Spring Breakup Outlook for Alaska
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Alaska-Pacific River Forecast Center
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EXPERIMENTAL PRODUCT
Spring Breakup Outlook for Alaska

Statewide Summary

Breakup is well underway across the state. Due to mild temperatures, no major floods have occurred, and generally there is a decreased flood threat across the state.

Kuskokwim: The Kuskokwim is mostly open, however there is an ice jam in place downstream of Bethel, at the Johnson River. This is currently causing minor flooding at Napakiak and high water in Bethel. Once this ice jam releases water levels will drop rapidly.

Interior Alaska-Yukon: There are two breakup fronts on the Yukon. The river is mostly open upstream of Fort Yukon, but this breakup front has stalled, leaving mostly in place ice between Ft Yukon and Tanana. With mild temperatures and minimal inflow from the tributaries this ice could be in place for a while; the flood threat is low. The Tanana River is open. On the middle Yukon, ice ran for hours past Galena and Koyukuk on Thursday evening (May 8). The Koyukuk and Porcupine Rivers still have in place ice, and ice is believed to still be in place downstream of Koyukuk on the mainstem Yukon.

At this time, there are no significant changes to the breakup flood outlook. There are no specific communities of concern at this time due to breakup flooding. However, one thing worth noting are rivers draining the White Mountains north of Fairbanks—including the **Chena River upstream of the Moose Creek Dam**—which have an elevated risk of snowmelt flooding later in May due to a well above average snowpack in their headwaters.

Detailed sections below have been updated with new information for the community flood potential graphics and tables as well as forecast temperatures, current snowpack information and ice thickness.

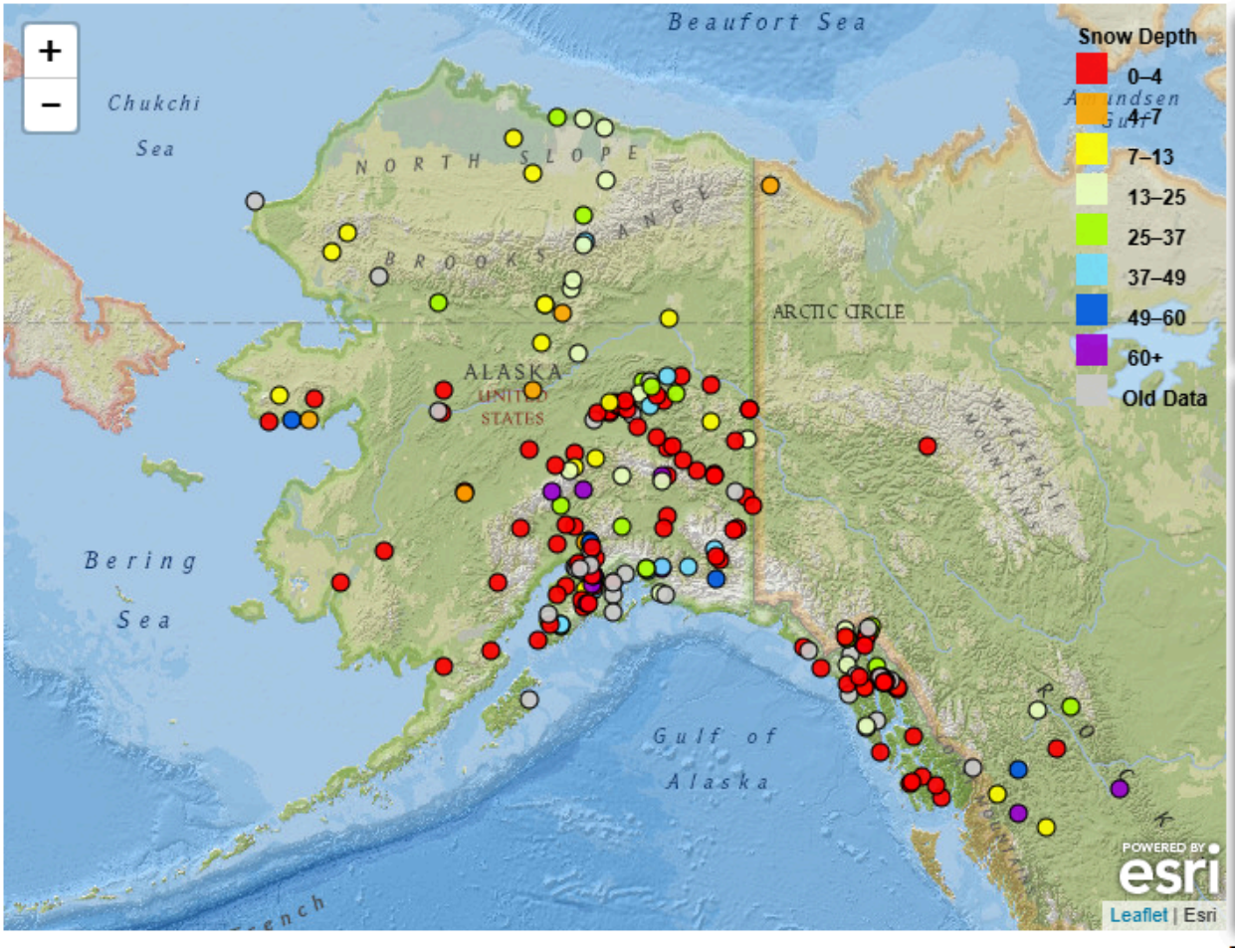
River Ice Observations

No longer included due to inconsistency and variability across the state.

Snowpack

Snowpack conditions across Alaska remain highly variable. The lower elevations south of the Yukon River are mostly snow free. It is a different story for the Upper Chena Basin and the Porcupine Mountains. Due to colder April temperatures, snow remains much above normal for these areas. The same is true for the Koyukuk and other interior rivers fed by the Brooks Range. In Southcentral Alaska, snowpack is highly dependent on elevation. Conditions are near normal above 1,500–2,000 feet, but remain well below normal at lower elevations. In the Copper River Basin, snowpack is near normal in the upper elevations and nearly depleted in the lower elevations, melting out earlier than normal.

Snow Depth - 05-09-2025 08:11



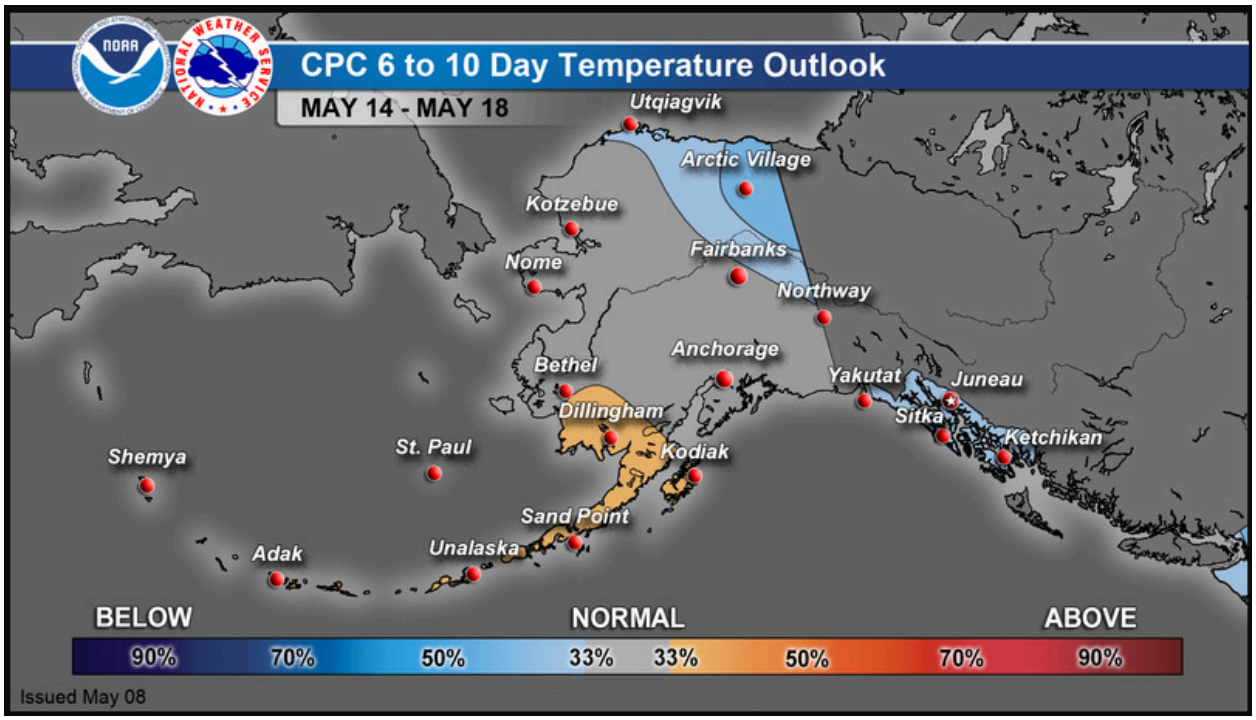
Climate Outlook

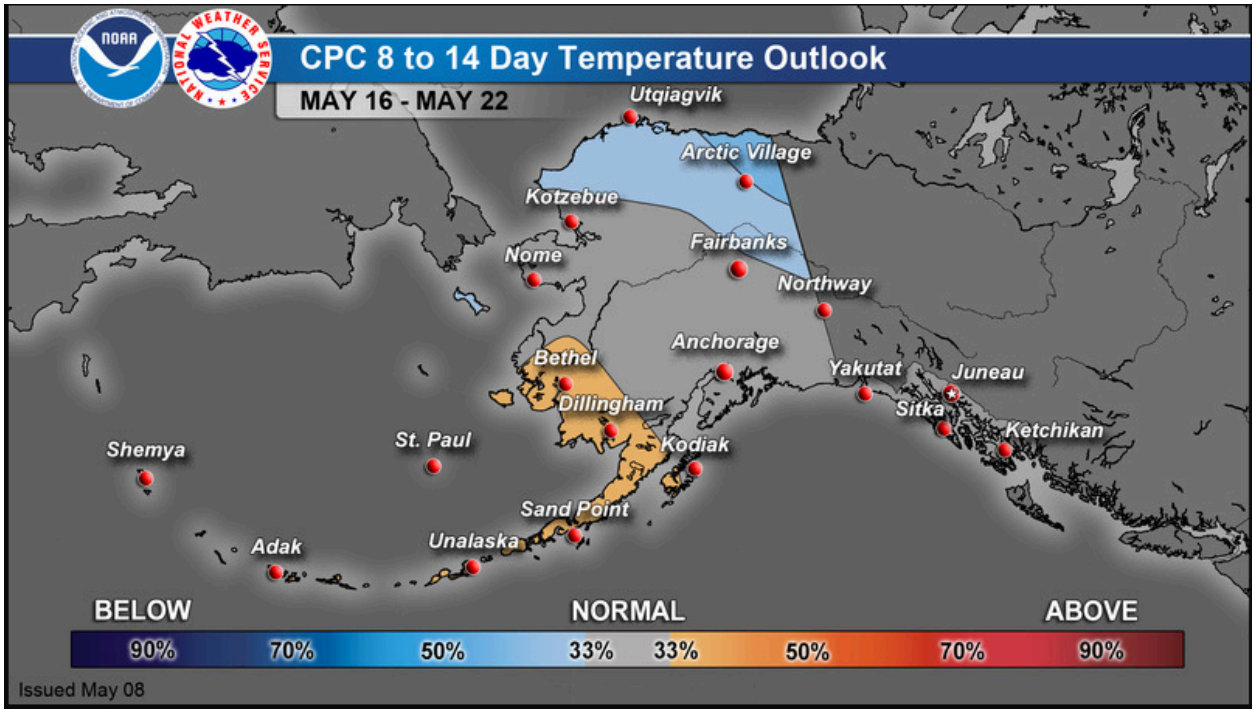
Temperatures are the most critical factor in determining the severity of ice breakups. Dynamic breakups, which carry a higher risk of ice jam flooding, typically require cooler-than-normal temperatures, followed by a rapid warm-up to summer-like temperatures in late April or early May.

NOAA's Climate Prediction Center (CPC 8-14 Day) forecast for mid May favors higher chances of cooler-than-normal conditions along the northern interior and north slope, near-normal temperatures in the southern interior, and higher chances of warmer-than-normal conditions in Southwest Alaska including the Y-K delta and Bristol Bay.

Given that breakup is well underway for most of the Yukon and points south, the interest in temperatures as it relates to ice jam flooding focuses on the areas north of the Brooks Range

and west of Galena. ***Nothing in these climate forecasts is alarming.*** The cooler temperatures in the northeastern portion of the state are only impactful if they switch to well above normal and the warmer temperatures in the southwest is where breakup has already occurred.





Flood Potential

The likelihood of flooding from snowmelt and/or ice jams is initially estimated based on the flood frequency for the current 2000 to 2021 historical record and adjusted to reflect current conditions.

The following tables give an estimation of snowmelt runoff volume, flood potential, and forecast breakup date range for various locations across the state.

Median breakup dates are for the period 1980 through 2024 and are calculated for locations with at least 5 years of data.

Forecast breakup timing is expressed as a range based on snowmelt runoff volume and flood potential. Locations where breakup has already occurred are identified with two asterisks following a single date; for example, Kuskokwim River at Nikolai breakup occurred on April 22, 2025 (4/22**).

River-Reach	Location	Snowmelt Runoff Volume	Flood Potential	Median Breakup Date	Years of Record	Forecast Breakup Date Range
Chena River		Above				
	Chena Lakes Project		Low-Moderate			4/23**
Tanana River		Above				
	Northway		Low	4/26	32	4/25**
	Salcha		Low	4/26	3	4/28**
	Fairbanks		Low	4/30	22	4/30**
	Nenana		Low	4/30	45	4/27**
	Manley HS		Moderate	5/3	33	5/2**

Yukon River						
River-Reach	**Location**	**Snowmelt Runoff Volume**	**Flood Potential**	**Median Breakup Date**	**Years of Record**	**Forecast Breakup Date Range**
Yukon River (Upper)		Average				
	Dawson, YT		Low	5/4	45	4/30**
	Eagle		Low	5/4	45	5/1**
	Circle		Low-Moderate	5/9	41	5/5**
	Fort Yukon		Low	5/11	41	5/6**
	Beaver		Low	5/11	28	5/8-5/14
	Stevens Village		Low	5/11	26	5/9-5/15
	Rampart		Low	5/12	28	5/10-5/16
Yukon River (Mid)		Above				
	Tanana		Low-Moderate	5/8	40	5/8**
	Ruby		Low	5/9	39	5/7**
	Galena		Moderate	5/11	44	5/8**
	Koyukuk		Moderate	5/10	18	5/9**
	Nulato		Low	5/12	27	5/9**
	Kaltag		Low-Moderate	5/12	39	5/11-5/17
	Anvik		Low-Moderate	5/14	36	5/13-5/19
Yukon River (Lower)		Average				
	Holy Cross		Low	5/14	38	5/13-5/19
	Russian Mission		Low	5/15	38	5/14-5/20
	Marshall		Low	5/15	33	5/14-5/20
	Pilot Station		Low	5/13	28	5/12-5/18
	Mountain Village		Low	5/15	38	5/14-5/20
	Alakanuk/Emmonak		Low-Moderate	5/20	39	5/19-5/25

Kuskokwim River						
River-Reach	**Location**	**Snowmelt Runoff Volume**	**Flood Potential**	**Median Breakup Date**	**Years of Record**	**Forecast Breakup Date Range**
Kuskokwim River		Below				
	Nikolai		Low	4/23	39	4/22**
	McGrath		Low	5/4	45	5/3**
	Stony River		Low	5/2	37	4/27**
	Sleetmute		Low	5/1	36	4/27**
	Red Devil		Low	5/3	39	4/28**
	Crooked Creek		Low	5/4	39	4/28**
	Aniak		Low-Moderate	5/5	42	5/1**
	Kalskag		Low	5/5	36	5/5**
	Tuluksak		Low	5/7	33	5/2**
	Akiak		Low	5/8	39	5/7**
	Kwethluk		Low-Moderate	5/5	13	5/6**
	Bethel		Low	5/9	45	5/6**
	Napakiak		Low	5/10	30	5/8**

Southeast-Southcentral						
River-Reach	**Location**	**Snowmelt Runoff Volume**	**Flood Potential**	**Median Breakup Date**	**Years of Record**	**Forecast Breakup Date Range**
Southeast		Below	Low			
Kenai River		Below	Low			
Anchor River		Below	Low	4/17	16	Early April**
Matanuska River		Below	Low			

Susitna River		Average				
	Gold Creek		Low-Moderate	5/2	9	4/25**
	Sunshine		Low	5/2	36	5/1**
Talkeetna		Average				
	Talkeetna			4/28	5	4/24**
Yentna River		Average				
	Lake Creek		Low	5/1	33	4/23**
Skwentna River		Average				
	Skwentna		Low	4/30	30	4/24**
Copper River		Average				
	Gakona		Low	5/1	36	4/29**
	Gulkana		Low	5/1	34	4/29**

North Slope-Northwest						
River-Reach	**Location**	**Snowmelt Runoff Volume**	**Flood Potential**	**Median Breakup Date**	**Years of Record**	**Forecast Breakup Date Range**
Koyukuk River		Above				
	Bettles		Low	5/10	43	5/9-5/15
	Allakaket		Low-Moderate	5/11	38	5/10-5/16
	Hughes		Moderate	5/11	38	5/10-5/16
Seward Peninsula		Above				
	Buckland		Moderate	5/18	35	5/17-5/23
Kobuk River		Above				
	Kobuk		Moderate	5/14	40	5/13-5/19
	Shungnak		Low-Moderate	5/16	32	5/15-5/21
	Ambler		Low-Moderate	5/16	38	5/15-5/21

Noatak River		Average				
	Noatak		Low	5/19	27	5/16-5/22
Brooks Range		Above				
	Colville at Umiat		Low-Moderate	5/25	22	5/22-5/28
	Colville at Colville Village		Low-Moderate	6/3	23	
Sagavanirktok River		Above				
	Dalton Highway		Low-Moderate			

**Median break dates are for the period 1980 through 2024 and are calculated for locations with at least 5 years of data.

For more detail and to see the Flood Potential Map refer to the APRFC website at:
https://www.weather.gov/aprfc/floodpotential

The next Spring Breakup Outlook will be published May 16, 2025.

This product is experimental. For more information and to submit comments, please contact:

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