

**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 mi<sup>2</sup>, of which about 122 mi<sup>2</sup> 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 ft<sup>3</sup>/s, when recorder was not operating, Dec. 25, 1933, (determined from unpublished records collected by Washington Water Power Co. for station at Liberty Bridge); minimum, 65 ft<sup>3</sup>/s July 25, 30, 1973; minimum gage height, 4.68 ft, July 20, 21, 1977.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 33,200 ft<sup>3</sup>/s May 26, gage height, 21.60 ft; minimum daily, 738 ft<sup>3</sup>/s Sept. 2.

## 12419000 SPOKANE RIVER NEAR POST FALLS, ID—Continued

**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	1,820	2,000	4,600	7,780	16,200	5,270	15,200	15,900	28,800	13,000	2,210	757
2	1,830	2,000	4,600	7,450	15,200	5,040	18,400	15,700	28,000	11,400	2,120	738
3	1,810	1,990	4,660	6,980	14,200	4,930	20,800	15,500	27,400	9,500	2,050	753
4	1,810	2,130	4,630	6,650	13,400	4,900	22,800	15,400	27,000	9,750	1,980	755
5	1,810	2,200	4,610	6,400	12,700	4,870	24,100	15,400	26,600	10,300	1,840	743
6	1,810	2,210	4,610	6,190	12,000	4,860	24,800	15,400	26,300	11,200	1,800	996
7	1,830	2,200	4,600	5,980	11,500	4,860	24,600	15,800	26,300	11,100	1,780	1,140
8	1,840	2,200	4,600	5,830	10,800	4,850	24,000	16,400	26,600	10,600	1,630	1,140
9	1,840	2,200	4,580	5,510	10,200	5,060	23,300	17,100	26,700	9,800	1,500	1,140
10	1,830	2,200	4,570	5,370	9,400	4,800	22,200	18,000	26,600	8,220	1,430	1,140
11	1,830	2,200	4,540	5,180	8,990	5,470	21,300	18,900	26,000	7,430	1,390	1,140
12	1,840	2,230	4,550	5,020	8,510	6,320	20,200	19,900	25,400	7,330	1,220	1,140
13	1,840	2,240	4,590	5,050	8,030	6,880	19,500	21,000	24,800	7,140	1,120	1,140
14	1,840	2,250	4,690	5,500	7,810	7,610	18,800	22,200	24,300	7,200	1,120	1,140
15	1,840	2,670	5,220	6,820	7,640	8,330	18,200	23,700	23,900	6,810	1,100	1,130
16	1,840	3,250	5,890	9,560	7,330	9,810	17,600	26,500	23,500	5,790	1,090	1,130
17	1,850	3,370	7,260	14,100	7,340	11,000	17,200	29,400	22,900	5,150	1,100	1,130
18	1,850	3,380	7,750	19,100	7,100	11,600	16,900	31,300	22,200	4,510	1,110	1,130
19	1,850	3,990	7,780	23,900	6,780	12,100	16,800	31,900	21,500	4,530	1,100	1,130
20	1,840	4,620	9,500	26,000	6,710	12,200	16,500	31,700	20,800	4,520	970	1,220
21	1,840	4,620	10,300	25,900	6,740	12,200	16,000	31,400	20,400	4,460	875	1,320
22	1,840	4,620	10,200	25,400	6,610	12,400	15,500	31,300	19,900	4,240	809	1,320
23	1,830	4,610	9,970	24,400	6,450	12,400	15,000	31,700	19,700	4,110	794	1,320
24	1,830	e4,620	9,700	23,000	5,920	12,300	14,500	32,200	19,700	3,810	803	1,320
25	1,830	4,620	9,450	22,100	5,700	12,200	14,000	32,100	19,500	3,350	804	1,320
26	1,940	4,610	9,260	21,300	5,590	12,100	14,300	32,300	19,200	3,200	798	1,310
27	2,000	4,610	9,030	20,400	5,410	12,000	14,800	32,200	18,500	2,810	815	1,320
28	2,000	4,600	8,800	19,500	5,370	11,900	15,300	32,100	17,500	2,470	809	1,320
29	2,000	4,570	8,570	18,500	---	11,800	15,700	31,600	15,900	2,480	792	1,320
30	2,000	4,590	8,300	17,700	---	12,000	15,900	30,900	14,800	2,400	787	1,320
31	2,000	---	8,080	16,900	---	13,000	---	29,700	---	2,230	784	---
<b>Total</b>	57,760	97,600	209,490	419,470	249,630	275,060	554,200	764,600	690,700	200,840	38,530	33,922
<b>Mean</b>	1,863	3,253	6,758	13,530	8,915	8,873	18,470	24,660	23,020	6,479	1,243	1,131
<b>Max</b>	2,000	4,620	10,300	26,000	16,200	13,000	24,800	32,300	28,800	13,000	2,210	1,320
<b>Min</b>	1,810	1,990	4,540	5,020	5,370	4,800	14,000	15,400	14,800	2,230	784	738
<b>Ac-ft</b>	114,600	193,600	415,500	832,000	495,100	545,600	1,099,000	1,517,000	1,370,000	398,400	76,420	67,280

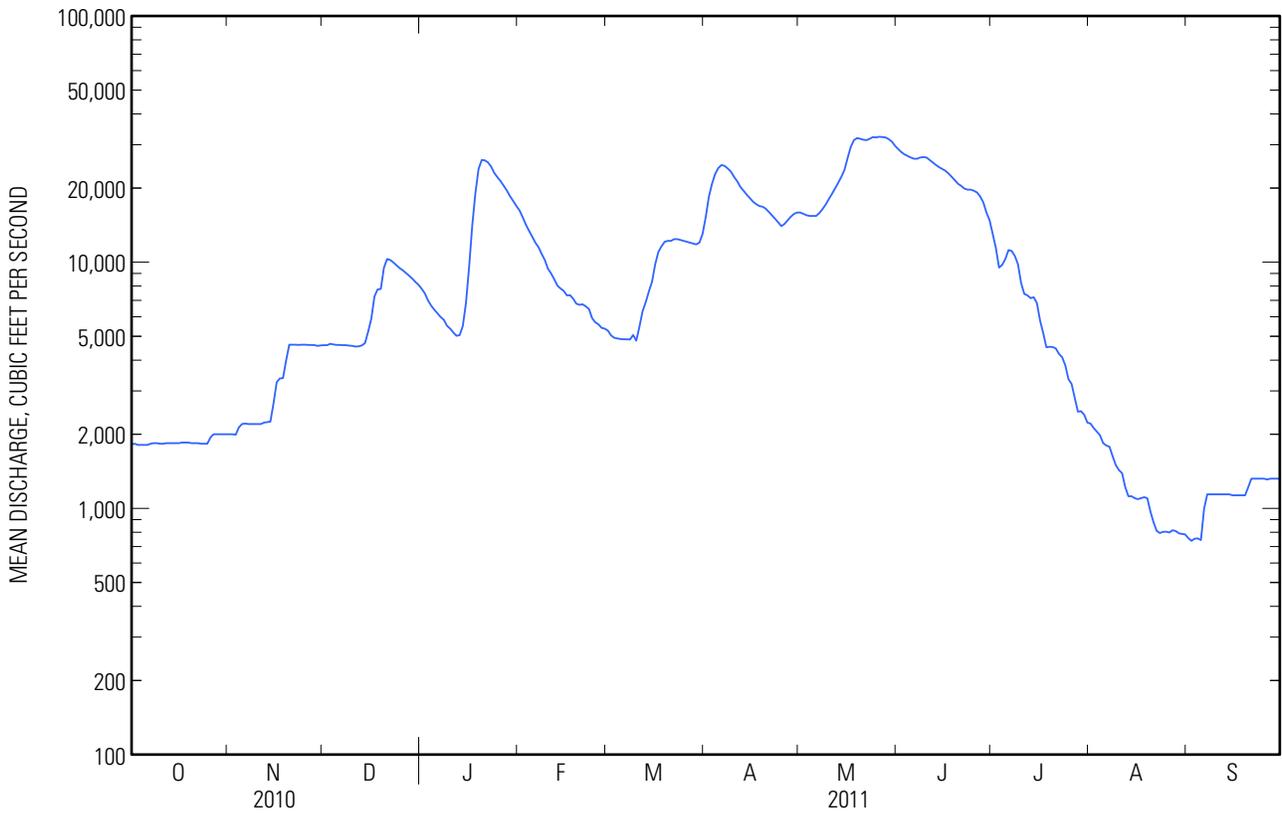
## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1913 - 2011, BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
<b>Mean</b>	1,771	2,892	4,855	5,309	6,202	8,148	14,250	17,270	9,763	2,130	920	1,184
<b>Max</b>	5,460	13,130	23,660	24,930	23,280	25,440	26,050	34,930	26,710	10,720	2,133	1,849
<b>(WY)</b>	(1928)	(1928)	(1934)	(1934)	(1996)	(1972)	(1943)	(1997)	(1974)	(1916)	(1917)	(1985)
<b>Min</b>	782	627	784	903	1,025	1,751	3,558	5,141	1,584	851	185	188
<b>(WY)</b>	(1964)	(1936)	(1936)	(2001)	(1929)	(1929)	(1977)	(1992)	(1926)	(1994)	(1958)	(1949)

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SUMMARY STATISTICS

	Calendar Year 2010		Water Year 2011		Water Years 1913 - 2011	
<b>Annual total</b>	1,672,717		3,591,802			
<b>Annual mean</b>	4,583		9,841		6,198	
<b>Highest annual mean</b>					11,600	1974
<b>Lowest annual mean</b>					2,143	1977
<b>Highest daily mean</b>	17,200	Jun 23	32,300	May 26	49,800	Dec 25, 1933
<b>Lowest daily mean</b>	622	Sep 2	738	Sep 2	67	Jul 24, 1973
<b>Annual seven-day minimum</b>	632	Aug 29	760	Aug 30	108	Aug 10, 1966
<b>Annual runoff (ac-ft)</b>	3,318,000		7,124,000		4,490,000	
<b>10 percent exceeds</b>	10,000		24,200		17,000	
<b>50 percent exceeds</b>	3,170		6,610		3,060	
<b>90 percent exceeds</b>	1,100		1,140		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 2010 TO SEPTEMBER 2011

Part 1 of 3

[CaCO<sub>3</sub>, calcium carbonate; N, nitrogen; P, phosphorus; ft<sup>3</sup>/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; <, less than]

Date	Sample start time	Temperature, air, °C (00020)	Discharge, instantaneous, ft <sup>3</sup> /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 <sub>3</sub> (00900)	Calcium, water, filtered, mg/L (00915)	Magnesium, water, filtered, mg/L (00925)	Ammonia, water, filtered, mg/L as N (00608)
10-15-2010	0830	10.0	1,830	7.5	59	14.1	21.0	5.47	1.79	.012
01-20-2011	1153	-1.0	25,300	6.9	56	3.3	23.3	6.20	1.90	< .010
06-10-2011	1030	19.0	25,700	7.4	44	11.8	16.7	4.45	1.36	< .010
07-20-2011	1515	22.5	4,530	7.3	44	19.9	16.4	4.38	1.33	< .010

## WATER-QUALITY DATA

## WATER YEAR OCTOBER 2010 TO SEPTEMBER 2011

Part 2 of 3

[CaCO<sub>3</sub>, calcium carbonate; N, nitrogen; P, phosphorus; ft<sup>3</sup>/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; <, 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)
10-15-2010	0830	.102	.008	.006	.012	.20	.11	.16	6
01-20-2011	1153	.059	.007	< .004	.009	.15	.28	.44	13
06-10-2011	1030	.012	.007	< .004	.010	< .05	.18	.22	34
07-20-2011	1515	.040	.006	.007	.008	.11	.14	.17	14

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**WATER-QUALITY DATA**  
**WATER YEAR OCTOBER 2010 TO SEPTEMBER 2011**

Part 3 of 3

[CaCO<sub>3</sub>, calcium carbonate; N, nitrogen; P, phosphorus; ft<sup>3</sup>/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; <, 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)	Manga-nese, water, filtered, μg/L (01056)	Manga-nese, 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)
10-15-2010	0830	30	.15	.90	1.3	3.6	37.2	38.3	50	19
01-20-2011	1153	100	.29	4.06	1.7	8.4	67.8	68.2	47	12
06-10-2011	1030	107	.97	4.52	1.4	9.4	41.8	41.7	51	8
07-20-2011	1515	46	.23	1.29	1.1	5.0	28.7	31.4	58	3