

Connecticut Drought Conditions Report

Monthly Update for October 2022

Connecticut Water Planning Council
Interagency Drought Workgroup
November 3, 2022 Regular Meeting

CT Interagency Drought Workgroup

Regular Meeting

November 3, 2022

1:00 PM – 3:00 PM

VIA Microsoft Teams

[Join on your computer or mobile app](#)

Meeting ID: 247 269 426 452

Passcode: d7hPSg

Or call in (audio only)

[+1 860-840-2075,,375183566#](#) Phone Conference ID: 375 183 566#

Agenda

1. Call to order
2. Seating of voting members
3. Minutes – VOTE
 - a. [October 6, 2022](#)
4. Business
 - a. Review of hydrologic conditions
 - i. Review October monthly data
 - ii. Review any data available for November month-to-date
 - b. Drought stage recommendations – VOTE
 - c. Drought Plan
 - i. Priority level review
 - ii. Items for Water Planning Council
 - d. Next regular meeting – December 8, 2022
 - e. Other Business
5. Public Comment
6. Adjourn

Stage 2 Drought Trigger Summary by Region -- November 3, 2022

	Stage 2 Trigger	Fairfield	Hartford	Litchfield	Middlesex	New Haven	New London	Tolland	Windham	Data of Record
Precipitation (1)	Two-month total below 65% of normal	124%	114%	121%	Not available	130%	125%	125%	137%	10/31/2022
Ground Water (2)	Two out of three months below the 25th percentile	≤25% stations meet trigger	30% stations meet trigger	60% stations meet trigger	43% stations meet trigger	≤25% stations meet trigger	40% stations meet trigger	42% stations meet trigger	33% stations meet trigger	10/31/2022
Streamflow (3)	Two out of three months below the 25th percentile	≤25% stations meet trigger	≤25% stations meet trigger	30% stations meet trigger	≤25% stations meet trigger	≤25% stations meet trigger	≤25% stations meet trigger	≤25% stations meet trigger	≤25% stations meet trigger	10/31/2022
Reservoirs (4)	Average levels less than 80% of normal	79% of normal	87% of normal	79% of normal	103% of normal	86% of normal	93% of normal	103% of normal	100% of normal	10/31/2022
Palmer Drought Severity Index (5)	-2.9 to -2.0	-0.05	0.93	0.24	-0.05	-0.05	-0.05	0.93	0.93	10/29/2022
Crop Moisture Index (6)	-1.9 to -1.0	0.94	1.16	0.99	0.94	0.94	0.94	1.16	1.16	10/29/2022
VegDRI (seasonal) (7)	Pre-drought stress	Unreliable data - late in growing season								10/30/2022
Fire Danger (8)	Moderate	Low	Low	Low	Low	Low	Low	Low	Low	11/3/2022
U.S. Drought Monitor (9)	Intensity level D1-D2	D0-D1	D0	D0-D1	N/A	D0	N/A	N/A	N/A	11/3/2022

Key:	Drought trigger met across the majority of region	Region partially meets drought trigger or is near trigger threshold (judgement call needed)	Drought trigger not met across the majority of region (conditions can be worse in specific areas)
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Methodology:

(1) Based on monthly precipitation averaged by region, calculated by National Weather Service (NWS).
(2) Based on monthly assessment of groundwater stations by region, calculated by United States Geological Survey (USGS). Region is identified as meeting trigger when ≥65% of stations in the region meet the threshold. Region is identified as not meeting trigger when ≤25% of stations in the region meet the threshold. Region is identified as partially meeting trigger when greater than 25% and less than 65% of stations in the region meet the threshold.
(3) Based on monthly assessment of stream gauge stations by region, calculated by USGS. Region is identified as meeting trigger when ≥65% of stations in the region meet the threshold. Region is identified as not meeting trigger when ≤25% of stations in the region meet the threshold. Region is identified as partially meeting trigger when greater than 25% and less than 65% of stations in the region meet the threshold.
(4) Based on latest available reservoir status reports obtained from public water suppliers and compiled by CT Department of Public Health Drinking Water Section.
(5) Calculated by Climate Prediction Center (CPC) for each State Climate Division and extrapolated to county. Northwestern Climate Division reflective of Litchfield county. Central Climate Division reflective of Hartford, Tolland, Windham counties. Blend of Central Climate Division and Coastal Climate Division for Fairfield, New Haven, Middlesex, New London counties.
(6) Calculated by CPC for each State Climate Division and extrapolated to county. Northwestern Climate Division reflective of Fairfield county, Central Climate Division reflective of Hartford, Tolland, Windham counties. Blend of Central Climate Division and Coastal Climate Division for Fairfield, New Haven, Middlesex, New London counties.
(7) Based on visual assessment of geographic extent of each VegDri drought designation in each region, calculated by the National Drought Mitigation Center in collaboration with USGS.
(8) Based on daily forest fire danger report from CT DEEP Bureau of Natural Resources, Division of Forestry.
(9) Based on analysis of most recent edition of the U.S. Drought Monitor, produced by the National Drought Mitigation Center.



CT Interagency Drought Workgroup

NWS Update

Thursday November 3rd 2022

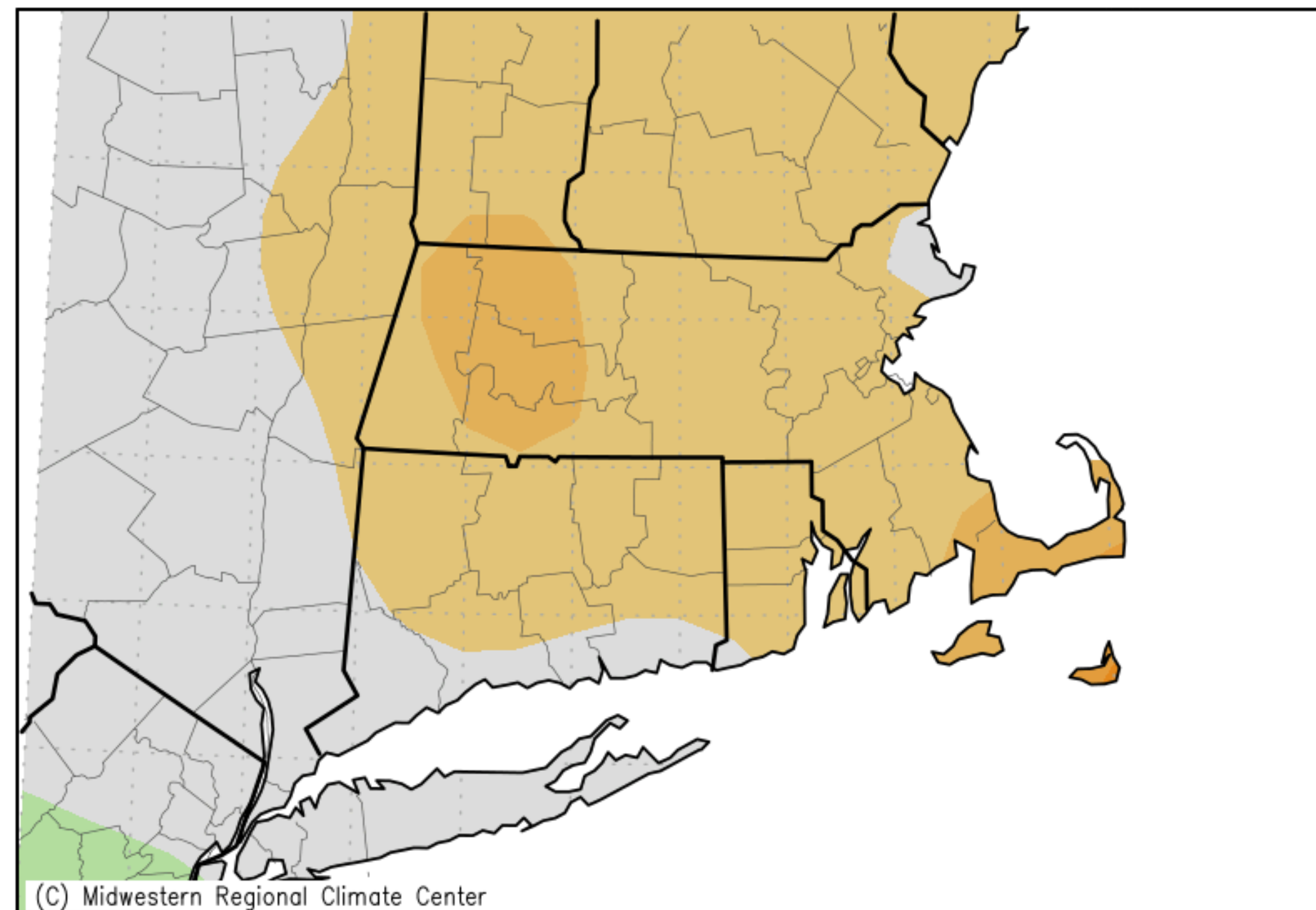
*Prepared by: NWS WFO Boston/Norton, MA
& NWS WFO Albany, NY*

Oct 2022 Temperatures



Boston/Norton MA
WEATHER FORECAST OFFICE

Average Temperature (°F): Departure from Mean
October 1, 2022 to October 31, 2022



Mean period is 1991–2020.



Midwestern Regional Climate Center

cli-MATE: MRCC Application Tools Environment

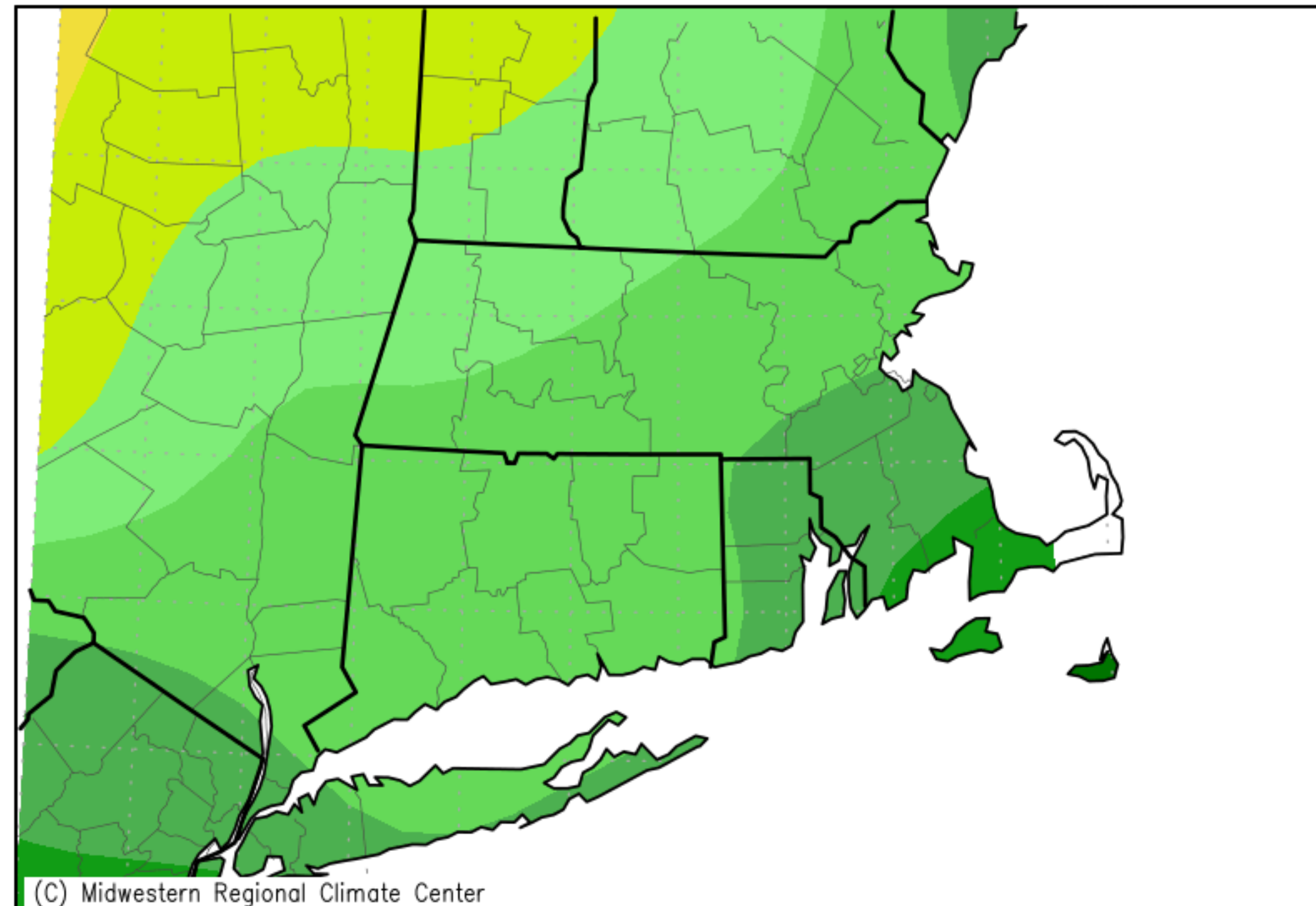
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Oct 2022 Rainfall



Boston/Norton MA
WEATHER FORECAST OFFICE

Accumulated Precipitation (in)
October 1, 2022 to October 31, 2022



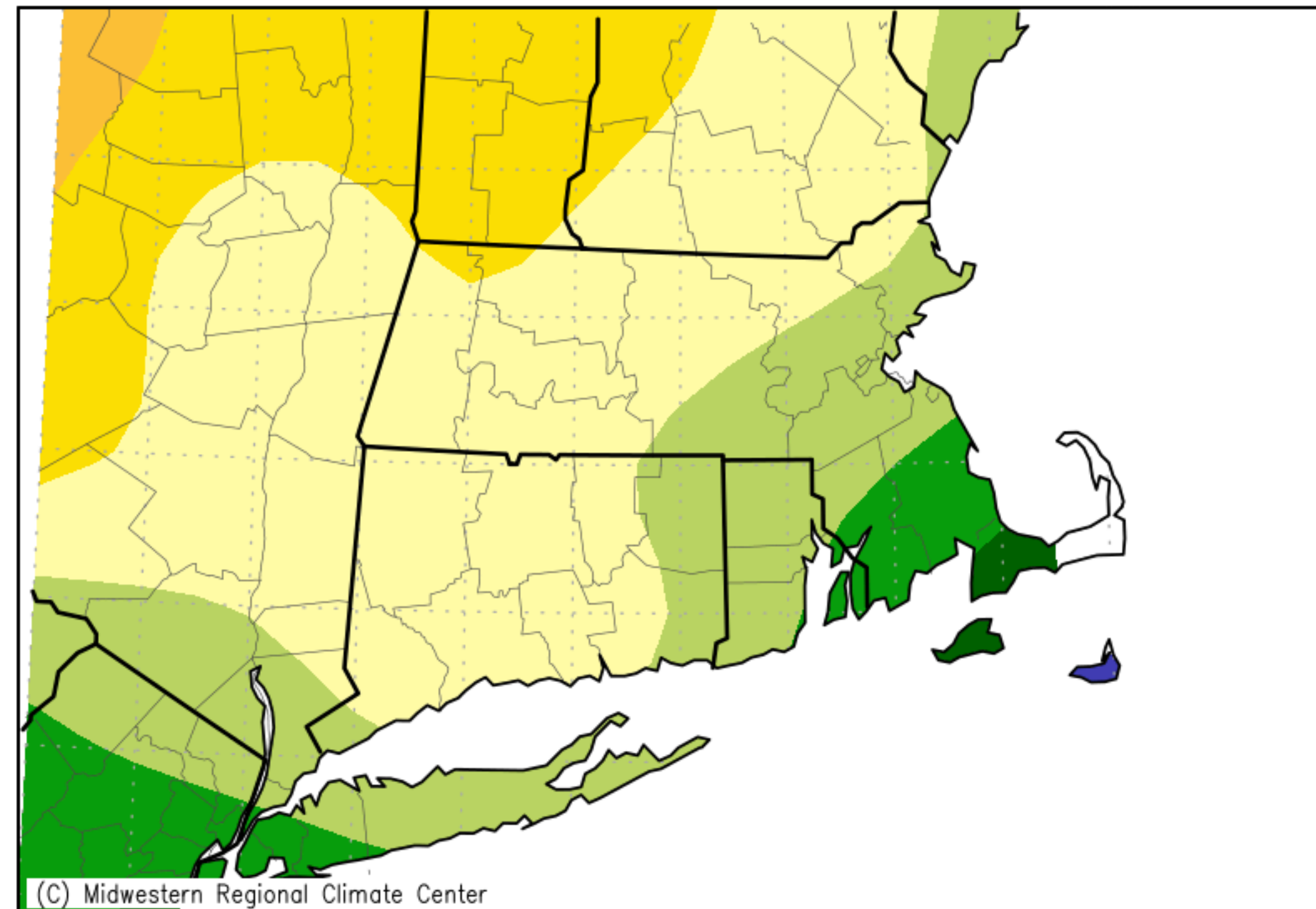
Midwestern Regional Climate Center
cli-MATE: MRCC Application Tools Environment
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Oct 2022 Rainfall

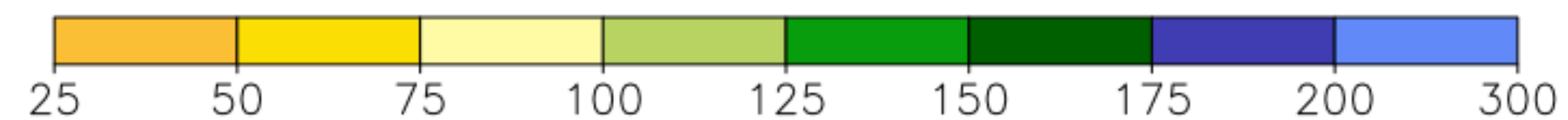


Boston/Norton MA
WEATHER FORECAST OFFICE

Accumulated Precipitation: Percent of Mean
October 1, 2022 to October 31, 2022



Mean period is 1991–2020.



Midwestern Regional Climate Center
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Rainfall Tables for 2 and 3 Months



Boston/Norton MA
WEATHER FORECAST OFFICE

CT 2-month Sep-Oct 22	Rainfall	Departure	Percent	Normal
Litchfield	11.22	1.98	121	9.24
Hartford	10.45	1.28	114	9.17
Tolland	10.88	2.19	125	8.69
Windham	11.81	3.18	137	8.63
Fairfield	10.95	2.13	124	8.82
New Haven	11.16	2.58	130	8.58
Middlesex	M	M	M	9.06
New London	10.67	2.14	125	8.53

CT 3-month Aug-Oct 22	Rainfall	Departure	Percent	Normal
Litchfield	13.27	-0.36	97	13.63
Hartford	13.43	-0.08	99	13.51
Tolland	15.15	2.49	120	12.66
Windham	15.37	2.57	120	12.8
Fairfield	12.29	-0.98	93	13.27
New Haven	14.3	1.77	114	12.53
Middlesex	M	M	M	13.08
New London	13.84	0.84	106	13

Rainfall Tables for 5 and 6 Months



Boston/Norton MA
WEATHER FORECAST OFFICE

CT 5-month Jun-Oct 22	Rainfall	Departure	Percent	Normal
Litchfield	18.97	-3.84	83	22.81
Hartford	19.48	-3.22	86	22.7
Tolland	21.1	-0.07	100	21.17
Windham	21.43	0.03	100	21.4
Fairfield	18.75	-3.23	85	21.98
New Haven	19.48	-1.48	93	20.96
Middlesex <input type="checkbox"/>	M	M	M	22.42
New London	18.35	-2.45	88	20.8

CT 6-month May-Oct 22	Rainfall	Departure	Percent	Normal
Litchfield	23	-4.22	84	27.22
Hartford	21.96	-5.16	81	27.12
Tolland	23.65	-1.62	94	25.27
Windham	22.64	-2.78	89	25.42
Fairfield	22.25	-4.12	84	26.37
New Haven	22.29	-2.91	88	25.2
Middlesex	M	M	M	26.64
New London	20.56	-4	84	24.56

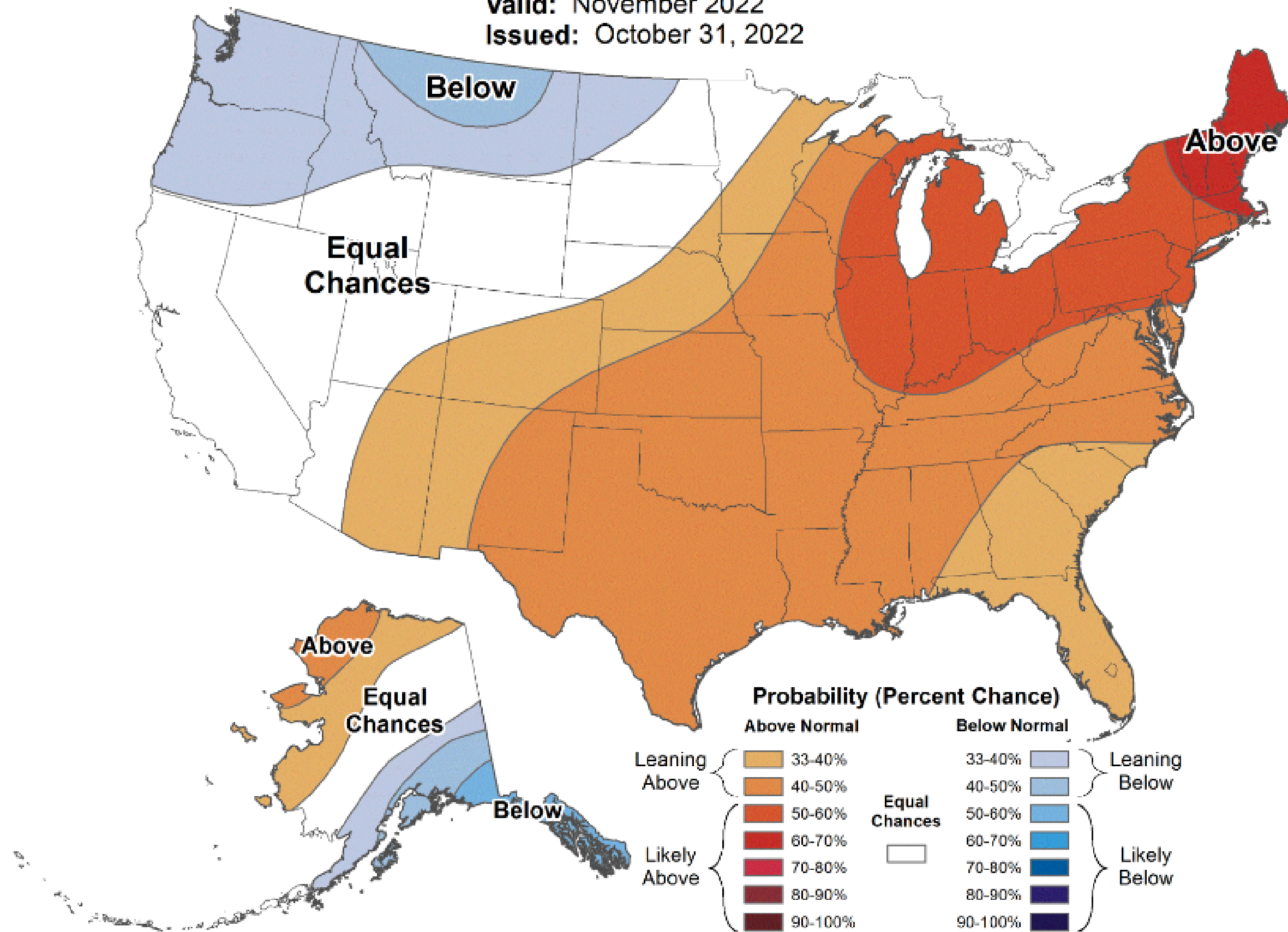
CPC Outlook for November



Boston/Norton MA
WEATHER FORECAST OFFICE

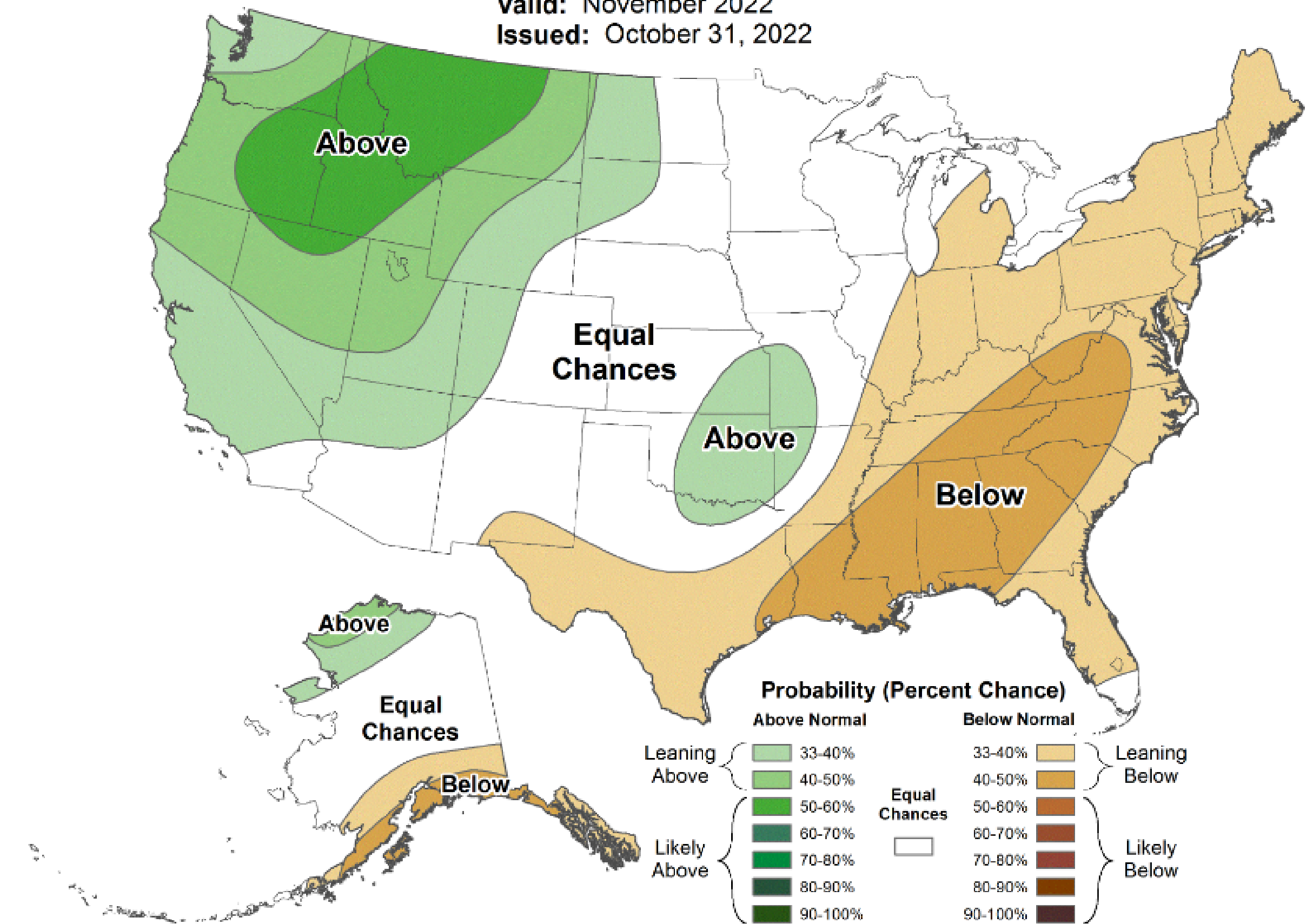
Monthly Temperature Outlook

Valid: November 2022
Issued: October 31, 2022



Monthly Precipitation Outlook

Valid: November 2022
Issued: October 31, 2022





U.S. Geological Survey

**Status of streamflow
and groundwater levels,
as of October 31, 2022**



Provisional Data Subject to Review and Revision

Name	total	Number of wells below normal	Number of wells below normal for ≥ 2 out of the last 3 months	Number of wells below normal for 4 or more consecutive months	Percent below normal	Percent stage 2	Percent stage 3
Fairfield	11	1	2	0	9.1	18.2	0
Hartford	10	3	3	1	30	30	10
Litchfield	5	2	3	0	40	60	0
Middlesex	7	1	3	0	14.3	42.9	0
New Haven	13	2	3	2	15.4	23.1	15.4
New London	5	1	2	1	20	40	20
Tolland	12	3	5	3	25	41.7	25
Windham	6	2	2	0	33.3	33.3	0

END OF OCTOBER 2022 GROUNDWATER SUMMARY BY COUNTY



Provisional Data Subject to Review and Revision

Name	total	Number of streamgages below normal	Number of streamgages below normal for ≥ 2 out of the last 3 months	Number of streamgages below normal for ≥ 4 out of the last 5 months	Percent below normal	Percent stage 2	Percent stage 3
Fairfield	13	1	1	1	7.7	7.7	7.7
Hartford	11	1	2	2	9.1	18.2	18.2
Litchfield	10	0	3	3	0	30	30.0
Middlesex	4	0	0	0	0	0	0.0
New Haven	8	1	1	1	12.5	12.5	12.5
New London	7	0	0	0	0	0	0.0
Tolland	3	0	0	0	0	0	0.0
Windham	10	0	0	0	0	0	0.0

OCTOBER 2022 STREAMFLOW SUMMARY BY COUNTY



Provisional Data Subject to Review and Revision

Surface Reservoir Capacity Measurements and Trends

10/28/2022 Update

USDM Continues to Improve Several Areas in CT!

Thirty-four surface water systems measure their reservoir capacities weekly and report the readings to the Drinking Water Section (DWS). The attached table summarizes the most recent measurements in percent full and shows the week-to-week trend of their capacities.

Key takeaways:

$\geq 100\%$ of Normal n=34

10

Change since last week:

+2

State Average

71.1 % ↑

Last week:

70.7%

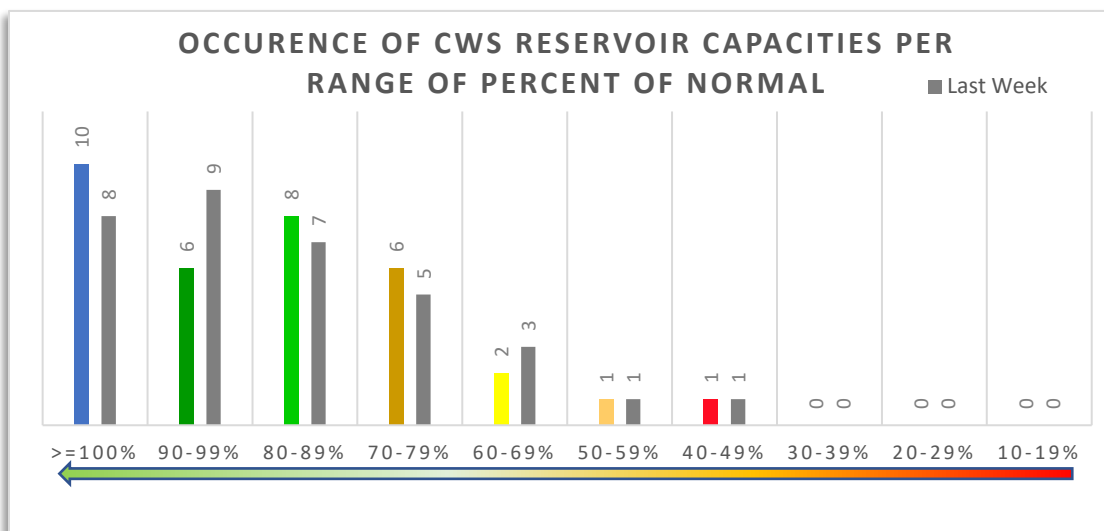
Average Percent of Normal

88.2% ↑

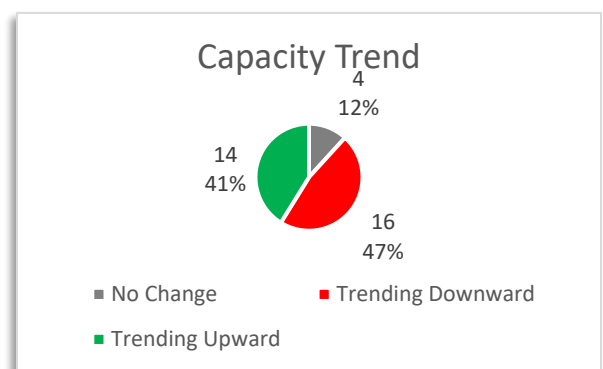
Last week:

87.6%

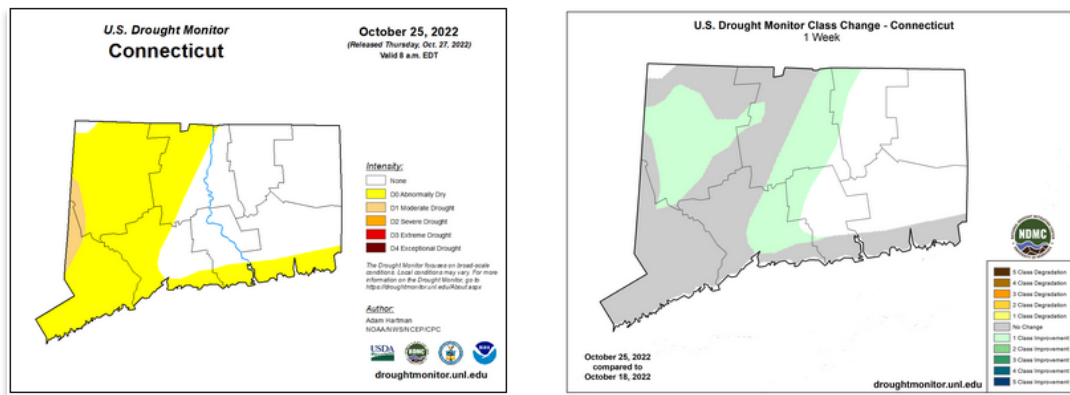
- 3 reservoir systems have reported that they are currently at 100% full (No change since last week).



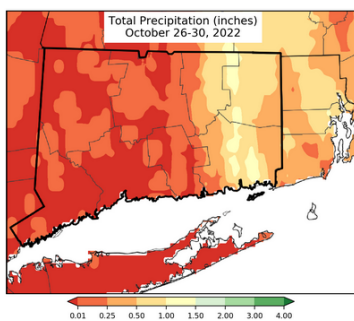
- The gray bars indicate last week's measurements and the colored bar is the current measurement. In non-drought conditions, the graph above would have all of the systems in the $\geq 100\%$ of normal column (n=34).
- 14 system's short-term week to week trend is upward (+1 since last week).** 16 systems are trending downward in capacity from their previous measurements (**No change** since last week). 4 systems have had no change in capacity (-1 last week).



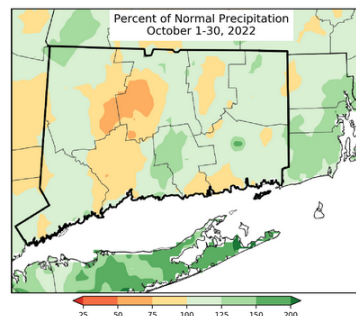
- **Eight systems** have reported they are in the first stage of their drought plan. Several systems are requesting voluntary and mandatory water use conservation.
- **One system is in their 2nd drought stage.**
- **US Drought Monitor:** – Continues to make improvement across CT. 1 class improvement in several areas in the state.
- <https://droughtmonitor.unl.edu/CurrentMap/StateDroughtMonitor.aspx?CT>



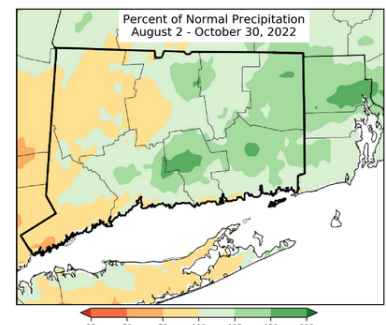
- Between October 26th and October 30th, the entire state received rain ranging from 0.5 to 1.5 inches. (Map 1). Most of the rain was in the Western part of the state. The 30-day Percent of Normal Precipitation map continues to show positive impacts from the recent rains. However, there are still areas of the state are still below normal precipitation (Map 2). The long-term trend over the last 90-days still shows some dryness in eastern CT (Map 3). Streamflow continues to show normal levels across CT. Groundwater can be found [here](#). Groundwater still shows some low measurements in the central and north-western parts of the state.



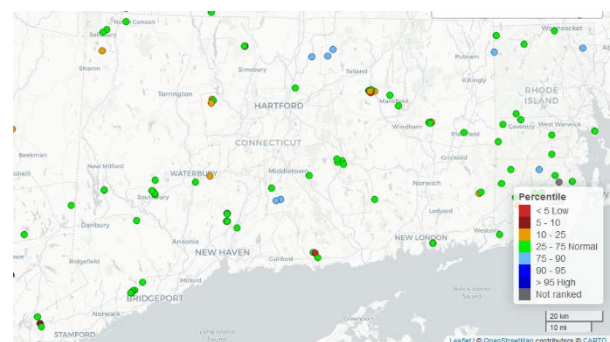
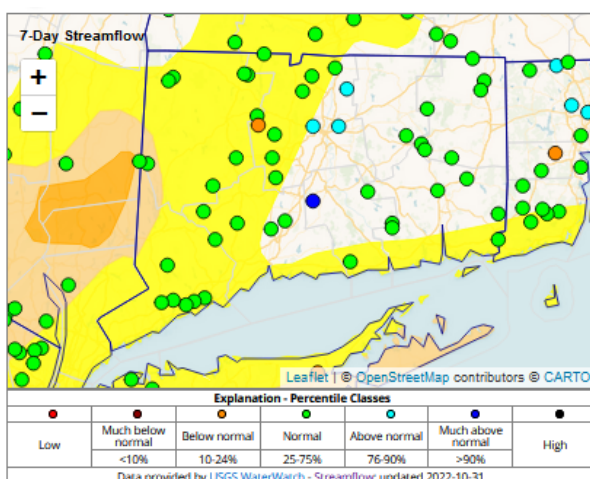
Map 1- 7 Day Total Precipitation



Map 2- 30 Day Percent of Normal Precipitation



Map 3 – 90 Day Percent of Normal Precipitation



Water Resources, Fisheries, and Forestry Conditions Report
Provided on 11/02/2022 by Doug Hoskins
Department of Energy and Environmental Protection

Water Diversion / Resource Concerns –

- Nothing to report.

Fisheries impacts-

- Nothing to report.

Fire danger-

- Nothing to report.