

## CHAMBERS CREEK BASIN

## 12091100 FLETT CREEK AT TACOMA, WA

LOCATION.--Lat 47°11'23", long 122°31'08", in NE 1/4 SW 1/4 sec.26, T.20 N., R.2 E., Pierce County, 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 mi<sup>2</sup>, excludes 0.68 mi<sup>2</sup> storm drainage diverted to Leach Creek basin but does not include some urban storm drainage diverted into the basin.

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 same site and at datum 5.74 ft higher.

REMARKS.--Records fair except for estimated daily discharges, discharges below 1.0 ft<sup>3</sup>/s, and period Nov. 14 to Jan. 10, which are poor. Storm sewer drainage upstream from station. Several diversions for irrigation and industrial use. At times during winter months 1,000 gpm are 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.--32 years (water years 1960-85, 1997-2002), 11.0 ft<sup>3</sup>/s, 7,980 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 203 ft<sup>3</sup>/s Feb. 8, 1996, gage height, 3.08 ft, site and datum then in use, from rating curve extended above 115 ft<sup>3</sup>/s; minimum discharge, 0.09 ft<sup>3</sup>/s Oct. 23-25, Nov. 11, 12, 1987, Sept. 5, 6, 9-15, 18, 2002.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 185 ft<sup>3</sup>/s Nov. 15, gage height 11.45 ft; minimum discharge, 0.09 ft<sup>3</sup>/s Sept. 5, 6, 9-15, 18.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.5	18	41	25	e29	17	10	7.7	5.3	3.1	0.21	0.10
2	1.3	14	44	34	e24	17	8.9	6.9	4.4	2.6	0.23	0.10
3	1.0	13	44	28	e20	17	8.6	5.9	3.5	2.3	0.23	0.10
4	0.91	9.2	43	24	e19	16	8.1	4.9	2.7	2.2	0.31	0.10
5	0.76	9.0	44	25	e17	15	7.6	4.0	2.2	2.3	0.27	0.10
6	0.83	7.8	46	23	e16	15	7.7	3.8	1.8	2.2	0.32	0.10
7	0.84	6.2	39	45	e16	14	7.1	3.5	1.9	2.7	0.29	0.11
8	1.1	5.6	25	54	e19	14	6.9	3.7	1.4	4.0	0.28	0.10
9	1.2	4.9	22	45	e20	13	7.3	4.1	1.5	3.7	0.27	0.10
10	1.8	4.5	22	e43	22	13	12	6.4	1.3	2.7	0.23	0.10
11	3.7	4.3	26	e42	24	20	16	8.1	1.2	2.0	0.20	0.10
12	3.3	5.4	28	e40	19	39	19	6.9	0.95	1.4	0.18	0.10
13	3.0	12	35	e40	17	39	23	7.7	0.97	1.1	0.17	0.10
14	3.4	58	57	e39	15	36	48	8.1	1.00	1.0	0.16	0.10
15	3.5	138	54	e32	15	22	41	6.9	0.88	0.98	0.15	0.10
16	3.5	69	56	e26	15	21	31	6.5	1.1	0.89	0.15	0.17
17	3.0	47	59	e22	15	29	29	8.5	1.4	0.80	0.13	0.10
18	2.7	40	57	e20	15	21	24	7.8	1.4	0.80	0.13	0.10
19	2.8	39	57	e18	16	24	16	7.2	1.3	0.61	0.13	0.10
20	3.3	40	59	e18	20	46	14	8.5	1.3	0.53	0.21	0.12
21	3.9	38	68	e19	30	35	11	8.0	1.2	0.48	0.16	0.15
22	5.5	37	54	e18	39	34	9.0	7.4	1.2	0.44	0.14	0.17
23	10	38	49	e18	40	32	7.8	6.6	1.2	0.36	0.13	0.22
24	12	36	33	e18	39	23	7.3	6.4	1.2	0.37	0.13	0.22
25	14	35	26	e25	38	21	6.8	6.3	1.2	0.33	0.13	0.27
26	13	27	25	e40	26	18	6.9	5.8	0.83	0.30	0.13	0.22
27	15	19	24	e43	18	15	11	5.4	0.82	0.28	0.12	0.19
28	16	25	25	e48	17	14	13	6.6	1.7	0.28	0.11	0.13
29	16	41	25	e45	---	12	10	9.1	4.7	0.21	0.10	0.25
30	13	41	24	e41	---	11	8.8	7.3	4.7	0.20	0.10	0.18
31	17	---	24	e38	---	11	---	6.4	---	0.20	0.10	---
TOTAL	178.84	881.9	1235	996	620	674	436.8	202.4	56.25	41.36	5.60	4.10
MEAN	5.77	29.4	39.8	32.1	22.1	21.7	14.6	6.53	1.88	1.33	0.18	0.14
MAX	17	138	68	54	40	46	48	9.1	5.3	4.0	0.32	0.27
MIN	0.76	4.3	22	18	15	11	6.8	3.5	0.82	0.20	0.10	0.10
AC-FT	355	1750	2450	1980	1230	1340	866	401	112	82	11	8.1

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1959 - 2002, BY WATER YEAR (WY)

	4.24	10.8	19.7	23.8	23.6	20.4	14.5	8.72	5.55	3.10	1.77	2.42
MEAN	4.24	10.8	19.7	23.8	23.6	20.4	14.5	8.72	5.55	3.10	1.77	2.42
MAX	18.7	32.4	40.2	54.9	53.9	52.1	32.4	29.9	15.6	10.9	5.24	9.81
(WY)	1998	1991	1999	1997	1999	1972	1991	1996	1997	1983	1983	1997
MIN	0.13	1.83	3.14	1.93	1.69	5.81	2.96	2.39	1.63	0.68	0.18	0.14
(WY)	1988	1966	1977	1977	1977	1962	1977	1977	1975	1970	2002	2002

## SUMMARY STATISTICS FOR 2001 CALENDAR YEAR FOR 2002 WATER YEAR WATER YEARS 1959 - 2002

	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1959 - 2002	
ANNUAL TOTAL	4526.76		5332.25			
ANNUAL MEAN	12.4		14.6		11.0	
HIGHEST ANNUAL MEAN					21.7	
LOWEST ANNUAL MEAN					2.87	
HIGHEST DAILY MEAN	138	Nov 15	138	Nov 15	138	Nov 15 2001
LOWEST DAILY MEAN	0.22	Aug 19	0.10	Aug 29	0.09	Oct 24 1987
ANNUAL SEVEN-DAY MINIMUM	0.34	Aug 14	0.10	Aug 29	0.10	Aug 29 2002
ANNUAL RUNOFF (AC-FT)	8980		10580		7980	
10 PERCENT EXCEEDS	26		40		27	
50 PERCENT EXCEEDS	8.8		7.8		6.6	
90 PERCENT EXCEEDS	0.99		0.16		1.1	

e Estimated