

Drought Information Statement for Southern New England

Current Status, Impacts, and Outlook: 03/02/2025

Issued By: NWS Boston/Norton, MA

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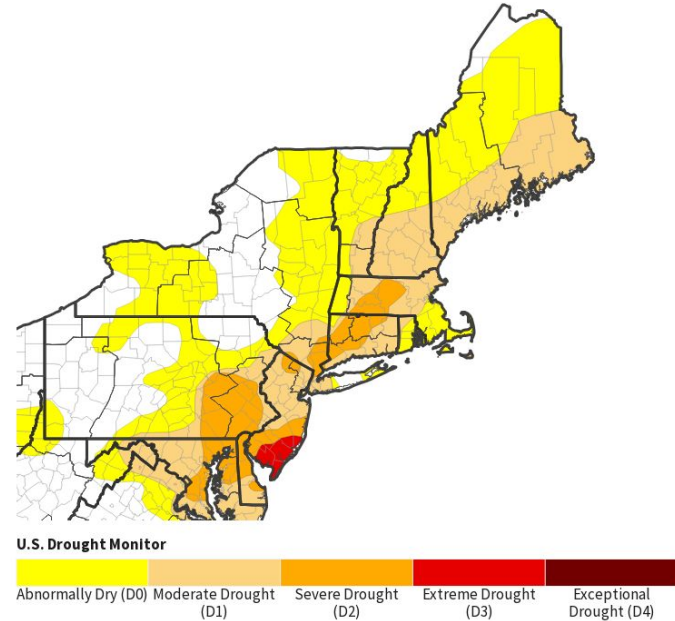


U.S. Drought Monitor

Latest U.S. Drought Monitor Map

- **D2 Severe Drought**
 - West/Central MA
 - Western CT
- **D1 Moderate Drought**
 - Eastern MA and RI
- **D0 Abnormally Dry**
 - Extreme western MA, southeast MA, Cape/Islands

U.S. Drought Monitor



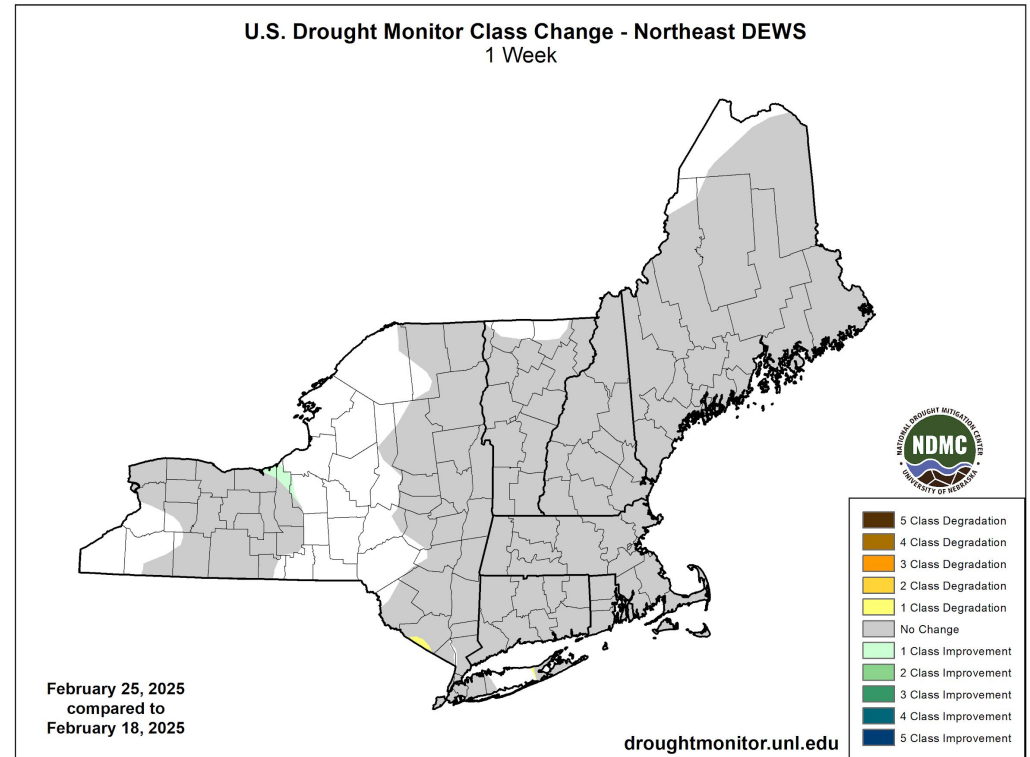
Source(s): NDMC, NOAA, USDA; image courtesy of Drought.gov

Data Valid: 02/25/25

Recent Change in Drought Intensity

1-Week Drought Monitor Class Change

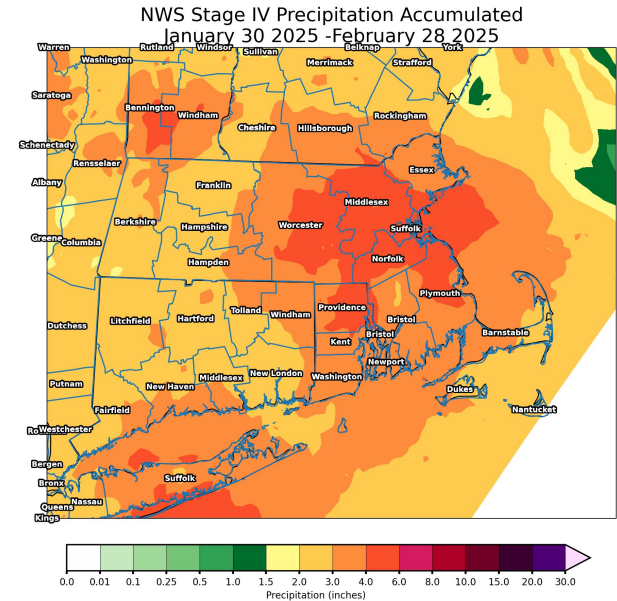
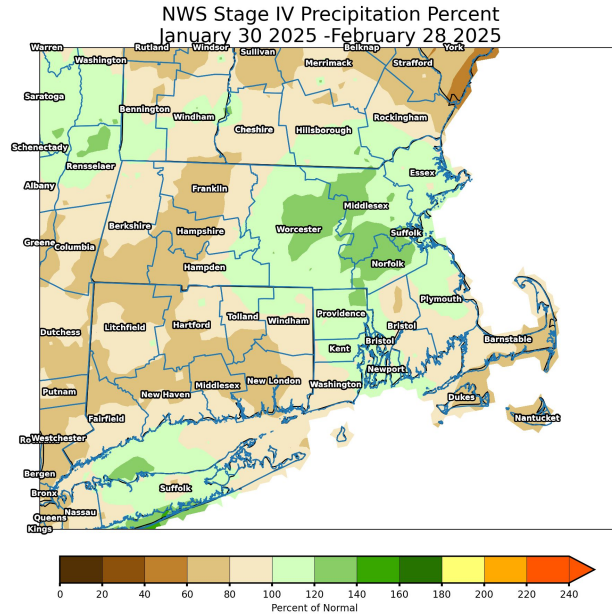
- **Drought Worsened:** No degradation
- **Drought Improved:** No improvements



Observed Precipitation

Main Takeaways

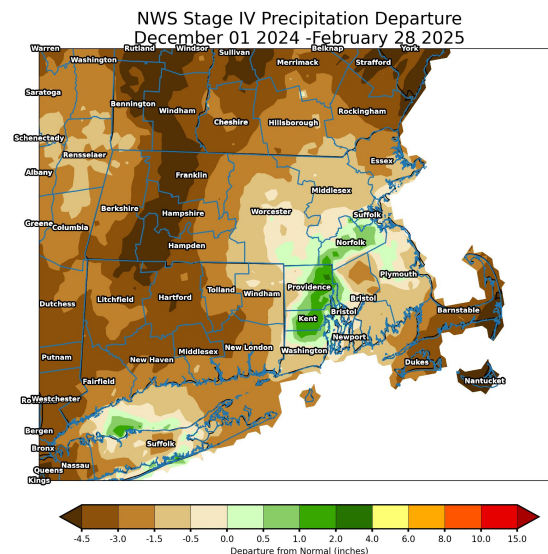
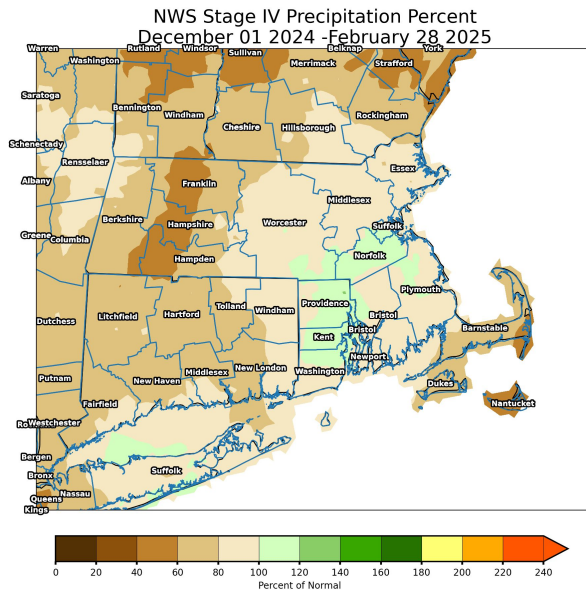
- 30 day rainfall accumulations ranging from 2 to 5 inches
- Eastern MA and northern RI have received 100-120 percent of normal rainfall over the last 30 days
- Western MA, southern RI, southeastern MA, and the Cape/Islands have received 60 to 100 percent of normal rainfall over the last 30 days



3 Month Departures and Percent of Normal

Main Takeaways

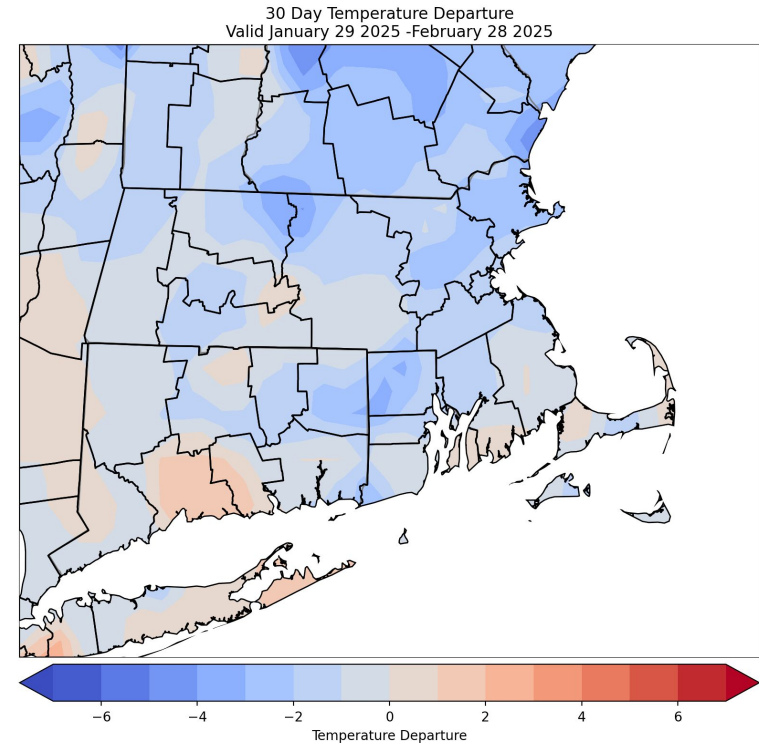
- 90 day precipitation departures ranging from 1.5 to 4.5 inches below normal across western MA, southern RI, southeast MA, and Cape/Islands
- Positive departures across portions of eastern MA and most of RI
- Southern New England ranging from 40 to 100 percent of normal over the last 90 days with greatest deficits across western MA/CT



Observed Temperature

Main Takeaways

- Averages temperatures ranging from 2 to 4 degrees below normal over the last 30 days





Summary of Impacts

Hydrologic Impacts

- Streamflow values ranging from much below normal to normal across southern New England
- Groundwater levels are substantially below normal across interior MA, northern RI, and CT.
- Groundwater ranging from below normal to above normal across the rest of RI, southeast MA, and The Cape/Islands

Agricultural Impacts

- There are no known impacts at this time

Fire Hazard Impacts

- None at this time

State Drought Declarations

- On February 7th, MA raised the Central and Northeast MA regions to a Level – 3 Critical Drought. The Southeast, Cape and Islands regions have been elevated to a Level – 2 Significant Drought. The Connecticut River Valley and Western regions still have their previous statuses: Level 2 – Significant and Level – 1 Mild Drought. Visit <https://www.mass.gov/info-details/drought-status> for more information
- CT declared a Stage 2 Drought Advisory for all of CT on November 9th which remains in effect.
- RI issued a statewide Drought Advisory on December 4th which remains in effect. Details can be found in [this press release](#).

Mitigation actions

- Please refer to your municipality and/or water provider for mitigation information.

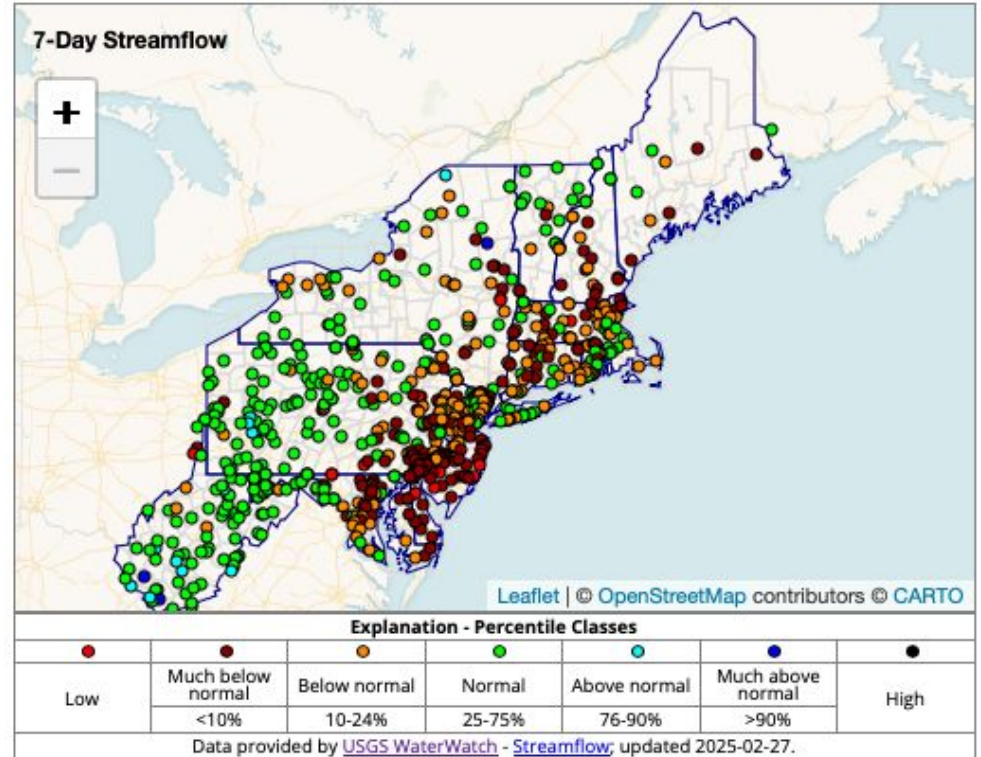


Hydrologic Conditions

7-Day Streamflow Percentile

Main Takeaways

- 7 day streamflow levels ranging from below to much below normal for most of southern New England

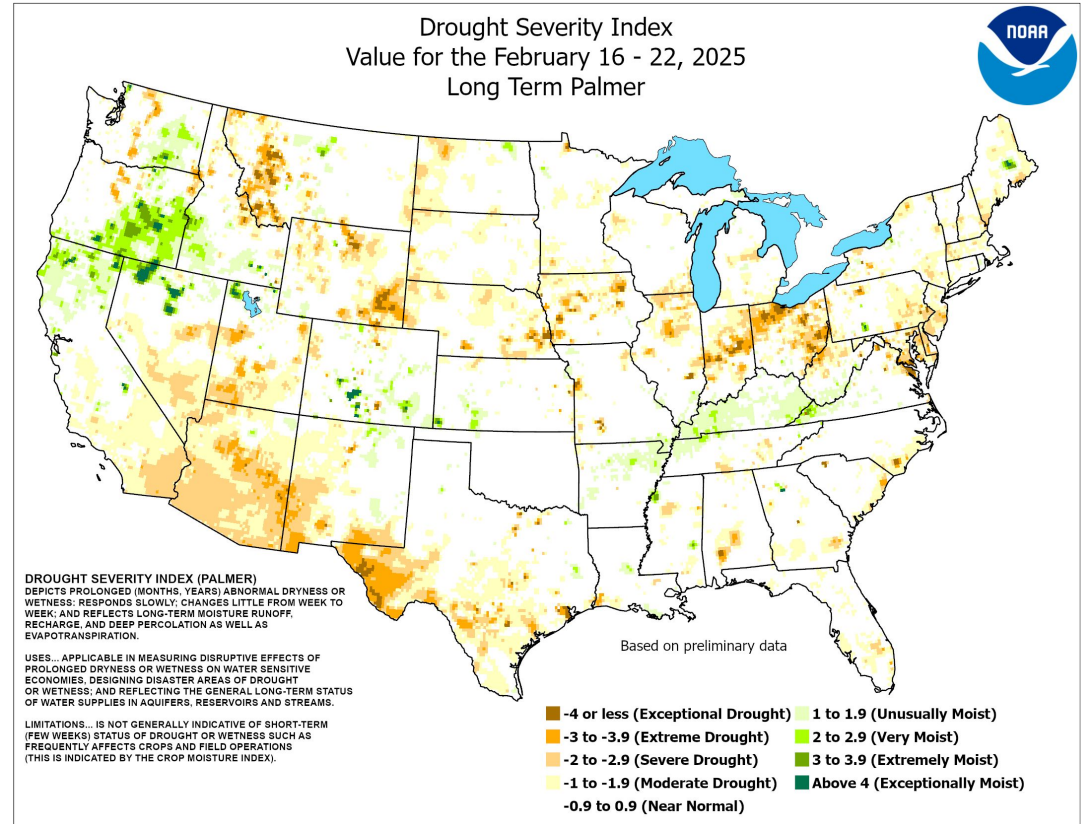


Agricultural Impacts

Palmer Drought Severity Index

Main Takeaways

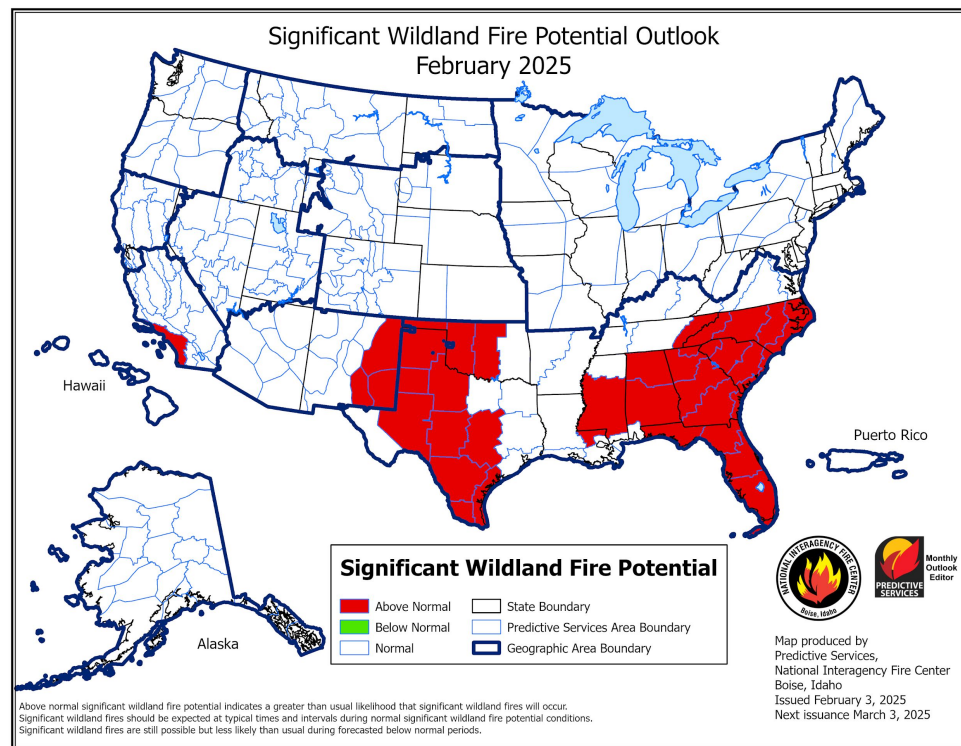
- Most of MA ranging from PDSI between -1 and -2.9 highlighting continued longer term dryness in the state
- Most of RI still considered to be in the normal range (-0.9 to 1.9)
- This product does not capture short-term dry trends and changes slowly from week to week



Fire Hazard Impacts

Main Takeaways

- Wildland fire potential above normal across all of southern New England for November





Precipitation Needed to End Drought Conditions

Main Takeaways

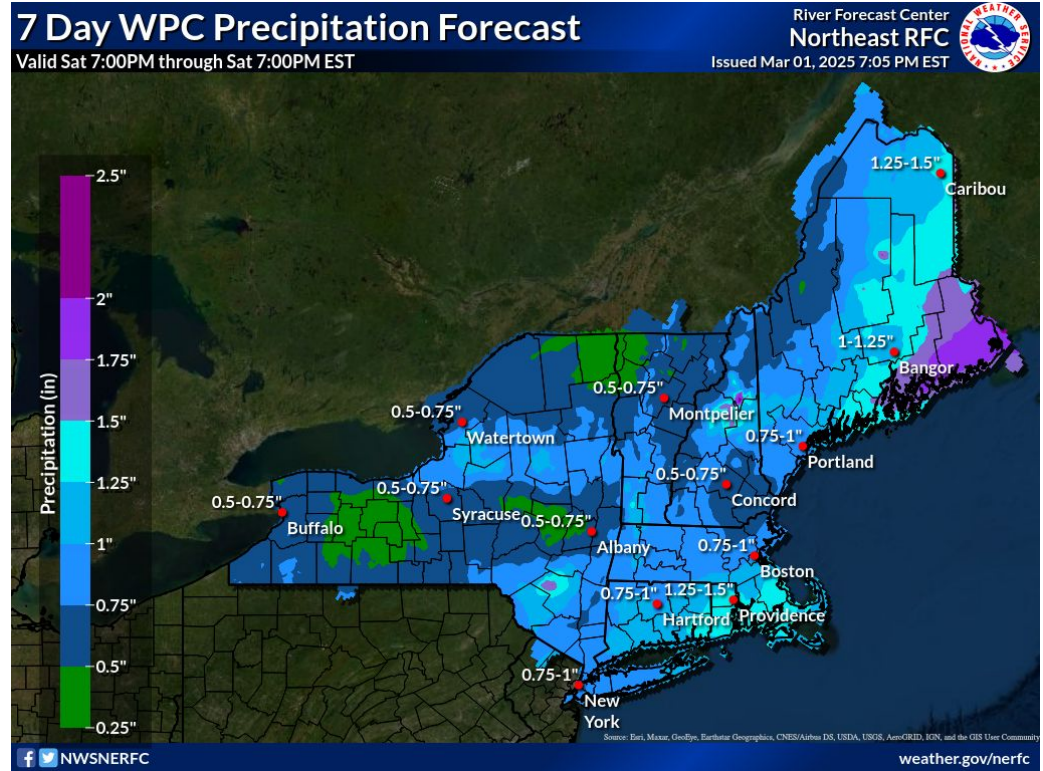
- Main Takeaway
- Main Takeaway

Impacts

Impacts Go Here

Seven Day Precipitation Forecast

- Next 7 days:
 - 0.75 to 1.5 inches of liquid precipitation possible over next 7 days
 - All forecast precipitation is associated with a robust low-pressure system forecast to move through the region during the middle of next week



6-10 Day Outlook

Temperature and Precipitation Outlook

Main Takeaways

- Leaning below normal temperatures for days 6 through 10 (03/07-03/11)
- Leaning near normal precipitation for days 6 through 10 (03/07-03/11)

Possible Impact

Precipitation deficits may improve or worsen depending on the amount of precipitation received

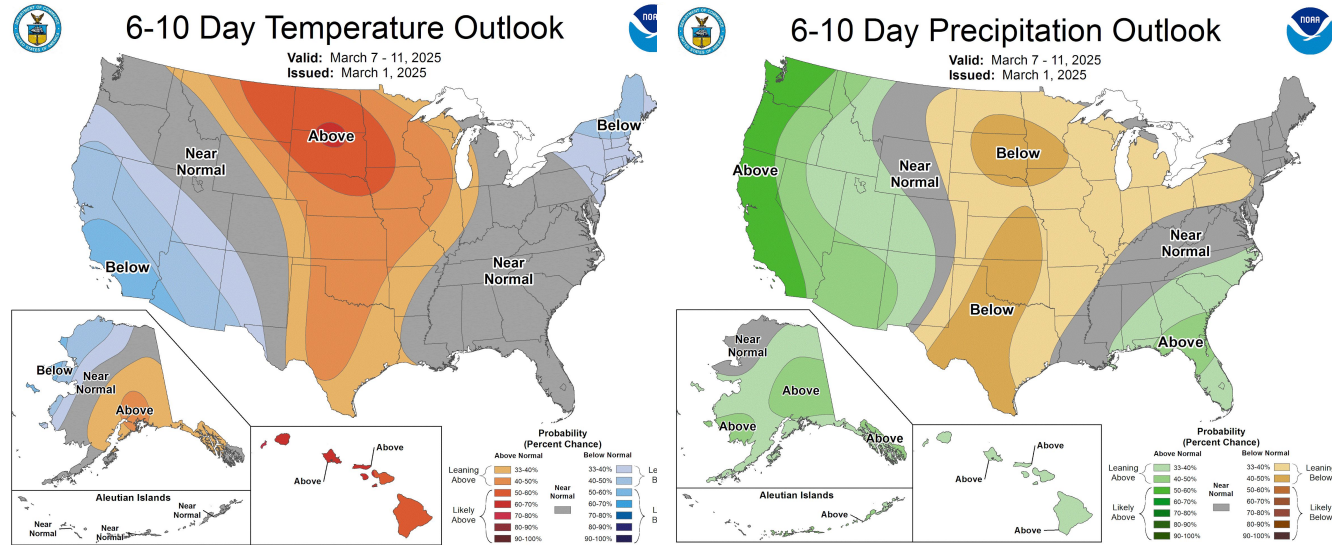


Image Captions:
Left - [Climate Prediction Center 6-10 Day Temperature Outlook.](#)
Right - [Climate Prediction Center 6-10 Day Precipitation Outlook.](#)
Valid March 7-11, 2025.

8-14 Day Outlook

Temperature and Precipitation Outlook

Main Takeaways

- Leaning above normal temperatures for days 8-14 (03/09-03/15)
- Leaning near to above normal precipitation for days 8-14 (03/09-03/15)

Possible Impact

Precipitation deficits and drought conditions may improve with substantial precipitation

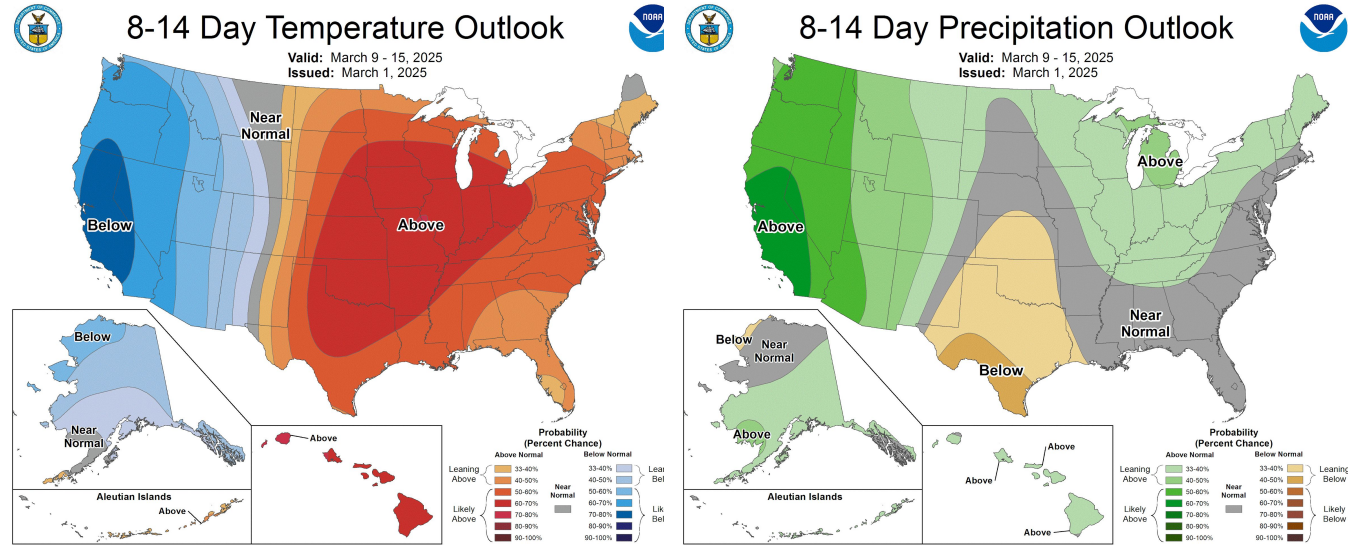


Image Captions:

Left - [Climate Prediction Center 8-14 Day Temperature Outlook](#).

Right - [Climate Prediction Center 8-14 Day Precipitation Outlook](#).

Valid March 9-15 2025

Weeks 3-4 Outlook

Temperature and Precipitation Outlook

Main Takeaways

- Likely above normal temperatures and leaning near normal precipitation for the second half of March

Possible Impact

Above normal precipitation may help improve rain/groundwater deficits

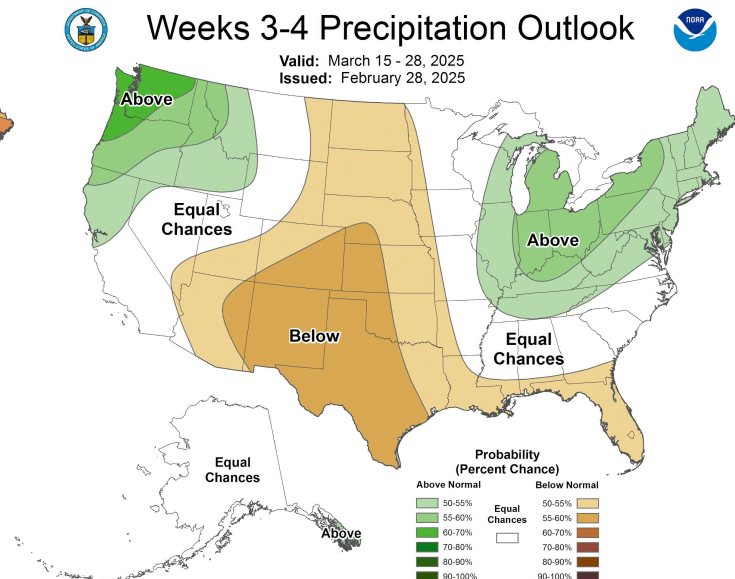
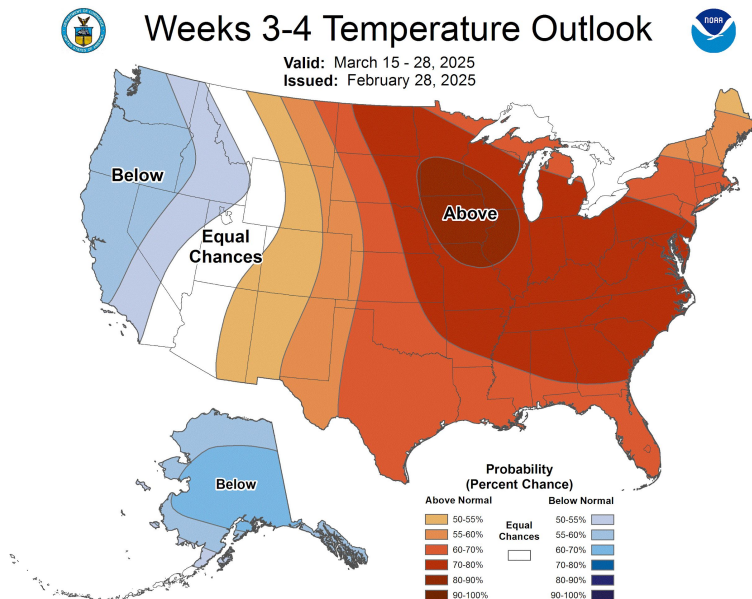


Image Captions:

Left - [Climate Prediction Center Weeks 3-4 Temperature Outlook.](#)

Right - [Climate Prediction Center Weeks 3-4 Precipitation Outlook.](#)

Valid March 15-28 2025

NAO Status

North Atlantic Oscillation (NAO)

NAO Status Headline

Summary Text (NAO forecast to be in a positive phase tilting the odds toward warmer/drier weather for the eastern US)

- Large scale circulation pattern tilts the odds toward warmer temperatures and faster/progressive storm systems which limits precipitation potential.

NAO Index: Observed & GEFS Forecasts

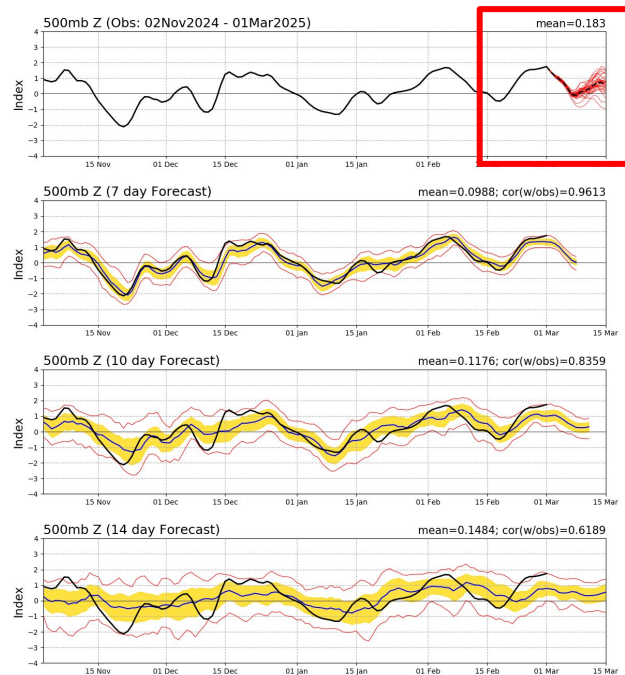


Image Caption: Daily 5km SST Anomaly map for the Pacific Ocean, valid April 9, 2023. The Nino3.4 region is highlighted within the red box.

NAO Teleconnections

North Atlantic Oscillation (NAO) Flow Regimes and Potential Impacts

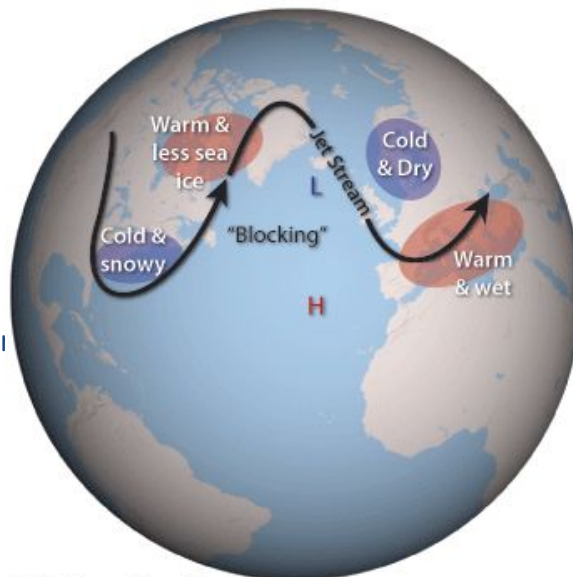
Typical NAO Impacts

Typical Positive Phase NAO Winters

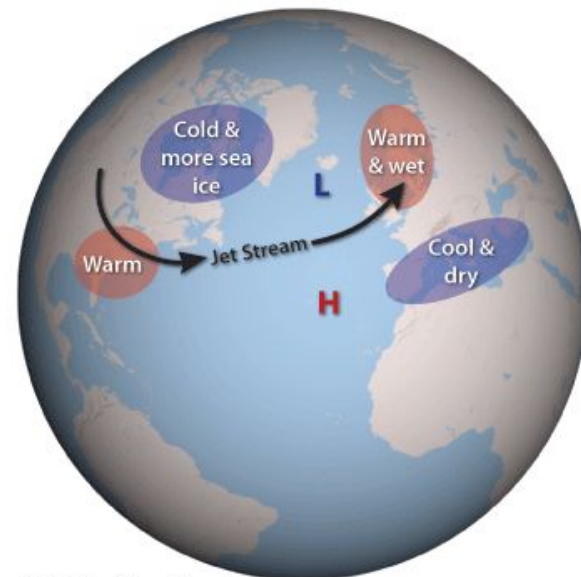
- Odds tilted toward warmer temperatures and progressive storm systems (fast moving, less precip)

Typical Negative NAO Winters

- Odds tilted toward cooler/wetter weather
- Storm tracks more favorable for stronger coastal storms along the east-coast



NAO Negative Mode



NAO Positive Mode

Monthly Outlooks

Monthly Temperature and Precipitation Outlook

Main Takeaways

- Main Takeaway
- Main Takeaway

Possible Impact

Possible Impact Goes Here

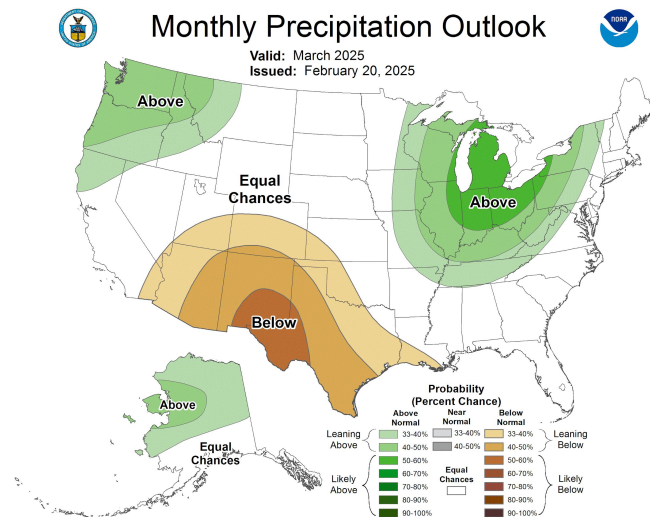
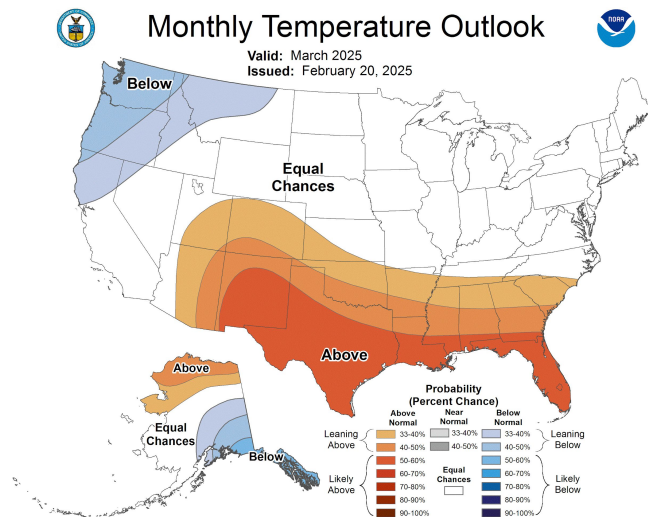


Image Captions:

Left - [Climate Prediction Center Monthly Temperature Outlook.](#)

Right - [Climate Prediction Center Monthly Precipitation Outlook.](#)

Valid MM YYYY

Seasonal Climate Outlook

Seasonal Temperature and Precipitation Outlook

Main Takeaways

- Higher chances for above above normal average temperatures for the Northeast between April-June
- Equal chances for above/below normal precipitation between April-June

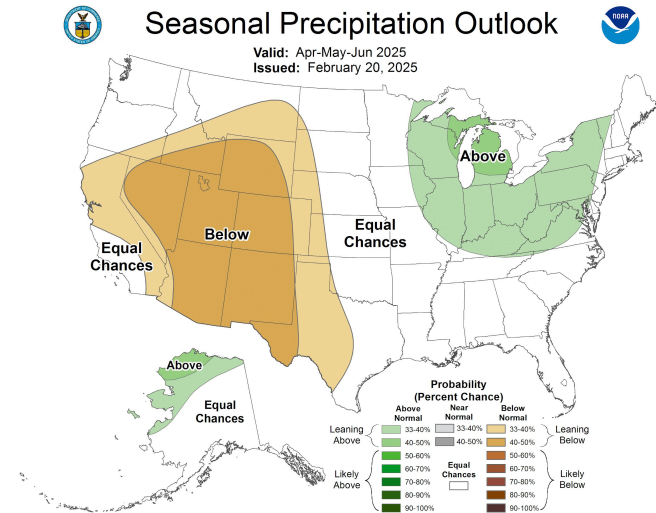
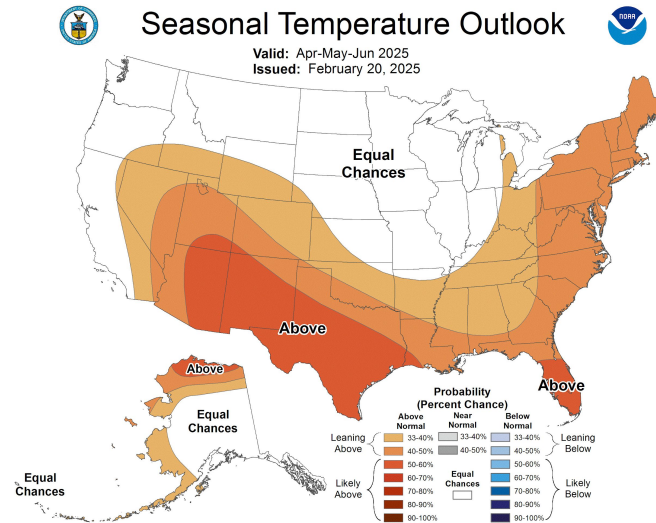


Image Captions:
Left - [Climate Prediction Center Seasonal Temperature Outlook](#).
Right - [Climate Prediction Center Seasonal Precipitation Outlook](#).

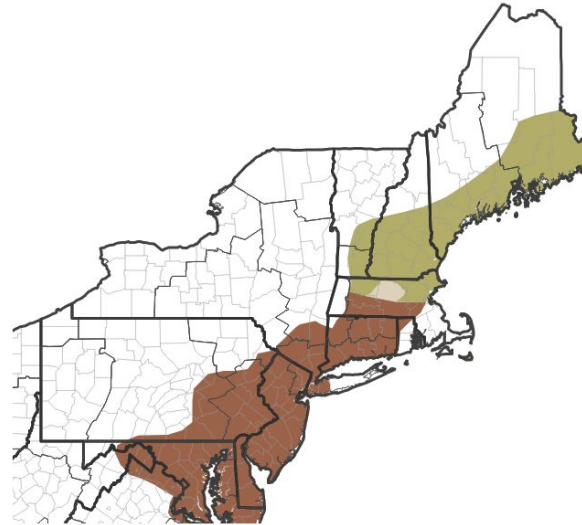
Valid 04 to 06 2025.

Drought Outlook

Main Takeaways

- 1 month outlook calls for drought persisting through the end of March for CT and south/central MA
- 1 month outlook calls for improvements or drought removal for the northern half of MA by the end of March

1-Month Drought Outlook for March 1, 2025–March 31, 2025



Drought Is Predicted To...



Source(s): Climate Prediction Center; image courtesy of Drought.gov

Last Updated: 02/28/25



More Information

Connecticut

- [Connecticut Drought Information Center](#)

Massachusetts

- [Massachusetts Drought Management Task Force](#)

Rhode Island

- [Rhode Island Water Resources Board](#)

