

Water-Data Report 2011

14162200 BLUE RIVER AT BLUE RIVER, OR

Willamette Basin
Mckenzie Subbasin

LOCATION.--Lat 44°09'45", long 122°19'55" referenced to North American Datum of 1927, in NW ¼ SE ¼ sec.21, T.16 S., R.4 E., Lane County, OR, Hydrologic Unit 17090004, on right bank, 0.3 mi upstream from Simmonds Creek, 0.7 mi north of town of Blue River, 0.8 mi downstream from Blue River Dam and at mile 0.9.

DRAINAGE AREA.--87.70 mi².

SURFACE-WATER RECORDS

PERIOD OF RECORD.--February 1966 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 1,056.53 ft above NGVD of 1929 (U. S. Army Corps of Engineers bench mark). Prior to Aug. 25, 1966, nonrecording gage at datum 0.80 ft higher.

REMARKS.--Records good. Flow regulated since October 1968 by Blue River Lake (active capacity, 85,550 acre-ft). No diversion upstream from station. Discharge not adjusted for storage or release from Blue River Lake as losses from reservoir at times exceed natural flow.

AVERAGE DISCHARGE FOR PERIOD OF RECORD.--45 years (water years 1967-2011), 457 ft³/s, 331,100 acre-ft/yr, unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 7,270 ft³/s Feb. 23, 1968, gage height, 8.93 ft; minimum discharge, 0.80 ft³/s Oct. 8, 10, 11, 1968; minimum daily discharge, 3.7 ft³/s Oct. 8, 1968.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Dec. 22, 1964, reached a stage of 16.5 ft, from floodmark.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 3,260 ft³/s Dec. 17, gage height, 7.70 ft; minimum discharge, 9.6 ft³/s July 20.

14162200 BLUE RIVER AT BLUE RIVER, OR—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	478	1,180	1,920	1,090	195	58	1,010	438	712	189	55	54
2	475	996	2,010	802	209	59	1,450	353	679	189	55	144
3	473	752	1,530	589	181	59	1,640	231	610	187	55	313
4	471	612	1,030	497	120	60	1,630	118	601	187	55	547
5	470	573	668	484	105	62	1,630	118	625	187	55	617
6	467	560	650	382	105	62	1,470	118	727	168	55	616
7	466	641	711	322	94	61	848	119	660	149	55	614
8	464	813	783	408	92	63	562	237	591	107	55	613
9	463	792	1,270	350	93	65	398	409	503	73	55	611
10	461	793	1,460	331	94	67	324	453	446	73	55	608
11	459	784	1,030	294	95	292	325	510	446	73	55	607
12	456	764	1,080	284	96	502	325	777	418	73	55	605
13	491	734	1,070	821	97	503	326	894	411	73	55	603
14	547	540	1,020	1,950	70	488	326	816	459	73	55	604
15	550	625	1,170	2,020	53	488	329	637	459	73	55	613
16	547	761	2,370	1,590	57	495	988	606	377	73	55	611
17	544	798	3,000	1,320	56	501	2,510	578	270	73	55	608
18	541	1,420	2,900	1,360	56	501	1,990	569	257	80	55	607
19	538	1,230	2,920	1,730	56	436	977	564	258	126	55	604
20	533	791	2,590	2,280	56	344	591	545	258	84	55	602
21	557	565	1,740	2,410	56	305	516	600	258	110	55	598
22	612	471	949	2,340	69	277	374	589	284	87	55	598
23	789	429	445	2,350	73	256	233	436	291	64	55	596
24	813	263	310	2,250	69	256	259	418	291	56	55	593
25	812	212	386	2,130	55	257	311	636	220	56	55	591
26	1,140	224	425	1,700	55	260	715	839	188	56	54	589
27	1,600	534	488	1,230	55	321	699	897	189	56	54	586
28	1,600	754	938	843	55	465	547	1,110	189	56	54	584
29	1,530	540	1,670	589	---	537	450	1,110	189	55	54	582
30	e1,400	599	1,590	392	---	546	450	900	189	55	54	580
31	1,320	---	1,310	248	---	668	---	672	---	55	54	---
Total	22,067	20,750	41,433	35,386	2,467	9,314	24,203	17,297	12,055	3,016	1,699	16,698
Mean	712	692	1,337	1,141	88.1	300	807	558	402	97.3	54.8	557
Max	1,600	1,420	3,000	2,410	209	668	2,510	1,110	727	189	55	617
Min	456	212	310	248	53	58	233	118	188	55	54	54
Ac-ft	43,770	41,160	82,180	70,190	4,890	18,470	48,010	34,310	23,910	5,980	3,370	33,120

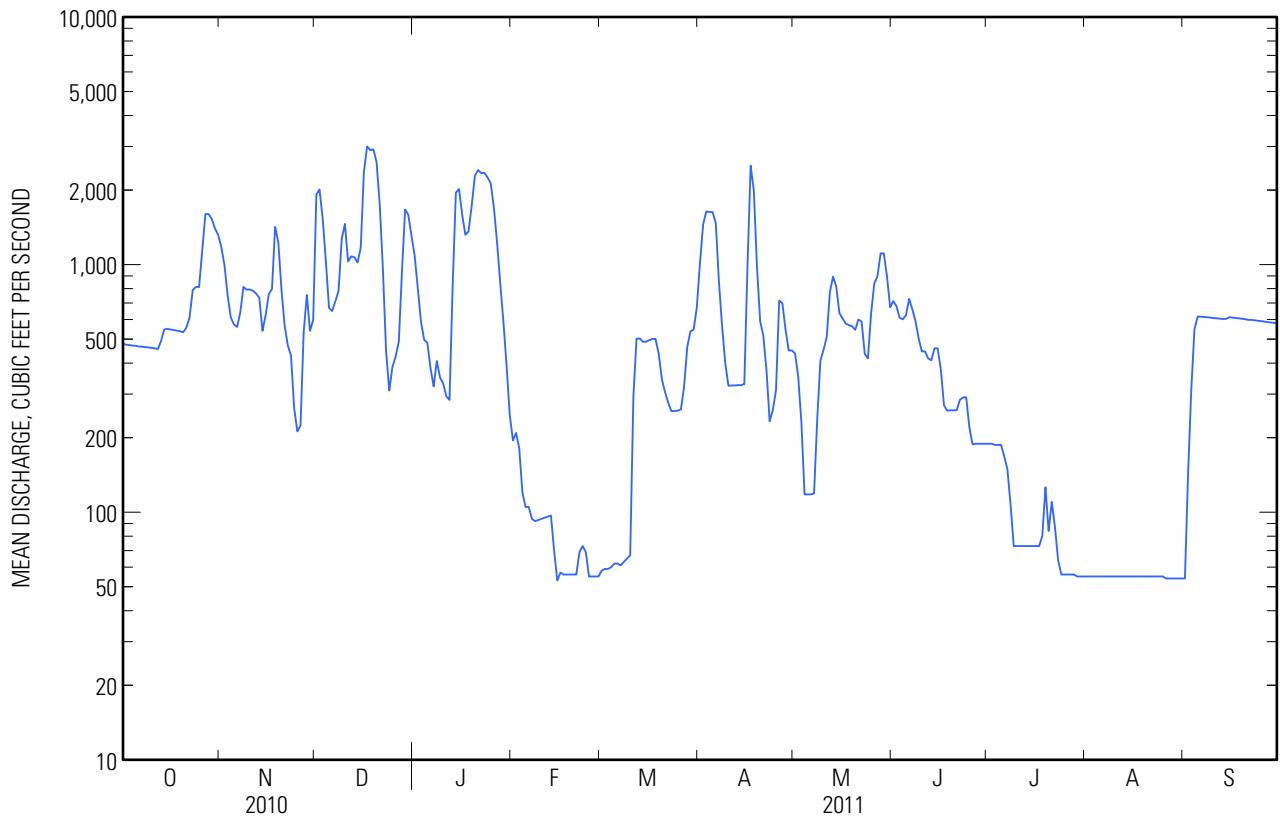
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1967 - 2011, BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	347	666	939	899	404	377	352	372	253	240	329	292
Max	811	1,459	2,189	2,151	1,594	1,766	869	1,004	672	626	765	566
(WY)	(1998)	(1974)	(1978)	(2006)	(1996)	(1972)	(2000)	(2008)	(2010)	(1979)	(1971)	(1997)
Min	45.7	39.4	63.1	68.1	32.6	12.0	12.0	35.0	49.7	46.6	26.6	27.1
(WY)	(1993)	(1988)	(1977)	(1977)	(1977)	(1977)	(1977)	(1973)	(2000)	(1967)	(1967)	(1967)

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SUMMARY STATISTICS

	Calendar Year 2010		Water Year 2011		Water Years 1967 - 2011	
Annual total	183,869		206,385			
Annual mean	504		565		457	
Highest annual mean					727	1972
Lowest annual mean					192	1977
Highest daily mean	3,000	Dec 17	3,000	Dec 17	5,650	Feb 23, 1968
Lowest daily mean	50	Mar 19	53	Feb 15	3.7	Oct 8, 1968
Annual seven-day minimum	51	Mar 18	54	Aug 26	7.0	Oct 5, 1968
Annual runoff (ac-ft)	364,700		409,400		331,100	
10 percent exceeds	1,190		1,340		1,000	
50 percent exceeds	392		466		294	
90 percent exceeds	59		55		51	



14162200 BLUE RIVER AT BLUE RIVER, OR—Continued**WATER-QUALITY RECORDS**

PERIOD OF DAILY RECORD.--

WATER TEMPERATURE: August 1966 to November 1999, August 2001 to current year.

TURBIDITY: January 2003 to September 2006.

INSTRUMENTATION.--Temperature probe and data logger.

REMARKS.--

WATER TEMPERATURE: Records excellent except those for Nov. 17, which are good.

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURE: Maximum, 26.0°C July 6, 1968; minimum, 0.0°C Jan. 5-9, 1974, Dec. 23, 24, 1983.

TURBIDITY: Maximum, 105 FNU Nov. 29, 2003; minimum, <1 FNU on many days most years.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURE: Maximum, 17.0°C Oct. 19; minimum, 3.2°C Nov. 24, 25.

**TEMPERATURE, WATER, DEGREES CELSIUS
WATER YEAR OCTOBER 2010 TO SEPTEMBER 2011**

Day	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean
	October			November			December			January		
1	12.1	11.8	11.9	12.3	12.1	12.2	6.5	5.4	5.9	4.7	3.9	4.3
2	12.3	12.0	12.1	12.3	12.1	12.2	6.6	6.4	6.5	4.3	3.9	4.0
3	12.6	12.2	12.4	12.4	12.1	12.3	6.5	6.0	6.3	4.1	3.7	3.9
4	12.8	12.4	12.6	12.2	11.9	12.1	6.2	5.6	5.9	3.8	3.5	3.6
5	13.1	12.7	12.9	12.2	11.9	12.1	6.2	5.5	5.9	3.7	3.4	3.5
6	13.4	13.0	13.2	12.4	12.1	12.3	6.0	5.6	5.8	4.2	3.6	3.9
7	13.8	13.4	13.6	12.6	12.0	12.4	6.2	5.8	6.0	4.2	4.0	4.1
8	14.2	13.7	14.0	12.0	10.9	11.4	6.2	5.9	6.1	4.3	4.0	4.2
9	14.7	14.2	14.4	10.9	10.0	10.6	6.5	6.1	6.3	4.5	4.1	4.3
10	15.1	14.6	14.9	10.0	9.2	9.5	6.6	6.4	6.6	4.4	3.8	4.2
11	15.5	15.0	15.3	9.3	8.8	9.1	6.6	6.4	6.5	4.0	3.5	3.7
12	15.9	15.5	15.7	9.1	8.8	8.9	6.7	6.4	6.6	3.5	3.3	3.4
13	16.2	15.9	16.1	8.9	8.3	8.7	7.0	6.6	6.8	4.7	3.4	3.9
14	16.5	16.2	16.4	8.4	8.2	8.2	7.0	6.8	6.9	5.7	4.7	5.4
15	16.7	16.5	16.6	8.5	8.2	8.3	7.1	6.9	7.0	6.0	5.7	5.8
16	16.7	16.6	16.6	8.8	8.4	8.7	7.0	6.6	6.8	6.2	5.9	6.1
17	16.8	16.6	16.7	8.6	8.2	8.4	6.8	6.5	6.6	6.3	6.1	6.3
18	16.9	16.7	16.8	8.2	7.2	7.8	6.6	6.1	6.3	6.4	6.2	6.3
19	17.0	16.7	16.8	7.4	6.9	7.2	6.1	5.8	6.0	6.6	6.3	6.4
20	16.9	16.7	16.8	7.0	6.3	6.8	5.9	5.5	5.7	6.7	6.3	6.4
21	16.7	16.6	16.6	6.6	5.9	6.3	5.6	5.2	5.4	6.4	6.3	6.4
22	16.7	16.5	16.6	5.9	4.9	5.5	5.5	5.1	5.2	6.4	6.0	6.2
23	16.7	16.5	16.6	4.9	3.7	4.3	5.6	5.2	5.4	6.4	6.0	6.1
24	16.7	15.8	16.4	3.7	3.2	3.4	5.4	5.1	5.3	6.3	6.0	6.1
25	15.8	13.8	14.7	3.7	3.2	3.4	5.5	5.1	5.4	6.2	5.9	6.0
26	13.8	12.8	13.2	4.0	3.5	3.6	5.5	5.3	5.4	6.0	5.6	5.9
27	12.8	12.5	12.6	4.6	3.9	4.3	5.3	4.8	5.1	5.9	5.4	5.7
28	12.9	12.5	12.7	5.3	4.6	5.0	5.6	4.8	5.2	5.7	5.3	5.5
29	13.1	12.9	13.0	5.6	5.2	5.4	5.8	5.5	5.7	5.8	5.4	5.5
30	13.2	12.9	13.0	5.8	5.2	5.5	5.5	5.1	5.3	5.9	5.5	5.6
31	12.9	12.3	12.6	---	---	---	5.1	4.7	4.9	5.9	5.6	5.7
Month	17.0	11.8	14.6	12.6	3.2	8.2	7.1	4.7	6.0	6.7	3.3	5.1

14162200 BLUE RIVER AT BLUE RIVER, OR—Continued

TEMPERATURE, WATER, DEGREES CELSIUS
WATER YEAR OCTOBER 2010 TO SEPTEMBER 2011

Day	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean
	February			March			April			May		
1	6.1	5.6	5.7	5.5	4.5	4.7	5.7	5.3	5.4	6.6	6.0	6.2
2	6.0	5.5	5.7	4.8	4.3	4.6	5.6	5.2	5.4	6.5	6.0	6.2
3	5.6	4.8	5.2	4.9	4.2	4.5	5.8	5.4	5.5	6.7	5.9	6.2
4	5.1	4.7	4.8	5.1	4.3	4.6	5.5	5.4	5.5	7.3	5.9	6.4
5	4.8	4.6	4.7	5.2	4.4	4.7	5.8	5.4	5.5	6.7	5.7	6.3
6	5.3	4.7	4.9	5.6	4.4	4.7	5.7	5.4	5.6	6.6	6.1	6.2
7	5.4	4.8	5.0	5.2	4.3	4.6	5.9	5.5	5.6	6.7	6.1	6.3
8	5.6	5.0	5.1	4.7	4.2	4.4	5.9	5.4	5.6	6.7	6.1	6.2
9	6.0	5.1	5.4	5.1	4.5	4.7	5.8	5.5	5.6	6.6	6.1	6.2
10	5.9	5.0	5.4	4.9	4.5	4.6	6.0	5.5	5.7	6.6	6.0	6.3
11	5.6	4.9	5.2	5.0	4.3	4.5	6.0	5.5	5.7	6.6	6.1	6.3
12	5.3	4.8	5.0	4.6	4.3	4.4	6.2	5.5	5.8	6.6	6.2	6.3
13	5.1	4.8	4.9	4.6	4.4	4.5	5.9	5.5	5.7	6.6	6.1	6.3
14	5.2	4.4	5.0	4.9	4.4	4.6	6.0	5.6	5.7	6.6	6.2	6.3
15	5.0	3.9	4.6	4.7	4.5	4.6	5.8	5.6	5.7	6.6	6.2	6.4
16	5.6	4.9	5.1	4.7	4.5	4.6	5.8	5.6	5.8	6.7	6.2	6.4
17	5.6	4.9	5.1	5.1	4.6	4.8	6.1	5.8	5.9	6.7	6.2	6.4
18	5.4	4.7	4.9	4.9	4.7	4.8	6.2	5.8	6.0	6.7	6.3	6.4
19	5.0	4.5	4.8	5.1	4.6	4.8	6.2	5.8	6.0	6.8	6.3	6.5
20	5.3	4.6	4.9	5.0	4.6	4.8	6.1	5.8	5.9	6.9	6.3	6.5
21	5.8	4.7	5.0	5.1	4.6	4.8	6.2	5.8	5.9	6.7	6.4	6.5
22	5.1	4.7	4.9	5.4	4.7	5.0	6.4	5.8	6.0	6.8	6.4	6.6
23	5.1	4.5	4.8	5.3	4.8	5.0	6.6	5.8	6.0	6.8	6.4	6.6
24	5.0	4.5	4.7	5.2	4.8	5.0	6.2	5.8	6.0	7.0	6.4	6.6
25	5.5	4.3	4.6	5.3	4.8	5.0	6.3	5.9	6.0	6.8	6.4	6.6
26	5.1	4.2	4.5	5.5	4.9	5.1	6.4	5.9	6.1	6.9	6.5	6.7
27	4.8	4.3	4.5	5.3	4.9	5.1	6.4	6.0	6.1	7.0	6.6	6.7
28	4.6	4.4	4.5	5.5	5.0	5.2	6.4	6.0	6.1	7.0	6.6	6.8
29	---	---	---	5.3	5.2	5.2	6.5	6.0	6.1	7.0	6.7	6.8
30	---	---	---	5.4	5.2	5.3	6.7	6.0	6.2	7.2	6.7	6.9
31	---	---	---	5.6	5.2	5.4	---	---	---	7.3	6.7	7.0
Month	6.1	3.9	5.0	5.6	4.2	4.8	6.7	5.2	5.8	7.3	5.7	6.5

14162200 BLUE RIVER AT BLUE RIVER, OR—Continued

TEMPERATURE, WATER, DEGREES CELSIUS
WATER YEAR OCTOBER 2010 TO SEPTEMBER 2011

Day	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean
	June			July			August			September		
1	7.2	6.8	7.0	8.6	7.6	8.0	9.9	8.0	8.6	9.4	8.1	8.5
2	7.3	6.8	7.1	8.6	7.7	8.0	9.9	8.0	8.6	8.7	8.2	8.3
3	7.4	7.0	7.1	8.6	7.7	8.0	9.8	7.9	8.5	8.5	8.2	8.3
4	7.5	7.0	7.2	8.7	7.8	8.1	9.9	8.0	8.6	8.4	8.2	8.3
5	7.4	7.0	7.2	8.7	7.8	8.1	9.9	8.0	8.6	8.4	8.3	8.3
6	7.4	7.1	7.2	8.9	7.8	8.1	9.9	8.0	8.5	8.5	8.3	8.3
7	7.9	7.2	7.4	8.8	7.8	8.1	9.9	8.0	8.6	8.5	8.3	8.4
8	7.6	7.2	7.4	9.1	7.8	8.2	9.9	8.0	8.6	8.5	8.3	8.4
9	7.8	7.2	7.4	9.6	7.7	8.3	9.9	8.0	8.6	8.5	8.4	8.4
10	7.8	7.3	7.5	9.5	7.7	8.3	9.8	7.9	8.5	8.6	8.4	8.5
11	7.8	7.3	7.5	9.6	7.9	8.3	9.8	7.9	8.5	8.6	8.4	8.5
12	7.8	7.3	7.5	8.7	7.9	8.2	9.9	8.2	8.6	8.7	8.4	8.6
13	7.9	7.4	7.6	9.5	7.9	8.3	9.9	8.2	8.6	8.7	8.5	8.6
14	7.9	7.4	7.6	9.5	7.8	8.3	9.9	8.2	8.7	8.8	8.6	8.7
15	7.9	7.5	7.6	9.6	7.8	8.3	9.9	8.2	8.6	8.8	8.6	8.7
16	8.0	7.4	7.7	9.0	7.9	8.3	9.9	8.2	8.6	8.9	8.7	8.8
17	8.2	7.4	7.7	8.3	7.9	8.1	9.9	8.2	8.6	9.0	8.7	8.9
18	7.8	7.5	7.7	8.7	7.8	8.2	9.8	8.1	8.6	9.1	8.8	9.0
19	8.1	7.5	7.8	8.4	7.9	8.1	9.9	8.2	8.7	9.1	8.9	9.0
20	8.3	7.5	7.8	10.6	7.9	8.4	9.8	8.2	8.6	9.3	9.0	9.1
21	8.3	7.6	7.8	8.6	7.9	8.2	9.8	8.2	8.7	9.4	9.1	9.2
22	8.3	7.6	7.9	9.4	7.9	8.3	9.7	8.2	8.6	9.4	9.2	9.3
23	8.0	7.6	7.8	9.8	7.8	8.5	9.7	8.2	8.6	9.6	9.3	9.4
24	8.2	7.5	7.8	9.9	7.9	8.5	9.6	8.3	8.6	9.7	9.4	9.5
25	8.5	7.6	7.9	9.2	8.0	8.4	9.8	8.3	8.7	9.8	9.6	9.7
26	8.5	7.6	7.9	9.8	7.9	8.5	9.8	8.3	8.7	9.9	9.7	9.8
27	8.4	7.6	8.0	10.0	7.8	8.5	9.8	8.3	8.7	10.1	9.9	10.0
28	8.3	7.7	7.9	10.0	7.8	8.5	9.7	8.3	8.7	10.3	10.0	10.1
29	8.2	7.7	7.9	10.1	7.9	8.6	9.7	8.2	8.7	10.5	10.2	10.3
30	8.3	7.7	7.9	10.1	8.0	8.6	9.4	8.2	8.6	10.7	10.4	10.6
31	---	---	---	10.0	8.0	8.6	8.9	8.2	8.4	---	---	---
Month	8.5	6.8	7.6	10.6	7.6	8.3	9.9	7.9	8.6	10.7	8.1	9.0

	Max	Min	Mean
Year	17.0	3.2	7.5