15129500 SITUK RIVER NEAR YAKUTAT, AK

Gulf of Alaska Basin
Yakutat Bay Subbasin

LOCATION.--Lat 59°35′12″, long 139°29′33″ referenced to North American Datum of 1927, in SE ¼ SW ¼ sec.9, T.27 S., R.35 E., City & Borough of Yakutat, AK, Hydrologic Unit 19010401, (Yakutat C-4 quad.), in Tongass National Forest, on left bank 20 ft downstream from Alsek Road bridge, 3.5 mi downstream from Situk Lake, 8.8 mi northeast of Yakutat, and 10 mi upstream from mouth.

DRAINAGE AREA.--36.0 mi^2.

SURFACE-WATER RECORDS

PERIOD OF RECORD.--May 1988 to current year.

GAGE.--Water-stage recorder. Datum of gage is sea level, by U.S. Forest Service.

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

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,000 ft^3/s and (or) maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)
Oct 29	1230	1,260	68.51
Feb 3	0615	*1,670	*69.32
Sep 14	1130	1,300	68.53
Sep 22	1145	1,340	68.60

Suggested citation: U.S. Geological Survey, 2012, Water-resources data for the United States, Water Year 2011: U.S. Geological Survey Water-Data Report WDR-US-2011, site 15129500, accessed at http://wdr.water.usgs.gov/wy2011/pdfs/15129500.2011.pdf

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DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2010 TO SEPTEMBER 2011
DAILY MEAN VALUES
[e, estimated]

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	509	535	221	165	994	e96	217	191	148	177	166	295
2	567	557	195	199	1,320	e90	200	190	146	172	170	309
3	531	567	176	235	1,420	e84	186	205	147	172	170	416
4	640	795	224	396	949	e80	178	220	165	165	175	464
5	783	730	592	394	684	e78	166	234	183	158	181	633
6	822	659	624	331	516	e73	156	233	188	153	214	820
7	664	526	477	297	406	e71	146	225	183	150	222	795
8	531	440	383	252	344	e69	190	206	174	141	215	732
9	456	366	316	219	376	e67	220	200	176	133	205	691
10	424	312	266	e170	437	e64	225	193	183	123	193	874
11	381	325	235	e130	743	e62	208	187	181	114	177	739
12	326	567	210	e100	552	e60	185	178	175	107	162	594
13	297	583	185	e90	462	e60	168	173	167	103	150	580
14	274	485	168	e80	381	e59	161	167	164	102	143	1,070
15	263	407	e140	e70	e300	e59	152	160	180	102	155	919
16	249	345	e120	e63	e249	59	147	155	189	97	162	734
17	270	286	e110	e57	e218	59	137	150	184	94	152	643
18	496	234	e94	e52	e208	e56	127	147	175	102	147	580
19	563	212	e82	e50	e213	e54	119	146	167	127	176	538
20	e470	196	e74	e48	221	e52	117	163	162	166	432	768
21	e380	180	e68	e80	202	e50	132	163	156	166	456	990
22	e300	167	e64	e182	181	50	199	164	147	154	510	1,200
23	e400	160	e60	223	e149	48	302	163	139	140	660	1,020
24	e340	196	e58	335	e130	46	243	160	133	136	e650	921
25	e300	220	e56	530	e120	45	229	157	129	189	e500	712
26	e270	195	e54	511	e110	56	233	156	126	249	e450	566
27	e250	179	e52	423	e102	66	221	156	121	250	e750	468
28	e450	177	e51	339	e97	71	204	157	124	227	e500	488
29	968	203	e50	280	---	72	200	157	136	207	e400	732
30	704	165	73	238	---	102	192	154	168	192	e300	576
31	630	---	131	213	---	185	---	150	---	174	e280	---
Total	14,508	10,969	5,609	6,752	12,084	2,143	5,560	5,460	4,816	4,742	9,223	20,867
Mean	468	366	181	218	432	69.1	185	176	161	153	298	696
Max	968	795	624	530	1,420	185	302	234	189	250	750	1,200
Min	249	160	50	48	97	45	117	146	121	94	143	295
Ac-ft	28,780	21,760	11,130	13,390	23,970	4,250	11,030	10,830	9,550	9,410	18,290	41,390
Cfsm	13.0	10.2	5.03	6.05	12.0	1.92	5.15	4.89	4.46	4.25	8.26	19.3
In.	14.99	11.33	5.80	6.98	12.49	2.21	5.75	5.64	4.98	4.90	9.53	21.56

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1989 - 2011, BY WATER YEAR (WY) #

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	530	356	376	274	256	213	220	266	208	182	284	480
Max	878	710	739	620	545	516	370	437	345	346	612	838
(WY)	(2000)	(2006)	(2000)	(2001)	(2004)	(1992)	(1998)	(2006)	(1991)	(2008)	(2002)	(1991)
Min	249	131	142	100	81.2	44.9	73.6	160	116	77.7	60.1	123
(WY)	(2004)	(2007)	(1991)	(2008)	(1999)	(2009)	(2002)	(1996)	(2005)	(1993)	(2007)	(2010)

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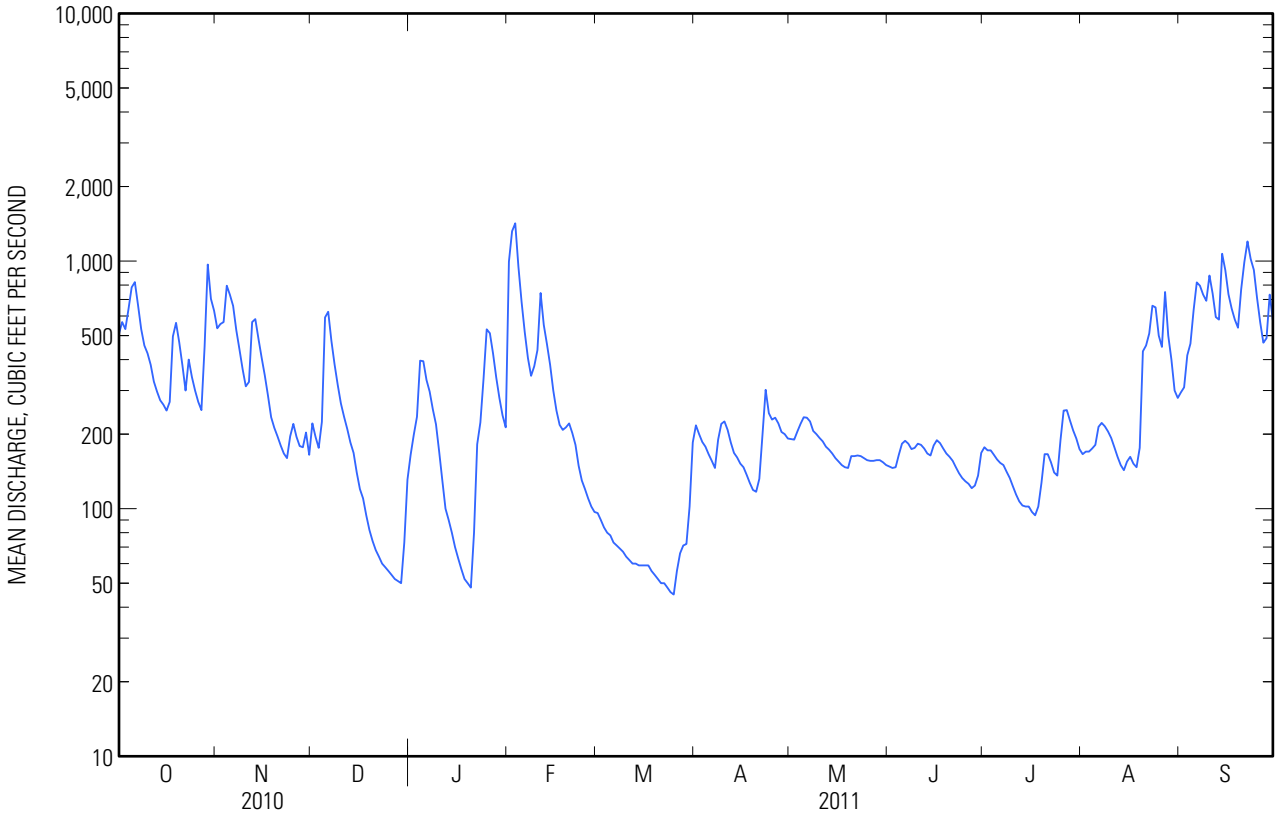
SUMMARY STATISTICS

	Calendar Year 2010		Water Year 2011		Water Years 1989 - 2011#	
Annual total	85,972		102,733			
Annual mean	236		281		304	
Highest annual mean					382	1992
Lowest annual mean					230	1996
Highest daily mean	968	Oct 29	1,420	Feb 3	2,910	Dec 23, 2004
Lowest daily mean	50	Dec 29	45	Mar 25	31	Mar 23, 2009
Annual seven-day minimum	54	Dec 23	49	Mar 19	33	Mar 19, 2009
Maximum peak flow			1,670	Feb 3	3,840	Oct 18, 1999
Maximum peak stage			69.32	Feb 3	72.99	Oct 18, 1999
Instantaneous low flow			30	Mar 22	22	Mar 18, 2009
Annual runoff (ac-ft)	170,500		203,800		220,200	
Annual runoff (cfsm)	6.54		7.82		8.44	
Annual runoff (inches)	88.84		106.16		114.73	
10 percent exceeds	400		631		586	
50 percent exceeds	202		189		225	
90 percent exceeds	129		71		101	

See Period of Record; partial year used in monthly statistics



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WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1971 to 1973 and 1988 to current year.

PERIOD OF DAILY RECORD.--
WATER TEMPERATURE: October 1970 to September 1973 (fragmentary) and May 1988 to current year.

INSTRUMENTATION.--Water-temperature recorder October 1970 to September 1973, at a site 500 ft downstream. Electronic water-temperature recorder since May 1988, set for 2-hour recording interval. Recording interval changed to 15-minutes on March 6, 1996. Recording interval changed to hourly on August 10, 2010 and then back to 15-minutes shortly afterward.

REMARKS.--Records represent water temperature at sensor within 0.5°C. Temperature at the sensor was compared with the stream average by cross section on June 10. Variation of 0.1 degrees C was found within the cross section. The variation found between mean stream temperature and sensor temperature was less than 0.2°C. Missing record October 20-March 18 and August 24-31. Record is rated good.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURE: Maximum, 20.5°C, June 24 and 25, 2004, July 7, 2009; minimum, 0.0°C, on many days during winters periods.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURE: 0.0°C on many days during winter.

WATER-QUALITY DATA
WATER YEAR OCTOBER 2010 TO SEPTEMBER 2011
[ft, feet; ft³/s, cubic feet per second; °C, degrees Celsius]

Sample date-time	Stream width, ft (00004)	Location in cross section, distance from left bank looking down-stream, ft (00009)	Tempera-ture, water, °C (00010)	Tempera-ture, air, °C (00020)	Discharge, instanta-neous, ft³/s (00061)	Gage height, ft (00065)
July 12, 2011 1601	53.5	10.0	14.9	16.6	105	65.00
July 12, 2011 1602	53.5	20.0	14.8	16.6	105	65.00
July 12, 2011 1603	53.5	30.0	14.8	16.6	105	65.00
July 12, 2011 1604	53.5	40.0	14.8	16.6	105	65.00
July 12, 2011 1605	53.5	50.0	14.8	16.6	105	65.00

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TEMPERATURE, WATER, DEGREES CELSIUS
WATER YEAR OCTOBER 2010 TO SEPTEMBER 2011

Day	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean
		October			November			December			January	
1	10.0	9.0	9.5	---	---	---	---	---	---	---	---	---
2	9.5	9.0	9.0	---	---	---	---	---	---	---	---	---
3	9.0	8.5	9.0	---	---	---	---	---	---	---	---	---
4	8.5	8.0	8.0	---	---	---	---	---	---	---	---	---
5	9.0	8.0	8.5	---	---	---	---	---	---	---	---	---
6	9.0	8.0	8.5	---	---	---	---	---	---	---	---	---
7	9.0	8.0	8.0	---	---	---	---	---	---	---	---	---
8	8.5	7.5	8.0	---	---	---	---	---	---	---	---	---
9	8.0	7.5	7.5	---	---	---	---	---	---	---	---	---
10	8.0	7.0	7.5	---	---	---	---	---	---	---	---	---
11	8.0	7.0	7.5	---	---	---	---	---	---	---	---	---
12	8.0	7.0	7.5	---	---	---	---	---	---	---	---	---
13	7.5	7.0	7.5	---	---	---	---	---	---	---	---	---
14	7.5	6.5	7.0	---	---	---	---	---	---	---	---	---
15	7.0	6.5	6.5	---	---	---	---	---	---	---	---	---
16	7.0	6.0	6.5	---	---	---	---	---	---	---	---	---
17	7.0	6.5	7.0	---	---	---	---	---	---	---	---	---
18	7.0	6.5	7.0	---	---	---	---	---	---	---	---	---
19	7.0	6.5	6.5	---	---	---	---	---	---	---	---	---
20	---	6.5	---	---	---	---	---	---	---	---	---	---
21	---	---	---	---	---	---	---	---	---	---	---	---
22	---	---	---	---	---	---	---	---	---	---	---	---
23	---	---	---	---	---	---	---	---	---	---	---	---
24	---	---	---	---	---	---	---	---	---	---	---	---
25	---	---	---	---	---	---	---	---	---	---	---	---
26	---	---	---	---	---	---	---	---	---	---	---	---
27	---	---	---	---	---	---	---	---	---	---	---	---
28	---	---	---	---	---	---	---	---	---	---	---	---
29	---	---	---	---	---	---	---	---	---	---	---	---
30	---	---	---	---	---	---	---	---	---	---	---	---
31	---	---	---	---	---	---	---	---	---	---	---	---
Month	---	---	---	---	---	---	---	---	---	---	---	---

15129500 SITUK RIVER NEAR YAKUTAT, AK—Continued

TEMPERATURE, WATER, DEGREES CELSIUS
WATER YEAR OCTOBER 2010 TO SEPTEMBER 2011

Day	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean
		February			March			April			May	
1	---	---	---	---	---	---	3.0	1.0	2.0	7.0	3.5	5.0
2	---	---	---	---	---	---	3.5	1.5	2.0	6.0	3.5	4.5
3	---	---	---	---	---	---	3.5	1.5	2.5	5.0	3.5	4.5
4	---	---	---	---	---	---	3.5	1.5	2.5	5.5	3.0	4.0
5	---	---	---	---	---	---	3.0	1.5	2.5	6.0	3.5	4.5
6	---	---	---	---	---	---	4.0	1.5	2.5	5.5	3.5	4.5
7	---	---	---	---	---	---	3.0	0.0	1.5	8.5	3.5	5.5
8	---	---	---	---	---	---	2.0	0.0	1.0	7.5	4.0	6.0
9	---	---	---	---	---	---	3.5	0.5	1.5	6.5	4.5	5.5
10	---	---	---	---	---	---	4.0	1.0	2.0	6.5	3.0	5.0
11	---	---	---	---	---	---	3.5	1.0	2.0	6.5	4.0	5.5
12	---	---	---	---	---	---	4.0	1.5	3.0	8.5	4.0	6.0
13	---	---	---	---	---	---	4.0	1.5	3.0	7.0	5.0	5.5
14	---	---	---	---	---	---	5.0	2.0	3.5	9.5	4.0	6.5
15	---	---	---	---	---	---	5.0	1.5	3.5	10.5	4.5	7.5
16	---	---	---	---	---	---	6.0	1.5	3.5	11.0	5.0	8.0
17	---	---	---	---	---	---	6.0	1.5	3.5	9.5	6.5	8.0
18	---	---	---	2.5	---	---	6.0	2.0	3.5	8.0	7.0	7.5
19	---	---	---	2.5	0.0	1.0	6.0	1.5	3.5	8.0	6.5	7.0
20	---	---	---	2.0	0.0	1.0	4.5	2.5	3.5	10.0	6.0	8.0
21	---	---	---	2.0	0.0	0.5	4.0	2.5	3.5	9.0	7.0	8.0
22	---	---	---	2.0	0.0	1.0	3.5	2.0	2.5	8.5	7.5	8.0
23	---	---	---	4.0	1.0	2.5	3.5	1.5	2.5	10.0	7.5	8.5
24	---	---	---	3.5	1.0	2.5	5.5	2.0	3.5	13.5	7.0	10.0
25	---	---	---	3.5	1.0	2.5	5.0	2.5	3.5	12.0	8.5	10.5
26	---	---	---	3.5	2.5	3.0	4.5	2.5	3.5	14.0	8.0	11.0
27	---	---	---	3.0	2.0	2.5	7.0	2.5	4.0	14.0	9.5	11.5
28	---	---	---	4.5	2.0	3.0	7.5	2.5	4.5	11.5	10.0	11.0
29	---	---	---	4.0	1.5	2.5	5.0	3.5	4.0	12.0	9.0	10.5
30	---	---	---	3.0	2.0	2.5	5.0	2.5	3.5	15.5	9.5	12.0
31	---	---	---	2.5	1.0	1.5	---	---	---	14.0	10.5	12.0
Month	---	---	---	---	---	---	7.5	0.0	2.9	15.5	3.0	7.5

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TEMPERATURE, WATER, DEGREES CELSIUS
WATER YEAR OCTOBER 2010 TO SEPTEMBER 2011

Day	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean
		June			July			August			September	
1	14.5	10.5	12.5	17.0	11.5	14.0	14.5	13.0	13.5	13.0	10.0	11.0
2	13.0	11.0	12.0	14.5	12.5	13.5	14.0	13.0	13.0	12.0	10.5	11.0
3	12.5	11.0	11.5	13.5	12.0	13.0	13.5	12.5	13.0	11.0	10.0	10.5
4	12.0	9.5	11.0	16.5	11.5	13.5	14.0	12.5	13.0	10.5	10.0	10.5
5	13.0	10.0	11.5	14.0	12.5	13.0	13.0	12.5	12.5	10.0	9.5	10.0
6	14.5	10.5	12.0	15.0	11.5	13.0	14.0	12.0	13.0	11.0	10.0	10.5
7	13.0	10.0	11.5	14.5	12.0	13.0	13.5	12.5	13.0	11.0	10.5	10.5
8	11.0	10.5	11.0	16.0	11.5	13.5	13.5	12.0	13.0	11.5	9.5	10.5
9	11.0	10.0	10.5	17.0	12.5	14.0	13.0	12.0	12.5	10.5	10.0	10.5
10	12.5	10.0	11.0	17.0	12.0	14.5	14.0	12.0	13.0	10.0	9.5	10.0
11	12.5	10.0	11.5	17.5	11.5	14.5	13.0	11.5	12.5	11.0	9.5	10.5
12	13.0	10.0	11.5	15.0	12.5	14.0	13.5	11.5	12.5	11.5	9.5	10.5
13	13.5	10.0	11.5	17.0	13.0	15.0	15.5	11.0	13.0	11.0	10.0	10.5
14	13.5	11.0	12.0	15.0	13.0	14.0	13.0	11.0	12.0	10.5	10.0	10.0
15	12.5	10.5	11.5	15.0	12.5	14.0	12.0	11.5	11.5	10.5	10.0	10.0
16	13.0	10.5	12.0	16.5	13.0	14.5	15.0	11.0	12.5	10.5	9.5	10.0
17	14.0	11.0	12.5	15.0	13.0	13.5	13.0	11.5	12.5	10.0	9.5	10.0
18	13.0	11.5	12.0	13.5	12.5	13.0	13.0	11.5	12.5	10.5	8.5	9.5
19	12.5	11.5	12.0	14.5	12.5	13.5	12.0	11.5	11.5	9.5	9.0	9.5
20	13.5	11.0	12.0	18.0	12.5	15.0	12.5	11.5	12.0	10.0	9.0	9.5
21	14.0	11.0	12.5	18.5	13.0	15.5	12.5	12.0	12.0	10.0	9.0	9.5
22	16.0	11.0	13.0	17.5	13.5	15.5	12.5	12.0	12.0	9.5	8.5	9.0
23	17.0	11.0	14.0	19.0	13.0	16.0	12.0	11.5	11.5	9.5	8.5	9.0
24	14.5	12.0	13.0	16.0	13.5	14.5	13.0	11.5	12.5	9.0	8.5	8.5
25	12.5	12.0	12.5	13.5	13.0	13.5	---	---	---	9.0	7.5	8.5
26	16.0	11.5	13.5	14.5	13.0	13.5	---	---	---	9.0	7.5	8.0
27	16.5	11.0	14.0	16.0	13.0	14.0	---	---	---	9.0	7.0	8.0
28	14.5	12.5	13.0	15.5	13.5	14.5	12.5	---	---	8.0	7.5	8.0
29	13.0	11.5	12.0	15.5	13.5	14.5	12.5	---	---	8.0	7.0	7.5
30	13.0	11.5	12.0	16.5	13.5	14.5	---	---	---	8.0	7.0	7.5
31	---	---	---	15.0	14.0	14.0	11.5	---	11.0	---	---	---
Month	17.0	9.5	12.1	19.0	11.5	14.1	---	---	---	13.0	7.0	9.6