	40.28	40.36	40.00	53.66	58.53	49.48	45.32	43.26
6	42.28	41.26	41.06	40.95	40.25	40.39	39.97	54.39	57.59	49.37	45.22	43.25
7	42.25	41.26	41.07	40.89	40.10	40.39	39.96	54.62	56.91	49.23	45.12	43.23
8	42.24	41.25	41.08	40.87	40.07	40.38	40.01	54.59	56.58	49.04	45.03	43.26
9	42.11	41.30	41.08	40.84	40.00	40.47	40.02	54.56	56.23	48.65	44.98	43.19
10	42.10	41.23	41.08	40.87	39.98	40.48	40.08	54.62	55.78	48.66	44.92	43.13
11	42.07	41.25	41.10	40.87	39.98	40.46	40.22	55.40	55.30	48.56	44.84	43.10
12	41.99	41.29	41.12	40.87	39.89	40.47	40.52	56.15	54.93	48.42	44.77	42.94
13	41.97	41.30	41.12	40.93	39.84	40.42	41.11	56.60	54.67	48.34	44.69	42.82
14	41.96	41.26	41.12	40.91	39.85	40.41	42.01	56.93	54.49	48.20	44.70	42.74
15	41.95	41.22	41.11	40.90	39.82	40.40	42.97	57.44	54.43	48.00	44.63	42.59
16	41.94	41.23	41.09	40.91	39.73	40.35	43.71	57.96	54.20	47.86	44.54	42.64
17	41.92	41.28	41.07	40.90	39.75	40.42	44.62	58.41	54.00	47.70	44.49	42.58
18	41.91	41.28	41.04	40.90	39.72	40.38	45.61	58.27	53.94	47.55	44.48	42.51
19	41.89	41.27	41.02	40.87	39.71	40.37	47.61	57.69	53.78	47.39	44.40	42.44
20	41.99	41.24	40.99	40.84	39.69	40.39	49.25	57.10	53.49	47.26	44.27	42.38
21	41.96	41.24	40.95	40.81	39.73	40.42	50.09	56.62	52.99	47.12	44.14	42.37
22	41.99	41.24	40.92	40.78	39.75	40.36	50.65	56.30	52.62	47.00	44.04	42.37
23	41.93	41.23	40.87	40.80	39.79	40.36	51.20	55.89	52.17	46.90	43.92	42.32
24	41.88	41.23	40.86	40.80	39.79	40.33	51.78	55.44	51.90	46.76	43.90	42.30
25	41.84	41.22	40.91	40.79	39.80	40.30	42.01	55.10	51.79	46.70	43.85	42.33
26	41.79	41.23	40.90	40.76	39.82	40.25	52.54	54.96	51.71	46.61	43.61	42.23
27	41.75	41.25	40.89	40.74	39.83	40.29	52.61	55.10	51.55	46.47	43.72	42.21
28	41.73	41.22	40.89	40.73	39.88	40.25	52.26	55.60	51.33	46.31	43.62	42.18
29	41.70	41.19	40.89	40.62	39.95	40.22	51.94	56.36	51.15	46.13	43.52	42.15
30	41.61	41.21	40.88	40.57	-	40.19	51.71	57.16	50.90	45.99	43.43	42.06
31	41.57	-	40.87	40.56	-	40.09	-	57.94	-	45.83	43.35	-

Note.— Add 1,700.00 feet to obtain elevations above mean sea level.

KOOTENAI RIVER BASIN

Discharge, in second-feet, of Kootenai River at Fort Hill, Idaho,
water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	5,200	3,890	3,750	3,440	2,080	3,290	3,000	33,800	56,900	16,600	7,820	5,250
2	5,170	3,490	3,720	3,490	1,980	3,690	2,990	36,200	56,600	15,100	7,860	5,520
3	5,050	3,100	3,660	3,490	1,960	4,290	3,090	36,300	54,200	14,000	7,760	5,500
4	4,990	2,900	3,630	3,440	1,980	5,700	3,210	41,500	49,500	13,900	7,590	5,540
5	4,930	3,350	3,490	3,440	1,880	5,650	3,030	45,500	41,400	13,800	7,510	5,950
6	4,890	3,950	3,290	3,340	1,780	5,500	3,070	46,900	33,900	14,300	7,270	6,040
7	5,030	4,160	3,190	3,090	1,580	5,100	3,160	46,200	31,500	14,400	7,240	5,980
8	4,890	4,470	3,290	2,940	1,380	4,970	3,440	43,800	32,000	13,900	7,130	5,860
9	4,850	4,760	3,340	2,940	1,480	5,000	3,690	42,700	31,000	13,300	7,150	5,700
10	4,860	5,000	3,430	3,140	1,680	4,910	4,180	44,100	29,300	12,700	7,050	5,570
11	4,820	4,450	3,620	3,290	1,880	4,780	5,100	46,900	27,400	12,100	7,000	5,380
12	4,880	4,350	3,690	3,390	1,880	4,560	6,910	53,300	26,400	12,000	6,980	5,160
13	5,000	4,450	3,710	3,540	1,990	4,280	10,500	53,900	26,700	12,600	6,740	5,060
14	4,920	4,400	3,680	3,490	1,980	4,260	15,200	54,200	27,800	12,500	6,750	5,020
15	4,920	4,350	3,650	3,500	2,080	4,130	18,700	56,000	28,800	11,800	6,660	5,020
16	4,870	4,350	3,480	3,400	2,080	4,080	20,700	58,900	27,700	11,500	6,550	4,810
17	4,760	4,300	3,340	3,290	2,180	3,970	23,500	59,600	27,500	11,000	6,510	4,740
18	4,720	4,200	3,340	3,190	2,180	3,920	28,900	55,600	27,900	10,800	6,740	4,670
19	4,970	4,100	3,190	3,090	2,280	3,850	35,900	46,700	28,000	10,500	6,810	4,560
20	5,250	3,650	3,090	2,890	2,330	3,890	39,800	41,800	26,200	10,300	6,540	4,360
21	5,300	4,000	2,890	2,540	2,430	3,920	41,700	39,500	23,100	9,990	6,320	4,280
22	5,220	3,900	2,690	2,740	2,430	3,950	42,000	37,800	21,000	9,900	6,190	4,280
23	5,160	3,880	2,290	2,830	2,530	4,010	43,800	35,100	20,100	9,900	5,930	4,180
24	4,900	3,900	2,690	3,020	2,630	3,890	44,900	32,600	19,700	9,680	5,950	4,120
25	4,770	3,860	2,990	3,190	2,740	3,790	45,400	31,500	20,100	9,620	5,950	4,340
26	4,660	3,860	3,190	3,040	2,890	3,580	45,300	32,100	20,900	9,530	6,010	4,340
27	4,560	3,900	3,290	3,040	2,990	3,680	42,100	35,000	20,700	9,330	5,960	4,340
28	4,730	3,820	3,390	2,940	3,090	3,680	38,800	40,100	19,500	9,050	5,860	4,260
29	4,690	3,760	3,490	2,590	3,190	3,510	35,600	45,700	18,700	8,500	5,660	4,260
30	4,570	3,780	3,490	2,290	-	3,440	33,500	50,700	18,100	8,140	5,310	4,250
31	4,140	-	3,440	2,190	-	3,340	-	54,600	-	7,960	5,220	-
Month				Second-foot-days		Maximum	Minimum	Mean	Per square mile	Run-off		
										Inches	Acre-feet	
October.....				151,650		5,300	4,140	4,692	0.357	0.41	300,800	
November.....				120,430		5,000	2,900	4,014	.293	.33	238,900	
December.....				103,390		3,750	2,290	3,335	.243	.28	205,100	
Calendar year 1935.....				5,609,000		69,400	2,290	15,370	1.12	15.33	11,130,000	
January.....				96,230		3,540	2,190	3,104	.227	.26	190,900	
February.....				63,570		3,190	1,380	2,192	.160	.17	126,100	
March.....				130,700		5,850	3,290	4,216	.308	.36	259,200	
April.....				651,160		45,400	2,990	21,710	1.58	1.76	1,292,000	
May.....				1,331,000		59,800	31,500	44,550	3.25	3.75	2,738,000	
June.....				892,600		56,900	18,100	29,750	2.17	2.42	1,770,000	
July.....				359,600		16,600	7,960	11,570	.845	.97	711,300	
August.....				205,920		7,860	5,220	6,643	.485	.56	408,400	
September.....				148,350		6,040	4,120	4,945	.361	.40	294,200	
Water year 1935-36.....				4,303,600		59,800	1,380	11,760	.858	11.67	8,536,000	

Boulder Creek near Leonia, Idaho

Location.— Water-stage recorder, lat. 48°38', long. 116°8', in NW¼ sec. 32, T. 61 N., R. 3 E., half a mile below McGinty Creek, 1 mile above buildings of the Idamount Lead-Zinc Mines Co., 3 miles above mouth, and 3 miles southwest of Leonia.

Drainage area.— 53 square miles.

Records available.— April 1928 to September 1936. Prior to November 1928 records were collected at staff-gage site 1½ miles downstream.

Extremes.— Maximum discharge during year, 1,010 second-feet May 4 (gage height, 3.55 feet); minimum discharge, 4 second-feet Aug. 31; minimum gage height, 0.39 foot Oct. 4.

1928-36: Maximum discharge, 1,540 second-feet Nov. 7, 1934 (gage height, 4.40 feet); minimum, 2 second-feet Aug. 25, Sept. 5, 1931.

Remarks.— Records fair except those for periods of ice effect, Jan. 26 to Mar. 3, and those for Apr. 19-22, Aug. 10-13, which were computed on basis of comparison with flow of nearby streams and weather records and are poor. Water diverted around gage for mining purposes Oct. 1-29, is returned to creek below gage.

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	6	8	10	10	8	23	18	678	130	25	7	5
2	5	9	7	10		27	17	668	123	23	7	9
3	5	9	9	10		30	15	761	105	25	7	11
4	5	10	7	10		31	15	768	93	27	7	10
5	5	10	8	10		29	14	690	89	25	7	16
6	5	11	11	9	6	27	14	505	85	23	7	13
7	5	11	12	9		21	18	450	118	21	6	10
8	5	14	11	9		23	25	500	138	24	6	8
9	5	15	10	9		36	36	560	111	23	6	7
10	5	12	11	9		28	56	629	96	25	6	7
11	5	12	11	10	6	22	104	750	88	25	6	7
12	7	12	11	11		21	148	618	83	21	5	7
13	15	11	11	13		20	224	560	73	18	5	9
14	9	11	10	11		17	325	602	68	17	5	12
15	10	11	10	11		16	345	570	65	15	5	12
16	9	12	8	10	5	15	363	450	67	15	5	11
17	7	11	9	10		16	480	386	72	14	5	10
18	7	11	7	10		15	585	363	63	14	5	9
19	25	11	8	10		17	700	329	57	13	5	9
20	19	11	9	10		18	700	269	54	12	5	9
21	11	11	9	10	8	23	700	230	49	11	5	8
22	9	11	10	10		21	700	218	46	11	5	8
23	10	12	10	10		20	778	227	43	10	5	8
24	11	12	10	10		19	668	230	39	10	5	8
25	10	12	10	9		21	866	230	37	9	7	7
26	9	12	10	10	15	16	717	227	34	9	7	8
27	9	12	10	10		17	640	218	32	9	6	8
28	10	12	10	10		18	596	221	29	9	5	8
29	11	12	9	9		14	570	206	27	8	5	8
30	10	12	9	9		17	575	186	26	8	5	7
31	7	-	10	9	-	16	-	160	-	7	4	-
Month				Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off			
									Inches	Acre-feet		
October.....				271	25	5	8.7	0.164	0.19	538		
November.....				340	15	8	11.3	.215	.24	674		
December.....				297	12	7	9.6	.181	.21	589		
Calendar year 1935.....				41,422	992	5	113	2.13	29.12	82,160		
January.....				307	13	9	9.9	.187	.22	609		
February.....				325	-	-	7.8	.147	.16	446		
March.....				554	38	14	21.1	.398	.46	1,300		
April.....				11,012	866	14	367	6.92	7.72	21,840		
May.....				13,479	788	180	435	8.21	9.46	26,740		
June.....				2,140	138	26	71.3	1.35	1.51	4,240		
July.....				506	27	7	16.3	.308	.36	1,000		
August.....				176	7	4	5.7	.108	.12	349		
September.....				269	16	5	9.0	.170	.19	534		
Water year 1935-36.....				29,676	866	4	81.1	1.53	20.84	58,660		

Moyie River at Eastport, Idaho

(International gaging station)

Location.- Water-stage recorder, lat. 49°0', long. 116°11', in SE $\frac{1}{4}$ sec. 10, T. 65 N., R. 2 E., 1,000 feet downstream from international boundary at Eastport.

Drainage area.- 570 square miles.

Records available.- August 1929 to September 1936 in reports of U. S. Geological Survey; January to December 1915, March to December 1916 in reports of the Dominion Water and Power Bureau of the Department of Mines and Resources, Canada.

Extremes.- Maximum discharge during year, 3,740 second-feet Apr. 18 (gage height, 7.55 feet); minimum, 44 second-feet Oct. 31 (gage height, 3.40 feet).
1929-36: Maximum discharge, 6,240 second-feet Apr. 28, 1934; minimum (estimated), 34 second-feet Jan. 18, 1930.

Remarks.- Records good except those for periods of ice effect, Nov. 1-11, 18, Dec. 2-8, 17-28, Jan. 5, 6, 18-21, Jan. 27 to Mar. 7, Mar. 10, 11, Mar. 31 to Apr. 4, which are fair, and were computed on basis of one discharge measurement, gage heights, weather records, and records for station at Eilsen. No regulation or diversions above station. This station is one of the international gaging stations maintained by the United States under agreement with Canada.

Rating table, water year 1935-36 except periods of ice effect (gage height, in feet, and discharge, in second-feet)

3.4	44	4.9	671	6.4	2,130
3.7	109	5.2	900	6.7	2,520
4.0	205	5.5	1,165	7.0	2,940
4.3	325	5.8	1,460	7.3	3,370
4.6	479	6.1	1,780	7.6	3,820

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	68	70	72	76	65	90	120	2,590	1,310	246	72	46
2	68	73	71	81		95	120	2,730	1,170	238	70	65
3	66	75	72	79		100	115	2,730	1,050	231	70	74
4	66	80	87	79		108	110	2,940	961	227	70	63
5	66	86	76	78		115	101	3,160	861	212	68	88
6	66	100	77	72	65	125	99	2,870	781	205	65	93
7	68	115	80	76		140	104	2,730	796	198	63	74
8	66	135	80	72		151	132	2,730	892	191	61	66
9	66	140	79	70		177	167	2,730	942	188	61	61
10	66	100	86	68		166	216	2,870	892	184	59	59
11	66	130	83	68	65	160	372	3,150	819	184	68	58
12	70	115	81	74		138	644	3,160	758	180	58	58
13	95	91	79	76		132	1,220	3,010	707	174	58	59
14	88	86	79	74		126	1,460	3,080	664	164	56	63
15	86	83	74	79		121	1,560	3,220	623	167	56	63
16	88	86	74	83	76	118	1,720	2,940	617	148	56	61
17	86	83	73	76		124	2,260	2,660	623	141	56	59
18	83	78	70	68		126	2,870	2,390	577	135	56	58
19	118	79	70	73		126	3,370	2,200	533	126	56	56
20	132	76	75	77		132	3,160	2,010	503	118	66	54
21	118	76	75	80	76	160	2,940	1,840	468	115	54	52
22	106	72	75	81		154	3,080	1,870	429	109	52	51
23	101	74	75	76		151	3,300	1,560	408	104	51	49
24	99	72	75	76		144	2,870	1,460	377	99	52	51
25	96	74	75	76		135	3,440	1,460	348	93	56	51
26	91	79	75	76	76	135	3,440	1,460	330	88	58	51
27	93	76	74	74		132	3,010	1,410	312	86	54	52
28	101	74	74	72		132	2,730	1,410	291	83	52	52
29	109	72	74	70		126	2,620	1,360	274	81	51	52
30	91	72	74	65		118	2,460	1,310	262	76	49	51
31	72	-	76	65	-	115	-	1,310	-	74	46	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acre-feet
October.....	2,645	132	65	86.3	0.150	0.17	5,250
November.....	2,621	140	70	87.4	.153	.17	5,200
December.....	2,339	86	67	75.5	.132	.16	4,640
Calendar year 1935.....	226,156	4,210	64	620	1.09	14.76	448,500
January.....	2,310	83	65	74.5	.131	.15	4,580
February.....	1,966	75	65	67.8	.119	.13	3,900
March.....	4,061	177	90	131	.230	.27	8,050
April.....	49,690	3,440	99	1,656	2.91	3.25	98,560
May.....	72,130	3,220	1,310	2,327	4.08	4.70	143,100
June.....	19,668	1,310	262	652	1.14	1.27	38,790
July.....	4,655	246	74	150	.263	.30	9,230
August.....	1,800	72	46	58.1	.102	.12	3,570
September.....	1,789	93	46	59.6	.105	.12	3,550
Water year 1935-36.....	165,563	3,440	46	452	.793	10.80	329,400

Moyie River at Eileen, Idaho

Location.- Water-stage recorder, lat. 48°46', long. 116°10', in NE¼ sec. 35, T. 63 N., R. 2 E., an eighth of a mile downstream from Skin Creek, a quarter of a mile southeast of Eileen, and 4 miles above junction with Kootenai River.

Drainage area.- 755 square miles.

Records available.- October 1925 to September 1936.

Average discharge.- 11 years, 784 second-feet.

Extremes.- Maximum discharge during year, 4,950 second-feet Apr. 28 (gage height, 3.91 feet); minimum, 63 second-feet Jan. 29 (gage height, 0.00 foot).
1925-36: Maximum discharge, 8,780 second-feet Apr. 29, 1934; maximum gage height, 4.8 feet May 17, June 10, 11, 1927, May 13, 17-19, 1928; minimum discharge (estimated), 60 second-feet Dec. 5, 1928, Jan. 16, 1930; minimum gage height, that of Jan. 29, 1936.

Remarks.- Records good except those for periods of ice effect, Nov. 1-6, Dec. 5-9, 19-29, Jan. 30 to Mar. 7 (computed on basis of two discharge measurements, gage heights, weather records, and comparison with flow at nearby stations), and those for Sept. 18-30 (computed on basis of records for station at Eastport), which are fair. No regulation or diversions above gage.

Rating table, water year 1935-36 (gage height, in feet, and discharge, in second-feet)

0	63	1.00	317	2.00	1,060	3.00	2,470	4.00	5,370
0.20	69	1.20	416	2.20	1,290	3.20	2,840		
0.40	126	1.40	538	2.40	1,540	3.40	3,260		
0.60	175	1.60	684	2.60	1,830	3.60	3,790		
0.80	237	1.80	857	2.80	2,140	3.80	4,480		

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	110	100	116	124	85	130	165	3,310	1,570	326	108	81
2	110	105	112	131		140	165	3,510	1,390	309	106	99
3	108	105	114	124		150	159	3,480	1,240	300	104	110
4	104	110	94	126		160	154	3,730	1,150	295	104	104
5	104	120	110	122		180	152	4,010	1,050	288	104	118
6	106	135	115	104	85	200	152	3,620	966	267	103	131
7	108	157	120	118		220	157	3,380	976	248	99	120
8	106	164	122	120		248	187	3,330	1,090	245	98	104
9	103	187	123	118		268	227	3,360	1,130	237	96	99
10	104	126	124	116		245	268	3,540	1,100	237	94	96
11	104	170	124	116	83	230	500	3,920	1,020	234	92	94
12	108	167	122	122		220	848	3,950	945	234	91	92
13	124	154	116	126		211	1,600	3,680	886	220	91	92
14	131	138	116	120		195	1,960	3,760	839	211	88	99
15	126	131	114	122		187	2,080	3,690	803	204	88	103
16	126	133	110	116	83	178	2,280	3,590	794	195	88	99
17	124	131	104	118		184	2,900	3,190	785	184	86	94
18	122	122	101	101		187	3,680	2,860	750	178	86	91
19	152	126	100	108		190	4,410	2,690	684	170	91	89
20	161	122	105	112		201	4,300	2,440	651	162	89	87
21	167	118	110	120	100	237	3,850	2,250	608	154	88	86
22	152	118	110	124		237	4,080	2,080	566	149	85	84
23	142	120	110	122		230	4,610	1,920	525	144	82	82
24	138	122	113	118		214	3,890	1,800	493	138	82	83
25	135	122	115	116		204	4,610	1,740	457	133	83	84
26	131	126	115	112	-	198	4,610	1,720	439	128	85	84
27	128	126	115	104		204	4,010	1,710	406	126	86	84
28	138	124	115	91		187	3,540	1,680	390	122	85	84
29	128	124	120	89		184	3,260	1,600	355	120	83	84
30	112	120	120	85		175	3,170	1,540	340	116	81	84
31	104	-	122	85	-	154	-	1,490	-	110	81	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acre-feet
October.....	3,836	181	103	124	0.164	0.19	7,610
November.....	3,953	187	100	132	.175	.20	7,840
December.....	3,527	124	94	114	.151	.17	7,000
Calendar year 1935	295,749	5,890	94	810	1.07	14.87	586,600
January.....	3,530	131	85	114	.151	.17	7,000
February.....	2,613	-	-	90.1	.119	.13	5,180
March.....	6,168	268	130	199	.264	.30	12,230
April.....	65,994	4,610	152	2,200	2.91	3.26	130,900
May.....	88,810	4,010	1,490	2,365	3.79	4.37	176,200
June.....	24,398	1,570	340	813	1.08	1.20	48,390
July.....	6,185	326	110	200	.265	.31	12,270
August.....	2,827	108	81	91.2	.121	.14	5,610
September.....	2,841	131	81	94.7	.125	.14	5,640
Water year 1935-36.....	214,682	4,610	81	587	.777	10.57	425,900

Deep Creek at Moravia, Idaho

Location.- Staff gage, lat. 48°38', long. 116°24', in sec. 18, T. 61 N., R. 1 E., at concrete highway bridge 1 mile below Ruby Creek and 1 mile southwest of Moravia.

Drainage area.- 133 square miles.

Records available.- May 1928 to September 1936 (except winters prior to 1933).

Extremes.- Maximum discharge observed during year, 920 second-feet Apr. 25 (gage height, 3.65 feet); minimum discharge, 10 second-feet Aug. 15-20, Aug. 30 to Sept. 1; minimum gage height, 0.24 foot Sept. 1.
1928-36: Maximum discharge observed, 1,300 second-feet Dec. 22, 1935 (gage height, 4.20 feet); minimum discharge, 7 second-feet Aug. 15, 24, 25, 1931; minimum gage height, that of Sept. 1, 1936.

Remarks.- Records fair except those for period of ice effect, Feb. 1 to Mar. 5, which were computed on the basis of one discharge measurement, gage-height records, observer's notes, and weather records and are poor. Staff gage read once daily. No diversions above station.

Rating tables, water year 1935-36 (gage height, in feet, and discharge, in second-feet)

Oct. 1 to Jan. 31

0.40	15
.60	29
.80	51

Mar. 6 to Sept. 30

0.20	8	2.20	330
.60	31	2.60	465
1.00	73	3.00	630
1.40	132	3.40	820
1.80	219	3.70	970

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	15	31	26	37	25	95	60	505	132	38	12	10
2	15	24	24	37		68	68	630	132	36	12	23
3	15	26	23	35		100	68	630	124	35	12	17
4	15	26	23	35		90	73	630	115	31	12	54
5	15	26	21	35		80	88	585	115	31	12	78
6	15	27	20	33	20	73	99	485	112	31	12	38
7	15	33	23	29		83	115	485	109	31	12	26
8	15	33	27	27		93	124	465	162	31	11	22
9	15	33	31	27		115	132	448	142	29	11	19
10	15	31	33	29		93	132	448	132	31	11	16
11	17	31	37	33	17	85	172	465	124	29	11	12
12	19	29	41	35		78	300	465	112	28	11	12
13	20	29	41	35		71	395	465	99	26	10	15
14	20	31	41	33		66	448	485	99	25	10	17
15	21	33	39	33		61	412	430	85	25	10	17
16	24	35	39	33	17	63	448	395	85	23	10	16
17	21	33	39	33		62	545	360	83	22	10	15
18	31	41	31	31		71	675	315	83	21	10	15
19	41	27	33	31		78	770	245	80	19	10	15
20	35	26	31	29		83	770	232	78	19	10	14
21	31	26	27	27	40	88	675	219	75	18	11	14
22	25	26	26	27		83	720	219	71	17	11	14
23	24	27	24	29		80	820	207	68	16	11	14
24	23	29	24	33		71	820	207	66	16	12	14
25	21	35	26	35		71	920	207	61	15	13	14
26	21	33	26	39	80	71	870	207	57	14	12	14
27	21	33	27	44		68	820	195	48	14	11	14
28	23	31	27	39		68	630	184	44	13	11	14
29	27	31	29	37		61	545	184	42	13	11	15
30	33	29	33	33		59	545	151	40	12	10	15
31	33	-	35	29	-	59	-	151	-	12	10	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acres-feet
October.....	672	41	15	21.7	0.163	0.19	1,330
November.....	895	35	24	29.8	.224	.25	1,780
December.....	937	41	20	30.2	.227	.26	1,860
Calendar year 1935.....	52,415	825	14	144	1.08	14.65	104,000
January.....	1,022	44	27	33.0	.248	.29	2,030
February.....	953	-	-	32.9	.247	.27	1,890
March.....	2,419	115	59	78.0	.586	.68	4,800
April.....	13,257	920	60	442	3.52	3.70	26,290
May.....	11,299	630	151	364	2.74	3.16	22,410
June.....	2,775	162	40	92.5	.695	.78	5,500
July.....	7,719	38	12	23.2	.174	.20	1,450
August.....	342	13	10	11.0	.083	.10	678
September.....	593	78	10	19.8	.149	.17	1,180
Water year 1935-36.....	35,883	920	10	98.0	.737	10.05	71,180

Long Canyon Creek near Port Hill, Idaho

Location.- Water-stage recorder, lat. 48°57', long. 116°32', in NW¼ sec. 36, T. 65 N., R. 2 W., on U. S. Forest Service bridge at mouth of canyon, 4 miles southwest of Port Hill.

Drainage area.- 29 square miles.

Records available.- May 1928 to September 1936 (except winters prior to 1935).

Extremes.- Maximum discharge during year, 616 second-feet May 14 (gage height, 3.98 feet); minimum discharge, not determined, probably occurred during period of ice effect; minimum gage height, 1.82 feet Aug. 31; minimum daily discharge, 4 second-feet, occurred several times during year.

1928-36: Maximum daily discharge (estimated), 950 second-feet June 15, 1933; maximum gage height, 6.55 feet (caused by drift jam) June 15, 1933; minimum discharge, that for 1936; minimum gage height, 0.91 foot Nov. 8, 1930.

Remarks.- Records good except those for periods of missing gage-height record or ice effect, Oct. 29 to Nov. 11, Jan. 28 to Mar. 11, Mar. 29 to Apr. 5, which were computed on basis of discharge measurements, weather records, and hydrographic comparisons with flow of Smith Creek and Boundary Creek and are poor. No discharges above gage.

Rating table, water year 1935-36 (gage height, in feet, and discharge, in second-feet)

1.60	4	2.40	41	3.20	193
1.80	8	2.60	63	3.40	270
2.00	15	2.80	93	3.60	368
2.20	26	3.00	135	3.80	490

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	5	5	6	5		4	5	187	138	24	7	5
2	5	5	5	5		4	5	218	138	24	7	8
3	5	5	5	5		4	5	245	108	24	7	8
4	5	5	5	5		5	5	298	93	28	7	6
5	5	5	5	5		5	5	298	85	25	7	11
6	5	6	5	5		6	6	241	79	21	7	8
7	5	7	5	5		7	6	322	37	20	6	6
8	5	9	5	5		8	7	223	102	30	6	5
9	5	7	5	5		9	9	245	101	30	6	5
10	5	6	5	5		8	14	284	88	20	6	5
11	5	6	5	5	4	8	22	385	80	18	6	5
12	6	6	5	5		7	33	363	74	18	5	5
13	8	6	5	5		7	44	347	69	16	5	5
14	7	6	5	5		6	49	420	64	16	5	6
15	13	6	5	5		5	49	403	63	15	5	7
16	10	6	5	5		4	52	307	63	14	5	6
17	8	6	5	5		4	66	258	63	14	5	6
18	8	6	5	5		5	93	229	55	13	5	6
19	18	6	5	5		6	138	225	51	12	6	5
20	12	6	5	5		6	157	200	47	12	6	5
21	9	6	5	5	4	7	151	159	43	11	5	5
22	8	6	5	5		6	181	143	40	11	5	5
23	7	6	5	5		6	197	146	39	10	5	5
24	7	6	5	5		6	184	162	36	10	5	5
25	7	6	5	5	4	5	204	127	35	9	6	5
26	7	6	5	5		5	137	200	33	9	6	5
27	7	6	5	5		5	178	207	31	9	5	5
28	8	6	5	4		6	165	222	30	9	5	5
29	5	6	5	4		5	159	207	28	8	5	5
30	5	6	5	4		5	165	190	27	8	5	4
31	5	-	5	4	-	5	-	168	-	8	4	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acre-feet
October.....	220	18	5	7.1	0.245	0.28	436
November.....	179	8	5	6.0	.207	.23	355
December.....	157	6	5	5.1	.176	.20	311
Calendar year 1935.....	20,664	595	5	56.6	1.95	26.50	40,980
January.....	151	5	4	4.9	.169	.19	300
February.....	116	-	-	4.0	.138	.15	230
March.....	179	9	4	5.8	.200	.23	355
April.....	2,541	204	5	84.7	2.92	3.26	5,040
May.....	7,595	420	143	245	8.45	9.74	15,060
June.....	1,990	138	27	66.3	2.29	2.56	3,950
July.....	476	28	8	15.4	.531	.61	944
August.....	175	7	4	5.6	.193	.22	347
September.....	172	11	4	5.7	.197	.22	341
Water year 1935-36.....	14,951	420	-	32.1	1.31	17.89	27,670

Smith Creek near Port Hill, Idaho

Location.— Water-stage recorder, lat. 48°57'40", long. 116°33'20", in NE¼ sec. 26, T. 85 N., R. 2 W., at U. S. Forest Service bridge 1 mile south of Smith Creek ranger station and 4 miles southwest of Port Hill.

Drainage area.— 70 square miles.

Records available.— May 1928 to September 1936 (except winters prior to 1935).

Extremes.— Maximum discharge during year, 1,470 second-feet May 14 (gage height, 5.58 feet); minimum, 8 second-feet Aug. 31 (gage height, 1.16 feet).
1928-36: Maximum discharge, 3,080 second-feet June 14, 1933 (gage height, 7.15 feet); minimum, 5 second-feet Oct. 9, 1932; minimum gage height, 0.80 foot Sept. 15-19, 1929, Sept. 10, 1930.

Remarks.— Records good except those for periods of missing gage heights or ice effect, Oct. 29 to Nov. 3, Nov. 10, 11, Dec. 4-9, 18-28, Jan. 25 to Mar. 17, Mar. 30 to Apr. 6, which were computed on basis of discharge measurements, gage heights, weather records and hydrographic comparison with nearby streams and are poor. No diversions above gage.

Rating table, water year 1935-36 (gage height, in feet, and discharge, in second-feet)

1.10	5.0	2.60	121	4.40	720
1.40	12.5	2.90	176	4.70	885
1.70	25.	3.20	244	5.00	1,060
2.00	48	3.50	328	5.30	1,260
2.30	81	3.80	435	5.60	1,470
		4.10	570		

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	9	15	12	12		10	18	700	431	50	12	6
2	9	15	12	12		11	18	802	405	47	11	11
3	9	15	12	13		12	18	858	304	49	11	14
4	9	15	11	13		13	18	1,030	260	66	11	11
5	9	15	11	12		14	18	1,000	232	57	11	18
6	9	17	11	12		16	20	753	208	46	10	16
7	9	20	11	12		13	22	685	244	41	10	11
8	9	22	11	12		21	22	726	343	41	9	9
9	8	18	12	12		25	27	830	325	38	9	8
10	8	16	13	12	8	22	44	1,000	265	38	9	8
11	9	15	12	12		20	66	1,260	227	42	8	8
12	11	14	13	12		19	89	1,120	202	38	8	8
13	17	14	12	14		18	106	1,060	176	32	8	10
14	15	14	12	14		17	131	1,260	162	30	8	15
15	40	15	12	14		17	162	1,350	156	27	8	15
16	29	14	12	14		16	199	1,030	174	26	8	12
17	20	14	12	13		17	235	858	189	24	8	11
18	22	14	11	13		18	502	742	151	22	8	11
19	65	14	11	13		19	695	731	135	21	8	12
20	44	13	11	13		22	690	600	120	20	8	12
21	27	13	11	13	8	24	685	476	109	19	8	10
22	21	13	11	13		21	758	443	101	18	7	9
23	18	13	11	12	8	20	775	485	93	17	7	9
24	16	13	11	12		18	680	560	88	16	7	8
25	16	13	11	12		18	850	640	81	15	8	8
26	16	13	11	11	9	18	742	670	76	15	9	8
27	16	13	12	11		17	650	690	68	14	8	8
28	19	13	12	11		18	580	715	62	14	8	8
29	16	13	12	10		21	545	710	60	13	7	8
30	15	13	13	10	-	19	580	620	55	12	7	8
31	15	-	12	10	-	16	-	525	-	12	6	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acres-feet
October.....	555	65	8	17.9	0.256	0.30	1,100
November.....	437	22	13	14.6	.209	.23	867
December.....	360	13	11	11.6	.166	.19	714
Calendar year 1935.....	60,517	1,370	8	166	2.37	32.19	120,000
January.....	379	14	10	12.2	.174	.20	752
February.....	237	-	-	8.2	.117	.13	470
March.....	557	25	10	18.0	.257	.30	1,100
April.....	9,985	830	18	333	4.76	5.31	19,800
May.....	24,909	1,330	443	804	11.5	13.3	49,410
June.....	5,507	431	55	184	2.63	2.93	10,920
July.....	920	66	12	29.7	.424	.49	1,820
August.....	265	12	6	8.5	.121	.14	526
September.....	310	18	6	10.3	.147	.16	615
Water year 1935-36.....	44,421	1,330	6	121	1.73	23.68	88,090

Boundary Creek near Port Hill, Idaho

(International gaging station)

Location.- Water-stage recorder, lat. 48°59'50", long. 116°34'5", in SW¼ sec. 11, T. 85 N., R. 2 W., 140 feet below bridge at mouth of canyon, 0.2 mile south of international boundary, and 3 miles west of Port Hill.

Drainage area.- 97 square miles.

Records available.- May 1928 to September 1936.

Extremes.- Maximum discharge during year, 1,490 second-feet May 14 (gage height, 4.37 feet); minimum, 13 second-feet Aug. 31 (gage height, 0.55 foot).
1928-36: Maximum discharge, 2,400 second-feet June 15, 1933 (gage height, 5.22 feet); minimum, 9 second-feet Oct. 31, 1929 (gage height, 0.53 foot).

Remarks.- Records good except those for periods of missing gage heights or ice effect, Oct. 30 to Nov. 11, Dec. 4-8, 18-24, Jan. 2-8, Jan. 28 to Mar. 17, Mar. 30 to Apr. 5, which were computed on basis of discharge measurements, weather records and hydrographic comparisons with flow of nearby streams and are poor. No diversions above gage. This station is one of the international gaging stations maintained by the United States under agreement with Canada.

Rating table, water year 1935-36 (gage height, in feet, and discharge, in second-feet)

0.50	11	1.70	136	2.90	550	4.10	1,290
.80	27	2.00	207	3.20	700	4.40	1,530
1.10	52	2.30	299	3.50	875		
1.40	88	2.60	415	3.80	1,070		

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	18	20	22	21		19	18	700	394	62	19	14
2	17	21	20	20		20	18	785	377	59	19	25
3	16	22	20	20		21	18	875	296	60	19	26
4	16	23	20	20		21	18	1,040	285	71	21	20
5	16	24	20	20		23	18	1,040	230	65	20	35
6	16	26	20	20		25	19	845	213	56	18	28
7	16	29	20	20		27	20	755	252	52	18	20
8	16	32	20	20		30	22	785	336	52	17	18
9	16	30	20	21		35	26	875	365	50	17	16
10	16	27	21	21		30	34	1,000	293	52	16	16
11	16	25	22	21	13	27	46	1,250	252	59	16	15
12	24	24	23	22		25	63	1,100	219	61	16	15
13	33	24	23	21		24	83	1,100	194	49	16	18
14	29	24	22	21		22	104	1,250	179	45	16	24
15	62	24	22	22		21	125	1,370	171	42	16	26
16	42	24	21	22		20	252	1,100	174	40	15	21
17	34	25	21	22		21	365	905	191	37	15	19
18	39	24	20	22		21	532	815	164	36	14	18
19	74	24	20	22		21	675	735	144	33	16	19
20	56	24	20	22		23	650	650	132	32	16	18
21	40	24	19	22	18	26	650	546	122	30	15	16
22	33	23	19	22		24	700	513	113	28	14	16
23	32	23	19	21		24	755	536	105	27	14	15
24	28	23	19	21		23	700	570	99	26	15	15
25	27	24	18	21	19	24	905	625	92	24	15	15
26	27	24	18	21		24	815	650	88	24	17	15
27	28	24	20	21		21	700	675	80	24	16	14
28	32	24	20	20		24	625	675	74	22	15	14
29	20	23	20	20		26	595	650	70	21	15	14
30	20	22	21	20	-	23	600	560	67	21	14	14
31	20	-	21	20	-	20	-	474	-	20	13	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acres-feet
October.....	884	74	16	28.5	0.294	0.34	1,750
November.....	730	32	20	24.3	.251	.28	1,450
December.....	631	23	18	20.4	.210	.24	1,250
Calendar year 1935.....	64,257	1,400	16	176	1.81	24.65	127,500
January.....	649	22	20	20.9	.215	.25	1,290
February.....	527	-	-	18.2	.188	.20	1,050
March.....	735	35	19	23.7	.244	.28	1,460
April.....	10,156	905	18	359	3.49	3.89	20,140
May.....	25,504	1,370	474	823	8.48	9.78	50,590
June.....	5,791	394	67	193	1.99	2.22	11,490
July.....	1,290	71	20	41.6	.429	.49	2,560
August.....	506	21	13	16.3	.168	.19	1,000
September.....	559	35	14	18.6	.192	.21	1,110
Water year 1935-36.....	47,962	1,370	13	131	1.35	18.33	95,140

Clark Fork above Missoula, Mont.

Location.- Water-stage recorder, lat. 46°53'0", long. 113°54'30", in SE¼ sec. 19, T. 13 N., R. 18 W. 1½ miles below mouth of Blackfoot River and 4 miles east of Missoula.

Records available.- March 1929 to September 1936.

Extremes.- Maximum discharge during year, 12,600 second-feet May 16 (gage height, 7.51 feet); minimum, 436 second-feet Aug. 17 (gage height, 1.37 feet).

1929-36: Maximum discharge, 21,600 second-feet June 2, 1933 (gage height, 9.90 feet); minimum, 86 second-feet Jan. 8, 1930 (gage height, 0.52 foot, ice jammed above gage).

Remarks.- Records good except those for period of ice effect, Jan. 28 to Mar. 4, (computed on basis of gage-height records, observer's notes, and weather records) and those based on observer's staff-gage readings, Oct. 25-27, Dec. 1 to Jan. 7, Jan. 29 to Feb. 17, Mar. 14-18, Mar. 29 to Apr. 6, and July 18 to Aug. 3, which are fair. Slight regulation from power-plant operation near Bonner. Several diversions for irrigation above station.

Rating tables, water year 1935-36 (gage height, in feet, and discharge, in second-feet)

Oct. 1 to Mar. 5				Mar. 6 to Sept. 30			
1.5	455	2.6	1,480	1.3	400	2.8	1,800
1.7	590	2.8	1,730	1.5	520	3.0	2,060
2.0	850	3.0	1,990	1.7	660	3.3	2,480
2.2	1,040	3.3	2,440	2.0	920	3.6	2,950
2.4	1,250			2.2	1,120	4.0	3,660
				2.4	1,330	4.5	4,660
				2.6	1,560	5.0	5,750

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	706	796	868	1,040	654	1,640	1,100	5,980	7,790	2,120	1,060	839
2	715	1,090	1,000	1,060	598	1,660	776	6,100	8,330	2,000	1,060	857
3	688	1,230	778	1,100	590	1,800	1,040	6,280	7,790	1,860	1,000	875
4	670	1,040	850	1,060	589	2,060	1,160	6,720	7,250	1,800	1,000	860
5	662	715	760	1,000	576	2,130	1,100	6,350	6,540	1,740	1,000	1,170
6	590	980	778	960	562	2,060	1,120	9,420	5,750	1,680	960	1,130
7	688	1,200	940	850	520	1,860	1,240	8,600	5,750	1,620	940	1,080
8	724	1,140	1,250	760	520	1,740	1,420	7,790	6,960	1,560	950	1,060
9	715	1,210	1,340	522	598	1,800	1,680	7,520	7,790	1,560	950	1,060
10	724	1,150	1,160	960	590	1,680	1,680	7,520	6,720	1,520	866	1,010
11	742	1,100	1,160	990	606	1,620	2,630	8,330	6,100	1,610	950	1,160
12	841	1,120	1,210	1,040	590	1,740	5,090	9,700	5,640	1,550	864	1,520
13	877	1,150	1,180	1,030	606	1,430	4,760	10,500	5,300	1,700	960	866
14	913	1,140	1,180	1,000	606	1,440	4,150	10,600	5,080	1,360	1,290	866
15	895	1,090	1,140	980	622	1,330	3,850	12,000	4,870	1,460	1,310	875
16	950	1,140	980	895	724	1,370	3,760	12,300	4,870	1,430	474	950
17	940	1,140	688	877	670	1,300	3,760	11,100	4,560	1,430	734	1,060
18	960	1,110	796	940	841	1,320	4,060	9,700	4,450	1,540	950	1,070
19	1,000	1,050	622	922	832	1,350	4,660	6,600	4,250	1,620	895	1,080
20	980	1,050	534	940	940	1,410	5,410	6,600	4,050	1,370	940	1,070
21	1,000	1,160	534	1,000	1,110	1,510	5,750	8,600	3,500	1,200	902	1,040
22	1,000	1,150	548	980	1,110	1,540	6,220	7,790	3,200	1,020	920	990
23	990	1,140	724	950	1,120	1,490	6,980	6,720	3,120	1,180	875	1,040
24	1,010	1,130	886	960	1,230	1,310	7,520	6,340	2,950	1,220	893	970
25	886	1,150	760	922	1,250	1,320	7,790	6,100	2,790	1,100	857	1,000
26	868	1,160	1,000	679	1,290	1,280	8,060	6,100	2,630	1,200	857	1,000
27	1,100	1,090	1,020	590	1,380	1,230	7,790	6,470	2,630	1,060	864	1,000
28	1,040	1,140	1,040	654	1,466	1,360	7,250	7,250	2,400	1,120	839	980
29	1,010	1,130	1,230	670	1,520	1,490	6,720	7,520	2,330	1,080	839	970
30	868	1,040	868	654	-	648	6,220	7,520	2,190	1,080	821	1,060
31	715	-	1,100	670	-	940	-	7,520	-	1,060	830	-
Month						Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet		
October.....						26,467	1,100	590	854	52,500		
November.....						32,951	1,230	715	1,096	65,320		
December.....						28,924	1,540	534	933	57,370		
Calendar year 1935.....						681,420	9,440	434	1,867	1,352,000		
January.....						28,055	1,100	590	905	55,650		
February.....						24,284	1,520	520	837	48,170		
March.....						47,038	2,130	848	1,517	93,300		
April.....						124,726	8,060	776	4,158	247,400		
May.....						255,760	12,300	5,980	8,186	503,300		
June.....						147,200	2,190	4,907	4,907	292,000		
July.....						44,870	1,020	1,020	1,447	89,000		
August.....						26,708	1,310	474	9,261	56,940		
September.....						30,608	1,520	839	1,020	60,710		
Water year 1935-36.....						817,571	12,300	474	2,234	1,622,000		

Clark Fork below Missoula, Mont.

Location.- Water-stage recorder, lat. 46°52'30", long. 114°7'30", in SE $\frac{1}{4}$ sec. 21, T. 13 N., R. 20 W., 2 miles below mouth of Bitterroot River and 6 miles west of Missoula.

Records available.- October 1929 to September 1936.

Extremes.- Maximum discharge during year, 26,900 second-feet May 16 (gage height, 8.34 feet); minimum, 800 second-feet Feb. 8 (gage height, 0.64 foot, ice present).
1929-36: Maximum discharge, 36,800 second-feet June 11, 1933 (gage height, 10.14 feet); minimum, 388 second-feet Jan. 18, 1933 (gage height, 0.58 foot, ice present).

Remarks.- Records good except those for period of ice effect, Jan. 28 to Feb. 20, which were computed on basis of gage-height records, observer's notes, and weather records and are fair. Observer's gage readings used Oct. 30 to Dec. 3, Dec. 6 to Jan. 6, Jan. 28 to Mar. 2, Aug. 19-21, Sept. 29-30. Discharge interpolated Jan. 7. Numerous diversions above station.

Rating table, water year 1935-36 (gage height, in feet, and discharge, in second-feet)

Oct. 1 to Sept. 30

0.5	710	2.0	2,810	4.5	9,400
.6	810	2.2	3,180	5.0	11,200
.8	1,030	2.4	3,570	5.5	13,220
1.0	1,270	2.6	3,980	6.0	15,400
1.2	1,540	2.8	4,420	6.5	17,750
1.4	1,830	3.0	4,900	7.0	20,200
1.6	2,140	3.5	6,260	7.5	22,700
1.8	2,470	4.0	7,800	8.0	25,200
				8.5	27,700

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,160	1,680	1,650	1,650	1,010	2,380	1,410	12,000	18,700	3,680	1,410	1,020
2	1,170	1,570	1,770	1,710	1,010	2,900	1,480	12,400	20,200	3,370	1,360	1,110
3	1,190	2,080	1,600	1,710	1,040	3,880	1,710	12,800	18,700	3,180	1,350	1,160
4	1,170	1,800	1,370	1,650	930	3,880	1,840	14,100	15,400	2,990	1,560	1,340
5	1,190	1,510	1,220	1,620	1,010	3,570	1,800	17,500	13,600	2,900	1,560	1,770
6	1,170	1,800	1,510	1,710	1,000	3,280	1,760	20,200	12,000	2,720	1,350	1,830
7	1,200	1,800	1,650	*1,520	880	2,900	1,860	18,200	12,000	2,640	1,270	1,800
8	1,260	1,950	1,800	1,340	800	2,810	2,030	15,400	15,000	2,470	1,280	1,780
9	1,250	1,860	1,950	1,400	820	2,810	2,300	14,100	15,900	2,470	1,250	1,660
10	1,270	1,920	1,830	1,530	840	2,720	2,300	14,100	13,600	2,560	1,210	1,640
11	1,280	1,860	1,830	1,640	680	2,640	2,990	16,300	12,400	2,640	1,210	1,680
12	1,400	1,920	1,830	1,770	1,010	2,810	5,560	19,700	11,600	2,640	1,160	2,160
13	1,410	1,950	1,830	1,800	1,160	2,380	5,830	22,200	11,200	2,560	1,300	1,500
14	1,550	1,890	1,800	1,710	1,130	2,470	6,410	23,200	10,800	2,560	1,420	1,460
15	1,550	1,860	1,770	1,680	1,350	2,300	7,020	25,200	10,400	2,470	1,880	1,460
16	1,680	1,950	1,710	1,580	1,310	2,220	7,640	26,700	10,400	2,470	900	1,530
17	1,580	1,860	1,550	1,500	1,400	2,140	8,450	25,200	9,740	2,470	860	1,670
18	1,550	1,800	1,260	1,500	1,460	2,140	9,740	20,200	9,400	2,300	1,170	1,870
19	1,670	1,860	1,170	1,550	1,480	2,120	11,600	17,300	9,070	2,220	1,170	1,680
20	1,670	1,860	1,100	1,500	1,620	2,140	13,600	16,800	8,450	2,060	1,250	1,660
21	1,670	1,920	1,170	1,600	1,620	2,220	14,500	16,800	7,490	1,980	1,130	1,580
22	1,680	1,860	1,130	1,580	1,620	2,380	15,000	15,400	6,560	1,800	1,040	1,530
23	1,640	1,890	1,250	1,580	1,650	2,300	16,300	13,600	6,260	1,770	1,050	1,510
24	1,700	1,890	1,430	1,650	1,710	2,090	17,300	12,800	5,690	1,720	1,050	1,440
25	1,680	1,860	1,600	1,510	1,710	2,110	17,800	12,800	5,420	1,670	1,070	1,460
26	1,650	1,860	1,600	1,310	1,770	1,980	17,800	13,600	5,290	1,620	1,100	1,470
27	1,670	1,830	1,710	1,130	1,770	2,010	16,300	15,400	5,030	1,580	1,020	1,480
28	1,720	1,860	1,740	1,070	2,010	2,120	14,500	16,800	4,540	1,550	1,030	1,530
29	1,600	1,800	1,650	1,000	2,300	2,120	13,200	17,800	4,200	1,500	1,030	1,650
30	1,710	1,710	1,680	930	-	1,570	12,400	17,300	3,990	1,480	1,030	1,950
31	1,570		1,710	940	-	1,570		17,500	-	1,460	1,000	

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October.....	45,730	1,720	1,160	1,475	90,700
November.....	55,260	2,080	1,510	1,842	109,600
December.....	48,660	1,950	1,100	1,570	96,520
Calendar year 1935.....	1,268,430	19,200	875	3,475	2,516,000
January.....	46,270	1,800	930	1,492	91,780
February.....	38,300	2,300	800	1,321	75,970
March.....	76,960	3,880	1,570	2,452	152,600
April.....	258,410	17,800	1,410	8,414	500,600
May.....	533,000	26,700	12,000	17,190	1,057,000
June.....	313,010	20,200	3,990	10,430	620,800
July.....	71,520	3,680	1,460	2,307	141,900
August.....	37,050	1,880	860	1,195	73,490
September.....	47,210	2,160	1,020	1,574	93,640
Water year 1935-36.....	1,565,380	26,700	800	4,277	3,105,000

*Interpolated.

Clark Fork at St. Regis, Mont.

Location.- Water-stage recorder, lat. 47°18'30", long. 115°5'0", in sec. 19, T. 18 N., R. 27 W., at St. Regis, half a mile below mouth of St. Regis River.

Drainage area.- 10,500 square miles.

Records available.- October 1910 to September 1923, February 1929 to September 1936.

Average discharge.- 20 years, 7,705 second-feet.

Extremes.- Maximum discharge during year, 34,000 second-feet May 17 (gage height, 14.16 feet); minimum, 1,080 second-feet Feb. 3, 4, 14, 15, ice on control.
1910-23, 1929-36: Maximum discharge, 62,800 second-feet May 30, 31, 1913 (gage height, 19.1 feet); minimum, 1,050 second-feet Feb. 19-22, 1929, ice on control.

Remarks.- Records good except those for periods of ice effect, Nov. 3-5, Jan. 26 to Mar. 2, which were computed on basis of one discharge measurement, gage heights, and weather records and are fair. Discharge interpolated Feb. 10-13, 17, May 16. Numerous diversions above station.

Rating tables, water year 1935-36 (gage height, in feet, and discharge, in second-feet)

Oct. 1 to Mar. 2

Mar. 3 to Sept. 30

3.0	1,010	4.2	2,250	3.8	1,690	4.8	2,900	7.0	7,360	9.5	14,710	12.0	24,000
3.2	1,150	4.4	2,540	4.0	1,680	5.0	3,200	7.5	8,680	10.0	16,380	12.5	26,100
3.4	1,330	4.6	2,840	4.2	2,090	5.5	4,020	8.0	10,100	10.5	18,190	13.0	28,270
3.6	1,510	4.8	3,160	4.4	2,340	6.0	5,000	8.5	11,600	11.0	20,080	13.5	30,580
3.8	1,750	5.0	3,500	4.6	2,610	6.5	6,130	9.0	13,150	11.5	22,000	14.0	33,000
4.0	1,980												

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,680	1,920	2,180	1,980	1,190	3,500	2,090	17,800	22,000	5,210	2,210	1,740
2	1,680	1,920	2,110	2,110	1,120	3,500	1,280	18,200	23,600	4,900	2,150	1,690
3	1,680	1,920	2,040	2,110	1,080	5,560	2,040	18,900	23,600	4,590	2,150	1,780
4	1,680	1,980	1,920	2,110	1,080	7,610	2,090	20,100	20,800	4,390	2,090	1,830
5	1,680	1,980	1,680	2,040	1,150	4,690	2,210	22,400	18,200	4,200	2,090	1,880
6	1,680	1,980	1,680	2,110	1,150	4,300	2,210	24,800	16,000	4,020	2,090	2,150
7	1,680	2,040	1,790	1,980	1,280	3,850	2,150	25,300	15,400	3,940	2,090	2,340
8	1,680	2,390	1,850	1,730	1,330	3,520	2,340	22,000	17,400	3,760	1,980	2,340
9	1,680	2,460	2,040	1,680	1,280	3,520	2,680	19,700	19,700	3,600	1,980	2,340
10	1,680	2,460	2,180	1,850	*1,240	3,520	3,120	19,300	18,900	3,600	1,980	2,280
11	1,730	2,460	2,250	2,040	*1,200	3,440	3,520	20,800	16,700	3,600	1,930	2,210
12	1,750	2,520	2,250	2,130	*1,160	3,280	5,100	24,400	15,700	3,680	1,930	2,210
13	1,850	2,320	2,250	2,320	*1,120	3,280	8,410	27,900	14,700	3,680	1,930	2,610
14	1,920	2,390	2,180	2,320	1,080	3,960	9,810	29,600	14,400	3,520	1,980	2,150
15	1,980	2,390	2,180	2,250	1,080	3,050	11,000	32,500	13,500	3,440	2,040	2,090
16	2,040	2,320	2,110	2,180	1,150	2,820	11,900	*32,800	13,500	3,440	2,470	2,090
17	2,040	2,250	1,930	2,040	*1,280	2,750	13,200	33,000	13,200	3,360	1,780	2,090
18	2,040	2,320	1,790	2,040	1,410	2,680	14,700	26,500	12,500	3,280	1,690	2,280
19	2,110	2,320	1,620	2,040	1,510	2,680	17,100	22,900	11,900	3,200	1,830	2,210
20	2,110	2,250	1,460	2,040	1,620	2,680	19,300	21,600	11,300	3,050	1,880	2,280
21	2,110	2,180	1,460	2,040	1,920	2,750	20,800	21,600	10,700	2,900	1,830	2,210
22	2,110	2,250	1,510	2,110	2,110	2,750	22,000	20,100	9,230	2,820	1,830	2,150
23	2,160	2,250	1,410	2,040	2,040	2,900	22,600	18,600	8,950	2,680	1,830	2,150
24	2,180	2,250	1,630	2,040	2,040	2,220	24,000	17,100	8,140	2,610	1,780	2,090
25	2,180	2,250	1,850	2,040	1,930	2,610	24,400	16,700	7,620	2,540	1,780	2,090
26	2,180	2,320	1,920	1,850	2,320	2,610	24,800	17,400	7,360	2,470	1,780	2,090
27	2,180	2,250	2,040	1,560	2,840	2,540	23,200	18,900	7,110	2,400	1,780	2,090
28	2,180	2,250	2,040	1,510	3,080	2,540	21,200	20,100	6,610	2,340	1,780	2,040
29	2,250	2,250	2,110	1,390	3,420	2,610	19,300	21,600	6,010	2,340	1,780	2,090
30	2,180	2,250	2,040	1,350	-	2,650	18,200	21,600	5,660	2,280	1,740	2,050
31	2,110	-	1,980	1,150	-	2,150	-	21,600	-	2,280	1,740	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October.....	60,190	2,280	1,680	1,942	119,400
November.....	66,890	2,460	1,920	2,230	132,700
December.....	59,580	2,250	1,410	1,922	118,200
Calendar year 1935.....	1,892,800	27,000	1,410	5,186	3,754,000
January.....	60,000	2,320	1,150	1,935	119,000
February.....	46,160	3,420	1,080	1,582	91,560
March.....	102,070	7,510	2,150	3,292	202,500
April.....	357,650	24,800	1,980	11,920	709,400
May.....	695,690	33,000	16,700	22,440	1,380,000
June.....	410,690	23,600	5,660	13,690	814,600
July.....	104,120	5,210	2,280	3,359	206,500
August.....	59,920	2,470	1,690	1,933	118,800
September.....	63,680	2,610	1,690	2,123	126,500
Water year 1935-36.....	2,086,550	33,000	1,080	5,701	4,139,000

*Interpolated.

Clark Fork near Plains, Mont.

Location.- Water-stage recorder, lat. 47°26', long. 114°51', on lot 7, sec. 7, T. 19

N., R. 26 W., 3 miles above Plains and 7 miles below mouth of Flathead River.

Drainage area.- 19,900 square miles.

Records available.- October 1910 to September 1936.

Average discharge.- 26 years, 19,760 second-feet.

Extremes.- Maximum discharge during year, 81,800 second-feet May 17 (gage height,

14.38 feet); minimum (estimated, ice on control), 3,200 second-feet Feb. 8.

1910-36: Maximum discharge, 126,000 second-feet May 28, 1928; minimum, that of Feb. 8, 1936.

Remarks.- Records good except those for period of ice effect, Jan. 29 to Mar. 7, which were computed on basis of one discharge measurement, gage heights, weather records, and comparison with other stations in the basin and are fair. Numerous diversions for irrigation above station. Flow somewhat regulated by natural storage in Flathead Lake.

Rating tables, water year 1935-36 (gage height, in feet, and discharge, in second-feet)

Oct. 1 to Mar. 4				Mar. 5 to Sept. 30			
3.0	2,970	3.4	4,460	6.0	14,800	11.0	50,000
3.2	3,480	3.6	5,150	6.5	17,500	11.5	54,500
3.4	4,130	3.8	5,860	7.0	20,400	12.0	59,000
3.6	4,830	4.0	6,590	7.5	23,580	12.5	63,550
3.8	5,570	4.2	7,330	8.0	26,880	13.0	68,300
4.0	6,310	4.4	8,070	8.5	30,300	13.5	73,050
4.2	7,060	4.6	8,850	9.0	33,900	14.0	77,800
4.4	7,830	4.8	9,600	9.5	37,720	14.5	82,800
4.6	8,590	5.0	10,390	10.0	41,700		
4.8	9,380	5.5	12,460	10.5	45,700		
5.0	10,200						

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	5,570	4,760	4,720	4,060	3,500	7,060	4,800	42,500	70,200	26,900	9,980	5,860
2	5,570	4,650	4,610	4,130	3,500	8,790	4,630	43,300	72,100	25,600	9,800	5,860
3	5,570	4,530	4,470	4,200	3,500	9,790	4,630	44,900	73,000	24,200	9,600	5,860
4	5,570	5,200	4,370	4,230	3,480	10,600	4,800	47,400	71,200	23,600	9,600	5,860
5	5,380	5,580	4,160	4,230	3,400	18,100	4,800	50,000	67,400	22,900	9,200	5,860
6	5,360	4,760	3,960	4,270	3,400	14,600	4,800	54,500	63,600	21,600	9,020	5,860
7	5,380	4,650	4,100	4,160	3,300	9,800	4,630	57,200	61,700	21,000	8,830	6,220
8	5,200	5,020	4,160	4,000	3,200	7,520	4,800	55,400	61,700	19,800	8,640	6,400
9	5,200	5,020	4,270	3,740	3,500	6,400	5,320	53,600	62,600	19,200	8,450	6,400
10	5,380	5,200	4,450	3,900	3,400	6,400	5,680	54,500	61,700	18,600	8,260	6,220
11	5,200	5,570	4,450	4,130	3,320	6,220	6,040	56,300	58,100	18,600	8,070	6,040
12	5,200	5,020	4,470	4,300	3,300	6,040	7,700	61,700	54,500	18,100	8,070	5,660
13	5,200	4,630	4,580	4,300	3,400	6,220	11,200	67,400	52,700	17,500	7,880	6,220
14	5,200	4,630	4,510	4,330	3,500	5,860	12,000	71,200	50,900	16,900	7,700	6,040
15	5,200	5,020	4,470	4,440	3,700	5,680	13,400	75,000	50,000	16,400	7,700	5,660
16	5,380	5,020	4,400	4,330	3,800	5,500	14,800	78,800	48,200	15,800	8,070	5,500
17	5,200	4,630	4,400	4,230	3,900	5,500	16,900	80,000	46,500	15,300	7,700	5,500
18	5,200	5,020	4,060	4,200	4,100	5,320	19,200	79,800	44,900	14,800	7,140	5,660
19	5,200	4,630	3,900	4,100	4,300	5,320	22,900	75,000	43,300	14,300	7,140	5,680
20	5,380	4,760	3,770	4,160	4,510	5,320	26,900	73,000	42,500	13,800	7,140	5,680
21	5,200	4,690	3,830	4,160	4,830	5,320	30,300	72,100	40,100	13,400	6,960	5,680
22	5,380	4,760	4,000	4,160	5,020	5,320	33,200	70,200	38,500	12,900	6,780	5,500
23	5,380	4,790	3,970	4,200	5,080	5,500	36,200	68,300	36,200	12,500	6,780	5,320
24	5,380	4,790	4,130	4,200	5,570	5,500	40,100	66,400	35,400	12,000	6,590	5,320
25	5,380	4,760	4,100	4,200	5,570	5,320	42,500	64,500	33,900	11,600	6,400	5,320
26	5,380	4,760	4,060	4,160	5,760	5,320	44,100	63,600	32,400	11,200	6,400	5,500
27	5,380	4,720	4,160	3,740	5,940	5,150	44,900	64,500	31,700	11,200	6,400	5,320
28	5,200	4,720	4,200	3,700	6,310	5,150	44,100	65,400	30,300	11,200	6,220	5,150
29	5,380	4,720	4,230	3,600	6,500	5,500	43,500	67,400	28,900	10,800	6,220	5,320
30	5,760	4,760	4,160	3,500	-	5,500	42,500	66,300	27,500	10,400	6,220	5,320
31	5,200	-	4,060	3,500	-	4,800	-	69,200	-	9,990	6,040	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October.....	165,580	5,760	5,200	5,341	328,400
November.....	146,170	5,570	4,530	4,672	289,900
December.....	130,940	4,720	3,770	4,224	259,700
Calendar year 1935.....	6,090,570	70,200	3,770	16,690	12,080,000
January.....	126,560	4,440	3,500	4,083	251,000
February.....	122,690	6,500	3,200	4,231	245,400
March.....	214,623	19,100	4,800	6,923	425,700
April.....	601,130	44,900	4,630	20,040	1,192,000
May.....	1,962,200	80,800	42,500	63,300	3,892,000
June.....	1,491,700	73,000	27,500	49,720	2,959,000
July.....	512,090	26,900	9,990	16,520	1,016,000
August.....	239,010	9,990	6,040	7,710	474,100
September.....	172,030	6,400	5,150	5,734	341,200
Water year 1935-36.....	5,884,720	80,800	3,200	16,080	11,670,000

Clark Fork near Heron, Mont.

Location.— Water-stage recorder, lat. 48°4', long. 115°59', in sec. 28, T. 27 N.,

R. 34 W., 600 feet above Dead Horse Creek and 1½ miles northwest of Heron.

Drainage area.— 21,800 square miles.

Records available.— September 1928 to September 1936.

Extremes.— Maximum discharge during year, 90,000 second-feet May 18 (gage height, 36.12 feet); minimum, 620 second-feet (during period of extreme regulation) Dec. 23 (gage height, 7.59 feet) from rating curve extended below 4,000 second-feet.

1928-36: Maximum discharge, 137,000 second-feet June 17, 1933 (gage height, 46.62 feet, present datum); minimum, that of Dec. 23, 1935.

Maximum stage known, 59.1 feet, present datum, June 1894.

Remarks.— Records good except those for period of extreme regulation Dec. 23 and those for period of ice effect or missing gage-heights, Feb. 9-26 (computed on basis of one discharge measurement and studies of operation data from Thompson Falls power plant), which are fair. Power-plant operation at Thompson Falls causes diurnal fluctuation during low-water periods. Considerable water diverted for irrigation from tributaries upstream.

Rating table, water year 1935-36 except periods of ice effect (gage height, in feet, and discharge, in second-feet)

7.6	620	14.1	12,080	24.6	43,620
8.1	1,320	15.1	14,340	26.1	49,150
8.7	2,220	16.1	16,750	27.6	54,870
9.3	3,140	17.1	19,310	29.1	60,750
9.9	4,110	18.1	22,060	30.6	66,770
10.5	5,130	19.1	25,010	32.1	72,950
11.1	6,170	20.1	28,150	33.6	79,260
12.1	7,990	21.6	33,100	35.1	85,710
13.1	9,950	23.1	38,270	36.6	92,230

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	6,170	5,910	5,300	4,790	4,260	7,070	6,710	51,400	73,800	28,500	11,200	6,530
2	6,170	5,130	5,300	4,960	4,020	4,450	5,990	52,200	75,000	27,900	11,000	6,350
3	5,990	5,130	5,470	4,960	3,220	7,610	4,960	53,300	76,700	26,900	10,800	6,170
4	6,170	5,300	5,500	4,960	3,940	10,200	5,300	55,300	75,900	25,600	10,600	6,530
5	6,170	5,300	5,810	5,300	3,460	9,850	5,470	58,800	72,100	24,700	10,400	6,530
6	6,170	5,640	4,960	4,620	4,110	10,200	5,130	61,600	68,000	23,800	10,400	6,530
7	6,170	5,470	5,130	5,130	4,620	10,200	4,450	63,200	65,600	23,200	9,750	6,390
8	6,170	5,640	4,450	5,130	4,110	9,150	4,960	62,800	64,800	22,400	9,350	7,070
9	6,170	5,640	3,780	5,130	3,800	7,070	5,810	60,800	65,200	21,500	9,550	6,710
10	5,990	5,640	5,130	4,960	3,200	7,610	6,530	60,800	65,600	20,700	9,550	6,530
11	6,170	5,640	4,960	5,300	1,800	7,250	7,250	62,800	62,800	20,100	9,150	6,530
12	6,170	5,990	5,300	5,130	1,400	7,250	9,750	67,200	59,200	19,600	8,560	6,710
13	5,990	5,640	5,130	4,450	2,780	6,710	14,300	71,700	56,400	19,300	8,950	6,530
14	5,470	5,470	5,130	5,300	2,800	7,070	19,600	77,600	54,500	18,800	8,750	6,530
15	5,640	5,640	5,130	4,960	3,400	6,710	21,200	82,300	52,600	18,000	8,750	6,530
16	5,990	5,640	5,640	5,300	3,600	6,710	22,600	87,000	51,000	18,000	8,180	6,350
17	5,990	5,640	5,810	5,640	3,200	6,890	25,600	89,600	49,500	17,000	8,950	5,990
18	5,990	5,640	5,990	5,640	3,500	6,710	29,800	89,600	48,400	17,000	7,800	5,810
19	5,990	5,640	5,810	4,960	4,000	6,890	34,100	85,700	46,600	16,800	7,800	6,170
20	5,990	5,470	5,300	4,200	4,200	6,890	37,900	81,400	45,100	16,000	7,990	5,990
21	5,640	5,470	4,960	4,790	4,500	6,710	41,100	78,400	43,600	16,000	7,610	6,170
22	5,640	5,470	3,780	4,790	4,700	6,170	44,300	76,700	42,200	15,000	7,610	5,990
23	5,640	5,470	1,110	4,790	4,900	5,300	47,700	73,800	40,400	14,600	7,250	5,990
24	5,470	5,470	4,110	5,130	4,500	6,890	51,000	71,700	39,000	13,600	7,070	5,990
25	5,810	4,790	3,700	5,470	5,200	6,710	53,300	69,600	37,600	13,400	7,250	5,810
26	5,610	5,990	3,940	5,130	5,800	6,350	54,900	68,400	35,800	13,000	7,070	5,810
27	5,810	5,300	4,450	4,200	7,070	6,890	55,300	68,400	34,500	12,500	7,070	5,810
28	5,810	5,640	4,790	4,620	8,750	7,900	54,100	69,200	32,800	12,100	6,890	5,640
29	5,810	5,470	4,960	4,450	7,450	6,350	55,000	70,900	31,100	12,300	6,890	5,640
30	5,810	5,300	4,620	4,620	-	6,530	51,800	72,500	29,100	12,100	6,890	5,640
31	6,350	-	4,960	4,450	-	7,070	-	73,400	-	11,600	6,710	-
Month						Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet		
October.....						184,330	6,350	5,470	5,946	365,600		
November.....						165,480	5,990	4,790	5,516	328,200		
December.....						150,210	5,990	1,110	4,845	297,900		
Calendar year 1935.....						6,951,730	77,600	1,110	19,050	13,790,000		
January.....						153,260	5,640	4,200	4,944	304,000		
February.....						122,290	8,750	1,400	4,217	242,600		
March.....						225,360	10,200	4,450	7,270	447,000		
April.....						783,910	55,300	4,450	26,130	1,555,000		
May.....						2,168,100	89,600	51,400	69,940	4,300,000		
June.....						1,594,900	76,700	29,100	53,160	3,163,000		
July.....						571,900	28,500	11,600	18,450	1,134,000		
August.....						265,970	11,200	6,710	8,574	527,200		
September.....						187,470	7,070	5,640	6,248	371,800		
Water year 1935-36.....						6,573,000	89,600	1,110	17,960	13,040,000		

Pend Oreille Lake at Hope, Idaho

Location.- Water-stage recorder, lat. 48°15', long. 118°18', in lot 2, sec. 35, T. 57 N., R. 1 E., at floating dock near Northern Pacific Railway station at Hope. Zero of gage is 2,000.00 feet above mean sea level, U. S. Coast and Geodetic Survey datum.

Drainage area.- 22,900 square miles.

Records available.- September 1921 to September 1936, March 1914 to September 1922 at Sandpoint.

Extremes.-Maximum water-surface elevation during year, 2,061.56 feet May 21; minimum, 2,046.47 feet Feb. 17.
1921-36: Maximum water-surface elevation, 2,068.78 feet June 21, 1933; minimum, that of Feb. 17, 1936.
Maximum known water-surface elevation, 2,075.08 feet in June 1894.

Remarks.- Records excellent. Considerable water diverted from tributaries of Clark Fork for irrigation.

Gage height, in feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	47.45	-	47.06	46.86	46.83	46.83	47.57	56.19	60.84	54.63	49.48	47.69
2	47.42	-	47.04	46.84	46.83	46.85	47.54	56.41	60.88	54.37	49.37	47.70
3	47.41	-	47.02	46.94	46.82	46.97	47.49	56.63	60.90	54.12	49.27	47.68
4	47.40	-	47.01	47.00	46.79	47.07	47.44	56.87	60.92	53.89	49.19	47.66
5	47.39	-	47.00	47.05	46.77	47.20	47.39	57.17	60.91	53.64	49.11	47.66
6	47.38	-	47.01	47.02	46.75	47.31	47.36	57.50	60.80	53.41	49.04	47.64
7	47.37	-	47.01	47.01	46.74	47.42	47.33	57.80	60.67	53.19	48.99	47.61
8	47.36	-	47.01	47.00	46.74	47.53	47.31	58.03	60.52	53.01	48.89	47.61
9	47.31	-	46.99	47.00	46.73	47.62	47.28	58.22	60.39	52.80	48.80	47.60
10	47.31	-	46.97	47.01	46.69	47.65	47.29	58.37	60.28	52.60	48.76	47.58
11	47.29	-	46.96	47.02	46.64	47.66	47.32	58.54	60.12	52.42	48.69	47.56
12	47.30	-	46.98	47.06	46.58	47.68	47.41	58.79	59.93	52.22	48.63	47.51
13	47.30	-	46.98	47.11	46.56	47.70	47.58	59.09	59.68	52.03	48.56	47.51
14	47.27	-	46.97	47.09	46.55	47.72	47.90	59.45	59.41	51.88	48.50	47.51
15	47.28	47.16	46.97	47.10	46.52	47.72	48.25	59.89	59.15	51.71	48.43	47.50
16	47.24	47.15	46.96	47.10	46.50	47.71	48.61	60.33	58.91	51.54	48.37	47.48
17	47.23	47.14	46.96	47.10	46.48	47.70	49.01	60.76	58.64	51.39	48.31	47.46
18	47.22	47.13	46.96	47.09	46.50	47.68	49.51	61.11	58.37	51.24	48.26	47.45
19	47.24	47.12	46.96	47.10	46.52	47.67	50.08	61.39	58.09	51.11	48.19	47.41
20	47.25	47.12	46.96	47.08	46.51	47.67	50.70	61.61	57.80	50.97	48.15	47.40
21	47.25	47.11	46.96	47.06	46.54	47.69	51.31	61.55	57.51	50.82	48.09	47.39
22	47.26	47.08	46.94	47.03	46.60	47.67	51.93	61.53	57.24	50.69	48.08	47.40
23	47.24	47.10	46.88	47.02	46.64	47.65	52.57	61.48	56.95	50.56	48.02	47.36
24	47.22	47.10	46.82	47.01	46.66	47.60	53.20	61.39	56.64	50.44	47.97	47.35
25	47.19	47.10	46.81	47.00	46.67	47.60	53.84	61.27	56.36	50.29	47.92	47.33
26	47.20	47.11	46.80	47.00	46.70	47.59	54.45	61.14	56.08	50.14	47.90	47.30
27	47.19	47.10	46.78	46.97	46.73	47.62	54.97	61.02	55.81	50.02	47.85	47.29
28	47.20	47.10	46.78	46.95	46.81	47.63	55.38	60.94	55.53	49.91	47.81	47.27
29	47.20	47.09	46.78	46.93	46.87	47.62	55.72	60.87	55.23	49.78	47.78	47.24
30	-	47.08	46.82	46.91	-	47.58	55.98	60.85	54.92	49.69	47.75	47.20
31	-	-	46.83	46.88	-	47.53	-	60.84	-	49.58	47.72	-

CLARK FORK BASIN

Clark Fork at Priest River, Idaho

Location.- Water-stage recorder, lat. 48°10'30", long. 116°55'30", in lot 4, sec. 26, T. 55 N., R. 5 W., at Priest River. Discharge measurements made at highway bridge at Newport, Wash., 6 miles below. Zero of gage was 2,040.14 feet above mean sea level (general adjustment of 1929) until Aug. 19, 1935, when it was changed to 2,040.06 feet above mean sea level (general adjustment of 1929). All gage heights subsequent to Sept. 30, 1935, have been reduced to a datum 2000.00 feet above mean sea level (general adjustment of 1929), which is the final datum established Nov. 4, 1936.

Drainage area.- 24,200 square miles.

Records available.- June 1903 to April 1905, October 1921 to September 1936. June 1903 to September 1921, comparable records at Newport, Wash., 6 miles below present site.

Average discharge.- 33 years, 25,850 second-feet, corrected for storage in Pend Oreille Lake.

Extremes.- Maximum discharge during year, 86,400 second-feet May 21 (elevation, 2,057.56 feet); minimum, 3,420 second-feet Feb. 12 (elevation, 2,043.58 feet).

1903-36: Maximum discharge, 136,000 second-feet June 15, 1913, June 21, 1933; minimum, 2,200 second-feet Dec. 12, 1919.

Maximum stage known, 33.9 feet June 1894, from floodmarks referred to Newport gage (estimated discharge, 217,000 second-feet).

Remarks.- Records excellent except those for periods of ice effect, Jan. 30 to Feb. 12, Feb. 14-17, 19-27, which were computed on basis of one discharge measurement, gage heights, and weather records and are poor, and those for Sept. 16-30, which were computed on basis of recorded gage heights and estimated amounts of backwater caused by logs on control, and are fair. Numerous small diversions from upper tributaries for irrigation. Flow subject to natural regulation in several lakes and to slight regulation during log-driving seasons, owing to operations of flash dam on tributary of Priest River. Part of monthly-discharge table corrected for natural storage in Pend Oreille Lake. Gage-height record collected in cooperation with the U. S. Weather Bureau.

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	7,560	6,600	6,600	6,080	5,300	6,250	6,970	52,200	80,800	41,600	17,000	8,970
2	7,560	6,600	6,600	5,920	5,200	6,420	8,580	53,600	81,600	40,200	16,500	8,970
3	7,360	6,250	6,600	6,250	5,000	6,600	9,000	55,000	82,200	38,000	16,000	8,780
4	7,360	6,080	6,600	6,600	4,900	6,970	8,580	56,400	81,600	37,500	15,600	8,780
5	7,360	6,080	6,600	6,420	4,800	7,560	8,180	58,400	81,600	36,100	15,100	8,780
6	7,360	6,080	6,420	6,780	4,600	7,760	8,180	60,600	80,800	34,800	14,700	8,780
7	7,160	6,080	6,420	6,780	4,500	8,180	8,180	62,000	80,800	33,600	14,700	8,580
8	7,160	6,250	6,420	6,600	4,500	8,780	7,760	63,400	78,400	32,900	14,700	8,580
9	7,360	6,780	6,420	6,600	4,400	9,000	7,970	64,800	78,000	31,700	14,200	8,580
10	7,160	6,600	6,250	6,600	4,200	9,200	7,970	65,400	77,400	30,500	14,200	8,200
11	7,160	6,600	6,420	6,600	4,100	9,400	8,180	66,800	76,600	29,300	13,700	8,200
12	6,970	6,780	6,420	6,780	4,100	9,400	8,580	68,200	75,200	28,700	13,300	8,010
13	7,160	6,780	6,420	6,970	3,990	9,400	9,200	70,400	73,800	27,500	12,800	8,010
14	7,160	6,780	6,420	7,160	4,000	9,610	10,400	72,400	71,800	26,900	12,800	8,010
15	6,970	6,970	6,420	6,970	3,900	9,610	12,100	75,200	69,600	26,300	12,400	8,010
16	6,970	6,780	6,420	7,160	3,750	9,820	13,500	78,000	68,200	25,700	11,900	7,820
17	6,970	6,780	6,420	6,970	3,650	9,400	15,400	80,800	66,800	24,500	11,500	7,640
18	6,780	6,780	6,420	6,970	3,530	9,610	16,900	83,600	64,800	24,000	11,500	7,640
19	6,970	6,600	6,420	6,970	3,650	9,610	19,600	85,000	63,400	23,400	11,500	7,640
20	6,970	6,600	6,250	6,780	3,650	9,610	22,300	85,800	61,200	22,800	10,800	7,640
21	6,970	6,600	6,250	6,780	3,750	8,790	25,100	85,800	59,800	22,300	10,600	7,640
22	6,970	6,780	6,080	6,600	3,900	9,610	27,500	85,800	57,800	21,800	10,400	7,460
23	6,970	6,600	6,080	6,600	4,000	9,400	31,100	85,800	56,400	20,800	10,200	7,460
24	6,970	6,780	5,920	6,600	4,100	9,400	34,200	85,000	54,200	20,200	10,200	7,460
25	6,780	6,600	5,920	6,780	4,400	9,200	37,500	84,400	52,200	19,800	10,400	7,460
26	6,780	6,600	5,920	6,600	4,600	8,580	41,000	83,600	50,800	19,300	10,200	7,460
27	6,780	6,600	5,920	6,600	5,000	8,790	44,400	83,000	49,600	18,800	9,780	7,460
28	6,970	6,600	5,920	6,600	5,460	9,610	47,200	81,600	46,600	18,300	9,580	7,280
29	7,970	6,600	5,920	6,080	6,080	9,610	48,600	81,600	45,200	17,900	9,580	6,940
30	6,780	6,600	5,920	5,800	-	9,610	50,800	81,600	43,800	17,400	9,170	7,280
31	6,600	-	5,920	5,500	-	10,000	-	80,800	-	17,000	9,170	-

Month	Observed				Gain or loss in storage in Pend Oreille Lake (acre-feet)	Corrected for storage			
	Discharge in second-feet			Run-off in acre-feet		Run-off in acre-feet	Discharge in second-feet		Run-off in inches
	Maxi- mum	Mini- mum	Mean				Mean	Per square mile	
October.....	7,970	6,600	7,097	436,400	-23,240	413,200	6,720	0.278	0.32
November.....	6,970	6,080	6,574	391,200	-9,940	381,300	6,408	.265	.30
December.....	6,600	5,920	6,282	366,200	-20,500	365,700	5,948	.246	.28
Calendar year 1935	83,500	5,920	22,830	16,530,000	-139,300	16,390,000	22,640	.936	12.72
January.....	7,160	5,500	6,597	405,600	+4,100	409,700	6,663	.275	.32
February.....	6,080	3,530	4,380	251,900	-920	251,100	4,365	.180	.19
March.....	10,000	6,250	8,365	545,100	+54,580	599,700	9,753	.403	.46
April.....	50,800	6,970	20,160	1,200,000	+736,600	1,937,000	32,550	1.35	1.51
May.....	85,800	52,200	73,450	4,516,000	+444,900	4,961,000	80,580	3.33	3.84
June.....	82,200	43,800	67,030	3,989,000	-540,000	3,449,000	57,960	2.40	2.68
July.....	41,600	17,000	26,790	1,647,000	-467,900	1,179,000	19,170	.792	.91
August.....	17,000	9,170	12,390	762,000	-157,600	604,400	9,830	.406	.47
September.....	8,970	6,940	7,978	474,700	-43,380	431,300	7,248	.300	.33
Water year 1935-36	85,800	3,530	20,670	15,010,000	-23,200	14,980,000	20,640	.853	11.61

Clark Fork below Z Canyon, near Metaline Falls, Wash.

(International gaging station)

Location.- Water-stage recorder, lat. 48°59', long. 117°21', in lot 2, sec. 11, T. 40 N., R. 43 E., three-quarters of a mile below Z Canyon and 10 miles below Metaline Falls.

Drainage area.- 25,200 square miles.

Records available.- October 1928 to September 1936. November 1908 to September 1910, October 1912 to September 1928 at station at Metaline Falls.

Average discharge.- 24 years (1912-36), 26,570 second-feet (corrected for storage in Pend Oreille Lake).

Extremes.- Maximum discharge during year, 87,500 second-feet May 22, 23 (gage height, 37.28 feet); minimum daily discharge, 3,800 second-feet Feb. 20, when stage-discharge relation was affected by ice.

1912-36: Maximum discharge, 139,000 second-feet June 16, 1913 (gage height, 41.2 feet, Metaline Falls gage); minimum, 2,500 second-feet Dec. 12, 1919 (gage height, -2.4 feet, Metaline Falls gage).

Remarks.- Records excellent except those for period of ice effect, Jan. 31 to Feb. 28, which were computed on basis of gage heights and weather records and are poor. Numerous small diversions from upper tributaries for irrigation. No artificial regulation of any consequence. Part of monthly table corrected for natural storage in Pend Oreille Lake. This is one of the international gaging stations maintained by the United States under agreement with Canada.

Rating table, water year 1935-36 except period of ice effect (gage height, in feet, and discharge, in second-feet)

10.0	5,720	13.0	12,180	16.0	21,800	22.0	40,900	32.0	71,200
11.0	7,600	14.0	14,950	18.0	28,820	24.0	46,900	36.0	83,500
12.0	9,720	15.0	16,100	20.0	34,900	28.0	59,300	38.0	89,800

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

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	8,370	7,600	7,220	6,840	5,600	6,650	10,200	52,200	82,100	45,400	17,100	9,020
2	8,170	7,410	7,220	6,840	5,400	7,030	9,020	53,700	82,400	43,600	16,800	9,250
3	8,170	7,410	7,220	7,030	5,200	7,410	8,580	55,300	83,000	42,400	16,400	9,250
4	8,170	7,220	7,220	7,030	4,810	7,600	9,020	56,800	83,300	40,900	16,100	9,020
5	7,980	7,030	7,220	7,220	4,600	8,170	9,250	58,700	83,000	39,700	15,800	9,250
6	7,980	7,030	7,220	7,030	4,600	8,800	8,900	59,900	82,700	38,200	15,200	9,250
7	7,980	7,030	7,220	7,030	4,600	9,250	8,800	62,000	82,700	37,000	15,000	9,020
8	7,790	7,030	7,030	7,220	4,600	9,250	8,580	63,800	82,400	35,800	14,400	8,370
9	7,790	7,030	7,030	7,220	4,600	9,480	8,580	65,200	80,800	34,600	14,100	8,580
10	7,790	7,220	7,030	7,220	4,500	9,480	8,580	66,400	79,900	33,700	13,600	8,580
11	7,790	7,600	7,030	7,220	4,500	9,720	8,900	67,300	79,000	32,500	13,600	8,370
12	7,790	7,410	7,030	7,410	4,300	9,960	9,020	68,500	78,100	31,600	13,500	8,370
13	7,600	7,600	7,030	7,410	4,300	10,200	9,480	70,000	76,600	30,700	13,000	8,370
14	7,600	7,600	7,030	7,410	4,200	9,960	10,200	71,800	75,400	29,300	12,700	8,170
15	7,790	7,600	7,030	7,600	4,200	10,200	11,200	73,900	73,900	28,900	12,400	8,170
16	7,600	7,790	7,030	7,600	4,100	10,200	13,000	76,000	72,100	28,200	12,200	7,980
17	7,600	7,600	6,840	7,600	3,950	10,200	15,000	78,700	70,600	27,500	11,900	7,980
18	7,600	7,600	6,840	7,410	3,950	9,960	16,800	81,400	68,400	26,500	11,600	7,980
19	7,600	7,600	6,840	7,410	3,950	9,960	18,800	84,500	66,700	25,800	11,400	7,980
20	7,600	7,600	6,840	7,410	3,800	9,960	21,000	85,800	65,200	25,100	11,400	7,790
21	7,600	7,220	6,840	7,410	3,950	10,200	24,000	86,500	63,500	24,400	11,200	7,790
22	7,600	7,220	6,840	7,410	4,100	9,720	26,300	87,200	61,700	23,600	10,600	7,600
23	7,600	7,410	6,650	7,220	4,200	9,720	30,100	87,200	60,500	22,900	10,700	7,600
24	7,600	7,410	6,650	7,220	4,300	9,960	33,100	87,200	58,700	22,200	10,400	7,600
25	7,600	7,410	6,650	7,220	4,600	9,960	36,400	86,500	56,500	21,000	10,200	7,410
26	7,600	7,410	6,650	7,220	4,900	9,720	39,100	85,900	54,600	20,300	10,200	7,600
27	7,600	7,220	6,460	7,220	5,200	9,480	42,100	85,200	52,500	19,900	9,960	7,600
28	7,600	7,220	6,460	7,030	5,700	9,020	45,400	84,500	50,300	19,200	9,960	7,410
29	7,600	7,220	6,460	7,030	6,460	9,480	48,100	83,300	48,400	18,800	9,720	7,410
30	7,980	7,220	6,460	6,650	-	9,960	50,300	82,700	46,900	18,100	9,480	7,410
31	7,980	-	6,650	5,700	-	9,720	-	82,700	-	17,800	9,250	-

Month	Observed				Gain or loss in storage in Pend Oreille Lake (acre-feet)	Corrected for storage			
	Discharge in second-feet			Run-off in acre-feet		Run-off acre-feet	Discharge in second-feet		Run-off in inches
	Maxi- mum	Mini- mum	Mean				Mean	Per square mile	
October.....	8,370	7,600	7,778	478,300	-23,240	455,100	7,401	0.294	0.34
November.....	7,790	7,030	7,366	438,300	-9,940	428,400	7,200	.286	.32
December.....	7,220	6,460	6,895	424,000	-20,500	403,500	6,562	.260	.30
Calendar year 1935	85,500	6,460	24,070	17,430,000	-139,300	17,290,000	23,880	.948	12.88
January.....	7,600	5,700	7,183	441,700	+4,100	445,800	7,250	.288	.33
February.....	6,460	3,800	4,585	263,700	-820	262,900	4,571	.181	.20
March.....	10,200	6,650	9,367	576,000	+54,580	630,600	10,260	.407	.47
April.....	50,300	8,580	19,940	1,198,000	+736,800	1,935,000	32,320	1.28	1.45
May.....	87,200	52,200	73,870	4,558,000	+444,900	4,990,000	81,110	3.22	3.71
June.....	83,300	46,900	70,070	4,169,000	-540,000	3,629,000	60,990	2.42	2.70
July.....	45,400	17,800	29,230	1,797,000	-467,900	1,329,000	21,610	.858	.99
August.....	17,100	9,250	12,590	773,900	-157,600	616,300	10,020	.398	.46
September.....	9,250	7,410	8,220	489,100	-43,360	445,700	7,490	.297	.33
Water year 1935-36	87,200	3,800	21,460	15,580,000	-23,200	15,560,000	21,430	.850	11.58

East Fork of Rock Creek near Philipsburg, Mont.

Location.- Staff gage, lat. 46°8', long. 113°22', in sec. 5, T. 4 N., R. 14 W., 6 miles southwest of Georgetown Lake and 14 miles southwest of Philipsburg.

Records available.- June 1935 to September 1936.

Extremes.- Maximum discharge observed during year, 188 second-feet June 1 (gage height, 2.77 feet); minimum, 3.4 second-feet Apr. 10 (gage height, 0.33 foot).
1935-36: Maximum discharge observed, 269 second-feet June 15, 1935 (gage height, 3.05 feet); minimum, that of Apr. 10, 1936.

Remarks.- Records fair.

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	17	16	17	18	10	4.5	4.1	12	188	39	24	18
2	17	*16	17	18	9.7	4.5	4.1	15	167	38	24	19
3	17	16	17	*16	9.7	4.5	4.1	14	153	35	23	19
4	16	16	17	14	9.7	4.5	4.1	14	101	*35	22	19
5	15	*16	15	*14	9.7	4.9	*4.1	18	92	35	22	19
6	15	17	15	14	9.1	*4.9	4.1	18	92	34	21	*18
7	15	17	16	*14	9.1	4.9	3.8	18	106	33	21	18
8	15	*17	15	*15	9.1	*4.9	3.8	*26	106	33	21	18
9	15	17	*15	15	*9.1	4.9	*3.6	*35	101	*34	20	18
10	*15	*17	*15	15	9.1	4.9	3.4	*43	87	34	20	17
11	15	17	15	14	9.1	*4.9	5.8	*52	82	36	19	17
12	15	18	*16	15	*9.1	4.9	11	60	78	37	18	16
13	*15	18	16	15	9.1	*4.7	12	87	78	37	18	*16
14	15	*18	16	15	*9.1	4.5	6.1	112	*76	36	19	*16
15	15	17	16	15	9.1	*4.5	8.8	112	74	35	20	*16
16	15	*17	16	*15	7.3	4.5	6.5	106	74	31	20	*16
17	16	17	16	15	7.3	4.9	6.1	82	66	29	21	16
18	16	17	17	*15	6.8	4.9	4.9	78	66	28	21	16
19	15	17	*17	*14	6.5	4.9	6.8	87	63	28	22	16
20	*15	16	17	*14	5.4	4.9	6.3	82	54	27	22	16
21	*15	*16	17	*13	*5.4	4.9	5.8	74	54	26	22	16
22	*15	16	*18	13	5.4	4.5	6.5	74	54	24	21	*16
23	*15	16	18	13	*5.2	4.5	7.0	63	51	23	21	16
24	*15	*16	*18	13	4.9	4.5	8.2	66	54	26	21	16
25	15	16	*17	12	*4.9	4.5	7.9	70	51	26	20	16
26	15	16	17	12	4.9	4.5	9.1	74	51	26	20	16
27	*15	16	17	12	4.9	*4.5	9.1	117	48	26	19	15
28	15	*16	17	*12	4.5	4.5	9.7	135	45	26	19	15
29	*15	17	17	12	4.5	4.1	11	154	42	25	18	15
30	15	17	17	12	-	4.1	11	*157	42	25	*18	15
31	15	-	*18	11	-	4.1	-	160	-	24	18	-
Month					Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet			
October.....					472	17	15	15.2	936			
November.....					499	18	16	16.8	290			
December.....					512	18	15	16.5	1,020			
Calendar year												
January.....					433	18	11	14.0	859			
February.....					217.5	10	4.5	7.50	431			
March.....					143.7	4.9	4.1	4.64	285			
April.....					198.8	12	3.4	6.63	394			
May.....					2,213	160	12	71.4	4,590			
June.....					2,366	188	42	78.9	4,690			
July.....					953	39	23	30.7	1,890			
August.....					635	24	18	20.5	1,260			
September.....					500	19	15	16.7	992			
Water year 1935-36.....					9,143.0	188	3.4	25.0	18,140			

*Interpolated.

Nevada Creek near Finn, Mont.

Location.— Staff gage, lat. 46°48'30", long. 112°48'30", in NE¼ sec. 13, T. 12 N., R. 10 W., 8 miles west of Finn.

Records available.— May 1934 to September 1936.

Extremes.— Maximum discharge during year (estimated), 1,200 second-feet Apr. 11 (gage height, 4.28 feet from floodmark); minimum, 5.6 second-feet many times Oct. 1-5 (gage height, 0.80 foot).

1934-36: Maximum discharge observed, that of Apr. 11, 1936; minimum, 5.0 second-feet many times Sept. 22-25, 1935 (gage height, 0.78 foot).

Remarks.— Records good except those for period of ice effect, Oct. 23, 24, Oct. 29 to Apr. 9, which were computed on basis of two discharge measurements, gage heights, and weather records and are poor. Some diversions above gage.

Rating tables, water year 1935-36 except period of ice effect (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Oct. 16-28)

Oct. 1 to Apr. 9

Apr. 10 to Sept. 30

0.8	5.6	1.0	7.6	2.4	139
1.0	14.3	1.2	16	2.6	165
1.2	27	1.4	29	2.8	192
		1.6	46	3.0	220
		1.8	67	3.2	250
		2.0	90	3.4	280
		2.2	114	3.6	312

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	5.6					13	12	68	38	19	11	9.2
2	6.0							76	43	18	9.9	10
3	6.0							84	52	18	9.6	14
4	6.0							96	41	17	10	14
5	6.0							152	34	16	9.6	14
6	6.7					14	10	152	31	16	9.2	12
7	6.7						10	120	60	18	11	11
8	6.7						13	102	90	20	10	9.9
9	7.5						23	90	70	21	9.9	9.9
10	8.3						340	90	68	18	10	9.6
11	8.6					16	312	102	66	17	11	9.2
12	12						260	120	63	16	12	9.6
13	11						158	126	58	14	12	11
14	11						128	108	42	16	12	11
15	12						108	120	35	16	12	11
16	8.6					14	96	114	36	15	11	9.9
17	7.5						96	90	35	15	10	10
18	7.9						108	77	36	13	9.5	10
19	8.3						120	67	31	12	10	9.9
20	8.6						120	126	31	11	13	10
21	8.6					19	114	72	28	12	11	9.6
22	9.0						102	63	28	12	10	9.2
23	10						132	51	27	12	9.9	9.2
24	12						132	43	28	19	9.2	9.2
25	13						152	39	26	16	9.6	10
26	12					10	120	35	33	12	9.6	11
27	12						108	32	27	12	9.2	10
28	8.6						96	31	22	12	9.2	9.9
29	8.6						84	34	21	11	8.4	9.9
30	8.6						75	31	20	11	8.6	9.6
31	8.6						-	30	-	10	9.2	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October.....	272.0	13	5.6	8.8	540
November.....	255.0	-	-	8.5	506
December.....	279.0	-	-	9.0	553
Calendar year					
January.....	294.5	-	-	9.5	584
February.....	290.0	-	-	10.0	575
March.....	440	-	-	14.2	873
April.....	3,065	340	10	102	6,080
May.....	2,541	152	30	82.0	5,040
June.....	1,220	90	20	40.7	2,420
July.....	465	21	10	15.0	922
August.....	316.9	13	9.4	10.2	629
September.....	312.8	14	9.2	10.4	620
Water year 1935-36.....	9,751.2	340	5.6	26.6	19,340

Flathead River at Flathead, British Columbia

(International gaging station)

Location.- Staff gage, lat. 49°0', long. 114°29', at highway bridge 0.2 mile north of International boundary, 0.2 mile northwest of Flathead, British Columbia, and 7 miles northwest of Trail Creek, Mont.

Drainage area.- 450 square miles.

Records available.- March 1929 to September 1936 (no records during winter).

Extremes.- Maximum discharge observed during year, 6,270 second-feet May 15 (gage height, 5.52 feet); minimum (estimated owing to ice effect), 125 second-feet Dec. 26-31; minimum gage height, 1.01 feet Dec. 1, 4, and 8. Smaller discharge may have occurred during winter, when no records were obtained.

1929-36: Maximum discharge observed, 10,600 second-feet June 17, 1933 (gage height, 6.90 feet); minimum, 65 second-feet Apr. 9, 1929 (gage height, 0.76 foot). Probably not actual minimum.

Remarks.- Records good except those for periods of ice effect, Oct. 30, 31, Nov. 6-17, Dec. 11-22, and those for Nov. 1-5, Dec. 23-31, Apr. 1-9, July 1, which are fair. No records Jan. 1 to Mar. 31. Gage read twice daily. This station is one of the international gaging stations maintained by Canada under agreement with the United States.

Rating table, water year 1935-36 except periods of ice effect (gage height, in feet, and discharge, in second-feet)

0.7	70	2.5	1,090	4.3	3,600
1.0	135	2.8	1,400	4.6	4,190
1.3	240	3.1	1,740	4.9	4,825
1.6	390	3.4	2,140	5.2	5,490
1.9	595	3.7	2,580	5.5	6,220
2.2	830	4.0	3,070	5.8	7,020

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	224	194	138				240	2,220	3,850	633	256	182
2	220	194	141				240	2,420	3,460	580	252	182
3	216	194	141				240	2,540	3,040	555	252	182
4	216	194	138				240	3,160	2,060	542	252	182
5	208	194	141				240	4,110	1,740	520	248	186
6	208	194	141				240	3,810	1,690	520	248	186
7	204	194	141				240	3,170	1,620	506	248	186
8	200	190	138				240	3,540	1,590	492	248	186
9	204	190	141				240	4,090	1,520	478	244	186
10	200	190	141				248	4,480	1,480	471	240	182
11	200	180	140				264	5,440	1,420	464	240	182
12	200	180	140				280	5,580	1,410	450	244	182
13	200	180	140				378	4,850	1,370	438	240	182
14	196	170	140				426	5,000	1,350	438	232	182
15	193	170	140				492	6,270	1,310	414	220	179
16	193	170	130				701	5,390	1,280	396	212	179
17	193	170	130				1,110	3,850	1,130	378	212	172
18	193	165	130				1,670	3,350	1,090	360	208	172
19	193	165	130				2,370	3,170	1,050	354	204	172
20	190	162	130				2,790	2,950	1,010	342	200	172
21	190	165	130				2,380	2,580	983	330	200	172
22	190	162	130				2,250	2,360	948	320	200	172
23	186	165	130				2,190	2,280	890	320	200	165
24	186	165	130				2,110	2,370	864	310	196	165
25	190	165	130				2,000	2,500	830	300	193	165
26	190	156	125				1,870	3,050	797	300	193	159
27	190	153	125				1,870	3,440	756	290	193	159
28	193	150	125				1,500	3,710	732	280	186	159
29	193	147	125				1,480	3,680	701	272	186	159
30	193	141	125				2,010	3,490	686	260	182	153
31	193	-	125				-	3,550	-	256	162	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acre-feet
October.....	6,145	224	186	198	0.44	0.51	12,200
November.....	5,209	194	141	174	.39	.44	10,300
December.....	4,151	141	125	134	.30	.35	8,230
Calendar year							
January.....	-	-	-	-	-	-	-
February.....	-	-	-	-	-	-	-
March.....	-	-	-	-	-	-	-
April.....	32,539	2,790	240	1,080	2.40	2.68	64,500
May.....	112,590	6,270	2,220	3,630	8.07	9.30	223,000
June.....	42,627	3,850	626	1,420	3.16	3.53	84,500
July.....	12,579	633	256	406	.90	1.04	25,000
August.....	6,811	256	182	220	.49	.56	13,500
September.....	5,242	186	153	175	.39	.44	10,400
The period.....							452,000

Flathead River near Columbia Falls, Mont.

Location.- Water-stage recorder, lat. 48°29', long. 114°5', in NW¼ sec. 7, T. 31 N., R. 19 W., at Potter ranch, three-quarters of a mile above junction with Middle Fork and 10 miles northeast of Columbia Falls.

Drainage area.- 1,620 square miles.

Records available.- September 1910 to September 1917, April 1929 to September 1936.

Extremes.- Maximum discharge recorded during year, 19,000 second-feet May 16 (gage height, 9.86 feet); minimum discharge, 340 second-feet Jan. 28-31 (ice present). 1910-17, 1929-36: Maximum discharge, 29,500 second-feet June 20, 1916 (gage height, 9.8 feet, former site and datum); minimum, that for Jan. 28-31, 1936.

Remarks.- Records good except those for period of ice effect, Dec. 6 to Apr. 5 (computed on basis of two discharge measurements, gage heights, weather records, and records for Flathead River at Columbia Falls) and those for Nov. 11 to Dec. 5, Apr. 6-25, June 4-16 (computed on basis of records for Flathead River at Columbia Falls), which are fair. Discharge interpolated Apr. 30, May 1, 22-26.

Rating tables, water year 1935-36 except periods of ice effect (gage height, in feet, and discharge, in second-feet)

Oct. 1 to May 15							May 16 to Sept. 30				
1.4	515	2.8	1,235	4.2	2,900	6.5	7,300	1.8	560	3.0	1,470
1.6	580	3.0	1,385	4.4	3,100	7.0	8,700	2.0	675	3.2	1,650
1.8	660	3.2	1,560	4.6	3,410	7.5	10,210	2.2	810	3.4	1,840
2.0	745	3.4	1,760	4.8	3,730	8.0	11,820	2.4	960	3.6	2,050
2.2	850	3.6	1,990	5.0	4,070	8.5	13,560	2.6	1,120	3.8	2,280
2.4	970	3.8	2,240	5.5	5,000	9.0	15,420	2.8	1,290	4.0	2,530
2.6	1,100	4.0	2,510	6.0	6,090	10.0	19,450	(Same as previous table above gage height 4.0 feet)			

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	822	562	400	420		590	430	8,140	13,600	2,600	1,120	675
2	795	600						7,560	13,200	2,460	1,080	688
3	795	640						8,110	11,200	2,340	1,080	720
4	795	660						9,300		2,280	1,080	708
5	770	745						11,500		2,220	1,040	747
6	770	770	347	400		640	560	12,200	6,300	2,100	1,040	832
7	770	795	355					10,800		2,050	1,020	803
8	770	795	378					10,500		2,000	1,010	775
9	770	795	404					10,600		1,940	984	754
10	770	722	402					11,800		1,890	960	727
11	770	650	398	430		650	2,500	13,900		1,840	938	708
12	770		406					15,800	1,790	938	694	
13	795		405					15,000	1,740	945	688	
14	795		416					14,700	1,700	915	694	
15	770		414					17,000	1,650	908	694	
16	770	650	412	400		570	8,400	18,200		1,600	900	682
17	745		400					15,400	4,800	1,580	878	653
18	745		402					12,800	4,800	1,520	862	657
19	795		398					11,500	4,420	1,470	855	633
20	880		392					11,200	4,070	1,470	848	627
21	850	550	390	410		545	12,000	10,800	3,730	1,420	825	604
22	822		388					10,900	3,570	1,420	810	593
23	822		390					11,000	3,410	1,380	796	604
24	795		386					11,200	3,410	1,340	782	598
25	795		384					500	11,300	3,410	1,290	796	598
26	795	500	386	340		440	500	11,000	11,400	3,410	1,290	782
27	770		388					10,200	11,500	3,410	1,250	775
28	770		394					9,900	12,500	3,250	1,200	754
29	770		396					9,300	12,800	3,100	1,200	727
30	680		396					8,720	13,200	2,800	1,160	708
31	620	-	398						13,200	-	1,120	688

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acres-feet
October.....	24,151	880	620	779	0.481	0.55	47,900
November.....	18,834	795	-	628	.388	.43	37,360
December.....	12,226	-	-	394	.243	.28	24,250
Calendar year							
January.....	12,340	-	-	398	.246	.28	24,480
February.....	11,600	-	-	400	.247	.27	23,010
March.....	17,189	-	-	554	.342	.39	34,080
April.....	168,570	18,200	7,560	5,619	3.47	3.87	334,400
May.....	376,010	13,600	2,600	5,496	3.39	3.78	327,100
June.....	52,290	2,600	1,120	1,687	1.04	1.20	103,700
July.....	27,644	1,120	688	898	.554	.64	55,230
August.....	20,044	832	555	668	.412	.46	39,760
September.....							
Water year 1935-36.....	905,988	18,200	-	2,475	1.53	20.79	1,797,000

Flathead River at Columbia Falls, Mont.

Location.- Water-stage recorder, lat. 48°23', long. 114°9', in SW¼ sec. 17, T. 30 N., R. 20 W., about 200 feet below highway bridge on Roosevelt Highway at Columbia Falls. Zero of gage is 2,978.44 feet above mean sea level.

Drainage area.- 4,440 square miles.

Records available.- May 1922 to September 1923 (fragmentary), June 1928 to September 1936.

Extremes.- Maximum discharge during year, 71,800 second-feet May 15 (gage height, 15.40 feet); minimum, 899 second-feet Jan. 28 (gage height, 0.07 foot, ice present). 1922-23, 1928-36: Maximum discharge, 102,000 second-feet June 1, 1923 (gage height, 17.3 feet); minimum, 798 second-feet Dec. 8, 1929 (gage height, -0.06 foot).

Remarks.- Records good except those for periods of ice effect, Oct. 29 to Nov. 17, Dec. 7-27, Jan. 2 to Mar. 14, Mar. 27 to Apr. 6, computed from study of gage heights, temperature records, and four discharge measurements, which are fair. No diversions.

Rating tables, water year 1935-36 except periods of ice effect (gage height, in feet, and discharge, in second-feet)

Oct. 1 to Feb. 7					Feb. 8 to Sept. 30				
0.0	850	2.2	3,380	6.0	13,550	0.2	990	2.4	3,820
.2	990	2.4	3,720	6.5	15,440	.4	1,170	2.6	4,150
.4	1,150	2.6	4,080	7.0	17,450	.6	1,360	2.8	4,500
.6	1,320	2.8	4,460	7.5	19,590	.8	1,600	3.0	4,890
.8	1,510	3.0	4,860	8.0	21,850	1.0	1,820	3.2	5,310
1.0	1,720	3.2	5,290	9.0	27,000	1.2	2,060		
1.2	1,950	3.6	6,230	10.0	32,730	1.4	2,320		
1.4	2,200	4.0	7,250	11.0	39,060	1.6	2,600		
1.6	2,470	4.5	8,640	12.0	45,980	1.8	2,890		
1.8	2,760	5.0	10,150	13.0	53,290	2.0	3,190		
2.0	3,060	5.5	11,790	14.0	60,870	2.2	3,500		
				15.0	68,600				

(Same as previous table above gage height 3.2 feet)

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,780	*1,380	1,230	*1,280	983	1,710	1,120	28,700	51,100	8,350	3,190	1,880
2	1,720	1,360	1,150	1,320	1,020	1,680	1,140	30,400	47,400	7,790	3,120	1,880
3	1,720	1,410	1,150	1,230	1,050	1,720	1,150	33,900	36,400	7,790	3,040	1,880
4	1,720	1,510	1,010	1,280	1,060	1,790	1,270	42,500	28,700	7,520	3,120	2,000
5	1,720	1,510	941	1,230	1,070	1,760	1,300	50,300	24,300	6,990	3,040	2,000
6	*1,710	1,410	983	1,190		1,860	1,440	43,200	22,800	6,730	2,960	2,060
7	*1,700	1,410	1,010	990		1,880	1,450	36,400	21,800	6,480	2,890	2,190
8	*1,690	1,720	1,070	1,110		1,880	1,680	34,600	20,500	6,230	2,820	2,120
9	*1,680	1,660	1,150	1,150	†1,000	1,940	1,820	35,800	20,000	6,110	2,740	2,060
10	*1,670	1,510	1,150	*1,220		1,820	1,680	41,100	19,200	5,870	2,670	2,000
11	1,660	1,410	1,150	1,280		1,880	2,320	51,600	18,700	5,760	2,600	1,940
12	1,660	1,460	1,230	1,320		1,880	4,060	59,400	19,200	5,640	2,600	1,880
13	1,660	1,410	1,230	1,360	1,170	1,880	9,840	56,300	19,200	5,310	2,500	1,820
14	1,720	1,460	1,280	1,230	1,170	1,880	12,100	56,300	18,300	5,100	2,600	1,820
15	1,720	1,510	1,230	1,230	1,170	1,820	14,300	67,800	17,900	5,000	2,630	1,820
16	1,720	1,610	1,150	1,180	1,380	1,680	16,600	67,000	18,300	4,890	2,530	1,820
17	1,660	1,610	1,150	1,110	1,280	1,590	20,000	53,300	17,400	4,690	2,460	1,800
18	1,660	1,560	1,150	1,020	1,270	1,530	25,900	43,200	16,600	4,600	2,390	1,750
19	1,610	1,510	1,110	1,020	1,220	1,460	33,300	39,100	15,000	4,410	2,320	1,710
20	1,610	1,460	1,110	990	†1,170	1,510	38,400	39,700	13,600	4,320	2,320	1,680
21	1,720	1,410	1,020	*1,030	†1,080	1,610	35,200	37,100	12,800	4,240	2,320	1,630
22	1,720	1,360	1,010	1,070	†1,170	1,600	33,300	32,700	12,500	4,150	2,260	1,600
23	1,720	1,360	990	1,150	1,280	1,530	37,100	29,300	12,100	4,060	2,190	1,570
24	1,660	1,360	990	1,190	1,270	1,480	34,600	28,100	12,500	3,900	2,190	1,540
25	1,610	1,360	1,020	1,060	1,320	1,400	33,500	30,400	12,500	3,820	2,120	1,540
26	1,610	1,360	1,040	1,010	1,370	1,400	31,600	35,800	12,100	3,740	2,120	1,580
27	1,560	1,360	*1,080	1,020	1,410	1,370	28,700	41,800	11,400	3,580	2,120	1,570
28	1,560	1,320	*1,120	899	1,480	1,270	25,900	46,000	10,800	3,500	2,060	1,540
29	1,510	1,320	*1,160	998	1,540	1,270	24,300	47,400	10,200	3,420	2,000	1,530
30	1,510	1,280	*1,200	990	-	1,210	25,400	47,400	8,930	3,340	1,940	1,500
31	1,410	-	*1,240	990	-	1,170	-	50,300	-	3,260	1,940	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acres-feet
October.....	51,380	1,780	1,410	1,657	0.373	0.43	101,900
November.....	43,870	1,720	1,280	1,446	.326	.36	86,020
December.....	34,504	1,280	941	1,113	.251	.29	65,440
Calendar year 1935.....	3,294,584	67,800	941	9,026	2.03	27.59	6,534,000
January.....	35,107	1,360	699	1,132	.255	.29	69,630
February.....	33,973	1,540	983	1,171	.264	.28	67,380
March.....	50,490	1,880	1,170	1,629	.367	.42	100,100
April.....	500,470	36,400	1,120	16,680	3.76	4.20	992,700
May.....	1,337,100	37,800	28,100	43,130	9.71	11.20	2,652,000
June.....	582,230	51,100	8,930	19,410	4.37	4.88	1,155,000
July.....	160,590	8,350	3,260	5,180	1.17	1.35	318,500
August.....	77,600	3,190	1,940	2,510	.565	.65	154,300
September.....	53,710	2,190	1,500	1,790	.403	.45	106,500
Water year 1935-36.....	2,960,724	67,800	899	8,069	1.82	24.80	5,872,000

*Interpolated.

†Estimated.

Flathead River near Kalispell, Mont.

Location.- Chain gage, lat. $48^{\circ}13'$, long. $114^{\circ}15'$, in NE $\frac{1}{4}$ sec. 10, T. 28 N., R. 21 W., at highway bridge 3 miles east of Kalispell. Gage readings adjusted to mean sea level, Somers datum.

Records available.- May 1928 to September 1936.

Extremes.- Maximum water-surface elevation observed during year, 2,912.52 feet May 16; minimum, 2,900.70 feet Feb. 4 and 5.

1928-36: Maximum water-surface elevation, 2,913.95 feet May 27, 1928; minimum, that for Feb. 4 and 5, 1936.

Remarks.- Records fragmentary but reliable; used for study of profile between Kalispell and Flathead Lake.

Gage height, in feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1.11	1.18	-	1.12	0.76	1.78	1.28	9.20	10.86	-	2.62	1.82
2	1.12	-	1.08	1.10	-	1.80	1.26	-	10.70	-	2.58	1.84
3	1.14	1.06	-	1.10	.72	1.80	1.25	9.40	9.95	5.30	2.60	1.86
4	1.12	-	1.06	-	.70	1.81	-	9.85	9.05	5.25	2.58	1.88
5	1.11	1.20	.98	-	.70	1.84	1.25	10.65	8.30	5.23	2.56	1.88
6	-	-	1.14	1.12	.72	1.84	1.30	10.46	8.17	5.20	2.50	-
7	1.10	1.52	-	-	.76	-	1.36	-	8.15	5.17	-	1.90
8	-	1.50	1.28	1.10	-	-	1.70	9.48	8.00	5.10	2.40	-
9	-	-	1.32	1.08	-	1.85	2.20	9.40	7.80	-	2.36	1.94
10	-	-	1.32	1.04	.78	1.85	2.60	10.10	7.62	5.00	2.32	1.92
11	-	1.44	1.33	1.04	.78	1.88	-	11.08	7.55	4.90	2.30	1.88
12	-	1.40	1.34	-	-	1.88	-	11.52	7.53	4.70	2.28	1.84
13	-	1.32	1.36	1.06	-	1.90	3.02	11.24	7.51	4.62	2.24	1.80
14	-	1.26	-	1.04	1.00	1.91	3.85	11.34	7.50	4.50	2.22	1.76
15	-	1.20	-	1.02	1.02	1.94	4.96	12.20	7.39	4.45	2.20	1.76
16	1.04	-	1.32	1.00	1.02	1.96	5.80	12.52	7.45	4.30	-	1.74
17	1.02	-	1.30	1.00	1.08	1.96	6.90	10.30	7.35	4.25	2.16	-
18	1.02	1.38	1.30	-	1.08	1.98	7.70	10.30	7.35	4.12	2.14	1.72
19	-	1.42	1.28	-	1.10	2.02	8.85	10.05	7.00	3.46	2.12	1.66
20	-	1.40	1.24	1.02	1.14	2.02	9.96	10.10	6.80	3.32	2.08	-
21	1.10	1.32	-	1.02	1.26	-	9.65	9.90	6.30	3.24	2.06	1.60
22	1.22	1.24	1.24	1.00	-	-	9.55	9.60	-	3.18	2.04	-
23	1.44	-	1.22	.98	-	2.06	9.53	9.20	6.16	-	2.02	1.58
24	-	-	-	.90	1.36	2.08	-	9.00	6.17	3.10	2.00	1.56
25	1.54	1.20	1.18	-	1.48	2.08	9.50	9.10	6.17	3.02	-	1.60
26	-	1.18	1.20	.86	1.60	2.10	9.34	9.62	6.15	-	1.98	1.58
27	-	1.12	1.20	.80	1.64	2.10	9.30	10.10	6.05	2.82	1.96	-
28	1.40	1.12	-	.78	1.64	2.14	9.26	10.54	5.80	2.80	1.92	1.56
29	1.36	1.10	-	.76	1.68	1.80	9.18	10.60	5.65	2.66	1.90	1.52
30	1.30	-	1.22	.74	-	1.46	9.20	10.66	5.30	-	1.86	1.50
31	1.24	-	1.23	.74	-	1.36	-	10.78	-	2.66	1.84	-

Note.- Add 2,900.00 feet to obtain elevation above mean sea level, Somers datum.

Flathead River at Damon ranch, near Kalispell, Mont.

Location.- Staff gage, lat. 48°9', long. 114°8', in NW¼ sec. 32, T. 28 N., R. 20 W., at Damon ranch, 7 miles southeast of Kalispell. Zero of gage at mean sea level, Somers datum.

Records available.- April 1909 to July 1912, May 1928 to September 1936.

Extremes.- Maximum water-surface elevation observed during year, 2,896.94 feet May 16; minimum, 2,881.76 feet Feb. 10.

1909-12, 1928-36: Maximum water-surface elevation observed, 2,900.94 feet June 17, 1935; minimum, 2,881.50 feet Jan. 20-26, 1930.

Remarks.- Records good; used for study of profile of Flathead River above Flathead Lake.

Gage height, in feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	82.42	81.90	81.89	81.86	81.87	81.86	82.04	89.69	95.00	87.30	84.08	82.73
2	82.39	81.98	81.88	81.90	81.83	81.91	82.06	90.31	94.91	87.08	83.99	82.83
3	82.35	81.86	81.86	81.92	81.80	81.94	82.00	90.52	94.14	87.01	83.98	82.65
4	82.35	81.86	81.84	81.90	81.82	81.94	82.02	91.13	93.41	86.89	84.01	82.81
5	82.35	81.84	81.86	81.86	81.82	81.96	82.04	92.35	92.79	86.73	83.98	82.76
6	82.35	81.83	81.86	81.90	81.80	81.96	82.06	92.99	92.41	86.58	83.92	82.76
7	82.35	81.80	81.88	81.97	81.80	81.98	82.03	92.30	92.15	86.41	83.84	82.72
8	82.35	81.82	81.90	81.99	81.78	82.00	80.29	91.91	91.87	86.29	83.73	82.70
9	82.30	81.82	81.92	81.92	81.78	82.02	82.11	92.02	91.63	86.09	83.68	82.66
10	82.21	81.84	81.89	82.01	81.76	82.00	82.11	92.51	91.30	85.97	83.62	82.64
11	82.24	81.85	81.89	82.02	81.78	81.98	82.13	93.58	91.09	85.94	83.57	82.62
12	82.33	81.96	81.92	82.04	81.80	81.99	82.22	94.72	90.89	85.85	83.54	82.62
13	82.31	82.04	81.94	82.06	81.80	82.12	82.51	95.10	90.70	85.69	83.59	82.62
14	82.29	82.02	81.94	82.00	81.80	82.10	83.49	94.92	90.46	85.69	83.56	82.60
15	82.26	82.01	81.92	82.02	81.80	82.06	84.36	95.94	90.32	85.45	83.46	82.56
16	82.23	82.03	81.90	81.94	81.82	82.04	84.88	96.91	90.22	85.36	83.39	82.48
17	82.19	82.06	81.86	81.96	81.82	82.06	85.49	95.93	90.04	85.29	83.33	82.44
18	82.15	82.04	81.86	81.96	81.82	82.09	86.62	94.86	89.84	85.20	83.30	82.44
19	82.13	82.00	81.84	81.96	81.82	82.06	88.06	94.41	89.57	85.12	83.19	82.42
20	82.12	82.00	81.84	81.98	81.82	82.04	89.20	94.39	89.40	85.02	83.22	82.42
21	82.13	82.01	81.82	81.98	81.82	82.09	89.16	94.36	89.11	84.94	83.18	82.40
22	82.11	82.01	81.82	82.00	81.82	82.06	89.98	93.86	88.78	84.86	83.10	82.38
23	82.10	81.99	81.82	82.00	81.82	82.04	89.60	93.42	88.59	84.76	83.07	82.35
24	82.07	81.98	81.82	81.88	81.82	81.96	89.92	93.15	88.66	84.68	83.05	82.31
25	82.04	81.97	81.84	81.88	81.84	82.00	89.90	93.11	88.44	84.68	83.04	82.30
26	82.05	81.95	81.87	81.86	81.82	82.08	90.03	93.31	88.25	84.51	83.02	82.28
27	82.06	81.95	81.86	81.86	81.84	82.04	89.86	93.81	88.07	84.47	82.97	82.30
28	82.06	81.95	81.88	81.90	81.84	82.04	89.62	94.16	87.89	84.40	82.90	82.30
29	82.06	81.93	81.84	81.82	81.86	82.00	89.51	94.50	87.73	84.33	82.88	82.24
30	82.04	81.91	81.86	81.90	-	82.02	89.44	94.53	87.52	84.26	82.86	82.18
31	81.94	-	81.88	81.89	-	82.02	-	94.80	-	84.18	82.84	-

Note.- Add 2,800.00 feet to obtain elevation above mean sea level, Somers datum.

Flathead River near Holt, Mont.

Location.- Staff gage, lat. 48°6', long. 114°6', in NE¼ sec. 22, T. 27 N., R. 20 W., at Keller ranch, near Holt. Zero of gage at mean sea level, Somers datum.

Records available.- April 1909 to July 1912; June 1928 to September 1936.

Extremes.- Maximum water-surface elevation observed during year, 2,892.80 feet May 15; minimum, 2,881.48 feet Feb. 26-27.

1909-12, 1928-36: Maximum water-surface elevation, 2,897.35 feet May 29-30, 1928 (from floodmark); minimum, 2,881.24 feet Jan. 25-28, 1930.

Remarks.- Records fair; used for study of profile of Flathead River above Flathead Lake.

Gage height, in feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	82.38	81.64	81.70	81.58	81.58	81.52	81.68	87.96	92.32	86.80	83.80	82.50
2	82.36	81.82	81.68	81.58	81.58	81.52	81.68	88.24	92.44	86.66	83.70	82.48
3	82.34	81.80	81.68	81.58	81.58	81.52	81.66	88.40	92.30	86.52	83.66	82.46
4	82.32	81.78	81.66	81.58	81.56	81.54	81.66	88.68	92.00	86.40	83.62	82.42
5	82.30	81.76	81.64	81.58	81.56	81.54	81.68	89.26	91.70	86.22	83.58	82.42
6	82.28	81.74	81.64	81.58	81.56	81.56	81.70	89.68	91.34	86.06	83.52	82.44
7	82.26	81.76	81.62	81.58	81.56	81.58	81.72	89.68	91.08	85.90	83.48	82.42
8	82.24	81.76	81.62	81.60	81.54	81.58	81.74	89.70	90.96	85.80	83.44	82.40
9	82.22	81.74	81.62	81.60	81.54	81.60	81.76	89.78	90.68	85.72	83.38	82.38
10	82.20	81.74	81.62	81.60	81.54	81.60	81.78	90.02	90.44	85.54	83.34	82.36
11	82.18	81.76	81.60	81.62	81.54	81.60	81.80	90.62	90.16	85.44	83.30	82.34
12	82.16	81.76	81.60	81.62	81.54	81.62	81.90	91.00	90.00	85.34	83.26	82.32
13	82.14	81.74	81.58	81.64	81.54	81.62	82.10	91.42	89.76	85.28	83.20	82.30
14	82.12	81.74	81.58	81.64	81.54	81.64	82.30	91.64	89.60	85.18	83.16	82.28
15	82.10	81.72	81.58	81.64	81.54	81.62	82.68	92.12	89.42	85.10	83.12	82.26
16	82.08	81.72	81.58	81.62	81.54	81.62	83.00	92.80	89.22	85.00	83.08	82.24
17	82.10	81.72	81.58	81.62	81.54	81.64	83.44	92.78	89.10	84.90	83.04	82.22
18	82.08	81.72	81.58	81.60	81.54	81.64	84.06	92.64	88.96	84.80	83.00	82.20
19	82.06	81.70	81.58	81.60	81.54	81.64	85.10	92.50	88.74	84.72	82.96	82.18
20	82.06	81.70	81.56	81.60	81.52	81.66	85.60	92.46	88.51	84.64	82.92	82.16
21	82.06	81.72	81.58	81.62	81.52	81.66	85.90	92.42	88.30	84.56	82.88	82.14
22	82.04	81.72	81.56	81.62	81.52	81.66	86.06	92.26	88.10	84.48	82.84	82.12
23	82.04	81.74	81.56	81.62	81.50	81.68	86.60	92.00	87.96	84.40	82.80	82.10
24	82.02	81.74	81.56	81.62	81.50	81.68	86.96	91.80	87.82	84.32	82.76	82.08
25	82.02	81.74	81.56	81.62	81.50	81.68	87.22	91.62	87.64	84.22	82.72	82.06
26	82.00	81.72	81.56	81.60	81.48	81.68	87.48	91.56	87.56	84.14	82.70	82.04
27	81.98	81.72	81.56	81.60	81.48	81.70	87.66	91.66	87.42	84.08	82.66	82.02
28	81.96	81.72	81.56	81.60	81.50	81.70	87.72	91.80	87.30	84.00	82.62	82.00
29	81.92	81.70	81.56	81.60	81.50	81.70	87.76	91.90	87.18	83.96	82.58	81.98
30	81.88	81.70	81.56	81.58	-	81.70	87.82	92.02	86.98	83.92	82.54	81.96
31	81.86	-	81.58	81.58	-	81.66	-	92.20	-	83.88	82.52	-

Note.- Add 2,800.00 feet to obtain elevation above mean sea level, Somers datum.

Flathead Lake at Somers, Mont.

Location.- Water-stage recorder, lat. 48°4', long. 114°13', in NE¼ sec. 26, T. 27 N., R. 21 W., at steamboat dock at Somers. Gage readings adjusted to mean sea level, Somers datum.

Records available.- April 1922 to September 1936.

Extremes.- Maximum water-surface elevation during year, 2,892.16 feet May 19; minimum, 2,881.36 feet Feb. 11.

1922-36: Maximum water-surface elevation, 2,896.26 feet June 19, 1933; minimum, 2,881.20 feet Dec. 10, 1929.

Remarks.- Records excellent except those for Dec. 22-29, Feb. 1-21, Sept. 3-26, which are mean of observer's twice-daily readings to hundredths and are good.

Gage height, in feet, water year October 1935 to September 1936.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	82.33	81.64	81.72	81.60	81.50	81.48	81.72	87.50	91.65	86.75	83.76	82.47
2	82.51	81.62	81.70	81.62	81.50	81.49	81.73	87.62	91.80	86.58	83.65	82.43
3	82.50	81.79	81.69	81.62	81.51	81.50	81.70	87.78	91.80	86.46	83.58	82.36
4	82.28	81.78	81.68	81.63	81.49	81.52	81.69	87.97	91.70	86.33	83.56	82.35
5	82.26	81.77	81.67	81.63	81.48	81.53	81.70	88.26	91.50	86.18	83.51	82.34
6	82.25	81.76	81.67	81.63	81.42	81.55	81.72	88.63	91.21	86.03	83.47	82.34
7	82.23	81.78	81.67	81.66	81.42	81.58	81.70	88.97	90.96	85.91	83.42	82.33
8	82.20	81.80	81.67	81.66	81.41	81.69	81.70	89.17	90.77	85.80	83.36	82.30
9	82.17	81.72	81.65	81.69	81.45	81.64	81.72	89.27	90.52	85.70	83.36	82.29
10	82.14	81.75	81.64	81.69	81.49	81.63	81.73	89.41	90.27	85.58	83.32	82.28
11	82.16	81.77	81.63	81.67	81.38	81.63	81.73	89.60	90.03	85.47	83.27	82.26
12	82.18	81.78	81.66	81.68	81.42	81.67	81.75	89.92	89.80	85.38	83.24	82.20
13	82.15	81.77	81.65	81.67	81.50	81.69	81.81	90.33	89.60	85.24	83.22	82.15
14	82.10	81.77	81.63	81.64	81.49	81.70	81.94	90.69	89.40	85.17	83.17	82.14
15	82.10	81.77	81.54	81.63	81.46	81.70	82.11	91.10	89.23	85.06	83.08	82.14
16	82.09	81.77	81.55	81.62	81.49	81.70	82.33	91.51	89.08	84.97	83.05	82.11
17	82.09	81.75	81.57	81.59	81.47	81.71	82.59	91.95	88.94	84.87	83.02	82.08
18	82.07	81.75	81.58	81.56	81.48	81.71	82.92	92.07	88.79	84.80	82.96	82.07
19	82.02	81.75	81.59	81.56	81.47	81.70	83.35	92.07	88.60	84.70	82.89	82.05
20	82.00	81.74	81.57	81.55	81.48	81.69	83.86	92.06	88.40	84.61	82.88	82.05
21	81.99	81.73	81.56	81.52	81.49	81.72	84.41	91.99	88.21	84.53	82.86	82.04
22	82.00	81.73	81.56	81.53	81.49	81.70	84.87	91.90	88.02	84.46	82.80	82.04
23	82.00	81.74	81.54	81.50	81.49	81.72	85.36	91.70	87.86	84.38	82.76	82.02
24	82.00	81.75	81.56	81.49	81.48	81.71	85.83	91.50	87.76	84.33	82.72	81.96
25	82.00	81.77	81.56	81.51	81.47	81.72	86.30	91.32	87.63	84.29	82.68	81.91
26	81.98	81.76	81.56	81.50	81.48	81.75	86.64	91.19	87.49	84.17	82.63	81.90
27	82.00	81.75	81.55	81.49	81.48	81.72	86.90	91.15	87.33	84.06	82.60	81.88
28	81.90	81.74	81.58	81.49	81.46	81.75	87.12	91.20	87.18	83.99	82.57	81.87
29	81.89	81.73	81.57	81.49	81.47	81.74	87.50	91.28	87.06	83.94	82.53	81.83
30	81.88	81.72	81.58	81.48	-	81.73	87.41	91.37	86.90	83.87	82.52	81.80
31	81.87	-	81.60	81.49	-	81.70	-	91.50	-	83.82	82.50	-

Note.- Add 2,800.00 feet to obtain elevation above mean sea level.

Flathead Lake at Polson, Mont.

Location.- Water-stage recorder, lat. 47°42', long. 114°9', in SW $\frac{1}{4}$ sec. 4, T. 22 N., R. 20 W., at south end of Flathead Lake, at Polson. Gage readings adjusted to mean sea level, Somers datum.

Records available.- August 1908 to December 1926, June 1928 to September 1936.

Extremes.- Maximum water-surface elevation during year, 2,892.05 feet May 19; minimum, 2,881.36 feet Feb. 14.

1908-26, 1928-36: Maximum water-surface elevation, 2,896.26 feet June 19, 1935; minimum, that for Feb. 14, 1936.

Remarks.- Record good. Staff-gage readings to hundredths twice daily used Nov. 5-7, Feb. 7-27, Apr. 15-26, June 3-14, Aug. 9 to Sept. 30.

Gage height, in feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	82.32	81.77	81.64	81.47	81.52	81.43	81.72	87.43	91.60	86.67	83.73	82.43
2	82.29	81.72	81.63	81.52	81.49	81.44	81.73	87.54	91.68	86.54	83.69	82.34
3	82.27	81.70	81.63	81.51	81.47	81.47	81.74	87.70	91.79	86.35	83.64	82.32
4	82.26	81.66	81.63	81.55	81.46	81.48	81.75	87.85	91.66	86.22	83.56	82.31
5	82.24	81.69	81.63	81.56	81.45	81.50	81.76	88.09	91.49	86.11	83.50	82.24
6	82.22	81.67	81.59	81.58	81.52	81.50	81.76	88.48	91.39	85.99	83.47	82.27
7	82.18	81.67	81.56	81.53	81.47	81.51	81.76	89.87	91.27	85.84	83.43	82.24
8	82.19	81.65	81.55	81.49	81.43	81.53	81.77	89.05	90.79	85.71	83.39	82.22
9	82.19	81.80	81.57	81.56	81.41	81.53	81.77	89.18	90.48	85.58	83.27	82.19
10	82.13	81.70	81.52	81.57	81.39	81.56	81.77	89.31	90.24	85.49	83.22	82.14
11	82.08	81.67	81.57	81.53	81.40	81.58	81.78	89.54	89.97	85.36	83.19	82.12
12	82.01	81.68	81.56	81.49	81.39	81.57	81.78	89.86	89.74	85.28	83.19	82.20
13	82.00	81.69	81.56	81.53	81.38	81.57	81.79	90.27	89.57	85.19	83.10	82.06
14	82.05	81.70	81.57	81.59	81.37	81.58	81.80	90.62	89.39	85.10	83.08	82.01
15	82.01	81.67	81.59	81.58	81.39	81.58	81.90	90.96	89.08	85.01	83.07	82.03
16	81.96	81.66	81.56	81.61	81.39	81.60	82.23	91.39	88.96	84.92	82.87	82.05
17	81.95	81.69	81.55	81.59	81.41	81.58	82.50	91.83	88.65	84.81	82.89	82.03
18	81.94	81.67	81.54	81.59	81.39	81.60	82.86	92.03	88.65	84.73	82.91	82.01
19	81.95	81.63	81.53	81.59	81.42	81.59	83.24	92.01	88.54	84.64	82.83	82.03
20	81.95	81.61	81.53	81.60	81.41	81.64	83.81	91.97	88.39	84.56	82.70	81.96
21	81.96	81.66	81.53	81.59	81.39	81.50	84.24	91.97	88.22	84.48	82.71	81.95
22	81.95	81.66	81.49	81.58	81.41	81.50	84.90	91.76	88.04	84.40	82.66	81.90
23	81.94	81.66	81.47	81.58	81.41	81.53	85.46	91.66	87.35	84.32	82.59	81.93
24	81.93	81.66	81.51	81.62	81.42	81.56	85.76	91.45	87.66	84.21	82.55	81.93
25	81.94	81.64	81.51	81.66	81.40	81.58	86.19	91.26	87.51	84.12	82.61	82.00
26	81.91	81.63	81.54	81.61	81.39	81.60	86.59	91.12	87.39	84.09	82.55	81.93
27	81.97	81.65	81.53	81.60	81.41	81.61	86.84	91.06	87.26	84.04	82.53	81.97
28	82.03	81.65	81.52	81.59	81.42	81.64	87.07	91.10	87.07	83.97	82.54	81.95
29	82.03	81.63	81.52	81.55	81.42	81.66	87.22	91.18	86.92	83.90	82.49	81.91
30	81.92	81.66	81.52	81.53	-	81.69	87.32	91.31	86.79	83.84	82.39	81.89
31	81.78	-	81.49	81.52	-	81.71	-	91.45	-	83.79	82.39	-

Note.- Add 2,800.00 feet to obtain elevation above mean sea level.

Flathead River near Polson, Mont.

Location.- Water-stage recorder, lat. 47°39', long. 114°20', in sec. 19, T. 22 N., R. 21 W., at highway bridge at Norrisvale, 12 miles below Polson.

Drainage area.- 7,010 square miles.

Records available.- July 1907 to September 1936.

Average discharge.- 29 years, 11,670 second-feet.

Extremes.- Maximum discharge during year, 50,900 second-feet May 19 (gage height, 13.06 feet); minimum, 1,840 second-feet Apr. 1 (gage height, 1.30 feet).

1907-36: Maximum discharge, 82,100 second-feet May 29, 30, 1928 (gage height, 17.1 feet); minimum, 1,360 second-feet Dec. 9-14, 1919, Mar. 14, 1920 (gage height, -0.1 foot).

Remarks.- Records good except those for period of ice effect, Feb. 8-26 (computed on basis of observer's notes, weather records, and comparative stages of Flathead Lake at Polson) and those for period of no gage-height record, Dec. 8-29, Dec. 31 to Jan. 3 (computed on basis of comparative stages of Flathead Lake at Polson), which are fair. Several small diversions from tributaries above Flathead Lake. Flow somewhat regulated by natural storage in Flathead Lake.

Rating table, water year 1935-36 except period of ice effect (gage height, in feet, and discharges, in second-feet)

1.2	1,750	2.5	3,320	5.5	8,890	10.0	30,800
1.4	1,930	3.0	3,880	6.0	10,400	11.0	37,120
1.5	2,130	3.5	4,640	6.5	11,960	12.0	43,600
1.8	2,340	4.0	5,500	7.0	13,880	13.0	50,200
2.0	2,570	4.5	6,510	8.0	16,900		
2.3	2,930	5.0	7,600	9.0	24,600		

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	3,320	2,570	2,340	2,030	2,030	2,180	1,840	23,400	48,200	18,900	7,160	3,600
2	3,320	2,570	2,280	2,080	2,030	2,340	1,880	24,000	48,900	18,400	7,160	3,530
3	3,320	2,400	2,280	2,080	1,980	2,230	1,930	25,200	48,900	17,300	6,940	3,530
4	3,260	2,400	2,280	1,930	1,980	2,030	1,980	25,800	48,200	16,800	6,510	3,590
5	3,190	2,400	2,230	2,340	1,980	2,180	2,030	27,100	47,600	16,300	6,300	3,590
6	3,190	2,340	2,250	2,250	1,930	2,230	*2,130	29,600	45,600	15,800	5,090	3,390
7	3,120	2,340	2,250	2,180	1,930	2,130	2,230	32,100	44,200	14,800	5,890	3,320
8	3,120	2,250	2,150	2,030	1,930	2,230	2,280	32,700	42,300	14,300	5,890	3,390
9	3,190	2,870	2,180	2,130	1,880	2,230	2,230	34,000	41,000	13,900	5,890	3,260
10	3,060	2,400	2,080	2,130	1,880	2,130	2,130	34,600	39,700	13,500	5,500	3,120
11	2,930	2,400	2,180	2,130	1,880	2,230	2,180	35,800	37,800	12,700	5,500	3,120
12	2,810	2,340	2,230	2,030	1,880	2,130	2,280	37,100	36,500	12,700	5,320	3,120
13	2,750	2,340	2,180	2,080	1,840	*2,120	2,400	39,700	35,800	12,300	5,140	3,000
14	2,870	2,400	2,180	2,180	1,840	*2,110	2,450	41,600	34,600	12,000	5,140	2,870
15	2,810	2,400	2,230	2,180	1,840	*2,100	3,060	44,200	33,300	11,700	5,140	2,870
16	2,750	2,280	2,180	2,230	1,880	*2,090	3,460	46,200	32,100	11,300	4,960	2,930
17	2,690	2,400	2,130	2,180	1,880	2,080	3,740	49,500	31,400	11,000	4,800	2,930
18	2,690	2,340	2,130	2,180	1,880	2,230	3,880	50,200	30,200	10,700	4,800	2,870
19	2,690	2,280	2,130	2,180	1,880	2,130	4,480	50,200	29,600	10,400	4,640	2,810
20	2,690	2,230	2,130	2,230	1,880	*2,060	5,020	50,200	28,300	10,100	4,640	2,810
21	2,750	2,230	2,130	2,180	1,880	1,980	9,180	49,500	27,700	9,780	4,180	2,750
22	2,750	2,280	2,030	2,130	1,880	2,280	11,000	48,900	26,500	9,480	4,330	2,570
23	2,690	2,340	2,030	2,130	1,890	2,180	12,700	48,200	25,200	9,180	4,180	2,810
24	2,690	2,340	2,080	2,250	1,900	2,130	14,800	46,900	24,600	8,610	4,030	2,690
25	2,690	2,280	2,080	2,230	1,910	2,080	16,800	46,200	24,000	8,340	4,030	2,870
26	2,690	2,280	2,130	2,180	1,920	2,570	18,400	44,900	22,800	8,340	4,030	2,630
27	2,570	2,340	2,130	2,230	1,930	2,340	20,000	44,900	22,200	8,080	3,880	2,630
28	2,810	2,280	2,080	2,180	1,930	2,130	21,600	44,900	20,500	7,830	3,880	2,570
29	2,930	2,230	2,080	2,130	1,920	2,180	22,200	45,600	20,500	7,600	3,740	2,630
30	2,570	2,340	2,030	2,080	-	2,130	22,800	46,200	20,000	7,600	3,740	2,690
31	2,570	-	2,010	2,080	-	1,930	-	46,900	-	7,160	3,600	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acres-feet
October.....	89,480	3,320	2,570	2,886	0.412	0.48	177,500
November.....	70,870	2,870	2,320	2,562	.337	.38	140,600
December.....	66,820	2,340	2,010	2,155	.307	.35	132,500
Calendar year 1935.....	3,994,520	49,500	2,010	10,940	1.56	21.21	7,923,000
January.....	66,640	2,340	1,930	2,150	.307	.35	132,200
February.....	55,450	2,030	1,840	1,912	.273	.29	110,000
March.....	67,120	2,570	1,930	2,165	.309	.36	133,100
April.....	225,230	22,800	1,840	7,507	1.07	1.19	446,700
May.....	1,246,300	50,200	23,400	40,200	5.73	6.61	2,472,000
June.....	1,018,100	48,900	20,000	33,940	4.84	5.40	2,019,000
July.....	366,900	16,900	7,160	11,900	1.70	1.96	727,700
August.....	156,870	7,160	3,600	5,060	.722	.83	311,100
September.....	90,090	3,600	2,570	3,003	.428	.48	175,700
Water year 1935-36.....	3,519,870	50,200	1,840	9,617	1.37	18.68	6,981,000

*Interpolated.

South Fork of Flathead River near Columbia Falls, Mont.

Location.- Water-stage recorder, lat. 48°22'30", long. 114°3', in NE¼ sec. 17, T. 30 N., R. 19 W., 2 miles above mouth and 9 miles east of Columbia Falls.

Drainage area.- 1,640 square miles.

Records available.- September 1910 to September 1916, April 1923 to September 1936.

Average discharge.- 13 years (1923-36), 3,612 second-feet.

Extremes.- Maximum discharge during year, 31,200 second-feet May 15 (gage height, 16.38 feet); minimum, 206 second-feet Dec. 6 (gage height, 0.44 foot, ice on control).
1910-16, 1923-36: Maximum discharge, about 46,200 second-feet June 19, 1916 (gage height, 16.6 feet); minimum, that for Dec. 6, 1935.

Remarks.- Records excellent except those for periods of ice effect, Nov. 2-3, Dec. 1-29, Jan. 1 to Apr. 8 (computed on basis of two discharge measurements, gage heights, and weather records) and those for Oct. 1-6, Oct. 14-27, Apr. 15-17, July 29 to Aug. 6, which are fair. No diversions above station. No storage.

Rating table, water year 1935-36 (gage height, in feet, and discharge, in second-feet)

0.7	195	2.2	1,000	5.5	4,560	10.0	13,000
.8	230	2.4	1,140	6.0	5,270	11.0	15,600
1.0	310	2.8	1,440	6.5	6,080	12.0	18,300
1.2	400	3.2	1,780	7.0	6,980	13.0	21,140
1.4	505	3.6	2,190	7.5	7,880	14.0	24,040
1.6	620	4.0	2,640	8.0	8,780	15.0	27,000
1.8	740	4.5	3,240	8.5	9,730	16.0	30,000
2.0	870	5.0	3,860	9.0	10,740		

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1		355	324			410	332	12,000	20,800	2,700	*903	494
2		360	306			478	324	11,300	18,000	2,620	*886	500
3		364	294			522	324	13,200	13,200	2,410	*870	538
4	†475	368	242			578	345	17,500	10,100	2,300	*854	544
5		366	216			544	364	22,000	8,780	2,190	*838	560
6		396	209			510	373	19,400	8,240	2,080	*821	608
7	440	405	212			505	400	15,100	8,240	1,980	805	572
8	440	425	270			494	620	13,200	8,240	1,930	779	549
9	450	450	294			578	692	13,500	7,700	1,880	753	532
10	450	415	328			584	668	16,100	7,340	1,830	728	516
11	445	435	314			560	824	21,400	7,160	1,780	710	500
12	461	420	324			516	1,968	24,600	7,160	1,740	704	494
13	488	450	346			532	4,420	23,800	7,160	1,650	693	488
14		435	378			500	5,580	25,200	6,980	1,570	692	494
15		400	360			505	*7,180	30,000	6,800	1,520	668	522
16	†460	405	360			488	*8,790	27,000	6,980	1,480	656	510
17		415	342			505	*10,400	20,300	6,440	1,400	638	505
18		396	306			483	12,000	16,600	5,910	1,360	620	488
19		386	246			478	14,800	14,300	5,270	1,280	614	485
20		386	234			483	16,100	15,100	4,690	1,250	608	478
21		391	268			483	14,300	14,000	4,410	1,210	596	472
22		400	286			461	14,500	11,800	4,270	1,180	584	461
23		386	355			445	16,100	10,700	4,270	1,140	578	456
24	†460	396	405			435	14,300	10,500	4,410	1,100	566	456
25		396	391			415	14,500	11,600	4,270	1,070	572	461
26		391	368			420	14,000	14,500	3,990	1,040	560	472
27		378	364			400	12,500	17,800	3,730	1,000	554	461
28	425	368	337			378	10,700	19,400	3,480	968	544	450
29	415	360	346			319	9,730	19,700	3,400	*952	532	440
30	360	355	355			332	9,930	19,700	2,940	*935	516	430
31	337	-	346			342	-	21,100	-	*919	505	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acre-feet
October.....	13,961	488	337	451	0.275	0.32	27,750
November.....	11,873	450	355	396	.241	.27	23,550
December.....	9,716	405	209	315	.191	.22	19,270
Calendar year 1935.....	1,126,224	26,100	209	3,066	1.88	25.54	2,234,000
January.....	10,725	-	-	346	.211	.24	21,270
February.....	10,125	-	-	349	.213	.23	20,080
March.....	14,683	584	319	474	.289	.33	29,120
April.....	216,657	16,100	324	7,222	4.40	4.91	429,700
May.....	541,400	30,000	10,500	17,460	10.6	12.22	1,074,000
June.....	214,200	20,800	2,940	7,140	4.35	4.86	424,200
July.....	48,364	2,700	919	1,560	.951	1.10	95,930
August.....	20,952	903	505	676	.412	.48	41,560
September.....	14,934	608	430	498	.304	.34	29,620
Water year 1935-36.....	1,127,620	30,000	209	3,081	1.88	25.51	2,237,000

* Interpolated.

† Estimated.

Stillwater River near Whitefish, Mont.

Location.- Water-stage recorder, lat. 48°19', long. 114°23', in SW¼ sec. 34, T. 30 N., R. 22 W., 800 feet below highway bridge and 7 miles southwest of Whitefish.

Records available.- November 1930 to September 1936.

Extremes.- Maximum discharge during year, 1,750 second-feet Apr. 28 (gage height, 10.70 feet); minimum (estimated), 60 second-feet Feb. 6-20; stage-discharge relation affected by ice.

1930-36: Maximum discharge, 2,680 second-feet Apr. 28, 1934 (gage height, 14.47 feet); minimum, 58 second-feet Sept. 5-7, 1931; minimum gage height, 0.82 foot Sept. 6, 1931.

Remarks.- Records good except those for period of ice effect, Oct. 30 to Apr. 13, which are fair and were computed on basis of three discharge measurements, gage heights, and weather records. Some water stored and released for logging operations during summer. No diversions.

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	96	92	81	100	70	85	72	1,620	785	314	117	71
2	96	88	98	94		84	73	1,530	785	306	114	70
3	96	89	92	91		86	73	1,450	747	292	114	71
4	96	92	85	91		86	73	1,410	728	278	112	72
5	95	92	85	91		84	71	1,380	709	271	112	73
6	94	92	78	88	60	84	73	1,380	673	258	109	78
7	94	94	91	91		84	73	1,430	637	212	106	83
8	94	92	87	101		86	74	1,430	619	212	103	84
9	93	100	90	96		93	82	1,430	619	212	100	84
10	93	104	91	96		88	94	1,390	601	206	98	82
11	93	89	90	96	60	88	98	1,540	583	206	94	81
12	93	100	94	99		87	94	1,500	566	199	93	80
13	93	100	97	107		86	129	1,500	532	192	92	79
14	94	100	96	110		86	212	1,500	515	192	90	79
15	94	99	94	110		85	244	1,500	498	186	88	79
16	94	98	95	100	75	84	328	1,300	498	180	86	79
17	94	100	96	97		84	414	1,320	498	174	84	79
18	94	104	81	99		84	566	1,300	481	168	82	78
19	94	92	80	91		86	805	1,260	464	162	80	78
20	97	117	75	90		86	985	1,180	447	156	79	77
21	100	105	76	96	75	88	1,100	1,100	430	151	77	76
22	102	100	81	101		86	1,220	1,040	414	151	76	76
23	103	98	88	104		87	1,320	985	398	146	76	75
24	102	100	89	98		87	1,430	925	390	139	75	74
25	102	100	94	94		87	1,530	865	382	134	76	73
26	103	99	98	89	-	83	1,620	805	374	130	76	73
27	103	99	100	83		82	1,700	845	358	127	76	73
28	102	103	104	84		83	1,750	805	358	126	75	73
29	102	100	103	84		84	1,730	785	344	126	74	72
30	90	103	101	75		81	1,680	785	328	124	73	72
31	80	100	100	82	-	79		785		120	73	
Month						Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet		
October.....						2,976	103	80	96.0	5,900		
November.....						2,941	117	88	98.0	5,830		
December.....						2,799	104	75	90.3	5,550		
Calendar year 1935.....						145,026	2,220	75	397	287,600		
January.....						2,927	110	75	94.4	5,810		
February.....						1,925	-	-	66.4	3,820		
March.....						2,643	93	79	85.3	5,240		
April.....						19,713	1,750	71	657	39,100		
May.....						37,065	1,620	75	1,196	75,520		
June.....						15,761	795	328	525	31,260		
July.....						5,850	314	120	189	11,600		
August.....						2,780	117	73	89.7	5,510		
September.....						2,294	84	70	76.5	4,550		
Water year 1935-36.....						90,674	1,750	-	272	197,700		

Logan Creek at Tally Lake, near Whitefish, Mont.

Location.- Staff gage, lat. $48^{\circ}27'$, long. $114^{\circ}34'$, in NW $\frac{1}{4}$ sec. 17, T. 31 N., R. 23 W., about $2\frac{1}{2}$ miles north of Tally Lake and 10 miles west of Whitefish. Prior to Sept. 16, 1934, staff gage at site $2\frac{1}{2}$ miles above.

Records available.- April to September 1936. August 1931 to April 1933, May to September 1934 comparable records at site about $2\frac{1}{2}$ miles above.

Extremes.- Maximum discharge observed during period, 900 second-feet Apr. 28 (gage height, 3.66 feet); minimum, 5.1 second-feet Sept. 1 (gage height, 1.09 feet). 1931-33, 1934, 1936: Maximum stage, 7.22 feet May 28-29, 1933 (discharge not computed); minimum discharge, 0.8 second-foot Sept. 6, 1931.

Remarks.- Records fair. Natural storage in Tally Lake.

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	
1							-	680	134	43	9.1	5.1	
2							-	645	125	41	8.8	5.3	
3							-	610	118	38	9.4	5.5	
4							-	578	111	36	9.4	5.5	
5							-	578	102	34	8.4	6.5	
6							-	578	98	32	8.4	8.1	
7							-	610	98	31	7.8	9.1	
8							-	610	100	30	7.8	8.8	
9							-	578	100	30	7.2	9.1	
10							-	515	102	29	7.2	9.4	
11							-	485	98	29	6.8	9.8	
12							-	485	98	26	6.8	9.4	
13							-	485	94	25	6.8	9.4	
14							-	458	90	24	6.2	8.8	
15							-	430	86	24	6.0	8.8	
16							-	408	82	24	6.0	8.4	
17							-	385	80	22	6.0	8.8	
18							-	364	78	22	5.5	9.1	
19							-	342	74	21	5.3	9.1	
20							-	303	71	19	5.1	9.1	
21							-	284	67	19	5.1	9.1	
22							-	266	64	18	5.1	9.1	
23							-	249	60	17	5.1	9.1	
24							-	232	57	16	5.1	9.1	
25							-	216	57	14	5.1	9.1	
26							-	200	57	14	5.3	9.4	
27							-	185	56	13	5.3	9.4	
28								900	173	51	5.3	9.4	
29								850	160	48	11	5.3	9.4
30								805	152	45	11	5.3	9.4
31							-	142	-	9.8	5.3	-	
Month						Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet			
October.....													
November.....													
December.....													
Calendar year													
January.....													
February.....													
March.....													
April.....													
May.....						12,386	680	142	400	24,570			
June.....						2,501	134	45	83.4	4,960			
July.....						734.8	43	9.8	23.7	1,460			
August.....						201.3	9.4	5.1	6.49	399			
September.....						255.6	9.8	5.1	8.52	507			
The period.....										31,900			

Whitefish Creek near Kalispell, Mont.

Location.- Water-stage recorder, lat. 48°19', long. 114°16', in SW $\frac{1}{4}$ sec. 34, T. 30 N., R. 21 W., 8 miles north of Kalispell.

Records available.- November to December 1906, July 1928 to September 1936.

Extremes.- Maximum discharge during year, 856 second-feet May 17 (gage height, 3.25 feet); maximum stage observed, 4.26 feet Mar. 12 (ice jam); minimum discharge, 7.0 second-feet Nov. 6 (gage height, 0.88 foot).
1906, 1928-36: Maximum discharge, 1,260 second-feet June 3, 1932 (gage height, 4.26 feet); minimum, 4.5 second-feet Oct. 18, 1934 (gage height, 0.83 foot).

Remarks.- Records good except those for periods of ice effect, Oct. 29 to Nov. 3, Nov. 9-15, 17-18, Dec. 1-8, 16-28, Jan. 6-23, Jan. 26 to Mar. 15, Mar. 28 to Apr. 5, which are fair and were computed on the basis of three discharge measurements, temperature records, and observer's notes. Some regulation at Whitefish Lake. No diversions.

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	9.8	14	24	39	15	98	96	547	690	174	88	62
2	9.8	13	17	39		126	86	556	668	167	86	64
3	9.8	13	17	39		126	80	556	622	164	86	157
4	164	15	15	39		151	88	600	600	157	86	145
5	164	8.9	13	39		224	98	622	578	148	83	145
6	8.0	7.5	24	40	15	231	104	622	538	148	83	138
7	62	27	35			231	104	645	516	138	83	138
8	157	101	44			231	104	622	512	138	80	138
9	157	164	23			260	115	622	503	129	80	132
10	157	120	23			340	115	622	490	129	78	126
11	154	78	20	25	15	316	132	645	468	126	78	126
12	151	18	23			407	142	690	450	123	78	120
13	148	21	23			357	170	690	442	120	78	88
14	142	30	20			316	148	736	424	118	46	68
15	142	33	20			238	148	783	411	115	24	68
16	135	44	17	25	30	224	164	831	407	115	21	62
17	129	52	12			246	190	856	395	112	21	62
18	126	59	12			231	224	831	382	109	21	57
19	120	46	11			224	272	831	365	109	20	57
20	57	50	11			217	320	807	324	106	21	57
21	37	68	11	25	60	217	340	807	197	104	21	57
22	35	48	9.8			204	357	783	187	104	23	57
23	37	39	9.8			190	395	736	193	101	21	55
24	37	35	11			163	399	713	187	98	20	48
25	35	31	13			170	481	690	187	98	27	46
26	31	26	17	-	-	164	512	668	197	98	46	46
27	30	27	39			164	503	668	204	96	46	46
28	28	25	50			157	516	668	204	93	44	44
29	23	25	59			126	525	668	190	90	44	46
30	17	25	50			115	550	668	190	90	55	46
31	16	-	39			93	-	690	-	88	62	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October.....	2,528.4	164	8.0	81.6	5,020
November.....	1,255.4	164	7.5	42.2	2,510
December.....	712.6	59	9.8	23.0	1,410
Calendar year 1935.....	76,292.2	905	7.5	209	151,300
January.....	920	-	-	29.7	1,820
February.....	740	-	-	25.6	1,470
March.....	8,577	407	93	212	13,050
April.....	7,458	550	80	249	14,790
May.....	21,473	856	187	693	42,590
June.....	11,721	690	187	391	23,250
July.....	3,705	174	88	120	7,350
August.....	1,650	88	20	53.2	3,270
September.....	2,481	157	44	82.7	4,920
Water year 1935-36.....	61,231.4	856	7.5	167	121,400

Ashley Creek near Kalispell, Mont.

Location.- Wire-weight gage, lat. 48°11', long. 114°24', in SE¼ sec. 18, T. 28 N., R. 22 W., 4 miles west of Kalispell.

Records available.- April 1931 to March 1933, April 1934 to September 1936.

Extremes.- Maximum discharge observed during year, 154 second-feet May 5 (gage height, 8.16 feet); no flow Aug. 18-21.

1931-36: Maximum discharge observed, 285 second-feet Apr. 26, 1934 (gage height, 9.30 feet); no flow various periods.

Remarks.- Records fair except those for periods of ice effect, Oct. 29 to Nov. 20, Dec. 3 to Jan. 20, Feb. 1 to Mar. 4, Mar. 28 to Apr. 6, which were computed on basis of four discharge measurements and weather records and are poor. Some diversions and natural storage in Smith Lake.

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	12		9.5					148	26	40	2.8	3.3
2	12		9.5					148	27	37	2.0	3.6
3	12	5		6	0.7	10	5.5	142	29	37	2.0	4.2
4	12		7					148	33	37	2.4	4.4
5	12						7.5	154	33	36	2.2	4.4
6	13							154	29	34	1.8	4.7
7	13					13		154	32	35	1.9	5.2
8	12	6	5	6			16	148	36	33	1.7	4.7
9	12					17	36	148	40	32	1.2	4.3
10	12					16	37	136	43	28	1.2	4.1
11	14					14	40	130	43	26	.8	3.5
12	14					14	40	124	49	21	.8	3.3
13	13	7	6.5	6	1.0	14	43	119	49	18	.5	3.3
14	11					14	49	119	49	17	.4	3.0
15	12					15	56	114	49	15	.3	2.8
16	10					17	64	114	49	13	0	2.2
17	9.2					43	72	104	53	12	0	2.4
18	10	7	6.5	4.5		43	80	99	53	11	0	2.6
19	9.2					43	85	94	49	9.2	0	2.8
20	8.8				1.0	49	85	94	46	9.0	0	2.7
21	9.0	6.2		4.5		53	89	85	46	7.6	0	2.7
22	9.8	6.4		4.4		23	94	80	46	7.8	.1	2.8
23	9.0	7.0	4.5	4.5	1.5	25	104	72	43	7.0	.5	2.6
24	7.2	8.0		5.6		22	109	64	49	6.2	1.1	2.0
25	5.6	8.6		4.9		18	124	60	46	5.8	1.2	.9
26	6.8	9.2		4.4		17	136	56	46	4.5	1.8	1.8
27	7.6	9.5		3.8	2.0	6.6	136	49	46	4.0	2.3	1.7
28	7.2	8.5	5.5	3.2			142	46	45	4.1	2.8	1.9
29	6.4	9.5		2.0		5	142	40	43	3.5	3.0	1.8
30	5.8	9.5		.9	-		148	35	40			.5
31	5.5	-		.8	-		-	33	-	3.2	3.2	-
Month						Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet		
October.....						313.1	14	5.5	10.1	621		
November.....						208.4	9.5	-	6.95	413		
December.....						185.5	9.5	-	5.98	368		
Calendar year 1935.....						12,188.1	166	3.5	33.4	24,180		
January.....						151.5	-	.8	4.89	300		
February.....						33.4	-	-	1.15	66		
March.....						575.6	53	-	18.6	1,140		
April.....						1,998	148	-	66.6	3,960		
May.....						3,211	154	33	104	6,370		
June.....						1,265	53	26	42.2	2,510		
July.....						557.3	40	3.2	18.0	1,110		
August.....						41.1	3.2	0	1.33	82		
September.....						90.2	5.2	.5	3.01	179		
Water year 1935-36.....						8,630.1	154	0	23.6	17,120		

Swan River near Big Fork, Mont.

Location.- Water-stage recorder, lat. 48°1'(revised), long. 113°59', in NW¼ sec. 14, T. 26 N., R. 19 W., at outlet of Swan Lake, 7 miles southeast of Big Fork.

Drainage area.- 647 square miles.

Records available.- April 1922 to September 1936. October 1910 to May 1911, 2 miles above Swan Lake.

Average discharge.- 14 years (1922-36), 1,192 second-feet.

Extremes.- Maximum discharge during year, 6,180 second-feet May 17 (gage height, 5.97 feet); minimum, 279 second-feet Feb. 16 (gage height, 2.02 feet).
1922-36: Maximum discharge, 8,280 second-feet May 24, 1933 (gage height, 7.00 feet); minimum, 85 second-feet Jan. 24-29, 1930 (gage height, 0.04 foot).

Remarks.- Records good. Observer's readings, once daily, used Oct. 13-22, Nov. 28-30, Feb. 7-23, May 21-31, June 16 to July 10, Sept. 5-26. No diversions above station. Natural storage in Swan Lake.

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	356	327	350	321	288	327	327	3,130	5,350	1,420	526	333
2	344	315	339	333	288	339	310	2,970	5,550	1,290	510	327
3	344	315	333	344	288	362	310	2,970	5,150	1,220	518	339
4	339	310	327	350	288	386	306	3,050	4,650	1,180	533	356
5	350	315	321	356	292	404	310	3,300	4,050	1,170	526	356
6	356	327	315	356	297	411	327	3,650	3,380	1,090	510	368
7	356	339	310	344	288	404	333	4,050	3,050	1,050	483	386
8	356	356	315	333	288	417	344	3,750	2,890	1,020	462	398
9	356	362	321	344	288	429	362	3,470	2,510	1,010	449	386
10	350	374	339	344	288	429	386	3,300	2,730	969	442	386
11	350	380	339	368	288	429	423	3,300	2,650	932	435	374
12	356	386	344	380	288	423	503	3,660	2,500	914	435	350
13	327	386	350	386	297	417	658	4,150	2,500	896	435	350
14	327	392	350	386	297	411	887	4,650	2,420	851	423	350
15	327	386	350	386	288	411	1,160	5,050	2,420	824	411	362
16	327	374	350	380	279	404	1,560	5,550	2,420	806	404	362
17	327	368	333	374	288	386	2,050	5,970	2,420	779	392	362
18	327	362	315	362	297	380	2,570	5,760	2,420	752	386	362
19	327	356	321	368	297	374	3,050	5,050	2,270	726	380	362
20	339	344	310	368	306	374	3,750	4,650	2,180	709	374	380
21	344	344	306	356	306	380	4,250	4,250	1,980	700	374	386
22	344	344	302	362	306	386	4,450	3,850	1,910	675	362	344
23	350	356	302	350	315	392	4,450	3,470	1,640	650	350	344
24	356	362	302	362	321	386	4,650	3,210	1,810	634	350	344
25	374	368	315	356	315	380	4,750	2,970	1,800	610	368	333
26	386	368	310	350	321	380	4,750	2,970	1,800	586	362	333
27	380	368	310	321	315	386	4,650	3,210	1,710	586	362	344
28	374	362	315	306	315	392	4,250	3,750	1,660	563	356	344
29	374	362	321	302	321	380	3,750	4,150	1,570	556	356	339
30	344	350	321	292	-	374	3,380	4,750	1,420	548	344	321
31	333	-	321	288	-	362	-	5,050	-	533	339	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acre-feet
October.....	10,800	386	327	348	0.538	0.62	21,420
November.....	10,658	392	310	355	.549	.61	21,140
December.....	10,057	350	302	324	.501	.58	19,950
Calendar year 1935	358,937	4,550	302	983	1.52	20.64	712,000
January.....	10,828	386	288	349	.539	.62	21,480
February.....	8,653	321	279	298	.461	.50	17,160
March.....	12,115	429	327	391	.604	.70	24,030
April.....	63,256	4,750	306	2,109	3.26	3.64	125,500
May.....	123,160	5,970	2,970	3,973	6.14	7.08	244,300
June.....	81,250	5,550	1,420	2,708	4.19	4.65	161,200
July.....	26,249	1,420	533	847	1.31	1.51	52,060
August.....	12,957	533	339	418	.646	.74	25,700
September.....	10,681	386	321	356	.550	.61	21,190
Water year 1935-36.....	380,664	5,970	279	1,040	1.61	21.89	755,100

Priest Lake at outlet, near Coolin, Idaho

Location.- Staff gage, lat. 48°29'30", long. 116°54', in W $\frac{1}{2}$ sec. 5, T. 59 N., R. 4 W., 400 feet north of lake outlet and 2 miles northwest of Coolin. Zero of gage is 2,435.06 feet above mean sea level, U. S. Coast and Geodetic Survey datum, or 2,437.99 feet, U. S. Geological Survey datum (Bulletin 567).

Drainage area.- 572 square miles.

Records available.- April 1928 to September 1936. Fragmentary gage-height records at Coolin from June 1911 to September 1913 are published in connection with the station on Priest River at outlet of Priest Lake, at Coolin.

Extremes.- Maximum gage height observed during year, 4.68 feet May 16-18; minimum, 0.03 foot Sept. 30.
1928-36: Maximum gage height, 5.94 feet May 23, 1932; minimum, -0.10 foot Oct. 16-18, 1934.

Remarks.- Records good.

Gage height, in feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.26	0.20	0.30	0.38	0.38	0.38	0.42	4.06	3.64	1.70	0.70	0.12
2	.26	.20	.28	.42	.38	.40	.42	4.10	3.52	1.68	.68	.10
3	.26	.20	.28	.45	.36	.38	-	4.16	3.46	1.62	.67	.18
4	.24	.20	.28	.49	.36	.36	.40	4.24	3.42	1.60	.66	.18
5	.24	.20	.28	.49	.36	.36	.40	4.38	3.34	1.58	.64	.26
6	.23	.20	.28	.49	.36	.36	.40	4.50	3.20	1.52	.60	.26
7	.22	.20	.28	.49	.36	.36	.40	4.52	3.10	1.50	.58	.27
8	.22	.20	.28	.49	.36	.38	.40	4.46	3.04	1.48	.56	.28
9	.22	.20	.28	.50	.36	.38	.40	4.40	2.98	1.44	.54	.22
10	.21	.20	.28	.50	.36	.38	.43	4.42	2.92	1.40	.51	.18
11	.18	.20	.28	.50	.34	.39	.42	4.42	2.85	1.36	.50	.14
12	.16	.22	.35	.50	.34	.40	.44	4.50	2.80	1.34	.48	.11
13	.18	.24	.34	.50	.32	.42	.48	4.54	2.70	1.32	.44	.12
14	.18	.24	.34	.50	.30	.48	.50	4.58	2.62	1.30	.42	.14
15	.20	.25	.30	.50	.30	.46	.60	4.64	2.54	1.28	.38	.16
16	.22	.28	.28	.51	.30	.44	.72	4.68	2.48	1.26	.38	.17
17	.20	.28	.28	.51	.30	.44	.88	4.68	2.44	1.19	.36	.14
18	.20	.28	.28	.52	.30	.44	1.16	4.68	2.40	1.15	.36	.13
19	.24	.28	.28	.52	.32	.44	1.48	4.68	2.39	1.12	.34	.12
20	.30	.28	.30	.53	.32	.44	1.86	4.48	2.38	1.10	.31	.12
21	.30	.28	.30	.54	.32	.44	2.20	4.46	2.30	1.08	.30	.12
22	.28	.29	.30	.56	.32	.44	2.44	4.30	2.24	1.06	.28	.10
23	.26	.30	.28	.56	.32	.44	3.00	4.16	2.18	1.03	.26	.08
24	.26	.30	.28	.54	.33	.44	3.20	4.06	2.10	1.00	.24	.08
25	.26	.32	.28	.50	.36	.44	3.40	3.96	2.06	.96	.24	.08
26	.26	.32	.30	.48	.34	.44	3.58	3.80	2.02	.90	.23	.08
27	.26	.32	.30	.46	.35	.45	3.86	3.72	1.96	.86	.22	.06
28	.26	.34	.32	.44	.35	.42	3.95	3.76	1.86	.82	.20	.05
29	.24	.32	.34	.42	.36	.43	4.01	3.73	1.80	.70	.18	.04
30	.23	.30	.34	.41	.36	.45	4.02	3.66	1.76	.76	.16	.03
31	.22		.36	.42		.44		3.66		.74	.14	

Priest River at outlet of Priest Lake, near Coolin, Idaho

Location.- Water-stage recorder, lat. 48°25', long. 116°54', in SW¼ sec. 5, T. 59 N., R. 4 W., at southwest end of Priest Lake, 2 miles northwest of Coolin. Zero of gage is 2,435.03 feet above mean sea level, U. S. Coast and Geodetic Survey datum, or 2,437.99 feet, U. S. Geological Survey datum (Bulletin 567).

Drainage area.- 572 square miles.

Records available.- June 1911 to September 1918 (fragmentary); May 1919 to September 1936.

Average discharge.- 22 years (1913-18, 1919-36), 1,090 second-feet.

Extremes.- Maximum discharge during year, 4,540 second-feet May 16, 17, 18; maximum gage height, 4.13 feet May 16; minimum discharge, 159 second-feet Sept. 30 (gage height, -0.17 foot).

1911-36: Maximum discharge, 7,290 second-feet May 30, 1917 (gage height, 6.83 feet); minimum, 120 second-feet Dec. 7, 1929; minimum gage height, -0.21 foot Oct. 11, 1934.

Remarks.- Records good except those for Feb. 9-21 May 30 to June 5, which were computed on basis of Priest Lake stages and record for station near Priest River because of missing gage heights and are fair. No diversions above station.

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	240	200	218	263	266	253	277	3,540	2,900	950	392	200
2	240	192	218	284	260	246	274	3,620	2,800	948	357	206
3	237	183	215	288	260	243	274	3,780	2,700	932	378	206
4	233	180	218	298	256	243	274	3,340	2,600	925	374	209
5	227	180	212	302	260	246	274	4,030	2,500	902	365	224
6	221	183	215	298	266	246	270	4,200	2,360	895	357	227
7	218	178	221	302	265	250	270	4,200	2,300	858	344	227
8	218	180	224	298	256	263	270	4,200	2,230	855	332	221
9	209	189	221	302	260	270	270	4,120	2,160	830	325	218
10	206	183	224	302	260	270	270	4,120	2,100	790	315	212
11	203	183	230	306	250	266	274	4,120	2,040	776	309	206
12	194	192	237	313	250	270	277	4,200	1,920	755	302	203
13	197	197	237	325	240	274	294	4,280	1,850	734	288	200
14	200	194	233	325	240	280	309	4,370	1,800	713	280	200
15	200	194	233	325	240	288	349	4,370	1,740	693	277	197
16	203	200	230	321	240	291	392	4,540	1,740	673	265	194
17	209	200	230	317	240	288	470	4,540	1,680	653	256	192
18	209	203	227	313	240	284	615	4,540	1,630	627	260	186
19	224	200	227	313	240	280	835	4,370	1,580	621	260	186
20	227	200	224	313	240	277	1,070	4,200	1,510	602	243	186
21	221	203	221	309	240	274	1,340	4,030	1,460	583	237	180
22	221	200	221	309	246	274	1,630	3,660	1,410	560	233	178
23	221	203	221	306	246	277	1,920	3,700	1,350	536	227	175
24	215	209	221	302	246	277	2,230	3,540	1,300	502	224	175
25	215	209	230	298	246	274	2,560	3,380	1,250	486	224	172
26	215	212	233	294	246	274	2,920	3,300	1,200	475	221	167
27	212	212	237	291	246	277	3,140	3,220	1,130	460	218	164
28	221	215	237	288	246	280	3,380	3,140	1,060	450	215	162
29	240	218	240	280	246	280	3,460	3,140	1,050	434	209	162
30	212	215	246	277	-	284	3,540	3,000	1,020	419	203	162
31	203	-	253	274	-	284	-	3,000	-	401	200	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acres-feet
October.....	6,711	240	194	216	0.378	0.44	13,310
November.....	5,907	218	178	197	.344	.38	11,720
December.....	7,054	253	212	228	.399	.46	13,990
Calendar year 1935	415,625	5,040	178	1,139	1.99	27.03	824,400
January.....	9,336	325	263	301	.526	.61	18,520
February.....	7,235	265	240	249	.455	.47	14,350
March.....	8,383	291	243	270	.472	.54	16,630
April.....	33,728	3,540	270	1,184	1.97	2.20	66,900
May.....	120,590	4,540	3,000	3,890	6.80	7.84	239,200
June.....	54,380	2,900	1,020	1,813	3.17	3.54	107,900
July.....	21,038	980	401	679	1.19	1.37	41,730
August.....	8,729	392	200	282	.493	.57	17,310
September.....	5,797	227	162	193	.337	.38	11,500
Water year 1935-36	288,888	4,540	162	789	1.36	18.80	573,100

Priest River near Priest River, Idaho

Location.- Water-stage recorder, lat. 43°13', long. 116°55', in NE $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 11, T. 58 N., R. 5 W., 500 feet below Saddler Creek, a quarter of a mile below mouth of Lower West Branch, 2 $\frac{1}{2}$ miles north of Priest River, and 3 $\frac{1}{2}$ miles above mouth.

Records available.- October 1930 to September 1936; at site 3 miles downstream June 1903 to April 1905, November 1910 to April 1911, May to December 1923, February 1929 to September 1930.

Extremes.- Maximum discharge during year, 5,710 second-feet May 16 (gage height, 8.51 feet); minimum, 354 second-feet Sept. 29 (gage height, 0.78 foot).
1903-5, 1910-11, 1923, 1929-36: Maximum discharge, 8,890 second-feet May 23, 1932 (gage height, 8.03 feet); minimum, 195 second-feet Dec. 31, 1930, Oct. 14, 1931; minimum gage height, 0.72 foot Dec. 31, 1930.

Remarks.- Records good except those for period of ice effect, Jan. 50 to Mar. 6, which were computed on basis of one discharge measurement, gage heights, weather records, and record for station near Coolin and are fair. No diversions above station. Some regulation on tributary.

Rating table, water year 1935-36 (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Mar. 7 to May 19)

0.70	227	2.70	1,485	4.70	3,680
1.10	391	3.10	1,860	5.10	4,200
1.50	614	3.50	2,270	5.50	4,730
1.90	871	3.90	2,710	5.90	5,290
2.30	1,165	4.30	3,190	6.30	5,850

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	343	326	377	417	370	420	448	4,460	3,430	1,240	504	280
2	343	322	367	460	360	430	427	4,590	3,370	1,240	492	317
3	339	339	362	460	360	440	422	4,590	3,510	1,320	487	322
4	339	334	353	465	360	460	422	4,870	3,130	1,400	487	317
5	334	330	348	476	360	470	422	5,150	2,960	1,400	476	381
6	334	322	348	460	360	500	427	5,430	2,830	1,360	460	372
7	334	322	362	460	350	521	465	5,430	2,770	1,130	443	367
8	330	330	377	460	350	567	504	5,150	2,770	1,010	433	343
9	326	357	377	454	350	669	561	5,010	2,600	978	427	322
10	317	343	391	460	350	626	608	5,010	2,540	957	412	317
11	313	343	391	465	350	584	657	5,150	2,440	935	407	309
12	322	362	427	499	350	567	764	5,150	2,440	892	401	309
13	317	367	417	602	340	567	921	5,290	2,220	878	391	313
14	326	362	396	549	340	534	1,090	5,430	2,160	851	381	326
15	343	362	391	538	340	536	1,200	5,570	2,060	817	377	334
16	334	377	377	509	340	521	1,280	5,570	2,060	796	362	326
17	326	377	362	504	340	538	1,440	5,430	2,010	777	357	322
18	330	362	357	482	340	567	1,710	5,290	1,910	751	353	313
19	348	362	353	487	340	579	2,010	5,150	1,860	725	357	309
20	362	357	353	482	340	620	2,160	4,870	1,760	713	353	296
21	362	353	348	465	350	669	2,320	4,730	1,710	698	339	288
22	357	353	348	460	360	614	2,600	4,430	1,660	675	330	284
23	357	353	343	454	370	596	2,950	4,330	1,580	657	330	280
24	362	357	343	454	380	561	3,310	4,070	1,530	626	317	273
25	362	372	353	443	380	538	3,940	3,940	1,440	608	300	273
26	357	381	357	427	390	526	4,200	3,880	1,400	590	322	269
27	357	381	381	433	400	532	4,330	3,810	1,360	579	313	265
28	377	377	381	427	410	509	4,460	3,680	1,280	567	309	265
29	366	377	381	391	410	487	4,460	3,680	1,240	549	300	265
30	386	377	381	380	-	476	4,460	3,550	1,240	538	292	265
31	348	-	412	370	-	454	-	3,490	-	515	280	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acre-feet
October.....	10,681	396	313	345	0.382	0.44	21,190
November.....	10,637	381	322	355	.394	.44	21,100
December.....	11,524	427	343	372	.412	.48	22,860
Calendar year 1935.....	571,404	6,150	313	1,565	1.74	23.58	1,133,000
January.....	14,392	602	370	464	.514	.59	28,550
February.....	10,440	410	370	360	.399	.43	20,710
March.....	16,666	669	420	538	.596	.69	33,060
April.....	54,968	4,460	422	1,832	2.03	2.26	109,000
May.....	146,210	5,570	3,490	4,716	5.23	6.03	290,000
June.....	65,080	3,430	1,240	2,169	2.40	2.68	129,000
July.....	26,762	1,400	515	863	.957	1.10	53,080
August.....	11,822	504	280	351	.422	.49	23,450
September.....	9,222	381	265	307	.340	.38	18,290
Water year 1935-36.....	388,384	5,570	265	1,061	1.18	16.01	770,300

Sheep Creek near Northport, Wash.

Location.- Water-stage recorder, lat. 48°56'40", long. 117°46'40", in NE¼NE¼ sec. 25, T. 40 N., R. 39 E., at county highway bridge 1 mile above mouth and 1½ miles north of Northport. Zero of gage is 1,300 feet above mean sea level (subject to correction for general adjustment of 1929).

Drainage area.- 225 square miles.

Records available.- June 1929 to September 1936.

Extremes.- Maximum discharge during year, 2,210 second-feet Apr. 26 (gage height, 27.17 feet); minimum, probably less than 10 second-feet during period of ice effect in February.

1929-36: Maximum discharge, 2,450 second-feet Apr. 29, 1933 (gage height, 27.46 feet); minimum, probably less than 8 second-feet during period Dec. 25, 1929, to Apr. 7, 1930.

Remarks.- Records good except those for periods of ice effect, Oct. 31 to Nov. 5, Jan. 26 to Mar. 8, which were computed on basis of 2 discharge measurements, gage heights, and weather records, and are poor. Staff gage read to hundredths once daily Mar. 9 to Apr. 8. Flow partly regulated by flash dam 6½ miles above. No diversions.

Rating table, water year 1935-36 except periods of ice effect (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Sept. 24-30)

22.4	10	24.0	275	26.0	1,360
22.7	29	24.5	460	26.5	1,710
23.0	61	25.0	700	27.0	2,060
23.5	145	25.5	1,010		

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	31	21	27	28	16	26	26	1,120	191	97	37	27
2	31	22	27	29	15	27	25	1,080	209	90	36	30
3	31	23	27	27	16	27	25	1,150	223	88	36	31
4	31	23	27	28	17	27	25	1,150	199	87	35	29
5	30	25	24	24	18	29	25	1,120	186	97	34	27
6	30	27	23	24	17	27	26	1,080	179	82	34	27
7	30	27	26	25	16	27	27	975	174	76	34	27
8	30	28	27	27	14	27	29	870	214	76	33	26
9	29	29	27	27	12	24	31	738	254	75	33	26
10	28	27	26	27	14	25	32	743	248	78	32	26
11	28	27	27	27	16	23	36	722	237	80	31	25
12	28	26	28	27	18	24	47	700	231	78	30	26
13	28	29	27	27	14	25	67	674	217	74	30	27
14	30	29	27	25	12	24	172	638	204	69	29	31
15	34	29	27	26	10	25	332	618	204	65	28	27
16	33	28	27	26	10	25	464	623	209	61	28	29
17	33	28	25	25	12	26	665	596	207	59	27	27
18	33	28	20	20	14	26	1,020	532	196	55	28	27
19	34	27	20	22	14	26	1,400	473	184	53	31	27
20	35	27	20	23	15	27	1,570	426	174	51	30	26
21	34	27	20	23	16	27	1,540	390	165	49	29	27
22	34	27	21	23	17	27	1,570	360	156	48	28	25
23	32	27	20	23	17	27	1,680	327	147	47	27	25
24	31	27	21	24	17	26	1,850	307	139	45	27	25
25	31	27	23	24	16	27	2,060	291	131	44	30	25
26	31	27	24	23	18	27	2,060	275	123	44	31	24
27	31	27	26	21	21	27	1,780	263	118	41	29	24
28	33	27	27	20	23	27	1,540	245	111	40	28	24
29	34	27	27	18	26	26	1,320	234	107	38	27	23
30	31	27	26	17	-	25	1,180	217	102	37	27	23
31	26	-	26	17	-	25	-	204	-	37	26	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acres-foot
October.....	965	35	26	31.1	0.138	0.16	1,910
November.....	802	29	21	26.7	.119	.13	1,590
December.....	776	26	20	25.0	.111	.13	1,540
Calendar year 1935.....	80,728	1,600	20	221	.982	13.35	160,100
January.....	747	29	17	24.1	.107	.12	1,460
February.....	460	25	10	15.9	.071	.08	912
March.....	808	29	23	26.1	.116	.13	1,600
April.....	22,629	2,060	25	754	3.35	3.74	44,880
May.....	19,193	1,150	204	619	2.75	3.17	38,070
June.....	6,439	254	102	181	.804	.90	10,790
July.....	1,953	97	37	63.0	.280	.32	3,870
August.....	946	37	26	30.5	.136	.16	1,870
September.....	793	31	23	26.4	.117	.13	1,570
Water year 1935-36.....	55,509	2,060	10	162	.676	9.17	110,100

Kettle River near Ferry, Wash.

(International gaging station)

Location.— Water-stage recorder, lat. 48°58'40", long. 118°46'10", in lot 7, sec. 10, T. 40 N., R. 32 E., 1½ miles south of international boundary and Ferry. Zero of gage is 1,840.00 feet above mean sea level (subject to correction for general adjustment of 1929).

Drainage area.— 2,220 square miles.

Records available.— August 1928 to September 1936.

Extremes.— Maximum discharge during year, 11,100 second-feet Apr. 26 (gage height, 17.2 feet); minimum, probably less than 50 second-feet, occurred in February, during period of ice effect.

1928-36: Maximum discharge, 14,000 second-feet June 17, 1933 (gage height, 18.40 feet); minimum, 14 second-feet Jan. 23, 1930, discharge measurement; may have been less during period Jan. 18-23, 1930.

Remarks.— Records excellent except those for periods of ice effect, Oct. 30 to Nov. 6, Jan. 29 to Feb. 28, which were computed on basis of one discharge measurement, gage heights, and weather records. Discharge Oct. 22, 23 computed on basis of records for station near Laurier. Numerous small diversions for irrigation above station. This is one of the international gaging stations maintained by the United States under agreement with Canada.

Rating tables, water year 1935-36 except periods of ice effect (gage height, in feet, and discharge, in second-feet)

Oct. 1 to Feb. 29

Mar. 1 to Sept. 30

9.0	49	9.4	112	11.0	940	14.0	4,800
9.2	75	9.7	193	11.5	1,370	15.0	6,600
9.4	115	10.0	313	12.0	1,940	16.0	8,500
9.7	205	10.5	590	13.0	3,250	18.0	13,000
10.0	327						

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	191	100	205	178	85	131	124	6,410	5,310	1,320	353	155
2	189	105	205	181	80	135	126	6,990	6,440	1,220	333	158
3	185	110	205	168	80	139	129	7,360	7,030	1,140	313	166
4	181	145	181	174	65	129	129	8,310	5,490	1,220	304	196
5	178	160	106	159	90	156	129	9,310	4,480	1,320	290	190
6	174	220	104	150	80	141	129	9,310	4,000	1,180	282	175
7	168	239	133	174	75	144	131	7,930	3,620	1,060	272	163
8	165	259	188	171	70	150	134	7,170	3,850	988	260	158
9	162	255	213	168	60	163	144	6,600	4,320	932	248	150
10	162	232	216	168	65	158	150	6,410	4,160	980	236	144
11	162	247	209	162	75	158	163	6,790	3,780	1,780	224	141
12	165	267	205	162	80	165	190	7,550	4,480	1,820	218	144
13	165	283	166	159	70	163	270	7,550	4,480	1,470	210	147
14	171	275	156	138	60	156	490	8,120	3,780	1,270	200	147
15	165	271	209	147	55	160	832	9,100	4,320	1,100	196	147
16	195	263	191	150	50	163	1,280	9,100	4,970	1,010	190	150
17	220	251	166	159	55	169	2,180	7,360	5,140	932	187	152
18	224	243	112	120	55	169	4,010	6,220	5,140	860	187	152
19	243	236	69	120	60	163	5,490	6,030	4,480	783	200	147
20	267	228	70	131	70	155	6,220	6,220	3,850	741	193	144
21	318	224	93	141	80	156	6,600	5,310	3,400	685	190	144
22	330	216	108	153	95	155	6,980	4,640	3,020	638	178	144
23	290	209	120	159	110	150	7,170	4,320	2,740	602	169	141
24	255	209	133	162	105	147	8,500	4,320	2,480	566	184	139
25	243	213	158	162	100	141	10,200	4,480	2,240	524	187	141
26	*243	220	144	124	105	139	11,100	4,800	2,000	494	184	150
27	243	216	159	100	115	141	9,520	5,490	1,820	470	179	150
28	247	209	171	84	125	139	8,120	6,030	1,640	448	172	147
29	263	209	161	85	128	129	7,170	6,410	1,520	426	172	144
30	270	205	178	85	-	117	6,600	6,220	1,420	394	166	141
31	160	-	178	90	-	117	-	5,670	-	373	158	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October.....	6,615	330	160	213	13,120
November.....	6,568	297	100	219	13,010
December.....	4,912	216	69	158	9,740
Calendar year 1935.....	587,917	10,600	69	1,611	1,166,000
January.....	4,484	181	84	145	8,890
February.....	2,563	128	50	51.5	4,690
March.....	4,571	169	117	147	9,070
April.....	104,410	11,100	124	3,480	207,100
May.....	207,520	9,310	4,320	6,694	411,600
June.....	116,300	7,930	1,420	3,877	230,700
July.....	28,746	1,820	373	927	57,020
August.....	6,834	353	158	220	15,560
September.....	4,567	196	139	152	9,060
Water year 1935-36.....	497,878	11,100	50	1,360	987,600

*Interpolated.

Kettle River near Laurier, Wash.

(International gaging station)

Location.- Water-stage recorder, lat. 48°50'50", long. 118°13'0", in SW¼ sec. 11, T. 40 N., R. 36 E., 500 feet below Deep Creek and 1½ miles southeast of Laurier.

Drainage area.- 3,800 square miles.

Records available.- September 1929 to September 1936.

Extremes.- Maximum discharge during year, 19,000 second-feet Apr. 26 (gage height, 12.93 feet); minimum, 180 second-feet Feb. 16, 17, during period when stage-discharge relation was affected by ice; may possibly have been lower some time during month.

1929-36: Maximum discharge, 25,800 second-feet June 17, 1933 (gage height, 14.48 feet); minimum, not determined, occurred during winter of 1929-30.

Maximum stage known, about 22 feet in 1894.

Remarks.- Records excellent except those for periods of ice effect, Oct. 30 to Nov. 5, Dec. 19-26, Jan. 27 to Mar. 14, which were computed on basis of 2 discharge measurements, gage heights, and weather records. North Fork regulated by storage at Grand Forks, British Columbia. Numerous small diversions for irrigation and domestic use. This is one of the international gaging stations maintained by the United States under agreement with Canada.

Rating table, water year 1935-36 except periods of ice effect (gage height, in feet, and discharge, in second-feet)

2.5	160	4.5	1,550	9.0	8,600
2.7	225	5.0	1,790	10.0	10,800
2.9	310	5.5	2,350	11.0	13,380
3.2	470	6.0	3,040	12.0	16,520
3.5	650	7.0	4,660	13.0	19,520
4.0	990	8.0	6,600		

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	388	340	366	306	210	270	292	11,500	8,600	1,890	745	340
2	376	320	355	296	210	270	283	12,000	8,600	1,740	698	345
3	366	370	355	292	200	280	292	12,600	11,800	1,690	662	335
4	355	320	350	278	210	280	292	13,400	9,670	1,790	650	340
5	350	330	320	283	220	290	292	14,800	7,800	2,060	628	355
6	340	345	265	270	240	300	292	15,400	6,800	2,060	602	371
7	330	371	261	274	220	320	288	13,100	6,200	1,890	572	355
8	335	404	298	292	210	330	301	11,500	6,200	1,790	548	335
9	335	448	325	292	190	340	301	10,800	6,800	1,690	530	320
10	330	388	382	292	170	360	306	10,300	7,000	1,600	506	330
11	330	437	382	296	180	360	345	10,600	6,600	2,030	482	320
12	325	442	388	292	210	350	432	11,800	6,600	3,040	442	315
13	325	464	382	283	230	350	671	12,000	7,400	2,980	426	306
14	330	470	360	274	210	360	1,960	12,300	6,600	2,540	404	301
15	335	476	325	261	180	350	2,640	13,700	6,400	2,110	398	301
16	335	476	371	283	160	360	4,060	14,500	7,600	1,890	388	306
17	366	459	366	292	160	371	5,210	12,300	7,800	1,790	371	310
18	371	448	335	257	170	376	8,000	10,600	7,800	1,640	366	306
19	410	437	240	274	190	371	11,300	9,670	7,200	1,560	366	306
20	415	426	210	283	210	355	13,400	9,890	6,600	1,470	360	301
21	420	410	210	274	230	355	13,400	9,020	5,800	1,390	371	301
22	478	410	220	274	240	350	13,700	8,000	5,210	1,310	366	296
23	464	404	230	292	250	345	14,000	7,400	4,680	1,160	366	288
24	454	393	250	292	240	340	14,500	7,000	4,510	1,130	360	288
25	432	388	280	296	240	335	17,500	7,400	3,810	1,100	376	288
26	410	410	290	274	250	325	18,700	7,800	3,490	1,020	366	292
27	410	398	296	260	260	320	17,800	8,600	3,190	990	371	283
28	410	388	306	240	270	320	14,800	9,230	2,890	920	350	283
29	415	371	306	220	270	315	12,800	9,670	2,680	892	350	296
30	430	366	315	200	-	301	12,000	9,670	2,490	836	345	296
31	440	-	315	200	-	286	-	9,020	-	801	335	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October.....	11,808	476	325	381	23,420
November.....	12,059	476	320	402	23,920
December.....	9,644	388	210	311	19,130
Calendar year 1935	1,078,877	18,400	210	2,956	2,140,000
January.....	8,492	306	200	274	16,840
February.....	6,230	270	160	215	12,360
March.....	10,237	376	270	330	20,300
April.....	200,157	18,700	283	6,672	397,000
May.....	335,570	15,400	7,000	10,820	665,600
June.....	188,590	11,800	2,480	6,286	374,100
July.....	50,709	3,040	801	1,636	100,600
August.....	14,108	745	335	455	27,980
September.....	9,401	371	283	313	16,650
Water year 1935-36	657,005	18,700	160	2,342	1,700,000

Myers Creek near Myncaster, British Columbia

(International gaging station)

Location.- Water-stage recorder, lat. 49°0'0", long. 119°1'15", 50 feet north of the international boundary and a quarter of a mile south of Myncaster.

Drainage area.- 80 square miles.

Records available.- October 1929 to September 1936; May 1923 to September 1929 in Canadian water-resources papers.

Extremes.- Maximum discharge recorded during year, 54 second-feet June 3 (gage height, 1.48 feet); minimum, 0.4 second-foot Sept. 6.
1923-36: Maximum recorded discharge, 99 second-feet June 14, 1923; no flow July 16-18, 25, 1928.

Remarks.- Records fair except those for period Apr. 1-22, which were computed on basis of 6 staff-gage readings and are poor. Stage-discharge relation slightly affected by ice Oct. 26-31. Discharge interpolated Apr. 25. Four-foot Cippoletti weir in place Oct. 1-31, July 23 to Sept. 30, discharge computed by weir formula. Diversions above station for irrigation. No record during winter. This station is one of the international gaging stations maintained by Canada under agreement with the United States.

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1.3						5.4	12.6	7.8	7.4	1.3	0.8
2	1.3						5.4	13.0	22.2	7.0	1.2	1.3
3	1.3						5.4	14.6	40.0	7.0	1.1	1.3
4	1.2						5.6	16.2	22.7	6.6	1.0	1.0
5	1.2						5.6	17.8	19.0	6.3	.7	.9
6	1.2						6.0	17.4	17.8	5.9	.6	.6
7	1.2						6.4	16.2	17.8	5.6	.6	.7
8	1.2						6.8	15.8	23.5	5.3	.6	.7
9	1.1						7.3	15.0	19.8	5.3	.6	.7
10	1.2						7.8	14.6	18.2	5.3	.6	.7
11	1.2						9.2	14.2	16.6	4.9	.7	.7
12	1.2						9.8	13.4	15.3	4.6	.7	.9
13	1.2						10.6	13.0	15.0	4.3	.6	1.1
14	1.5						11.4	13.0	15.4	4.0	.6	1.3
15	2.0						11.9	13.4	21.4	3.7	.6	1.2
16	1.9						10.7	13.8	19.8	3.7	.6	1.2
17	1.8						11.3	13.5	19.0	3.3	.7	1.3
18	1.7						11.9	12.3	16.6	3.0	.7	1.3
19	1.9						13.2	11.9	14.6	2.7	1.3	1.2
20	2.6						14.5	11.5	13.4	2.5	1.0	1.0
21	2.6						15.8	11.1	13.4	2.3	.8	.9
22	2.4						17.2	10.7	11.5	2.1	.6	.9
23	2.2						18.6	10.7	11.1	1.9	.9	.9
24	2.4						17.8	10.4	10.7	1.7	1.2	.9
25	2.4						18.4	10.0	10.0	1.7	1.7	.9
26	2.4						19.0	9.2	8.9	1.7	1.5	.9
27	2.4						15.8	8.5	8.5	1.6	1.2	.9
28	2.6						14.2	8.1	7.4	1.5	.9	1.0
29	2.4						13.0	7.8	7.4	1.4	.7	1.0
30	2.1						12.6	7.4	7.4	1.3	.6	1.0
31	2.1						-	6.6	-	1.3	.6	-
Month							Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet	
October.....							55.2	2.6	1.1	1.3	109	
November.....							-	-	-	-	-	
December.....							-	-	-	-	-	
Calendar year												
January.....												
February.....												
March.....												
April.....							338.6	19.0	5.4	11.3	671	
May.....							384.0	17.8	6.6	12.4	762	
June.....							472.7	40.0	7.4	15.8	937	
July.....							116.9	7.4	1.3	3.8	232	
August.....							26.5	1.7	.6	.9	53	
September.....							29.2	1.3	.6	1.0	58	
Water year												

Colville River at Meyers Falls, Wash.

Location.- Staff gage, lat. 48°36', long. 118°4', in sec. 29, T. 38 N., R. 38 E., 300 feet below Stevens County Light & Power Co.'s plant at foot of Meyers Falls.

Records available.- October 1922 to September 1936.

Average discharge.- 14 years, 226 second-feet.

Extremes.- Maximum discharge observed during year, 753 second-feet Apr. 27 (gage height, 2.97 feet); minimum, 17 second-feet Aug. 5 (gage height, 0.25 foot).
1922-36: Maximum discharge observed, 1,760 second-feet Apr. 27, 1932 (gage height, 5.55 feet, former datum); minimum, 0.5 second-foot Aug. 15, 1930 (gage height, 0.00 foot, former datum).

Remarks.- Records good except those for period of ice effect, Feb. 6-21, which were computed on basis of one discharge measurement, gage heights, and weather records and are poor. Several ditches divert water for irrigation above station. Small reservoir above falls, effect of regulation probably slight. Gage-height record and many discharge measurements furnished by Washington Water Power Co. Gage read to hundredths twice daily.

Rating table, water year 1935-36 except period of ice effect (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Oct. 1-14)

0	10	2.0	297
.5	28	2.5	503
1.0	77	3.0	753
1.5	160		

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	69	80	124	149	84	138	172	553	131	72	38	42
2	71	72	124	160	67	184	160	503	149	70	36	44
3	72	60	122	172	86	224	160	478	184	67	33	47
4	72	87	120	184	96	252	160	478	224	67	29	65
5	78	90	120	154	87	266	160	478	224	70	21	57
6	73	97	124	184	85	297	160	478	210	70	28	62
7	75	103	120	172	85	330	160	528	210	67	29	53
8	76	104	118	160	85	330	184	503	224	64	29	52
9	76	107	120	160	85	350	172	478	237	63	29	51
10	76	94	127	160	95	314	184	453	237	65	29	49
11	77	107	134	160	110	297	197	430	224	67	28	48
12	80	112	149	160	110	282	210	388	210	67	28	43
13	84	112	149	184	110	282	237	367	197	66	28	49
14	85	114	160	184	95	266	297	348	184	64	28	55
15	91	120	160	197	75	252	348	350	172	65	24	47
16	93	127	138	210	80	237	388	314	160	63	25	63
17	89	125	134	184	80	237	430	330	172	61	27	61
18	100	127	107	172	80	237	503	314	172	51	25	65
19	104	127	84	160	85	237	553	297	172	57	27	57
20	104	124	114	160	85	237	603	297	160	56	27	57
21	104	120	96	160	85	237	628	262	160	52	26	56
22	101	120	112	149	90	237	628	266	138	49	25	55
23	100	120	106	149	90	237	628	252	136	46	28	58
24	103	120	107	149	91	237	653	237	127	41	30	53
25	101	117	112	149	93	237	653	224	117	40	30	42
26	101	125	117	149	94	210	703	210	97	40	33	48
27	104	127	124	103	96	210	753	197	64	43	29	58
28	104	129	134	86	107	197	653	172	94	43	32	51
29	110	127	149	82	131	197	628	160	90	45	40	49
30	112	124	149	90	-	197	573	160	80	43	37	47
31	110	-	149	96	-	184	-	138	-	42	38	-
Month						Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet		
October.....						2,795	112	69	90.2	5,540		
November.....						3,338	129	72	111	6,620		
December.....						3,903	160	84	126	7,740		
Calendar year 1935.....						109,901	1,380	51	301	218,000		
January.....						4,820	210	82	155	9,560		
February.....						2,682	131	75	91.8	5,280		
March.....						7,609	350	138	245	15,090		
April.....						11,943	753	160	398	23,690		
May.....						10,643	553	138	343	21,110		
June.....						4,956	237	64	165	9,830		
July.....						1,776	72	40	57.3	3,520		
August.....						916	40	21	29.5	1,820		
September.....						1,582	65	42	52.7	3,140		
Water year 1935-36.....						56,943	753	21	156	112,900		

Coeur d'Alene River near Cataldo, Idaho

Location.— Water-stage recorder, lat. 47°34', long. 116°18', in sec. 26, T. 49 N., R. 1 E., 1½ miles above Cataldo and 3 miles below South Fork of Coeur d'Alene River. Zero of gage is 2,100.000 feet above mean sea level.

Drainage area.— 1,220 square miles.

Records available.— April 1911 to December 1912, July 1920 to September 1936.

Average discharge.— 17 years, 2,490 second-feet.

Extremes.— Maximum discharge during year, 23,100 second-feet probably on Apr. 19 (gage height, 49.40 feet, from range of recorder trace); minimum discharge, 233 second-feet Dec. 20 (gage height, 37.26 feet).
1911-12, 1920-36: Maximum discharge, 55,300 second-feet Dec. 22 or 23, 1933 (gage height, 56.9 feet, determined from high-water mark on gage); minimum, 122 second-feet Dec. 4, 1929; minimum gage height, 37.03 feet Sept. 6, 1931.

Remarks.— Records good except those for periods of ice effect, Jan. 28-30, Feb. 1-21 (computed on basis of gage heights, weather records, and comparison with records for St. Joe River at Calder) and those for Oct. 17, Mar. 30 to Apr. 19 (computed on basis of records for St. Joe River at Calder), which are fair. No appreciable diversions or regulation above station. Gage-height record and results of nine discharge measurements furnished by Washington Water Power Co.

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	316	270	324	378	330	1,550	900	10,000	2,190	886	415	312
2	316	276	304	425	310	1,940	800	10,400	2,190	862	406	329
3	312	270	284	455	290	2,750	900	10,400	2,340	856	410	342
4	312	276	262	500	300	3,080	900	11,000	2,090	844	401	356
5	308	292	252	648	310	2,860	1,000	11,600	1,900	832	396	360
6	308	300	259	615	310	2,540	1,100	9,910	1,720	802	392	365
7	312	308	252	580	330	2,290	1,300	8,100	2,140	784	385	362
8	308	316	316	495	340	2,340	2,100	7,090	2,960	832	383	342
9	308	383	338	450	340	4,400	3,000	7,090	2,800	832	374	329
10	324	374	356	440	340	3,830	4,500	7,690	2,640	814	370	316
11	334	374	365	571	340	2,860	8,000	8,720	2,390	776	352	312
12	329	374	460	838	340	2,340	11,000	8,940	2,290	742	347	312
13	352	365	470	1,320	340	2,140	13,000	7,990	2,090	706	342	316
14	342	374	415	1,190	340	1,880	14,000	7,690	1,900	682	334	329
15	342	406	370	966	350	1,640	15,000	7,390	1,640	659	329	356
16	338	356	338	808	360	1,430	16,000	6,900	1,780	642	329	360
17	325	360	300	688	360	1,410	17,000	6,050	1,690	626	316	342
18	312	370	262	593	360	1,460	20,000	5,350	1,580	598	316	334
19	320	329	248	545	360	1,400	21,000	4,940	1,490	598	316	324
20	352	316	245	510	360	1,550	19,100	4,550	1,380	576	320	316
21	347	316	256	470	350	1,850	17,700	4,040	1,310	535	316	316
22	360	312	270	440	342	2,140	18,000	3,670	1,250	525	312	308
23	347	320	276	425	378	1,950	18,600	3,200	1,190	520	312	304
24	354	347	276	415	378	1,700	18,000	3,020	1,160	515	312	296
25	329	360	288	392	392	1,500	17,700	3,020	1,110	495	342	292
26	320	374	312	338	392	1,500	15,800	2,970	1,060	485	342	288
27	308	374	329	296	475	1,600	13,400	2,970	1,030	475	347	288
28	308	360	356	320	688	1,400	11,700	2,920	987	470	324	280
29	316	347	352	320	994	1,270	10,600	2,800	951	465	316	280
30	312	338	347	330	-	1,200	9,800	2,590	924	455	308	276
31	288	-	360	334	-	1,000	-	2,390	-	450	300	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acre-feet
October.....	10,039	360	288	324	0.266	0.31	19,910
November.....	10,137	406	270	338	0.277	.31	20,110
December.....	9,856	470	245	317	.260	.30	19,510
Calendar year 1935.....	910,198	13,900	245	2,494	2.04	27.76	1,805,000
January.....	17,045	1,320	296	550	.451	.52	33,810
February.....	11,099	994	290	383	.314	.34	22,010
March.....	62,800	4,400	1,000	2,026	1.66	1.91	124,600
April.....	321,900	21,000	800	10,730	8.80	9.82	638,500
May.....	195,190	11,600	2,390	6,296	5.16	5.95	387,200
June.....	52,252	2,860	924	1,742	1.43	1.60	103,600
July.....	20,341	886	450	656	.538	.62	40,350
August.....	10,767	415	300	347	.284	.33	21,360
September.....	9,632	365	276	321	.263	.29	19,100
Water year 1935-36.....	731,038	21,000	245	1,997	1.64	22.30	1,450,000

Coeur d'Alene Lake at Coeur d'Alene, Idaho

Location.— Water-stage recorder, lat. 47°40', long. 116°46', in sec. 24, T. 50 N., R. 4 W., 500 feet southwest of south end of Eleventh Street, Coeur d'Alene. Zero of gage is 2,100.00 feet above mean sea level.

Drainage area.— 3,750 square miles.

Records available.— February 1905 to September 1936, April 1903 to February 1905 at St. Joe Boom Co.'s gage at mouth of St. Joe River.

Extremes.— Maximum stage during year, 34.57 feet Apr. 27; minimum, 22.20 feet Feb. 27, 1903-36: Maximum stage, 39.05 feet Dec. 25, 1933; minimum, 19.9 feet Oct. 10-12, 1904, Sept. 24, 25, 1905, Oct. 14 to Nov. 3, 1906.
Maximum stage known prior to 1903, 37.6 feet (from high-water marks) May 31, 1894.

Remarks.— Records excellent. Considerable storage used by Washington Water Power Co. Regulation affected by taintor gates and bear-trap dam at Post Falls. Gage-height record furnished by Washington Water Power Co. Add 2,100.00 feet to stages to refer them to originally accepted elevation (2,157.404 feet) of the U. S. Geological Survey benchmark in southeast corner of Merriam Building (see Water-Supply Paper 672).

Gage height, in feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	23.77	22.86	23.11	23.31	24.17	22.59	23.33	33.52	26.94	26.53	26.27	24.79
2	23.72	22.84	23.11	23.42	24.12	22.93	23.21	33.24	26.72	26.54	26.23	24.73
3	23.66	22.83	23.10	23.47	24.05	23.40	23.09	33.03	26.59	26.54	26.20	24.72
4	23.61	22.80	23.09	23.59	23.96	23.87	23.00	32.88	26.43	26.52	26.18	24.69
5	23.57	22.78	23.08	23.75	23.94	24.20	22.93	32.84	26.35	26.49	26.15	24.66
6	23.51	22.79	23.08	23.87	23.88	24.41	22.84	32.82	26.39	26.48	26.13	24.63
7	23.46	22.78	23.08	23.95	23.77	24.52	22.80	32.71	26.58	26.50	26.09	24.60
8	23.41	22.81	23.11	23.99	23.72	24.65	22.79	32.43	26.80	26.52	26.04	24.54
9	23.36	22.83	23.11	24.01	23.63	24.94	22.89	32.10	26.86	26.54	26.02	24.50
10	23.33	22.84	23.13	24.09	23.56	25.24	23.13	31.78	26.80	26.54	26.00	24.46
11	23.31	22.86	23.14	24.18	23.48	25.32	23.48	31.56	26.71	26.51	25.94	24.40
12	23.30	22.90	23.22	24.35	23.37	25.30	24.14	31.43	26.61	26.47	25.90	24.35
13	23.28	22.92	23.24	24.64	23.31	25.25	25.16	31.37	26.54	26.48	25.86	24.31
14	23.27	22.93	23.26	24.86	23.23	25.15	26.25	31.31	26.46	26.49	25.82	24.28
15	23.26	22.95	23.28	25.00	23.15	25.03	27.21	31.24	26.41	26.49	25.76	24.24
16	23.24	22.99	23.29	25.02	23.05	24.87	28.10	31.15	26.45	26.48	25.71	24.18
17	23.21	23.00	23.27	25.02	22.95	24.73	28.93	31.01	26.54	26.49	25.65	24.15
18	23.19	23.01	23.25	25.00	22.87	24.59	29.87	30.81	26.61	26.50	25.59	24.16
19	23.18	23.02	23.21	25.00	22.79	24.45	30.88	30.53	26.60	26.49	25.52	24.12
20	23.17	23.01	23.17	25.00	22.70	24.34	31.85	30.25	26.55	26.49	25.48	24.08
21	23.14	23.00	23.14	24.95	22.63	24.29	32.61	29.92	26.53	26.49	25.43	24.05
22	23.13	22.98	23.12	24.88	22.56	24.27	33.14	29.59	26.55	26.49	25.37	24.01
23	23.13	22.99	23.09	24.81	22.51	24.24	33.58	29.26	26.56	26.46	25.30	23.96
24	23.11	23.00	23.07	24.72	22.44	24.17	33.97	28.90	26.52	26.44	25.24	23.91
25	23.08	23.02	23.06	24.65	22.35	24.12	34.28	28.58	26.52	26.41	25.18	23.86
26	23.06	23.04	23.08	24.56	22.28	24.03	34.49	28.28	26.53	26.37	25.13	23.82
27	23.04	23.07	23.09	24.47	22.21	23.94	34.54	28.03	26.52	26.35	25.08	23.78
28	23.02	23.10	23.12	24.41	22.25	23.79	34.41	27.80	26.49	26.35	25.02	23.75
29	22.98	23.12	23.13	24.37	22.35	23.70	34.15	27.59	26.48	26.34	24.97	23.71
30	22.96	23.11	23.18	24.29	-	23.59	33.83	27.38	26.50	26.31	24.92	23.64
31	22.93	-	23.25	24.22	-	23.44	-	27.16	-	26.29	24.85	-

Spokane River at Post Falls, Idaho

Location.— Water-stage recorder, lat. 47°42', long. 116°58', in sec. 4, T. 50 N., R. 5 W., 1,500 feet below power plant of Washington Water Power Co., 3,300 feet below intake of Spokane Valley Farms Co.'s canal, and 1 mile west of Post Falls. Zero of gage is 2,000 feet above mean sea level.

Drainage area.— 3,880 square miles.

Records available.— January 1913 to September 1936.

Average discharge.— 23 years, 6,110 second-feet. Average discharge, including Spokane Valley Farms Co.'s canal, 23 years, 6,190 second-feet.

Extremes.— Maximum discharge during year, 35,400 second-feet Apr. 26 (gage height, 77.81 feet); minimum, 422 second-feet Nov. 26 (gage height, 65.32 feet).

1913-36: Maximum discharge, 50,100 second-feet Dec. 25, 1933; minimum, that of Nov. 26, 1935.

Remarks.— Records good. Discharge Oct. 9-31, Feb. 3-7 computed by comparison with record for Spokane River at Liberty Bridge station of the Washington Water Power Co. Spokane Valley Farms Co.'s canal diverts 3,300 feet above gage for irrigation. (See records for Spokane Valley Farms Co.'s canal.) Flow partly regulated by storage and release of water at Coeur d'Alene Lake. Part of table of monthly discharge corrected for diversion. Gage-height record and results of five discharge measurements furnished by Washington Water Power Co.

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,380	920	596	636	1,840	1,380	4,560	31,700	11,700	1,220	759	1,380
2	1,430	824	596	648	1,840	1,380	4,560	30,400	11,100	1,650	759	1,430
3	1,430	766	584	655	1,800	2,050	3,910	29,500	10,800	1,700	759	1,340
4	1,430	818	572	700	1,800	4,000	3,380	29,100	8,010	1,840	746	1,260
5	1,430	778	681	726	1,850	4,860	3,300	28,600	5,790	1,600	766	1,070
6	1,430	578	920	726	1,900	5,060	3,300	28,600	3,730	1,130	792	1,060
7	1,300	554	871	818	1,950	5,160	3,220	28,200	3,560	913	850	1,040
8	1,180	530	772	1,030	2,000	5,370	3,220	27,500	6,210	1,160	857	1,120
9	1,100	530	772	1,110	2,000	6,430	3,220	26,000	8,980	1,470	843	1,120
10	1,050	536	778	1,150	1,940	7,550	3,910	25,200	8,980	2,000	927	1,060
11	1,000	524	798	1,140	2,050	7,780	4,960	24,400	8,730	2,000	976	934
12	920	524	892	983	2,100	7,780	6,210	23,900	7,780	1,520	1,060	906
13	920	524	892	983	2,050	7,780	8,490	23,500	7,320	1,000	1,000	976
14	920	518	707	1,190	2,050	7,550	10,300	23,500	7,090	892	1,000	1,190
15	920	476	566	2,000	2,000	7,320	12,600	23,100	5,370	792	1,100	1,220
16	910	488	766	2,540	2,000	7,090	15,100	23,100	3,380	733	1,110	1,180
17	910	506	824	2,480	2,050	6,870	17,400	22,700	2,760	720	1,110	1,060
18	920	506	962	2,000	2,050	6,650	19,800	22,300	3,300	720	1,130	1,030
19	920	560	1,000	1,740	2,050	6,430	23,100	21,500	4,000	714	1,180	1,040
20	920	714	1,000	2,050	2,160	6,430	25,600	20,200	4,460	720	1,220	1,090
21	890	811	948	2,610	2,280	6,210	28,200	19,400	3,300	798	1,220	1,160
22	840	878	895	2,610	1,840	6,210	30,400	18,600	2,760	892	1,220	1,180
23	840	850	962	2,610	1,890	6,210	31,700	17,400	3,380	920	1,220	1,180
24	930	694	941	2,610	2,280	6,210	33,100	16,600	3,140	837	1,260	1,180
25	980	698	899	2,610	2,280	6,210	34,500	15,800	2,220	746	1,500	1,180
26	1,050	530	844	2,540	2,220	6,000	34,900	15,100	2,410	629	1,500	1,170
27	950	452	681	2,100	1,790	5,790	35,400	14,300	2,760	636	1,380	1,160
28	960	542	655	1,940	1,600	5,790	34,900	13,600	2,280	655	1,380	1,220
29	940	603	648	1,890	1,520	5,480	33,500	13,800	1,260	674	1,260	1,260
30	940	596	636	1,890	-	5,160	32,600	12,600	920	772	1,220	1,340
31	930	-	642	1,890	-	4,760	-	12,300	-	772	1,260	-

Month	Observed				Diversion through Spokane Valley Farms Co's canal in (acre-feet)	Corrected for diversion			
	Discharge in second-feet			Run-off in acre-feet		Run-off in acre-feet	Discharge in second-feet		Run- off in inches
	Maxi- mum	Mini- mum	Mean				Mean	Per square mile	
October.....	1,430	840	1,055	64,880	0	64,880	1,055		
November.....	920	452	627	37,320	0	37,320	627		
December.....	1,000	566	784	48,180	0	48,180	784		
Calendar year 1935	25,500	452	6,123	4,433,000	76,311	4,509,000	6,229	1.61	21.85
January.....	2,610	636	1,632	100,400	0	100,400	1,632		
February.....	2,280	1,520	1,972	113,400	0	113,400	1,972		
March.....	7,780	1,380	5,773	354,900	0	354,900	5,773		
April.....	35,400	3,220	16,980	1,010,000	0	1,010,000	16,980		
May.....	31,700	12,300	21,990	1,352,000	14,710	1,367,000	22,230		
June.....	11,700	920	5,249	312,400	17,130	329,500	5,537		
July.....	2,000	629	1,059	65,110	16,370	81,480	1,325		
August.....	1,380	746	1,070	65,780	14,970	80,750	1,313		
September.....	1,430	906	1,151	68,500	6,610	75,110	1,262		
Water year 1935	35,400	452	4,950	3,593,000	69,790	3,663,000	5,046	1.30	17.69

Note.— Monthly figures showing discharge in second-feet per square mile and run-off in inches are not published, owing to regulation by Coeur d'Alene Lake. The yearly figures represent more nearly the natural discharge and run-off.

Spokane River at Spokane, Wash.

Location.— Water-stage recorder, lat. 47°39'30", long. 117°26'50", in sec. 13, T. 25 N., R. 42 E., at Cochran Street, Spokane. Zero of gage is about 1,700 feet above mean sea level (subject to correction for general adjustment of 1929).

Drainage area.— 4,350 square miles.

Records available.— April 1891 to September 1936.

Average discharge.— 45 years, 8,963 second-feet (based on records corrected for storage in Coeur d'Alene Lake).

Extremes.— Maximum discharge during year, 33,700 second-feet Apr. 27, 28 (gage height, 27.1 feet); minimum, 288 second-feet Dec. 28 (gage height, 18.37 feet, result of regulation).

1891-1936: Maximum discharge, 49,000 second-feet May 31, 1894; minimum, that of Dec. 28, 1935; minimum daily discharge, 1,040 second-feet Nov. 28, 1935.

Remarks.— Records excellent. Water diverted above station for irrigation by Spokane Valley Farms Co. Flow partly regulated by storage and release of water at Coeur d'Alene Lake and by pondage at Spokane. Part of monthly-discharge table corrected for storage in Coeur d'Alene Lake, capacity, 770,000 acre-feet between elevations 2,117 and 2,135 feet. Gage-height record collected in cooperation with Washington Water Power Co., which furnished many discharge measurements.

Rating table, water year 1935-36 (gage height, in feet, and discharge, in second-feet)

17.0	690	19.0	3,480	21.0	8,050	25.0	25,500
17.5	1,210	19.5	4,440	22.0	11,200	26.0	28,300
18.0	1,850	20.0	5,520	23.0	14,900	27.0	33,200
18.5	2,610	20.5	6,730	24.0	18,950	28.0	38,200

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2,060	1,600	*1,150	1,280	2,320	*2,080	5,050	31,200	12,600	2,150	1,480	1,940
2	2,080	1,490	1,190	1,250	*2,330	2,020	4,940	30,300	12,500	2,580	*1,490	2,110
3	2,090	*1,440	1,220	1,220	2,320	2,140	4,610	*29,800	11,900	2,650	1,500	2,140
4	2,080	1,410	1,170	1,230	2,330	3,570	4,250	29,300	9,870	2,760	1,480	2,040
5	2,070	1,440	1,100	*1,210	2,500	4,500	*4,220	28,800	7,670	*2,700	1,470	1,950
6	*2,070	1,420	1,260	1,290	2,340	4,870	4,170	28,800	5,590	2,260	1,420	*1,710
7	2,010	1,200	1,470	1,240	2,430	5,040	4,080	28,300	*4,630	1,900	1,530	1,710
8	1,880	1,230	*1,360	1,370	2,470	*5,170	4,030	27,800	6,210	1,840	1,540	1,790
9	1,800	1,190	1,310	1,520	*2,450	5,710	4,040	26,900	9,800	2,300	*1,450	1,820
10	1,770	*1,210	1,360	1,540	2,530	7,240	4,200	*26,900	10,200	2,620	1,540	1,800
11	1,760	1,180	1,360	1,540	2,490	7,520	4,980	24,900	10,100	2,770	1,620	1,780
12	1,640	1,220	1,350	*1,580	2,780	7,570	*5,690	24,500	9,110	*2,690	1,630	1,620
13	*1,650	1,200	1,390	1,560	2,600	7,560	7,520	24,000	8,340	2,110	1,740	*1,600
14	1,630	1,160	1,380	1,680	2,620	7,520	9,510	24,000	*8,090	1,850	1,730	1,870
15	1,620	1,200	*1,230	1,960	2,690	*7,330	11,900	24,000	6,920	1,840	1,750	1,950
16	1,630	1,090	1,220	2,650	*2,650	7,150	14,100	23,500	5,130	1,620	*1,720	1,940
17	1,590	*1,150	1,300	2,720	2,600	6,900	16,500	*25,800	4,110	1,650	1,780	1,860
18	1,600	1,140	1,300	2,680	2,620	6,750	18,500	25,600	4,250	1,580	1,720	1,820
19	1,600	1,170	1,470	*2,110	2,620	6,600	*21,200	25,100	4,860	*1,580	1,850	1,730
20	*1,590	1,190	1,470	2,220	2,640	6,420	24,500	21,200	5,360	1,580	1,860	*1,760
21	1,590	1,300	1,470	2,740	2,630	6,300	26,900	20,300	*4,760	1,570	1,850	1,810
22	1,530	1,340	*1,400	2,840	2,660	*6,300	28,800	19,400	3,930	1,630	1,860	1,840
23	1,600	1,450	1,410	2,860	*2,680	6,360	30,300	18,500	4,100	1,710	*1,880	1,820
24	1,590	*1,340	1,490	2,840	2,760	6,310	31,200	*17,700	4,390	1,700	1,880	1,820
25	1,610	1,320	1,400	2,820	2,780	6,240	32,200	16,900	3,570	1,580	1,970	1,650
26	1,700	1,260	1,410	*2,770	2,800	6,070	33,200	16,100	3,300	*1,480	1,950	1,820
27	*1,610	1,050	1,330	2,700	2,600	5,970	33,700	15,300	3,650	1,440	2,040	*1,830
28	1,640	1,040	1,180	2,350	2,360	5,830	33,700	14,900	*3,560	1,410	2,090	1,840
29	1,600	1,200	*1,260	2,330	2,250	*5,690	32,700	14,100	2,830	1,400	1,980	1,910
30	1,610	1,190	1,130	2,370	-	5,500	32,200	13,800	2,100	1,480	*1,880	1,880
31	1,600	-	1,170	2,370	-	5,240	-	13,400	-	1,520	1,910	-

Month	Observed				Gain or loss in storage in Coeur d'Alene Lake (acre-feet)	Corrected for storage			
	Discharge in second-feet			Run-off in acre-feet		Run-off in acre-feet	Discharge in second-feet		Run- off in inches
	Maxi- mum	Mini- mum	Mean				Mean	Per square mile	
October.....	2,090	1,500	1,735	106,700	-23,960	82,740	1,346	0.309	0.36
November.....	1,600	1,040	1,261	75,010	+4,860	79,870	1,342	.309	.34
December.....	1,490	1,100	1,315	80,850	+3,780	84,630	1,376	.316	.36
Calendar year 1935	24,900	1,040	6,584	4,766,000	-34,180	4,732,000	6,536	1.50	20.39
January.....	2,860	1,210	2,027	124,600	+26,490	151,100	2,457	.565	.65
February.....	2,830	2,250	2,529	145,500	+50,520	94,980	1,651	.380	.41
March.....	7,870	2,020	5,791	355,100	+29,260	385,400	6,268	1.44	1.66
April.....	33,700	4,030	16,430	977,600	+452,500	1,430,000	24,030	5.52	6.16
May.....	31,200	13,400	22,540	1,392,000	-243,800	1,048,000	17,040	3.92	4.52
June.....	12,600	2,100	6,443	383,700	-23,480	360,200	6,053	1.39	1.55
July.....	2,770	1,400	1,932	118,800	- 6,500	112,300	1,826	.420	.48
August.....	2,090	1,420	1,731	106,500	-40,250	66,250	1,077	.248	.29
September.....	2,140	1,600	1,840	109,500	-33,070	76,430	1,284	.295	.33
Water year 1935-36	33,700	1,040	5,478	3,977,000	-4,690	3,972,000	5,471	1.26	17.11

*Sunday.

Spokane River below Little Falls, near Long Lake, Wash.

Location.— Water-stage recorder, lat. 47°50', long. 117°56', in NW¼ sec. 19, T. 27 N., R. 39 E., 1½ miles below Little Falls power plant of Washington Water Power Co. and 5 miles below Long Lake. Zero of gage is 1,200 feet above mean sea level (subject to correction for general adjustment of 1929).

Drainage area.— 6,380 square miles.

Records available.— October 1912 to September 1936.

Average discharge.— 24 years, 7,777 second-feet (based on records corrected for storage in Coeur d'Alene Lake).

Extremes.— Maximum discharge during year, 36,000 second-feet Apr. 28 (gage height, 89.46 feet); minimum, less than 800 second-feet for short periods Nov. 25, Dec. 25, 28, 30, Aug. 2, 4, 8, 9, 10, 17, Sept. 7, 8, 17, 18, 19, 21 (result of regulation).

1912-36: Maximum discharge, 48,000 second-feet Dec. 28, 1933 (gage height, 93.10 feet); minimum recorded discharge, 169 second-feet Sept. 30, 1931 (determined by stream-flow measurement), result of regulation; minimum daily discharge, 530 second-feet Dec. 25, 1929, result of regulation.

Remarks.— Records excellent. Discharge determined from record of plant output Nov. 12-19, Jan. 14-21, Feb. 7-22, May 22, 24-26, Sept. 28-29. Water diverted for irrigation above station. Flow affected considerably by power regulation and by storage in Coeur d'Alene Lake. Part of monthly discharge table corrected for storage in Coeur d'Alene and Long Lakes. Capacity of Coeur d'Alene Lake (between elevations 2,117 and 2,135 feet), 770,000 acre-feet. Capacity of Long Lake (between elevations 1,512 and 1,531 feet), 79,600 acre-feet. Gage-height record collected in cooperation with Washington Water Power Co., which furnished many discharge measurements.

Rating table, water year 1935-36 (gage height, in feet, and discharge, in second-feet)

74.0	1,120	75.5	2,380	77.0	4,130	78.5	6,480	81.0	11,400	85.0	22,100
74.5	1,480	76.0	2,920	77.5	4,810	79.0	7,330	82.0	13,800	87.0	28,100
75.0	1,900	76.5	3,500	78.0	5,630	80.0	9,240	83.0	16,400	89.0	34,400

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	3,280	1,780	*1,340	2,150	2,860	*8,790	6,220	32,700	13,600	2,510	1,770	2,810
2	3,190	1,820	2,120	3,230	*2,670	6,370	5,940	30,500	13,500	2,980	*1,470	2,470
3	3,010	*1,530	2,100	3,060	3,210	7,320	6,090	*29,900	13,000	3,540	2,560	2,850
4	2,940	2,300	2,590	2,650	3,100	7,410	5,680	29,600	11,300	3,100	2,310	2,770
5	2,440	2,280	2,880	*3,020	3,420	8,010	*5,410	29,500	7,970	*3,940	2,610	2,320
6	*2,110	1,720	2,450	2,890	4,050	7,870	5,280	28,500	6,700	3,000	2,770	*1,760
7	2,780	1,820	2,040	3,090	4,140	6,580	4,810	29,200	*5,780	2,960	2,680	1,650
8	2,430	1,990	*2,310	2,800	4,000	*7,420	5,360	27,800	7,280	2,690	2,010	2,200
9	2,390	1,920	2,030	3,220	*4,620	6,640	5,550	27,700	9,300	2,530	*1,390	2,510
10	2,430	*1,790	2,200	3,230	4,240	10,600	4,480	*28,500	11,200	2,260	2,460	2,010
11	2,520	2,220	2,250	2,750	4,190	10,400	6,010	25,400	10,900	3,420	2,650	2,770
12	2,110	1,900	2,150	*2,480	3,570	9,450	*8,170	24,600	10,800	*3,360	2,750	2,710
13	*1,900	1,780	2,050	3,510	3,290	8,110	8,390	25,100	9,560	3,280	2,670	*2,130
14	2,500	1,620	1,690	3,650	3,380	8,640	8,700	24,800	*9,160	2,570	2,380	2,580
15	2,530	1,840	*1,350	3,650	2,820	*9,730	12,300	24,400	8,250	2,490	2,080	2,460
16	2,660	1,830	2,310	3,950	*2,810	8,860	15,000	24,100	6,770	2,550	*1,910	2,300
17	2,510	*1,170	2,480	3,400	3,100	8,910	16,200	*23,800	4,910	2,430	2,350	2,460
18	2,330	2,250	2,710	3,620	3,190	7,570	18,400	23,600	5,450	2,720	2,820	2,410
19	1,940	2,170	2,700	*3,380	3,040	8,550	*21,400	22,500	5,020	*2,550	2,720	2,270
20	*1,680	2,290	2,690	2,950	3,090	8,230	24,200	22,500	6,390	2,520	2,810	*1,640
21	2,310	2,270	2,570	3,140	3,140	8,070	26,300	20,900	6,130	2,410	2,530	2,520
22	2,480	2,360	*1,930	3,350	3,400	*7,270	29,100	20,200	4,720	2,650	2,560	2,570
23	2,600	1,760	2,160	4,020	*3,380	8,140	30,600	19,200	4,580	2,090	*1,960	2,770
24	3,010	*1,350	2,080	4,110	3,490	7,880	31,200	*19,500	6,130	2,100	2,530	2,650
25	2,790	1,950	1,280	2,950	3,650	7,120	33,000	16,800	5,710	1,750	2,800	2,980
26	1,960	2,350	1,820	*3,460	2,750	8,060	*33,700	18,000	3,830	*1,750	2,940	2,470
27	*1,630	2,500	1,920	3,440	3,370	7,130	33,900	16,300	4,030	2,700	2,680	*1,590
28	2,440	1,610	1,920	3,050	3,610	6,160	33,900	15,900	*4,650	2,350	2,750	2,520
29	2,580	2,220	*1,190	3,370	5,380	*7,900	33,900	14,500	3,710	2,260	2,320	2,840
30	2,440	1,890	2,080	3,340	—	6,780	31,600	12,500	3,230	2,210	*2,080	3,010
31	2,230	—	1,990	3,260	—	6,790	—	14,100	—	2,270	3,000	—

Month	Observed				Gain or loss in storage in Coeur d'Alene and Long Lakes (acre-feet)	Corrected for storage			
	Discharge in second-feet			Run-off in acre-feet		Run-off in acre-feet	Discharge in second-feet		Run- off in inches
	Maxi- mum	Mini- mum	Mean				Mean	Per square mile	
October.....	3,280	1,630	2,466	151,600	-24,710	126,900	2,064	0.324	0.37
November.....	2,500	1,170	1,943	115,600	+6,060	121,700	2,045	.321	.36
December.....	2,710	1,120	2,085	128,200	+5,730	133,900	2,178	.341	.39
Calendar year 1935	26,500	1,120	7,846	5,680,000	-27,330	5,652,000	7,807	1.22	16.61
January.....	4,110	2,150	3,247	198,600	+24,540	224,100	3,645	.571	.66
February.....	5,380	2,670	3,477	200,000	-55,270	144,700	2,516	.394	.42
March.....	10,600	6,160	7,960	489,400	+20,210	509,600	8,228	1.30	1.50
April.....	33,900	4,480	17,030	1,013,000	+453,800	1,467,000	24,650	3.86	4.31
May.....	52,700	12,500	23,240	1,429,000	-335,100	1,094,000	17,790	2.79	3.22
June.....	13,600	3,230	7,355	439,400	-18,250	421,200	7,079	1.11	1.24
July.....	3,940	1,750	2,630	161,700	-7,750	154,000	2,505	.393	.45
August.....	3,000	1,390	2,442	150,100	-43,300	106,800	1,737	.272	.31
September.....	3,010	1,590	2,434	144,500	-32,420	112,400	1,889	.296	.33
Water year 1935-36	33,900	1,120	6,368	4,622,000	-6,440	4,616,000	6,359	.997	13.56

*Sunday.

St. Joe River at Calder, Idaho

Location.- Water-stage recorder, lat. 47°16', long. 116°11', in sec. 3, T. 45 N., R. 2 E., 150 feet southwest of Chicago, Milwaukee & St. Paul Railway station at Calder. Zero of gage is about 2,100 feet above mean sea level.

Drainage area.- 1,080 square miles.

Records available.- July 1920 to September 1936, April 1911 to September 1912 at station $\frac{2}{3}$ miles downstream.

Average discharge.- 17 years, 2,370 second-feet.

Extremes.- Maximum discharge during year, 20,000 second-feet Apr. 18 (gage height, 88.65 feet); minimum, 178 second-feet Dec. 3 (gage height, 78.49 feet).
1911-12, 1920-36: Maximum discharge, 53,000 second-feet (determined from slope between stations upstream) Dec. 23, 1933 (gage height, 92.5 feet); minimum, 96 second-feet Dec. 5, 1928 (gage height, 78.43 feet).

Remarks.- Records good except those for Oct. 30 to Nov. 4 (computed on basis of hydrographic comparison with record for Coeur d'Alene River near Cataldo) and those for period of ice effect, Jan. 30 to Mar. 8 (computed on basis of hydrographic comparison with record for Coeur d'Alene River near Cataldo, one discharge measurement, gage heights, and weather records), which are fair. No diversions above gage. Operation of splash dam at Marble Creek causes some diurnal fluctuation during log-driving season. Gage-height record and results of nine discharge measurements furnished by Washington Water Power Co.

Rating table, water year 1935-36 (gage height, in feet, and discharge, in second-feet)

78.40	160	81.40	1,830	84.00	5,470	86.40	11,680
79.00	301	82.00	2,460	84.60	6,700	87.00	13,770
79.60	535	82.60	3,200	85.20	8,140	87.60	15,950
80.20	865	83.40	4,410	85.80	9,800	88.20	18,250
80.80	1,310						

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	313	300	235	335	300	1,500	568	10,700	4,250	1,310	574	372
2	310	290	232	332	290	1,700	564	11,000	3,950	1,230	568	372
3	307	290	212	326	270	1,800	608	11,400	3,860	1,190	601	408
4	307	300	216	336	280	1,400	612	13,000	3,340	1,190	530	416
5	307	339	238	540	280	1,300	634	13,000	3,070	1,150	525	454
6	307	365	304	449	280	1,300	663	10,700	2,940	1,120	510	412
7	310	362	400	335	290	1,230	795	8,400	3,860	1,080	510	400
8	307	355	424	323	300	1,230	1,600	7,630	4,750	1,120	510	379
9	304	393	393	313	300	2,300	2,300	7,880	4,250	1,080	505	358
10	301	355	376	326	300	1,650	3,140	9,220	3,930	1,010	530	355
11	304	332	362	476	300	1,190	6,280	11,000	3,560	1,010	485	348
12	358	339	449	741	300	1,010	9,540	11,400	3,480	978	476	355
13	458	352	436	753	300	978	11,000	10,700	3,140	915	476	362
14	432	332	362	596	300	885	12,000	10,700	3,000	885	472	432
15	379	323	284	476	310	795	12,400	11,400	2,920	855	458	472
16	358	332	228	386	320	705	13,800	10,400	2,780	825	444	404
17	326	332	228	372	320	723	15,800	8,400	2,580	795	458	376
18	359	284	220	355	320	747	17,500	7,390	2,450	795	440	362
19	472	264	238	342	320	765	17,500	7,150	2,300	765	420	355
20	490	295	258	332	320	815	16,000	6,270	2,130	747	420	339
21	355	313	278	320	310	1,270	15,200	5,660	2,030	729	416	345
22	348	323	301	320	300	1,120	16,300	5,100	1,930	711	400	332
23	342	339	329	313	310	978	16,300	4,750	1,830	711	396	316
24	323	390	332	313	320	855	16,300	4,750	1,780	711	428	310
25	320	390	386	275	340	795	15,600	4,750	1,700	705	462	307
26	320	379	416	264	360	795	13,800	4,920	1,600	705	432	307
27	320	348	420	281	450	825	11,700	5,100	1,520	634	416	304
28	323	342	416	292	600	795	10,700	5,100	1,430	608	396	313
29	358	316	368	295	1,000	693	10,100	4,920	1,430	601	386	323
30	350	275	329	300	-	634	10,100	4,680	1,350	590	379	304
31	320	-	342	310	-	535	-	4,410	-	584	393	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acre-feet
October.....	10,688	490	301	344	0.319	0.37	21,160
November.....	9,949	393	254	332	0.307	.34	19,730
December.....	10,032	449	212	324	0.300	.35	19,900
Calendar year 1935.....	790,954	12,900	212	2,167	2.01	27.24	1,569,000
January.....	11,866	753	264	383	.355	.41	23,540
February.....	9,990	1,000	270	344	.319	.34	19,810
March.....	33,413	2,300	535	1,078	.998	1.15	66,280
April.....	279,222	17,500	568	8,307	8.62	9.62	553,800
May.....	251,750	13,000	4,410	8,122	7.52	8.67	499,400
June.....	83,010	4,750	1,350	2,767	2.56	2.86	164,600
July.....	27,337	1,310	584	682	.817	.94	54,220
August.....	14,416	601	379	465	.431	.50	28,590
September.....	10,892	472	304	363	.336	.37	21,600
Water year 1935-36.....	752,580	17,500	212	2,056	1.90	25.92	1,493,000

St. Maries River at Lotus, Idaho

Location.- Staff gage, lat. 47°14', long. 116°37', in sec. 20, T. 45 N., R. 2 W., just below Lotus. Zero of gage is approximately 2,160 feet above mean sea level.

Drainage area.- 420 square miles.

Records available.- July 1911 to October 1912, July 1920 to September 1936.

Average discharge.- 16 years (1920-36), 509 second-feet.

Extremes.- Maximum discharge observed during year, 3,880 second-feet Apr. 18 (gage height, 6.92 feet); minimum discharge, 32 second-feet Aug. 27 (gage height, 3.40 feet).
1911-12, 1920-36: Maximum discharge observed, 23,800 second-feet Dec. 22, 23, 1933 (gage height, 12.1 feet); minimum (estimated), 16 second-feet Nov. 21, 1929; minimum gage height, 2.71 feet Nov. 20, 1929.

Remarks.- Records good except those for period of ice effect, Nov. 2-25, Dec. 18 to Mar. 7, which were computed on basis of five discharge measurements, observer's notes, gage heights, weather records, and hydrographic comparisons with records for nearby streams and are poor. Gage read once daily. No diversions above gage. Gage-height record and results of 10 discharge measurements furnished by Washington Water Power Co.

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	42	33	54	140	70	800	272	1,440	309	136	56	37
2	42	40	52	140	60	1,500	267	1,440	309	132	54	42
3	41	40	50	140	60	1,600	247	1,500	408	129	52	52
4	42	50	39	180	60	1,400	229	1,560	460	129	52	61
5	42	60	44	250	60	1,100	208	1,830	368	126	52	84
6	48	60	56	220	60	1,000	228	2,120	257	120	52	74
7	52	80	74	190	60	900	450	1,560	495	129	52	65
8	48	90	106	160	70	775	951	1,390	1,630	126	52	54
9	46	100	114	140	70	2,360	1,500	1,150	1,320	139	50	46
10	44	90	156	160	70	1,500	1,760	1,200	728	129	46	39
11	44	90	136	190	70	1,060	2,360	1,260	593	126	48	39
12	56	90	195	250	70	972	3,360	1,260	543	126	48	39
13	92	80	220	330	70	872	3,670	1,260	468	114	50	44
14	74	70	169	290	70	756	3,460	1,200	414	106	46	52
15	72	60	126	250	70	495	3,360	1,260	368	97	44	63
16	65	80	70	190	80	495	3,160	1,260	382	90	39	70
17	61	60	59	140	80	511	3,460	1,120	356	87	37	56
18	56	40	40	110	80	480	3,670	951	252	84	37	54
19	54	40	40	80	80	511	3,360	804	262	84	35	50
20	70	40	40	70	80	709	2,980	691	212	82	35	50
21	74	40	40	70	80	1,200	2,620	663	220	77	37	48
22	70	40	40	70	80	775	2,790	593	212	74	35	44
23	65	60	40	60	80	628	2,790	519	208	72	35	37
24	63	80	40	50	100	356	2,700	503	184	72	41	41
25	61	100	40	50	150	332	2,620	458	180	70	41	41
26	59	114	90	50	220	326	2,530	480	166	65	37	39
27	56	112	120	50	300	382	2,050	458	166	63	32	39
28	63	103	150	60	380	610	1,700	458	162	61	35	39
29	63	87	140	60	500	356	1,500	414	146	61	39	39
30	61	87	130	70	-	315	1,500	343	142	59	39	39
31	53	-	130	70	-	247	-	338	-	56	37	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acres-feet
October.....	1,759	92	33	56.7	0.135	0.16	3,490
November.....	2,116	114	33	70.5	.168	.19	4,200
December.....	2,780	220	39	89.7	.214	.25	5,510
Calendar year 1935.....	193,880	4,330	33	531	1.26	17.18	384,600
January.....	4,280	330	50	138	.329	.38	8,490
February.....	3,280	500	60	113	.269	.29	6,510
March.....	25,314	2,360	247	817	1.95	2.25	50,210
April.....	61,753	3,670	208	2,055	4.90	5.47	122,500
May.....	31,473	2,120	338	1,015	2.42	2.79	62,430
June.....	11,890	1,630	142	396	.943	1.05	23,580
July.....	3,021	139	56	97.5	.232	.27	5,990
August.....	1,545	56	32	43.4	.103	.12	2,670
September.....	1,477	84	37	49.2	.117	.13	2,930
Water year 1935-36.....	150,488	3,670	32	411	.979	13.35	298,500

Hayden Lake at Hayden Lake, Idaho

Location.- Staff gage, lat. 47°46', long. 116°45', in sec. 18, T. 51 N., R. 3 W., at Avondale and Hayden Lake pumping plants, a quarter of a mile north of Bozanta Tavern. Zero of gage is 2,200.00 feet above mean sea level, U. S. Coast and Geodetic Survey datum.

Records available.- May 1920 to September 1936.

Extremes.- Maximum water-surface elevation during year, 2,229.85 feet May 11-14; minimum, 2,224.21 feet Sept. 30.
1920-36: Maximum water-surface elevation, 2,240.41 feet Apr. 30 to May 18, 1921; minimum, 2,219.38 feet Dec. 16, 1931.

Remarks.- Records good. Gage read once daily. Water is pumped from lake for irrigation and domestic purposes. No observation Oct. 29.

Gage height, in feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	25.66	25.06	24.85	24.86	25.55	25.58	26.90	29.58	29.20	28.41	26.70	24.82
2	25.64	25.04	24.84	24.93	25.53	25.60	26.88	29.62	29.14	28.36	26.62	24.82
3	25.62	25.02	24.84	24.94	25.52	25.68	26.84	29.65	29.18	28.29	26.56	24.82
4	25.59	25.00	24.82	24.98	25.50	25.72	26.80	29.66	29.18	28.23	26.49	24.80
5	25.57	24.98	24.80	25.18	25.50	25.78	26.78	29.71	29.16	28.18	26.44	24.80
6	25.55	24.98	24.78	25.20	25.52	25.82	26.78	29.79	29.14	28.13	26.40	24.78
7	25.54	24.96	24.78	25.20	25.53	25.84	26.78	29.81	29.20	28.08	26.32	24.76
8	25.52	24.94	24.80	25.22	25.54	25.88	26.78	29.82	29.24	28.07	26.24	24.74
9	25.48	24.94	24.82	25.22	25.56	26.08	26.78	29.83	29.24	28.03	26.18	24.71
10	25.46	24.98	24.82	25.27	25.54	26.18	26.78	29.84	29.23	28.00	26.12	24.69
11	25.43	24.96	24.82	25.30	25.52	26.24	26.78	29.85	29.22	27.96	26.07	24.65
12	25.41	24.96	24.88	25.38	25.52	26.31	26.86	29.85	29.19	27.90	26.02	24.61
13	25.42	24.98	24.90	25.46	25.50	26.38	27.06	29.85	29.16	27.84	25.96	24.58
14	25.42	24.98	24.90	25.51	25.50	26.44	27.20	29.85	29.14	27.77	25.90	24.56
15	25.40	24.98	24.88	25.53	25.50	26.46	27.41	29.84	29.11	27.72	25.84	24.52
16	25.38	24.98	24.87	25.58	25.48	26.48	27.60	29.83	29.10	27.66	25.78	24.50
17	25.34	24.98	24.86	25.60	25.46	26.48	27.78	29.80	29.07	27.62	25.72	24.49
18	25.30	24.98	24.85	25.60	25.45	26.50	28.02	29.76	29.03	27.59	25.64	24.46
19	25.28	24.96	24.84	25.61	25.44	26.53	28.24	29.74	29.00	27.53	25.58	24.44
20	25.28	24.92	24.82	25.61	25.43	26.56	28.47	29.70	28.98	27.46	25.51	24.42
21	25.27	24.92	24.80	25.61	25.43	26.58	28.62	29.66	28.95	27.42	25.45	24.41
22	25.28	24.90	24.78	25.61	25.42	26.60	28.76	29.62	28.91	27.37	25.38	24.38
23	25.28	24.90	24.76	25.62	25.46	26.62	28.91	29.58	28.87	27.32	25.32	24.36
24	25.26	24.90	24.75	25.62	25.46	26.63	29.02	29.54	28.83	27.27	25.25	24.33
25	25.23	24.90	24.75	25.62	25.45	26.66	29.18	29.50	28.80	27.22	25.19	24.31
26	25.20	24.90	24.76	25.62	25.44	26.68	29.30	29.46	28.76	27.14	25.12	24.29
27	25.19	24.81	24.76	25.62	25.44	26.70	29.38	29.43	28.74	27.06	25.07	24.26
28	25.18	24.90	24.77	25.62	25.52	26.78	29.46	29.38	28.64	26.96	25.02	24.24
29	-	24.90	24.77	25.60	25.54	26.80	29.60	29.33	28.54	26.88	24.96	24.22
30	25.12	24.87	24.78	25.58	-	26.84	29.55	29.28	28.46	26.80	24.94	24.21
31	25.10	-	24.81	25.56	-	26.86	-	29.24	-	26.75	24.88	-

Spokane Valley Farms Co.'s canal at Post Falls, Idaho

Location.— Staff gage, lat. 47°43', long. 116°57', in NE¼ sec. 4, T. 50 N., R. 5 W., 1,200 feet below head gates and half a mile west of Post Falls.

Records available.— May 1911 to September 1917, September 1919 to September 1936.

Extremes.— Maximum discharge observed during year, 304 second-feet May 28 (gage height, 5.04 feet); no flow Oct. 1 to May 1 and Sept. 17-30.
1911-17, 1919-36: Maximum discharge observed, that of May 28, 1936; maximum gage height, 5.06 feet Aug. 9, 1935; no flow during nonirrigation season.

Remarks.— Records good. Once-daily staff readings and time of gate changes furnished by observer. Canal diverts water for irrigation from Spokane River in SE¼ sec. 3, T. 50 N., R. 5 W. Gage-height record furnished by Spokane Valley Farms Co. Results of three discharge measurements furnished by Washington Water Power Co.

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1								0	295	288	251	238
2								43	289	286	251	238
3								56	288	285	251	237
4								94	291	284	251	236
5								126	296	282	251	236
6								163	298	281	248	235
7								187	293	280	244	221
8								220	290	280	243	224
9								235	283	279	243	224
10								236	282	277	243	215
11								262	286	276	243	209
12								276	285	278	241	208
13								277	286	274	244	208
14								277	286	272	243	180
15								284	293	262	243	187
16								288	291	256	242	56
17								288	290	258	243	0
18								289	290	259	241	0
19								289	285	257	242	0
20								290	283	256	243	0
21								291	284	254	243	0
22								289	284	255	243	0
23								292	284	254	241	0
24								291	283	254	241	0
25								292	283	253	240	0
26								294	282	252	239	0
27								298	287	252	238	0
28								297	290	252	240	0
29								298	291	252	240	0
30								299	288	252	240	0
31								294	-	251	239	-
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 1935.....	38,470		291		0		105		76,310			
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.....	7,415		299		0		239		14,710			
June.....	8,636		298		282		288		17,130			
July.....	8,251		288		251		266		16,370			
August.....	7,545		251		238		243		14,870			
September.....	3,332		238		0		111		6,610			
Water year 1935-36.....	35,179		299		0		96.1		69,790			

Okanogan River at Okanogan Falls, British Columbia
(International gaging station)

Location.- Water-stage recorder, lat. 49°21', long. 119°35', below falls at Okanogan Falls. Prior to Apr. 14, 1936, staff gage at same site and datum.

Drainage area.- 2,550 square miles.

Records available.- October 1930 to September 1936; March 1915 to September 1930 in Canadian water-resources papers.

Average discharge.- 21 years, 462 second-feet.

Extremes.- Maximum discharge observed during year, 2,340 second-feet May 15 (gage height, 4.10 feet); minimum, 176 second-feet Apr. 13 (gage height, 1.05 feet).

1915-36: Maximum discharge observed, 2,680 second-feet June 10, 1928; minimum, 4.6 second-feet Mar. 14, 1931.

Remarks.- Records fair. Staff gage read once daily Oct. 1 to Apr. 13. Diversions above station for irrigation. Flow regulated by control dam at outlet of Okanogan Lake. This is one of the international gaging stations maintained by Canada under agreement with the United States.

Rating tables, water year 1935-36 (gage height, in feet, and discharge, in second-feet)

Oct. 1 to May 14

1.0	167
1.5	330
2.0	620
2.5	996
3.0	1,409

May 15 to Sept. 30

1.7	393
2.0	561
2.5	901
3.0	1,303

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	802	794	720	517	277	277	221	607	697	851	786	561
2	797	832	697	517	277	277	227	594	677	836	786	574
3	794	794	676	492	251	266	240	600	677	829	772	561
4	817	794	634	463	255	270	244	587	677	815	765	549
5	802	602	620	440	244	262	227	676	670	808	765	543
6	825	802	607	418	258	277	237	764	710	806	765	543
7	832	802	561	402	252	247	266	825	766	815	765	543
8	825	810	574	350	247	266	251	846	829	815	768	543
9	802	840	600	396	244	262	247	876	865	815	751	543
10	794	602	529	375	240	251	230	666	901	843	758	543
11	794	802	548	402	230	237	198	866	945	856	758	543
12	797	794	567	375	247	247	180	886	959	851	724	537
13	779	787	561	360	211	247	178	894	959	856	690	537
14	602	779	554	360	220	240	204	894	959	856	677	537
15	840	802	561	360	230	230	224	901	974	956	644	537
16	848	779	554	360	237	221	227	845	952	836	611	537
17	810	794	554	355	244	247	270	794	997	822	599	537
18	855	794	548	355	247	237	330	751	1,000	822	586	537
19	840	764	548	355	251	247	440	710	997	822	574	537
20	825	794	544	350	230	237	504	697	997	822	561	537
21	871	794	525	340	262	247	542	724	974	822	549	537
22	832	779	529	303	266	221	504	779	974	815	543	537
23	794	794	535	345	251	217	480	808	952	808	537	537
24	825	779	504	340	262	224	542	829	945	794	537	537
25	802	787	517	350	262	237	634	843	916	779	537	530
26	734	772	535	330	270	224	690	851	901	786	543	530
27	697	772	529	330	281	227	720	851	858	786	543	530
28	825	794	554	355	262	244	720	858	843	786	543	537
29	794	772	535	303	262	255	676	865	843	786	543	537
30	779	749	525	284	-	247	648	815	851	786	543	545
31	794	-	517	285	-	230	-	756	-	786	549	-
Month						Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet		
October.....						25,007	871	697	807	49,600		
November.....						25,753	840	749	792	47,100		
December.....						17,566	720	504	567	34,800		
Calendar year 1935.....						274,980	1,110	457	753	545,400		
January.....						11,607	517	285	374	23,000		
February.....						7,270	281	211	251	14,400		
March.....						7,618	277	217	246	16,100		
April.....						11,301	720	176	377	22,400		
May.....						24,502	901	587	790	46,600		
June.....						26,285	1,000	670	876	52,100		
July.....						25,376	658	779	819	50,500		
August.....						20,062	766	537	647	39,800		
September.....						16,234	574	530	541	32,200		
Water year 1935-36.....						216,583	1,000	176	592	429,000		

Osoyoos Lake near Oroville, Wash.

(International gaging station)

Location.— Water-stage recorder, lat. 48°59'15", long. 119°27'15", in lot 1, sec. 8, T. 40 N., R. 27 E., 1 mile south of Canadian boundary and 3 miles north of Oroville. Gage datum is at mean sea level, subject to correction for 1929 general adjustment.

Drainage area.— 3,250 square miles.

Records available.— July 1928 to September 1936.

Extremes.— Maximum stage recorded during year, 915.12 feet June 20; minimum, 912.83 feet Feb. 20, 21.

1928-36: Maximum stage recorded, 917.23 feet Apr. 28, 1934; minimum, 911.21 feet Oct. 14, 1929.

Remarks.— Records excellent. Stage may have been affected by ice at lake outlet Feb. 7-18. Diversions in Canada for irrigation. Okanogan River subject to natural regulation in several lakes, and, in the interest of navigation, to artificial regulation in Okanogan Lake. This station is one of the international gaging stations maintained by the United States under agreement with Canada.

Gage height, in feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	14.16	14.16	14.27	13.74	13.22	12.87	13.00	14.56	14.59	14.62	14.12	13.80
2	14.17	14.14	14.26	13.74	13.20	12.89	13.03	14.57	14.66	14.56	14.08	13.81
3	14.18	14.13	14.25	13.73	13.17	12.91	13.03	14.57	14.77	14.52	14.07	13.81
4	14.19	14.14	14.23	13.73	13.17	12.93	13.02	14.61	14.80	14.49	14.08	13.81
5	14.20	14.16	14.20	13.72	13.16	12.93	13.02	14.67	14.81	14.47	14.09	13.81
6	14.21	14.18	14.16	13.70	13.15	12.94	13.03	14.74	14.80	14.42	14.08	13.81
7	14.23	14.19	14.13	13.68	-	12.94	13.03	14.78	14.78	14.40	14.06	13.83
8	14.26	14.22	14.11	13.66	-	12.96	13.03	14.82	14.75	14.37	14.04	13.82
9	14.26	14.25	14.08	13.63	-	12.96	13.06	14.85	14.75	14.34	14.05	13.82
10	14.28	14.19	14.06	13.62	-	12.97	13.08	14.88	14.76	14.35	14.06	13.81
11	14.25	14.21	14.03	13.60	-	12.99	13.11	14.92	14.78	14.37	14.05	13.80
12	14.25	14.23	14.01	13.58	-	12.99	13.12	14.92	14.84	14.39	14.04	13.81
13	14.26	14.24	13.98	13.56	-	13.01	13.12	14.93	14.88	14.39	14.05	13.80
14	14.29	14.25	13.97	13.53	-	13.03	13.13	14.94	14.91	14.39	14.04	13.80
15	14.32	14.27	13.94	13.50	-	13.05	13.14	14.97	14.93	14.37	14.02	13.79
16	14.33	14.28	13.91	13.47	-	13.05	13.14	14.99	14.96	14.34	14.00	13.79
17	14.36	14.29	13.90	13.44	-	13.04	13.15	15.00	15.01	14.32	13.96	13.80
18	14.39	14.29	13.88	13.43	-	13.05	13.22	15.00	15.04	14.32	13.93	13.80
19	14.41	14.29	13.86	13.41	12.84	13.05	13.33	14.99	15.07	14.31	13.91	13.82
20	14.43	14.29	13.84	13.38	12.83	13.05	13.46	14.95	15.10	14.31	13.90	13.83
21	14.46	14.29	13.82	13.36	12.83	13.04	13.56	14.88	15.10	14.30	13.87	13.85
22	14.47	14.29	13.82	13.34	12.84	13.04	13.74	14.82	15.10	14.30	13.83	13.86
23	14.48	14.29	13.80	13.33	12.84	13.04	13.87	14.77	15.09	14.28	13.80	13.86
24	14.44	14.29	13.78	13.32	12.84	13.06	13.99	14.72	15.06	14.24	13.81	13.87
25	14.43	14.29	13.77	13.31	12.84	13.06	14.12	14.69	15.00	14.21	13.81	13.86
26	14.36	14.29	13.77	13.29	12.84	13.05	14.27	14.66	14.95	14.20	13.81	13.85
27	14.32	14.29	13.77	13.28	12.85	13.06	14.37	14.63	14.89	14.19	13.80	13.85
28	14.33	14.29	13.76	13.27	12.86	13.07	14.45	14.63	14.81	14.19	13.81	13.86
29	14.25	14.28	13.76	13.26	12.87	13.05	14.49	14.61	14.74	14.18	13.79	13.87
30	14.17	14.27	13.75	13.24	-	13.03	14.53	14.59	14.68	14.17	13.79	13.88
31	14.16	-	13.74	13.24	-	13.01	-	14.59	-	14.14	13.76	-

Note.— Add 900 feet to obtain elevation above mean sea level.

Okanogan River near Tonasket, Wash.

(International gaging station)

Location.- Water-stage recorder, lat. 48°38'0", long. 119°27'50", in lot 3, sec. 8, T. 36 N., R. 27 E., 1,000 feet above Chewilken Creek and 5½ miles south of Tonasket.

Drainage area.- 7,250 square miles.

Records available.- April 1929 to September 1936.

Extremes.- Maximum discharge during year, 11,800 second-feet May 18 (gage height, 12.60 feet); minimum, 425 second-feet Feb. 8 (gage height, 4.20 feet), may have been lower later in February, when stage-discharge relation was affected by ice.

1929-36: Maximum discharge, 25,400 second-feet Apr. 27, 1934 (gage height, 18.3 feet); minimum, 128 second-feet Sept. 5, 1931 (gage height, 3.43 feet).

Remarks.- Records excellent except those for periods of ice effect, Feb. 8 to Mar. 10, which were computed on basis of one discharge measurement, gage heights, and weather records and are poor. Numerous diversions for irrigation above station. Flow subject to natural regulation in several lakes, and, in the interest of navigation, to artificial regulation in Okanogan Lake. Operation of power plant on Similkameen River affects low-water flow slightly. This is one of the international gaging stations maintained by the United States under agreement with Canada.

Rating table, water year 1935-36 except period of ice effect (gage height, in feet, and discharge, in second-feet)

4.2	425	7.5	2,950
4.5	585	8.0	3,600
5.0	860	9.0	5,100
5.5	1,170	10.0	6,800
6.0	1,520	11.0	8,650
6.5	1,900	12.0	10,600
7.0	2,350	13.0	12,600

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,200	1,340	1,380	1,100	778	700	596	6,800	10,000	3,070	1,070	684
2	1,200	1,240	1,490	1,100	722	700	590	7,340	10,000	2,950	1,070	678
3	1,170	1,170	1,520	1,070	722	700	590	8,480	9,800	2,830	1,170	722
4	1,170	1,200	1,450	1,070	690	700	590	8,840	10,600	2,710	1,100	722
5	1,170	1,200	1,420	1,070	684	720	602	9,220	9,220	2,660	980	778
6	1,170	1,240	1,310	1,070	563	720	574	9,800	8,270	2,600	980	750
7	1,140	1,310	1,280	1,040	456	720	555	9,030	7,520	2,490	1,040	722
8	1,100	1,420	1,240	1,010	470	720	568	8,270	7,520	2,380	1,010	722
9	1,140	1,480	1,280	980	450	720	558	7,890	8,270	2,330	980	678
10	1,170	1,450	1,310	1,010	500	720	574	7,700	7,700	2,230	980	695
11	1,140	1,380	1,310	1,010	570	720	580	7,890	7,160	2,230	950	656
12	1,140	1,380	1,280	1,040	640	722	585	8,840	7,160	2,130	920	684
13	1,100	1,420	1,340	1,010	620	750	602	9,410	6,800	2,040	920	678
14	1,140	1,420	1,240	980	620	750	750	9,800	6,440	1,940	920	684
15	1,240	1,420	1,200	950	610	750	1,070	11,200	6,100	1,940	920	678
16	1,310	1,420	1,200	920	610	750	1,420	11,600	6,100	1,820	860	656
17	1,340	1,420	1,170	920	610	750	1,590	10,600	6,100	1,750	860	695
18	1,340	1,380	1,100	890	610	722	2,080	9,800	6,100	1,700	832	695
19	1,340	1,380	1,070	860	580	695	3,530	9,220	5,930	1,620	860	690
20	1,420	1,380	1,010	860	580	695	4,940	9,410	5,590	1,560	860	678
21	1,480	1,310	1,010	860	580	673	5,100	9,030	5,260	1,620	832	722
22	1,420	1,310	950	860	590	678	5,420	8,270	4,940	1,480	805	722
23	1,420	1,310	920	860	600	684	6,100	7,700	4,780	1,480	778	722
24	1,560	1,380	950	860	610	673	6,620	7,520	4,470	1,480	750	722
25	1,560	1,420	1,010	890	610	673	7,160	7,520	4,320	1,380	722	695
26	1,580	1,420	1,040	860	610	651	7,160	7,700	4,170	1,310	722	722
27	1,520	1,420	1,100	860	640	684	7,160	8,270	3,880	1,280	695	750
28	1,520	1,380	1,140	805	700	662	6,980	9,030	3,600	1,280	695	722
29	1,520	1,380	1,170	722	700	662	6,800	9,410	3,460	1,200	722	722
30	1,520	1,380	1,140	832	-	646	6,800	9,220	3,260	1,200	722	722
31	1,450	-	1,140	832	-	612	-	9,410	-	1,200	695	-
Month	Second-foot-days					Maximum	Minimum	Mean	Run-off in acre-feet			
October	40,670					1,560	1,100	1,312	80,670			
November	40,760					1,480	1,170	1,359	80,850			
December	37,160					1,520	920	1,199	73,710			
Calendar year 1935	1,212,960					14,700	430	3,323	2,406,000			
January	29,261					1,100	722	944	58,040			
February	17,775					778	450	613	35,260			
March	21,722					750	612	701	43,080			
April	88,274					7,160	558	2,942	175,100			
May	274,200					11,600	6,800	8,245	543,900			
June	194,520					10,600	3,260	6,464	386,800			
July	89,820					3,070	1,200	1,930	119,700			
August	27,420					1,170	695	885	55,590			
September	21,166					778	656	706	41,980			
Water year 1935-36	852,748					11,600	450	2,330	1,691,000			

Similkameen River near Nighthawk, Wash.

(International gaging station)

Location.- Water-stage recorder, lat. 48°59'10", long. 119°37'0", in NW¼ sec. 7, T. 40 N., R. 25 E., about 1½ miles below Nighthawk.

Drainage area.- 3,420 square miles.

Records available.- September 1928 to September 1935. Comparable records of mean monthly discharge (including Oroville-Tonasket Irrigation District canal) at station near Oroville May 1911 to September 1928.

Average discharge.- 25 years, 2,131 second-feet.

Extremes.- Maximum discharge during year, 11,400 second-feet May 15 (gage height, 10.34 feet); minimum, probably less than 230 second-feet, occurred during period of ice effect in February.

1928-36: Maximum discharge, 27,200 second-feet Apr. 26, 1934 (gage height, 14.96 feet); minimum, 120 second-feet Jan. 6, 1930 (gage height, 2.05 feet).

Remarks.- Records excellent except those for period of ice effect, Jan. 30 to Mar. 10, which were computed on basis of one discharge measurement, gage heights, and weather records and are poor. Some regulation at high stages by overflow into Palmer Lake. Small irrigation diversions above station. This is one of the international gaging stations maintained by the United States under agreement with Canada.

Rating tables, water year 1935-36 except period of ice effect (gage height, in feet, and discharge, in second-feet)

Oct. 1 to May 15				May 16 to Sept. 30			
2.5	229	6.0	3,010	2.5	215		
3.0	361	7.0	4,440	3.0	338		
3.5	620	8.0	6,210	3.5	555		
4.0	960	9.0	8,200	4.0	930		
4.5	1,380	10.0	10,590	4.5	1,340		
5.0	1,870	11.0	13,400	5.0	1,840		

Note.- Same as previous table above 5.5 feet.

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	500	436	584	466	280	330	347	6,600	9,310	2,000	525	329
2	494	423	632	461	280	340	354	7,400	8,620	1,900	503	332
3	478	368	596	461	270	350	354	7,800	9,800	1,840	492	345
4	466	373	544	461	260	380	359	8,000	9,070	1,780	476	368
5	450	398	498	450	260	390	351	8,840	7,600	1,730	460	384
6	445	456	440	431	250	410	347	8,410	7,000	1,680	450	360
7	436	560	416	407	240	430	354	7,600	6,600	1,580	430	342
8	436	584	445	394	240	450	356	7,000	7,000	1,530	420	332
9	436	590	505	398	230	450	361	6,600	7,200	1,430	411	329
10	426	532	544	436	240	460	365	6,800	6,600	1,430	402	323
11	421	522	522	445	260	478	373	7,400	6,020	1,430	388	314
12	426	544	522	431	250	485	402	8,200	6,830	1,380	375	317
13	421	566	510	421	250	493	551	8,620	5,450	1,300	371	314
14	450	549	500	412	240	472	875	9,650	4,310	1,210	368	314
15	466	532	488	407	240	456	1,200	11,200	5,080	1,170	360	317
16	478	522	461	398	240	445	1,340	10,300	5,080	1,090	353	320
17	483	516	421	398	240	436	1,720	9,070	4,910	1,050	360	320
18	483	510	394	402	250	421	2,680	8,410	4,910	986	364	314
19	522	494	354	394	260	412	4,440	8,200	4,440	938	360	314
20	620	440	341	402	260	402	4,910	8,410	4,140	892	356	311
21	602	402	321	402	270	394	4,910	7,600	3,760	855	356	305
22	578	412	310	402	280	398	5,260	7,000	3,540	810	353	305
23	554	466	312	402	290	398	5,830	6,800	3,340	773	338	297
24	527	505	341	416	300	390	6,400	6,600	3,140	731	335	297
25	527	522	377	416	280	386	6,400	6,800	2,940	704	332	311
26	527	516	440	416	290	386	6,600	7,000	2,760	671	329	308
27	532	494	494	386	300	382	6,210	7,800	2,620	662	335	308
28	538	494	516	358	310	382	6,020	8,410	2,400	627	342	311
29	578	494	516	312	320	369	6,080	8,410	2,880	609	345	311
30	608	494	505	300	-	358	6,020	8,410	2,170	573	329	305
31	530	-	483	280	-	347	-	8,840	-	549	326	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acres-feet
October.....	15,438	620	421	498	0.146	0.17	30,620
November.....	14,714	590	368	490	.145	.16	29,180
December.....	14,522	632	310	462	.135	.16	26,410
Calendar year 1935.....	933,579	14,600	280	2,558	.748	10.16	1,852,000
January.....	12,565	466	280	405	.118	.14	24,920
February.....	7,680	320	230	265	.077	.06	16,230
March.....	12,668	483	330	409	.120	.14	26,130
April.....	81,710	6,600	347	2,724	.796	.89	162,100
May.....	245,080	11,200	6,600	8,003	2.34	2.70	492,100
June.....	169,620	9,800	2,170	5,287	1.85	1.73	314,600
July.....	35,900	2,000	549	1,158	.359	.39	71,210
August.....	11,944	595	326	388	.113	.13	25,690
September.....	9,677	388	297	323	.094	.10	19,190
Water year 1935-36.....	623,318	11,200	230	1,703	.498	6.79	1,236,000

Methow River at Twisp, Wash.

Location.- Water-stage recorder, lat. 48°21'40", long. 120°6'50", in sec. 17, T. 33 N., R. 22 E., at highway bridge at Twisp, a quarter of a mile below Twisp River.

Drainage area.- 1,330 square miles.

Records available.- June 1919 to September 1929, October 1933 to September 1936.

Average discharge.- 13 years, 1,177 second-feet.

Extremes.- Maximum discharge during year, 12,000 second-feet June 3 (gage height, 8.72 feet); minimum, 170 second-feet Aug. 30, 31, Sept. 1 (gage height, 1.49 feet).
1919-29, 1933-36: Maximum discharge observed, 15,200 second-feet Apr. 24, 25, 1934; maximum gage height observed, 10.4 feet June 5, 1921; minimum discharge observed, 134 second-feet Sept. 4, 5, 1926, Sept. 9, 10, 1929 (gage height, 1.42 feet).

Remarks.- Records excellent except those for periods of ice effect, Dec. 20-23, Jan. 27 to Feb. 27, which were computed on basis of one discharge measurement, gage heights, and weather records and are poor. Water diverted above station for irrigation by two Methow Valley Irrigation District canals, Risley Ditch, and other smaller ditches.

Rating tables, water year 1935-36 except periods of ice effect (gage height, in feet, and discharge, in second-feet)

Oct. 1 to June 3					June 4 to Sept. 30		
1.5	154	3.5	1,340	6.0	5,250	1.5	172
2.0	320	4.0	1,880	7.0	7,550	2.0	328
2.5	580	4.5	2,540	9.0	12,800	2.5	580
3.0	930	5.0	3,350				

(Same as previous table above gage height 2.5 feet).

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	272	312	272	248	230	205	208	2,770	5,140	978	221	180
2	264	308	264	244	230	202	202	3,100	6,450	914	224	192
3	256	316	240	240	220	202	205	3,260	9,880	898	221	194
4	248	320	234	252	220	202	205	3,530	6,120	906	224	194
5	248	316	227	240	220	200	208	3,890	4,740	898	224	183
6	244	324	240	240	220	200	218	3,350	3,890	829	215	180
7	248	324	256	240	210	200	234	3,010	4,740	759	209	189
8	256	329	252	240	210	200	252	2,770	5,570	682	212	180
9	252	324	276	244	210	197	260	2,690	4,640	647	212	183
10	244	316	292	240	210	197	268	2,850	4,160	689	209	230
11	244	320	300	237	220	194	288	3,530	3,890	710	200	249
12	244	320	292	237	220	197	316	3,800	3,620	688	194	242
13	244	312	264	234	210	200	329	4,160	3,260	610	192	246
14	272	312	298	214	200	208	355	3,940	3,010	556	183	249
15	292	308	276	237	190	208	378	5,040	3,100	509	186	221
16	288	308	268	224	200	208	448	4,160	3,010	475	186	189
17	284	300	256	224	210	208	648	3,530	3,180	449	186	186
18	280	300	218	224	210	205	1,550	3,260	2,690	413	192	194
19	276	288	221	230	210	205	2,400	3,350	2,400	362	194	186
20	272	296	220	221	210	208	2,470	3,100	2,200	368	192	169
21	264	292	220	221	200	214	2,540	2,690	2,080	352	189	189
22	252	300	230	224	200	211	2,930	2,400	1,940	344	186	186
23	244	292	230	227	200	208	3,440	2,270	1,820	324	186	189
24	244	280	234	224	200	208	3,800	2,400	1,760	300	180	189
25	252	280	237	248	200	205	3,440	2,770	1,580	293	178	180
26	256	284	244	237	200	211	3,010	3,260	1,430	290	180	180
27	264	284	252	210	200	208	2,770	3,890	1,340	287	178	178
28	264	284	248	190	205	208	2,620	4,070	1,210	267	178	175
29	272	276	248	180	205	205	2,690	4,160	1,130	246	175	175
30	298	280	244	230	-	202	2,470	4,540	1,050	227	172	175
31	308	-	244	230	-	202	-	5,360	-	221	170	-
Month						Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet		
October.....						8,136	308	244	262	16,140		
November.....						9,105	329	276	304	18,060		
December.....						7,787	300	218	251	15,450		
Calendar year 1935.....						577,399	9,840	218	1,582	1,145,000		
January.....						7,131	252	180	230	14,140		
February.....						6,070	230	190	209	12,040		
March.....						6,328	214	194	204	12,550		
April.....						41,152	3,800	202	1,372	81,620		
May.....						107,900	5,360	2,270	3,481	214,000		
June.....						101,030	9,890	1,050	3,568	200,400		
July.....						16,491	978	221	532	32,710		
August.....						6,048	224	170	195	12,000		
September.....						6,872	249	175	196	11,650		
Water year 1935-36.....						323,050	9,890	170	883	640,800		

Stehekin River at Stehekin, Wash.

Location.— Water-stage recorder, lat. 48°19'50", long. 120°41'40", in SE¼ sec. 28, T. 33 N., R. 17 E., 1,200 feet above Boulder Creek and 2 miles above Lake Chelan and Stehekin. Flow of Boulder Creek included in records of discharge.

Drainage area.— 372 square miles.

Records available.— October 1910 to October 1915, January 1927 to September 1936.

Average discharge.— 14 years, 1,375 second-feet.

Extremes.— Maximum discharge during year, 12,900 second-feet June 2 (gage height, 27.18 feet) from rating curve extended above 8,500 second-feet; minimum, 71 second-feet Feb. 27 (gage height, 18.38 feet).

1910-15, 1927-36: Maximum discharge, that of June 2, 1936; minimum, 56 second-feet Jan. 12, 1930.

Remarks.— Records good. At very high stages small percentage of flow is diverted above gage by natural sloughs, amount diverted included in daily discharge. Gage-height record collected in cooperation with Chelan Electric Co. which furnished many discharge measurements.

Rating tables, water year 1935-36 (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used June 19 to July 29)

Oct. 1 to June 18

July 30 to Sept. 30

18.5	60	20.5	1,060	23.0	4,100	19.0	202	20.5	955
19.0	202	21.0	1,490	24.0	5,870	19.5	296	21.0	1,360
19.5	380	21.5	2,010	25.0	7,880	19.6	430	21.6	1,860
20.0	680	22.0	2,620	26.0	10,030	20.0	650		

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	574	222	205	168	124	194	219	3,700	6,790	1,740	955	1,380
2	550	216	206	172	104	214	214	4,100	9,060	1,900	990	861
3	560	225	194	178	101	260	214	4,020	7,450	2,010	1,060	764
4	574	241	191	180	114	274	214	4,430	4,430	2,010	1,140	770
5	562	247	191	180	118	263	214	4,260	3,700	1,900	1,100	792
6	532	244	199	172	118	263	222	3,430	3,630	1,640	1,060	786
7	508	241	202	175	101	257	257	2,900	4,430	1,590	955	722
8	562	244	194	168	99	282	291	2,690	4,100	1,540	890	617
9	478	244	194	165	104	337	294	2,690	3,550	1,440	860	551
10	450	228	194	168	118	294	369	3,040	3,330	1,440	892	507
11	405	228	194	170	124	284	717	4,020	3,400	1,400	932	441
12	395	228	188	172	126	284	1,140	4,430	3,480	1,260	954	415
13	376	222	186	170	116	284	1,400	5,130	3,260	1,220	990	376
14	371	219	180	165	116	277	1,640	6,650	3,400	1,260	922	350
15	363	231	175	162	116	274	1,740	5,870	3,400	1,220	878	329
16	333	222	172	160	118	266	2,120	4,770	3,400	1,180	840	306
17	448	216	170	165	120	263	3,050	3,560	3,400	1,260	800	294
18	619	206	160	155	118	257	4,600	3,480	2,560	1,310	800	329
19	532	197	141	155	122	257	4,600	3,940	2,300	1,360	764	346
20	442	194	152	155	124	266	4,020	3,480	2,240	1,490	790	350
21	395	199	160	152	124	284	3,700	2,970	2,490	1,490	830	376
22	354	202	162	150	110	277	4,260	2,830	2,940	1,440	767	760
23	337	202	162	150	120	274	4,260	2,900	3,480	1,360	704	507
24	325	199	168	146	130	270	4,100	3,330	3,280	1,220	666	502
25	329	199	168	139	124	260	3,560	4,260	2,760	1,050	606	430
26	325	199	168	126	115	260	3,110	5,310	2,620	996	617	371
27	310	202	162	137	87	257	2,900	6,650	2,420	1,030	656	358
28	337	199	160	124	112	247	2,830	6,650	2,060	1,060	685	376
29	306	197	158	99	149	241	2,900	6,650	1,790	1,060	694	385
30	274	208	162	126	-	231	3,180	7,880	1,740	1,020	658	363
31	253	-	158	124	-	225	-	9,150	-	1,020	635	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acres-feet
October.....	13,140	610	253	424	1.14	1.31	26,060
November.....	6,523	247	194	217	.583	.65	12,940
December.....	5,475	205	141	177	.476	.55	10,860
Calendar year 1935.....	539,816	6,780	141	1,479	3.98	53.96	1,071,000
January.....	4,828	180	99	156	.419	.48	9,580
February.....	3,372	149	87	116	.312	.34	6,690
March.....	9,176	337	194	264	.710	.82	18,220
April.....	62,335	4,600	214	2,078	5.59	6.24	123,600
May.....	139,520	9,150	2,690	4,501	12.1	13.95	276,700
June.....	106,880	9,060	1,740	3,563	9.58	10.69	212,000
July.....	42,916	2,010	996	1,384	3.72	4.29	85,120
August.....	26,080	1,140	608	841	2.28	2.61	51,730
September.....	15,714	1,380	294	524	1.41	1.57	31,170
Water year 1935-36.....	434,959	9,150	87	1,188	3.19	43.50	862,700

Lake Chelan at Chelan, Wash.

Location.— Water-stage recorder, lat. 47°50'0", long. 120°3'40", in lot 3, sec. 15, T. 27 N., R. 22 E., 2 miles west of Chelan. Zero of gage is at mean sea level (general adjustment of 1912).

Drainage area.— 950 square miles.

Records available.— September 1897 to December 1899, January to June 1905, December 1910 to September 1936.

Extremes.— Maximum water-surface elevation during year, 1,099.98 feet July 14, 15; minimum, 1,081.43 feet Feb. 29, Mar. 1.
1897-99, 1905, 1910-36: Maximum water-surface elevation, that for July 14, 15, 1936; minimum, 1,076.78 feet Jan. 27, 28, Dec. 2, 3, 1898.

Remarks.— Records excellent. Lake level regulated under stipulation of Federal Power Commission for power and for scenic effect during tourist season. Gage-height record collected in cooperation with Chelan Electric. o.

Gage height, in feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	96.12	92.82	89.62	86.09	83.70	81.44	81.69	86.52	97.63	96.82	99.46	97.15
2	96.02	92.67	89.50	86.12	83.56	81.45	81.70	86.81	98.14	99.32	99.35	97.09
3	95.93	92.54	89.37	86.03	83.44	81.48	81.69	87.14	98.40	99.89	99.33	97.00
4	95.83	92.42	89.25	86.02	83.32	81.49	81.68	87.47	98.22	99.93	99.29	96.92
5	95.72	92.32	89.13	85.97	83.22	81.51	81.69	87.84	98.20	99.86	99.25	96.85
6	95.64	92.21	89.02	85.92	83.12	81.53	81.66	88.14	98.32	99.87	99.24	96.80
7	95.55	92.10	88.92	85.83	83.05	81.54	81.67	88.35	98.56	99.89	99.18	96.70
8	95.45	92.05	88.81	85.73	82.98	81.58	81.65	88.55	98.60	99.88	99.07	96.60
9	95.35	91.95	88.69	85.64	82.93	81.61	81.64	88.77	98.56	99.85	99.00	96.49
10	95.25	91.84	88.55	85.55	82.87	81.59	81.64	89.00	98.64	99.87	98.94	96.42
11	95.13	91.79	88.44	85.51	82.80	81.60	81.69	89.30	98.90	99.91	98.88	96.27
12	95.03	91.73	88.33	85.46	82.71	81.61	81.77	89.61	99.16	99.92	98.77	96.15
13	94.91	91.63	88.21	85.42	82.59	81.64	81.86	89.98	99.31	99.93	98.72	96.00
14	94.84	91.50	88.09	85.34	82.45	81.64	81.98	90.48	99.44	99.96	98.67	95.89
15	94.76	91.40	87.97	85.28	82.32	81.67	82.10	91.00	99.45	99.92	98.57	95.76
16	94.63	91.32	87.85	85.23	82.19	81.67	82.24	91.44	99.41	99.87	98.49	95.62
17	94.50	91.20	87.70	85.15	82.08	81.67	82.45	91.74	99.44	99.87	98.46	95.51
18	94.42	91.12	87.57	85.08	81.95	81.66	82.79	92.02	99.49	99.87	98.38	95.41
19	94.35	90.99	87.43	85.03	81.81	81.65	83.15	92.35	99.51	99.91	98.27	95.30
20	94.21	90.87	87.31	84.95	81.70	81.64	83.49	92.62	99.54	99.91	98.19	95.18
21	94.10	90.75	87.18	84.84	81.64	81.71	83.76	92.85	99.64	99.91	98.12	95.09
22	93.98	90.64	87.06	84.74	81.61	81.69	84.09	93.08	99.72	99.93	98.05	95.03
23	93.84	90.53	86.95	84.65	81.58	81.69	84.41	93.28	99.75	99.90	97.94	94.92
24	93.73	90.42	86.85	84.55	81.55	81.69	84.76	93.51	99.69	99.90	97.84	94.80
25	93.63	90.32	86.77	84.45	81.51	81.69	85.07	93.82	99.62	99.80	97.74	94.70
26	93.52	90.20	86.69	84.36	81.49	81.71	85.35	94.20	99.72	99.73	97.63	94.57
27	93.42	90.08	86.61	84.28	81.47	81.73	85.59	94.70	99.85	99.72	97.54	94.45
28	93.33	89.97	86.50	84.18	81.45	81.71	85.80	95.23	99.89	99.69	97.45	94.34
29	93.19	89.85	86.38	84.04	81.45	81.71	86.02	95.70	99.83	99.64	97.39	94.21
30	93.04	89.74	86.30	83.92	-	81.72	86.26	96.27	99.83	99.59	97.33	94.10
31	92.93	-	86.18	83.81	-	81.70	-	97.00	-	99.54	97.19	-

Note.— Add 1,000 feet to obtain elevation above mean sea level.

Chelan River at Chelan, Wash.

Location.- Water-stage recorder, lat. 47°48'40", long. 119°59'20", in NE¼ sec. 30, T. 27 N., R. 23 E., half a mile above mouth and 2 miles southeast of Chelan. Zero of gage is at mean sea level (subject to correction for general adjustment of 1929).

Drainage area.- 950 square miles.

Records available.- October 1903 to September 1936.

Average discharge.- 33 years, 2,068 second-feet.

Extremes.- Maximum daily discharge during year, 12,800 second-feet June 3; minimum daily discharge, 14 second-feet Mar. 29 (result of regulation).

1903-36: Maximum daily discharge, that of June 3, 1936; no flow part of day Jan. 30, 1917, when lake outlet was blocked with ice, and at times during winter owing to artificial regulation.

Remarks.- Records excellent. Unmeasured diversion for irrigation above station is small proportion of run-off. Chelan Electric Co. diverts water at Chelan for power and irrigation, which is included in daily discharge. Flow regulated by operation of power plant. River record collected in cooperation with Chelan Electric Co. Records of diversion furnished by Chelan Electric Co.

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2,250	2,170	*2,180	1,340	2,140	*327	449	371	638	2,750	2,240	2,190
2	2,250	2,190	2,180	1,180	*1,980	356	364	396	3,750	1,880	*1,950	2,190
3	2,240	*2,170	2,180	1,310	2,130	366	514	*282	12,800	1,620	1,870	2,210
4	2,240	2,190	2,180	1,250	2,140	407	351	404	8,600	2,720	2,220	2,210
5	2,240	2,190	2,180	*450	1,820	344	*250	530	4,750	*2,730	2,130	2,210
6	*2,180	2,120	2,000	1,600	1,280	343	364	405	2,890	2,000	2,050	*2,210
7	2,230	1,920	2,180	1,980	1,380	259	364	533	*5,080	1,730	2,150	2,200
8	2,220	1,860	*2,170	2,140	1,300	*253	387	542	7,310	2,130	2,100	2,200
9	2,200	1,520	2,180	1,860	*880	296	372	338	6,010	2,070	*2,170	2,130
10	2,210	*1,020	2,120	1,840	1,320	350	416	*267	2,660	1,770	2,180	2,180
11	2,210	1,140	2,180	1,850	1,390	422	309	550	1,110	1,650	2,190	2,180
12	2,190	1,840	2,170	*1,420	1,400	497	*253	594	1,630	*1,050	2,200	2,190
13	2,210	2,060	2,170	1,340	2,140	439	420	523	3,030	1,420	2,180	*2,220
14	2,200	2,130	2,170	1,350	2,150	344	457	738	*5,640	1,780	2,150	2,180
15	2,210	1,940	*2,110	1,190	2,130	*255	415	697	5,690	1,820	2,200	2,190
16	2,210	2,190	2,180	1,080	*1,840	369	313	546	4,830	1,910	*1,970	2,190
17	2,200	*1,880	2,170	1,280	2,070	440	368	*417	3,520	1,780	2,090	2,180
18	2,220	1,870	2,100	1,120	2,130	406	304	696	2,920	1,170	2,200	2,170
19	2,140	2,200	2,180	*1,220	2,130	385	*252	753	2,730	*1,130	2,200	2,190
20	1,870	2,200	2,180	2,030	1,930	379	438	732	1,870	1,940	2,200	*2,180
21	2,210	2,180	2,160	2,030	1,700	361	397	934	*1,950	2,190	2,190	2,180
22	2,190	2,180	*2,170	1,850	840	*227	474	583	3,150	1,920	2,200	2,170
23	2,190	2,180	2,040	1,840	*420	385	442	562	5,390	2,200	*2,200	2,130
24	2,180	*1,960	2,170	1,800	590	421	553	*420	6,430	1,830	2,210	2,180
25	2,200	1,720	2,120	1,990	791	433	374	544	2,630	2,100	2,210	2,170
26	2,180	2,190	1,850	*1,080	1,170	419	*251	542	1,830	*1,410	2,200	2,180
27	*1,950	2,190	2,050	1,740	432	411	599	657	1,880	1,810	2,200	*2,180
28	2,120	2,190	2,040	1,980	443	493	377	672	*2,430	2,230	2,200	2,170
29	2,180	2,180	*1,870	1,950	391	*14	394	687	2,870	2,230	2,200	2,170
30	2,170	2,160	1,960	1,930	-	536	381	395	1,930	2,230	*2,200	2,170
31	2,170	-	2,160	2,010	-	435	-	*424	-	2,200	2,190	-

Month	Observed				Gain or loss in storage in Lake Chelan (acre-feet)	Corrected for storage			
	Discharge in second-feet			Run-off in acre-feet		Run-off in acre-feet	Discharge in second-feet		Run-off in inches
	Maxi- mum	Mini- mum	Mean				Mean	Per square mile	
October.....	2,250	1,870	2,183	134,200	-105,290	28,910	470	0.495	0.57
November.....	2,200	1,020	1,997	118,800	-103,960	14,840	249	.262	.29
December.....	2,180	1,850	2,119	130,500	-113,310	16,990	276	.291	.34
Calendar year 1935	7,920	816	2,567	1,858,000	-308,000	1,550,000	2,141	2.25	30.58
January.....	2,140	460	1,681	97,210	-75,930	21,280	346	.364	.42
February.....	2,150	391	1,461	84,010	-74,480	9,530	166	.175	.19
March.....	536	14	367	22,560	+8,220	30,780	601	.527	.61
April.....	599	250	386	22,990	+143,790	166,800	2,803	2.95	3.29
May.....	934	267	538	33,070	+345,080	378,200	6,151	6.47	7.46
June.....	12,800	688	3,867	230,100	+93,770	323,900	5,443	5.73	6.39
July.....	2,750	1,060	1,919	118,000	-10,820	107,200	1,743	1.83	2.11
August.....	2,240	1,870	2,156	132,600	-75,760	56,840	924	.973	1.12
September.....	2,220	2,130	2,183	129,900	-99,440	30,460	512	.539	.60
Water year 1935-36	12,800	14	1,727	1,254,000	-68,130	1,186,000	1,633	1.72	23.39

*Sunday.

Railroad Creek at Lucerne, Wash.

Location.- Water-stage recorder, lat. 48°11'40", long. 120°35'50", in sec. 9, T. 31 N., R. 18 E., half a mile above mouth and half a mile southwest of Lucerne.

Drainage area.- 64 square miles.

Records available.- December 1910 to June 1913, January 1927 to September 1936.

Extremes.- Maximum discharge during year, 1,670 second-feet June 2, 3 (gage height, 4.86 feet); minimum, not determined, occurred during period of ice effect.

1910-13, 1927-36: Maximum discharge, 1,910 second-feet June 8, 1927 (gage height, 5.3 feet); minimum, not determined, occurred during period Jan. 15-25, 1930, when stage-discharge relation was affected by ice.

Remarks.- Records good except those for period of ice effect, Jan. 25 to Mar. 6, which were computed on basis of one discharge measurement, gage heights and weather records and are poor. No diversions or regulation. Water-stage recorder inspected by employee of Chelan Copper Mining Co. Many discharge measurements furnished by Chelan Electric Co.

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	99	96	30	31	22	25	28	364	1,160	286	158	184
2	96	176	29	32	22	26	27	415	1,200	297	152	182
3	93	238	27	31	21	27	26	454	1,260	314	158	115
4	93	119	27	32	21	28	25	468	732	314	183	115
5	93	56	28	32	20	29	25	513	558	314	163	121
6	93	43	29	31	17	30	25	438	537	274	179	124
7	85	41	29	30	15	31	27	378	638	263	162	121
8	62	41	29	30	12	33	32	358	664	258	144	115
9	62	39	28	30	14	36	32	356	572	238	138	99
10	77	38	28	30	16	32	38	378	544	233	138	90
11	69	36	27	30	17	32	67	504	544	223	144	92
12	67	36	26	30	17	32	91	558	590	214	148	71
13	64	35	26	30	14	31	114	635	558	204	155	68
14	64	36	26	30	14	31	179	801	537	214	155	63
15	60	36	27	30	15	31	192	801	558	214	148	59
16	56	36	27	29	15	31	183	650	523	200	138	52
17	56	35	26	29	16	31	223	558	558	204	124	50
18	60	31	22	31	16	30	339	516	436	214	124	50
19	69	27	24	28	16	30	370	523	392	223	118	54
20	62	29	24	28	17	30	345	509	366	236	118	59
21	58	32	25	28	18	31	339	449	423	247	124	63
22	51	32	28	27	18	30	385	417	469	238	124	99
23	49	31	27	27	19	30	422	410	530	214	118	93
24	49	31	28	26	20	29	436	449	530	200	105	85
25	49	30	26	26	21	28	408	536	456	179	99	76
26	47	30	30	25	22	29	364	680	429	166	96	68
27	46	31	30	24	23	28	345	850	404	162	96	63
28	46	30	30	24	24	28	320	890	352	170	108	63
29	46	31	30	24	24	28	314	910	291	179	112	63
30	44	31	31	23	-	28	327	1,130	286	175	115	63
31	44	-	31	23	-	29	-	1,320	-	166	108	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acres-feet
October.....	2,049	99	44	66.1	1.03	1.19	4,060
November.....	1,535	238	27	51.2	.800	.89	3,040
December.....	857	31	22	27.6	.431	.50	1,700
Calendar year 1935.....	80,338	1,120	22	220	3.44	46.70	159,300
January.....	881	32	23	28.4	.444	.51	1,750
February.....	526	24	12	18.1	.283	.31	1,040
March.....	923	36	25	29.8	.466	.54	1,830
April.....	6,050	438	25	202	3.16	3.53	12,000
May.....	18,270	1,320	358	589	9.20	10.61	36,240
June.....	17,106	1,260	286	570	8.91	9.94	33,930
July.....	7,035	314	162	227	3.55	4.08	13,960
August.....	4,172	183	96	135	2.11	2.43	8,290
September.....	2,580	184	50	86.0	1.34	1.50	5,120
Water year 1935-36.....	61,984	1,320	12	169	2.64	36.04	122,900

Wenatchee Lake near Plain, Wash.

Location.- Water-stage recorder, lat. 47°49'50", long. 120°46'30", in sec. 19, T. 27 N., R. 17 E., on north shore of lake, 7½ miles northwest of Plain. Zero of gage is at mean sea level (subject to correction for general adjustment of 1929).

Drainage area.- 277 square miles.

Records available.- January 1932 to September 1936.

Extremes.- Maximum water-surface elevation recorded during year, 1,875.55 feet June 3; minimum, 1,869.43 feet Dec. 23, 24.
1932-36: Maximum water-surface elevation recorded, 1,876.57 feet June 16, 1933; minimum, 1,869.41 feet Oct. 6, 1934.

Remarks.- Records excellent. No diversions or regulation. Gage-height record collected in cooperation with Wenatchee Reclamation District.

Gage height, in feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	69.72	69.53	69.57	69.60	69.48	69.63	69.82	72.90	75.28	71.56	70.21	70.08
2	69.72	69.48	69.56	69.65	69.48	69.68	69.80	73.30	74.85	71.54	70.19	70.27
3	69.70	69.47	69.54	69.66	69.48	69.74	69.79	73.63	75.33	71.52	70.19	70.17
4	69.71	69.45	69.53	69.70	69.47	69.81	69.78	73.85	74.96	71.50	70.21	70.08
5	69.71	69.46	69.51	69.68	69.50	69.86	69.76	74.23	74.13	71.58	70.21	70.03
6	69.69	69.46	69.51	69.68	69.53	69.91	69.75	73.94	73.76	71.41	70.18	70.00
7	69.68	69.47	69.53	69.68	69.50	69.92	69.75	73.42	73.90	71.27	70.15	69.96
8	69.66	69.49	69.55	69.67	-	69.98	69.79	72.89	74.23	71.18	70.11	69.91
9	69.67	69.55	69.55	69.66	-	70.09	69.82	72.73	74.06	71.09	70.07	69.86
10	69.66	69.56	69.56	69.68	69.46	70.12	69.65	72.73	73.78	71.03	70.05	69.79
11	69.63	69.56	69.59	69.70	69.46	70.12	69.95	73.14	73.58	70.96	70.03	69.74
12	69.61	69.58	69.60	69.71	69.46	70.12	70.27	73.69	73.55	70.88	70.03	69.68
13	69.63	69.58	69.61	69.69	69.47	70.11	70.61	74.08	73.51	70.80	70.05	69.65
14	69.65	69.57	69.59	69.66	69.47	70.11	70.91	74.78	73.38	70.75	70.05	69.64
15	69.66	69.58	69.57	69.67	69.46	70.09	71.20	75.30	73.41	70.72	70.04	69.62
16	69.64	69.58	69.55	69.64	69.46	70.03	71.52	75.10	73.29	70.67	70.01	69.60
17	69.64	69.58	69.54	69.61	69.46	70.00	72.15	74.59	73.37	70.63	69.99	69.58
18	69.69	69.57	69.52	69.58	69.45	69.96	73.10	73.95	73.01	70.63	69.98	69.58
19	69.75	69.54	69.62	69.58	69.45	69.94	73.68	73.87	72.63	70.61	69.98	69.57
20	69.76	69.52	69.49	69.58	69.46	69.93	73.71	73.72	72.48	70.62	69.96	69.58
21	69.74	69.51	69.46	69.57	69.47	69.93	73.58	73.38	72.53	70.63	69.94	69.59
22	69.70	69.51	69.45	69.55	69.48	69.93	73.71	73.09	72.74	70.61	69.91	69.53
23	69.67	69.53	69.44	69.54	69.45	69.92	73.88	73.08	73.00	70.56	69.88	69.70
24	69.64	69.52	69.44	69.53	69.47	69.93	73.77	73.17	73.10	70.49	69.86	69.71
25	69.63	69.52	69.45	69.52	69.47	69.92	73.56	73.53	72.86	70.41	69.85	69.69
26	69.62	69.54	69.48	69.51	69.51	69.95	73.32	74.12	72.58	70.36	69.83	69.67
27	69.60	69.55	69.60	69.52	69.62	70.01	73.06	74.87	72.38	70.31	69.81	69.64
28	69.59	69.57	69.51	69.52	69.62	70.00	72.85	75.33	72.02	70.29	69.83	69.63
29	69.61	69.57	69.53	69.50	69.61	69.93	72.75	75.35	71.85	70.28	69.84	69.62
30	69.60	69.57	69.54	69.48	-	69.89	72.72	75.00	71.68	70.26	69.82	69.61
31	69.68	-	69.55	69.48	-	69.85	-	75.20	-	70.23	69.81	-

Note.- Add 1,800 feet to obtain elevation above mean sea level.

WENATCHEE RIVER BASIN

Wenatchee River below Wenatchee Lake, Wash.

Location.- Water-stage recorder, lat. 47°49'50", long. 120°46'30", in sec. 19, T. 27 N., R. 17 E., on north shore, 2½ miles above outlet of Wenatchee Lake and 7½ miles northwest of Plain. Datum of published gage heights is mean sea level (subject to correction for general adjustment of 1929). Discharge measurements made at highway bridge half a mile below lake outlet.

Drainage area.- 277 square miles.

Records available.- January 1932 to September 1936.

Extremes.- Maximum discharge during year, 6,640 second-feet June 3 (lake-surface elevation, 1,875.55 feet); minimum, 170 second-feet Dec. 23, 24 (lake-surface elevation, 1,869.43 feet).

1932-36: Maximum discharge recorded, 8,310 second-feet June 16, 1933 (lake-surface elevation, 1,876.57 feet); minimum, 165 second-feet Oct. 6, 1934 (lake-surface elevation, 1,869.41 feet).

Remarks.- Records good. Discharge interpolated Feb. 8, 9. No diversions above station. Flow subject to natural regulation in Wenatchee Lake. Gage-height record collected in cooperation with Wenatchee Reclamation District.

Rating table, water year 1935-36 (gage height, in feet, and discharge, in second-feet)

1,869.3	140	1,871.0	1,160	1,873.5	3,800
1,869.5	188	1,871.5	1,620	1,874.0	4,500
1,869.7	253	1,872.0	2,130	1,874.5	5,150
1,870.0	391	1,872.5	2,700	1,875.0	5,800
1,870.5	735	1,873.0	3,300	1,875.5	6,500

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	261	197	209	218	183	228	302	3,180	6,220	1,670	519	442
2	261	183	206	236	183	246	293	3,660	5,540	1,670	506	560
3	253	180	200	239	183	269	269	4,020	6,220	1,620	506	493
4	257	175	197	253	180	298	285	4,260	5,000	1,620	519	437
5	257	178	191	246	168	321	277	4,760	4,630	1,670	519	408
6	250	178	191	246	197	344	273	4,380	4,260	1,520	499	391
7	246	180	197	246	186	349	273	4,380	4,380	1,380	480	370
8	239	185	203	242	185	381	289	3,500	4,760	1,340	455	344
9	242	203	203	239	181	443	302	3,000	4,630	1,250	432	321
10	239	203	206	246	178	462	316	3,000	4,260	1,200	420	289
11	228	206	215	253	178	462	365	3,420	4,020	1,120	408	269
12	222	212	218	257	178	462	555	4,140	4,020	1,050	408	246
13	228	212	222	260	180	455	823	4,630	3,900	980	420	239
14	226	209	215	259	180	455	1,080	5,540	3,780	938	420	232
15	239	212	209	242	178	443	1,340	6,220	3,780	912	414	226
16	232	212	203	232	178	408	1,620	5,940	3,660	871	397	218
17	232	212	200	222	178	391	2,300	5,280	3,780	839	386	212
18	250	209	194	212	175	370	3,420	4,500	3,300	639	381	212
19	273	200	194	212	175	360	4,140	4,380	2,880	823	381	209
20	277	194	185	212	178	355	4,140	4,140	2,700	831	370	212
21	269	191	178	209	180	355	4,020	3,780	2,760	839	360	215
22	253	191	175	203	183	355	4,140	3,420	3,000	823	344	228
23	242	197	172	200	183	355	4,380	3,420	3,300	783	330	253
24	232	194	172	197	180	355	4,260	3,540	3,420	727	321	257
25	228	194	175	194	180	349	4,020	3,900	3,180	664	316	250
26	225	200	183	191	191	365	3,660	4,530	2,820	626	307	242
27	218	203	188	194	225	397	3,420	5,670	2,580	588	298	232
28	215	209	191	194	225	391	3,060	6,220	2,130	574	307	228
29	222	209	197	188	222	355	3,000	6,360	1,970	567	311	225
30	218	209	200	183	-	354	2,940	5,900	1,820	553	302	222
31	212	-	203	183	-	316	-	6,220	-	533	298	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acre-feet
October.....	7,456	277	212	241	0.870	1.00	14,790
November.....	5,937	212	175	198	.715	.80	11,780
December.....	6,092	222	172	197	.711	.82	12,080
Calendar year 1935.....	466,519	7,550	172	1,278	4.61	62.73	925,300
January.....	6,878	267	183	222	.801	.92	13,640
February.....	5,393	225	175	186	.671	.72	10,700
March.....	11,429	462	228	369	1.33	1.53	22,670
April.....	59,582	4,380	273	1,986	7.17	8.00	118,200
May.....	138,490	6,360	3,000	4,467	16.1	18.56	274,700
June.....	113,500	6,220	1,820	3,763	13.7	15.29	225,100
July.....	31,420	1,670	533	1,014	3.66	4.22	62,320
August.....	12,334	519	298	398	1.44	1.66	24,460
September.....	8,681	560	209	289	1.04	1.16	17,320
Water year 1935-36.....	407,192	6,360	172	1,113	4.02	54.68	807,700

Wenatchee River at Plain, Wash.

Location.— Water-stage recorder, lat. 47°45'50", long. 120°39'30", in lot 8, sec. 12, T. 28 N., R. 17 E., a quarter of a mile below Beaver Creek at Plain.

Drainage area.— 591 square miles.

Records available.— November 1910 to September 1926, August 1931 to September 1936; monthly discharge August 1904 to September 1933 published in State Water-Supply Bulletin 5.

Average discharge.— 32 years, 2,239 second-feet.

Extremes.— Maximum discharge during year, 11,200 second-feet June 3 (gage height, 8.77 feet); minimum, 332 second-feet Dec. 21 (gage height, 1.55 feet).

1910-29, 1931-36: Maximum discharge observed, 20,800 second-feet Dec. 13, 1921 (gage height, 11.8 feet, former site and datum); minimum, 250 second-feet Oct. 13, 19, 1925.

Remarks.— Records excellent except those for period of ice effect, Jan. 30 to Feb. 29, which were computed on basis of one discharge measurement, gage-heights, and weather records and are poor. Discharge Oct. 10-14, July 25-27 computed on basis of record for station below Wenatchee Lake. Wenatchee Park Land & Irrigation Co. diverts a maximum of about 12 second-feet from Chiwawa River during irrigation seasons. Natural regulation in Wenatchee Lake. Gage-height record collected in cooperation with Wenatchee Reclamation District.

Rating tables, water year 1935-36 except period of ice effect (gage height, in feet, and discharge, in second-feet)

Oct. 1 to June 3

June 4 to Sept. 30

1.5	318	4.5	2,860
2.0	485	5.0	3,550
2.5	825	6.0	5,170
3.0	1,250	7.0	7,000
3.5	1,720	8.0	9,120
4.0	2,250	9.0	11,770

1.5	245
2.0	475
2.5	825

Both tables same above 750 second-feet.

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	495	386	413	427	350	481	535	5,520	10,400	2,610	859	742
2	500	361	406	453	350	520	520	6,240	9,360	2,610	834	893
3	500	358	399	461	350	623	510	6,810	10,600	2,550	825	761
4	505	367	386	469	350	673	500	7,190	9,120	2,550	825	678
5	500	379	379	477	360	681	500	7,790	7,390	2,610	850	649
6	500	389	379	473	380	681	495	7,000	6,810	2,370	842	607
7	490	399	396	461	400	681	530	6,060	7,190	2,200	801	594
8	481	406	402	457	400	721	595	5,520	7,790	2,030	745	548
9	477	441	409	445	390	884	609	5,170	7,190	1,920	708	511
10	470	423	416	449	380	893	681	5,340	6,810	1,870	685	464
11	460	413	431	457	380	859	902	6,240	6,430	1,820	685	431
12	450	420	431	465	380	834	1,340	7,190	6,430	1,670	685	405
13	460	416	420	465	380	825	1,720	7,790	6,240	1,620	692	390
14	470	406	413	449	380	801	2,030	9,360	5,880	1,670	700	400
15	477	409	409	453	380	777	2,490	10,400	6,060	1,480	678	385
16	457	413	402	438	380	729	2,920	9,610	5,700	1,430	649	370
17	453	409	396	427	370	697	4,010	8,430	5,880	1,580	635	361
18	481	406	373	413	370	665	5,700	7,390	5,170	1,580	614	352
19	515	392	349	416	370	651	6,430	7,190	4,490	1,540	600	348
20	515	386	346	420	380	651	6,430	7,000	4,170	1,540	587	348
21	500	379	338	413	390	681	6,240	6,240	4,170	1,540	580	348
22	475	396	346	409	400	665	6,620	5,880	4,660	1,540	574	375
23	461	399	349	402	420	644	6,810	5,880	5,000	1,250	542	431
24	445	396	351	396	410	637	6,620	6,060	5,000	1,210	529	420
25	438	396	379	392	390	616	6,240	6,620	4,490	1,140	523	410
26	434	406	389	370	410	651	5,880	7,790	4,170	1,050	499	395
27	431	420	402	379	420	697	5,340	9,360	3,780	970	493	385
28	427	423	406	396	440	658	5,170	10,400	3,400	961	493	375
29	449	416	406	361	460	623	5,000	10,400	2,990	944	499	370
30	431	413	409	350	-	583	5,000	9,610	2,800	927	487	370
31	416	-	413	350	-	559	-	10,400	-	893	470	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acre-feet
October.....	14,561	515	416	470	0.795	0.92	28,880
November.....	12,023	441	358	401	.679	.76	23,650
December.....	12,153	431	338	392	.663	.76	24,110
Calendar year 1935.....	843,952	10,100	338	2,312	3.91	53.21	1,674,000
January.....	13,193	477	350	426	.721	.83	26,170
February.....	11,210	460	350	387	.655	.71	22,230
March.....	21,341	893	481	688	1.16	1.34	42,330
April.....	98,367	6,810	495	3,279	5.55	6.19	195,100
May.....	231,880	10,400	5,170	7,480	12.7	14.64	459,900
June.....	179,570	10,600	2,800	5,986	10.1	11.27	356,200
July.....	50,375	2,610	693	1,625	2.75	3.17	99,920
August.....	20,188	859	470	651	1.10	1.27	40,040
September.....	14,116	893	548	471	.797	.89	28,000
Water year 1935-36.....	678,977	10,600	338	1,555	3.14	42.75	1,347,000

Wenatchee River at Peshastin, Wash.

Location.- Water-stage recorder, lat. 47°34'50", long. 120°37'0", in SE $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 8, T. 24 N., R. 18 E., 1 mile northwest of Peshastin.

Drainage area.- 1,000 square miles.

Records available.- February 1929 to September 1936.

Extremes.- Maximum discharge during year, 16,600 second-feet May 29 (gage height, 10.26 feet); minimum, not determined, occurred sometime Jan. 19 to Mar. 7, when stage-discharge relation was affected by ice.

1929-36: Maximum discharge, 20,400 second-feet June 16, 1933 (gage height, 11.62 feet); minimum, 270 second-feet Oct. 2, 1929 (gage height, 0.50 foot, former site and datum).

Remarks.- Records excellent except those for period of ice effect, Jan. 19 to Mar. 7, which were computed on basis of one discharge measurement, gage heights, and weather records and are poor. Several diversions for irrigation above station. Slight regulation at mill pond at Leavenworth, and natural regulation in Wenatchee Lake.

Rating table, water year 1935-36 except period of ice effect (gage height, in feet, and discharge, in second-feet)

1.5	270	6.0	5,430
2.0	525	7.0	7,550
2.5	840	8.0	10,040
3.0	1,250	9.0	12,800
3.7	2,020	10.0	15,700
4.4	2,930	11.0	18,700
5.2	4,080		

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	628	481	542	542	430	880	819	7,550	15,100	3,780	1,070	704
2	622	448	520	598	430	1,030	805	8,750	14,000	3,700	1,030	1,100
3	616	448	498	654	430	1,200	791	9,780	15,700	3,830	1,010	922
4	634	470	486	640	430	1,150	770	10,600	13,400	3,560	1,030	826
5	628	481	486	640	440	1,090	757	11,700	10,800	3,630	1,030	764
6	628	514	486	646	450	1,040	757	10,000	9,780	3,350	1,010	738
7	622	520	508	622	480	990	791	8,750	12,200	3,070	932	706
8	504	536	525	804	470	1,010	915	7,550	13,100	2,860	922	679
9	598	598	542	588	480	1,170	960	7,100	11,400	2,720	878	640
10	588	586	547	586	460	1,190	1,020	7,780	10,300	2,660	840	592
11	580	547	558	592	460	1,140	1,310	9,520	9,780	2,600	833	552
12	564	552	574	622	460	1,110	1,960	10,800	9,780	2,400	826	526
13	580	547	552	610	460	1,100	2,530	12,000	9,520	2,400	812	486
14	628	542	542	804	460	1,080	3,000	14,000	9,000	2,340	819	514
15	646	556	520	598	460	1,050	3,560	15,700	9,000	2,140	819	520
16	640	552	508	588	450	998	4,230	14,200	8,500	2,020	784	492
17	610	547	492	558	450	998	5,830	12,800	8,750	1,960	757	461
18	634	536	437	530	450	968	8,260	10,600	7,550	1,900	731	470
19	672	508	410	525	450	945	9,260	10,600	6,450	1,840	731	470
20	705	486	390	520	460	960	9,000	10,000	6,030	1,780	712	470
21	686	481	395	514	480	998	8,750	9,000	6,240	1,780	718	470
22	653	503	437	514	480	998	9,520	8,260	6,660	1,780	698	470
23	628	514	432	508	500	988	10,000	8,260	7,100	1,780	666	550
24	610	520	448	492	490	945	9,520	8,750	7,320	1,560	640	542
25	598	514	478	470	480	915	9,000	10,000	6,450	1,450	634	530
26	586	536	498	470	470	945	8,260	12,200	5,830	1,340	610	520
27	580	574	520	470	800	1,010	7,550	14,500	5,430	1,260	598	499
28	558	580	520	470	730	990	7,100	15,700	4,690	1,220	569	476
29	569	558	520	454	820	945	6,880	16,000	4,230	1,190	574	476
30	569	547	514	437	-	900	6,880	15,100	3,950	1,150	586	470
31	525	-	520	420	-	855	-	16,100	-	1,120	564	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October.....	18,987	705	525	612	37,660
November.....	15,762	598	448	525	31,280
December.....	15,403	574	390	497	30,550
Calendar year 1935.....	1,171,293	15,100	390	3,209	2,323,000
January.....	17,062	646	420	550	33,840
February.....	14,090	390	450	496	27,950
March.....	31,568	1,200	855	1,013	62,610
April.....	140,785	10,000	757	4,693	279,200
May.....	343,750	16,000	7,100	11,090	681,800
June.....	268,020	15,700	3,930	8,934	531,600
July.....	69,970	3,780	1,120	2,257	138,800
August.....	24,483	1,070	564	790	48,560
September.....	17,633	1,100	470	588	34,970
Water year 1935-36.....	977,513	16,000	390	2,671	1,939,000

Yakima River near Martin, Wash.

Location.- Water-stage recorder, lat. $47^{\circ}19'10''$, long. $121^{\circ}20'10''$, below dam at outlet of Keechelus Lake, $3\frac{1}{2}$ miles northwest of Martin.

Drainage area.- 55 square miles.

Records available.- October 1903 to September, 1936.

Average discharge.- 32 years (1904-36), 332 second-feet.

Extremes.- Maximum discharge during year, 1,830 second-feet May 27 (computed from combined flow past gage and lake spillway discharge); minimum, about 1 second-foot Sept. 26-30.

1903-36: Maximum discharge, 7,370 second-feet Mar. 26, 1915, when temporary crib dam was washed out; practically no flow when gates in Keechelus Lake reservoir dam are closed.

Remarks.- Records excellent except those for extremely low flow, which are poor. Flow over Keechelus Lake reservoir spillway May 17 to June 27. Records include water diverted over reservoir spillway. Flow partly controlled by storage in Keechelus Lake reservoir (capacity at spillway crest 152,000 acre-feet). Part of table of monthly discharges corrected for storage. Records furnished by U. S. Bureau of Reclamation.

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	486	2	57	6	6	7	7	7	886	1,160	691	746
2	489	2	57	6	6	7	7	7	814	1,190	948	746
3	491	2	57	6	6	7	7	7	935	1,190	1,040	746
4	491	2	57	6	6	7	7	7	923	1,190	948	691
5	479	2	57	6	6	7	7	7	803	1,190	888	637
6	467	2	57	6	6	7	7	7	825	1,190	888	610
7	467	2	57	6	6	7	7	8	1,090	1,190	830	610
8	467	2	57	6	6	7	7	8	1,330	1,190	802	610
9	467	2	47	6	6	7	7	8	1,260	1,190	802	610
10	467	2	40	6	6	7	7	8	1,090	1,190	802	610
11	496	2	18	6	6	7	7	220	1,000	1,190	802	610
12	515	2	6	6	6	7	7	380	935	1,190	802	610
13	515	2	6	6	6	7	7	380	910	1,100	802	610
14	486	2	6	6	6	7	7	380	837	978	802	571
15	467	2	6	6	6	7	7	380	874	888	802	471
16	182	2	6	6	6	7	7	380	825	830	802	385
17	2	2	6	6	6	7	7	792	792	774	802	283
18	2	2	6	6	6	7	7	934	704	718	802	172
19	2	2	6	6	6	7	7	1,120	624	691	746	82
20	2	2	6	6	6	7	7	1,180	571	691	746	23
21	2	2	6	6	6	7	7	1,150	563	691	746	2
22	2	2	6	6	6	7	7	1,170	605	691	746	2
23	2	2	6	6	6	7	7	1,120	605	691	746	2
24	2	2	6	6	6	7	7	1,010	589	691	746	2
25	2	2	6	6	6	7	7	1,140	555	691	746	2
26	2	2	6	6	6	7	7	1,350	515	691	746	1
27	2	2	6	6	6	7	7	1,590	620	691	746	1
28	2	2	6	6	6	8	7	1,530	830	691	746	1
29	2	2	6	6	6	7	7	1,280	948	691	746	1
30	2	36	6	6	-	7	7	1,010	1,070	691	746	1
31	2	-	6	6	-	7	-	947	-	691	746	-

Month	Observed				Gain or loss in storage in Lake Keechelus (acre-feet)	Corrected for storage			
	Discharge in second-feet			Run-off in acre-feet		Run-off in acre-feet	Discharge in second-feet		Run-off in inches
	Maximum	Minimum	Mean				Mean	Per square mile	
October.....	515	2	241	14,800	-10,040	4,760	77.4	1.41	1.63
November.....	36	2	3.1	186	+5,700	5,890	99.0	1.80	2.01
December.....	57	6	22.0	1,350	+6,630	7,980	130	2.36	2.72
Calendar year 1935	1,230	2	353	255,400	-45,230	210,200	290	5.27	71.59
January.....	6	6	6.0	369	+12,220	12,590	205	3.73	4.30
February.....	8	6	6.2	357	+6,450	6,810	118	2.15	2.32
March.....	7	7	7.0	430	+14,630	15,060	245	4.45	5.13
April.....	7	7	7.0	417	+34,550	34,970	588	10.7	11.94
May.....	1,590	7	630	38,710	+35,440	74,150	1,206	21.9	25.25
June.....	1,350	369	831	49,440	-4,840	44,600	750	13.6	15.17
July.....	1,190	691	920	56,570	-45,120	7,450	121	2.20	2.54
August.....	1,040	691	798	46,100	-45,450	3,650	59.4	1.08	1.24
September.....	746	1	348	20,720	-17,340	3,380	56.8	1.03	1.15
Water year 1935-36	1,590	1	320	232,400	-11,170	221,300	305	5.55	75.40

Yakima River at Cle Elum, Wash.

Location.- Water-stage recorder, lat. 47°11'20", long. 120°56'40", in sec. 27, T. 20 N., R. 15 E., at highway bridge at Cle Elum, just above Roslyn Creek.

Drainage area.- 500 square miles.

Records available.- August 1906 to September 1936.

Average discharge.- 30 years, 1,997 second-feet.

Extremes.- Maximum discharge during year, 8,380 second-feet May 28, 29 (gage height, 8.05 feet); minimum, 115 second-feet Nov. 9 (gage height, 1.85 feet).
1906-36: Maximum discharge, about 25,800 second-feet Nov. 14, 1906 (gage height, 12.5 feet from floodmarks); minimum, 64 second-feet Nov. 16, 17, 1929 (gage height, -0.31 feet).

Remarks.- Records good. Kittitas High-line Canal diverts water above gage for irrigation. Part of table of monthly discharge corrected for diversions and for storage in Keechelus Lake, Kachess Lake, and Cle Elum Lake Reservoirs (combined capacity at gate sills, 731,000 acre-feet). Records furnished by U. S. Bureau of Reclamation.

Rating tables, water year 1935-36 (gage height, in feet, and discharge, in second-feet)

(Shifting-control method used Oct. 1 to Nov. 4, May 14 to June 11)

Nov. 5 to May 13				June 12 to Sept. 30					
1.5	60	3.0	555	5.0	2,520	4.0	840	6.0	3,330
2.0	150	3.5	905	6.0	4,200	4.5	1,340	7.0	5,240
2.5	320	4.0	1,370	8.0	9,040	5.0	1,900	9.0	9,950

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	957	311	132	189	296	561	849	2,520	6,590	2,410	2,020	2,080
2	872	356	183	186	304	680	865	3,100	5,850	2,480	2,020	2,080
3	793	541	186	270	308	889	841	4,820	5,820	2,410	2,080	2,080
4	746	517	180	280	300	905	833	5,940	5,780	2,410	1,960	2,020
5	702	273	186	372	273	772	841	6,920	5,190	2,150	1,900	1,960
6	687	169	186	388	262	687	881	6,920	4,940	2,150	1,840	1,900
7	626	135	186	324	252	622	922	6,060	5,442	2,150	1,900	1,960
8	624	135	192	288	252	628	1,120	5,370	6,520	2,220	1,960	1,670
9	636	125	198	262	266	849	1,130	4,930	6,710	2,150	1,960	1,380
10	706	121	198	266	292	625	1,080	5,040	6,200	2,150	1,960	1,410
11	896	121	192	252	320	758	1,370	5,940	5,930	2,220	1,900	1,410
12	599	121	183	256	304	750	1,640	6,920	5,670	2,150	1,960	1,410
13	611	231	168	266	320	708	1,860	7,430	5,240	2,150	1,960	1,430
14	676	280	156	252	312	528	2,160	8,170	4,620	2,020	2,020	1,450
15	947	204	148	238	304	500	2,340	8,390	4,140	2,080	1,960	1,370
16	1,530	142	145	226	300	427	2,520	8,340	4,420	2,080	1,960	1,380
17	1,360	128	140	224	288	450	2,650	8,300	4,230	2,080	2,020	1,430
18	1,170	125	135	210	320	484	2,790	7,460	4,040	2,150	2,020	1,430
19	1,130	125	132	210	332	511	2,790	7,170	3,500	2,150	2,020	1,320
20	1,220	121	142	220	312	555	2,650	6,870	3,240	2,220	2,020	1,310
21	1,200	119	168	273	336	648	2,860	6,320	3,160	2,220	2,020	1,320
22	1,220	123	171	234	340	597	3,100	5,940	3,080	2,280	2,020	1,300
23	1,200	125	174	273	320	516	3,020	5,800	3,080	2,280	2,020	1,550
24	1,200	119	180	262	332	472	2,790	5,530	3,000	2,220	2,020	1,340
25	1,200	121	183	252	352	445	2,720	5,910	2,840	2,220	2,020	1,300
26	1,190	125	168	252	400	585	2,650	6,860	2,550	2,220	2,020	1,240
27	1,190	130	135	245	500	648	2,520	7,810	2,280	2,150	2,020	1,240
28	1,200	130	138	224	445	555	2,400	8,280	2,410	2,080	2,020	1,230
29	896	140	140	242	445	506	1,980	8,230	2,410	2,080	2,020	1,230
30	1,170	135	145	260	-	478	1,700	7,420	2,540	2,020	2,020	1,200
31	834	-	171	280	-	648	-	7,120	-	2,080	2,020	-

Month	Observed				Gain or loss in storage (acre- feet)	Di- verted by Kittita- s Canal (acre- feet)	Corrected for storage and diversion			
	Discharge in second-feet		Run-off in acre-feet	Run-off in acre-feet			Discharge in second-feet		Run off in inches	
	Maxi- mum	Mini- mum					Mean	Mean		Per square mile
October.....	1,530	599	967	59,480	-55,480	16,100	20,100	327	0.654	0.75
November.....	541	119	185	10,980	+16,070	-	27,050	455	.910	1.02
December.....	198	132	166	10,200	+19,450	-	29,650	482	.964	1.11
Calendar year 1935	7,000	119	1,811	1,311,000	-132,100	202,800	1,376,000	1,901	3.80	51.64
January.....	388	186	259	15,940	+36,640	-	52,580	855	1.71	1.97
February.....	500	252	324	18,620	+21,660	-	40,280	700	1.40	1.51
March.....	905	427	619	38,060	+55,580	-	93,640	1,523	3.05	3.52
April.....	3,100	833	1,929	114,800	+160,000	-	274,800	4,618	9.24	10.31
May.....	8,390	2,520	6,507	400,100	+73,310	23,120	496,500	8,075	16.2	18.68
June.....	6,710	2,280	4,374	260,300	-19,470	29,880	270,700	4,549	9.10	10.15
July.....	2,480	2,020	2,188	134,500	-127,300	65,070	72,270	1,175	2.35	2.71
August.....	2,020	1,840	1,989	122,300	-139,600	44,280	26,980	439	.878	1.01
September.....	2,080	1,200	1,516	90,130	-101,600	31,190	19,720	331	.662	.74
Water year 1935-36	8,390	119	1,757	1,275,000	-60,740	209,600	1,424,000	1,962	3.92	53.48

Yakima River at Umtanum, Wash.

Location.- Water-stage recorder, lat. 46°51', long. 120°29', in NW¼ sec. 20*, T. 16 N., R. 19 E., at Umtanum, half a mile above Umtanum Creek and 10 miles south of Ellensburg.

Drainage area.- 1,620 square miles.

Records available.- August 1906 to September 1921 (fragmentary), October 1935 to September 1936. September 1906 to October 1928 (fragmentary) in State Water-Supply Bulletin 5.

Extremes.- Maximum discharge during year, 10,200 second-feet May 15 (gage height, 8.2 feet); minimum, 271 second-feet Dec. 21 (gage height, 3.29 feet).
1906-21, 1935-36: Maximum discharge, about 41,000 second-feet Nov. 15 or 16, 1906 (gage height, 14.2 feet, former datum, from floodmarks); minimum, 138 second-feet Oct. 3, 1915 (gage height, 2.88 feet).

Remarks.- Records excellent. Discharge interpolated Feb. 19-25. Flow partly regulated by storage in Lake Keechelus, Lake Kachess, and Lake Cle Elum Reservoirs. Water diverted for irrigation of about 91,000 acres above station. Base records furnished by U. S. Bureau of Reclamation.

Rating table, water year 1935-36 (gage height, in feet, and discharge, in second-feet)

3.2	235	6.0	3,900
3.5	370	6.5	5,060
4.0	770	7.0	6,400
4.5	1,360	8.0	9,500
5.0	2,060	9.0	13,400
5.5	2,900		

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,200	990	325	350	700	1,490	1,360	5,190	7,850	2,370	2,050	2,210
2	1,130	792	325	388	652	2,210	1,440	5,850	7,250	2,370	2,050	2,210
3	1,110	792	335	424	652	3,280	1,420	6,960	7,250	2,370	2,130	2,290
4	1,030	781	350	465	652	3,280	1,410	8,480	7,400	2,460	2,130	2,210
5	1,010	770	355	486	670	2,540	1,420	9,860	6,820	2,540	2,050	2,210
6	1,000	598	350	616	661	2,130	1,610	9,860	6,400	2,370	1,980	2,210
7	966	451	345	634	661	1,980	1,830	8,480	6,960	2,290	1,980	2,210
8	935	382	355	598	661	1,760	2,290	7,550	8,160	2,290	2,050	2,050
9	935	365	370	548	652	2,210	2,540	6,960	8,480	2,290	2,050	1,760
10	935	360	370	540	652	2,130	2,370	6,960	7,850	2,370	2,050	1,610
11	1,030	370	365	540	670	1,900	3,180	8,160	7,250	2,460	2,050	1,580
12	1,150	360	370	516	880	1,760	4,610	8,810	6,960	2,460	2,130	1,590
13	1,110	345	345	524	968	1,620	5,450	9,150	6,680	2,370	2,130	1,580
14	1,100	382	345	524	957	1,460	6,260	9,500	6,980	2,290	2,130	1,540
15	1,230	430	345	516	924	1,460	6,400	10,200	5,450	2,290	2,130	1,620
16	1,520	382	335	500	924	1,360	6,820	9,860	5,320	2,290	2,130	1,580
17	1,830	355	320	430	924	1,300	8,160	9,600	5,190	2,290	2,130	1,620
18	1,690	350	316	406	935	1,310	9,150	8,810	4,940	2,210	2,130	1,660
19	1,530	350	288	418	944	1,330	9,150	8,160	4,460	2,210	2,130	1,590
20	1,500	316	275	418	954	1,460	7,560	7,850	4,010	2,210	2,130	1,580
21	1,490	306	284	418	963	1,700	7,400	7,400	3,690	2,210	2,050	1,570
22	1,490	306	293	444	973	1,830	7,850	6,960	3,480	2,210	2,050	1,530
23	1,500	311	311	458	982	1,660	8,480	6,680	3,280	2,290	2,050	1,530
24	1,450	311	320	465	992	1,420	7,400	6,680	3,280	2,210	2,130	1,650
25	1,420	320	320	458	1,000	1,300	7,250	6,540	3,090	2,210	2,130	1,520
26	1,420	335	335	548	1,010	1,230	6,540	7,250	2,900	2,210	2,130	1,450
27	1,420	335	355	540	1,040	1,660	5,980	8,160	2,460	2,210	2,130	1,420
28	1,410	340	330	458	935	1,560	5,580	8,810	2,290	2,130	2,130	1,420
29	1,400	325	320	500	935	1,390	5,060	9,150	2,370	2,050	2,130	1,400
30	1,230	325	320	500	-	1,270	4,570	8,810	2,370	2,050	2,050	1,390
31	1,310	-	330	670	-	1,170	-	8,480	-	2,050	2,130	-
Month						Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet		
October.....						39,563	1,850	955	1,276	78,470		
November.....						13,145	990	306	458	26,070		
December.....						10,327	370	275	333	20,480		
Calendar year 1935.....						916,994	13,400	275	2,512	1,819,000		
January.....						16,300	670	350	494	30,350		
February.....						24,523	1,040	652	845	45,640		
March.....						54,340	3,280	1,170	1,753	107,800		
April.....						150,730	9,150	1,360	5,024	299,000		
May.....						251,070	10,200	5,190	8,099	498,000		
June.....						159,870	8,480	2,290	5,329	317,100		
July.....						70,630	2,540	2,050	2,278	140,100		
August.....						64,850	2,130	1,980	2,092	128,600		
September.....						51,790	2,290	1,390	1,726	102,700		
Water year 1935-36.....						906,138	10,200	275	2,476	1,797,000		

*Erroneously published as sec. 30 in Water-Supply Papers 442, 462, 482, 512, and 532.

Note.- Records for calendar year completed from information furnished by Bureau of Reclamation.

Yakima River near Parker, Wash.

Location.- Water-stage recorder, lat. 46°29'40", long. 120°26'10", in sec. 28, T. 12 N., R. 19 E., below Sunnyside diversion dam and 1½ miles east of Parker.

Drainage area.- 3,560 square miles.

Records available.- April 1908 to September 1921, October 1931 to September 1936.

Extremes.- Maximum discharge during year, 13,600 second-feet May 15 (gage height, 8.6 feet); minimum, 11 second-feet July 15 (gage height, 0.68 foot).

1908-21, 1931-36: Maximum discharge, 54,300 second-feet Dec. 23, 1933 (gage height, 15.0 feet, from floodmarks); practically no flow on several days during latter part of irrigation seasons as result of diversions.

Remarks.- Records good. Water diverted above gage for irrigation of a large area. Flow partly regulated by diversions and by storage in Keechelus Lake, Kachess Lake, Cle Elum Lake, Bumping Lake, and Tiston Reservoirs. Records for river station furnished by U. S. Bureau of Reclamation. Records of monthly discharge of canals furnished by U. S. Office of Indian Affairs and by U. S. Bureau of Reclamation.

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	251	1,820	830	908	863	2,740	728	4,060	9,320	957	203	210
2	278	1,810	830	998	880	2,970	863	5,280	8,670	728	197	364
3	169	1,240	890	1,090	838	4,180	957	6,800	6,670	381	284	336
4	101	1,360	882	1,180	829	4,660	966	8,670	8,670	369	260	305
5	154	1,420	864	1,120	872	5,720	914	10,600	8,100	375	162	203
6	147	1,310	806	1,160	914	3,210	914	10,600	7,570	264	37	83
7	99	1,150	805	1,210	804	2,970	931	9,280	8,360	151	67	67
8	67	1,060	864	1,160	637	2,670	1,340	7,570	11,700	429	220	39
9	78	1,020	960	1,080	687	2,900	1,670	6,550	10,600	264	162	114
10	166	1,030	953	1,070	720	3,130	2,040	7,050	9,280	260	141	134
11	209	1,020	917	1,100	695	2,820	2,110	6,380	8,670	361	129	53
12	425	944	890	1,090	695	2,600	3,990	10,200	8,100	363	188	64
13	428	926	882	1,180	712	2,520	5,180	10,900	7,570	308	165	141
14	503	953	839	1,210	770	2,350	6,070	12,000	7,050	118	165	318
15	672	1,010	848	1,160	704	2,180	6,550	13,600	6,310	60	141	264
16	908	1,010	848	1,130	704	1,920	7,050	12,400	5,840	107	94	203
17	1,360	935	848	1,070	712	1,790	8,970	11,300	5,720	162	173	262
18	1,200	935	814	1,030	753	1,730	10,600	9,920	5,500	116	230	210
19	1,240	917	765	1,020	863	1,730	10,900	9,600	4,760	83	245	197
20	1,620	908	710	1,020	906	1,650	9,280	9,600	3,990	194	223	141
21	2,200	873	710	1,020	923	1,980	8,100	8,670	3,460	173	139	112
22	2,200	890	710	1,030	914	2,240	8,670	7,570	3,050	173	43	75
23	2,200	882	702	1,070	880	1,920	9,280	7,050	2,670	248	63	46
24	2,140	890	757	1,050	812	1,340	8,380	6,800	2,520	237	112	264
25	2,070	890	839	980	846	1,040	7,570	7,050	2,110	185	146	127
26	2,070	873	873	980	1,020	991	7,050	8,100	1,670	237	217	56
27	2,070	882	917	1,020	1,340	1,040	6,070	9,920	1,040	256	116	32
28	2,000	890	899	1,040	1,610	1,170	5,280	12,000	829	136	87	66
29	2,000	882	908	980	1,790	1,040	4,660	12,600	838	105	105	90
30	1,880	848	908	773	-	914	3,900	11,300	787	203	107	63
31	1,940	-	908	745	-	695	-	10,200	-	185	151	-

Month	Mean discharge in second-feet						Gain or loss by flow, Yakima River and canals (second-feet)	Combined flow of Yakima River and canals corrected for upstream storage*	
	Yakima River near Parker	Union Gap Canal (estimated)	New Reservation Canal	Old Reservation Canal	Sunnyside Canal	Combined flow, Yakima River and canals		Second-feet	Run-off in acre-feet
October.....	1,067	15	423	5.3	542	2,052	-1,229	823	50,600
November.....	1,036	-	-	-	-	1,036	+169	1,205	71,700
December.....	845	-	-	-	-	845	+323	1,168	71,620
Calendar year 1935..	2,475	-	-	-	-	4,136	-281	3,855	2,791,000
January.....	1,062	-	-	-	-	1,052	+683	1,736	106,700
February.....	886	-	-	-	-	886	+349	1,235	71,040
March.....	2,227	-	115	22.8	174	2,539	+1,120	3,659	225,000
April.....	5,033	30	1,200	146	904	7,313	+3,733	11,050	657,500
May.....	9,221	50	1,990	173	1,280	12,710	+2,062	14,770	908,200
June.....	5,801	45	1,613	52.3	1,231	8,742	-89.4	8,653	514,900
July.....	266	35	1,726	24.2	1,287	3,358	-2,766	572	35,170
August.....	185	40	1,560	15.0	1,261	3,031	-3,409	-376	-23,240
September.....	155	35	1,060	4.1	1,041	2,315	-2,279	36	2,140
Water year 1935-36....	2,312	-	-	-	-	3,826	-119	3,708	2,692,000

*Totals are comparable with monthly results previously determined for Yakima River at Union Gap, near Yakima, Wash.

Yakima River at Kiona, Wash.

Location.- Water-stage recorder, lat. 46°15'10", long. 119°28'50", in sec. 19, T. 9 N., R. 27 E., at highway bridge at Kiona, $\frac{3}{4}$ miles below intake of Kiona Canal and 25 miles above mouth.

Drainage area.- 5,520 square miles.

Records available.- August 1896 to March 1915, February 1933 to September 1936.

Average discharge.- 21 years (1896-1914, 1933-36), 4,577 second-feet.

Extremes.- Maximum discharge during year, 14,100 second-feet May 18 (gage height, 10.69 feet); minimum, 1,060 second-feet Aug. 8 (gage height, 3.24 feet).
1896-1915, 1933-36: Maximum discharge, 71,100 second-feet Dec. 23, 1933 (gage height, 21.57 feet); minimum, 105 second-feet Sept. 11, 1906 (gage height, 2.35 feet).

Remarks.- Records excellent. Water diverted above gage for irrigation of large acreage. Flow partly regulated by diversions and by storage in Keechelus Lake, Kachess Lake, Cle Elum Lake, Bumping Lake, and Tieton Reservoirs. Records furnished by U. S. Bureau of Reclamation.

Rating tables, water year 1935-36 (gage height, in feet, and discharge, in second-feet)

Oct. 1 to Jan. 20				Jan. 21 to Sept. 30	
3.5	1,250	6.5	5,530	3.0	900
4.0	1,800	7.0	6,420	3.5	1,270
4.5	2,450	8.0	8,280	4.0	1,800
5.0	3,120	9.0	10,240		
5.5	3,880	10.0	12,440	(Same as previous table above	
6.0	4,680	11.0	14,940	gage height 4.0 feet.)	

(Same as previous table above
gage height 4.0 feet.)

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,680	2,980	1,620	1,560	1,520	2,700	1,980	5,190	12,200	1,920	1,360	1,180
2	1,620	2,980	1,620	1,560	1,480	3,420	1,980	5,350	11,700	1,920	1,270	1,270
3	1,620	2,500	1,560	1,620	1,480	3,500	2,040	6,600	10,900	1,860	1,270	1,450
4	1,560	2,300	1,520	1,860	1,460	4,850	2,100	8,080	10,900	1,570	1,270	1,570
5	1,500	2,360	1,620	1,860	1,520	5,190	2,040	9,440	10,900	1,460	1,270	1,620
6	1,500	2,430	1,560	1,980	1,460	4,520	1,980	11,100	10,200	1,460	1,220	1,570
7	1,500	2,300	1,560	1,980	1,460	4,040	1,920	11,500	9,840	1,460	1,140	1,460
8	1,500	2,170	1,560	1,980	1,740	3,720	1,920	10,700	10,900	1,360	1,100	1,360
9	1,440	2,040	1,560	1,920	1,320	3,420	2,300	9,240	12,900	1,410	1,100	1,360
10	1,430	1,980	1,680	1,920	1,360	5,640	2,630	8,280	12,900	1,460	1,180	1,360
11	1,450	1,920	1,680	1,980	1,410	3,880	2,840	8,470	12,000	1,410	1,140	1,410
12	1,500	1,860	1,680	2,040	1,360	3,570	3,120	9,640	11,100	1,520	1,140	1,360
13	1,680	1,860	1,620	2,170	1,360	3,340	4,850	11,100	10,400	1,570	1,140	1,320
14	1,800	1,800	1,620	2,630	2,430	3,270	5,880	12,000	9,840	1,520	1,140	1,360
15	1,860	1,800	1,560	2,360	6,420	3,120	6,780	12,900	9,040	1,360	1,140	1,460
16	2,040	1,800	1,560	2,170	6,420	2,910	7,140	13,900	8,470	1,270	1,140	1,570
17	2,170	1,860	1,560	2,040	6,060	2,700	7,710	13,900	7,900	1,270	1,180	1,570
18	2,630	1,800	1,500	1,920	6,060	2,560	9,240	12,900	7,710	1,270	1,140	1,570
19	2,700	1,740	1,500	1,920	5,880	2,500	10,700	11,700	7,530	1,360	1,180	1,570
20	2,700	1,740	1,440	1,800	6,240	2,560	11,100	11,300	6,600	1,360	1,220	1,520
21	3,200	1,680	1,380	1,800	6,060	2,630	10,000	11,100	5,700	1,270	1,270	1,520
22	3,570	1,680	1,370	1,800	6,060	2,700	9,240	10,200	5,190	1,270	1,220	1,410
23	3,570	1,680	1,500	1,800	5,880	2,980	9,640	9,240	4,520	1,180	1,140	1,360
24	3,570	1,680	1,420	1,800	5,190	2,840	10,200	8,660	4,040	1,220	1,100	1,320
25	3,420	1,680	1,500	1,800	2,840	2,360	9,440	8,470	3,720	1,270	1,140	1,360
26	3,270	1,680	1,500	1,740	1,920	2,300	8,850	8,850	3,340	1,360	1,180	1,410
27	3,270	1,620	1,500	1,680	1,920	2,100	8,090	9,840	2,910	1,410	1,180	1,320
28	3,200	1,620	1,560	1,680	2,500	2,240	7,350	11,100	2,300	1,460	1,220	1,320
29	3,120	1,620	1,560	1,880	2,530	2,360	8,600	12,700	2,040	1,460	1,180	1,270
30	3,120	1,680	1,560	1,820	-	2,240	5,880	13,700	1,800	1,410	1,180	1,270
31	2,980	-	1,560	1,460	-	2,100	-	13,200	-	1,360	1,180	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October.....	72,170	3,570	1,430	2,328	143,100
November.....	58,840	2,980	1,620	1,961	116,700
December.....	47,940	1,680	1,350	1,546	95,090
Calendar year 1935.....	1,321,430	17,900	1,140	3,620	2,621,000
January.....	58,250	2,630	1,460	1,879	115,500
February.....	93,400	6,420	1,320	3,221	185,300
March.....	96,560	5,190	2,100	3,115	191,500
April.....	175,520	11,100	1,920	5,851	348,100
May.....	320,370	13,900	5,190	10,330	635,400
June.....	239,290	12,900	1,800	7,976	474,600
July.....	44,460	1,920	1,180	1,484	88,190
August.....	36,730	1,360	1,100	1,185	72,850
September.....	42,460	1,620	1,180	1,416	84,260
Water year 1935-36.....	1,266,010	13,900	1,100	3,514	2,551,000

Kachess River near Easton, Wash.

Location.- Water-stage recorder, lat. 47°15'30", long. 121°11'50", in sec. 3, T. 20 N., R. 13 E., three-quarters of a mile below Kachess Lake and 2 miles northwest of Easton.

Drainage area.- 64 square miles.

Records available.- October 1903 to September 1936.

Average discharge.- 33 years, 290 second-feet.

Extremes.- Maximum discharge during year, 1,090 second-feet May 25 to June 13; maximum gage height, 5.02 feet June 11, 12; practically no flow Dec. 19-26, 29.
1903-36: Maximum discharge, 2,240 second-feet Aug. 27, 1920 (computed from gate opening); practically no flow when gates in dam are closed.

Remarks.- Records excellent except those for extremely low flow, which are poor. No diversions. Flow regulated by storage in Kachess Lake Reservoir (capacity at crest of spillway, 221,000 acre-feet). Records furnished by U. S. Bureau of Reclamation. Part of table of monthly discharge is corrected for storage.

Rating tables, water year 1935-36 (gage height, in feet, and discharge, in second-feet)

Oct. 1 to Jan. 14			Jan. 15 to Sept. 30		
0	0	2.0	0.1	0.4	2.5
.4	1.1	2.5	.5	1.7	3.0
.8	7	3.0	1.0	8	4.0
1.5	34		1.5	22	5.0
			2.0	55	1,090

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	140	1	1	1	1	2	514	955	1,090	798	534	37
2	140	1	1	1	1	2	514	955	1,090	820	391	37
3	140	1	1	1	1	2	514	955	1,090	842	31	37
4	140	1	1	1	1	2	514	955	1,090	842	32	37
5	140	1	1	1	1	3	514	955	1,090	708	32	37
6	140	1	1	1	1	3	514	955	1,090	662	34	37
7	140	1	1	1	1	3	514	955	1,090	499	37	37
8	140	1	1	1	1	2	514	955	1,090	775	37	37
9	140	1	1	1	1	3	514	955	1,090	842	37	37
10	140	1	1	1	1	3	514	955	1,090	888	37	37
11	140	1	1	1	1	3	514	955	1,090	910	37	37
12	140	37	1	1	1	3	514	955	1,090	910	37	48
13	140	178	1	1	1	3	514	955	743	798	37	55
14	140	178	1	2	1	3	514	955	376	730	37	81
15	140	2	1	2	1	3	514	955	164	730	37	159
16	61	2	1	2	1	2	452	955	514	708	37	272
17	2	2	1	1	1	2	14	955	514	708	37	378
18	1	2	1	1	1	2	14	955	514	708	37	486
19	1	2	0	1	1	2	14	955	514	708	37	597
20	1	2	0	1	1	2	326	955	514	708	37	662
21	1	2	0	2	1	2	514	955	514	730	37	685
22	1	2	0	2	1	2	514	955	514	775	37	910
23	1	2	0	2	1	2	514	955	514	798	37	910
24	1	2	0	2	1	2	514	955	514	820	37	685
25	1	2	0	2	1	18	514	1,040	514	820	37	662
26	1	2	0	2	1	68	514	1,090	514	752	37	662
27	1	1	1	2	1	96	514	1,090	534	640	37	662
28	1	1	1	2	1	96	514	1,090	662	597	37	662
29	1	1	0	1	2	93	775	1,090	685	597	37	662
30	1	1	1	1	-	292	955	1,090	730	597	37	685
31	1	-	1	1	-	490	-	1,090	-	534	37	-

Month	Observed				Gain or loss in storage in Lake Kachess (acre- feet)	Corrected for storage			
	Discharge in second-feet			Run-off in acre-feet		Run-off in acre-feet	Discharge in second-feet		Run off in inches
	Maxi- mum	Mini- mum	Mean				Mean	Per square mile	
October.....	140	1	70.2	4,320	-2,100	2,220	36.1	0.564	0.65
November.....	178	1	14.4	857	+2,650	3,510	59.0	.922	1.03
December.....	1	0	.7	44	+5,560	5,600	91.1	1.42	1.64
Calendar year 1935	1,480	0	333	241,100	-46,560	194,500	289	4.20	57.01
January.....	2	1	1.3	81	+10,180	10,260	167	2.61	3.01
February.....	2	1	1.1	61	+6,720	6,780	118	1.64	1.98
March.....	490	2	39.7	2,440	+13,510	15,950	259	4.05	4.67
April.....	955	14	479	26,510	+9,600	36,110	640	10.0	11.16
May.....	1,090	955	984	60,500	+11,650	72,150	1,173	18.3	21.10
June.....	1,090	164	754	44,880	-4,820	40,060	673	10.5	11.71
July.....	910	499	740	45,530	-38,130	7,400	120	1.88	2.17
August.....	534	31	85.8	3,930	-676	3,250	52.9	.827	.95
September.....	910	37	344	20,490	-17,740	2,750	46.2	.722	.81
Water year 1935-36	1,090	0	292	211,600	-3,600	208,000	287	4.48	60.88

Cle Elum River near Roslyn, Wash.

Location.- Water-stage recorder, lat. 47°14'0", long. 121°3'30", in SW¼ sec. 11, T. 20 N., R. 14 E., below Cle Elum Lake and 4 miles northwest of Roslyn.

Drainage area.- 202 square miles.

Records available.- October 1903 to September 1936.

Average discharge.- 33 years, 920 second-feet.

Extremes.- Maximum discharge during year, 4,970 second-feet May 16 (gage height, 10.72 feet); no flow Nov. 8-14.

1903-36: Maximum discharge, 18,700 second-feet Nov. 15, 1906 (gage height, 14.05 feet); practically no flow when gates in dam are closed.

Remarks.- Records excellent except those for Nov. 1 to Jan. 15, which are based on poorly defined rating and are poor. No diversions above station. Flow partly controlled by storage in Cle Elum Lake Reservoir (capacity 358,500 acre-feet at crest of spillway). Part of table of monthly discharge corrected for storage. Records furnished by U. S. Bureau of Reclamation.

Rating tables, water year 1935-36 (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Jan. 1-15)

Oct. 1 to Dec. 31				Jan. 16 to Sept. 30			
4.0	0	5.5	435	4.0	4	6.0	745
4.5	59	6.0	690	4.5	89	6.5	1,035
5.0	232	6.5	980	5.0	270	7.0	1,345
		7.0	1,310	5.5	485	7.5	1,685
						11.0	5,330

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	830	13	13	16	28	28	35	42	3,950	1,250	1,620	1,900
2	745	12	13	12	28	28	35	476	3,510	1,220	1,620	1,800
3	679	12	13	10	28	28	35	1,680	3,400	1,160	1,620	1,760
4	662	12	13	11	28	28	35	2,760	3,180	1,120	1,620	1,720
5	662	12	13	12	26	29	35	3,510	2,860	1,120	1,620	1,720
6	602	12	13	12	28	30	35	3,620	2,760	1,100	1,650	1,720
7	555	12	13	12	28	32	35	3,180	2,860	1,040	1,720	1,720
8	560	6	13	13	28	32	35	2,760	3,290	975	1,720	1,410
9	560	0	14	14	28	34	35	2,650	3,290	915	1,720	1,220
10	718	0	14	24	28	34	35	2,650	3,180	885	1,720	1,220
11	500	0	14	24	28	34	35	3,180	2,960	855	1,720	1,220
12	555	0	14	25	28	34	35	3,730	2,860	828	1,720	1,220
13	545	0	14	26	28	34	37	4,080	2,760	828	1,720	1,220
14	640	6	14	26	28	34	37	4,610	2,650	1,040	1,720	1,160
15	860	11	14	27	28	34	37	4,970	2,550	1,220	1,720	1,120
16	1,040	11	14	28	28	34	37	4,970	2,550	1,310	1,720	1,120
17	1,040	11	14	28	28	34	37	4,500	2,450	1,350	1,760	1,120
18	1,040	11	14	28	28	34	37	3,950	2,260	1,480	1,720	1,100
19	1,040	11	14	28	28	34	37	3,730	2,040	1,580	1,720	1,040
20	1,040	11	27	28	28	34	37	3,510	1,840	1,620	1,720	1,040
21	1,040	11	48	28	28	34	40	3,180	1,800	1,620	1,720	1,000
22	1,040	11	48	28	28	34	40	2,860	1,800	1,650	1,720	1,000
23	1,080	11	48	28	28	34	40	2,860	1,880	1,680	1,720	1,000
24	1,080	11	48	28	28	34	40	2,860	1,920	1,620	1,720	1,000
25	1,080	12	48	28	28	34	40	3,070	1,920	1,620	1,720	1,000
26	1,080	13	27	28	28	35	40	3,510	1,800	1,650	1,720	1,000
27	1,040	13	15	28	28	35	40	4,170	1,680	1,620	1,720	1,000
28	1,040	13	15	28	28	35	40	4,610	1,580	1,620	1,720	1,000
29	860	13	15	28	28	35	42	4,610	1,480	1,620	1,720	1,000
30	1,040	13	15	28	-	35	42	4,280	1,540	1,620	1,760	945
31	334	-	15	28	-	35	-	4,280	-	1,620	1,800	-

Month	Observed				Gain or loss in storage in Lake Cle Elum (acre-feet)	Corrected for storage			
	Discharge in second-feet			Run-off in acre-feet		Run-off in acre-feet	Discharge in second-feet		Run off in inches
	Maxi- mum	Mini- mum	Mean				Mean	Per square mile	
October.....	1,080	334	835	61,350	-43,340	8,010	130	0.644	0.74
November.....	13	0	9.5	563	+7,720	8,280	139	.688	.77
December.....	48	13	20.2	1,240	+7,260	8,500	138	.683	.79
Calendar year 1935	3,730	0	951	688,200	-46,300	641,900	887	4.39	59.64
January.....	28	10	25.0	1,410	+14,240	15,650	255	1.26	1.45
February.....	28	28	26.0	1,610	+8,490	10,100	176	.871	.94
March.....	35	28	33.0	2,030	+27,440	29,470	479	2.37	2.73
April.....	42	35	37.3	2,220	+115,800	118,000	1,985	9.82	10.96
May.....	4,970	42	3,532	207,900	+26,220	234,100	3,807	18.8	21.67
June.....	3,950	1,340	2,480	147,600	9,810	137,800	2,316	11.5	12.83
July.....	1,680	328	1,318	81,060	-40,060	40,960	666	3.30	3.80
August.....	1,800	1,620	1,707	104,900	-93,480	11,420	186	.921	1.06
September.....	1,800	945	1,246	74,170	-66,570	7,600	128	.634	.71
Water year 1935-36	4,970	0	951	676,100	-46,110	629,900	868	4.30	58.45

Naches River below Tieton River, near Naches, Wash.

Location.— Water-stage recorder, lat. 46°44'40", long. 120°46'50", in sec. 35, T. 15 N., R. 18 E., 600 feet below mouth of Tieton River and 5 miles northwest of Naches. Prior to Nov. 4, 1935, at site 100 feet downstream.

Drainage area.— 942 square miles.

Records available.— August to October 1905, March 1909 to October 1912, May 1915 to September 1928, October 1935 to September 1936. Mean monthly discharge September 1905, October 1908 to September 1912, June 1915 to September 1929 in State water-supply bulletin 5.

Average discharge.— 18 years (1908-12, 1916-29, 1935-36), 1,678 second-feet.

Extremes.— Maximum discharge during year, 6,680 second-feet May 14 (gauge height, 9.54 feet); minimum, 286 second-feet Dec. 19.

1905, 1908-12, 1915-29, 1935-36: Maximum discharge, 18,800 second-feet Nov. 24, 1909 (gauge height, 8.9 feet, former site and datum); minimum, 57 second-feet Sept. 23, 24, 1924 (gauge height, 1.10 feet, former site and datum).

The Bureau of Reclamation reports a flow of 32,200 second-feet Dec. 23, 1933 (gauge height, 14.33 feet, former site and datum).

Remarks.— Records fair except those for Oct. 29 to Nov. 4, Dec. 18-26, Jan. 6-10, 17, 18, 25, 26, 29-31, Feb. 8-16, 22-26, Mar. 15-19, Mar. 24 to Apr. 7, Sept. 10-30 and those for period of ice effect, Feb. 6-16, which were computed on basis of records for Wapatox Power Canal and are poor. Part of monthly table corrected for storage in Bumping Lake and Tieton Reservoirs (combined capacity at crest of spillway, 232,000 acre-feet) and for diversions by city of Yakima at Oak Flat and Selah Valley and Tieton Canals. Station is maintained by U. S. Bureau of Reclamation in cooperation with Pacific Power & Light Co. Records furnished for publication by U. S. Bureau of Reclamation. Information concerning municipal diversion at Oak Flat taken from Yakima water superintendent's annual report.

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	654	311	350	408	390	636	335	3,100	5,200	2,020	1,440	952
2	632	327	396	462	402	650	383	3,610	4,520	1,550	1,440	880
3	582	353	432	450	390	736	373	4,150	4,430	1,290	1,440	752
4	593	346	384	366	462	784	362	4,520	4,240	1,340	1,440	720
5	642	360	354	414	486	657	390	4,810	3,880	1,290	1,440	601
6	515	390	378	376	462	650	378	4,060	3,520	1,220	1,390	580
7	420	384	390	359	390	615	375	3,790	5,000	1,240	1,440	671
8	495	390	402	344	367	573	480	3,610	6,000	1,220	1,550	594
9	550	390	414	343	357	650	486	3,610	4,900	1,220	1,440	594
10	576	390	414	344	373	664	545	4,060	4,240	1,240	1,390	621
11	571	366	402	336	375	580	961	5,200	3,700	1,290	1,390	656
12	576	348	396	426	387	486	1,550	6,000	3,610	1,280	1,440	702
13	712	414	378	444	380	462	1,960	6,000	3,520	1,220	1,390	686
14	750	360	378	426	359	450	2,490	6,600	3,350	1,200	1,340	671
15	750	354	354	414	373	412	2,560	6,400	3,350	1,250	1,340	580
16	743	360	372	390	378	373	3,260	5,600	3,020	1,340	1,310	573
17	688	360	366	375	390	387	4,150	4,620	3,100	1,340	1,220	547
18	525	348	309	370	390	421	4,900	4,430	3,260	1,390	1,200	489
19	525	390	266	366	390	421	4,620	4,810	2,940	1,440	1,170	421
20	553	432	271	372	450	420	4,240	4,810	2,710	1,440	1,080	438
21	502	432	277	366	390	552	4,060	4,620	2,640	1,440	1,070	435
22	489	432	277	366	375	587	4,620	3,970	2,710	1,500	1,060	439
23	478	384	301	366	395	498	4,620	3,680	2,780	1,440	1,060	428
24	456	402	335	348	409	466	4,060	3,970	2,710	1,440	1,060	420
25	432	438	346	327	395	412	3,880	4,520	2,560	1,440	1,090	430
26	432	420	351	348	400	383	3,610	5,400	2,350	1,440	1,080	430
27	400	426	390	360	390	412	3,350	6,200	2,280	1,440	952	449
28	412	432	390	396	474	359	3,180	6,600	2,280	1,440	997	486
29	421	432	396	317	566	359	2,940	6,400	2,280	1,550	1,020	484
30	373	406	390	274	-	357	2,860	6,400	2,220	1,600	1,240	464
31	359	-	414	362	-	346	-	6,000	-	1,500	970	-

Month	Observed				Gain or loss in storage (acre-feet)	Diver- sions (acre- feet)	Corrected for storage and diversion			
	Discharge in second-feet			Run-off in acre-feet			Run-off in acre-feet	Discharge in second-feet		Run- off in inches
	Maxi- mum	Mini- mum	Mean					Mean	Per square mile	
October.....	750	359	542	33,560	-20,110	8,600	21,840	355	0.377	0.43
November.....	438	311	385	22,930	-6,020	2,750	19,660	350	.350	.39
December.....	432	266	363	22,320	+401	933	23,650	385	.409	.47
Calendar year 1935*	6,160	266	1,544	1,118,000	-65,020	164,700	1,217,000	1,681	1.78	24.22
January.....	462	274	375	23,040	+5,560	701	29,100	473	.502	.68
February.....	566	357	405	25,500	-1,610	685	22,340	368	.412	.44
March.....	784	346	508	31,260	+13,290	2,650	47,200	768	.815	.94
April.....	4,900	335	2,399	142,800	+62,170	10,750	215,700	3,625	3.85	4.30
May.....	6,600	3,100	4,895	301,000	+53,480	25,020	379,500	6,172	6.55	7.55
June.....	6,000	2,220	3,443	204,900	+14,150	24,140	243,200	4,087	4.34	4.84
July.....	2,020	1,200	1,389	85,390	-42,800	27,770	70,360	1,144	1.21	1.40
August.....	1,550	952	1,254	77,140	-70,040	28,150	35,250	573	.608	.70
September.....	952	420	571	33,980	-33,960	22,280	22,300	375	.398	.44
Water year 1935-36	6,600	266	1,379	1,001,000	-25,690	154,400	1,130,000	1,557	1.65	22.48

*Based on unpublished records of monthly discharge January to September furnished by U. S. Bureau of Reclamation.

Bumping River near Nile, Wash.

Location.- Water-stage recorder, lat. 46°52', long. 121°18', a quarter of a mile below spillway of Bumping Lake dam and 19 miles west of Nile.

Drainage area.- 68 square miles.

Records available.- June to July 1906, April 1909 to September 1936.

Average discharge.- 27 years (1909-36), 297 second-feet.

Extremes.- Maximum discharge during year, 1,740 second-feet May 28 (gage height, 4.90 feet); minimum, 5 second-feet Mar. 12-20.

1906, 1909-36: Maximum discharge, 5,180 second-feet Dec. 29, 1917 (gage height, 9.33 feet); practically no flow when gates in outlet conduit are closed.

Remarks.- Records good except those below 100 second-feet, which are fair. No diversions. Flow partly regulated by storage in Bumping Lake Reservoir (capacity at crest of spillway, 33,700 acre-feet). Part of table of monthly discharge corrected for storage. Records furnished by U. S. Bureau of Reclamation.

Rating tables, water year 1935-36 (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used July 22 to Aug. 21)

Oct. 1 to Apr. 5			Apr. 6 to Sept. 30		
0.9	4.5	2.0	107	0.9	4.5
1.1	10	2.5	243	1.1	9
1.4	30	3.0	465	1.4	25
1.7	61			1.7	56
				2.0	107
					4.5
					2.5
					3.0
					3.5
					4.0
					1,091
					1,820

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	344	65	51	66	53	66	152	36	1,090	372	272	255
2	300	61	51	74	53	64	152	39	947	349	272	255
3	280	57	50	89	53	64	152	43	875	329	272	255
4	280	55	50	89	51	64	152	54	839	329	272	255
5	243	53	50	93	51	62	209	70	803	309	272	255
6	209	51	50	94	51	61	207	418	803	290	272	255
7	209	50	50	94	50	61	207	702	1,310	255	272	255
8	209	51	61	94	50	66	193	735	1,600	238	272	255
9	209	56	61	93	50	73	125	735	1,380	222	290	255
10	209	55	62	93	50	73	118	839	1,240	222	290	255
11	209	54	62	93	50	71	107	1,160	1,160	222	290	255
12	209	54	61	93	50	5	7	1,380	1,160	207	290	255
13	209	56	59	94	50	5	7	1,450	1,160	193	290	255
14	209	55	59	96	50	5	10	1,600	1,090	193	272	255
15	209	56	57	94	50	5	13	1,600	1,090	207	290	255
16	168	57	56	91	50	5	16	1,520	1,090	193	272	255
17	194	57	55	80	50	5	18	1,310	1,020	222	272	255
18	209	56	53	74	50	5	29	1,090	875	207	272	255
19	194	54	51	71	50	5	34	1,160	735	207	272	255
20	174	51	49	70	49	5	38	1,090	702	207	272	255
21	165	50	48	70	49	91	41	947	702	207	272	255
22	152	50	47	68	49	91	43	839	769	222	272	255
23	147	51	47	66	49	91	45	839	803	222	272	255
24	135	55	47	62	49	49	48	911	769	222	272	255
25	126	56	47	60	49	49	44	1,090	702	222	272	255
26	78	55	47	60	49	49	43	1,380	608	222	272	255
27	111	54	48	59	50	49	41	1,600	549	222	255	272
28	102	54	53	56	68	49	39	1,670	468	238	255	255
29	91	54	60	56	71	89	37	1,520	418	272	255	255
30	82	51	64	54	-	89	35	1,380	394	272	255	255
31	76	-	65	54	-	89	-	1,310	-	272	255	-

Month	Observed				Gain or loss in storage in Bumping Lake (acre- feet)	Corrected for storage			
	Discharge in second-feet			Run-off in acre-feet		Run-off in acre-feet	Discharge in second-feet		Run- off in inches
	Maxi- mum	Mini- mum	Mean				Mean	Per square mile	
October.....	344	76	185	11,390	-8,060	3,330	54.2	0.797	0.92
November.....	65	50	54.5	3,240	-98	3,140	52.8	.776	.87
December.....	65	47	53.9	3,310	+84	3,390	55.1	.810	.93
Calendar year 1935	1,550	14	321	232,200	-25,660	206,500	285	4.19	57.00
January.....	96	54	77.4	4,760	+20	4,780	77.7	1.14	1.31
February.....	71	49	51.5	2,960	+72	3,030	52.7	.775	.84
March.....	91	5	50.2	3,060	+1,990	5,070	82.5	1.21	1.40
April.....	209	7	78.7	4,660	+20,700	25,380	427	6.28	7.01
May.....	1,670	36	984	60,530	+10,540	71,070	1,156	17.0	19.60
June.....	1,600	394	905	53,850	-1,220	52,630	884	13.0	14.50
July.....	372	193	244	16,010	-3,660	11,350	185	2.72	3.14
August.....	290	255	275	16,770	-10,960	5,810	94.5	1.39	1.60
September.....	272	255	256	15,210	-10,420	4,790	80.5	1.18	1.32
Water year 1935-36	1,670	5	268	194,800	-1,010	193,800	267	3.93	53.44

Tieton River at Tieton Dam, near Naches, Wash.

Location.- Water-stage recorder, lat. 46°39'30", long. 121°7'20", 900 feet above Wild Cat Creek, 1,200 feet below Tieton Dam, and 22 miles southwest of Naches.

Drainage.- 187 square miles.

Records available.- August 1908 to September 1914 (fragmentary), October 1918 to March 1919, April 1925 to September 1936 in reports of U. S. Geological Survey; September 1908 to December 1913, July 1914 to September 1920, May 1925 to September 1933 in State Water-Supply Bulletin 5.

Average discharge.- 17 years (1908-12, 1918-20, 1925-38), 479 second-feet.

Extremes.- Maximum discharge during year, 1,930 second-feet May 28 (gage height, 5.72 feet); minimum, 7 second-feet Apr. 23, 24 (gage height, 1.33 feet).
1908-14, 1918-20, 1925-36: Maximum discharge, 8,450 second-feet Dec. 22, 1933 (gage height, 9.24 feet); no flow Apr. 4-6, 10, 1930.

Remarks.- Records good. No diversions. Flow regulated by storage in Tieton Reservoir (capacity at spillway crest, drums up, 198,000 acre-feet). Part of table of monthly discharge corrected for storage. Records furnished by U. S. Bureau of Reclamation.

Rating table, water year 1935-36 (gage height, in feet, and discharge, in second-feet)

1.2	4	2.3	82	4.5	970
1.4	10	2.6	128	5.0	1,370
1.6	20	3.0	220	5.5	1,770
1.8	34	3.5	387	6.0	2,170
2.0	50	4.0	634		

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	477	162	199	113	158	158	8	165	1,550	1,210	1,410	902
2	477	164	199	105	158	158	8	165	1,370	736	1,410	809
3	477	147	154	70	158	158	6	165	1,330	681	1,410	755
4	477	143	118	50	158	108	8	165	1,290	699	1,410	693
5	477	139	116	50	158	59	13	172	1,210	693	1,370	664
6	430	139	118	50	158	50	34	167	1,170	736	1,410	699
7	468	139	118	50	158	26	34	160	1,630	815	1,480	705
8	477	149	116	50	158	10	34	169	1,080	858	1,450	693
9	477	139	120	50	158	10	34	186	391	902	1,410	693
10	477	139	121	50	158	10	16	207	391	970	1,410	693
11	477	139	120	72	158	10	10	207	391	1,010	1,410	730
12	468	141	116	96	158	10	10	210	391	1,010	1,370	755
13	430	141	125	95	158	10	10	210	396	1,010	1,370	755
14	430	141	125	96	158	10	10	210	400	1,060	1,350	681
15	430	141	126	96	158	10	10	212	400	1,150	1,290	654
16	430	141	126	96	158	10	10	217	409	1,210	1,290	579
17	379	141	126	96	158	41	10	299	646	1,290	1,170	477
18	348	141	126	96	158	70	10	947	1,050	1,290	1,170	409
19	309	141	126	96	158	70	9	1,210	1,050	1,370	1,150	409
20	279	141	121	96	158	70	9	1,210	1,050	1,410	1,050	409
21	242	134	118	96	158	26	8	1,210	1,050	1,410	1,010	409
22	220	123	116	96	158	9	8	1,130	1,090	1,450	1,050	400
23	215	141	116	96	158	9	8	1,090	1,130	1,450	1,090	387
24	199	164	116	96	158	9	18	1,150	1,090	1,450	1,090	387
25	194	199	113	96	158	9	63	1,210	1,090	1,450	1,090	379
26	186	199	113	96	158	9	104	1,370	1,010	1,450	1,060	375
27	182	199	113	113	158	9	128	1,530	1,130	1,450	1,010	396
28	184	199	113	128	158	9	128	1,810	1,370	1,450	1,010	409
29	184	199	113	128	158	8	128	1,850	1,450	1,490	1,050	404
30	174	199	113	145	-	8	151	1,690	1,490	1,530	1,060	348
31	166	-	113	158	-	8	-	1,650	-	1,410	970	-

Month	Observed				Gain or loss in storage in Tieton Reservoir (acre- feet)	Corrected for storage			
	Discharge in second-feet			Run-off in acre-feet		Run-off in acre-feet	Discharge in second-feet		Run off in inches
	Maxi- mum	Mini- mum	Mean				Mean	Per square mile	
October.....	477	165	350	21,500	-12,060	9,450	154	0.824	0.95
November.....	199	128	155	9,200	-5,920	3,280	55.1	.295	.33
December.....	199	113	125	7,680	+317	8,000	130	.695	.80
Calendar year 1935	1,760	8	501	362,700	-39,350	323,300	447	2.39	32.40
January.....	158	50	91.0	5,600	+5,340	10,940	179	.952	1.10
February.....	158	158	158	9,090	-1,680	7,410	129	.690	.74
March.....	158	8	37.8	2,320	+11,900	13,620	222	1.19	1.37
April.....	151	8	34.6	2,060	+41,470	43,530	732	3.91	4.36
May.....	1,850	158	720	44,280	+42,940	87,220	1,418	7.58	8.74
June.....	1,530	391	980	58,280	+15,370	73,650	1,238	6.62	7.39
July.....	1,530	661	1,164	71,540	-39,140	32,400	527	2.82	3.25
August.....	1,490	970	1,233	75,830	-59,080	16,750	272	1.45	1.67
September.....	902	348	568	33,790	-23,540	10,250	172	.920	1.03
Water year 1935-36	1,850	8	470	341,200	-24,670	316,500	456	2.33	31.73

Tieton River at headworks of Tieton Canal, near Naches, Wash.

Location.- Water-stage recorder, lat. $46^{\circ}40'10''$, long. $121^{\circ}0'20''$, in sec. 30, T. 14 N., R. 15 E. (unsurveyed), below intake of Tieton Canal and 16 miles southwest of Naches.

Drainage area.- 240 square miles.

Records available.- April to September 1906 (fragmentary gage-height records), July 1907 to September 1936.

Average discharge.- 27 years (1907-18, 1918-36), 558 second-feet.

Extremes.- Maximum discharge during year, 1,860 second-feet May 28 (gage height, 4.60 feet); minimum, 3 second-feet Apr. 5, 6 (gage height, 1.10 feet).
1907-36: Maximum discharge, 8,910 second-feet Dec. 22, 1933 (gage height, 9.70 feet); no flow at times in 1926, 1931, 1932, 1934.

Remarks.- Records good. Diversions for irrigation by Tieton Canal included in table of monthly discharge. Flow regulated by Tieton Reservoir, 7 miles above gage. Records furnished by U. S. Bureau of Reclamation. Part of table of monthly discharge corrected for storage.

Rating table, water year 1935-36 (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Sept. 4-30)

1.2	6	2.2	146	3.5	820
1.4	18	2.5	245	4.0	1,250
1.9	77	3.0	485	4.5	1,755

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	290	170	141	133	273	209	41	97	1,350	1,010	1,180	620
2	312	164	161	138	355	223	38	115	1,120	516	1,160	564
3	335	167	167	97	370	231	37	115	1,120	405	1,160	496
4	360	158	130	93	216	170	34	130	1,050	446	1,160	429
5	365	158	125	74	199	81	18	128	964	441	1,120	383
6	346	158	133	66	186	69	14	87	924	452	1,130	412
7	375	158	156	66	176	51	25	56	1,400	540	1,250	436
8	375	158	135	64	186	22	47	61	1,080	870	1,200	419
9	410	155	135	61	220	45	54	64	238	613	1,140	418
10	430	158	133	63	290	23	81	106	238	658	1,140	417
11	430	155	133	77	370	17	170	120	231	680	1,150	454
12	452	155	133	108	261	18	213	115	223	680	1,140	496
13	474	158	133	113	196	58	202	111	231	680	1,090	495
14	468	155	136	113	196	54	227	106	223	710	1,060	418
15	468	158	133	113	285	49	220	87	213	820	1,060	353
16	468	155	133	113	420	49	245	64	213	900	1,020	310
17	415	158	133	115	463	67	251	102	410	980	916	205
18	360	155	136	113	534	111	303	740	820	998	916	148
19	316	155	136	113	308	115	241	1,070	838	1,100	860	159
20	294	155	136	113	196	128	202	1,060	836	1,130	772	177
21	257	152	136	113	183	118	173	998	796	1,130	740	179
22	238	141	133	113	183	67	176	940	820	1,160	780	178
23	231	138	133	113	183	56	115	892	884	1,160	804	165
24	220	155	136	113	183	53	61	940	628	1,160	804	161
25	202	152	130	115	166	45	53	1,050	804	1,160	804	176
26	206	143	130	113	186	48	66	1,200	748	1,160	718	182
27	196	141	133	118	169	53	72	1,400	894	1,160	665	212
28	196	141	130	136	192	48	61	1,760	1,050	1,200	710	233
29	206	142	130	143	199	46	53	1,760	1,140	1,250	740	233
30	189	141	130	161	-	42	69	1,550	1,200	1,250	740	232
31	173	-	136	209	-	41	-	1,600	-	1,150	672	-

Month	Observed				Gain or loss in storage in Tieton Reser- voir (acre- feet)	Diver- ted by Tieton Canal (acre- feet)	Corrected for storage and diversion			
	Discharge in second-feet			Run-off in acre-feet			Run-off in acre-feet	Discharge in second-feet		Run- off in inches
	Maxi- mum	Mini- mum	Mean					Mean	Per square mile	
October.....	474	173	324	19,960	-12,050	2,830	10,730	175	0.729	0.84
November.....	170	138	154	9,130	-5,920	923	4,140	69.6	.290	.32
December.....	167	125	136	8,340	+517	248	8,900	145	.604	.70
Calendar year 1935	1,910	24	437	316,400	-39,360	102,900	379,900	625	2.19	29.67
January.....	209	61	109	6,720	+5,340	-	12,060	196	.817	.94
February.....	534	176	255	14,650	-1,680	-	12,970	225	.938	1.01
March.....	231	17	77.9	4,790	+11,300	635	16,720	272	1.13	1.30
April.....	303	14	120	7,120	+41,470	4,130	52,720	886	3.69	4.12
May.....	1,760	56	593	36,740	+42,840	16,840	96,520	1,570	6.54	7.54
June.....	1,400	213	782	45,330	+15,370	16,150	76,850	1,292	5.38	6.00
July.....	1,250	405	680	54,090	-39,140	18,770	33,720	548	2.28	2.63
August.....	1,250	665	961	59,070	-59,080	18,990	18,980	309	1.29	1.49
September.....	620	148	325	19,360	-23,640	15,150	10,970	184	.767	.86
Water year 1936-36	1,760	14	393	285,300	-24,670	94,670	355,300	489	2.04	27.75

North Fork of Ahtanum Creek near Tampico, Wash.

Location.- Water-stage recorder, lat. 46°33'40", long. 120°55'10", in NW¼ sec. 2, T. 12 N., R. 15 E., 100 feet below Nasty Creek and ¾ miles northwest of Tampico.

Drainage area.- 69 square miles.

Records available.- August 1907 to September 1924, March 1931 to September 1936.

Extremes.- Maximum discharge during year, 298 second-feet May 13, 14 (gauge height, 2.05 feet); minimum may have been less than 6 second-feet sometime during period of ice effect.

1907-24, 1931-36: Maximum discharge, 755 second-feet Dec. 22, 1933; maximum gauge height, 4.6 feet June 18, 1918; minimum discharge, 5.9 second-feet Nov. 22, 1931 (may have been somewhat lower during period of ice effect in February 1936).

Remarks.- Records excellent except those for period of ice effect, Jan. 25 to Feb. 28, which were computed on basis of occasional gauge heights and weather records and are poor. Discharge interpolated Oct. 29, 30, Nov. 7-16. No diversions of importance. No regulation. Records collected in cooperation with U. S. Indian Service.

Rating table, water year 1935-36 (gauge height, in feet, and discharge, in second-feet)

0.10	4.3
.30	17.5
.50	34.7
.70	54.0
1.00	93.0
1.50	178
2.00	287

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	15	12	14	16	10	13	20	189	163	50	22	18
2	15	11	14	17	10	14	19	188	155	49	21	19
3	15	11	14	16	10	18	18	211	168	48	20	18
4	16	11	13	17	11	18	18	234	143	47	20	17
5	17	11	14	16	12	20	18	223	131	46	19	17
6	17	11	14	14	9	21	18	182	129	43	18	16
7	17	12	19	13	6	20	21	167	213	42	18	16
8	17	13	17	12	6	24	27	170	176	41	18	15
9	16	13	16	12	7	28	34	190	159	41	18	14
10	15	14	15	13	7	25	46	217	146	40	18	14
11	15	15	15	14	7	24	71	262	139	39	18	14
12	15	16	14	15	8	25	92	264	132	37	17	14
13	18	17	14	15	7	26	110	266	124	36	18	15
14	18	18	13	14	6	25	126	285	124	35	18	16
15	17	18	13	14	6	24	131	257	119	33	18	15
16	16	19	13	14	6	24	182	221	114	32	17	15
17	15	20	9.1	14	6	26	180	166	106	31	17	15
18	14	19	7.3	14	6	26	204	190	96	30	17	15
19	14	18	8.5	16	7	28	190	188	90	28	17	14
20	14	17	10	15	7	33	176	167	85	28	17	14
21	14	18	12	15	7	37	180	150	82	26	16	14
22	13	18	12	15	7	34	208	145	79	26	16	14
23	15	17	13	15	8	30	211	148	75	25	16	14
24	16	16	15	13	8	28	196	159	71	24	16	14
25	15	18	17	13	8	25	176	176	65	24	16	14
26	15	17	18	13	8	24	155	194	61	24	16	14
27	15	17	18	13	8	25	155	208	59	23	15	14
28	16	19	16	10	9	23	148	219	56	23	15	14
29	15	16	16	7	9.1	22	143	202	54	22	14	14
30	15	18	16	10	-	19	143	184	52	22	14	14
31	14	-	16	10	-	21	-	176	-	22	15	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acres-feet
October.....	479	18	13	15.5	0.225	0.26	950
November.....	472	20	11	15.7	.228	.25	936
December.....	435.9	19	7.3	14.1	.204	.24	865
Calendar year 1935	25,205.9	266	7.3	69.1	1.00	13.59	50,000
January.....	424	17	7	13.7	.199	.23	841
February.....	226.1	12	6	7.80	.113	.12	448
March.....	750	37	13	24.2	.351	.40	1,490
April.....	3,396	211	18	113	1.64	1.83	6,740
May.....	6,158	285	145	200	2.90	3.34	12,270
June.....	3,366	213	52	112	1.62	1.81	6,680
July.....	1,037	50	22	33.5	.486	.56	2,060
August.....	535	22	14	17.3	.251	.29	1,060
September.....	451	19	14	15.0	.217	.24	895
Water year 1935-36.....	17,760.0	285	6	48.5	.703	9.57	35,200

South Fork of Ahtanum Creek at Conrad ranch, near Tampico, Wash.

Location.- Staff gage, lat. 46°30'30", long. 120°54'50", in W $\frac{1}{2}$ sec. 23, T. 12 N., R. 15 E., at Conrad ranch, 2 $\frac{1}{2}$ miles above North Fork and 2 $\frac{1}{2}$ miles southwest of Tampico.

Drainage area.- 26 square miles.

Records available.- March 1915 to September 1924 (fragmentary), March 1931 to September 1936.

Extremes.- Maximum discharge observed during year, 76 second-feet May 14 (gage height, 1.60 feet); minimum, probably less than 4.0 second-feet sometime during February, when stage-discharge relation was affected by ice.
1915-24, 1931-36: Maximum discharge observed, 424 second-feet Dec. 23, 1933 (gage height, 3.10 feet); minimum, 2.6 second-feet Aug. 23, 25, 1931 (gage height, 0.35 foot).

Remarks.- Records good except those for periods of ice effect, Oct. 30 to Nov. 7, Dec. 18-23, Jan. 25 to Feb. 24, Mar. 31 to Apr. 3, which were computed on basis of gage heights and weather records and are poor. Gage read to hundredths twice daily. Small diversions for irrigation above gage. Records collected in cooperation with U. S. Indian Service.

Rating tables, water year 1935-36 except period of ice effect (gage height, in feet, and discharge, in second-feet)

Oct. 1 to May 13		May 14 to Sept. 30	
0.6	2.9	0.6	2.9
1.0	17.5	1.0	19.4
1.5	59	1.5	64
2.0	129	2.0	134

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	6.2	6.2	6.5	5.3	5.3	5.3	6.2	30	39	14	5.4	5.8
2	6.2	5.9	6.2	6.5	5.3	7.4	6.2	36	38	14	6.2	6.2
3	5.9	5.9	5.3	6.2	5.3	12	6.5	42	45	14	6.2	6.6
4	5.9	5.9	4.5	6.5	5.6	12	6.5	47	39	13	5.8	7.0
5	6.5	6.5	5.3	6.8	5.9	12	6.8	50	38	13	5.4	7.0
6	6.2	6.5	5.9	6.5	4.9	13	7.1	47	38	13	5.4	7.0
7	6.2	6.8	6.5	6.2	4.1	12	7.8	42	52	13	5.4	6.6
8	5.9	7.1	6.2	6.2	4.1	16	10	41	43	13	5.4	6.6
9	5.9	6.5	5.9	5.9	4.3	16	13	42	38	12	5.4	6.2
10	5.9	6.5	5.9	5.9	4.3	16	17	50	38	12	5.4	5.8
11	5.9	6.5	5.9	5.9	4.5	14	23	59	37	11	6.2	5.8
12	5.9	6.5	5.9	7.1	4.5	13	30	63	36	11	5.4	5.4
13	6.5	6.5	5.9	7.1	4.3	12	35	69	34	11	5.4	5.4
14	6.5	6.5	5.9	6.2	4.1	12	36	76	31	11	6.2	5.8
15	6.5	6.8	5.9	5.9	4.1	12	37	71	28	10	6.2	5.4
16	6.5	6.8	5.9	6.2	4.1	12	36	62	26	9.4	6.2	5.4
17	6.5	6.8	5.6	5.9	4.1	11	42	55	26	9.0	5.8	5.1
18	6.5	6.5	5.3	5.9	4.1	12	46	51	25	8.6	6.6	5.4
19	6.2	6.5	5.3	5.9	4.3	12	44	48	23	8.6	6.6	5.4
20	6.5	6.5	5.3	5.9	4.3	12	40	46	22	8.6	5.8	5.4
21	6.5	6.5	5.3	5.9	4.5	13	39	40	21	8.2	5.8	5.4
22	6.5	6.8	5.6	5.9	4.5	12	44	38	19	8.6	5.4	5.4
23	6.5	6.8	5.6	5.9	4.7	12	46	38	17	7.8	5.1	5.4
24	7.1	6.8	5.9	5.9	4.9	10	44	38	18	8.2	5.4	5.4
25	6.5	6.8	5.9	5.9	5.1	10	39	36	16	7.8	5.8	5.4
26	6.5	6.8	5.9	5.9	4.9	10	36	41	15	7.0	6.2	5.4
27	6.5	6.5	5.9	5.9	5.1	10	33	45	14	7.0	5.8	5.4
28	6.5	6.5	5.6	5.6	4.9	9.5	33	48	14	7.0	5.8	5.4
29	6.5	6.5	5.6	5.3	4.9	7.4	33	49	17	6.2	5.4	5.4
30	6.5	6.5	5.6	5.3	-	6.5	32	45	16	6.2	5.4	5.1
31	6.5	-	5.3	5.3	-	6.5	-	40	-	5.8	5.4	-
Month						Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet		
October.....						196.4	7.1	5.9	6.34	390		
November.....						196.5	7.1	5.9	6.55	390		
December.....						177.3	6.5	4.5	5.72	352		
Calendar year 1935.....						7,989.1	121	4.5	21.9	15,850		
January.....						186.8	7.1	5.3	6.03	371		
February.....						135.0	5.9	4.1	4.66	268		
March.....						350.6	16	5.3	11.3	695		
April.....						837.1	46	6.2	27.9	1,660		
May.....						1,487	76	30	48.0	2,950		
June.....						863	52	14	26.8	1,710		
July.....						309.0	14	5.8	9.97	613		
August.....						177.9	6.6	5.1	5.74	353		
September.....						173.0	7.0	5.1	5.77	343		
Water year 1935-36.....						5,069.6	76	4.1	13.9	10,100		

In addition to the records of stream flow obtained at gaging stations and reported in the preceding pages, measurements of flow were made at other points as shown by the following table:

Miscellaneous discharge measurements in Pacific slope basins in Washington and upper Columbia River Basin during the water year October 1935 to September 1936

Lake Washington Basin

Date	Stream	Tributary to or diverting from	Locality	Discharge
Oct. 1	Rock Creek.....	Cedar River.....	Landsberg-Issaquah road culvert near Landsberg, Wash.	Sec.-ft. 3.0
Jan. 9	.....do.....	.....do.....	.....do.....	52.0
22	.....do.....	.....do.....	.....do.....	91.8
Aug. 5	.....do.....	.....do.....	.....do.....	3.5
Sept. 19	.....do.....	.....do.....	.....do.....	6.5

Skagit River Basin

Apr. 2	Skagit River.....	Skagit Bay.....	Sec. 6, T. 37 N., R. 13 E., at railroad crossing at Ferry Bar near Newhalem, Wash.	1,240
Aug. 21	Lightning Creek..	Skagit River.....	Near Newhalem, Wash., 60 feet below trail bridge, and half a mile above mouth.	*111
21	Devils Creek.....	.....do.....	Near Newhalem, Wash., just below trail bridge, and half a mile above mouth	*61.5
19	Big Beaver Creek.	.....do.....	Near Newhalem, Wash., 500 feet above mouth.	275

Kootenai River Basin

Nov. 1	Kootenai River...	Columbia River...	Grohman Narrows, 2 miles below Nelson, British Columbia; measurements referred to gage no. 10 at Nelson. Gage is 6 N. J. 9 of the Dominion Water and Power Bureau, Department of Mines and Resources, Canada.	9,010
Dec. 18	.....do.....	.....do.....	.....do.....	5,970
Jan. 14	.....do.....	.....do.....	.....do.....	5,840
Mar. 12	.....do.....	.....do.....	.....do.....	6,060
Apr. 7	.....do.....	.....do.....	.....do.....	5,450
May 13	.....do.....	.....do.....	.....do.....	61,850
27	.....do.....	.....do.....	.....do.....	68,980
June 10	.....do.....	.....do.....	.....do.....	77,880
26	.....do.....	.....do.....	.....do.....	53,650
July 31	.....do.....	.....do.....	.....do.....	26,270
Sept. 4	.....do.....	.....do.....	.....do.....	15,790
Nov. 1	.....do.....	.....do.....	Glade, British Columbia (station of Dominion Water and Power Bureau, Department of Mines and Resources, Canada.) Gage is 8 N. J. 1.	9,610
Dec. 18	.....do.....	.....do.....	.....do.....	6,790
Jan. 15	.....do.....	.....do.....	.....do.....	6,610
Mar. 12	.....do.....	.....do.....	.....do.....	6,980
Apr. 7	.....do.....	.....do.....	.....do.....	6,260
May 13	.....do.....	.....do.....	.....do.....	74,220
27	.....do.....	.....do.....	.....do.....	80,650
June 10	.....do.....	.....do.....	.....do.....	82,680
July 31	.....do.....	.....do.....	.....do.....	28,920
Sept. 4	.....do.....	.....do.....	.....do.....	16,610
15	Myrtle Creek.....	Kootenai River..	In sec. 24, T. 62 N., R. 1 W., 600 feet below former U. S. Geological Survey gaging station and $\frac{5}{8}$ miles west of Bonners Ferry, Idaho.	7.07
16	.....do.....	.....do.....	.....do.....	5.92
30	.....do.....	.....do.....	.....do.....	3.89
16	.....do.....	.....do.....	In sec. 15, T. 62 N., R. 1 W., $1\frac{1}{2}$ miles below former U. S. Geological Survey gaging station and $\frac{5}{8}$ miles west of Bonners Ferry, Idaho.	6.62
30	.....do.....	.....do.....	.....do.....	3.66
Apr. 29	Brush Creek.....	Mission Creek....	In sec. 19, T. 64 N., R. 1 E., at former U. S. Geological Survey gaging station 1.8 miles south of Copeland, Idaho.	9.98
22	Nicks Slough.....	Diverts from Kootenai River.	At diversion point $\frac{1}{2}$ mile below Creston Ferry and 4 miles west of Creston, British Columbia. Gage is 3 H. 28 of the Dominion Water and Power Bureau, Department of Mines and Resources, Canada.	1,120
May 7	.....do.....	.....do.....	.....do.....	4,330
12	.....do.....	.....do.....	.....do.....	6,280
18	.....do.....	.....do.....	.....do.....	8,440
29	.....do.....	.....do.....	.....do.....	5,990
June 9	.....do.....	.....do.....	.....do.....	4,560
25	.....do.....	.....do.....	.....do.....	1,690

*Results furnished by city of Seattle.

Miscellaneous discharge measurements in Pacific slope basins in Washington and upper Columbia River Basin during the water year October 1935 to September 1936--Continued

Kootenai River Basin--Continued

Date	Stream	Tributary to or diverting from	Locality	Discharge
Nov. 2	Slocan River.....	Kootenai River.	Near Crescent Valley, British Columbia (station of Dominion Water and Power Bureau, Department of Mines and Resources, Canada.) Gage is 8 N. J. 13.	Sec.-ft. 877
Dec. 19	....do.....	....do.....	....do.....	696
Jan. 14	....do.....	....do.....	....do.....	678
Mar. 13	....do.....	....do.....	....do.....	641
Apr. 8	....do.....	....do.....	....do.....	574
May 14	....do.....	....do.....	....do.....	10,450
May 28	....do.....	....do.....	....do.....	12,680
June 11	....do.....	....do.....	....do.....	8,830
June 26	....do.....	....do.....	....do.....	6,140
Aug. 1	....do.....	....do.....	....do.....	2,040
Sept. 5	....do.....	....do.....	....do.....	1,140

Coeur d'Alene River Basin

Oct. 21	Coeur d'Alene River.	Coeur d'Alene Lake.	Sec. 30, T. 49 N., R. 2 E., above railroad bridge, $\frac{1}{2}$ mile below abandoned U. S. Geological Survey gage at Enaville, Idaho.	201
21	....do.....	....do.....	Sec. 25, T. 51 N., R. 3 E., 100 feet above Harvey Creek, 3 miles above Big Creek, and 7 miles northwest of Pritchard, Idaho.	71.1

Okanogan River Basin

Oct. 18	Palmer Creek.....	Similkameen River.	Highway crossing near Nighthawk, Wash.	†13.3
June 11	....do.....	....do.....	....do.....	†509

Methow River Basin

Oct. 16	Methow Valley Irrigation District Canal.	Left side of Methow River.	Opposite Methow River gaging station at Twisp, Wash.	25.4
June 14	....do.....	....do.....	2,000 feet below Methow River gage at Twisp, Wash.	55.3
Oct. 16	....do.....	Right side of Twisp River.	1 mile northwest of Twisp, Wash.....	22.9
June 14	....do.....	....do.....	2 miles above Twisp, Wash.....	39.5
Sept. 10	Twisp River.....	....do.....	2 $\frac{1}{2}$ miles above Twisp, Wash.....	29.1
Oct. 16	Risley Ditch.....do.....	20 feet below culvert near creamery in Twisp, Wash.	2.8

†Flow out of Palmer Lake.

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