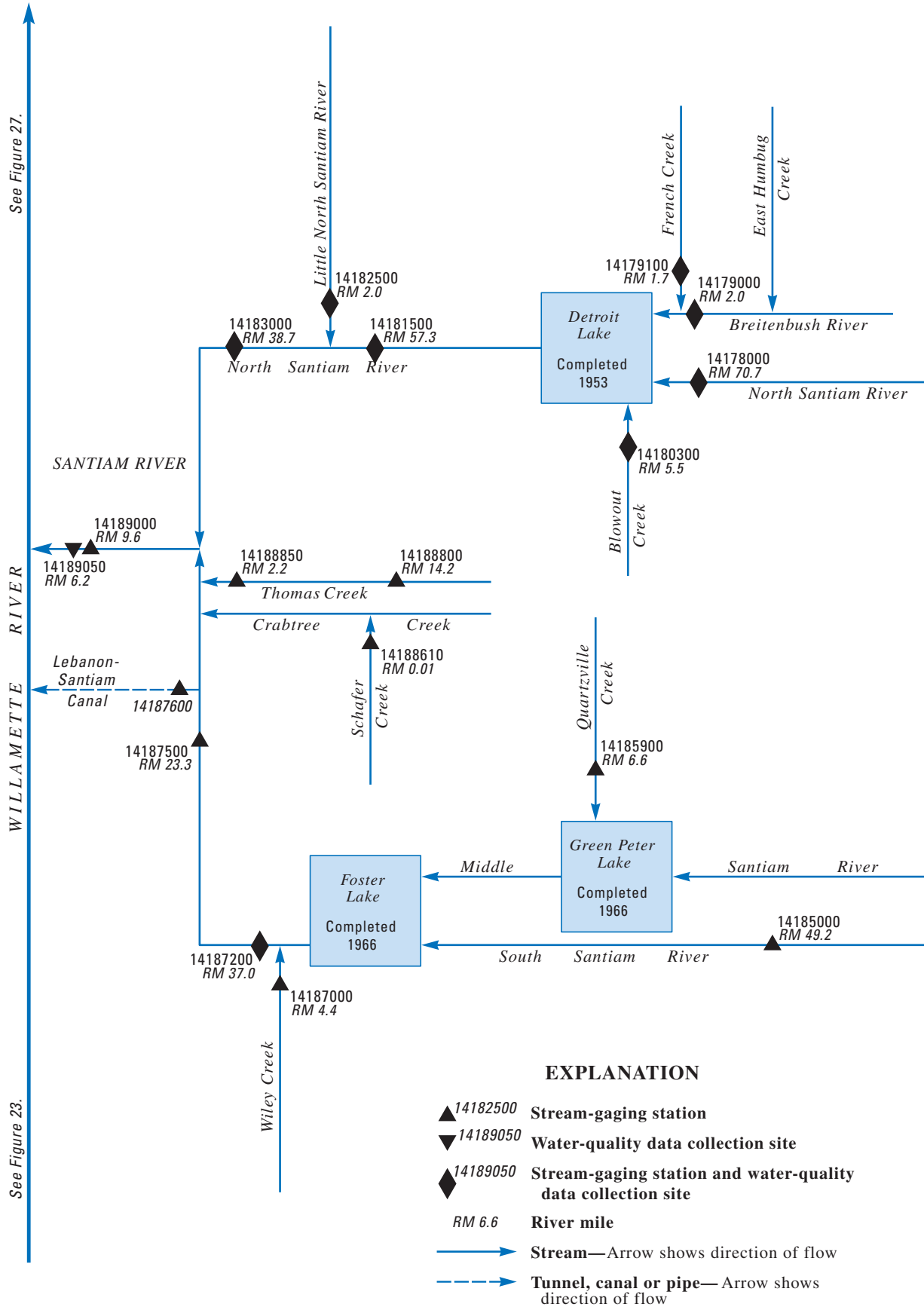


**Figure 25.** Location of surface-water and water-quality stations in the Willamette River Basin, downstream from the Luckiamute River.



**Figure 26.** Schematic diagram showing gaging stations and diversions in the Santiam River Basin.

WILLAMETTE RIVER BASIN

14183000 NORTH SANTIAM RIVER AT MEHAMA, OR

LOCATION.--Lat 44°47'20", long 122°37'00", in NW ¼ sec.18, T.9 S., R.2 E., Marion County, Hydrologic Unit 17090005, on right bank 300 ft downstream from highway bridge at Mehama, 0.5 mi downstream from Little North Santiam River, and at mile 38.71.

DRAINAGE AREA.--654.3 mi<sup>2</sup>.

PERIOD OF RECORD.--July 1905 to March 1907, October 1910 to September 1914, September 1921 to current year. Monthly discharge only September 1921, published in WSP 1318. Prior to October 1913, published as North Fork of Santiam River at Mehama.

REVISED RECORDS.--WSP 739: 1922-23(M). WSP 1044: 1943. WSP 1248: 1906, 1911-14, 1924(M), 1926, 1934-36(M), 1937, 1938(M), 1942(M). WSP 2135: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 602.49 ft above NGVD of 1929. Prior to June 15, 1933, nonrecording gage at site 100 ft upstream at same datum.

REMARKS.--Records good except those for the period Nov. 25 to Mar. 21, which are fair. Flow regulated since 1953 by Detroit Lake (station 14180500) and Big Cliff Reservoir, usable capacity for reregulating purposes, 2,930 acre-ft. No diversion upstream from station.

AVERAGE DISCHARGE.--36 years (water years 1906, 1911-14, 1922-1952), 3,251 ft<sup>3</sup>/s, 2,355,000 acre-ft/yr. 53 years (water years 1953-2005), 3,424 ft<sup>3</sup>/s, 2,481,000 acre-ft/yr, regulated period.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 76,600 ft<sup>3</sup>/s Dec. 28, 1945, gage height, 15.37 ft, from rating curve extended above 36,000 ft<sup>3</sup>/s, on basis of slope-area measurement of peak flow; maximum gage height, 17.5 ft Nov. 20, 1921, from graph based on gage readings, and Jan. 6, 1923, from floodmark, at site then in use; minimum discharge, 254 ft<sup>3</sup>/s Aug. 3, 1970; minimum daily, 420 ft<sup>3</sup>/s Sept. 18, 1924.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 12,100 ft<sup>3</sup>/s Dec. 10, 11, gage height, 7.48 ft; minimum discharge, 980 ft<sup>3</sup>/s Aug. 20.

DISCHARGE, CUBIC FEET PER SECOND  
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2,370	4,370	2,640	1,840	1,580	e1,230	2,930	2,220	2,410	1,620	1,090	1,030
2	2,340	4,740	2,250	1,780	1,510	e1,210	2,850	2,190	2,690	1,580	1,090	1,220
3	2,340	5,250	2,070	1,720	1,470	e1,210	2,560	2,130	2,450	1,550	1,080	1,270
4	2,330	4,410	2,010	1,670	1,400	e1,190	2,510	2,140	2,050	1,520	1,070	1,270
5	2,290	4,010	1,970	1,630	1,450	e1,070	2,310	2,140	2,110	1,510	1,080	1,270
6	2,710	3,790	2,030	1,610	1,440	e1,000	2,190	2,330	3,500	1,510	1,070	1,510
7	3,310	3,650	2,660	1,630	1,440	e990	2,480	2,460	4,200	1,500	1,070	1,810
8	3,460	3,530	6,380	1,570	1,390	e990	2,850	2,430	3,600	1,480	1,080	1,860
9	4,540	3,450	6,950	1,550	1,390	e1,000	2,590	2,540	3,070	1,500	1,070	1,840
10	4,530	3,390	9,370	1,520	e1,360	e990	2,330	3,380	2,710	1,510	1,070	1,880
11	4,860	3,320	10,100	1,490	e1,340	e980	2,600	3,450	2,460	1,510	1,080	1,870
12	4,600	3,320	8,730	1,480	e1,350	e970	2,550	2,970	2,330	1,490	1,080	1,860
13	3,750	3,270	7,440	1,450	e1,470	e960	2,350	2,660	2,320	1,470	1,070	1,880
14	3,540	3,250	7,340	1,380	e1,450	e950	2,390	2,490	2,210	1,460	1,070	1,910
15	3,410	3,340	7,010	1,380	e1,410	e930	2,290	2,410	2,100	1,430	1,060	2,090
16	3,070	3,310	5,930	1,490	e1,380	e940	3,330	2,550	1,970	1,410	1,080	2,090
17	3,060	3,170	5,460	2,140	e1,340	e990	3,800	3,610	2,340	1,400	1,080	2,080
18	3,750	3,290	4,650	7,300	e1,310	e980	3,260	3,620	2,910	1,390	1,060	2,100
19	4,390	3,320	4,290	5,230	e1,290	e1,070	2,810	4,740	2,750	1,380	1,050	2,090
20	4,010	3,250	4,150	3,820	e1,350	e1,190	2,490	4,370	2,330	1,360	1,030	2,050
21	3,970	3,300	4,100	3,350	e1,340	e1,160	2,270	4,710	2,230	1,370	1,030	2,020
22	4,240	3,230	4,030	2,970	e1,320	1,110	2,160	4,790	2,110	1,370	1,030	2,020
23	4,480	3,330	4,010	2,820	e1,300	1,140	2,300	4,210	1,970	1,210	1,030	2,030
24	4,530	3,700	3,340	2,680	e1,280	1,190	2,450	3,680	1,800	1,120	1,040	2,050
25	4,320	5,360	2,870	2,270	e1,250	1,310	2,200	3,290	1,710	1,120	1,030	2,040
26	4,440	4,830	2,580	1,930	e1,230	2,340	2,040	2,660	1,660	1,120	1,030	2,020
27	4,320	4,330	2,330	1,760	e1,220	8,570	2,060	2,320	1,690	1,110	1,040	2,030
28	4,210	4,070	2,260	1,640	e1,220	6,350	2,480	2,240	1,840	1,100	1,040	2,020
29	4,240	3,840	2,190	1,780	---	4,800	2,380	2,160	1,740	1,100	1,030	2,020
30	4,440	2,980	2,330	1,700	---	3,680	2,290	2,270	1,660	1,090	1,040	2,080
31	4,670	---	1,980	1,620	---	2,900	---	2,100	---	1,090	1,040	---
TOTAL	116,520	112,400	135,450	68,200	38,280	55,390	76,100	91,260	70,920	42,380	32,810	55,310
MEAN	3,759	3,747	4,369	2,200	1,367	1,787	2,537	2,944	2,364	1,367	1,058	1,844
MAX	4,860	5,360	10,100	7,300	1,580	8,570	3,800	4,790	4,200	1,620	1,090	2,100
MIN	2,290	2,980	1,970	1,380	1,220	930	2,040	2,100	1,660	1,090	1,030	1,030
AC-FT	231,100	222,900	268,700	135,300	75,930	109,900	150,900	181,000	140,700	84,060	65,080	109,700

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1953 - 2005, BY WATER YEAR (WY)

MEAN	2,887	5,077	6,176	5,630	4,172	3,308	3,305	3,509	2,544	1,380	1,214	1,930
MAX	5,109	9,857	14,300	11,700	12,360	10,890	6,128	5,897	5,521	2,528	1,833	2,800
(WY)	(1960)	(1974)	(1978)	(1953)	(1996)	(1972)	(1993)	(1960)	(1955)	(1983)	(1968)	(1959)
MIN	656	690	1,183	1,212	1,048	1,467	1,624	1,136	956	757	699	916
(WY)	(1953)	(1953)	(1977)	(1977)	(1977)	(1992)	(1973)	(1973)	(1992)	(1992)	(1992)	(2001)

WILLAMETTE RIVER BASIN

14183000 NORTH SANTIAM RIVER AT MEHAMA, OR—Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1953 - 2005	
ANNUAL TOTAL	1,152,641		895,020			
ANNUAL MEAN	3,149		2,452		3,424	
HIGHEST ANNUAL MEAN					5,255	
LOWEST ANNUAL MEAN					1,743	
HIGHEST DAILY MEAN	15,000	Jan 29	10,100	Dec 11	46,700	Feb 7, 1996
LOWEST DAILY MEAN	943	Aug 20	930	Mar 15	626	Oct 28, 1952
ANNUAL SEVEN-DAY MINIMUM	951	Aug 15	960	Mar 10	636	Nov 4, 1952
ANNUAL RUNOFF (AC-FT)	2,286,000		1,775,000		2,481,000	
10 PERCENT EXCEEDS	5,560		4,350		6,900	
50 PERCENT EXCEEDS	2,580		2,090		2,440	
90 PERCENT EXCEEDS	1,160		1,070		1,140	

e Estimated



2005 Water Year  
 SANTIAM RIVER BASIN

14183000 NORTH SANTIAM RIVER AT MEHAMA, OR

Latitude: 44° 47' 20"

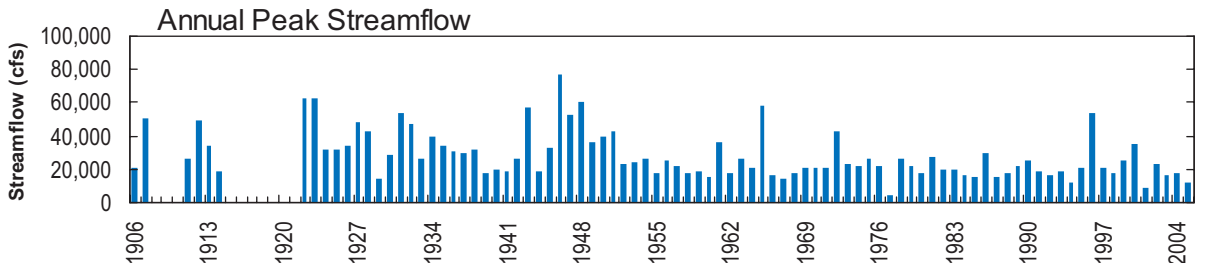
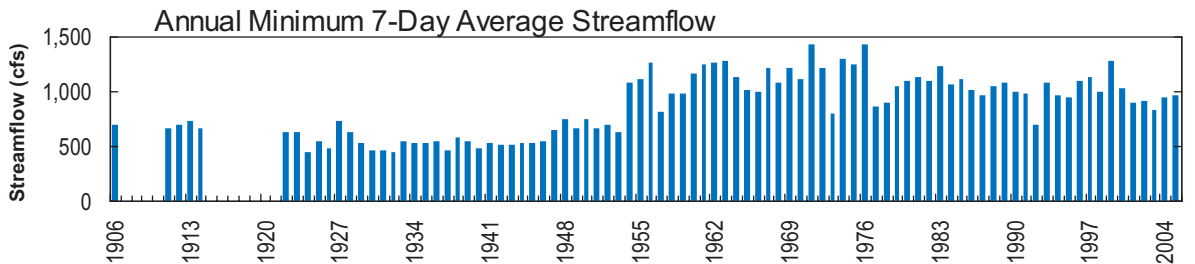
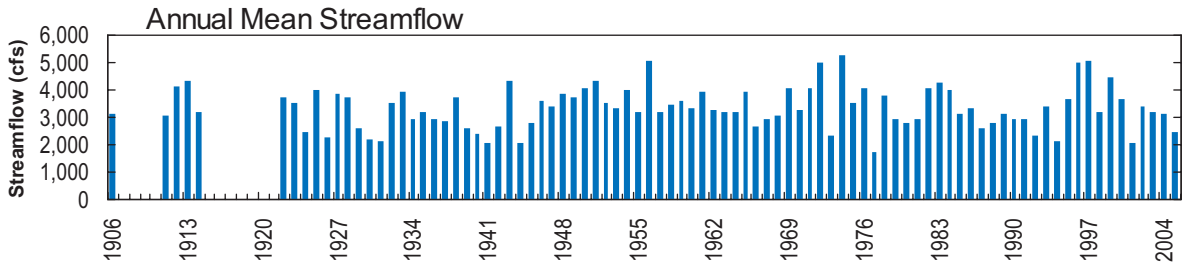
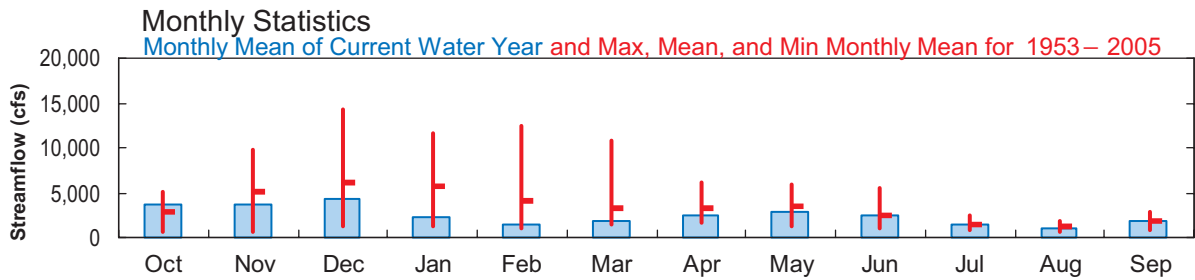
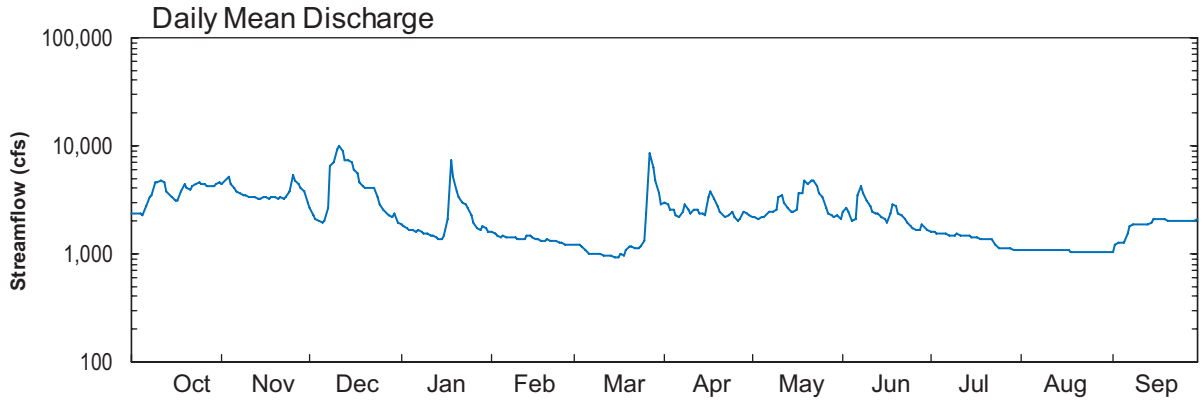
Longitude: 122° 37' 00"

Hydrologic Unit Code: 17090005

Marion County

Datum: 602.49 feet

Drainage Area: 654 mi<sup>2</sup>



WILLAMETTE RIVER BASIN

14183000 NORTH SANTIAM RIVER AT MEHAMA, OR—Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--

SPECIFIC CONDUCTANCE: April 2000 to current year.

pH: June 2000 to current year.

WATER TEMPERATURE: September 1985 to October 1986, April 2000 to current year.

TURBIDITY: April 2000 to current year

INSTRUMENTATION: Water-quality monitor.

REMARKS.--

SPECIFIC CONDUCTANCE: Records excellent.

pH: Records excellent except those for the periods Jan. 2-20, Jan. 29 to Feb. 15, which are good.

WATER TEMPERATURE: Records good.

TURBIDITY: Records excellent except those for the periods Jan. 9-17, Aug. 23 to Sept. 30, which are good. Turbidity data are highly dependent on the instrumentation used for the measurement. See the "Definitions" section for turbidity in the front of this report.

EXTREMES FOR PERIOD OF RECORD.--

SPECIFIC CONDUCTANCE: Maximum, 52 microsiemens Oct. 22, 2001; minimum, 15 microsiemens Apr. 14, 2002.

pH: Maximum, 8.8 units Sept. 26, 2004; minimum, 6.3 units April 14, 2002.

WATER TEMPERATURE: Maximum, 19.9°C Aug. 10, 2001; minimum, 3.0°C Jan. 6, 2004.

TURBIDITY: Maximum, 296 FNU Apr. 14, 2002; minimum <1 FNU many days each year.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum, 46 microsiemens Oct. 6, July 1, 2, Sept. 1, 5; minimum, 16 microsiemens Jan. 18.

pH: Maximum, 8.7 units many days in October, April, June, and September; minimum, 6.8 units Dec. 10, Jan. 18.

WATER TEMPERATURE: Maximum, 17.1°C July 26, 27, 30; minimum, 3.3°C Feb. 15.

TURBIDITY: Maximum, 163 FNU Dec. 10; minimum; <1 FNU many days during year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Time	Instan- taneous dis- charge, cfs (00061)	Suspnd. sedi- ment, sieve diametr percent <.063mm (70331)	Sus- pended sedi- ment concen- tration mg/L (80154)	Sus- pended sedi- ment dis- charge, tons/d (80155)
DEC					
08...	1235	7,640	59	69	1,420
08...	1311	7,640	50	67	1,380
JAN					
18...	1250	8,040	60	97	2,100
MAR					
28...	1552	5,900	57	20	319

## WILLAMETTE RIVER BASIN

14183000 NORTH SANTIAM RIVER AT MEHAMA, OR—Continued

SPECIFIC CONDUCTANCE, WATER, UNFILTERED, MICROSIEMENS PER CENTIMETER AT 25 DEGREES CELSIUS  
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	41	40	40	35	34	34	39	38	38	42	41	42
2	42	40	41	34	27	31	40	39	39	42	41	42
3	42	41	41	33	27	30	40	39	40	43	42	42
4	43	41	41	38	32	34	41	40	40	43	41	42
5	43	41	42	36	34	35	41	40	40	43	41	43
6	46	42	43	37	35	36	41	40	40	43	42	42
7	43	38	39	38	37	37	40	36	39	44	42	43
8	40	39	40	39	38	38	37	24	28	44	42	44
9	39	31	34	39	38	38	28	24	26	43	41	42
10	37	33	35	40	39	39	27	21	24	44	42	43
11	38	36	37	40	39	40	26	21	24	44	41	42
12	39	38	39	40	40	40	30	25	27	44	41	42
13	40	39	39	41	40	40	35	29	33	44	41	42
14	41	40	40	41	40	41	34	30	32	43	42	42
15	42	40	41	41	40	41	32	30	31	44	42	43
16	42	41	42	42	41	41	36	32	34	44	42	43
17	42	41	41	42	41	41	36	34	35	42	24	39
18	41	29	36	42	40	40	38	35	36	24	16	19
19	33	28	30	42	40	40	39	36	38	30	22	25
20	37	32	34	41	40	41	39	37	38	32	29	30
21	37	35	36	41	40	40	39	37	38	34	31	32
22	36	34	35	41	40	40	39	38	39	36	34	35
23	35	33	34	41	40	41	40	38	39	37	36	36
24	35	34	34	41	36	39	40	39	40	37	36	37
25	36	34	35	36	27	30	41	38	40	38	37	37
26	36	36	36	34	30	32	41	40	40	38	37	38
27	38	36	37	35	34	34	42	41	41	38	38	38
28	38	37	37	37	35	36	42	41	41	39	38	38
29	38	37	38	38	37	37	42	41	41	39	38	38
30	38	34	37	39	37	39	42	41	42	39	38	39
31	34	34	34	---	---	---	42	41	42	39	38	38
MONTH	46	28	38	42	27	38	42	21	36	44	16	39
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	FEBRUARY			MARCH			APRIL			MAY		
1	38	38	38	41	40	41	33	30	32	38	37	38
2	38	38	38	41	41	41	33	31	32	39	37	38
3	38	38	38	41	41	41	34	33	34	39	38	39
4	39	38	38	42	41	41	35	34	34	40	38	39
5	38	37	38	42	40	42	35	34	35	40	38	39
6	38	37	38	42	40	42	36	35	35	40	38	39
7	39	38	38	42	40	42	36	32	34	40	37	38
8	39	39	39	43	42	42	33	32	32	40	37	38
9	39	39	39	43	41	42	34	33	33	40	38	38
10	39	39	39	42	41	41	35	34	35	38	32	35
11	39	39	39	43	41	42	35	33	34	36	32	34
12	40	39	39	42	41	42	35	33	34	36	34	35
13	39	38	38	42	41	42	36	35	35	37	36	36
14	38	38	38	43	41	42	37	36	36	38	37	37
15	39	38	38	43	42	42	36	35	36	38	37	38
16	39	38	39	43	41	42	36	25	31	38	34	36
17	39	39	39	43	41	42	30	26	28	34	32	33
18	40	39	39	43	41	42	33	30	32	34	30	32
19	40	39	39	42	39	41	34	33	34	30	28	29
20	39	39	39	39	38	38	35	34	34	30	30	30
21	39	39	39	40	38	39	36	35	35	31	30	30
22	40	39	39	40	38	39	36	35	36	32	30	31
23	40	39	40	40	39	39	36	34	35	34	31	32
24	40	39	40	40	39	39	34	33	34	35	33	34
25	40	40	40	41	39	40	36	34	35	38	35	36
26	41	40	41	41	19	36	36	34	35	39	37	38
27	41	40	41	20	17	19	37	35	36	40	38	39
28	41	40	41	25	20	23	37	35	36	40	39	40
29	---	---	---	28	25	27	38	36	37	40	39	40
30	---	---	---	31	28	30	38	37	38	43	40	41
31	---	---	---	33	31	32	---	---	---	44	40	40
MONTH	41	37	39	43	17	38	38	25	34	44	28	36

## WILLAMETTE RIVER BASIN

14183000 NORTH SANTIAM RIVER AT MEHAMA, OR—Continued

SPECIFIC CONDUCTANCE, WATER, UNFILTERED, MICROSIEMENS PER CENTIMETER AT 25 DEGREES CELSIUS—CONTINUED  
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	44	39	40	46	41	43	43	41	42	46	40	44
2	40	38	39	46	41	43	43	41	42	43	40	42
3	38	37	38	45	41	42	43	42	42	43	41	42
4	39	38	38	44	41	42	43	42	42	44	41	42
5	39	38	38	43	40	42	44	42	43	46	40	43
6	38	31	33	42	40	41	44	42	43	43	40	42
7	32	30	31	41	40	40	44	42	43	43	39	41
8	34	31	32	42	41	41	43	41	42	41	40	40
9	39	33	34	42	40	41	43	41	42	41	40	41
10	39	35	36	42	40	41	43	41	42	42	40	41
11	38	36	37	41	39	40	43	41	42	42	40	41
12	38	36	37	41	39	40	43	41	42	42	40	41
13	38	36	37	41	39	40	43	41	42	42	40	41
14	39	36	38	41	40	40	43	41	42	43	41	42
15	39	37	38	43	40	41	43	41	42	43	41	42
16	39	38	39	42	40	41	45	41	43	43	42	42
17	39	37	38	42	40	41	43	40	41	44	42	43
18	43	35	39	42	40	41	42	39	41	44	42	43
19	37	36	36	43	40	41	42	40	41	44	42	43
20	39	37	38	42	40	41	42	40	41	44	42	43
21	39	38	38	42	39	41	42	39	41	44	42	43
22	43	38	39	43	40	41	42	39	41	43	42	42
23	43	39	41	43	41	42	44	39	41	44	42	43
24	42	40	41	44	40	42	43	40	41	44	42	43
25	42	40	42	41	40	40	43	40	42	44	42	43
26	43	40	41	42	40	41	44	41	42	44	42	43
27	45	41	43	42	41	41	44	41	43	45	43	44
28	43	40	41	42	41	42	45	41	43	45	43	44
29	43	40	41	43	42	42	44	42	43	45	43	44
30	43	41	42	42	41	42	44	42	43	45	43	44
31	---	---	---	43	41	42	44	42	43	---	---	---
MONTH	45	30	38	46	39	41	45	39	42	46	39	42
YEAR	46	16	38									



## WILLAMETTE RIVER BASIN

14183000 NORTH SANTIAM RIVER AT MEHAMA, OR—Continued

PH, WATER, UNFILTERED, FIELD, STANDARD UNITS  
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DAY	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN
1	8.7	7.4	7.6	7.6	7.3	7.3	7.7	7.4	7.5	7.6	7.4	7.4
2	8.7	7.4	7.6	7.4	7.2	7.3	7.8	7.4	7.5	7.6	7.4	7.4
3	8.7	7.4	7.5	7.4	7.1	7.3	7.8	7.4	7.5	7.5	7.4	7.4
4	8.7	7.4	7.6	7.5	7.3	7.3	7.8	7.5	7.5	7.6	7.4	7.4
5	8.7	7.4	7.6	7.6	7.3	7.4	7.8	7.5	7.5	7.6	7.4	7.4
6	8.4	7.5	7.5	7.6	7.3	7.4	7.8	7.4	7.5	7.6	7.4	7.4
7	8.3	7.4	7.5	7.8	7.3	7.4	7.6	7.4	7.5	7.6	7.4	7.4
8	7.9	7.4	7.5	7.8	7.4	7.4	7.4	7.0	7.1	7.6	7.4	7.4
9	7.6	7.4	7.4	7.8	7.4	7.5	7.1	7.0	7.1	7.6	7.4	7.4
10	7.8	7.3	7.4	7.9	7.4	7.4	7.1	6.8	7.0	7.6	7.4	7.4
11	7.8	7.4	7.4	7.9	7.4	7.5	7.1	7.0	7.1	7.6	7.4	7.4
12	7.9	7.3	7.4	8.0	7.4	7.5	7.2	7.1	7.2	7.6	7.4	7.4
13	7.9	7.3	7.4	8.0	7.4	7.5	7.3	7.2	7.2	7.6	7.4	7.4
14	8.0	7.3	7.4	8.0	7.5	7.5	7.3	7.2	7.2	7.6	7.4	7.4
15	8.1	7.3	7.5	7.8	7.5	7.5	7.3	7.2	7.2	7.5	7.4	7.4
16	8.1	7.4	7.5	8.0	7.5	7.5	7.3	7.2	7.3	7.6	7.4	7.4
17	8.0	7.4	7.5	7.9	7.5	7.5	7.4	7.3	7.3	7.5	7.0	7.4
18	7.7	7.3	7.5	7.9	7.5	7.5	7.4	7.3	7.3	7.0	6.8	6.9
19	7.6	7.2	7.3	7.9	7.5	7.5	7.4	7.3	7.3	7.2	7.0	7.1
20	7.8	7.3	7.4	7.9	7.5	7.5	7.5	7.3	7.3	7.4	7.1	7.2
21	7.8	7.3	7.4	7.9	7.5	7.5	7.5	7.3	7.4	7.5	7.3	7.4
22	7.5	7.3	7.3	8.0	7.5	7.5	7.5	7.3	7.4	7.6	7.4	7.4
23	7.7	7.3	7.4	7.8	7.4	7.5	7.5	7.3	7.4	7.6	7.4	7.4
24	7.6	7.3	7.3	7.7	7.4	7.5	7.5	7.4	7.4	7.6	7.4	7.4
25	7.7	7.3	7.4	7.4	7.2	7.3	7.6	7.4	7.4	7.6	7.4	7.4
26	7.7	7.3	7.4	7.5	7.2	7.3	7.6	7.4	7.4	7.7	7.4	7.4
27	7.8	7.3	7.4	7.6	7.3	7.4	7.6	7.4	7.4	7.7	7.4	7.5
28	7.7	7.3	7.4	7.6	7.3	7.4	7.6	7.4	7.4	7.7	7.4	7.5
29	7.8	7.4	7.4	7.6	7.4	7.4	7.5	7.4	7.4	7.6	7.4	7.4
30	7.7	7.3	7.4	7.7	7.4	7.5	7.6	7.4	7.4	7.7	7.4	7.4
31	7.6	7.3	7.3	---	---	---	7.6	7.4	7.4	7.6	7.4	7.4
MAX	8.7	7.5	7.6	8.0	7.5	7.5	7.8	7.5	7.5	7.7	7.4	7.5
MIN	7.5	7.2	7.3	7.4	7.1	7.3	7.1	6.8	7.0	7.0	6.8	6.9
	FEBRUARY			MARCH			APRIL			MAY		
1	7.6	7.4	7.4	8.0	7.4	7.5	7.4	7.2	7.3	8.5	7.3	7.5
2	7.6	7.4	7.4	8.0	7.4	7.5	7.5	7.2	7.3	8.5	7.3	7.5
3	7.7	7.3	7.4	7.9	7.4	7.5	7.5	7.3	7.3	8.5	7.3	7.5
4	7.6	7.3	7.4	8.0	7.4	7.5	7.6	7.3	7.4	8.3	7.3	7.5
5	7.7	7.4	7.4	8.0	7.4	7.5	7.7	7.3	7.4	8.2	7.3	7.5
6	7.6	7.3	7.4	7.9	7.4	7.5	7.9	7.3	7.4	8.1	7.3	7.5
7	7.6	7.4	7.4	7.9	7.4	7.5	7.6	7.3	7.4	8.3	7.3	7.6
8	7.6	7.3	7.4	7.9	7.4	7.5	7.7	7.3	7.4	8.2	7.3	7.5
9	7.7	7.4	7.4	8.0	7.4	7.5	7.7	7.3	7.4	7.9	7.3	7.5
10	7.6	7.3	7.4	7.9	7.4	7.5	7.9	7.3	7.4	7.5	7.3	7.4
11	7.6	7.3	7.4	7.9	7.4	7.5	7.8	7.3	7.4	7.8	7.2	7.4
12	7.6	7.3	7.4	7.9	7.3	7.5	7.8	7.3	7.4	8.3	7.2	7.5
13	7.6	7.3	7.4	7.9	7.4	7.5	7.9	7.3	7.4	8.5	7.2	7.5
14	7.6	7.3	7.4	7.9	7.4	7.5	7.9	7.3	7.4	8.5	7.3	7.5
15	7.7	7.3	7.5	8.0	7.4	7.5	7.9	7.3	7.4	8.1	7.3	7.5
16	7.7	7.4	7.5	7.8	7.4	7.4	7.4	7.0	7.3	8.2	7.3	7.5
17	7.7	7.4	7.5	7.9	7.4	7.5	7.3	7.0	7.1	7.7	7.2	7.4
18	7.8	7.4	7.5	7.8	7.4	7.5	7.6	7.1	7.2	7.7	7.2	7.3
19	7.7	7.4	7.5	7.9	7.3	7.5	7.8	7.2	7.3	7.5	7.2	7.3
20	7.8	7.4	7.5	7.8	7.4	7.5	8.0	7.2	7.4	7.5	7.2	7.3
21	7.8	7.4	7.5	8.0	7.4	7.5	8.4	7.2	7.4	7.6	7.2	7.3
22	7.8	7.4	7.5	7.9	7.4	7.5	8.4	7.2	7.4	7.7	7.2	7.4
23	7.8	7.4	7.5	7.8	7.4	7.5	7.5	7.2	7.3	7.8	7.2	7.4
24	7.8	7.4	7.5	7.8	7.4	7.5	8.3	7.3	7.4	8.0	7.3	7.4
25	7.9	7.4	7.5	8.0	7.4	7.5	8.4	7.3	7.4	8.3	7.2	7.5
26	7.9	7.4	7.5	7.7	7.0	7.4	8.5	7.2	7.5	8.6	7.3	7.5
27	7.9	7.4	7.5	7.0	6.9	7.0	8.7	7.2	7.4	8.6	7.3	7.6
28	7.9	7.4	7.5	7.1	7.0	7.1	8.4	7.2	7.5	8.5	7.3	7.5
29	---	---	---	7.2	7.1	7.1	7.8	7.3	7.4	8.2	7.3	7.5
30	---	---	---	7.3	7.1	7.2	8.5	7.3	7.5	8.5	7.3	7.5
31	---	---	---	7.5	7.2	7.3	---	---	---	8.2	7.3	7.5
MAX	7.9	7.4	7.5	8.0	7.4	7.5	8.7	7.3	7.5	8.6	7.3	7.6
MIN	7.6	7.3	7.4	7.0	6.9	7.0	7.3	7.0	7.1	7.5	7.2	7.3

## WILLAMETTE RIVER BASIN

14183000 NORTH SANTIAM RIVER AT MEHAMA, OR—Continued

PH. WATER, UNFILTERED, FIELD, STANDARD UNITS—CONTINUED  
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DAY	JUNE			JULY			AUGUST			SEPTEMBER		
	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN
1	8.3	7.3	7.5	8.2	7.4	7.6	8.1	7.4	7.6	8.0	7.4	7.6
2	8.1	7.3	7.5	8.2	7.4	7.6	8.1	7.4	7.6	8.1	7.4	7.7
3	8.6	7.3	7.6	8.2	7.3	7.6	8.0	7.4	7.6	8.3	7.4	7.7
4	8.6	7.3	7.7	8.1	7.3	7.6	8.0	7.4	7.5	8.2	7.5	7.7
5	8.2	7.3	7.5	8.2	7.3	7.6	8.0	7.4	7.5	8.1	7.5	7.6
6	7.6	7.2	7.4	7.9	7.4	7.5	8.0	7.4	7.6	8.2	7.5	7.7
7	7.5	7.2	7.3	8.2	7.3	7.6	8.0	7.4	7.6	8.2	7.4	7.6
8	8.0	7.2	7.4	7.9	7.3	7.5	8.0	7.4	7.6	8.3	7.5	7.7
9	8.4	7.2	7.5	8.2	7.3	7.6	8.0	7.4	7.6	8.1	7.5	7.6
10	8.4	7.2	7.5	8.1	7.4	7.6	8.0	7.4	7.6	8.3	7.5	7.6
11	8.3	7.3	7.5	8.2	7.3	7.6	8.0	7.4	7.6	8.7	7.5	7.7
12	8.5	7.3	7.6	8.2	7.3	7.6	8.1	7.5	7.7	8.5	7.5	7.7
13	8.5	7.3	7.5	8.1	7.3	7.6	8.1	7.5	7.7	8.5	7.5	7.6
14	8.5	7.3	7.6	8.1	7.3	7.5	8.0	7.5	7.6	8.6	7.4	7.6
15	8.7	7.3	7.7	8.1	7.3	7.5	8.0	7.5	7.6	8.5	7.4	7.6
16	8.3	7.3	7.5	8.1	7.3	7.5	8.0	7.5	7.6	8.2	7.4	7.6
17	8.2	7.3	7.5	8.1	7.3	7.5	8.0	7.5	7.7	8.7	7.4	7.7
18	8.0	7.3	7.5	8.1	7.3	7.5	8.0	7.5	7.7	8.6	7.4	7.6
19	8.4	7.3	7.4	8.1	7.3	7.5	8.0	7.5	7.6	8.6	7.4	7.6
20	8.5	7.3	7.6	8.1	7.3	7.5	7.9	7.5	7.7	8.7	7.4	7.7
21	8.4	7.3	7.6	8.1	7.3	7.5	8.0	7.5	7.7	8.7	7.5	7.6
22	8.4	7.3	7.5	8.2	7.4	7.6	8.0	7.5	7.7	8.7	7.5	7.7
23	8.5	7.3	7.6	8.2	7.4	7.5	8.0	7.5	7.7	8.7	7.5	7.7
24	8.5	7.3	7.6	8.1	7.4	7.5	8.0	7.5	7.7	8.6	7.5	7.7
25	8.4	7.3	7.6	8.2	7.4	7.6	8.0	7.5	7.7	8.6	7.5	7.6
26	8.0	7.3	7.5	8.2	7.4	7.6	8.1	7.4	7.7	8.6	7.5	7.6
27	8.0	7.4	7.6	8.2	7.3	7.5	7.9	7.4	7.6	8.6	7.5	7.6
28	8.2	7.4	7.6	8.2	7.3	7.5	7.9	7.4	7.6	8.6	7.5	7.7
29	8.2	7.3	7.6	8.1	7.3	7.6	7.8	7.5	7.6	8.7	7.5	7.7
30	8.2	7.3	7.5	8.1	7.4	7.6	8.0	7.4	7.7	8.2	7.5	7.6
31	---	---	---	8.1	7.4	7.5	8.0	7.4	7.7	---	---	---
MAX	8.7	7.4	7.7	8.2	7.4	7.6	8.1	7.5	7.7	8.7	7.5	7.7
MIN	7.5	7.2	7.3	7.9	7.3	7.5	7.8	7.4	7.5	8.0	7.4	7.6

WILLAMETTE RIVER BASIN

14183000 NORTH SANTIAM RIVER AT MEHAMA, OR—Continued

TEMPERATURE, WATER, DEGREES CELSIUS  
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	14.7	12.5	13.5	10.3	9.2	9.8	8.2	7.7	7.9	6.6	5.8	6.3
2	14.8	12.5	13.5	10.4	9.0	9.9	7.7	6.8	7.1	5.8	5.1	5.5
3	14.9	12.5	13.6	9.2	8.5	8.8	7.4	6.6	7.1	5.3	4.7	5.0
4	14.9	12.7	13.6	9.0	7.8	8.4	7.6	7.1	7.4	5.0	4.1	4.6
5	14.8	12.8	13.7	9.3	8.0	8.7	8.0	7.4	7.7	4.6	3.7	4.2
6	14.4	13.5	13.8	9.5	8.5	9.0	7.6	7.2	7.4	5.3	4.5	4.9
7	14.6	13.2	13.8	10.2	9.0	9.6	7.4	7.1	7.2	5.6	5.2	5.3
8	13.8	12.9	13.4	10.0	9.2	9.6	7.3	6.8	7.1	5.5	4.9	5.2
9	12.9	11.6	12.1	10.3	9.8	10	7.9	7.1	7.5	5.5	4.9	5.2
10	12.9	11.6	12.2	10.6	9.8	10.2	8.3	7.6	7.9	5.5	4.6	5.2
11	13.2	11.8	12.5	10.8	10.2	10.4	8.3	8.0	8.1	4.8	4.3	4.5
12	13.8	12.2	12.9	10.5	9.8	10.1	8.0	7.2	7.5	5.6	4.5	5.1
13	14.1	12.4	13.1	11.0	10.2	10.6	8.1	7.2	7.6	5.8	5.0	5.3
14	14.0	12.7	13.2	10.6	10.1	10.3	8.4	7.8	8.2	5.0	4.3	4.7
15	14.0	12.9	13.4	10.6	10.2	10.4	7.8	6.9	7.2	4.6	4.4	4.5
16	14.1	13.5	13.7	10.8	10.1	10.5	7.0	6.4	6.7	5.8	4.6	5.3
17	13.6	12.7	13.3	10.4	9.7	10	7.4	6.8	7.1	6.2	5.5	5.8
18	12.7	10.2	11.5	10.3	9.6	10.0	7.4	7.0	7.2	7.1	6.0	6.7
19	11.7	10.2	10.9	9.9	8.9	9.6	7.5	7.1	7.2	7.3	6.7	7.0
20	12.2	11.2	11.7	9.3	8.4	8.9	7.2	6.4	6.9	7.2	6.7	6.9
21	12.2	11.2	11.8	9.0	8.3	8.6	6.4	5.9	6.2	6.8	6.3	6.6
22	11.3	10.8	11.1	9.5	8.3	8.9	6.8	6.2	6.5	6.7	6.0	6.3
23	11.3	10.7	11.0	9.8	9.0	9.5	6.6	6.1	6.3	6.7	6.1	6.4
24	10.8	10.1	10.5	9.7	9.1	9.5	6.1	5.6	5.9	6.5	5.6	6.0
25	10.6	9.6	10.2	9.2	8.4	8.8	6.5	5.6	6.2	6.6	5.5	6.0
26	11.3	10.4	10.8	8.5	8.0	8.3	6.7	6.2	6.5	7.1	6.2	6.6
27	11.5	10.8	11.1	8.4	7.6	8.1	6.8	6.1	6.4	7.1	6.4	6.7
28	11.5	11.0	11.3	7.8	7.2	7.4	6.6	5.9	6.3	6.8	6.2	6.5
29	12.1	11.2	11.5	7.3	6.6	7.0	6.8	6.3	6.6	6.5	6.1	6.3
30	11.5	10.0	11.1	8.1	7.1	7.7	6.8	6.3	6.5	6.6	5.3	5.9
31	10.5	9.5	10	---	---	---	6.4	5.9	6.2	6.8	5.5	6.0
MONTH	14.9	9.5	12.3	11.0	6.6	9.3	8.4	5.6	7.0	7.3	3.7	5.7
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	6.0	4.7	5.4	7.8	5.5	6.7	8.1	6.9	7.5	10.4	7.6	9.0
2	5.9	4.7	5.2	7.9	6.2	6.9	8.2	6.2	7.2	10.8	8.1	9.2
3	6.1	4.6	5.3	8.0	5.2	6.5	7.4	6.9	7.2	11.9	7.6	9.5
4	6.1	5.0	5.5	7.6	6.0	6.7	8.3	6.4	7.2	10.6	8.4	9.4
5	6.4	5.5	5.9	8.1	5.4	6.7	8.4	6.3	7.4	9.8	8.2	9.0
6	5.5	5.1	5.3	9.0	5.4	7.1	9.8	7.2	8.5	9.4	8.3	8.7
7	5.8	4.4	5.1	9.6	6.0	7.8	8.9	7.2	7.9	10.0	8.0	8.9
8	5.2	3.8	4.5	9.9	6.2	8.0	7.8	6.3	7.1	10.0	8.1	9.0
9	5.4	4.2	4.8	9.9	6.3	8.0	8.3	6.8	7.6	9.0	8.0	8.5
10	5.6	3.8	4.7	10.1	6.3	8.1	8.6	6.5	7.5	9.0	7.8	8.3
11	5.9	4.0	4.9	10.5	6.5	8.5	9.0	7.4	8.0	9.8	8.1	8.8
12	5.3	4.5	4.9	10.4	6.5	8.4	7.8	6.3	7.0	11.6	8.2	9.7
13	6.0	5.0	5.5	9.5	5.7	7.6	8.1	5.6	6.8	11.5	8.5	10
14	5.6	4.0	4.8	9.1	5.4	7.3	8.2	5.9	7.0	11.8	9.0	10.2
15	5.3	3.3	4.3	9.1	5.2	7.2	7.7	6.1	7.0	10.3	9.1	9.7
16	5.6	3.6	4.5	7.5	6.2	6.9	7.9	7.1	7.6	10.2	8.7	9.3
17	5.6	3.5	4.5	9.0	6.1	7.4	7.3	6.6	6.9	9.2	8.4	8.8
18	5.8	4.1	4.9	7.4	6.1	6.8	8.7	6.3	7.3	10.4	8.3	9.3
19	5.5	4.6	5.0	8.1	6.5	7.2	10.1	6.3	8.0	9.8	8.7	9.2
20	6.8	5.2	5.8	7.7	6.7	7.2	10.9	6.8	8.7	9.9	8.5	9.1
21	6.9	4.7	5.8	7.8	6.2	6.9	11.2	7.7	9.4	9.1	8.1	8.7
22	6.9	4.6	5.6	7.4	6.2	6.8	11.2	7.7	9.5	10.7	8.5	9.5
23	7.0	4.5	5.6	7.2	6.2	6.6	9.8	8.1	8.6	11.5	8.4	9.9
24	7.0	4.7	5.7	6.7	6.0	6.3	9.6	7.4	8.4	12.0	8.3	10.1
25	7.0	4.7	5.8	7.5	5.7	6.6	9.9	7.9	8.8	12.8	8.7	10.6
26	7.5	5.4	6.3	7.1	6.5	6.8	12.2	7.6	9.7	14.0	9.4	11.6
27	7.4	5.1	6.2	7.3	7.0	7.1	12.7	8.0	10.3	14.4	9.6	11.8
28	7.0	6.1	6.5	7.0	6.5	6.7	11.4	8.8	10	11.6	9.9	10.6
29	---	---	---	6.9	6.0	6.5	9.7	8.0	8.5	10.2	9.0	9.6
30	---	---	---	7.4	6.2	6.8	11.2	7.6	9.1	10.5	8.6	9.4
31	---	---	---	9.0	6.2	7.6	---	---	---	9.7	8.5	9.2
MONTH	7.5	3.3	5.3	10.5	5.2	7.2	12.7	5.6	8.1	14.4	7.6	9.5

## WILLAMETTE RIVER BASIN

14183000 NORTH SANTIAM RIVER AT MEHAMA, OR—Continued

TEMPERATURE, WATER, DEGREES CELSIUS—CONTINUED  
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	10.2	8.7	9.3	15.1	10.7	12.9	14.8	10.9	13.0	15.5	10.4	13.1
2	9.9	8.7	9.3	13.7	10.6	12.0	15.9	10.2	13.1	14.5	10.8	12.6
3	11.8	8.3	9.8	15.3	9.6	12.3	16.5	10.0	13.3	14.0	10.6	12.2
4	12.1	7.9	9.8	15.8	9.7	12.7	16.6	10.8	13.8	13.7	10.0	11.8
5	10.0	8.5	9.2	15.6	10.1	12.8	16.6	10.7	13.8	14.2	9.7	11.9
6	9.6	8.4	8.9	13.2	10.9	11.7	16.7	10.6	13.7	13.9	9.8	11.8
7	9.5	8.1	8.7	14.4	10.1	11.9	16.2	10.6	13.6	13.8	10.1	11.8
8	11.8	8.1	9.7	12.2	10.0	10.9	16.4	10.5	13.6	13.8	10.2	11.8
9	12.8	8.4	10.5	12.6	10.2	11.3	16.0	10.6	13.5	11.8	10.6	11.2
10	10.8	8.9	9.9	12.2	10.0	11.0	15.9	10.4	13.3	12.2	10.7	11.2
11	10.3	9.0	9.6	14.4	10.2	11.9	15.6	10.2	13.1	13.2	10.1	11.4
12	12.1	8.6	10.2	14.4	10.3	12.2	15.9	10.3	13.2	13.6	10.3	11.7
13	11.8	9.1	10.3	15.6	10.3	12.8	16.5	10.6	13.6	13.7	10.2	11.7
14	11.1	9.1	10.0	16.1	9.9	12.9	16.3	10.9	13.7	13.6	10.4	11.8
15	12.6	8.4	10.4	16.4	10.5	13.4	16.4	10.8	13.7	13.2	10.9	11.7
16	10.9	9.0	9.9	15.9	10.5	13.2	15.9	10.6	13.4	11.6	10.7	11.2
17	10.9	8.9	9.7	16.7	10.1	13.3	14.4	10.9	12.8	12.6	11.1	11.7
18	10.7	9.1	9.9	16.8	10.7	13.7	16.1	10.7	13.4	13.5	10.5	11.7
19	13.1	8.8	10.6	16.1	10.5	13.3	16.4	10.9	13.7	13.6	10.6	11.9
20	14.0	9.1	11.2	16.1	10.0	13.0	16.3	10.8	13.6	13.6	10.8	12.0
21	12.3	9.8	11.0	15.7	10.0	12.9	16.0	11.0	13.6	13.5	10.6	11.8
22	12.4	9.8	10.8	15.4	11.1	13.1	15.2	10.8	13.2	13.2	10.7	11.8
23	14.2	9.0	11.4	16.5	10.6	13.4	15.1	10.6	12.9	13.4	11.2	12.0
24	13.9	9.6	11.7	16.3	10.4	13.5	15.5	10.0	12.8	13.3	10.7	11.8
25	14.8	9.9	12.1	16.4	10.5	13.6	15.7	10.3	13.1	13.5	10.7	11.9
26	12.3	9.8	10.8	17.1	10.5	13.9	15.4	10.6	13.1	13.8	11.1	12.3
27	11.2	9.8	10.5	17.1	11.0	14.1	15.4	10.3	12.9	14.0	11.3	12.5
28	12.0	9.9	10.7	16.8	10.9	14.0	15.5	10.3	13.0	14.2	11.5	12.6
29	15.0	9.2	11.8	16.8	10.7	13.9	13.8	11.2	12.2	14.0	11.7	12.7
30	15.9	9.9	12.8	17.1	10.8	14.0	15.3	10.8	12.9	13.6	12.8	13.1
31	---	---	---	16.9	10.9	14.1	15.5	10.2	12.9	---	---	---
MONTH	15.9	7.9	10.3	17.1	9.6	12.9	16.7	10.0	13.3	15.5	9.7	12.0
YEAR	17.1	3.3	9.4									

WILLAMETTE RIVER BASIN

14183000 NORTH SANTIAM RIVER AT MEHAMA, OR—Continued

TURBIDITY, WATER, MONOCHROME NEAR INFRA-RED LED LIGHT, 780-900 NM, DETECTION ANGLE 90 +/- 2.5 DEGREES, FNU  
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DAY	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	3	<1	<1	<1	<1	<1	4	<1	<1	<1	<1	<1
2	1	<1	<1	14	<1	2	2	<1	<1	<1	<1	<1
3	3	<1	<1	12	1	3	<1	<1	<1	<1	<1	<1
4	2	<1	<1	2	<1	<1	<1	<1	<1	<1	<1	<1
5	2	<1	<1	3	<1	<1	1	<1	<1	<1	<1	<1
6	4	<1	1	1	<1	<1	1	<1	<1	<1	<1	<1
7	3	<1	<1	1	<1	<1	4	<1	1	<1	<1	<1
8	4	<1	<1	<1	<1	<1	75	2	36	<1	<1	<1
9	11	2	5	<1	<1	<1	50	10	15	<1	<1	<1
10	3	<1	1	1	<1	<1	163	22	58	4	<1	<1
11	2	<1	1	2	<1	<1	59	15	28	<1	<1	<1
12	7	<1	<1	<1	<1	<1	19	6	12	<1	<1	<1
13	2	<1	<1	<1	<1	<1	8	3	4	<1	<1	<1
14	1	<1	<1	<1	<1	<1	6	3	3	<1	<1	<1
15	1	<1	<1	<1	<1	<1	3	1	2	<1	<1	<1
16	1	<1	<1	<1	<1	<1	2	1	2	<1	<1	<1
17	1	<1	<1	<1	<1	<1	2	<1	1	53	<1	<1
18	10	<1	1	<1	<1	<1	3	<1	1	140	22	50
19	4	<1	1	<1	<1	<1	2	<1	<1	23	3	8
20	1	<1	<1	<1	<1	<1	1	<1	<1	7	<1	2
21	1	<1	<1	<1	<1	<1	2	<1	<1	2	<1	1
22	2	<1	<1	<1	<1	<1	2	<1	<1	2	<1	<1
23	3	<1	<1	<1	<1	<1	1	<1	<1	2	<1	<1
24	1	<1	<1	4	<1	1	2	<1	<1	1	<1	<1
25	1	<1	<1	24	2	5	2	<1	<1	4	<1	<1
26	<1	<1	<1	4	<1	1	1	<1	<1	2	<1	<1
27	4	<1	<1	1	<1	<1	2	<1	<1	2	<1	<1
28	2	<1	<1	2	<1	<1	<1	<1	<1	2	<1	<1
29	1	<1	<1	<1	<1	<1	<1	<1	<1	4	<1	2
30	3	<1	<1	2	<1	<1	<1	<1	<1	1	<1	<1
31	2	<1	<1	---	---	---	<1	<1	<1	<1	<1	<1
MAX	11	2	5	24	2	5	163	22	58	140	22	50
MIN	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	FEBRUARY			MARCH			APRIL			MAY		
1	1	<1	<1	<1	<1	<1	5	2	3	4	<1	<1
2	<1	<1	<1	<1	<1	<1	4	1	2	8	<1	<1
3	1	<1	<1	<1	<1	<1	5	1	2	3	<1	<1
4	2	<1	<1	<1	<1	<1	4	1	2	5	<1	<1
5	2	<1	<1	<1	<1	<1	3	<1	1	4	<1	<1
6	1	<1	<1	<1	<1	<1	2	<1	<1	3	<1	1
7	2	<1	<1	<1	<1	<1	7	<1	1	3	<1	1
8	1	<1	<1	<1	<1	<1	6	2	3	5	<1	<1
9	3	<1	<1	<1	<1	<1	3	1	2	5	<1	2
10	<1	<1	<1	<1	<1	<1	2	<1	1	12	3	7
11	1	<1	<1	2	<1	<1	5	1	2	7	2	3
12	<1	<1	<1	5	<1	<1	3	1	2	3	1	2
13	1	<1	<1	5	<1	<1	3	1	2	3	<1	1
14	<1	<1	<1	<1	<1	<1	4	2	3	3	<1	<1
15	1	<1	<1	1	<1	<1	3	1	2	2	<1	1
16	2	<1	<1	4	<1	<1	16	2	4	7	<1	2
17	2	<1	<1	<1	<1	<1	11	4	5	8	1	3
18	<1	<1	<1	2	<1	<1	6	3	4	6	1	2
19	2	<1	<1	2	<1	<1	3	1	2	18	2	5
20	1	<1	<1	3	<1	<1	2	<1	1	12	2	2
21	<1	<1	<1	2	<1	<1	3	<1	1	6	1	2
22	<1	<1	<1	<1	<1	<1	4	<1	<1	4	<1	2
23	2	<1	<1	1	<1	<1	5	<1	2	4	<1	1
24	2	<1	<1	1	<1	<1	5	<1	2	3	<1	<1
25	<1	<1	<1	4	<1	<1	4	<1	<1	2	<1	<1
26	<1	<1	<1	66	<1	<1	2	<1	<1	3	<1	<1
27	4	<1	<1	91	33	48	2	<1	<1	2	<1	<1
28	2	<1	<1	36	10	17	3	<1	1	1	<1	<1
29	---	---	---	11	7	9	2	<1	<1	3	<1	<1
30	---	---	---	9	4	5	2	<1	<1	2	<1	<1
31	---	---	---	9	3	3	---	---	---	4	<1	<1
MAX	4	<1	<1	91	33	48	16	4	5	18	3	7
MIN	<1	<1	<1	<1	<1	<1	2	<1	<1	1	<1	<1

WILLAMETTE RIVER BASIN

14183000 NORTH SANTIAM RIVER AT MEHAMA, OR—Continued

TURBIDITY, WATER, MONOCHROME NEAR INFRA-RED LED LIGHT, 780-900 NM, DETECTION ANGLE 90 +/- 2.5 DEGREES, FNU—  
CONTINUED

DAY	JUNE			JULY			AUGUST			SEPTEMBER		
	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN
1	3	<1	<1	2	<1	<1	<1	<1	<1	<1	<1	<1
2	3	<1	<1	2	<1	<1	2	<1	<1	1	<1	<1
3	2	<1	<1	2	<1	<1	<1	<1	<1	<1	<1	<1
4	1	<1	<1	2	<1	<1	1	<1	<1	<1	<1	<1
5	4	<1	<1	2	<1	<1	2	<1	<1	2	<1	<1
6	6	<1	2	1	<1	<1	2	<1	<1	2	<1	<1
7	12	2	5	3	<1	<1	1	<1	<1	3	<1	<1
8	4	<1	2	3	<1	<1	1	<1	<1	3	<1	<1
9	3	<1	<1	1	<1	<1	<1	<1	<1	3	<1	<1
10	3	<1	<1	1	<1	<1	<1	<1	<1	1	<1	<1
11	2	<1	<1	1	<1	<1	4	<1	<1	2	<1	<1
12	1	<1	<1	2	<1	<1	<1	<1	<1	3	<1	<1
13	4	<1	<1	1	<1	<1	1	<1	<1	1	<1	<1
14	<1	<1	<1	2	<1	<1	1	<1	<1	1	<1	<1
15	2	<1	<1	<1	<1	<1	<1	<1	<1	1	<1	<1
16	5	<1	<1	1	<1	<1	<1	<1	<1	1	<1	<1
17	2	<1	1	<1	<1	<1	---	---	---	3	<1	<1
18	3	<1	1	1	<1	<1	---	---	---	4	<1	<1
19	5	<1	<1	<1	<1	<1	---	---	---	7	<1	<1
20	2	<1	<1	2	<1	<1	---	---	---	1	<1	<1
21	3	<1	<1	1	<1	<1	---	---	---	1	<1	<1
22	1	<1	<1	2	<1	<1	---	---	---	2	<1	<1
23	4	<1	<1	<1	<1	<1	---	---	---	1	<1	<1
24	2	<1	<1	<1	<1	<1	2	<1	<1	1	<1	<1
25	1	<1	<1	1	<1	<1	<1	<1	<1	1	<1	<1
26	2	<1	<1	2	<1	<1	2	<1	<1	4	<1	<1
27	2	<1	<1	<1	<1	<1	1	<1	<1	2	<1	<1
28	5	<1	1	<1	<1	<1	2	<1	<1	1	<1	<1
29	3	<1	<1	4	<1	<1	2	<1	<1	<1	<1	<1
30	2	<1	<1	1	<1	<1	<1	<1	<1	4	<1	<1
31	---	---	---	2	<1	<1	1	<1	<1	---	---	---
MAX	12	2	5	4	<1	<1	4	<1	<1	7	<1	<1
MIN	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1

WILLAMETTE RIVER BASIN

444728122450000--NORTH SANTIAM RIVER AT GEREN ISLAND WATER TREATMENT PLANT, NEAR STAYTON, OR

LOCATION.--Lat 44°47'28", long 122°45'00", Marion County, Hydrologic Unit 17090005, at the water treatment plant water intake, on Geren Island which is located approximately 5 mi east of Stayton, and at mile 30.5.

DRAINAGE AREA.--667.01 mi<sup>2</sup>.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: March 2001 to current year.

pH: March 2001 to current year.

WATER TEMPERATURE: March 2001 to current year.

DISSOLVED OXYGEN: May 2003 to September 2004.

TURBIDITY: March 2001 to current year.

INSTRUMENTATION.--Water-quality monitor.

REMARKS.--Records for the period March to September 2001, may be found in the files of the Portland field office.

SPECIFIC CONDUCTANCE: Records excellent except those for the period Dec. 21 to Jan. 20, which are poor.

pH: Records excellent except those for the period Aug. 1-23, which are good.

WATER TEMPERATURE: Records excellent.

TURBIDITY: Records excellent except those for the period Sept. 20-30, which are good. Turbidity data are highly dependent on the instrumentation used for the measurement. See the "Definitions" section for turbidity in the front of this report.

EXTREMES FOR PERIOD OF RECORD.--

SPECIFIC CONDUCTANCE: Maximum, 51 microsiemens Sept. 21, 2001; minimum, 10 microsiemens Jan. 18, 2005.

pH: Maximum, 9.3 units Sept. 1, 3, 2004; minimum, 6.9 units May 22-24, 26, 27, 2003, Jan. 24, 2004.

WATER TEMPERATURE: Maximum, 20.4°C Aug. 7, 10, 12, 2001; minimum, 3.3°C Jan. 5, Feb. 15, 2005.

DISSOLVED OXYGEN: Maximum 15.8 mg/L Mar. 6, 2004 but may have been higher during period of missing record; minimum, 4.5 mg/L Sept. 22, 2004, but may have been lower during period of missing record.

TURBIDITY: Maximum, 154 FNU Jan. 29, 2004; minimum, <1 FNU many days each year.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum, 46 microsiemens Nov. 24; minimum, 10 microsiemens Jan. 18.

pH: Maximum, 8.9 units Oct. 1; minimum, 7.0 units Jan. 18.

WATER TEMPERATURE: Maximum, 18.1°C July 27; minimum, 3.3°C Jan. 5, Feb. 15.

TURBIDITY: Maximum, 104 FNU Jan. 18; minimum, <1 FNU many days during year.

SPECIFIC CONDUCTANCE, WATER, UNFILTERED, MICROSIEMENS PER CENTIMETER AT 25 DEGREES CELSIUS  
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DAY	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	40	39	40	38	38	38	43	41	42	34	33	34
2	41	39	40	38	33	36	42	41	42	33	33	33
3	41	40	40	36	33	34	42	41	42	33	33	33
4	41	40	41	37	35	36	42	42	42	33	33	33
5	41	40	40	38	37	37	43	42	42	33	33	33
6	40	40	40	38	37	38	43	40	42	33	32	32
7	40	39	40	38	38	38	40	39	40	32	32	32
8	40	39	40	40	38	39	39	28	33	33	32	32
9	40	37	38	40	40	40	31	28	30	33	32	33
10	40	38	39	40	40	40	30	23	26	33	32	32
11	41	40	40	41	40	40	31	27	29	32	32	32
12	42	40	41	41	40	40	34	31	33	32	31	32
13	42	41	42	41	40	41	36	34	35	32	31	31
14	43	42	42	41	41	41	36	35	36	31	30	30
15	43	42	42	42	40	42	35	35	35	31	31	31
16	43	42	43	43	42	42	37	35	36	31	30	31
17	42	41	42	43	42	43	36	35	36	30	21	29
18	42	36	40	43	42	42	36	36	36	21	10	12
19	38	36	37	43	42	42	36	36	36	34	13	26
20	41	38	39	43	43	43	37	35	36	35	33	34
21	41	40	40	43	42	43	36	34	35	36	35	36
22	40	39	39	43	42	43	35	34	35	37	36	36
23	40	38	39	43	42	43	36	34	35	38	37	37
24	40	39	39	46	41	42	36	34	35	38	38	38
25	40	38	39	41	35	37	35	34	34	38	38	38
26	40	39	40	40	36	38	35	34	34	38	38	38
27	40	39	39	41	40	40	35	35	35	38	38	38
28	40	39	39	42	41	41	35	33	35	39	38	38
29	40	39	40	42	42	42	33	33	33	39	38	38
30	40	39	39	43	42	42	34	33	33	39	38	39
31	39	38	38	---	---	---	34	33	34	39	38	39
MONTH	43	36	40	46	33	40	43	23	36	39	10	33

## WILLAMETTE RIVER BASIN

444728122450000--NORTH SANTIAM RIVER AT GEREN ISLAND WATER TREATMENT PLANT, NEAR STAYTON, OR

SPECIFIC CONDUCTANCE, WATER, UNFILTERED, MICROSIEMENS PER CENTIMETER AT 25 DEGREES CELSIUS—CONTINUED  
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	FEBRUARY			MARCH			APRIL			MAY		
1	39	38	39	40	39	39	33	31	32	38	36	37
2	39	38	39	40	39	39	33	31	32	38	37	38
3	39	39	39	40	39	40	33	33	33	39	37	38
4	39	39	39	40	39	40	34	33	33	39	37	38
5	39	38	38	40	40	40	35	34	34	39	37	38
6	38	38	38	40	40	40	35	35	35	38	37	37
7	40	38	38	41	40	40	35	33	34	37	35	36
8	40	39	40	41	40	41	33	32	32	37	35	36
9	40	39	39	41	40	41	34	32	33	38	35	36
10	39	39	39	41	40	41	34	34	34	36	33	35
11	40	39	39	41	41	41	34	33	34	34	33	34
12	40	39	39	41	41	41	34	34	34	35	33	34
13	39	38	38	42	41	41	35	34	34	36	34	35
14	38	38	38	42	41	41	36	35	36	37	36	36
15	39	38	38	42	41	41	36	36	36	43	37	39
16	39	39	39	42	41	41	36	29	34	42	34	36
17	40	39	40	42	41	41	32	29	31	35	33	34
18	40	39	40	42	41	41	34	32	33	34	33	33
19	40	39	40	41	40	40	35	34	35	36	32	33
20	40	39	39	40	37	38	36	35	36	36	34	34
21	39	39	39	39	38	38	37	36	36	38	34	35
22	39	39	39	39	38	38	37	36	37	36	34	35
23	40	39	39	38	38	38	38	35	36	37	34	36
24	40	39	40	38	38	38	38	34	36	38	35	36
25	40	39	40	38	38	38	36	35	36	38	37	37
26	40	40	40	38	27	37	37	35	36	39	37	38
27	40	40	40	27	23	24	37	36	37	42	38	39
28	40	40	40	28	24	27	40	36	37	41	38	39
29	---	---	---	30	28	29	38	37	38	39	38	39
30	---	---	---	32	30	32	39	38	38	40	39	39
31	---	---	---	33	32	32	---	---	---	40	38	39
MONTH	40	38	39	42	23	38	40	29	35	43	32	36
	JUNE			JULY			AUGUST			SEPTEMBER		
1	43	38	39	38	37	37	41	40	40	42	40	41
2	39	36	38	41	37	39	41	40	40	42	40	41
3	38	37	37	39	37	37	41	40	40	42	39	41
4	40	37	38	40	37	39	41	40	40	42	39	41
5	42	38	40	41	37	39	41	40	40	42	40	41
6	38	34	36	45	38	40	41	40	40	42	40	41
7	35	33	34	41	40	41	41	40	41	42	40	40
8	36	34	34	41	40	41	41	40	41	42	39	40
9	37	35	36	41	40	40	42	40	41	41	39	40
10	38	36	37	41	40	40	42	40	42	41	40	40
11	38	36	37	40	39	40	42	40	41	41	39	40
12	38	36	37	40	39	40	42	40	42	41	40	40
13	38	36	37	40	39	40	44	41	42	41	40	40
14	38	36	37	40	39	40	44	41	42	41	40	40
15	38	37	37	40	39	40	45	42	44	41	40	40
16	39	37	38	41	39	40	44	42	43	41	40	41
17	38	36	37	41	39	40	45	41	43	41	40	41
18	37	36	36	41	40	40	44	41	43	42	41	41
19	39	36	37	41	40	40	44	41	43	42	41	41
20	38	35	36	41	40	40	44	41	43	42	41	41
21	38	36	37	40	40	40	44	41	43	42	41	41
22	38	36	37	41	40	40	44	41	43	42	41	41
23	38	37	38	41	40	41	44	40	42	42	41	41
24	38	37	38	41	40	41	43	40	41	42	41	42
25	39	36	37	41	40	40	42	40	41	42	41	42
26	38	36	37	41	40	40	43	40	41	43	42	42
27	38	36	37	41	40	40	42	40	41	43	42	42
28	39	36	37	41	40	40	42	39	41	43	42	42
29	42	37	39	41	40	40	42	39	40	43	42	42
30	41	36	38	41	40	40	41	40	41	43	41	42
31	---	---	---	41	40	40	42	40	41	---	---	---
MONTH	43	33	37	45	37	40	45	39	41	43	39	41
YEAR	46	10	38									



## WILLAMETTE RIVER BASIN

444728122450000--NORTH SANTIAM RIVER AT GEREN ISLAND WATER TREATMENT PLANT, NEAR STAYTON, OR

PH, WATER, UNFILTERED, FIELD, STANDARD UNITS  
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DAY	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	8.9	7.4	7.6	8.0	7.4	7.5	7.9	7.4	7.5	7.6	7.4	7.5
2	8.8	7.4	7.6	7.7	7.4	7.5	7.9	7.4	7.5	7.6	7.4	7.4
3	8.7	7.3	7.5	7.8	7.3	7.4	7.9	7.4	7.5	7.6	7.4	7.4
4	8.7	7.3	7.5	7.9	7.4	7.5	8.0	7.4	7.5	7.6	7.4	7.4
5	8.6	7.3	7.5	8.0	7.4	7.5	8.1	7.4	7.5	7.6	7.4	7.4
6	8.4	7.3	7.4	8.0	7.4	7.5	8.0	7.4	7.5	7.6	7.4	7.4
7	8.4	7.4	7.5	8.2	7.4	7.5	7.8	---	7.5	7.6	7.4	7.5
8	7.8	7.3	7.4	8.2	7.4	7.5	7.5	7.2	7.3	7.7	7.4	7.4
9	7.8	7.3	7.4	8.2	7.4	7.5	7.3	7.2	7.3	7.7	7.4	7.4
10	8.0	7.3	7.4	8.2	7.4	7.5	7.3	7.1	7.2	7.7	7.4	7.4
11	8.0	7.3	7.4	8.2	7.4	7.5	7.3	7.2	7.3	7.7	7.4	7.4
12	8.1	7.3	7.4	8.3	7.5	7.5	7.4	7.3	7.3	7.7	7.4	7.4
13	8.2	7.4	7.5	8.2	7.4	7.5	7.5	7.4	7.4	7.7	7.4	7.4
14	8.3	7.4	7.5	8.2	7.5	7.5	7.5	7.4	7.4	7.7	7.4	7.4
15	8.4	7.4	7.5	7.9	7.5	7.5	7.5	7.4	7.4	7.6	7.4	7.4
16	8.4	7.4	7.5	8.3	7.5	7.5	7.5	7.4	7.4	7.7	7.3	7.4
17	8.2	7.5	7.5	8.2	7.5	7.5	7.5	7.4	7.4	7.6	7.3	7.4
18	8.1	7.4	7.5	8.2	7.5	7.5	7.5	7.4	7.4	7.3	7.0	7.1
19	8.2	7.4	7.5	8.2	7.5	7.5	7.5	7.4	7.4	7.4	7.1	7.3
20	8.3	7.4	7.5	8.3	7.5	7.5	7.5	7.4	7.4	7.5	7.2	7.4
21	8.3	7.4	7.5	8.2	7.5	7.5	7.5	7.4	7.4	7.6	7.3	7.4
22	7.7	7.4	7.5	8.3	7.5	7.5	7.6	7.4	7.4	7.6	7.4	7.4
23	8.2	7.4	7.5	8.2	7.5	7.5	7.5	7.4	7.4	7.6	7.4	7.4
24	8.1	7.4	7.5	8.1	7.5	7.5	7.6	7.4	7.4	7.6	7.4	7.4
25	8.2	7.4	7.5	7.6	7.4	7.5	7.6	7.4	7.4	7.6	7.4	7.4
26	8.2	7.4	7.5	7.8	7.4	7.5	7.6	7.4	7.4	7.7	7.3	7.4
27	8.3	7.4	7.5	7.9	7.4	7.5	7.6	7.4	7.4	7.7	7.4	7.4
28	8.0	7.4	7.5	7.9	7.4	7.5	7.6	7.4	7.4	7.7	7.4	7.4
29	8.3	7.4	7.5	8.0	7.4	7.5	7.6	7.4	7.4	7.6	7.4	7.4
30	8.1	7.5	7.5	7.8	7.5	7.5	7.6	7.4	7.5	7.7	7.4	7.4
31	8.2	7.4	7.5	---	---	---	7.6	7.4	7.5	7.7	7.3	7.4
MAX	8.9	7.5	7.6	8.3	7.5	7.5	8.1	7.4	7.5	7.7	7.4	7.5
MIN	7.7	7.3	7.4	7.6	7.3	7.4	7.3	7.1	7.2	7.3	7.0	7.1
	FEBRUARY			MARCH			APRIL			MAY		
1	7.7	7.3	7.4	8.3	7.4	7.5	7.5	7.2	7.3	8.6	7.3	7.5
2	7.6	7.3	7.4	8.4	7.3	7.5	7.6	7.3	7.4	8.6	7.3	7.5
3	7.7	7.3	7.4	8.3	7.4	7.5	7.6	7.3	7.4	8.6	7.3	7.6
4	7.7	7.3	7.4	8.3	7.4	7.5	7.6	7.3	7.4	8.5	7.3	7.6
5	7.8	7.3	7.4	8.4	7.4	7.5	7.7	7.3	7.4	8.2	7.3	7.5
6	7.7	7.3	7.4	8.3	7.4	7.5	7.7	7.3	7.4	8.2	7.3	7.5
7	7.7	7.3	7.4	8.3	7.4	7.5	7.6	7.3	7.4	8.5	7.3	7.6
8	7.7	7.3	7.4	8.3	7.4	7.5	7.7	7.3	7.4	8.3	7.3	7.5
9	7.8	7.3	7.4	8.3	7.4	7.5	7.7	7.3	7.4	8.1	7.3	7.5
10	7.7	7.3	7.4	8.2	7.4	7.5	7.8	7.3	7.4	7.7	7.3	7.4
11	7.8	7.3	7.4	8.2	7.4	7.5	7.8	7.3	7.4	8.0	7.2	7.4
12	7.7	7.3	7.3	8.2	7.3	7.5	7.7	7.3	7.4	8.5	7.2	7.5
13	7.8	7.3	7.4	8.1	7.4	7.5	7.9	7.3	7.4	8.5	7.2	7.6
14	7.7	7.3	7.4	8.0	7.4	7.5	7.9	7.3	7.4	8.7	7.2	7.5
15	7.8	7.3	7.4	8.1	7.4	7.5	7.9	7.3	7.4	8.2	7.2	7.5
16	7.8	7.4	7.5	7.9	7.4	7.5	7.6	7.2	7.3	8.4	7.3	7.5
17	7.8	7.4	7.5	8.1	7.4	7.6	7.6	7.2	7.3	8.1	7.3	7.4
18	8.0	7.4	7.5	8.1	7.4	7.5	7.8	7.2	7.3	8.1	7.2	7.4
19	7.9	7.4	7.5	8.0	7.4	7.5	8.0	7.2	7.4	7.9	7.2	7.4
20	8.1	7.4	7.5	7.8	7.4	7.5	8.2	7.2	7.4	8.0	7.2	7.4
21	8.0	7.4	7.5	8.1	7.4	7.5	8.5	7.2	7.5	8.0	7.2	7.4
22	8.1	7.4	7.5	8.0	7.4	7.5	8.6	7.2	7.5	8.3	7.2	7.5
23	8.1	7.4	7.5	7.8	7.4	7.5	7.7	7.2	7.3	8.5	7.2	7.5
24	8.1	7.4	7.5	7.8	7.4	7.5	8.4	7.2	7.5	8.5	7.2	7.5
25	8.1	7.4	7.5	8.0	7.4	7.5	8.4	7.2	7.5	8.6	7.3	7.6
26	8.2	7.4	7.5	7.7	7.2	7.5	8.7	7.2	7.5	8.7	7.3	7.7
27	8.2	7.4	7.5	7.2	7.1	7.2	8.8	7.3	7.6	8.8	7.3	7.7
28	8.2	7.4	7.5	7.3	7.2	7.2	8.6	7.3	7.6	8.6	7.3	7.5
29	---	---	---	7.4	7.2	7.2	8.1	7.3	7.5	8.5	7.3	7.6
30	---	---	---	7.4	7.2	7.3	8.6	7.3	7.6	8.6	7.3	7.6
31	---	---	---	7.5	7.2	7.3	---	---	---	8.3	7.3	7.6
MAX	8.2	7.4	7.5	8.4	7.4	7.6	8.8	7.3	7.6	8.8	7.3	7.7
MIN	7.6	7.3	7.3	7.2	7.1	7.2	7.5	7.2	7.3	7.7	7.2	7.4

## WILLAMETTE RIVER BASIN

444728122450000--NORTH SANTIAM RIVER AT GEREN ISLAND WATER TREATMENT PLANT, NEAR STAYTON, OR

PH, WATER, UNFILTERED, FIELD, STANDARD UNITS—CONTINUED  
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DAY	JUNE			JULY			AUGUST			SEPTEMBER		
	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN
1	8.4	7.3	7.6	8.2	7.3	7.5	8.0	7.3	7.5	8.2	7.3	7.5
2	8.4	7.3	7.5	8.1	7.3	7.5	8.0	7.3	7.5	8.2	7.3	7.5
3	8.7	7.3	7.7	8.1	7.3	7.5	8.0	7.3	7.5	8.3	7.3	7.5
4	8.6	7.3	7.7	8.1	7.3	7.5	8.0	7.3	7.4	8.2	7.3	7.5
5	8.2	7.3	7.6	8.1	7.3	7.5	8.0	7.3	7.5	8.1	7.3	7.5
6	8.0	7.3	7.5	7.9	7.3	7.5	8.0	7.3	7.4	8.1	7.3	7.5
7	7.9	7.3	7.4	8.1	7.3	7.6	8.0	7.3	7.5	8.1	7.3	7.5
8	8.5	7.3	7.6	7.8	7.3	7.5	8.0	7.3	7.4	8.2	7.3	7.5
9	8.6	7.3	7.6	8.1	7.3	7.5	8.0	7.3	7.4	8.1	7.3	7.5
10	8.6	7.3	7.6	8.0	7.3	7.5	8.0	7.3	7.5	8.3	7.3	7.5
11	8.4	7.3	7.6	8.0	7.3	7.5	8.0	7.2	7.5	8.5	7.3	7.6
12	8.7	7.3	7.7	8.0	7.3	7.5	8.0	7.3	7.5	8.5	7.3	7.6
13	8.7	7.3	7.6	8.0	7.3	7.5	8.0	7.2	7.5	8.5	7.3	7.6
14	8.5	7.3	7.6	7.9	7.3	7.5	8.0	7.3	7.4	8.6	7.3	7.6
15	8.6	7.3	7.7	7.9	7.2	7.5	8.1	7.2	7.4	8.5	7.3	7.6
16	8.2	7.3	7.5	8.0	7.3	7.5	8.1	7.3	7.4	8.3	7.3	7.5
17	8.2	7.3	7.5	7.9	7.3	7.5	8.1	7.2	7.4	8.8	7.3	7.7
18	8.1	7.3	7.6	7.9	7.2	7.4	8.1	7.2	7.4	8.6	7.3	7.6
19	8.3	7.3	7.5	7.9	7.3	7.5	8.1	7.2	7.4	8.6	7.3	7.6
20	8.4	7.3	7.6	7.9	7.3	7.5	8.1	7.2	7.4	8.7	7.3	7.6
21	8.2	7.2	7.5	7.9	7.3	7.4	8.1	7.2	7.4	8.6	7.3	7.6
22	8.2	7.3	7.5	8.0	7.3	7.5	8.2	7.2	7.4	8.7	7.3	7.6
23	8.3	7.3	7.6	7.9	7.3	7.5	8.1	7.2	7.5	8.7	7.4	7.6
24	8.2	7.3	7.6	7.9	7.3	7.5	8.1	7.4	7.5	8.6	7.4	7.6
25	8.2	7.3	7.5	8.0	7.3	7.5	8.1	7.4	7.5	8.6	7.4	7.6
26	7.9	7.3	7.5	7.9	7.3	7.5	8.1	7.3	7.5	8.6	7.3	7.6
27	7.9	7.3	7.5	8.0	7.3	7.5	8.1	7.4	7.5	8.6	7.3	7.6
28	8.1	7.3	7.5	8.0	7.3	7.5	8.1	7.4	7.5	8.6	7.4	7.5
29	8.1	7.3	7.5	8.0	7.3	7.5	8.0	7.4	7.5	8.7	7.4	7.6
30	8.1	7.3	7.5	7.9	7.3	7.5	8.2	7.4	7.5	8.1	7.4	7.5
31	---	---	---	8.0	7.3	7.5	8.1	7.3	7.5	---	---	---
MAX	8.7	7.3	7.7	8.2	7.3	7.6	8.2	7.4	7.5	8.8	7.4	7.7
MIN	7.9	7.2	7.4	7.8	7.2	7.4	8.0	7.2	7.4	8.1	7.3	7.5

## WILLAMETTE RIVER BASIN

444728122450000--NORTH SANTIAM RIVER AT GEREN ISLAND WATER TREATMENT PLANT, NEAR STAYTON, OR

TEMPERATURE, WATER, DEGREES CELSIUS  
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	15.0	12.4	13.6	11.8	10.9	11.3	8.4	7.8	8.2	6.5	5.9	6.3
2	15.2	12.4	13.8	11.9	10.5	11.6	7.8	6.8	7.2	5.9	5.0	5.4
3	15.3	12.5	13.8	10.8	9.9	10.3	7.3	6.7	7.1	5.1	4.4	4.7
4	15.3	12.7	13.9	10.4	9.5	10	7.7	7.0	7.4	4.8	3.9	4.3
5	15.2	12.8	14.0	10.8	9.6	10.1	8.0	7.4	7.7	4.4	3.3	3.9
6	14.8	13.7	14.2	10.8	9.8	10.3	7.7	7.3	7.5	5.3	4.3	4.8
7	15.2	13.6	14.2	11.3	10.2	10.6	7.8	7.2	7.5	5.5	5.2	5.3
8	14.1	13.4	13.8	11.0	10.2	10.5	7.8	7.6	7.8	5.5	4.8	5.2
9	13.4	12.7	13.1	11.1	10.3	10.8	8.4	7.6	8.0	5.4	4.8	5.2
10	14.0	12.9	13.3	11.2	10.5	10.8	8.7	8.1	8.4	5.4	4.8	5.1
11	14.3	12.8	13.5	11.3	10.8	11.0	8.8	8.2	8.6	4.8	4.0	4.5
12	14.7	13.0	13.8	11.1	10.4	10.7	8.2	7.8	8.0	5.6	4.5	5.0
13	15.0	13.1	13.9	11.5	10.6	11.1	8.2	7.7	8.0	5.8	5.2	5.4
14	14.9	13.1	13.9	11.1	10.4	10.8	8.6	8.0	8.3	5.2	4.2	4.6
15	14.6	13.2	13.9	11.1	10.4	10.9	8.0	7.3	7.5	4.5	4.2	4.3
16	14.5	13.9	14.1	11.3	10.4	11.0	7.4	7.0	7.2	5.8	4.3	5.1
17	13.9	13.1	13.7	10.7	10.0	10.3	7.9	7.2	7.5	6.5	5.6	6.0
18	13.1	12.0	12.7	10.9	10.1	10.5	7.7	7.2	7.5	7.2	6.3	6.9
19	13.3	11.9	12.6	10.4	9.4	10.1	7.7	7.2	7.4	7.2	6.7	7.0
20	13.5	12.7	13.0	9.8	8.9	9.3	7.4	6.6	7.1	7.0	6.6	6.8
21	13.5	12.7	13.1	9.4	8.7	9.0	6.7	6.2	6.5	6.8	6.0	6.4
22	12.8	12.4	12.6	10.1	8.8	9.4	7.4	6.7	7.0	6.8	6.0	6.4
23	13.0	12.2	12.6	10.3	9.6	10.0	7.0	6.5	6.7	6.8	6.2	6.4
24	12.6	11.8	12.1	10.6	10.0	10.3	6.6	6.0	6.3	6.6	5.5	6.1
25	12.3	11.4	11.8	10.0	9.1	9.7	6.8	6.0	6.4	6.5	5.5	6.0
26	12.7	12.1	12.3	9.3	8.9	9.1	6.9	6.4	6.7	7.3	6.2	6.7
27	12.8	12.1	12.4	9.3	8.6	9.0	6.9	6.1	6.5	7.4	6.5	6.9
28	12.6	12.2	12.4	8.6	8.2	8.4	6.6	6.0	6.3	6.9	6.3	6.6
29	13.1	12.3	12.6	8.2	7.8	8.0	6.9	6.4	6.6	6.7	6.3	6.5
30	12.6	11.7	12.3	8.5	8.1	8.3	6.9	6.2	6.5	6.7	5.5	6.1
31	12.3	11.1	11.6	---	---	---	6.4	5.9	6.2	6.9	5.6	6.2
MONTH	15.3	11.1	13.2	11.9	7.8	10.1	8.8	5.9	7.3	7.4	3.3	5.7
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	6.0	4.7	5.4	8.2	6.0	7.2	8.8	7.5	8.0	11.3	8.2	9.7
2	5.9	4.4	5.2	8.4	6.6	7.4	8.6	6.4	7.5	11.7	8.6	9.8
3	6.1	4.4	5.3	8.3	5.5	7.0	7.9	7.2	7.5	12.7	8.1	10.3
4	6.2	5.0	5.6	7.8	6.4	7.1	8.8	6.7	7.6	11.3	9.0	10.3
5	6.5	5.6	6.0	8.2	5.8	7.1	8.7	6.6	7.8	10.4	8.7	9.6
6	5.9	5.3	5.5	9.2	5.9	7.6	10.3	7.6	8.9	10.0	8.7	9.3
7	5.9	4.6	5.3	9.9	6.8	8.4	9.6	7.6	8.4	10.6	8.4	9.4
8	5.3	4.0	4.6	10.1	7.0	8.7	8.3	6.6	7.4	10.5	8.6	9.5
9	5.4	4.4	5.0	10.2	7.2	8.8	9.0	7.1	8.0	9.7	8.4	8.9
10	5.5	4.1	4.8	10.3	7.1	8.8	8.9	6.7	7.9	9.0	8.0	8.5
11	5.9	4.1	5.0	10.8	7.4	9.2	9.7	7.7	8.6	9.9	8.2	8.9
12	5.4	4.6	5.0	10.7	7.4	9.2	8.2	6.6	7.4	12.1	8.3	10.0
13	6.3	5.1	5.6	9.6	6.3	8.2	8.7	6.0	7.3	12.1	8.8	10.5
14	5.7	4.0	4.9	9.2	6.0	7.8	8.8	6.2	7.5	12.5	9.4	10.8
15	5.4	3.3	4.4	9.2	5.9	7.7	8.0	6.5	7.3	11.3	9.7	10.3
16	5.7	3.6	4.6	8.4	6.9	7.4	8.3	7.6	8.0	10.6	8.9	9.7
17	5.6	3.4	4.6	9.6	6.5	7.9	7.8	6.9	7.3	9.4	8.1	8.8
18	5.9	4.0	4.9	8.2	6.6	7.5	9.1	6.6	7.7	10.5	8.3	9.3
19	5.7	4.8	5.2	8.5	7.1	7.7	10.5	6.6	8.4	9.9	8.5	9.2
20	7.2	5.3	6.2	8.2	7.1	7.6	11.1	7.3	9.2	9.9	8.3	9.1
21	7.1	4.9	6.1	8.1	6.5	7.2	11.8	8.3	10.1	9.0	7.8	8.5
22	7.1	4.8	6.0	7.7	6.5	7.1	12.0	8.3	10.2	10.8	8.3	9.4
23	7.2	4.6	6.0	7.5	6.6	7.0	10.7	8.6	9.1	11.9	8.4	10.0
24	7.3	4.8	6.1	7.0	6.3	6.6	10.2	7.8	8.9	12.5	8.2	10.2
25	7.1	5.1	6.0	7.8	6.0	6.9	10.6	8.4	9.4	13.2	8.2	10.7
26	7.8	6.0	6.8	7.4	6.9	7.2	12.8	8.1	10.2	14.7	9.5	12.1
27	7.7	5.4	6.6	7.7	7.2	7.4	13.4	8.9	11.2	15.5	10.4	12.9
28	7.3	6.4	7.0	7.4	6.8	7.1	11.9	9.3	10.7	13.2	10.3	11.4
29	---	---	---	7.6	6.6	6.9	10.9	8.5	9.2	11.1	9.6	10.3
30	---	---	---	7.9	6.4	7.1	11.9	8.0	9.6	11.4	8.9	10
31	---	---	---	9.4	6.4	7.9	---	---	---	10.3	8.7	9.6
MONTH	7.8	3.3	5.5	10.8	5.5	7.6	13.4	6.0	8.5	15.5	7.8	9.9

## WILLAMETTE RIVER BASIN

444728122450000--NORTH SANTIAM RIVER AT GEREN ISLAND WATER TREATMENT PLANT, NEAR STAYTON, OR

TEMPERATURE, WATER, DEGREES CELSIUS—CONTINUED  
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	10.8	8.9	9.8	16.3	11.8	14.2	16.7	13.0	14.6	16.0	11.9	14.1
2	10.5	9.0	9.6	14.6	11.3	13.0	16.8	11.6	14.2	15.1	11.9	13.7
3	12.5	8.4	10.2	16.2	10.5	13.3	17.2	11.8	14.6	14.6	11.4	13.1
4	12.5	8.5	10.4	16.7	10.8	13.9	17.4	12.8	15.3	14.3	10.6	12.7
5	11.0	9.0	9.9	16.5	11.3	14.1	17.5	12.8	15.3	14.8	10.4	12.7
6	9.8	8.2	9.1	15.2	11.9	12.9	17.5	12.7	15.3	14.5	10.4	12.7
7	9.7	8.1	8.8	15.3	10.7	12.8	17.2	12.7	15.2	14.6	10.4	12.6
8	12.4	8.0	10.0	14.0	10.9	11.9	17.3	12.5	15.1	14.7	10.4	12.6
9	13.5	8.5	11.0	13.7	10.7	12.1	16.9	12.6	15.0	13.0	10.9	11.8
10	11.8	9.2	10.4	13.3	10.8	11.9	16.5	12.2	14.6	12.6	10.9	11.6
11	10.7	9.4	10.1	15.4	11.1	12.8	16.4	11.9	14.3	13.8	10.2	11.8
12	13.2	9.0	10.8	15.5	11.1	13.2	16.5	11.9	14.4	14.3	10.4	12.3
13	12.8	9.5	11.0	16.6	11.4	13.9	17.2	12.3	14.9	14.3	10.3	12.3
14	11.8	9.6	10.7	17.0	11.1	14.2	17.1	12.6	15.1	14.2	10.5	12.4
15	13.2	8.7	11.0	17.4	11.8	14.8	17.2	12.6	15.0	13.8	11.1	12.3
16	12.0	9.6	10.6	17.0	11.9	14.6	16.7	12.5	14.8	12.0	10.8	11.5
17	11.3	9.3	10.2	17.6	11.4	14.6	15.4	12.1	13.9	13.7	11.2	12.1
18	11.2	9.3	10.4	17.8	12.3	15.2	16.9	12.1	14.4	14.0	10.4	12.1
19	13.8	8.9	11.1	17.1	11.9	14.8	17.0	12.6	15.0	14.2	10.6	12.3
20	14.8	9.6	12.0	16.9	11.4	14.4	16.9	12.6	14.9	14.1	10.8	12.4
21	13.2	10.4	11.9	16.5	11.4	14.3	16.9	12.8	15.0	13.9	10.4	12.2
22	13.2	10.2	11.6	16.6	12.3	14.5	16.0	12.5	14.4	13.6	10.5	12.1
23	15.1	9.6	12.3	17.3	11.6	14.6	15.7	11.8	13.9	13.8	11.1	12.4
24	14.8	10.3	12.7	17.1	12.3	14.9	15.9	11.2	13.8	13.7	10.4	12.0
25	15.7	10.7	13.2	17.4	12.2	15.0	16.2	11.7	14.1	13.9	10.5	12.2
26	14.1	10.6	11.7	18.0	12.5	15.4	16.0	12.1	14.3	14.2	10.9	12.5
27	11.8	10.3	11.2	18.1	13.1	15.8	15.9	11.8	14.1	14.5	11.2	12.8
28	13.1	10.4	11.5	17.9	13.1	15.7	16.1	11.8	14.1	14.7	11.3	12.9
29	15.9	9.8	12.7	17.6	12.8	15.4	15.2	12.5	13.4	14.7	11.6	13.1
30	16.8	11.0	14.0	17.9	12.8	15.6	15.9	11.6	13.6	14.0	13.1	13.5
31	---	---	---	17.8	13.0	15.7	15.9	11.6	13.9	---	---	---
MONTH	16.8	8.0	11.0	18.1	10.5	14.2	17.5	11.2	14.5	16.0	10.2	12.5
YEAR	18.1	3.3	10.0									

WILLAMETTE RIVER BASIN

444728122450000--NORTH SANTIAM RIVER AT GEREN ISLAND WATER TREATMENT PLANT, NEAR STAYTON, OR

TURBIDITY, WATER, MONOCHROME NEAR INFRA-RED LED LIGHT, 780-900 NM, DETECTION ANGLE 90 +/- 2.5 DEGREES, FNU  
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DAY	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	---	---	---	1	<1	<1	2	<1	1	1	<1	<1
2	---	---	---	9	<1	<1	2	<1	<1	2	<1	<1
3	---	---	---	10	<1	3	1	<1	<1	4	<1	<1
4	---	---	---	4	<1	<1	3	<1	<1	<1	<1	<1
5	---	---	---	2	<1	<1	<1	<1	<1	2	<1	<1
6	---	---	---	4	<1	<1	2	<1	<1	<1	<1	<1
7	---	---	---	2	<1	<1	---	---	---	<1	<1	<1
8	4	<1	<1	<1	<1	<1	47	2	23	1	<1	<1
9	8	2	4	<1	<1	<1	30	6	11	1	<1	<1
10	3	<1	1	2	<1	<1	95	10	31	<1	<1	<1
11	2	<1	1	<1	<1	<1	40	11	19	4	<1	<1
12	4	<1	<1	2	<1	<1	12	5	9	<1	<1	<1
13	2	<1	<1	1	<1	<1	5	2	4	2	<1	<1
14	1	<1	<1	<1	<1	<1	4	2	3	<1	<1	<1
15	1	<1	<1	1	<1	<1	6	2	3	<1	<1	<1
16	<1	<1	<1	1	<1	<1	4	2	3	1	<1	<1
17	2	<1	<1	1	<1	<1	4	2	2	22	<1	<1
18	3	<1	<1	<1	<1	<1	3	1	2	104	20	35
19	5	<1	<1	2	<1	<1	6	1	2	21	3	7
20	1	<1	<1	2	<1	<1	3	<1	2	3	<1	2
21	4	<1	<1	2	<1	<1	4	<1	1	2	<1	<1
22	6	<1	<1	2	<1	<1	2	<1	1	3	<1	<1
23	2	<1	<1	<1	<1	<1	5	<1	1	1	<1	<1
24	2	<1	<1	2	<1	<1	2	<1	1	2	<1	<1
25	<1	<1	<1	13	<1	4	2	<1	1	2	<1	<1
26	4	<1	<1	4	<1	2	2	<1	1	2	<1	<1
27	3	<1	<1	4	<1	<1	3	<1	<1	1	<1	<1
28	2	<1	<1	2	<1	<1	2	<1	<1	2	<1	<1
29	<1	<1	<1	3	<1	<1	2	<1	<1	8	<1	2
30	4	<1	<1	1	<1	<1	2	<1	<1	3	<1	1
31	2	<1	<1	---	---	---	3	<1	<1	2	<1	<1
MAX	8	2	4	13	<1	4	95	11	31	104	20	35
MIN	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	FEBRUARY			MARCH			APRIL			MAY		
1	2	<1	<1	1	<1	<1	7	3	4	3	<1	<1
2	2	<1	<1	<1	<1	<1	6	2	3	2	<1	<1
3	<1	<1	<1	1	<1	<1	4	2	2	6	<1	<1
4	1	<1	<1	<1	<1	<1	5	2	3	2	<1	<1
5	1	<1	<1	1	<1	<1	4	1	2	3	<1	<1
6	1	<1	<1	4	<1	<1	3	<1	1	5	<1	1
7	2	<1	<1	<1	<1	<1	8	<1	2	4	<1	1
8	<1	<1	<1	1	<1	<1	9	2	3	4	<1	<1
9	<1	<1	<1	7	<1	<1	5	1	2	3	<1	1
10	<1	<1	<1	6	<1	<1	4	<1	1	11	2	7
11	3	<1	<1	3	<1	<1	5	1	3	8	2	3
12	<1	<1	<1	9	<1	<1	3	1	2	3	1	2
13	1	<1	<1	2	<1	<1	6	1	2	3	<1	1
14	<1	<1	<1	5	<1	<1	8	2	3	5	<1	1
15	1	<1	<1	9	<1	<1	3	1	2	3	<1	1
16	<1	<1	<1	1	<1	<1	13	1	4	5	<1	1
17	<1	<1	<1	2	<1	<1	14	3	5	8	2	4
18	<1	<1	<1	2	<1	<1	7	3	4	8	1	3
19	<1	<1	<1	6	<1	<1	4	2	2	14	3	5
20	1	<1	<1	4	<1	1	3	<1	2	10	2	4
21	<1	<1	<1	3	<1	1	2	<1	1	6	1	3
22	<1	<1	<1	2	<1	<1	3	<1	<1	9	2	3
23	<1	<1	<1	1	<1	<1	12	<1	1	9	<1	2
24	4	<1	<1	2	<1	<1	4	<1	2	4	<1	1
25	<1	<1	<1	2	<1	<1	2	<1	1	4	1	1
26	<1	<1	<1	37	<1	<1	2	<1	<1	3	<1	1
27	1	<1	<1	72	23	37	2	<1	<1	3	<1	1
28	3	<1	<1	37	11	19	4	<1	1	2	<1	1
29	---	---	---	12	8	10	2	<1	<1	4	<1	<1
30	---	---	---	12	5	7	3	<1	<1	4	<1	<1
31	---	---	---	6	3	4	---	---	---	2	<1	<1
MAX	4	<1	<1	72	23	37	14	3	5	14	3	7
MIN	<1	<1	<1	<1	<1	<1	2	<1	<1	2	<1	<1

WILLAMETTE RIVER BASIN

444728122450000--NORTH SANTIAM RIVER AT GEREN ISLAND WATER TREATMENT PLANT, NEAR STAYTON, OR

TURBIDITY, WATER, MONOCHROME NEAR INFRA-RED LED LIGHT, 780-900 NM, DETECTION ANGLE 90 +/- 2.5 DEGREES, FNU—  
CONTINUED

DAY	JUNE			JULY			AUGUST			SEPTEMBER		
	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN
1	6	<1	2	3	<1	1	2	<1	<1	2	<1	<1
2	4	<1	2	2	<1	1	2	<1	<1	6	<1	<1
3	8	<1	1	5	<1	1	2	<1	<1	1	<1	<1
4	2	<1	<1	2	<1	1	2	<1	<1	2	<1	<1
5	4	<1	1	4	<1	1	2	<1	<1	3	<1	<1
6	11	1	3	2	<1	1	2	<1	<1	2	<1	<1
7	8	2	4	4	<1	<1	2	<1	<1	3	<1	1
8	5	2	2	3	<1	1	3	<1	<1	3	<1	<1
9	5	1	2	3	<1	1	5	<1	<1	2	<1	<1
10	6	<1	1	2	<1	1	1	<1	<1	2	<1	<1
11	4	<1	1	2	<1	1	3	<1	<1	1	<1	<1
12	4	<1	1	2	<1	<1	1	<1	<1	2	<1	<1
13	8	<1	1	2	<1	1	4	<1	<1	2	<1	<1
14	3	<1	<1	3	<1	<1	3	<1	<1	3	<1	<1
15	2	<1	<1	3	<1	1	2	<1	<1	2	<1	<1
16	2	<1	<1	6	<1	1	2	<1	<1	3	<1	<1
17	2	1	2	3	<1	1	4	<1	<1	1	<1	<1
18	7	<1	2	7	<1	2	3	<1	<1	2	<1	<1
19	4	<1	1	9	<1	2	2	<1	<1	2	<1	<1
20	14	1	2	7	<1	2	9	<1	<1	2	<1	<1
21	2	<1	1	9	<1	1	5	<1	<1	---	---	---
22	2	<1	1	11	<1	1	7	<1	<1	3	<1	<1
23	3	<1	1	8	<1	1	4	<1	<1	2	<1	1
24	7	<1	1	10	<1	1	5	<1	<1	3	<1	<1
25	6	<1	1	10	<1	2	1	<1	<1	12	1	3
26	3	<1	1	8	<1	<1	<1	<1	<1	16	<1	3
27	4	<1	1	6	<1	<1	2	<1	<1	3	<1	2
28	3	1	2	3	<1	<1	1	<1	<1	---	---	---
29	3	<1	1	2	<1	<1	<1	<1	<1	---	---	---
30	3	<1	1	2	<1	<1	2	<1	<1	---	---	---
31	---	---	---	4	<1	<1	2	<1	<1	---	---	---
MAX	14	2	4	11	<1	2	9	<1	<1	16	1	3
MIN	2	<1	<1	2	<1	<1	<1	<1	<1	1	<1	<1