

Water-Data Report 2008

14211820 COLUMBIA SLOUGH AT PORTLAND, OR

Willamette Basin
Lower Willamette Subbasin

LOCATION.--Lat 45°38'21", long 122°45'43" referenced to North American Datum of 1927, in NE ¼ SE ¼ sec.23, T.2 N., R.1 W., Multnomah County, OR, Hydrologic Unit 17090012, on right bank, 0.6 mi upstream from mouth and 1.25 mi upstream from confluence of Willamette and Columbia Rivers.

DRAINAGE AREA.--Indeterminate.

SURFACE-WATER RECORDS

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

GAGE.--Water-stage recorder acoustic velocity meter (AVM). Datum of gage is 1.53 ft above NGVD of 1929.

REMARKS.--No estimated daily discharges. Records poor. Flows affected by tide which can cause reverse direction during tidal cycle. Mean discharge values since water year 2007 have been filtered to removed daily tidal cycle.

AVERAGE DISCHARGE FOR PERIOD OF RECORD.--7 years (water years 1990-93, 2000, 2006, 2008), 97.8 ft³/s, 70,870 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 2,400 ft³/s Dec. 5, 1995, but may have been greater during periods of missing record Dec. 2-4, 1995, Feb. 10-14, 1996; maximum gage height, 27.26 ft Feb. 9, 1996, from floodmark; minimum daily discharge, -6,700 ft³/s Feb. 7, 1996, but may have been less during periods of missing record Nov. 29 to Dec. 3, 1995, Feb. 8, 9, 1996.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 507 ft³/s June 8; maximum gage height, 15.01 ft May 23; minimum daily discharge, -1,140 ft³/s May 20.

14211820 COLUMBIA SLOUGH AT PORTLAND, OR—Continued

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2007 TO SEPTEMBER 2008
DAILY MEAN VALUES

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	93	104	107	130	149	122	38	0.52	-86	-17	139	84
2	80	65	167	118	139	106	75	30	-126	-75	172	50
3	92	2.3	83	143	198	38	70	97	-112	-86	150	56
4	87	17	-101	86	133	29	56	110	-148	-22	136	62
5	115	43	-28	112	112	58	54	34	-113	133	81	59
6	101	48	227	144	172	97	37	-11	51	184	87	74
7	63	17	278	127	189	70	42	-4.7	421	111	100	70
8	53	-25	179	133	164	69	64	-4.2	507	81	134	41
9	-27	-50	132	155	91	72	78	-32	472	67	122	52
10	-25	5.0	89	167	162	70	126	53	362	109	89	43
11	62	84	78	145	148	73	135	185	-70	126	63	52
12	68	35	171	185	102	77	69	64	-215	88	64	50
13	99	88	113	230	75	87	87	-4.9	99	59	80	48
14	63	85	94	190	97	113	96	95	334	93	93	36
15	-13	32	88	172	134	135	53	5.8	395	22	54	13
16	-18	48	69	150	180	149	21	-90	210	43	61	-22
17	91	124	88	152	120	68	57	-108	-74	62	90	19
18	65	135	91	184	15	78	94	-346	-157	57	90	80
19	131	138	57	108	-12	51	82	-724	-79	43	79	78
20	137	114	62	139	68	59	44	-1,140	63	65	66	77
21	104	91	75	85	83	101	2.8	-1,080	73	73	105	70
22	76	88	54	88	59	140	43	-310	51	96	98	73
23	47	70	101	73	117	150	159	177	104	95	85	32
24	59	50	158	75	114	101	111	470	11	80	91	14
25	93	54	144	115	120	59	89	266	-58	64	138	31
26	111	68	144	103	102	122	96	-2.6	-42	62	128	30
27	70	107	88	143	78	121	126	-51	-91	62	96	42
28	18	112	125	65	99	104	68	-172	-57	81	54	35
29	-14	113	189	100	119	207	66	-316	-52	88	8.8	3.8
30	74	121	262	158	---	180	57	-158	-52	79	45	37
31	103	---	226	134	---	86	---	-57	---	84	69	---
Total	2,058	1,983.3	3,610	4,109	3,327	2,992	2,195.8	-3,024.08	1,621	2,007	2,867.8	1,389.8
Mean	66.4	66.1	116	133	115	96.5	73.2	-97.6	54.0	64.7	92.5	46.3
Max	137	138	278	230	198	207	159	470	507	184	172	84
Min	-27	-50	-101	65	-12	29	2.8	-1,140	-215	-86	8.8	-22
Ac-ft	4,080	3,930	7,160	8,150	6,600	5,930	4,360	-6,000	3,220	3,980	5,690	2,760

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1990 - 2008, BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	98.8	112	123	168	151	135	83.4	35.4	65.2	82.2	76.3	66.1
Max	142	170	185	326	241	330	180	105	209	134	113	123
(WY)	(1991)	(1997)	(2000)	(1997)	(1997)	(1999)	(1999)	(2000)	(1998)	(1998)	(1996)	(1996)
Min	39.4	49.9	11.3	109	44.1	73.9	6.20	-97.6	-13.2	9.91	6.45	16.0
(WY)	(2005)	(2003)	(2006)	(2003)	(2005)	(2004)	(1997)	(2008)	(1990)	(2003)	(2003)	(2005)

14211820 COLUMBIA SLOUGH AT PORTLAND, OR—Continued

SUMMARY STATISTICS

	Water Year 2008		Water Years 1990 - 2008	
Annual total	25,136.62			
Annual mean	68.7		97.8	
Highest annual mean			138	2000
Lowest annual mean			59.4	2006
Highest daily mean	507	Jun 8	2,400	Dec 5, 1995
Lowest daily mean	-1,140	May 20	-6,700	Feb 7, 1996
Annual seven-day minimum	-543	May 16	-894	Dec 27, 1996
Annual runoff (ac-ft)	49,860		70,870	
10 percent exceeds	158		220	
50 percent exceeds	80		93	
90 percent exceeds	-25		-7.5	