

KETTLE RIVER BASIN

12404500 KETTLE RIVER NEAR LAURIER, WA
(International gaging station)

LOCATION.--Lat 48°59'04", long 118°12'55", in SW 1/4 NW 1/4 sec.11, T.40 N., R.36 E., Ferry County, Hydrologic Unit 17020002, on right bank 1,000 ft downstream from Deep Creek, 1.1 mi south of international boundary, 1.1 mi southeast of Laurier, and at mile 29.71.

DRAINAGE AREA.--3,800 mi², approximately.

PERIOD OF RECORD.--September 1929 to current year.

REVISED RECORDS.--WSP 737: 1930-31. WSP 862: 1937. WSP 882: 1938.

GAGE.--Water-stage recorder. Datum of gage is 1,425.5 above NGVD of 1929. Prior to Jan. 3, 1930, nonrecording gage at same site and datum.

REMARKS.--Records excellent except for estimated daily discharges, which are fair. Diversions for irrigation of about 720 acres in the United States (for 1946 from United States reports), and 2,090 acres in Canada from the Canada Year Book for 1940. U.S. Geological Survey satellite telemeter at station.

COOPERATION.--This station is maintained by the United States under agreement with Canada.

AVERAGE DISCHARGE.--73 years (water years 1930-2002), 2,930 ft³/s, 2,123,000 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 35,000 ft³/s May 29, 1948, gage height, 17.25 ft; minimum daily discharge, 70 ft³/s Jan. 11-31, 1930.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in May or June 1894 reached a stage of about 22 ft, from information by local residents.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 18,100 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
May 30	0829	*20,400	*12.85	No other peak greater than base discharge.			

Minimum discharge, 177 ft³/s Sept. 16.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	234	301	673	537	e560	623	929	7370	16900	5920	645	230
2	230	319	648	532	e660	671	1070	8700	15200	4880	615	220
3	220	332	668	540	747	680	1140	9580	14300	4280	585	221
4	212	340	679	544	756	677	1180	9210	13500	3830	559	222
5	205	334	652	541	745	663	1270	8110	13600	3530	534	215
6	200	333	625	545	737	631	1460	7340	14900	3280	510	210
7	197	337	599	560	714	e520	1830	6680	13200	3030	498	208
8	195	345	581	593	730	e540	2220	6110	10600	2920	484	210
9	195	337	570	723	707	e530	2360	5660	8970	3130	474	208
10	198	322	503	1000	693	590	2460	5330	8100	3090	466	204
11	202	314	529	1050	671	627	2750	5030	8290	2740	446	201
12	210	308	508	1060	607	622	3410	4930	9300	2510	417	198
13	220	295	490	1050	e540	632	4970	5220	10700	2300	397	196
14	225	304	505	987	628	629	8230	6310	11900	2120	378	192
15	229	334	535	e740	624	621	11100	7910	12700	1950	356	186
16	232	483	506	e680	580	622	9180	7590	12700	1780	341	181
17	232	1020	538	e700	612	621	7670	7250	12100	1630	325	187
18	233	1180	493	e630	631	597	6680	7820	10500	1490	317	194
19	240	1020	602	e680	649	562	6010	8360	10700	1370	306	194
20	240	876	541	e750	647	558	5730	9430	9870	1260	296	198
21	250	873	e380	e720	646	556	5840	12200	8610	1170	290	197
22	258	917	e280	e680	636	544	6110	13600	8210	1090	281	204
23	265	906	e300	e600	668	575	6350	14800	8490	1020	276	205
24	272	863	e350	e560	686	587	6170	13300	8380	963	267	201
25	282	821	470	e660	597	602	5730	12100	7750	912	258	199
26	287	775	438	778	e480	658	5430	12100	7320	867	250	193
27	290	723	e300	791	e500	725	5260	13400	7130	856	249	190
28	282	710	e250	743	586	769	5220	15100	6780	823	247	187
29	279	709	e350	e500	---	797	5370	18800	6780	779	237	191
30	286	692	446	e400	---	827	6020	20100	7410	731	233	200
31	299	---	495	e470	---	856	---	18800	---	686	240	---
TOTAL	7399	17423	15504	21344	18037	19712	139149	308240	314890	66937	11777	6042
MEAN	239	581	500	689	644	636	4638	9943	10500	2159	380	201
MAX	299	1180	679	1060	756	856	11100	20100	16900	5920	645	230
MIN	195	295	250	400	480	520	929	4930	6780	686	233	181
AC-FT	14680	34560	30750	42340	35780	39100	276000	611400	624600	132800	23360	11980

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1929 - 2002, BY WATER YEAR (WY)

	678	757	609	518	562	1080	5194	12150	9246	2819	835	624
MEAN	678	757	609	518	562	1080	5194	12150	9246	2819	835	624
MAX	3815	2600	2652	1450	1407	4247	12170	18620	17650	6928	3140	3773
(WY)	1942	1942	1942	1942	1935	1983	1934	1997	1974	1982	1976	1941
MIN	176	202	154	76.5	97.9	212	1478	4246	2888	759	250	157
(WY)	1988	1930	1930	1930	1930	1930	1937	1930	1987	1934	1973	1967

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR	FOR 2002 WATER YEAR	WATER YEARS 1929 - 2002
ANNUAL TOTAL	576917	946454	
ANNUAL MEAN	1581	2593	2930
HIGHEST ANNUAL MEAN			4725
LOWEST ANNUAL MEAN			1251
HIGHEST DAILY MEAN	14200	May 25	20100
LOWEST DAILY MEAN	151	Sep 21	181
ANNUAL SEVEN-DAY MINIMUM	154	Sep 19	190
ANNUAL RUNOFF (AC-FT)	1144000	1877000	2123000
10 PERCENT EXCEEDS	5800	8540	9630
50 PERCENT EXCEEDS	413	646	800
90 PERCENT EXCEEDS	223	220	294

e Estimated