

# Drought Conditions Report

August 4, 2022

Connecticut Water Planning Council  
Interagency Drought Workgroup

## CT Interagency Drought Workgroup

### Regular Meeting

August 4, 2022

1:00 PM – 3:00 PM

VIA TEAMS

[Meeting Access: Click here to join the meeting](#)

Meeting ID: 211 790 855 633 Passcode: zmMMVy

### Or call in (audio only)

[+1 860-840-2075,,482154531#](#) United States, Hartford

Phone Conference ID: 482 154 531#

### Agenda

1. Call to order
2. Seating of voting members
3. Minutes – [July 13, 2022](#) – VOTE
4. Business
  - a. Review of Hydrologic Conditions
    - i. Review conditions
    - ii. Drought Plan Stage Recommendations – VOTE
  - b. [CT Water Planning Council topical work group recommendations](#) regarding the CT Drought Preparedness & Response Plan and its implementation
    - i. Overview of changes
    - ii. Drought Plan Update Recommendation to WPC – VOTE
  - c. Next Regular Meeting – September 8, 2022
5. Public Comment
6. Adjourn

### Stage 2 Drought Trigger Summary by Region -- July 13, 2022

	Stage 2 Trigger	Fairfield	Hartford	Litchfield	Middlesex	New Haven	New London	Tolland	Windham	Data of Record
<a href="#">Precipitation (1)</a>	Two-month total below 65% of normal	84% of normal	65% of normal	79% of normal	67% of normal	73% of normal	77% of normal	64% of normal	65% of normal	6/30/2022
<a href="#">Ground Water (2)</a>	Two out of three months below the 25th percentile	≤25% stations meet trigger	40% stations meet trigger	40% stations meet trigger	43% stations meet trigger	≤25% stations meet trigger	60% stations meet trigger	58% stations meet trigger	83% stations meet trigger	6/30/2022
<a href="#">Streamflow (3)</a>	Two out of three months below the 25th percentile	≤25% stations meet trigger	≤25% stations meet trigger	≤25% stations meet trigger	≤25% stations meet trigger	≤25% stations meet trigger	≤25% stations meet trigger	33% stations meet trigger	50% stations meet trigger	6/30/2022
<a href="#">Reservoirs (4)</a>	Average levels less than 80% of normal	104% of normal	105% of normal	101% of normal	99% of normal	99% of normal	102% of normal	99% of normal	100% of normal	6/30/2022
<a href="#">Palmer Drought Severity Index (5)</a>	-2.9 to -2.0	-3.2	-2.85	-2.64	-3.2	-3.2	-3.2	-2.85	-2.85	7/9/2022
<a href="#">Crop Moisture Index (6)</a>	-1.9 to -1.0	-0.6	-0.37	-0.23	-0.6	-0.6	-0.6	-0.37	-0.37	7/9/2022
<a href="#">VegDRI (seasonal) (7)</a>	Pre-drought stress	Moderate Drought	Pre-drought stress	Pre-drought stress	Pre-drought stress	Moderate Drought	Moderate Drought	Pre-drought stress	Pre-drought stress	7/10/2022
<a href="#">Fire Danger (8)</a>	Moderate	Moderate	Moderate	Moderate	Moderate	Moderate	Moderate	Moderate	Moderate	6/30/2022
<a href="#">U.S. Drought Monitor (9)</a>	Intensity level D1-D2	NA	D0-D1	D0	D0-D1	D0	D0-D1	D1	D1	7/5/2022

<b>Key:</b>	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.

### Stage 2 Drought Trigger Summary by Region -- August 4, 2022

	Stage 2 Trigger	Fairfield	Hartford	Litchfield	Middlesex	New Haven	New London	Tolland	Windham	Data of Record
<a href="#">Precipitation (1)</a>	Two-month total below 65% of normal	74%	67%	62%	53%	63%	60%	71%	72%	7/31/2022
<a href="#">Ground Water (2)</a>	Two out of three months below the 25th percentile	≤25% stations meet trigger	60% stations meet trigger	40% stations meet trigger	57% stations meet trigger	39% stations meet trigger	60% stations meet trigger	75% stations meet trigger	83% stations meet trigger	7/31/2022
<a href="#">Streamflow (3)</a>	Two out of three months below the 25th percentile	≤25% stations meet trigger	46% stations meet trigger	≤25% stations meet trigger	≤25% stations meet trigger	≤25% stations meet trigger	43% stations meet trigger	100% stations meet trigger	50% stations meet trigger	7/31/2022
<a href="#">Reservoirs (4)</a>	Average levels less than 80% of normal	98% of normal	98% of normal	97% of normal	97% of normal	96% of normal	97% of normal	100% of normal	100% of normal	7/31/2022
<a href="#">Palmer Drought Severity Index (5)</a>	-2.9 to -2.0	Unavailable	Unavailable	Unavailable	Unavailable	Unavailable	Unavailable	Unavailable	Unavailable	7/31/2022
<a href="#">Crop Moisture Index (6)</a>	-1.9 to -1.0	-1.31	-1.13	-0.74	-1.31	-1.31	-1.31	-1.13	-1.13	7/31/2022
<a href="#">VegDRI (seasonal) (7)</a>	Pre-drought stress	Moderate	Moderate	Pre-drought stress	Severe	Moderate	Severe	Moderate	Moderate	7/31/2022
<a href="#">Fire Danger (8)</a>	Moderate	Moderate	Moderate	Moderate	High	Moderate	High	High	High	8/4/2022
<a href="#">U.S. Drought Monitor (9)</a>	Intensity level D1-D2	None-D0	D0-D1	D0-D1	D0-D1	None-D0	D1-D2	D1-D2	D1-D2	8/4/2022

<b>Key:</b>	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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- (4) Based on latest available reservoir status reports obtained from public water suppliers and compiled by CT Department of Public Health Drinking Water Section.
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### Stage 3 Drought Trigger Summary by Region -- August 4, 2022

	Stage 3 Trigger	Fairfield	Hartford	Litchfield	Middlesex	New Haven	New London	Tolland	Windham	Data of Record
<a href="#">Precipitation (1)</a>	Three-month total below 65% of normal	75%	64%	72%	54%	64%	61%	67%	59%	7/31/2022
<a href="#">Ground Water (2)</a>	Four consecutive months below the 25th percentile	≤25% stations meet trigger	≤25% stations meet trigger	≤25% stations meet trigger	≤25% stations meet trigger	≤25% stations meet trigger	≤25% stations meet trigger	≤25% stations meet trigger	≤25% stations meet trigger	7/31/2022
<a href="#">Streamflow (3)</a>	Four out of five months below the 25th percentile	≤25% stations meet trigger	≤25% stations meet trigger	≤25% stations meet trigger	≤25% stations meet trigger	≤25% stations meet trigger	≤25% stations meet trigger	≤25% stations meet trigger	≤25% stations meet trigger	7/31/2022
<a href="#">Reservoirs (4)</a>	Average levels less than 70% of normal	98% of normal	98% of normal	97% of normal	97% of normal	96% of normal	97% of normal	100% of normal	100% of normal	7/31/2022
<a href="#">Palmer Drought Severity Index (5)</a>	-3.0 to -3.99	Unavailable	Unavailable	Unavailable	Unavailable	Unavailable	Unavailable	Unavailable	Unavailable	7/31/2022
<a href="#">Crop Moisture Index (6)</a>	-2.0 to -2.99	-1.31	-1.13	-0.74	-1.31	-1.31	-1.31	-1.13	-1.13	7/31/2022
<a href="#">VegDRI (seasonal) (7)</a>	Moderate drought conditions	Moderate	Moderate	Pre-drought stress	Severe	Moderate	Severe	Moderate	Moderate	7/31/2022
<a href="#">Fire Danger (8)</a>	High	Moderate	Moderate	Moderate	High	Moderate	High	High	High	8/4/2022
<a href="#">U.S. Drought Monitor (9)</a>	Intensity level D2-D3	None-D1	D0-D1	D0-D1	D0-D1	None-D0	D1-D2	D1-D2	D1-D2	8/4/2022

<b>Key:</b>	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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(9) Based on analysis of most recent edition of the U.S. Drought Monitor, produced by the National Drought Mitigation Center.

**Connecticut Precipitation**  
**National Weather Service Offices**  
**Boston/Norton MA, Albany NY, Upton NY**  
Preliminary Precipitation Data (inches) by County  
Precipitation Data Through July 2022  
*Includes CoCoRaHS data*

<b>CT 1 Month July 2022</b>	<b>Rainfall</b>	<b>Departure</b>	<b>Percent</b>	<b>Normal</b>
Litchfield	2.66	-1.92	58	4.58
Hartford	2.83	-1.74	62	4.57
Tolland	2.92	-1.01	74	3.93
Windham	2.01	-2.25	47	4.26
Fairfield	2.43	-1.84	57	4.27
New Haven	1.76	-2.27	44	4.03
Middlesex	1.24	-3.14	28	4.38
New London	0.98	-2.74	26	3.72

<b>CT 2 month Jun-Jul 22</b>	<b>Rainfall</b>	<b>Departure</b>	<b>Percent</b>	<b>Normal</b>
Litchfield	5.65	-3.53	62	9.18
Hartford	6.14	-3.05	67	9.19
Tolland	6.03	-2.48	71	8.51
Windham	6.20	-2.40	72	8.60
Fairfield	6.43	-2.28	74	8.71
New Haven	5.31	-3.12	63	8.43
Middlesex	4.93	-4.41	53	9.34
New London	4.67	-3.12	60	7.79

<b>CT 3 month May-Jul 22</b>	<b>Rainfall</b>	<b>Departure</b>	<b>Percent</b>	<b>Normal</b>
Litchfield	9.74	-3.85	72	13.59
Hartford	8.66	-4.95	64	13.61
Tolland	8.44	-4.17	67	12.61
Windham	7.47	-5.15	59	12.62
Fairfield	9.85	-3.24	75	13.09
New Haven	8.10	-4.57	64	12.67
Middlesex	7.38	-6.18	54	13.56
New London	7.04	-4.51	61	11.55

<b>CT 4 month Apr-Jul 22</b>	<b>Rainfall</b>	<b>Departure</b>	<b>Percent</b>	<b>Normal</b>
Litchfield	16.02	-1.77	90	17.79
Hartford	14.15	-3.77	79	17.92
Tolland	13.45	-3.77	78	17.22
Windham	11.40	-5.81	66	17.21
Fairfield	15.17	-2.36	87	17.53
New Haven	13.41	-3.63	79	17.04
Middlesex	11.94	-6.04	66	17.98
New London	10.51	-5.60	65	16.11

<b>CT 5 month Mar-Jul 22</b>	<b>Rainfall</b>	<b>Departure</b>	<b>Percent</b>	<b>Normal</b>
Litchfield	18.97	-2.98	86	21.95
Hartford	16.90	-5.12	77	22.02
Tolland	16.43	-5.13	76	21.56
Windham	14.14	-7.52	65	21.66
Fairfield	17.93	-3.96	82	21.89
New Haven	16.47	-4.92	77	21.39
Middlesex	15.04	-7.29	67	22.33
New London	13.58	-7.40	65	20.98

<b>CT 6 month Feb-Jul 22</b>	<b>Rainfall</b>	<b>Departure</b>	<b>Percent</b>	<b>Normal</b>
Litchfield	23.60	-1.67	93	25.27
Hartford	21.42	-3.88	85	25.30
Tolland	21.16	-3.74	85	24.90
Windham	20.25	-4.70	81	24.95
Fairfield	21.48	-3.51	86	24.99
New Haven	20.59	-3.96	84	24.55
Middlesex	20.65	-5.02	80	25.67
New London	18.90	-5.48	78	24.38

<b>CT 7 month Jan-Jul 22</b>	<b>Rainfall</b>	<b>Departure</b>	<b>Percent</b>	<b>Normal</b>
Litchfield	26.20	-2.63	91	28.83
Hartford	23.99	-4.93	83	28.92
Tolland	24.51	-4.23	85	28.74
Windham	24.06	-4.63	84	28.69
Fairfield	24.71	-3.86	86	28.57
New Haven	23.84	-4.26	85	28.10
Middlesex	24.19	-5.23	82	29.42
New London	22.72	-5.39	81	28.11

<b>CT 12 month Aug 21-Jul 22</b>	<b>Rainfall</b>	<b>Departure</b>	<b>Percent</b>	<b>Normal</b>
Litchfield	52.61	1.89	104	50.72
Hartford	49.94	-0.90	98	50.84
Tolland	49.98	-0.08	100	50.06
Windham	47.18	-2.99	94	50.17
Fairfield	47.48	-2.73	95	50.21
New Haven	47.10	-1.59	97	48.69
Middlesex	47.61	-3.55	93	51.16
New London	45.00	-4.89	90	49.89

<b>CT 24 month Aug 20-Jul 22</b>	<b>Rainfall</b>	<b>Departure</b>	<b>Percent</b>	<b>Normal</b>
Litchfield	105.18	3.74	104	101.44
Hartford	103.12	1.43	101	101.69
Tolland	106.66	6.54	107	100.13
Windham	102.17	1.82	102	100.35
Fairfield	96.90	-3.52	96	100.42
New Haven	98.13	0.75	101	97.38
Middlesex	100.09	-2.23	98	102.32
New London	93.22	-6.57	93	99.79

<b>CT 36 month Aug 19-Jul 22</b>	<b>Rainfall</b>	<b>Departure</b>	<b>Percent</b>	<b>Normal</b>
Litchfield	152.04	-0.12	100	152.16
Hartford	148.17	-4.36	97	152.53
Tolland	155.79	5.60	104	150.19
Windham	151.61	1.09	101	150.52
Fairfield	143.82	-6.81	95	150.63
New Haven	145.58	-0.48	100	146.06
Middlesex	147.37	-6.11	96	153.48
New London	142.26	-7.42	95	149.68

County-based monthly precipitation totals are calculated using an average of all available full-month precipitation totals within that County from the following networks: Community Collaborative Rain, Hail and Snow network (CoCoRaHS), Cooperative Weather Observer Program (Coop), and Automated Surface Observing Systems (ASOS) data.

Coop and ASOS sites are part of National Weather Service networks. CoCoRaHS is a community-based network of volunteers that report precipitation.

County-based monthly normals were calculated using 30-year precipitation normals from NOAA/National Centers for Environmental Information (NCEI) for the period of 1981-2010. Monthly normals from 42 stations (consisting of Coop and ASOS stations) were grouped by County to calculate a single monthly normal for each County.

***\*\*CT Palmer Drought Index Values will be forthcoming\*\****



# CT Interagency Drought Workgroup NWS Update

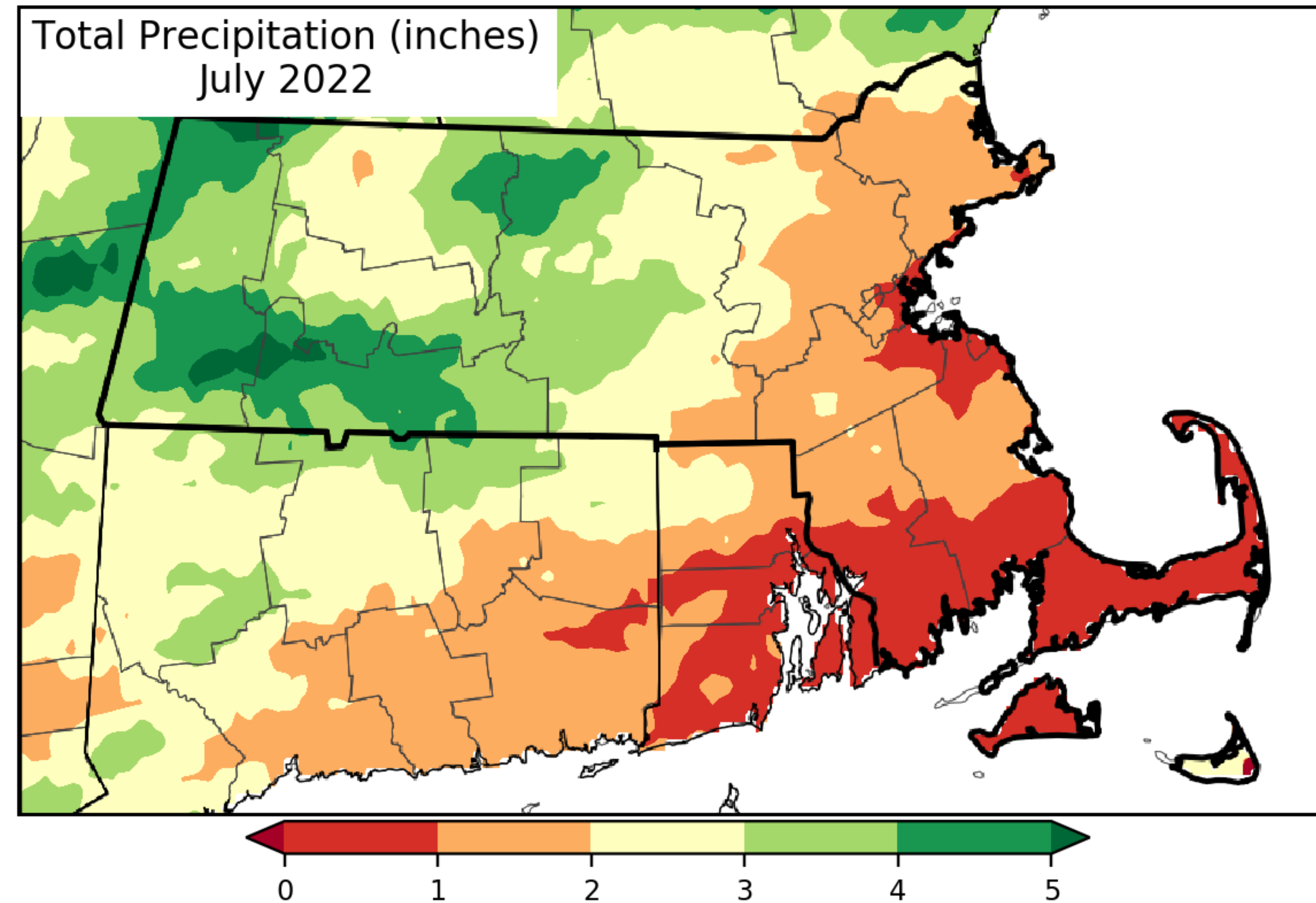
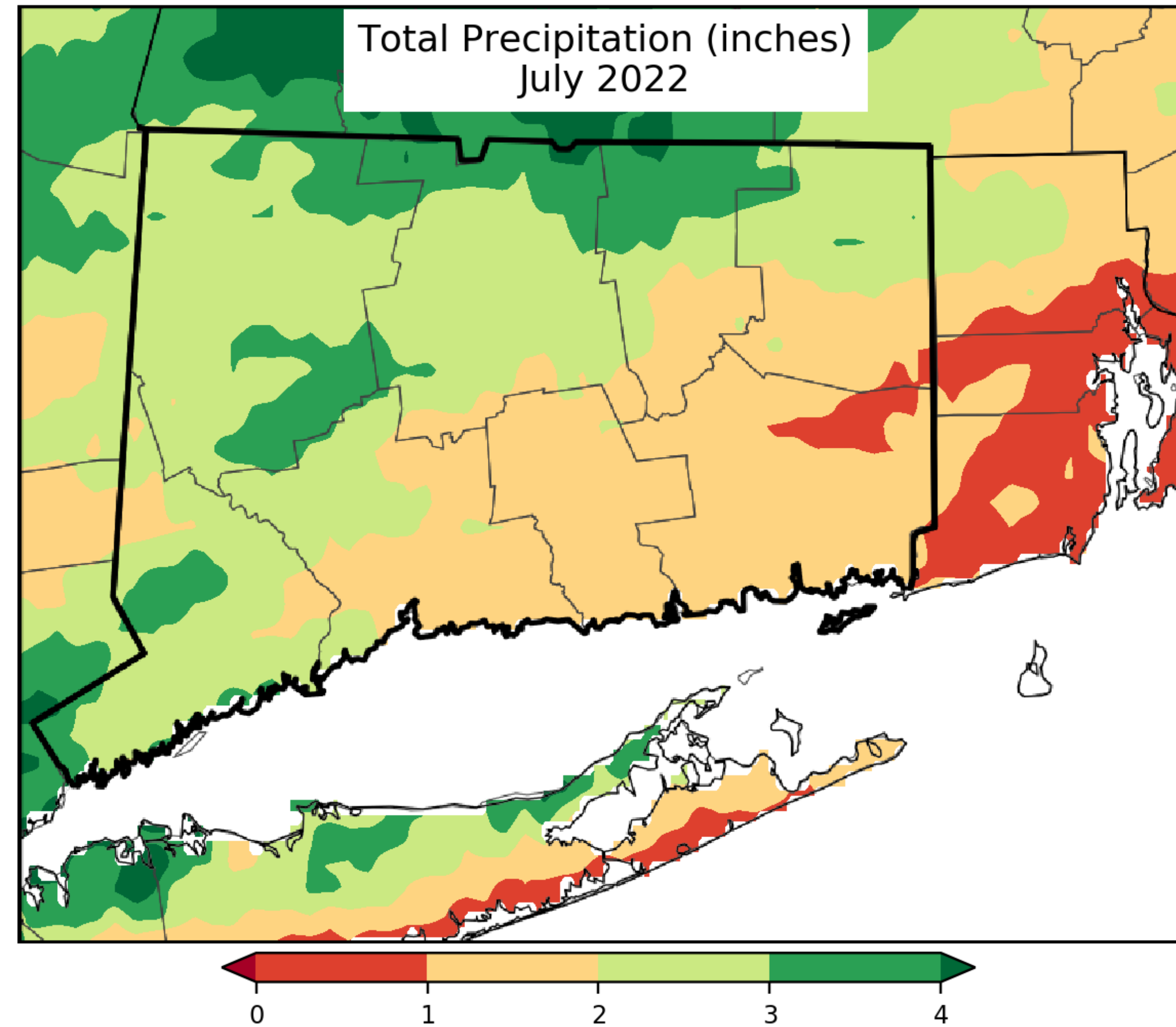
Thursday August 4<sup>th</sup> 2022

*Prepared by: NWS WFO Boston/Norton, MA*

# July 2022 Rainfall



Boston/Norton MA  
WEATHER FORECAST OFFICE

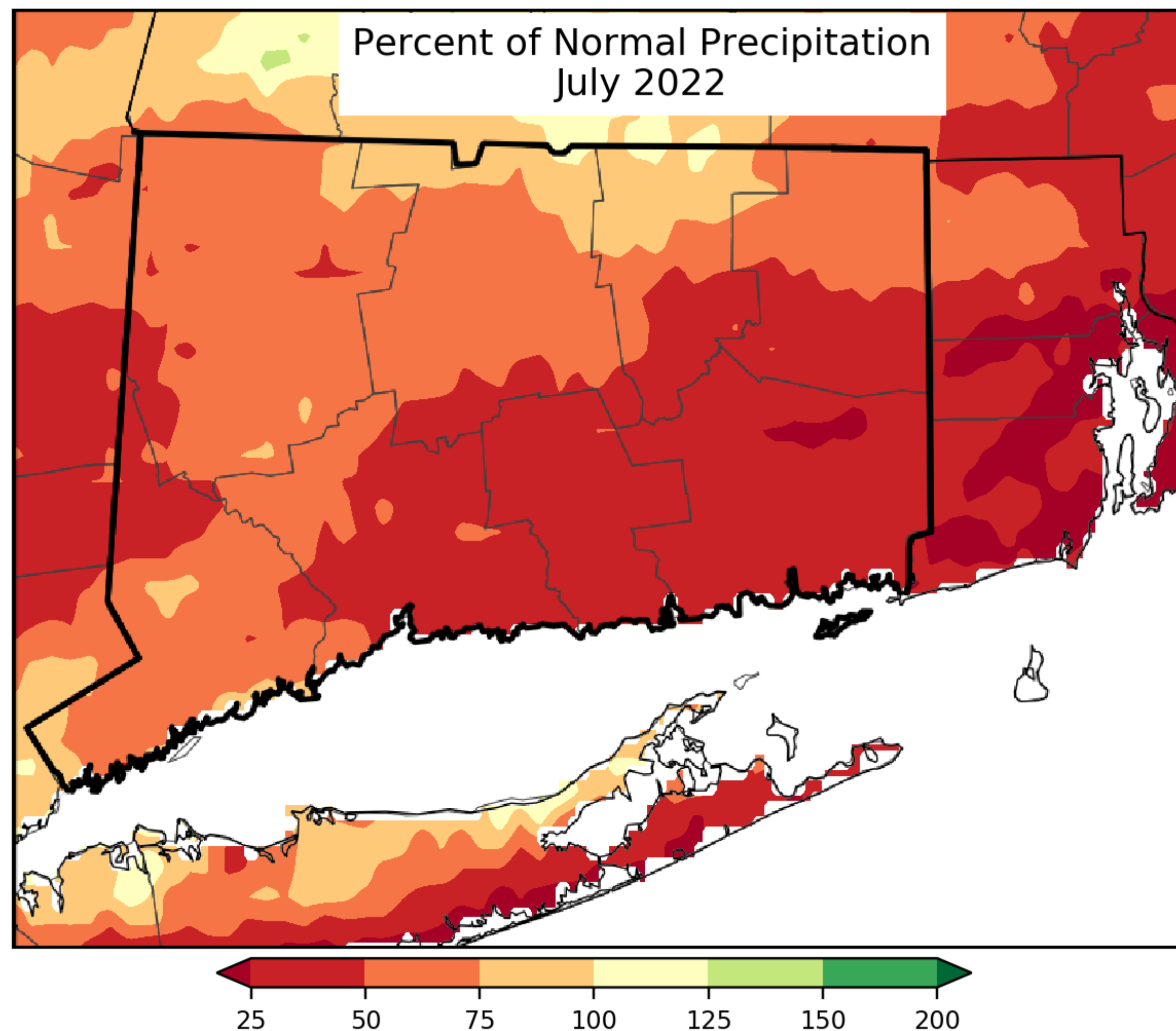




# July 2022- More Rainfall Details



Boston/Norton MA  
WEATHER FORECAST OFFICE



Location	Top Driest July Ranking	Rainfall	Records go back to...
Hartford/Bradley	Not Applicable	2.66"	1905
Storrs	7 <sup>th</sup> Driest (tie)	1.36"	1888
Bridgeport	Not Applicable	3.05"	1948
New Haven	4 <sup>th</sup> Driest	0.97"	1948

# Rainfall Tables for 2 and 3 Months



Boston/Norton MA  
WEATHER FORECAST OFFICE

CT 2 month Jun-Jul 22	Rainfall	Departure	Percent	Normal
Litchfield	5.65	-3.53	62	9.18
Hartford	6.14	-3.05	67	9.19
Tolland	6.03	-2.48	71	8.51
Windham	6.20	-2.40	72	8.60
Fairfield	6.43	-2.28	74	8.71
New Haven	5.31	-3.12	63	8.43
Middlesex	4.93	-4.41	53	9.34
New London	4.67	-3.12	60	7.79

CT 3 month May-Jul 22	Rainfall	Departure	Percent	Normal
Litchfield	9.74	-3.85	72	13.59
Hartford	8.66	-4.95	64	13.61
Tolland	8.44	-4.17	67	12.61
Windham	7.47	-5.15	59	12.62
Fairfield	9.85	-3.24	75	13.09
New Haven	8.10	-4.57	64	12.67
Middlesex	7.38	-6.18	54	13.56
New London	7.04	-4.51	61	11.55



# Rainfall Tables for 5 and 6 Months



Boston/Norton MA  
WEATHER FORECAST OFFICE

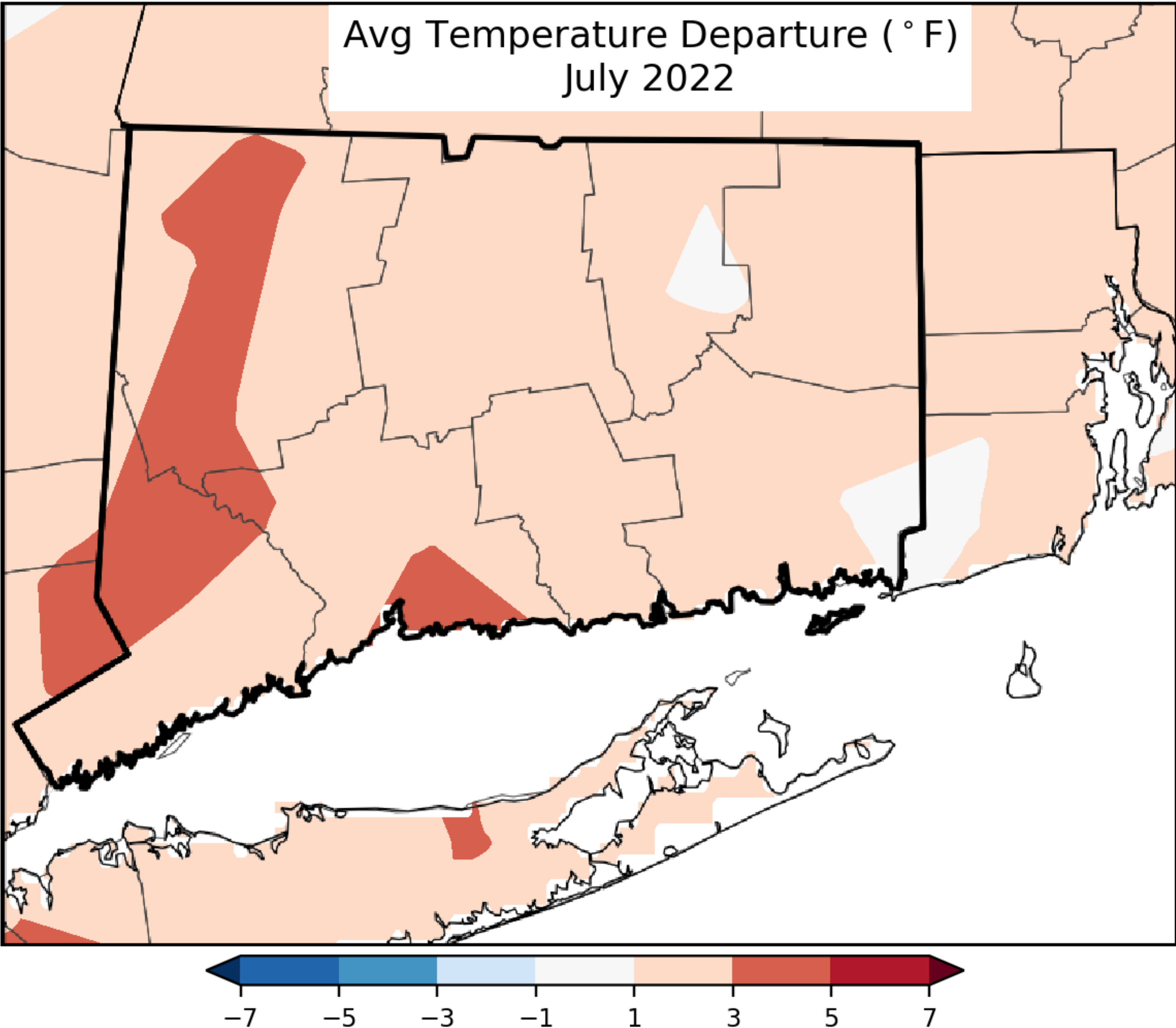
CT 5 month Mar-Jul 22	Rainfall	Departure	Percent	Normal
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Hartford	16.90	-5.12	77	22.02
Tolland	16.43	-5.13	76	21.56
Windham	14.14	-7.52	65	21.66
Fairfield	17.93	-3.96	82	21.89
New Haven	16.47	-4.92	77	21.39
Middlesex	15.04	-7.29	67	22.33
New London	13.58	-7.40	65	20.98

CT 6 month Feb-Jul 22	Rainfall	Departure	Percent	Normal
Litchfield	23.60	-1.67	93	25.27
Hartford	21.42	-3.88	85	25.30
Tolland	21.16	-3.74	85	24.90
Windham	20.25	-4.70	81	24.95
Fairfield	21.48	-3.51	86	24.99
New Haven	20.59	-3.96	84	24.55
Middlesex	20.65	-5.02	80	25.67
New London	18.90	-5.48	78	24.38

# July 2022 Temperature Details



Boston/Norton MA  
WEATHER FORECAST OFFICE



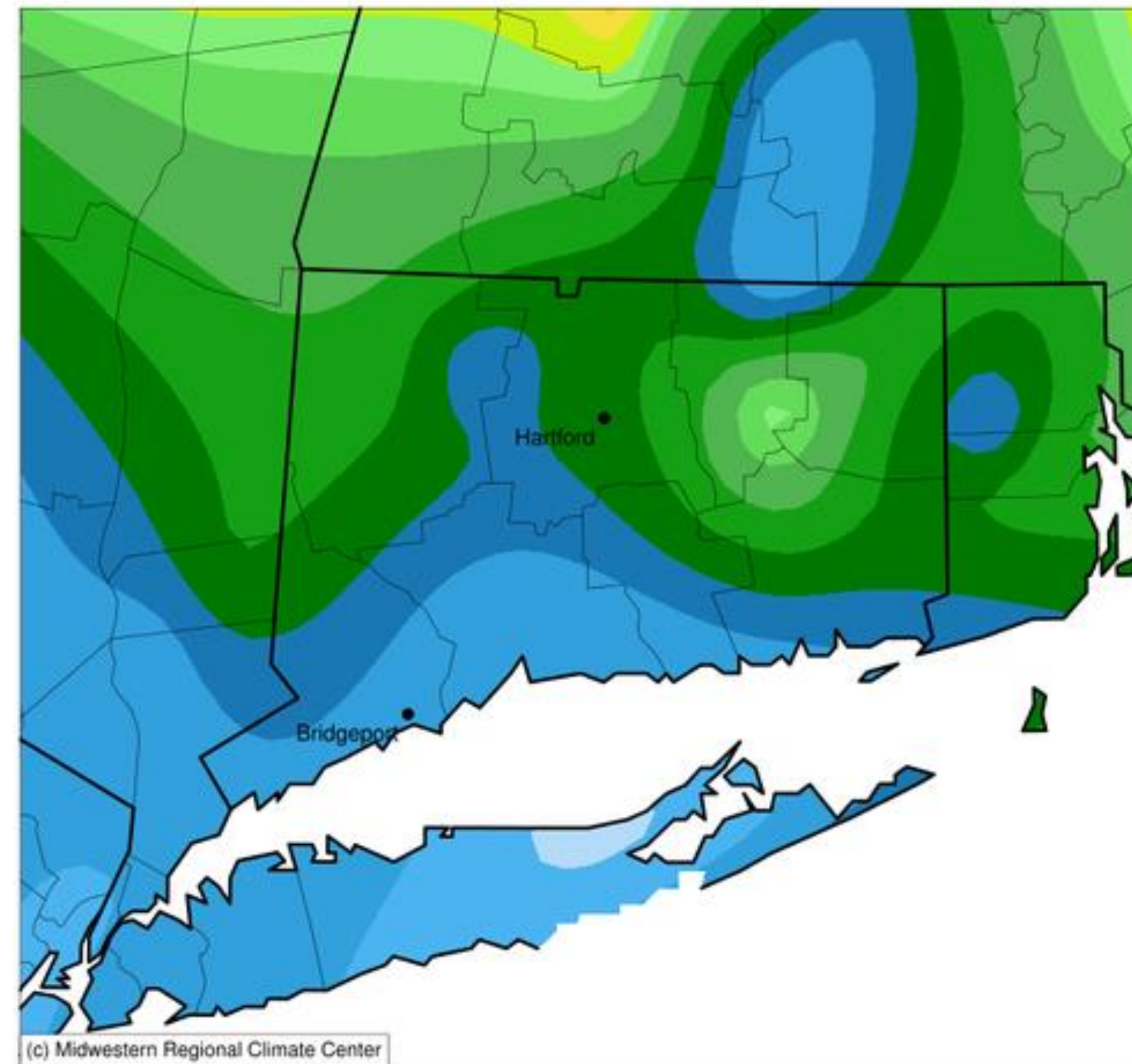
Location	Top Warmest July Ranking	Temp Departure from Normal (Degrees F)	Records go back to...
Hartford/Bradley	7 <sup>th</sup> warmest	+2.5	1905
Storrs	Not Applicable	+0.2	1888
Bridgeport	11 <sup>th</sup> warmest	+1.4	1948
New Haven	3 <sup>rd</sup> warmest	+4.2	1948

# Very early August Rainfall



Boston/Norton MA  
WEATHER FORECAST OFFICE

Accumulated Precipitation (in)  
August 01, 2022 to August 03, 2022



0.01 0.02 0.03 0.05 0.07 0.1 0.15 0.2 0.25 0.3 0.4 0.5 0.75  
Stations from the following networks used: WBAN, COOP, FAA, GHCN,  
ThreadEx, CoCoRaHS, WMO, ICAO, NWSLI,  
Midwestern Regional Climate Center  
cli-MATE: MRCC Application Tools Environment  
Generated at: 8/3/2022 11:56:43 AM CDT



# CPC Outlook for August/Sept/Oct



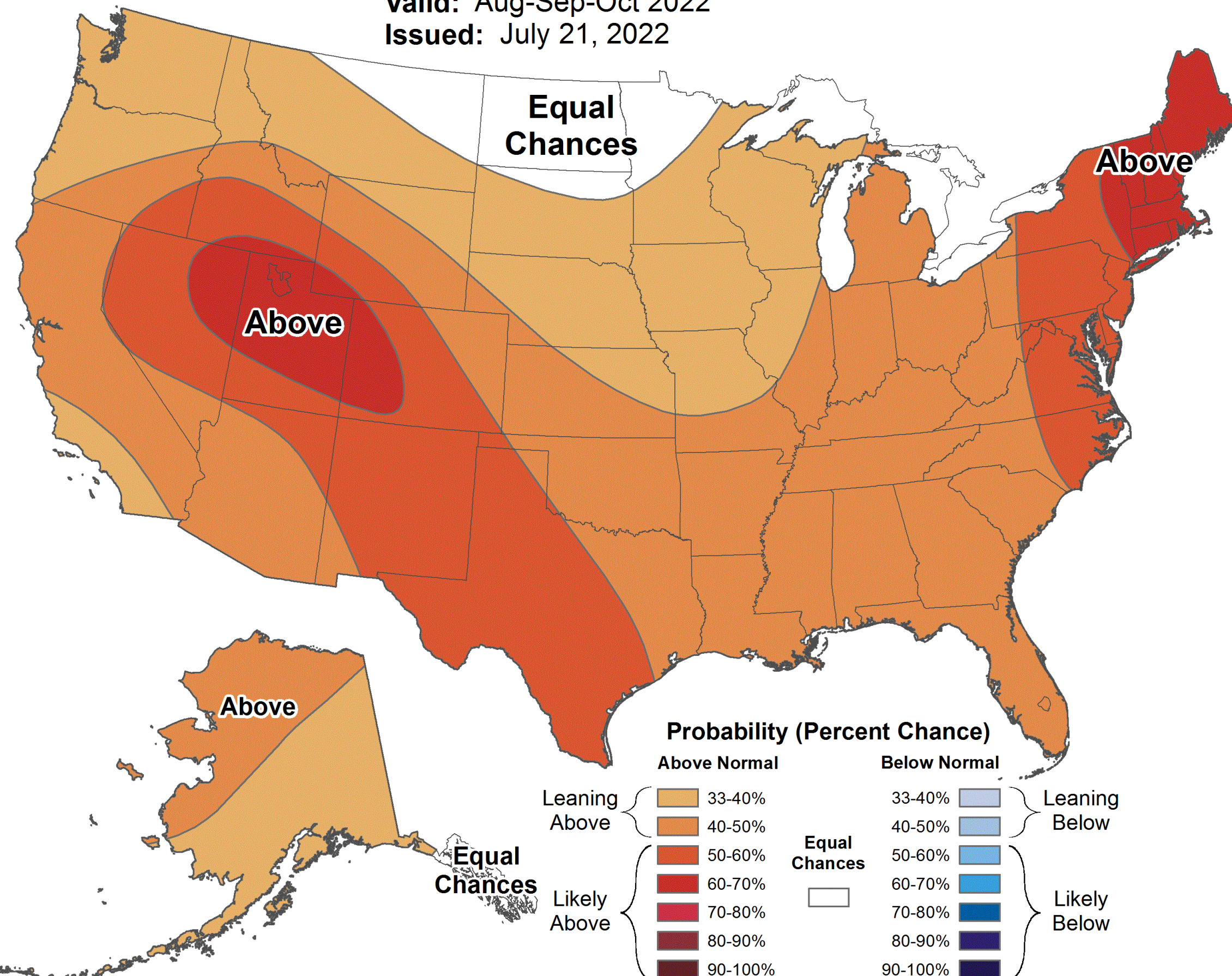
Boston/Norton MA  
WEATHER FORECAST OFFICE



## Seasonal Temperature Outlook



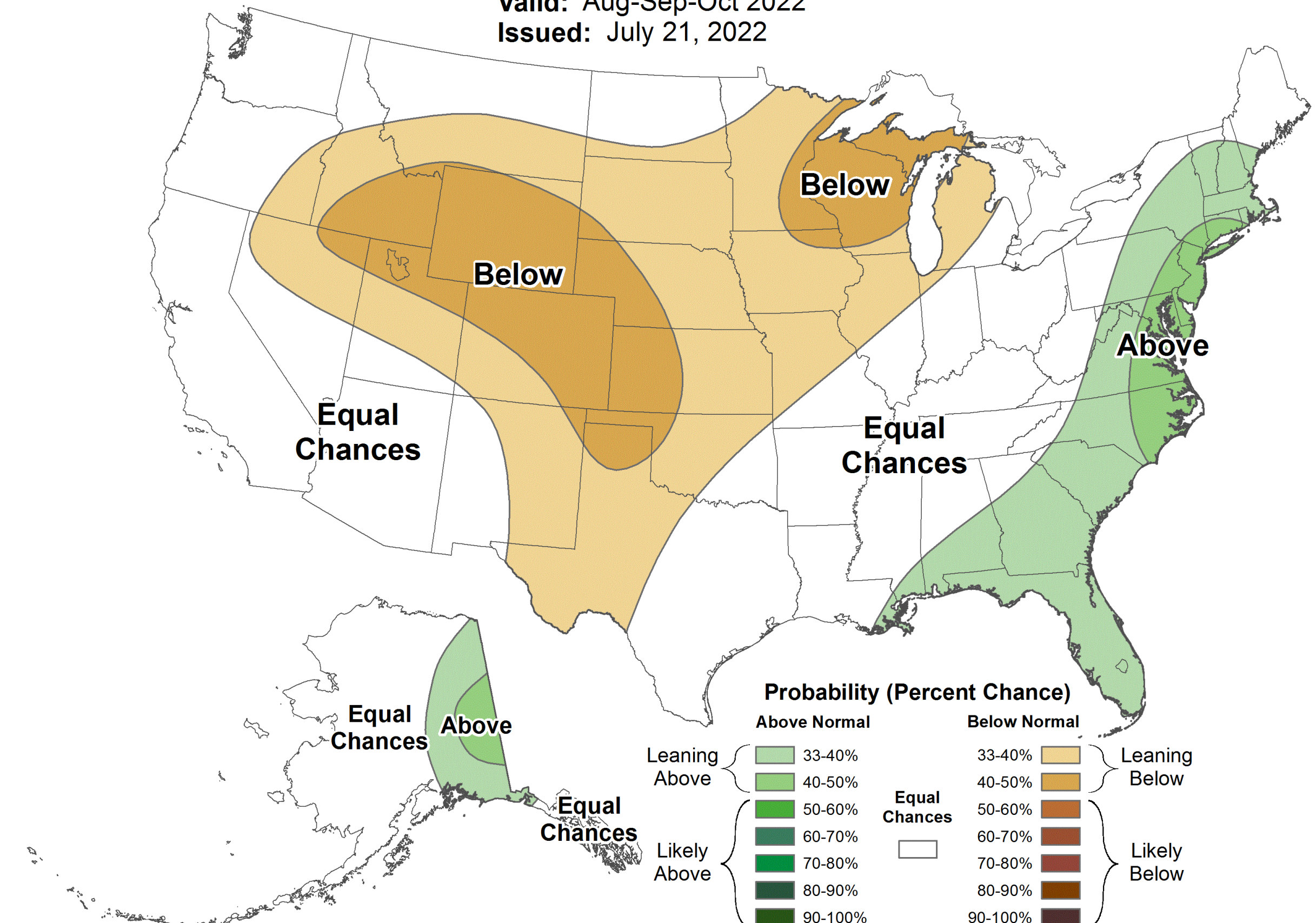
Valid: Aug-Sep-Oct 2022  
Issued: July 21, 2022



## Seasonal Precipitation Outlook



Valid: Aug-Sep-Oct 2022  
Issued: July 21, 2022







# **U.S. Geological Survey**

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



Provisional Data, Subject to Review and Revision

Name	total	Number of wells below normal	Number of wells below normal for 2 or more consecutive months	Number of wells below normal for 3 or more consecutive months	Percent below normal	Percent stage 2	Percent stage 3
Fairfield	10	4	2	1	40	20	10
Hartford	10	6	6	0	60	60	0
Litchfield	5	3	2	0	60	40	0
Middlesex	7	5	4	1	71.4	57.1	14.3
New Haven	13	6	5	0	46.2	38.5	0
New London	5	4	3	1	80	60	20
Tolland	12	10	9	2	83.3	75	16.7
Windham	6	5	5	1	83.3	83.3	16.7

## END OF JULY 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 or more consecutive months	Number of streamgages below normal for 3 or more consecutive months	Percent below normal	Percent stage 2	Percent stage 3
Fairfield	13	8	1	0	61.5	7.7	0
Hartford	11	8	5	0	72.7	45.5	0
Litchfield	10	7	2	0	70	20	0
Middlesex	4	3	1	0	75	25	0
New Haven	8	7	2	0	87.5	25	0
New London	7	6	3	0	85.7	42.9	0
Tolland	3	3	3	0	100	100	0
Windham	10	9	5	0	90	50	0

## JULY 2022 STREAMFLOW SUMMARY BY COUNTY



Provisional Data, Subject to Review and Revision



# Surface Reservoir Capacity Measurements and Trends

7/29/2022 Update

*USDM Adds D2 Severe Drought to Four Counties 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  $n=34$

18

Change from two weeks ago:  
-10

State Average

87.3 %

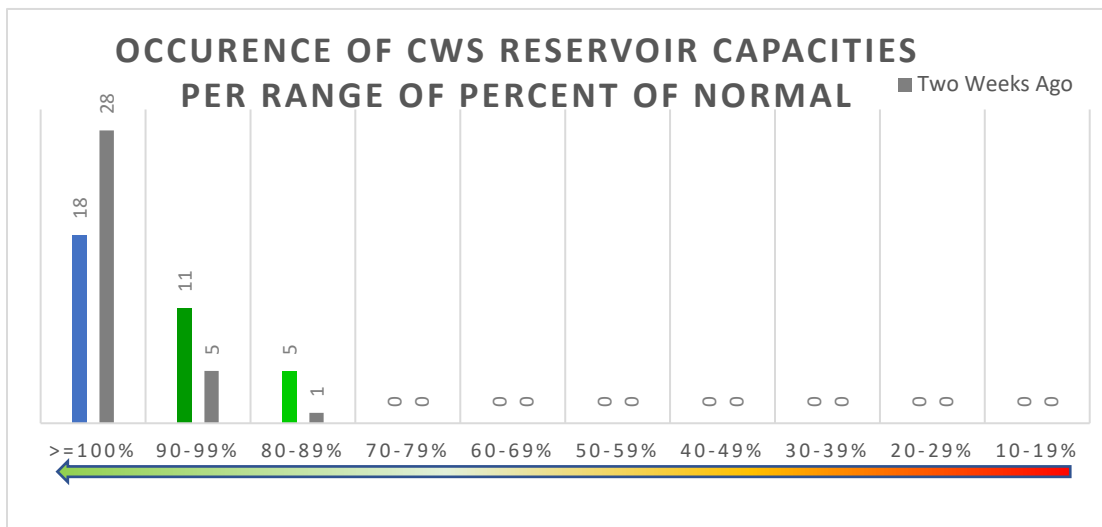
Two weeks ago:  
92.8%

Average Percent of Normal

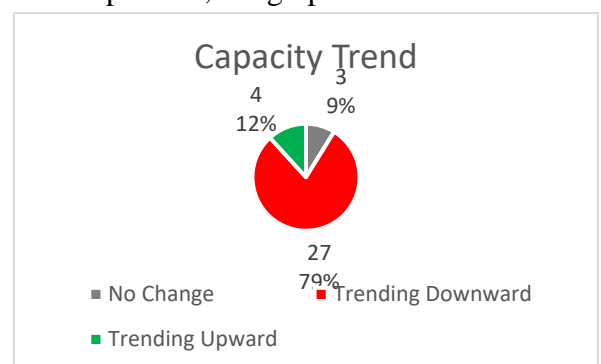
97.4%

Two weeks ago:  
102.2%

- 2 reservoir systems have reported that they are currently at 100% full (-3 since two weeks ago).

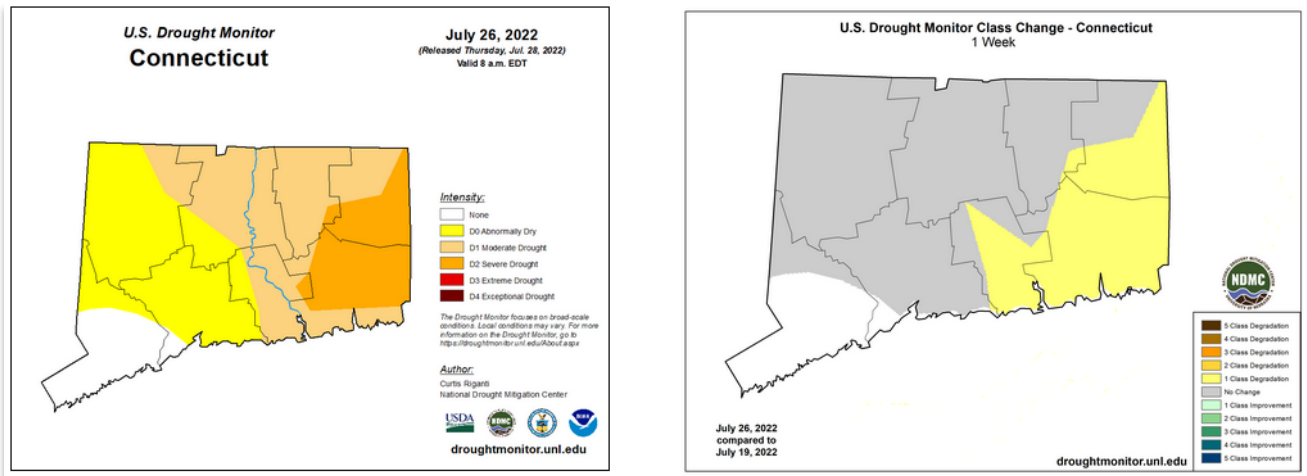


- The gray bars indicate last week's measurements. Under normal capacities, the graph above would have all of the systems in the  $\geq 100\%$  of normal column ( $n=34$ ).
- 4 system's short-term week to week trend is upward (no change from two weeks ago).** 27 systems are trending downward in capacity from their previous measurements (+3 since two weeks ago). 4 systems have had no change in capacity (-1 since last week).
- Two systems have reported they are approaching their 1<sup>st</sup> drought stage. Several systems are requesting voluntary water use conservation.



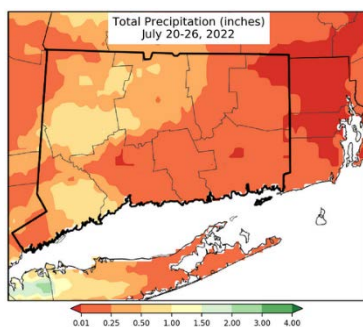


- US Drought Monitor: – Expanded D1-Moderate Drought and introduced D2 Severe Drought to four counties in CT since two weeks ago.

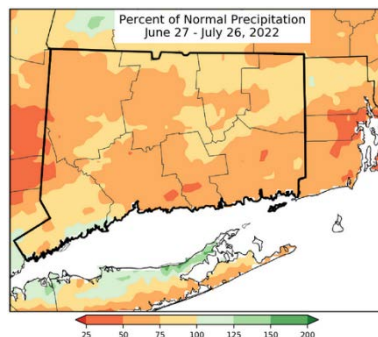


<https://droughtmonitor.unl.edu/CurrentMap/StateDroughtMonitor.aspx?CT>

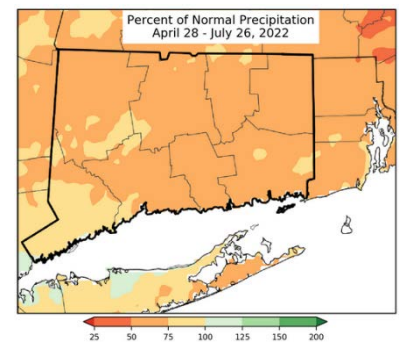
- Between July 20<sup>th</sup> and July 26<sup>th</sup>, the state experienced trace amounts of rain across the entire state (Map 1). The 30-day Percent of Normal Precipitation map shows below normal precipitation throughout CT (Map 2). For the last 90-days, there is an increase in below normal precipitation for the last ninety days (Map 3). Drought is present going back to the 6-month timeframe. Streamflow and groundwater continue to indicate much below normal conditions across the state.



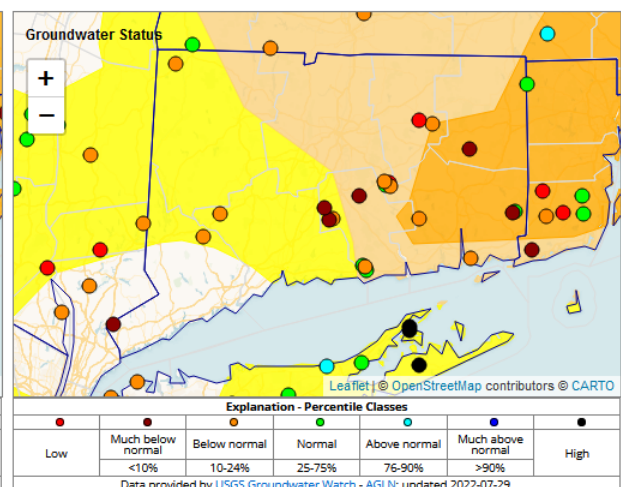
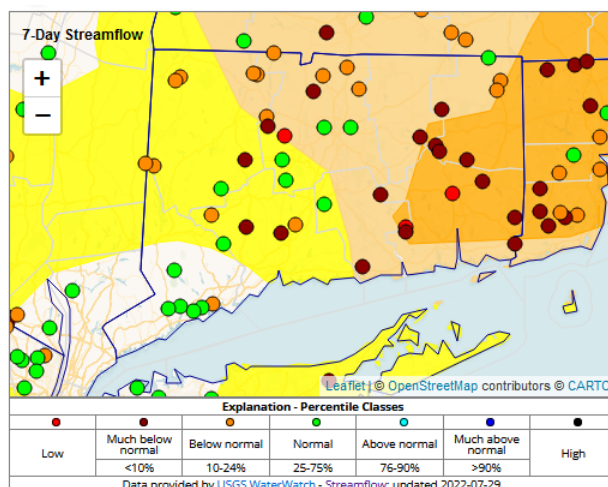
Map 1- 7 Day Total Precipitation



Map 2- 30 Day Percent of Normal Precipitation



Map 3 – 90 Day Percent of Normal Precipitation



PWSID	PWS Name	Most Recent Reading Date	Percent Full	Current Status	Trend	Historical Average	Percent of Normal	Previous Date	Previous Percent Full	County_Served
CT1030011	Norwalk First Taxing District	7/24/2022	75.20	No Drought Stage	↑	84.60	89	7/17/2022	74.20	FAIRFIELD
CT0570011	Aquarion Water Co of CT-Greenwich Syster	7/17/2022	83.60	No Drought Stage	↓	87.50	96	7/10/2022	88.30	FAIRFIELD
CT0150011	Aquarion Water Co of CT-Main System	7/17/2022	88.40	No Drought Stage	↓	91.50	97	7/10/2022	90.20	FAIRFIELD
CT0340011	Danbury Water Department	7/24/2022	87.20	No Drought Stage	↓	87.20	100	7/17/2022	89.50	FAIRFIELD
CT1030021	South Norwalk Electric & Water	7/18/2022	82.80	No Drought Stage	↓	82.10	101	7/11/2022	87.50	FAIRFIELD
CT1350011	Aquarion Water Co of CT-Stamford	7/17/2022	85.60	No Drought Stage	↓	85.00	101	7/10/2022	87.40	FAIRFIELD
CT0090011	Bethel Water Dept	7/24/2022	99.10	No Drought Stage	↓	95.30	104	7/17/2022	99.30	FAIRFIELD
CT0473011	CTWC - Northern Reg-Western System	7/21/2022	74.20	No Drought Stage	↓	88.30	84	7/14/2022	76.10	HARTFORD
CT0770021	Manchester Water Department	7/24/2022	90.00	No Drought Stage	↓	92.40	97	7/17/2022	92.60	HARTFORD
CT0890011	New Britain Water Department	7/21/2022	80.70	No Drought Stage	↓	80.70	100	7/18/2022	81.00	HARTFORD
CT0640011	Metropolitan District Commission	7/25/2022	93.20	No Drought Stage	↓	93.30	100	7/18/2022	94.00	HARTFORD
CT1310011	Southington Water Department	7/22/2022	82.50	No Drought Stage	↓	81.80	101	7/16/2022	84.30	HARTFORD
CT0170011	Bristol Water Department	7/24/2022	93.90	No Drought Stage	↓	91.10	103	7/17/2022	95.30	HARTFORD
CT1220011	Aquarion Water Co of CT-Salisbury Sys	7/17/2022	80.70	No Drought Stage	↓	93.80	86	7/10/2022	82.60	LITCHFIELD
CT1430011	Torrington Water Company	7/22/2022	82.60	No Drought Stage	↓	86.10	96	7/15/2022	82.80	LITCHFIELD
CT1620011	Winsted Water Works	7/24/2022	94.10	No Drought Stage	↓	98.40	96	7/17/2022	97.50	LITCHFIELD
CT0980011	Aquarion Water Co of CT-Norfolk System	7/17/2022	98.50	No Drought Stage	↑	98.60	100	7/10/2022	97.10	LITCHFIELD
CT1250011	Sharon Water & Sewer Commission	7/2/2022	100.00	No Drought Stage	--	94.30	106	6/25/2022	100.00	LITCHFIELD
CT0830011	Middletown Water Department	7/24/2022	78.70	No Drought Stage	↓	90.50	87	7/17/2022	79.70	MIDDLESEX
CT0261031	CTWC - Shoreline Region-Chester System	7/21/2022	90.80	No Drought Stage	↓	91.20	100	7/14/2022	91.80	MIDDLESEX
CT0830021	Connecticut Valley Hospital	7/18/2022	93.90	No Drought Stage	↓	91.60	103	7/11/2022	95.10	MIDDLESEX
CT0608011	CTWC - Shoreline Region-Guilford System	7/21/2022	75.30	Approaching Trigger Level	↓	86.90	87	7/14/2022	80.60	NEW HAVEN
CT0800011	Meriden Water Division	7/17/2022	80.50	No Drought Stage	↓	87.30	92	7/11/2022	81.60	NEW HAVEN
CT0880011	CTWC - Naugatuck Region-Central System	7/21/2022	88.10	No Drought Stage	↑	91.10	97	7/14/2022	87.80	NEW HAVEN
CT0930011	Regional Water Authority	7/24/2022	84.30	No Drought Stage	↓	86.00	98	7/17/2022	86.00	NEW HAVEN
CT1510011	Waterbury Water Department	7/26/2022	91.70	No Drought Stage	↑	91.50	100	7/17/2022	83.90	NEW HAVEN
CT1480011	Wallingford Water Department	7/22/2022	87.30	No Drought Stage	↓	85.50	102	7/15/2022	87.60	NEW HAVEN
CT0580011	Jewett City Water Company	7/18/2022	85.70	No Drought Stage	↓	91.30	94	7/11/2022	90.50	NEW LONDON
CT0950011	New London Dept. of Public Utilities	7/24/2022	73.00	Approaching Trigger Level	↓	77.40	94	7/17/2022	75.80	NEW LONDON
CT1040011	Norwich Public Utilities	7/23/2022	86.90	No Drought Stage	↓	90.30	96	7/16/2022	88.60	NEW LONDON
CT1370011	Aquarion Water Co of CT-Mystic	7/17/2022	89.90	No Drought Stage	↓	89.50	100	7/10/2022	92.20	NEW LONDON
CT0590011	Groton Utilities	7/18/2022	92.60	No Drought Stage	↓	89.70	103	7/11/2022	94.70	NEW LONDON
CT1340011	CTWC - Northern Reg-Stafford System	7/21/2022	98.40	No Drought Stage	--	98.40	100	7/14/2022	98.40	TOLLAND
CT1630011	Windham Water Works	7/24/2022	100.00	No Drought Stage	--	100.00	100	7/17/2022	100.00	WINDHAM

		87.34			89.71	97.35	Ave Percent of Normal by County		
↑	-Increase since last measurement (less than 10% increase)			Number of systems:			98.29	FAIRFIELD	
↑↑	-Increase since last measurement (10% or greater increase)			Greater than or equal to 100% of Normal	18		97.50	HARTFORD	
↓	-Decrease since last measurement (less than 10% decrease)			Between 90% and 99% of Normal	11		96.80	LITCHFIELD	
↓↓	-Decrease since last measurement (10% or greater decrease)			Less than 90% of Normal	5		96.67	MIDDLESEX	
--	- Same measurement as the previous measurement			At 100% Full	2		96.00	NEW HAVEN	
								97.40	NEW LONDON
								100.00	TOLLAND



## DROUGHT CONSERVATION REQUESTS

- Norwalk Mayor declared drought advisory citywide on Friday 7/15
  - Asked residents to conserve water and stopped city field irrigation
- CTWC requests customers in Clinton, Guilford, Old Saybrook, and Westbrook to reduce water use by 15%
  - <https://www.ctwater.com/>
  - Approaching 1<sup>st</sup> Drought trigger
- Southeastern CT Water Authority is requesting all customers to voluntarily reduce outdoor water use.
  - <https://www.waterauthority.org/>
- New London is approaching 1<sup>st</sup> drought trigger based on days of supply remaining.
- MDC announces no plans to restrict water usage
  - <https://we-ha.com/mdc-no-plans-for-water-restrictions-in-west-hartford-or-other-member-towns/>
- UCONN on July 26, 2022 issued a Stage IA Water Conservation Alert and requested voluntarily conservation of water.
- Windham Water Works, on Aug 1, 2022, requested customers voluntarily implement conservation measures. Reservoir is still at 100% full.
- Hazardville Water Company urges customers to conserve water. Serves Hazardville, East Windsor, and Somers.
  - <https://www.hazardvillewater.com/>

## Private Wells

Local Health Departments have reported the following well permit totals for the month of July 2022

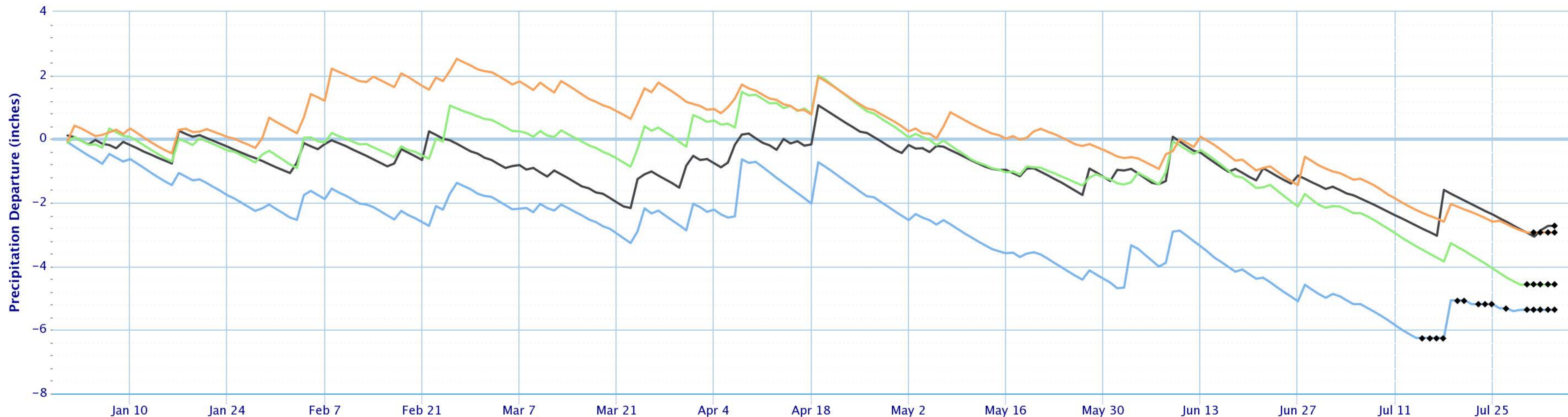
Week ending	Town	Total Permits
7/15	Windham	2
7/22	Windham	4
	New Haven	2
7/29	Windham	1

These numbers may not capture all wells that were deepened or fractured due to lack of water. DPH Circular Letter 2022-37, issued on July 14, 2022, requested LHD to report well permit issuance on a weekly basis.



# Accumulated Precipitation Departure from Normal

Green/black diamonds represent subsequent/missing values



(Click to hide/show lines)

SOUTHINGTON 3.0 E, CT (CoCoRaHS):Precip Dprt   MERIDEN MARKHAM MUNICIPAL AP, CT:Precip Dprt   ROCKY HILL 1.3 E, CT (CoCoRaHS):Precip Dprt   OLD LYME 3.4 ESE, CT (CoCoRaHS):Precip Dprt



## Department of Agriculture – Drought Status Report

Parameter	Reported Conditions			
	As of 6/2/22		As of 7/13/22	
	Report Date	Status	Report Date	Status
<a href="#">Palmer Drought Severity Index (map)</a>	7/09/22	Entire state shows moderate drought conditions.	8/4/2022	n/a
<a href="#">Palmer drought severity index (data)</a>		Northwest: -2.64 Central: -2.85 Coastal: -3.54	8/4/2022	n/a
<a href="#">Precipitation needed to end drought (in.)</a>	7/09/22	Northwest: 7.52 Central: 8.68 Coastal: 10.73	8/4/2022	n/a
<a href="#">Crop Moisture (current map)</a>	7/09/22	Entire state shows slightly dry or higher	7/30/2022	Entire state shows slightly dry
<a href="#">Topsoil moisture (current map)</a>	7/10/22	Very dry conditions- more than 50% of CT topsoil is shown as short or very short on topsoil moisture	7/31/2022	Data indicates “10%” but likely an error. Topsoil in CT is most likely <b>40-60%</b> short or very short on moisture (see map)
<a href="#">Topsoil moisture (current vs. 5 yr. mean)</a>	7/10/22	<b>63%</b> of topsoil is currently short or very short, vs. the CT 5-year mean of <b>12%</b>	7/31/2022	Data for CT incomplete
<a href="#">Veg DRI</a> (% of CT land area shown as pre-drought, moderate, severe or extreme)	7/10/22	<b>12.74%</b> of cropland is near normal <b>50.29%</b> is in Pre-drought or higher	8/4/2022	<b>10.7%</b> of the state is in severe drought or higher <b>50.9%</b> of the state is in moderate drought or higher
<a href="#">Drought Monitor Report for CT</a>	7/05/22	As of 7/7, <b>62%</b> of the state was abnormally Dry or drier. <b>39.5%</b> of the state was in Moderate Drought, concentrated in New London, Windham, Tolland, eastern Litchfield, Middlesex and Hartford Counties.	8/2/2022	As of 8/2, <b>26.2%</b> of the state was in severe drought or higher, mostly in Windham and New London Counties. <b>68%</b> of land is in Moderate Drought, extending through Tolland, Middlesex, Hartford, and Litchfield Counties. New Haven County stays abnormally dry.
<a href="#">NASS Crop Progress Report (New England)</a>	7/13/22	According to the National Agricultural Statistics Service in New England, there were 7 days suitable for fieldwork for the week ending Sunday, July 10, 2022. Topsoil moisture supplies were 20 % very short, <b>30%</b> short, <b>47%</b> adequate, and 3 % surplus. Subsoil moisture supplies were <b>15%</b> very short, <b>26%</b> short, <b>56%</b> adequate, and <b>3%</b> surplus.	7/31/2022	According to the National Agricultural Statistics Service in New England, there were 6 days suitable for fieldwork for the week ending Sunday, July 31, 2022. Topsoil moisture supplies were <b>18 %</b> very short, <b>21 %</b> short, <b>58 %</b> adequate, and <b>3 %</b> surplus. Subsoil moisture supplies were <b>14 %</b> very short, <b>22 %</b> short, <b>63 %</b> adequate, and <b>1 %</b> surplus

**Summary:** Some data missing or incomplete. Data from all of these indicators showed drought conditions worsening in eastern CT heading into the week of July 11. Dry conditions were observed in central CT, suggesting an emerging drought on the western side of the CT river valley and New Haven County.

**mbExplanatory notes:**

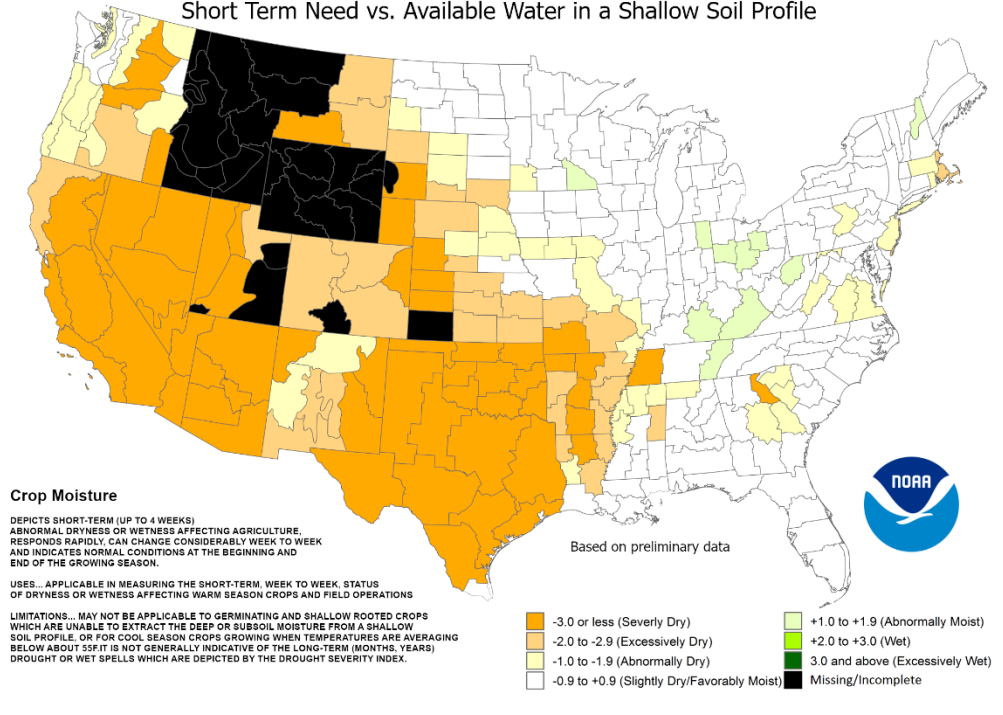
Palmer Drought Severity Index: The Palmer Drought Severity Index (PDSI) uses readily available temperature and precipitation data to estimate relative dryness. It is a standardized index that generally spans -10 (dry) to +10 (wet). Maps of operational agencies like NOAA typically show a range of -4 to +4, but more extreme values are possible.

Crop moisture index: The CMI gives the short-term or current status of purely agricultural drought or moisture surplus and can change rapidly from week to week. The CMI index indicates general conditions and not local variations caused by isolated rain. Input to the calculations include the weekly precipitation total and average temperature, division constants (water capacity of the soil, etc.) and previous history of the indices.

Topsoil moisture: Topsoil Moisture Monitoring maps are based on United States Department of Agriculture state reports of topsoil moisture conditions. Means are calculated from historical weekly data published by USDA/NASS using the closest date to the equivalent date for the year. Results are based on the short and very short %ages of topsoil moisture (upper 6 inches) reported by the USDA. Reports are based on subjective observations.

Vegetation Drought Response Index: VegDRI calculations integrate satellite-based observations of vegetation conditions, climate data, and other biophysical information such as land cover/land use type, soil characteristics, and ecological setting. The VegDRI maps that are produced deliver continuous geographic coverage over large areas, and have inherently finer spatial detail (1-km<sup>2</sup> resolution) than other commonly available drought indicators such as the U.S. Drought Monitor. The state statistics table is located here: <https://vegdrv.unl.edu/Home/VegDRITables.aspx?CT>.

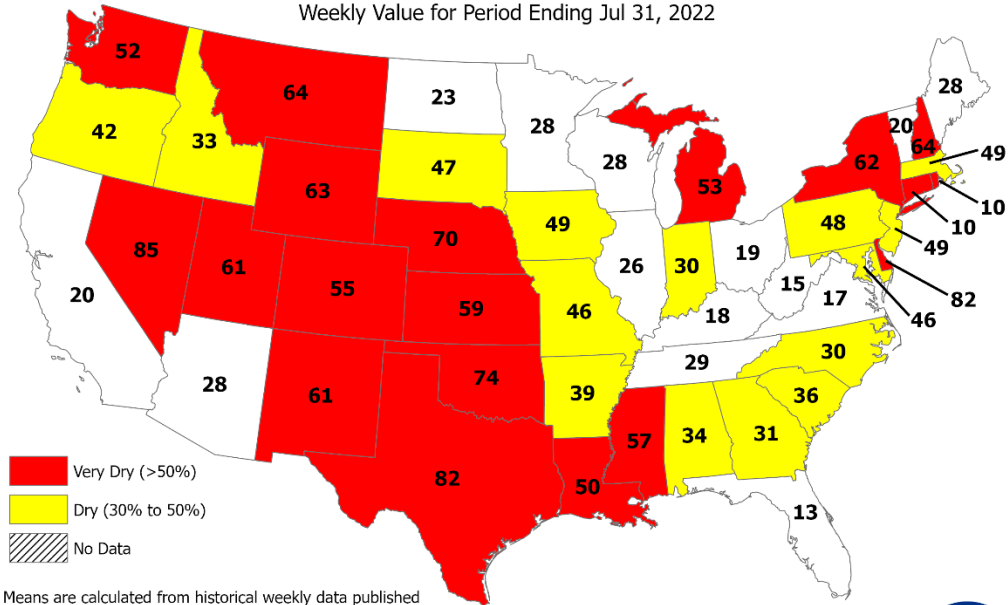
Crop Moisture Index by Division  
Weekly Value for Period Ending Jul 30, 2022  
Short Term Need vs. Available Water in a Shallow Soil Profile



### USDA Topsoil Moisture by Short-Very Short

Percent of State Area

Weekly Value for Period Ending Jul 31, 2022



Means are calculated from historical weekly data published by USDA/NASS using the closest date to the equivalent date for this year.

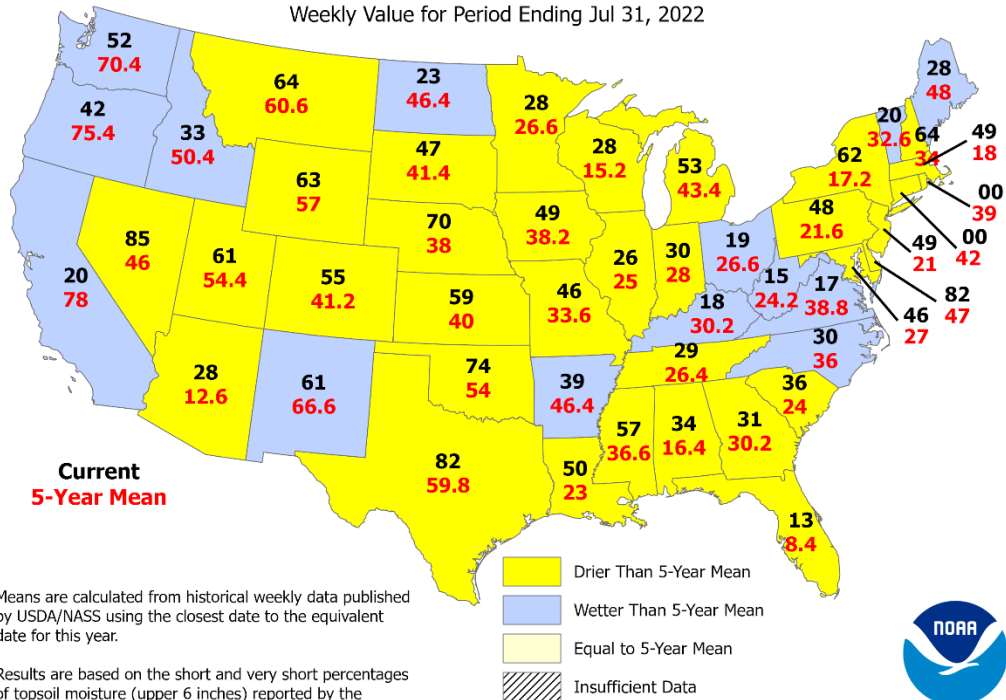
Results are based on the short and very short percentages of topsoil moisture (upper 6 inches) reported by the USDA. Reports are based on subjective observations.



### USDA Topsoil Moisture by Short-Very Short

Current Vs. 5-Year Mean

Weekly Value for Period Ending Jul 31, 2022



Means are calculated from historical weekly data published by USDA/NASS using the closest date to the equivalent date for this year.

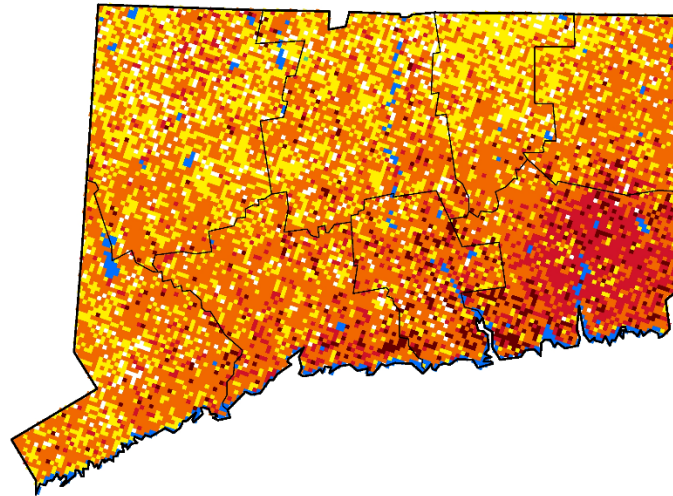
Results are based on the short and very short percentages of topsoil moisture (upper 6 inches) reported by the USDA. Reports are based on subjective observations.





## Vegetation Drought Response Index Complete: Connecticut

July 31, 2022



### Vegetation Condition

- Extreme Drought
- Severe Drought
- Moderate Drought
- Pre-drought stress
- Near Normal
- Unusually Moist
- Very Moist
- Extreme Moist
- Out of Season
- Water

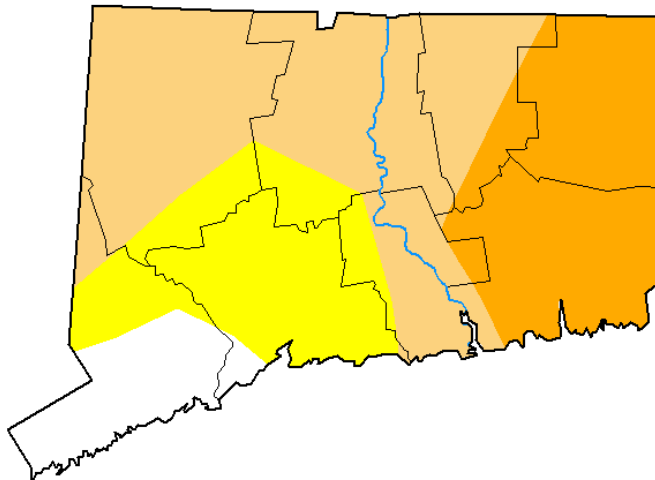


## U.S. Drought Monitor Connecticut

August 2, 2022

(Released Thursday, Aug. 4, 2022)

Valid 8 a.m. EDT



### Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	9.24	90.76	68.82	26.23	0.00	0.00
Last Week 07-26-2022	10.80	89.20	54.05	17.03	0.00	0.00
3 Months Ago 05-03-2022	100.00	0.00	0.00	0.00	0.00	0.00
Start of Calendar Year 01-04-2022	100.00	0.00	0.00	0.00	0.00	0.00
Start of Water Year 09-28-2021	100.00	0.00	0.00	0.00	0.00	0.00
One Year Ago 08-03-2021	100.00	0.00	0.00	0.00	0.00	0.00

### Intensity:

- None
- D0 Abnormally Dry
- D1 Moderate Drought
- D2 Severe Drought
- D3 Extreme Drought
- D4 Exceptional Drought

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 Riganti  
National Drought Mitigation Center



[droughtmonitor.unl.edu](https://droughtmonitor.unl.edu)

**Water Resources, Fisheries, and Forestry Conditions Report**  
**Provided on 8/3/2022 by Doug Hoskins**  
**Department of Energy and Environmental Protection**

Water Diversion / Resource Concerns –

- The DEEP Diversion Program plans to soon notify all current permit holders to consider instituting voluntary water conservation and as applicable, to ensure compliance with any drought management plans and/or low streamflow restrictions if included as a permit condition.
- In order to better determine DEEP Water Diversion jurisdiction the program has purchased a portable ultrasonic water meter to allow more accurate determinations of pump withdrawal rates during compliance site visits.

Fisheries impacts-

- Flows on the West Branch and main stem of the Farmington River continue to be low. In light of our high temperatures DEEP Fisheries has increased their augmentation release from Colebrook River Lake to 50 cubic feet per second (cfs) for a total of 100 cfs when included with the required 50 cfs from the Metropolitan District Commission. At that rate, the two DEEP Fisheries “pools” in Colebrook River Lake would be depleted on October 26. It is likely that water temperatures below the Collinsville dams could be unhealthy for trout and will over stress fish. DEEP Fisheries is considering prohibiting fishing near the mouths of some tributaries to protect fish seeking cooler water refuge.

Fire danger-

- Fire Danger is between Moderate and High across the state. Currently (8/3/22) it is Moderate in Fairfield, New Haven, Litchfield, and Hartford counties, High in Middlesex, New London, Tolland, and Windham counties. Stronger winds will push the entire state to High fire danger on certain days. We are not far off of Very High in some areas of the state. If we do not receive significant rainfall soon, we could be at Very High within two or three days in certain areas of the state.
- Fire activity has picked up across the state in the last few weeks. Since July 23rd, 7 new fires were reported, most of these fires are stubborn ground fires that take multiple days to extinguish. We have 2 of these fires currently smoldering, and have been burning for 5-6 days each. Wildfire starts and issues with extinguishing them are going to be problematic until we receive significant widespread wetting rain that penetrates deep into the soil. These numbers only account for fires that we have received reports on, we know there are several more that we have not received reports on yet.



7-DAY WEATHER FORECAST ISSUED AT 10:00 AM ON AUGUST 4, 2022

7-DAY IMPACTS EXPECTED FOR CONNECTICUT

30-DAY RAINFALL PLOTTED OVER PERCENT OF NORMAL MAP

## DROUGHT DECLARATION: STAGE 2

**DROUGHT CONDITIONS HAVE DETERORATED IN MOST OF EASTERN CONNECTICUT DURING THE PAST 7 DAYS...SLIGHTLY ABOVE NORMAL PRECIPITATION EXPECTED DURING THE NEXT 7 DAYS...TEMPERATURES ARE FORECAST TO REMAIN ABOVE NORMAL...**

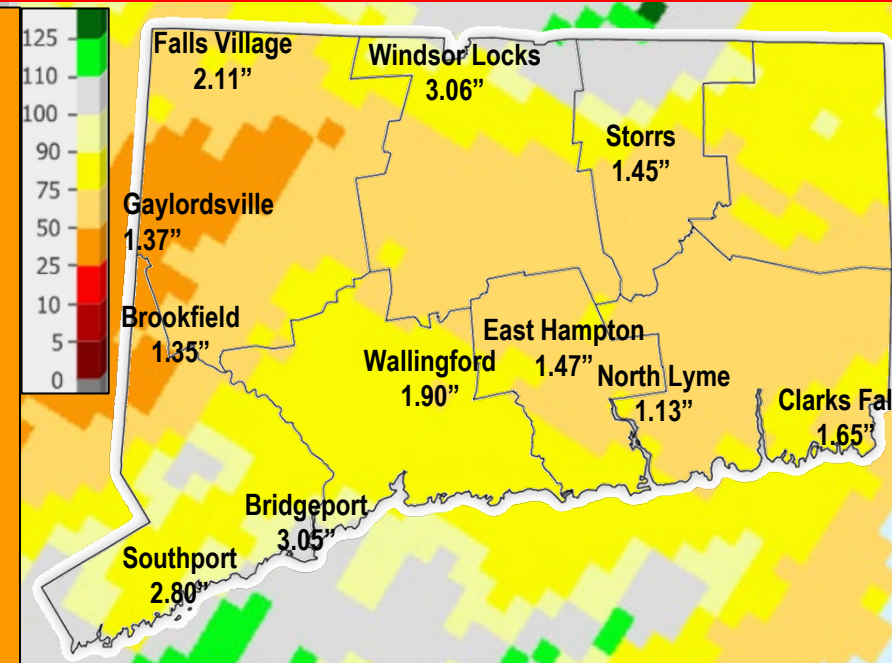
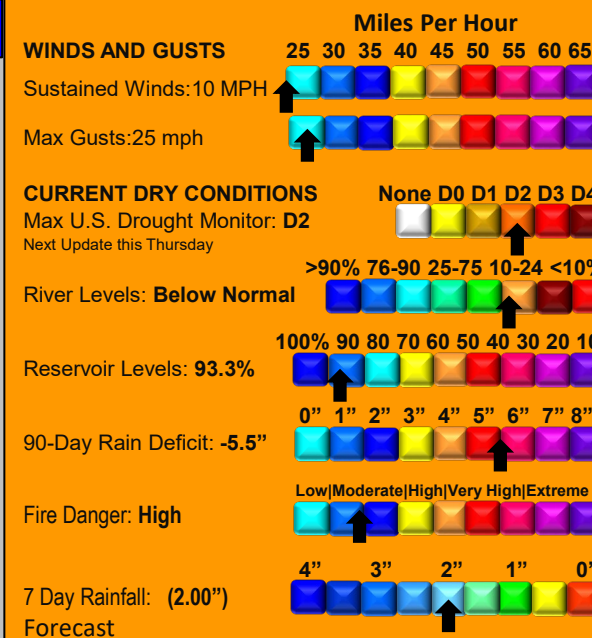
The U.S. Drought Monitor has now designated a large area of Eastern CT in the D2 (Severe Drought) category. Rainfall during the past 7 days has been below normal and generally ranged from 0.25" to 0.75" across most of the state. Slightly higher amounts of rain have fallen near the MA border and in the Bridgeport area. Most rivers continue running below normal. Fire danger is currently high. The 90-day rainfall deficit is currently around -5.5". The area of the D2 (Severe Drought) may be expanded for the next release from the U.S. Drought Monitor this Thursday.

The GFS and other models are forecasting a few opportunities for showers or thunderstorms during the next 7 days. We have the opportunity for some showers Friday morning and again on Saturday and Sunday during the afternoons. Most of the rainfall in the forecast however, does not occur until near the end of the period when forecasts are the least accurate. A slow moving cool front may deliver over 2" of rain next Tuesday and Wednesday. However this event is 6 days away and the forecast is likely to change.

There are currently no threats from tropical activity in the Atlantic and Gulf of Mexico.

The next update will be sent out by the Department of Emergency Services and Public Protection, Division of Emergency Management and Homeland Security on Monday, on August 8th.

For more information on the current drought declaration and drought related information, please go to the Water Planning Council website at [Drought Home \(ct.gov\)](https://www.ct.gov/waterplanning).



## 7-DAY TEMPERATURE AND PRECIPITATION FORECAST

