

SOUTH-CENTRAL ALASKA

15239070 BRADLEY RIVER NEAR TIDEWATER NEAR HOMER

LOCATION.--Lat 59°48'06", long 150°52'58", in SE¹/₄ NE¹/₄ sec. 30, T. 4 S., R. 9 W. (Seldovia D-3 quad), Kenai Peninsula Borough, Hydrologic Unit 19020301, on right bank 0.7 mi upstream from mouth, 0.8 mi downstream from Middle Fork Bradley River, 4.3 mi downstream from Bradley Lake outlet and dam site, and 25 mi east of Homer.

DRAINAGE AREA.--Indeterminate.

PERIOD OF RECORD.--May 1983 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 25 ft above sea level, from topographic map.

REMARKS.--Records good, except for estimated daily discharges, which are poor. Flow occasionally affected by high tides. Intermittent regulation during construction at the Bradley River dam site began in November 1986. Flow has been regulated since the reservoir began filling April 26, 1991. (See station 15239001.) Upper Nuka River was diverted into Upper Bradley River on July 29, 1990; flow from about 10 mi² of Middle Fork Bradley River upstream drainage has been seasonally diverted into the Bradley Lake reservoir since August 7, 1990. Battle Creek was diverted into the reservoir in October 1990. Water has been diverted out of the basin through the turbines since hydropower generation began June 28, 1991. Rain gage at station. GOES satellite telemetry at station.

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	128	76	110	e70	e60	e54	45	210	128	125	125	122
2	112	87	94	79	e60	e54	e42	183	126	115	123	121
3	236	e73	71	104	e56	e52	e44	158	128	112	125	121
4	493	e82	e45	133	e56	52	e45	147	147	129	141	124
5	311	e64	e50	112	e56	53	47	143	165	132	132	124
6	188	e62	e64	102	e56	53	53	139	171	138	115	135
7	132	e80	e63	e95	e56	54	55	129	164	135	e115	132
8	104	e72	e62	e90	e54	68	51	129	166	124	e130	127
9	93	e70	e60	e86	e54	76	49	138	147	118	129	133
10	83	e170	e60	e80	e54	88	49	153	138	117	120	145
11	80	e155	e58	e70	e52	95	50	152	131	117	118	131
12	131	e115	e58	e68	e52	91	50	191	124	119	115	127
13	145	e86	e56	e68	e52	94	50	216	125	116	122	125
14	156	e58	e56	e66	e66	84	52	225	128	115	121	123
15	126	e46	e55	e66	e58	71	53	184	131	133	118	124
16	111	e41	e54	e66	e54	64	53	147	142	132	126	133
17	91	e40	e53	e66	e54	59	53	133	137	125	130	123
18	80	e40	e52	e68	e52	56	53	129	191	123	124	101
19	85	e40	e50	e70	e50	54	58	138	139	127	122	93
20	71	e41	e52	e70	e50	51	86	146	137	124	122	81
21	68	e41	e56	e72	e52	e50	110	149	131	127	125	74
22	66	e53	e68	e72	e54	e50	420	142	131	122	124	74
23	68	e54	e68	e72	59	52	338	135	120	118	125	76
24	69	e55	e66	71	58	51	222	141	117	121	124	81
25	73	e50	e62	68	57	50	193	136	124	134	123	71
26	74	52	e60	65	56	49	183	134	124	128	122	70
27	75	96	e60	e64	e56	48	191	172	125	123	120	129
28	75	209	e62	e64	e56	48	229	204	127	124	116	134
29	73	121	e62	e64	---	47	281	200	127	123	122	112
30	69	91	e63	e64	---	e46	251	157	130	122	123	101
31	68	---	e64	e62	---	e45	---	133	---	123	121	---
TOTAL	3734	2320	1914	2367	1550	1859	3456	4893	4121	3841	3818	3367
MEAN	120	77.3	61.7	76.4	55.4	60.0	115	158	137	124	123	112
MAX	493	209	110	133	66	95	420	225	191	138	141	145
MIN	66	40	45	62	50	45	42	129	117	112	115	70
AC-FT	7410	4600	3800	4690	3070	3690	6850	9710	8170	7620	7570	6680

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1992 - 2005, BY WATER YEAR (WY)#

MEAN	117	122	68.8	63.7	64.8	52.3	72.4	167	181	140	132	132
MAX	317	594	137	137	117	70.5	115	261	263	185	178	224
(WY)	2003	2003	2003	2001	2003	1998	2005	2004	1998	2001	1995	1995
MIN	64.0	51.2	47.1	41.6	42.2	43.3	50.5	120	114	115	105	104
(WY)	1998	2000	1998	1999	1999	2004	1999	1996	1997	1997	2002	1993

See Period of Record; partial year was used in monthly statistics, and Remarks.

e Estimated

SOUTH-CENTRAL ALASKA

15239070 BRADLEY RIVER NEAR TIDEWATER NEAR HOMER—Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1992 - 2005#	
ANNUAL TOTAL	38519		37240			
ANNUAL MEAN	105		102		109	
HIGHEST ANNUAL MEAN					164 2003	
LOWEST ANNUAL MEAN					83.8 1996	
HIGHEST DAILY MEAN					3490 Nov 6 2002	
LOWEST DAILY MEAN	a35	Oct 4 Jan 18	b40	Oct 4 Nov 17	c35 Jan 18 2004	
ANNUAL SEVEN-DAY MINIMUM	40	Feb 26	41	Nov 15	40 Jan 28 1999	
MAXIMUM PEAK FLOW			591	Oct 4	6200 Nov 5 2002	
MAXIMUM PEAK STAGE			6.51	Oct 4	d10.83 Nov 5 2002	
INSTANTANEOUS LOW FLOW					17 Mar 28 1989	
ANNUAL RUNOFF (AC-FT)	76400		73870		79320	
10 PERCENT EXCEEDS	194		148		177	
50 PERCENT EXCEEDS	80		94		91	
90 PERCENT EXCEEDS	44		52		47	

PRIOR TO REGULATION AND DIVERSION OF BRADLEY DAM

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1983 - 1989, BY WATER YEAR (WY) #

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	808	224	198	145	82.1	74.0	72.8	462	1032	1390	1318	966
MAX (WY)	1908 1987	480 1984	503 1987	223 1985	114 1985	163 1984	101 1989	676 1987	1357 1988	1577 1988	1781 1988	1746 1989
MIN (WY)	363 1984	86.1 1986	78.9 1988	72.5 1989	37.4 1989	27.4 1989	42.5 1985	282 1985	862 1986	1153 1983	907 1983	470 1983

SUMMARY STATISTICS	WATER YEARS 1983 - 1989#	
ANNUAL MEAN	583	
HIGHEST ANNUAL MEAN	722 1987	
LOWEST ANNUAL MEAN	475 1985	
HIGHEST DAILY MEAN	10000 Oct 11 1986	
LOWEST DAILY MEAN	19 Dec 7 1986	
ANNUAL SEVEN-DAY MINIMUM	22 Mar 26 1989	
MAXIMUM PEAK FLOW	f11000 Oct 11 1986	
MAXIMUM PEAK STAGE	d13.73 Oct 11 1986	
INSTANTANEOUS LOW FLOW	g17 Mar 28 1989	
ANNUAL RUNOFF (AC-FT)	422700	
ANNUAL RUNOFF (CFSM)	7.11	
ANNUAL RUNOFF (IN)	96.67	
10 PERCENT EXCEEDS	1470	
50 PERCENT EXCEEDS	388	
90 PERCENT EXCEEDS	52	

- # See Period of Record; partial year was used in monthly statistics, and Remarks.
- a Jan. 18, 19
- b Nov. 17-19
- c Jan. 18, 19, 2004
- d From floodmarks
- f From rating curve extended above 2,400 ft³/s on basis of runoff comparisons with nearby stations.
- g Minimum recorded, but may have been less during period of ice effect, Mar. 28 to Mar. 31, 1989.