

# Drought Information Statement for New Hampshire and Western Maine November 1, 2025

Issued By: NWS Gray Maine
Contact Information: gyx.skywarn@noaa.gov

- Please see all currently available products at https://drought.gov/drought-information-statements.
- Please visit https://www.drought.gov/drought-status-updates/ for regional drought status updates.

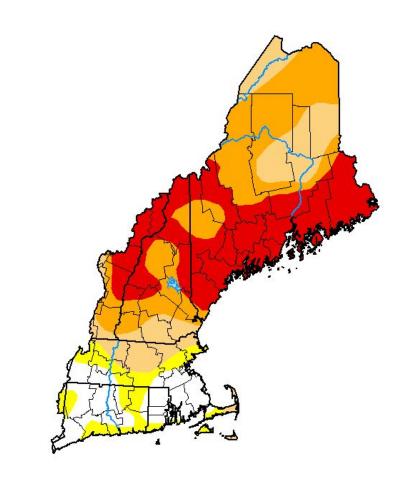
- Recent improvements to surface water conditions are the first signs of drought recovery
- Extreme drought conditions (D3) remain for a large part Maine and New Hampshire due primarily to lingering groundwater deficits

Link to the <u>latest U.S. Drought Monitor</u> for the Northeast

#### **Drought intensity and Extent**

- - 38% of New Hampshire
  - 43% of Maine
- D2 (Severe Drought):
  - 45% of New Hampshire
  - 38% of Maine
- D1 (Moderate Drought):
  - 17% of New Hampshire
  - 10% of Maine
- D0 (Abnormally Dry):
  - None
- 100% of Maine and New Hampshire in Moderate Drought (D1) or worse Severity

#### U.S. Drought Monitor **New England Watershed**



November 4, 2025 (Released Thursday, Nov. 6, 2025) Valid 7 a.m. EST



conditions. Local conditions may vary. For more information on the Drought Monitor, go to https://droughtmonitor.unl.edu/About.aspx

The Drought Monitor focuses on broad-scale

#### Author:

Intensity:

None

Richard Tinker CPC/NOAA/NWS/NCEP









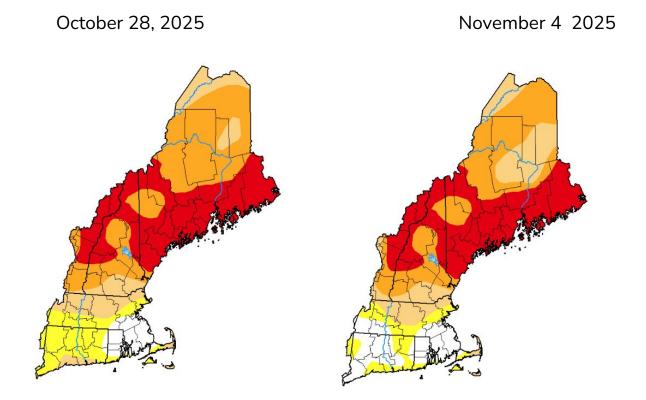
droughtmonitor.unl.edu

Image Caption: U.S. Drought Monitor valid October November 4, 2025



#### Link to the latest 1 week change map for New England

- One Week Drought Monitor Class Change
  - Some D2 expansion and reductions across parts of northern Maine



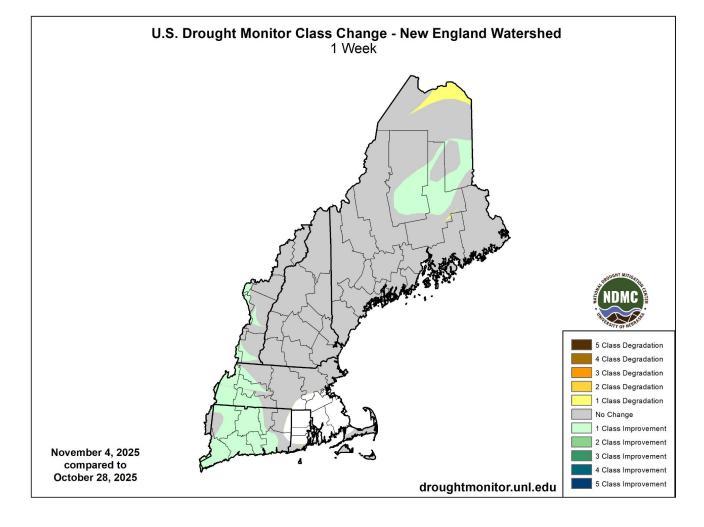


Image Caption: U.S. Drought Monitor 4-week change map valid November 4, 2025

U.S. Drought Monitor Weekly Maps

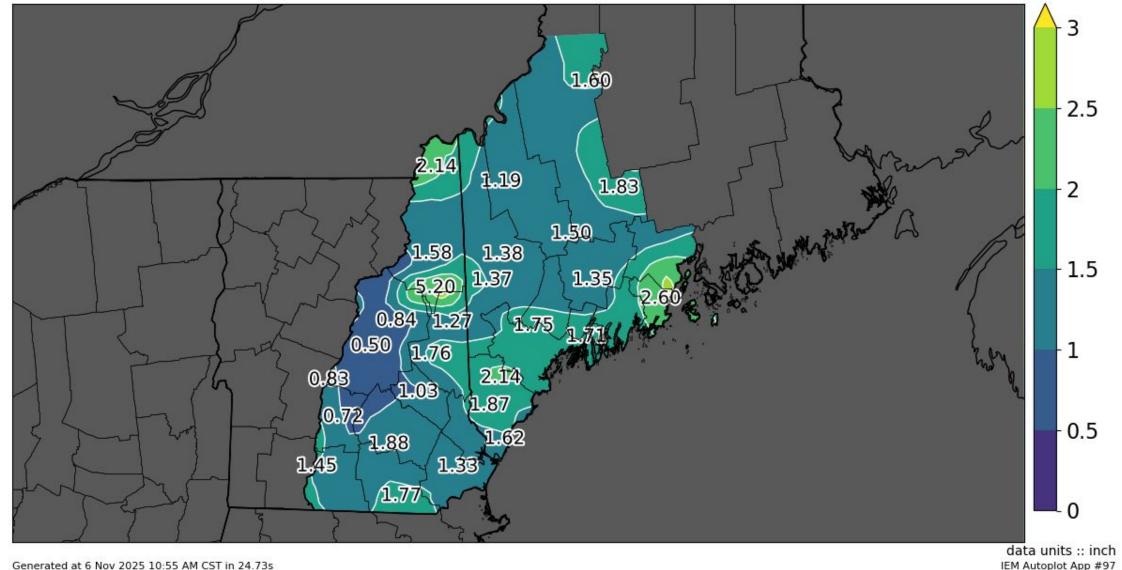


Heavy rainfall was observed on October 29-30th, followed by an active pattern with on/off showers thereafter.

Note: November is often one of the wettest months of the year, and averages close to 5 inches regionally for the month



#### 29 Oct 2025 thru 5 Nov 2025 Precipitation Total [inch]



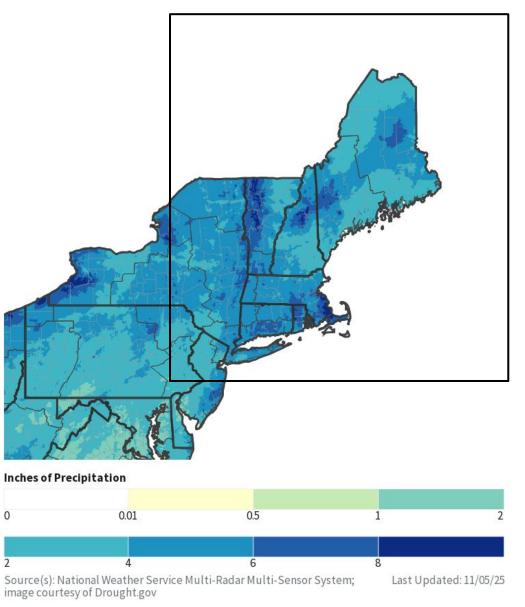


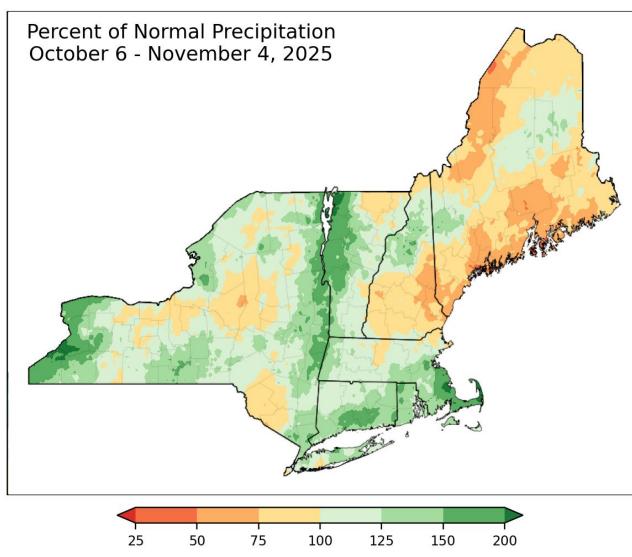


# Precipitation- 30 Day

Precipitation amounts increased in late
October and early
November, but
remained well below
normal for the first
half of October.
Overall precipitation
was below normal for
much of the region
apart from the White
Mountains

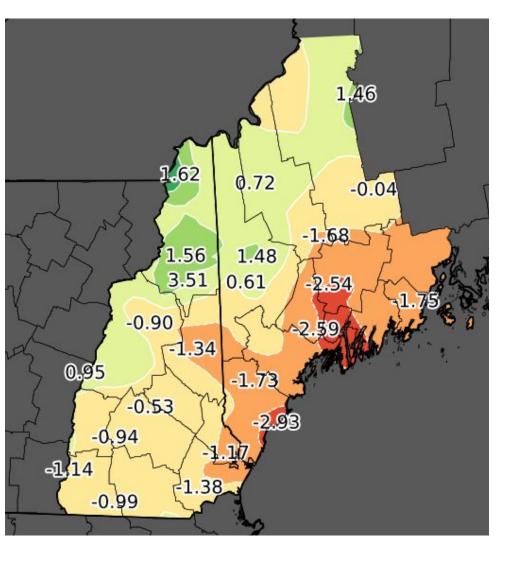
#### 30-Day Precipitation Accumulations (Inches)

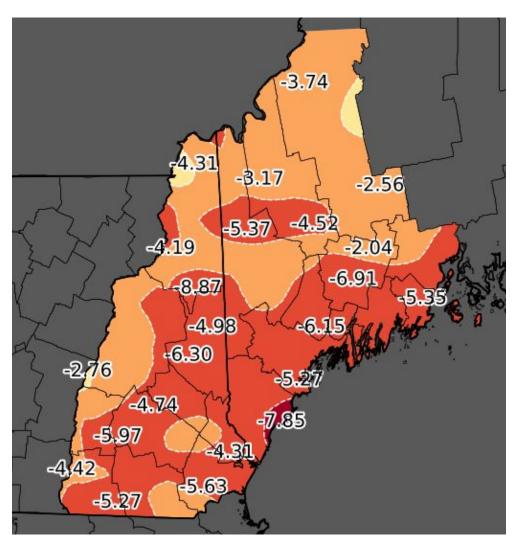


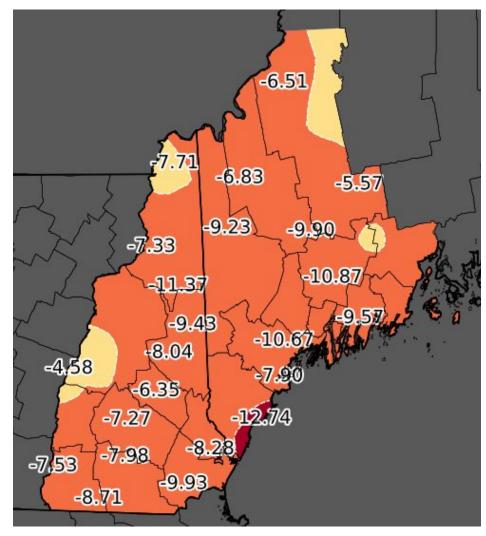




**Ending November 5** 







30 Days

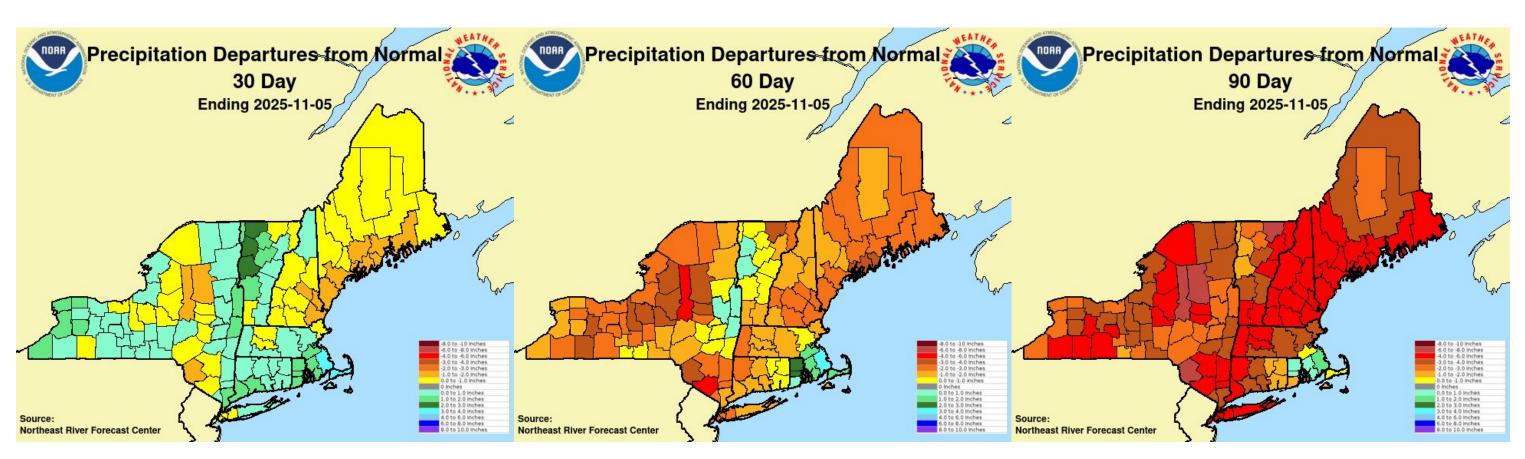
90 Days

Since June 1



# Precipitation Deficits- Regional View

Maps of Departures from Normal by County



**Local Departures 1-2**"

**Local Departures 2-4"** 

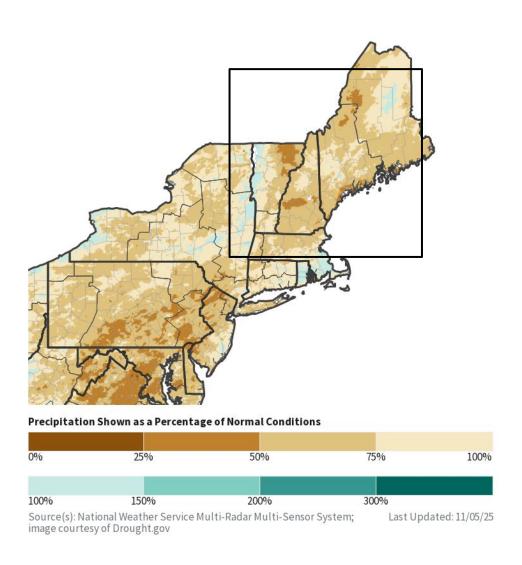
**Local Departures 4-10**"



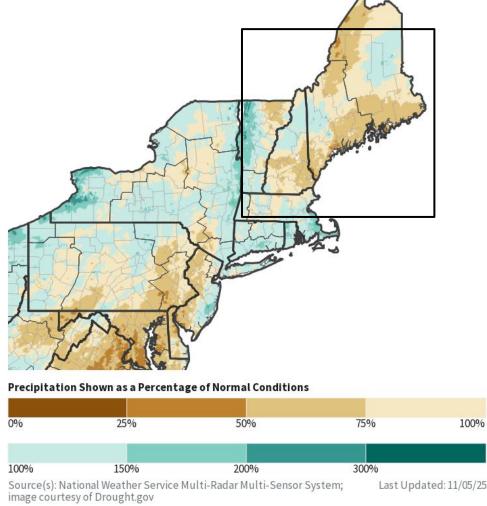


- NEATHER SERVICE
  - Precipitation anomalies
     were near normal for the
     White Mountains Region
     and parts of the Foothills
     of the Western Maine
     Mountains, but generally
     below normal for the rest
     of the region through
     early November
  - The last 90 days have been around 50% of normal or less

#### 90-Day Percent of Normal Precipitation



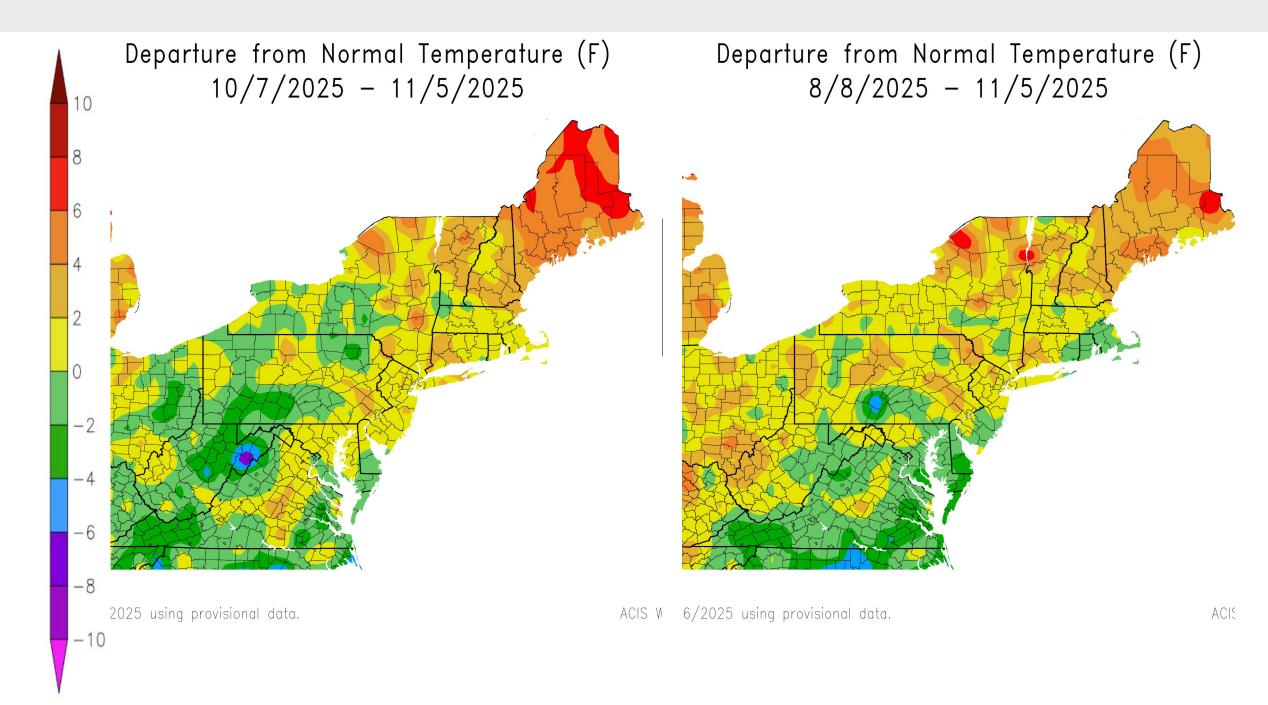
#### **30-Day Percent of Normal Precipitation**



# Temperature Anomalies

30 and 90 Day temperature anomalies all indicated above normal temperatures across both Maine and New Hampshire.

The above normal temperatures were the main drivers for excessive evaporation, a primary driver for the drought.



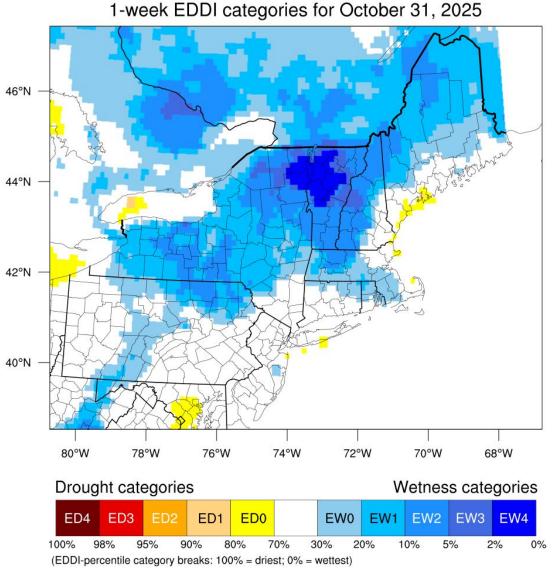


#### **Evaporative Demand Drought Index (EDDI)**

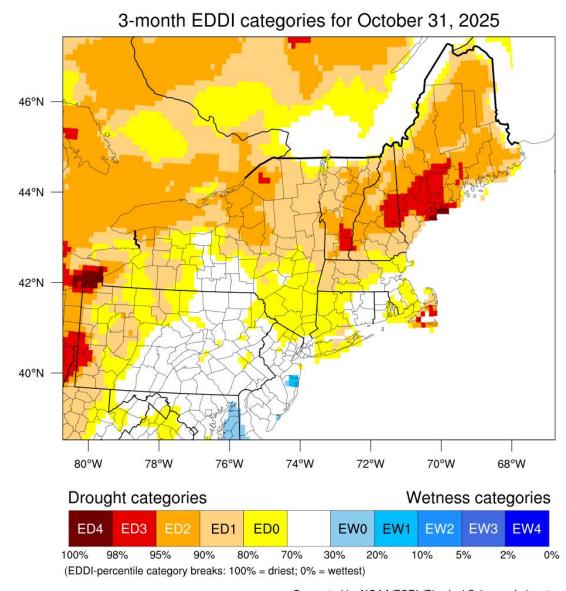
Evaporation rates dropped off in late October due to cooler temperatures and wetter conditions.

Cumulative EDDI over the last few months were a primary catalyst in the 2025 drought.

Looking at rainfall deficits alone does not quantify the drought magnitude if the evaporative losses aren't included.





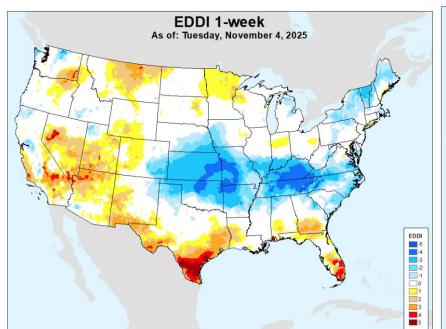


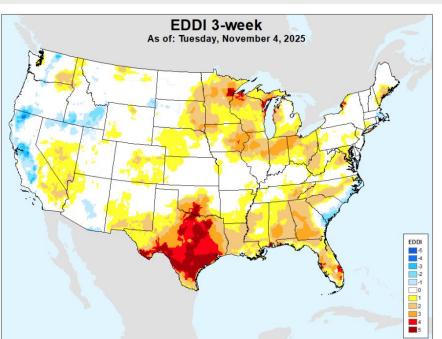
Generated by NOAA/ESRL/Physical Sciences Laboratory

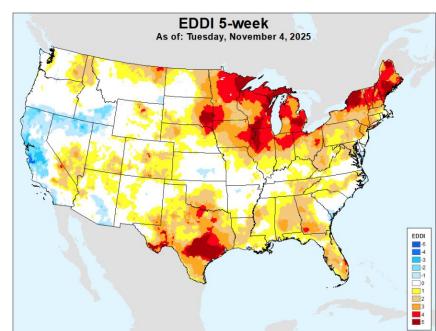


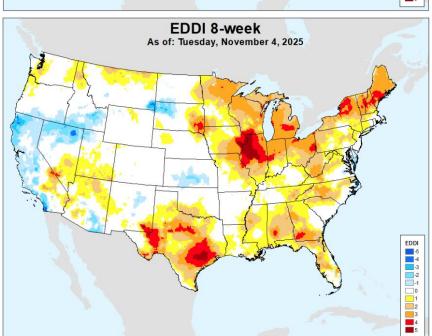
## **Evaporation-National View**

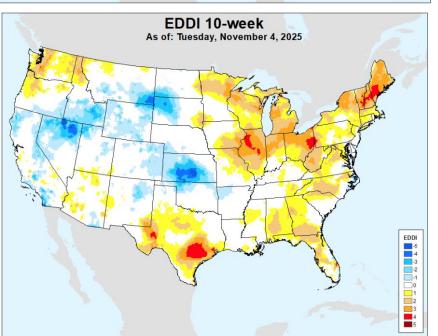
**Evaporative Demand Drought Index (EDDI)** 

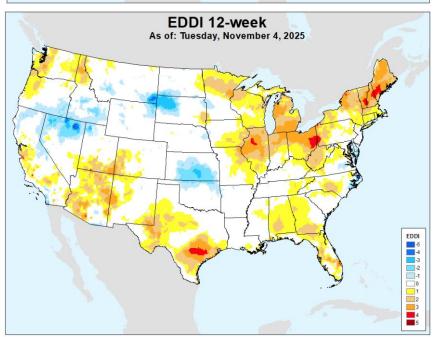












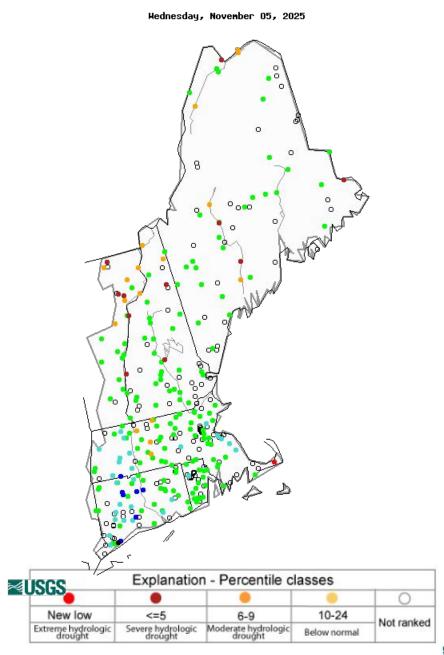
# Hydrologic Conditions and Impacts

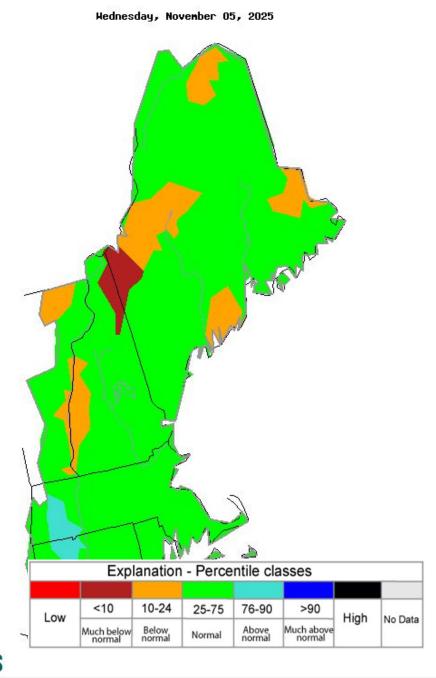
**USGS Streamgage Information** 

 Streams have returned to normal flows for much of the region, initial signs of recovery as the surface water recharges.

Image 1 (left): USGS 7-Day Streamflow based on the percentile of existing streamflow records on this day of the year.

Image 2 (right): USGS 7 day average streamflow HUC map.



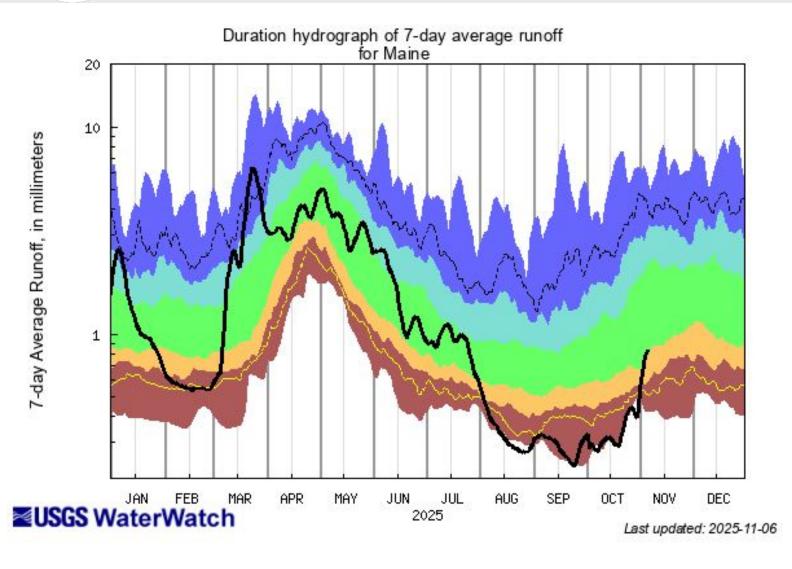






## **Hydrologic Conditions and Impacts**

**USGS Streamgage Information** 



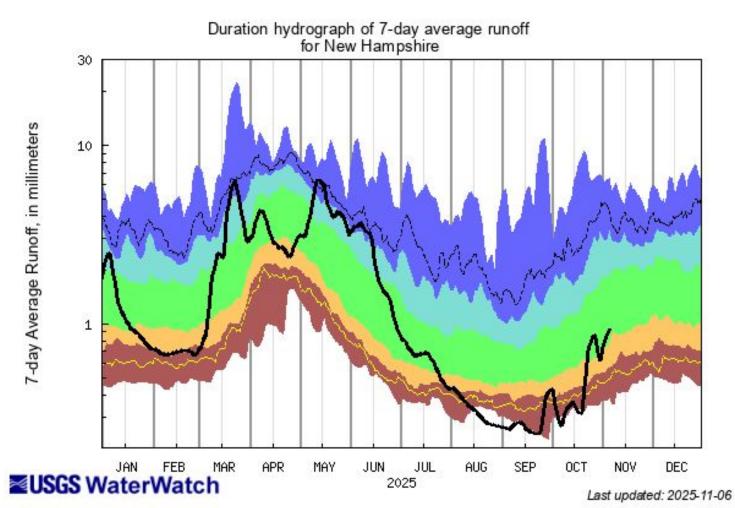
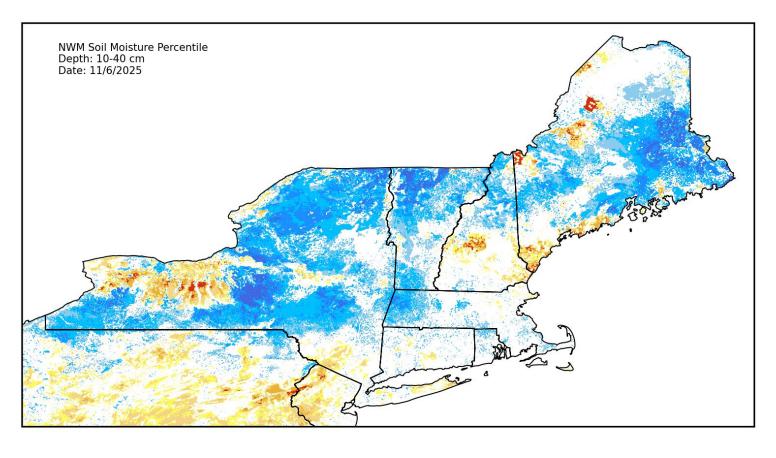


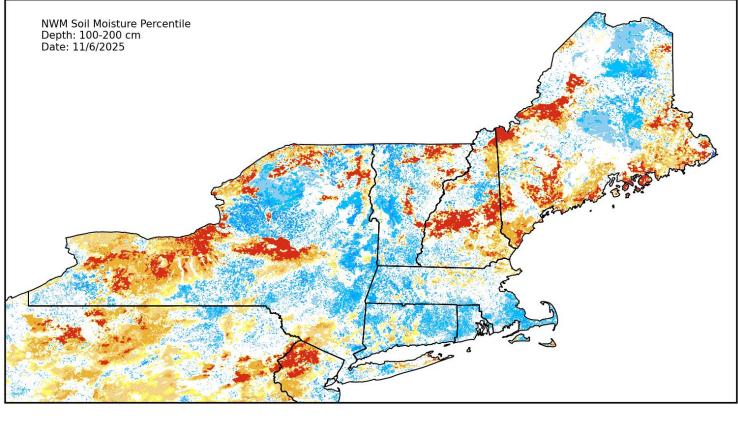
Image 1 (Left): USGS 7-Day Streamflow Runoff Duration Hydrograph for Maine based on the percentile of existing streamflow records on this day of the year.

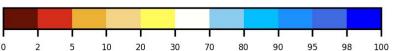
Image 2 (Right): USGS 7 day Runoff Duration Hydrograph for New Hampshire based on the percentile of existing streamflow records on this day of the year.

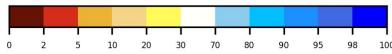


#### National Water Model Soil Moisture Estimates









(Left) NWM Soil Moisture Map indicating the moisture content of 4-16 inches of soil compared to historical conditions based on NOAA's National Water Model.

(Right) NWM Soil Moisture Map indicating the moisture content of the 40-79 inches of soil compared to historical conditions based on NOAA's National Water Model.





Satellite Based

- Deeper soil moisture percentiles remain well below climatological normals, confirming the severe and extreme drought conditions remain
- Some improvement was made in the hardest hit D3 region in the western Maine Mountains and White Mountain ranges

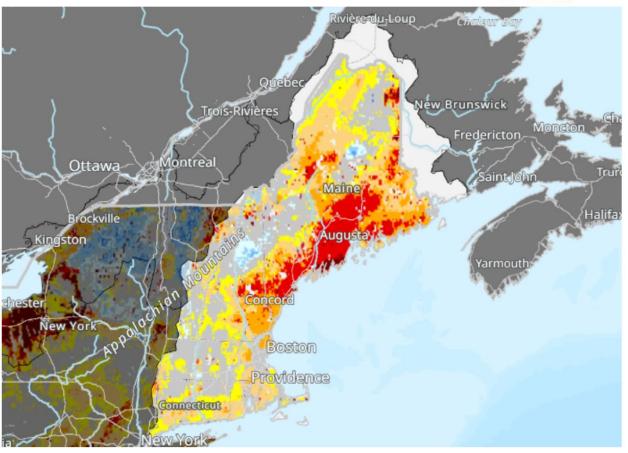
This map shows the moisture content of the top 1 meter of soil compared to historical conditions from 1981–2013, based on NASA's Short-term Prediction and Transition Center – Land Information System (SPoRT-LIS).

#### NASA SPORT-LIS 0-100 cm Soil Moisture Percentile

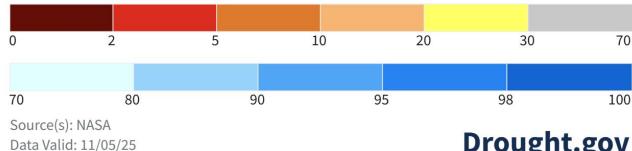
















**Satellite Based** 

SPoRT-LIS 0-200 cm Soil Moisture percentile valid 20 Oct 2025

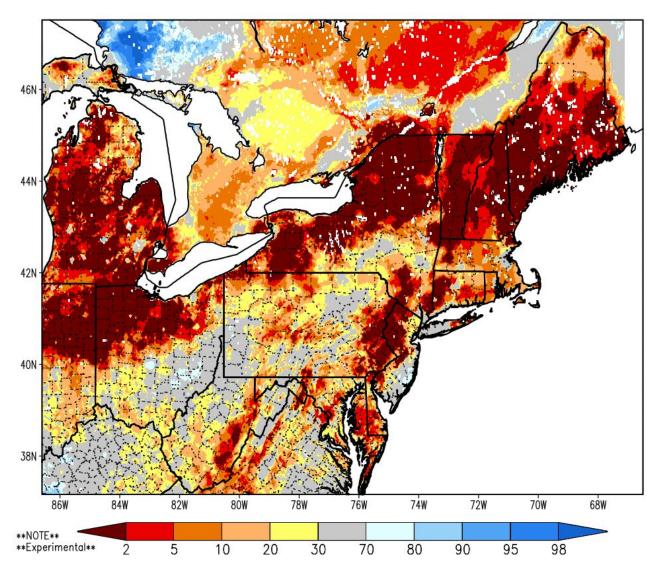


Image: **Peak** soil moisture depletion around Oct 20 2025 based on analysis of NASA SPoRT-LIS 0-200 cm percentiles

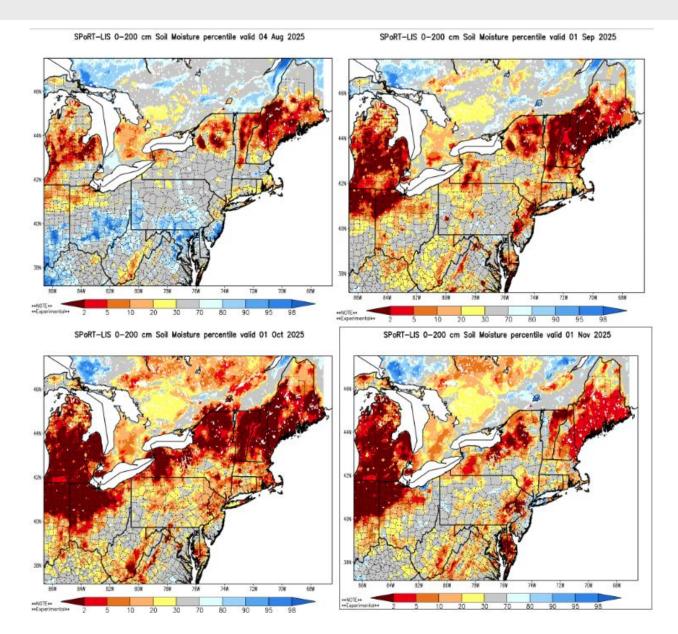
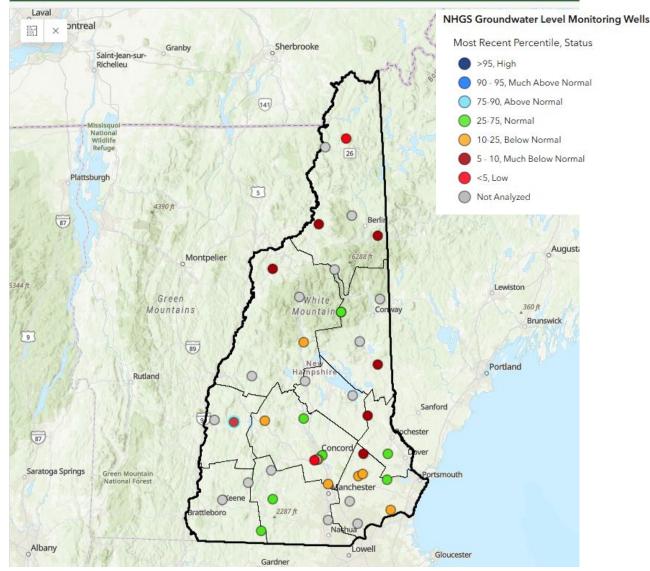


Image: NASA SPoRT-LIS 0-200 cm soil moisture percentiles at the beginning of August, September, October, and November of 2025



## **Groundwater Levels**

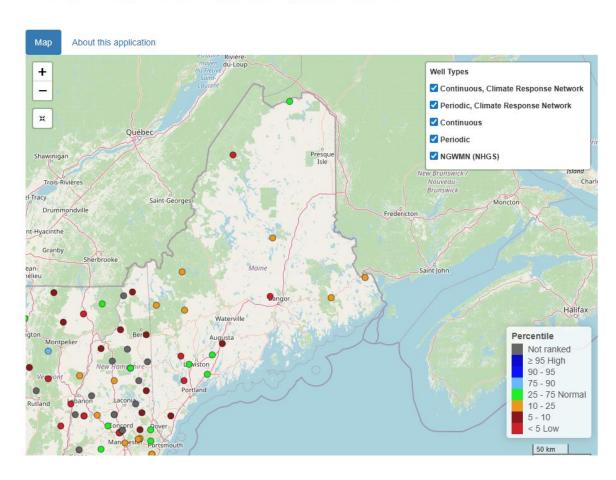






#### Groundwater Levels in New England

Recent conditions relative to historical monthly statistics

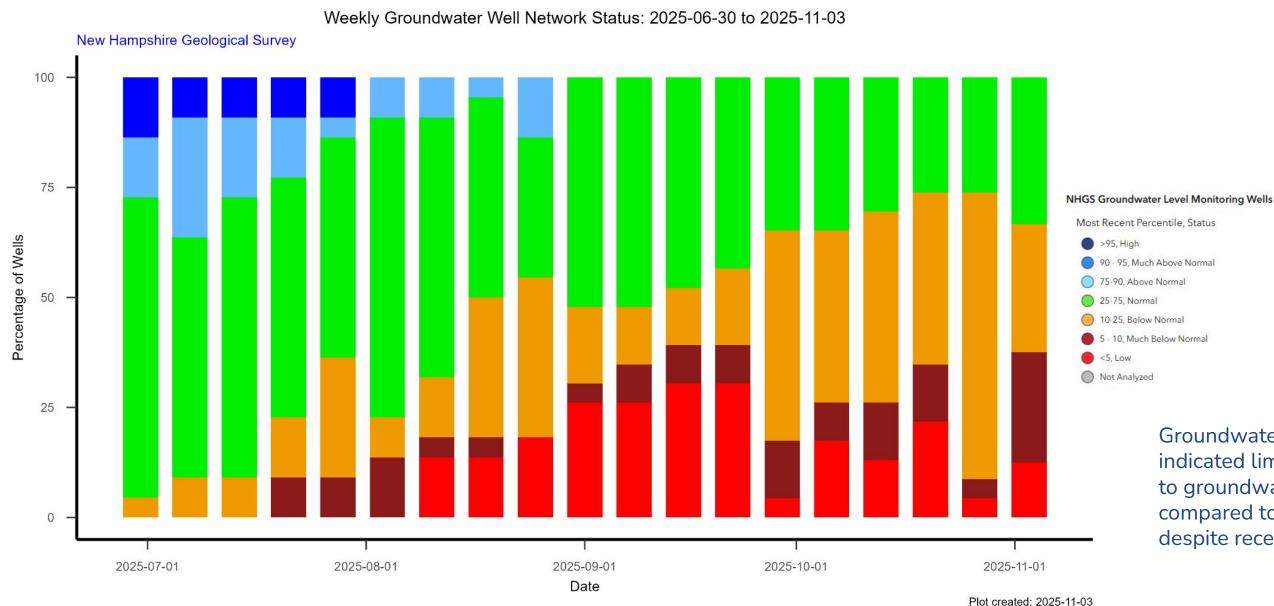


Several groundwater monitoring wells are Below to Much Below Normal per NH Groundwater monitoring dashboard (<a href="https://nhdes.maps.arcgis.com/apps/dashboards/6b333fa640994c17a31993a9e5298043">https://nhdes.maps.arcgis.com/apps/dashboards/6b333fa640994c17a31993a9e5298043</a>) and the USGS Groundwater Levels (<a href="https://newengland.water.usgs.gov/web\_app/GWW/GWW.html">https://newengland.water.usgs.gov/web\_app/GWW/GWW.html</a>) in New England dashboard.





#### **NH Groundwater Network Conditions Since July 1**

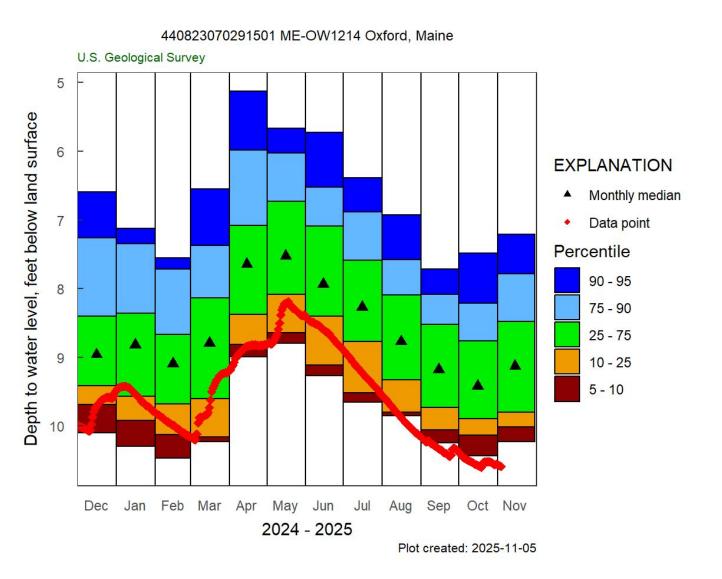


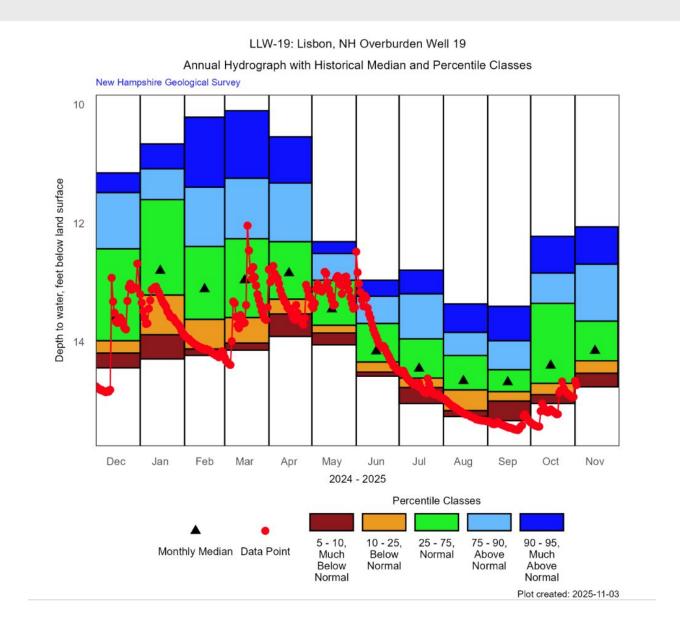
Groundwater network in NH indicated limited improvements to groundwater conditions compared to climatology, despite recent rainfall

(https://nhdes.maps.arcgis.com/apps/dashboards/6b333fa640994c17a31993a9e5298043) and the USGS Groundwater Levels (https://newengland.water.usgs.gov/web\_app/GWW/GWW.html) in New England dashboard.



# **Groundwater Impacts**



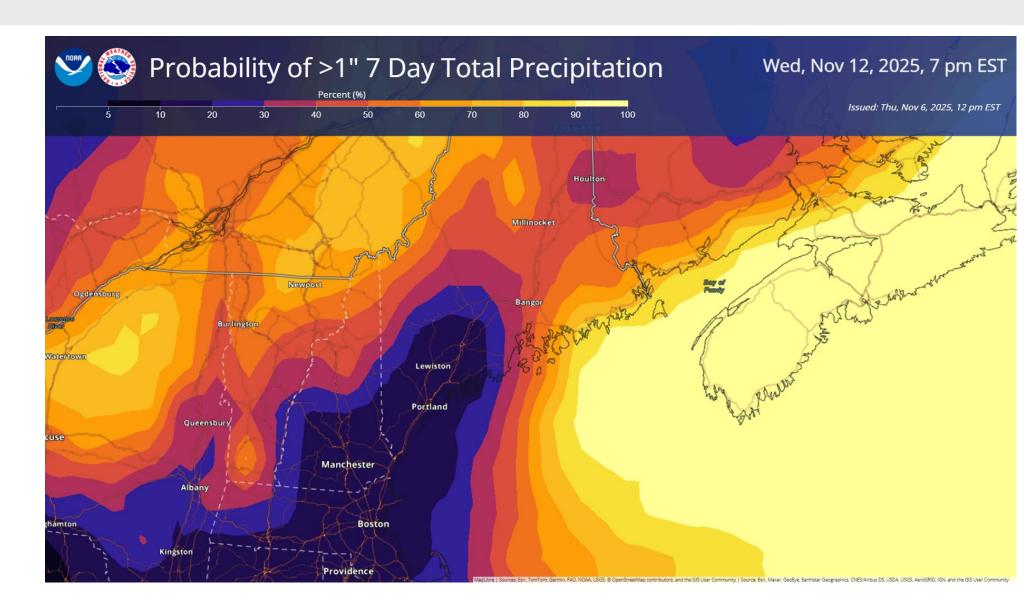


Above are two real-time wells observations (red dots) with climatology percentiles in the background. (Left) A USGS groundwater well in Oxford Maine with a period of record from 1980. (Right) Groundwater well from Lisbon New Hampshire in Grafton County from 2006.





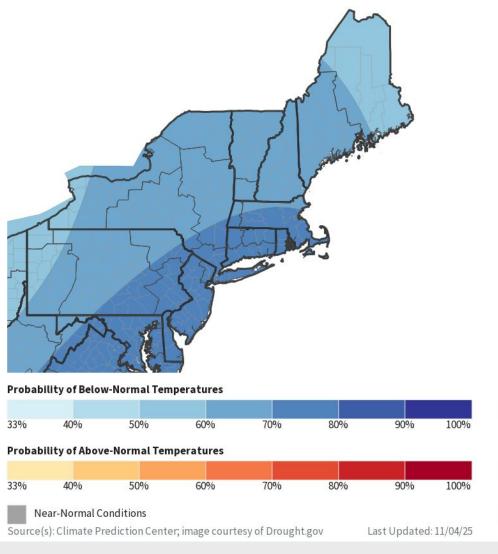
- An active weather pattern is on pace to impact the region over the next 7 days
- There will be multiple low pressure systems with wind, rain, and some snow
- Forecasted precipitation totals could reach an inch or more, particularly in the mountains



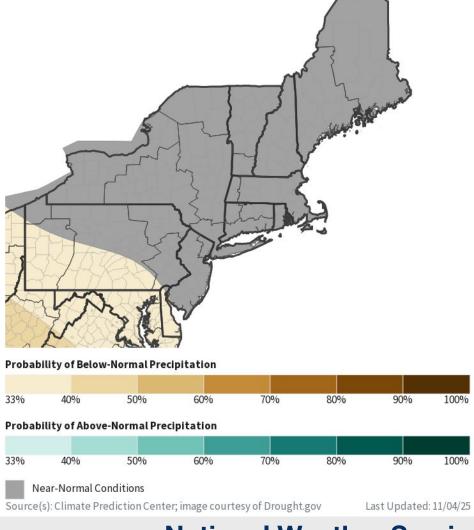


- Equal chances for near, above, or below normal precipitation
- 40-50% chance of below normal temperatures

6-10 Day Temperature Outlook for November 10, 2025-November 14, 2025



6-10 Day Precipitation Outlook for November 10, 2025-November 14, 2025

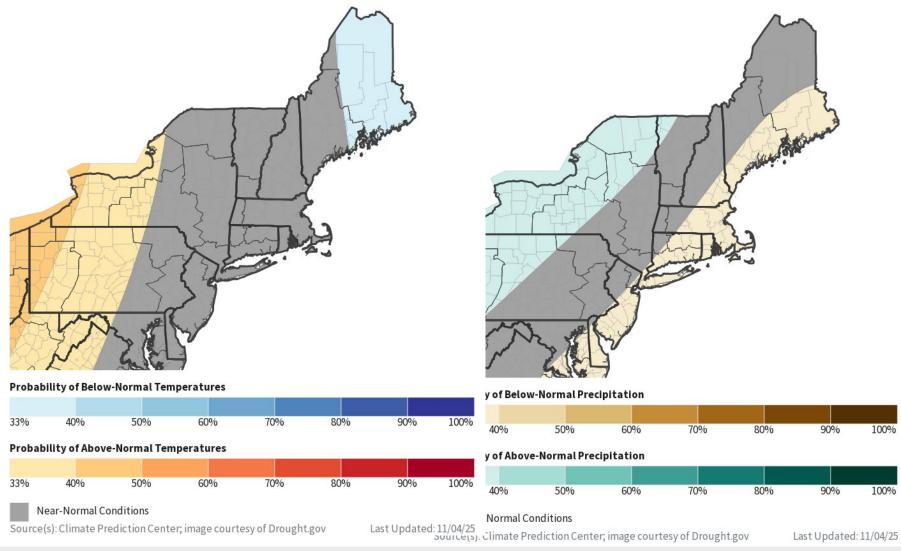




# 8-14 Day Outlooks

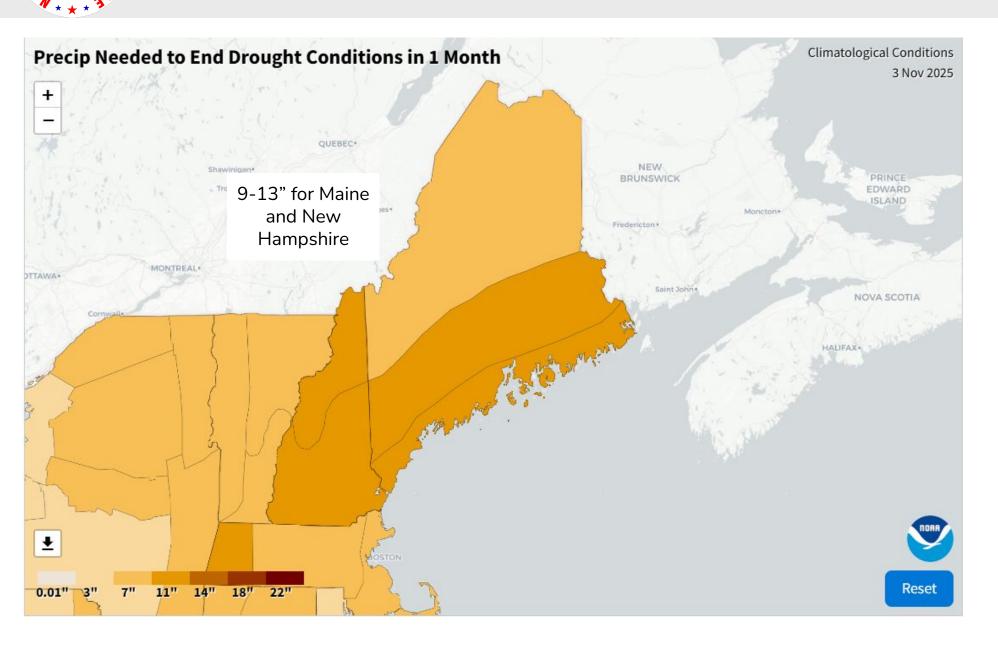
 There are no strong signals for mid November due to large swings expected in the weather pattern, likely to favor near average on the whole 8-14 Day Temperature Outlook for November 12, 2025-November 18, 2025

y Precipitation Outlook for November 12, ovember 18, 2025









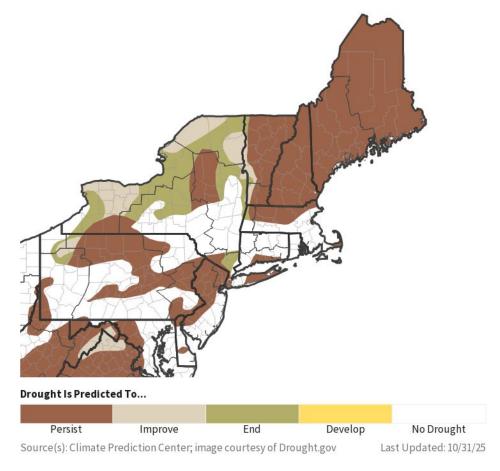
- 125-150% of normal precipitation over the next 2 months is needed to ameliorate drought conditions <u>before the</u> ground freezes
  - Once frozen, precipitation that would normally replenish groundwater won't soaking in, leaving wells and aquifers with little recovery until the spring thaw
- Steady, light-rain events with high absorption rates are ideal
- Around 6" of above normal or extra rainfall is needed to see full recovery
- Ground frost in ME and NH can start as early as mid November in the North and higher elevations, and mid to late December in southern areas on average, with long cold snaps often necessary to make depths over 4"

## **Drought Outlook**

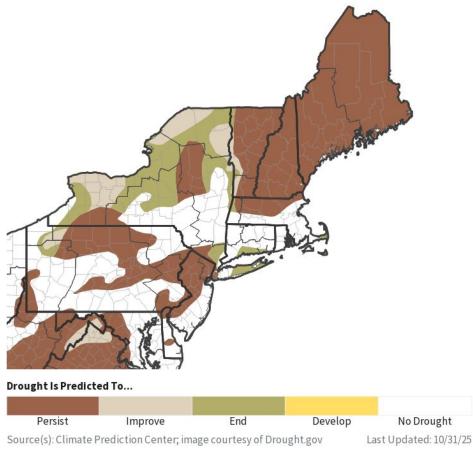
The latest monthly and seasonal outlooks can be found on the CPC homepage

- Persisting: Climate prediction center drought outlooks favor drought persistence through January
- It is likely that precipitation will fall short of eliminating drought conditions prior to the winter freeze
- The region is likely to maintain some state of drought through winter

1-Month Drought Outlook for November 1, 2025-November 30, 2025



Seasonal (3-Month) Drought Outlook for October 31, 2025-January 31, 2026



Links to the latest:

Climate Prediction Center Monthly Drought Outlook
Climate Prediction Center Seasonal Drought Outlook

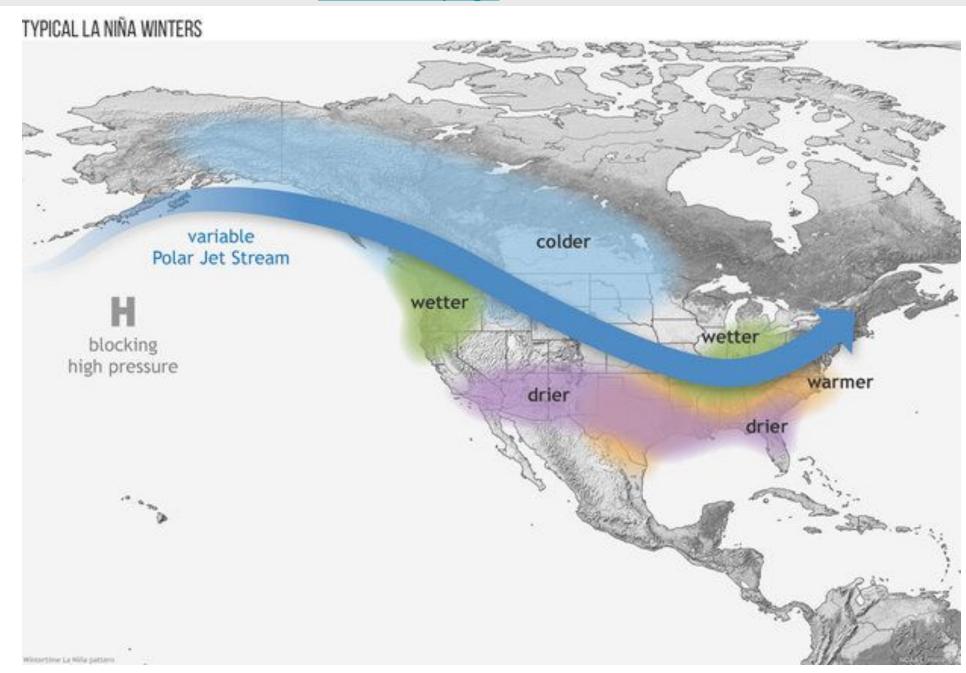


## Winter Outlook

The latest monthly and seasonal outlooks can be found on the <a href="CPC">CPC homepage</a>

- Persisting: Climate prediction center is predicting an emerging La Nina to influence the upcoming winter patterns
- This leads to a split storm track over New England
- Past La Nina years have resulted in:
  - Both above and below normal precipitation and snowpacks
  - Often wild temperature swings, though often winters averaged near normal
- Other global indicators suggest some similarities between this year and 2017-2018
  - Active year for nor'easters
- Large temperature swings
   Links to the latest:

Climate Prediction Center Monthly Drought Outlook
Climate Prediction Center Seasonal Drought Outlook





Links: See/submit Condition Monitoring Observer Reports (CMOR) and view the Drought Impacts Reporter

#### **Groundwater Impacts**

• New dry wells are reported across both Maine and New Hampshire as groundwater levels decline despite slight rebounds from recent rains.

Click on your respective state for a link to report a dry well

New Hampshire Dry Well Survey

Maine Dry Well Survey

The Drinking Water Program strongly discourages homeowners from introducing water into their wells for 3 reasons:

- It's illegal unless specifically allowed in the statute.
- The well is dry because the water table is below the well screen. Any introduced water will dissipate out into the aquifer.
- The delivered water may contaminate the aquifer with bacteria or other potential pathogens. For example, once iron bacteria is introduced into a well, it's difficult (if not impossible) to remove, clogs the well screen, and turns the water reddish-brown.



Links: See/submit Condition Monitoring Observer Reports (CMOR) and view the Drought Impacts Reporter

#### **Hydrologic Impacts**

- Most smaller, unregulated rivers and streams have responded to recent heavy rainfall with near normal streamflow, though
  they are expected to recede to below normal to much below normal flows without additional rainfall in the coming days
- Small to medium sized reservoirs remain below long term averages with some at daily record low levels

#### **Other Impacts**

• Water management, agricultural, fisheries, and forestry impacts have been reported. Reach out to the various representatives from those sectors for more information regarding specific impacts.

#### **Mitigation actions**

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

Have a drought impact to report?

go.unl.edu/cmor\_drought





- Widespread Moderate to Extreme Drought holds across Maine and New Hampshire, with 100% of each state experiencing D1-D3 drought conditions
- Surface water improvements have been widespread from late October into early November, though groundwater deficits persists
- Soil moisture and streamflow improvements were due to late October rains and reduced water withdrawals from vegetation at the end of the growing season. These are a prime indicator of improving drought conditions, as it allows more water to reach the aquifers.
- In total, 9-13" of liquid precipitation is needed before the freeze. This is roughly 125-150% of normal for November and December
- The severity of the drought suggests some degree of long-term drought conditions are likely to **persist** into the 2025-26 winter
- Upcoming active weather pattern with widespread precipitation are likely to bring incremental relief with improvements likely with next week's USDM



## **Contact Information**



#### **Briefing Webpage**

www.weather.gov/gyx/EMhome
https://www.weather.gov/gyx/drought



#### **Disclaimer**

- → Information contained in this briefing is time-sensitive
- → Do Not Use After: November 14, 2025



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→ @NWSGray

