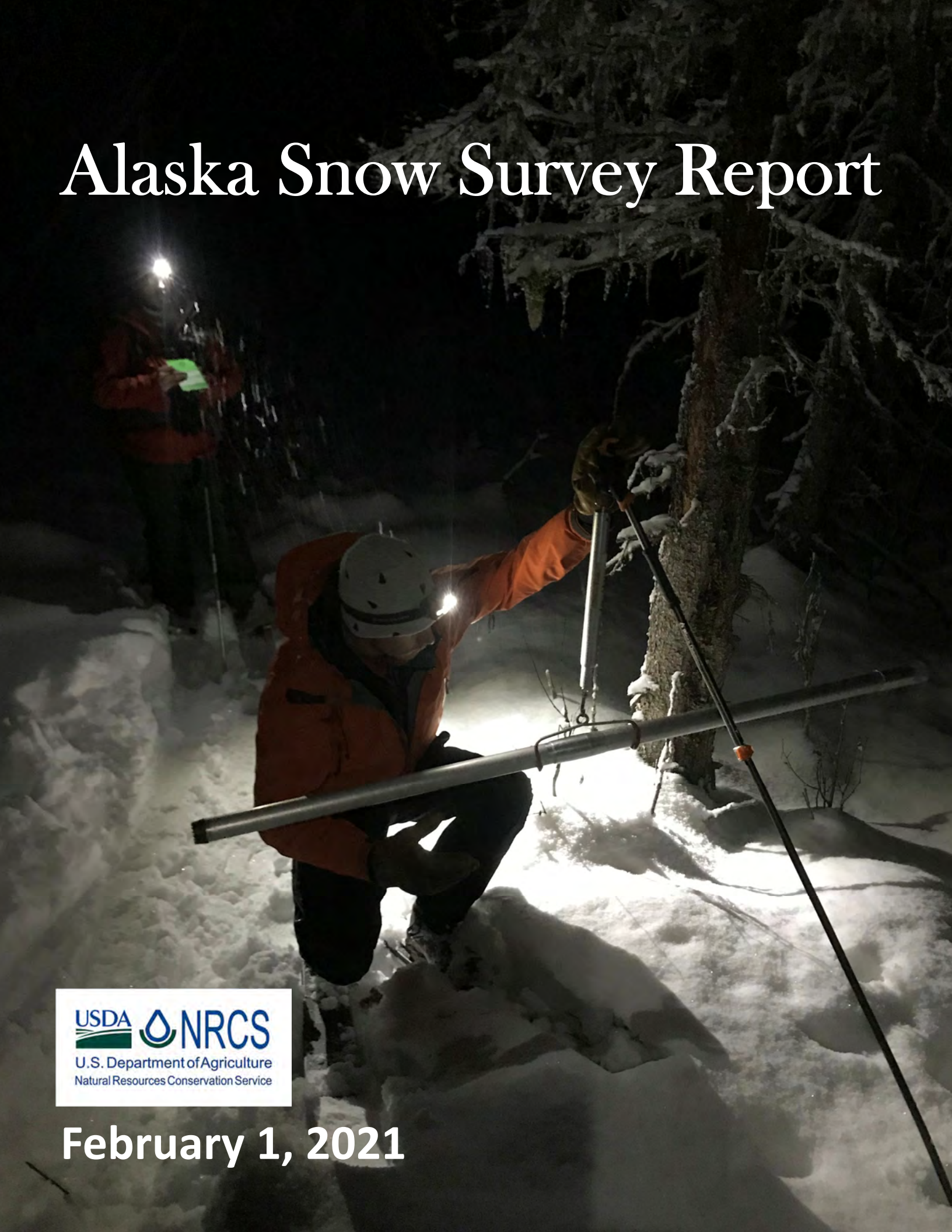
Alaska Snow Survey Report



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

February 1, 2021

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- Chugach National Forest
- Tongass National Forest

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- NOAA, Alaska Pacific RFC

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- U.S. Army Corps of Engineers

U.S. Department of Interior
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- Eagle School, Gateway School District

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- Ministry of the Environment
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United States Department of Agriculture

NRCS Natural Resources Conservation Service

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Cover Photo: NRCS Hydrologic Technician, Keegan Krantz, measures snow at the Willow Airstrip Snow Course while NRCS Soil Conservationist, Braden Pitcher takes notes, December 2020. Willow Airstip Snow Course was measured in February with 32" of snow depth and 6.8" of water content, 139% of normal.

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General Overview

SnowPack

Winter started late in much of the state. Several basins didn't start to develop snowpack until towards the end of October, two to three weeks late. However, by the end of November much of the state had near normal snowpacks. Southeast and the Kenai had much above normal snowpacks at that time, while portions of Southcentral, the Copper Valley and the Koyukuk languished with below average snowpacks.

An early December storm brought torrential rains to Southeast and set back the snowpack in much of this area and erased low-lying snow. Higher elevation snowpacks were able to recover over the rest of the month. Snowpacks in the rest of the state made only minor gains during December or kept pace with normal growth.

Over much of the state, a dry January brought minimal gains to the snowpack. Most Interior snowpacks gained less than half of normal January snow. This leaves most Interior basins with snowpacks ranging from 70% average to near average. Similarly portions of the Copper Valley and the Matanuska-Susitna area vary from 80% to 110% of normal snowpack.

Southeast snowpack made decent gains during January. Low elevation sites are still only a quarter of average, but higher sites range from near average to 127% of average. Flower Mountain SNOTEL, near Haines, is only 4 years old, but is reporting its highest ever snowpack with 98" of snow and 31.1" of water content. This is 5" more water content than it peaked with last April.

The Kenai and north Cook Inlet made substantial gains during January, many locations accumulating twice average January snowfall. Snowpack in the mountains here ranges from 130% to 240%. This area hasn't seen this much snow since 2012 or 2001. Kenai Summit and Moose Creek Snow Course haven't had this much snow on February 1st since 1980. Grouse Creek SNOTEL set a new February 1st record with 57" of snow depth and 23.1" of water content, 206% of average. Turnagain Pass SNOTEL had 125" of snow depth with 33.6" of water content, its deepest February 1st reading since 2001.

General Overview

Precipitation

October started this winter's precipitation with lackluster fare. All major basins reported below average monthly precipitation. However, parts of the Tanana and Southcentral captured above normal amounts and late month storm systems started the snowpack off in many locations.

November started off with a substantial storm event across much of mainland Alaska which provide the bulk of November's precipitation. However, this event missed the upper Tanana Valley and eastern Copper Valley. Southeast generally had average precipitation for the month.

That changed for Southeast in December; they got clobbered with an early December storm system which set rainfall records and obliterated low-lying snowpacks. Many Southeast sites received 170-270% of average December precipitation. The northern gulf coast reaching up into the Copper Valley received above normal precipitation for December as well, but much of the rest of the state started drying up. Many Interior basins and parts of Southcentral only received only three quarters average monthly precipitation.

January continues this precipitation disparity. Generally, parts of the state near the Gulf of Alaska received above normal precipitation, while Interior basins logged less than half of average January snowfall.

For the winter totals, Gulf regions have had near to above normal precipitation while Interior basins range from 75% of normal to near average.

Temperature

Once again, it has been a warm winter. October started mixed with most areas of the state having near average monthly temperatures. However, western Alaska was above normal with Nome and Bethel being 7°F and 6°F above October normals (81-2010 30-year average) and in the Arctic, Utqiaġvik was 13° above average.

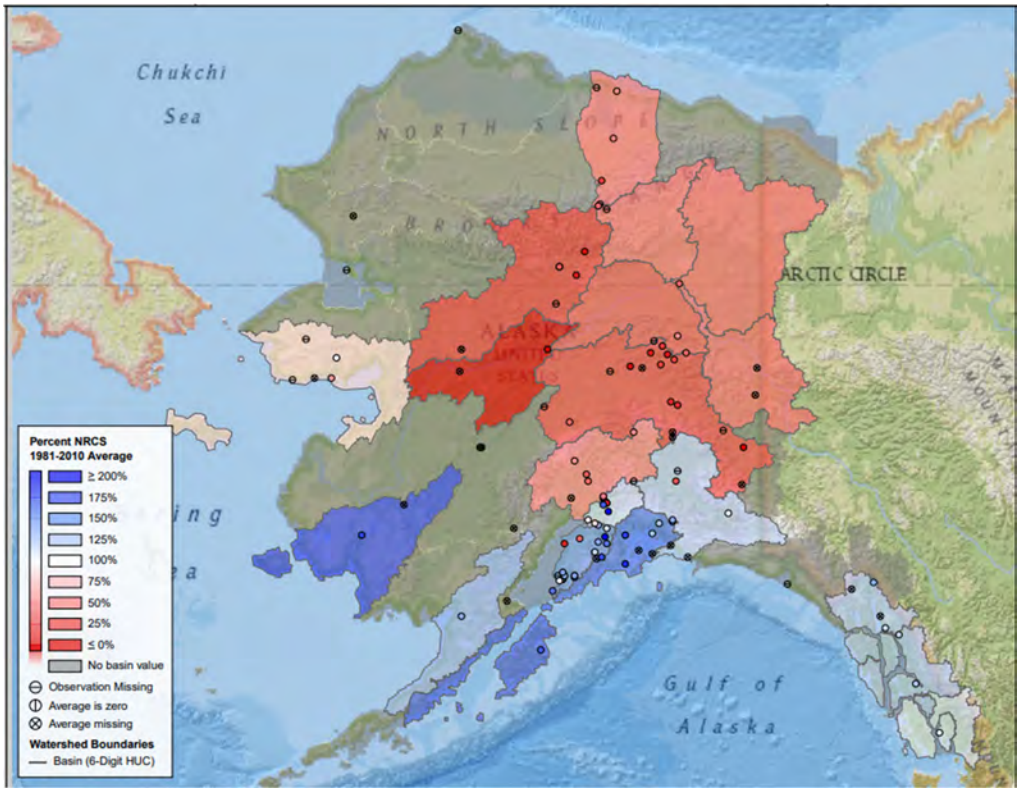
November briefly started cold across the state, but temperatures quickly rebounded and most areas ended near average for the month. However, as in October, western and Arctic Alaska were much above normal for November. Nome ended November with a monthly temperature 10°F above normal and Bethel 8°F, and Utqiaġvik, 16°F above normal.

Then along came December. Despite the odd few cold snaps, monthly temperatures were well above normal all over the state and the trend continued into January. Fort Yukon was 16°F above normal in December and 11°F above normal in January. Bettles was 12°F and 13°F normal for the two months. Juneau was 10°F and then 11° above average. There were no parts of the state which experienced below normal monthly average temperatures in December and January. Interestingly, the Arctic and western Alaska shifted closer to average monthly temperatures during this time with Nome and Bethel only being 3°F above normal in January and Utqiaġvik only 8°F above normal.

Alaska Statewide Precipitation Maps

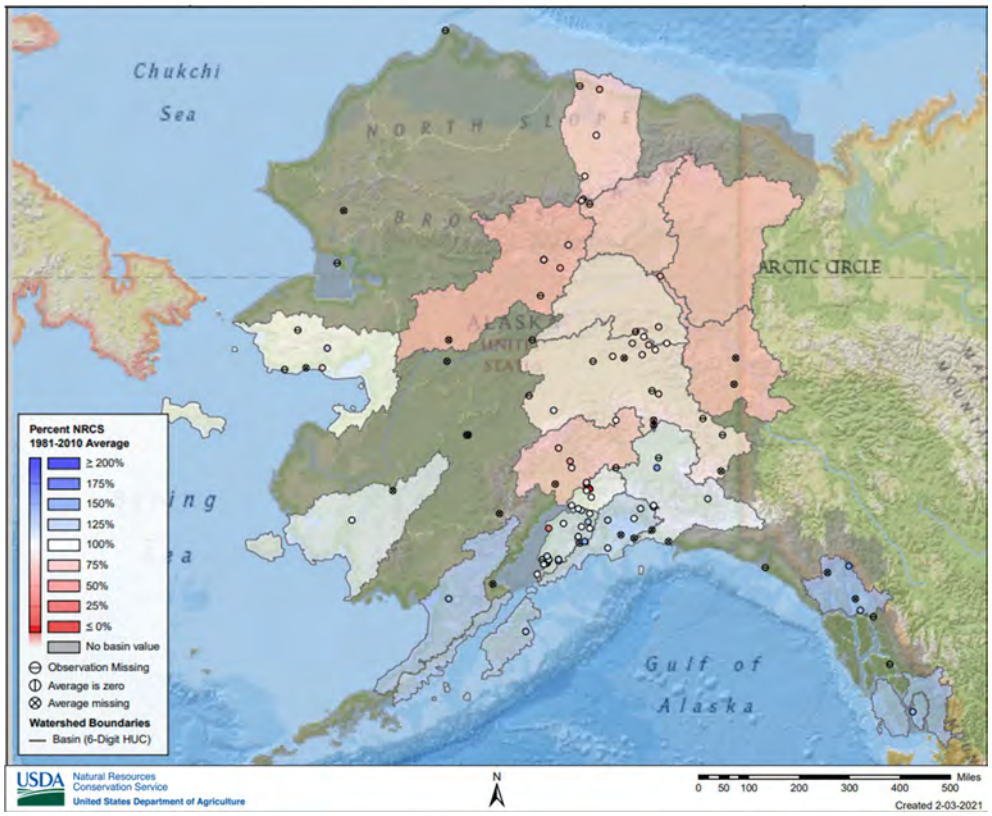
Monthly Precipitation for January, 2021

(% of NRCS 81-2010 Average)



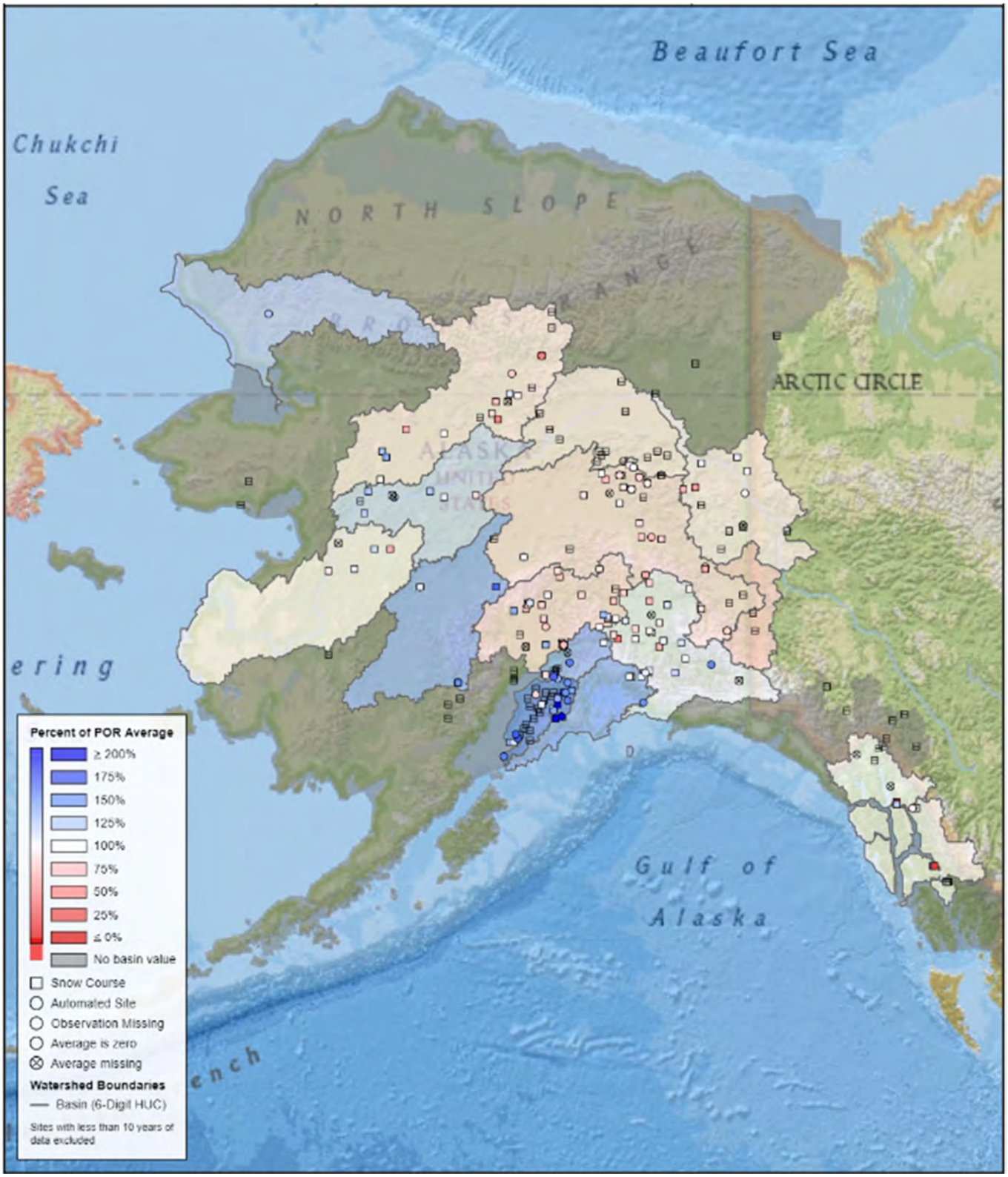
Water Year-to-date Precipitation (Oct. 1-Jan. 31, 2021)

(% of NRCS 81-2010 Average)



Alaska Statewide Snowpack Map

Based on February 1st, 2021 Snow Water Equivalent



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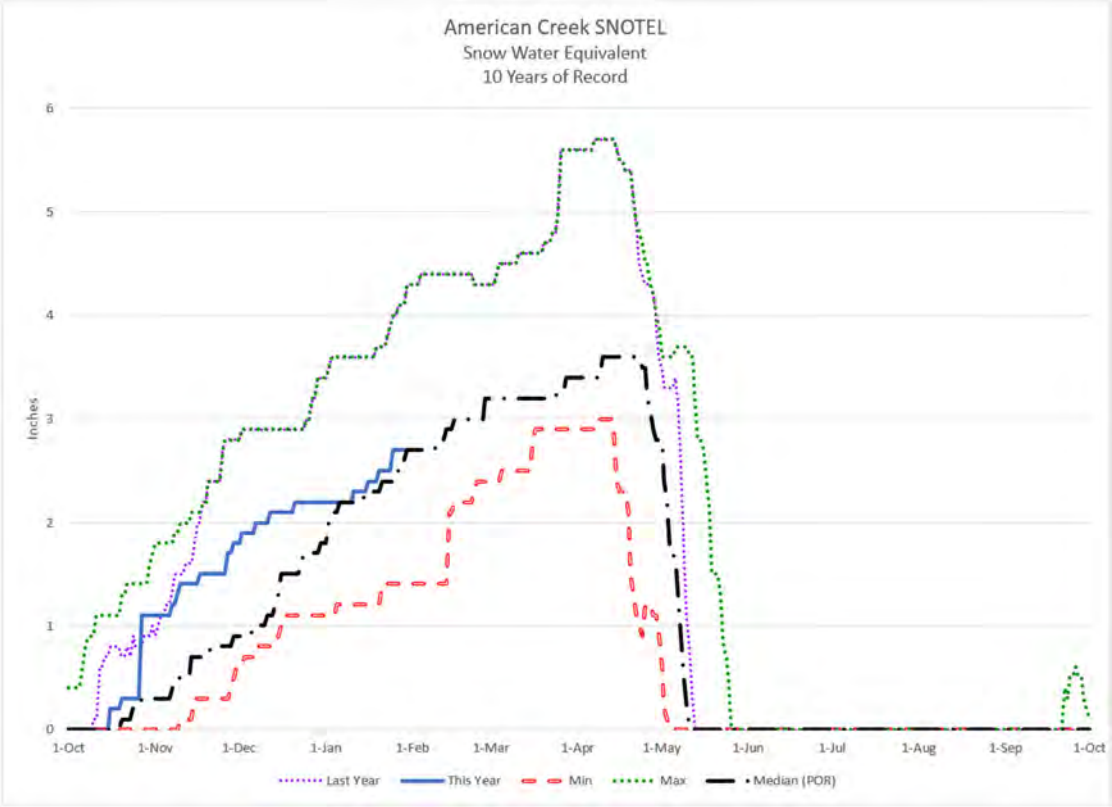
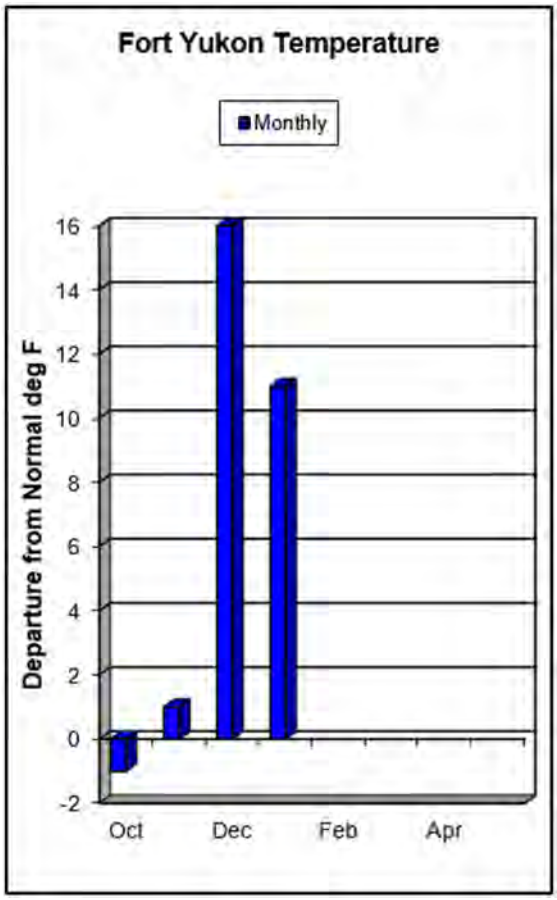
United States Department of Agriculture

Central Yukon Basin





Snowpack

The snowpack in the Central Yukon basin ranges from below normal to near normal and has received below average precipitation this winter. October delivered only half of normal precipitation and gave the snowpack a slow start. A major storm system in November pushed the snowpack into above average conditions, but moderate December snowfall and a dry January made only minor contributions to the snowpack.

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	14	12	---	2.8	1.8	---
Atigun Pass	4800	42	20	---	---	---	---
Circle Hot Springs	860	22	13	---	3.0	2.0	---
Hess Creek	1000	24	14	---	3.1	2.1	---
Ptarmigan Creek	2270	20	8	---	3.2	1.1	---
Seven Mile	600	22	18	---	3.2	2.6	---
Stack Pup Creek	1620	22	13	---	2.8	2.0	---
Thirty Mile	1350	39	21	---	5.5	4.2	---
Upper Nome Creek	2520	22	7	---	3.5	---	---
January 1st							
American Creek	1050	18	13	---	3.4	2.2	---
Atigun Pass	4800	37	33	---	---	---	---
Eagle Summit	3650	7	8	---	---	---	---
Fort Yukon	430	11	16	---	---	---	---
Jack Wade Jct	3585	24	---	---	4.6	2.9	---
Upper Nome Creek	2520	23	12	---	4.8	---	---
February 1st							
American Creek	1050	13	24	---	2.7	4.3	---
Atigun Pass	4800	37	36	---	---	---	---
Cathedral Creek	1800	22	---	---	3.6*	---	---
Coal Creek	1000	16	---	---	2.7*	---	---
Copper Creek	2000	10	---	---	1.6*	---	---
Crescent Creek	2600	9	---	---	1.5*	---	3.6
Eagle Summit	3650	8	9	---	---	---	---
Fort Yukon	430	9	13	---	---	---	3.8
Step Mountain	2850	23	---	---	3.8*	---	---

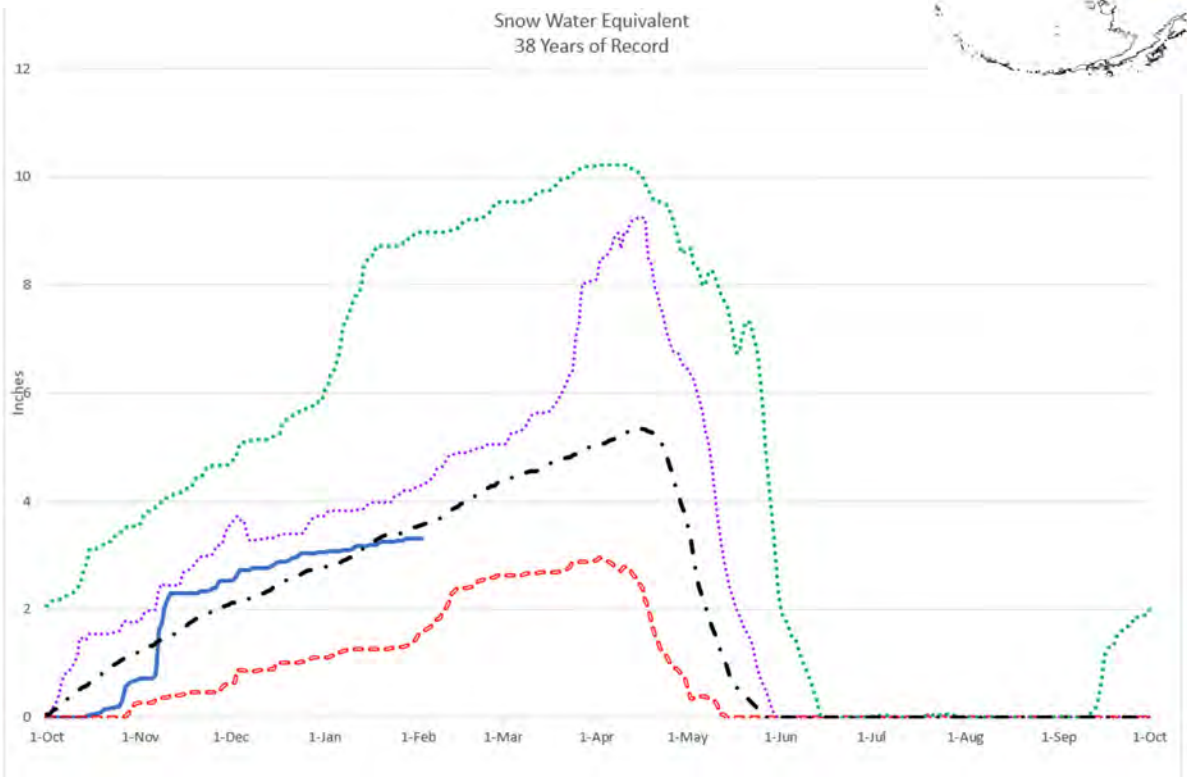
**Estimate*

Precipitation

Inches Accumulated since October 1st (as of February 1, 2021)

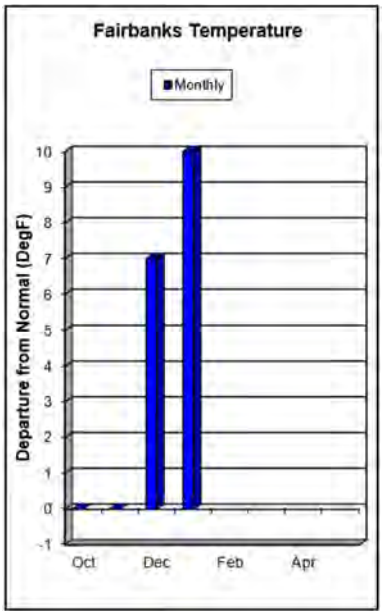
Site Name	Elev.	This Year	Last Year	1981-2010 Normal	% of Normal
American Creek	1050	2.6	4.4	---	---
Atigun Pass	4800	3.0	4.2	3.9	77%
Chandalar Camp	3300	2.3	4.6	3.1	74%
Eagle Summit	3650	3.2	5.0	3.9	82%
Fort Yukon	430	1.9	3.0	2.6	73%
Jack Wade Jct	3585	3.9	6.0	---	---
Upper Nome Creek	2520	---	7.4	3.7	---

Tanana Basin



Snowpack

The Tanana basin ranges from near average snowpack in the Chatanika and Chena basins to below average up-valley near Delta Junction and Tok. The seasonal snowpack started two to three weeks late in the lower basin with a late October storm heralding the start of the snow season. This storm combined with an early November storm brought most of the snow this winter to the lower valley. November precipitation totals were near twice average in the lower valley but considerably less in the drier, upper Tanana. December was drier over the whole valley and January drier still. What was considered an above normal snowpack at the end of November is now only near or below average.



Precipitation

Inches Accumulated since October 1st (as of February 1, 2021)

Site Name	Elev.	This Year	Last Year	1981-2010 Normal	% of Normal
Chisana	3320	2.4	4.0	---	---
Granite Crk	1240	2.5	5.9	3.2	78%
Kantishna	1550	3.8	6.2	3.5	109%
Little Chena Ridge	2000	3.3	5.2	4.1	80%
Nenana	415	2.5	5.7	---	---
Tok	1630	---	---	---	---
Upper Chena	2850	4.5	---	4.8	94%

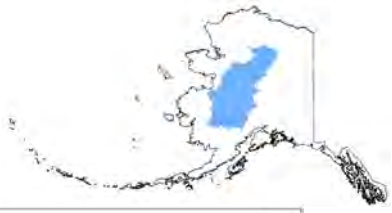
Tanana Basin

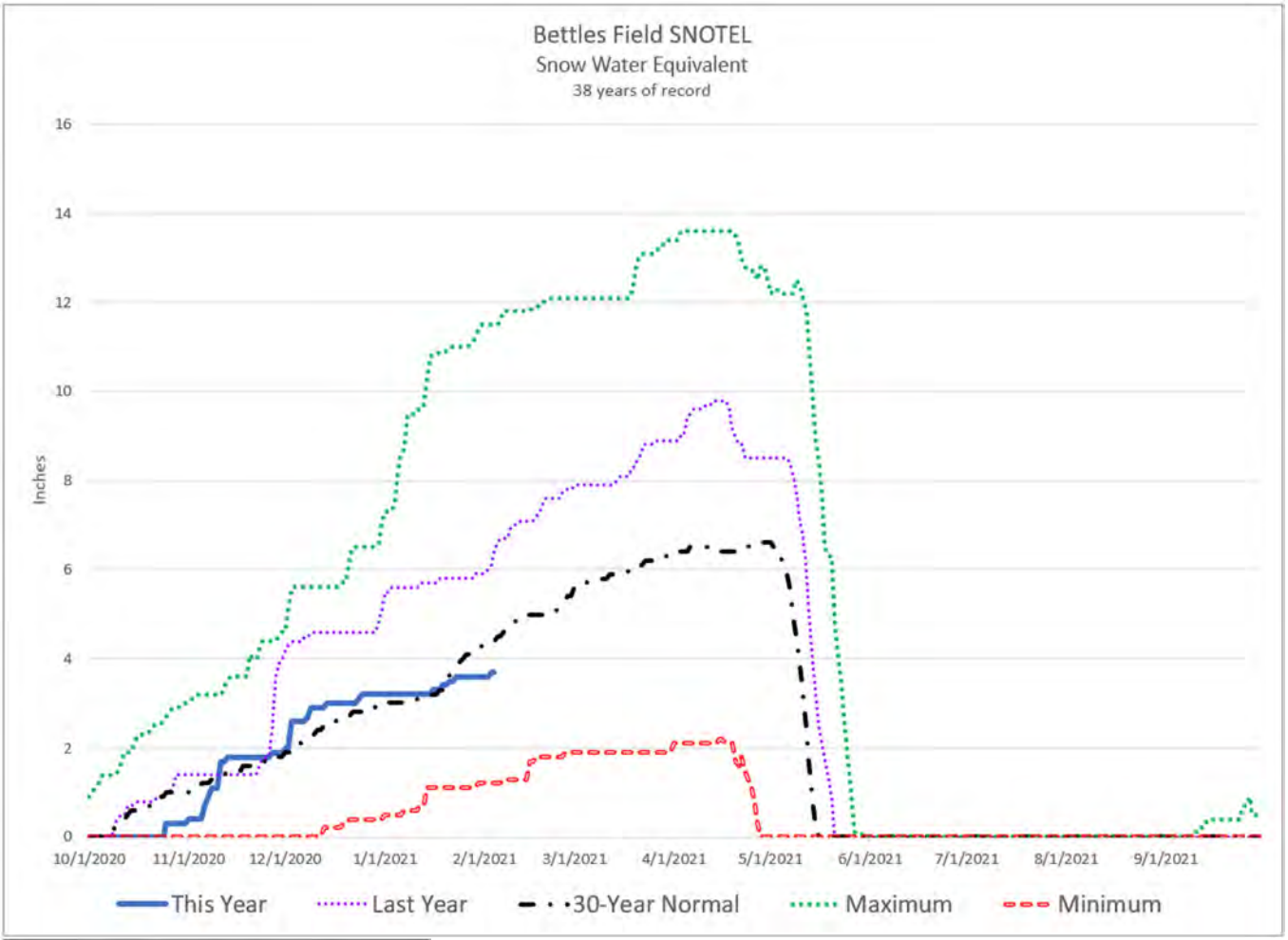
Snowpack Data

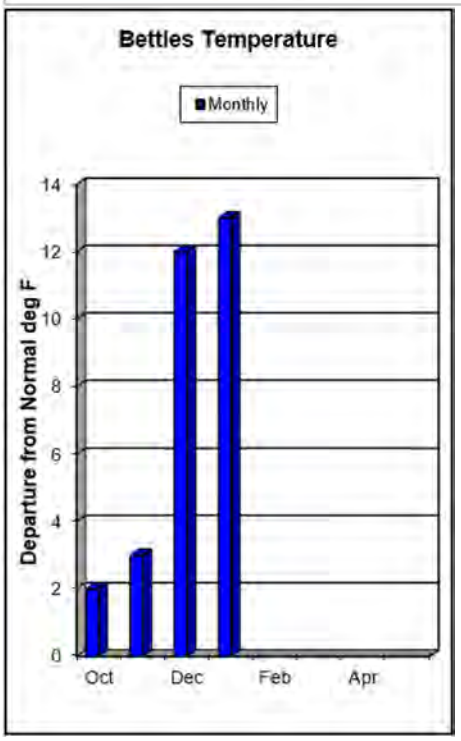
Site Name	Elev.	Snow Depth			Water Content		
		Current	Last Year	1981-2010 Normal	Current	Last Year	1981-2010 Normal
December 1st							
Bonanza Creek	1150	15	---	---	2.5	---	---
Caribou Creek	1250	14	---	12	2.5	---	1.6
Caribou Snow Pillow	900	14	---	12	2.5	---	1.6
Chisana	3320	7	---	---	1.2	---	1.9
Cleary Summit	2230	18	---	---	3.5	---	---
Colorado Creek	700	15	---	---	2.6	---	---
Faith Creek	1750	15	---	8	2.4	---	1.5
Fielding Lake	3000	19	---	---	3.4	---	---
Fort Greely	1500	11	---	10	1.4	---	1.3
French Creek	1800	18	---	16	3.6	---	2.6
Gerstle River	1200	12	---	11	1.7	---	1.6
Granite Crk	1240	10	---	---	1.7	---	1.6
Lost Creek	3030	11	---	---	1.7	---	---
Monument Creek	1850	13	15	---	2.6	2.6	1.8
Mt. Ryan	2800	14	23	---	2.9	4.4	2.0
Munson Ridge	3100	20	28	---	4.5	5.3	3.5
Shaw Creek Flats	980	9	---	10	1.3	---	1.2
Teuchet Creek	1640	12	11	---	2.2	2.5	1.6
January 1st							
Chisana	3320	11	11	---	2.0	2.0	2.2
Fielding Lake	3000	22	45	---	4.3	12.9	---
Granite Crk	1240	11	19	---	2.1	3.8	2.2
Monument Creek	1850	14	14	---	2.9	3.4	2.5
Mt. Ryan	2800	16	23	---	3.6	5.1	2.7
Munson Ridge	3100	21	28	---	5.2	5.9	4.1
Teuchet Creek	1640	13	15	---	2.4	3.5	2.1
February 1st							
Bonanza Creek	1150	15	---	18	3.5	---	3.4
Caribou Creek	1250	16	---	16	3.5	---	2.7
Caribou Snow Pillow	900	16	---	17	3.7	---	2.9
Chisana	3320	12	14	---	2.1	2.4	3.4
Cleary Summit	2230	20	---	22	3.8	---	4.0
Colorado Creek	700	19	---	18	3.3	---	3.0
Faith Creek	1750	21	---	22	3.6	---	3.2
Fielding Lake	3000	30	---	32	5.4	---	6.6
Fielding Lake	3000	26	45	---	5.0	13.9	---
Fort Greely	1500	14	---	14	2.0	---	2.4
French Creek	1800	22	---	19	4.6	---	3.9
Gerstle River	1200	14	---	16	2.0	---	2.4
Granite Crk	1240	12	22	---	2.2	4.3	3.0
Kantishna	1550	17	---	20	3.6*	---	3.2
Lost Creek	3030	13	---	---	2.1	---	---
Mentasta Pass	2430	20	---	22	4.0	---	4.0
Monument Creek	1850	16	19	---	3.1	4.1	3.1
Mt. Ryan	2800	19	27	---	4.1	5.8	3.6
Munson Ridge	3100	25	32	---	5.6	6.5	5.0
Shaw Creek Flats	980	12	---	13	2.0	---	2.0
Teuchet Creek	1640	15	19	---	2.8	4.1	2.8
Tok Junction	1650	16	---	17	2.0	---	2.6

**Estimate*

Western Interior Basins







Snowpack

Koyukuk

Like much of the Interior, the snowpack started late but was boosted by early November snowfall. However, a dry December and drier January has left the Koyukuk with below normal snowpack.

Kuskokwim

The Kuskokwim basin is considerably drier than last year, but still has had slightly above normal precipitation this winter. Snowpack ranges from slightly below normal to above normal. Telaquana Lake SNOTEL is reporting its most robust Feb. 1st snowpack in its 7-year life.

Lower Yukon

The Lower Yukon has less snow than the last couple of years but is near historical average. Galena AK SNOTEL has 20" of snow with 3.8" of water content.

Western Interior Basins

Precipitation

Inches Accumulated since October 1st (as of February 1, 2021)

Site Name	Elev.	This Year	Last Year	1981-2010 Normal	% of Normal
Koyukuk					
Bettles Field	640	3.5	7.6	4.6	76%
Coldfoot	1040	3.4	6.8	4.3	79%
Gobblers Knob	2030	3.4	6.1	5.1	67%
Hozatka Lake	206	4.0	4.9	---	---
Galena AK	410	4.2	5.5	---	---
Kuskokwim					
Aniak	80	6.6	8.2	---	---
McGrath	340	5.4	11.7	---	---
Telaquana Lake	1275	6.0	9.0	---	---

Snowpack Data

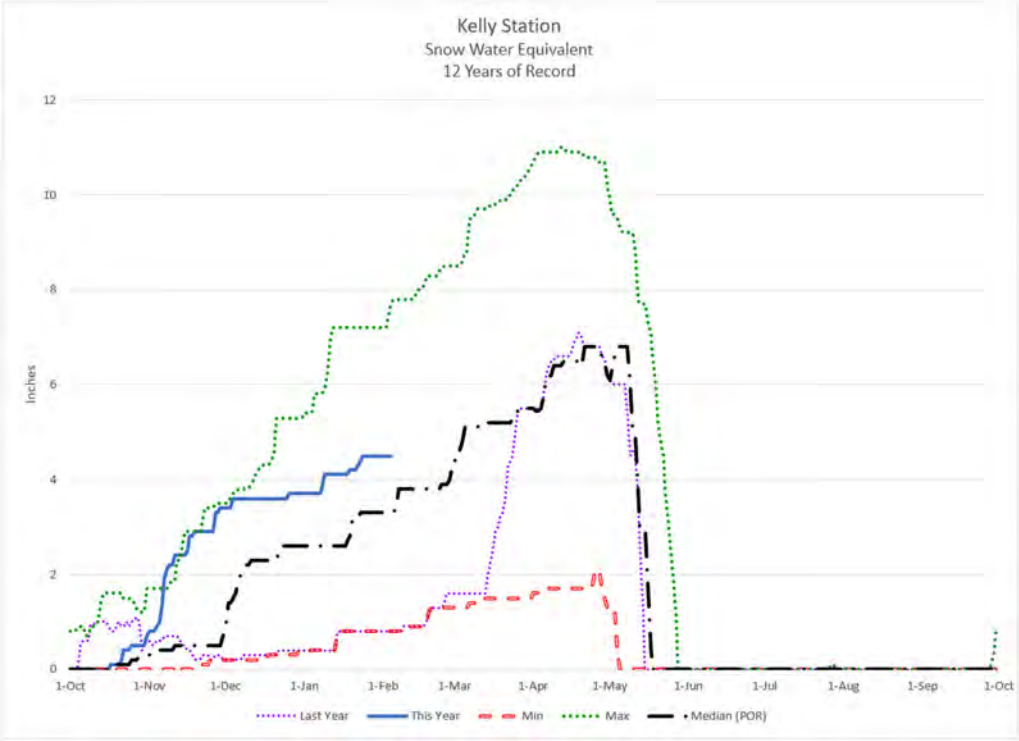
		Snow Depth			Water Content		
Site Name	Elev.	Current	Last Year	1981-2010 Median	Current	Last Year	1981-2010 Median
Koyukuk							
December 1st							
Bettles Field	640	12	79	---	2.0	4.2	1.9
Coldfoot	1040	9	---	---	1.1	---	2.1
Gobblers Knob	2030	5	13	---	---	---	---
January 1st							
Bettles Field	640	16	---	---	3.2	5.5	3.0
Cloverleaf	170	24	15	---	---	---	---
Coldfoot	1040	13	32	---	2.1	5.2	2.8
Colville Bend	170	20	15	---	---	---	---
Gobblers Knob	2030	3	9	---	---	---	---
Huggins Creek	290	19	31	---	---	---	---
Jr Slough	160	22	18	---	---	---	---
Treat Island	190	8	27	---	---	---	---
February 1st							
Bettles Field	640	19	---	---	3.6	5.9	4.3
Cloverleaf	170	31	21	---	5.9*	4.2	---
Coldfoot	1040	14	26	---	2.2*	5.5	4.2
Colville Bend	170	30	24	---	5.6*	5.1	---
East Chalatna	430	15	---	---	2.4*	---	---
Gobblers Knob	2030	3	2	---	---	---	---
Huggins Creek	290	22	31	---	4.2*	6.8	---
Jr Slough	160	27	27	---	4.4*	5.4	---
Kaldoyeit	750	24	---	---	4.3*	---	---
Kanuti Chalatna	670	18	---	---	3.2*	---	---
Kanuti Kilolitna	550	12	---	---	2.0*	---	---
Minnkokut	580	34	---	---	6.0*	---	---
Nolitna	560	24	---	---	4.1*	---	---
Treat Island	190	12	21	---	2.5*	4.6	---

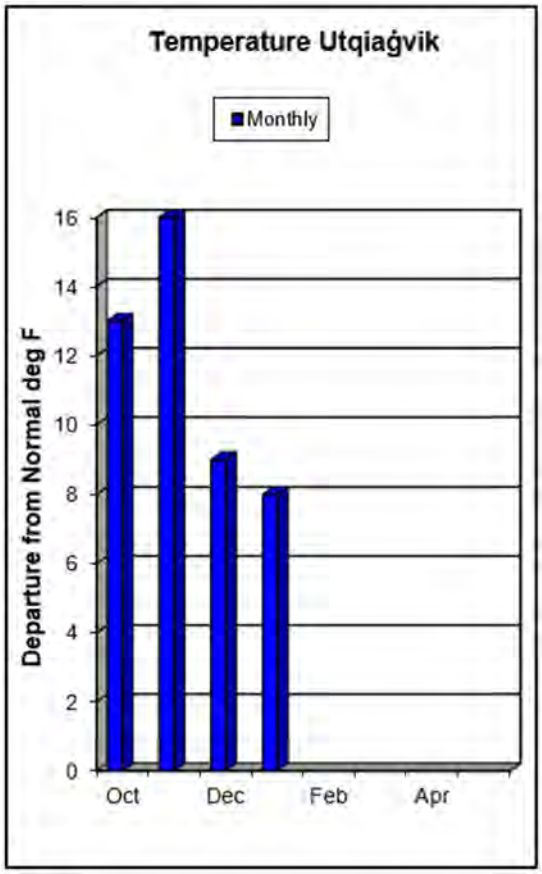
Western Interior

Site Name	Elev.	Snow Depth			Water Content		
		Current	Last Year	1981-2010 Median	Current	Last Year	1981-2010 Median
Kuskokwim							
December 1st							
Aniak	80	6	---	---	---	---	---
McGrath	340	13	32	---	3.6	7.0	---
Telaquana Lake	1550	14	16	---	2.4	2.0	---
Telaquana Lake	1275	11	15	---	3.0	2.1	---
January 1st							
Aniak	80	9	8	---	---	---	---
McGrath	340	18	49	---	4.8	10.4	---
Telaquana Lake	1550		20	---	---	3.5	---
Telaquana Lake	1275	15	21	---	3.9	4.0	---
February 1st							
Aniak	80	13	13	---	---	---	---
Mcgrath	340	22	---	23	5.0	---	4.1
McGrath	340	22	34	---	5.6	10.5	---
Purkeypile Mine	2025	29	---	19	6.0	---	3.4
Telaquana Lake	1550	20	21	---	4.1	4.3	---
Telaquana Lake	1275	19	18	---	4.7	4.4	---
Lower Yukon							
December 1st							
Galena AK	410	10	---	---	2.0	---	---
Galena Ecological Site	128	16	17	---	1.9	2.1	---
Hozatka Lake	206	8	---	---	---	---	---
January 1st							
Bullfrog	100	32	32	---	---	---	---
Deer Creek	195	24	36	---	---	---	---
Galena AK	410	15	23	---	3.1	4.1	---
Hozatka Lake	206	13	16	---	---	---	---
Little Mud River	855	12	24	---	---	---	---
Lower Nowitna River	205	18	27	---	---	---	---
Middle Innoko	150	25	31	---	---	---	---
Ninemile Island	140	30	---	---	---	---	---
Pike Trap Lake	130	13	19	---	---	---	---
Squirrel Creek	150	31	32	---	---	---	---
Upper Innoko	180	20	36	---	---	---	---
Wapoo Hills	220	36	43	---	---	---	---
Yankee Slough	100	27	33	---	---	---	---
February 1st							
Bullfrog	100	36	31	---	7.4*	7.2	---
Deer Creek	195	33	42	---	6.1*	9.7	---
Galena AK	410	20	22	---	3.8	4.4	---
Galena Ecological Site	128	24	---	---	3.8	---	---
Hozatka Lake	206	17	16	---	---	---	---
Little Mud River	855	15	32	---	2.8*	8.0	---
Lower Nowitna River	205	21	33	---	4.0*	7.9	---
Middle Innoko	150	32	29	---	6.3*	7.5	---
Pike Trap Lake	130	16	20	---	3.1*	4.2	---
Squirrel Creek	150	33	29	---	6.9*	6.1	---
Upper Innoko	180	21	33	---	4.3*	8.3	---
Wapoo Hills	220	40	41	---	8.8*	11.5	---
Yankee Slough	100	31	32	---	6.1*	8.6	---

**Estimate*

Arctic and Kotzebue Sound





Snowpack

Arctic

The stations along the Dalton Highway have reported below normal precipitation winter and have a mix of snow depths that are both and below average. However, the airport at Utqiaġvik has reported much above normal precipitation this winter.

Kotzebue

Precipitation in northwest Alaska has been slightly above normal this winter resulting in an above normal snowpack at monitoring locations. After significant gains in November, Kelly Station SNOTEL had 20” of snow with 3.5” of water content on February 1st, 127% of its 13-year average.

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	42	20	---	---	---	---
Imnaviat Creek	3050	15	12	---	---	---	---
Prudhoe Bay	30	5	9	---	---	---	---
Sagwon	1000	19	8	---	---	---	---
January 1st							
Atigun Pass	4800	37	33	---	---	---	---
Imnaviat Creek	3050	16	12	---	---	---	---
Kelly Station	310	4	15	---	0.4	3.5	---
Prudhoe Bay	30	4	7	---	---	---	---
Sagwon	1000	21	17	---	---	---	---
February 1st							
Atigun Pass	4800	36	36	---	---	---	---
Imnaviat Creek	3050	15	15	---	---	---	---
Kelly Station	310	6	19	---	0.8	3.9	---
Prudhoe Bay	30	8	7	---	---	---	---
Sagwon	1000	18	23	---	---	---	---

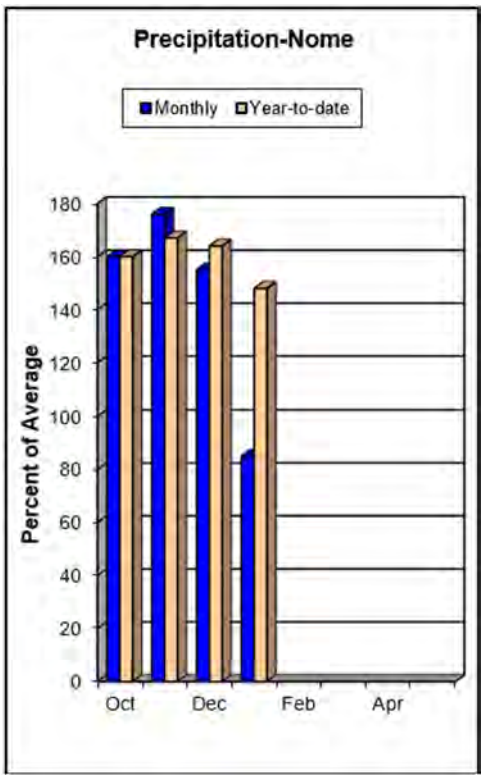
**Estimate*

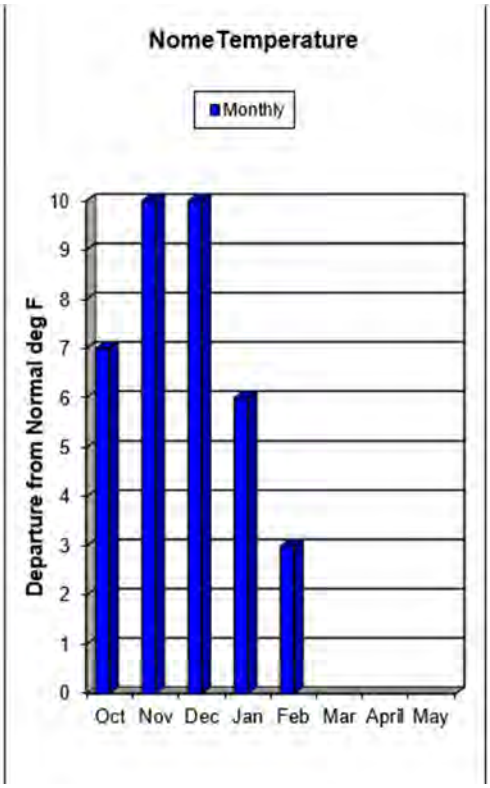
Precipitation

Inches Accumulated since October 1st (as of February 1, 2021)

Site Name	Elev.	This Year	Last Year	1981-2010 Normal	% of Normal
Arctic					
Atigun Camp	3400	1.4	2.2	1.7	82%
Atigun Pass	4800	3.0	4.2	3.9	77%
Imnaviat Creek	3050	1.9	1.6	2.1	90%
Prudhoe Bay	30	1.3	2.2	2.0	65%
Sagwon	1000	1.9	2.4	2.1	90%
Kotzebue Sound					
Port Red Dog	50	2.2	---	2.7	81%
Red Dog Mine	950	4.4	---	3.3	133%
Kelly Station	310	6.0	3.2	---	---

Norton Sound/Y-K Delta/Bristol Bay





Snowpack

The Seward Peninsula has had variable precipitation this winter. Nome is reporting above average precipitation while the SNOTEL sites to the east have reported below normal amounts. November brought above normal snowfall, but not enough to create above normal snowpack at the monitoring sites.

Precipitation

Inches Accumulated since October 1st (as of February 1, 2021)

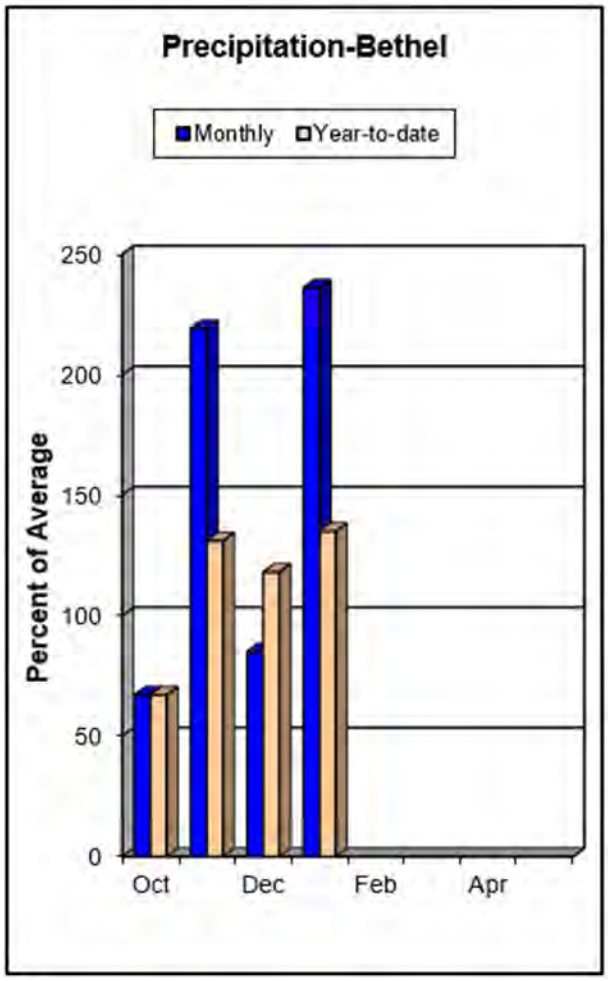
Site Name	Elev.	This Year	Last Year	1981-2010 Normal	% of Normal
Norton Sound					
Pargon Creek	100	4.8	4.3	3.9	123%
Rocky Point	250	3.2	4.2	4.1	78%

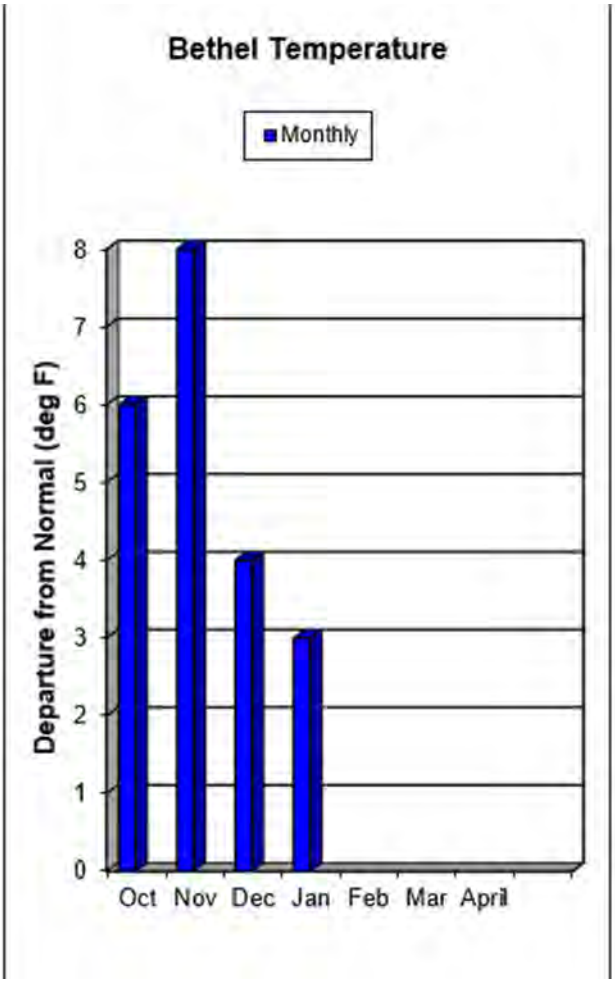
Norton Sound/Bristol Bay

Snowpack Data

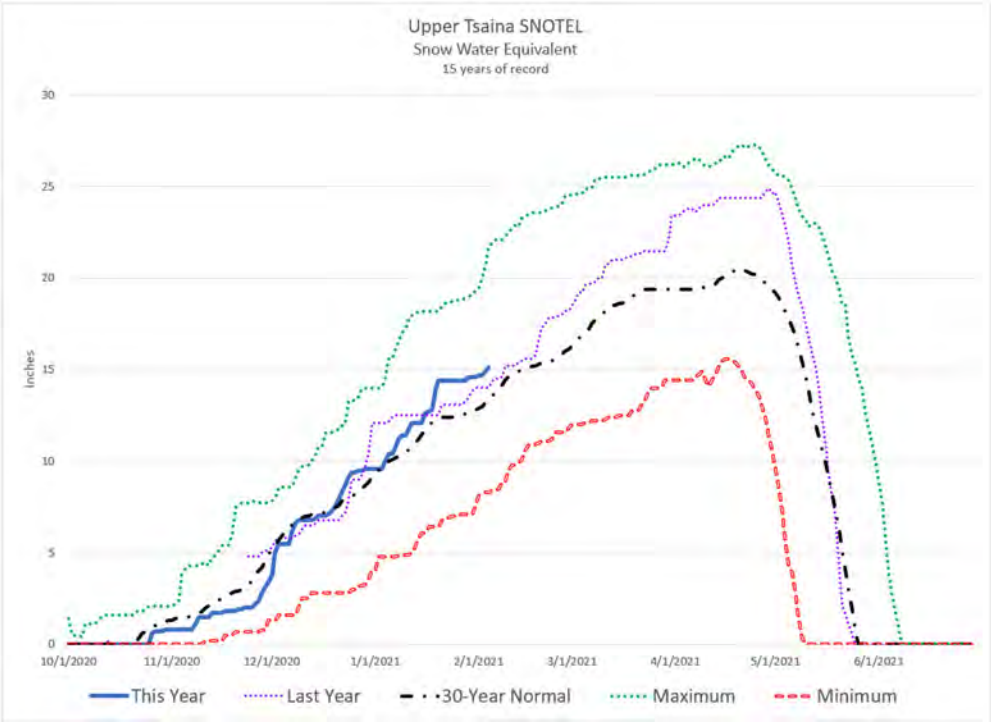
Site Name	Elev.	Snow Depth			Water Content		
		Current	Last Year	1981-2010 Median	Current	Last Year	1981-2010 Median
Norton Sound							
December 1st							
Johnsons Camp	25	5	2	---	---	---	---
Pargon Creek	100	1	---	---	---	---	---
Rocky Point	250	9	1	---	---	---	---
January 1st							
Johnsons Camp	25	12	6	---	---	---	---
Pargon Creek	100	7	---	---	---	---	---
Rocky Point	250	16	0	---	---	---	---
February 1st							
Johnsons Camp	25	12	6	---	---	---	---
Pargon Creek	100	7	---	---	---	---	---
Rocky Point	250	13	1	---	---	---	---

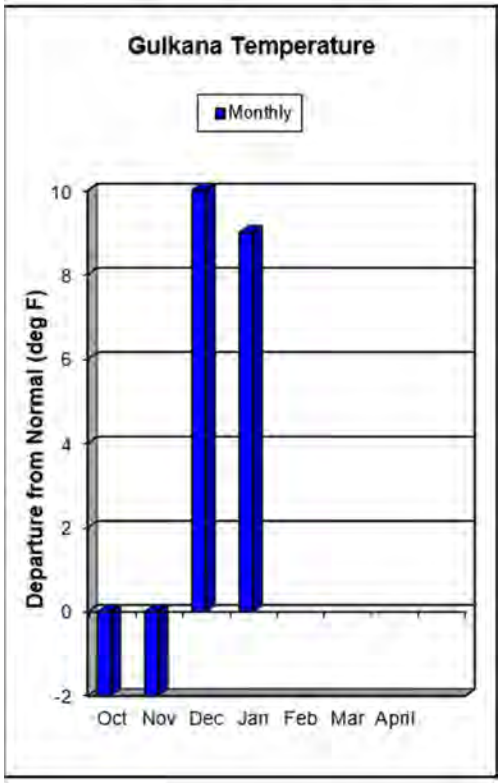
**Estimate*





Copper Basin





Snowpack

Snowpack in the Copper River Basin ranges from below average in the lowlands and Alaska Range to above normal in the Wrangell and Chugach Mountains. However, most locations are within 20% of normal. Like the snowpack, the northern part of the basin has had below normal precipitation this winter, while the southern half of the basin has had near or above normal precipitation.

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	8	3	---	1.6	0.4	---
Copper Center	1264	9	9	---	1.7	1.5	---
Fielding Lake	3000	19	---	---	3.4	---	---
Kenny Lake School	1300	8	3	10	1.3	0.4	1.3
Little Nelchina	2650	10	10	12	1.2	1.7	1.5
Lost Creek	3030	11	7	---	1.7	1.1	---
May Creek	1610	14	---	---	2.4	---	2.0
Tazlina	1250	11	6	9	1.6	0.8	1.1
Tolsona Creek	2000	13	8	11	2.1	1.2	1.8
Upper Tsaina River	1750	27	28	---	3.8	5.3	5.2
January 1st							
Fielding Lake	3000	22	45	---	4.3	12.9	---
May Creek	1610	22	13	---	4.5	2.6	3.0
Upper Tsaina River	1750	41	54	---	9.6	12.1	9.3
February 1st							
Chistochina	1950	18	12	17	3.2	1.8	2.6
Chokosna	1550	13	9	---	2.8	1.6	---
Copper Center	1264	14	17	---	2.3	3.4	---
Dadina Lake	2160	25	25	25	4.6*	5.1	4.4
Fielding Lake	3000	30	52	32	5.4	13.8	---
Fielding Lake	3000	26	45	---	5.0*	13.9	---
Haggard Creek	2540	18	26	23	3.0*	4.7	4.1
Kenny Lake School	1300	12	14	14	2.0*	2.3	2.6
Little Nelchina	2650	17	24	22	3.1	4.2	3.9
Long Glacier	4820	30	---	---	6.2*	---	---
Lost Creek	3030	13	9	---	2.1	1.3	---
May Creek	1610	22	18	---	5.4	3.7	3.7
Mentasta Pass	2430	20	22	22	4.0	5.0	4.0
Monsoon Lake	3100	20	29	25	3.7*	5.9	4.6
Notch	2643	9	---	---	1.7*	---	---
Paxson	2650	26	36	27	4.3	7.8	5.3
Sanford River	2280	18	21	22	3.7*	4.2	3.8
St. Anne Lake	1990	20	---	19	3.6*	---	3.7
Tazlina	1250	13	16	15	2.5	2.6	2.8
Tebay Lake	1930	57	---	---	15.0*	---	---
Tolsona Creek	2000	16	19	18	2.7	3.1	3.2
Tsaina River	1650	47	44	48	12.8	10.3	11.2
Upper Tsaina River	1750	56	63	---	14.7	14.0	12.9
Worthington Glacier	2100	75	66	60	22.0*	17.4	16.8

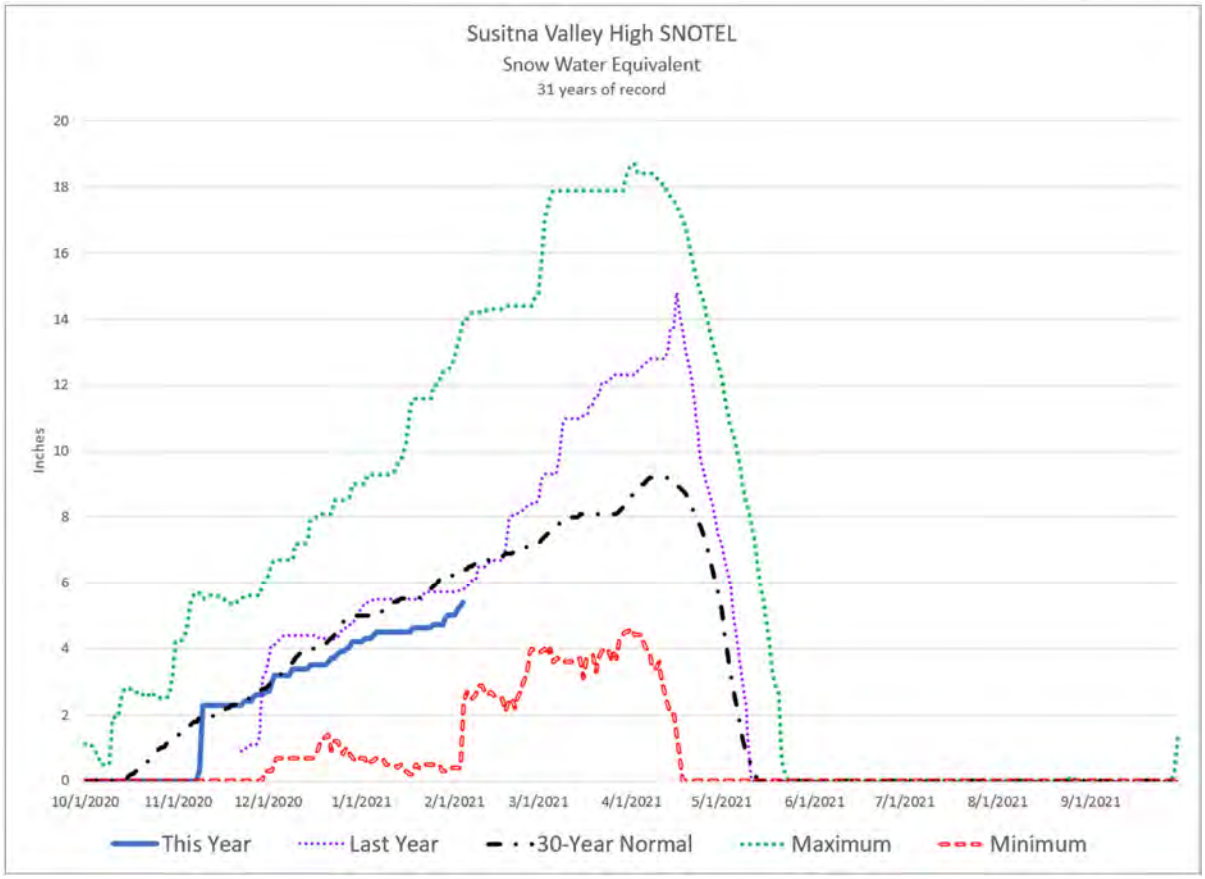
**Estimate*

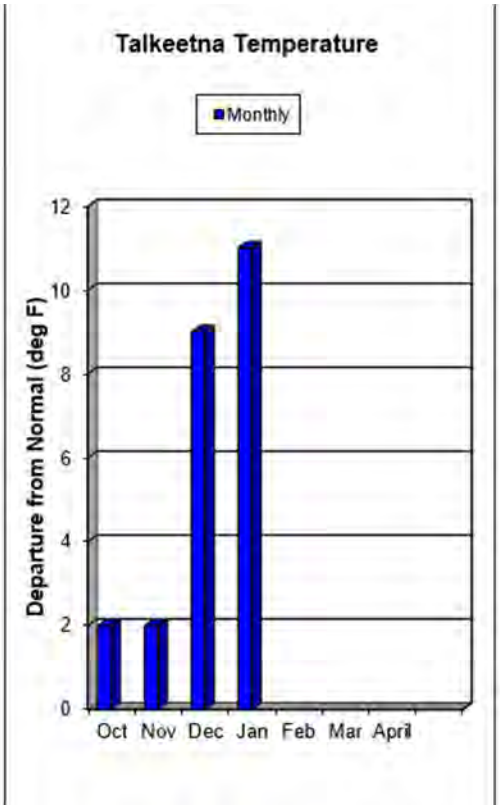
Precipitation

Inches Accumulated since October 1st (as of February 1, 2021)

Site Name	Elev.	This Year	Last Year	1981-2010 Normal	% of Normal
May Creek	1610	5.4	4.8	4.7	115%
Upper Tsaina River	1750	19.9	20.0	19.9	100%

Matanuska—Susitna Basin





Snowpack

Generally, the snowpack in the Matanuska and Susitna basins is slightly below average. The seasonal snowpack started late, made significant gains in late October and early November and then has only made moderate advances during December and January. As such, total precipitation for the winter is also below normal. Yet there are locations which are close to average or even slightly above average including portions of the upper Susitna and Matanuska drainages on the eastern side of the Talkeetna Mountains and parts of the lower Susitna near Willow and west.

Matanuska—Susitna Basin

Precipitation

		Inches Accumulated since October 1st (as of February 1, 2021)			
Site Name	**Elev.**	**This Year**	**Last Year**	**1981-2010 Normal**	**% of Normal**
Alexander Lake	160	10.6	15.4	---	---
Frostbite Bottom	2700	7.6	16.2	---	---
Independence Mine	3550	9.0	17.6	11.0	82%
Monahan Flat	2710	5.6	9.8	5.8	97%
Susitna Valley High	375	7.6	14.4	8.8	86%
Tokositna Valley	850	11.7	26.5	15.2	77%

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	160	22	27	---	4.2	7.2	---
Archangel Road	2200	26	36	---	4.8	6.2	4.6
Birthday Pass	4020	37	91	---	8.0	24.4	---
Blueberry Hill	1200	29	51	---	5.0	9.2	---
Denali View	700	20	38	18	3.2	5.5	3.4
E. Fork Chulitna	1770	26	66	20	2.8	11.7	3.9
Fishhook Basin	3300	28	63	28	5.5	15.1	6.3
Frostbite Bottom	2700	22	---	---	4.8	---	---
Independence Mine	3550	31	72	31	6.2	16.7	6.8
Independence Mine SNOTEL	3550	23	62	---	5.0	12.9	4.2
Lake Louise	2400	14	9	12	2.0	1.2	1.6
Little Susitna	1700	24	24	20	4.2	5.0	3.4
Monahan Flat	2710	16	---	---	2.5	---	---
Sheep Mountain	2900	12	20	14	1.9	4.2	1.8
Susitna Valley High	375	14	20	---	2.7	3.7	2.9
Talkeetna	350	13	23	13	2.2	3.5	1.8
Tokositna Valley	850	35	52	---	4.5	13.1	4.3
Willow Airstrip	200	22	15	16	3.8	2.3	2.5
January 1st							
Alexander Lake	160	27	33	---	6.5	9.5	---
Frostbite Bottom	2700	26	41	---	6.6	11.7	---
Independence Mine SNOTEL	3550	25	56	---	6.6	14.5	5.9
Monahan Flat	2710	21	33	---	4.2	6.7	---
Susitna Valley High	375	22	24	---	4.2	5.2	5.0
Tokositna Valley	850	42	65	---	9.0	15.8	6.0

**Estimate*

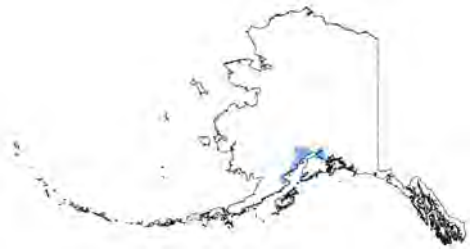
Matanuska—Susitna Basin

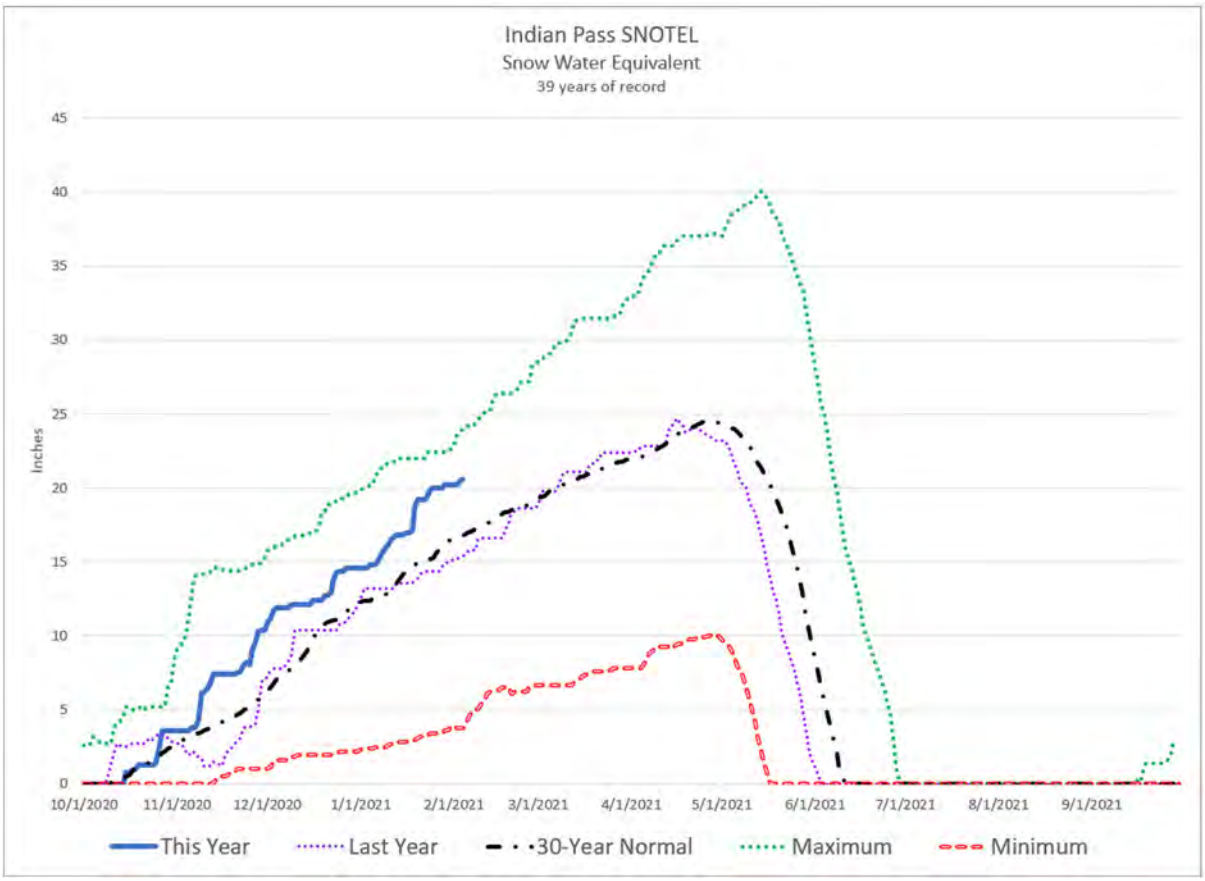
Snowpack Data—continued

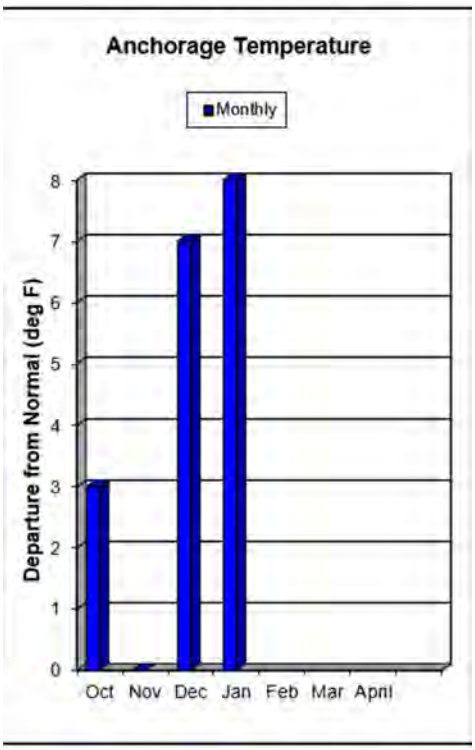
Site Name	Elev.	Snow Depth			Water Content		
		Current	Last Year	1981-2010 Median	Current	Last Year	1981-2010 Median
February 1st							
Alexander Lake	160	30	35	---	8.0	10.0	---
Archangel Road	2200	36	32	38	8.0	8.3	10.0
Birthday Pass	4020	58	---	---	15.6	23.8	---
Blueberry Hill	1200	38	48	43	9.7	13.1	10.7
Chelatna Lake	1450	41	40	38	10.6*	10.2	8.6
Curtis Lake	2850	18	26	20	3.2*	4.0	3.2
Denali View	700	30	32	35	7.1	8.4	8.8
Dunkle Hills	2700	35	51	---	7.7*	14.5	---
Dutch Hills	3100	55	78	62	14.4*	25.0	18.0
E. Fork Chulitna	1770	35	54	41	7.8	15.6	9.5
Fishhook Basin	3300	39	56	46	9.5	18.4	12.5
Fog Lakes	2120	17	---	20	3.4*	---	3.4
Frostbite Bottom	2700	32	42	---	8.0	12.6	---
Horsepasture Pass	4300	25	34	27	4.4	6.9	4.6
Independence Mine	3550	45	65	52	11.0	20.4	14.5
Independence Mine SNOTEL	3550	33	47	---	7.5	14.4	8.6
Lake Louise	2400	18	21	19	3.5	3.7	3.0
Little Susitna	1700	33	30	34	7.5	7.1	8.0
Monahan Flat	2710	24	---	28	5.0*	---	5.6
Monahan Flat	2710	24	37	---	5.0	7.7	---
Nugget Bench	2010	36	54	42	8.3*	16.5	10.8
Ramsdyke Creek	2220	55	54	56	13.8*	16.5	15.5
Sheep Mountain	2900	23	28	21	4.5	6.0	4.0
Square Lake	2950	23	25	20	4.2*	4.5	3.1
Susitna Valley High	375	25	25	---	5.0	5.7	6.3
Talkeetna	350	20	23	24	4.6	5.3	4.8
Tokositna Valley	850	48	63	---	11.7	16.4	8.5
Tyone River	2400	15	23	20	2.8*	4.1	4.0
Upper Oshetna River	3150	22	30	19	4.0*	5.9	3.1
Upper Sanona Creek	3100	15	24	23	2.7*	4.3	3.9
Willow Airstrip	200	32	22	25	6.8	3.6	4.9

**Estimate*

Northern Cook Inlet







Snowpack

The Northern Cook Inlet Region is having a bumper crop snow season so far. While some locations are similar to two years ago and are only near average such as Kincaid Park near the Anchorage Airport, many locations haven't had this much snow since 2012 or earlier. Broadly, the seasonal snowpack started mid-October, on time for higher locations and a week early for other locations. Precipitation through the winter has been near or above average. Mount Alyeska SNOTEL recorded its highest February 1st water content since 2001 and its fifth wettest Feb 1st snowpack in its 48-year record. Grouse Creek Divide SNOTEL, established in 1998, set a new highest Feb 1st snowpack record with 57" and 23.1" of water content. Turnagain Pass has its highest snowpack since 2001 with 125" of snow and 33.6" of water content.

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	29	13	---	6.1	3.9	3.5
Indian Pass	2350	50	34	---	11.0	7.4	6.3
Kincaid Park	250	12	5	7	1.0	0.4	1.2
Moraine	2100	14	---	---	2.4	---	2.3
Mt. Alyeska	1540	65	---	---	12.6	---	7.5
Portage Valley	50	20	11	14	6.1	0.8	2.8
South Campbell Creek	1200	20	8	12	4.0	1.0	2.2
January 1st							
Anchorage Hillside	2080	32	23	---	8.5	5.9	5.7
Indian Pass	2350	49	47	---	14.6	12.6	12.3
Moraine	2100	20	11	---	4.1	2.1	4.5
Mt. Alyeska	1540	60	23	---	18.9	6.6	14.7
February 1st							
Anchorage Hillside	2080	38	30	---	10.3	7.1	7.1
Indian Pass	2350	65	53	---	20.2	15.2	16.6
Kincaid Park	250	16	10	15	2.7	1.8	3.1
Moraine	2100	28	20	---	6.8	3.6	5.4
Mt. Alyeska	1540	88	46	---	29.4	9.6	20.8
Portage Valley	50	45	51	26	13.2	7.8	8.4
South Campbell Creek	1200	30	14	20	7.0	1.8	4.7

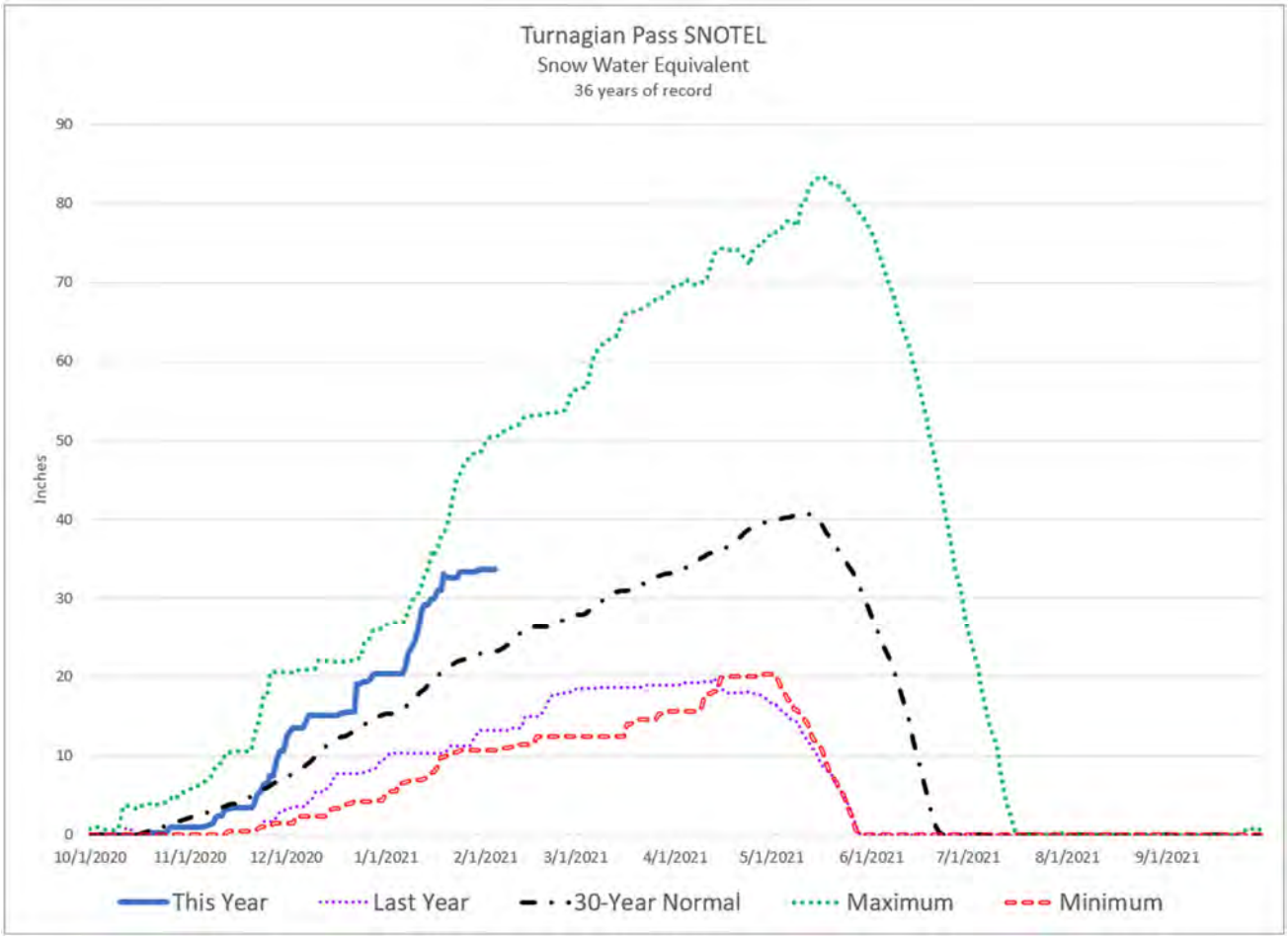
**Estimate*

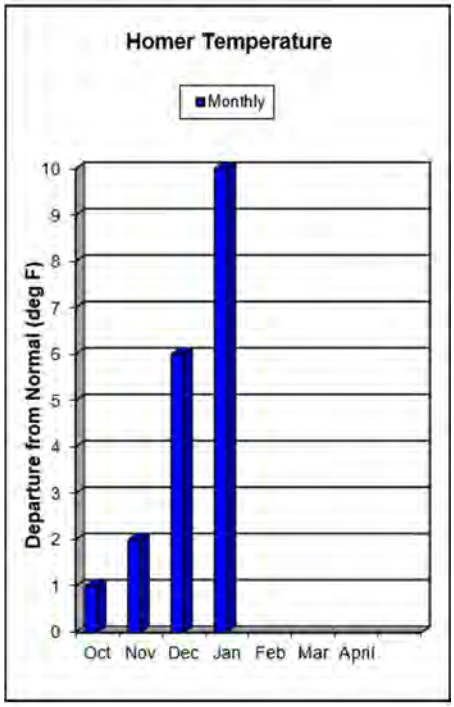
Precipitation

Inches Accumulated since October 1st (as of February 1, 2021)

Site Name	Elev.	This Year	Last Year	1981-2010 Normal	% of Normal
Anchorage Hillside	2080	11.4	14.3	10.3	111%
Indian Pass	2350	21.2	24.0	18.3	116%
Moraine	2100	8.9	8.6	8.5	105%
Mt. Alyeska	1540	34.0	31.2	33.5	101%

Kenai Peninsula





Snowpack

After years of promise and disappointment, the Kenai Peninsula is the grand winner of the snowstorm lottery. While the northwest lowlands towards Soldotna have near normal snowpack, most of the rest of the peninsula has much above normal snowpack. Most measurement locations haven't recorded this much snow since 2012, 2007, 2001 or even 1980! Moose Pass had 41" of snow with 11.8" of water content, 241% of normal, similar to 2012, but nudged past it to be the deepest snowpack since 1980. Precipitation has been above average for the year, with the ten measurement locations averaging 113% of average for the winter.

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							
Bertha Creek	950	36	5	---	5.0	1.0	---
Bridge Creek	1300	18	8	12	3.5	0.5	1.5
Cooper Lake	1200	30	4	---	5.8	0.5	3.2
Demonstration Forest	780	13	10	8	2.4	0.7	1.0
Exit Glacier	400	28	6	18	4.9	0.6	3.2
Exit Glacier	400	30	---	---	6.1	---	3.5
Grandview	1100	47	2	---	8.0	0.8	5.3
Grouse Creek Divide	700	40	0	---	7.8	0.0	2.9
Jean Lake	620	10	10	8	1.5	0.7	1.0
Kenai Moose Pens	300	11	0		1.3	0.0	1.2
Kenai Summit	1390	30	14	20	4.2	2.1	4.0
Lower Kachemak Creek	1915	54	---	---	---	---	---
Mcneil Canyon	1320	25	0	---	4.5	0.0	1.9
Middle Fork Bradley	2300	24	1	---	---	---	---
Moose Pass	700	24	0	11	2.8	0.0	1.6
Mt. Alyeska	1540	65	---	---	12.6	---	7.5
Nuka Glacier	1250	24	8	14	7.3	1.2	4.2
Port Graham	300	13	0	---	2.1	0.0	0.5
Portage Valley	50	20	11	14	6.1	0.8	2.8
Snug Harbor Road	500	6	2	8	1.2	0.2	1.0
Summit Creek	1400	27	7	---	4.6	1.8	2.6
Turnagain Pass	1880	76	12	---	12.5	3.1	7.4
January 1st							
Anchor River Divide	1653	33	24	---	9.8	4.2	5.9
Cooper Lake	1200	33	14	---	8.0	2.5	8.2
Exit Glacier SNOTEL	400	39	7	---	10.8	2.2	8.0
Grandview	1100	55	18	---	14.3	3.4	14.2
Grouse Creek Divide	700	43	5	---	15.1	2.2	8.3
Kenai Moose Pens	300	14	10	---	2.4	1.9	2.5
Mcneil Canyon	1320	28	13	---	7.4	1.9	4.7
Middle Fork Bradley	2300	61	23	---	---	---	---
Mt. Alyeska	1540	60	23	---	18.9	6.6	14.7
Port Graham	300	9	8	---	2.9	1.7	3.5
Summit Creek	1400	31	14	---	7.2	3.6	6.2
Turnagain Pass	1880	76	45	---	20.4	9.9	15.3

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	49	23	---	14.1	4.7	8.8
Bertha Creek	950	63	33	44	20.2	4.8	12.4
Bridge Creek	1300	32	18	30	8.2	3.0	7.4
Cooper Lake	1200	57	24	---	14.4	4.5	11.3
Demonstration Forest	780	24	17	20	6.4	2.5	4.8
Exit Glacier	400	57	25	42	18.2	4.2	11.7
Exit Glacier	400	58	19	---	18.9	4.0	11.7
Grandview	1100	100	42	---	27.3	6.8	19.7
Grouse Creek Divide	700	57	18	---	23.1	3.8	12.3
Jean Lake	620	15	11	14	3.0	1.4	3.0
Kenai Moose Pens	300	16	16	---	2.9	3.2	3.6
Kenai Summit	1390	59	28	37	15.8	6.0	9.6
Mcneil Canyon	1320	39	15	---	11.5	3.2	7.1
Middle Fork Bradley	2300	74	25	---	---	---	---
Moose Pass	700	41	13	20	11.8	1.6	4.9
Mt. Alyeska	1540	88	46	---	29.4	9.6	20.8
Port Graham	300	22	29	---	6.6	4.2	4.8
Portage Valley	50	45	51	26	13.2	7.8	8.4
Snug Harbor Road	500	15	9	15	3.4	1.5	3.6
Summit Creek	1400	42	20	---	10.3	4.2	8.1
Turnagain Pass	1880	125	60	---	33.6	13.2	23.0

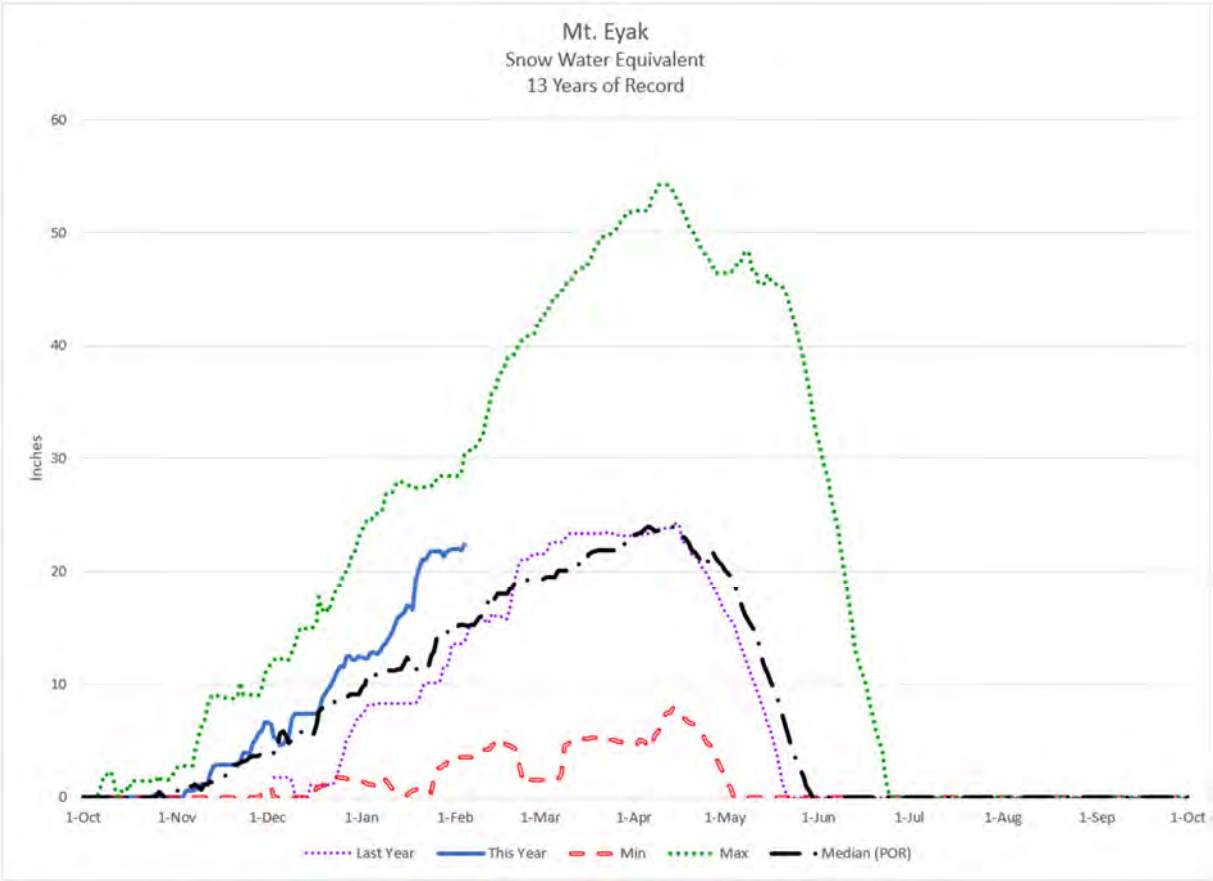
**Estimate*

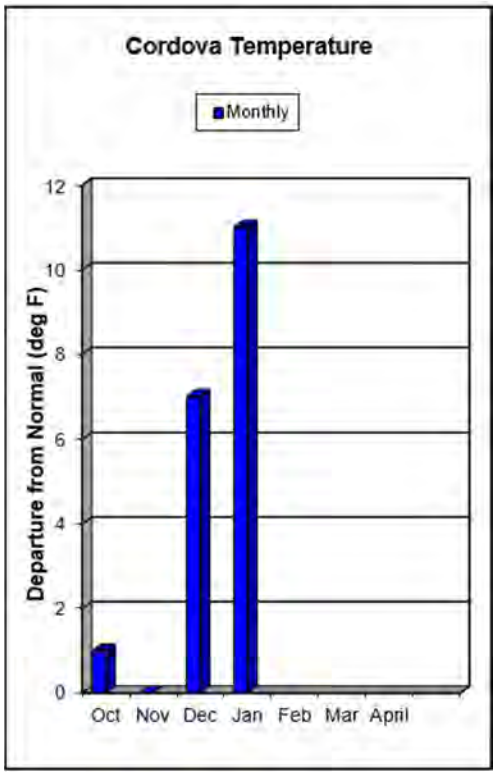
Precipitation

Inches Accumulated since October 1st (as of February 1, 2021)

Site Name	Elev.	This Year	Last Year	1981-2010 Normal	% of Normal
Anchor River Divide	1653	15.0	18.9	12.5	120%
Cooper Lake	1200	22.6	23.4	20.0	113%
Grandview	1100	29.9	32.2	30.0	100%
Grouse Creek Divide	700	38.4	29.5	28.2	136%
Kenai Moose Pens	300	6.8	7.9	6.3	108%
Mcneil Canyon	1320	13.9	14.1	13.0	107%
Middle Fork Bradley	2300	30.8	38.0	25.3	122%
Nuka Glacier	1250	47.8	---	41.3	116%
Port Graham	300	40.0	43.9	36.9	108%
Summit Creek	1400	11.9	14.5	11.9	100%
Turnagain Pass	1880	36.2	26.4	28.5	127%

Western Gulf – Prince William Sound





Snowpack

Prince William Sound has received above average precipitation this winter. October and November brought near average precipitation, while December and January were wetter than normal. Snowpack ranges from around average to well above average. The Valdez area snow courses average 110% of normal, while snowpack on the western side of the sound is either much above normal or rain-tempered to below average.

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	6	0	18	0.6	0.0	3.2
Grouse Creek Divide	700	0	0	---	0.0	0.0	2.9
Nicks Valley	4280	78	70	---	---	---	---
Nuka Glacier	1250	8	0	14	1.2	0.0	4.2
Upper Tsaina River	1750	28	28	---	5.3	5.8	5.2
January 1st							
Exit Glacier SNOTEL	400	7	20	---	2.2	4.8	8.0
Grouse Creek Divide	700	5	17	---	2.2	5.3	8.3
Mt. Eyak	1405	23	26	---	7.2	6.0	12.8
Nicks Valley	4280	140	107	---	---	---	---
Upper Tsaina River	1750	54	55	---	12.1	12.8	9.3
February 1st							
Exit Glacier	400	21	17	42	4.2	6.6	11.7
Exit Glacier SNOTEL	400	19	18	---	4.0	6.4	11.7
Grouse Creek Divide	700	18	17	---	3.8	6.0	12.3
Lowe River	600	46*	---	44	10.5*	---	11.1
Mt. Eyak	1405	52	24	---	13.5	8.9	17.9
Nicks Valley	4280	115	107	---	---	---	---
Nuka Glacier	1250	---	---	59	---	---	18.6
Sugarloaf Mountain	550	60	---	60	15.0	---	16.7
Tsaina River	1650	44*	51	48	10.3*	12.7	11.2
Upper Tsaina River	1750	63	66	---	14.0	15.7	12.9
Valdez	50	38*	---	42	9.3*	---	11.4
Worthington Glacier	2100	66*	68	60	17.4*	19.5	16.8

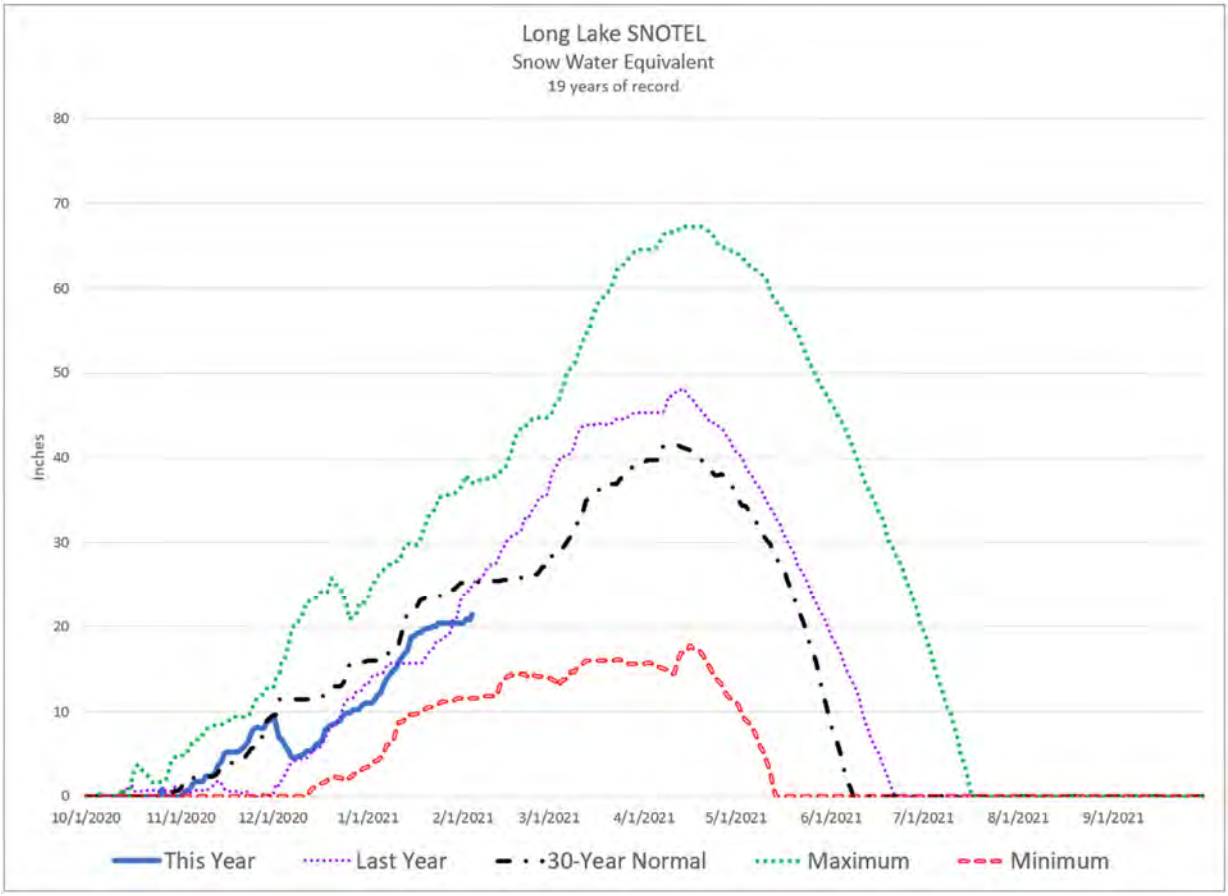
**Estimate*

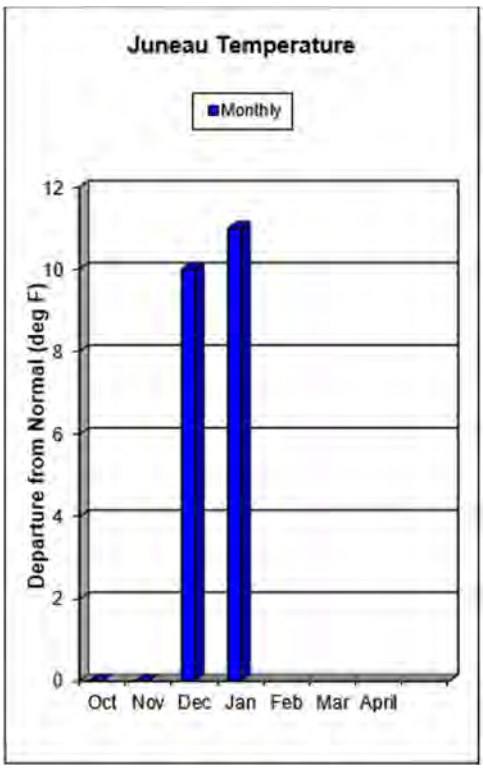
Precipitation

Inches Accumulated since October 1st (as of February 1, 2021)

Site Name	Elev.	This Year	Last Year	1981-2010 Normal	% of Normal
Esther Island	50	63.9	92.4	60.7	105%
Grouse Creek Divide	700	29.5	39.7	28.2	105%
Mt. Eyak	1405	63.4	76.3	---	---
Nuchek	50	69.9	92.1	---	---
Port Graham	300	43.9	40.2	36.9	119%
Seal Island	20	---	43.4	---	---
Strawberry Reef	30	36.6	47.9	---	---
Sugarloaf Mtn	550	40.4	44.8	29.3	138%

Southeast





Snowpack

Winter in Southeast Alaska started earlier than the last couple of years, but right about the historic average. Snowpack accumulation was right on track for average until a tremendous early December storm system hit with copious rain which obliterated low-lying snowpack and diminished higher elevation snowpacks across much of Southeast. Since then, higher elevation sites have rebounded to near or above average with the help of above normal precipitation, though low-lying sites still report anemic snowpacks.

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	38	5	21	9.8	0.8	5.7
Eagle Crest	1200	23	7	6	8.9	0.8	1.0
Fish Creek	500	11	0	0	3.4	0.0	---
Flower Mountain	2510	46	---	---	7.7	---	---
Heen Latinee	2065	32	---	---	7.6	---	---
Long Lake	850	37	4	---	9.6	0.4	9.5
Moore Creek Bridge	2250	32	---	---	---	---	---
Petersburg Reservoir	550	16	0	---	3.3	0.0	---
Petersburg Ridge, S.	1650	47	0	---	9.5	0.0	---
January 1st							
Heen Latinee	2065	34	28	---	9.7	8.7	---
Long Lake	850	37	39	---	11.0	13.3	15.9
Moore Creek Bridge	2250	72	41	---	---	---	---
February 1st							
Cropley Lake	1650	64	64	56	22.6	15.5	18.4
Eagle Crest	1200	41	---	36	12.7	---	10.6
Fish Creek	500	5	18	14	0.7*	2.0	3.1
Flower Mountain	2510	96	77	---	31.1	18.0	---
Heen Latinee	2065	45	58	---	14.8	15.3	---
Long Lake	850	58	85	---	20.4	23.8	25.2
Moore Creek Bridge	2250	89	74	---	---	---	---
Petersburg Reservoir	550	7	18	16	1.0	3.4	3.7
Petersburg Ridge, S.	1650	59	58	48	21.2	14.9	16.7

**Estimate*

Precipitation Data

Inches Accumulated since October 1st (as of February 1, 2021)

Site Name	Elev.	This Year	Last Year	1981-2010 Normal	% of Normal
Long Lake	850	82.0	83.9	75.0	109%
Heen Latinee	2065	37.9	24.2	---	---
Moore Creek Bridge	2250	28.6	25.4	20.1	142%

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/**

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