

12091200 LEACH CREEK NEAR FIRCREST, WA

LOCATION.--Lat 47°13'18", long 122°30'29", in lot 24, block 14, SE $\frac{1}{4}$ NE $\frac{1}{4}$ 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 mi² includes 0.68 mi² 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 ft³/s, which are poor. Since Oct. 1, 1961, flow may be regulated at dam upstream from station. Storage is not retained. Since early 1992 excess stormwater runoff pumped into Nalley Valley. Since June 30, 1993, low flows supplemented from well in basin. Drainage in basin influenced by urbanization. U.S. Geological Survey satellite telemeter at station.

AVERAGE DISCHARGE.--43 years (water years 1958-85, 1989-2003), 4.79 ft³/s, 13.75 in/yr, 3,470 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 309 ft³/s Nov. 24, 1990, gage height, 5.76 ft, from rating curve extended above 200 ft³/s; minimum discharge, 0.1 ft³/s Sept. 22, 1965.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 66 ft³/s Dec. 11, gage height, 2.15 ft; minimum recorded discharge 1.1 ft³/s July 22, 23.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.4	2.5	3.0	26	6.8	4.0	12	3.9	3.4	3.4	3.3	3.2
2	2.4	2.6	3.0	31	5.8	5.2	8.7	3.9	3.4	3.4	3.2	3.1
3	11	2.0	3.0	19	5.2	4.4	11	4.1	3.4	3.4	3.1	3.3
4	3.1	2.5	5.6	28	4.7	4.1	5.4	5.6	3.4	3.3	3.1	3.3
5	2.6	3.5	3.1	7.0	4.5	4.3	6.0	3.9	3.4	3.3	3.5	3.2
6	2.6	21	3.0	5.7	4.2	5.1	6.0	4.7	3.3	3.3	3.2	3.1
7	2.6	8.7	3.0	3.8	4.3	5.4	13	3.8	3.3	3.3	3.2	4.8
8	2.8	6.5	2.9	2.5	4.1	9.2	8.3	3.7	3.3	3.3	3.2	3.6
9	3.5	15	3.0	2.5	4.3	22	11	3.7	3.3	3.3	6.8	3.6
10	2.6	5.7	16	2.4	4.2	7.2	4.8	3.7	3.3	3.2	3.6	6.3
11	2.5	7.5	34	5.9	4.1	17	5.2	3.7	3.2	3.2	3.4	5.4
12	2.5	21	19	17	4.0	24	5.8	3.6	3.4	3.2	3.4	4.1
13	2.5	9.6	13	9.7	4.2	17	22	3.6	4.0	3.5	3.5	3.2
14	2.5	10	29	6.6	4.0	5.5	5.3	3.6	3.3	3.3	3.3	3.2
15	2.5	3.8	22	2.4	5.8	7.3	4.6	5.2	3.3	3.2	3.2	3.2
16	2.5	14	31	2.1	24	12	4.4	3.9	3.3	3.2	3.3	6.2
17	2.5	4.2	19	1.9	6.9	5.8	4.3	3.5	3.4	3.2	3.3	4.1
18	2.6	12	14	1.9	4.8	6.4	4.1	3.5	3.3	3.1	3.3	3.5
19	2.6	10	10	1.8	6.5	11	4.2	3.6	3.4	3.1	3.4	4.9
20	2.6	3.9	5.5	1.8	6.1	7.5	4.3	3.7	3.3	3.1	3.3	3.1
21	2.5	3.4	5.3	15	14	22	16	3.9	5.8	3.0	3.4	3.0
22	2.5	3.3	5.2	29	5.2	29	4.4	3.7	3.4	2.7	3.4	2.8
23	2.5	3.2	5.0	11	4.5	6.2	11	3.8	3.3	2.6	3.3	2.8
24	2.5	3.1	12	18	4.2	5.2	10	3.6	2.6	3.0	3.4	2.8
25	2.6	3.1	8.9	15	4.0	4.9	4.4	4.1	2.5	3.2	3.3	2.8
26	2.5	3.1	15	38	3.9	10	5.5	3.5	3.4	3.2	3.3	2.8
27	2.5	3.1	21	16	3.7	4.8	4.1	3.5	3.4	3.0	3.3	2.9
28	2.5	3.0	7.9	5.9	5.8	4.4	4.0	3.5	3.3	3.2	3.3	2.8
29	2.5	3.0	9.6	23	---	4.4	3.9	3.5	3.3	3.2	3.3	3.2
30	2.5	3.0	16	21	---	4.9	3.9	3.5	4.8	3.2	3.4	3.2
31	2.5	---	12	26	---	9.1	---	3.4	---	3.3	3.3	---
TOTAL	88.5	197.3	360.0	396.9	163.8	289.3	217.6	118.9	103.2	98.9	106.3	107.5
MEAN	2.85	6.58	11.6	12.8	5.85	9.33	7.25	3.84	3.44	3.19	3.43	3.58
MAX	11	21	34	38	24	29	22	5.6	5.8	3.5	6.8	6.3
MIN	2.4	2.0	2.9	1.8	3.7	4.0	3.9	3.4	2.5	2.6	3.1	2.8
AC-FT	176	391	714	787	325	574	432	236	205	196	211	213
CFSM	0.60	1.39	2.46	2.71	1.24	1.97	1.53	0.81	0.73	0.67	0.72	0.76
IN.	0.70	1.55	2.83	3.12	1.29	2.28	1.71	0.94	0.81	0.78	0.84	0.85

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1957 - 2003, BY WATER YEAR (WY)

MEAN	4.18	7.28	7.79	7.96	6.73	5.62	4.35	3.15	2.98	2.38	2.52	2.93
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)	(1977)	(1969)	(1969)	(1969)	(1989)

SUMMARY STATISTICS

FOR 2002 CALENDAR YEAR

FOR 2003 WATER YEAR

WATER YEARS 1957 - 2003

ANNUAL TOTAL	2,111.1	2,248.2	4.79
ANNUAL MEAN	5.78	6.16	8.15
HIGHEST ANNUAL MEAN			1997
LOWEST ANNUAL MEAN			1962
HIGHEST DAILY MEAN	42	Jan 7	166
LOWEST DAILY MEAN	1.9	Aug 19	Jan 9, 1990
ANNUAL SEVEN-DAY MINIMUM	2.0	Aug 13	0.50
ANNUAL RUNOFF (AC-FT)	4,190		0.71
ANNUAL RUNOFF (CFSM)	1.22	1.30	1.01
ANNUAL RUNOFF (INCHES)	16.60	17.68	13.75
10 PERCENT EXCEEDS	14	14	10
50 PERCENT EXCEEDS	3.3	3.6	2.7
90 PERCENT EXCEEDS	2.2	2.6	1.5