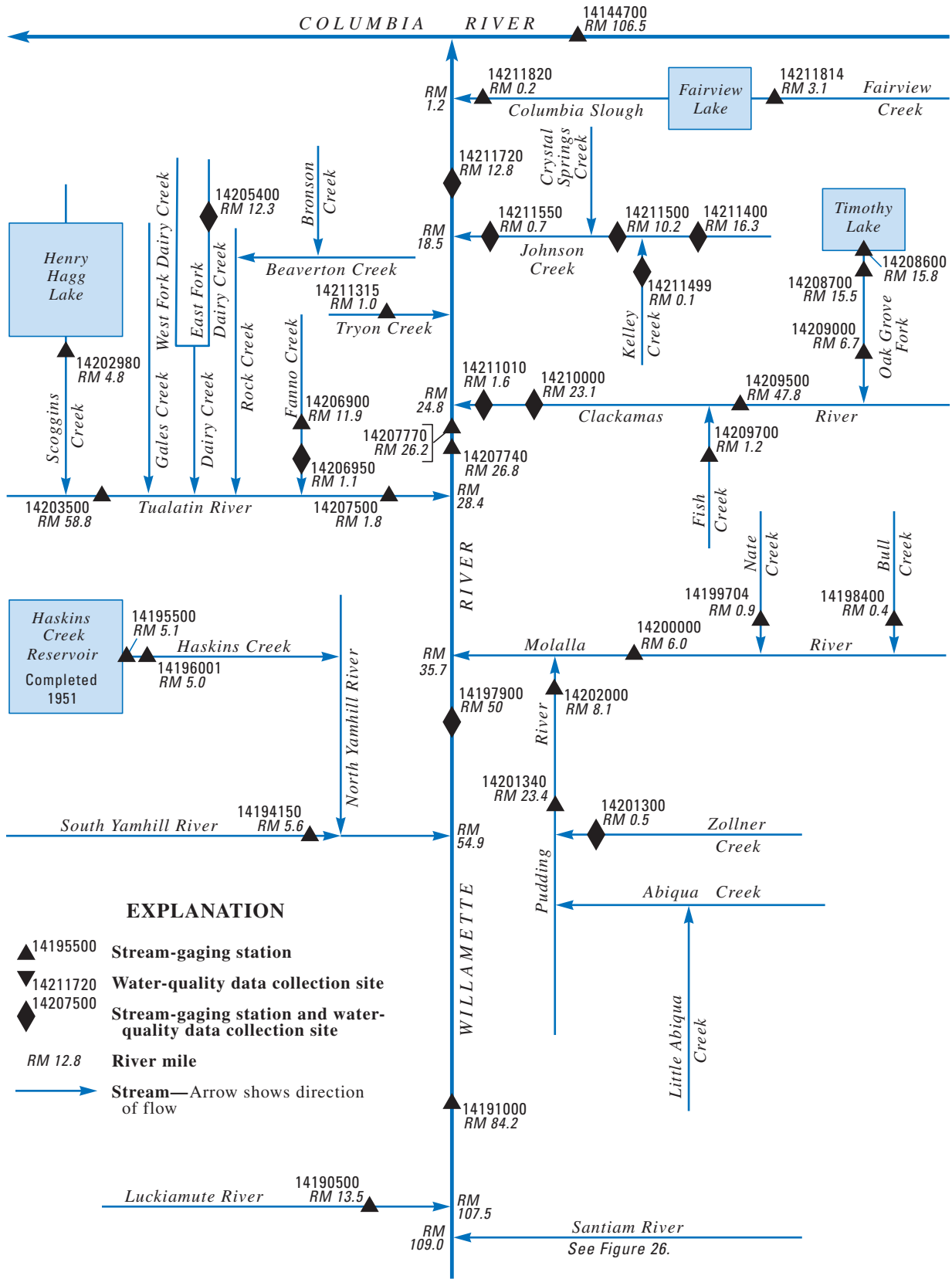


**Figure 25.** Location of surface-water and water-quality stations in the Willamette River Basin, downstream from the Luckiamute River.



**Figure 27.** Schematic diagram showing gaging stations in the Willamette River Basin, from the Luckiamute River downstream to the mouth.

## WILLAMETTE RIVER BASIN

14207770 WILLAMETTE RIVER BELOW FALLS, AT OREGON CITY, OR

LOCATION.--Lat 45°21'28", long 122°36'35", in NE ¼ NW ¼ sec.31, T.2 S., R.2 E., Clackamas County, Hydrologic Unit 17090007, on right bank 0.5 mi below Willamette Falls, 1.4 mi upstream from Clackamas River, and at mile 26.2.

DRAINAGE AREA.--10,000 mi<sup>2</sup>, approximately.

PERIOD OF RECORD.--November 1976 to current year.

GAGE.--Water-stage recorder. Datum of gage is NGVD of 1929 (Oregon State Highway Division bench mark).

REMARKS.--Flow regulated by many reservoirs upstream. Gage out of operation during period October 1993 to January 1994 and July to September 1994.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum gage height, 48.10 ft Dec. 25, 1964, from National Weather Service database.

EXTREMES FOR PERIOD OF RECORD.--Maximum gage height, 46.04 ft Feb. 9, 1996, from high-water mark; minimum, 1.24 ft July 14, 2001.

EXTREMES FOR CURRENT YEAR.--Maximum gage height, 16.96 ft Dec. 11; minimum, 1.87 ft Sept. 26.

GAGE HEIGHT, FEET  
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	6.81	3.76	5.19	7.80	5.88	---	6.94	5.20	5.90	7.97	6.43	7.12
2	6.29	3.14	4.51	8.15	6.09	7.10	6.29	4.83	5.51	7.88	5.93	6.74
3	6.23	3.39	4.49	8.15	6.95	7.52	5.92	4.64	5.28	7.72	5.71	6.61
4	6.19	3.13	4.32	8.01	7.29	7.68	6.41	4.74	5.43	7.98	6.14	6.83
5	5.87	3.33	4.29	7.90	6.93	7.28	6.92	5.00	5.66	7.90	5.73	6.59
6	5.86	3.02	4.10	7.31	6.07	6.64	7.52	5.07	5.89	8.34	5.60	6.71
7	5.29	3.16	---	7.43	5.82	6.52	7.96	5.60	6.45	9.11	5.94	7.10
8	6.05	3.55	4.81	7.65	5.53	6.44	10.29	5.98	8.35	9.67	6.33	7.65
9	6.53	4.45	5.43	7.89	5.53	6.52	12.53	9.39	11.54	9.42	6.52	7.63
10	6.26	4.04	5.09	8.25	5.68	6.69	15.14	12.22	14.05	9.42	5.87	7.24
11	6.44	3.92	5.10	8.42	5.73	6.79	16.96	14.77	16.20	9.64	6.26	7.54
12	6.65	3.88	5.10	8.54	5.62	6.76	16.92	16.07	16.57	9.05	6.19	7.28
13	6.95	3.97	5.11	8.72	5.62	6.82	16.12	15.01	15.59	8.74	5.48	6.80
14	6.72	3.66	5.02	8.55	5.55	6.69	15.03	13.91	14.52	8.54	6.51	7.38
15	7.51	3.72	5.26	8.73	5.32	6.76	14.11	12.99	13.56	7.87	5.58	6.66
16	7.36	4.23	5.68	8.35	5.41	6.51	13.21	12.15	12.70	7.64	5.16	6.00
17	7.63	3.90	5.49	7.63	5.09	6.16	12.53	11.37	11.88	7.48	4.62	5.89
18	7.99	4.35	5.81	7.18	4.78	5.83	11.75	10.13	10.88	8.90	6.22	7.60
19	8.53	5.07	6.26	6.56	4.80	5.58	10.58	8.71	9.73	10.41	8.50	9.60
20	8.49	6.04	6.94	6.48	4.12	5.09	9.52	8.04	8.81	10.26	8.99	9.75
21	8.23	5.89	6.74	6.69	4.06	5.07	9.16	8.05	8.52	9.62	8.13	8.98
22	7.64	5.38	6.55	6.93	4.06	5.18	9.00	7.90	8.48	9.23	7.62	8.32
23	7.83	5.63	6.72	7.28	4.27	5.38	9.70	7.87	8.78	8.83	7.11	7.77
24	7.97	5.48	6.60	7.93	4.32	5.72	9.11	7.17	8.37	9.02	6.63	7.48
25	8.15	5.67	6.76	8.08	4.70	6.17	9.07	6.96	7.77	8.67	6.51	7.33
26	8.76	5.92	7.07	8.21	5.19	6.44	9.29	7.03	7.91	8.90	6.31	7.25
27	8.99	6.38	7.39	8.34	6.01	6.82	9.09	7.28	8.06	8.79	6.53	7.41
28	8.55	6.00	7.10	7.67	5.55	6.27	9.10	7.16	7.84	8.15	6.39	---
29	8.37	5.79	6.81	7.22	4.93	5.76	8.85	6.85	7.61	8.00	5.81	6.80
30	8.54	5.68	6.85	7.15	4.88	5.81	8.80	6.43	7.42	7.69	5.57	6.42
31	8.16	5.79	6.74	---	---	---	8.51	6.85	7.63	7.70	5.18	6.12
MONTH	8.99	3.02	5.78	8.73	4.06	6.34	16.96	4.64	9.45	10.41	4.62	7.29

WILLAMETTE RIVER BASIN

14207770 WILLAMETTE RIVER BELOW FALLS, AT OREGON CITY, OR—Continued

GAGE HEIGHT, FEET—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	7.33	4.98	5.81	7.59	4.33	5.65	12.95	11.08	12.06	7.86	6.21	7.06
2	7.21	4.85	5.69	7.44	4.34	5.50	11.20	9.92	10.65	7.94	6.28	7.21
3	7.37	4.83	5.70	7.18	4.23	5.27	10.38	9.00	9.87	8.30	6.56	7.35
4	7.91	4.78	5.96	7.15	4.10	5.24	9.73	8.55	9.19	8.69	6.49	7.62
5	7.95	5.22	6.18	6.91	3.99	5.21	9.58	8.33	8.79	8.92	6.80	7.67
6	8.59	5.47	6.67	6.86	3.47	4.91	9.86	8.17	8.87	9.40	7.24	8.08
7	8.82	5.54	6.75	7.11	3.45	5.02	10.10	8.37	9.08	9.70	7.68	8.43
8	8.79	5.64	6.81	7.25	3.55	5.11	9.76	7.90	8.71	9.91	7.87	8.76
9	8.73	5.39	6.69	7.51	3.60	5.34	10.26	8.25	9.08	10.29	8.38	9.12
10	8.68	5.61	6.73	7.45	3.81	5.42	10.11	8.19	8.96	10.55	9.15	9.79
11	8.52	5.61	6.80	7.93	4.36	5.89	10.13	8.15	8.95	11.90	10.23	10.99
12	8.45	5.54	6.80	7.89	4.35	5.74	9.77	8.23	8.86	12.84	11.90	12.45
13	8.07	5.00	6.25	7.31	3.86	5.21	9.76	8.29	8.87	12.83	11.03	11.92
14	7.53	4.52	5.63	7.36	3.75	5.14	9.08	7.62	8.35	11.31	9.88	10.67
15	7.29	4.60	5.71	7.02	3.62	4.89	8.41	7.20	7.82	10.29	9.20	9.88
16	6.75	4.76	5.52	6.72	3.61	4.78	8.44	7.14	7.72	9.85	9.13	9.59
17	6.45	4.75	5.41	6.26	3.30	4.52	8.56	7.25	8.20	9.66	8.91	9.23
18	6.75	4.63	5.59	5.82	3.18	4.26	8.93	8.15	8.62	11.18	9.23	10.67
19	7.05	4.68	5.63	5.73	3.51	4.52	9.07	8.30	8.70	12.60	11.07	12.13
20	7.06	4.40	5.75	6.49	3.85	5.17	9.08	7.70	8.33	13.05	12.55	12.76
21	7.31	4.18	5.47	6.41	3.86	5.30	8.67	7.21	7.75	13.16	12.47	12.77
22	7.39	4.32	5.58	7.00	4.15	5.47	8.59	6.83	7.66	13.38	12.41	12.83
23	7.41	4.39	5.57	7.32	4.24	5.66	9.00	6.85	7.77	13.07	12.09	12.52
24	7.63	4.32	5.72	7.34	4.64	5.80	9.49	7.17	7.99	12.55	11.35	11.92
25	7.47	4.43	5.69	7.25	4.31	5.59	9.46	7.07	7.92	12.05	10.60	11.26
26	7.37	4.30	5.64	7.90	4.68	6.01	9.55	7.04	8.07	10.89	9.57	10.23
27	7.34	4.32	5.61	11.62	5.57	8.76	9.71	7.67	8.33	10.62	9.16	9.88
28	7.51	4.30	5.58	14.86	11.62	13.54	9.68	7.74	8.47	10.25	9.29	9.80
29	---	---	---	15.58	14.66	15.21	9.10	6.95	8.07	10.32	8.25	9.32
30	---	---	---	15.53	14.59	15.04	8.36	6.56	7.41	9.29	7.25	8.43
31	---	---	---	14.64	12.89	13.78	---	---	---	8.43	6.56	7.44
MONTH	8.82	4.18	5.96	15.58	3.18	6.55	12.95	6.56	8.64	13.38	6.21	9.93
	JUNE			JULY			AUGUST			SEPTEMBER		
1	8.53	6.60	7.60	8.22	5.92	6.73	7.39	4.83	5.84	6.34	2.75	4.39
2	9.03	7.31	8.26	8.17	5.99	6.89	7.29	4.08	5.56	6.43	2.68	4.35
3	9.42	7.78	8.38	7.99	5.30	6.34	7.35	3.71	5.32	6.04	2.49	4.18
4	9.07	6.92	7.83	7.94	4.84	5.99	7.04	3.16	4.88	6.08	2.71	4.24
5	9.32	7.03	7.89	7.48	3.97	5.53	7.21	3.64	5.08	5.88	2.07	4.09
6	8.77	6.65	7.47	8.26	5.05	6.33	7.34	4.00	5.33	5.81	2.37	4.03
7	9.24	7.14	7.92	7.72	4.23	5.75	7.17	3.81	5.22	5.73	2.47	3.98
8	9.34	7.46	8.18	7.94	5.08	6.30	6.86	3.63	5.06	6.05	2.51	3.94
9	9.37	7.81	8.37	7.90	5.28	6.40	6.88	3.60	5.08	6.13	2.74	4.10
10	9.20	7.53	8.31	7.42	4.80	6.01	6.61	3.11	4.73	5.63	2.84	4.01
11	8.40	6.95	7.67	7.04	4.76	5.85	6.77	3.42	4.71	5.39	2.32	3.49
12	7.83	6.23	7.16	7.09	4.56	5.71	6.68	3.41	4.79	5.75	2.13	3.56
13	7.24	5.74	6.55	6.96	4.46	5.46	6.46	3.06	4.31	5.90	2.36	3.80
14	7.17	5.69	6.37	7.13	4.60	5.48	6.46	3.13	4.22	6.10	2.54	4.12
15	7.07	4.96	5.95	7.18	5.23	5.80	6.35	2.90	4.27	5.85	2.31	4.09
16	7.23	5.34	6.06	7.60	5.16	6.01	6.87	3.10	4.64	6.12	2.64	4.39
17	7.98	6.00	6.66	7.74	5.20	6.08	6.91	3.07	4.84	6.42	2.64	4.50
18	8.51	6.31	7.05	8.05	4.92	6.08	7.86	4.03	5.74	6.70	3.15	4.76
19	8.83	6.01	7.15	8.46	4.70	6.21	8.09	4.18	5.84	6.23	2.78	4.47
20	8.80	5.90	7.21	8.52	4.77	6.21	8.06	4.01	5.79	6.21	2.74	4.36
21	9.61	6.72	7.81	8.39	4.43	6.05	7.74	3.79	5.58	6.72	3.12	4.55
22	9.51	6.62	7.69	9.13	5.26	6.86	7.35	3.42	5.17	6.27	3.05	4.52
23	9.48	7.07	7.96	8.93	5.03	6.62	7.39	3.52	5.25	6.30	2.95	4.28
24	9.51	6.82	7.97	8.30	4.61	6.15	7.27	3.78	5.32	5.58	2.71	3.83
25	9.05	6.71	7.60	7.60	4.13	5.57	6.71	3.43	4.86	5.42	2.36	3.38
26	8.54	6.16	7.30	7.83	4.49	5.87	6.23	3.19	4.29	4.70	1.87	3.15
27	8.32	6.05	7.01	7.52	4.35	5.74	6.17	2.79	3.97	4.77	2.16	3.50
28	8.32	5.88	6.93	7.42	3.93	5.24	6.26	2.98	4.19	4.96	1.93	3.36
29	7.90	5.51	6.43	7.39	4.06	5.17	6.04	2.73	4.14	5.06	2.01	3.62
30	8.02	5.76	6.51	7.30	4.48	5.41	5.92	2.68	4.22	6.20	3.00	4.59
31	---	---	---	7.21	4.36	5.54	6.57	3.22	4.51	---	---	---
MONTH	9.61	4.96	7.38	9.13	3.93	5.98	8.09	2.68	4.93	6.72	1.87	4.05
YEAR	16.96	1.87	6.87									

WILLAMETTE RIVER BASIN

14211315 TRYON CREEK BELOW NETTLE CREEK, NEAR LAKE OSWEGO, OR

LOCATION.--Lat 45°25'53", long 122°40'17", in NW ¼ NW ¼ sec.42, T.2S., R.1E, Clackamas County, Hydrologic unit 17090012, on right bank , 0.8 mi north of Lake Oswego, and at mile 1.0.

DRAINAGE AREA.--6.28 mi<sup>2</sup>.

PERIOD OF RECORD.--August 2001 to current year.

GAGE.--Water-stage recorder. Datum of gage is 95 ft above NGVD of 1929, from topographic map.

REMARKS.--Records fair except for those above 30 ft<sup>3</sup>/s, below 3.0 ft<sup>3</sup>/s and estimated daily discharges, which are poor.

AVERAGE DISCHARGE.--4 years (water years 2002-05), 7.35 ft<sup>3</sup>/s, 15.90 in/yr, 5,320 acre-ft/yr.

PERIOD OF RECORD.--Maximum discharge, 520 ft<sup>3</sup>/s Dec. 13, 2003, gage height, 7.31 ft, from crest-stage gage; minimum discharge, 0.09 ft<sup>3</sup>/s Sept. 4, 5, 12, 2002.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 250 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Sept. 30	1800	*206	*5.52				

Minimum discharge, 0.37 ft<sup>3</sup>/s, Sept. 6, gage height, 3.21 ft.

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	e0.84	5.3	4.8	8.0	3.8	2.9	11	3.3	4.4	2.6	1.0	0.51
2	e0.84	26	3.9	5.6	3.7	2.5	6.7	4.3	3.1	2.4	1.0	0.52
3	e0.86	7.3	3.7	4.8	3.5	2.4	7.1	3.0	2.9	2.3	1.0	0.48
4	e0.87	5.0	3.7	4.5	3.6	2.4	5.3	7.4	2.7	2.1	0.96	0.48
5	e0.86	4.4	5.8	4.1	3.3	2.4	4.5	3.6	4.5	2.1	0.87	0.52
6	11	4.0	6.5	4.0	7.8	2.3	4.2	3.2	3.2	2.1	0.90	0.51
7	e0.85	3.8	12	8.0	4.8	2.4	8.6	2.9	2.7	1.9	0.92	0.52
8	14	3.7	28	5.4	3.8	2.4	5.0	4.1	2.6	5.5	0.90	0.63
9	e2.0	3.7	10	4.6	3.5	2.4	3.8	19	2.4	3.0	0.87	0.72
10	e1.0	3.8	9.9	4.4	3.3	2.4	4.9	40	4.5	2.2	0.87	0.80
11	e0.90	3.7	18	4.0	3.3	2.4	14	12	3.5	2.1	0.89	0.87
12	e0.89	3.8	7.8	3.5	4.0	2.2	7.9	8.2	2.5	1.8	0.87	0.95
13	e0.88	3.9	13	3.5	3.4	2.2	5.6	6.7	2.3	1.6	0.92	0.88
14	e0.87	3.9	12	3.3	3.1	2.3	4.9	8.9	2.5	1.6	0.97	0.94
15	e0.85	6.7	7.2	3.4	3.1	2.3	5.9	7.9	2.3	1.6	0.96	1.0
16	e0.86	4.4	6.0	4.6	2.9	2.6	18	19	2.4	1.6	1.1	1.3
17	7.4	4.2	5.1	7.4	2.9	2.3	22	11	7.2	1.5	1.1	1.4
18	6.1	9.3	4.7	12	2.9	2.2	16	30	2.9	1.5	1.1	1.1
19	6.8	4.4	4.4	5.6	2.9	6.4	9.3	20	2.3	1.4	1.1	1.0
20	4.7	4.0	4.1	5.3	2.8	4.8	7.1	18	3.2	1.5	1.1	1.0
21	5.2	3.9	4.5	4.5	2.7	2.8	5.8	13	2.1	1.4	1.2	1.1
22	4.1	3.9	4.4	4.2	2.7	2.5	5.0	12	9.1	1.5	1.3	1.2
23	5.3	4.2	4.0	3.9	2.6	3.6	6.2	8.1	3.2	1.4	1.3	1.2
24	3.8	4.0	3.9	3.7	2.5	4.9	4.7	6.5	2.6	1.4	1.3	1.2
25	6.9	4.6	5.8	3.7	2.5	3.0	11	5.4	2.3	1.4	1.2	1.2
26	8.0	3.7	11	3.5	2.5	15	5.5	e4.4	2.2	1.2	1.3	1.4
27	5.9	4.7	4.7	3.5	2.5	75	5.8	3.9	15	1.0	1.3	1.2
28	4.2	3.7	4.2	6.0	2.6	26	5.5	3.6	6.0	1.0	1.3	1.2
29	4.2	3.7	4.8	12	---	25	3.9	3.3	3.3	0.97	3.5	1.3
30	10	7.2	4.2	5.2	---	13	3.6	3.2	2.8	1.0	1.0	38
31	5.2	---	15	4.4	---	8.5	---	3.3	---	1.0	0.60	---
TOTAL	126.17	158.9	237.1	160.6	93.0	233.5	228.8	299.2	112.7	55.67	34.70	65.13
MEAN	4.07	5.30	7.65	5.18	3.32	7.53	7.63	9.65	3.76	1.80	1.12	2.17
MAX	14	26	28	12	7.8	75	22	40	15	5.5	3.5	38
MIN	0.84	3.7	3.7	3.3	2.5	2.2	3.6	2.9	2.1	0.97	0.60	0.48
AC-FT	250	315	470	319	184	463	454	593	224	110	69	129
CFSM	0.65	0.84	1.22	0.82	0.53	1.20	1.21	1.54	0.60	0.29	0.18	0.35
IN.	0.75	0.94	1.40	0.95	0.55	1.38	1.36	1.77	0.67	0.33	0.21	0.39

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 2002 - 2005, BY WATER YEAR (WY)

MEAN	2.58	6.35	16.4	18.5	11.7	12.5	8.57	5.16	2.41	1.09	1.44	1.57
MAX	4.07	11.3	23.0	25.5	14.8	19.1	15.8	9.65	3.76	1.80	3.23	2.32
(WY)	(2005)	(2002)	(2002)	(2003)	(2004)	(2002)	(2003)	(2005)	(2005)	(2005)	(2004)	(2004)
MIN	0.81	3.11	7.65	5.18	3.32	5.99	3.40	1.77	1.30	0.82	0.52	0.81
(WY)	(2003)	(2003)	(2005)	(2005)	(2005)	(2004)	(2004)	(2004)	(2003)	(2002)	(2002)	(2002)

WILLAMETTE RIVER BASIN

14211315 TRYON CREEK BELOW NETTLE CREEK, NEAR LAKE OSWEGO, OR—Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 2002 - 2005	
ANNUAL TOTAL	2,215.89		1,805.47			
ANNUAL MEAN	6.05		4.95		7.35	
HIGHEST ANNUAL MEAN					9.15 2002	
LOWEST ANNUAL MEAN					4.95 2005	
HIGHEST DAILY MEAN	61	Jan 29	75	Mar 27	221	Jan 31, 2003
LOWEST DAILY MEAN	0.68	Aug 17	0.48	Sep 3	0.11	Sep 14, 2002
ANNUAL SEVEN-DAY MINIMUM	0.73	Aug 14	0.51	Sep 1	0.16	Aug 30, 2002
ANNUAL RUNOFF (AC-FT)	4,400		3,580		5,320	
ANNUAL RUNOFF (CFSM)	0.964		0.788		1.17	
ANNUAL RUNOFF (INCHES)	13.13		10.69		15.90	
10 PERCENT EXCEEDS	15		10		18	
50 PERCENT EXCEEDS	3.7		3.6		3.3	
90 PERCENT EXCEEDS	0.84		0.96		0.77	

e Estimated

WILLAMETTE RIVER BASIN

14211315 TRYON CREEK BELOW NETTLE CREEK, NEAR LAKE OSWEGO, OR—Continued



2005 Water Year  
WILLAMETTE RIVER BASIN

14211315 TRYON CREEK BLW NETTLE CREEK, NEAR LAKE OSWEGO, OR

Latitude: 45° 25' 53"

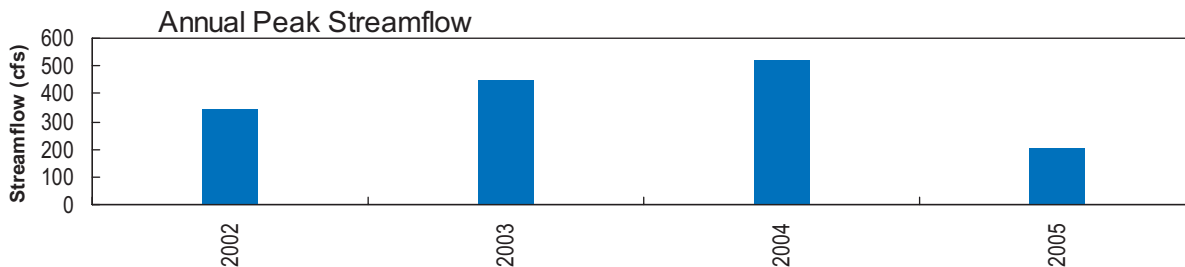
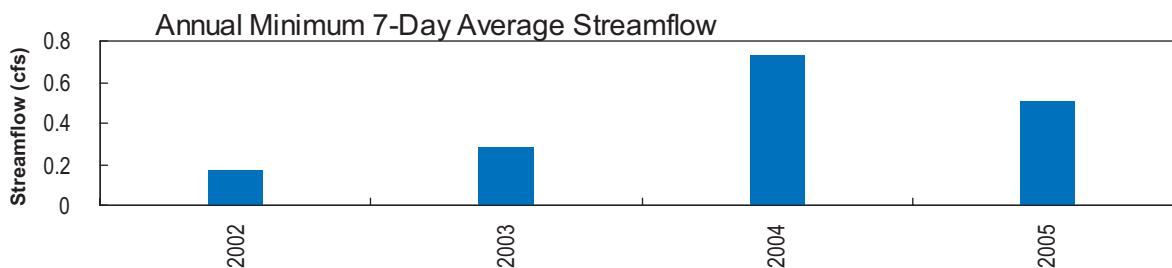
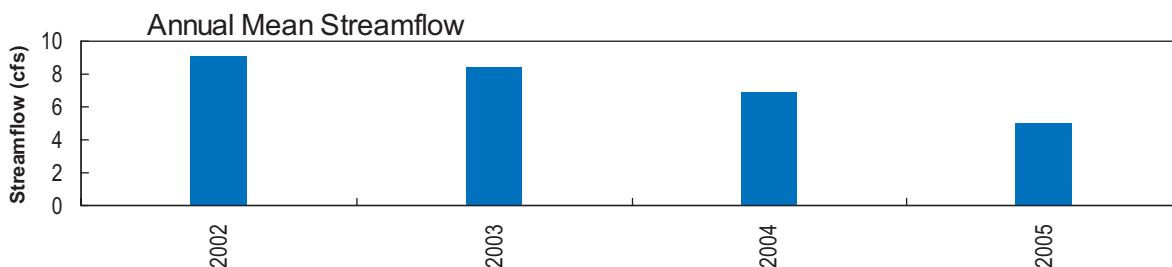
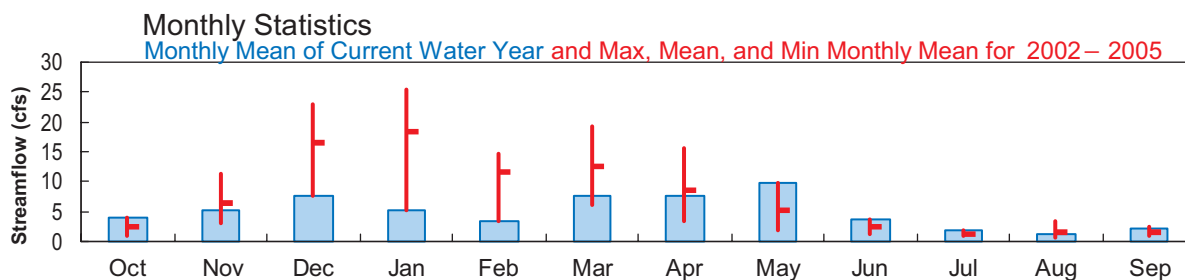
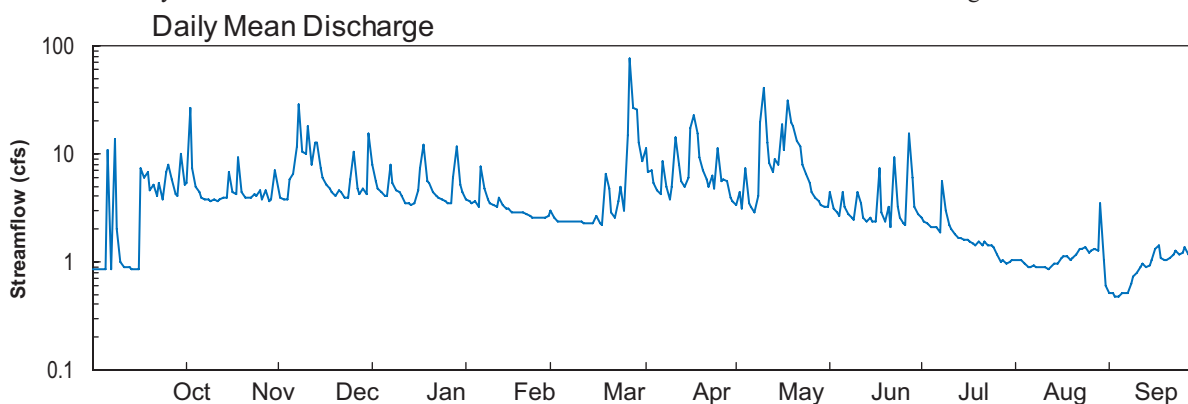
Longitude: 122° 40' 17"

Hydrologic Unit Code: 17090012

Clackamas County

Datum: 95 feet

Drainage Area: 6.28 mi<sup>2</sup>



WILLAMETTE RIVER BASIN

14211720 WILLAMETTE RIVER AT PORTLAND, OR  
(National stream quality accounting network station)

LOCATION.--Lat 45°31'07", long 122°40'00", in NW ¼ NE ¼ sec.3, T.1 S., R.1 E., Multnomah County, Hydrologic Unit 17090012, in pier at east end of drawspan, on upstream side of Morrison Bridge, in Portland and at mile 12.8.

DRAINAGE AREA.--11,200 mi<sup>2</sup>, approximately.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--Discharge records October 1972 to current year. Unpublished discharge records October 1994 to March 2003 are available in the files of the Portland field office. Gage-height records collected in this vicinity since 1879 are in reports of the National Weather Service.

GAGE.--Water-stage and velocity-index recorder. Datum of gage is 1.55 ft above NGVD of 1929 (levels by National Weather Service).

REMARKS.--Water-discharge records fair except for estimated daily discharges and those below 50,000 ft<sup>3</sup>/s, which are poor. Flow regulated by many reservoirs upstream. Many diversions for irrigation upstream from station. Flow affected by tide, which can cause reverse flow during tidal cycle, during low flow periods. Daily mean discharge values are based on a 24 hour day, not a tidal cycle.

AVERAGE DISCHARGE.--33 years (water years 1973-2005), 32,840 ft<sup>3</sup>/s, 23,790,000 acre-ft/yr. Water years include routed discharges from 1995 to 2005.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 283,000 ft<sup>3</sup>/s Jan. 18, 1974; maximum gage height, 23.84 ft Jan. 18, 1974; minimum daily discharge, 4,200 ft<sup>3</sup>/s July 10, 1978.

EXTREMES OUTSIDE PERIOD OF RECORD.--Floods of June 7, 1894, and June 1, 1948, reached stages of 33.0 ft and 30.0 ft, respectively, from information by National Weather Service.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 94,300 ft<sup>3</sup>/s Dec. 12; maximum gage height, 9.83 ft May 22; minimum daily discharge, 7,900 ft<sup>3</sup>/s Aug. 11, 17.

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	e11,600	e25,900	e18,600	e23,500	e18,100	e11,900	e54,600	e23,000	e20,800	e12,700	e8,350	e8,280
2	e11,800	e27,700	e18,300	e23,500	e17,100	e11,600	e48,400	e23,400	e21,300	e12,100	e8,250	e8,030
3	e12,200	e33,600	e17,600	e23,000	e16,200	e11,600	e44,000	e22,700	e21,300	e11,400	e8,270	e8,150
4	e12,500	e35,400	e16,000	e21,700	e15,600	e11,400	e40,400	e22,400	e20,100	e11,100	e8,400	e8,290
5	e12,300	e31,600	e15,500	e19,600	e15,400	e11,000	e37,500	e22,200	e19,400	e10,800	e8,190	e8,420
6	e12,700	e28,100	e15,700	e18,100	e15,600	e10,700	e34,200	e22,900	e19,800	e10,800	e7,960	e8,540
7	e13,500	e26,200	e17,400	e17,600	e15,500	e10,100	e32,300	e24,000	e23,900	e10,500	e8,100	e8,690
8	e14,400	e24,700	e31,200	e17,800	e15,600	e10,000	e34,000	e24,000	e28,200	e10,300	e8,010	e9,050
9	e16,700	e23,600	53,700	e18,400	e15,000	e9,750	e37,400	e25,000	e28,800	e10,400	e8,080	e9,050
10	e18,900	e23,100	72,400	e18,800	e14,600	e9,680	e37,800	e30,700	e25,800	e10,600	e7,960	e9,400
11	e18,400	e22,400	89,700	e19,100	e14,100	e9,490	e36,300	e43,200	e22,700	e10,600	e7,900	e9,940
12	e17,600	e21,500	94,300	e18,700	e13,700	e9,080	e36,600	e49,100	e21,800	e10,600	e7,990	e10,200
13	e16,500	e20,600	85,000	e17,800	e14,100	e8,880	e36,400	e43,900	e21,100	e10,400	e8,080	e10,100
14	e15,300	e19,400	74,900	e17,500	e15,200	e8,730	e34,600	e36,800	e19,400	e9,910	e8,160	e9,980
15	e14,600	e18,500	66,300	e16,800	e16,100	e8,600	e32,400	e31,800	e17,900	e9,750	e8,090	e9,840
16	e14,600	e18,600	59,100	e17,000	e15,000	e8,390	e32,200	e29,500	e16,500	e9,340	e7,950	e9,940
17	e14,700	e17,800	51,800	e17,400	e14,100	e8,640	e38,100	e30,000	e17,700	e9,450	e7,900	e10,000
18	e15,900	e17,400	e46,400	e29,600	e13,600	e9,040	e40,300	e35,400	e18,700	e9,660	e7,990	e10,200
19	e19,400	e17,400	e40,100	e44,400	e13,200	e9,490	e39,500	e43,400	e20,200	e9,310	e8,220	e10,300
20	e21,600	e16,700	e36,000	e42,000	e12,900	e10,500	e35,900	e48,500	e19,700	e8,910	e8,070	e10,200
21	e21,000	e15,900	e33,400	e36,300	e14,000	e12,000	e32,200	e47,800	e18,400	e8,580	e8,110	e10,100
22	e20,600	e15,400	e31,400	e31,100	e14,800	e12,300	e29,300	e46,100	e17,200	e8,500	e7,920	e9,930
23	e21,600	e14,900	e30,700	e27,800	e14,400	e12,300	e27,500	e43,200	e16,400	e8,680	e8,010	e9,950
24	e23,200	e15,600	e29,000	e25,300	e13,500	e12,700	e28,900	e38,200	e15,600	e8,720	e7,970	e9,880
25	e23,700	e18,100	e27,400	e23,500	e13,000	e13,700	e29,600	e33,800	e14,300	e8,550	e8,170	e10,100
26	e23,200	e22,500	e27,500	e21,300	e12,500	e16,000	e28,100	e29,600	e13,400	e8,530	e8,130	e10,100
27	e23,700	e23,000	e27,400	e19,700	e12,000	e42,800	e26,200	e26,000	e13,300	e8,340	e8,050	e10,200
28	e23,100	e21,800	e26,400	e18,600	e11,900	e76,200	e25,600	e23,500	e13,800	e8,300	e8,040	e10,200
29	e22,900	e19,800	e24,700	e18,300	---	e82,300	e24,600	e21,900	e14,100	e8,370	e8,220	e10,200
30	e23,300	e18,900	e24,200	e19,700	---	e79,200	e23,600	e21,300	e13,600	e8,350	e8,430	e10,900
31	e25,300	---	e24,200	e19,300	---	e67,900	---	e21,200	---	e8,400	e8,300	---
TOTAL	556,800	656,100	1,226,300	703,200	406,800	625,970	1,038,500	984,500	575,200	301,950	251,270	288,160
MEAN	17,960	21,870	39,560	22,680	14,530	20,190	34,620	31,760	19,170	9,740	8,105	9,605
MAX	25,300	35,400	94,300	44,400	18,100	82,300	54,600	49,100	28,800	12,700	8,430	10,900
MIN	11,600	14,900	15,500	16,800	11,900	8,390	23,600	21,200	13,300	8,300	7,900	8,030
AC-FT	1,104,000	1,301,000	2,432,000	1,395,000	806,900	1,242,000	2,060,000	1,953,000	1,141,000	598,900	498,400	571,600

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1973 - 2005, BY WATER YEAR (WY)

MEAN	15,750	38,520	67,820	65,150	54,370	44,030	35,440	26,680	18,080	9,532	8,485	11,190
MAX	28,860	98,410	155,600	124,200	149,500	77,790	72,060	46,730	38,730	15,870	11,850	17,350
(WY)	(1998)	(1974)	(1997)	(1997)	(1996)	(1974)	(1993)	(1993)	(1984)	(1983)	(1993)	(1978)
MIN	8,915	10,300	8,894	8,795	8,050	17,980	17,630	11,150	7,125	6,541	6,136	7,460
(WY)	(1988)	(1988)	(1977)	(1977)	(1977)	(1978)	(1977)	(1973)	(1992)	(1973)	(1973)	(2001)



WILLAMETTE RIVER BASIN

14211720 WILLAMETTE RIVER AT PORTLAND, OR—Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1973 - 2005	
ANNUAL TOTAL	10,383,700		7,614,750			
ANNUAL MEAN	28,370		20,860		32,840	
HIGHEST ANNUAL MEAN					54,490	
LOWEST ANNUAL MEAN					13,710	
HIGHEST DAILY MEAN	136,000	Jan 31	94,300	Dec 12	420,000	Feb 9, 1996
LOWEST DAILY MEAN	7,500	Jul 25	7,900	Aug 11	4,200	Jul 10, 1978
ANNUAL SEVEN-DAY MINIMUM	7,730	Aug 15	8,000	Aug 6	5,260	Jul 31, 1973
ANNUAL RUNOFF (AC-FT)	20,600,000		15,100,000		23,790,000	
10 PERCENT EXCEEDS	66,400		37,400		75,800	
50 PERCENT EXCEEDS	21,600		17,400		20,700	
90 PERCENT EXCEEDS	8,400		8,360		8,280	

e Estimated



2005 Water Year  
 WILLAMETTE RIVER BASIN

14211720 WILLAMETTE RIVER AT PORTLAND, OR

Latitude: 45° 31 ' 07"

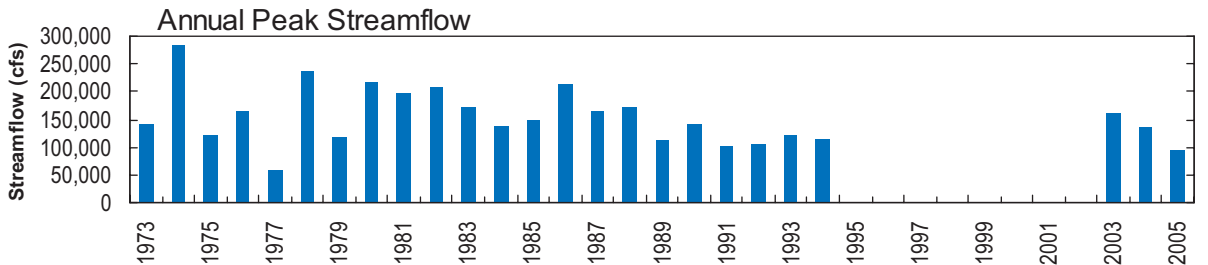
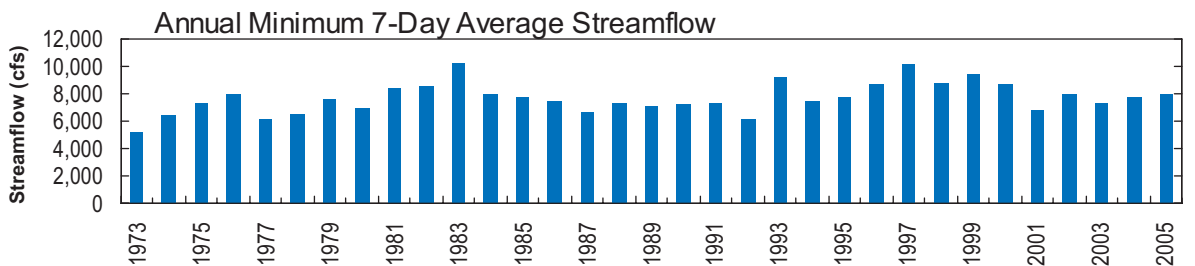
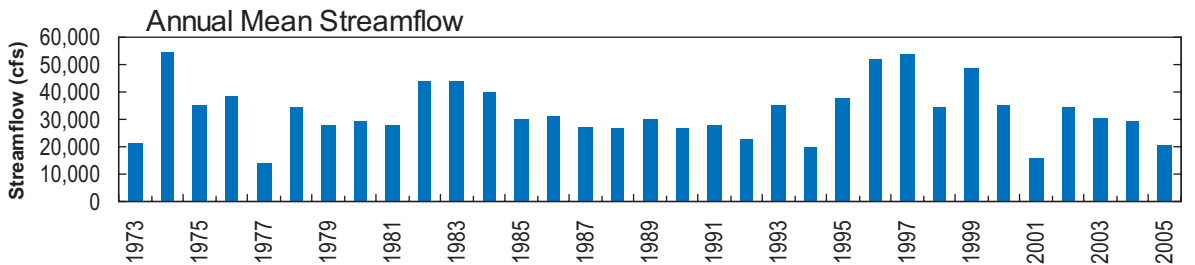
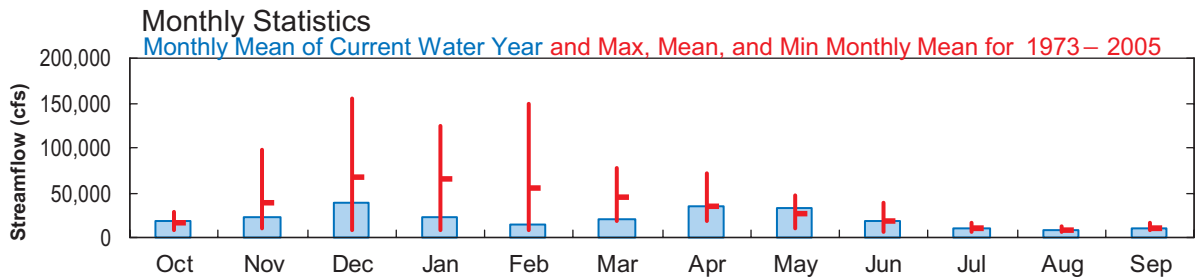
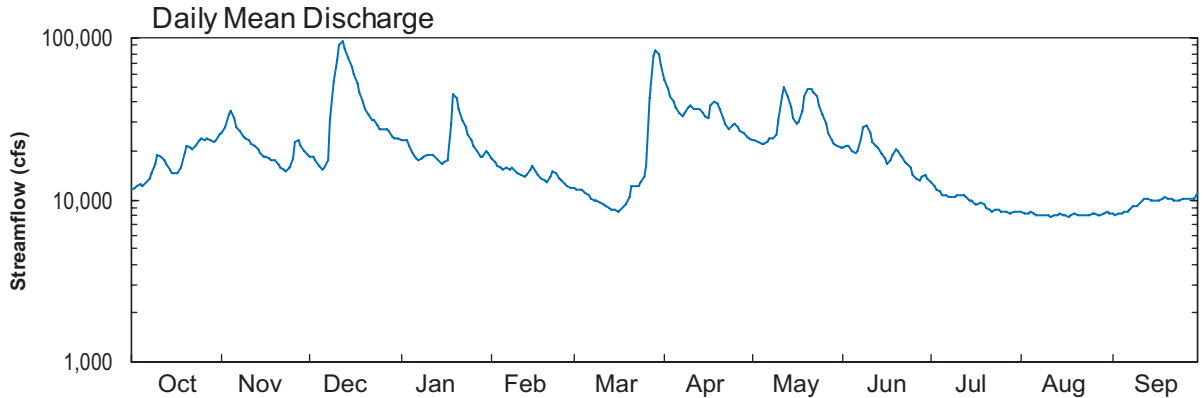
Longitude: 122° 40 ' 00"

Hydrologic Unit Code: 17090012

Multnomah County

Datum: 1.55 feet

Drainage Area 11,200 mi<sup>2</sup>



WILLAMETTE RIVER BASIN  
 14211720 WILLAMETTE RIVER AT PORTLAND, OR  
 WATER-QUALITY RECORDS

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: December 1975 to September 1981, November 2001 to September 2004 (discontinued).  
 WATER TEMPERATURE: November 1975 to September 1981, November 2001 to September 2005 (discontinued).

INSTRUMENTATION.--Water-quality monitor.

REMARKS.--Records good except those for the periods August and September, which are fair.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum daily recorded, 144 microsiemens July 27, 2003; minimum, 42 microsiemens Apr. 15, 16, 2002.  
 WATER TEMPERATURE: Maximum, 27.5°C July 29, Aug. 7, 8, 1978; minimum, 0.0°C Jan. 3-10, 1979.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURE: Maximum, 24.3°C July 30, 31, Aug. 3-6; minimum, 4.4°C Jan. 16.

TEMPERATURE, WATER, 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	17.2	17.2	17.2	11.6	11.4	11.4	8.6	8.1	8.4	7.0	6.8	6.9
2	17.5	16.9	17.2	11.6	11.6	11.6	8.3	7.7	8.0	7.0	6.8	7.0
3	17.5	17.2	17.2	11.6	10.9	11.3	7.9	7.5	7.7	6.8	6.4	6.6
4	17.2	16.9	17.1	10.9	10.5	10.7	7.7	7.5	7.6	6.4	5.9	6.1
5	17.2	16.9	16.9	10.7	10.1	10.5	7.7	7.5	7.7	5.9	5.3	5.6
6	16.9	16.7	16.7	10.1	9.7	10.0	7.7	7.5	7.6	5.3	5.0	5.1
7	16.8	16.3	16.6	9.7	9.5	9.6	7.5	7.3	7.5	5.1	4.8	4.9
8	16.6	16.6	16.6	9.6	9.3	9.4	7.5	7.3	7.4	4.8	4.6	4.6
9	16.6	16.6	16.6	9.4	9.2	9.3	7.9	7.5	7.6	4.6	4.5	4.5
10	16.6	16.3	16.5	9.4	9.2	9.3	8.9	7.9	8.3	4.8	4.5	4.6
11	16.6	16.3	16.3	9.8	9.4	9.6	9.5	8.9	9.3	5.0	4.6	4.7
12	16.3	15.7	15.8	10.0	9.8	9.9	9.5	9.3	9.5	5.0	4.8	4.9
13	15.7	15.4	15.5	10.2	10.0	10.1	9.3	9.1	9.1	5.1	5.0	5.1
14	15.5	14.9	15.2	10.2	10.2	10.2	9.1	8.9	9.1	5.1	5.0	5.1
15	15.2	15.2	15.2	10.6	10.2	10.3	9.1	8.9	9.0	5.0	4.6	4.8
16	15.4	15.2	15.3	10.6	10.4	10.5	9.1	8.9	9.0	4.6	4.4	4.5
17	15.4	15.4	15.4	10.8	10.6	10.7	8.9	8.5	8.7	5.1	4.6	4.9
18	15.4	15.4	15.4	10.8	10.6	10.8	8.5	8.3	8.4	5.8	5.1	5.4
19	15.4	14.9	15.2	10.8	10.6	10.7	8.3	7.9	8.1	6.3	5.8	5.9
20	14.9	14.4	14.5	10.6	10.4	10.6	7.9	7.9	7.9	8.0	6.3	7.3
21	14.4	13.9	14.0	10.4	10.0	10.2	7.9	7.7	7.9	8.4	7.8	8.3
22	13.9	13.3	13.4	10.0	9.6	9.8	7.9	7.7	7.8	8.6	8.4	8.5
23	13.3	13.0	13.0	9.6	9.2	9.4	7.7	7.3	7.6	8.6	8.4	8.6
24	13.3	12.8	13.0	9.4	9.0	9.2	7.3	7.1	7.3	8.6	8.4	8.4
25	12.8	12.3	12.6	9.0	8.8	8.9	7.3	7.1	7.2	8.4	8.0	8.3
26	12.3	12.1	12.2	8.8	8.8	8.8	7.3	7.3	7.3	8.0	8.0	8.0
27	12.3	11.8	12.1	9.4	8.8	9.0	7.3	7.1	7.2	8.2	8.0	8.0
28	11.8	11.6	11.7	9.6	9.3	9.5	7.2	7.0	7.0	8.0	8.0	8.0
29	11.6	11.4	11.5	9.4	8.8	9.2	7.0	6.8	6.9	8.0	8.0	8.0
30	11.6	11.4	11.6	8.8	8.6	8.7	7.0	6.8	6.8	8.2	8.0	8.1
31	11.6	11.4	11.5	---	---	---	6.8	6.8	6.8	8.4	8.0	8.3
MONTH	17.5	11.4	14.8	11.6	8.6	10.0	9.5	6.8	7.9	8.6	4.4	6.4

## WILLAMETTE RIVER BASIN

14211720 WILLAMETTE RIVER AT PORTLAND, 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
	FEBRUARY			MARCH			APRIL			MAY		
1	8.4	8.2	8.3	8.8	8.4	8.7	9.8	9.4	9.5	15.2	14.1	14.7
2	8.4	8.2	8.2	8.8	8.6	8.8	10.2	9.8	9.9	14.9	14.6	14.8
3	8.2	8.0	8.1	9.2	8.8	8.9	10.4	10.2	10.4	15.2	14.4	14.7
4	8.0	7.6	7.9	9.4	9.0	9.2	10.6	10.2	10.4	15.4	14.6	15.0
5	7.8	7.4	7.6	10.0	9.4	9.7	10.4	10.0	10.3	15.4	14.9	15.2
6	7.4	7.0	7.3	10.4	10.0	10.2	10.6	10.0	10.3	15.4	15.2	15.3
7	7.2	6.9	7.0	10.6	10.4	10.5	10.6	10.2	10.4	15.7	15.2	15.5
8	6.9	6.9	6.9	11.1	10.4	10.7	10.6	10.4	10.5	15.7	15.4	15.5
9	6.9	6.7	6.8	11.1	10.8	11.0	11.1	10.4	10.7	15.4	14.4	15.0
10	6.9	6.7	6.7	11.3	11.1	11.1	11.0	10.6	10.9	14.4	13.4	13.9
11	6.7	6.5	6.7	11.5	11.1	11.2	10.8	10.4	10.6	13.6	13.1	13.4
12	6.5	6.2	6.4	11.7	11.3	11.5	10.6	10.4	10.5	13.1	12.4	12.9
13	6.3	6.2	6.2	12.0	11.7	11.8	10.6	10.4	10.5	12.7	12.4	12.7
14	6.2	6.0	6.2	12.4	12.0	12.2	10.8	10.4	10.7	13.4	12.7	13.1
15	6.2	6.2	6.2	12.7	12.4	12.5	10.6	10.4	10.5	14.4	13.2	13.8
16	6.2	6.0	6.0	12.7	12.4	12.4	10.6	10.2	10.3	14.9	14.1	14.5
17	6.2	5.8	6.0	12.6	12.4	12.5	10.4	10.2	10.2	14.9	14.6	14.8
18	6.3	6.0	6.2	12.6	12.4	12.5	10.4	10.2	10.3	15.2	14.6	14.9
19	6.5	6.2	6.2	12.6	12.2	12.3	10.8	10.4	10.6	14.9	13.6	14.4
20	6.3	6.0	6.2	12.2	11.9	12.0	11.3	10.4	10.8	13.6	13.4	13.6
21	6.3	6.2	6.2	11.9	11.7	11.8	12.0	10.8	11.3	13.4	13.1	13.3
22	6.7	6.3	6.4	11.7	10.8	11.3	12.7	11.5	12.0	13.1	12.7	13.0
23	6.7	6.5	6.6	10.8	10.6	10.8	12.9	12.4	12.6	13.1	12.7	12.9
24	7.2	6.7	6.9	10.6	10.4	10.6	13.1	12.9	13.0	13.4	12.7	13.1
25	7.8	7.2	7.5	10.6	10.2	10.4	13.4	13.1	13.2	14.2	12.9	13.6
26	8.2	7.8	8.0	10.2	10.0	10.2	13.1	13.1	13.1	15.5	13.9	14.6
27	8.4	8.0	8.1	10.2	9.4	10	13.4	12.9	13.1	16.3	14.9	15.5
28	8.6	8.2	8.4	9.4	9.2	9.4	13.9	13.2	13.4	16.9	16.0	16.5
29	---	---	---	9.4	9.2	9.3	14.1	13.6	13.9	17.4	16.8	17.1
30	---	---	---	9.4	9.2	9.2	14.6	14.1	14.3	18.0	17.1	17.5
31	---	---	---	9.4	9.2	9.3	---	---	---	17.7	17.4	17.5
MONTH	8.6	5.8	7.0	12.7	8.4	10.7	14.6	9.4	11.3	18.0	12.4	14.6
	JUNE			JULY			AUGUST			SEPTEMBER		
1	17.4	16.8	17.1	19.9	19.0	19.4	23.9	23.5	23.8	21.3	20.9	21.0
2	16.8	16.6	16.7	19.6	19.0	19.3	23.9	23.5	23.7	21.3	20.9	21.0
3	16.6	16.0	16.1	19.9	19.0	19.3	24.3	23.5	23.8	21.3	20.9	21.1
4	16.0	15.4	15.8	20.3	19.3	19.7	24.3	23.5	23.8	21.3	20.9	21.0
5	16.0	15.4	15.7	21.3	19.9	20.5	24.3	23.5	23.9	21.0	20.7	20.7
6	15.7	15.4	15.6	21.6	21.0	21.1	24.3	23.5	23.8	21.0	20.3	20.5
7	15.7	15.2	15.5	21.6	20.9	21.4	23.9	23.5	23.7	20.7	20.3	20.4
8	15.7	15.4	15.5	21.6	21.2	21.3	24.0	23.5	23.7	20.4	20.0	20.3
9	15.4	14.9	15.2	21.6	20.9	21.2	24.0	23.2	23.4	20.4	20.3	20.3
10	14.9	14.6	14.8	21.2	20.9	21.0	23.6	22.8	23.2	20.3	19.7	20.0
11	15.2	14.6	15.0	21.6	20.9	21.2	23.2	22.8	23.0	20.0	19.4	19.6
12	15.7	15.2	15.5	21.6	21.2	21.2	23.2	22.8	22.9	19.8	18.8	19.2
13	16.3	15.4	15.9	21.2	20.9	21.0	23.6	22.8	23.1	19.5	18.5	18.9
14	16.6	15.7	16.2	21.2	20.2	20.7	23.6	23.2	23.3	19.1	18.5	18.8
15	16.6	16.0	16.3	20.9	20.2	20.7	23.7	23.3	23.5	18.8	18.2	18.4
16	16.6	16.3	16.5	21.2	20.2	20.7	23.3	22.9	23.2	18.2	17.6	17.9
17	16.8	16.6	16.7	21.6	20.5	20.9	22.9	22.5	22.9	17.9	17.6	17.6
18	16.8	16.3	16.7	22.0	20.9	21.5	23.3	22.5	22.7	17.9	17.6	17.6
19	17.1	16.6	16.8	22.3	21.6	21.9	23.3	22.5	22.7	18.0	17.6	17.7
20	18.0	16.6	17.1	23.1	21.9	22.3	22.9	22.5	22.6	18.0	17.7	17.8
21	17.7	16.8	17.3	23.5	22.3	22.8	23.3	22.5	22.6	17.7	17.4	17.7
22	17.7	17.1	17.5	23.1	22.7	23.0	23.0	22.5	22.8	17.4	17.1	17.4
23	18.0	17.7	17.8	23.5	22.7	23.1	22.6	22.6	22.6	17.2	16.6	16.9
24	18.4	17.7	18.1	23.9	23.1	23.3	22.6	22.2	22.3	16.9	16.6	16.7
25	19.0	18.3	18.6	23.9	23.5	23.6	22.2	21.9	22.0	17.1	16.6	16.7
26	19.0	18.6	18.8	23.9	23.1	23.5	22.2	21.5	21.9	17.0	16.4	16.7
27	19.0	18.6	19.0	23.9	23.1	23.4	22.2	21.5	21.8	17.0	16.4	16.5
28	19.0	18.6	18.8	23.9	23.5	23.6	22.6	21.5	22.0	17.0	16.1	16.4
29	19.6	18.6	18.9	23.9	23.5	23.7	22.2	21.6	21.8	16.4	15.9	16.1
30	19.9	19.0	19.2	24.3	23.5	23.7	22.0	21.3	21.5	16.4	15.9	16.1
31	---	---	---	24.3	23.5	23.9	21.6	20.9	21.3	---	---	---
MONTH	19.9	14.6	16.8	24.3	19.0	21.7	24.3	20.9	22.9	21.3	15.9	18.6
YEAR	24.3	4.4	13.6									

WILLAMETTE RIVER BASIN

14211814 FAIRVIEW CREEK AT GLISAN STREET, NEAR GRESHAM, OR

LOCATION.--Lat 45°31'40", long 122°26'51", in Land Grant parcel number 58, T.1 N., R.3 E., Multnomah County, Hydrologic Unit 17090012, on right bank at upstream side of culvert on Glisan St., 0.4 mi east of the intersection of 202nd Ave. and Glisan St., 1.7 mi northwest of Gresham City Hall and at mile 3.05.

DRAINAGE AREA.--4.94 mi<sup>2</sup>.

PERIOD OF RECORD.--May 1992 to current year.

GAGE.--Water-stage recorder. Datum of gage is 205 ft above NGVD of 1929, from topographic map.

REMARKS.--No estimated daily discharges. Records poor. No regulation or diversion. High flows affected to an unknown degree by two small ponds just upstream from station.

AVERAGE DISCHARGE.--13 years (water years 1993-2005), 5.53 ft<sup>3</sup>/s, 15.20 in/yr, 4,000 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 119 ft<sup>3</sup>/s Jan. 31, 2003, gage height, 6.56 ft; minimum discharge, 0.24 ft<sup>3</sup>/s Sept. 15, 1995.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 30 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Nov 2	2000	32	5.35	Mar 27	0930	*48	*5.58

Minimum discharge, 0.31 ft<sup>3</sup>/s, Sept. 30, gage height, 4.02 ft.

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	3.4	9.7	1.9	18	2.4	5.8	9.2	8.0	5.9	4.7	1.5	2.3
2	3.3	17	1.9	10	2.1	5.4	9.3	8.7	6.7	2.8	1.3	2.3
3	3.3	20	1.6	5.4	2.2	5.1	8.8	7.7	4.9	2.0	1.4	2.6
4	3.2	10	1.4	3.5	2.6	5.1	8.9	5.9	4.0	1.6	1.9	2.6
5	3.2	7.0	1.7	2.8	2.7	5.0	7.2	8.3	6.7	1.5	2.1	2.7
6	12	3.5	2.8	2.7	4.8	4.9	6.1	7.3	8.3	1.4	1.8	2.7
7	8.2	2.4	5.2	3.1	13	5.0	6.6	6.3	5.4	1.3	1.7	2.7
8	11	1.9	23	5.1	9.2	5.1	8.2	6.2	4.7	2.2	2.1	2.7
9	18	1.7	14	3.8	8.6	4.9	7.1	12	4.5	8.8	2.1	2.6
10	13	1.6	13	3.1	8.3	5.1	6.2	18	4.3	6.1	1.8	2.7
11	9.8	1.5	23	2.8	8.1	5.3	12	10	5.3	4.5	1.4	2.7
12	8.6	1.4	13	2.5	9.0	5.3	6.6	5.8	4.7	3.9	1.0	2.5
13	8.6	1.3	6.8	2.3	11	5.3	3.6	5.2	4.0	3.8	0.86	1.4
14	8.6	1.2	11	2.1	9.3	5.1	7.8	7.4	4.0	3.5	0.77	0.94
15	8.4	1.4	8.6	2.0	8.2	5.1	4.9	7.2	4.0	3.2	0.71	0.73
16	8.1	2.3	4.8	2.2	7.8	5.3	12	11	5.4	3.3	0.66	0.61
17	11	2.0	3.3	4.1	7.7	7.3	12	8.7	19	2.5	0.63	0.55
18	13	5.4	2.8	15	7.2	6.0	12	14	8.7	1.6	0.62	0.51
19	15	4.7	2.6	9.3	6.8	8.9	6.4	11	6.4	1.3	0.60	0.44
20	12	2.4	2.4	5.0	6.6	10	4.3	12	12	1.2	0.57	0.41
21	12	1.8	2.7	4.4	5.7	9.2	3.5	10	7.9	1.6	0.55	0.39
22	9.5	1.6	6.1	3.7	5.1	6.4	3.4	11	6.5	3.0	0.53	0.37
23	7.8	1.5	3.6	3.0	5.2	5.7	6.7	6.8	6.6	3.7	0.50	0.36
24	8.6	1.8	2.7	2.6	5.9	6.7	10	5.6	5.8	2.4	0.50	0.35
25	6.3	1.9	2.6	2.5	5.8	5.6	15	5.3	4.8	1.5	0.46	0.34
26	15	1.7	11	2.8	5.6	12	13	4.9	4.4	1.2	0.46	0.33
27	13	1.6	6.9	3.0	5.4	36	9.8	4.9	7.3	1.3	0.46	0.33
28	7.9	1.4	3.7	2.6	5.5	20	10	3.6	7.9	1.8	0.46	0.33
29	7.4	1.4	3.3	5.2	---	14	8.6	2.2	5.9	1.8	0.48	0.32
30	13	1.7	3.8	4.6	---	8.0	8.1	1.8	5.4	1.5	0.89	2.3
31	14	---	4.9	3.0	---	7.3	---	1.9	---	1.4	1.5	---
TOTAL	296.2	114.8	196.1	142.2	181.8	245.9	247.3	238.7	191.4	82.4	32.31	42.11
MEAN	9.55	3.83	6.33	4.59	6.49	7.93	8.24	7.70	6.38	2.66	1.04	1.40
MAX	18	20	23	18	13	36	15	18	19	8.8	2.1	2.7
MIN	3.2	1.2	1.4	2.0	2.1	4.9	3.4	1.8	4.0	1.2	0.46	0.32
AC-FT	588	228	389	282	361	488	491	473	380	163	64	84
CFSM	1.93	0.77	1.28	0.93	1.31	1.61	1.67	1.56	1.29	0.54	0.21	0.28
IN.	2.23	0.86	1.48	1.07	1.37	1.85	1.86	1.80	1.44	0.62	0.24	0.32

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1993 - 2005, BY WATER YEAR (WY)

MEAN	3.31	5.72	9.44	9.84	9.27	8.34	6.05	5.08	3.72	2.15	1.77	1.82
MAX	9.55	11.8	20.2	16.8	19.2	17.7	8.81	8.55	6.38	4.76	6.29	5.35
(WY)	(2005)	(1997)	(1997)	(1997)	(1999)	(1999)	(1999)	(1999)	(2005)	(1997)	(2004)	(2004)
MIN	0.98	1.15	4.39	2.13	2.54	4.74	2.76	2.28	1.33	0.47	0.53	0.44
(WY)	(2003)	(2003)	(1994)	(2001)	(1993)	(2004)	(2004)	(2004)	(2001)	(2001)	(1994)	(2001)

WILLAMETTE RIVER BASIN

14211814 FAIRVIEW CREEK AT GLISAN STREET, NEAR GRESHAM, OR—Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1993 - 2005	
ANNUAL TOTAL	1,970.5		2,011.22			
ANNUAL MEAN	5.38		5.51		5.53	
HIGHEST ANNUAL MEAN					9.11	1997
LOWEST ANNUAL MEAN					2.55	2001
HIGHEST DAILY MEAN	38	Jan 24	36	Mar 27	71	Nov 19, 1996
LOWEST DAILY MEAN	1.2	Jul 2	0.32	Sep 29	0.26	Sep 12, 2001
ANNUAL SEVEN-DAY MINIMUM	1.3	Jun 28	0.34	Sep 23	0.27	Sep 8, 2001
ANNUAL RUNOFF (AC-FT)	3,910		3,990		4,000	
ANNUAL RUNOFF (CFSM)	1.09		1.12		1.12	
ANNUAL RUNOFF (INCHES)	14.84		15.15		15.20	
10 PERCENT EXCEEDS	12		12		13	
50 PERCENT EXCEEDS	3.1		4.8		3.5	
90 PERCENT EXCEEDS	1.7		1.2		0.83	

WILLAMETTE RIVER BASIN

14211814 FAIRVIEW CREEK AT GLISAN STREET, NEAR GRESHAM, OR—Continued



2005 Water Year  
WILLAMETTE RIVER BASIN

14211814 FAIRVIEW CREEK AT GLISAN ST NEAR GRESHAM, OR

Latitude: 45° 31' 40"

Longitude: 122° 26' 51"

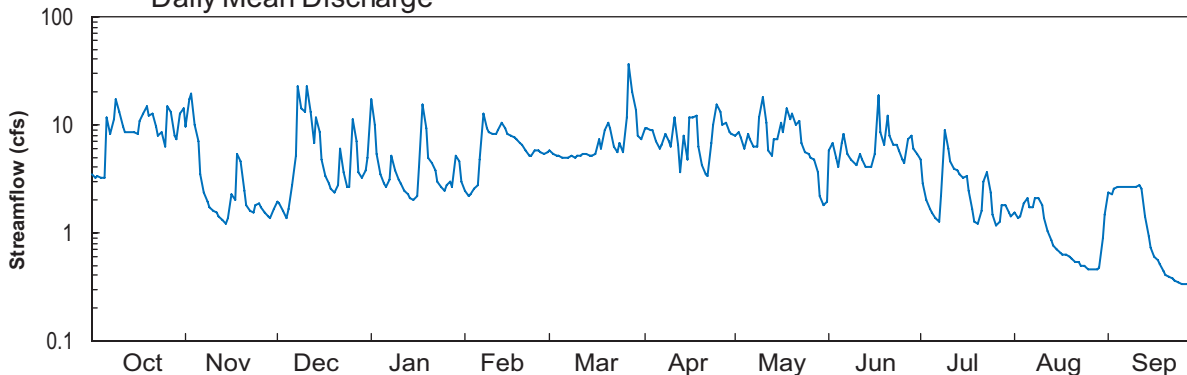
Hydrologic Unit Code: 17090012

Multnomah County

Datum: 205 feet

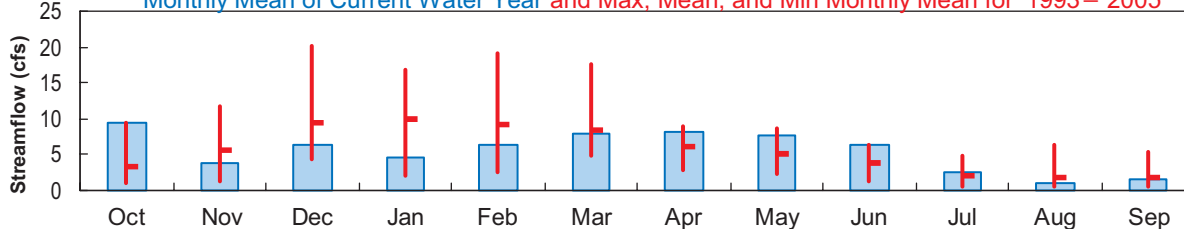
Drainage Area: 4.94 mi<sup>2</sup>

Daily Mean Discharge

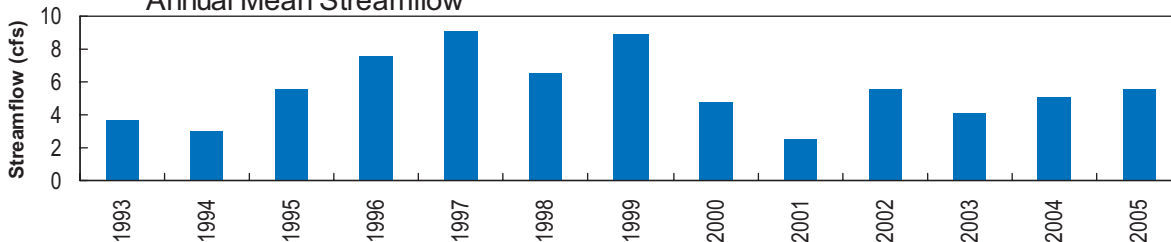


Monthly Statistics

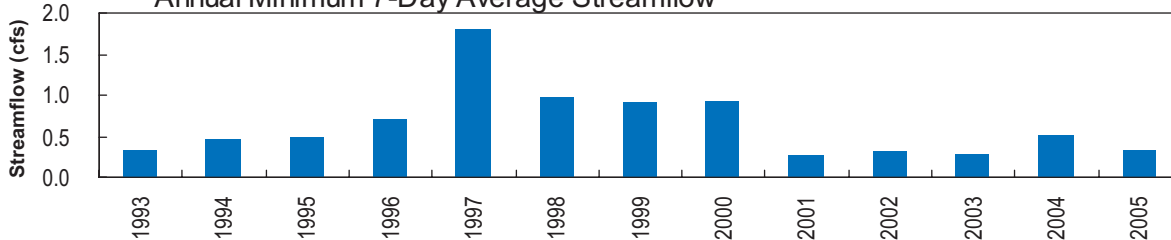
Monthly Mean of Current Water Year and Max, Mean, and Min Monthly Mean for 1993–2005



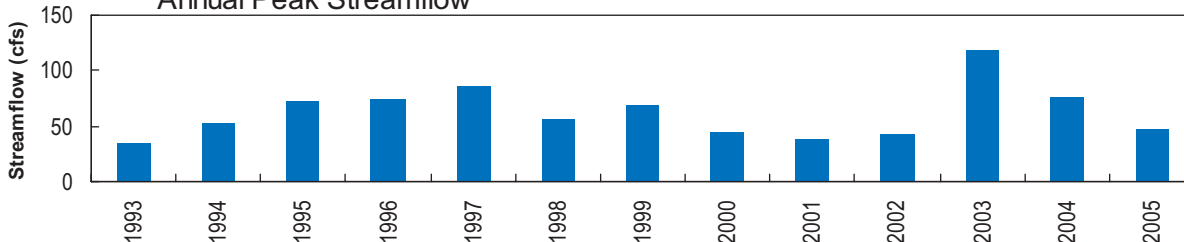
Annual Mean Streamflow



Annual Minimum 7-Day Average Streamflow



Annual Peak Streamflow



## WILLAMETTE RIVER BASIN

14211820 COLUMBIA SLOUGH AT PORTLAND, OR

LOCATION.--Lat 45°38'21", long 122°45'43", in NE ¼ SE ¼ sec.23, T.2 N., R.1 W., Multnomah County, Hydrologic Unit 17090012, on right bank, 0.25 mi upstream from mouth and 1.25 mi upstream from confluence of Willamette and Columbia Rivers.

DRAINAGE AREA.--Indeterminate.

PERIOD OF RECORD.--October 1989 to current year.

GAGE.--Acoustic velocity meter with water-stage and velocity-index recorder. Datum of gage is 1.53 ft above NGVD of 1929.

REMARKS.--Records poor. Flows affected by tide which can cause reverse direction during tidal cycle. Mean discharge values are based on a 24 hour day, not a tidal cycle.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 2,400 ft<sup>3</sup>/s Dec. 5, 1995, but may have been greater Dec. 2-4, 1995, Feb. 10-14, 1996; maximum gage height, 27.26 ft Feb. 9, 1996; minimum daily discharge, -6,700 ft<sup>3</sup>/s Feb. 7, 1996, but may have been less Nov. 29 to Dec. 3, 1995, Feb. 8, 9, 1996.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 331 ft<sup>3</sup>/s Dec. 19; maximum gage height, 10.18 ft May 22; minimum daily discharge, -260 ft<sup>3</sup>/s Dec. 11.

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	49	93	93	155	110	-42	164	53	16	41	42	-3.3
2	-26	108	108	163	22	12	172	46	-20	11	72	20
3	-25	167	119	95	10	82	152	84	107	88	115	13
4	-42	135	-28	---	-5.5	113	79	-33	89	73	36	-2.3
5	22	106	0.86	---	10	93	37	-23	92	-15	29	5.6
6	156	38	43	---	-62	40	-53	-59	49	-47	-3.6	11
7	113	110	71	-88	58	-81	27	-22	94	78	29	18
8	-28	84	-109	-102	88	-67	136	-84	88	-82	-8.9	-18
9	76	-7.4	-19	109	34	19	56	-28	1.8	41	18	-5.7
10	115	-68	-163	6.5	57	29	28	45	80	29	43	66
11	22	-22	-260	11	49	-13	-88	-43	128	20	29	65
12	-50	37	39	32	103	44	95	-185	162	66	42	40
13	-53	22	32	-46	176	-44	100	115	137	84	100	80
14	-1.2	23	104	---	122	-14	157	64	88	45	86	60
15	-49	-82	188	249	-21	90	119	85	148	6.3	54	5.6
16	26	2.1	151	135	30	52	147	63	9.6	86	61	-33
17	-88	123	113	67	104	154	116	128	49	70	-25	-13
18	-70	120	233	72	86	57	115	-58	60	43	-80	-32
19	27	211	331	75	71	-14	43	-181	77	6.9	-61	20
20	117	139	193	149	60	---	92	-25	-51	38	-17	-37
21	212	99	-46	109	-6.0	70	71	-73	-13	-8.4	14	-110
22	153	18	105	22	62	46	-39	-4.6	-55	-76	-15	4.3
23	70	-54	-74	-0.90	-20	22	31	31	-81	90	-21	-33
24	5.7	-60	290	-34	-67	17	51	39	29	40	36	46
25	10	42	46	79	-11	-56	108	80	-32	---	100	44
26	-13	58	-27	-1.3	63	9.5	-53	40	54	---	---	123
27	37	66	105	40	63	90	-18	12	61	---	72	72
28	122	63	77	59	49	-59	38	-66	115	125	81	51
29	117	-0.97	81	19	---	-21	141	189	127	106	90	-19
30	45	40	40	147	---	134	28	226	69	27	77	42
31	171	---	79	114	---	93	---	193	---	19	53	---
TOTAL	1,220.5	1,609.73	1,915.86	---	1,234.5	---	2,052	608.4	1,678.4	---	---	480.2
MEAN	39.4	53.7	61.8	---	44.1	---	68.4	19.6	55.9	---	---	16.0
MAX	212	211	331	---	176	---	172	226	162	---	---	123
MIN	-88	-82	-260	---	-67	---	-88	-185	-81	---	---	-110
AC-FT	2,420	3,190	3,800	---	2,450	---	4,070	1,210	3,330	---	---	952