12419000 SPOKANE RIVER NEAR POST FALLS, ID

Spokane Basin
Upper Spokane Subbasin

LOCATION.--Lat 47°42′11″, long 116°58′40″ referenced to North American Datum of 1983, in SW ¼ SW ¼ SW ¼ sec.4, T.50 N., R.5 W., Kootenai County, ID, Hydrologic Unit 17010305, Post Falls quad., on right bank 1 mi downstream from power plant of Avista Utilities, 1.5 mi southwest of Post Falls, and at mile 100.7.

DRAINAGE AREA.--3,830 mi², of which about 122 mi² in the vicinity of Hayden Lake is noncontributing.

SURFACE-WATER RECORDS

PERIOD OF RECORD.--October 1912 to current year (prior to January 1913, monthly discharge only, published in WSP 870 and 1736). Prior to October 1949, published as "at Post Falls."

REVISED RECORDS.--WDR-US-2010: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 2,050 ft, referred to originally accepted elevation of 2,157.40 ft for the U.S. Geological Survey bench mark in southeast corner of Idaho First National Bank Building (see WSP 882). Datum of gage based on NGVD of 1929, supplementary adjustment of 1947, is 2,047.00 ft. Datum of gage using NAVD88 is 2,050.885 ft.

Jan. 1, 1913 to Nov. 21, 1920, nonrecording gage, and Nov. 22, 1920 to Sept. 15, 1934, recording gage 0.6 mi upstream. From Sept. 16, 1934 to Nov. 15, 1949, recording gage 0.8 mi upstream. From Nov. 16, 1949, at present site. Datum of all gages prior to Sept. 30, 1964, 50 ft lower.

REMARKS.--Records good except for estimated daily discharge which is fair. Flow regulated by dam at Post Falls and affected by storage in Coeur d'Alene Lake (sta 12415500). Station equipment includes satellite telemetry.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 50,100 ft³/s, when recorder was not operating, Dec. 25, 1933, (determined from unpublished records collected by Washington Water Power Co. for station at Liberty Bridge); minimum, 65 ft³/s July 25, 30, 1973; minimum gage height, 4.68 ft, July 20, 21, 1977.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 36,400 ft³/s Apr. 29, gage height, 22.33 ft; minimum daily, 627 ft³/s Aug. 20.

Suggested citation: U.S. Geological Survey, 2013, Water-resources data for the United States, Water Year 2012: U.S. Geological Survey Water-Data Report WDR-US-2012, site 12419000, accessed at http://wdr.water.usgs.gov/wy2012/pdfs/12419000.2012.pdf

12419000 SPOKANE RIVER NEAR POST FALLS, ID—Continued

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2011 TO SEPTEMBER 2012
DAILY MEAN VALUES

[e, estimated]

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	1,320	2,310	2,230	2,930	2,910	4,840	24,200	34,200	10,600	7,500	1,270	677
2	1,320	2,670	2,260	2,930	3,130	4,640	26,900	33,500	10,700	7,140	1,260	696
3	1,320	2,890	2,260	2,920	3,130	4,530	27,800	32,900	12,200	6,810	1,270	686
4	1,420	2,890	2,250	2,910	3,140	4,490	27,800	32,100	14,400	6,700	1,230	807
5	1,470	2,880	2,260	2,810	3,140	4,400	26,900	30,800	16,600	5,930	1,200	861
6	1,430	2,880	2,260	2,740	2,940	4,420	25,700	29,300	18,100	4,890	1,180	856
7	1,430	2,790	2,250	2,730	2,830	4,420	24,200	27,700	18,900	4,300	1,210	857
8	1,420	2,540	2,240	2,500	2,830	4,540	22,600	26,200	19,900	3,780	1,280	858
9	1,410	2,530	2,570	2,530	2,820	4,550	21,300	24,500	20,500	3,620	1,290	856
10	1,410	2,530	2,990	2,400	2,710	4,490	20,100	23,900	21,100	3,510	1,290	851
11	1,410	2,530	2,990	2,300	2,620	4,550	19,300	23,000	21,700	3,610	1,310	854
12	1,410	2,530	2,990	2,280	2,620	4,760	19,000	22,200	22,200	3,650	1,320	829
13	1,430	2,530	2,980	2,100	2,620	5,250	19,400	21,500	22,200	3,600	1,220	815
14	1,440	2,350	2,970	2,050	2,630	5,940	20,000	20,700	22,100	3,820	1,090	952
15	1,440	2,230	2,970	1,910	2,640	6,610	20,300	20,200	21,800	3,730	946	1,150
16	1,440	2,220	2,950	1,900	2,640	8,060	20,400	20,000	21,400	3,760	839	1,150
17	1,440	2,230	2,950	1,890	2,640	10,400	20,400	20,200	21,000	4,060	735	1,040
18	1,440	2,220	2,930	1,880	2,640	12,300	20,300	20,400	20,400	3,750	718	1,030
19	1,430	2,220	2,920	1,820	2,640	13,200	20,500	20,400	19,800	3,160	691	1,210
20	1,440	2,220	2,910	1,760	2,650	13,500	20,700	20,000	19,100	2,750	627	1,210
21	1,680	2,220	2,730	1,760	2,660	13,300	21,000	19,600	17,300	2,610	645	1,210
22	1,830	2,220	2,680	1,750	2,810	13,200	22,200	19,200	15,400	2,620	663	1,210
23	1,830	2,630	2,420	1,790	3,410	12,800	23,700	19,100	14,000	2,590	662	1,210
24	1,830	2,860	2,330	1,800	4,320	12,400	25,700	19,100	12,600	2,320	663	1,210
25	1,830	2,870	2,160	e1,810	4,900	12,100	28,100	18,900	9,780	1,840	675	1,210
26	1,820	2,870	2,060	e1,700	5,170	12,400	31,200	18,500	8,760	1,420	684	1,210
27	1,810	2,490	1,930	1,720	5,050	13,800	33,800	18,000	8,810	1,280	673	1,210
28	2,050	2,240	1,930	1,740	5,030	15,000	35,400	16,700	8,420	1,300	677	1,210
29	2,300	2,230	2,160	1,810	4,980	16,000	35,800	15,900	7,880	1,300	651	1,220
30	2,300	2,240	2,440	2,270	---	17,300	35,100	14,800	7,630	1,270	647	1,210
31	2,300	---	2,670	2,560	---	20,200	---	11,700	---	1,260	657	---
Total	49,850	75,060	78,640	68,000	94,250	288,390	739,800	695,200	485,280	109,880	29,273	30,355
Mean	1,608	2,502	2,537	2,194	3,250	9,303	24,660	22,430	16,180	3,545	944	1,012
Max	2,300	2,890	2,990	2,930	5,170	20,200	35,800	34,200	22,200	7,500	1,320	1,220
Min	1,320	2,220	1,930	1,700	2,620	4,400	19,000	11,700	7,630	1,260	627	677
Ac-ft	98,880	148,900	156,000	134,900	186,900	572,000	1,467,000	1,379,000	962,600	217,900	58,060	60,210

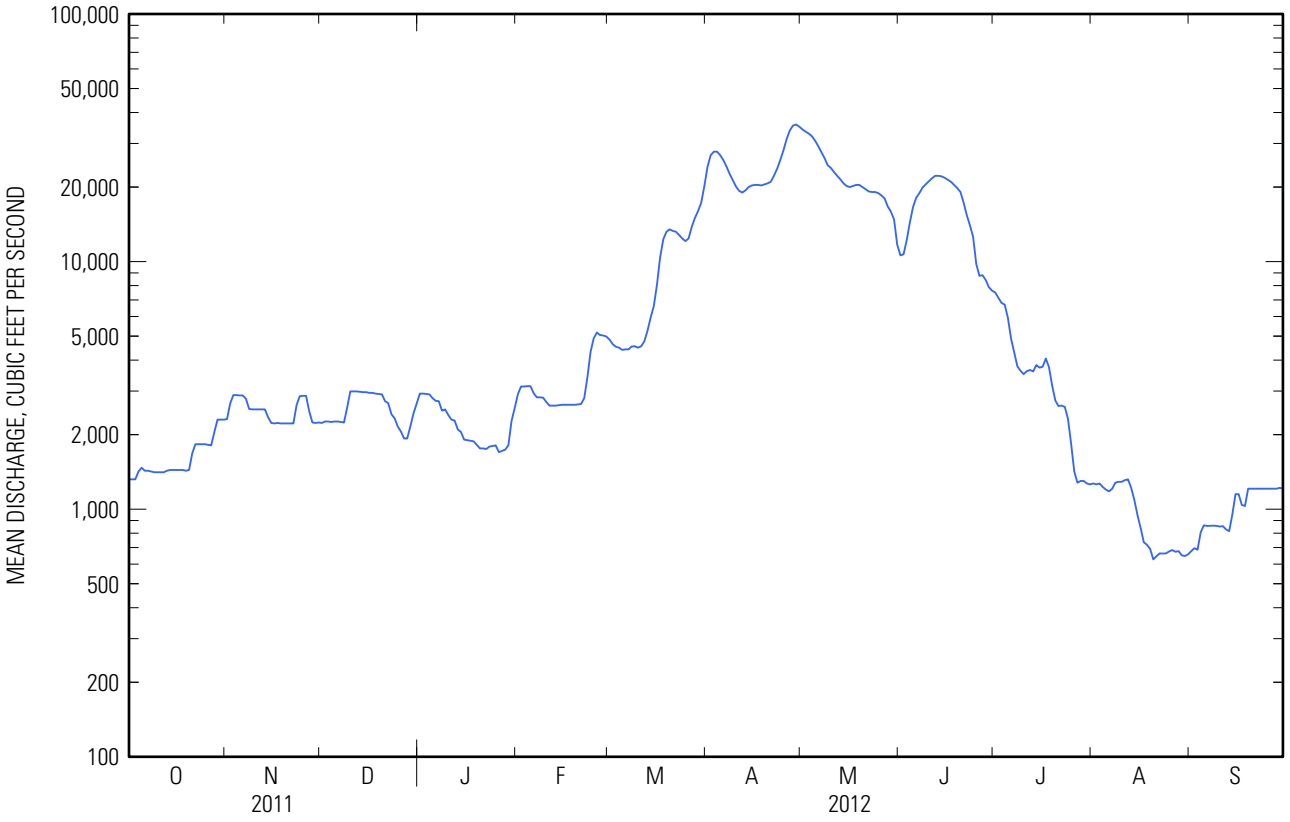
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1913 - 2012, BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	1,769	2,888	4,832	5,277	6,172	8,159	14,360	17,330	9,827	2,145	920	1,182
Max	5,460	13,130	23,660	24,930	23,280	25,440	26,050	34,930	26,710	10,720	2,133	1,849
(WY)	(1928)	(1928)	(1934)	(1934)	(1996)	(1972)	(1943)	(1997)	(1974)	(1916)	(1917)	(1985)
Min	782	627	784	903	1,025	1,751	3,558	5,141	1,584	851	185	188
(WY)	(1964)	(1936)	(1936)	(2001)	(1929)	(1929)	(1977)	(1992)	(1926)	(1994)	(1958)	(1949)

12419000 SPOKANE RIVER NEAR POST FALLS, ID—Continued

SUMMARY STATISTICS

	Calendar Year 2011		Water Year 2012		Water Years 1913 - 2012	
Annual total	3,430,502		2,743,978			
Annual mean	9,399		7,497		6,211	
Highest annual mean					11,600	1974
Lowest annual mean					2,143	1977
Highest daily mean	32,300	May 26	35,800	Apr 29	49,800	Dec 25, 1933
Lowest daily mean	738	Sep 2	627	Aug 20	67	Jul 24, 1973
Annual seven-day minimum	760	Aug 30	660	Aug 20	108	Aug 10, 1966
Annual runoff (ac-ft)	6,804,000		5,443,000		4,500,000	
10 percent exceeds	24,200		21,300		17,100	
50 percent exceeds	5,370		2,740		3,050	
90 percent exceeds	1,140		1,170		900	



12419000 SPOKANE RIVER NEAR POST FALLS, ID—Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1973-1981, July 1989 to September 2003, April to September 2007, July 2010 to current year.

PERIOD OF DAILY RECORD.--

WATER TEMPERATURE: May to September 1998, May to September 1999, May to September 2001, November 2001 to October 2002, June to September 2003 (discontinued). Unpublished record April to September 2007.

SPECIFIC CONDUCTANCE: February 1999 to September 2001 (discontinued).

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURE: Maximum, 27.2 C July 30, 2003; minimum 1.4 C Feb. 17, 18, 2001.

SPECIFIC CONDUCTANCE: Maximum recorded daily mean, 57 microsiemens/cm Aug. 30 to Sept 4, 2000; minimum recorded daily mean, 42 microsiemens/cm May 6-8, June 14-15, 2000.

WATER-QUALITY DATA
WATER YEAR OCTOBER 2011 TO SEPTEMBER 2012

Part 1 of 3

[$CaCO_3$, calcium carbonate; N, nitrogen; P, phosphorus; ft^3/s, cubic feet per second; mg/L, milligrams per liter; mm, millimeters; °C, degrees Celsius; µS/cm, microsiemens per centimeter; µg/L, micrograms per liter; --, no data; <, less than]

Date	Sample start time	Temperature, air, °C (00020)	Discharge, instantaneous, ft^3/s (00061)	pH, water, unfiltered, field, standard units (00400)	Specific conductance, water, unfiltered, µS/cm at 25°C (00095)	Temperature, water, °C (00010)	Hardness, water, mg/L as $CaCO_3$ (00900)	Calcium, water, filtered, mg/L (00915)	Magnesium, water, filtered, mg/L (00925)	Ammonia, water, filtered, mg/L as N (00608)
10-06-2011	**1015**	7.0	1,370	7.5	47	16.5	18.1	4.83	1.46	0.019
02-28-2012	**1515**	-1.0	--	7.8	52	2.9	19.8	5.28	1.61	.027
05-01-2012	**1030**	10.0	--	7.2	46	8.3	17.4	4.60	1.43	.011
07-03-2012	**1145**	19.0	--	7.4	43	17.9	16.7	4.51	1.31	< .010

WATER-QUALITY DATA
WATER YEAR OCTOBER 2011 TO SEPTEMBER 2012

Part 2 of 3

[$CaCO_3$, calcium carbonate; N, nitrogen; P, phosphorus; ft^3/s, cubic feet per second; mg/L, milligrams per liter; mm, millimeters; °C, degrees Celsius; µS/cm, microsiemens per centimeter; µg/L, micrograms per liter; --, no data; <, less than]

Date	Sample start time	Nitrate plus nitrite, water, filtered, mg/L as N (00631)	Orthophosphate, water, filtered, mg/L as P (00671)	Phosphorus, water, filtered, mg/L as P (00666)	Phosphorus, water, unfiltered, mg/L as P (00665)	Total nitrogen, water, unfiltered, analytically determined, mg/L (62855)	Cadmium, water, filtered, µg/L (01025)	Cadmium, water, unfiltered, µg/L (01027)	Iron, water, filtered, µg/L (01046)
10-06-2011	**1015**	0.130	0.004	0.004	0.007	0.23	0.090	0.128	8.2
02-28-2012	**1515**	.044	< .004	< .004	.007	.15	.177	.200	9.8
05-01-2012	**1030**	.033	< .004	.005	.016	.12	.260	.320	66.5
07-03-2012	**1145**	.029	.004	.006	.011	.09	.184	.199	46.6

12419000 SPOKANE RIVER NEAR POST FALLS, ID—Continued

WATER-QUALITY DATA
WATER YEAR OCTOBER 2011 TO SEPTEMBER 2012

Part 3 of 3

[$CaCO_3$, calcium carbonate; N, nitrogen; P, phosphorus; ft^3/s, cubic feet per second; mg/L, milligrams per liter; mm, millimeters; °C, degrees Celsius; µS/cm, microsiemens per centimeter; µg/L, micrograms per liter; --, no data; <, less than]

Date	Sample start time	Iron, water, unfiltered, recoverable, µg/L (01045)	Lead, water, filtered, µg/L (01049)	Lead, water, unfiltered, recoverable, µg/L (01051)	Manganese, water, filtered, µg/L (01056)	Manganese, water, unfiltered, recoverable, µg/L (01055)	Zinc, water, filtered, µg/L (01090)	Zinc, water, unfiltered, recoverable, µg/L (01092)	Suspended sediment, sieve diameter, percent smaller than 0.0625 mm (70331)	Suspended sediment concentration, mg/L (80154)
10-06-2011	**1015**	19.3	0.184	0.76	1.07	2.6	28.5	29.0	50	1
02-28-2012	**1515**	31.8	.162	.80	3.57	2.4	50.1	47.0	58	2
05-01-2012	**1030**	253	4.29	16.9	15.3	24.9	56.1	56.9	60	10
07-03-2012	**1145**	67.8	.669	1.96	7.24	6.6	36.5	39.0	67	2