December Update & Northeast DEWS Discussion

By: Samantha Borisoff, Climatologist
Northeast Regional Climate Center
December Temperatures

Average Temperature Departure (°F)
December 1-12, 2023

From 2°F below normal to 8°F above normal
December Precipitation

From 50% of normal to more than 200% of normal
December Storms

Here are the Top 5 Rainfall reports received from our spotters/observers:

1. Deerfield Twp, NJ 4.45 in.
2. Cambridge, MD 4.36 in.
5. Felton, DE 3.80 in.

Estimated 24 Hour Rain Totals As Of 8 am December 11

Widespread 3 to 5 inches across eastern CT, northern RI and parts of central MA

Moosup CT: 5.15"
East Killingly CT: 4.25"
Coventry RI: 4.25"
Hebron CT: 4.71"
Storrs CT: 4.30"
Columbia CT: 4.18"
Natick MA: 4.01"
Greenville RI: 3.72"
Willimantic CT: 3.69"
Woonsocket RI: 3.60"
Smithfield RI: 3.38"
Framingham MA: 3.30"
Southington CT: 3.26"
Monson MA: 3.00"
Hope Valley RI: 2.82"
Brimfield MA: 2.75"
West Newbury MA: 2.66"
Providence RI: 2.62"
Beverly MA: 2.54"
Norton MA: 2.24"
December Snowfall

From more than 6” below normal to more than 6” above normal
Drought Monitor

U.S. Drought Monitor
Northeast

November 28, 2023
(Released Thursday, Nov. 30, 2023)
Valid 7 a.m. EST

Drought Conditions (Percent Area)

<table>
<thead>
<tr>
<th>Intensity</th>
<th>Area</th>
</tr>
</thead>
<tbody>
<tr>
<td>None</td>
<td>44%</td>
</tr>
<tr>
<td>D0 Abnormally Dry</td>
<td>10%</td>
</tr>
<tr>
<td>D1 Moderate Drought</td>
<td>6%</td>
</tr>
<tr>
<td>D2 Severe Drought</td>
<td>4%</td>
</tr>
<tr>
<td>D3 Extreme Drought</td>
<td>0%</td>
</tr>
<tr>
<td>D4 Exceptional Drought</td>
<td>0%</td>
</tr>
</tbody>
</table>

The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. For more information on the Drought Monitor, go to https://droughtmonitor.unl.edu/about.aspx

Author: David Smerdon
Western Regional Climate Center

December 12, 2023
(Released Thursday, Dec. 14, 2023)
Valid 7 a.m. EST

U.S. Drought Monitor
Northeast

The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. For more information on the Drought Monitor, go to https://droughtmonitor.unl.edu/about.aspx

Author: Curtis Blumenthal
National Drought Mitigation Center

droughtmonitor.unl.edu

NRCC
Standardized Precipitation Index
Soil Moisture

SPoRT–LIS 0–100 cm Soil Moisture percentile valid 14 Dec 2023

Courtesy of NASA
Streamflow

7-Day Streamflow

<table>
<thead>
<tr>
<th>Explanation - Percentile Classes</th>
<th>Low</th>
<th>Below normal</th>
<th>Normal</th>
<th>Above normal</th>
<th>Much above normal</th>
<th>High</th>
</tr>
</thead>
<tbody>
<tr>
<td>Much below normal</td>
<td>&lt;10%</td>
<td>10-24%</td>
<td>25-75%</td>
<td>76-90%</td>
<td>&gt;90%</td>
<td></td>
</tr>
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Data provided by USGS WaterWatch - Streamflow; updated 2023-12-13.
Groundwater

**Groundwater Status**

**Explanation - Percentile Classes**

<table>
<thead>
<tr>
<th></th>
<th>Much below normal</th>
<th>Below normal</th>
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<th>Above normal</th>
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Data provided by [USGS Groundwater](https://waterdata.usgs.gov) - [About this map: updated 2023-12-14](https://waterdata.usgs.gov/national/gw/).
Short-term Outlooks

6-10 Day Precipitation Outlook
2023-12-19 to 2023-12-23

6-10 Day Temperature Outlook
2023-12-19 to 2023-12-23

8-14 Day Precipitation Outlook
2023-12-21 to 2023-12-27

8-14 Day Temperature Outlook
2023-12-21 to 2023-12-27

Data provided by: NOAA/NWS/NCEP/EMC

NRCC
Summary

December-to-date conditions:
• Above-normal temperatures for most of the region
• Above-normal precipitation for many areas

Drought:
• Above-normal precipitation chipped away at drought and dryness but no widespread improvements since late November

Outlooks:
• Short-term: below- or near-normal precipitation and above-normal temperatures for the region
• Dec: tilt toward above-normal precipitation and above-normal temperatures for some areas
• Dec-Feb: tilt toward above-normal precipitation for coastal areas but below-normal for some interior locations; above-normal temperatures favored for all
Contact Information

• nrcc@cornell.edu

Upcoming Webinars

• Tuesday, January 30 at 9:30am EST
  • CMIP6 Projections of Extreme Rainfall

• Thursday, February 29 at 9:30am EST
  • Coastal Inundation and High Tide Flooding

El Niño Resource

• https://elnino.nrcc.cornell.edu

www.nrcc.cornell.edu