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

Kuskokwim: The Kuskokwim River is mostly open to its mouth with some stranded shore ice re-suspending as the water levels slowly rise from snowmelt runoff.

Interior Alaska-Yukon: The Yukon River is mostly open from its headwaters to downstream of Mountain Village. The Porcupine River remains mostly ice covered above Fort Yukon. Sizeable runs of ice are still moving downstream as tributaries and shallow reach standing ice releases. Today we expect a 30-40 mile long bank-to-bank ice run to pass Ruby. There is no intact ice in place to stop that run, and we anticipate no ice jam or flooding.

Breakup flood outlook remains unchanged. 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** — have an elevated risk of snowmelt flooding later in May due to a well above average snowpack in their headwaters.

Western Alaska-North Slope
Breakup is underway in the Buckland River. Ice has been running past Buckland over the last few days and meeting weak intact ice downstream causing water levels to rise, but still below bank. Flood potential remains moderate due to downstream ice and snowpack. North Slope rivers have not begun to break up.

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.

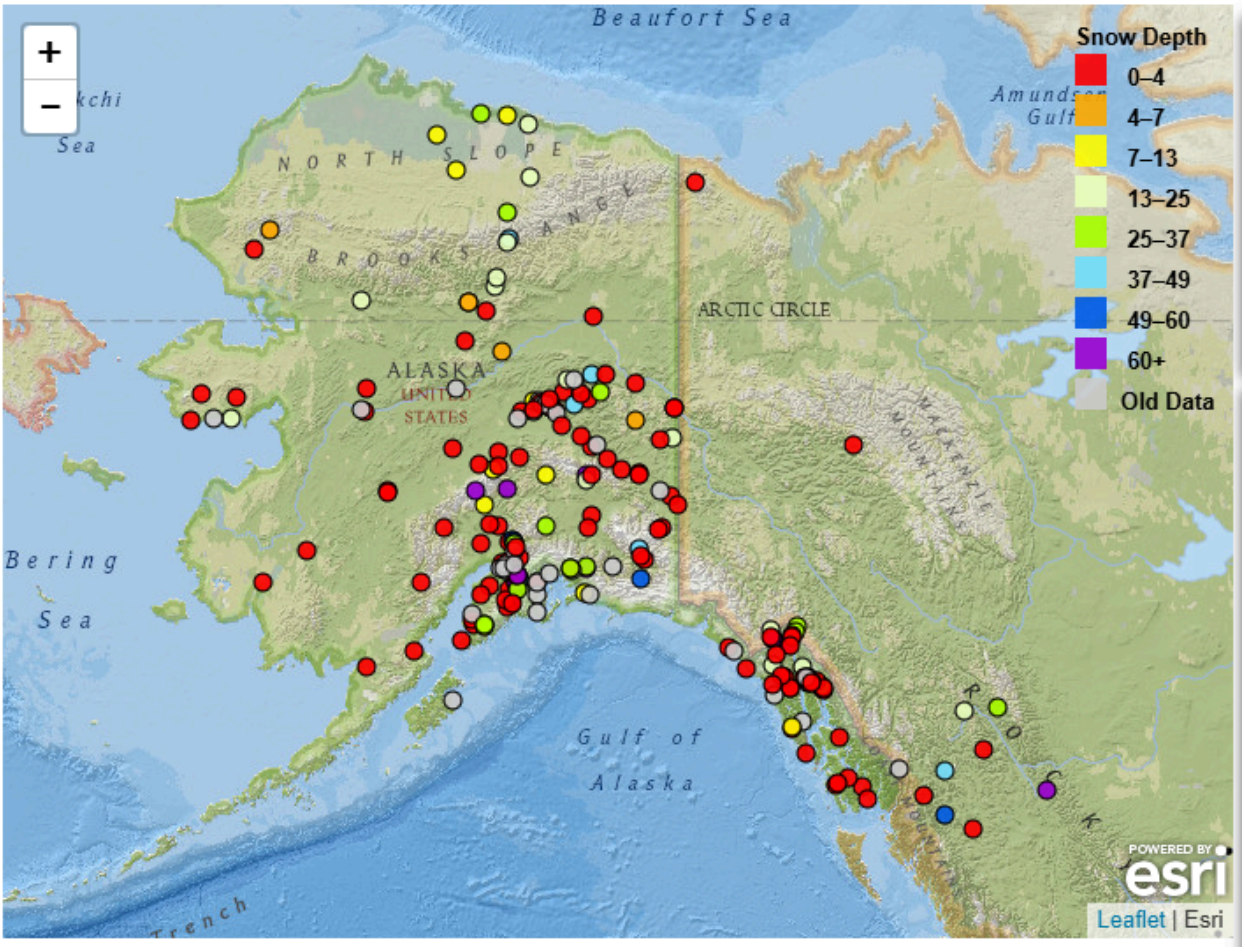
River Ice Observations

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, including much of the Kuskokwim River basin, are mostly snow free. Snowpack in the Upper Chena Basin, White and Porcupine mountains is still robust. Due to colder April temperatures and late season snowfall, the snowpack 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 a.m.s.l., 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 - 05-16-2025 07:11

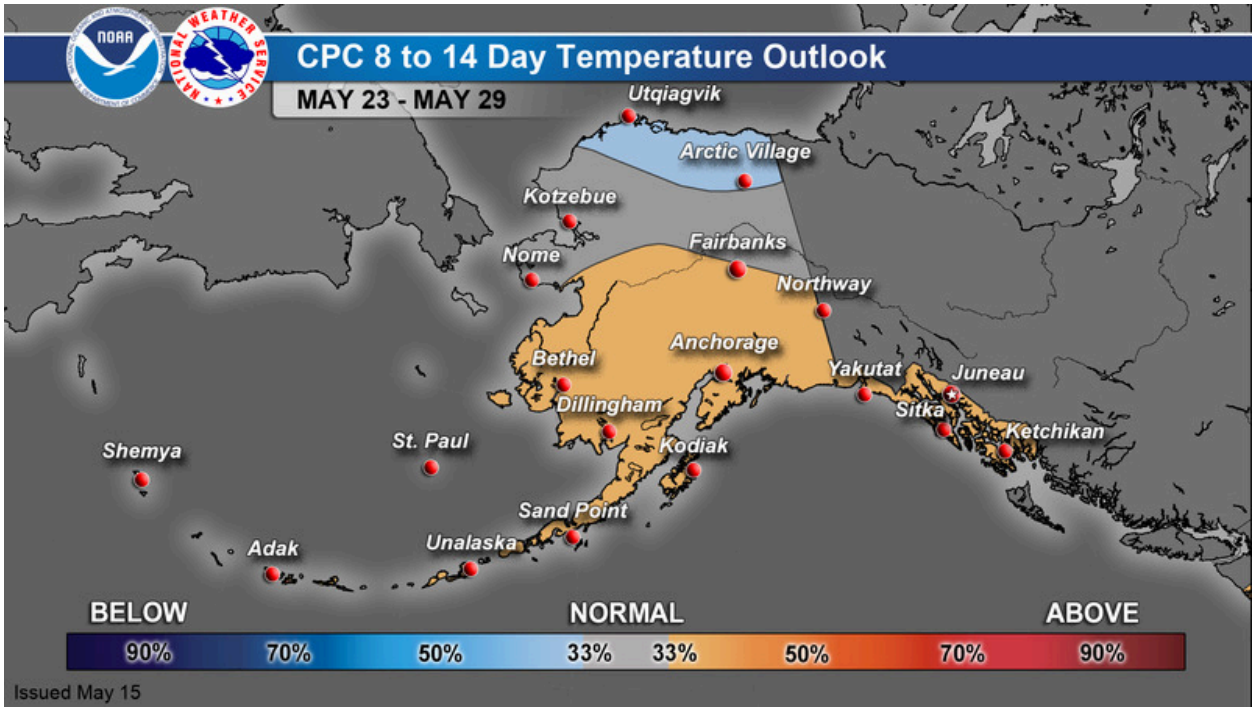


Climate Outlook

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 Temperature Outlook for the end of May favors higher chances of cooler-than-normal conditions along the northern Interior and North Slope, near-normal temperatures in the southern Interior, northwestern coast, and Seward Peninsula, and slightly higher chances of warmer-than-normal conditions in Southwest and Southcentral Alaska including the Y-K Delta and Bristol Bay.

Given that breakup is well underway or over for most of the Yukon River basin and all points south, the interest in temperatures as it relates to ice jam flooding focuses on the areas north of the Brooks Range and southwest of Galena. ***Nothing in these climate forecasts is alarming.*** The cooler-to-normal temperature outlook in Interior Alaska only becomes impactful if it switches to well above normal with the next model run. Breakup has already occurred or is near its end in Southwest and Southcentral Alaska where a warmer temperature outlook has been forecast.



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.

Forecast breakup timing is expressed as a range based on snowmelt runoff volume and flood potential.

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.

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**).

Tanana-Fairbanks						
River-Reach	**Location**	**2025 Snowmelt Runoff Volume**	**Flood Potential**	**Median Breakup Date**	**Years of Record**	**2025 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**	**2025 Snowmelt Runoff Volume**	**Flood Potential**	**Median Breakup Date**	**Years of Record**	**2025 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	5/7-5/13
	Stevens Village		Low	5/11	26	5/8-5/14
	Rampart		Low	5/12	28	5/13**
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	5/10**
	Anvik		Low-Moderate	5/14	36	5/12**
Yukon River (Lower)		Average				
	Holy Cross		Low	5/14	38	5/12**
	Russian Mission		Low	5/15	38	5/12**
	Marshall		Low	5/15	33	5/12**
	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**	**2025 Snowmelt Runoff Volume**	**Flood Potential**	**Median Breakup Date**	**Years of Record**	**2025 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**	**2025 Snowmelt Runoff Volume**	**Flood Potential**	**Median Breakup Date**	**Years of Record**	**2025 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	4/28**
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**	**2025 Snowmelt Runoff Volume**	**Flood Potential**	**Median Breakup Date**	**Years of Record**	**2025 Forecast Breakup Date Range**
Koyukuk River		Above				
	Bettles		Low	5/10	43	5/9-5/15
	Allakaket		Low-Moderate	5/11	38	5/12**
	Hughes		Moderate	5/11	38	5/13**
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	5/31-6/6
Sagavanirktok River		Above				
	Dalton Highway		Low-Moderate			12/27-1/2

The next Spring Breakup Outlook will be published May 23, 2025.

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

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

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