



Weather & Climate Summary Yukon-Charley Rivers National Preserve Fall 2024

Fall colors in Yukon-Charley Rivers National Preserve. NPS Photo /Ken Hill

Eagle Fall 2024 Weather Summary

The fall season average temperature was right at the 1991-2020 normal at 23.6°F, with a warmer than normal September and cooler than normal November. The total precipitation (rain and melted snow) for the fall season was just above normal with 3.18 inches over the three month period. The total snowfall was 15.1 inches, normal is 23.3 inches. October snowfall was light with near normal amounts in November (Table 1 and 2, Figures 1 and 2).

September

September was warmer and wetter than normal in Eagle. The average monthly temperature was 2.1°F warmer than normal at 44.6°F. The daily temperatures were near to just above normal for most of the month. On September 3 and 4 the minimum temperatures fell below freezing. It was not the first frost of the season; minimum temperatures were also below 32°F on August 15 and 21. Low temperatures were mostly above freezing until the last few days of the month. The total rainfall for September was 2.28 inches, which is 182% of normal. The two weeks during the middle of the month were the wettest with measurable rain nearly every day between September 8 and 26. It was the 8th wettest September on record (with records back to 1902).

October

October had near normal monthly temperatures but was drier than normal. The average monthly temperature was 0.4°F warmer than normal at 24.9°F. Temperatures were mild through the first two weeks with minimum temperatures above the normal range. There was a brief cold snap on October 19 and 20 with minimum temperatures 14 to 19 degrees colder than normal. Snowfall was light, only 34% of normal with 3.4 inches for the month. The water content of the snow was only 0.30 inches.

November

November was 2.5° F colder than normal at 1.3°F. The month started out warmer than normal for the first week of the month with high temperatures pushing up near the freezing level. After that temperatures cooled. Thanksgiving weekend (the last four days of the month) was the coldest compared to low temperatures bottoming out at -44°F on November 29 and 30. The last three days of the month averaged 32°F colder than normal. Total snowfall for November was 11.7 inches with a water content of 0.60 inches, just shy of normal by 0.12 inches.

Table 1. Fall 2024 average monthly temperatures compared to the 1991-2020 normal.

Fall 2024	Average Monthly Temp (°F)	1991-2020 Normal (°F)	Departure from Normal (°F)
September	44.6	42.5	2.1
October	24.9	24.5	0.4
November	1.3	3.8	-2.5

Fall Temperature Departure from normal: 0.0°F

Table 2. Fall 2024 monthly precipitation totals compared to normal.

Fall 2024	Total Monthly Precip. (in.)	1991-2020 Normal (in.)	Departure from Normal (in.)
September	2.28	1.25	1.03
October	0.30	0.94	-0.64
November	0.60	0.72	-0.12

Fall Precipitation Departure from normal: +0.27 inches (109%)

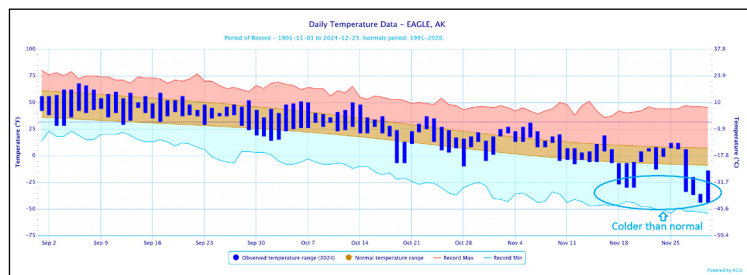


Figure 1. Fall 2024 daily temperatures at Eagle showing record maximum (red), record minimum (blue), normal (brown) and observed range (blue bars). <http://xmacis.rcc-acis.org/>

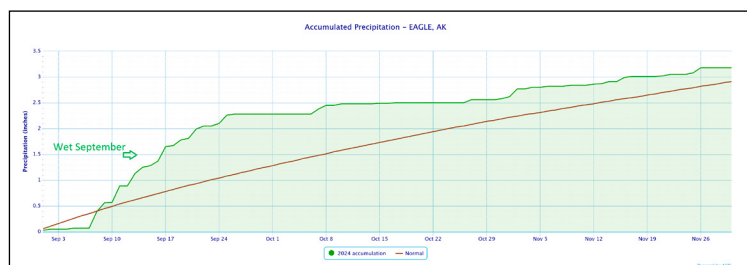


Figure 2. Fall 2024 accumulated precipitation at Eagle (green) compared to normal (brown line). <http://xmacis.rcc-acis.org/>

Water Year Precipitation Wrap Up

It was the 12th wettest year in Eagle with precipitation records back to 1918 (including years with <15 days missing). The total precipitation for the year was 14.68 inches, which is 114% of normal. The three wettest months were October 2023 (181% of normal), January 2024 (163% of normal), and September 2024 (182% of normal). We use the water year for annual calculations to capture the entire winter season. Most of Alaska was wetter than normal for the 2024 water year (Figure 3 – green shading indicates a wetter year compared to the 1991–2020 normal period). Most of Yukon-Charley Rivers was in the near normal range (grey shading).

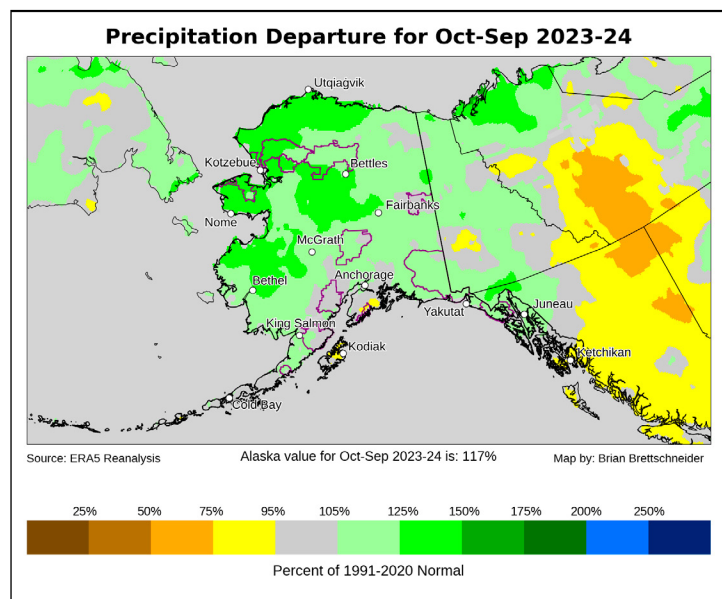


Figure 3. Statewide precipitation departure from normal for the 2024 water year from October 2023 – September 2024 (back to 1940). Map courtesy of Brian Brettschneider using ERA5 reanalysis data. Green shading indicates wetter than normal.

Warmer Fall Seasons at Coal Creek

This fall was cooler than the past few fall seasons, but warmer than average at the Coal Creek climate station. At -21.9°F it was 0.8°F warmer than the 20 year average. October was the warmest month compared to average ($+1.1^{\circ}\text{F}$), followed by November ($+0.9^{\circ}\text{F}$), and then September ($+0.4^{\circ}\text{F}$). The fall season has warmed by a significant 2.3°F over the past two decades (using the Mann-Kendall trend test). The warmest fall season at Coal Creek was in 2019 at 25.3°F followed by a tie for the second warmest in 2022 and 2023 at 25.1°F . The coolest fall was in 2012, well below the period of record average at 13.8°F (Figure 4).

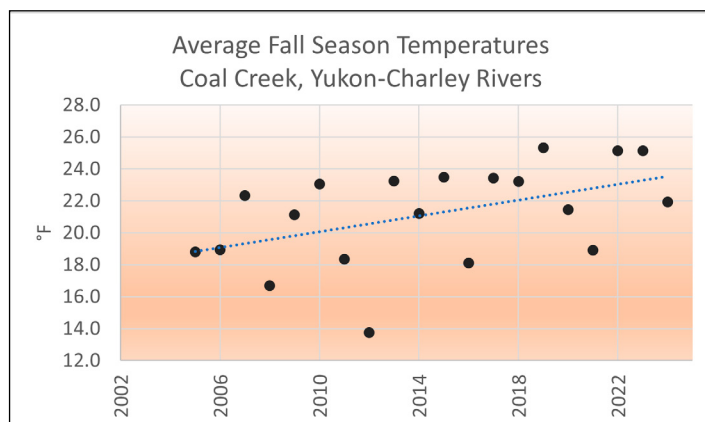


Figure 4. Fall season average temperatures at the Coal Creek climate station.

[Click here](#) to view the current weather in Yukon-Charley Rivers National Preserve (Figure 5).

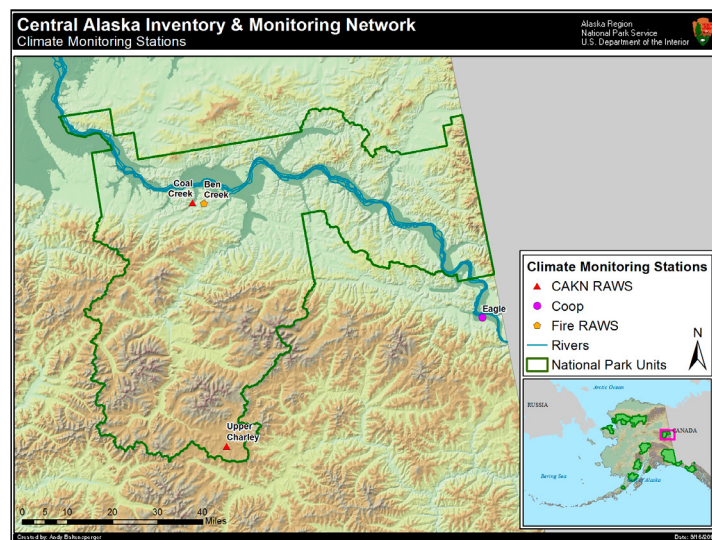


Figure 5. Central Alaska Inventory and Monitoring Network climate stations in Yukon-Charley Rivers National Preserve.

More Information

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<https://www.nps.gov/im/cakn/climate.htm>

Data disclaimer: Please note that the near-real time data used to generate these reports is subject to change. QA/QC data from the NPS CAKN climate stations are available at [NPS Data Store](#)