

LEWIS RIVER BASIN

14219800 SPEELYAI CREEK NEAR COUGAR, WA

LOCATION.--Lat 46°00'17", long 122°20'35", in SW 1/4 NW 1/4 sec.17, T.6 N., R.4 E., Cowlitz County, Hydrologic Unit 17080002, on right bank 3.8 mi southwest of Cougar, and at mile 0.5.

DRAINAGE AREA.--12.6 mi².

PERIOD OF RECORD.--May 1959 to May 1978, October 1978 to current year.

REVISED RECORDS.--WSP 1718: 1959. WDR WA-81-1: 1978-80(P). WDR WA-84-1: 1983.

GAGE.--Water-stage recorder. Elevation of gage is 500 ft above NGVD of 1929, from topographic map. Prior to Nov. 21, 1959, at site 900 ft upstream at different datum; Nov. 22, 1959, to Sept. 30, 1996, at site 1,150 ft upstream at different datum.

REMARKS.--Records good except for estimated daily discharges, which are fair. No regulation or diversion upstream from station.

AVERAGE DISCHARGE.--42 years (water years 1960-77, 1979-2002), 103 ft³/s, 110.96 in/yr, 74,550 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,600 ft³/s probably Nov. 20, 1962 (by slope-area measurement, gage height not determined); maximum gage height, 8.12 ft Feb. 8, 1996, datum then in use; minimum discharge, 0.76 ft³/s Aug. 28 to Sept. 4, 1992.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 700 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Nov 14	0700	1,560	7.68	Jan 07	0700	1,670	7.87
Nov 22	1330	980	6.68	Jan 25	unknown	*unknown	*unknown
Dec 01	1815	780	6.28	Mar 11	1700	1,050	6.82
Dec 13	1730	1,550	7.66	Apr 14	0400	1,000	6.72
Dec 16	2315	2,070	8.53				

Minimum discharge, 0.79 ft³/s Sept. 28.

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	144	655	67	73	75	77	71	66	55	6.5	2.1
2	2.1	208	519	88	69	66	78	71	58	47	6.2	1.9
3	1.9	143	324	89	79	58	77	67	53	40	5.9	1.8
4	1.9	98	237	89	79	e52	83	61	49	36	6.2	1.8
5	1.8	78	174	96	85	e50	105	68	47	32	6.0	1.7
6	1.8	61	235	277	116	e100	133	63	43	28	5.7	1.6
7	2.3	49	258	1420	230	67	145	59	41	27	5.5	1.6
8	3.7	42	211	972	235	60	125	54	39	26	5.2	1.6
9	2.6	37	178	474	178	56	185	50	34	23	4.9	1.5
10	9.8	33	155	263	142	94	497	46	32	21	4.9	1.3
11	11	29	140	176	116	642	496	46	31	20	4.7	1.2
12	9.9	28	155	172	94	574	413	52	30	19	4.3	1.2
13	16	126	898	156	81	335	539	66	30	18	4.0	1.1
14	15	1140	823	121	71	232	754	69	29	16	3.7	1.0
15	11	476	383	94	65	171	387	64	27	16	3.6	1.0
16	8.9	331	1300	80	63	132	265	59	25	15	3.4	2.9
17	8.0	217	1040	69	62	100	207	60	30	14	3.3	4.3
18	6.7	151	422	66	70	85	167	59	41	e18	3.2	2.0
19	6.1	136	283	87	153	147	138	57	33	e17	3.2	1.5
20	5.7	173	201	109	158	222	117	62	29	e18	3.2	1.3
21	8.1	195	153	154	500	183	101	61	26	e16	3.2	1.1
22	40	664	122	122	431	143	e87	62	24	e15	3.3	0.97
23	79	557	100	95	514	115	e80	57	22	e14	3.0	0.93
24	64	298	86	230	432	111	73	53	e20	e12	2.8	0.90
25	48	198	75	e1500	242	111	70	52	20	e12	2.8	0.88
26	38	141	67	e900	161	106	70	53	18	e14	2.8	0.85
27	34	109	62	e500	118	99	68	56	18	e13	2.6	0.84
28	29	132	61	e200	91	94	64	90	34	e12	2.4	0.83
29	26	238	55	104	---	89	65	154	123	e11	2.1	2.6
30	88	318	51	86	---	83	69	101	72	e10	2.2	10
31	176	---	54	82	---	77	---	78	---	e9.4	2.3	---
TOTAL	758.5	6550	9477	8938	4708	4529	5735	2021	1144	644.4	123.1	54.30
MEAN	24.5	218	306	288	168	146	191	65.2	38.1	20.8	3.97	1.81
MAX	176	1140	1300	1500	514	642	754	154	123	55	6.5	10
MIN	1.8	28	51	66	62	50	64	46	18	9.4	2.1	0.83
AC-FT	1500	12990	18800	17730	9340	8980	11380	4010	2270	1280	244	108
CFSM	1.94	17.3	24.3	22.9	13.3	11.6	15.2	5.17	3.03	1.65	0.32	0.14
IN.	2.24	19.34	27.98	26.39	13.90	13.37	16.93	5.97	3.38	1.90	0.36	0.16

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1960 - 2002, BY WATER YEAR (WY)

	MEAN	174	206	196	182	150	126	78.2	40.3	15.7	8.79	13.8
MAX	174	371	393	350	374	357	238	151	106	71.2	49.0	55.9
(WY)	1998	1996	1976	1974	1972	1972	1993	1960	1981	1983	1968	1977
MIN	1.34	6.79	39.9	37.1	57.2	25.9	50.0	20.0	6.93	3.26	1.40	1.61
(WY)	1988	1994	1977	1977	1973	1992	1998	1994	1992	1992	1992	1999

SUMMARY STATISTICS FOR 2001 CALENDAR YEAR FOR 2002 WATER YEAR WATER YEARS 1960 - 2002

ANNUAL TOTAL	28921.4	44682.30	
ANNUAL MEAN	79.2	122	103
HIGHEST ANNUAL MEAN			155
LOWEST ANNUAL MEAN			45.1
HIGHEST DAILY MEAN	1300	Dec 16	2410
LOWEST DAILY MEAN	1.7	Sep 24	0.76
ANNUAL SEVEN-DAY MINIMUM	1.9	Sep 18	0.78
ANNUAL RUNOFF (AC-FT)	57370		74550
ANNUAL RUNOFF (CFSM)	6.29		8.17
ANNUAL RUNOFF (INCHES)	85.39		110.96
10 PERCENT EXCEEDS	174		242
50 PERCENT EXCEEDS	42		56
90 PERCENT EXCEEDS	3.0		4.8

e Estimated