Water-Data Report 2011

12409000 COLVILLE RIVER AT KETTLE FALLS, WA

Upper Columbia Basin
Colville Subbasin

LOCATION.--Lat 48°35′40″, long 118°03′41″ referenced to North American Datum of 1927, in NE ¼ NE ¼ sec.30, T.36 N., R.38 E., Stevens County, WA, Hydrologic Unit 17020003, on right bank 600 ft downstream from hydroelectric plant at foot of Meyers Falls, 1.0 mi south of town of Kettle Falls, and at mile 5.0.

DRAINAGE AREA.--1,007 mi^2.

SURFACE-WATER RECORDS

PERIOD OF RECORD.--October 1922 to current year. Published as "at Meyer Falls" 1922-38.

REVISED RECORDS.--WSP 1316: 1938(M), 1941(M), 1948(M). WSP 1636: Drainage area.

GAGE.--Water-stage recorder. Elevation of gage is 1,400 ft above NGVD of 1929, from topographic map. Prior to Oct. 21, 1932, non-recording gage at site 500 ft upstream at different datum. Oct. 21, 1932, to Sept. 19, 1938, non-recording gages at site 200 ft upstream at different datum. Sept. 20, 1938, to Mar. 20, 1949, non-recording gage at present site and datum.

REMARKS.--Records good except for estimated daily discharges and computed discharges below 60 cfs, which are fair. Several diversions upstream from station for irrigation. Regulation at low flow by powerplant. U.S. Geological Survey satellite telemeter at station.

AVERAGE DISCHARGE FOR PERIOD OF RECORD.--89 years (water years 1923-2011), 304 ft^3/s, 220,500 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,440 ft^3/s Jan. 21, 1974, gage height, 9.84 ft; maximum gage height, 10.17 ft Apr. 23, 1956; minimum discharge observed, 0.5 ft^3/s Aug. 15, 1930.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,140 ft^3/s, May 18, gage height, 8.52 ft; minimum discharge, 14 ft^3/s, Dec. 5, result of regulation.

Suggested citation: U.S. Geological Survey, 2012, Water-resources data for the United States, Water Year 2011: U.S. Geological Survey Water-Data Report WDR-US-2011, site 12409000, accessed at http://wdr.water.usgs.gov/wy2011/pdfs/12409000.2011.pdf

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DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2010 TO SEPTEMBER 2011
DAILY MEAN VALUES
[e, estimated]

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	79	143	125	e66	e130	238	1,080	1,180	1,530	455	214	107
2	79	150	e130	133	e110	246	1,190	1,180	1,450	439	199	108
3	80	147	e160	141	159	246	1,300	1,200	1,390	423	190	108
4	81	130	123	142	215	249	1,330	1,270	1,310	405	184	107
5	83	123	76	148	218	249	1,320	1,280	1,230	387	178	106
6	83	119	98	147	234	261	1,330	1,290	1,160	364	171	106
7	81	127	130	160	230	270	1,300	1,330	1,120	350	167	104
8	81	189	146	170	225	267	1,250	1,430	1,090	336	164	103
9	83	205	151	158	208	269	1,180	1,530	1,080	327	157	101
10	88	170	160	124	199	333	1,140	1,540	1,020	320	150	101
11	92	144	166	87	192	493	1,100	1,560	1,010	314	145	101
12	96	135	167	95	186	529	1,120	1,600	978	307	142	95
13	95	131	174	111	191	554	1,110	1,710	900	310	138	97
14	87	128	236	139	208	657	1,090	1,750	894	326	134	97
15	89	129	303	182	240	757	1,060	1,770	843	319	133	107
16	87	134	293	258	305	805	1,070	1,870	829	308	131	103
17	84	155	245	300	317	850	1,110	2,010	813	297	131	103
18	85	170	180	338	297	832	1,110	2,110	786	287	128	108
19	86	175	185	350	270	830	1,080	2,070	748	276	126	110
20	86	163	174	300	247	852	1,020	1,960	722	287	125	110
21	86	147	191	291	232	847	989	1,870	685	281	124	108
22	86	135	174	268	241	848	1,000	1,800	650	291	124	108
23	88	92	186	252	230	875	975	1,790	619	298	119	108
24	102	54	183	240	218	841	940	1,720	588	271	114	106
25	125	73	165	235	e120	816	930	1,610	569	253	111	104
26	143	103	161	253	e110	814	1,000	1,580	538	260	110	103
27	156	105	164	253	176	824	1,170	1,730	530	274	111	105
28	132	120	164	250	225	855	1,230	1,870	515	260	109	108
29	127	123	169	250	---	860	1,240	1,860	494	245	108	111
30	148	121	154	249	---	893	1,200	1,770	472	234	107	110
31	149	---	e80	236	---	1,010	---	1,630	---	225	106	---
Total	3,047	4,040	5,213	6,326	5,933	19,270	33,964	50,870	26,563	9,729	4,350	3,153
Mean	98.3	135	168	204	212	622	1,132	1,641	885	314	140	105
Max	156	205	303	350	317	1,010	1,330	2,110	1,530	455	214	111
Min	79	54	76	66	110	238	930	1,180	472	225	106	95
Ac-ft	6,040	8,010	10,340	12,550	11,770	38,220	67,370	100,900	52,690	19,300	8,630	6,250

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1923 - 2011, BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	116	151	179	210	280	494	831	688	358	157	87.3	95.1
Max	301	401	783	1,374	970	1,410	2,168	1,744	1,035	467	258	241
(WY)	(1928)	(1928)	(1974)	(1974)	(1974)	(1983)	(1969)	(1948)	(1948)	(1948)	(1948)	(1997)
Min	35.8	49.5	56.3	32.9	65.8	127	128	93.8	48.4	20.6	12.0	22.7
(WY)	(1932)	(1932)	(1932)	(1930)	(1937)	(1930)	(1930)	(1930)	(1926)	(1977)	(1931)	(1931)

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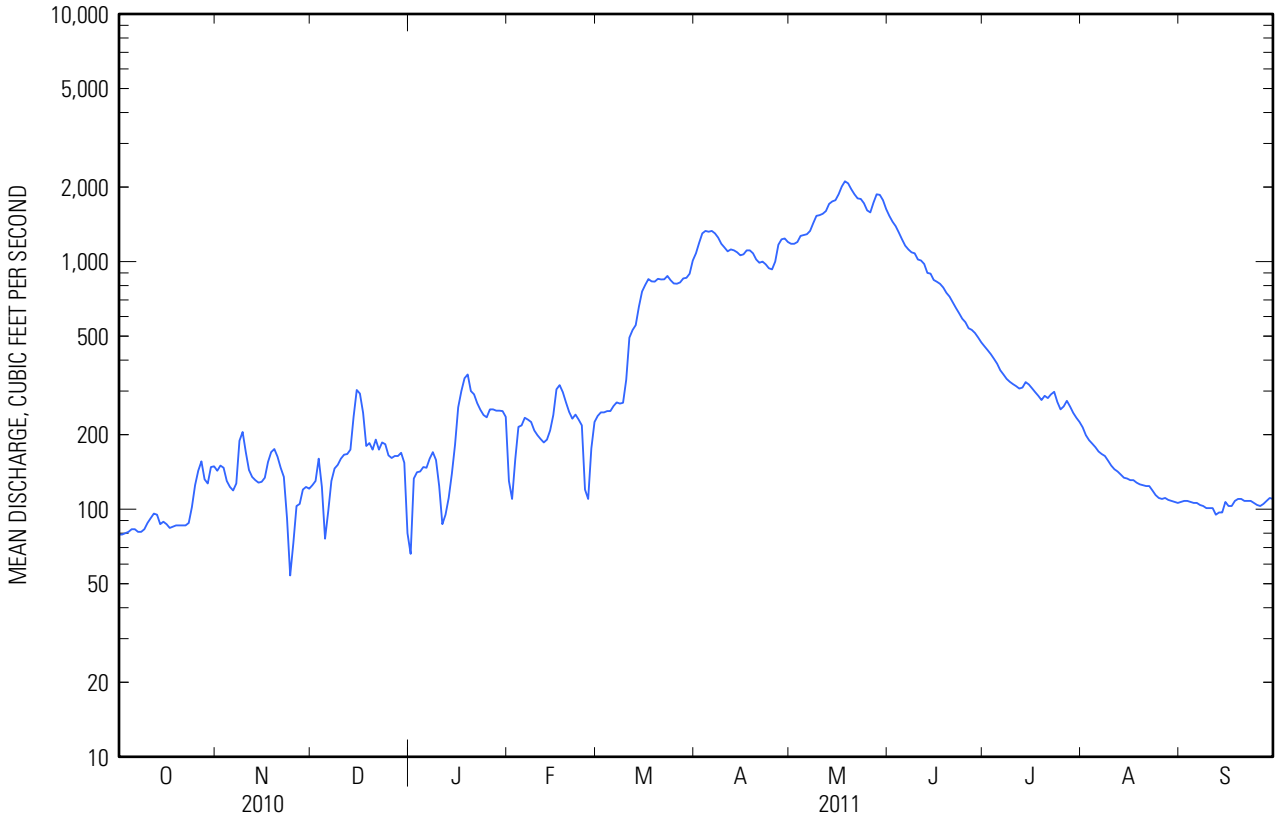
SUMMARY STATISTICS

	Calendar Year 2010		Water Year 2011		Water Years 1923 - 2011	
Annual total	81,068		172,458			
Annual mean	222		472		304	
Highest annual mean					768	1974
Lowest annual mean					70.5	1930
Highest daily mean	636	Jun 12	2,110	May 18	3,360	Jan 20, 1974
Lowest daily mean	54	Nov 24	54	Nov 24	0.50	Aug 15, 1930
Annual seven-day minimum	59	Aug 23	81	Oct 1	5.3	Aug 14, 1930
Annual runoff (ac-ft)	160,800		342,100		220,500	
10 percent exceeds	438		1,270		714	
50 percent exceeds	175		230		173	
90 percent exceeds	81		101		65