

**15284000 MATANUSKA RIVER AT PALMER, AK**

Knik Arm Basin  
Matanuska Subbasin

LOCATION.--Lat 61°36'33", long 149°04'15" referenced to North American Datum of 1927, in SE ¼ NW ¼ sec.34, T.18 N., R.2 E., Matanuska-Susitna Borough, AK, Hydrologic Unit 19020402, (Anchorage C-6 quad), on downstream left bank of Old Glenn Highway old highway(bike path) bridge, and 1 mile east of Palmer.

DRAINAGE AREA.--2,070 mi<sup>2</sup>, approximately.

**SURFACE-WATER RECORDS**

PERIOD OF RECORD.--April 1949 to September 1973, May 1985 to September 1986, October 1991 to September 1992, and May 2000 to current year. Annual maximum, water year 1974 and 1995.

GAGE.--Water-stage recorder. Datum of gage is 170.92 ft above National Geodetic Vertical Datum of 1929 (Alaska Railroad Commission benchmark, prior to March 27, 1964 earthquake). Prior to November 2, 1950, non-recording gage at bridge 20 ft upstream at same datum. November 2, 1950 to April 30, 1952, non-recording gage at current site and same datum. May 1, 1952 to September 30, 1973, July 19 to October 20, 1987, and October 1, 1991 to September 30, 1992, water-stage recorder at site 100 ft downstream at same datum.

REMARKS.--Records fair except for estimated daily discharges, which are poor. Precipitation gage at station. GOES satellite telemetry at station.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 21,000 ft<sup>3</sup>/s and (or) maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Jun 9	1145	21,100	8.92
Jun 23	0700	25,500	9.84
Jul 1	0500	21,100	9.21
Sep 21	0800	*38,100	*10.78

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**DISCHARGE, CUBIC FEET PER SECOND**  
**WATER YEAR OCTOBER 2011 TO SEPTEMBER 2012**  
**DAILY MEAN VALUES**  
[e, estimated]

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	1,870	e900	e750	e700	e600	e550	e480	1,570	3,190	19,600	11,200	7,820
2	1,810	e750	e750	e700	e600	e550	e480	1,330	3,170	18,200	11,400	7,490
3	1,810	e600	e750	e650	e600	e550	e480	1,240	3,760	18,200	10,700	6,240
4	1,800	e800	e750	e650	e600	e550	e480	1,130	5,830	15,100	9,930	6,030
5	1,740	e850	e750	e650	e600	e550	e480	1,120	7,780	13,200	9,500	6,030
6	1,680	e850	e750	e650	e600	e550	e475	1,110	9,210	12,100	9,250	5,880
7	1,640	e850	e750	e650	e600	e550	477	1,200	9,310	11,600	9,370	5,110
8	1,600	e750	e750	e650	e600	e550	471	1,270	10,600	11,400	9,550	4,440
9	1,570	e480	e750	e650	e600	e550	483	1,490	17,100	10,800	9,410	4,010
10	1,530	e850	e750	e650	e600	e550	483	1,610	12,700	10,400	10,300	3,680
11	1,490	e850	e750	e650	e600	e550	474	1,510	11,800	9,370	10,600	3,410
12	1,440	e850	e750	e650	e600	e550	505	1,440	12,300	8,820	11,200	3,220
13	1,340	e850	e750	e650	e600	e550	535	1,380	11,600	7,800	10,800	3,090
14	1,320	e850	e700	e650	e600	e550	565	1,470	9,990	8,150	10,400	3,080
15	1,340	e850	e700	e650	e600	e550	628	1,470	9,190	8,800	10,300	3,070
16	1,370	e850	e700	e650	e600	e550	691	1,560	10,500	8,840	9,910	3,840
17	1,370	e850	e700	e650	e600	e550	731	1,740	9,760	9,530	8,850	6,200
18	1,280	e850	e700	e650	e600	e500	772	1,990	12,000	10,200	7,260	5,570
19	1,250	e850	e700	e650	e600	e500	856	2,250	15,500	11,100	6,310	5,500
20	1,130	e800	e700	e650	e550	e500	965	2,190	17,800	14,300	6,020	15,400
21	1,080	e800	e700	e650	e550	e500	1,070	2,130	21,700	16,000	5,980	33,200
22	1,100	e800	e700	e650	e550	e500	1,120	2,610	21,200	17,700	6,010	27,600
23	1,090	e800	e700	e650	e550	e500	1,200	3,400	21,800	15,400	6,130	27,200
24	1,070	e800	e700	e650	e550	e500	1,250	5,280	21,500	12,600	5,880	22,900
25	1,100	e800	e700	e650	e550	e500	1,300	6,570	18,500	13,300	5,880	17,400
26	1,200	e800	e700	e650	e550	e500	1,530	6,030	14,500	13,700	6,060	14,800
27	1,090	e800	e700	e650	e550	e500	1,590	5,100	15,700	14,100	10,500	13,100
28	935	e800	e700	e600	e550	e500	1,630	4,480	17,600	14,300	12,000	11,800
29	e850	e800	e700	e600	e550	e500	1,550	4,080	18,300	14,600	9,840	10,800
30	e950	e800	e700	e600	---	e480	1,560	3,690	19,300	13,400	8,980	9,230
31	e850	---	e700	e600	---	e480	---	3,220	---	11,300	8,500	---
<b>Total</b>	41,695	24,130	22,350	20,050	16,900	16,310	25,311	76,660	393,190	393,910	278,020	297,140
<b>Mean</b>	1,345	804	721	647	583	526	844	2,473	13,110	12,710	8,968	9,905
<b>Max</b>	1,870	900	750	700	600	550	1,630	6,570	21,800	19,600	12,000	33,200
<b>Min</b>	850	480	700	600	550	480	471	1,110	3,170	7,800	5,880	3,070
<b>Ac-ft</b>	82,700	47,860	44,330	39,770	33,520	32,350	50,200	152,100	779,900	781,300	551,500	589,400
<b>Cfsm</b>	0.65	0.39	0.35	0.31	0.28	0.25	0.41	1.19	6.33	6.14	4.33	4.78
<b>In.</b>	0.75	0.43	0.40	0.36	0.30	0.29	0.45	1.38	7.07	7.08	5.00	5.34

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1949 - 2012, BY WATER YEAR (WY) #

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
<b>Mean</b>	2,049	1,008	738	628	544	495	696	2,978	10,120	12,950	9,785	4,934
<b>Max</b>	4,237	1,793	1,024	845	789	648	1,221	9,199	17,250	18,750	15,730	9,905
<b>(WY)</b>	(2007)	(1972)	(1972)	(2007)	(2007)	(2007)	(2005)	(2005)	(1964)	(2000)	(1971)	(2012)
<b>Min</b>	1,166	568	440	349	381	360	465	1,007	5,415	9,206	4,992	2,123
<b>(WY)</b>	(1992)	(1959)	(1969)	(1959)	(1971)	(1971)	(1972)	(1966)	(1965)	(1973)	(1969)	(1969)

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SUMMARY STATISTICS

	Calendar Year 2011		Water Year 2012		Water Years 1949 - 2012#	
<b>Annual total</b>	1,221,005		1,605,666			
<b>Annual mean</b>	3,345		4,387		3,875	
<b>Highest annual mean</b>					5,606	2005
<b>Lowest annual mean</b>					2,562	1969
<b>Highest daily mean</b>	16,800	Jul 15	33,200	Sep 21	40,700	Aug 10, 1971
<b>Lowest daily mean</b>	480	Nov 9	471	Apr 8	234	Apr 25, 1956
<b>Annual seven-day minimum</b>	517	Apr 2	478	Apr 2	304	Apr 20, 1956
<b>Maximum peak flow</b>			38,100	Sep 21	<sup>a</sup> 82,100	Aug 10, 1971
<b>Maximum peak stage</b>			10.78	Sep 21	<sup>b</sup> 13.60	Aug 10, 1971
<b>Annual runoff (ac-ft)</b>	2,422,000		3,185,000		2,808,000	
<b>Annual runoff (cfsm)</b>	1.62		2.12		1.87	
<b>Annual runoff (inches)</b>	21.94		28.86		25.44	
<b>10 percent exceeds</b>	10,300		12,800		11,600	
<b>50 percent exceeds</b>	950		1,100		1,200	
<b>90 percent exceeds</b>	550		550		490	

# Period of Record; partial years were used in monthly statistics.

<sup>a</sup> From rating curve extended above 34,000 ft<sup>3</sup>/s on basis of velocity-area study, from break-out of natural reservoir on Granite Creek tributary.

<sup>b</sup> Site then in use

