

# SOUTH-CENTRAL ALASKA

## 15239001 BRADLEY RIVER BELOW DAM NEAR HOMER

LOCATION.--Lat 59°45'30", long 150°51'02", in SW<sup>1</sup>/<sub>4</sub> SE<sup>1</sup>/<sub>4</sub> NW<sup>1</sup>/<sub>4</sub> sec. 8, T. 5 S., R. 9 W. (Seldovia D-3 quad), Kenai Peninsula Borough, Hydrologic Unit 19020301, on right bank about 1,300 ft downstream from Bradley Lake Dam, 3.3 mi upstream from Middle Fork Bradley River, and 26 mi northeast of Homer.

DRAINAGE AREA.--About 66 mi<sup>2</sup> since October 1991, when additional water was diverted into the basin. Prior drainage area was about 54 mi<sup>2</sup>.

PERIOD OF RECORD.--October 1989 to current year. Prior to 1990 water year, records are equivalent to "Bradley River near Homer" (station no. 15239000).

GAGE.--Water-stage recorder. Datum of gage is 1,054.16 ft above sea level (levels of dam-site survey for Alaska Power Authority).

REMARKS.--No estimated daily discharges. Records fair. Nuka River and Middle Fork Bradley River were diverted into Bradley Lake, upstream from dam, beginning July 29 and August 7, 1990, respectively. Reservoir began filling April 26, 1991. Water has been diverted out of the basin through the turbines since hydro-power generation began on June 28, 1991. Battle Creek was diverted into reservoir in October 1991. Rain gage and air temperature recorder at station, daily values of precipitation and air temperature available from the computer files of the Alaska Science Center, Water Resources Office.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,480 ft<sup>3</sup>/s November 6, 2002 gage height, 7.15 ft; minimum, 0.00 ft<sup>3</sup>/s, from rating curve extended below 0.18 ft<sup>3</sup>/s, most likely ponded water, but no measurable flow, June 9 and June 10, 1997.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 378 ft<sup>3</sup>/s, Oct. 8, gage height, 3.84 ft; minimum, 0.09 ft<sup>3</sup>/s, Jun. 21 to 24, gage-height 1.65 ft.

### DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004 DAILY MEAN VALUE

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	21	13	49	41	38	34	41	2.1	0.23	35	86	107
2	2.3	13	49	41	38	34	41	1.2	0.22	39	87	99
3	8.0	13	50	41	38	33	41	0.96	0.21	42	87	96
4	0.74	4.2	44	41	38	33	38	1.1	0.22	43	88	98
5	0.56	12	40	41	38	33	34	1.2	0.19	48	88	100
6	1.3	15	40	40	38	33	20	1.3	0.17	57	93	100
7	122	12	40	40	38	33	5.3	1.5	0.19	53	95	102
8	332	11	40	40	38	31	15	1.00	0.15	41	96	106
9	246	9.5	42	40	38	37	17	0.76	6.3	52	95	106
10	100	9.5	40	40	39	33	24	0.67	9.4	51	96	106
11	5.9	10	40	40	38	35	31	0.67	9.4	54	96	106
12	4.2	12	40	40	38	40	33	0.67	9.4	58	96	105
13	13	12	40	40	38	40	33	0.70	9.4	54	99	105
14	7.3	7.0	40	40	38	40	33	0.69	9.4	54	106	105
15	0.44	0.37	40	40	38	39	33	0.68	9.2	64	106	101
16	0.32	0.99	40	39	37	39	33	0.81	4.5	64	106	96
17	0.27	0.48	40	31	37	39	22	0.75	0.26	66	106	94
18	3.3	31	42	29	37	39	30	0.68	0.19	67	107	94
19	13	42	43	29	38	39	20	0.65	0.15	75	107	83
20	18	42	43	33	38	38	11	0.65	0.12	80	107	64
21	22	42	43	39	38	38	14	0.59	0.10	80	102	62
22	19	41	43	39	38	38	13	0.61	0.09	81	99	59
23	18	41	43	39	38	38	13	0.79	0.09	81	99	53
24	13	41	42	39	38	38	13	0.64	23	82	100	50
25	6.1	41	42	39	35	38	13	0.64	10	82	100	50
26	0.58	41	41	41	34	39	13	0.47	10	72	100	21
27	0.69	41	41	40	34	42	7.6	0.42	10	78	100	33
28	0.46	41	42	36	34	42	4.8	0.37	10	74	104	28
29	0.35	41	42	38	34	42	2.5	0.27	33	83	106	22
30	3.5	49	41	38	---	42	1.6	0.27	37	83	106	19
31	13	---	41	38	---	41	---	0.24	---	83	106	---
TOTAL	996.31	689.04	1303	1192	1081	1160	650.8	24.05	202.58	1976	3069	2370
MEAN	32.1	23.0	42.0	38.5	37.3	37.4	21.7	0.78	6.75	63.7	99.0	79.0
MAX	332	49	50	41	39	42	41	2.1	37	83	107	107
MIN	0.27	0.37	40	29	34	31	1.6	0.24	0.09	35	86	19
AC-FT	1980	1370	2580	2360	2140	2300	1290	48	402	3920	6090	4700
CAL YR 2003	TOTAL 17317.35	MEAN 47.4	MAX 332	MIN 0.27	AC-FT 34350							
WTR YR 2004	TOTAL 14713.78	MEAN 40.2	MAX 332	MIN 0.09	AC-FT 29180							