Water-Data Report 2013

15290000 LITTLE SUSITNA RIVER NEAR PALMER, AK

Susitna River Basin
Lower Susitna River Subbasin

LOCATION.--Lat 61°42′37″, long 149°13′47″ referenced to North American Datum of 1927, in SE ¼ NW ¼ sec.26, T.19 N., R.1 E., Matanuska-Susitna Borough, AK, Hydrologic Unit 19020505, (Anchorage C-6 NW quad), 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.--62.63 mi^2.

SURFACE-WATER RECORDS

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

REVISED RECORDS.--WDR AK-2007-1: 2006(peak stage only)

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.--Record good, except estimated daily discharges, which are poor. GOES satellite telemetry at station.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,200 ft^3/s and (or) maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)
Oct 7	2245	1,460	5.28
May 30	2130	1,680	5.42
Jun 17	2030	*3,100	*6.41
Aug 21	0615	2,170	5.69
Sep 2	2330	1,600	5.29

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DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2012 TO SEPTEMBER 2013
DAILY MEAN VALUES
[e, estimated]

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	290	e115	e50	e35	e27	e25	e22	e22	1,160	587	384	520
2	271	e112	e47	e35	e27	e25	e22	e22	1,050	506	368	1,030
3	257	e107	e45	e35	e27	e22	e22	e25	772	460	344	1,200
4	280	e105	e40	e35	e27	e22	e22	e27	782	452	329	1,080
5	334	e95	e40	e35	e27	e22	e22	e27	747	427	308	1,030
6	779	e95	e40	e35	e27	e22	e22	e27	706	406	295	804
7	777	e92	e37	e35	e27	e22	e20	e27	925	390	281	707
8	1,300	e90	e37	e32	e27	e22	e20	e32	1,360	409	270	715
9	929	e87	e40	e32	e27	e22	e20	e35	1,650	403	289	670
10	652	e85	e42	e32	e27	e22	e20	e40	1,690	405	465	667
11	523	e82	e42	e32	e27	e22	e20	e45	1,660	470	424	966
12	436	e80	e42	e32	e27	e22	e20	e55	1,680	446	393	956
13	378	e80	e42	e35	e27	e22	e20	e80	1,530	556	370	759
14	335	e77	e40	e45	e27	e22	e20	e55	1,550	500	349	645
15	312	e75	e40	e35	e27	e22	e20	e50	1,760	474	331	551
16	284	e72	e40	e30	e27	e22	e20	e50	2,020	459	311	488
17	259	e67	e37	e30	e27	e22	e20	e45	2,400	433	311	437
18	237	e65	e35	e30	e25	e22	e20	e40	2,120	409	346	411
19	221	e65	e35	e30	e25	e22	e20	e35	1,550	537	418	397
20	205	e62	e37	e30	e25	e22	e20	e40	1,250	465	566	364
21	190	e60	e40	e30	e25	e22	e20	e45	1,110	418	1,750	339
22	e170	e60	e40	e30	e25	e22	e22	e50	916	390	1,330	321
23	e140	e57	e40	e30	e25	e22	e22	e55	793	387	1,620	305
24	e140	e55	e37	e30	e25	e22	e22	e120	827	385	1,140	289
25	e135	e55	e37	e30	e25	e22	e22	248	917	449	753	359
26	e130	e55	e37	e30	e25	e22	e22	270	1,020	652	583	370
27	e130	e54	e37	e30	e25	e22	e22	344	928	471	500	346
28	e125	e54	e35	e30	e25	e22	e22	525	820	454	674	322
29	e125	e53	e35	e27	---	e22	e22	862	699	438	599	306
30	e122	e53	e35	e27	---	e22	e22	1,200	660	418	501	291
31	e120	---	e35	e27	---	e22	---	1,300	---	396	482	---
Total	10,586	2,264	1,216	991	734	688	630	5,798	37,052	14,052	17,084	17,645
Mean	341	75.5	39.2	32.0	26.2	22.2	21.0	187	1,235	453	551	588
Max	1,300	115	50	45	27	25	22	1,300	2,400	652	1,750	1,200
Min	120	53	35	27	25	22	20	22	660	385	270	289
Med	259	74	40	30	27	22	21	45	1,080	446	393	504
Ac-ft	21,000	4,490	2,410	1,970	1,460	1,360	1,250	11,500	73,490	27,870	33,890	35,000
Cfsm	5.45	1.20	0.63	0.51	0.42	0.35	0.34	2.99	19.7	7.24	8.80	9.39
In.	6.29	1.34	0.72	0.59	0.44	0.41	0.37	3.44	22.01	8.35	10.15	10.48

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1948 - 2013, BY WATER YEAR (WY)#

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	148	63.6	40.9	31.2	25.2	20.9	27.2	239	668	480	413	318
Max	391	134	61.7	54.1	41.2	29.7	73.3	782	1,235	1,047	909	938
(WY)	(1984)	(1980)	(1980)	(1961)	(1982)	(1991)	(2005)	(2009)	(2013)	(1963)	(1971)	(2012)
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)

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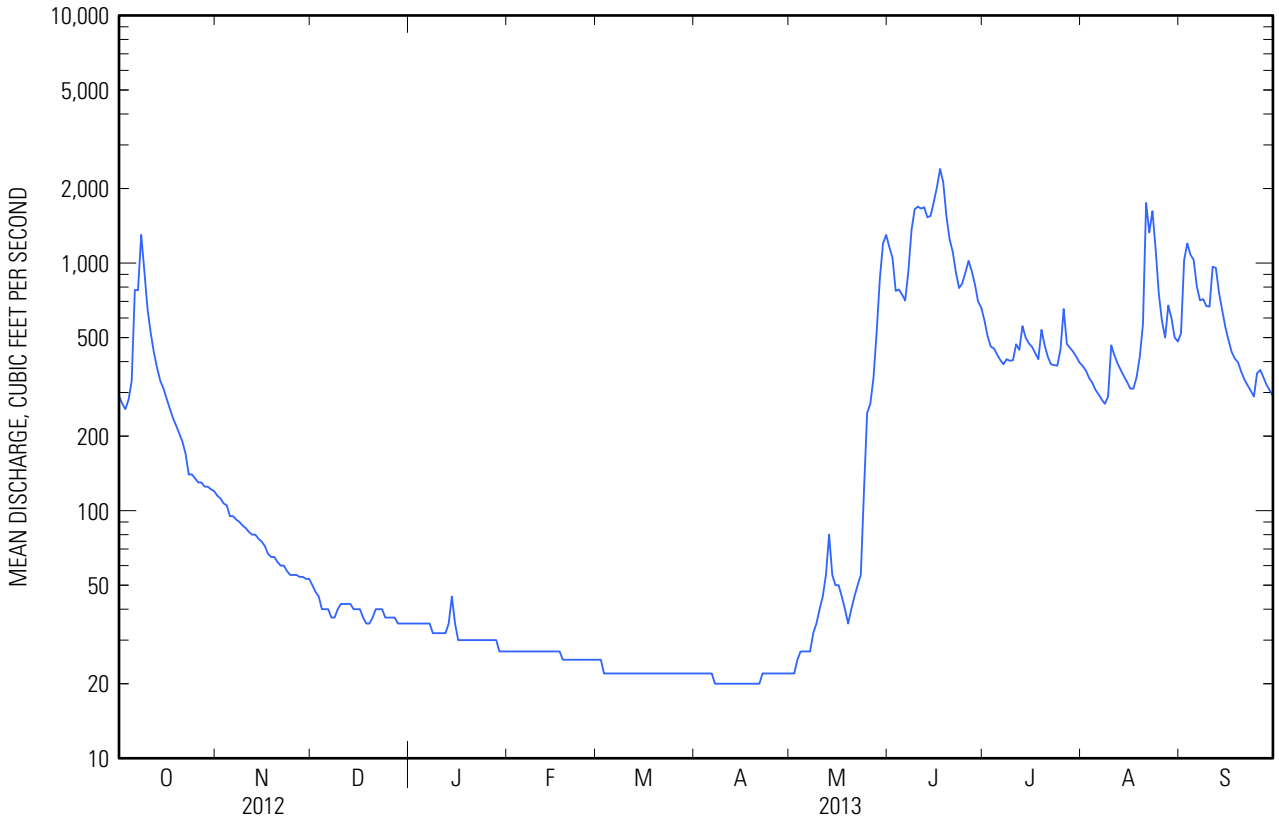
SUMMARY STATISTICS

	Calendar Year 2012		Water Year 2013		Water Years 1948 - 2013#	
Annual total	96,967		108,740			
Annual mean	265		298		207	
Highest annual mean					358	2005
Lowest annual mean					95.8	1969
Highest daily mean	5,450	Sep 21	2,400	Jun 17	5,450	Sep 21, 2012
Lowest daily mean	20	Mar 21	20	Apr 7	8.0	Apr 1, 1956
Annual seven-day minimum	21	Mar 20	20	Apr 7	8.0	Apr 1, 1956
Maximum peak flow			3,100	Jun 17	7,840	Aug 10, 1971
Maximum peak stage			6.41	Jun 17	[a]13.00	Aug 10, 1971
Annual runoff (ac-ft)	192,300		215,700		149,600	
Annual runoff (cfsm)	4.23		4.76		3.30	
Annual runoff (inches)	57.59		64.59		44.80	
10 percent exceeds	628		841		567	
50 percent exceeds	90		60		70	
90 percent exceeds	23		22		21	

Period of Record for remark on low-flow records; partial year was used in monthly statistics

[a] Gage height about 13.0 ft, from floodmarks; 9.84 ft in gage well; 12.30 ft at top needle peak in gage well; at prior datum (WY 1974-91) at sites then in use