

SOUTH-CENTRAL ALASKA

15225997 SOLOMON GULCH AT TOP OF FALLS NEAR VALDEZ

LOCATION.--Lat 61°04'45", long 146°18'11", in SE¹/₄ NE¹/₄ NW¹/₄ sec. 21, T. 9 S., R. 6 W. (Valdez A-7 SE quad), Hydrologic Unit 19020201, within Valdez Corporate boundary, on right bank, 72 ft above Alyeska Pipeline Service Company Bridge, 150 ft upstream from top of falls, 0.3 mi upstream from mouth, and 4.2 mi southeast of Valdez.

DRAINAGE AREA.--Indeterminate.

PERIOD OF RECORD.--September 1986 to current year.

REVISED RECORDS.--WDR AK-00-1: 1999.

GAGE.--Water-stage recorder. Elevation of gage is 400 ft above sea level, from topographic map. Prior to October 1, 1991, discharge computed for site 150 ft downstream at datum 72.00 ft higher.

REMARKS.--Records fair except for estimated daily discharges, which are poor. Discharge shown herein represents controlled releases from bypass valve and flow over the spillway of dam at Solomon Lake, 0.5 mi upstream, plus inflow between the spillway and the gage. Spillway crest elevation is 685 ft above sea level, from construction plans. Water for power generation is diverted from Solomon Lake (see records for station 15225996). Water is diverted for fish hatchery use 1,150 ft downstream from gage. Reservoir spilled October 1-9, September 26, and 30.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,280 ft³/s, October 11, 1986, by computation of peak flow by several indirect measurement methods; gage height, 82.20 ft from water surface profiles for 1986 flood at top of falls and at datum 72.00 ft lower (12.90 ft from profile at present site and datum); minimum daily discharge, about 0.20 ft³/s, January 23 to April 6, 1989.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 987 ft³/s, October 3, gage height, 7.58 ft, maximum gage height, 7.72 ft, September 30; minimum daily discharge, 3.0 ft³/s, April 5, and September 17-18.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	301	5.9	4.3	4.0	3.6	3.5	e3.1	11	6.1	3.6	3.9	3.4
2	199	5.8	4.3	3.9	3.6	3.4	3.1	15	5.5	3.6	3.8	3.6
3	614	5.8	4.3	3.9	3.5	3.3	3.1	11	5.1	3.5	3.8	3.7
4	252	5.6	4.2	3.9	3.5	3.3	3.1	14	4.8	3.6	3.7	3.7
5	185	5.5	4.1	3.9	3.5	3.3	3.0	16	4.6	3.7	3.7	3.5
6	105	5.5	4.1	3.9	3.6	3.2	3.1	14	4.4	3.6	3.7	3.5
7	82	5.8	4.1	e3.9	3.6	3.3	3.5	14	4.1	3.6	3.7	3.4
8	81	11	4.0	3.9	3.6	3.2	4.0	11	4.1	3.5	3.7	3.4
9	39	7.7	4.0	3.9	3.7	3.2	3.9	11	4.1	3.5	3.6	3.4
10	7.3	6.4	4.0	e3.8	e3.7	3.3	3.9	10	4.1	3.5	3.6	3.3
11	6.5	6.1	4.1	3.8	e3.7	3.3	3.7	12	4.0	3.5	3.6	3.1
12	6.2	6.2	4.0	3.8	e3.7	3.3	3.7	12	3.9	3.5	3.5	3.1
13	6.1	5.9	4.0	3.8	3.7	3.3	3.7	12	3.8	3.5	3.4	3.1
14	6.0	5.7	4.1	3.8	3.6	3.3	3.6	12	3.7	3.5	3.4	3.1
15	5.9	5.5	4.0	e3.7	3.6	3.3	3.9	12	3.7	3.5	3.3	3.1
16	5.8	5.3	4.0	e3.7	3.5	3.2	4.1	11	3.8	3.5	3.3	3.1
17	5.7	5.1	4.0	3.7	3.5	3.2	4.3	10	7.1	3.5	3.3	3.0
18	5.6	5.0	4.1	3.7	3.5	3.2	4.5	11	4.9	3.5	3.3	3.0
19	6.0	4.8	4.0	3.7	3.4	e3.2	4.3	11	4.2	3.5	3.4	3.1
20	6.2	4.9	4.0	3.8	3.5	3.3	4.1	12	4.0	3.6	3.5	3.5
21	5.9	4.9	4.0	3.8	e3.5	3.1	4.3	11	3.9	3.6	3.4	3.5
22	5.8	4.9	e4.0	3.8	e3.5	3.2	4.2	10	3.8	3.6	3.4	5.9
23	5.9	4.9	e4.0	3.8	e3.5	3.1	4.4	9.6	3.8	3.6	3.3	10
24	7.1	4.9	4.0	3.8	e3.5	3.1	4.3	9.9	3.7	3.6	3.3	5.2
25	9.3	4.6	4.0	3.7	3.6	3.1	5.3	10	3.7	3.6	3.3	12
26	14	4.6	3.9	3.7	3.5	3.1	6.3	8.7	3.6	3.7	3.5	51
27	8.1	4.6	e4.0	3.7	3.5	3.1	7.0	7.9	3.6	4.0	3.8	16
28	6.8	4.5	e4.0	3.7	3.4	3.1	7.1	7.1	3.6	4.9	3.9	7.0
29	6.3	4.4	4.0	3.7	3.4	3.1	7.7	6.7	3.6	5.2	3.6	10
30	6.1	4.4	4.0	3.6	---	3.1	8.1	6.5	3.6	4.4	3.5	193
31	6.0	---	4.0	3.6	---	3.1	---	7.9	---	4.0	3.4	---
TOTAL	2006.6	166.2	125.6	117.4	103.0	99.8	132.4	337.3	126.9	115.0	109.6	379.7
MEAN	64.7	5.54	4.05	3.79	3.55	3.22	4.41	10.9	4.23	3.71	3.54	12.7
MAX	614	11	4.3	4.0	3.7	3.5	8.1	16	7.1	5.2	3.9	193
MIN	5.6	4.4	3.9	3.6	3.4	3.1	3.0	6.5	3.6	3.5	3.3	3.0
AC-FT	3980	330	249	233	204	198	263	669	252	228	217	753
CAL YR 2003	TOTAL	6635.9	MEAN	18.2	MAX	614	MIN	2.7	AC-FT	13160		
WTR YR 2004	TOTAL	3819.5	MEAN	10.4	MAX	614	MIN	3.0	AC-FT	7580		

e Estimated