Water-Data Report 2007

15236900 WOLVERINE CREEK NEAR LAWING, AK

Prince William Sound Basin
Western Prince William Sound Subbasin

LOCATION.--Lat 60°22′14″, long 148°53′48″ referenced to North American Datum of 1927, in NE ¼ sec.10, T.3 N., R.3 E., Kenai Peninsula Borough, AK, Hydrologic Unit 19020202, (Seward B-6 quad), on the left bank, approximately 0.1 mi downstream from terminus of Wolverine Glacier, 2.0 mi upstream from mouth, 16 mi east of Lawing, Alaska.

DRAINAGE AREA.--9.51 mi^2.

SURFACE-WATER RECORDS

PERIOD OF RECORD.--October 1966 to September 1978, October 1980 to September 1981, May 1997 to September 1997, October 2000 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 1,200 ft above sea level, from topographic map.

REMARKS.--Records are poor due to large fluctuations from ice melt and alternate damming and storage releases during the melt season. Stream flow is modified by runoff from the melting of Wolverine Glacier, which covers 6.8 mi^2, more than 70% of the drainage basin. Rain gage at station. GOES satellite telemetry at station. At 3,250 feet of elevation, there is a weather station recording air temperature, wind speed, and precipitation. In addition to the weather station, there are also three snow and ice balance measurement sites located in the basin. Combined snow, ice, and water balance data of the basin are published in other reports of the Geological Survey.

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DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2006 TO SEPTEMBER 2007
DAILY MEAN VALUES
[e, estimated]

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	26	e5.5	e1.0	e0.50	e0.50	e0.50	e0.50	4.9	132	219	259	183
2	84	e5.0	e1.0	e0.50	e0.50	e0.50	e0.50	6.6	121	216	230	161
3	123	e4.5	e1.0	e0.50	e0.50	e0.50	e0.50	7.9	119	210	217	133
4	66	e4.0	e1.0	e0.50	e0.50	e0.50	e0.50	8.9	308	212	246	296
5	43	e3.5	e1.0	e0.50	e0.50	e0.50	e1.0	9.8	323	221	246	319
6	25	e3.0	e1.5	e0.50	e0.50	e0.50	e1.0	12	226	223	282	217
7	35	e3.0	e2.0	e0.50	e0.50	e0.50	e1.0	14	186	220	341	200
8	141	e3.0	e2.0	e0.50	e0.50	e0.50	e1.0	17	145	233	351	425
9	570	e3.0	e1.5	e0.50	e0.50	e0.50	e2.0	16	134	251	299	437
10	306	e2.5	e1.0	e0.50	e0.50	e0.50	e2.0	15	176	300	279	399
11	126	e2.0	e1.0	e0.50	e0.50	e0.50	e2.0	16	173	330	290	305
12	74	e1.5	e1.0	e0.50	e0.50	e0.50	e3.0	16	149	309	307	448
13	65	e1.5	e1.0	e0.50	e0.50	e0.50	e3.0	14	149	247	405	268
14	56	e1.5	e1.0	e0.50	e0.50	e0.50	e3.0	17	163	220	315	206
15	46	e1.5	e1.0	e0.50	e0.50	e0.50	e3.5	19	192	225	317	256
16	36	e1.5	e1.0	e0.50	e0.50	e0.50	3.5	42	232	256	362	200
17	36	e1.5	e1.0	e0.50	e0.50	e0.50	3.5	62	209	245	324	148
18	34	e1.5	e0.50	e0.50	e0.50	e0.50	3.5	61	215	256	303	134
19	25	e1.5	e0.50	e0.50	e0.50	e0.50	3.5	53	278	267	416	220
20	23	e1.0	e0.50	e0.50	e0.50	e0.50	3.5	e55	347	253	406	167
21	16	e1.0	e0.50	e0.50	e0.50	e0.50	3.5	60	353	266	334	168
22	12	e1.0	e0.50	e0.50	e0.50	e0.50	3.5	63	310	252	288	137
23	11	e1.0	e0.50	e0.50	e0.50	e0.50	e4.0	e100	259	246	336	133
24	8.8	e1.0	e0.50	e0.50	e0.50	e0.50	e4.5	e130	230	277	352	115
25	8.4	e1.0	e0.50	e0.50	e0.50	e0.50	e5.0	e150	213	341	279	117
26	7.8	e1.0	e0.50	e0.50	e0.50	e0.50	5.6	215	214	306	253	76
27	7.6	e1.0	e0.50	e0.50	e0.50	e0.50	6.0	e150	233	303	302	68
28	7.8	e1.0	e0.50	e0.50	e0.50	e0.50	5.7	118	226	334	298	88
29	7.5	e1.0	e0.50	e0.50	---	e0.50	5.7	104	231	387	259	74
30	6.4	e1.0	e0.50	e0.50	---	e0.50	5.5	128	232	336	211	51
31	5.9	---	e0.50	e0.50	---	e0.50	---	132	---	266	207	---
Total	2,039.2	62.0	27.00	15.50	14.00	15.50	91.00	1,817.1	6,478	8,227	9,314	6,149
Mean	65.8	2.07	0.87	0.50	0.50	0.50	3.03	58.6	216	265	300	205
Max	570	5.5	2.0	0.50	0.50	0.50	6.0	215	353	387	416	448
Min	5.9	1.0	0.50	0.50	0.50	0.50	0.50	4.9	119	210	207	51
Ac-ft	4,040	123	54	31	28	31	180	3,600	12,850	16,320	18,470	12,200
Cfsm	6.92	0.22	0.09	0.05	0.05	0.05	0.32	6.16	22.7	27.9	31.6	21.6
In.	7.98	0.24	0.11	0.06	0.05	0.06	0.36	7.11	25.34	32.18	36.43	24.05

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1967 - 2007, BY WATER YEAR (WY)#

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	60.7	11.0	3.21	1.44	1.13	0.99	2.37	36.1	161	308	354	199
Max	330	100	20.2	2.71	2.00	2.45	15.0	148	281	438	494	351
(WY)	(2004)	(2003)	(2003)	(1970)	(1970)	(2003)	(2005)	(2005)	(2005)	(2004)	(1981)	(1974)
Min	13.1	2.01	0.51	0.39	0.00	0.00	0.00	0.61	31.1	146	176	80.0
(WY)	(1975)	(2002)	(2001)	(2001)	(2001)	(2001)	(2001)	(1971)	(1971)	(1997)	(1997)	(1970)

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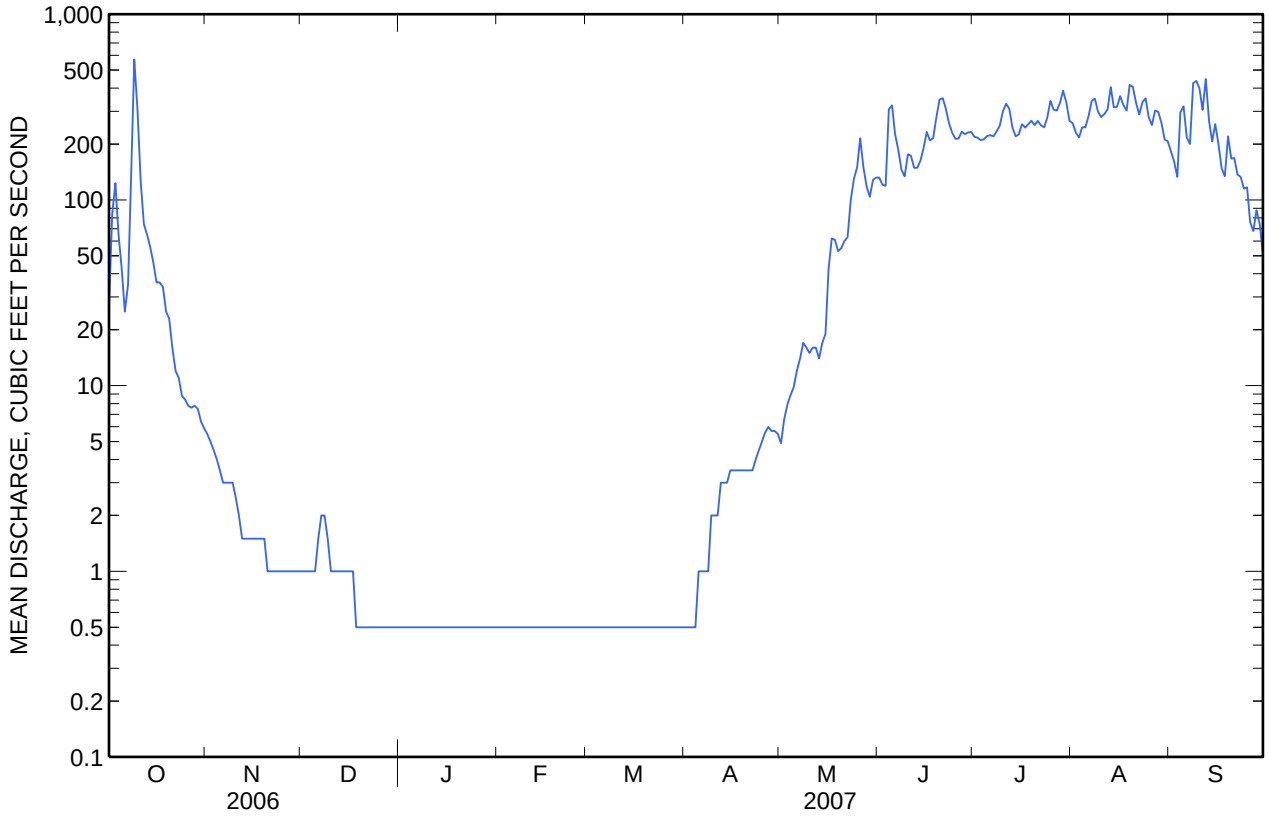
SUMMARY STATISTICS

	Calendar Year 2006		Water Year 2007		Water Years 1967 - 2007[#]	
Annual total	38,773.60		34,249.30			
Annual mean	106		93.8		97.0	
Highest annual mean					146	2004
Lowest annual mean					66.6	1970
Highest daily mean	1,130	Sep 9	570	Oct 9	1,930	Aug 28, 2001
Lowest daily mean	[a]0.50	Jan 22	[b]0.50	Dec 18	[c]0.00	Dec 2, 2000
Annual seven-day minimum	0.50	Jan 22	0.50	Dec 18	0.00	Dec 2, 2000
Maximum peak flow			1,480	Oct 9	[d]4,160	Aug 28, 2001
Maximum peak stage			3.94	Oct 9	[f]6.28	Aug 21, 1981
Annual runoff (ac-ft)	76,910		67,930		70,300	
Annual runoff (cfsm)	11.2		9.87		10.2	
Annual runoff (inches)	151.67		133.97		138.65	
10 percent exceeds	326		301		324	
50 percent exceeds	3.5		6.0		6.0	
90 percent exceeds	0.50		0.50		0.70	

[#] See Period of Record; partial year was used in monthly statistics and breaks in record
[a] Jan. 22 to Mar. 23
[b] Dec. 18 to Apr.4
[c] No flow most days during winter
[d] From rating curve extended above 1,290 ft³/s
[f] From floodmarks, date approximate; flow over dense snow