

# SOUTH-CENTRAL ALASKA

## 15290000 LITTLE SUSITNA RIVER NEAR PALMER

LOCATION.--Lat 61°42'37", long 149°13'47", in SE<sup>1</sup>/<sub>4</sub>NW<sup>1</sup>/<sub>4</sub> sec. 26, T. 19 N., R. 1 E. (Anchorage C-6 NW quad), Matanuska-Susitna Borough, Hydrologic Unit 19020505, on right bank 100 ft downstream from highway bridge on Wasilla-Fishhook Road, 1.5 mi north of road junction, 1.8 mi downstream from unnamed tributary, and 8 mi northwest of Palmer. Prior to October 1, 1991 at site 60 ft upstream.

DRAINAGE AREA.--61.9 mi<sup>2</sup>.

PERIOD OF RECORD.--July 1948 to current year. Low-flow records not equivalent prior to January 1962 because most measurements below 300 ft<sup>3</sup>/s were made at site 3.4 mi downstream.

GAGE.--Water-stage recorder. Datum of gage is 916.6 ft above sea level (river-profile survey). Prior to August 16, 1948, non-recording gage and August 17, 1948 to May 15, 1972, water-stage recorder on left bank; water-stage recorder on right bank, May 16, 1972 to September 30, 1991, at site 60 ft upstream. Prior to October 1, 1974, at datum 4.00 ft higher; October 1, 1974 to September 30, 1991, at datum 2.00 ft higher.

REMARKS.--Records fair except for estimated daily discharges, and for discharges above 700 ft<sup>3</sup>/s, which are poor. GOES satellite telemetry at station.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,200 ft<sup>3</sup>/s and maximum (\*).

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage Height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Jun. 17	0730	1240	5.27	Sep. 30	2300	*2080	*5.95

### DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004 DAILY MEAN VALUE

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	315	99	e65	e41	e31	e21	e23	113	413	252	165	173
2	266	107	e63	e41	e30	e21	e23	116	418	239	154	225
3	348	98	e61	e40	e30	e21	e23	107	370	291	153	244
4	440	94	e60	e40	e29	e21	e23	132	380	281	153	253
5	360	92	e59	e40	e29	e22	e23	162	483	292	150	205
6	324	95	e57	e39	e28	e22	e23	201	583	267	152	176
7	290	98	e56	e39	e28	e22	e24	284	721	253	154	158
8	260	105	e55	e39	e27	e22	e24	346	536	248	154	144
9	249	101	e55	e38	e27	e22	e24	357	427	239	146	136
10	222	96	e54	e38	e26	e22	25	308	380	224	143	129
11	200	94	e53	e38	e26	e22	26	321	344	221	137	124
12	184	96	e52	e37	e26	e22	27	333	311	227	129	119
13	171	87	e51	e37	e25	e22	28	385	352	230	125	118
14	161	e55	e50	e37	e25	e22	30	435	368	224	124	112
15	152	e39	e50	e36	e25	e22	33	456	374	224	126	107
16	144	e35	e49	e36	e25	e22	35	440	325	227	125	102
17	136	e35	e48	e36	e25	e23	33	408	796	221	123	98
18	132	e36	e48	e36	e24	e23	34	414	518	207	127	95
19	129	e37	e47	e35	e24	e23	34	444	479	203	126	96
20	123	e40	e47	e35	e24	e23	34	496	454	202	167	101
21	119	e47	e47	e35	e23	e23	36	580	429	189	140	116
22	116	e55	e46	e35	e23	e23	39	674	403	174	132	112
23	113	e62	e46	e34	e23	e23	42	807	368	167	123	114
24	112	e66	e45	e34	e22	e23	45	829	346	169	118	102
25	125	e67	e45	e34	e22	e23	48	769	331	166	116	103
26	128	e68	e44	e33	e22	e23	53	637	335	161	e200	132
27	115	e69	e44	e33	e22	e23	52	588	336	151	343	122
28	105	e69	e43	e33	e22	e23	49	527	317	159	413	115
29	101	e68	e43	e32	e22	e23	63	430	298	179	288	126
30	105	e67	e42	e32	---	e23	79	430	281	173	220	888
31	101	---	e42	e31	---	e23	---	469	---	177	182	---
TOTAL	5846	2177	1567	1124	735	693	1055	12998	12476	6637	5108	4845
MEAN	189	72.6	50.5	36.3	25.3	22.4	35.2	419	416	214	165	162
MAX	440	107	65	41	31	23	79	829	796	292	413	888
MIN	101	35	42	31	22	21	23	107	281	151	116	95
MED	144	68	49	36	25	22	33	430	377	221	146	120
AC-FT	11600	4320	3110	2230	1460	1370	2090	25780	24750	13160	10130	9610
CFSM	3.05	1.17	0.82	0.59	0.41	0.36	0.57	6.77	6.72	3.46	2.66	2.61
IN.	3.51	1.31	0.94	0.68	0.44	0.42	0.63	7.81	7.50	3.99	3.07	2.91

### STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1948 - 2004, BY WATER YEAR (WY)#

MEAN	142	63.4	40.5	30.9	24.9	20.5	25.6	223	660	490	403	299
MAX	391	134	61.7	54.1	41.2	29.7	68.0	649	1215	1047	909	651
(WY)	1984	1980	1980	1961	1982	1991	1990	1990	1977	1963	1971	1985
MIN	51.3	24.5	17.4	17.5	14.0	10.0	10.0	52.9	276	193	165	82.2
(WY)	1969	1969	1955	1959	1952	1956	1955	1971	1996	1996	2004	1969

# See Period of Record for remark on low-flow records; partial years used in monthly statistics  
e Estimated

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## 15290000 LITTLE SUSITNA RIVER NEAR PALMER—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1948 - 2004#	
ANNUAL TOTAL	67741		55261			
ANNUAL MEAN	186		151		202	
HIGHEST ANNUAL MEAN					316 1949	
LOWEST ANNUAL MEAN					95.8 1969	
HIGHEST DAILY MEAN	1260	Jun 13	888	Sep 30	5040	Aug 10 1971
LOWEST DAILY MEAN	a21	Apr 9	b21	Mar 1	c8.0	Apr 1 1956
ANNUAL SEVEN-DAY MINIMUM	22	Apr 4	21	Feb 27	8.0	Apr 1 1956
MAXIMUM PEAK FLOW			2080	Sep 30	d7840	Aug 10 1971
MAXIMUM PEAK STAGE			5.95	Sep 30	f13.00	Aug 10 1971
INSTANTANEOUS LOW FLOW					8.0	Apr 1 1956
ANNUAL RUNOFF (AC-FT)	134400		109600		146500	
ANNUAL RUNOFF (CFSM)	3.00		2.44		3.27	
ANNUAL RUNOFF (INCHES)	40.71		33.21		44.39	
10 PERCENT EXCEEDS	451		380		555	
50 PERCENT EXCEEDS	98		101		70	
90 PERCENT EXCEEDS	28		23		21	

- # See Period of Record for remark on low-flow records; partial years used in monthly statistics
- a Apr. 9 and 10
- b Mar. 1 to 4
- c Apr. 1 to Apr. 20, 1956; and Mar. 11 and 12, 1957
- d From rating curve extended above 4,600 ft<sup>3</sup>/s on basis of slope-area measurement of peak flow
- f Gage height about 13.0 ft, from floodmarks; 9.84 ft in gage well; 12.30 ft at top of needle peak in gage well; at prior datum (WY 1974-91) at sites then in use