12090500 CLOVER CREEK NEAR TILLICUM, WA

LOCATION.--Lat 47°08'46", long 122°30'33", in NW 1/4 SE 1/4 sec.11, T.19 N., R.2 E., Pierce County, Hydrologic Unit 17110019, at Pacific Highway SW, Lakewood, Washington, 2.5 mi northeast of Tillicum.

DRAINAGE AREA.--73.8 mi^2.

PERIOD OF RECORD.--June 1949 to October 1954, October 1959 to September 1970 (annual maximums only), September 1990 to October 1992, October 1994 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 250 ft above NGVD of 1929, from topographic map. Prior to October 22, 1999, at Bridgeport Way, 1/4 mi. upstream, at various datums.

REMARKS.--Records good except for flows below 5 ft^3/s, which are fair.

AVERAGE DISCHARGE.--15 years (water years 1950-54, 1991-92, 1995-2002), 44.8 ft^3/s, 8.25 in/yr, 32,450 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 568 ft^3/s Feb. 12, 1991, gage height, 5.71 ft (datum then in use); no flow for many days in 1949, 1952-53, 2001.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 119 ft^3/s Dec. 16, 18, gage height, 16.30 ft; minimum discharge, no flow on many days in Oct. and Nov.

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	0.00	0.10	65	64	83	71	69	60	32	20	6.9	2.2
2	0.00	0.00	65	66	80	68	67	57	31	20	6.9	2.2
3	0.00	0.00	66	65	76	66	65	56	30	19	6.8	2.4
4	0.00	0.00	66	63	74	64	64	54	30	19	7.0	2.0
5	0.00	0.79	62	61	72	63	62	54	30	18	6.7	2.0
6	0.00	0.15	61	64	72	62	60	53	29	17	6.4	1.8
7	0.00	0.01	58	77	78	62	59	52	29	18	5.8	1.8
8	0.00	0.00	56	84	84	60	58	51	29	20	5.6	2.0
9	0.00	0.00	53	84	86	59	60	49	28	18	5.3	2.0
10	0.51	0.00	53	79	82	58	63	51	28	17	4.9	1.9
11	0.08	0.00	52	75	78	72	63	49	26	15	4.7	2.0
12	0.00	0.61	53	74	75	84	65	48	24	14	4.5	1.4
13	0.00	6.3	73	70	73	87	78	47	24	13	4.1	1.4
14	0.00	40	84	66	70	82	99	46	25	12	3.8	1.4
15	0.00	30	87	64	68	77	104	44	24	12	3.7	1.2
16	0.00	32	96	62	66	76	97	42	24	12	3.5	1.4
17	0.00	30	108	59	65	77	89	43	24	12	3.4	1.1
18	0.00	26	113	58	64	78	83	41	24	11	3.4	1.2
19	0.00	28	108	57	66	87	79	40	23	11	3.2	1.4
20	0.00	27	101	57	64	104	75	41	22	11	3.2	1.2
21	0.00	29	94	57	75	109	72	39	20	10	3.4	1.0
22	0.02	41	85	57	78	103	69	38	18	9.6	3.1	0.99
23	2.2	32	80	56	85	96	67	38	16	8.5	3.7	0.94
24	0.34	27	75	64	89	91	64	37	17	8.1	3.5	0.94
25	1.0	27	71	89	87	87	62	36	15	8.2	3.4	0.88
26	0.06	26	68	102	81	84	63	35	15	8.1	3.3	0.79
27	4.3	25	66	99	77	81	67	34	15	8.1	3.2	0.75
28	0.11	41	66	92	74	78	66	35	23	7.9	3.2	0.68
29	0.00	68	64	85	---	76	63	35	22	7.9	2.8	0.74
30	0.00	66	62	83	---	74	62	34	20	7.5	2.6	0.73
31	4.5	---	62	84	---	71	---	33	---	7.1	2.3	---
TOTAL	13.12	602.96	2273	2217	2122	2407	2114	1372	717	400.0	134.3	42.44
MEAN	0.42	20.1	73.3	71.5	75.8	77.6	70.5	44.3	23.9	12.9	4.33	1.41
MAX	4.5	68	113	102	89	109	104	60	32	20	7.0	2.4
MIN	0.00	0.00	52	56	64	58	58	33	15	7.1	2.3	0.68
AC-FT	26	1200	4510	4400	4210	4770	4190	2720	1420	793	266	84
CFSM	0.01	0.27	0.99	0.97	1.03	1.05	0.95	0.60	0.32	0.17	0.06	0.02
IN.	0.01	0.30	1.15	1.12	1.07	1.21	1.07	0.69	0.36	0.20	0.07	0.02

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1949 - 2002, BY WATER YEAR (WY)

MEAN	4.50	14.8	56.2	90.1	114	100	70.9	42.7	24.8	13.5	5.80	3.58
MAX	13.8	37.0	119	232	279	196	133	78.5	42.1	26.9	12.5	11.5
(WY)	1998	1991	1951	1997	1951	1997	1991	1996	1996	1996	1996	1997
MIN	0.000	0.000	0.000	13.4	14.8	15.3	22.8	17.8	9.93	3.55	0.56	0.077
(WY)	1953	1953	1953	2001	2001	2001	2001	2001	1992	2001	1952	1952

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1949 - 2002	
ANNUAL TOTAL	5961.08		14414.82			
ANNUAL MEAN	16.3		39.5		44.8	
HIGHEST ANNUAL MEAN					81.9	1997
LOWEST ANNUAL MEAN					9.72	2001
HIGHEST DAILY MEAN	113	Dec 18	113	Dec 18	532	Feb 12 1951
LOWEST DAILY MEAN	0.00	Sep 30	0.00	Oct 1	0.00	Oct 20 1949
ANNUAL SEVEN-DAY MINIMUM	0.00	Sep 30	0.00	Oct 1	0.00	Oct 20 1949
ANNUAL RUNOFF (AC-FT)	11820		28590		32450	
ANNUAL RUNOFF (CFSM)	0.22		0.54		0.61	
ANNUAL RUNOFF (INCHES)	3.00		7.27		8.25	
10 PERCENT EXCEEDS	36		83		117	
50 PERCENT EXCEEDS	13		35		23	
90 PERCENT EXCEEDS	0.11		0.44		1.9	