

15297610 RUSSELL CREEK NEAR COLD BAY

LOCATION.--Lat 55°10'40", long 162°41'15", (Cold Bay A-3 quad), Aleutians East Borough, Hydrologic Unit 19030101, on left bank, at Russell Creek Fish Hatchery, 2.1 mi upstream from mouth, and 2.6 mi southeast of Cold Bay. Prior to February 27, 1997, at site 0.2 mi downstream.

DRAINAGE AREA.--30.9 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1981 to December 1986, October 1995 to current year.

REVISED RECORDS.-- WRD AK-97-1: 1996, Drainage area.

GAGE.--Water-stage recorder and crest-stage gage. Elevation of gage is 7.65 ft above sea level. Prior to February 27, 1997, elevation 3.55 ft above sea level at site 0.2 mi downstream (levels by private engineering firm).

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

DISCHARGE, in CFS, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	187	230	157	e110	e110	e95	123	294	361	264	211	215
2	178	197	166	e120	e120	e95	128	261	330	241	226	197
3	337	193	153	e120	e120	e100	130	253	299	228	502	245
4	213	189	142	e120	e110	e100	125	335	278	238	454	371
5	191	210	e140	e110	e110	e100	118	420	263	239	405	257
6	187	177	e140	e110	e100	e100	117	311	257	228	386	229
7	191	155	e130	e110	e100	e100	115	305	328	209	311	332
8	525	211	e130	e120	e100	e110	113	318	456	198	272	352
9	393	169	e120	e120	e95	e110	111	292	391	191	237	260
10	285	145	e120	e110	e95	e110	105	258	425	194	435	206
11	229	200	e120	e110	e95	e110	102	213	382	191	308	216
12	217	172	e120	e110	e95	116	101	287	323	316	268	383
13	208	164	e120	e120	e100	204	99	909	309	342	242	368
14	195	e160	e110	e120	e100	183	121	542	339	305	324	445
15	174	e160	e110	e130	e95	881	144	372	424	349	361	278
16	704	e150	e110	e130	e95	653	148	313	395	271	266	228
17	499	e150	e110	e120	e90	416	167	283	358	231	221	233
18	302	214	e110	e120	e90	423	132	838	309	220	222	198
19	307	235	e120	e110	e85	273	134	914	277	203	296	175
20	304	169	e120	e110	e85	284	142	1530	247	238	371	162
21	233	184	e110	e100	e80	252	125	901	231	543	392	168
22	251	171	e110	e110	e80	276	115	639	226	375	330	181
23	215	199	e110	e110	e85	263	114	1030	262	771	240	161
24	195	335	e110	e120	e85	225	124	1670	298	341	202	152
25	177	275	e100	e120	e90	224	150	1100	300	337	180	293
26	196	298	e100	e130	e90	188	157	806	258	324	171	308
27	292	319	e100	e130	e90	168	248	584	229	331	168	248
28	191	233	e100	e130	e95	155	602	488	219	280	165	241
29	180	194	e110	e120	---	142	497	480	213	247	252	207
30	277	175	e110	e120	---	142	426	485	248	223	297	198
31	371	---	e110	e110	---	132	---	394	---	212	221	---
TOTAL	8404	6033	3718	3630	2685	6730	5033	17825	9235	8880	8936	7507
MEAN	271.1	201.1	119.9	117.1	95.89	217.1	167.8	575.0	307.8	286.5	288.3	250.2
MAX	704	335	166	130	120	881	602	1670	456	771	502	445
MIN	174	145	100	100	80	95	99	213	213	191	165	152
AC-FT	16670	11970	7370	7200	5330	13350	9980	35360	18320	17610	17720	14890
CFSM	8.77	6.51	3.88	3.79	3.10	7.03	5.43	18.6	9.96	9.27	9.33	8.10
IN.	10.12	7.26	4.48	4.37	3.23	8.10	6.06	21.46	11.12	10.69	10.76	9.04

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1982 - 2002, BY WATER YEAR (WY)#

	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	
MEAN	274.2	296.4	251.1	164.6	147.8	139.1	141.3	239.9	334.3	342.0	314.2	358.7										
MAX	516	530	549	318	272	218	261	575	634	528	403	538										
(WY)	1986	1986	1984	1982	1982	1996	1998	2002	2000	1982	2000	1998										
MIN	172	168	86.8	59.5	71.2	75.8	80.3	133	208	192	256	170										
(WY)	1997	2000	2000	2000	2000	1986	1985	2001	1997	1997	1996	2000										

See Period of Record
e Estimated

15297610 RUSSELL CREEK NEAR COLD BAY—Continued

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1982 - 2002#	
ANNUAL TOTAL	80834		88616			
ANNUAL MEAN	221.5		242.8		250.3	
HIGHEST ANNUAL MEAN					302	1982
LOWEST ANNUAL MEAN					206	1983
HIGHEST DAILY MEAN	1060	Jun 23	1670	May 24	4000	Jun 24 1996
LOWEST DAILY MEAN	100	Mar 29	a80	Feb 21	b50	Feb 19 1982
ANNUAL SEVEN-DAY MINIMUM	104	Dec 22	84	Feb 18	51	Feb 18 1982
MAXIMUM PEAK FLOW			2220	May 24	c6000	Oct 22 1981
MAXIMUM PEAK STAGE			28.11	May 24	d11.76	Jun 24 1996
INSTANTANEOUS LOW FLOW					f49	Mar 13 1983
ANNUAL RUNOFF (AC-FT)	160300		175800		181400	
ANNUAL RUNOFF (CFSM)	7.17		7.86		8.10	
ANNUAL RUNOFF (INCHES)	97.31		106.68		110.07	
10 PERCENT EXCEEDS	358		399		440	
50 PERCENT EXCEEDS	191		199		202	
90 PERCENT EXCEEDS	120		101		95	

See Period of Record

a Feb. 21-22

b Feb. 19-23, 1982

c From rating curve extended above 610 ft³/s on basis of estimateby slope-area measurement of 6,000 ft³/s and gage height of 11.19 ft

d Site and datum then in use; from flood marks

f Mar. 13-14, 1983

15297610 RUSSELL CREEK NEAR COLD BAY—Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1982-83, 1996 to current year.

PERIOD OF DAILY RECORD.--

WATER TEMPERATURE: August 1996 to current year.

INSTRUMENTATION.--Electronic water-temperature recorder set for 1-hour recording interval.

REMARKS.--Records represent water-temperature at the sensor within 0.5°C. Temperature at the sensor was compared with the stream average by cross section on June 19. No variation was found within the cross section. No variation was found between mean stream temperature and sensor temperature.

EXTREMES FOR PERIOD OF RECORD.--

WATER TEMPERATURE: Maximum, 15.5°C, August 13-14, 2001, July 31 and August 1, 2002; minimum, 0.0°C on many days during winter periods.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURE: Maximum, 15.5°C, July 31 and August 1; minimum 0.0°C on many days during winter.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

Date	Time	STREAM WIDTH (FT) (00004)	SAMPLE LOC-ATION, CROSS SECTION (FT FM L BANK) (00009)	GAGE HEIGHT (FEET) (00065)	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	TEMPER-ATURE WATER (DEG C) (00010)	TEMPER-ATURE AIR (DEG C) (00020)
JUN							
19...	1845	71.6	4.00	26.05	255	10.5	18.0
19...	1846	71.6	24.0	26.05	255	10.5	18.0
19...	1847	71.6	44.0	26.05	255	10.5	18.0
19...	1848	71.6	64.0	26.05	255	10.5	18.0
19...	1849	71.6	69.0	26.05	255	10.5	18.0

WATER TEMPERATURE, (DEGREES CELSIUS), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	9.0	4.0	5.5	2.5	0.0	1.5	1.0	0.0	0.5	---	0.0	---
2	7.0	3.5	5.5	0.0	0.0	0.0	2.0	1.0	1.5	---	0.0	---
3	9.0	6.0	7.0	0.0	0.0	0.0	2.0	0.5	1.5	---	0.0	---
4	7.5	4.5	6.0	0.0	0.0	0.0	2.0	0.5	1.5	---	0.0	---
5	8.0	3.0	5.0	1.0	0.0	0.5	1.0	0.0	0.0	---	0.0	---
6	7.0	3.5	5.0	2.5	1.0	1.5	0.0	0.0	0.0	0.0	0.0	0.0
7	7.0	3.0	5.0	2.5	0.0	1.5	0.0	0.0	0.0	0.0	0.0	0.0
8	6.5	4.5	5.5	2.5	1.5	2.0	0.0	0.0	0.0	0.0	0.0	0.0
9	5.5	3.0	4.5	3.0	1.5	2.0	2.0	0.0	1.0	0.0	0.0	0.0
10	4.5	2.0	3.0	2.5	0.5	1.5	1.5	0.0	1.0	0.0	0.0	0.0
11	4.5	1.0	2.5	2.0	1.0	1.5	0.5	0.0	0.5	0.0	0.0	0.0
12	6.0	2.5	4.0	2.5	0.0	1.5	0.0	0.0	0.0	0.5	0.0	---
13	6.5	4.0	5.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.5	0.5
14	4.5	2.5	3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.0	0.5
15	5.0	2.0	3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
16	8.0	4.0	6.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
17	6.5	3.5	5.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
18	4.5	3.0	3.5	2.5	0.5	1.5	0.0	0.0	0.0	1.0	0.0	0.5
19	5.5	3.5	4.5	3.0	2.0	2.5	0.0	0.0	0.0	1.0	0.0	0.5
20	6.0	3.5	4.5	3.0	1.0	2.0	0.0	0.0	0.0	0.5	0.0	0.0
21	3.5	2.0	2.5	3.0	1.0	2.0	0.0	0.0	0.0	0.5	0.5	0.5
22	4.0	1.0	2.5	3.5	1.0	2.5	0.0	0.0	0.0	2.0	0.0	0.5
23	4.0	1.0	2.0	4.0	0.5	2.5	0.0	0.0	0.0	0.0	0.0	0.0
24	3.0	0.5	1.5	4.0	3.5	4.0	0.0	0.0	0.0	0.0	0.0	0.0
25	2.0	0.5	1.0	4.0	2.5	3.5	0.0	0.0	0.0	0.0	0.0	0.0
26	3.5	1.0	2.0	3.5	3.0	3.0	0.0	0.0	0.0	0.0	0.0	0.0
27	3.5	1.5	2.5	3.5	2.0	2.5	0.0	0.0	0.0	0.0	0.0	0.0
28	2.0	1.0	1.5	3.0	1.5	2.5	0.0	0.0	0.0	0.0	0.0	0.0
29	1.5	0.0	0.5	2.5	0.5	1.5	0.0	0.0	0.0	0.0	0.0	0.0
30	3.5	0.5	1.5	2.5	1.0	2.0	---	0.0	---	0.0	0.0	0.0
31	3.5	1.5	2.5	---	---	---	---	0.0	---	0.0	0.0	0.0
MONTH	9.0	0.0	3.6	4.0	0.0	1.5	---	0.0	---	---	0.0	---

SOUTHWEST ALASKA

15297610 RUSSELL CREEK NEAR COLD BAY—Continued

WATER TEMPERATURE, (DEGREES CELSIUS), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	FEBRUARY			MARCH			APRIL			MAY		
1	0.5	0.0	0.0	0.0	0.0	0.0	4.5	0.5	2.0	8.5	1.5	4.5
2	0.5	0.0	0.5	0.0	0.0	0.0	5.5	1.5	3.0	8.0	2.0	4.5
3	1.0	0.0	0.5	0.0	0.0	0.0	8.0	1.0	3.5	9.0	2.5	5.5
4	2.0	0.0	0.5	0.0	0.0	0.0	6.0	0.5	3.0	5.5	3.5	4.5
5	1.0	0.0	0.5	0.0	0.0	0.0	8.0	0.0	3.0	6.5	3.0	4.0
6	0.5	0.0	0.0	0.0	0.0	0.0	8.0	0.0	3.5	8.0	1.5	4.5
7	0.5	0.0	0.0	0.0	0.0	0.0	8.5	0.0	3.5	8.5	3.5	5.5
8	0.0	0.0	0.0	0.0	0.0	0.0	7.5	0.0	3.5	7.0	3.0	4.5
9	0.0	0.0	0.0	1.0	0.0	0.5	5.0	2.0	3.0	5.5	2.5	4.0
10	0.0	0.0	0.0	2.5	0.0	0.5	6.5	1.0	3.0	8.0	2.5	4.5
11	0.0	0.0	0.0	3.0	0.0	0.5	2.5	0.0	1.0	8.0	2.0	4.5
12	0.0	0.0	0.0	3.0	0.5	1.5	2.0	0.0	0.5	6.5	2.5	4.0
13	0.0	0.0	0.0	1.5	0.0	0.5	6.0	1.0	3.0	5.5	3.5	4.0
14	0.0	0.0	0.0	2.5	0.5	1.0	6.5	2.0	3.5	5.0	3.0	3.5
15	0.0	0.0	0.0	0.5	0.0	0.5	7.5	1.5	3.5	10.5	2.0	5.5
16	0.0	0.0	0.0	2.5	0.0	1.0	5.0	2.0	3.5	11.0	2.5	6.0
17	0.0	0.0	0.0	2.5	0.5	1.5	3.0	1.5	2.5	11.5	3.0	6.5
18	0.0	0.0	0.0	4.0	0.5	1.5	7.0	0.5	3.0	5.5	4.0	4.5
19	0.0	0.0	0.0	3.0	0.0	1.5	5.5	1.5	3.0	5.0	3.5	4.0
20	0.0	0.0	0.0	3.5	1.0	2.0	5.5	2.5	3.5	6.0	3.5	4.5
21	0.0	0.0	0.0	3.5	1.0	2.0	6.0	1.0	3.0	9.5	2.5	5.5
22	0.0	0.0	0.0	3.5	1.0	2.0	7.5	2.0	4.0	8.0	4.0	5.5
23	0.0	0.0	0.0	3.5	1.0	2.0	5.5	2.0	3.5	5.0	3.5	4.0
24	0.0	0.0	0.0	2.5	0.5	1.5	5.5	2.5	3.5	5.0	3.5	4.0
25	0.0	0.0	0.0	5.5	0.5	2.5	8.5	2.5	5.0	5.5	3.5	4.0
26	0.0	0.0	0.0	6.0	1.0	2.5	10.0	2.5	5.5	9.0	3.0	5.5
27	0.0	0.0	0.0	4.5	0.5	2.0	8.0	3.0	4.5	7.0	4.0	5.0
28	0.0	0.0	0.0	3.5	0.5	2.0	6.0	3.0	4.0	9.0	4.5	6.5
29	---	---	---	2.0	0.0	1.0	7.5	3.0	4.5	9.0	4.0	6.5
30	---	---	---	5.0	0.0	1.5	7.0	2.5	4.5	9.0	3.5	6.0
31	---	---	---	4.0	0.0	1.5	---	---	---	8.5	4.0	6.0
MONTH	2.0	0.0	0.0	6.0	0.0	1.1	10.0	0.0	3.3	11.5	1.5	4.9

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	7.5	4.0	5.5	10.0	5.0	7.5	15.5	6.5	10.0	10.5	4.5	7.5
2	9.5	4.5	6.5	9.0	5.0	7.0	15.0	5.5	9.5	12.5	5.5	8.0
3	8.0	4.5	6.0	14.0	5.0	8.5	8.5	7.0	8.0	11.5	7.0	9.0
4	12.0	4.0	7.0	10.5	5.5	8.0	11.0	6.5	8.0	10.5	8.5	9.5
5	12.5	4.0	7.5	9.5	5.0	7.0	8.5	6.5	7.5	9.0	7.0	8.0
6	12.5	5.0	7.5	10.5	5.0	7.0	9.0	6.0	7.5	8.5	6.5	7.5
7	7.5	5.0	6.0	11.0	5.5	8.0	11.0	5.5	8.0	9.0	6.0	7.5
8	7.0	4.5	5.5	9.0	5.5	7.0	14.0	5.0	9.0	8.5	6.0	7.0
9	8.5	4.5	6.0	12.0	6.0	8.5	8.5	5.5	7.0	9.5	5.0	6.5
10	7.0	4.5	5.5	11.5	5.0	8.0	12.5	7.0	9.0	10.0	5.5	7.0
11	10.5	4.0	6.0	14.0	4.5	8.5	13.0	6.0	8.5	8.5	4.5	6.5
12	12.5	3.5	7.0	10.5	7.0	8.5	11.5	6.0	8.0	8.0	7.0	7.5
13	8.5	4.0	6.5	8.5	6.0	7.0	12.0	5.5	8.5	8.5	6.0	7.0
14	7.0	4.5	6.0	8.0	6.0	7.0	13.0	7.5	9.5	8.0	5.0	6.5
15	9.0	4.5	6.0	10.0	5.5	7.0	10.0	6.0	8.0	8.0	4.0	5.5
16	13.0	4.0	8.0	8.5	5.0	6.5	14.0	6.0	9.5	9.0	4.5	6.5
17	8.0	4.5	6.0	11.0	6.0	8.0	14.0	5.5	9.0	9.5	5.0	6.5
18	11.0	4.0	7.0	9.0	6.0	7.5	11.0	6.0	8.5	10.0	5.5	7.0
19	10.5	4.5	7.0	12.0	5.5	8.5	13.0	8.0	10.0	9.0	5.0	6.5
20	9.0	5.0	7.0	9.0	7.0	8.0	10.0	7.5	8.5	8.0	4.5	5.5
21	9.5	5.0	6.5	9.5	6.0	7.5	8.0	7.0	7.5	6.0	4.0	5.0
22	12.0	5.5	7.5	8.5	5.5	6.5	10.0	6.0	7.5	8.5	6.0	7.5
23	11.0	5.0	7.5	11.0	4.5	7.5	12.5	6.0	8.0	11.5	6.0	8.0
24	8.0	5.5	6.5	9.5	5.5	7.0	11.0	5.5	8.0	9.5	5.5	7.5
25	12.5	5.0	7.5	11.0	5.5	7.5	11.5	5.0	8.0	8.5	6.5	7.5
26	9.5	5.0	7.0	10.0	6.0	7.5	13.5	5.0	9.0	9.0	6.0	7.0
27	10.0	4.5	7.0	9.5	5.5	7.0	14.0	6.5	9.5	8.0	5.0	6.0
28	9.0	5.0	7.0	11.0	5.5	7.5	10.5	5.5	7.5	8.0	6.0	6.5
29	14.5	5.0	9.0	10.0	5.5	7.5	10.0	7.0	8.0	8.5	5.5	6.5
30	11.5	6.0	8.0	13.0	5.5	8.5	10.5	7.0	8.5	8.5	5.0	6.5
31	---	---	---	15.5	6.0	10.0	9.5	5.5	7.5	---	---	---
MONTH	14.5	3.5	6.8	15.5	4.5	7.6	15.5	5.0	8.4	12.5	4.0	7.0

15300300 ILIAMNA RIVER NEAR PEDRO BAY

LOCATION.--Lat 59°45'31", long 153°50'41", in NE¹/₄ SE¹/₄ sec. 10, T. 5 S., R. 27 W. (Iliamna D-3 quad), Lake and Peninsula Borough, Hydrologic Unit 19030206, on left bank 100 ft downstream from bridge on road between Pile Bay and Williamsport, 9.2 mi east of Pedro Bay, and 37 mi east of Iliamna.

DRAINAGE AREA.--128 mi².

PERIOD OF RECORD.--May 1996 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 80 ft above sea level, from topographic map.

REMARKS.--Records are good except for estimated daily discharges which are poor. GOES satellite telemetry at station.

DISCHARGE, in CFS, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	805	e340	e230	1650	e140	e90	e60	1020	2240	2210	882	592
2	862	e320	e220	1490	e140	e90	e60	807	2000	1880	831	559
3	799	e320	e220	1110	e130	e85	e60	662	2230	1920	809	504
4	2790	e300	e220	968	e130	e85	e60	575	2480	2010	803	463
5	3200	e300	e210	857	e130	e85	e60	531	2380	1990	823	505
6	2070	e290	e210	734	e130	e85	e60	588	2510	1790	869	687
7	1340	e290	e210	487	e130	e80	e60	647	2470	1580	780	839
8	1050	e280	e220	464	e130	e80	e60	645	2470	1420	983	688
9	1070	e280	e220	e440	e130	e80	e55	651	4820	1230	932	641
10	1010	e280	e230	e400	e130	e80	e55	683	4420	1130	867	564
11	821	e270	e230	e360	e120	e75	e55	688	2830	1210	1300	547
12	713	e270	e220	e320	e120	e75	e55	705	2310	1420	1100	1010
13	628	e260	e220	e300	e120	e75	e55	754	2170	1410	1060	2860
14	602	263	e220	e250	e120	e75	e55	845	2190	1340	903	3390
15	575	264	e210	e220	e110	e70	e55	1020	2550	1320	794	1930
16	513	310	e210	e200	e110	e70	e55	1120	2910	1150	742	1220
17	497	338	e200	e190	e110	e70	e55	1260	3000	1110	742	1100
18	519	482	e200	e180	e110	e70	e55	1530	2980	1360	730	1080
19	449	498	e200	e180	e110	e70	e50	1970	2720	1340	694	860
20	411	424	e190	e180	e100	e70	e50	2330	2140	1460	732	717
21	397	405	e190	e170	e100	e65	e50	2550	1800	1370	913	622
22	e380	317	e180	e170	e100	e65	e60	2680	1810	1490	861	557
23	e380	272	e180	e170	e100	e65	e75	3380	2010	1570	929	1900
24	e380	254	e170	e160	e100	e65	e90	2840	1920	1850	740	4710
25	e380	e250	496	e160	e95	e65	e120	2750	2080	1520	666	3370
26	e360	e250	1130	e160	e95	e65	182	2880	1900	1480	602	2000
27	e360	e250	1990	e150	e95	e65	223	3060	2070	1400	560	1710
28	e360	e240	1490	e150	e95	e60	296	2810	1910	1090	527	2760
29	e360	e240	1270	e150	---	e60	593	2390	1740	984	508	2530
30	e340	e230	1140	e140	---	e60	938	2630	2010	890	546	1750
31	e340	---	1210	e140	---	e60	---	2420	---	900	552	---
TOTAL	24761	9087	13736	12700	3230	2255	3757	49421	73070	44824	24780	42665
MEAN	798.7	302.9	443.1	409.7	115.4	72.74	125.2	1594	2436	1446	799.4	1422
MAX	3200	498	1990	1650	140	90	938	3380	4820	2210	1300	4710
MIN	340	230	170	140	95	60	50	531	1740	890	508	463
AC-FT	49110	18020	27250	25190	6410	4470	7450	98030	144900	88910	49150	84630
CFSM	6.24	2.37	3.46	3.20	0.90	0.57	0.98	12.5	19.0	11.3	6.24	11.1
IN.	7.20	2.64	3.99	3.69	0.94	0.66	1.09	14.36	21.24	13.03	7.20	12.40

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1996 - 2002, BY WATER YEAR (WY)#

	1996	1997	1998	1999	2000	2001	2002
MEAN	622.8	406.4	246.9	208.3	125.9	157.6	252.3
MAX	861	748	443	410	253	407	500
(WY)	2000	1999	2002	2002	2001	1998	1998
MIN	289	161	84.5	75.2	61.6	60.6	87.8
(WY)	1997	1997	1997	1998	1998	1999	2001

SUMMARY STATISTICS FOR 2001 CALENDAR YEAR FOR 2002 WATER YEAR WATER YEARS 1996 - 2002#

ANNUAL TOTAL	366821	304286		
ANNUAL MEAN	1005	833.7	867.6	
HIGHEST ANNUAL MEAN			1083	1998
LOWEST ANNUAL MEAN			622	1997
HIGHEST DAILY MEAN	7460	Jul 19	4820	Jun 9
LOWEST DAILY MEAN	a150	Apr 12	b50	Apr 19
ANNUAL SEVEN-DAY MINIMUM	153	Apr 10	53	Apr 15
MAXIMUM PEAK FLOW			6260	Jun 9
MAXIMUM PEAK STAGE			65.21	Jun 9
ANNUAL RUNOFF (AC-FT)	727600	603600	628600	Jun 8 1998
ANNUAL RUNOFF (CFSM)	7.85	6.51	6.78	
ANNUAL RUNOFF (INCHES)	106.61	88.43	92.10	
10 PERCENT EXCEEDS	2680	2220	2220	
50 PERCENT EXCEEDS	411	504	460	
90 PERCENT EXCEEDS	180	70	80	

See Period of Record; partial year used in monthly statistics

- a From Apr. 12-16
- b From Apr. 19-21
- c From Jan. 5-6, 1997
- e Estimated

15302000 NUYAKUK RIVER NEAR DILLINGHAM

LOCATION.--Lat 59°56'08", long 158°11'16", in NE¹/₄ NE¹/₄ sec. 10, T.3 S., R.52 W. (Dillingham D-6 quad), Hydrologic Unit 19030301, on the left bank 350 ft downstream from outlet of Tikchik Lake, about 0.6 mi upstream from unnamed tributary entering from left bank and 62 mi north of Dillingham.

DRAINAGE AREA.--1,490 mi², approximately.

PERIOD OF RECORD.--May 1953 to September 1996 and July to September, 2002.

REVISED RECORDS.--WRD-Alaska 1972; 1971.

GAGE.--Water-stage recorder. Elevation of gage is 325 ft above sea level from topographic map. Prior to Oct. 8, 1983, at site 650 ft downstream at different datum, but datum was 2.00 ft higher from May 1953 to Oct. 1, 1957.

REMARKS.--Records good, except for estimated daily discharges, which are poor. GOES satellite telemetry at station. Discharge affected by storage in Tikchik Lake, Nuyakuk Lake, Lake Chauekuktuli, and other smaller lakes covering over 170 mi² of the basin.

EXTREMES FOR CURRENT PERIOD.--Maximum discharge not determined, maximum daily mean discharge during the period July through September, 18,200 ft³/s, July 1; minimum not determined, occurs during winter.

DISCHARGE, in CFS, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	---	---	---	e18200	9050	5650
2	---	---	---	---	---	---	---	---	---	e17700	8860	5540
3	---	---	---	---	---	---	---	---	---	e17200	8660	5430
4	---	---	---	---	---	---	---	---	---	e16800	8450	5280
5	---	---	---	---	---	---	---	---	---	e16300	8230	5250
6	---	---	---	---	---	---	---	---	---	e15800	8100	5250
7	---	---	---	---	---	---	---	---	---	e15400	7980	5200
8	---	---	---	---	---	---	---	---	---	e15000	7830	5160
9	---	---	---	---	---	---	---	---	---	e14600	7630	5070
10	---	---	---	---	---	---	---	---	---	14200	7420	4960
11	---	---	---	---	---	---	---	---	---	13700	7260	4820
12	---	---	---	---	---	---	---	---	---	13200	7270	4630
13	---	---	---	---	---	---	---	---	---	12800	7160	4730
14	---	---	---	---	---	---	---	---	---	12500	7000	4840
15	---	---	---	---	---	---	---	---	---	12200	6860	4940
16	---	---	---	---	---	---	---	---	---	11900	6700	4900
17	---	---	---	---	---	---	---	---	---	11700	6540	4900
18	---	---	---	---	---	---	---	---	---	11400	6400	4830
19	---	---	---	---	---	---	---	---	---	11100	6290	4760
20	---	---	---	---	---	---	---	---	---	10800	6320	4690
21	---	---	---	---	---	---	---	---	---	10600	6290	4600
22	---	---	---	---	---	---	---	---	---	10500	6260	4500
23	---	---	---	---	---	---	---	---	---	10300	6250	4510
24	---	---	---	---	---	---	---	---	---	10300	6170	4730
25	---	---	---	---	---	---	---	---	---	10200	6100	4810
26	---	---	---	---	---	---	---	---	---	10000	6040	4990
27	---	---	---	---	---	---	---	---	---	10000	5970	5360
28	---	---	---	---	---	---	---	---	---	9920	5900	5720
29	---	---	---	---	---	---	---	---	---	9760	5780	5890
30	---	---	---	---	---	---	---	---	---	9530	5720	6010
31	---	---	---	---	---	---	---	---	---	9300	5690	---
TOTAL	---	---	---	---	---	---	---	---	---	392910	216180	151950
MEAN	---	---	---	---	---	---	---	---	---	12670	6974	5065
MAX	---	---	---	---	---	---	---	---	---	18200	9050	6010
MIN	---	---	---	---	---	---	---	---	---	9300	5690	4500
AC-FT	---	---	---	---	---	---	---	---	---	779300	428800	301400
CFSM	---	---	---	---	---	---	---	---	---	8.51	4.68	3.40
IN.	---	---	---	---	---	---	---	---	---	9.81	5.40	3.79

e Estimated

15302000 NUYAKUK RIVER NEAR DILLINGHAM—Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1953 - 2002, BY WATER YEAR (WY)#

MEAN	7761	5015	3209	2454	2077	1826	1784	4491	15360	14010	8999	8180
MAX	13350	9192	6500	4005	3200	3041	2692	11320	23290	26220	24190	17070
(WY)	1992	1980	1984	1984	1963	1963	1993	1978	1969	1977	1977	1989
MIN	3816	2570	1848	1397	1252	990	800	1719	10360	6794	3855	4099
(WY)	1969	1969	1964	1964	1964	1976	1960	1964	1954	1954	1957	1984

SUMMARY STATISTICS

WATER YEARS 1953 - 2002#

ANNUAL MEAN	6301	
HIGHEST ANNUAL MEAN	9470	1977
LOWEST ANNUAL MEAN	4236	1954
HIGHEST DAILY MEAN	32100	Jul 2 1977
LOWEST DAILY MEAN	a770	Apr 16 1960
ANNUAL SEVEN-DAY MINIMUM	770	Apr 16 1960
MAXIMUM PEAK FLOW	32200	Jul 2 1977
MAXIMUM PEAK STAGE	b10.49	Jul 2 1977
INSTANTANEOUS LOW FLOW	770	Apr 16 1960
ANNUAL RUNOFF (AC-FT)	4565000	
ANNUAL RUNOFF (CFSM)	4.23	
ANNUAL RUNOFF (INCHES)	57.46	
10 PERCENT EXCEEDS	14300	
50 PERCENT EXCEEDS	4300	
90 PERCENT EXCEEDS	1700	

See Period of Record

a Apr.16-30, 1960

b Site and datum then in use

15303700 TATALINA RIVER NEAR TAKOTNA

LOCATION.--Lat 62°53'06", long 155°56'22", in NW¹/₄ NE¹/₄ sec. 12, T.32 N., R.36 W. (McGrath D-6 quad), Hydrologic Unit 19030405, at downstream side of bridge on right bank, 1.2 mi southeast of Tatalina Airstrip, and 8.1 mi southeast of Takotna.

DRAINAGE AREA.--76.9 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--May 1987 to current year (no winter record), except May only in 1989, and annual maximum in water year 1991.

GAGE.--Water-stage recorder, non-recording gage, and crest-stage gage. Elevation of gage is 450 ft above sea level, from topographic map. Prior to May 9, 1990 at site 20 ft downstream at same datum.

REMARKS.--Records fair, except for estimated daily discharges, which are poor. Precipitation gage and air temperature recorder at station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,170 ft³/s, July 8, 1998, gage-height 10.97 ft; maximum gage height 11.46 ft, 1996, date and time unknown, backwater from ice, discharge not determined; minimum discharge not determined, occurs during winter.

EXTREMES FOR CURRENT PERIOD.-- October 2001 and June to September 2002: maximum discharge during period, 247 ft³/s, September 13, gage height 5.73 ft; maximum observed gage height 10.43 ft, backwater from ice, discharge not determined, date unknown, occurred during winter; minimum discharge not determined, occurs during winter.

DISCHARGE, in CFS, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUE

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	63	---	---	---	---	---	---	---	e90	37	27	34
2	82	---	---	---	---	---	---	---	e88	36	25	30
3	79	---	---	---	---	---	---	---	86	36	24	27
4	99	---	---	---	---	---	---	---	86	39	24	28
5	102	---	---	---	---	---	---	---	86	36	24	61
6	92	---	---	---	---	---	---	---	103	e32	23	86
7	80	---	---	---	---	---	---	---	90	e31	22	77
8	74	---	---	---	---	---	---	---	86	e30	22	62
9	73	---	---	---	---	---	---	---	75	e30	23	52
10	e71	---	---	---	---	---	---	---	69	e29	24	45
11	e68	---	---	---	---	---	---	---	68	e29	24	49
12	e66	---	---	---	---	---	---	---	63	e28	22	137
13	e63	---	---	---	---	---	---	---	58	e28	22	190
14	e60	---	---	---	---	---	---	---	55	e30	21	126
15	e57	---	---	---	---	---	---	---	53	e29	20	103
16	e53	---	---	---	---	---	---	---	51	e29	20	e90
17	e50	---	---	---	---	---	---	---	49	e28	20	e80
18	e48	---	---	---	---	---	---	---	48	e28	21	e73
19	e46	---	---	---	---	---	---	---	46	e29	22	e67
20	e44	---	---	---	---	---	---	---	45	e30	21	e60
21	e42	---	---	---	---	---	---	---	44	40	28	e55
22	e40	---	---	---	---	---	---	---	41	34	51	e50
23	e39	---	---	---	---	---	---	---	40	33	42	e46
24	e38	---	---	---	---	---	---	---	41	31	42	e43
25	e36	---	---	---	---	---	---	---	44	35	49	e40
26	e35	---	---	---	---	---	---	---	53	34	37	e37
27	e34	---	---	---	---	---	---	---	55	37	33	e42
28	e33	---	---	---	---	---	---	---	46	40	30	e46
29	e32	---	---	---	---	---	---	---	42	39	29	e51
30	e31	---	---	---	---	---	---	---	40	32	28	e60
31	e30	---	---	---	---	---	---	---	---	29	28	---
TOTAL	1760	---	---	---	---	---	---	---	1841	1008	848	1947
MEAN	56.77	---	---	---	---	---	---	---	61.37	32.52	27.35	64.90
MAX	102	---	---	---	---	---	---	---	103	40	51	190
MIN	30	---	---	---	---	---	---	---	40	28	20	27
AC-FT	3490	---	---	---	---	---	---	---	3650	2000	1680	3860
CFSM	0.74	---	---	---	---	---	---	---	0.80	0.42	0.36	0.84
IN.	0.85	---	---	---	---	---	---	---	0.89	0.49	0.41	0.94

e Estimated

SOUTHWEST ALASKA

15303700 TATALINA RIVER NEAR TAKOTNA—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	FEBRUARY			MARCH			APRIL			MAY		
1	---	---	---	---	---	---	---	---	---	---	---	---
2	---	---	---	---	---	---	---	---	---	---	---	---
3	---	---	---	---	---	---	---	---	---	---	---	---
4	---	---	---	---	---	---	---	---	---	---	---	---
5	---	---	---	---	---	---	---	---	---	---	---	---
6	---	---	---	---	---	---	---	---	---	---	---	---
7	---	---	---	---	---	---	---	---	---	---	---	---
8	---	---	---	---	---	---	---	---	---	---	---	---
9	---	---	---	---	---	---	---	---	---	---	---	---
10	---	---	---	---	---	---	---	---	---	---	---	---
11	---	---	---	---	---	---	---	---	---	---	---	---
12	---	---	---	---	---	---	---	---	---	---	---	---
13	---	---	---	---	---	---	---	---	---	---	---	---
14	---	---	---	---	---	---	---	---	---	---	---	---
15	---	---	---	---	---	---	---	---	---	---	---	---
16	---	---	---	---	---	---	---	---	---	---	---	---
17	---	---	---	---	---	---	---	---	---	---	---	---
18	---	---	---	---	---	---	---	---	---	---	---	---
19	---	---	---	---	---	---	---	---	---	0.0	0.0	0.0
20	---	---	---	---	---	---	---	---	---	0.5	0.0	0.0
21	---	---	---	---	---	---	---	---	---	0.5	0.0	0.0
22	---	---	---	---	---	---	---	---	---	0.5	0.0	0.0
23	---	---	---	---	---	---	---	---	---	1.0	0.0	0.5
24	---	---	---	---	---	---	---	---	---	1.5	0.0	0.5
25	---	---	---	---	---	---	---	---	---	2.0	0.0	1.0
26	---	---	---	---	---	---	---	---	---	2.0	0.0	1.0
27	---	---	---	---	---	---	---	---	---	1.5	0.5	1.0
28	---	---	---	---	---	---	---	---	---	3.0	0.5	1.5
29	---	---	---	---	---	---	---	---	---	3.5	0.5	2.0
30	---	---	---	---	---	---	---	---	---	4.0	1.5	3.0
31	---	---	---	---	---	---	---	---	---	3.5	3.0	3.5
MONTH	---	---	---	---	---	---	---	---	---	---	---	---
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	4.0	2.0	3.0	---	---	---	13.5	10.0	11.5	8.0	6.5	7.5
2	3.5	3.0	3.5	---	---	---	13.5	10.0	12.0	7.0	6.0	6.5
3	5.0	2.5	3.5	---	---	---	13.5	10.5	12.0	7.5	6.0	6.5
4	5.0	3.5	4.0	---	---	---	13.5	10.5	12.0	7.5	7.0	7.5
5	5.0	3.5	4.0	---	---	---	14.5	11.0	12.5	8.0	7.5	8.0
6	4.5	3.5	4.0	---	---	---	14.0	12.5	13.0	8.0	7.5	7.5
7	6.5	4.5	5.0	---	---	---	12.5	10.0	11.5	7.5	7.0	7.0
8	5.5	4.5	5.0	---	---	---	11.0	9.0	9.5	7.0	5.5	6.5
9	6.0	4.5	5.0	---	---	---	9.5	8.5	9.0	5.5	4.5	5.0
10	6.5	5.0	5.5	---	---	---	9.5	7.0	8.5	4.5	3.5	4.0
11	8.0	5.5	6.5	---	---	---	10.0	7.5	9.0	5.5	4.0	4.5
12	8.5	5.5	7.0	---	---	---	10.5	8.5	9.5	5.5	5.0	5.5
13	---	6.5	---	---	---	---	10.0	7.5	9.0	5.5	5.0	5.5
14	---	---	---	---	---	---	9.5	6.5	8.0	6.0	5.5	5.5
15	---	---	---	---	---	---	9.5	6.5	8.0	5.5	5.0	5.5
16	---	---	---	---	---	---	9.0	8.5	8.5	---	4.5	---
17	---	---	---	---	---	---	9.5	8.5	9.0	---	---	---
18	---	---	---	---	---	---	9.0	8.5	8.5	---	---	---
19	---	---	---	---	---	---	9.5	6.5	8.0	---	---	---
20	---	---	---	---	---	---	8.0	6.0	7.0	---	---	---
21	---	---	---	---	---	---	7.5	6.5	7.0	---	---	---
22	---	---	---	---	---	---	7.0	6.5	7.0	---	---	---
23	---	---	---	---	---	---	7.5	6.5	7.0	---	---	---
24	---	---	---	13.0	12.0	12.5	9.0	7.0	8.0	---	---	---
25	---	---	---	12.5	11.0	12.0	8.0	6.5	7.5	---	---	---
26	---	---	---	11.5	10.5	11.0	8.0	6.0	7.0	---	---	---
27	---	---	---	10.5	9.5	10.0	7.5	5.5	6.5	---	---	---
28	---	---	---	10.5	9.0	10.0	7.0	5.5	6.5	---	---	---
29	---	---	---	11.0	8.5	10.0	8.0	5.5	6.5	---	---	---
30	---	---	---	12.5	9.0	10.5	7.5	6.0	7.0	---	---	---
31	---	---	---	13.0	9.5	11.0	8.5	7.0	7.5	---	---	---
MONTH	---	---	---	---	---	---	14.5	5.5	8.8	---	---	---

15303900 KUSKOKWIM RIVER AT LISKYS CROSSING NEAR STONY RIVER

LOCATION.--Lat 62°03'07", long 156°12'38", in SW¹/₄ NE¹/₄ SE¹/₄ sec. 27, T. 23 N., R. 38 W. (Iditarod A-1 quad), Hydrologic Unit 19030405, on the downstream point of the first channel island located 0.25 mi above Lisky's house site (historic, house since destroyed), 22 mi northeast of the village of Stony River.

DRAINAGE AREA.--15,600 mi², approximately.

PERIOD OF RECORD.--May 1996 to current year (no winter record).

GAGE.--Water-stage recorder. Elevation of gage is 250 ft above sea level from topographic map.

REMARKS.-- GOES satellite telemetry at station.

EXTREMES FOR PERIOD OF RECORD.--Maximum gage height observed 33.80 ft, July 11, 1998, but may have been higher during a period of missing record. Minimum gage height observed 22.94 ft, October 11, 1997, but may have been lower during a period of missing record.

EXTREMES FOR CURRENT PERIOD.--October 1-14, 2001, June 5-10, and June 19 to September 30, 2002; Maximum gage height 28.20 ft, September 16 and 17; minimum gage height 25.20 ft, October 3.

GAGE HEIGHT FROM DCP, in FEET, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	25.33	---	---	---	---	---	---	---	---	26.44	26.56	25.91
2	25.28	---	---	---	---	---	---	---	---	26.14	26.34	25.73
3	25.24	---	---	---	---	---	---	---	---	25.99	26.14	25.60
4	25.31	---	---	---	---	---	---	---	---	26.01	26.03	25.54
5	25.37	---	---	---	---	---	---	---	27.69	26.15	25.95	25.62
6	25.42	---	---	---	---	---	---	---	27.74	26.40	25.92	25.64
7	25.51	---	---	---	---	---	---	---	27.66	26.60	25.91	25.62
8	25.45	---	---	---	---	---	---	---	27.53	26.94	26.00	25.73
9	25.52	---	---	---	---	---	---	---	27.55	26.91	26.19	26.25
10	25.62	---	---	---	---	---	---	---	27.79	26.70	26.66	26.73
11	25.66	---	---	---	---	---	---	---	---	26.63	27.66	26.91
12	25.52	---	---	---	---	---	---	---	---	26.61	28.03	26.94
13	25.38	---	---	---	---	---	---	---	---	26.58	27.60	26.94
14	25.33	---	---	---	---	---	---	---	---	26.54	27.00	27.10
15	---	---	---	---	---	---	---	---	---	26.42	26.55	27.63
16	---	---	---	---	---	---	---	---	---	26.38	26.31	28.13
17	---	---	---	---	---	---	---	---	---	26.42	26.20	28.13
18	---	---	---	---	---	---	---	---	---	26.28	25.98	27.82
19	---	---	---	---	---	---	---	---	26.01	26.12	25.74	27.43
20	---	---	---	---	---	---	---	---	26.15	26.01	25.59	27.05
21	---	---	---	---	---	---	---	---	26.45	26.04	25.58	26.70
22	---	---	---	---	---	---	---	---	26.88	26.19	25.60	26.42
23	---	---	---	---	---	---	---	---	27.37	26.37	25.67	26.23
24	---	---	---	---	---	---	---	---	27.52	26.35	25.80	26.06
25	---	---	---	---	---	---	---	---	27.35	26.20	26.04	25.85
26	---	---	---	---	---	---	---	---	27.26	26.08	26.27	25.72
27	---	---	---	---	---	---	---	---	27.13	26.11	26.49	25.72
28	---	---	---	---	---	---	---	---	26.98	26.36	26.63	25.82
29	---	---	---	---	---	---	---	---	26.90	26.80	26.54	25.94
30	---	---	---	---	---	---	---	---	26.76	26.94	26.31	26.13
31	---	---	---	---	---	---	---	---	---	26.77	26.12	---
MEAN	---	---	---	---	---	---	---	---	---	26.40	26.30	26.43
MAX	---	---	---	---	---	---	---	---	---	26.94	28.03	28.13
MIN	---	---	---	---	---	---	---	---	---	25.99	25.58	25.54

15304000 KUSKOKWIM RIVER AT CROOKED CREEK

LOCATION.--Lat 61°52'16", long 158°06'03", in NE¹/₄ NE¹/₄ sec. 32, T. 21 N., R. 48 W. (Sleetmute D-6 quad), Hydrologic Unit 19030501, on right bank at village of Crooked Creek, 0.1 mi upstream from Crooked Creek.

DRAINAGE AREA.--31,100 mi², approximately.

PERIOD OF RECORD.--June 1951 to September 1994, October 1995 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 200 ft above sea level, from topographic map. Prior to August 6, 1977, non-recording gage at site 1,600 ft upstream at same datum. From August 6, 1977, to September 30, 1991, water-stage recorder at site 2,300 ft upstream at same datum. From October 1, 1991 to September 30, 1994, and October 1, 1995 to August 7, 1997 non-recording gage.

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

DISCHARGE, in CFS, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	40700	e27000	e17000	e11000	e9400	e8800	e8200	e16000	e120000	59000	52500	52300
2	40000	e27000	e16000	e11000	e9400	e8800	e8200	e18000	e116000	57300	50200	52400
3	40400	e26000	e16000	e11000	e9400	e8800	e8200	e20000	e112000	56700	48500	53100
4	41200	e26000	e16000	e10500	e9400	e8800	e8200	e23000	e110000	56000	47000	51900
5	40700	e25000	e16000	e10500	e9400	e8800	e8200	e26000	108000	56000	46000	49800
6	41700	e25000	e15000	e10500	e9400	e8800	e8200	e30000	105000	56800	46700	49300
7	44200	e24000	e15000	e10500	e9400	e8800	e8200	e35000	104000	56400	46800	50600
8	49100	e24000	e14500	e10500	e9200	e8800	e8200	e44000	103000	55100	48900	53200
9	51500	e23000	e14500	e10500	e9200	e8600	e8200	e55000	102000	55200	56700	55200
10	50900	e23000	e14000	e10500	e9200	e8600	e8200	e70000	98500	55500	59800	56500
11	49100	e23000	e14000	e10000	e9200	e8600	e8200	e90000	93800	54200	59500	57300
12	48800	e22000	e14000	e10000	e9200	e8600	e8200	e104000	90600	53900	60400	59700
13	47200	e22000	e13500	e10000	e9200	e8600	e8200	e114000	87800	52900	60800	62700
14	44900	e21000	e13500	e10000	e9200	e8600	e8000	e125000	84100	52000	59600	68400
15	42900	e21000	e13000	e10000	e9200	e8600	e8000	e140000	79200	51300	58200	71800
16	42100	e21000	e13000	e9800	e9000	e8600	e8000	e170000	74100	50500	55900	73100
17	41500	e22000	e12500	e9800	e9000	e8600	e8000	e165000	70600	49800	52200	74300
18	39300	e22000	e12500	e9800	e9000	e8400	e8000	161000	68900	49500	50200	72400
19	39400	e22000	e12000	e9800	e9000	e8400	e8000	156000	68100	49400	47800	69000
20	38000	e21000	e12000	e9800	e9000	e8400	e8000	154000	68500	48500	46400	64800
21	35900	e21000	e12000	e9800	e9000	e8400	e8000	151000	69900	49000	45600	61300
22	33500	e20000	e12000	e9600	e9000	e8400	e8000	149000	69800	49300	47700	58000
23	31600	e20000	e11500	e9600	e9000	e8400	e8000	146000	69000	48700	51900	55800
24	31300	e19000	e11500	e9600	e9000	e8400	e8000	142000	69400	48600	56900	54100
25	30800	e19000	e11500	e9600	e9000	e8400	e8500	138000	69300	49000	60400	53300
26	e29500	e18000	e11500	e9600	e8800	e8400	e9000	136000	67700	50700	61700	54100
27	e29000	e18000	e11000	e9600	e8800	e8400	e10000	135000	66600	52900	60800	54300
28	e28000	e18000	e11000	e9600	e8800	e8400	e11000	134000	65700	53900	58400	55000
29	e28000	e17000	e11000	e9600	---	e8200	e12000	133000	63100	54300	56700	56800
30	e28000	e17000	e11000	e9600	---	e8200	e14000	e130000	60400	54900	54800	61500
31	e28000	---	e11000	e9400	---	e8200	---	e124000	---	54400	53400	---
TOTAL	1207200	654000	409000	311100	255800	264800	259100	3234000	2535100	1642100	1662400	1762000
MEAN	38940	21800	13190	10040	9136	8542	8637	104300	84500	52970	53630	58730
MAX	51500	27000	17000	11000	9400	8800	14000	170000	120000	59000	61700	74300
MIN	28000	17000	11000	9400	8800	8200	8000	16000	60400	48500	45600	49300
AC-FT	2394000	1297000	811300	617100	507400	525200	513900	6415000	5028000	3257000	3297000	3495000
CFSM	1.25	0.70	0.42	0.32	0.29	0.27	0.28	3.35	2.72	1.70	1.72	1.89
IN.	1.44	0.78	0.49	0.37	0.31	0.32	0.31	3.87	3.03	1.96	1.99	2.11

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1951 - 2002, BY WATER YEAR (WY)#

MEAN	44240	21310	15240	12960	11590	10680	14380	80370	82890	67880	75830	69220
MAX	102000	36400	25000	22450	20710	19550	41000	161700	235100	119500	169800	150900
(WY)	1994	1991	1962	1991	1991	1991	1967	1957	1964	1980	1963	1951
MIN	22650	12730	10000	8400	6900	6100	8600	22130	33880	40910	41840	30550
(WY)	1979	1981	1957	1966	1966	1966	1953	1964	1954	1997	1957	1976

See Period of Record, partial years used in monthly statistics
e Estimated

15304000 KUSKOKWIM RIVER AT CROOKED CREEK—Continued

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1951 - 2002#	
ANNUAL TOTAL	15964800		14196600			
ANNUAL MEAN	43740		38890		42230	
HIGHEST ANNUAL MEAN					62120	
LOWEST ANNUAL MEAN					28600	
HIGHEST DAILY MEAN	124000	May 22	170000	May 16	391000	Jun 5 1964
LOWEST DAILY MEAN	a9000	Apr 1	b8000	Apr 14	c6100	Mar 1 1966
ANNUAL SEVEN-DAY MINIMUM	9140	Mar 30	8000	Apr 14	6100	Mar 1 1966
MAXIMUM PEAK FLOW			d181000	May 16	392000	Jun 5 1964
MAXIMUM PEAK STAGE			d15.66	May 16		
MAXIMUM PEAK STAGE			f22.61	May 14	g25.74	Jun 5 1964
ANNUAL RUNOFF (AC-FT)	31670000		28160000		30590000	
ANNUAL RUNOFF (CFSM)	1.41		1.25		1.36	
ANNUAL RUNOFF (INCHES)	19.10		16.98		18.45	
10 PERCENT EXCEEDS	102000		76300		93700	
50 PERCENT EXCEEDS	27000		26000		26000	
90 PERCENT EXCEEDS	10000		8400		10000	

See Period of Record, partial years used in monthly computations
a Apr. 1-5
b Apr. 14-24
c Mar. 1-31, 1966
d Maximum observed, but may have been higher during period of missing record.
f From floodmarks, backwater from ice
g From floodmarks, backwater from ice, at different site, same datum

15304060 KUSKOKWIM RIVER AT ANIAK

LOCATION.--Lat 61°35'14", long 159°32'54", in SE¹/₄ SE¹/₄ sec. 2, T. 17 N., R. 57 W. (Russian Mission C-2 quad), Hydrologic unit 19030502, on the left bank near the NW corner of the west end of the runway in the village of Aniak.

WATER-STAGE RECORDS

PERIOD OF RECORD.--May 1996 to present (no winter record).

GAGE.--Water-stage recorder. A supplementary stage gage was installed April 23, 1998 approximately 1 mi upstream from gage of record. This gage records water elevation at the Aniak city dike system during ice break-up events. Elevation of the gage is 75 ft above sea level from topographic map.

REMARKS.--GOES satellite telemetry at station. Supplementary stage records are available from the computer files of the Alaska District.

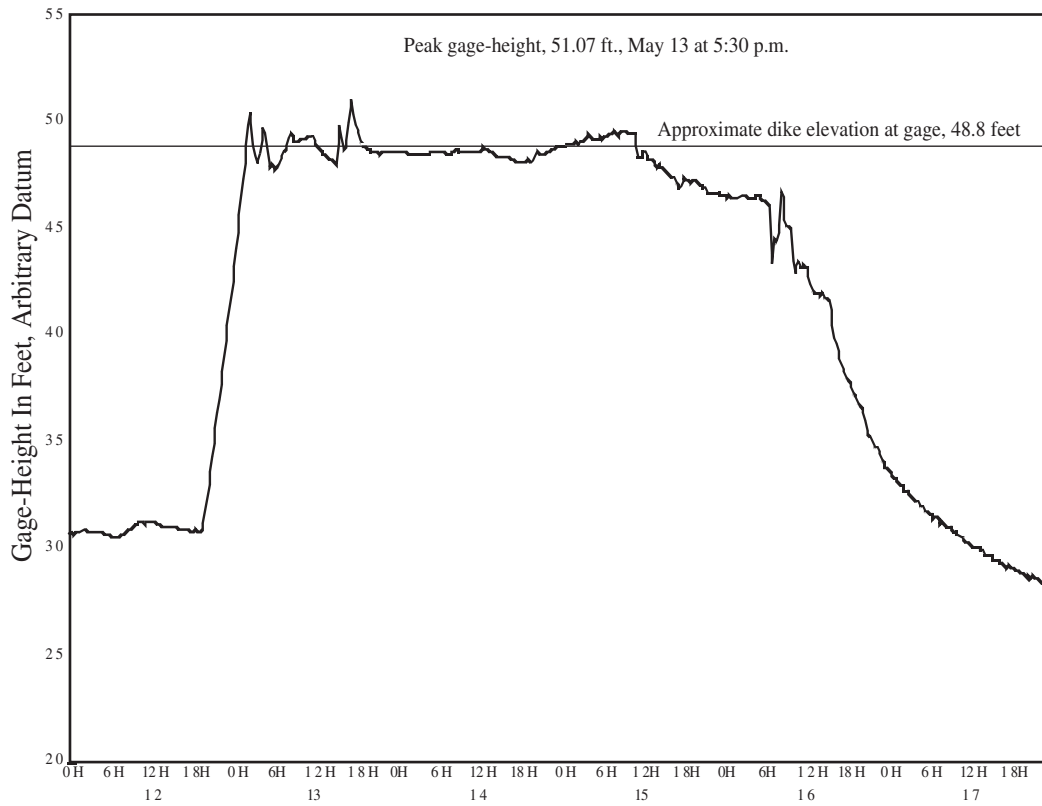
EXTREMES FOR PERIOD OF RECORD.--Maximum gage height observed 26.97 ft, May 18, 2002, but may have been higher during periods of missing record. Minimum gage height observed 14.37 ft, October 27, 2000, but may have been lower during periods of missing record.

EXTREMES FOR CURRENT PERIOD.--October 1-20, 2001 and May 18 to September 30, 2002: Maximum gage height observed 26.97 ft, May 18, but may have been higher during periods of missing record. Minimum gage height observed 16.28 ft, Oct. 20, but may have been lower during periods of missing record.

GAGE HEIGHT, FEET, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	16.73	---	---	---	---	---	---	---	23.40	18.75	17.88	17.92
2	16.67	---	---	---	---	---	---	---	23.13	18.58	17.72	17.83
3	16.79	---	---	---	---	---	---	---	22.95	18.50	17.50	17.86
4	16.77	---	---	---	---	---	---	---	22.68	18.47	17.36	17.86
5	17.04	---	---	---	---	---	---	---	22.68	18.45	17.21	17.77
6	17.30	---	---	---	---	---	---	---	22.59	18.42	17.14	17.73
7	17.70	---	---	---	---	---	---	---	22.29	18.39	17.10	17.77
8	18.02	---	---	---	---	---	---	---	22.19	18.31	17.18	17.90
9	18.24	---	---	---	---	---	---	---	22.08	18.24	17.45	18.03
10	18.16	---	---	---	---	---	---	---	22.09	18.36	18.08	18.16
11	18.02	---	---	---	---	---	---	---	21.88	18.22	18.21	18.28
12	17.87	---	---	---	---	---	---	---	21.65	18.13	18.19	18.46
13	17.81	---	---	---	---	---	---	---	21.44	18.09	18.31	18.80
14	17.39	---	---	---	---	---	---	---	21.15	17.94	18.34	19.21
15	17.34	---	---	---	---	---	---	---	20.78	17.94	18.26	19.50
16	17.08	---	---	---	---	---	---	---	20.40	17.95	18.13	19.59
17	17.02	---	---	---	---	---	---	---	20.05	17.90	17.91	19.63
18	17.05	---	---	---	---	---	---	26.26	19.81	17.64	17.69	19.58
19	16.72	---	---	---	---	---	---	25.85	19.68	17.65	17.51	19.38
20	16.68	---	---	---	---	---	---	25.96	19.65	17.64	17.32	19.10
21	---	---	---	---	---	---	---	25.85	19.62	17.54	17.19	18.79
22	---	---	---	---	---	---	---	25.68	19.62	17.58	17.28	18.51
23	---	---	---	---	---	---	---	25.54	19.51	17.49	17.56	18.25
24	---	---	---	---	---	---	---	25.37	19.44	17.44	18.01	18.09
25	---	---	---	---	---	---	---	24.99	19.43	17.49	18.41	17.98
26	---	---	---	---	---	---	---	24.85	19.39	17.62	18.62	17.88
27	---	---	---	---	---	---	---	24.53	19.28	17.84	18.64	17.96
28	---	---	---	---	---	---	---	24.47	19.16	18.06	18.49	18.07
29	---	---	---	---	---	---	---	24.32	19.02	18.03	18.31	18.26
30	---	---	---	---	---	---	---	23.90	18.88	18.00	18.16	18.56
31	---	---	---	---	---	---	---	23.67	---	17.99	18.02	---
MEAN	---	---	---	---	---	---	---	---	20.86	18.02	17.84	18.42
MAX	---	---	---	---	---	---	---	---	23.40	18.75	18.64	19.63
MIN	---	---	---	---	---	---	---	---	18.88	17.44	17.10	17.73

15304060 KUSKOKWIM RIVER AT ANIAK—Continued



River ice break-up hydrograph for Kuskokwim River at Dike (supplementary gage) at Aniak, 2002

15304060 KUSKOKWIM RIVER AT ANIAK—Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1998 to current year.

PERIOD OF DAILY RECORD.--

WATER TEMPERATURE: May 1998 to current year (seasonal).

INSTRUMENTATION.--Electronic water temperature recorder set for 1-hour recording interval on left bank.

REMARKS.--Records represent water temperature from sensor within 0.5°C. No water temperature record October 1-June 6 due to probe failure. No record from August 4-6 except for minimums was due to low water over probe. Temperature at the sensor was compared with the stream average by cross section on September 19 which found a variation of 1.0°C. The variation found between mean stream temperature and sensor temperature was usually less than 0.5°C.

EXTREMES FOR PERIOD OF RECORD.--

WATER TEMPERATURE: Maximum recorded, 16.0°C, July 18, 2002, may have been higher during periods of missing record; minimum, 0.0°C, May 14-15, 1999.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURE: Maximum recorded, 16.0°C, July 18, may have been higher during periods of missing record; minimum recorded, 5.0°C, September 22-23.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	TIME	STREAM WIDTH (FT) (000004)	SAMPLE LOCATION, CROSS SECTION (FT FM L BANK) (000009)	GAGE HEIGHT (FEET) (00065)	TEMPERATURE WATER (DEG C) (00010)	SAMPLING METHOD, CODES (82398)	
							SEP
	19...	1432	2000	400	19.31	7.5	10
	19...	1433	2000	800	19.31	7.5	10
	19...	1434	2000	1200	19.31	7.5	10
	19...	1435	2000	1600	19.31	7.5	10

TEMPERATURE, WATER (DEGREES CELSIUS), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	JUNE			JULY			AUGUST			SEPTEMBER		
				MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	---	---	---	10.5	10.0	10.0	15.0	13.5	14.0	11.5	10.0	10.5			
2	---	---	---	10.5	10.0	10.5	15.0	13.5	14.0	11.0	10.0	10.5			
3	---	---	---	10.0	9.0	9.5	14.5	13.0	14.0	10.5	9.5	10.0			
4	---	---	---	9.0	8.5	9.0	---	12.5	---	10.0	9.5	10.0			
5	---	---	---	9.0	8.5	8.5	---	12.5	---	10.5	10.0	10.0			
6	---	---	---	10.0	9.0	9.5	---	13.5	---	10.5	10.0	10.0			
7	8.5	---	---	10.0	10.0	10.0	13.5	12.5	13.0	10.5	9.5	10.0			
8	9.0	8.5	8.5	10.0	9.5	9.5	13.5	11.5	12.5	10.0	9.5	10.0			
9	8.5	7.5	8.0	10.0	9.5	10.0	12.5	11.5	12.0	9.5	8.5	9.0			
10	8.5	7.0	7.5	10.0	9.5	10.0	12.5	11.0	12.0	8.5	8.5	8.5			
11	8.5	8.0	8.5	10.5	10.0	10.0	12.0	11.0	11.5	8.5	8.0	8.5			
12	9.0	8.0	8.5	11.0	10.5	10.5	12.5	11.0	12.0	8.5	8.0	8.5			
13	10.0	9.0	9.5	11.0	10.5	11.0	12.5	11.0	12.0	9.0	8.5	8.5			
14	11.0	10.0	10.5	11.0	10.5	10.5	13.0	11.0	12.0	9.0	8.5	8.5			
15	11.5	10.5	11.0	10.5	9.5	10.0	13.0	11.5	12.0	8.5	8.0	8.5			
16	12.5	11.5	12.0	12.0	10.5	11.0	12.0	11.0	11.5	8.0	7.0	7.5			
17	13.0	12.0	12.5	13.5	11.0	12.0	11.5	10.5	11.0	8.0	7.0	7.5			
18	13.0	12.0	12.5	16.0	12.5	13.5	12.0	11.0	11.5	7.5	6.5	7.0			
19	12.0	11.0	11.5	15.0	14.0	14.5	12.0	10.0	11.0	6.5	6.0	6.5			
20	11.0	9.5	10.0	14.5	13.0	14.0	11.0	10.0	10.0	6.0	5.5	6.0			
21	10.0	9.5	10.0	14.0	12.5	13.5	10.0	9.0	9.5	6.0	5.0	5.5			
22	10.5	9.5	10.0	14.5	12.5	13.5	10.5	9.5	10.0	6.0	5.0	5.5			
23	11.0	10.0	10.5	14.5	13.5	14.0	11.5	10.0	10.5	6.5	5.5	6.0			
24	11.0	10.0	10.5	13.5	12.5	13.0	12.0	10.5	11.5	8.0	6.5	7.0			
25	11.0	10.0	10.5	13.0	12.0	12.5	12.5	11.0	12.0	8.0	7.5	7.5			
26	11.0	10.0	10.5	12.5	11.5	12.0	12.0	11.0	11.5	8.0	7.5	7.5			
27	11.5	10.5	10.5	12.5	11.5	12.0	12.0	11.0	11.5	7.5	7.5	7.5			
28	11.5	10.5	11.0	12.5	11.0	12.0	11.5	11.0	11.5	8.0	7.0	7.5			
29	11.0	10.5	11.0	13.5	11.5	12.5	11.0	10.0	10.5	8.0	7.5	7.5			
30	10.5	10.0	10.0	14.0	12.0	13.0	10.5	10.0	10.5	7.5	7.0	7.0			
31	---	---	---	14.5	12.5	13.5	11.5	10.0	10.5	---	---	---			
MONTH	---	---	---	16.0	8.5	11.5	---	9.0	---	11.5	5.0	8.1			