

2025 Spring Fire Weather Outlook



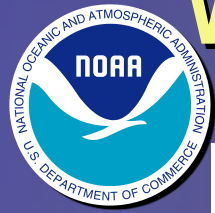
Perry Basin Prescribed Burn 4/26/24

Brooke Taber
WFO BTV
7 April 2025

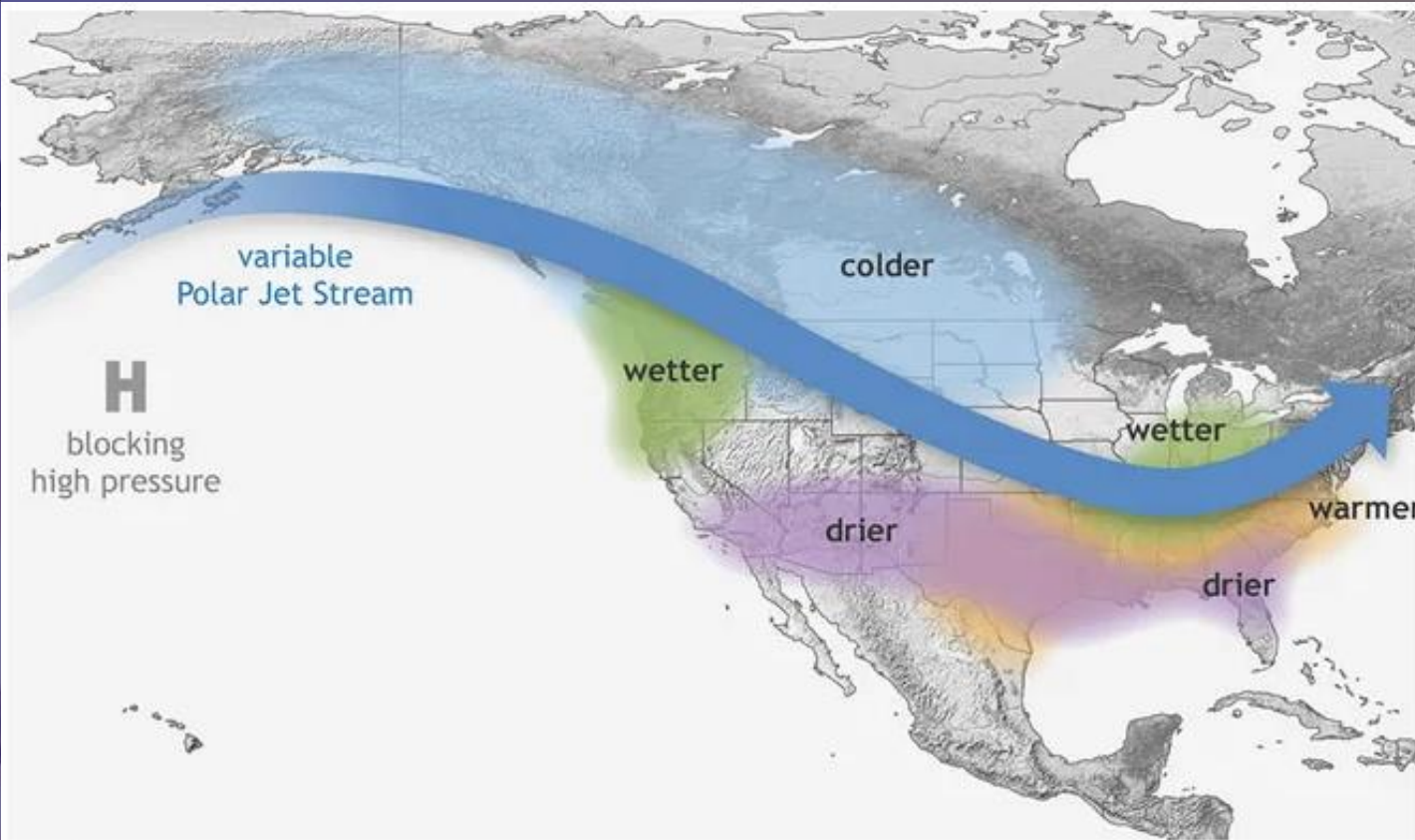


Discussion Items

- **Winter 2024-25 Pattern**
- **Precipitation and snowfall totals to date**
- **Precipitation and temperature outlooks**
- **Drought Monitor and Predictive Services Outlook**
- **2025 Fire Weather Outlook**



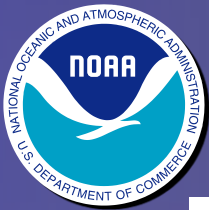
Winter 2024-25 Pattern with La Nina



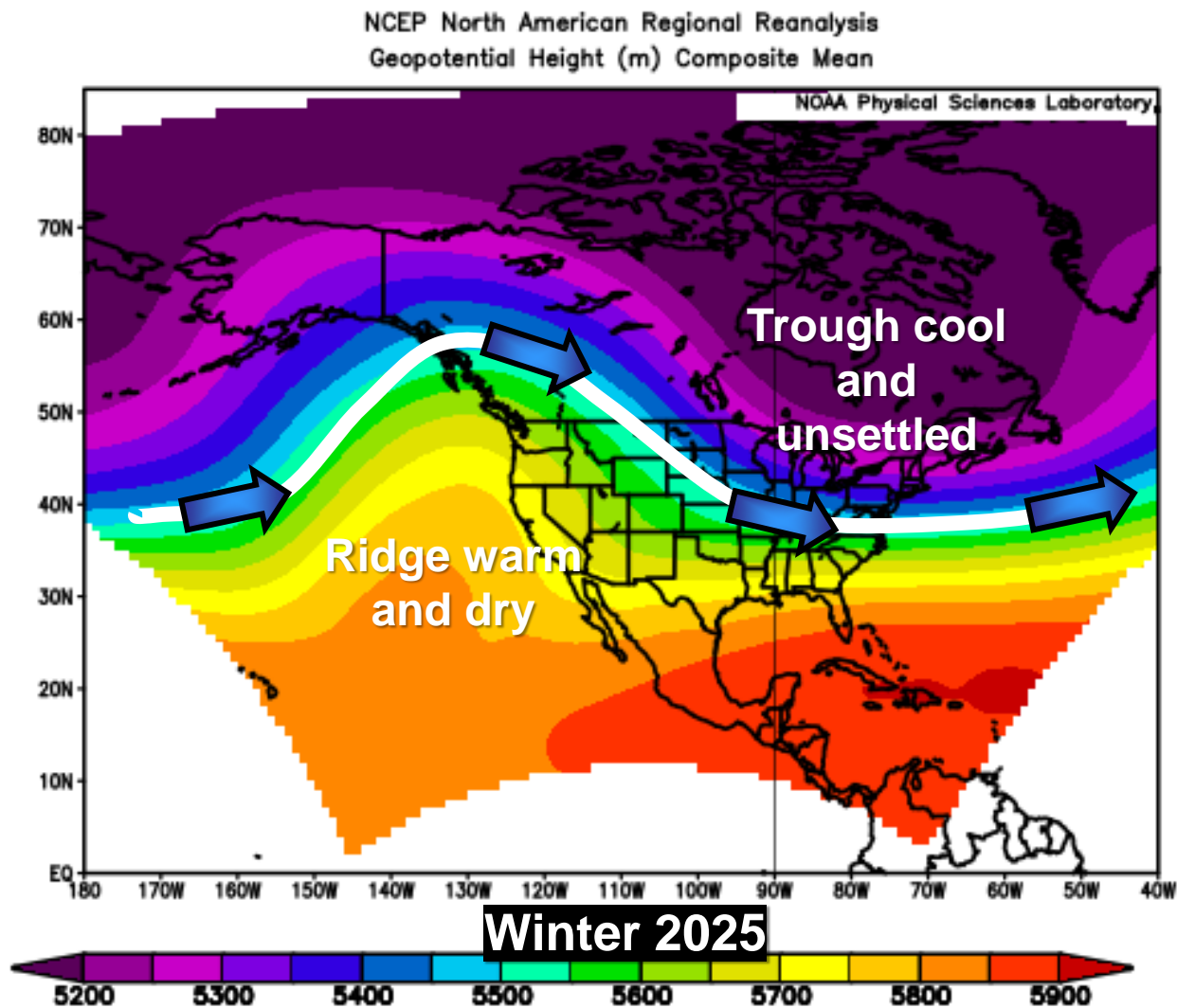
La Niña causes the jet stream to move northward and to weaken over the eastern Pacific. During La Niña winters, the South sees warmer and drier conditions than usual. The North and Canada tend to be wetter and colder. NOAA

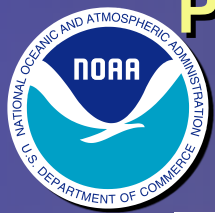
Jet Stream

- Fast ribbon of air 25,000 to 35,000 feet above surface
- Divides warm air to the south and cool air to the north
- Helps in the development and track of cyclones



Winter Jet Position



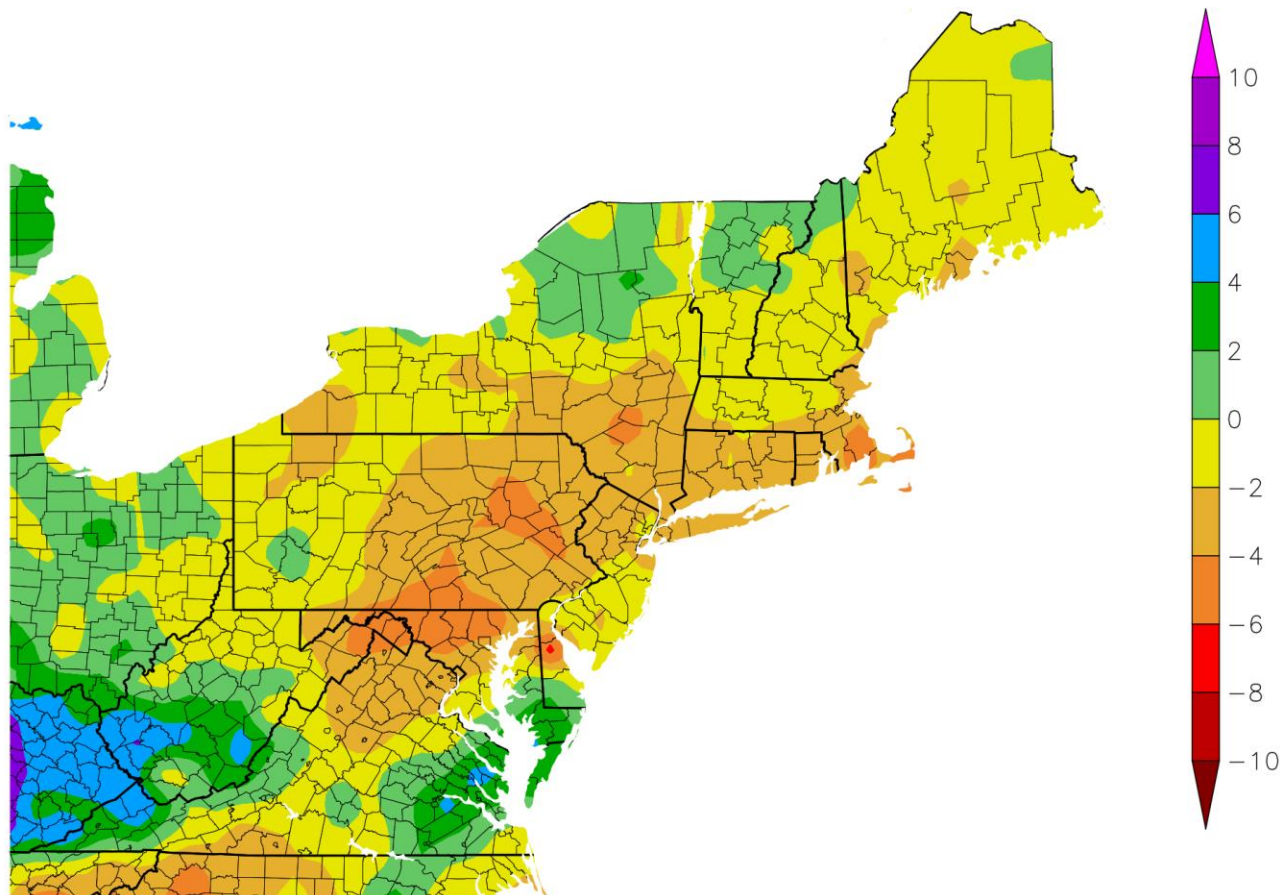


Precipitation Totals and Departures Last 90 Days

<https://hprcc.unl.edu/>



Departure from Normal Precipitation (in)
1/6/2025 – 4/5/2025

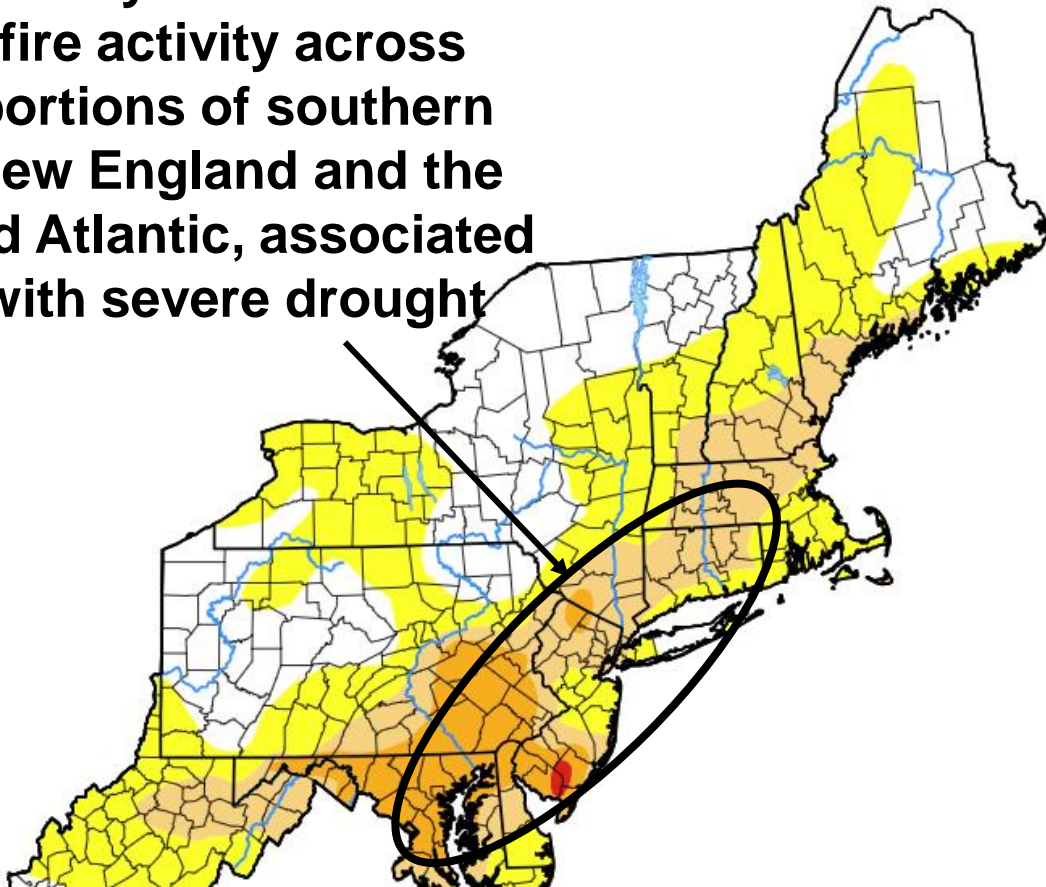




Drought Monitor

Northeast

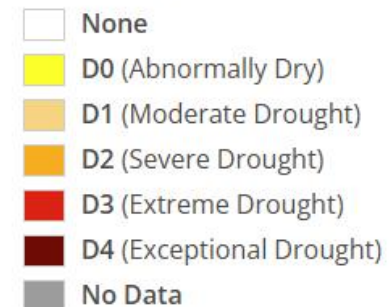
Already above normal fire activity across portions of southern New England and the Mid Atlantic, associated with severe drought



Map released: Thurs. April 3, 2025

Data valid: April 1, 2025 at 8 a.m. EDT

Intensity



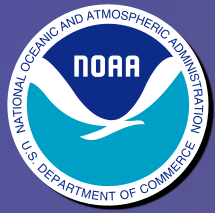
Authors

United States and Puerto Rico Author(s):

[David Simeral](#), Western Regional Climate

Pacific Islands and Virgin Islands Author(s):

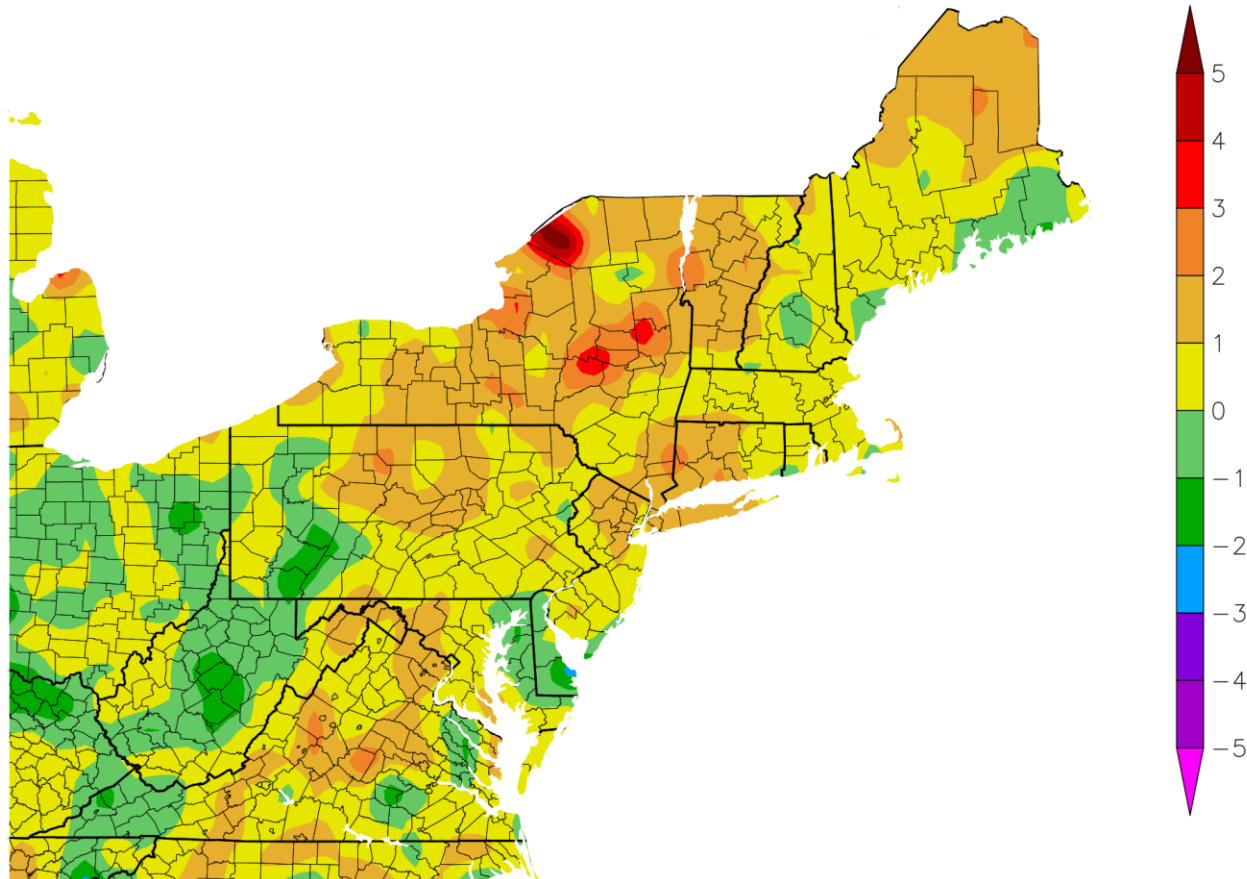
[Anthony Artusa](#), NOAA/NWS/NCEP/CPC



Pattern Impact on Temperatures Last 90 Days

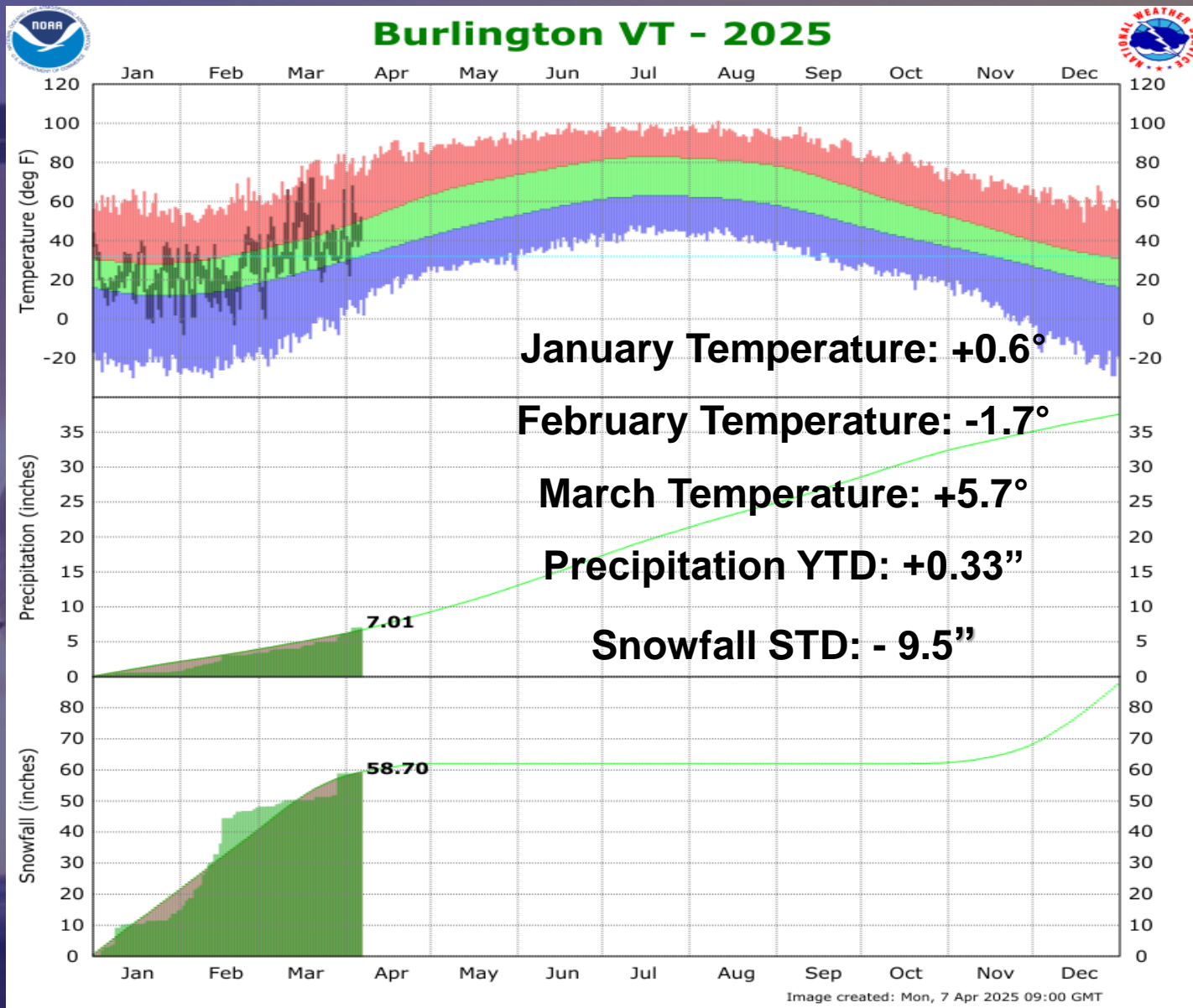


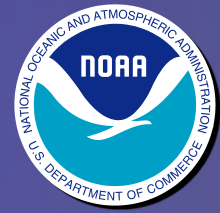
Departure from Normal Temperature (F)
1/1/2025 – 4/5/2025





Burlington Temperature/Precipitation and Snowfall for 2025





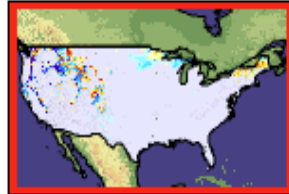
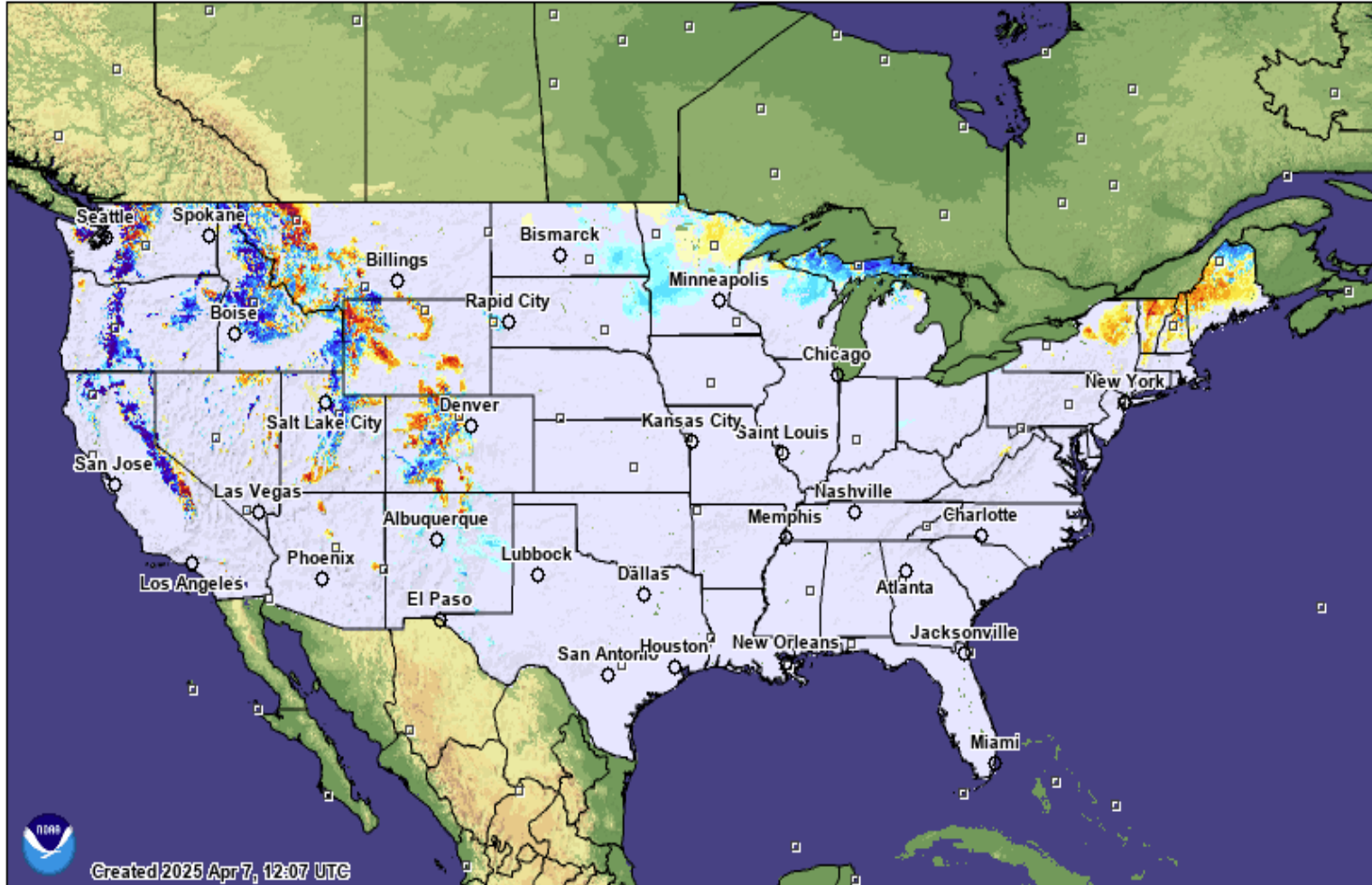
Pattern Impact on Snow Coverage as of 7 April 2025

<https://www.nohrsc.noaa.gov/>

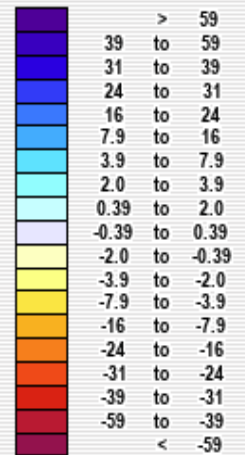


Modeled Snow Depth Departure from Normal (Daily) for 2025 April 7, 6:00 UTC

2341 mi



Inches of depth



Not Estimated

Elevation in feet



Created 2025 Apr 7, 12:07 UTC

4175 mi



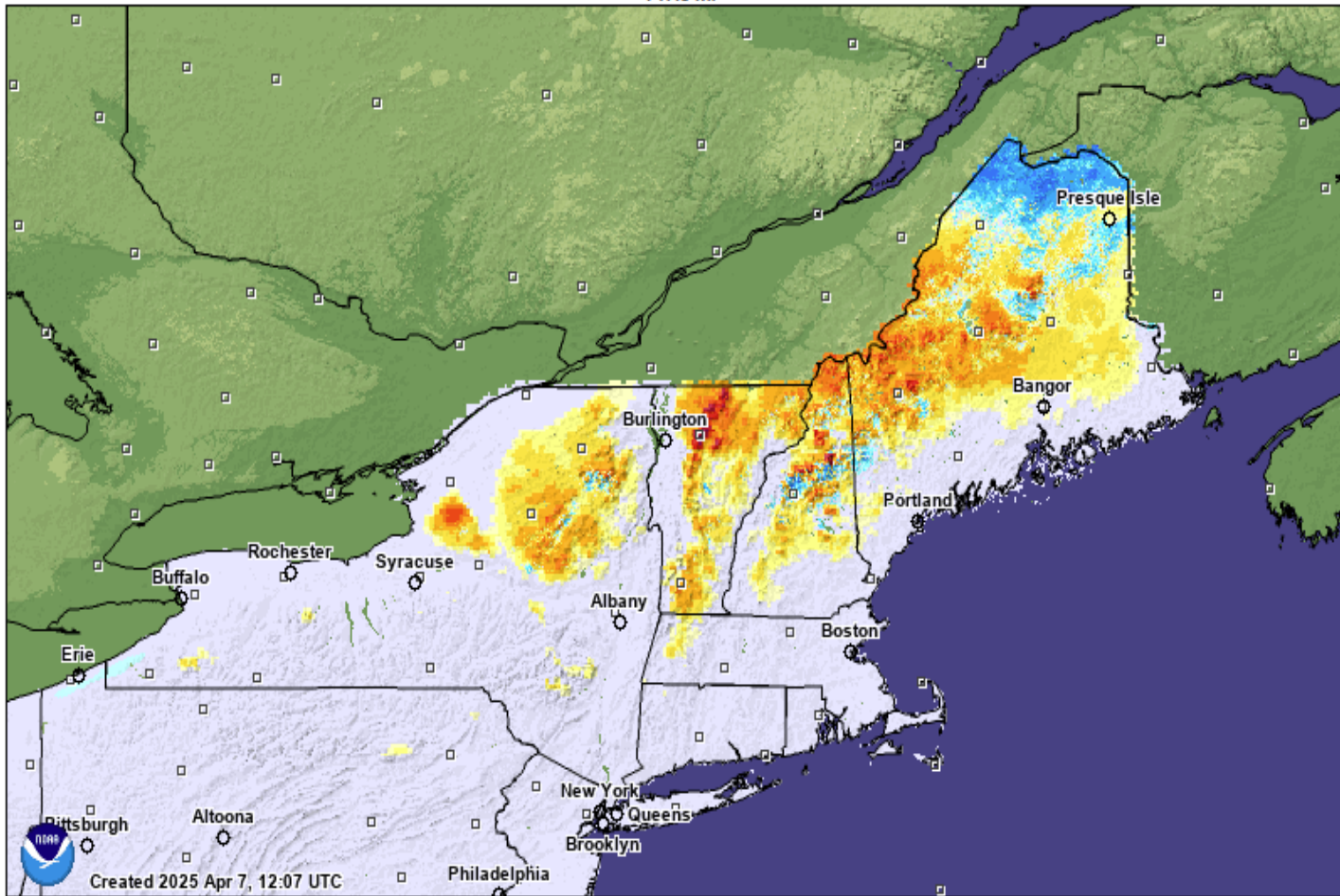
Northeast Snow Depth as of 7 April 2025

<https://www.nohrsc.noaa.gov/>



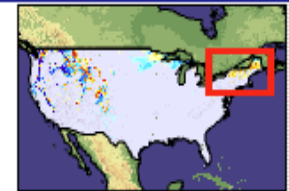
Modeled Snow Depth Departure from Normal (Daily) for 2025 April 7, 6:00 UTC

717.8 mi

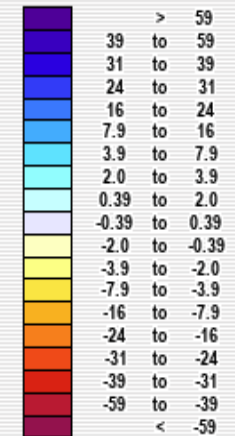


Created 2025 Apr 7, 12:07 UTC

835 mi



Inches of depth



Not Estimated

Elevation in feet



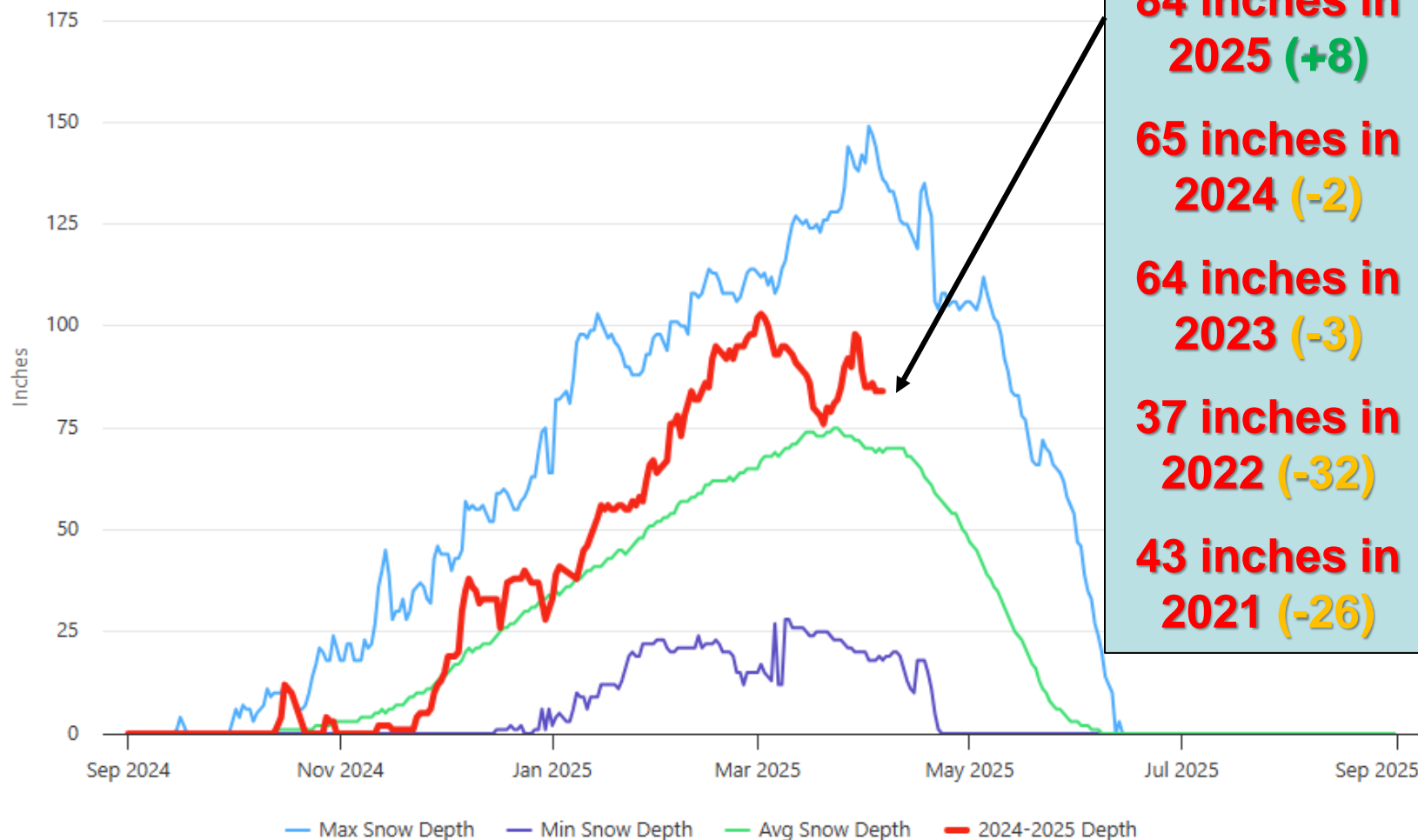


Snow Depth at Mount Mansfield in 2025 vs. Average



Mount Mansfield Snow Depth for 2024-2025

Click and drag in plot area to zoom in





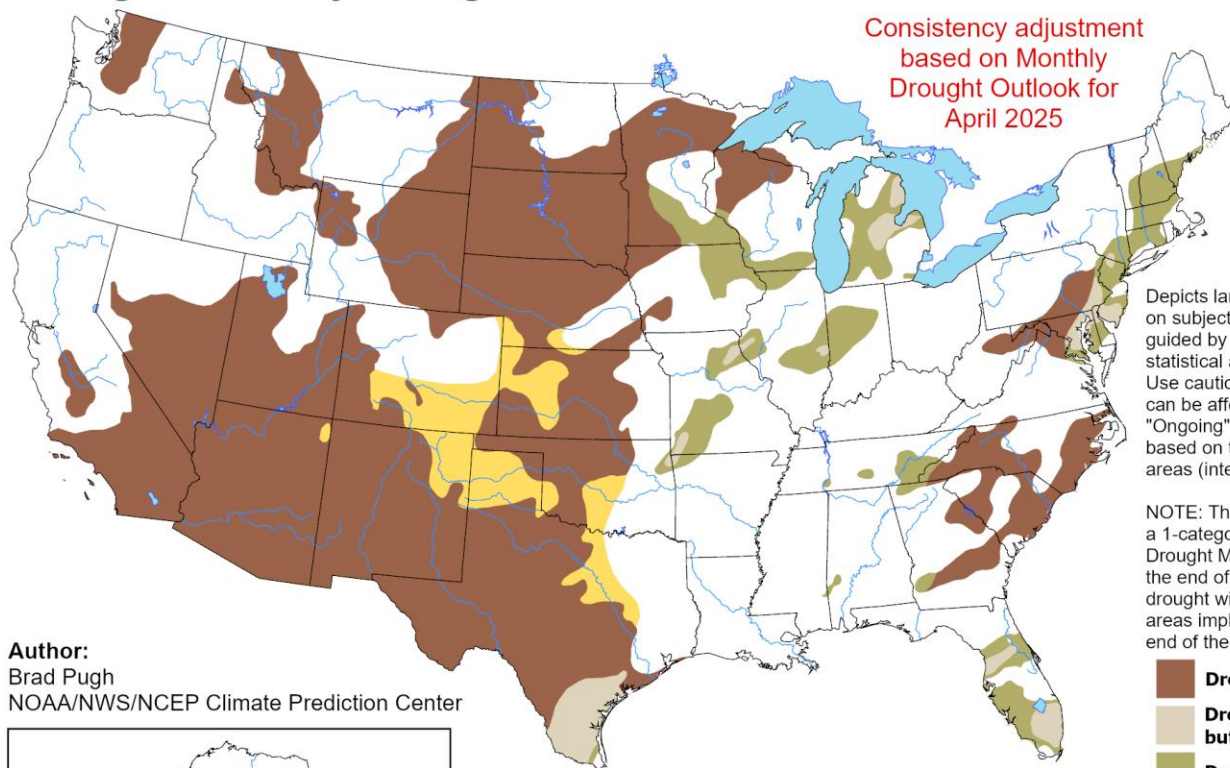
Seasonal Drought Outlook



U.S. Seasonal Drought Outlook Drought Tendency During the Valid Period

Valid for April 1 - June 30, 2025
Released March 31, 2025

Consistency adjustment
based on Monthly
Drought Outlook for
April 2025

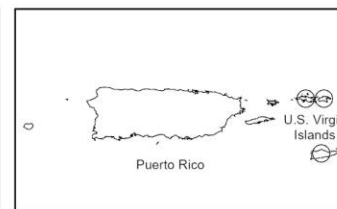
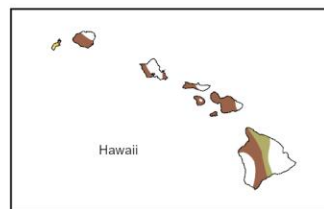


Depicts large-scale trends based on subjectively derived probabilities guided by short- and long-range statistical and dynamical forecasts. Use caution for applications that can be affected by short lived events. "Ongoing" drought areas are based on the U.S. Drought Monitor areas (intensities of D1 to D4).

NOTE: The tan areas imply at least a 1-category improvement in the Drought Monitor intensity levels by the end of the period, although drought will remain. The green areas imply drought removal by the end of the period (D0 or none).

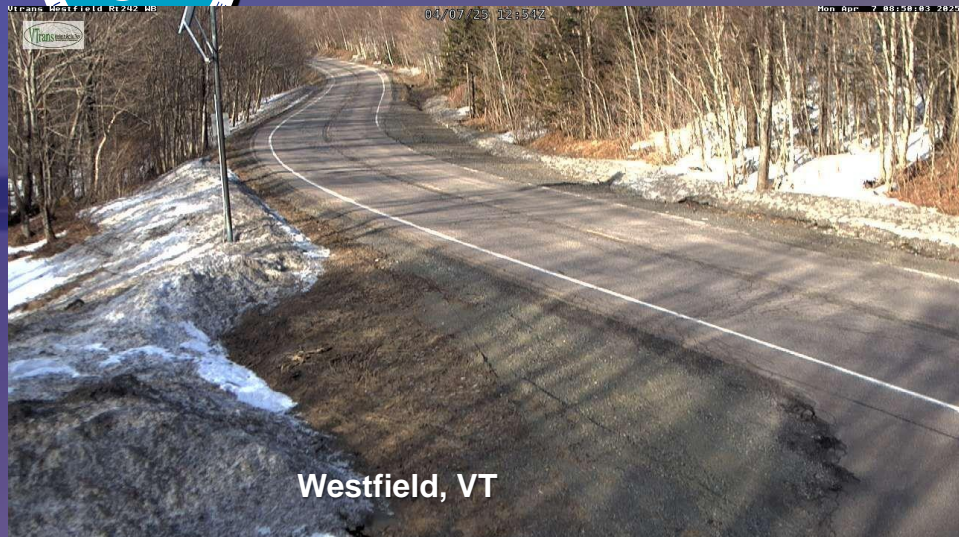
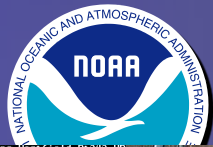
- Drought persists
- Drought remains, but improves
- Drought removal likely
- Drought development likely
- No drought

Author:
Brad Pugh
NOAA/NWS/NCEP Climate Prediction Center



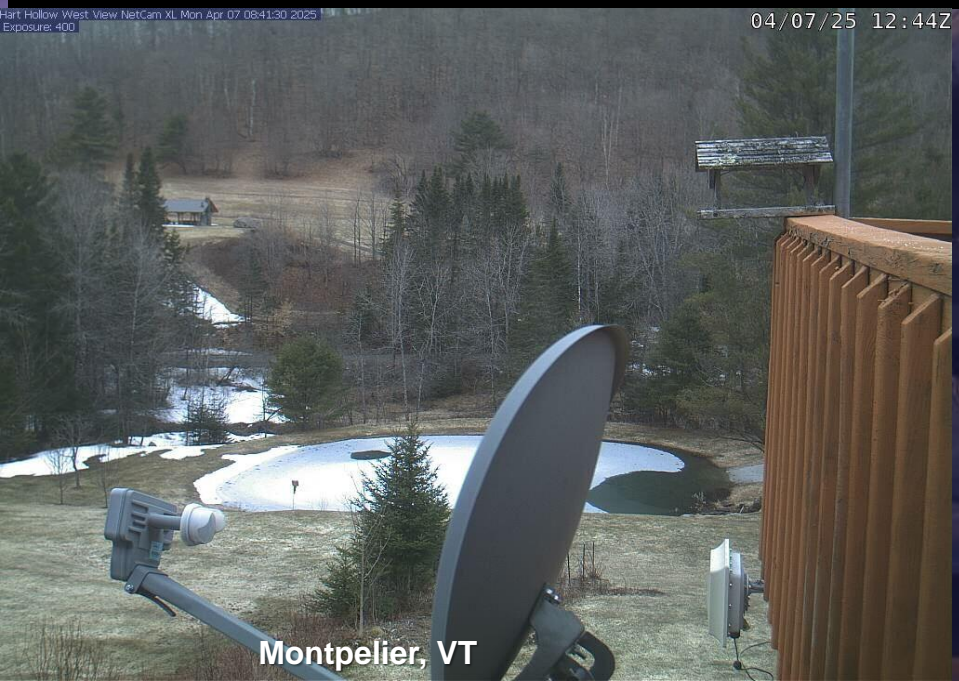
<https://go.usa.gov/3eZ73>

Web Cam Pictures as of April 7, 2025



Westfield, VT

Monday, April 7, 2025 8:54:36 AM



Montpelier, VT



Jericho, VT



Canaan, VT

Monday, April 7, 2025 8:57:32 AM



2024-2025 Winter to Date

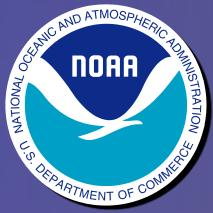


- **Near normal temperatures for winter of 2025, but much cooler than previous winter of 2024.**
- **Precipitation near normal to below normal by 1 to 3 inches in a few spots.**
- **Snowfall near normal in the valley and above normal at summits with no big warm ups and melts this winter.**
- **Significant pattern change occurring for March with above normal temperatures and precipitation expected.**



Outlook/Predictions

- 8 to 14 Day Outlook
- Monthly Outlook
- Spring Outlook/Predictive Services
- My Thoughts



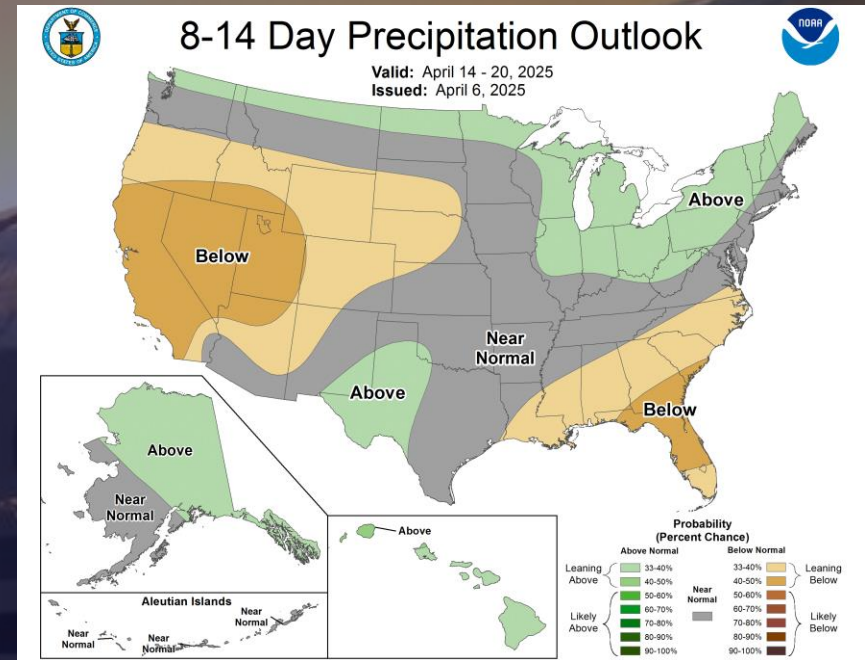
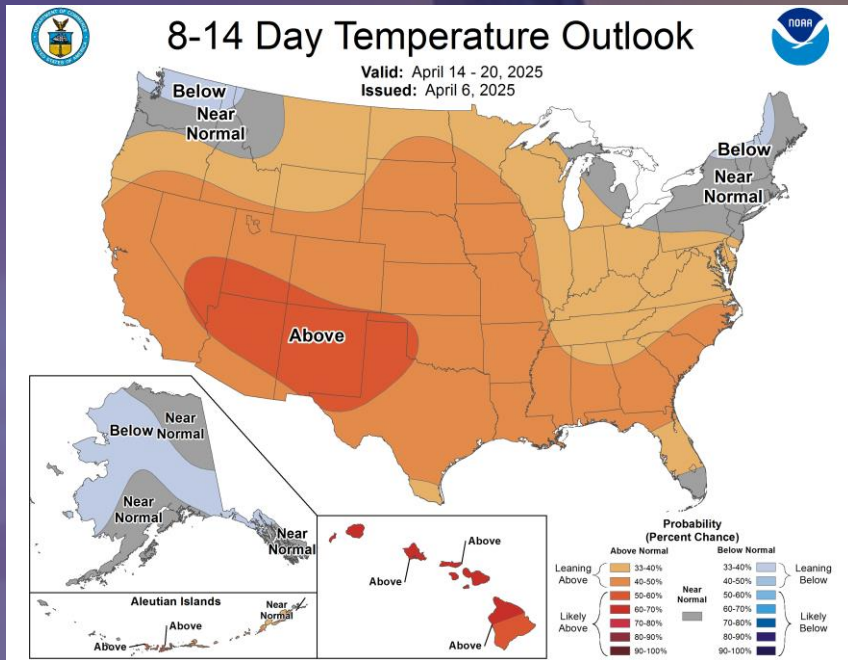
8 to 14 Day Outlook

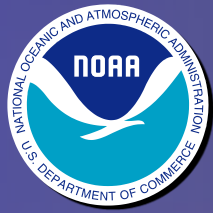


<https://www.cpc.ncep.noaa.gov/>

Temperature

Precipitation



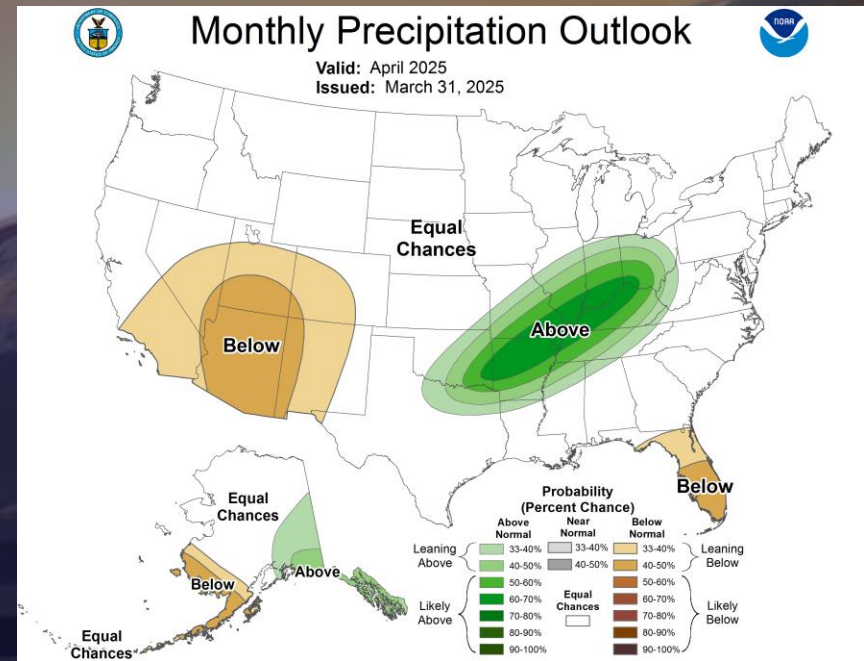
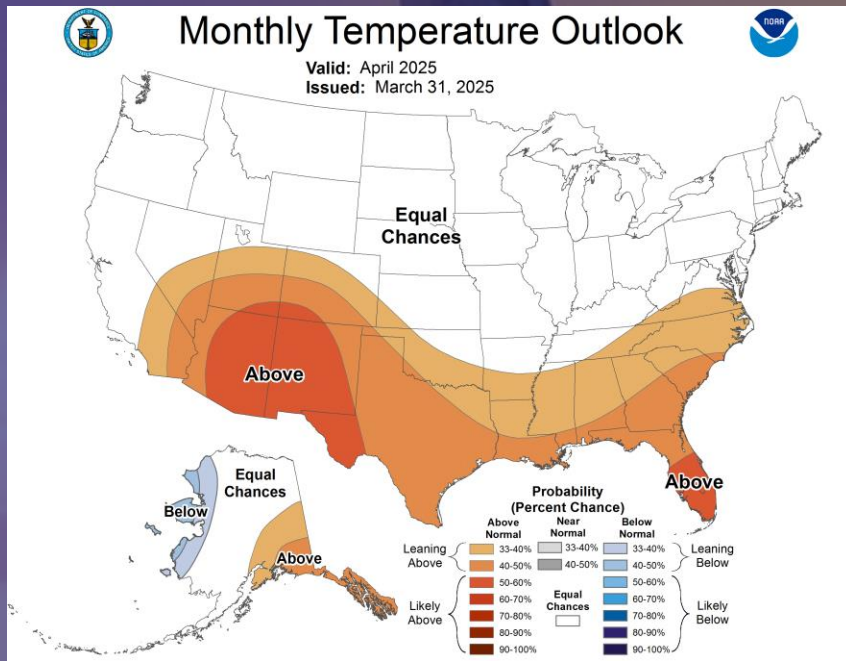


Outlook March 22nd thru April 4th



Temperature

Precipitation



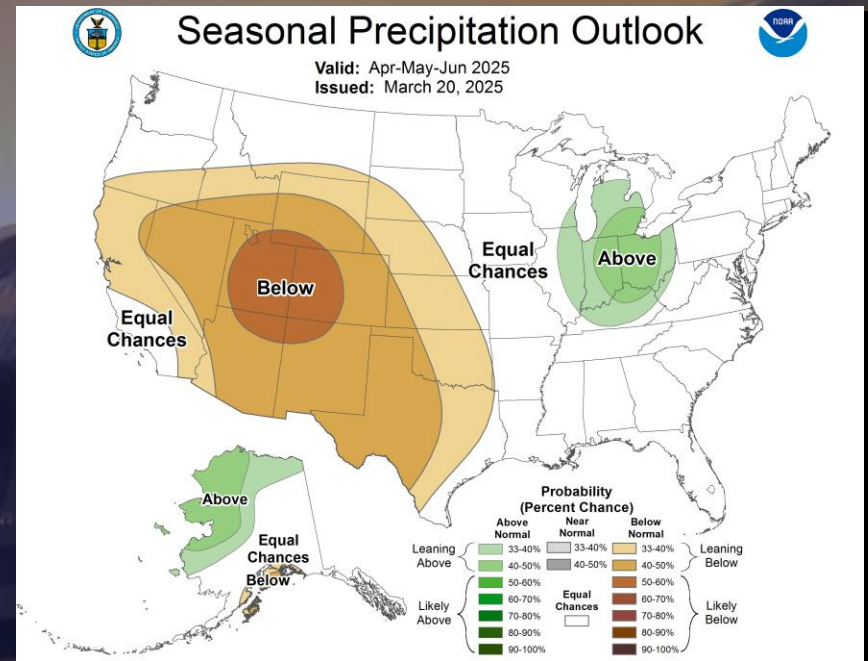
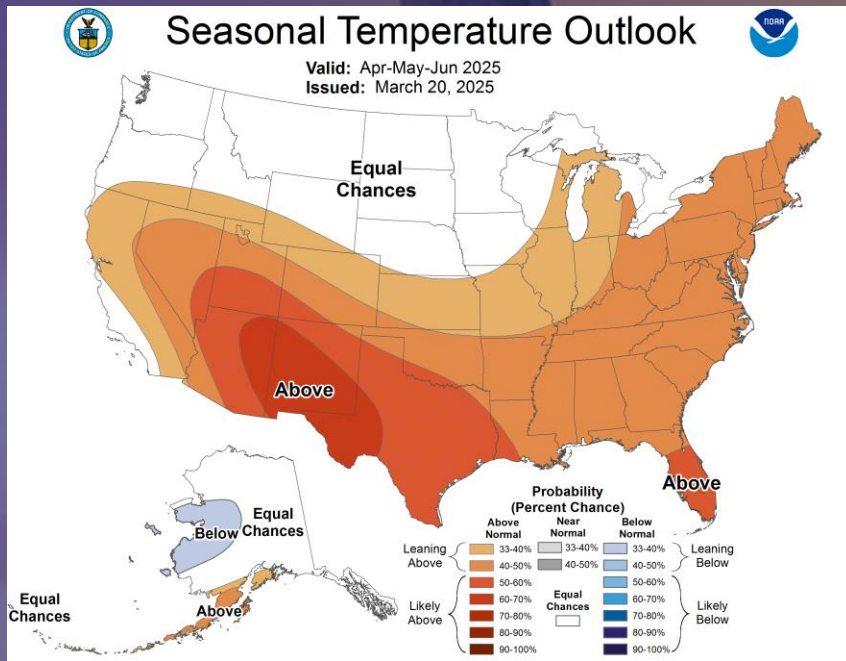


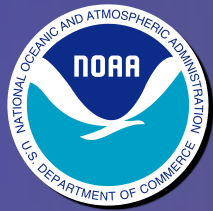
90 Day Temp/Precip Outlook



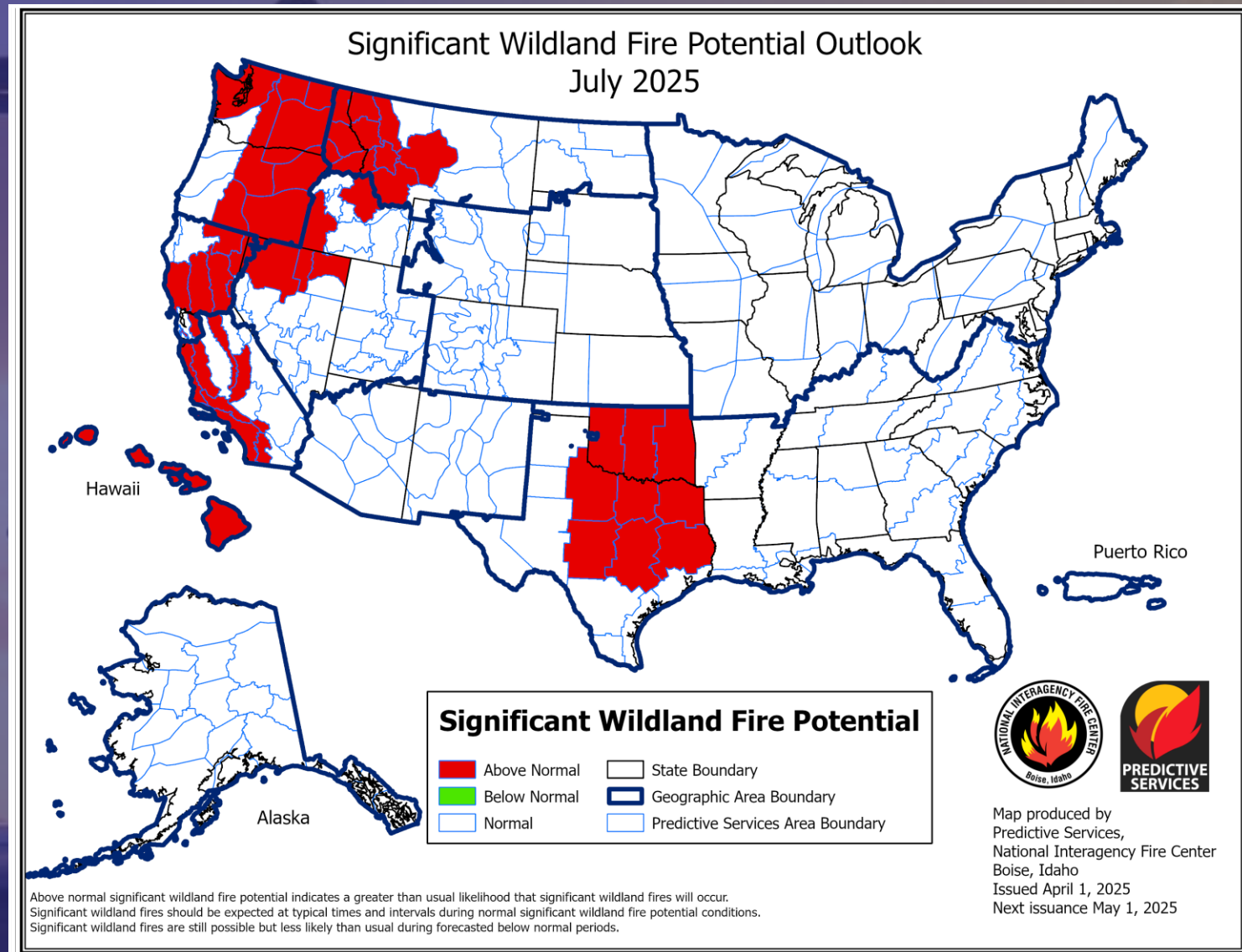
Temperature

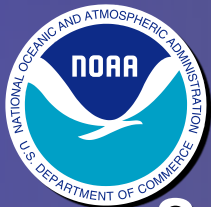
Precipitation





Significant Wildland Fire Potential Outlook for April, May & June 2025





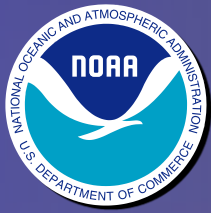
2025 Fire Weather Outlook



- Snow pack near normal valleys and above normal summits.
- Precipitation is near normal across northern New York and Vermont year to date

******Outlook for the Spring of 2025******

- Near to above normal precipitation and above normal temperatures for Spring of 2025
- Slightly below normal fire activity expected this spring as we transition from La Nina to Neutral (Similar to Spring of 2018 and snowpack similar to 2019)
 - *Results in several active days possible from April into early May (south to north as snow melts/fuels dry)*
- Higher potential for above normal activity southwest United States and central Rockies



2025 Fire Weather Outlook



- Much above normal fire activity for Fall of 2024
- Due areas of moderate drought, especially central/southern parts of the state
- In spring 2018, the La Niña conditions during the winter weaken and transition to ENSO-neutral, leading to warmer-than-temperatures and above normal precipitation
- Snow pack is similar to 2019, but rapidly decreasing given significant pattern change

Fire Statistics for 2024

FIRE CAUSE	NUMBER OF FIRES	TOTAL ACRES
Human Caused Fires	78	150.8
Undetermined Fires (Natural or Human)	19	29.6
Lightning Caused Fires	2	0.2
Totals	99	180.6

10-Year Average

Year	# Fires	# Acres	Average Size
2015	123	394	3.2
2016	141	389	2.76
2017	51	49	1
2018	59	113	1.92
2019	15	22	1.47
2020	96	133	1.43
2021	96	157	1.63
2022	71	72	1.02
2023	63	59	0.93
2024	99	180.6	1.87
10-Yr Average	81.1	156.7	1.72



Useful Websites

- **Climate Prediction Center for Precipitation, Temperature Outlooks and Drought Outlooks**
 - [*https://www.cpc.ncep.noaa.gov/*](https://www.cpc.ncep.noaa.gov/)
- **Precipitation Maps**
 - [*https://water.weather.gov/precip/*](https://water.weather.gov/precip/)
- **Interactive Temperature and Precipitation Maps**
 - [*https://hprcc.unl.edu/maps.php?map=ACISClimateMaps*](https://hprcc.unl.edu/maps.php?map=ACISClimateMaps)
- **Snowfall Maps**
 - [*https://www.nohrsc.noaa.gov/interactive/html/map.html*](https://www.nohrsc.noaa.gov/interactive/html/map.html)
- **Precipitation Maps**
 - [*https://www.weather.gov/nerfc/watersupply*](https://www.weather.gov/nerfc/watersupply)
- **WFO Burlington Fire Weather Website**
 - [*https://www.weather.gov/btv/firewx*](https://www.weather.gov/btv/firewx)