

Water-Data Report 2012

12422500 SPOKANE RIVER AT SPOKANE, WA

Spokane Basin
Upper Spokane Subbasin

LOCATION.--Lat 47°39'34", long 117°26'53" referenced to North American Datum of 1927, in SW ¼ SW ¼ sec.13, T.25 N., R.42 E., Spokane County, WA, Hydrologic Unit 17010305, on right bank at Cochran Street in Spokane, 0.5 mi upstream from Hangman Creek, and at mile 72.9.

DRAINAGE AREA.--4,290 mi², of which about 122 mi² in the vicinity of Hayden Lake is noncontributing to this station.

SURFACE-WATER RECORDS

PERIOD OF RECORD.--April 1891 to current year.

Chemical analyses October 1972 to September 1973.

REVISED RECORDS.--WSP 532: 1891-1904. WSP 1246: Drainage area. WSP 1286: 1907-09.

GAGE.--Water-stage recorder. Elevation of gage is 1,697 ft above NGVD of 1929 (river-profile survey). Prior to July 1, 1921, water-stage recorders and nonrecording gages at several sites within 4 mi of present site at various datums.

REMARKS.--Records good, except for estimated daily discharges which are fair. Flow regulated by powerplants of Avista Corp. at Post Falls, Idaho, 28.8 mi upstream and at Spokane, 1.3 mi upstream, and by Coeur d'Alene Lake, Idaho. Rathdrum Prairie Canal diverts water upstream from station for irrigation. In 1946, approximately 22,600 acres, of which about 15,000 acres utilized surface water, were under irrigation upstream from Spokane. Since 1966 irrigation has been from many wells in the valley near the river with only about 3,000 acres irrigated from the river. U.S. Geological Survey satellite telemeter at station.

AVERAGE DISCHARGE FOR PERIOD OF RECORD.--121 years (water years 1892-2012), 6,703 ft³/s, 4,856,000 acre-ft/yr, unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 49,000 ft³/s, estimated, May 31, 1894 (see WSP 532); minimum, 49.7 ft³/s Aug. 26, 1991, due to regulation for construction at Post Street Dam, but may have been lower during periods of missing record in 1991.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 36,600 ft³/s, Apr. 29, gage height, 27.72 ft; minimum discharge, 993 ft³/s, Aug. 28, gage height, 17.49 ft, result of regulation.

12422500 SPOKANE RIVER AT SPOKANE, WA—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	1,650	2,640	2,800	e3,370	e3,240	5,180	23,000	35,000	11,500	8,370	2,000	1,200
2	1,700	2,810	2,850	e3,400	e3,390	5,100	26,100	34,500	11,400	8,090	1,960	1,230
3	1,690	3,110	2,810	e3,410	3,660	4,950	27,500	34,000	12,200	7,650	1,960	1,230
4	1,710	3,130	2,800	e3,410	3,640	4,950	27,700	33,200	14,400	7,600	1,930	1,250
5	1,840	3,120	2,820	e3,320	3,630	4,840	27,100	32,000	16,200	7,050	1,860	1,350
6	1,800	3,170	2,800	e3,240	3,520	4,900	26,100	30,600	17,900	6,180	1,850	1,340
7	1,810	3,180	2,810	e3,230	3,360	4,880	24,800	29,100	18,800	5,570	1,820	1,340
8	1,800	2,970	2,820	e3,130	3,320	4,960	23,400	27,600	19,700	5,050	1,870	1,340
9	1,800	2,960	2,920	e3,110	3,360	5,030	22,000	26,000	20,500	4,800	1,870	1,330
10	1,810	2,950	3,350	e3,020	3,320	4,960	20,700	25,200	21,200	4,620	1,870	1,350
11	1,800	2,950	3,400	e2,930	3,170	5,010	19,800	24,400	21,900	4,620	1,870	1,350
12	1,830	2,980	e3,390	e2,920	3,190	5,170	19,400	23,600	22,400	4,640	1,890	1,330
13	1,850	2,990	e3,380	e2,810	3,180	5,470	19,600	22,800	22,600	4,640	1,840	1,330
14	1,840	2,920	e3,400	e2,700	3,190	6,030	20,200	21,900	22,500	4,660	1,750	1,330
15	1,880	2,760	e3,410	e2,600	3,190	6,580	20,600	21,200	22,200	4,560	1,610	1,540
16	1,870	2,760	e3,400	e2,560	3,210	7,590	20,800	20,900	21,900	4,620	1,510	1,550
17	1,860	2,750	e3,410	e2,540	3,190	9,370	20,800	20,900	21,400	4,810	1,420	1,560
18	1,890	2,790	e3,410	e2,550	3,210	11,200	20,700	21,100	20,900	4,690	1,340	1,390
19	1,880	2,760	e3,410	e2,530	3,150	12,300	20,900	21,100	20,300	4,170	1,340	1,600
20	1,900	2,770	e3,380	e2,450	3,130	12,700	21,100	20,800	19,600	3,780	1,300	1,600
21	1,950	2,760	e3,280	e2,410	e3,150	12,700	21,300	20,300	18,100	3,500	1,240	1,610
22	2,140	2,780	e3,260	e2,470	e3,200	12,700	22,400	19,900	16,300	3,500	1,270	1,610
23	2,190	2,940	e3,050	e2,420	3,690	12,400	23,900	19,700	14,800	3,430	1,270	1,620
24	2,200	3,260	e2,920	e2,430	4,350	12,200	25,700	19,700	13,700	3,320	1,250	1,630
25	2,210	3,270	e2,820	e2,440	5,050	11,900	27,900	19,500	11,400	2,860	1,250	1,620
26	2,220	3,280	e2,710	e2,360	5,260	12,000	30,900	19,100	9,650	2,490	1,260	1,640
27	2,210	3,160	e2,610	e2,380	5,310	13,100	33,500	18,600	9,820	2,160	1,240	1,630
28	2,290	2,840	e2,600	e2,380	5,250	14,300	35,400	17,400	9,400	2,130	1,230	1,630
29	2,560	2,790	e2,660	e2,430	5,280	15,300	36,300	16,400	8,790	2,120	1,230	1,640
30	2,610	2,810	e2,960	e2,710	---	16,400	35,800	15,700	8,550	2,050	1,220	1,650
31	2,630	---	e3,080	e2,990	---	19,100	---	13,100	---	2,030	1,210	---
Total	61,420	88,360	94,720	86,650	106,790	283,270	745,400	725,300	500,010	139,760	48,530	43,820
Mean	1,981	2,945	3,055	2,795	3,682	9,138	24,850	23,400	16,670	4,508	1,565	1,461
Max	2,630	3,280	3,410	3,410	5,310	19,100	36,300	35,000	22,600	8,370	2,000	1,650
Min	1,650	2,640	2,600	2,360	3,130	4,840	19,400	13,100	8,550	2,030	1,210	1,200
Ac-ft	121,800	175,300	187,900	171,900	211,800	561,900	1,479,000	1,439,000	991,800	277,200	96,260	86,920

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1891 - 2012, BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	2,153	3,275	5,110	5,562	6,244	8,278	14,150	17,700	11,080	3,384	1,703	1,708
Max	5,643	13,050	22,910	25,430	22,060	25,380	25,030	34,390	29,850	11,910	4,744	3,302
(WY)	(1928)	(1928)	(1934)	(1934)	(1996)	(1972)	(1943)	(1997)	(1894)	(1899)	(1899)	(1912)
Min	1,300	1,151	1,233	1,339	1,489	2,047	3,865	5,214	2,141	1,050	531	932
(WY)	(1893)	(1940)	(1932)	(1931)	(1929)	(1929)	(1977)	(1992)	(1926)	(1994)	(1994)	(1966)

12422500 SPOKANE RIVER AT SPOKANE, WA—Continued

SUMMARY STATISTICS

	Calendar Year 2011		Water Year 2012		Water Years 1891 - 2012	
Annual total	3,570,740		2,924,030			
Annual mean	9,783		7,989		6,703	
Highest annual mean					12,310	1974
Lowest annual mean					2,508	1977
Highest daily mean	33,300	May 26	36,300	Apr 29	49,000	May 31, 1894
Lowest daily mean	1,240	Sep 2	1,200	Sep 1	466	Aug 11, 1973
Annual seven-day minimum	1,270	Aug 31	1,220	Aug 28	502	Aug 21, 1994
Annual runoff (ac-ft)	7,083,000		5,800,000		4,856,000	
10 percent exceeds	24,300		21,900		17,100	
50 percent exceeds	6,060		3,250		3,700	
90 percent exceeds	1,640		1,610		1,500	

