

# Community Climate Charts

## What's up — or down — in your corner of the North?

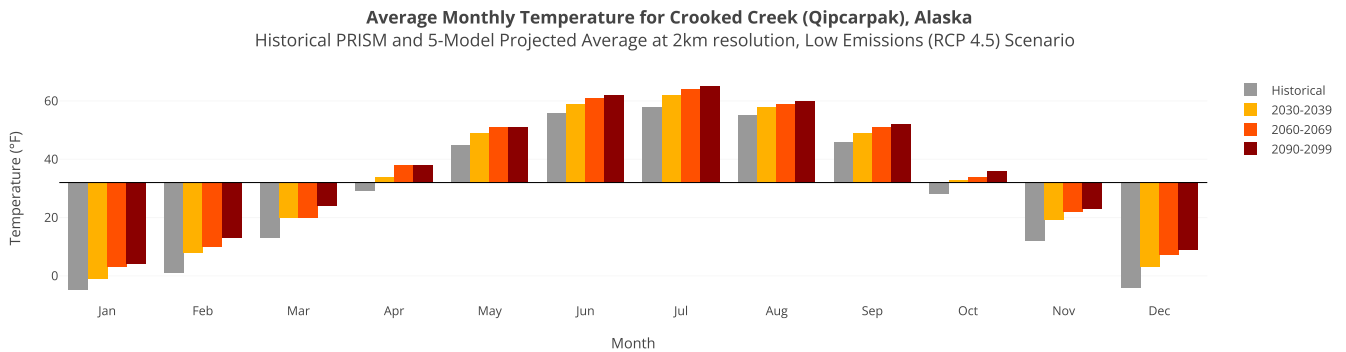
See temperature and precipitation projections through 2099 for over 3,800 communities in Alaska and western Canada.

These projections show only patterns and trends. Look for changes like these:

Higher temperatures in spring and fall could mean a longer growing season and/or a shift from snow to rain.

Warmer, drier spring weather may increase fire risk.

Happy exploring!



These plots are useful for examining possible trends over time, rather than for precisely predicting values.  
Credit: Scenarios Network for Alaska + Arctic Planning, University of Alaska Fairbanks.

## How to interpret climate outlooks for your community

Climate systems naturally change year to year, as do the models built to simulate them. Because of that, these charts are best for examining trends over time, and not for precise predictions. This tool reports precipitation in terms of rainwater equivalent, even though it could occur as rain or snow.

### Look for key changes

For example, higher monthly temperatures in spring and fall may be particularly interesting. Higher temperature could mean any or all of these things:

- A longer growing season.
- A loss of ice and/or frozen ground needed for travel or food storage.
- Precipitation changes. In many locations, winter temperatures are projected to increase dramatically. A shift from snow to rain impacts water storage capacity and surface water availability.
- Increased fire risk. Early snow-melt, warm springs, and hot summers may dry soils and vegetation.
- Changes in species composition. Warmer winters may favor species that are less cold-hardy (including desirable crops and invasive species), or it may mean less snow and/or more rain-on-snow events that impact wildlife.
- Thawing. Higher temperatures will impact permafrost and land-fast ice.

### Scenarios (RCPs)

This tool uses Representative Concentration Pathways (RCPs) to display climate scenarios. RCPs describe paths to future climates based on atmospheric greenhouse gas concentrations. They represent climate futures, or scenarios,

extrapolated out to the year 2100, based on a range of possible future human behaviors. RCPs provide a basis for comparison and a “common language” for modelers to share their work.

The RCP values 4.5, 6.0, and 8.5 indicate projected radiative forcing values—the difference between solar energy absorbed by Earth vs. energy radiated back to space—measured in watts per square meter. RCP X projects that in 2100 the concentration of greenhouse gases will be such that each square meter of Earth will absorb X times more solar energy than it did in 1750.

- RCP 4.5 — “low” scenario. Assumes that new technologies and socioeconomic strategies cause emissions to peak in 2040 and radiative forcing to stabilize after 2100.
- RCP 6.0 — “medium” scenario. Assumes that emissions peak in 2080 and radiative forcing stabilizes after 2100.
- RCP 8.5 — “high” scenario. Emissions increase through the 21st century.

## Download Data

All data used by this tool can be downloaded as a single CSV file from the [SNAP Data Portal](#).



This tool is part of an ongoing collaboration between the [Scenarios Network for Alaska + Arctic Planning](#) and the Government of Northwest Territories. We are working to make a wide range of downscaled climate products that are easily accessible, flexibly usable, and fully interpreted and understandable to users in the Northwest Territories, while making these products relevant at a broad geographic scale.



Please contact [uaf-snap-data-tools@alaska.edu](mailto:uaf-snap-data-tools@alaska.edu) if you have questions or would like to provide feedback for this tool. [Visit the SNAP Climate + Weather Tools page](#) to see our full suite of interactive web tools.

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About the photo: Springtime comes to Ulukhaktok, NWT. Formerly known as Holman, this Inuvialuit community—whose name translates to “where there is ulu material”—is famous for exquisite Inuit prints. Credit: Anne Kokko, used with permission.

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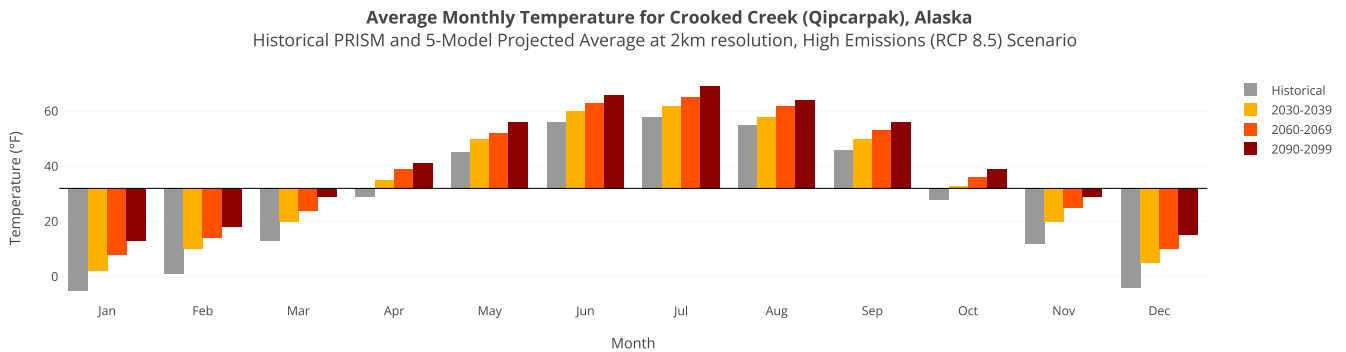
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