



Water-Data Report 2008

12091100 FLETT CREEK AT TACOMA, WA

Puget Sound Basin
Puget Sound Subbasin

LOCATION.--Lat 47°11'23", long 122°31'08" referenced to North American Datum of 1927, in NE ¼ SW ¼ sec.26, T.20 N., R.2 E., Pierce County, WA, Hydrologic Unit 17110019, on right bank upstream of 75th Street bridge, 0.6 mi upstream from mouth and 0.7 mi west of city limits of Tacoma.

DRAINAGE AREA.--7.33 mi², excludes 0.68 mi² storm drainage diverted to Leach Creek basin.

SURFACE-WATER RECORDS

PERIOD OF RECORD.--June 1959 to September 1985, October 1985 to September 1996 (seasonal records). October 1996 to current year.

REVISED RECORDS.--WSP 1932: Drainage area.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 189.32 ft above NGVD of 1929 (levels by USGS National Mapping Division). Prior to Oct. 11, 2000, at site 150 feet downstream and at datum 5.74 feet higher.

REMARKS.--Records fair, except estimated daily discharges and discharges below 5.0 ft³/s, which are poor. Storm sewer drainage upstream from station. Several diversions for irrigation and industrial use. At times during winter months 1,000 gpm (~ 2cfs) is pumped into creek for short intervals from Mountain View Memorial Park. Since October 1979, Flett Creek flood control retention ponds store and release flood water upstream from station. Chemical analyses October 1964 to September 1965.

AVERAGE DISCHARGE FOR PERIOD OF RECORD.--37 years (water years 1960-85, 1997-2008), 11.1 ft³/s, 8,030 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 203 ft³/s, Feb. 8, 1996, gage height, 3.08 ft, site and datum then in use, from rating curve extended above 115 ft³/s; minimum discharge, 0.04 ft³/s, several days in Sept 2005.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 99 ft³/s, Dec. 4, gage height, 11.05 ft; minimum discharge, 0.49 ft³/s, Aug. 16.

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DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2007 TO SEPTEMBER 2008
DAILY MEAN VALUES
[*e*, estimated]

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	3.5	2.3	7.5	21	29	16	13	10	2.6	2.1	2.3	2.6
2	9.3	2.3	15	21	27	17	12	8.7	2.8	2.0	2.5	2.2
3	11	2.4	53	25	23	14	11	8.4	4.4	1.9	2.2	2.2
4	12	2.7	85	24	20	12	11	8.1	7.1	1.9	1.9	2.2
5	8.5	2.7	83	22	19	11	12	7.5	6.9	2.1	1.7	2.2
6	5.1	2.8	68	25	22	10	12	7.3	7.6	2.3	1.4	2.0
7	3.8	2.6	56	23	26	9.9	13	6.5	9.0	2.1	1.2	3.4
8	3.5	2.7	34	24	27	9.7	14	6.5	8.1	2.0	0.96	3.7
9	3.7	2.8	23	27	32	9.6	12	6.4	6.4	1.9	1.2	0.95
10	3.8	3.7	18	41	e32	9.8	12	6.2	6.4	1.7	1.0	1.3
11	4.4	5.0	16	60	e30	13	11	6.2	6.0	1.5	0.87	1.5
12	4.4	6.1	14	52	26	16	9.7	6.0	5.3	1.3	0.90	1.7
13	3.7	7.7	13	41	22	16	8.9	5.9	4.5	1.3	0.97	1.6
14	3.4	8.4	14	31	19	25	9.0	6.1	3.9	1.2	0.78	1.6
15	3.4	8.0	16	28	18	24	9.0	5.8	3.7	1.2	0.74	1.7
16	3.5	10	17	24	17	18	8.8	5.3	3.6	1.1	0.58	1.7
17	4.0	13	15	21	16	15	8.5	5.2	3.3	1.1	1.2	1.9
18	4.5	16	17	19	15	13	8.5	5.0	3.2	1.1	1.3	3.1
19	8.3	15	25	17	14	12	8.5	4.7	3.0	1.2	1.4	2.2
20	19	12	40	17	13	12	8.5	7.6	2.9	1.2	2.9	1.9
21	29	8.3	34	17	13	12	8.5	14	3.0	1.3	6.7	2.6
22	23	5.9	26	15	13	12	8.5	13	2.8	1.3	6.7	2.9
23	16	5.1	29	14	13	14	9.9	9.4	2.8	1.3	4.2	2.4
24	10	4.3	38	14	13	21	11	6.0	2.6	1.4	3.2	2.2
25	8.2	3.8	31	13	12	17	9.4	5.1	2.5	1.3	4.2	2.5
26	7.0	3.4	26	13	11	17	8.5	4.9	2.5	1.4	6.0	2.5
27	5.5	3.6	23	16	11	23	8.5	3.9	2.5	1.4	6.3	2.3
28	4.1	4.6	31	17	12	19	10	3.5	2.6	1.3	4.9	2.2
29	3.3	6.8	31	18	12	21	15	3.1	2.7	1.4	3.4	2.0
30	2.6	7.7	27	23	---	19	13	2.8	2.4	1.4	2.8	2.0
31	2.6	---	25	23	---	15	---	2.7	---	1.6	2.7	---
Total	234.1	181.7	950.5	746	557	473.0	314.7	201.8	127.1	47.3	79.10	65.25
Mean	7.55	6.06	30.7	24.1	19.2	15.3	10.5	6.51	4.24	1.53	2.55	2.17
Max	29	16	85	60	32	25	15	14	9.0	2.3	6.7	3.7
Min	2.6	2.3	7.5	13	11	9.6	8.5	2.7	2.4	1.1	0.58	0.95
Ac-ft	464	360	1,890	1,480	1,100	938	624	400	252	94	157	129

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1959 - 2008, BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	4.34	11.3	19.9	24.3	23.1	20.1	14.4	8.66	5.43	2.91	1.66	2.26
Max	18.7	48.2	40.2	54.9	53.9	52.1	32.4	29.9	15.6	10.9	5.24	9.81
(WY)	(1998)	(2007)	(1999)	(1997)	(1999)	(1972)	(1991)	(1996)	(1997)	(1983)	(1983)	(1997)
Min	0.13	1.39	3.14	1.93	1.69	5.81	2.96	2.39	0.45	0.25	0.18	0.11
(WY)	(1988)	(2003)	(1977)	(1977)	(1977)	(1962)	(1977)	(1977)	(2003)	(2003)	(2002)	(2005)

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	Calendar Year 2007	Water Year 2008	Water Years 1959 - 2008	
Annual total	5,522.75	3,977.55		
Annual mean	15.1	10.9	11.1	
Highest annual mean			21.7	1997
Lowest annual mean			2.87	1977
Highest daily mean	85 Dec 4	85 Dec 4	138 Nov 15, 2001	
Lowest daily mean	0.85 Sep 27	0.58 Aug 16	0.04 Sep 13, 2005	
Annual seven-day minimum	0.96 Sep 23	0.83 Aug 10	0.05 Sep 12, 2005	
Annual runoff (ac-ft)	10,950	7,890	8,030	
10 percent exceeds	31	25	27	
50 percent exceeds	9.7	7.6	6.6	
90 percent exceeds	2.3	1.5	0.92	

