

## CHAMBERS CREEK BASIN

12091200 LEACH CREEK NEAR FIRCREST, WA

LOCATION.--Lat 47°13'18", long 122°30'29", in lot 24, block 14, SE 1/4 NE 1/4 sec.14, T.20 N., R.2 E., Pierce County, Hydrologic Unit 17110019, on left bank 1.0 mi south of Fircrest, and 2 mi upstream from mouth.

DRAINAGE AREA.--4.73 mi<sup>2</sup> includes 0.68 mi<sup>2</sup> storm drainage from Flett Creek basin.

PERIOD OF RECORD.--March 1957 to September 1985, October 1985 to April 1988 (seasonal records), October 1988 to current year.

REVISED RECORDS.--WSP 1932: Drainage area.

GAGE.--Water-stage recorder, metal weir control, and crest-stage gage. Prior to Oct. 19, 1979, at site 20 ft downstream at same datum. Datum of gage is 222.98 ft above NGVD of 1929 (levels by U.S. Geological Survey National Mapping Division).

REMARKS.--No estimated daily discharges. Records fair except for flows below 3 ft<sup>3</sup>/s, which are poor. Since Oct. 1, 1961, flow may be regulated at dam upstream from station. Low flows supplemented from well in basin beginning June 30, 1993. Storage is not retained. Excess stormwater runoff pumped into Nalley Valley since early 1992. Drainage into basin influenced by urbanizing of area. U.S. Geological Survey satellite telemeter at station.

AVERAGE DISCHARGE.--42 years (water years 1958-85, 1989-2002), 4.75 ft<sup>3</sup>/s, 13.66 in/yr, 3,440 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 309 ft<sup>3</sup>/s Nov. 24, 1990, gage height, 5.76 ft, from rating curve extended above 200 ft<sup>3</sup>/s; minimum discharge, 0.1 ft<sup>3</sup>/s Sept. 22, 1965.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 289 ft<sup>3</sup>/s Nov. 14, gage height, 5.10 ft; minimum recorded discharge, 1.2 ft<sup>3</sup>/s Aug. 19.

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	2.2	4.3	22	21	4.1	3.2	4.1	2.6	2.5	2.3	2.1	4.1
2	1.7	6.9	20	8.6	3.9	3.0	3.6	2.7	2.5	2.3	2.1	4.2
3	1.7	3.1	12	3.6	5.5	3.0	3.7	2.6	2.5	2.3	2.1	4.2
4	1.7	8.3	11	3.2	3.6	3.0	3.7	2.6	2.5	2.3	2.5	4.2
5	1.6	5.0	9.4	6.7	6.1	3.6	3.7	3.0	3.2	2.3	2.2	4.1
6	1.6	3.4	14	20	13	3.0	3.8	2.7	2.5	2.2	2.1	4.3
7	2.0	3.0	4.4	42	17	2.9	3.8	3.2	2.7	11	2.1	4.2
8	1.9	2.9	5.5	10	13	2.9	3.8	3.0	2.5	7.0	2.1	4.2
9	1.7	2.9	8.4	4.4	4.0	3.4	8.8	2.7	2.4	2.5	2.3	4.1
10	10	2.8	9.8	3.7	4.1	4.0	20	2.9	2.4	2.3	2.1	4.1
11	2.0	3.1	5.2	3.5	3.5	31	17	2.6	2.5	2.2	2.1	4.1
12	3.2	13	7.0	11	3.4	21	9.7	2.6	2.6	2.2	2.0	4.1
13	3.3	22	39	3.3	3.4	8.8	29	3.9	2.6	2.2	2.0	4.1
14	4.5	100	12	3.1	3.3	3.8	30	3.9	2.6	2.2	2.0	4.0
15	3.0	26	18	3.0	3.3	5.9	5.2	2.6	2.7	2.3	2.0	4.0
16	2.9	7.4	41	2.9	5.7	13	5.8	2.6	2.8	2.2	2.0	7.6
17	2.8	2.6	19	2.9	4.3	5.0	3.8	5.8	8.2	2.2	2.0	4.1
18	2.8	2.1	9.1	7.5	5.0	8.7	3.4	3.6	2.9	2.1	2.0	4.1
19	3.1	20	9.1	3.9	16	17	3.2	3.0	2.8	2.1	1.9	4.5
20	2.9	11	6.8	14	3.7	25	3.1	6.1	2.8	2.1	2.7	4.2
21	6.4	12	3.8	3.3	28	5.3	2.9	5.6	3.0	2.1	2.1	4.2
22	9.4	40	3.4	2.3	27	4.5	3.0	3.5	2.6	2.1	2.1	4.2
23	5.8	7.9	3.2	3.7	24	5.5	3.0	2.7	2.4	2.1	2.0	4.2
24	13	2.8	3.0	36	5.5	4.4	2.8	2.7	2.3	2.1	2.3	4.2
25	9.8	3.8	2.9	42	3.9	4.1	2.6	2.7	2.3	2.1	2.1	3.6
26	7.4	3.5	2.9	8.6	3.6	4.5	4.5	2.7	2.3	2.7	2.1	2.5
27	28	2.9	5.0	6.6	3.4	4.0	8.9	4.5	3.7	2.1	2.4	2.5
28	2.9	34	8.6	5.6	3.3	3.8	6.5	8.6	20	2.0	4.2	2.5
29	2.7	15	3.0	3.9	---	3.7	3.1	4.4	16	2.0	4.5	5.0
30	7.3	16	2.9	7.4	---	3.8	2.7	2.6	2.5	2.2	3.9	2.4
31	20	---	8.4	15	---	3.7	---	2.5	---	2.1	4.0	---
TOTAL	169.3	387.7	329.8	312.7	224.6	218.5	209.2	107.2	115.3	81.9	74.1	121.8
MEAN	5.46	12.9	10.6	10.1	8.02	7.05	6.97	3.46	3.84	2.64	2.39	4.06
MAX	28	100	41	42	28	31	30	8.6	20	11	4.5	7.6
MIN	1.6	2.1	2.9	2.3	3.3	2.9	2.6	2.5	2.3	2.0	1.9	2.4
AC-FT	336	769	654	620	445	433	415	213	229	162	147	242
CFSM	1.15	2.73	2.25	2.13	1.70	1.49	1.47	0.73	0.81	0.56	0.51	0.86
IN.	1.33	3.05	2.59	2.46	1.77	1.72	1.65	0.84	0.91	0.64	0.58	0.96

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1957 - 2002, BY WATER YEAR (WY)

	4.21	7.29	7.70	7.86	6.75	5.54	4.29	3.13	2.97	2.36	2.50	2.91
MEAN	4.21	7.29	7.70	7.86	6.75	5.54	4.29	3.13	2.97	2.36	2.50	2.91
MAX	8.60	16.8	15.5	16.3	15.1	12.4	10.3	5.73	5.30	4.58	5.17	6.92
(WY)	1998	1991	1997	1990	1999	1972	1991	1997	1997	1983	2001	1978
MIN	1.57	2.53	3.54	2.80	1.72	2.22	2.09	1.72	1.40	1.33	1.12	1.24
(WY)	1973	1977	1977	1962	1993	1992	1977	1965	1969	1969	1969	1989

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR	FOR 2002 WATER YEAR	WATER YEARS 1957 - 2002
ANNUAL TOTAL	2024.5	2352.1	
ANNUAL MEAN	5.55	6.44	4.75
HIGHEST ANNUAL MEAN			8.15
LOWEST ANNUAL MEAN			2.61
HIGHEST DAILY MEAN	100	Nov 14	166
LOWEST DAILY MEAN	1.6	Oct 5	0.50
ANNUAL SEVEN-DAY MINIMUM	1.7	Oct 2	0.71
ANNUAL RUNOFF (AC-FT)	4020	4670	3440
ANNUAL RUNOFF (CFSM)	1.17	1.36	1.01
ANNUAL RUNOFF (INCHES)	15.92	18.50	13.66
10 PERCENT EXCEEDS	13	15	10
50 PERCENT EXCEEDS	2.8	3.6	2.6
90 PERCENT EXCEEDS	2.1	2.1	1.5