15281000 KNIK RIVER NEAR PALMER

LOCATION.--Lat 61°30'18", long 149°01'50", in NE$^1/_4$ SE$^1/_4$ sec. 2, T.16 N., R.2 E. (Anchorage C-6 quad), Matanuska-Susitna Borough, Hydrologic Unit 19020402, near the right bank on downstream side of bridge on Old Glenn Highway, 7 mi south of Palmer, 7 mi upstream from Alaska Railroad bridge, 9 mi downstream from Friday Creek, and about 17 mi downstream from Knik Glacier.

DRAINAGE AREA.--1,180 mi^2, approximately.

PERIOD OF RECORD.--October 1959 to January 1988, annual maximum, water year 1989, October 1991 to September 1992, April 2001 to current year (no winter record).

REVISED RECORDS.--WRD-AK-77-1: 1974-75(M).

GAGE.--Water-stage recorder. Datum of gage is 33.68 ft above North American Vertical Datum of 1988. Prior to June 27, 1960, nonrecording gage, and June 27, 1960 to April 25,1974, water-stage recorder at old bridge 100 ft upstream at original 1929 datum. April 26, 1974 to April 18, 1976, recording gage at site 0.4 mi upstream at different datum.

REMARKS.--Records fair except for estimated daily discharges, which are poor. Flood peaks due to outbreak of glacier-dammed Lake George, 1948-62, 1964, 1965, published in WSP 1936. Streamflow augmented by glaciers, which cover 54 percent of the basin.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum discharge since at least 1948, 359,000 ft^3/s, July 18, 1958, gage height, 25.30 ft, at site in use beginning 1959, from outbreak of glacier-dammed Lake George.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8750	---	---	---	---	---	e750	5320	14000	25700	e19000	14500
2	7730	---	---	---	---	---	e750	5730	13400	24900	18900	13400
3	10000	---	---	---	---	---	e750	5380	12700	24000	18700	12700
4	13800	---	---	---	---	---	e750	5060	12500	22900	e19000	13100
5	14000	---	---	---	---	---	e750	4940	12800	23000	e20000	13600
6	11500	---	---	---	---	---	e800	4760	13600	24000	21000	15600
7	9170	---	---	---	---	---	e800	4700	14400	25300	21700	18300
8	7520	---	---	---	---	---	e800	4940	14100	25600	22100	17300
9	6390	---	---	---	---	---	e800	5260	14200	26100	22900	e16000
10	5780	---	---	---	---	---	e800	5700	15600	27300	24400	e20000
11	5310	---	---	---	---	---	e850	6060	17100	29900	25400	e19000
12	5040	---	---	---	---	---	e850	6530	18200	30800	27500	e18000
13	5140	---	---	---	---	---	e850	7560	18100	30800	29400	17800
14	5180	---	---	---	---	---	e850	8840	18600	29400	28700	14700
15	5110	---	---	---	---	---	e900	9480	19600	28200	28000	13200
16	4680	---	---	---	---	---	e900	9110	21000	e30000	26100	13200
17	4140	---	---	---	---	---	e900	e9500	23300	e28000	25100	13900
18	3590	---	---	---	---	---	e950	e10000	25900	e26000	24300	14300
19	3160	---	---	---	---	---	e1000	10100	26100	25600	23800	12600
20	2890	---	---	---	---	---	1100	10300	23600	26600	e22500	11200
21	2680	---	---	---	---	---	1280	11200	21300	26900	23500	10000
22	2480	---	---	---	---	---	1520	10900	21800	25700	21300	9470
23	2310	---	---	---	---	---	2130	10300	20900	24800	e20400	10400
24	2200	---	---	---	---	---	2670	11000	20900	25000	24000	13000
25	e2100	---	---	---	---	---	2760	11900	22300	24500	24300	13000
26	2070	---	---	---	---	---	2850	12200	24200	25200	22400	11300
27	2110	---	---	---	---	---	3190	12600	25800	e26000	19600	10000
28	2130	---	---	---	---	---	3570	12900	25200	e24000	17800	9960
29	2160	---	---	---	---	---	4040	13600	25200	e22000	16800	9510
30	2110	---	---	---	---	---	4740	13800	25800	20300	15900	8510
31	e2000	---	---	---	---	---	---	14100	---	e20000	15000	---
TOTAL	163230	---	---	---	---	---	45650	273770	582200	798500	689500	407550
MEAN	5265	---	---	---	---	---	1522	8831	19410	25760	22240	13580
MAX	14000	---	---	---	---	---	4740	14100	26100	30800	29400	20000
MIN	2000	---	---	---	---	---	750	4700	12500	20000	15000	8510
AC-FT	323800	---	---	---	---	---	90550	543000	1155000	1584000	1368000	808400
CFSM	4.46	---	---	---	---	---	1.29	7.48	16.4	21.8	18.8	11.5
IN.	5.15	---	---	---	---	---	1.44	8.63	18.35	25.17	21.74	12.85

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1960 - 2005, BY WATER YEAR (WY)#

MEAN	4847	1906	1022	909	790	658	964	4076	13340	23910	21600	11190
MAX	15730	5950	2677	3781	2566	1314	1756	8831	21500	37450	28300	16960
(WY)	2004	2003	2003	1981	2003	1977	2004	2005	2004	1960	1979	1974
MIN	1782	637	500	460	338	260	348	1039	2598	17440	15260	6594
(WY)	1982	1969	1974	1976	1962	1962	1972	1965	1965	1970	1969	1992

\# See Period of Record; partial years were used in monthly statistics and break in record
e Estimated

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SUMMARY STATISTICS	FOR 2005 WATER YEAR		WATER YEARS 1960 - 2005#	
ANNUAL MEAN			7004	
HIGHEST ANNUAL MEAN			8889	2003
LOWEST ANNUAL MEAN			5590	1973
HIGHEST DAILY MEAN	a30800	Jul 12	341000	Jul 26 1961
LOWEST DAILY MEAN			b260	Mar 1 1962
ANNUAL SEVEN-DAY MINIMUM			260	Mar 1 1962
MAXIMUM PEAK FLOW	32500	Jul 13	cd355000	Jul 26 1961
MAXIMUM PEAK STAGE	11.95	Jul 13	c24.35	Jul 17 1960
ANNUAL RUNOFF (AC-FT)			5074000	
ANNUAL RUNOFF (CFSM)			5.94	
ANNUAL RUNOFF (INCHES)			80.65	
10 PERCENT EXCEEDS			21100	
50 PERCENT EXCEEDS			2100	
90 PERCENT EXCEEDS			500	

\# See Period of Record; partial years were used in monthly statistics and break in record
a July 12 & 13
b Mar. 1-31, 1962
c Site then in use, caused by release of stored water (Lake George) behind Knik Glacier
d Gage height, 24.3 ft