

Water-Data Report 2011

12100490 WHITE RIVER AT R STREET NEAR AUBURN, WA

Puget Sound Basin
Puyallup Subbasin

LOCATION.--Lat 47°16'30", long 122°12'24" referenced to North American Datum of 1927, in SW ¼ SW ¼ sec.29, T.21 N., R.5 E., King County, WA, Hydrologic Unit 17110014, on right bank, on the downstream side of the "R" St. bridge, 4.0 mi upstream from the White River Power Plant tailrace, 2.4 mi south-southeast of Auburn, and at mile 7.6

DRAINAGE AREA.--474 mi².

SURFACE-WATER RECORDS

PERIOD OF RECORD.--October 1987 to September 1989, October 1990 to September 2003, October 2005 to current year. "12100496", published as White River near Auburn, October 1987 to September 1989, October 1990 to September 2003, October 2005 to September 2009.

GAGE.--Water stage recorder and crest stage gage. Datum of gage is NGVD of 1929. Prior to October 1, 2009, at site 1.3 mi downstream at same datum.

REMARKS.--No estimated daily discharges. Records good. Since November 1911, White River Flume (station 12098920) has diverted from left bank 16.7 mi upstream for storage in Lake Tapps (station 12101000). Water is returned to White River 4.0 mi downstream via the Lake Tapps Diversion (station 12101100) after power development at White River Powerplant at Dieringer. Since 1942, flow regulated by Mud Mountain Lake (station 12098000) for flood control. U.S. Geological Survey satellite telemeter at station.

AVERAGE DISCHARGE FOR PERIOD OF RECORD.--21 years (water years 1988-89, 1991-2003, 2006-2011), 985 ft³/s, 713,500 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 15,000 ft³/s, Feb. 10, 1996, elevation, 83.15 ft, site then in use; minimum discharge, 89 ft³/s, Feb. 17, 18, 1993.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 7,750 ft³/s, Jan. 17, elevation, 114.33 ft; minimum discharge, 398 ft³/s, Jul. 26.

12100490 WHITE RIVER AT R STREET NEAR AUBURN, WA—Continued

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

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	702	1,370	2,500	1,110	2,390	1,270	3,680	1,480	2,400	2,990	2,560	795
2	695	3,910	2,060	1,090	2,100	1,260	4,430	1,520	2,610	2,830	2,550	752
3	662	2,470	1,650	1,040	1,960	1,090	4,270	1,620	2,680	3,000	2,430	731
4	648	1,820	1,420	982	2,250	723	3,600	1,570	2,690	2,960	2,030	716
5	605	1,530	1,260	979	2,990	484	3,910	1,660	2,880	2,850	1,920	713
6	572	1,410	1,170	1,380	2,740	455	3,940	1,810	3,300	2,950	1,630	712
7	559	1,650	1,130	2,170	2,840	460	4,340	2,010	3,640	3,110	1,490	715
8	567	1,500	1,350	2,430	2,640	855	4,170	2,380	3,770	2,950	1,420	734
9	600	1,310	1,760	2,010	2,310	1,690	3,830	2,270	3,440	2,590	1,370	748
10	1,680	1,200	2,530	1,690	2,110	2,280	3,220	2,130	3,300	2,380	1,320	772
11	1,780	1,090	2,200	1,450	1,960	2,590	2,400	2,210	3,280	2,260	1,260	792
12	1,200	1,070	4,810	1,640	1,880	1,970	2,220	2,460	3,190	2,240	1,220	781
13	953	1,010	5,970	3,950	2,070	1,870	1,960	2,290	3,080	2,320	1,190	751
14	813	1,350	5,660	4,150	1,930	2,050	1,680	2,270	3,040	2,340	1,160	717
15	759	1,740	5,970	4,060	1,920	2,170	1,800	4,260	2,900	2,180	1,110	674
16	688	3,480	4,330	6,220	1,790	2,100	1,930	4,530	2,670	2,200	1,070	606
17	646	2,780	2,740	7,300	1,670	1,950	1,880	4,310	2,450	2,370	1,020	557
18	614	2,550	2,190	7,120	1,550	1,660	1,860	4,260	2,590	2,220	982	635
19	589	2,040	1,910	6,860	1,470	1,370	1,720	4,180	3,240	2,130	974	838
20	575	1,740	1,720	6,590	1,380	1,010	1,580	3,980	3,260	1,880	989	663
21	564	1,550	1,550	6,830	1,330	975	1,530	3,740	3,160	1,490	1,010	590
22	558	1,420	1,410	6,360	1,310	1,130	1,440	3,490	3,190	999	1,050	628
23	550	1,290	1,300	6,340	1,270	1,060	1,370	3,120	3,390	721	1,100	711
24	625	1,110	1,250	5,680	1,230	971	1,380	2,890	3,310	733	1,100	762
25	873	1,130	1,540	5,140	1,110	1,030	1,520	2,460	3,140	434	1,070	745
26	1,030	1,190	1,380	5,500	1,090	960	1,680	2,610	2,850	424	1,060	720
27	1,550	1,260	1,290	4,940	1,130	1,080	1,720	2,530	2,770	1,440	1,060	999
28	1,250	1,260	1,480	4,000	1,440	1,000	1,860	2,410	2,880	2,460	1,010	904
29	1,150	1,100	1,590	3,780	---	1,300	1,670	2,240	3,180	2,590	974	691
30	1,050	1,420	1,370	3,520	---	2,430	1,580	2,100	3,310	2,620	955	601
31	1,070	---	1,180	2,980	---	3,630	---	2,090	---	2,570	877	---
Total	26,177	49,750	69,670	119,291	51,860	44,873	74,170	82,880	91,590	67,231	40,961	21,753
Mean	844	1,658	2,247	3,848	1,852	1,448	2,472	2,674	3,053	2,169	1,321	725
Max	1,780	3,910	5,970	7,300	2,990	3,630	4,430	4,530	3,770	3,110	2,560	999
Min	550	1,010	1,130	979	1,090	455	1,370	1,480	2,400	424	877	557
Ac-ft	51,920	98,680	138,200	236,600	102,900	89,010	147,100	164,400	181,700	133,400	81,250	43,150

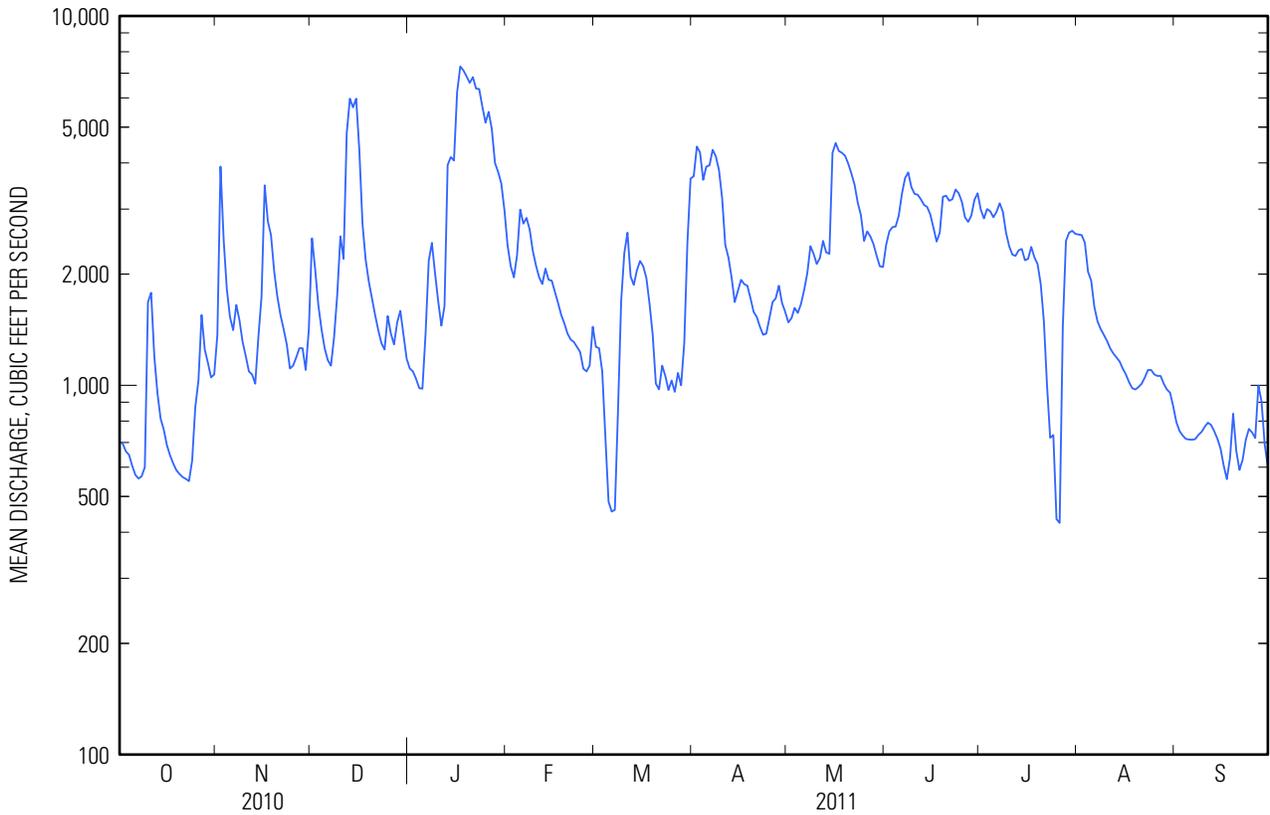
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1988 - 2011, BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	421	1,244	1,289	1,415	1,234	900	970	1,255	1,301	772	607	432
Max	898	3,888	3,794	4,135	4,575	3,769	2,472	4,636	3,251	2,169	1,321	846
(WY)	(2006)	(2007)	(1996)	(2009)	(1996)	(2007)	(2011)	(2008)	(2008)	(2011)	(2011)	(2010)
Min	165	168	188	202	176	193	188	170	189	214	246	160
(WY)	(1992)	(1994)	(1994)	(2001)	(1994)	(1992)	(1995)	(1992)	(1992)	(1998)	(1994)	(1989)

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SUMMARY STATISTICS

	Calendar Year 2010		Water Year 2011		Water Years 1988 - 2011	
Annual total	521,217		740,206			
Annual mean	1,428		2,028		985	
Highest annual mean					2,028	2011
Lowest annual mean					243	1994
Highest daily mean	5,970	Dec 13	7,300	Jan 17	13,100	Nov 9, 2006
Lowest daily mean	550	Oct 23	424	Jul 26	116	Oct 12, 1988
Annual seven-day minimum	582	Oct 18	582	Oct 18	129	Dec 27, 1987
Annual runoff (ac-ft)	1,034,000		1,468,000		713,500	
10 percent exceeds	2,520		3,770		2,260	
50 percent exceeds	1,160		1,670		536	
90 percent exceeds	667		716		180	



12100490 WHITE RIVER AT R STREET NEAR AUBURN, WA—Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--May 2010 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: May 2010 to current year.

pH: May 2010 to current year.

WATER TEMPERATURE: May 2010 to current year.

DISSOLVED OXYGEN: June 2010 to current year.

TURBIDITY: May 2010 to current year.

INSTRUMENTATION.--Multiparameter water quality sonde interfaced with a Data Collection Platform/Electronic Datalogger, with 15-min recording interval, since May 2010.

REMARKS.--Specific conductance records are excellent except for Mar. 26 to Apr. 1 and Apr. 6-14, which are good. pH records are excellent except for Apr. 22 to May 4, which are good, May 5, which is fair, and Dec. 17 to Jan. 17, which are poor. Temperature records are excellent. Dissolved oxygen records are excellent. Turbidity records are excellent Feb. 10 to Mar. 5, May 5 to July 21, July 28 to Aug. 16, good Mar. 6-11, July 22-27, Aug. 17 to Sept. 30, fair Oct. 1-20, Mar. 12-16, and poor Oct. 21 to Feb.4, Mar. 17 to Apr. 2. Additional details are available from the Tacoma Field Office.

EXTREMES FOR PERIOD OF RECORD.--

SPECIFIC CONDUCTANCE: Maximum, 99 μ S/cm, Mar. 5, 2011, but may have been higher during periods of missing record; minimum, 40 μ S/cm, Jan. 20, 2011, but may have been lower during periods of missing record.

pH: Maximum, 8.1 units, Aug. 24 and 30, 2010, but may have been higher during periods of missing record; minimum, 6.7 units, Jan. 16, 17, 2011, but may have been lower during periods of missing record.

WATER TEMPERATURE: Maximum, 19.6°C, Aug. 15, 2010; minimum, 0.0°C, Nov. 23, 24, 2010, Jan. 1, Feb. 25, and Feb. 26, 2011.

DISSOLVED OXYGEN: Maximum, 15.3 mg/L, Feb. 25, 26, 2011; minimum, 9.4 mg/L, Aug. 16, 17, 2010.

TURBIDITY: Maximum recorded, >1120 FNU, Oct. 10, 11, 2010; minimum recorded, 3.2 FNU, Mar. 7, 2011.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum, 99 μ S/cm, Mar. 5, but may have been higher during periods of missing record; minimum, 40 μ S/cm, Jan. 20, but may have been lower during periods of missing record.

pH: Maximum, 7.8 units, Oct. 8, but may have been higher during periods of missing record; minimum, 6.7 units, Jan. 16, 17, but may have been lower during periods of missing record.

WATER TEMPERATURE: Maximum, 18.3°C, Aug. 25; minimum, 0.0°C, Nov. 23, 24, Jan. 1, Feb. 25, and Feb. 26.

DISSOLVED OXYGEN: Maximum, 15.3 mg/L, Feb. 25, 26; minimum, 9.5 mg/L, Aug. 21, 24, 25.

TURBIDITY: Maximum recorded (more than 20 percent missing record), >1120 FNU, Oct. 10, 11; minimum recorded (more than 20 percent missing record), 3.2 FNU, Mar. 7.

12100490 WHITE RIVER AT R STREET NEAR AUBURN, WA—Continued

**SPECIFIC CONDUCTANCE, WATER, UNFILTERED, MICROSIEMENS PER CENTIMETER AT 25 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	77	74	76	80	68	73	63	54	57	---	---	---
2	77	75	76	68	49	53	63	57	60	---	---	---
3	78	75	77	61	54	58	66	62	64	75	72	74
4	79	76	78	65	61	63	69	65	67	74	71	73
5	82	78	80	67	63	66	70	68	69	77	73	75
6	85	81	83	69	65	68	71	70	70	75	63	70
7	87	83	85	75	68	71	71	70	71	64	60	62
8	86	82	85	70	68	69	72	68	71	---	---	---
9	84	81	83	73	70	71	69	65	67	---	---	---
10	81	47	62	73	72	73	69	61	64	---	---	---
11	62	49	55	74	73	74	70	61	64	68	64	66
12	67	62	64	74	72	73	68	48	54	70	66	68
13	72	67	70	75	74	75	---	---	---	---	---	---
14	75	72	73	75	69	73	---	---	---	---	---	---
15	77	74	76	70	66	67	---	---	---	---	---	---
16	80	77	78	66	47	51	---	---	---	---	---	---
17	82	80	80	63	50	54	62	57	60	---	---	---
18	83	81	82	63	61	63	63	60	62	---	---	---
19	84	83	83	65	63	64	65	59	62	---	---	---
20	86	83	84	66	64	65	66	63	65	44	40	42
21	87	82	85	68	65	67	67	64	66	53	43	46
22	87	85	86	70	67	69	68	64	66	---	---	---
23	87	85	86	72	70	71	69	64	66	---	---	---
24	87	81	85	---	---	---	71	66	69	---	---	---
25	82	77	79	76	72	73	75	66	70	48	44	46
26	77	73	75	87	76	81	73	66	70	---	---	---
27	77	66	68	84	79	82	73	68	70	---	---	---
28	70	65	68	86	80	83	73	66	70	54	50	52
29	71	69	71	80	78	79	72	65	69	56	52	54
30	73	71	72	81	63	77	72	68	70	56	54	55
31	73	71	73	---	---	---	74	68	72	57	54	55
Month	87	47	77	---	---	---	---	---	---	---	---	---

12100490 WHITE RIVER AT R STREET NEAR AUBURN, WA—Continued

**SPECIFIC CONDUCTANCE, WATER, UNFILTERED, MICROSIEMENS PER CENTIMETER AT 25 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	57	54	56	81	79	79	57	44	47	67	67	67
2	---	---	---	81	76	79	---	---	---	68	66	67
3	---	---	---	81	76	78	---	---	---	67	65	66
4	---	---	---	89	81	87	---	---	---	65	65	65
5	---	---	---	99	87	96	---	---	---	65	62	63
6	---	---	---	96	93	94	58	54	56	62	59	60
7	---	---	---	93	90	92	59	53	57	59	58	59
8	---	---	---	90	68	81	55	53	54	58	57	57
9	---	---	---	75	68	70	59	54	57	57	55	57
10	59	---	---	---	---	---	63	58	60	58	57	58
11	61	59	60	---	---	---	65	62	64	59	57	58
12	64	60	61	---	---	---	64	62	63	59	56	57
13	65	61	62	---	---	---	64	60	63	57	56	57
14	65	62	64	---	---	---	67	60	64	57	56	57
15	65	64	64	---	---	---	67	65	66	60	45	52
16	65	64	65	---	---	---	---	---	---	46	41	43
17	66	65	65	---	---	---	---	---	---	---	---	---
18	66	65	66	74	68	69	---	---	---	48	44	46
19	67	66	66	74	71	73	---	---	---	51	48	49
20	68	67	67	76	73	75	66	64	65	53	50	51
21	69	68	68	75	73	74	66	64	66	53	52	53
22	69	69	69	74	71	72	67	66	67	53	53	53
23	70	69	69	73	72	72	68	67	68	54	53	54
24	73	69	71	73	72	73	68	66	67	55	54	55
25	75	72	73	83	72	79	71	66	68	56	55	56
26	76	73	74	78	75	76	69	65	66	56	53	54
27	75	72	73	78	74	75	68	63	64	56	53	55
28	84	75	81	78	72	75	70	66	68	57	56	56
29	---	---	---	72	68	71	66	65	66	58	57	57
30	---	---	---	70	51	62	67	65	67	58	58	58
31	---	---	---	56	45	51	---	---	---	58	57	58
Month	---	---	---	---	---	---	---	---	---	---	---	---

12100490 WHITE RIVER AT R STREET NEAR AUBURN, WA—Continued

**SPECIFIC CONDUCTANCE, WATER, UNFILTERED, MICROSIEMENS PER CENTIMETER AT 25 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	58	56	57	47	45	46	50	49	50	69	66	67
2	56	54	55	47	46	47	51	50	50	71	69	70
3	54	53	53	47	44	46	52	50	51	71	70	71
4	53	52	53	46	45	45	54	52	53	72	71	72
5	53	50	51	46	45	46	54	52	53	72	70	71
6	50	47	48	47	45	46	54	53	54	72	70	71
7	48	44	46	46	43	44	55	54	55	72	70	71
8	47	46	47	46	44	44	57	55	56	71	68	70
9	49	47	48	48	46	46	57	56	56	69	65	67
10	49	48	49	49	48	48	58	56	57	66	64	65
11	49	48	48	50	49	49	60	58	58	66	64	65
12	49	48	49	50	47	49	60	59	59	65	64	65
13	50	49	49	50	49	49	60	59	60	67	64	66
14	50	49	49	50	49	49	61	59	60	68	66	67
15	50	49	49	51	50	50	62	61	61	70	68	69
16	51	50	50	51	49	50	63	62	62	75	70	73
17	52	51	52	49	47	48	64	63	64	77	74	75
18	52	51	51	50	48	49	65	64	64	77	75	76
19	51	47	48	50	49	49	65	64	64	75	71	73
20	48	47	47	52	48	50	65	63	64	76	72	74
21	48	47	47	54	51	52	64	62	63	78	75	77
22	48	46	47	59	53	55	64	60	62	78	75	77
23	47	45	46	60	58	59	63	61	62	77	73	75
24	47	45	46	60	58	59	62	60	61	73	70	71
25	49	47	47	70	60	66	62	60	61	72	70	72
26	50	48	49	70	67	68	62	60	61	74	71	72
27	50	49	49	67	48	53	61	59	60	74	61	67
28	49	47	48	48	46	48	62	60	61	71	62	66
29	47	45	46	48	46	48	63	61	62	77	71	74
30	45	44	44	49	48	48	63	61	62	79	77	78
31	---	---	---	49	48	49	66	63	64	---	---	---
Month	58	44	49	70	43	50	66	49	59	79	61	71

12100490 WHITE RIVER AT R STREET NEAR AUBURN, WA—Continued

PH, WATER, UNFILTERED, FIELD, STANDARD UNITS
WATER YEAR OCTOBER 2010 TO SEPTEMBER 2011

Day	Max	Min	Median	Max	Min	Median	Max	Min	Median	Max	Min	Median
	October			November			December			January		
1	7.6	7.3	7.3	7.4	7.2	7.3	7.3	7.2	7.2	7.3	7.2	7.3
2	7.6	7.3	7.4	7.2	7.0	7.1	7.3	7.2	7.3	7.3	7.2	7.3
3	7.6	7.3	7.4	7.2	7.1	7.2	7.4	7.3	7.3	7.3	7.2	7.3
4	7.7	7.4	7.4	7.3	7.2	7.2	7.4	7.3	7.3	7.3	7.2	7.3
5	7.6	7.3	7.4	7.3	7.2	7.3	7.4	7.3	7.3	7.4	7.3	7.3
6	7.7	7.4	7.4	7.4	7.3	7.3	7.4	7.3	7.3	7.3	7.2	7.3
7	7.7	7.4	7.4	7.4	7.3	7.4	7.4	7.3	7.4	7.3	7.2	7.2
8	7.8	7.4	7.4	7.4	7.3	7.3	7.5	7.4	7.4	7.2	7.2	7.2
9	7.7	7.4	7.4	7.4	7.3	7.3	7.4	7.3	7.4	7.3	7.2	7.3
10	7.4	7.1	7.3	7.4	7.3	7.3	7.4	7.2	7.3	7.3	7.2	7.3
11	7.2	7.1	7.2	7.4	7.3	7.4	7.3	7.3	7.3	7.3	7.3	7.3
12	7.3	7.2	7.2	7.4	7.3	7.4	7.3	7.0	7.2	7.4	7.2	7.3
13	7.4	7.2	7.3	7.5	7.3	7.4	7.1	6.8	7.0	7.3	7.0	7.1
14	7.5	7.3	7.4	7.4	7.3	7.4	7.1	7.0	7.1	7.2	7.0	7.1
15	7.5	7.4	7.4	7.4	7.3	7.4	7.1	6.8	7.0	7.2	7.0	7.1
16	7.5	7.3	7.4	7.4	7.1	7.2	7.1	6.9	7.0	7.2	6.7	6.9
17	7.5	7.3	7.4	7.3	7.2	7.2	7.2	6.9	7.0	6.9	6.7	6.8
18	7.5	7.3	7.4	7.3	7.2	7.3	7.2	7.1	7.1	---	---	---
19	7.5	7.3	7.4	7.3	7.3	7.3	7.3	7.1	7.2	---	---	---
20	7.6	7.3	7.4	7.4	7.3	7.3	7.3	7.2	7.3	---	---	---
21	7.6	7.3	7.4	7.3	7.3	7.3	7.3	7.2	7.3	---	---	---
22	7.7	7.4	7.4	7.4	7.3	7.3	7.4	7.3	7.3	---	---	---
23	7.6	7.4	7.4	7.4	7.3	7.3	7.3	7.3	7.3	---	---	---
24	7.6	7.4	7.5	7.4	7.3	7.4	7.4	7.3	7.3	---	---	---
25	7.5	7.4	7.4	7.4	7.3	7.3	7.4	7.2	7.3	---	---	---
26	7.4	7.3	7.4	7.5	7.3	7.4	7.4	7.2	7.3	---	---	---
27	7.3	7.2	7.3	7.4	7.4	7.4	7.3	7.2	7.2	---	---	---
28	7.4	7.3	7.3	7.4	7.4	7.4	7.3	7.2	7.3	---	---	---
29	7.5	7.3	7.3	7.4	7.4	7.4	7.3	7.2	7.3	7.3	7.2	7.3
30	7.4	7.3	7.3	7.5	7.2	7.4	7.4	7.3	7.3	7.3	7.2	7.3
31	7.5	7.3	7.4	---	---	---	7.3	7.3	7.3	7.3	7.2	7.2
Max	7.8	7.4	7.5	7.5	7.4	7.4	7.5	7.4	7.4	---	---	---
Min	7.2	7.1	7.2	7.2	7.0	7.1	7.1	6.8	7.0	---	---	---

12100490 WHITE RIVER AT R STREET NEAR AUBURN, WA—Continued

PH, WATER, UNFILTERED, FIELD, STANDARD UNITS
WATER YEAR OCTOBER 2010 TO SEPTEMBER 2011

Day	Max	Min	Median	Max	Min	Median	Max	Min	Median	Max	Min	Median
	February			March			April			May		
1	7.2	7.1	7.2	7.5	7.4	7.5	7.1	7.0	7.1	7.6	7.4	7.5
2	7.2	7.1	7.2	7.5	7.4	7.5	7.1	6.9	7.0	7.6	7.4	7.5
3	7.2	7.0	7.1	7.5	7.4	7.5	7.1	7.0	7.0	7.6	7.4	7.5
4	---	---	---	7.5	7.5	7.5	7.2	7.0	7.1	7.7	7.4	7.5
5	---	---	---	7.6	7.5	7.6	7.2	7.1	7.2	7.6	7.4	7.5
6	---	---	---	7.6	7.5	7.6	7.2	7.1	7.2	7.6	7.5	7.5
7	---	---	---	7.6	7.5	7.5	7.2	7.0	7.1	7.6	7.4	7.5
8	---	---	---	7.6	7.4	7.5	7.2	7.0	7.1	7.5	7.4	7.4
9	---	---	---	7.5	7.4	7.4	7.2	7.0	7.1	7.5	7.4	7.4
10	---	---	---	7.4	7.3	7.4	7.3	7.1	7.2	7.6	7.4	7.5
11	---	---	---	7.4	7.2	7.3	7.3	7.2	7.3	7.5	7.4	7.4
12	---	---	---	7.5	7.4	7.4	7.3	7.2	7.3	7.6	7.3	7.4
13	---	---	---	7.5	7.5	7.5	7.3	7.2	7.3	7.6	7.3	7.4
14	---	---	---	7.5	7.4	7.5	7.3	7.1	7.3	7.7	7.3	7.4
15	---	---	---	7.5	7.4	7.5	7.3	7.2	7.2	7.4	7.0	7.2
16	---	---	---	7.5	7.5	7.5	7.3	7.2	7.3	7.1	7.0	7.1
17	---	---	---	7.5	7.4	7.4	7.2	7.2	7.2	7.1	7.0	7.1
18	---	---	---	7.5	7.4	7.5	7.3	7.1	7.2	7.2	7.0	7.1
19	---	---	---	7.5	7.5	7.5	7.3	7.2	7.2	7.2	7.0	7.1
20	---	---	---	7.6	7.4	7.5	7.3	7.2	7.2	7.2	7.0	7.1
21	---	---	---	7.6	7.5	7.5	7.3	7.3	7.3	7.2	7.1	7.1
22	---	---	---	7.6	7.5	7.5	7.4	7.3	7.3	7.2	7.1	7.2
23	---	---	---	7.6	7.5	7.5	7.4	7.3	7.3	7.3	7.1	7.2
24	---	---	---	7.6	7.5	7.6	7.5	7.3	7.5	7.3	7.2	7.2
25	---	---	---	7.7	7.6	7.6	7.6	7.4	7.5	7.2	7.1	7.2
26	---	---	---	7.6	7.5	7.6	7.6	7.4	7.5	7.3	7.2	7.2
27	---	---	---	7.7	7.6	7.6	7.6	7.4	7.5	7.3	7.2	7.2
28	---	---	---	7.7	7.6	7.6	7.6	7.4	7.5	7.3	7.2	7.2
29	---	---	---	7.6	7.5	7.6	7.6	7.4	7.5	7.3	7.2	7.2
30	---	---	---	7.6	7.1	7.5	7.6	7.5	7.5	7.4	7.2	7.3
31	---	---	---	7.3	7.0	7.2	---	---	---	7.4	7.2	7.3
Max	---	---	---	7.7	7.6	7.6	7.6	7.5	7.5	7.7	7.5	7.5
Min	---	---	---	7.3	7.0	7.2	7.1	6.9	7.0	7.1	7.0	7.1

12100490 WHITE RIVER AT R STREET NEAR AUBURN, WA—Continued

PH, WATER, UNFILTERED, FIELD, STANDARD UNITS
WATER YEAR OCTOBER 2010 TO SEPTEMBER 2011

Day	Max	Min	Median	Max	Min	Median	Max	Min	Median	Max	Min	Median
	June			July			August			September		
1	7.3	7.2	7.3	7.5	7.1	7.2	7.4	7.1	7.2	7.5	7.3	7.4
2	7.3	7.2	7.3	7.6	7.1	7.2	7.4	7.1	7.2	7.6	7.3	7.4
3	7.4	7.2	7.2	7.4	7.1	7.2	7.4	7.2	7.2	7.6	7.3	7.4
4	7.4	7.1	7.2	7.6	7.1	7.2	7.5	7.1	7.2	7.7	7.3	7.4
5	7.3	7.1	7.2	7.6	7.1	7.2	7.4	7.2	7.3	7.7	7.3	7.4
6	7.3	7.1	7.2	7.6	7.0	7.2	7.4	7.2	7.3	7.7	7.3	7.4
7	7.2	7.1	7.2	7.3	7.1	7.2	7.5	7.2	7.3	7.7	7.3	7.4
8	7.2	7.1	7.1	7.4	7.1	7.2	7.4	7.3	7.3	7.7	7.3	7.3
9	7.3	7.1	7.2	7.5	7.1	7.2	7.5	7.3	7.3	7.6	7.3	7.3
10	7.3	7.2	7.2	7.6	7.1	7.3	7.5	7.3	7.4	7.6	7.3	7.3
11	7.3	7.1	7.2	7.6	7.1	7.3	7.5	7.3	7.4	7.5	7.3	7.3
12	7.4	7.1	7.2	7.5	7.2	7.3	7.6	7.3	7.4	7.4	7.3	7.4
13	7.4	7.2	7.2	7.6	7.2	7.3	7.5	7.3	7.4	7.4	7.3	7.4
14	7.4	7.2	7.3	7.4	7.1	7.2	7.6	7.3	7.4	7.5	7.3	7.4
15	7.5	7.2	7.3	7.6	7.1	7.2	7.6	7.3	7.4	7.4	7.3	7.3
16	7.5	7.2	7.3	7.6	7.2	7.2	7.6	7.3	7.3	7.5	7.3	7.3
17	7.6	7.2	7.3	7.3	7.1	7.2	7.6	7.3	7.3	7.5	7.3	7.4
18	7.4	7.2	7.3	7.5	7.1	7.3	7.5	7.3	7.3	7.5	7.3	7.3
19	7.3	7.1	7.2	7.4	7.1	7.2	7.6	7.3	7.3	7.4	7.3	7.3
20	7.4	7.1	7.2	7.5	7.2	7.3	7.6	7.3	7.3	7.6	7.3	7.3
21	7.5	7.1	7.2	7.5	7.2	7.3	7.5	7.2	7.3	7.6	7.3	7.3
22	7.3	7.1	7.2	7.6	7.2	7.3	7.4	7.3	7.3	7.6	7.3	7.3
23	7.3	7.2	7.2	7.7	7.2	7.4	7.4	7.3	7.3	7.6	7.2	7.3
24	7.4	7.1	7.2	7.7	7.2	7.3	7.5	7.2	7.3	7.5	7.2	7.2
25	7.5	7.1	7.2	7.6	7.2	7.4	7.5	7.3	7.3	7.5	7.3	7.3
26	7.6	7.1	7.3	7.7	7.3	7.4	7.5	7.2	7.3	7.4	7.3	7.3
27	7.5	7.1	7.2	7.5	7.2	7.3	7.4	7.2	7.3	7.3	7.2	7.3
28	7.6	7.1	7.2	7.3	7.1	7.2	7.5	7.3	7.3	7.4	7.2	7.3
29	7.3	7.1	7.2	7.3	7.1	7.2	7.4	7.3	7.4	7.5	7.2	7.3
30	7.3	7.1	7.2	7.3	7.1	7.2	7.4	7.3	7.3	7.6	7.2	7.3
31	---	---	---	7.3	7.1	7.2	7.5	7.3	7.4	---	---	---
Max	7.6	7.2	7.3	7.7	7.3	7.4	7.6	7.3	7.4	7.7	7.3	7.4
Min	7.2	7.1	7.1	7.3	7.0	7.2	7.4	7.1	7.2	7.3	7.2	7.2

12100490 WHITE RIVER AT R STREET NEAR AUBURN, WA—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
	October			November			December			January		
1	13.8	11.7	12.8	9.4	8.4	8.8	5.4	4.6	5.0	1.1	0.0	0.5
2	14.4	12.9	13.5	9.3	8.3	8.8	5.3	4.7	5.1	1.7	0.5	1.0
3	13.3	12.3	12.9	9.2	7.6	8.5	5.5	4.0	4.9	1.8	0.3	1.0
4	12.7	10.8	11.6	9.3	8.1	8.7	4.0	3.1	3.6	2.5	1.1	1.7
5	12.5	9.3	10.9	8.8	8.4	8.6	4.8	3.4	4.0	3.6	2.5	3.1
6	12.2	9.2	10.5	9.6	8.7	9.2	5.3	3.8	4.4	4.2	3.6	4.0
7	11.6	9.8	10.8	9.7	8.3	9.2	6.0	5.3	5.7	4.7	4.2	4.4
8	13.5	10.7	11.8	8.3	7.0	7.7	6.8	5.8	6.1	4.3	3.9	4.1
9	12.8	11.9	12.3	7.0	6.2	6.4	5.9	5.6	5.8	4.0	3.3	3.7
10	12.4	10.8	11.9	7.2	5.9	6.4	5.9	5.4	5.7	3.4	2.2	3.0
11	10.8	9.3	10	6.7	5.3	6.0	5.7	4.9	5.2	2.2	1.0	1.5
12	10.2	8.3	9.1	7.6	6.2	6.7	7.3	5.7	6.8	3.9	1.4	2.6
13	10.5	8.3	9.2	7.0	6.4	6.7	7.1	6.5	6.8	5.3	3.9	4.6
14	10.9	8.4	9.7	8.7	6.9	7.8	6.9	5.7	6.4	6.5	5.3	5.8
15	10.8	8.8	9.7	9.1	8.6	8.8	5.7	5.2	5.4	6.1	5.3	5.6
16	9.4	7.1	8.3	8.8	7.4	8.0	5.5	4.9	5.2	6.6	6.0	6.4
17	8.8	6.0	7.3	7.4	6.3	6.9	4.9	3.7	4.3	6.3	5.8	6.1
18	9.1	6.4	7.6	6.3	5.2	5.7	4.0	3.4	3.7	5.9	5.5	5.7
19	9.9	6.7	8.2	6.0	5.4	5.7	3.8	3.2	3.5	5.7	5.0	5.4
20	10.5	7.7	8.9	5.6	4.6	5.2	4.0	3.5	3.7	5.1	4.9	5.0
21	10.1	8.1	9.1	4.8	3.6	4.4	4.7	3.6	4.1	5.3	4.9	5.1
22	11.8	9.2	10.2	3.6	1.4	2.8	5.3	4.5	4.8	5.2	4.6	4.9
23	10.6	9.5	10.0	1.4	0.0	0.6	4.7	4.2	4.4	5.4	4.7	5.1
24	10.0	9.0	9.6	0.6	0.0	0.2	5.6	4.7	5.2	5.6	5.3	5.4
25	9.5	8.3	8.8	2.7	0.6	1.7	6.1	5.6	5.8	6.1	5.5	5.7
26	8.3	7.6	7.8	4.5	2.7	3.8	5.8	4.9	5.4	6.4	5.4	5.8
27	8.5	7.0	7.8	4.8	4.0	4.4	4.9	4.6	4.8	6.2	5.3	5.7
28	8.6	8.2	8.4	4.5	3.4	3.9	5.5	4.9	5.2	6.1	5.0	5.5
29	9.7	8.4	8.8	4.5	3.8	4.1	5.0	2.8	3.9	6.1	5.4	5.8
30	8.4	7.2	7.6	4.9	4.3	4.6	2.8	1.4	2.2	6.2	5.2	5.9
31	9.4	7.5	8.3	---	---	---	1.4	0.2	0.8	5.6	4.4	5.2
Month	14.4	6.0	9.8	9.7	0.0	6.0	7.3	0.2	4.8	6.6	0.0	4.4

12100490 WHITE RIVER AT R STREET NEAR AUBURN, WA—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	4.4	3.0	3.5	3.4	2.0	2.7	6.7	6.2	6.5	10.6	6.1	8.3
2	3.9	2.4	3.1	5.2	3.3	4.1	6.8	6.0	6.3	9.5	7.3	8.3
3	5.2	3.7	4.4	5.2	3.4	4.1	6.8	5.8	6.2	8.8	6.7	7.7
4	---	5.2	---	5.0	3.0	3.9	6.2	5.6	5.8	11.1	6.9	9.0
5	---	---	---	6.7	4.0	5.3	6.4	5.4	5.8	10.2	---	9.1
6	---	---	---	6.5	4.5	5.4	6.5	5.1	5.6	8.5	7.8	8.2
7	---	---	---	6.9	4.1	5.4	6.3	4.9	5.4	9.1	7.4	8.1
8	---	---	---	7.5	4.4	5.5	7.3	4.8	5.7	8.7	7.1	7.9
9	---	---	---	6.2	4.5	5.3	7.5	5.2	6.1	8.4	7.4	7.9
10	4.6	---	---	7.1	5.2	6.0	7.7	5.9	6.7	10.3	7.6	8.7
11	5.1	3.7	4.3	6.9	4.6	5.5	8.6	5.9	7.0	10.4	8.3	9.1
12	5.5	4.6	5.1	6.3	4.6	5.3	7.7	5.3	6.3	9.8	6.7	8.4
13	6.1	5.2	5.7	6.0	4.8	5.3	7.1	6.1	6.7	10.3	7.4	9.0
14	6.2	5.6	5.9	7.6	4.9	5.8	6.2	5.4	5.9	11.5	9.0	10.4
15	5.9	5.0	5.4	6.8	5.4	6.3	7.3	5.3	6.2	10.4	7.5	8.8
16	5.0	3.9	4.3	6.3	5.2	5.7	8.5	7.1	7.6	8.3	6.7	7.5
17	4.6	3.5	4.0	6.0	4.9	5.4	8.1	5.7	6.9	9.6	6.2	7.7
18	3.9	2.9	3.5	5.4	4.9	5.2	7.1	5.3	6.3	10.2	6.6	8.1
19	4.5	2.7	3.4	6.8	4.2	5.5	8.2	4.8	6.3	10.9	7.0	8.6
20	4.1	2.2	3.2	6.4	4.4	5.5	7.9	5.0	6.5	11.6	7.6	9.2
21	4.6	2.9	3.7	7.3	5.7	6.4	7.9	6.0	7.0	9.8	8.3	9.2
22	4.9	3.1	3.9	7.1	5.1	6.1	9.7	5.7	7.5	9.4	7.9	8.7
23	3.2	1.7	2.7	8.1	4.4	6.2	10.5	6.3	8.4	9.6	7.9	8.6
24	3.1	1.3	2.1	8.2	5.8	7.1	9.1	7.6	8.1	9.7	7.8	8.9
25	2.3	0.0	1.0	8.9	6.3	7.3	8.0	6.9	7.3	9.6	8.5	8.9
26	1.5	0.0	0.7	6.8	5.2	6.0	8.6	6.2	7.2	9.5	7.6	8.6
27	3.4	1.5	2.5	7.0	5.4	6.2	8.2	6.9	7.6	9.3	8.0	8.7
28	3.3	2.0	2.8	8.6	6.0	7.1	7.5	5.6	6.6	9.6	7.9	8.8
29	---	---	---	7.3	6.7	7.0	8.6	6.2	7.3	9.5	8.0	8.6
30	---	---	---	6.9	6.7	6.9	9.3	6.8	7.8	9.8	8.1	8.9
31	---	---	---	7.4	6.4	6.8	---	---	---	9.7	8.0	8.8
Month	---	---	---	8.9	2.0	5.7	10.5	4.8	6.7	11.6	---	8.6

12100490 WHITE RIVER AT R STREET NEAR AUBURN, WA—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	10.0	9.0	9.5	12.7	8.8	10.7	16.3	12.2	13.8	15.1	10.5	12.7
2	10.0	8.3	9.1	13.6	10.4	12.2	16.6	12.3	14.0	16.9	13.0	14.6
3	12.3	8.3	10.3	13.4	10.6	11.8	17.1	12.9	14.5	16.6	12.1	14.2
4	12.9	9.4	11.3	12.8	9.8	11.5	18.0	13.5	15.2	16.9	12.3	14.4
5	12.6	9.7	10.6	13.3	10.5	12.2	15.4	12.3	14.0	17.0	12.3	14.4
6	12.4	9.4	10.9	14.0	11.0	12.8	14.6	12.4	13.9	17.3	12.6	14.7
7	12.1	9.5	10.4	14.1	10.6	11.9	15.7	13.3	14.5	17.4	12.8	14.9
8	10.2	8.0	8.7	11.5	9.6	10.7	14.5	12.8	13.9	17.3	13.8	15.1
9	10.8	8.3	9.2	12.5	9.5	11.2	---	12.9	13.8	17.4	12.9	14.9
10	11.1	9.1	9.9	12.9	10.6	11.8	14.3	13.2	13.7	17.6	13.4	15.2
11	10.6	9.2	9.9	12.7	10.9	11.8	15.4	13.4	14.3	17.3	13.6	15.1
12	11.0	9.2	10.2	12.0	11.2	11.6	16.6	13.4	14.7	15.1	13.2	14.2
13	11.1	9.3	10.3	12.6	10.6	11.6	14.5	13.1	13.8	14.7	13.0	13.9
14	10.8	9.3	9.8	11.3	10.6	10.8	15.8	13.1	14.2	14.5	12.7	13.6
15	9.9	9.0	9.5	12.8	10.2	11.3	16.4	12.9	14.4	13.9	12.4	13.1
16	10.7	8.5	9.6	12.9	11.8	12.4	16.3	12.7	14.4	14.2	11.0	12.4
17	12.6	9.1	10.8	12.0	10.9	11.4	16.7	12.5	14.4	12.3	10.7	11.4
18	12.1	9.6	10.5	13.1	10.4	11.7	16.1	12.8	14.4	13.4	10.8	12.0
19	9.9	9.4	9.7	12.2	10.7	11.3	17.0	12.8	14.7	15.4	12.1	13.4
20	10.4	9.2	9.8	14.1	10.7	12.0	17.8	13.5	15.4	15.2	11.2	13.1
21	13.0	9.6	11.3	14.5	11.7	13.1	18.0	14.5	16.0	14.8	12.3	13.4
22	12.9	9.5	10.8	16.2	10.1	13.0	16.6	14.4	15.5	15.4	12.5	13.8
23	11.4	9.6	10.2	17.4	10.0	13.5	16.5	14.2	15.1	17.4	13.0	14.8
24	10.4	9.0	9.7	17.8	10.5	14.0	18.0	14.6	16.0	16.5	13.9	14.9
25	11.9	9.1	10.5	14.7	11.8	12.8	18.3	14.9	16.3	15.4	13.2	14.1
26	12.1	9.3	10.9	15.7	12.0	13.6	18.1	14.7	16.1	13.2	11.3	11.9
27	12.2	10.6	11.3	14.7	11.4	12.8	17.9	14.6	16.0	12.9	11.1	11.8
28	11.9	10.2	11.1	14.9	10.8	12.5	17.2	13.8	15.3	12.9	10.1	11.3
29	11.4	10.3	10.8	15.1	11.4	12.9	14.9	12.8	14.3	13.7	9.4	11.4
30	10.7	9.4	10.0	15.9	11.8	13.4	15.1	12.6	13.7	13.0	10.9	11.9
31	---	---	---	14.6	12.4	13.4	14.1	12.3	13.1	---	---	---
Month	13.0	8.0	10.2	17.8	8.8	12.2	---	12.2	14.6	17.6	9.4	13.6

12100490 WHITE RIVER AT R STREET NEAR AUBURN, WA—Continued

DISSOLVED OXYGEN, WATER, UNFILTERED, MILLIGRAMS PER LITER
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	10.8	10.2	10.5	11.8	11.6	11.7	13.1	12.8	13.0	14.6	14.0	14.3
2	10.5	10.0	10.3	12.1	11.6	11.9	13.1	12.9	13.0	14.4	13.8	14.1
3	10.6	10.2	10.4	12.1	11.6	11.9	13.3	12.9	13.1	14.3	13.9	14.1
4	11.0	10.5	10.8	11.9	11.6	11.7	13.7	13.3	13.5	14.1	13.6	13.9
5	11.6	10.8	11.2	11.7	11.6	11.7	13.6	13.1	13.3	13.6	13.2	13.4
6	11.9	10.8	11.3	11.6	11.3	11.5	13.3	12.9	13.2	13.3	13.0	13.1
7	11.5	10.9	11.2	11.8	11.3	11.5	12.9	12.5	12.7	13.1	12.8	12.9
8	11.4	10.5	11.0	12.2	11.8	12.0	12.6	12.4	12.5	13.1	12.9	13.0
9	11.1	10.6	10.8	12.4	12.2	12.4	12.7	12.5	12.6	13.3	13.0	13.2
10	11.2	10.7	10.9	12.7	12.4	12.5	12.8	12.5	12.7	13.7	13.3	13.5
11	11.7	11.2	11.5	12.9	12.5	12.7	13.0	12.6	12.9	14.2	13.7	14.0
12	12.0	11.5	11.7	12.8	12.4	12.6	12.7	12.2	12.3	13.8	13.1	13.5
13	11.9	11.3	11.7	12.7	12.4	12.6	12.4	---	---	13.1	12.5	12.9
14	11.8	11.2	11.5	12.4	11.8	12.1	---	---	---	12.7	12.4	12.6
15	11.9	11.3	11.6	11.9	11.6	11.8	---	---	---	12.7	12.3	12.6
16	12.4	11.6	12.0	12.2	11.6	12.0	---	---	---	12.3	---	---
17	12.8	11.9	12.3	12.4	12.2	12.2	---	---	---	---	---	---
18	12.6	11.8	12.2	12.8	12.4	12.6	12.9	12.8	12.8	---	---	---
19	12.5	11.5	12.0	12.7	12.4	12.6	13.0	12.8	12.9	---	---	---
20	12.1	11.2	11.7	12.9	12.5	12.7	12.9	12.8	12.8	---	---	---
21	12.0	11.3	11.6	13.3	12.8	13.0	12.9	12.6	12.8	---	---	---
22	11.7	10.9	11.3	14.1	13.3	13.5	12.7	12.5	12.6	---	---	---
23	11.5	11.0	11.3	15.0	14.1	14.6	12.9	12.7	12.8	---	---	---
24	11.4	11.1	11.2	15.0	14.8	14.9	12.7	12.4	12.6	---	---	---
25	11.8	11.4	11.6	14.8	13.8	14.3	12.4	12.1	12.2	---	---	---
26	12.1	11.8	12.0	13.8	13.0	13.3	12.7	12.2	12.4	---	---	---
27	12.3	11.8	12.1	13.2	12.9	13.0	12.9	12.6	12.7	---	---	---
28	11.9	11.8	11.8	13.5	13.0	13.4	12.6	12.3	12.4	---	---	---
29	11.9	11.6	11.7	13.5	13.3	13.4	13.3	12.4	12.8	---	---	---
30	12.2	11.7	12.0	13.3	12.9	13.1	13.9	13.3	13.6	---	---	---
31	12.1	11.7	11.9	---	---	---	14.4	13.9	14.2	---	---	---
Month	12.8	10.0	11.5	15.0	11.3	12.6	---	---	---	---	---	---

12100490 WHITE RIVER AT R STREET NEAR AUBURN, WA—Continued

DISSOLVED OXYGEN, WATER, UNFILTERED, MILLIGRAMS PER LITER
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	---	---	---	14.2	13.6	14.0	12.6	12.3	12.5	12.6	11.2	11.9
2	---	---	---	13.6	13.1	13.4	12.7	12.3	12.5	12.1	11.3	11.8
3	---	---	---	13.8	13.2	13.6	12.8	12.5	12.7	12.5	11.8	12.1
4	---	---	---	14.0	13.2	13.6	12.8	12.6	12.7	12.4	11.0	11.7
5	---	---	---	13.6	12.6	13.1	12.8	12.6	12.7	12.3	11.1	11.8
6	---	---	---	13.4	12.7	13.0	12.8	12.4	12.7	12.4	12.0	12.2
7	---	---	---	13.4	12.5	13.0	12.9	12.6	12.8	12.4	11.9	12.2
8	---	---	---	13.3	12.3	12.9	13.0	12.3	12.7	12.5	12.0	12.2
9	---	---	---	13.3	12.7	13.0	12.8	12.1	12.5	12.6	12.1	12.3
10	---	13.5	---	13.0	12.2	12.6	12.6	12.0	12.3	12.5	11.4	12.1
11	13.6	13.1	13.4	13.2	12.5	12.9	12.6	11.9	12.3	12.2	11.3	11.9
12	13.2	12.9	13.1	13.2	12.7	12.9	12.8	12.2	12.5	12.8	11.8	12.3
13	13.1	12.7	12.9	13.1	12.6	12.9	12.5	12.1	12.3	12.7	11.4	12.1
14	12.7	12.5	12.6	13.0	12.4	12.8	12.8	12.5	12.6	12.1	11.1	11.6
15	12.9	12.7	12.8	12.9	12.4	12.5	12.9	12.0	12.5	12.3	11.3	11.8
16	13.4	12.9	13.2	12.9	12.6	12.8	12.2	11.8	12.0	12.6	12.2	12.3
17	13.6	13.2	13.4	13.2	12.8	13.0	12.7	11.9	12.3	12.7	11.8	12.3
18	13.8	13.5	13.7	13.0	12.8	12.9	12.9	12.2	12.5	12.6	11.8	12.2
19	14.0	13.4	13.7	13.2	12.5	12.8	12.9	12.0	12.5	12.6	11.6	12.1
20	14.2	13.6	13.9	13.1	12.4	12.7	12.8	11.9	12.4	12.4	11.4	12.0
21	14.0	13.4	13.7	12.7	12.2	12.4	12.5	12.0	12.2	12.1	11.8	11.9
22	13.8	13.3	13.5	12.9	12.4	12.7	12.7	11.4	12.1	12.3	12.0	12.1
23	14.3	13.8	14.0	13.2	11.9	12.5	12.3	11.2	11.7	12.3	12.0	12.1
24	14.7	14.0	14.3	12.5	11.7	12.1	11.9	11.4	11.7	12.3	11.7	12.0
25	15.3	14.4	14.9	12.4	11.7	12.1	12.1	11.8	11.9	12.1	11.6	11.9
26	15.3	14.5	14.9	12.8	12.3	12.5	12.4	11.7	12.1	12.4	11.7	12.1
27	14.5	13.6	14.0	12.7	12.3	12.5	12.2	11.8	12.0	12.3	11.7	12.0
28	14.2	13.6	13.9	12.7	12.0	12.4	12.6	12.0	12.3	12.4	11.7	12.0
29	---	---	---	12.5	12.2	12.3	12.5	11.8	12.2	12.3	11.7	12.1
30	---	---	---	12.4	12.3	12.4	12.4	11.7	12.1	12.2	11.7	12.0
31	---	---	---	12.6	12.3	12.4	---	---	---	12.3	11.7	12.0
Month	---	---	---	14.2	11.7	12.8	13.0	11.2	12.3	12.8	11.0	12.0

12100490 WHITE RIVER AT R STREET NEAR AUBURN, WA—Continued

DISSOLVED OXYGEN, WATER, UNFILTERED, MILLIGRAMS PER LITER
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	12.1	11.6	11.8	12.3	10.8	11.7	10.9	10.2	10.6	11.4	10.2	10.8
2	12.3	11.7	12.0	11.9	10.5	11.2	10.8	10.1	10.5	10.7	9.8	10.4
3	12.3	11.0	11.7	11.8	10.5	11.2	10.7	10.0	10.4	11.0	9.8	10.4
4	12.1	10.8	11.4	12.1	10.8	11.4	10.5	9.8	10.2	10.9	9.8	10.3
5	11.9	10.8	11.5	12.0	10.6	11.2	10.9	10.3	10.5	10.9	9.8	10.3
6	11.9	10.9	11.4	11.8	10.3	11.0	10.9	10.3	10.5	10.9	9.8	10.4
7	11.9	10.9	11.5	11.7	10.3	11.1	10.6	10.2	10.4	10.8	9.7	10.3
8	12.4	11.5	12.1	12.1	11.1	11.6	10.8	10.3	10.5	10.6	9.9	10.2
9	12.3	11.4	12.0	12.1	10.8	11.4	10.7	10.4	10.6	10.8	9.7	10.3
10	12.1	11.3	11.7	11.8	10.8	11.2	10.7	10.5	10.6	10.6	9.6	10.2
11	12.1	11.4	11.7	11.7	10.9	11.2	10.7	10.2	10.5	10.5	9.6	10.1
12	12.1	11.2	11.6	11.6	10.9	11.2	10.8	10.0	10.4	10.6	10.2	10.4
13	12.1	11.2	11.6	11.7	11.0	11.3	10.7	10.2	10.6	10.7	10.3	10.5
14	12.3	11.4	11.9	11.8	11.1	11.4	10.6	10.3	10.5	10.7	10.3	10.5
15	12.4	11.7	12.0	11.8	10.6	11.3	10.8	10.0	10.4	10.8	10.4	10.6
16	12.4	11.5	11.9	11.4	10.6	11.0	10.9	10.0	10.4	11.3	10.4	10.9
17	12.2	10.9	11.6	11.5	10.9	11.2	10.9	9.9	10.4	11.3	10.9	11.1
18	11.9	10.9	11.5	11.7	10.8	11.2	10.8	9.9	10.4	11.4	10.5	11.0
19	12.0	11.5	11.8	11.6	10.8	11.3	10.7	9.7	10.2	10.9	10.2	10.6
20	12.2	11.4	11.8	11.5	10.9	11.2	10.5	9.6	10.1	11.3	10.2	10.7
21	12.1	10.6	11.4	11.0	10.6	10.8	10.2	9.5	9.9	10.9	10.2	10.6
22	12.0	10.6	11.4	11.7	10.1	10.9	10.2	9.8	10	10.9	10.1	10.5
23	12.1	11.1	11.7	11.7	9.9	10.8	10.3	9.9	10.1	10.7	9.6	10.2
24	12.2	11.4	11.8	11.6	9.8	10.7	10.2	9.5	10	10.4	9.7	10.1
25	12.3	11.1	11.7	11.3	10.2	10.9	10.2	9.5	9.9	10.6	10.1	10.3
26	12.2	10.8	11.5	11.3	10.1	10.7	10.2	9.6	9.9	11.0	10.5	10.9
27	11.8	10.8	11.3	11.3	10.4	10.9	10.2	9.6	10	11.2	10.7	11.0
28	11.8	11.0	11.3	11.4	10.5	11.0	10.4	9.7	10.1	11.6	10.9	11.3
29	11.7	11.0	11.4	11.2	10.5	10.9	10.7	10.1	10.3	11.8	10.5	11.1
30	12.0	11.3	11.7	11.0	10.2	10.7	10.7	10.1	10.4	11.3	10.6	11.0
31	---	---	---	10.8	10.5	10.7	10.8	10.4	10.6	---	---	---
Month	12.4	10.6	11.7	12.3	9.8	11.1	10.9	9.5	10.3	11.8	9.6	10.6

12100490 WHITE RIVER AT R STREET NEAR AUBURN, WA—Continued

TURBIDITY, WATER, UNFILT, NEAR IR LED LIGHT, 780-900 NM, DETECT ANG. 90 DEG, FORMAZIN NEPHELOMETRIC UNITS
WATER YEAR OCTOBER 2010 TO SEPTEMBER 2011

[>, greater than]

Day	Max	Min	Median	Max	Min	Median	Max	Min	Median	Max	Min	Median
	October			November			December			January		
1	35	23	27	---	---	---	66	18	35	14	8.2	10
2	37	25	29	620	81	260	---	7.9	---	15	6.8	9.0
3	35	25	28	88	28	44	---	---	---	10	5.8	7.9
4	30	19	23	28	15	22	---	---	---	10	5.9	7.4
5	24	16	18	---	---	---	---	---	---	11	5.2	7.4
6	22	13	16	---	---	---	---	---	---	110	8.9	21
7	20	12	13	---	---	---	---	---	---	120	30	62
8	---	11	---	---	---	---	22	5.6	10	150	24	40
9	690	26	36	---	---	---	51	9.2	15	39	14	22
10	>1,100	110	310	7.0	5.7	6.4	65	18	32	35	9.5	14
11	>1,100	440	760	---	---	---	66	12	21	13	6.9	9.2
12	600	170	260	---	---	---	580	56	190	66	6.2	8.8
13	300	90	140	7.3	4.1	4.6	---	---	---	---	---	---
14	90	52	63	20	4.4	9.8	---	---	---	---	---	---
15	52	34	40	---	---	---	---	---	---	---	---	---
16	36	24	28	---	---	---	---	---	---	---	---	---
17	---	21	---	---	---	---	300	61	160	---	---	---
18	23	17	20	---	---	---	70	30	38	---	---	---
19	20	14	16	---	---	---	44	19	24	---	---	---
20	14	11	12	---	---	---	370	17	40	---	---	---
21	---	11	---	---	---	---	100	40	54	---	---	---
22	---	---	---	---	---	---	88	32	45	---	---	---
23	13	9.2	11	8.6	4.4	5.2	52	26	35	---	---	---
24	---	---	---	16	5.2	8.2	42	22	28	---	---	---
25	---	---	---	9.9	5.4	6.2	77	27	44	---	---	---
26	170	13	18	---	---	---	35	15	21	---	---	---
27	120	23	46	---	---	---	22	12	17	---	---	---
28	---	---	---	---	---	---	33	18	26	---	---	---
29	---	---	---	7.6	5.1	6.0	56	14	25	50	42	47
30	---	---	---	35	5.1	10	24	9.8	14	53	43	48
31	---	---	---	---	---	---	18	8.9	12	170	52	84
Max	---	---	---	---	---	---	---	---	---	---	---	---
Min	---	---	---	---	---	---	---	---	---	---	---	---

12100490 WHITE RIVER AT R STREET NEAR AUBURN, WA—Continued

TURBIDITY, WATER, UNFILT, NEAR IR LED LIGHT, 780-900 NM, DETECT ANG. 90 DEG, FORMAZIN NEPHELOMETRIC UNITS
WATER YEAR OCTOBER 2010 TO SEPTEMBER 2011

[>, greater than]

Day	Max	Min	Median	Max	Min	Median	Max	Min	Median	Max	Min	Median
	February			March			April			May		
1	570	110	180	24	10	14	160	110	140	---	---	---
2	640	170	260	21	8.4	11	190	85	110	---	---	---
3	760	220	420	16	8.6	11	100	55	71	---	---	---
4	---	---	---	15	6.9	9.6	---	---	---	---	---	---
5	---	---	---	9.3	4.7	7.4	---	---	---	---	---	---
6	---	---	---	11	4.0	4.5	---	---	---	18	8.5	14
7	---	---	---	12	3.2	3.8	---	---	---	57	16	26
8	---	---	---	100	5.8	9.4	---	---	---	63	31	53
9	---	---	---	90	27	42	---	---	---	35	17	23
10	---	56	---	230	45	87	---	---	---	24	12	14
11	71	46	56	110	30	53	---	---	---	22	12	14
12	83	50	59	34	16	21	---	---	---	32	17	25
13	110	45	60	23	12	16	---	---	---	19	10	14
14	57	37	43	48	10	14	---	---	---	20	9.1	11
15	68	28	38	31	14	18	---	---	---	250	20	140
16	45	24	30	29	11	16	---	---	---	140	84	120
17	91	28	39	210	9.2	13	---	---	---	84	58	68
18	50	28	38	190	27	67	---	---	---	58	39	46
19	84	24	30	86	26	38	---	---	---	41	26	32
20	31	17	21	26	11	16	---	---	---	29	20	24
21	27	14	18	14	8.4	10	---	---	---	22	18	19
22	25	12	17	34	7.6	11	---	---	---	22	17	18
23	37	11	14	9.3	5.5	6.8	---	---	---	21	15	17
24	49	28	37	7.9	5.2	6.3	---	---	---	77	16	27
25	30	18	22	12	5.4	8.4	---	---	---	140	55	82
26	32	12	18	11	4.3	5.4	---	---	---	190	38	77
27	23	11	14	14	5.1	7.0	---	---	---	170	34	46
28	64	15	30	13	4.5	6.6	---	---	---	44	22	28
29	---	---	---	26	8.8	17	---	---	---	25	17	20
30	---	---	---	500	14	180	---	---	---	28	15	18
31	---	---	---	250	140	160	---	---	---	32	16	21
Max	---	---	---	500	140	180	---	---	---	---	---	---
Min	---	---	---	7.9	3.2	3.8	---	---	---	---	---	---

12100490 WHITE RIVER AT R STREET NEAR AUBURN, WA—Continued

TURBIDITY, WATER, UNFILT, NEAR IR LED LIGHT, 780-900 NM, DETECT ANG. 90 DEG, FORMAZIN NEPHELOMETRIC UNITS
WATER YEAR OCTOBER 2010 TO SEPTEMBER 2011

[>, greater than]

Day	Max	Min	Median	Max	Min	Median	Max	Min	Median	Max	Min	Median
	June			July			August			September		
1	39	19	27	27	18	22	28	21	23	46	37	41
2	37	21	26	21	15	18	24	19	21	37	32	33
3	32	18	24	30	15	25	24	20	22	44	28	30
4	25	16	19	29	18	22	25	18	21	35	26	27
5	36	17	31	22	18	19	36	20	24	40	26	29
6	62	31	52	39	18	24	37	27	33	44	28	32
7	71	47	59	47	21	39	37	30	33	44	30	35
8	60	40	48	35	25	32	58	26	30	58	33	36
9	45	24	31	26	17	20	40	26	31	64	40	45
10	27	18	23	20	15	16	31	24	27	99	53	58
11	24	18	21	17	14	15	40	23	25	140	78	91
12	22	16	18	14	11	13	33	22	24	160	79	93
13	18	12	14	20	11	12	26	20	22	160	83	100
14	15	11	12	16	11	12	29	20	24	110	77	84
15	14	9.7	11	17	9.8	11	24	19	21	88	60	68
16	12	8.9	10	22	14	16	20	18	19	83	47	62
17	12	8.6	10	27	18	21	20	16	17	48	39	46
18	20	9.1	11	19	14	17	27	15	20	52	43	45
19	27	17	24	19	14	16	23	16	19	100	46	66
20	22	14	18	23	16	18	35	17	19	64	41	46
21	24	14	16	18	14	16	68	23	28	54	36	40
22	24	16	19	18	13	14	92	34	41	---	32	---
23	35	16	29	14	11	12	57	39	46	58	35	44
24	29	21	24	12	10	11	80	40	47	140	45	53
25	23	14	18	11	7.6	8.8	94	45	55	87	56	64
26	16	11	12	18	8.3	8.7	110	62	70	97	47	62
27	13	9.4	11	72	16	27	110	60	76	340	46	150
28	16	9.9	14	53	22	28	85	62	73	260	67	120
29	40	16	35	28	20	22	90	51	60	67	42	48
30	41	26	36	24	18	20	85	57	64	42	32	36
31	---	---	---	24	19	20	61	44	46	---	---	---
Max	71	47	59	72	25	39	110	62	76	---	83	---
Min	12	8.6	10	11	7.6	8.7	20	15	17	---	26	---