

Water-Data Report 2007

14202000 PUDDING RIVER AT AURORA, OR

Willamette Basin
Molalla-Pudding Subbasin

LOCATION.--Lat 45°14'00", long 122°44'56" referenced to North American Datum of 1927, in SW ¼ SE ¼ sec.12, T.4 S., R.1 W., Clackamas County, OR, Hydrologic Unit 17090009, upstream side of bridge on U.S. Highway 99E, at Aurora, 0.9 mi upstream from Mill Creek and at mile 8.11.

DRAINAGE AREA.--479 mi².

SURFACE-WATER RECORDS

PERIOD OF RECORD.--October 1928 to September 1964, October 1993 to September 1997, October 2002 to current year.

REVISED RECORDS.--WDR OR-95-1: 1994(M). WDR OR-96-1: 1938(M), 1949(M).

GAGE.--Water-stage recorder. Datum of gage is 72.23 ft above NGVD of 1929. Prior to Sept. 30, 1961, staff or wire-weight gage at same site at datum 5.00 ft higher.

REMARKS.--No estimated daily discharges. Records good above 50 ft³/s and fair below, except for period May 28 to July 12, which is poor. Many diversions for irrigation upstream from station. Additional data for period July to September 1993 available in the files of the Portland Field Office. Continuous water-quality records for period August 1993 to November 1997 have been collected at this location.

AVERAGE DISCHARGE FOR PERIOD OF RECORD.--45 years (water years 1929-64, 1994-97, 2003-07), 1,237 ft³/s, 35.09 in/yr, 896,200 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 43,700 ft³/s Feb. 8, 1996, gage height, 30.72 ft, from rating curve extended above 23,000 ft³/s; minimum daily discharge, 3.5 ft³/s Aug. 6, 20, 28, 1994, but may have been less during period of missing record.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Jan. 7, 1923 reached a stage of 30.0 ft, present datum, from floodmarks, discharge, 37,000 ft³/s (revised), from rating curve extended above 23,000 ft³/s. Flood of Dec. 23, 1964 reached a stage of 29.57 ft, discharge, 34,000 ft³/s, from rating curve extended above 23,000 ft³/s.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 6,330 ft³/s Dec. 16, gage height, 22.03 ft; minimum discharge, 9.0 ft³/s Sept. 2.

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DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2006 TO SEPTEMBER 2007
DAILY MEAN VALUES

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	44	116	3,810	3,380	705	3,570	1,340	623	218	127	33	12
2	46	129	3,440	2,920	664	3,390	1,300	621	205	127	23	9.7
3	51	183	3,020	3,660	627	3,420	1,190	789	188	112	18	12
4	50	363	2,630	5,730	595	3,380	1,080	896	183	95	14	19
5	39	801	2,250	6,160	578	3,190	1,000	862	171	87	14	29
6	42	1,620	1,870	5,970	567	2,960	920	805	175	81	17	41
7	50	2,890	1,560	5,640	559	2,730	888	744	247	69	18	56
8	53	4,850	1,370	5,230	554	2,680	957	692	254	58	19	46
9	55	5,250	1,270	4,970	583	2,570	1,010	646	235	53	15	37
10	61	5,310	1,300	4,820	642	2,320	1,210	601	224	56	15	36
11	60	4,890	1,330	4,640	683	2,160	1,280	561	245	50	16	28
12	55	4,350	1,920	4,250	788	2,200	1,200	529	278	43	15	24
13	62	3,940	2,750	3,690	841	2,440	1,110	519	247	37	17	19
14	66	4,050	3,740	3,150	841	2,280	1,050	510	212	35	19	19
15	75	3,830	5,280	2,700	880	1,960	1,080	485	201	32	19	18
16	89	3,430	6,210	2,330	2,390	1,670	1,050	451	196	33	14	21
17	104	3,130	6,040	1,990	4,140	1,470	983	415	192	34	12	27
18	120	2,650	5,260	1,670	4,170	1,340	1,040	392	189	38	11	34
19	116	2,180	4,300	1,480	3,570	1,270	1,120	375	168	42	13	40
20	110	2,400	3,460	1,420	3,170	1,390	1,120	367	143	62	21	47
21	120	2,900	3,040	1,440	3,550	1,660	1,070	375	134	59	39	47
22	136	3,390	3,050	1,350	3,590	1,540	1,070	412	131	50	72	42
23	121	4,360	2,950	1,240	3,350	1,370	1,130	428	141	59	89	39
24	111	5,110	3,150	1,160	3,140	1,250	1,060	386	136	72	72	35
25	108	5,590	3,730	1,070	3,430	1,440	956	353	119	61	54	34
26	117	5,750	4,980	999	3,830	2,370	884	326	109	53	40	33
27	122	5,690	5,930	943	3,860	2,340	822	296	105	46	36	31
28	119	5,380	6,100	888	3,730	2,060	764	274	98	41	33	40
29	119	4,830	5,560	828	---	1,770	715	276	93	38	26	69
30	113	4,260	4,830	779	---	1,560	663	254	109	35	19	96
31	109	---	4,050	741	---	1,400	---	237	---	35	14	---
Total	2,643	103,622	110,180	87,238	56,027	67,150	31,062	15,500	5,346	1,820	837	1,040.7
Mean	85.3	3,454	3,554	2,814	2,001	2,166	1,035	500	178	58.7	27.0	34.7
Max	136	5,750	6,210	6,160	4,170	3,570	1,340	896	278	127	89	96
Min	39	116	1,270	741	554	1,250	663	237	93	32	11	9.7
Ac-ft	5,240	205,500	218,500	173,000	111,100	133,200	61,610	30,740	10,600	3,610	1,660	2,060
Cfsm	0.18	7.21	7.42	5.88	4.18	4.52	2.16	1.04	0.37	0.12	0.06	0.07
In.	0.21	8.05	8.56	6.78	4.35	5.21	2.41	1.20	0.42	0.14	0.07	0.08

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1929 - 2007, BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	326	1,432	2,468	2,821	2,684	2,074	1,537	863	420	146	67.2	92.6
Max	1,774	4,643	6,090	6,873	6,948	4,235	3,355	2,192	1,101	364	120	329
(WY)	(1948)	(1951)	(1997)	(2006)	(1996)	(1961)	(1963)	(1963)	(1933)	(1952)	(1943)	(2004)
Min	63.8	78.9	436	759	497	599	456	242	158	53.2	11.3	32.8
(WY)	(1953)	(1937)	(1945)	(2005)	(2005)	(1941)	(1941)	(1939)	(1940)	(2003)	(1994)	(1994)

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SUMMARY STATISTICS

	Calendar Year 2006		Water Year 2007		Water Years 1929 - 2007	
Annual total	626,649.5		482,465.7			
Annual mean	1,717		1,322		1,237	
Highest annual mean					2,037	1997
Lowest annual mean					692	2005
Highest daily mean	13,000	Jan 1	6,210	Dec 16	36,100	Feb 8, 1996
Lowest daily mean	9.5	Sep 11	9.7	Sep 2	3.5	Aug 6, 1994
Annual seven-day minimum	12	Sep 6	15	Aug 13	6.4	Aug 17, 1994
Annual runoff (ac-ft)	1,243,000		957,000		896,200	
Annual runoff (cfsm)	3.58		2.76		2.58	
Annual runoff (inches)	48.67		37.47		35.09	
10 percent exceeds	5,370		3,980		3,450	
50 percent exceeds	754		583		624	
90 percent exceeds	30		33		64	

