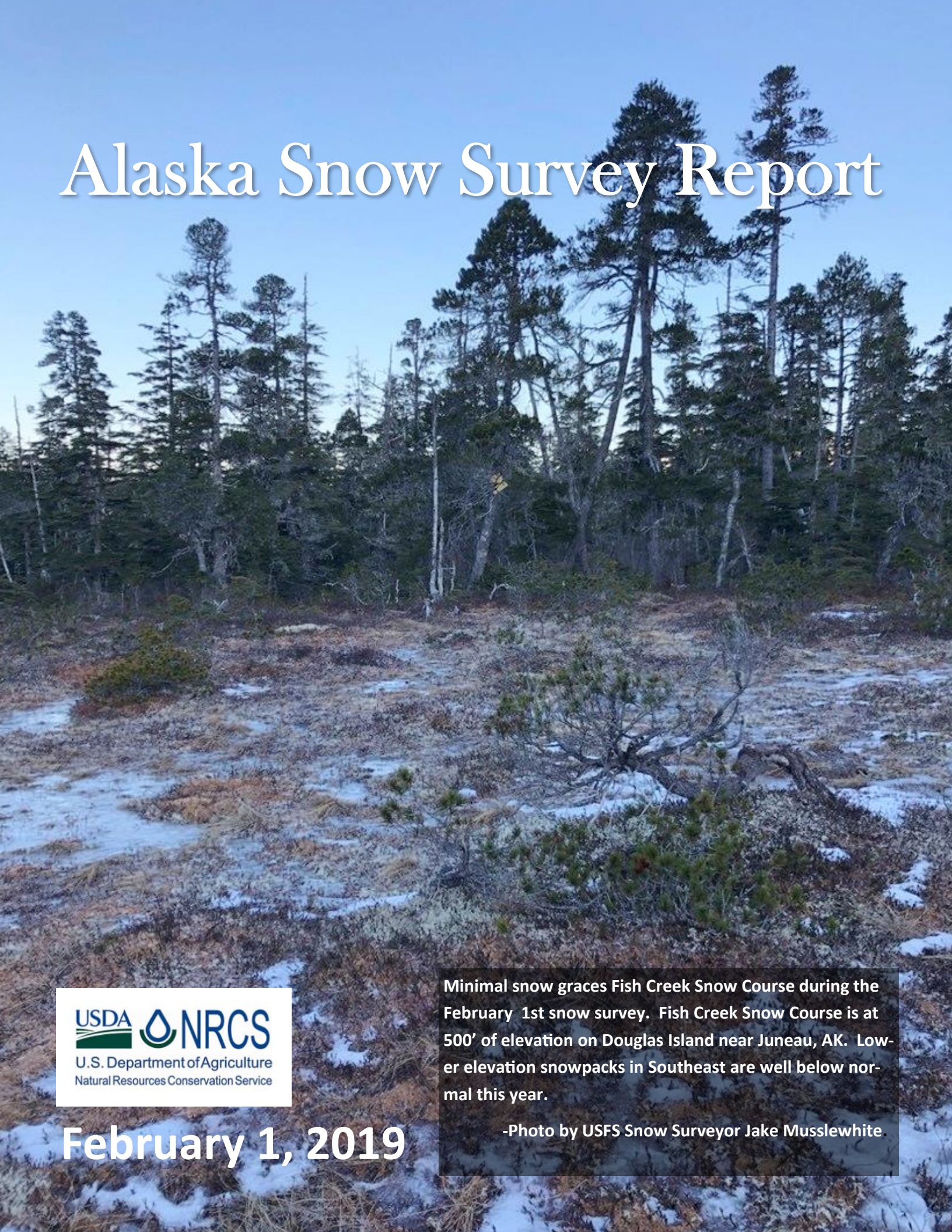
Alaska Snow Survey Report



USDA NRCS
U.S. Department of Agriculture
Natural Resources Conservation Service

February 1, 2019

Minimal snow graces Fish Creek Snow Course during the February 1st snow survey. Fish Creek Snow Course is at 500' of elevation on Douglas Island near Juneau, AK. Lower elevation snowpacks in Southeast are well below normal this year.

-Photo by USFS Snow Surveyor Jake Musslewhite.

The USDA Natural Resources Conservation Service cooperates with the following organizations in snow survey work:

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- Tongass National Forest

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Alaska Public Schools
- Mantanuska-Susitna Borough School District
- Eagle School, Gateway School District

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- Ministry of the Environment
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- Department of the Environment
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United States Department of Agriculture

NRCS Natural Resources Conservation Service

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Table of Contents

General Overview

SnowPack

Winter started late in most of Alaska. Many sites reported the onset of seasonal snowpack between one and six weeks after the average start date. This late start and varying storm patterns have created variable snowpacks across the state. Northwest Alaska and the western Interior have the healthiest snowpacks. The Koyukuk, lower Yukon basin, and parts of the Kuskokwim basin all have near to above normal snowpacks. Likewise, much of the central Yukon valley, from Yukon Crossing to Eagle, appears to have near normal snowpack.

However, much of the Tanana Valley, Southcentral, and Southeast have below normal snowpacks. The lower Tanana Valley is near 75% normal, while the upper Tanana Basin's snowpack is anemic and has two sites reporting 30+ year record lows. In Southcentral, the Chugach Range near Valdez, which had a lot of winter rain, has near normal snowpacks at elevation, while lower snowpacks are below normal. In the Cook Inlet area, where much of the high snowpack is lackluster because of the late start, later snow brought the lower snowpacks closer to normal.

		Basin Index	
Alaska Statewide Snowpack	**# of Sites**	**Current Percent of Median**	**Last Year Percent of Median**
Central Yukon Basin		—	—
Tanana Basin	16	62	151
Koyukuk Basin	6	151	171
Kuskokwim Basin	1	100	66
Copper Basin	11	97	140
Matanuska-Susitna Basin	18	83	93
Northern Cook Inlet	7	74	43
Kenai Peninsula	16	67	55
Western Gulf of Alaska	6	84	86
Southeast Alaska	6	59	35

General Overview

Precipitation

October was generally wet, but brought variable precipitation to Alaska. Southcentral was particularly wet, with the Kenai Peninsula receiving twice average precipitation, while southern Southeast, Northwest Alaska, and the eastern Tanana and Copper Basins were left with below normal precipitation for the month.

November, largely, brought closer to normal precipitation to the state than October. However, both the Arctic and areas along the western Gulf of Alaska collected significantly above normal precipitation. Several sites on the North Slope were between 150%-300% of normal for the month. November brought less precipitation to the Interior, where several sites had below normal precipitation and the upper Tanana received less than a quarter of its normal precipitation. Southeast and Southwest Alaska had both slightly below normal monthly precipitation.

December brought ample precipitation to the western half of Alaska at the expense of the eastern half. Most of Southcentral collected between 122%-200% of normal December precipitation. Southwest Alaska and the western Arctic all received above normal precipitation during the month while the upper Koyukuk Valley received nearly 3 times its normal monthly precipitation. Leaner regions were the Tanana Valley, the eastern Copper Valley, and the eastern Arctic. The Tanana area only gathered 60% of its normal December precipitation. Southeast Alaska, had near, but slightly below normal precipitation for the month.

January brought drier times to Alaska, with many regions only gaining 50%-75% of their normal monthly amounts. There are, of course, always exceptions. Southeast Alaska reported near normal monthly precipitation. There were also portions of the western Gulf of Alaska, western Alaska, and the Arctic which reported near or slightly above normal precipitation.

So, for the winter so far, much of Alaska has received above normal precipitation including the Arctic, Northwest Alaska, Southwest Alaska, and Southcentral Alaska. Much of Southcentral has reaped 120%-150% of normal winter precipitation, while the other regions are moderately closer to normal. Southeast Alaska has gained near normal amounts of winter precipitation, with the south being a little leaner than the northern panhandle. Areas of the state which have had below normal winter precipitation have been the Tanana Valley and the eastern Copper Valley. The upper Tanana Valley has had less than half of normal wintertime precipitation so far.

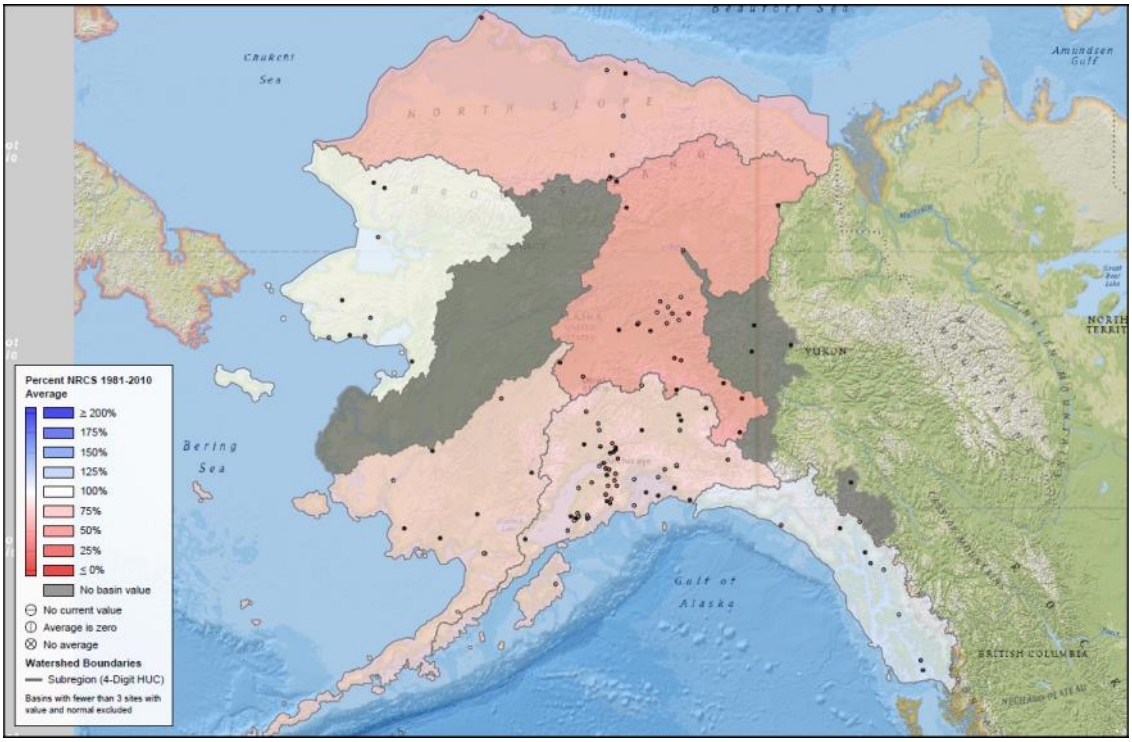
Temperature

This winter not only started with near or above normal temperatures across most of the state, but with near record warmth. Many central and northern locations were 9-11°F above normal for the month of October. These above normal temperatures contributed to a late start to the winter snowpack in much of the state. Above normal temperatures continued across the state into November, and then into December, and then into January. Most locations recorded between a +3°F to +11°F departure from normal during these months. The only station we monitor which recorded a below normal monthly temperature was Nome, which recorded a -2°F departure from normal in November. Warmer temperatures drive the rain/snow transition lines further north and further up the mountain slopes.

Alaska Statewide Precipitation Maps

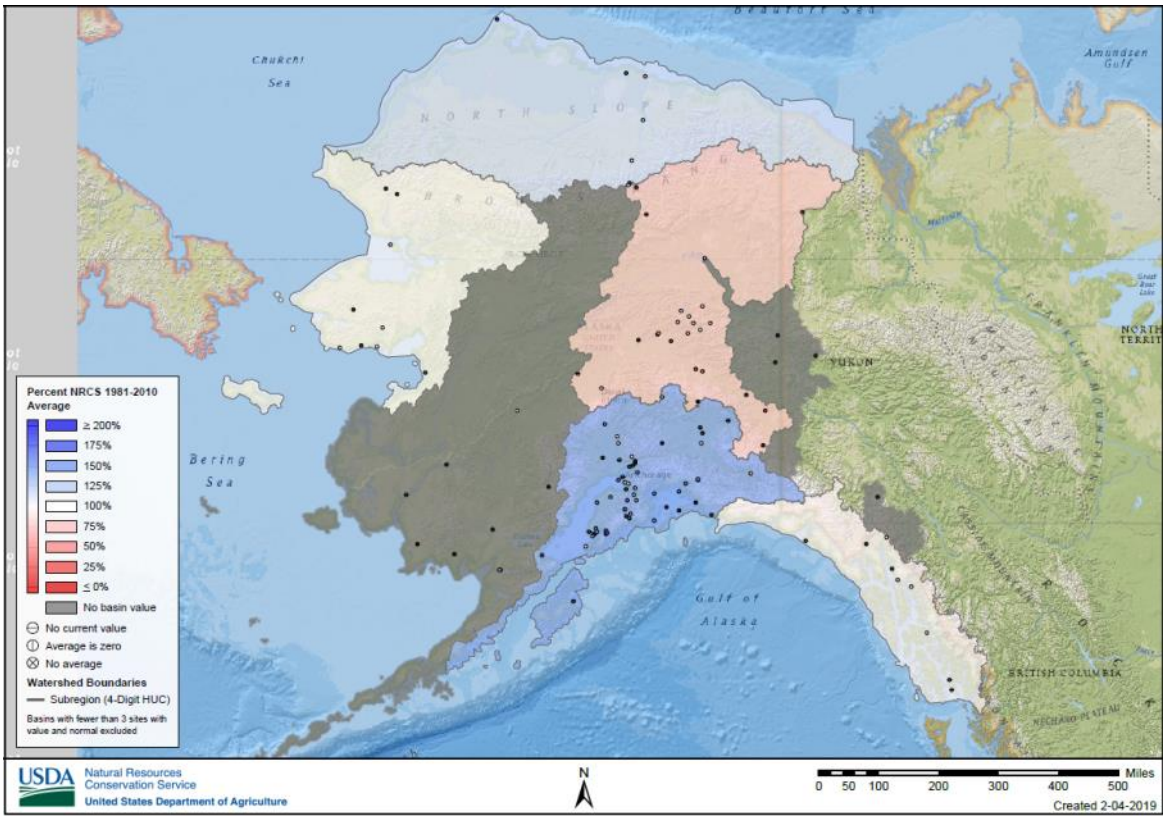
Monthly Precipitation for January, 2019

(% of NRCS 81-2010 Average)



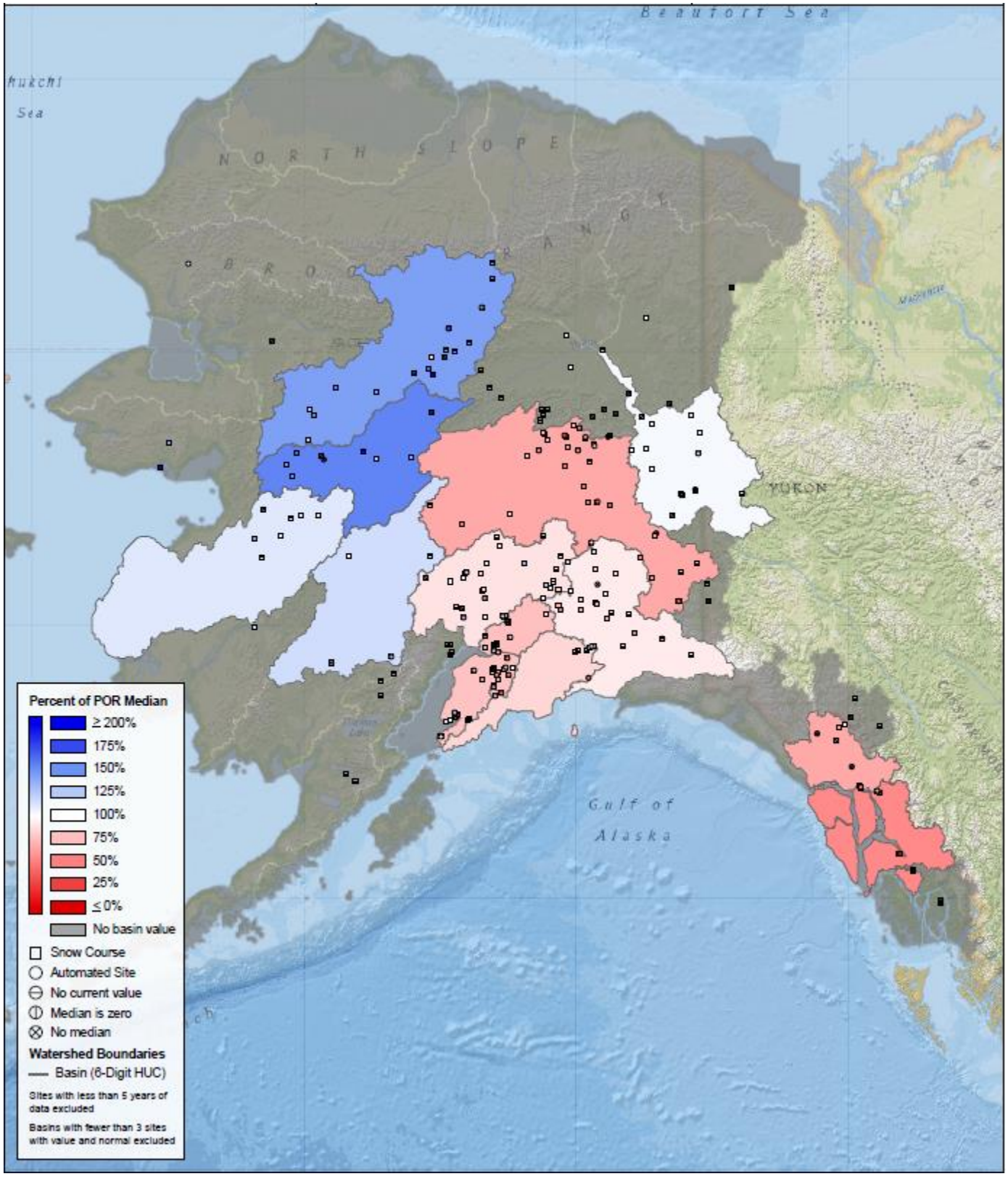
Water Year-to-date Precipitation (Oct. 1-Jan. 30, 2019)

(% of NRCS 81-2010 Average)



Alaska Statewide Snowpack Map

Based on February 1st, 2019 Snow Water Equivalent



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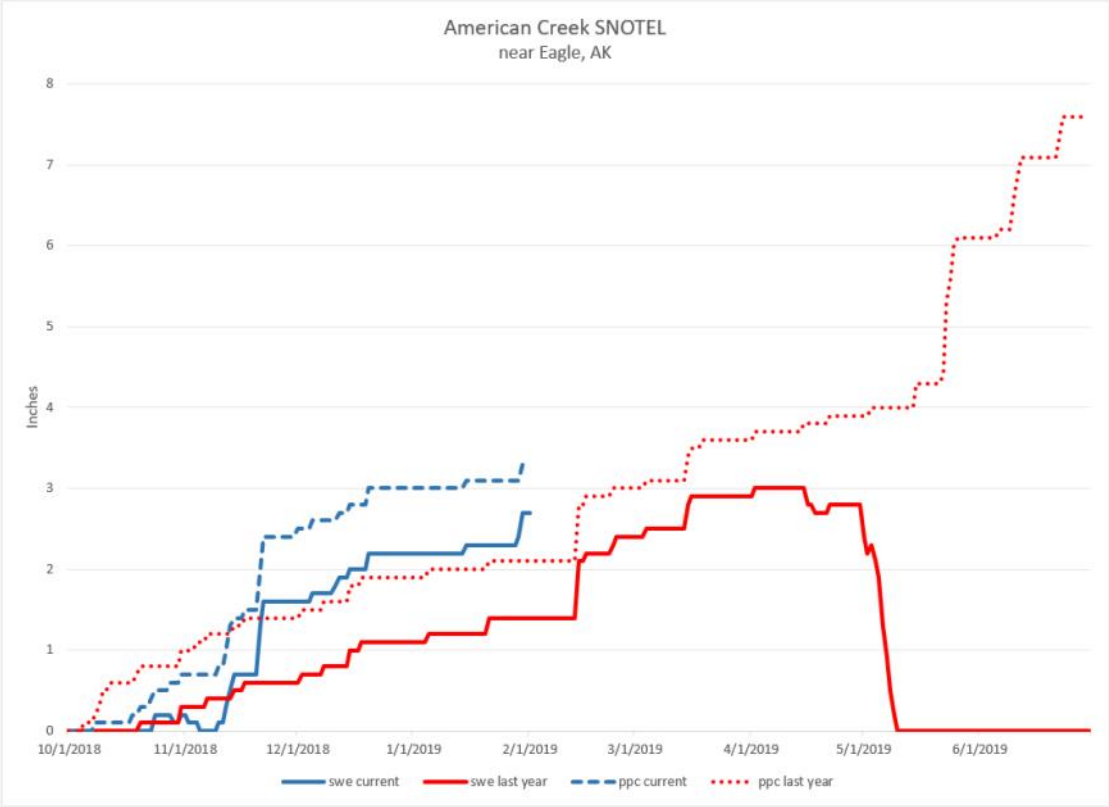
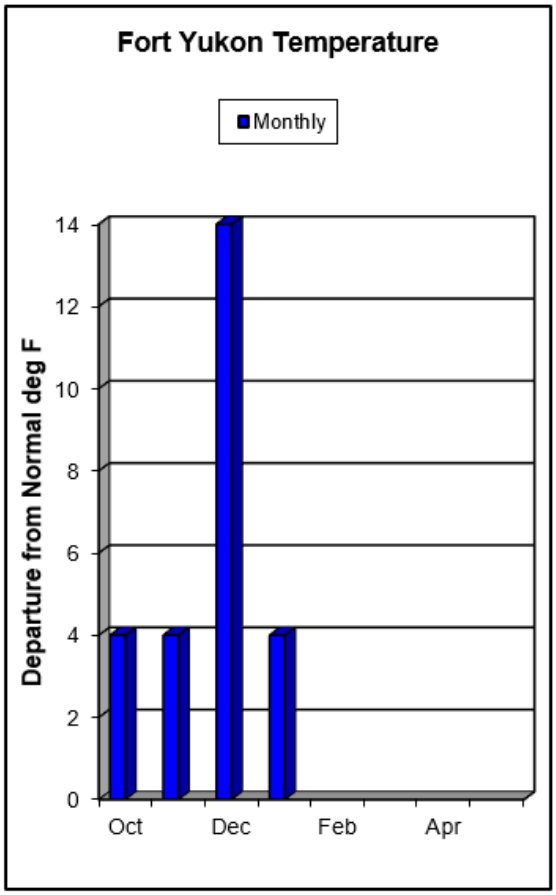
Central Yukon Basin





Snowpack

The measured snowpack in the Central Yukon Basin is near normal. Many snow courses on the southern and western part of the basin were not measured as a cascading effect of the January shutdown of the Federal Government. The seasonal snowpack started a little late and slow this winter, but a series of mid-November storms brought the snowpack up to or above normal quickly. Snowpack has since moderated to keep sites near historic medians.

Central Yukon Basin

Snowpack Data

Site Name	Elev.	Snow Depth			Water Content		
		Current	Last Year	1981-2010 Median	Current	Last Year	1981-2010 Median
December 1st							
American Creek	1050	12	6	---	1.6	0.6	---
Atigun Pass	4800	20	29	---	---	---	---
Circle Hot Springs	860	13	---	---	2.0	---	---
Eagle Summit	3650	7	13	---	---	---	---
Fort Yukon	430	12	10	---	---	---	---
Hess Creek	1000	14	9	---	2.1	1.8	---
Jack Wade Jct	3585	20	13	---	2.1	2.1	---
Ptarmigan Creek	2270	8	---	---	1.1	---	---
Seven Mile	600	18	10	---	2.6	1.9	---
Stack Pup Creek	1620	13	---	---	2.0	---	---
Thirty Mile	1350	21	20	---	4.2	4.1	---
Upper Nome Creek	2520	7	24	---	---	---	---
January 1st							
American Creek	1050	13	8	---	2.2	1.1	---
Atigun Pass	4800	33	40	---	---	---	---
Eagle Summit	3650	8	15	---	---	---	---
Fort Yukon	430	16	12	---	---	---	---
Jack Wade Jct	3585		18	---	2.9	2.9	---
Upper Nome Creek	2520	12	29	---	---	---	---
February 1st							
American Creek	1050	17	11	---	2.7	1.4	---
Atigun Pass	4800	36	49	---	---	---	---
Cathedral Creek	1800	21	16	---	3.4*	2.6	---
Circle Hot Springs	860	21	---	---	3.6	---	---
Coal Creek	1000	19	16	---	2.7	2.6	---
Copper Creek	2000	16	5	---	2.4*	0.8	---
Crescent Creek	2600	14	9	---	2.1*	1.5	---
Eagle Summit	3650	11	14	---	---	---	---
Fort Yukon	430	20	17	---	---	---	---
Graphite Lake	600	19	---	---	3.0*	---	---
Jack Wade Jct	3585	23	20	---	3.5	3.3	---
Lower Beaver Creek	400	24	---	---	4.1*	---	---
Ptarmigan Creek	2270	17	---	---	2.4	---	---
Stack Pup Creek	1620	23	---	---	3.5	---	---
Step Mountain	2850	26	20	---	4.1*	3.4	---
Three Fingers	3350	27	28	---	4.5*	4.9	---
Upper Nome Creek	2520	16	33	---	---	---	---
Vunzik Lake	500	21	---	---	3.5*	---	---

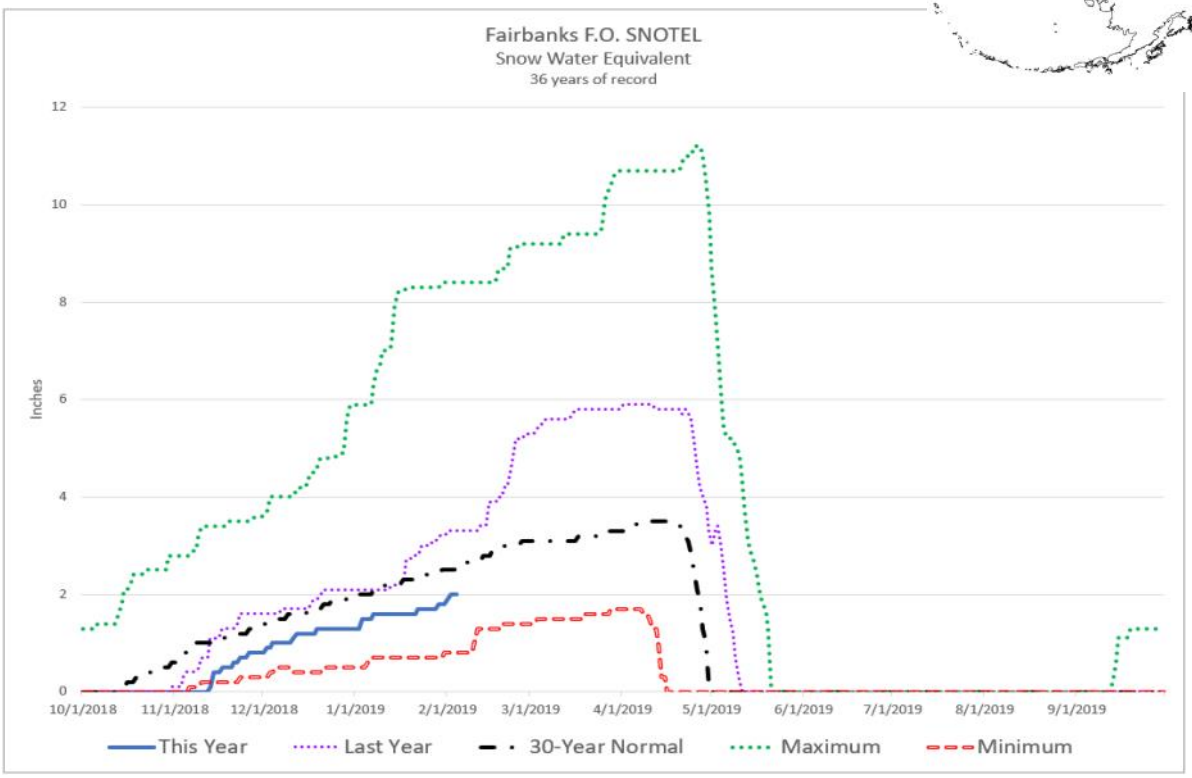
**Estimate*

Precipitation

Inches Accumulated since October 1st (as of February 1, 2019)

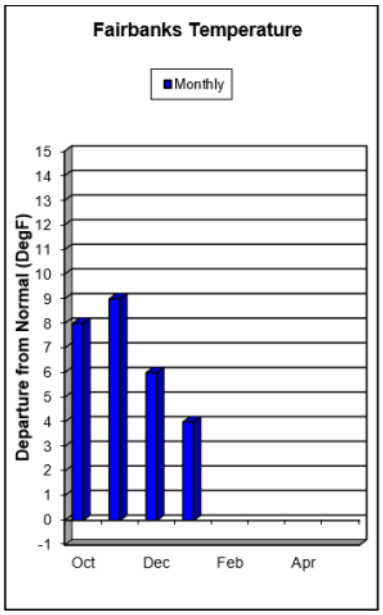
Site Name	Elev.	This Year	Last Year	1981-2010 Normal	% of Normal
American Creek	1050	2.9	3.3	---	---
Atigun Pass	4800	3.0	2.3	3.9	77%
Eagle Summit	3650	4.0	3.6	3.9	103%
Fort Yukon	430	3.1	2.8	2.6	119%
Jack Wade Jct	3585	5.4	---	---	---
Upper Nome Creek	2520	4.0	3.2	3.7	108%

Tanana Basin



Snowpack

The snowpack in the Tanana Valley is below normal. Seasonal snowpack started a week late in the mountains and up to a month late in lowlands. Snowpack started developing in many areas in mid-November. Like the last four years the lower valley has a heartier snowpack than the upper valley, but this year the entire basin is below normal. The Chena Basin sites have less than half of last year's snowpack and are near 70% of normal. Up valley, the snowpack near Tok and Delta Junction is less than half normal with both Granite Creek SNOTEL and the Gerstle River sites bringing new 31 and 36-year record lows.



Precipitation

Inches Accumulated since October 1st (as of February 1, 2019)

Site Name	Elev.	This Year	Last Year	1981-2010 Normal	% of Normal
Chisana	3320	2.9	1.7	---	---
Fairbanks F.O.	450	3.4	2.5	3.3	103%
Granite Crk	1240	2.1	3.4	3.2	66%
Kantishna	1550	5.0	3.5	3.5	143%
Little Chena Ridge	2000	3.3	2.6	4.1	80%
Nenana	415	2.4	2.5	---	---
Tok	1630	1.9	2.6	---	---
Upper Chena	2850	4.8	4.0	4.8	100%

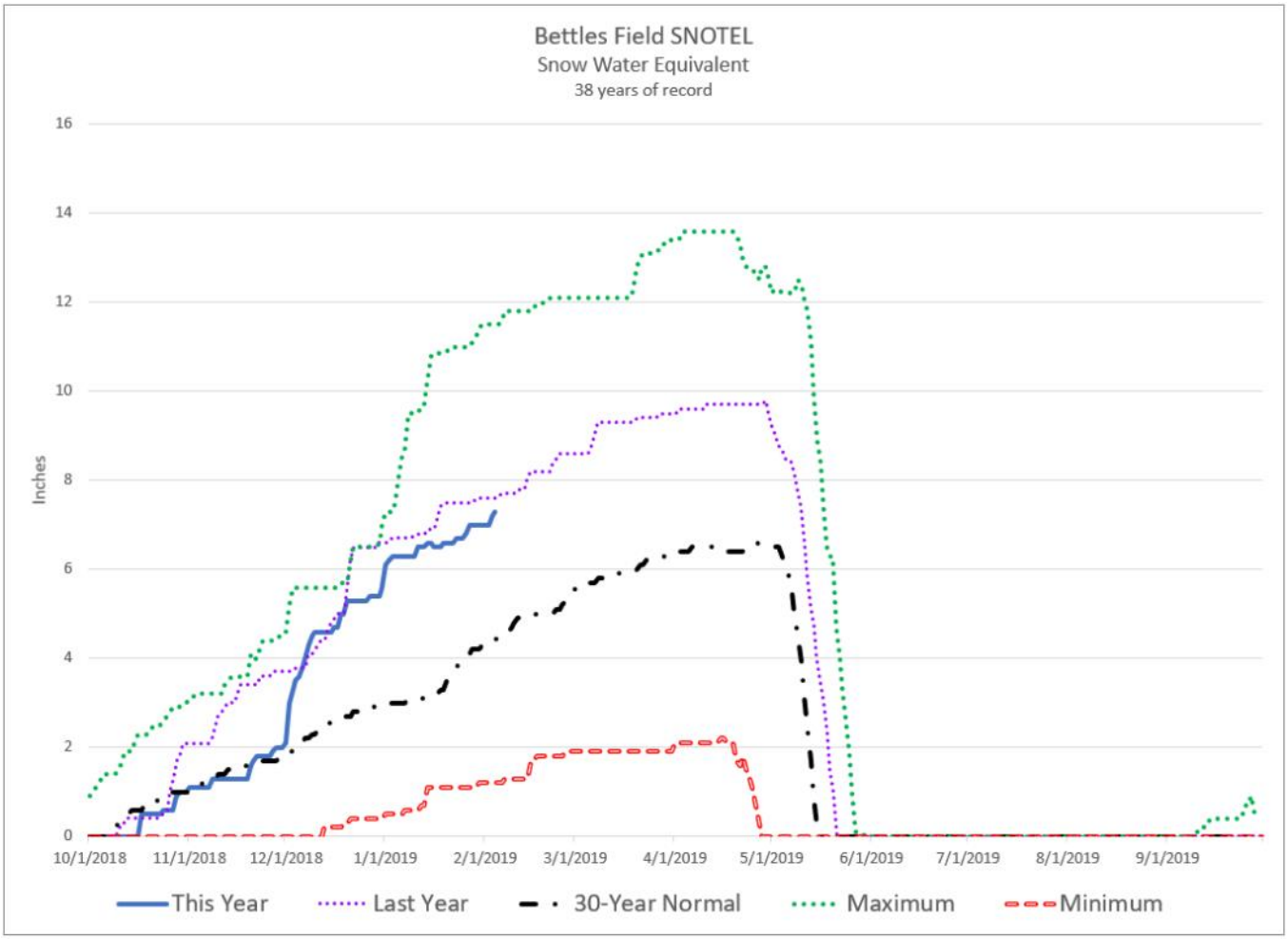
Tanana Basin

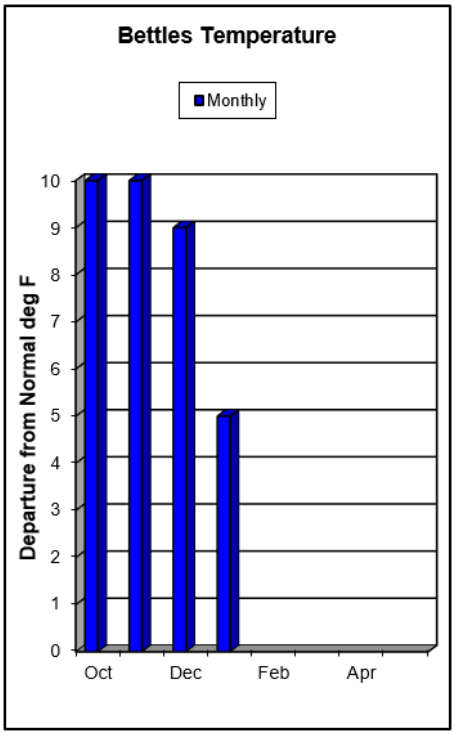
Snowpack Data

Site Name	Elev.	Snow Depth			Water Content		
		Current	Last Year	1981-2010 Normal	Current	Last Year	1981-2010 Normal
December 1st							
Chisana	3320	5	9	---	0.7	1.4	1.9
Cleary Summit	2230	10	27	---	1.6	5.4	---
Colorado Creek	700	6	18	---	0.6	4.2	---
Fairbanks F.O.	450	5	11	---	0.8	1.6	1.4
Faith Creek	1750	8	22	8	1.1	3.8	1.5
Fielding Lake	3000	12	13	---	3.0	2.5	---
Fort Greely	1500	4	11	10	0.4	1.4	1.3
French Creek	1800	7	30	16	1.0	6.6	2.6
Gerstle River	1200	3	13	11	0.3	1.9	1.6
Granite Crk	1240	2	7	---	0.2	1.4	1.6
Lost Creek	3030	5	12	---	0.5	2.1	---
Monument Creek	1850	7	22	---	0.8	4.2	1.8
Mt. Ryan	2800	8	19	---	1.2	4.5	2.0
Munson Ridge	3100	8	32	---	2.2	6.6	3.5
Paradise Hill	2200	7	---	10	0.9	---	1.3
Shaw Creek Flats	980	3	12	10	0.3	1.6	1.2
Teuchet Creek	1640	4	---	---	1.1	---	1.6
January 1st							
Chisana	3320	7	15	---	1.2	3.1	2.2
Fairbanks F.O.	450	8	12	---	1.3	2.1	2.0
Fielding Lake	3000	21	27	---	4.5	5.3	---
Granite Crk	1240	4	10	---	0.7	2.2	2.2
Monument Creek	1850	10	24	---	2.2	5.3	2.5
Mt. Ryan	2800	13	24	---	1.7	5.6	2.7
Munson Ridge	3100	14	36	---	3.0	8.2	4.1
Teuchet Creek	1640	9	16	---	1.7	3.7	2.1
February 1st							
Bonanza Creek	1150	16	19	18	2.6	4.4	3.4
Caribou Creek	1250	13	19	16	2.2	4.1	2.7
Caribou Snow Pillow	900	13	22	17	2.2	4.7	2.9
Chisana	3320	9	20	---	1.4	3.9	3.4
Cleary Summit	2230	21	---	22	3.2	---	4.0
Colorado Creek	700	14	---	18	1.9	---	3.0
Fairbanks F.O.	450	12	---	---	1.9	3.3	2.5
Faith Creek	1750	18	---	22	2.4	---	3.2
Fielding Lake	3000	31	31	---	5.8	7.1	---
Fielding Lake	3000	32	---	32	5.2	---	6.6
Fort Greely	1500	8	16	14	1.1	2.4	2.4
French Creek	1800	13	32	19	2.0	7.8	3.9
Gerstle River	1200	7	16	16	0.8	2.4	2.4
Granite Crk	1240	5	13	---	1.1	2.7	3.0
Kantishna	1550	12	25	20	1.8*	5.1*	3.2
Lost Creek	3030	10	18	---	1.2	3.4	---
Mentasta Pass	2430	14	---	---	2.1	---	4.0
Monument Creek	1850	13	25	---	2.7	6.0	3.1
Mt. Ryan	2800	20	28	---	2.5	6.3	3.6
Munson Ridge	3100	20	40	---	3.8	9.1	5.0
Rock Creek Bottom	2250	11	---	14	1.7	---	2.9
Shaw Creek Flats	980	8	16	13	1.0	2.8	2.0
Teuchet Creek	1640	13	19	---	2.3	4.4	2.8
Tok Junction	1650	14	---	17	1.7	---	2.6

**Estimate*

Western Interior Basins





Snowpack

Koyukuk

The snow season in the Koyukuk began slightly late and modestly remained near normal until the beginning of December. Storms during both the beginning of December and January fostered a well above normal snowpack in the upper Koyukuk. The Lower Koyukuk, too, has above normal snowpack

Kuskokwim

Like other regions, the snow season started a little late in this region. However, the snowpack is close to normal at reporting stations. Aniak SCAN has 13" of snow with 3.6" of water content, similar to last year.

Lower Yukon

The Lower Yukon has above normal snowpack at this time. The new Galena AK SNOTEL site started its snow season on October 25th and currently has 19" of snow with 3.9" of water content.

Western Interior Basins

Precipitation

Inches Accumulated since October 1st (as of February 1, 2019)

Site Name	Elev.	This Year	Last Year	1981-2010 Normal	% of Normal
Koyukuk					
Bettles Field	640	4.4	1.7	4.6	96%
Coldfoot	1040	4.5	1.7	4.3	105%
Gobblers Knob	2030	4.5	2.8	5.1	88%
Hozatka Lake	206	3.1	4.2	---	---
Kuskokwim					
Aniak	80	6.1	3.8	---	---
Telaquana Lake	1275	6.3	2.2	---	---

Snowpack Data

		Snow Depth			Water Content		
Site Name	Elev.	Current	Last Year	1981-2010 Median	Current	Last Year	1981-2010 Median
Koyukuk							
December 1st							
Bettles Field	640	10	16	---	2.1	3.7	1.9
Bonanza Forks	1200	9	16	---	1.5	3.8	---
Cloverleaf	170	12	16	---	---	---	---
Coldfoot	1040	9	15	---	1.7	3.3	2.1
Colville Bend	170	15	19	---	---	---	---
Disaster Creek	1550	11	14	---	2.2	2.3	---
Gobblers Knob	2030	3	9	---	---	---	---
Huggins Creek	290	8	15	---	---	---	---
Jr Slough	160	21	21	---	---	---	---
Table Mountain	2200	11	---	---	2.2	---	---
Treat Island	190	18	---	---	---	---	---
January 1st							
Bettles Field	640	32	25	---	6.1	6.6	3.0
Cloverleaf	170	---	27	---	---	---	---
Coldfoot	1040	27	30	---	5.0	6.3	2.8
Colville Bend	170	---	24	---	---	---	---
Gobblers Knob	2030	8	17	---	---	---	---
Jr Slough	160	---	16	---	---	---	---
February 1st							
Bettles Field	640	29	31	---	7.0	7.6	4.3
Cloverleaf	170	27	27	---	6.2*	5.7	---
Coldfoot	1040	32	30	---	5.8	6.9	4.2
Colville Bend	170	23	24	---	5.2*	4.8	---
East Chalatna	430	25	30	---	5.2*	6.6	---
Gobblers Knob	2030	11	9	---	---	---	---
Huggins Creek	290	25	24	---	5.2*	5.1	---
Jr Slough	160	24	28	---	5.5*	5.7	---
Kanuti Chalatna	670	14	35	---	3.4*	7.7	---
Kanuti Kilolitna	550	35	25	---	7.9*	5.7	---
Nolitna	560	36	37	---	8.1	8.2	---

**Estimate*

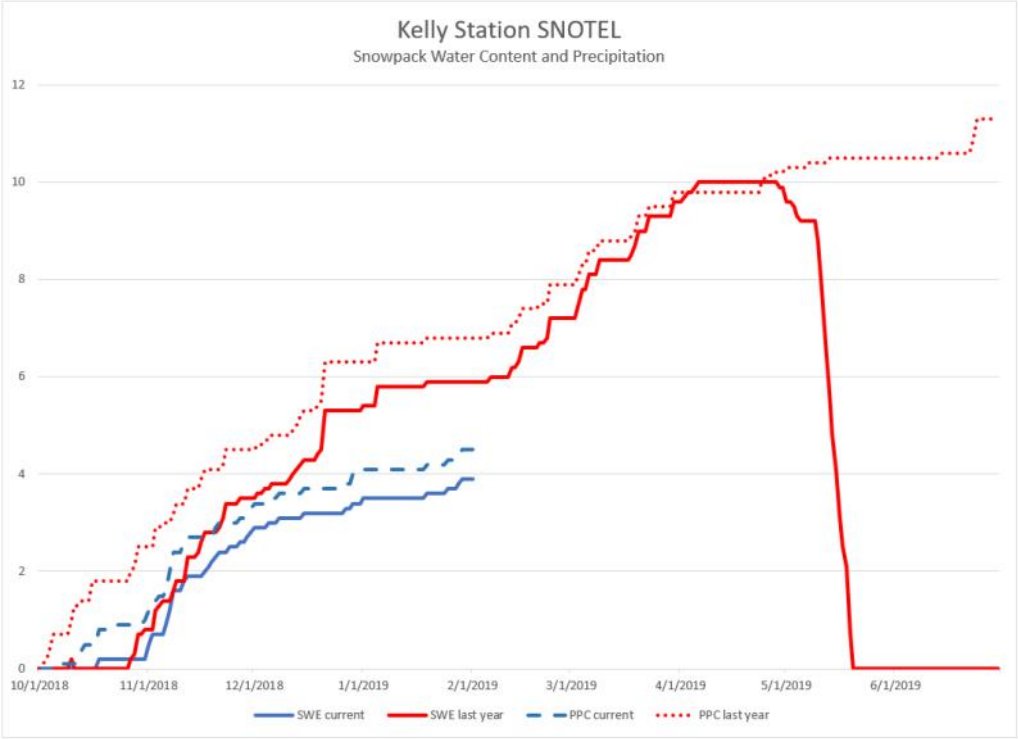
Western Interior Basins

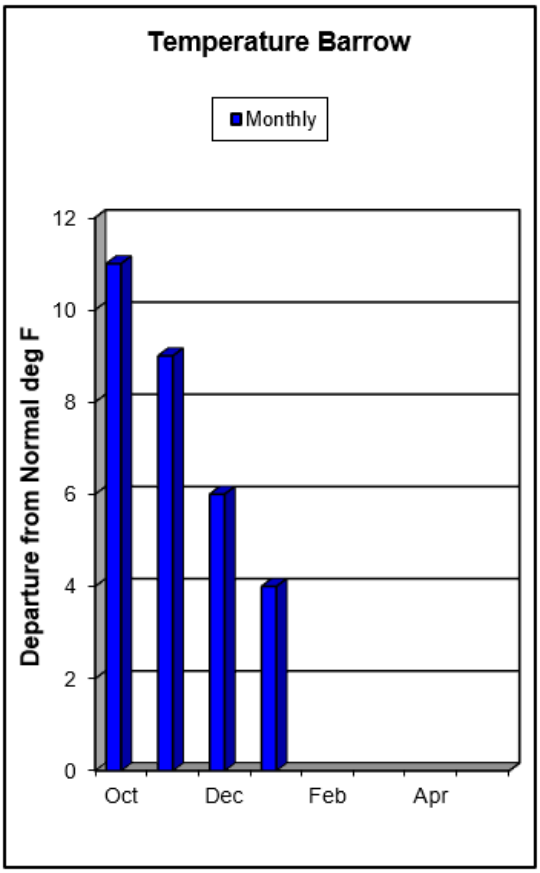
Snowpack Data—continued

Site Name	Elev.	Snow Depth			Water Content		
		Current	Last Year	1981-2010 Median	Current	Last Year	1981-2010 Median
Kuskokwim							
December 1st							
Aniak	80	7	10	---	---	---	---
Telaquana Lake	1275	5	8	---	1.0	2.2	---
January 1st							
Aniak	80	13	11	---	---	---	---
Telaquana Lake	1275	15	8	---	3.3	2.7	---
February 1st							
Aniak	80	14	12	---	3.6*	3.3*	---
Mcgrath	340	23	14	23	4.1*	2.7*	4.1
Telaquana Lake	1275	16	---	---	3.4	---	---
Telaquana Lake SNOTEL	1275	16	7	---	3.9	2.9	---
Lower Yukon							
December 1st							
Bullfrog	100	17	20	---	---	---	---
Deer Creek	195	21	17	---	---	---	---
Hozatka Lake	206	6	6	---	---	---	---
Little Mud River	855	12	9	---	---	---	---
Lower Nowitna River	205	12	9	---	---	---	---
Middle Innoko	150	12	---	---	---	---	---
Ninemile Island	140	19	18	---	---	---	---
Pike Trap Lake	130	12	11	---	---	---	---
Squirrel Creek	150	21	21	---	---	---	---
Upper Innoko	180	19	19	---	---	---	---
Yankee Slough	100	24	20	---	---	---	---
January 1st							
Hozatka Lake	206	18	12	---	---	---	---
February 1st							
Bullfrog	100	33	39	---	7.3*	8.6	---
Deer Creek	195	33	23	---	7.9*	4.7	---
Hozatka Lake	206	16	15	---	3.0*	---	---
Little Mud River	855	18	13	---	3.8*	2.6	---
Lower Nowitna River	205	19	17	---	3.9*	3.6	---
Middle Innoko	150	26	20	---	5.5*	4.0	---
Ninemile Island	140	32	29	---	7.2*	6.4	---
Pike Trap Lake	130	15	16	---	3.3*	3.1	---
Squirrel Creek	150	36	31	---	8.0*	6.7	---
Upper Innoko	180	25	13	---	5.4*	2.6	---
Wapoo Hills	220	36	35	---	8.2*	7.8	---
Yankee Slough	100	41	31	---	9.3*	6.8	---

**Estimate*

Arctic and Kotzebue Sound





Snowpack

Arctic

The Arctic has near normal to above normal precipitation this winter.

Kotzebue

Kelly Station SNOTEL, with 19” of snow and 3.9” of water content, has just above normal snowpack for this time of year, but less than last year.

Arctic and Kotzebue Sound

Snowpack Data

Site Name	Elev.	Snow Depth			Water Content		
		Current	Last Year	1981-2010 Median	Current	Last Year	1981-2010 Median
December 1st							
Atigun Pass	4800	20	29	---	---	---	---
Imnaviat Creek	3050	12	23	---	---	---	---
Kelly Station	310	13	14	---	2.9	3.5	---
Prudhoe Bay	30	9	7	---	---	---	---
Sagwon	1000	8	14	---	---	---	---
January 1st							
Atigun Pass	4800	33	40	---	---	---	---
Imnaviat Creek	3050	12	22	---	---	---	---
Kelly Station	310	15	22	---	3.5	5.4	---
Prudhoe Bay	30	7	11	---	---	---	---
Sagwon	1000	17	13	---	---	---	---
February 1st							
Atigun Pass	4800	36	49	---	---	---	---
Imnaviat Creek	3050	15	29	---	---	---	---
Kelly Station	310	19	23	---	3.9	5.9	---
Prudhoe Bay	30	7	14	---	---	---	---
Sagwon	1000	23	14	---	---	---	---

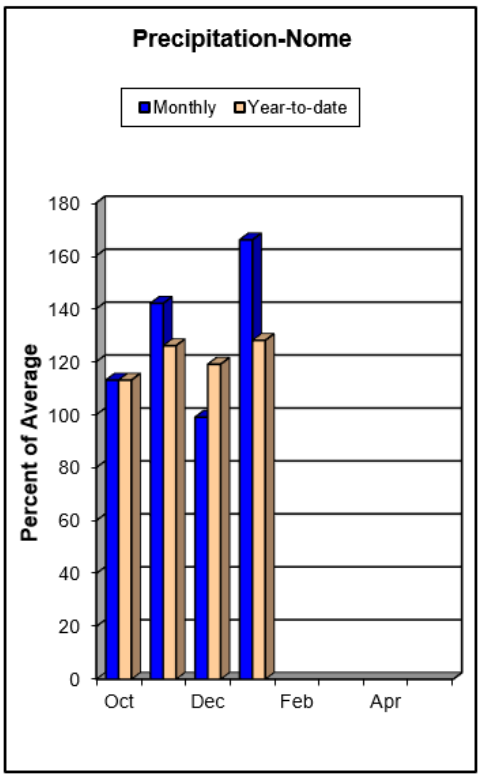
**Estimate*

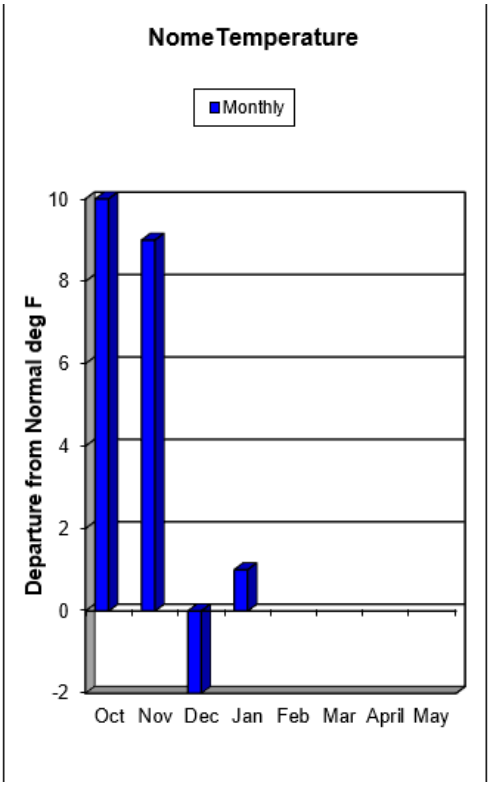
Precipitation

Inches Accumulated since October 1st (as of February 1, 2019)

Site Name	Elev.	This Year	Last Year	1981-2010 Normal	% of Normal
Arctic					
Atigun Pass	4800	3.0	2.3	3.9	77%
Imnaviat Creek	3050	1.3	3.1	2.1	62%
Prudhoe Bay	30	1.5	1.0	2.0	75%
Sagwon	1000	1.9	2.6	2.1	90%
Kotzebue Sound					
Port Red Dog	50	1.8	8.0	2.7	68%
Kelly Station	310	3.0	2.1	---	---

Norton Sound/Y-K Delta/Bristol Bay





Snowpack

Southwest Alaska has had above normal precipitation for this time of year. Much of the lowlands most likely have below normal snowpack, due to warmer than normal temperatures. Both the Bethel and King Salmon NWS sites recorded 3" of snow depth on February 1st. Other established snow sites in this area weren't measured due to the cascading effect of the January Federal Government shutdown.

Precipitation

Inches Accumulated since October 1st (as of February 1, 2019)

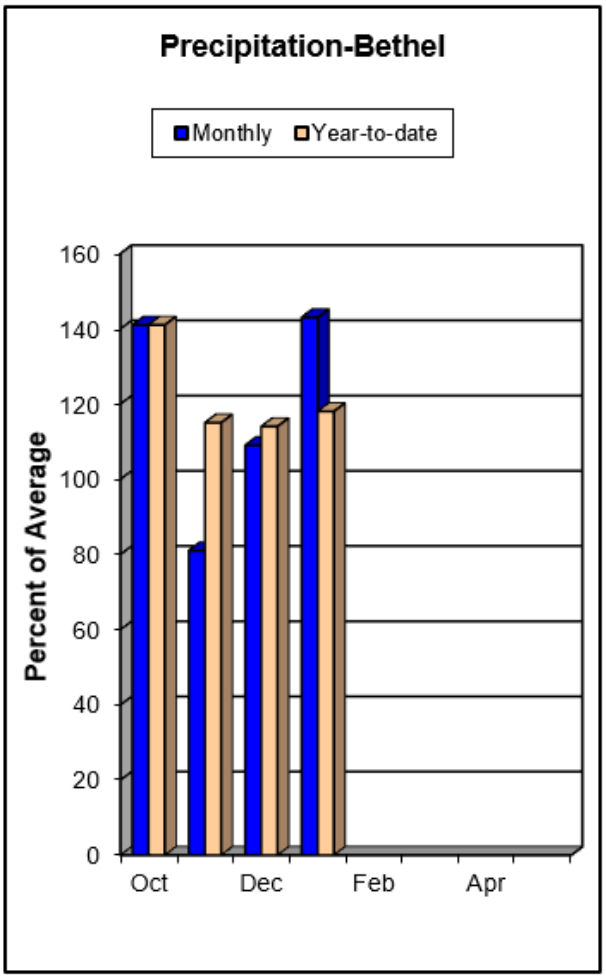
Site Name	Elev.	This Year	Last Year	1981-2010 Normal	% of Normal
Norton Sound					
Pargon Creek	100	6.4	---	3.9	164%
Rocky Point	250	5.4	2.3	4.1	132%

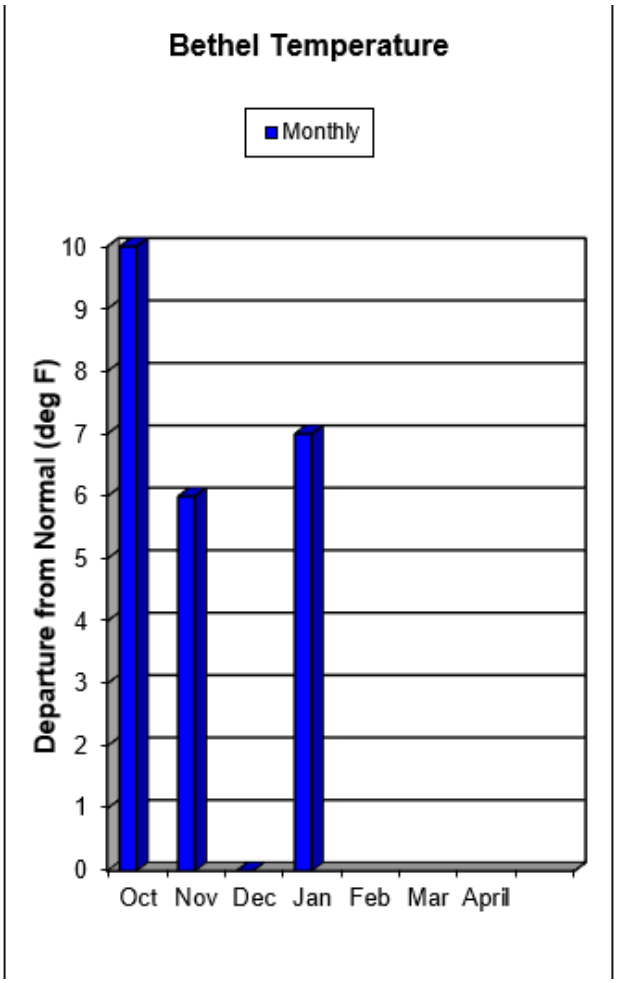
Norton Sound/Bristol Bay

Snowpack Data

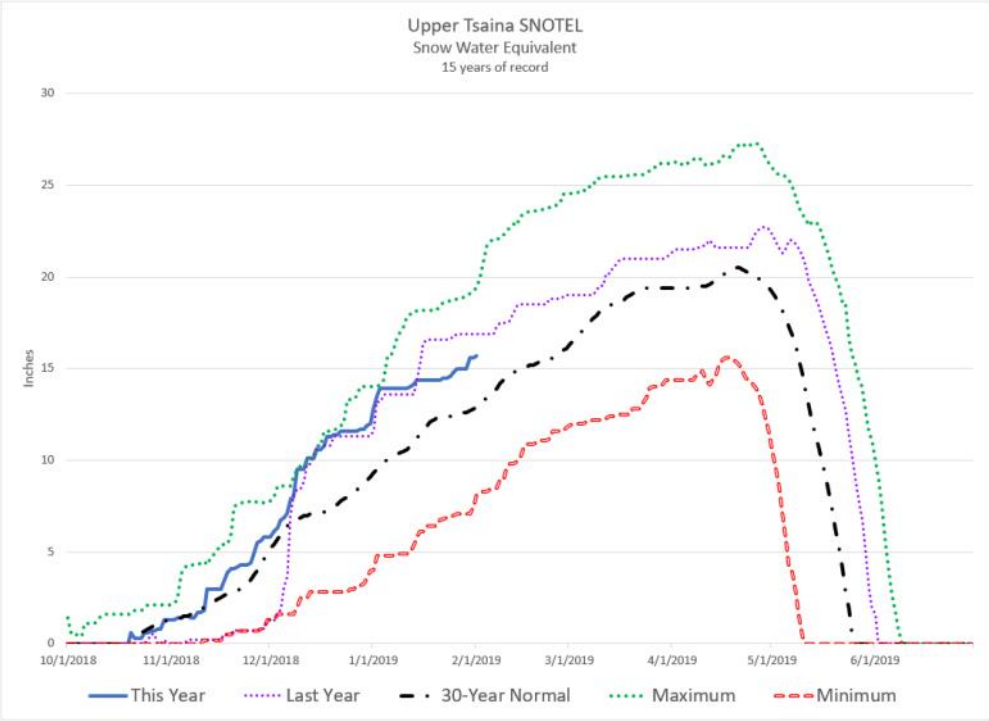
Site Name	Elev.	Snow Depth			Water Content		
		Current	Last Year	1981-2010 Median	Current	Last Year	1981-2010 Median
Norton Sound							
December 1st							
Johnsons Camp	25	7	3	---	---	---	---
Pargon Creek	100	3	9	---	---	---	---
Rocky Point	250	8	29	---	---	---	---
January 1st							
Johnsons Camp	25	7	16	---	---	---	---
Pargon Creek	100	17	11	---	---	---	---
Rocky Point	250	31	33	---	---	---	---
February 1st							
Johnsons Camp	25	11	16	---	---	---	---
Pargon Creek	100	15	11	---	2.9*	3.0*	---
Rocky Point	250	29	33	---	5.2*	5.0*	---

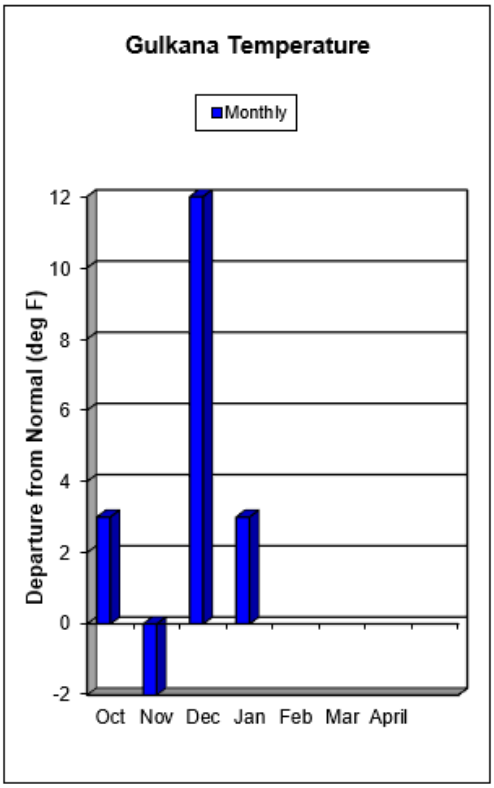
**Estimate*





Copper Basin





Snowpack

The Snowpack in the Copper River Basin is below normal and considerably less than last year. Portions of the Talkeetnas and the Chugach range are near, or even above normal, but the Copper Valley floor itself, along with the Alaska Range sites are more meager with sites ranging from 65% to 90% of normal. The Upper Tsaina SNOTEL started its snowpack right near normal on October 20th, while the new Gulkana River SCAN site, north of Glennallen on the valley floor, started its snow season on November 8th.

Copper Basin

Snowpack Data

Site Name	Elev.	Snow Depth			Water Content		
		Current	Last Year	1981-2010 Median	Current	Last Year	1981-2010 Median
December 1st							
Chokosna	1550	6	6	---	0.8	0.8	---
Copper Center	1264	8	---	---	1.4	---	---
Fielding Lake	3000	12	13	---	3.0	2.5	---
Kenny Lake School	1300	6	7	10	0.8	0.8	1.3
Little Nelchina	2650	10	13	12	1.4	2.0	1.5
Lost Creek	3030	5	12	---	0.5	2.1	---
May Creek	1610	5	6	---	1.0	1.4	2.0
Tazlina	1250	7	7	9	1.3	0.7	1.1
Tolsona Creek	2000	8	8	11	1.4	1.2	1.8
Upper Tsaina River	1750	28	10	---	5.8	1.3	5.2
January 1st							
Fielding Lake	3000	21	27	---	4.5	5.3	---
May Creek	1610	9	8	---	1.4	1.7	3.0
Upper Tsaina River	1750	55	44	---	12.8	11.6	9.3
February 1st							
Chistochina	1950	18	---	17	2.4	---	2.6
Chokosna	1550	8	8	---	1.5	1.3	---
Copper Center	1264	16	26	---	2.5	4.9	---
Fielding Lake	3000	32	---	32	5.2	---	6.6
Fielding Lake	3000	31	31	---	5.8	7.1	
Haggard Creek	2540	22	---	23	3.2	---	4.1
Kenny Lake School	1300	9	22	14	1.7	4.2	2.6
Little Nelchina	2650	17	29	22	2.7	6.2	3.9
Lost Creek	3030	10	18	---	1.2	3.4	---
May Creek	1610	10	---	---	---	---	3.7
Mentasta Pass	2430	14	---	22	2.1	---	4.0
Monsoon Lake	3100	32	27	25	5.5*	5.3	4.6
Paxson	2650	27	---	27	4.1	---	5.3
Sanford River	2280	21	30	22	3.8*	6.2	3.8
St. Anne Lake	1990	14	25	19	2.4*	5.0	3.7
Tazlina	1250	15	24	15	2.4*	4.9	2.8
Tolsona Creek	2000	17	26	18	2.5	5.1	3.2
Tsaina River	1650	51	53	48	12.7*	16.4	11.2
Twin Lakes	2400	12	27	24	2.1*	5.6	4.4
Upper Tsaina River	1750	66	64	---	15.7	16.9	12.9
Worthington Glacier	2100	68	62	60	19.5*	19.4	16.8

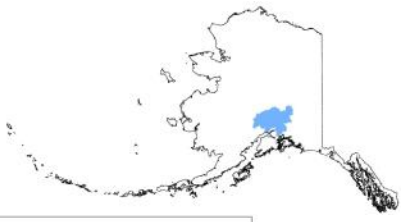
**Estimate*

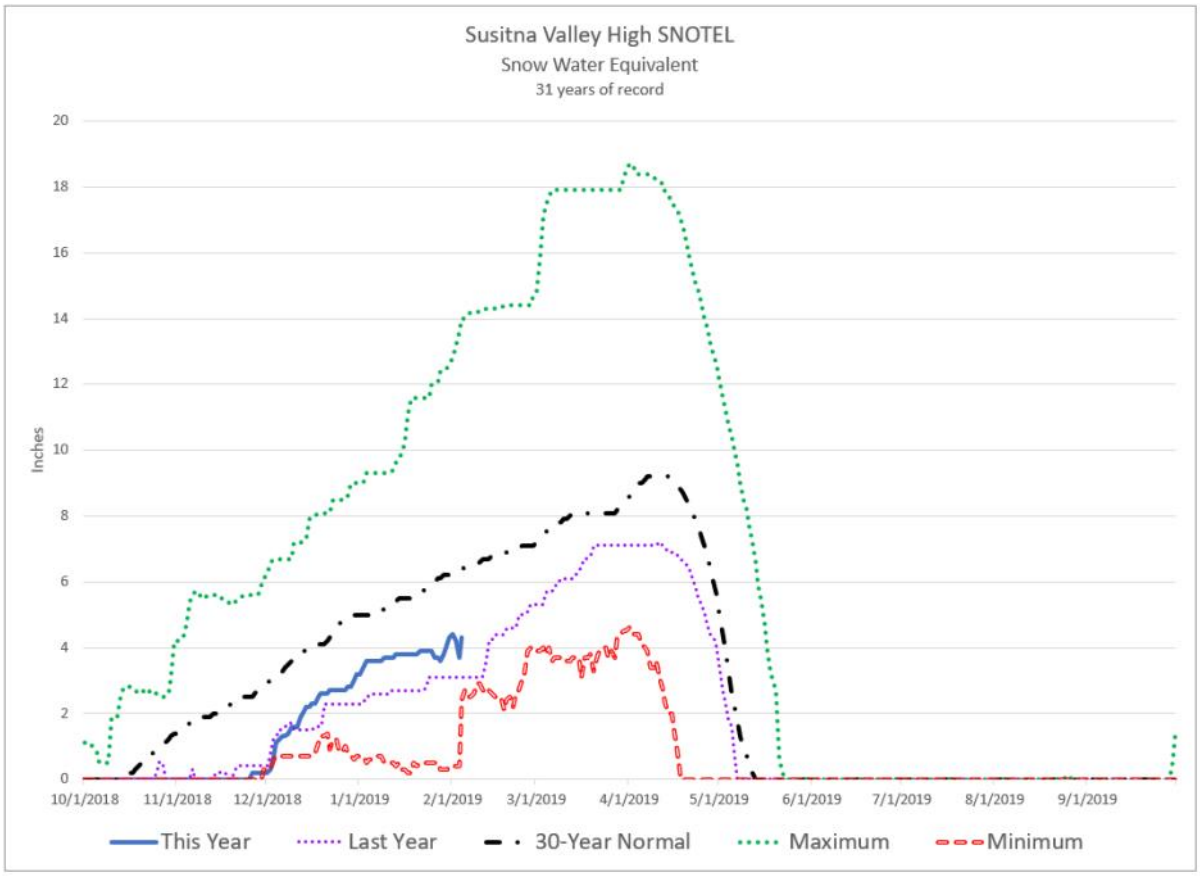
Precipitation

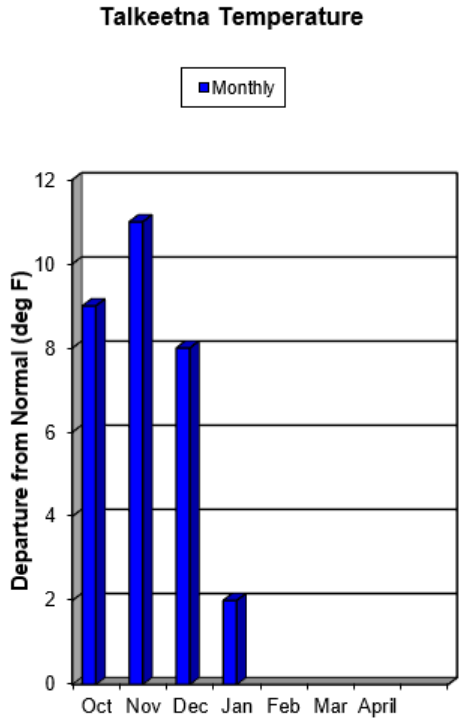
Inches Accumulated since October 1st (as of February 1, 2019)

Site Name	Elev.	This Year	Last Year	1981-2010 Normal	% of Normal
May Creek	1610	6.7	4.4	4.7	143%
Upper Tsaina River	1750	18.8	15.4	19.9	94%

Matanuska—Susitna Basin







Snowpack

The snowpack in the Susitna Basin is overall below normal, ranging from 60% of normal in the Little Su basin to 120% of normal at Tokositna Valley SNOTEL near Peter Hills. Due to warm early season temperatures, the snow season started late, between two weeks late in the mountains and a month late in the lowlands. Early December snows started the snow season in many low-lying places and really bolstered the alpine snowpack. Besides a storm in the first few days, January coasted by without contributing to the snowpack.

Compared to last year, the lowlands have more snow, but the alpine has less. The three measured sites in the Lower Susitna are 81% of normal compared to 56% of normal last year, while the 8 sites in Upper Susitna basin average 100% of normal compared to 115% last year.

Matanuska—Susitna Basin

Precipitation

		Inches Accumulated since October 1st (as of February 1, 2019)			
Site Name	**Elev.**	**This Year**	**Last Year**	**1981-2010 Normal**	**% of Normal**
Alexander Lake	160	15.3	7.2	---	---
Independence Mine	3550	15.7	8.1	11.0	143%
Monahan Flat	2710	6.6	2.8	5.8	114%
Susitna Valley High	375	9.9	6.7	8.8	113%
Tokositna Valley	850	16.7	9.9	15.2	110%

Snowpack Data

		Snow Depth			Water Content		
Site Name	**Elev.**	**Current**	**Last Year**	**1981-2010 Median**	**Current**	**Last Year**	**1981-2010 Median**
December 1st							
Alexander Lake SNOTEL	160	4	7	---	1.4	1.2	---
Archangel Road	2200	9	11	---	1.7	1.7	4.6
Birthday Pass	4020	23	37	---	5.6	10.2	---
Blueberry Hill	1200	24	---	---	2.9	---	---
Denali View	700	17	---	18	1.8	---	3.4
E. Fork Chulitna	1770	33	---	20	3.9	---	3.9
Fishhook Basin	3300	11	24	28	1.9	5.0	6.3
Independence Mine	3550	13	30	31	2.4	7.6	6.8
Independence Mine	3550	7	27		2.4	6.7	4.2
Lake Louise	2400	9	11	12	1.5	1.3	1.6
Little Susitna	1700	20	9	20	3.1	1.3	3.4
Monahan Flat	2710	8	14	---	1.7	---	---
Sheep Mountain	2900	13	11	14	1.8	1.8	1.8
Susitna Valley High	375	2	1	---	0.2	0.4	2.9
Talkeetna	350	13	---	13	1.5	---	1.8
Tokositna Valley	850	5	12	---	0.8	3.9	4.3
Willow Airstrip	200	13	---	16	1.4	---	2.5
January 1st							
Alexander Lake SNOTEL	160	27	21	---	5.3	5.1	---
Independence Mine	3550	26	33	---	6.2	8.4	5.9
Monahan Flat	2710	19	19	---	2.5	---	---
Susitna Valley High	375	18	10	---	3.2	2.3	5.0
Tokositna Valley	850	38	34	---	7.6	9.3	6.0

**Estimate*

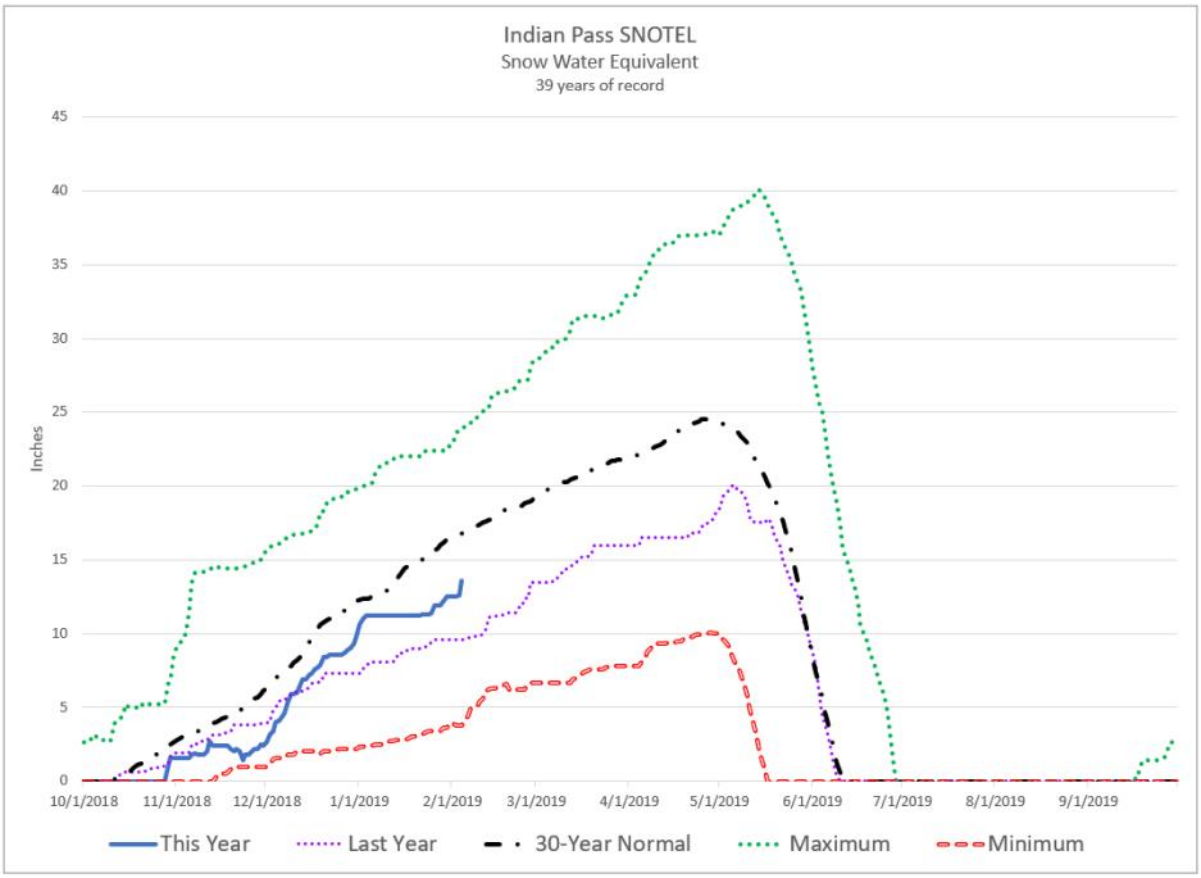
Matanuska—Susitna Basin

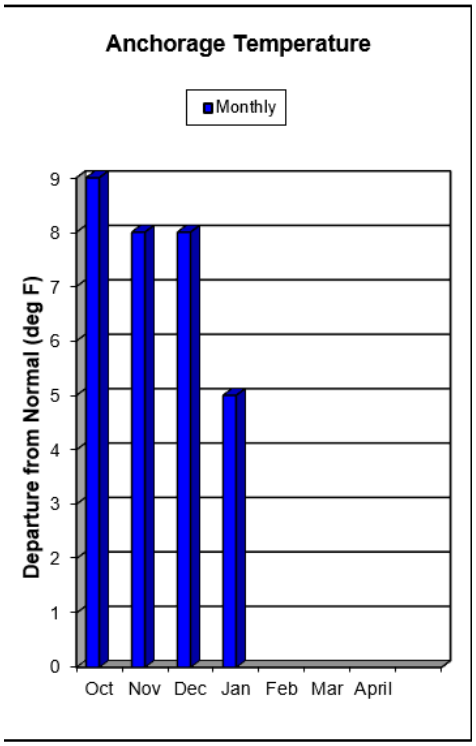
Snowpack Data—continued

Site Name	Elev.	Snow Depth			Water Content		
		Current	Last Year	1981-2010 Median	Current	Last Year	1981-2010 Median
February 1st							
Alexander Lake SNOTEL	160	26	20	---	6.2	5.4	---
Archangel Road	2200	30	27	38	6.7	6.3	10.0
Birthday Pass	4020	47	59	---	12.1	19.4	---
Blueberry Hill	1200	36	33	43	9.5	7.9	10.7
Chelatna Lake	1450	32	---	38	7.7*	---	8.6
Curtis Lake	2850	16	24	20	2.5	4.1	3.2
Denali View	700	28	25	35	6.8	5.8	8.8
E. Fork Chulitna	1770	39	40	41	9.2	9.8	9.5
Fishhook Basin	3300	35	40	46	7.4	10.6	12.5
Fog Lakes	2120	21	26	20	4.6*	5.1	3.4
Horsepasture Pass	4300	24	25	27	4.3*	4.8	4.6
Independence Mine	3550	40	52	52	9.4	15.9	14.5
Independence Mine SNOTEL	3550	29	31	---	6.9	7.8	8.6
Lake Louise	2400	19	25	19	2.9	4.7	3.0
Little Susitna	1700	27	26	34	5.6	5.1	8.0
Monahan Flat	2710	25	26	---	3.3	---	---
Nugget Bench	2010	41	---	42	9.9*	---	10.8
Ramsdyke Creek	2220	56	---	56	14.6*	---	15.5
Sheep Mountain	2900	24	34	21	3.7	6.0	4.0
Square Lake	2950	22	26	20	3.8*	4.7	3.1
Susitna Valley High	375	18	14	---	4.3	3.1	6.3
Talkeetna	350	19	17	24	4.0	3.1	4.8
Tokositna Valley	850	40	33	---	10.1*	9.6	8.5
Upper Oshetna River	3150	20	29	19	3.6*	5.5	3.1
Upper Sanona Creek	3100	19	---	23	3.3*	---	3.9
Willow Airstrip	200	26	18	25	4.7*	2.8	4.9

**Estimate*

Northern Cook Inlet





Snowpack

Winter started late in the north Cook Inlet area, anywhere between 2-4 weeks late in the alpine regions. Like other parts of the state, the snowpack season didn't start in earnest until a series of storms at the beginning of December. Accumulation continued through December but tapered off in January. Alpine areas remain below normal, ranging from 60%-80%, but low-lying snowpacks are reported at near normal levels. All reporting stations have more snow than last year, with the greatest difference at the lower elevations.

Northern Cook Inlet

Snowpack Data

Site Name	Elev.	Snow Depth			Water Content		
		Current	Last Year	1981-2010 Median	Current	Last Year	1981-2010 Median
December 1st							
Anchorage Hillside	2080	2	4	---	0.7	0.7	3.5
Indian Pass	2350	11	19	---	2.6	4.0	6.3
Kincaid Park	250	2	6	7	0.3	0.7	1.2
Moraine	2100	0	3	---	0.2	0.3	2.3
Mt. Alyeska	1540	2	16	---	0.5	2.6	7.5
Portage Valley	50	0	6	14	0.0	1.2	2.8
South Campbell Creek	1200	7	5	12	1.9	0.6	2.2
January 1st							
Anchorage Hillside	2080	19	7	---	4.2	1.5	5.7
Indian Pass	2350	43	32	---	10.6	7.3	12.3
Moraine	2100	15	2	---	3.0	0.6	4.5
Mt. Alyeska	1540	43	22	---	9.6	5.7	14.7
February 1st							
Anchorage Hillside	2080	20	12	---	4.7	2.4	7.1
Indian Pass	2350	44	39	---	12.5	9.6	16.6
Kincaid Park	250	14	6	15	3.9	1.2	3.1
Moraine	2100	14	6	---	3.4	2.0	5.4
Mt. Alyeska	1540	37	34	---	11.9	9.0	20.8
Portage Valley	50	17	21	26	7.7	3.3	8.4
South Campbell Creek	1200	18	6	20	4.7	0.9	4.7

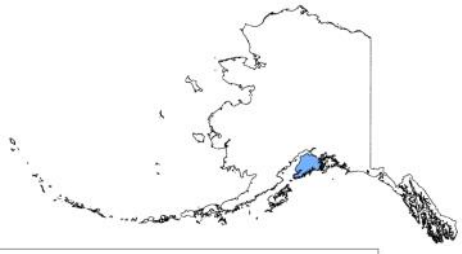
**Estimate*

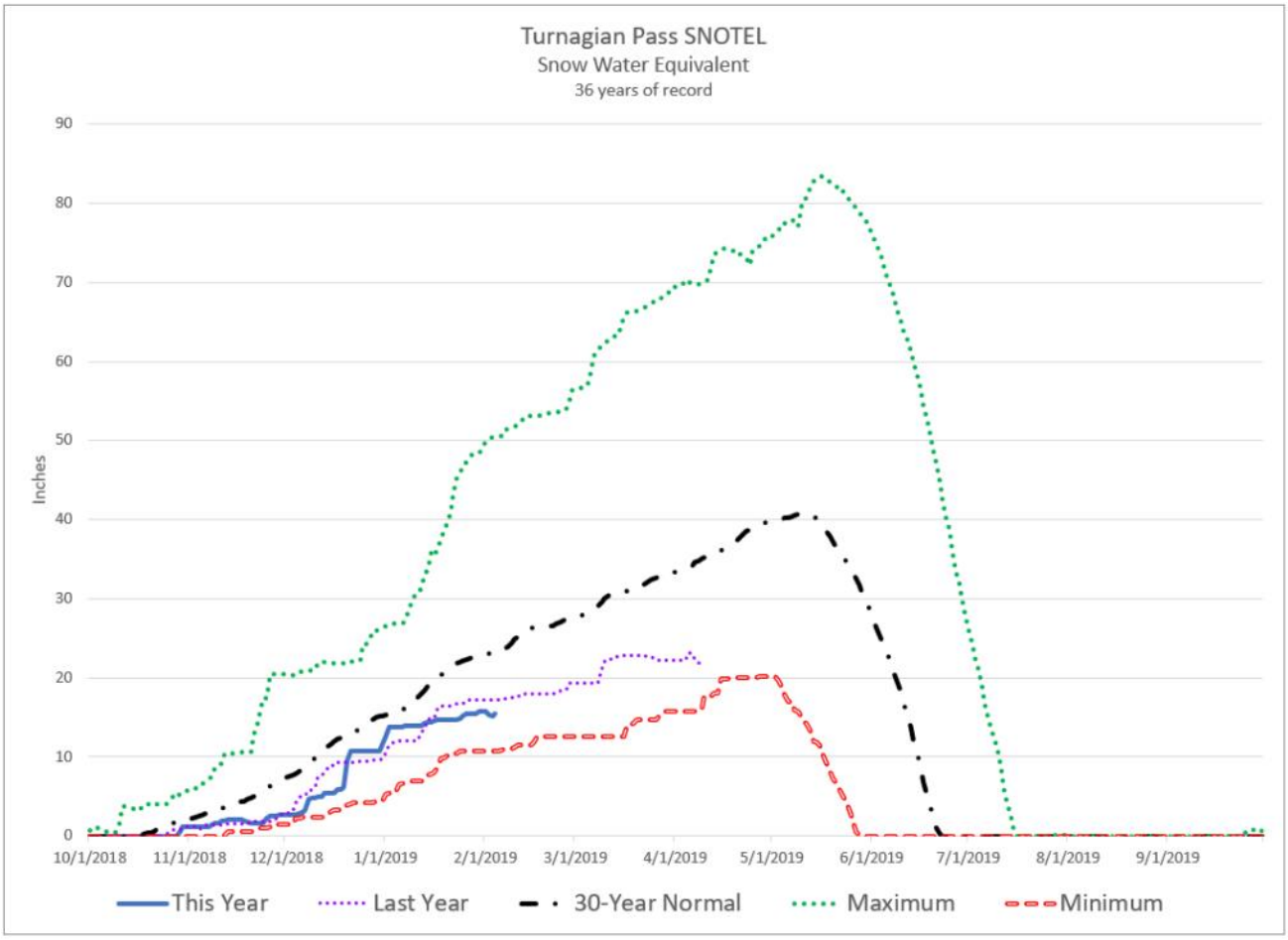
Precipitation

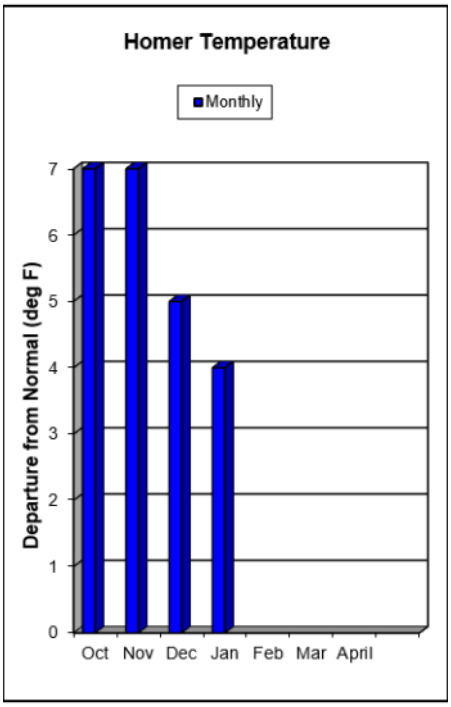
Inches Accumulated since October 1st (as of February 1, 2019)

Site Name	Elev.	This Year	Last Year	1981-2010 Normal	% of Normal
Anchorage Hillside	2080	8.0	5.4	10.3	78%
Indian Pass	2350	17.9	11.8	18.3	98%
Moraine	2100	6.3	5.1	8.5	74%
Mt. Alyeska	1540	35.5	27.6	33.5	106%

Kenai Peninsula







Snowpack

Mountain snowpack on the Kenai Peninsula this year is remarkably similar to last year at this time, however the low-lying areas and the area near Homer have more snow this year. Winter started very late this year, anywhere between 2 and 6 weeks after the average beginning date of the snowpack season. The 12 Kenai Peninsula precipitation sites average 142% of normal precipitation for the winter, but warmer than normal temperatures meant that a lot of that early precipitation came as rain instead of snow. The Northern Kenai Mountains average 58% of normal snowpack this year, compared to 54% last year. The area near Homer is 107% normal this year, compared to 67% last year.

Kenai Peninsula

Snowpack Data

Site Name	Elev.	Snow Depth			Water Content		
		Current	Last Year	1981-2010 Median	Current	Last Year	1981-2010 Median
December 1st							
Anchor River Divide	1653	4	9	---	1.5	1.7	2.9
Bridge Creek	1300	4	10	12	0.8	1.9	1.5
Cooper Lake	1200	1	10	---	0.2	1.8	3.2
Demonstration Forest	780	4	9	8	0.5	1.3	1.0
Exit Glacier	400	0	8	18	0.0	1.3	3.2
Exit Glacier	400	0	8	---	0.0	1.4	3.5
Grandview	1100	2	13	---	0.5	1.7	5.3
Grouse Creek Divide	700	0	7	---	0.0	1.9	2.9
Indian Pass	2350	11	19	---	2.6	4.0	6.3
Jean Lake	620	0*	6	8	0.0*	0.6	1.0
Kenai Moose Pens	300	0	7	---	0.0	1.3	1.2
Mcneil Canyon	1320	1	8	---	0.1	1.4	1.9
Mt. Alyeska	1540	2	16	---	0.5	2.6	7.5
Nuka Glacier	1250	0	11	14	0.0	1.1	4.2
Port Graham	300	4	4	---	1.2	1.1	0.5
Portage Valley	50	0	6	14	0.0	1.2	2.8
Snug Harbor Road	500	0	3	8	0.0	0.4	1.0
Summit Creek	1400	0	7	---	0.0	1.1	2.6
Turnagain Pass	1880	12	18	---	2.7	2.9	7.4
January 1st							
Anchor River Divide	1653	26	29	---	6.7	7.0	5.9
Cooper Lake	1200	20	17	---	4.7	4.2	8.2
Exit Glacier	400	20	16	---	4.8	3.7	8.0
Grandview	1100	36	23	---	7.7	6.0	14.2
Grouse Creek Divide	700	17	22	---	5.3	5.0	8.3
Indian Pass	2350	43	32	---	10.6	7.3	12.3
Kenai Moose Pens	300	11	8	---	2.0	1.8	2.5
Mt. Alyeska	1540	43	22	---	9.6	5.7	14.7
Port Graham	300	16	4	---	5.2	0.5	3.5
Summit Creek	1400	16	13	---	4.2	3.6	6.2
Turnagain Pass	1880	63	41	---	12.5	10.6	15.3

**Estimate*

Kenai Peninsula

Snowpack Data – continued

Site Name	Elev.	Snow Depth			Water Content		
		Current	Last Year	1981-2010 Median	Current	Last Year	1981-2010 Median
February 1st							
Anchor River Divide	1653	39	29	---	10.1	8.7	8.8
Bertha Creek	950	26	24	44	7.0	5.0	12.4
Bridge Creek	1300	27	16	30	7.3	3.8	7.4
Cooper Lake	1200	23	16	---	6.3	6.1	11.3
Demonstration Forest	780	19	4	20	5.1	1.5	4.8
Exit Glacier	400	18	17	---	6.4	5.2	11.7
Grandview	1100	24	40	---	9.4	10.5	19.7
Grouse Creek Divide	700	17	20	---	6.0	7.7	12.3
Indian Pass	2350	44	39	---	12.5	9.6	16.6
Jean Lake	620	9	4	14	1.7	0.9	3.0
Kenai Moose Pens	300	12	13	---	2.5	2.5	3.6
Kenai Summit	1390	28	24	37	6.5	5.7	9.6
Moose Pass	700	11	7	20	2.6	0.9	4.9
Mt. Alyeska	1540	37	34	---	11.9	9.0	20.8
Port Graham	300	10	3	---	4.8	0.3	4.8
Portage Valley	50	17	21	26	7.7	3.3	8.4
Snug Harbor Road	500	6	2	15	2.3	0.2	3.6
Summit Creek	1400	23	17	---	5.4	5.2	8.1
Turnagain Pass	1880	58	63	---	15.7	17.2	23.0

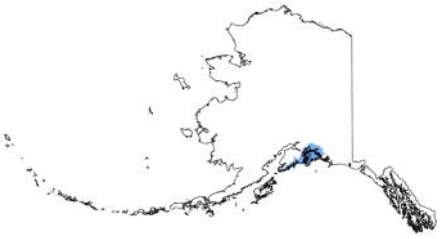
**Estimate*

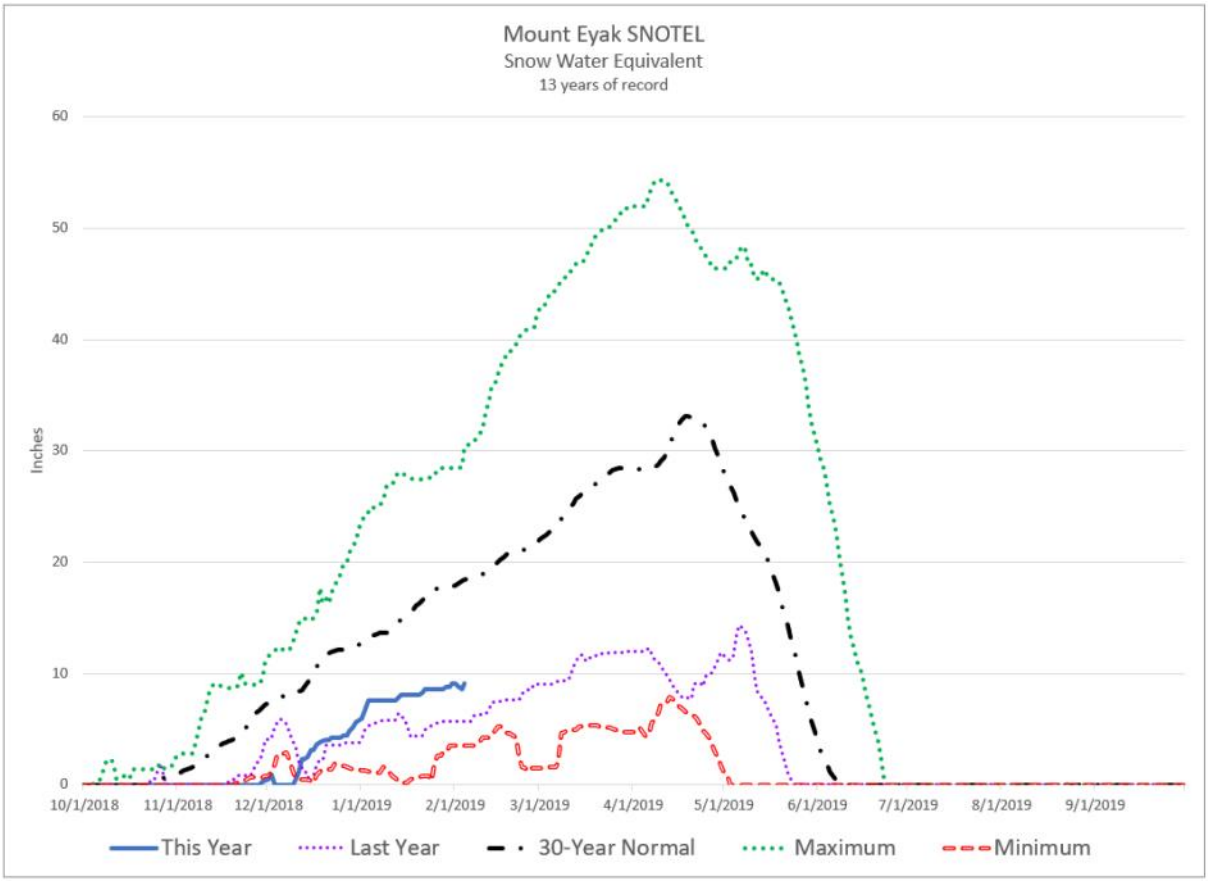
Precipitation

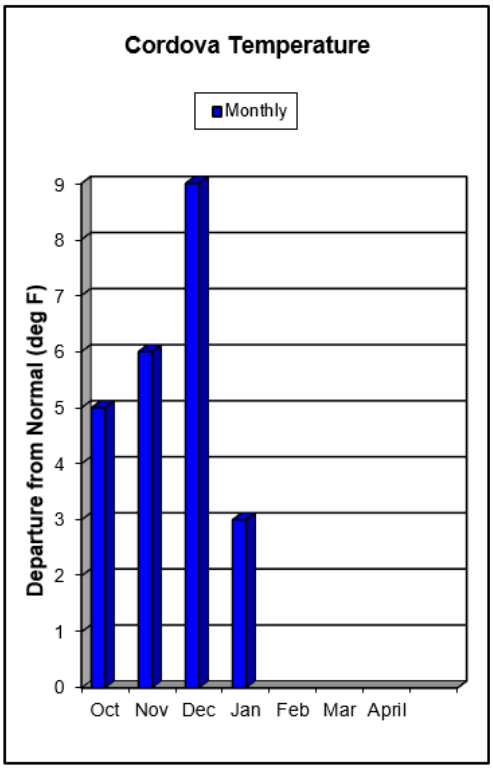
Inches Accumulated since October 1st (as of February 1, 20189

Site Name	Elev.	This Year	Last Year	1981-2010 Normal	% of Normal
Anchor River Divide	1653	18.7	9.7	12.5	150%
Cooper Lake	1200	20.1	14.1	20.0	101%
Grandview	1100	42.5	32.5	30.0	142%
Grouse Creek Divide	700	41.4	25.8	28.2	147%
Kachemak Creek	1660	49.7	42.0	30.6	162%
Kenai Moose Pens	300	6.5	2.2	6.3	103%
Mcneil Canyon	1320	14.9	8.3	13.0	115%
Middle Fork Bradley	2300	32.5	27.8	25.3	128%
Nuka Glacier	1250	53.8	49.9	41.3	130%
Port Graham	300	43.1	33.3	36.9	117%
Summit Creek	1400	14.7	8.9	11.9	124%
Turnagain Pass	1880	35.6	24.2	28.5	125%

Western Gulf – Prince William Sound







Snowpack

The Prince William Sound area has received above normal precipitation this winter; however, above normal temperatures meant that the precipitation often came as rain instead of snow. Therefore, like last year, the snowpack in this area varies by elevation. Higher elevation sites report above normal snowpacks, like Worthington Glacier snow course which is 116% of normal, while lower elevation sites, like Exit Glacier SNOTEL, are closer to half normal snowpack.

Western Gulf — Prince William Sound

Snowpack Data

Site Name	Elev.	Snow Depth			Water Content		
		Current	Last Year	1981-2010 Normal	Current	Last Year	1981-2010 Normal
December 1st							
Exit Glacier	400	0	8	18	0	1.3	3.2
Exit Glacier SNOTEL	400	0	8	---	0.0	1.4	3.5
Grouse Creek Divide	700	0	7	---	0.0	1.9	2.9
Mt. Eyak	1405	2	---	---	0.5	4.1	7.4
Nuka Glacier	1250	0	11	14	0.0	1.1	4.2
Upper Tsaina River	1750	28	10	---	5.8	1.3	5.2
January 1st							
Exit Glacier SNOTEL	400	20	16	---	4.8	3.7	8.0
Grouse Creek Divide	700	17	22	---	5.3	5.0	8.3
Mt. Eyak	1405	26	18	---	6.0	4.3	12.8
Upper Tsaina River	1750	55	44	---	12.8	11.6	9.3
February 1st							
Exit Glacier SNOTEL	400	18	17	---	6.4	5.2	11.7
Grouse Creek Divide	700	17	20	---	6.0	7.7	12.3
Mt. Eyak	1405	24	18	---	8.9	5.7	17.9
Tsaina River	1650	51*	53	48	12.7*	16.4	11.2
Upper Tsaina River	1750	66	64	---	15.7	16.9	12.9
Worthington Glacier	2100	68*	62	60	19.5*	19.4	16.8

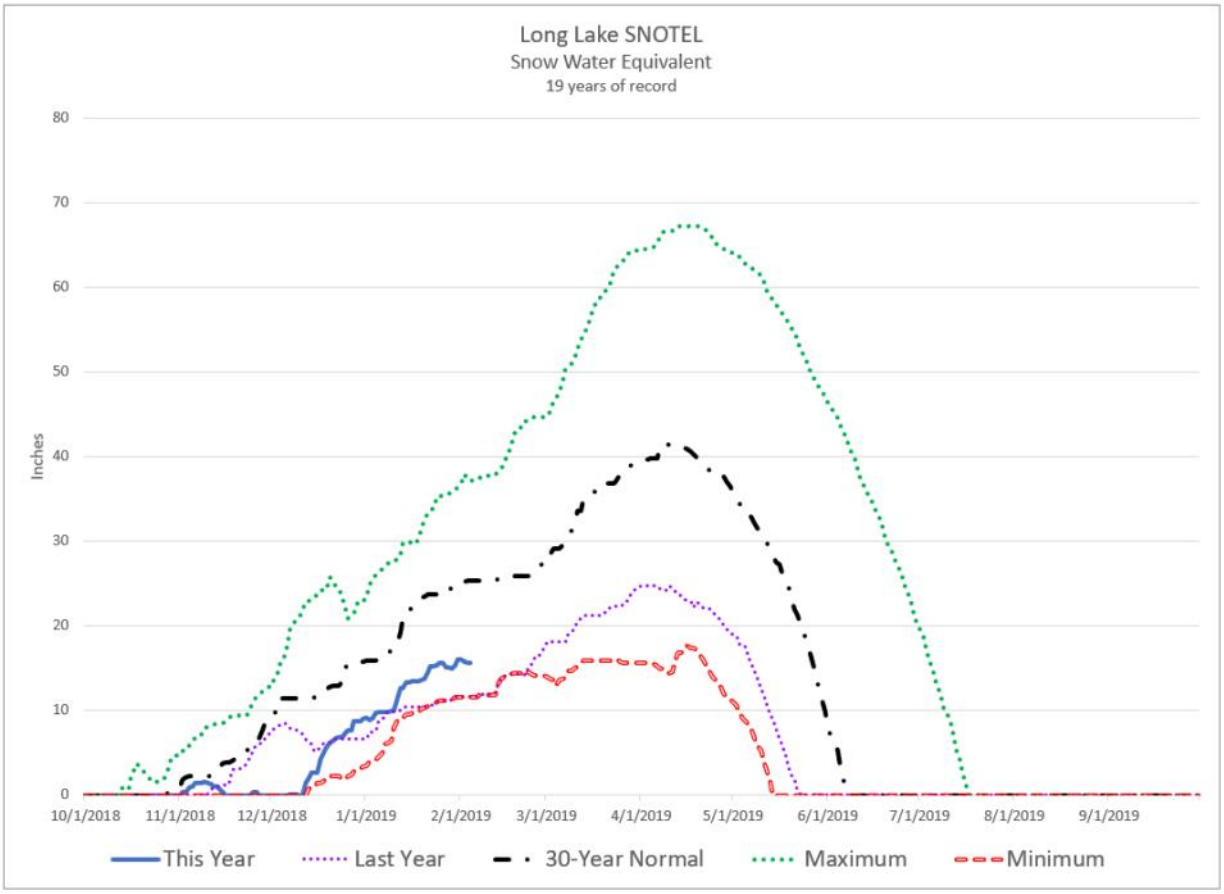
**Estimate*

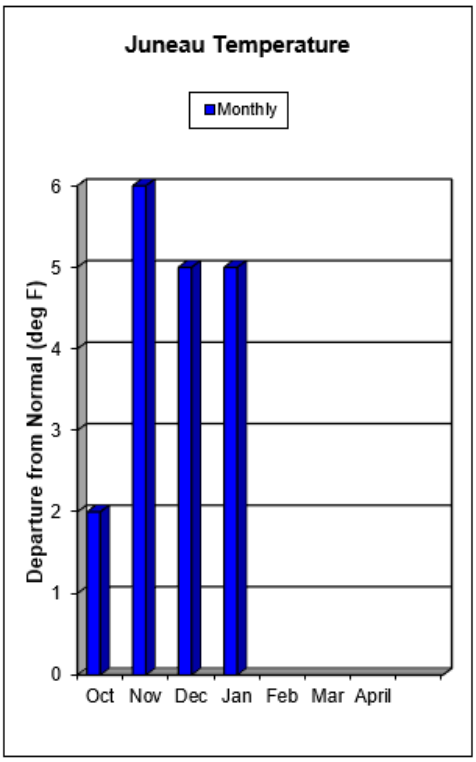
Precipitation

Inches Accumulated since October 1st (as of February 1, 2019)

Site Name	Elev.	This Year	Last Year	1981-2010 Normal	% of Normal
Esther Island	50	93.0	67.6	60.7	153%
Grouse Creek Divide	700	41.4	25.8	28.2	147%
Mt. Eyak	1405	59.2	49.2	---	---
Nuchek	50	79.5	58.1	---	---
Nuka Glacier	1250	53.8	49.9	41.3	130%
Port Graham	300	43.1	33.3	36.9	117%
Seal Island	20	40.7	28.6	---	---
Strawberry Reef	30	46.2	35.5	---	---
Sugarloaf Mtn	550	34.1	21.9	29.3	116%
Tatitlek	50	37.4	28.4	30.6	122%

Southeast





Snowpack

Southeast started the winter late. After mid-November snow quickly melted out, Long Lake SNOTEL began its seasonal snowpack on December 12th, 43 days after average, tying 2003 for the latest start. Southeast has near normal precipitation for the winter, but because of warmer temperatures, much of that precipitation came as rain instead of snow. As a result, snowpacks at measurement sites range between 40%-90% of normal snowpacks. Many low-lying areas have minimal snow or no snow. Alpine snowpacks are still below normal but are faring better than last year.

Southeast

Snowpack Data

Site Name	Elev.	Snow Depth			Water Content		
		Current	Last Year	1981-2010 Median	Current	Last Year	1981-2010 Median
December 1st							
Cropley Lake	1650	0	22	21	0.0	4.2	5.7
Eagle Crest	1200	0	17	6	0.0	3.1	1.0
Fish Creek	500	0	7	0	0.0	1.4	---
Heen Latinee	2065	0	21	---	0.0	2.8	---
Institute Creek	1350	0	19	---	0.0	4.6	---
Long Lake	850	0	31	---	0.0	7.7	9.5
Petersburg Reservoir	550	0	15	---	0.0	3.6	---
Petersburg Ridge, S.	1650	4	30	---	---	6.7	---
Rainbow Falls	500	0	5	---	0.0	1.2	---
West Creek	475	0	---	---	0.0		---
January 1st							
Heen Latinee	2065	18	13	---	3.0	3.1	---
Long Lake	850	32	14	---	9.2	6.6	15.9
February 1st							
Eagle Crest	1200	17	5	36	4.4	0.7	10.6
Fish Creek	500	0	4	14	0.0	0.6	3.1
Heen Latinee	2065	27	20	---	6.4	5.2	---
Long Lake	850	45	33	---	16.0	11.6	25.2
Moore Creek Bridge	2250	42	18	54	12.8	4.1	13.6
Petersburg Reservoir	550	0	18	16	0.0	2.6	3.7
Petersburg Ridge, S.	1650	29	25	48	9.9	6.0	16.7
West Creek	475	16	5	---	5.4	1.5	---

**Estimate*

Precipitation Data

Inches Accumulated since October 1st (as of February 1, 2019)

Site Name	Elev.	This Year	Last Year	1981-2010 Normal	% of Normal
Long Lake	850	76.9	80.3	75.0	103%
Heen Latinee	2065	29.1	---	---	---
Moore Creek Bridge	2250	24.3	24.5	20.1	121%

For further information contact:

NRCS Alaska web site: **www.nrcs.usda.gov/wps/portal/nrcs/main/ak/snow/**
NRCS Water and Climate Center web site: **http://www.wcc.nrcs.usda.gov/**
Alaska Meteor Burst Communication System (AMBCS) web site: **www.ambcs.org**

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