



# Winter Outlook 2023-24

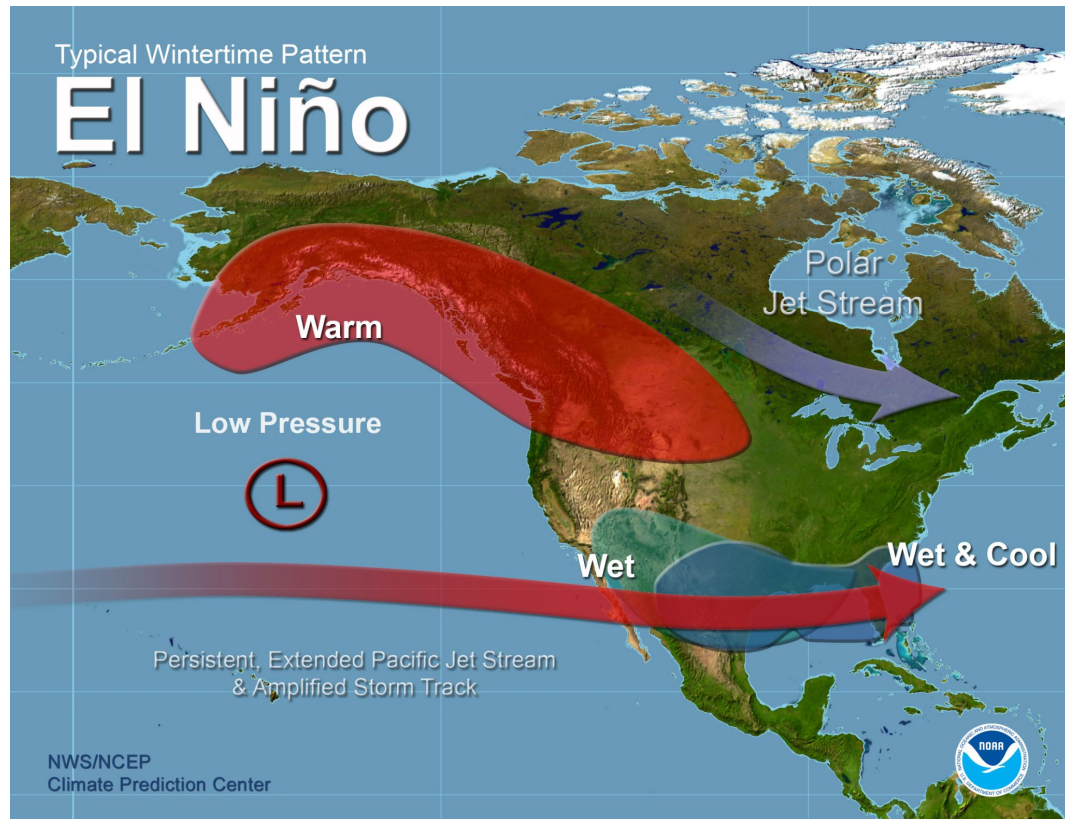
Mid October Update

October 20, 2023

1:00 PM

## Key Messages

- **El Niño** conditions are ongoing, with a greater than 95% chance of it lasting through the Northern Hemisphere winter.
- Confidence is high (75-85% chance) in this becoming a strong El Niño event. This event has a 30% chance in becoming **historically** strong.
- El Niño events typically favor warmer and drier conditions during the winter across North Dakota, although other climate drivers can diminish or even cancel out this impact.



National Oceanic and  
Atmospheric Administration  
U.S. Department of Commerce

National Weather Service  
Bismarck, ND



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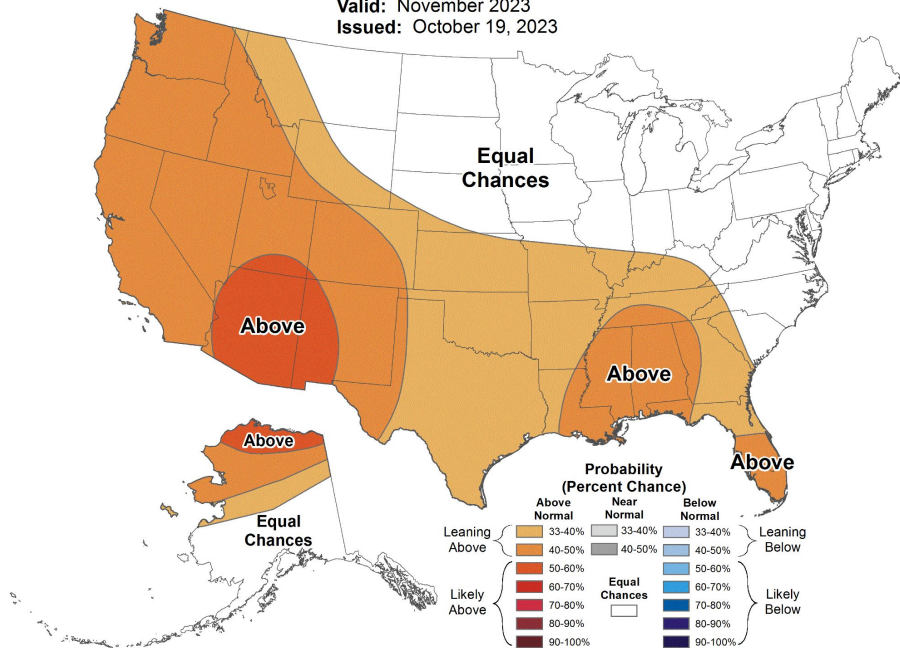
October 20, 2023  
1:00 PM

Mid October Update: Maps shown are for November



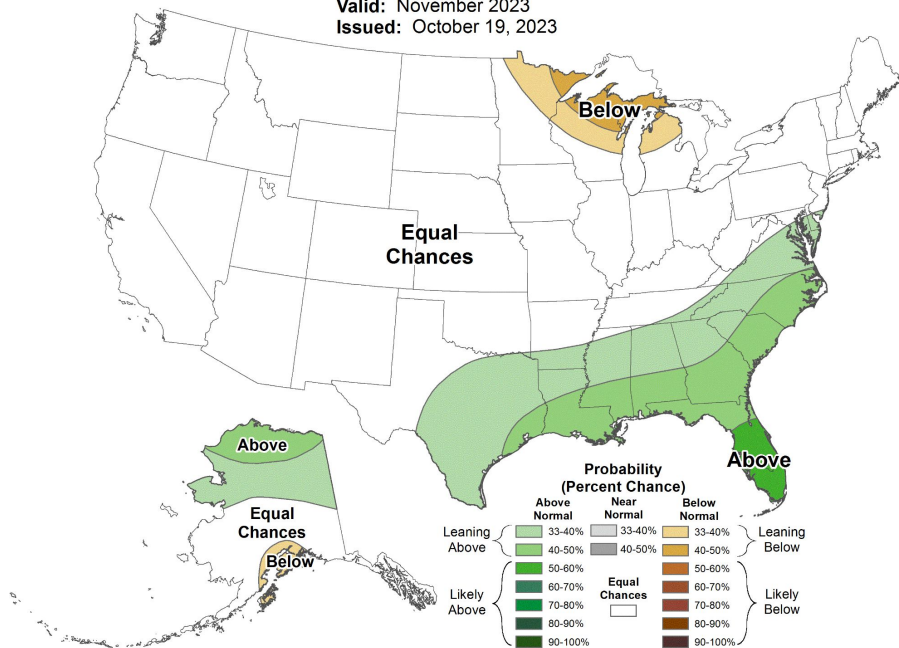
## Monthly Temperature Outlook

Valid: November 2023  
Issued: October 19, 2023



## Monthly Precipitation Outlook

Valid: November 2023  
Issued: October 19, 2023



There are equal chances for above, below, or near normal temperatures and precipitation in November. La Niña autumns, which we had the past 3 years, are typically mild before a sharp drop into prolonged colder temperatures for winter. In comparison, El Niño autumns are favored to be closer to normal, before a more gradual transition into winter temperatures.



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# Winter Outlook 2023-24

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Mid October Update: Maps shown are for December/January/February

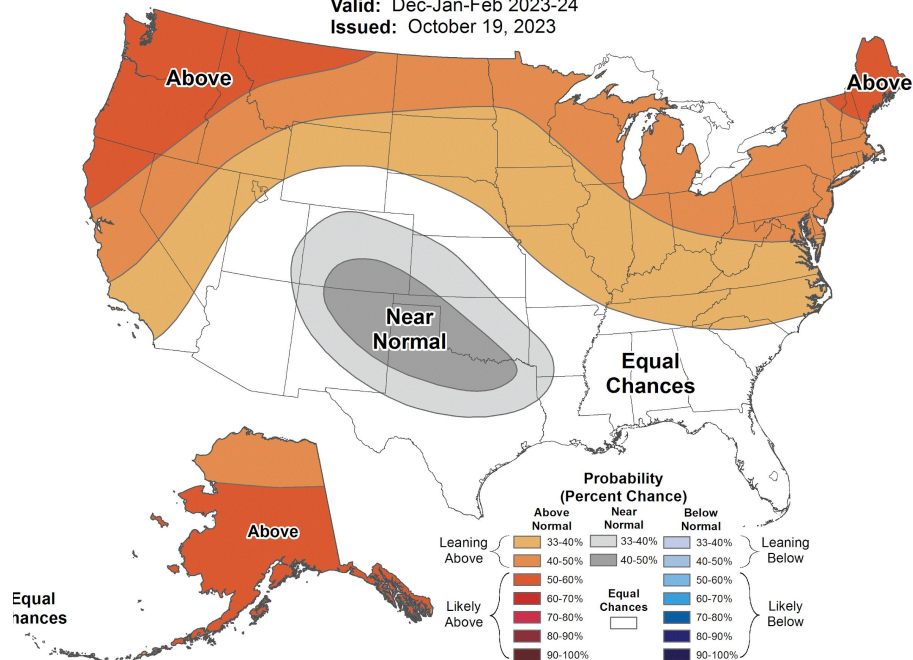


## Winter Temperature Outlook



Valid: Dec-Jan-Feb 2023-24

Issued: October 19, 2023

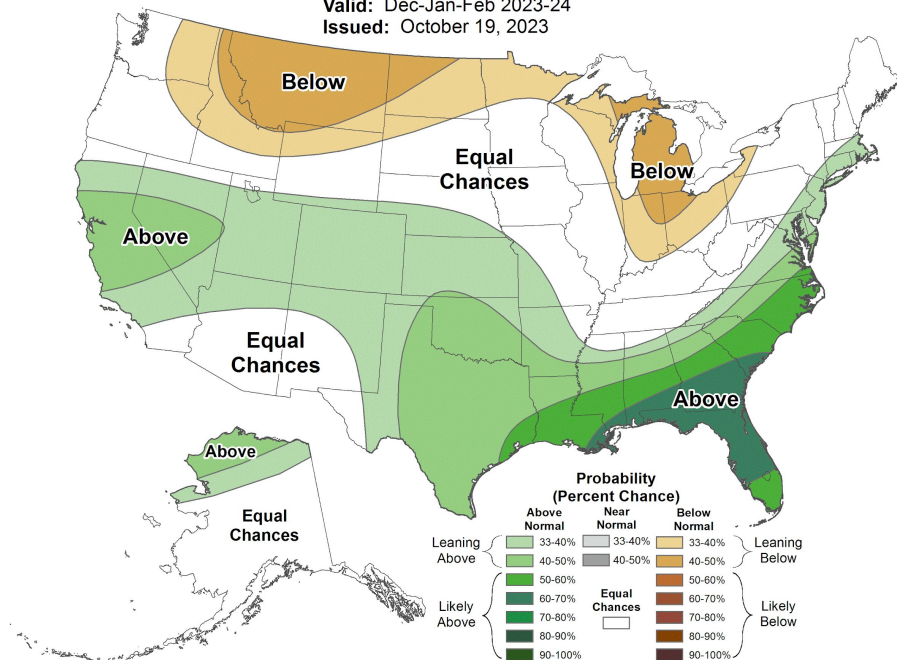


## Winter Precipitation Outlook



Valid: Dec-Jan-Feb 2023-24

Issued: October 19, 2023



Due to the ongoing El Niño, this winter is favored to have above average temperatures (~45% chance). However, we will still have cold periods during the winter, and it is possible that the entire season ends up below average (22% chance). There is a slight tilt towards below normal precipitation (33-43% chance), but it only takes one big snowstorm to significantly increase our seasonal snow total.







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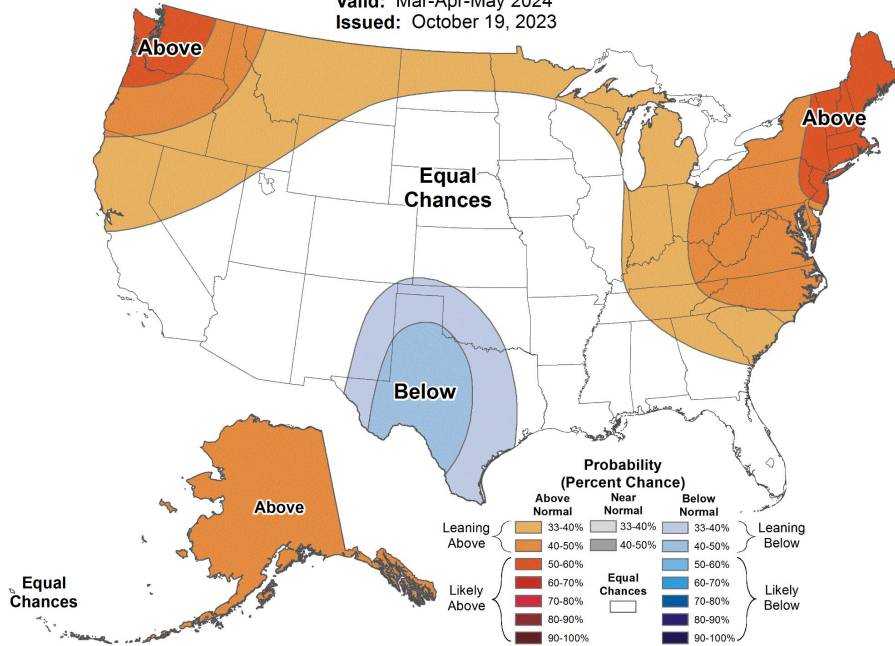
Mid October Update: Maps shown are for March/April/May



## Spring Temperature Outlook



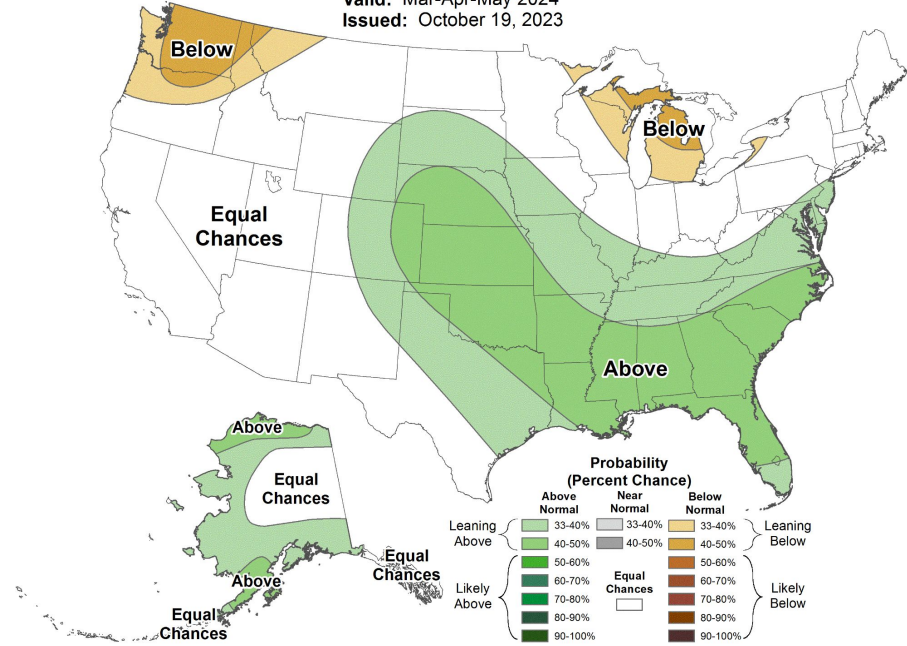
Valid: Mar-Apr-May 2024  
Issued: October 19, 2023



## Spring Precipitation Outlook



Valid: Mar-Apr-May 2024  
Issued: October 19, 2023



The influence of the ongoing El Niño is expected to continue through the spring season. The favored warmth in the winter from the El Niño is normally expected to continue into spring, but long-term cooling trends in the spring oppose the El Niño warmth, keeping chances for above normal temperatures very close to normal (34%). There are equal chances for above, below, or near normal precipitation.





### What are we expecting?

#### Temperature

- Near normal remainder of fall before warmer than normal temperatures favored in winter
  - The transition from fall to winter weather is not expected to be as drastic as in recent past (La Niña) years
- Warm trend weakens late in the winter, with no strong signal for spring yet (ENSO and long term trends cancel each other out)

#### Precipitation

- El Niño events skew towards lower than normal snowfall, mainly due to warmer than normal temperatures
- Early winter is favored to be drier than late winter into the spring
- Based on previous winter seasons with a strong El Niño, expect near to slightly below normal snow
- Could end up very dependent on springtime snow for seasonal totals