Drought Information Statement for Southern New England

Current Status, Impacts, and Outlook: 11/01/2024

Issued By: NWS Boston/Norton, MA
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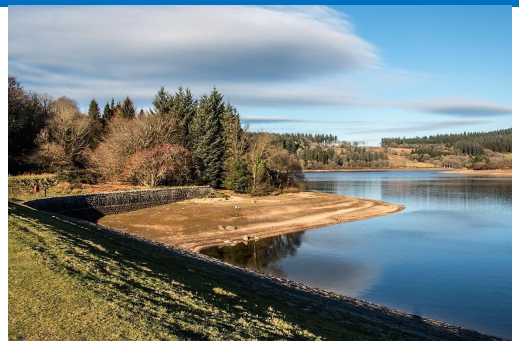
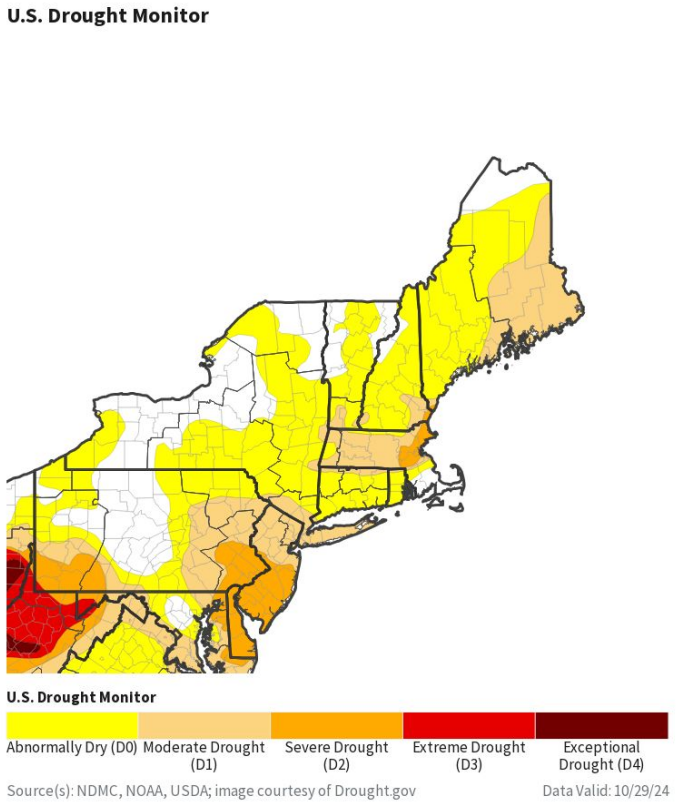


U.S. Drought Monitor

Latest U.S. Drought Monitor Map

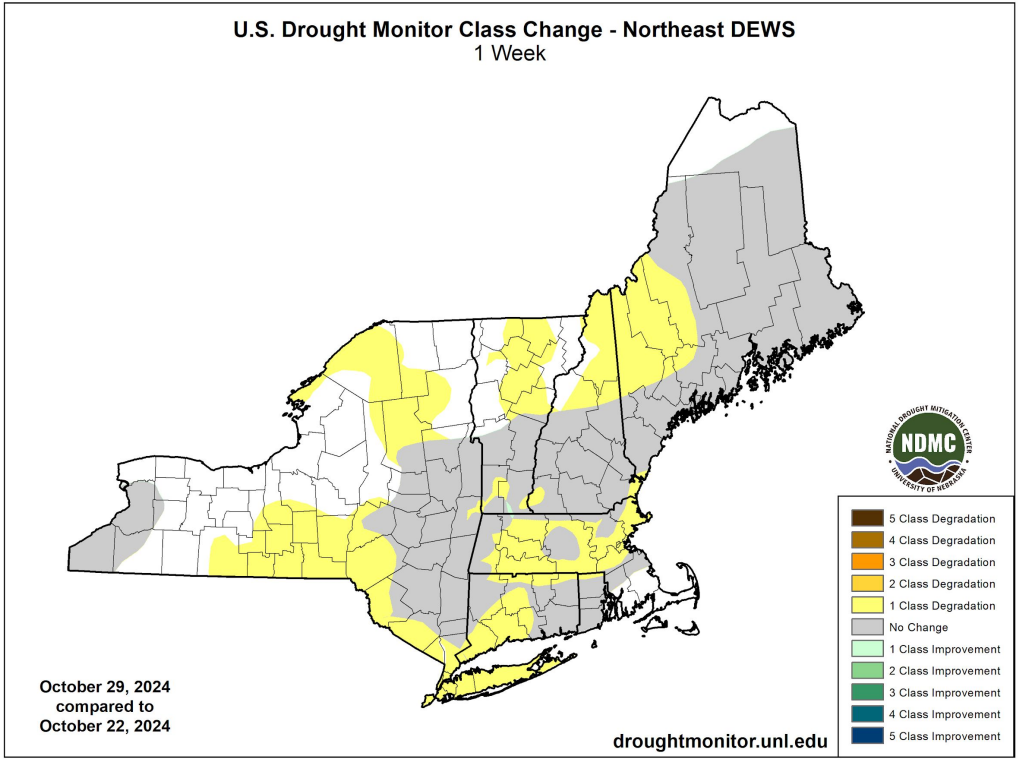
- **D2 Severe Drought:** Northeast MA including Essex, Middlesex, Suffolk, and Norfolk counties.
- **D1 Moderate Drought:** Most of Worcester, Franklin, Hampshire, Hampden, and Berkshire Counties in MA a well as the northern border of CT.
- **D0 Abnormally Dry:** Most of CT, RI, and protinos of Bristol and Plymouth counties in MA.



Recent Change in Drought Intensity

1-Week Drought Monitor Class Change

- **Drought Worsened:** 1 Drought class degradation for portions of western, central, and northeastern MA.
- **No Change:** No changes in Drought Intensity for most of RI and eastern CT as well as for some portions of MA
- **Drought Improved:** No improvements this week

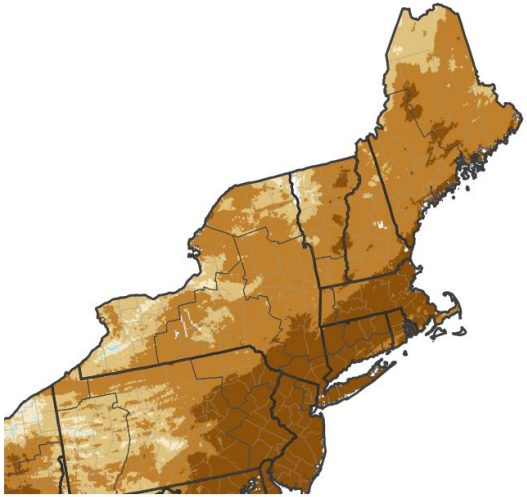


Observed Precipitation

Main Takeaways

- Only 0.5 to 1.5 inches of new rainfall over the last 30 days in southern New England
- 30 day precipitation accumulations are less than 25% of normal across the vast majority of southern New England with the exceptions all below 50% of normal.

30-Day Percent of Normal Precipitation



Percent of Normal Precipitation (%)

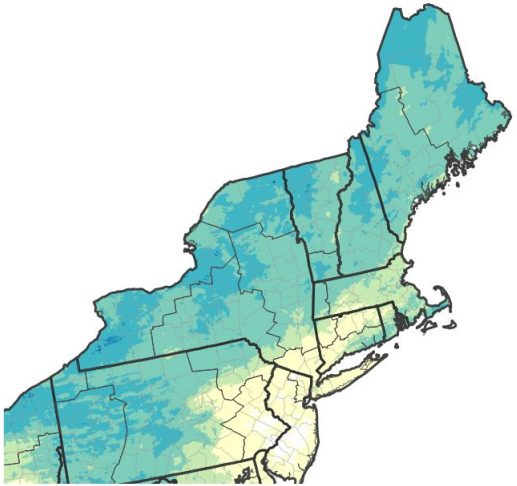
0% 25% 50% 75% 100%

100% 150% 200% 300%

Source(s): National Weather Service Multi-Radar Multi-Sensor System; image courtesy of Drought.gov

Last Updated: 10/31/24

30-Day Precipitation Accumulations (Inches)



Inches of Precipitation

0 0.01 0.5 1 2

2 4 6 8

Source(s): National Weather Service Multi-Radar Multi-Sensor System; image courtesy of Drought.gov

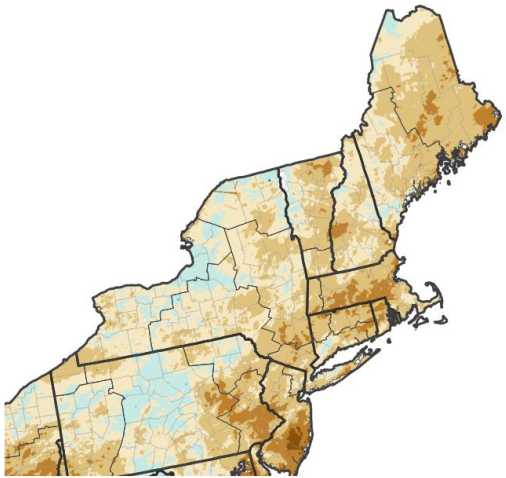
Last Updated: 10/31/24

3 Month Observed and Percent of Normal

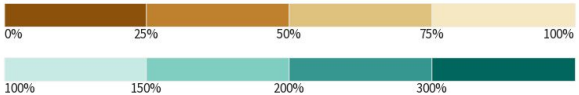
Main Takeaways

- 90 day precipitation accumulations generally ranging from 6 to 12 inches across southern New England with a few locations in central/eastern MA below 6 inches
- 90 day accumulations only fall in the 25 to 50 percent of normal range for about half of southern New England.
- Rest of southern New England has received 50 to 75% of normal precipitation over the last 90 days.

90-Day Percent of Normal Precipitation



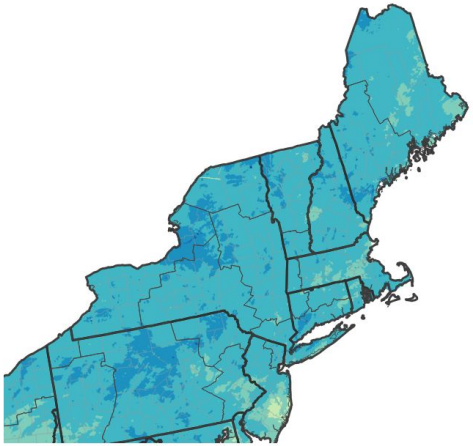
Percent of Normal Precipitation (%)



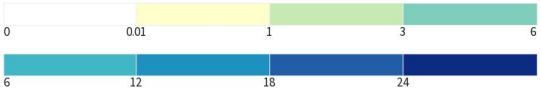
Source(s): National Weather Service Multi-Radar Multi-Sensor System; image courtesy of Drought.gov

Last Updated: 10/31/24

90-Day Precipitation Accumulations (Inches)



Inches of Precipitation



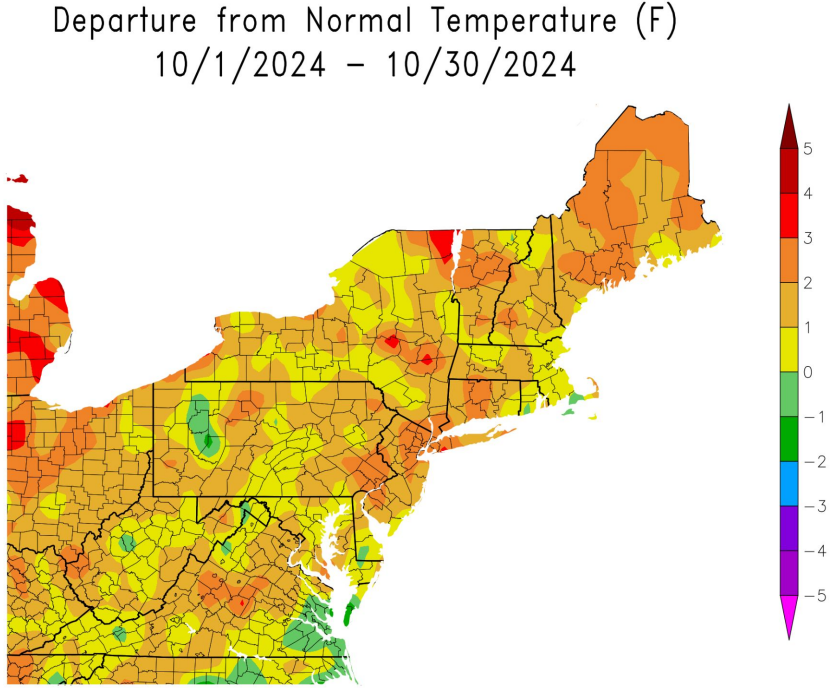
Source(s): National Weather Service Multi-Radar Multi-Sensor System; image courtesy of Drought.gov

Last Updated: 10/31/24

Observed Temperature

Main Takeaways

- Temperatures averaging about 1 to 2 degrees above normal over the last 30 days



Summary of Impacts

Hydrologic Impacts

- Streamflow levels largely below 10th percentile or at record low levels for this time of year at various stream gages across southern New England
- Falling groundwater levels may lead to localized water resource impacts

Agricultural Impacts

- There are no known impacts at this time

Fire Hazard Impacts

- Numerous active brush fires in MA and CT
- CT Brush Fire More Info →https://portal.ct.gov/deep/news-releases/news-releases---2024
- MA Brush Fire More Info → https://www.mass.gov/news/brush-fire-warning-state-local-leaders-urge-caution-amid-high-fire-risk

State Drought Declarations

- MA declared mild drought for portions of central and eastern MA on October 11th.
- Visit https://www.mass.gov/info-details/drought-status for more information

Mitigation actions

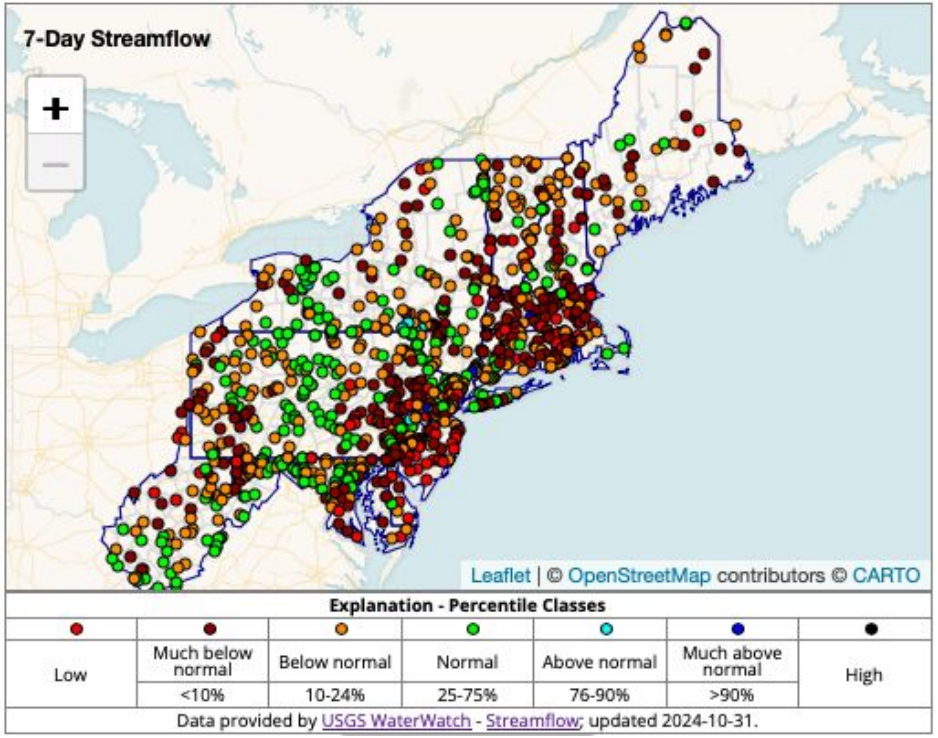
- Please refer to your municipality and/or water provider for mitigation information.

Hydrologic Conditions

7-Day Streamflow Percentile

Main Takeaways

- Below normal to record low 7 day average streamflow levels for most stream gauges in southern New England

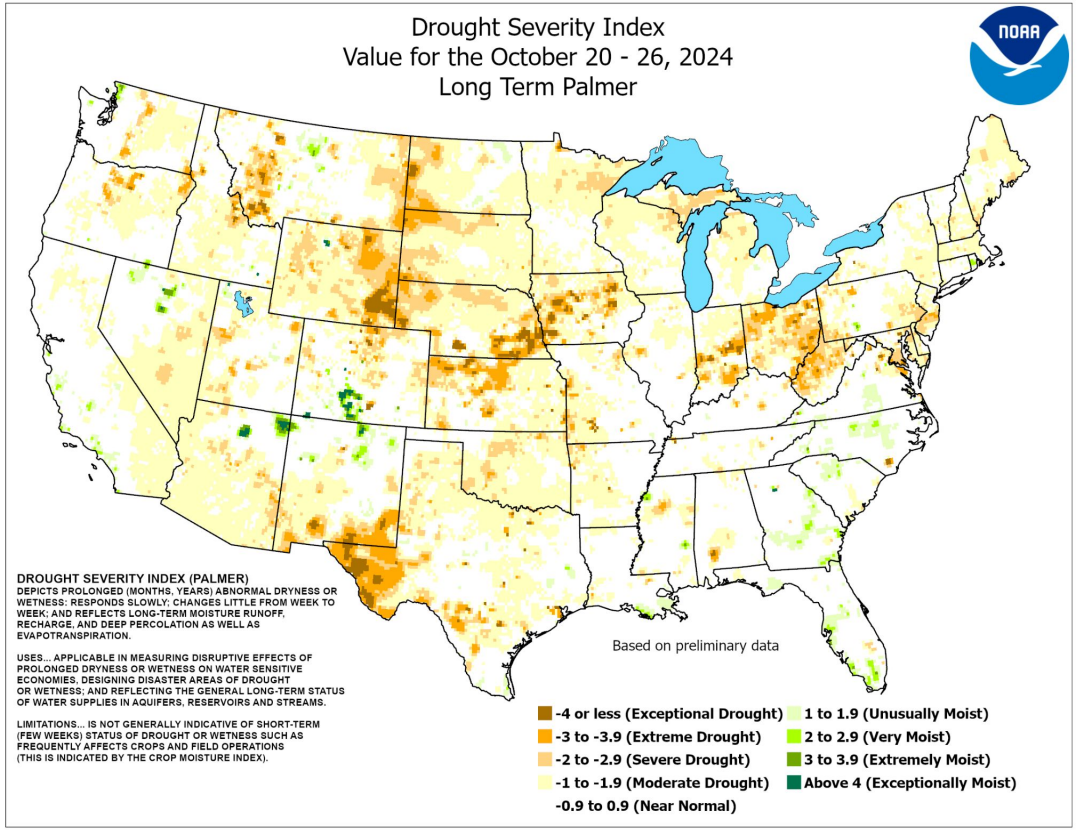


Agricultural Impacts

Palmer Drought Severity Index

Main Takeaways

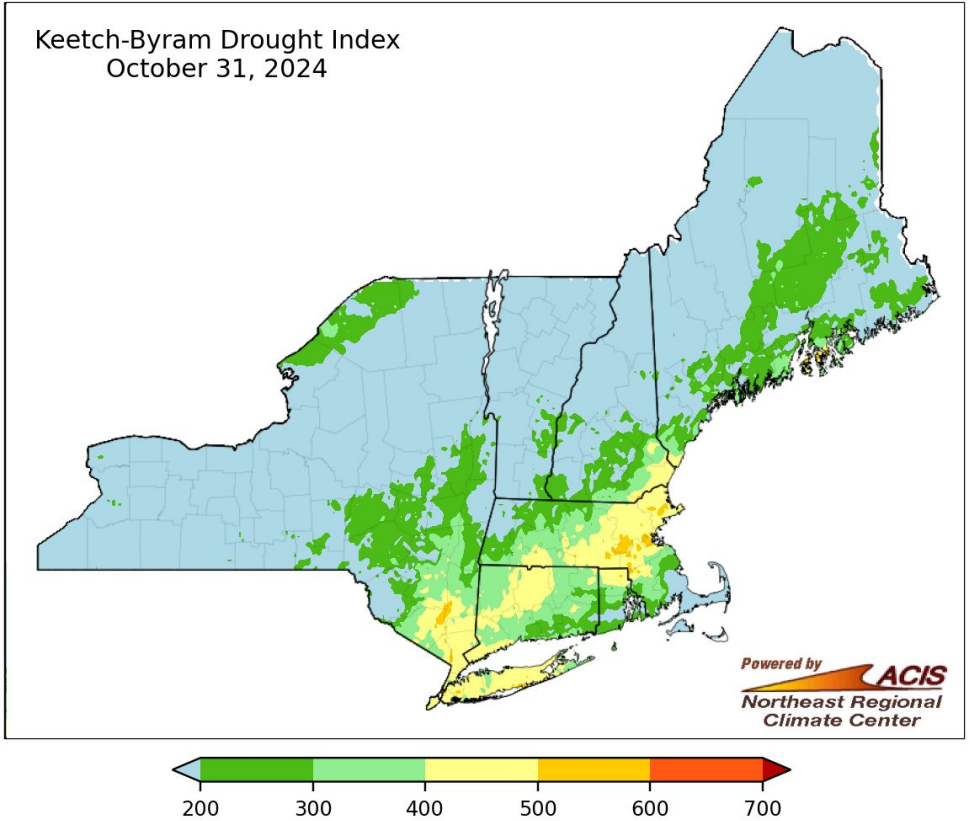
- Most of MA ranging from PDSI between -1 and -1.9 highlighting longer term dryness in the state
- After a wet summer, RI continues to remain in the unusually moist range (1 to 1.9) indicating that longer term dryness has not settled in the state yet
- This product does not capture short-term dry trends and changes slowly from week to week



Fire Hazard Impacts

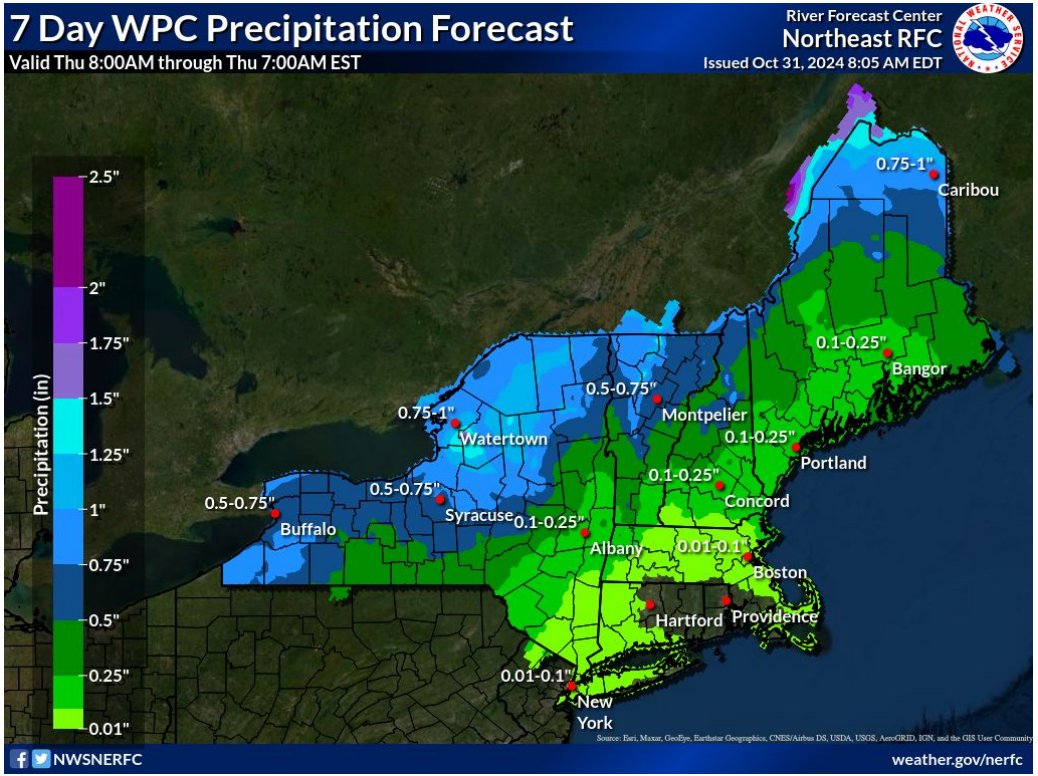
Main Takeaways

- KBDI = 0 - 200: Soil moisture and large class fuel moistures are high and do not contribute much to fire intensity. Typical of spring dormant season following winter precipitation.
- KBDI = 200 - 400: Typical of late spring, early growing season. Lower litter and duff layers are drying and beginning to contribute to fire intensity.
- KBDI = 400 - 600: Typical of late summer, early fall. Lower litter and duff layers actively contribute to fire intensity and will burn actively.
- KBDI = 600 - 800: Often associated with more severe drought with increased wildfire occurrence. Intense, deep burning fires with significant downwind spotting can be expected. Live fuels can also be expected to burn actively at these levels.



Seven Day Precipitation Forecast

- Next 7 days:
  - No significant precipitation forecast for southern New England through the first week of November



6-10 Day Outlook

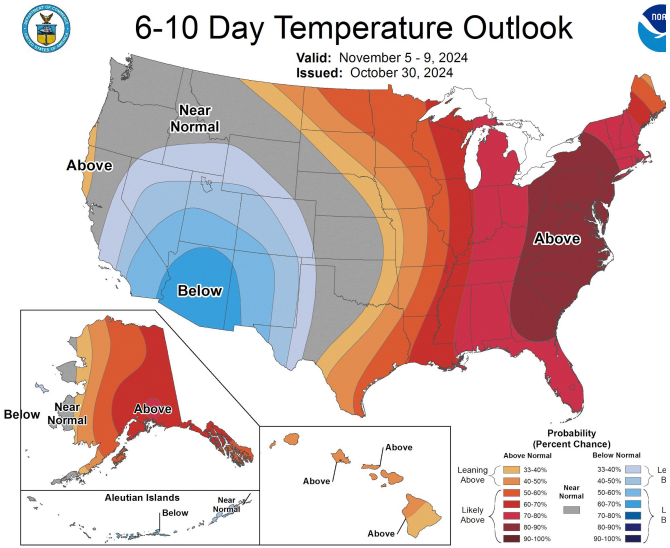
Temperature and Precipitation Outlook

Main Takeaways

- Above normal temperatures likely during the next 6 to 10 days
- Leaning below normal precipitation over the next 6 to 10 days

Possible Impact

Precipitation deficits and drought conditions may worsen with no substantial precipitation



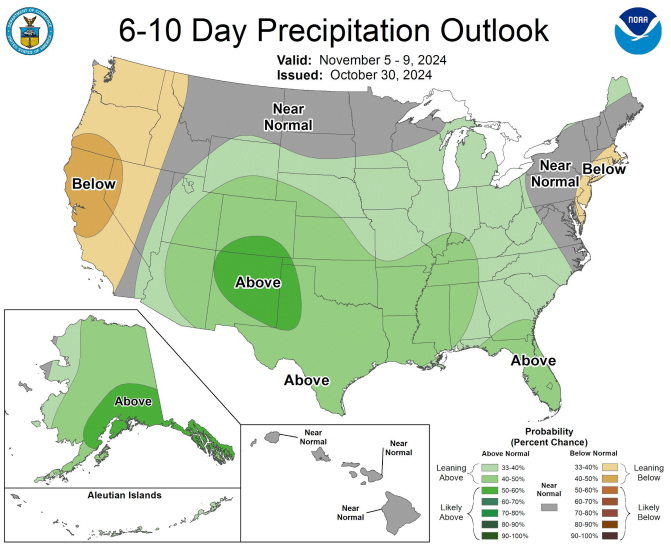


Image Captions:
Left - Climate Prediction Center 6-10 Day Temperature Outlook.
Right - Climate Prediction Center 6-10 Day Precipitation Outlook.
Valid November 05-09.

8-14 Day Outlook

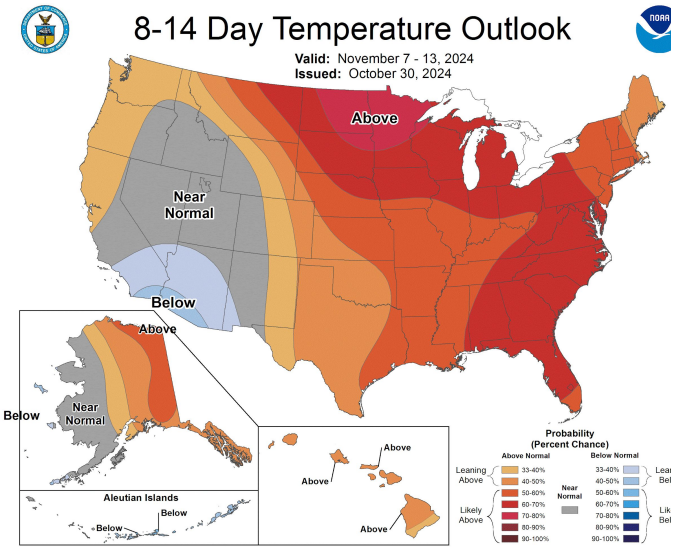
Temperature and Precipitation Outlook

Main Takeaways

- Leaning above normal temperatures for the second week of November
- Leaning below normal precipitation for the second week of November

Possible Impact

Precipitation deficits and drought conditions may worsen with no substantial precipitation



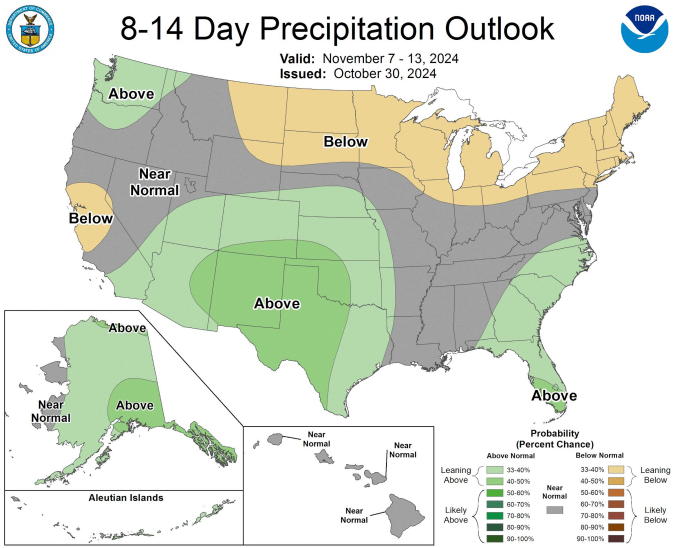


Image Captions:
Left - Climate Prediction Center 8-14 Day Temperature Outlook.
Right - Climate Prediction Center 8-14 Day Precipitation Outlook.
Valid November 7-13

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Boston/Norton, MA

Weeks 3-4 Outlook

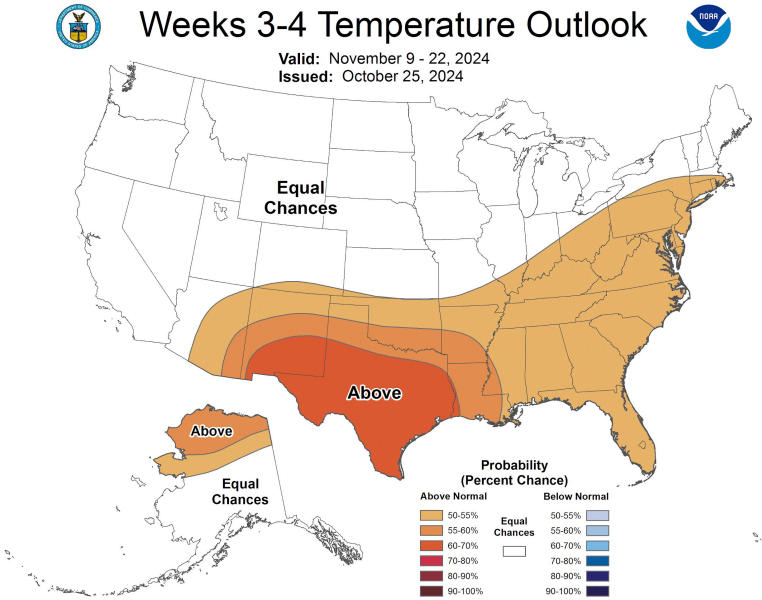
Temperature and Precipitation Outlook

Main Takeaways

- Equal chances for above/below normal precipitation during mid to late November

Possible Impact

Low confidence in any drought improvement through late November



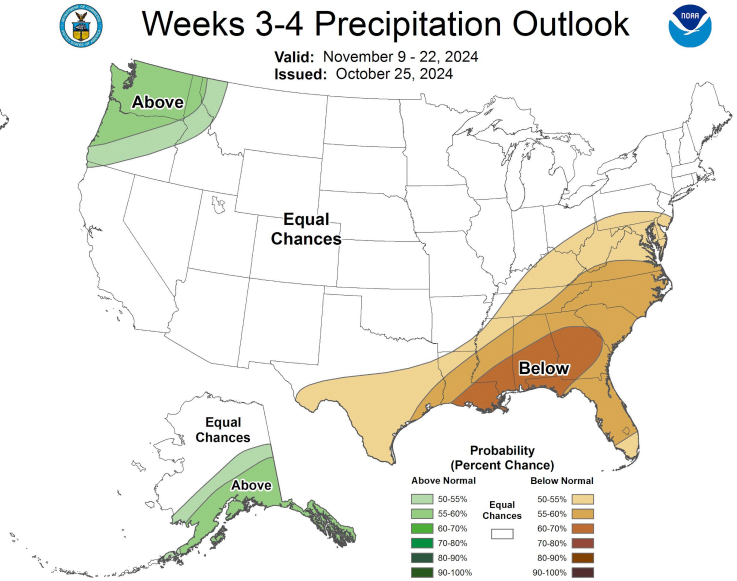


Image Captions:
Left - Climate Prediction Center Weeks 3-4 Temperature Outlook.
Right - Climate Prediction Center Weeks 3-4 Precipitation Outlook.
Valid November 09-22.

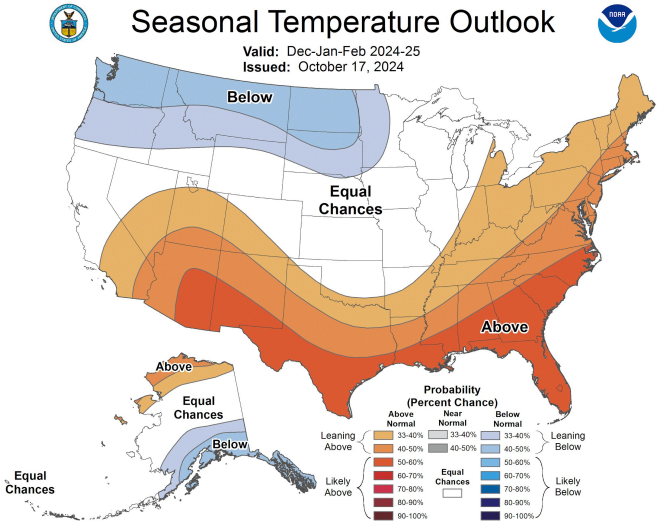
National Weather Service
Boston/Norton, MA

Seasonal Climate Outlook

Seasonal Temperature and Precipitation Outlook

Main Takeaways

- Higher chances for above normal average temperatures for the Northeast this winter
- Equal chances for above/below normal precipitation this winter.



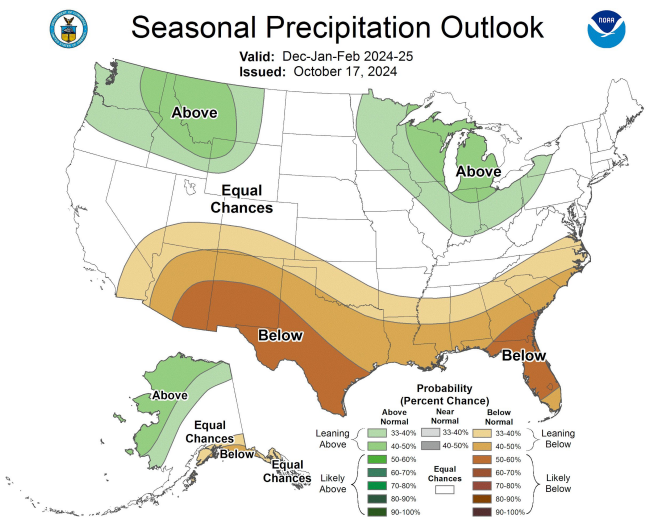


Image Captions:
Left - Climate Prediction Center Seasonal Temperature Outlook.
Right - Climate Prediction Center Seasonal Precipitation Outlook.
Valid 12 to 02 2024-2025.

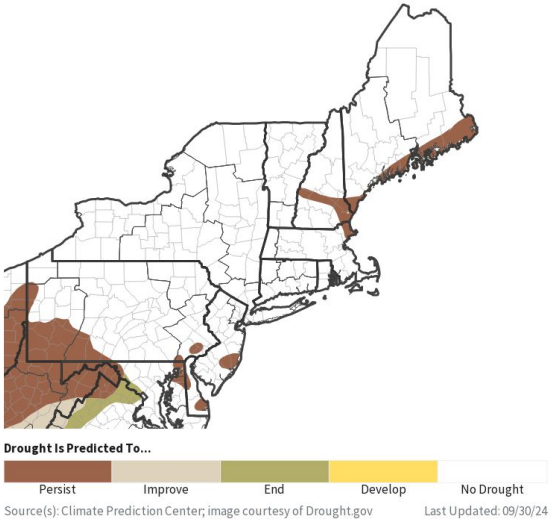
National Weather Service
Boston/Norton, MA

Drought Outlook

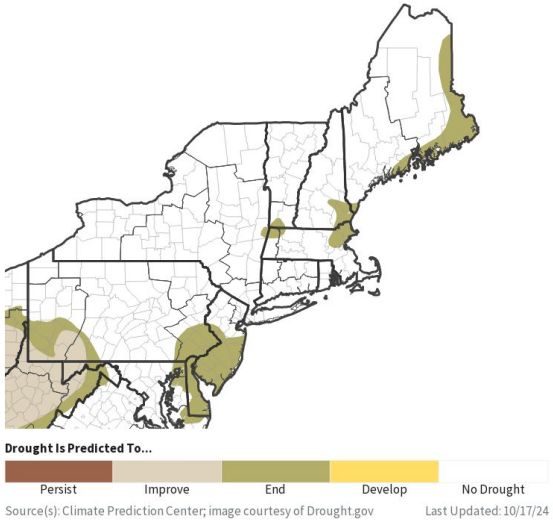
Main Takeaways

- 1 month outlook suggests drought persistence across for northeastern MA but with eventual improvements per the 3 month drought outlook

1-Month Drought Outlook for October 1, 2024–October 31, 2024



Seasonal (3-Month) Drought Outlook for October 17, 2024–January 31, 2025



More Information

Connecticut

- Connecticut Drought Information Center

Massachusetts

- Massachusetts Drought Management Task Force

Rhode Island

- Rhode Island Water Resources Board