12401500 KETTLE RIVER NEAR FERRY, WA

Upper Columbia Basin
Kettle Subbasin

LOCATION.--Lat 48°58′53″, long 118°45′55″ referenced to North American Datum of 1927, in SE ¼ NW ¼ sec.10, T.40 N., R.32 E., Ferry County, WA, Hydrologic Unit 17020002, on right bank 0.5 mi upstream from Catherine Creek, 1.3 mi south of international boundary and Ferry, 3.2 mi upstream from Toroda Creek, and at mile 84.02.

DRAINAGE AREA.--2,200 mi^2.

SURFACE-WATER RECORDS

PERIOD OF RECORD.--August 1928 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,836.8 ft above NGVD of 1929. Prior to Nov. 23, 1928, nonrecording gage at same site and datum.

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

REMARKS.--Records excellent except for estimated daily discharges, which are fair. Several small diversions upstream from station for irrigation. No regulation. U.S. Geological Survey satellite telemeter at station.

AVERAGE DISCHARGE FOR PERIOD OF RECORD.--79 years (water years 1929-2007), 1,543 ft^3/s, 1,118,000 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 21,200 ft^3/s May 29, 1948, gage height, 21.15 ft; minimum discharge, 14 ft^3/s, discharge measurement, Jan. 23, 1930, but may have been less during period of ice effect Jan. 18-23, 1930.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 10,800 ft^3/s and (or) maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)
May 17	1500	*8,120	*15.70

Minimum daily discharge, 40 ft^3/s, Nov. 29, but may have been lower during ice period Nov. 29 to Dec. 2.

12401500 KETTLE RIVER NEAR FERRY, WA—Continued

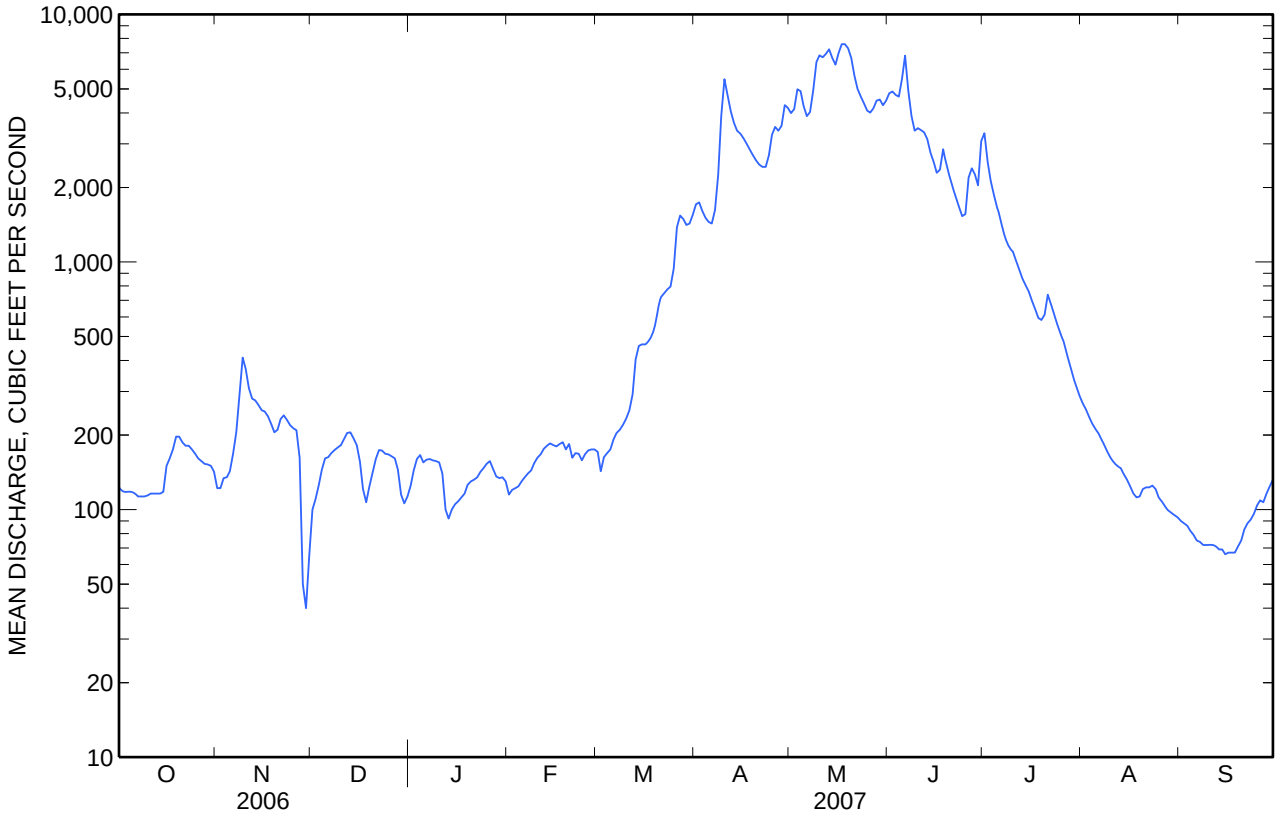
DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2006 TO SEPTEMBER 2007
DAILY MEAN VALUES
[e, estimated]

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	123	122	e100	125	e115	171	1,710	3,990	4,800	3,310	269	90
2	119	122	e110	144	e120	143	1,740	4,140	4,880	2,540	254	88
3	118	134	125	160	122	163	1,610	4,980	4,730	2,130	237	86
4	118	135	145	166	124	169	1,510	4,890	4,650	1,870	223	82
5	118	143	161	155	130	175	1,450	4,260	5,500	1,660	212	79
6	116	168	163	159	e135	192	1,430	3,880	6,810	1,490	203	75
7	113	205	169	160	e140	204	1,620	4,030	4,920	1,330	191	74
8	113	290	174	158	144	210	2,250	4,940	3,890	1,210	180	72
9	113	411	178	157	154	220	3,880	6,410	3,390	1,140	169	72
10	114	370	182	155	162	233	5,470	6,830	3,470	1,100	161	72
11	116	309	193	140	167	252	4,700	6,710	3,410	1,010	154	72
12	116	281	204	100	176	292	4,050	6,920	3,340	930	150	71
13	116	276	205	92	181	404	3,640	7,230	3,130	858	147	69
14	116	264	194	100	185	458	3,390	6,670	2,760	806	139	69
15	118	252	182	105	182	465	3,300	6,260	2,530	760	132	66
16	150	249	156	108	180	464	3,160	6,960	2,290	697	124	67
17	161	238	121	112	184	479	3,000	7,580	2,360	645	116	67
18	175	222	107	116	187	501	2,840	7,580	2,850	594	112	67
19	197	205	124	126	175	549	2,700	7,290	2,500	583	113	71
20	197	210	141	130	184	639	2,570	6,650	2,200	612	121	75
21	187	232	160	132	162	722	2,470	5,670	2,000	737	123	83
22	181	240	174	135	169	749	2,420	5,000	1,830	677	123	88
23	181	230	173	142	168	775	2,420	4,660	1,670	610	125	91
24	175	219	168	147	158	795	2,700	4,370	1,530	561	121	96
25	168	213	167	153	167	940	3,260	4,090	1,560	515	112	104
26	161	209	164	157	173	1,380	3,510	4,010	2,190	477	108	109
27	157	162	161	146	175	1,540	3,390	4,170	2,390	426	103	107
28	153	e50	145	136	175	1,490	3,550	4,480	2,260	381	99	116
29	152	e40	115	134	---	1,410	4,300	4,530	2,040	345	97	124
30	150	e65	106	135	---	1,430	4,190	4,290	3,080	314	95	132
31	142	---	113	e130	---	1,550	---	4,490	---	289	93	---
Total	4,434	6,266	4,780	4,215	4,494	19,164	88,230	167,960	94,960	30,607	4,606	2,534
Mean	143	209	154	136	160	618	2,941	5,418	3,165	987	149	84.5
Max	197	411	205	166	187	1,550	5,470	7,580	6,810	3,310	269	132
Min	113	40	100	92	115	143	1,430	3,880	1,530	289	93	66
Ac-ft	8,790	12,430	9,480	8,360	8,910	38,010	175,000	333,100	188,400	60,710	9,140	5,030

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1929 - 2007, BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	373	378	270	225	237	433	2,556	6,705	5,056	1,466	422	343
Max	2,085	1,280	1,161	682	995	1,811	6,351	10,440	9,924	4,380	1,987	1,941
(WY)	(1942)	(1942)	(1942)	(2005)	(2005)	(1983)	(1934)	(1957)	(1974)	(1982)	(1948)	(1941)
Min	90.9	84.3	78.2	40.3	72.5	110	300	2,222	1,338	346	97.3	79.9
(WY)	(1988)	(1930)	(1930)	(1930)	(1930)	(1930)	(1929)	(1930)	(1987)	(1934)	(2003)	(2003)

12401500 KETTLE RIVER NEAR FERRY, WA—Continued

SUMMARY STATISTICS

	Calendar Year 2006		Water Year 2007		Water Years 1929 - 2007	
Annual total	659,177		432,250			
Annual mean	1,806		1,184		1,543	
Highest annual mean					2,543	1997
Lowest annual mean					659	1930
Highest daily mean	16,700	May 21	7,580	May 17	20,300	May 29, 1948
Lowest daily mean	40	Nov 29	40	Nov 29	15	Jan 16, 1930
Annual seven-day minimum	90	Sep 7	68	Sep 12	15	Jan 16, 1930
Annual runoff (ac-ft)	1,307,000		857,400		1,118,000	
10 percent exceeds	6,560		4,150		5,200	
50 percent exceeds	263		187		377	
90 percent exceeds	116		104		129