Drought Conditions Report

July 13, 2022

Connecticut Water Planning Council
Interagency Drought Workgroup

CT Interagency Drought Workgroup

Special Meeting

July 13, 2022

2:00 PM – 3:30 PM

VIA ZOOM

https://us05web.zoom.us/j/81128755360?pwd=bDJRU2JzOE0vY2RQNUtuYThsWUROUT09

Meeting ID: 811 2875 5360 Passcode: 57hD8v

Agenda

1. Call to order

2. Seating of voting members

3. Minutes – May 5, 2022

4. Business
    a. Review of Hydrologic Conditions
    b. CT Water Planning Council topical work group recommendations regarding the CT Drought Preparedness & Response Plan and its implementation
        i. Proposed language revisions
        ii. Agency revisions
    c. Next Meeting – August 4, 2022
    d. Other

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**
Precipitation (1)	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
Ground Water (2)	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
Streamflow (3)	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
Reservoirs (4)	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
Palmer Drought Severity Index (5)	-2.9 to -2.0	-3.2	-2.85	-2.64	-3.2	-3.2	-3.2	-2.85	-2.85	7/9/2022
Crop Moisture Index (6)	-1.9 to -1.0	-0.6	-0.37	-0.23	-0.6	-0.6	-0.6	-0.37	-0.37	7/9/2022
VegDRI (seasonal) (7)	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
Fire Danger (8)	Moderate	Moderate	Moderate	Moderate	Moderate	Moderate	Moderate	Moderate	Moderate	6/30/2022
U.S. Drought Monitor (9)	Intensity level D1-D2	NA	D0-D1	D0	D0-D1	D0	D0-D1	D1	D1	7/5/2022

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)

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.

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

CT 1 Month June 2022	Rainfall	Departure	Percent	Normal
Litchfield	2.99	-1.61	65	4.60
Hartford	3.31	-1.31	72	4.62
Tolland	3.11	-1.47	68	4.58
Windham	4.19	-0.15	97	4.34
Fairfield	4.00	-0.44	90	4.44
New Haven	3.55	-0.85	81	4.40
Middlesex	3.69	-1.27	74	4.96
New London	3.69	-0.39	91	4.08

CT 2 month May-Jun 22	Rainfall	Departure	Percent	Normal
Litchfield	7.08	-1.93	79	9.01
Hartford	5.83	-3.21	65	9.04
Tolland	5.52	-3.16	64	8.68
Windham	5.46	-2.90	65	8.36
Fairfield	7.42	-1.40	84	8.82
New Haven	6.34	-2.30	73	8.64
Middlesex	6.14	-3.04	67	9.18
New London	6.06	-1.78	77	7.84

CT 3 month Apr-Jun 22	Rainfall	Departure	Percent	Normal
Litchfield	13.36	0.15	101	13.21
Hartford	11.32	-2.03	85	13.35
Tolland	10.53	-2.76	79	13.29
Windham	9.39	-3.56	73	12.95
Fairfield	12.74	-0.52	96	13.26
New Haven	11.65	-1.36	90	13.01
Middlesex	10.70	-2.90	79	13.60
New London	9.53	-2.87	77	12.40

CT 4 month Mar-Jun 22	Rainfall	Departure	Percent	Normal
Litchfield	16.31	-1.05	94	17.36
Hartford	14.07	-3.38	81	17.45
Tolland	13.51	-4.12	77	17.63
Windham	12.13	-5.27	70	17.40
Fairfield	15.50	-2.12	88	17.62
New Haven	14.71	-2.65	85	17.36
Middlesex	13.80	-4.15	77	17.95
New London	12.60	-4.66	73	17.26

CT 5 month Feb-Jun 22	Rainfall	Departure	Percent	Normal
Litchfield	20.94	0.25	101	20.69
Hartford	18.59	-2.14	90	20.73
Tolland	18.24	-2.73	87	20.97
Windham	18.24	-2.45	88	20.69
Fairfield	19.05	-1.67	92	20.72
New Haven	18.83	-1.68	92	20.51
Middlesex	19.41	-1.88	91	21.29
New London	17.92	-2.75	87	20.67

CT 6 month Jan-Jun 22	Rainfall	Departure	Percent	Normal
Litchfield	23.54	-0.71	97	24.25
Hartford	21.16	-3.19	87	24.35
Tolland	21.59	-3.22	87	24.81
Windham	22.05	-2.38	90	24.43
Fairfield	22.28	-2.02	92	24.30
New Haven	22.08	-1.99	92	24.07
Middlesex	22.95	-2.09	92	25.04
New London	21.74	-2.65	89	24.39

CT 7 month Dec 21-Jun 22	Rainfall	Departure	Percent	Normal
Litchfield	26.39	-1.85	93	28.24
Hartford	23.84	-4.45	84	28.29
Tolland	24.44	-4.53	84	28.97
Windham	24.55	-4.13	86	28.68
Fairfield	23.99	-4.39	85	28.38
New Haven	23.89	-4.07	85	27.96
Middlesex	24.94	-4.42	85	29.36
New London	23.53	-5.16	82	28.69

CT 12 month Jul 21-Jun 22	Rainfall	Departure	Percent	Normal
Litchfield	60.20	9.48	119	50.72
Hartford	58.36	7.52	115	50.84
Tolland	60.74	10.68	121	50.06
Windham	55.91	5.74	111	50.17
Fairfield	54.01	3.80	108	50.21
New Haven	54.04	5.35	111	48.69
Middlesex	55.55	4.39	109	51.16
New London	50.10	0.21	100	49.89

CT 24 month Jul 20-Jun 22	Rainfall	Departure	Percent	Normal
Litchfield	105.83	4.39	104	101.44
Hartford	102.25	0.56	101	101.69
Tolland	106.50	6.38	106	100.13
Windham	102.66	2.32	102	100.35
Fairfield	100.36	-0.06	100	100.42
New Haven	99.96	2.58	103	97.38
Middlesex	102.35	0.03	100	102.32
New London	94.44	-5.35	95	99.79

CT 36 month Jul 19-Jun 22	Rainfall	Departure	Percent	Normal
Litchfield	152.21	0.05	100	152.16
Hartford	148.91	-3.63	98	152.53
Tolland	157.32	7.13	105	150.19
Windham	153.25	2.74	102	150.52
Fairfield	148.10	-2.53	98	150.63
New Haven	148.32	2.26	102	146.06
Middlesex	151.09	-2.39	98	153.48
New London	146.58	-3.09	98	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 Interagency Drought Workgroup NWS Update

Thursday July 13 2022

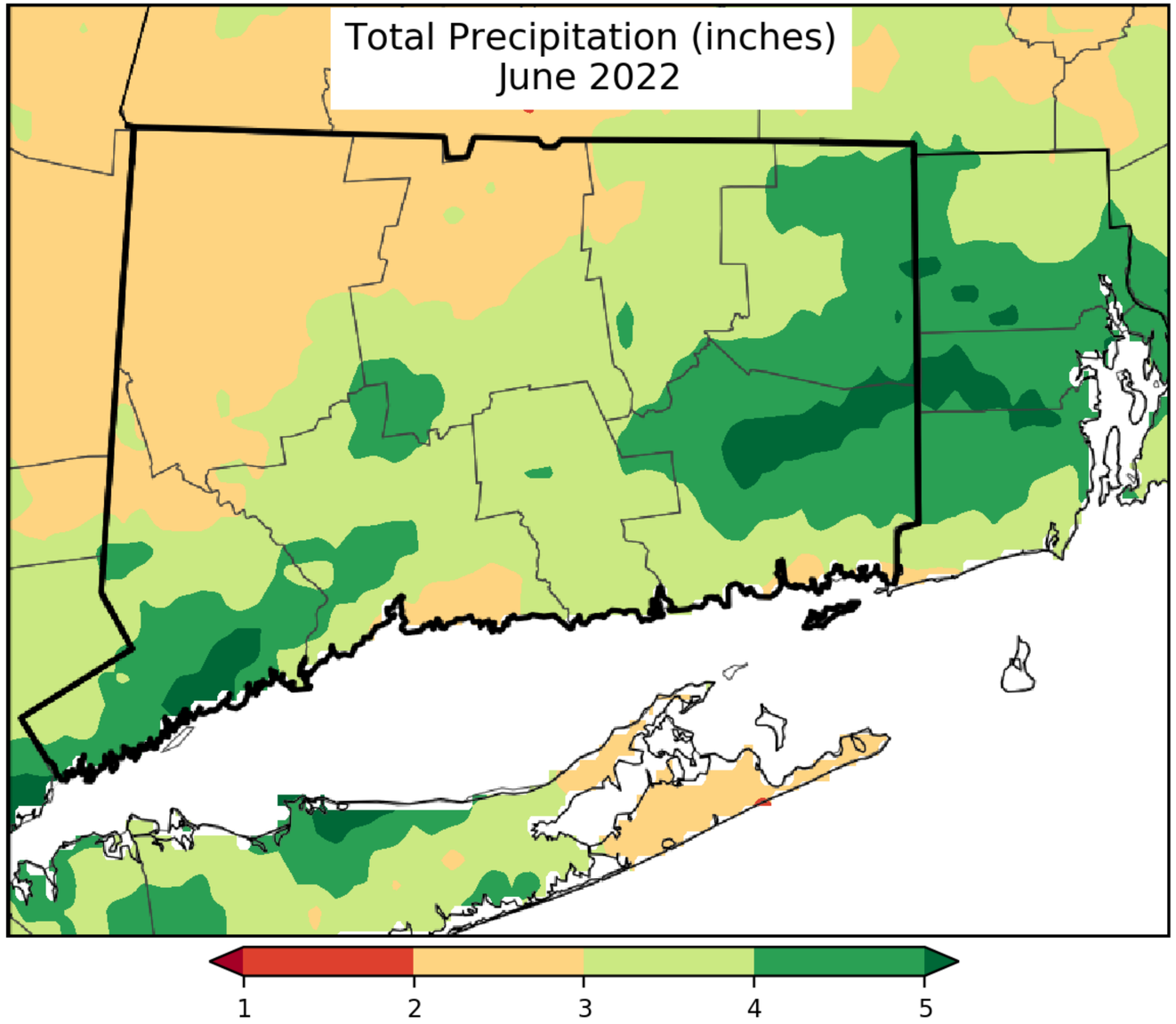
Prepared by: NWS WFO Boston/Norton, MA

June 2022 Rainfall

Driest area Northwest CT

Boston/Norton MA

WEATHER FORECAST OFFICE

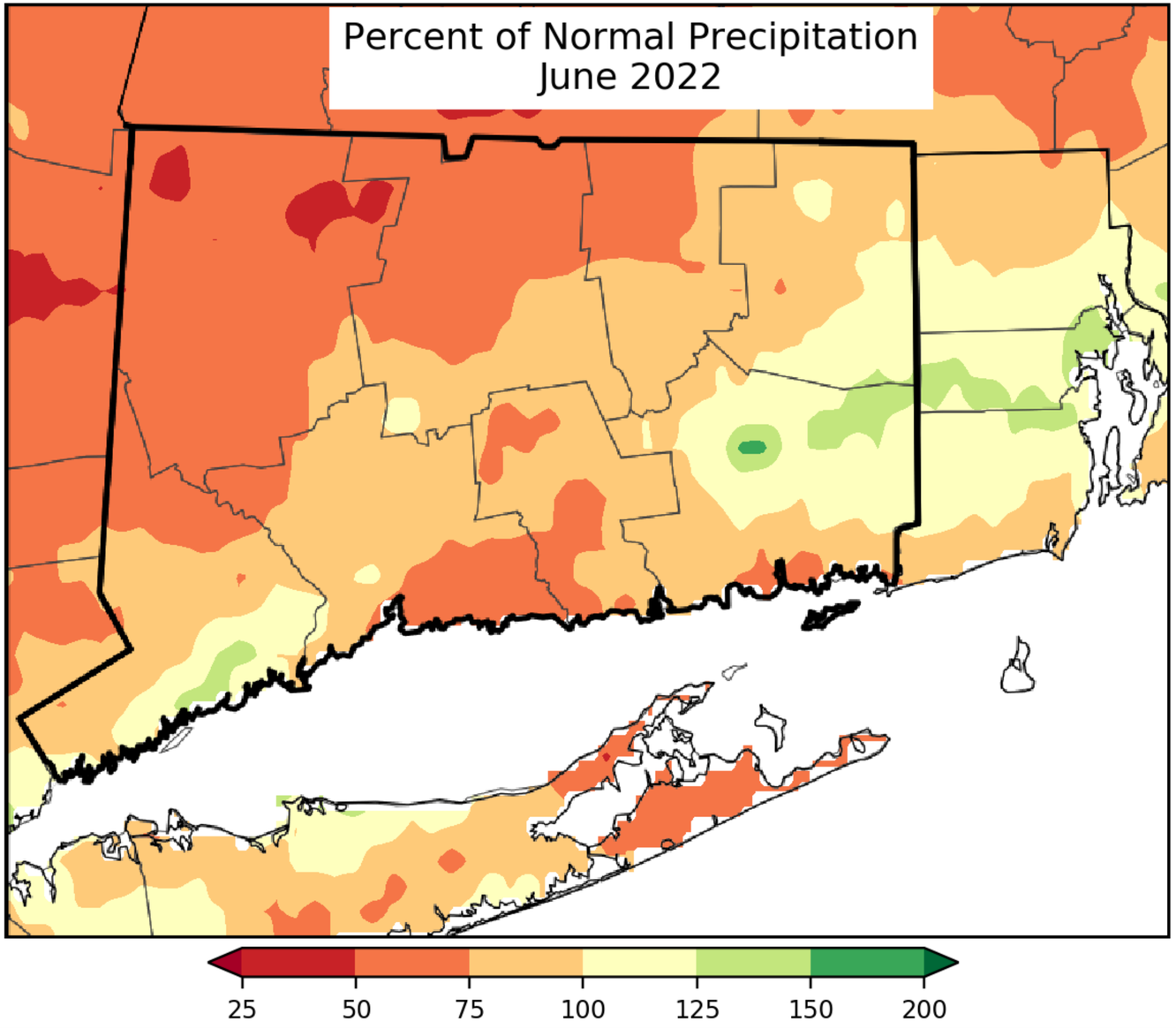


June 2022 Percent of Normal Rainfall

Driest area Northwest CT

Boston/Norton MA

WEATHER FORECAST OFFICE



Rainfall Tables for 2 and 3 Months

Boston/Norton MA
WEATHER FORECAST OFFICE

CT 2 month May-Jun 22	Rainfall	Departure	Percent	Normal
Litchfield	7.08	-1.93	79	9.01
Hartford	5.83	-3.21	65	9.04
Tolland	5.52	-3.16	64	8.68
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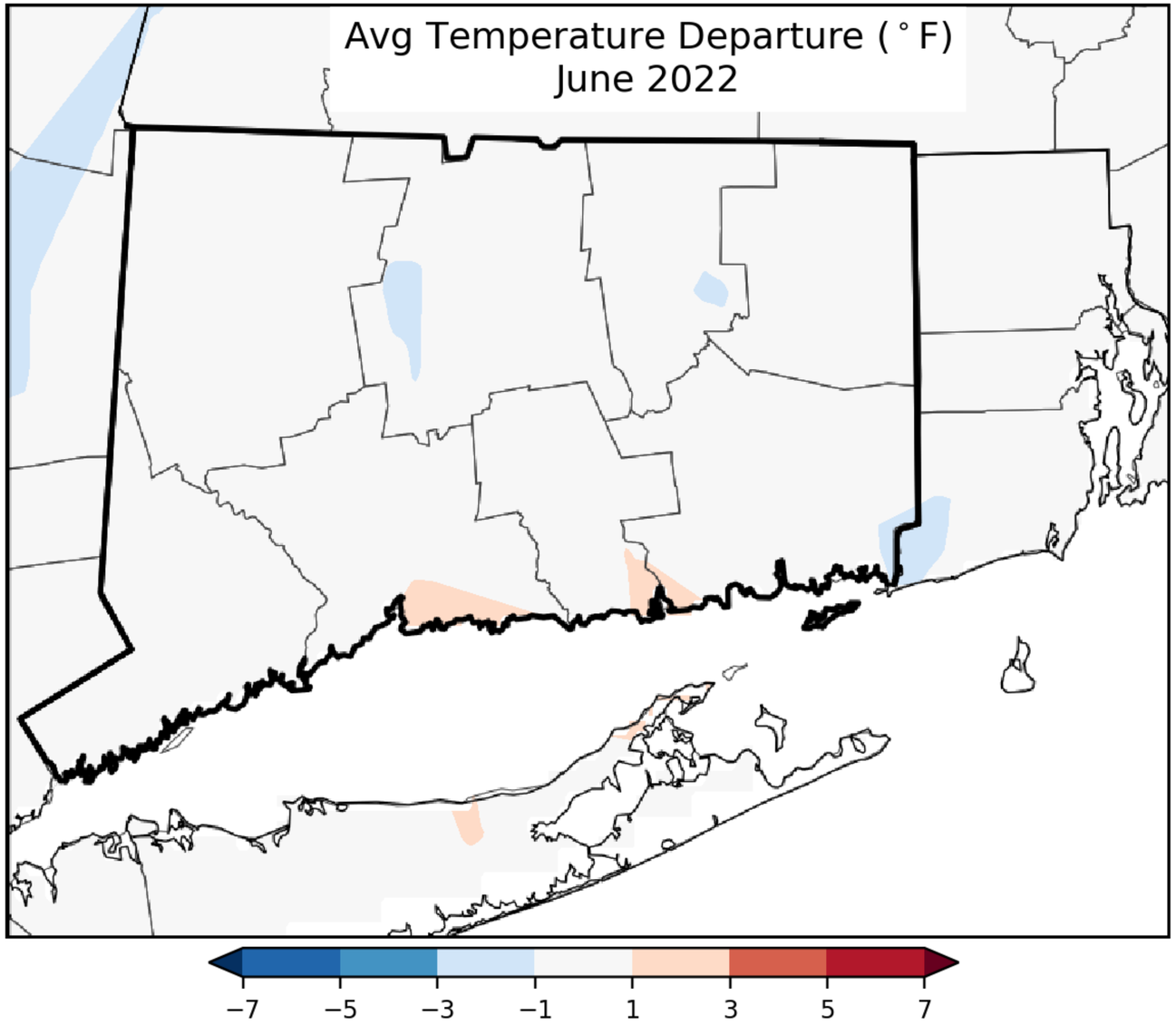
Windham	9.39	-3.56	73	12.95
Fairfield	12.74	-0.52	96	13.26
New Haven	11.65	-1.36	90	13.01
Middlesex	10.70	-2.90	79	13.60
New London	9.53	-2.87	77	12.40

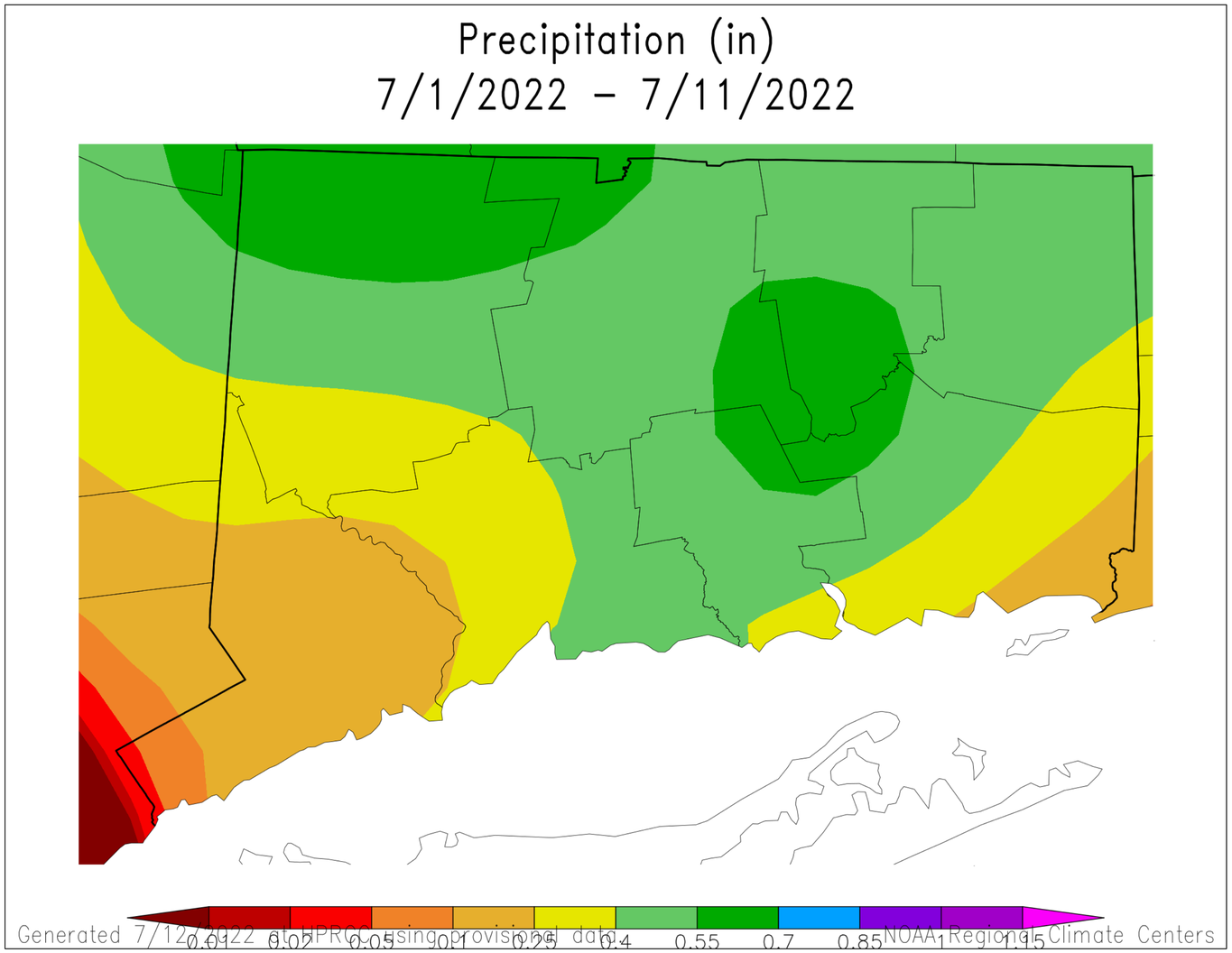
June 2022 Temperature Details

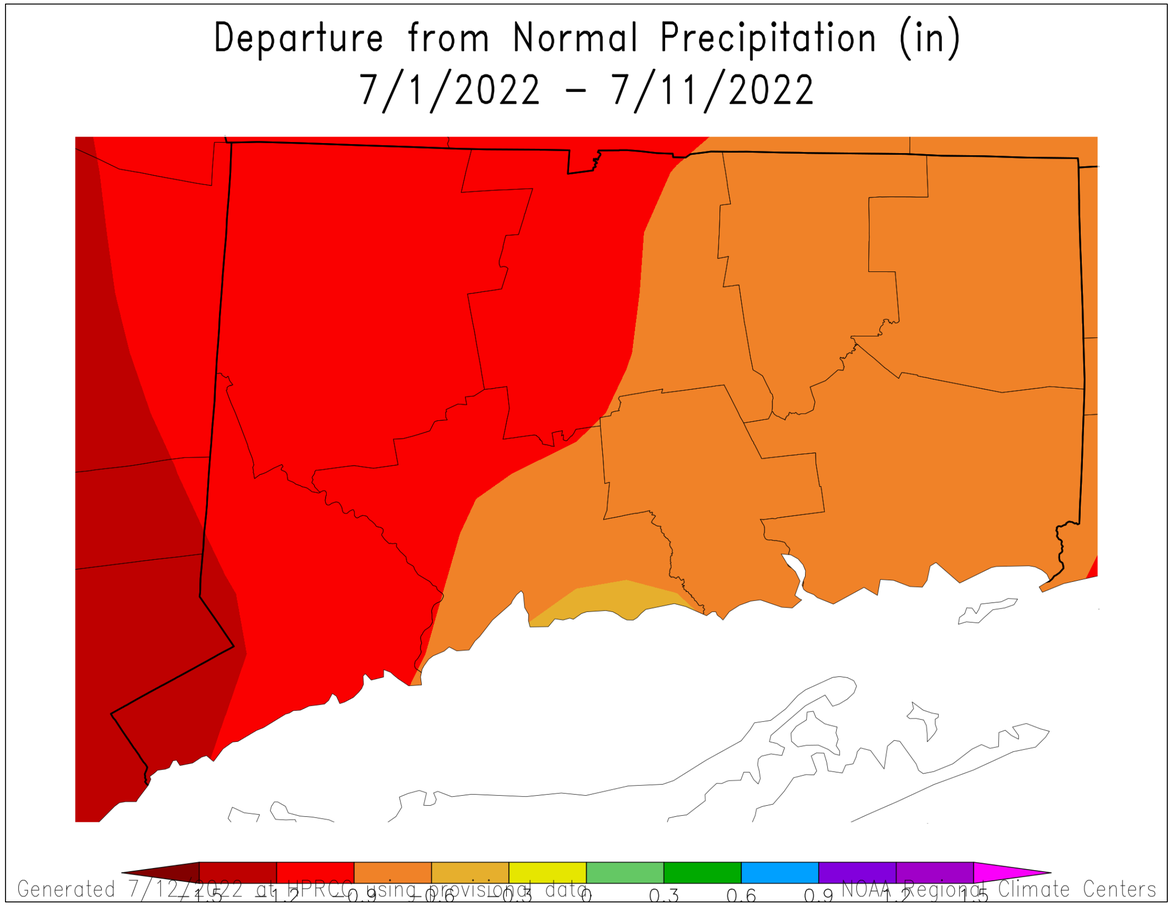
Boston/Norton MA
WEATHER FORECAST OFFICE



July Month-to-Date Rainfall

Boston/Norton MA
WEATHER FORECAST OFFICE

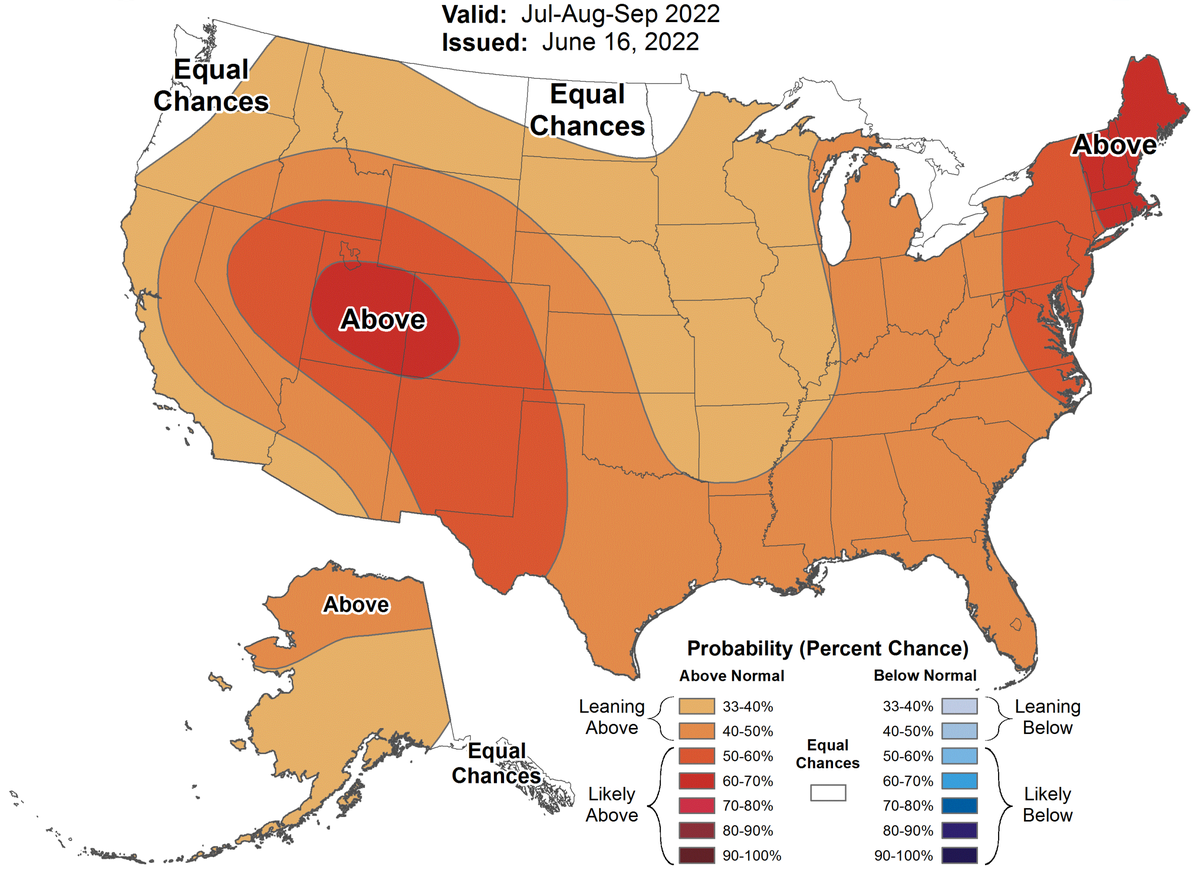




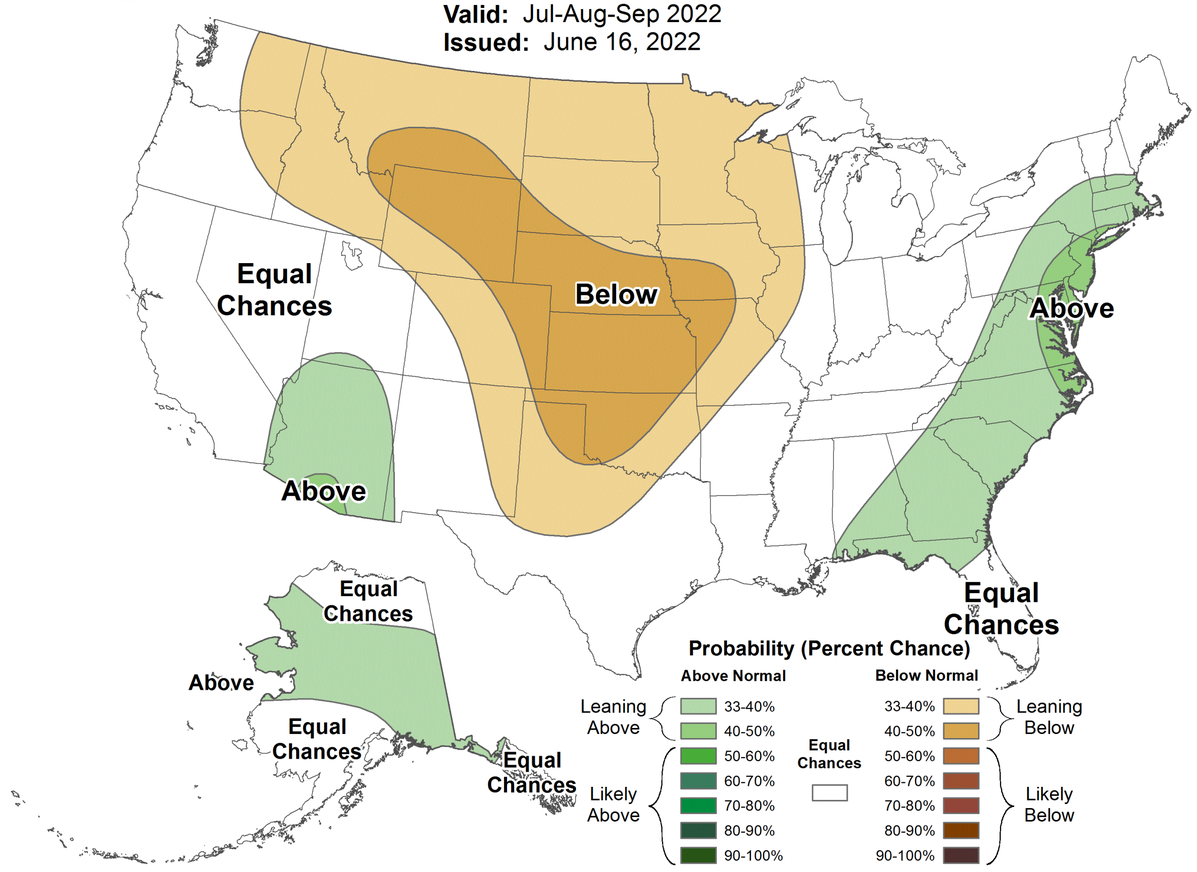
CPC Outlook for July/August/Sept

Boston/Norton MA
WEATHER FORECAST OFFICE

Seasonal Temperature Outlook



Seasonal Precipitation Outlook



U.S. Geological Survey

Status of streamflow and groundwater levels, as of June 30, 2022

USGS

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	11	2	2	1	18.2	18.2	9.1
Hartford	10	6	4	0	60	40	0
Litchfield	5	3	2	0	60	40	0
Middlesex	7	4	3	1	57.1	42.9	14.3
New Haven	13	5	3	0	38.5	23.1	0
New London	5	3	3	0	60	60	0
Tolland	12	10	7	0	83.3	58.3	0
Windham	6	5	5	0	83.3	83.3	0

END OF JUNE 2022 GROUNDWATER SUMMARY BY COUNTY

USGS

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	1	0	0	7.7	0	0
Hartford	11	4	0	0	36.4	0	0
Litchfield	10	3	0	0	30	0	0
Middlesex	4	1	0	0	25	0	0
New Haven	8	2	0	0	25	0	0
New London	7	2	1	0	28.6	14.3	0
Tolland	3	3	1	0	100	33.3	0
Windham	10	5	5	0	50	50	0

JUNE 2022 STREAMFLOW SUMMARY BY COUNTY

USGS

Provisional Data Subject to Review and Revision

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
Palmer Drought Severity Index (map)	5/28/22	Entire state shows near normal conditions.	7/09/22	Entire state shows moderate drought conditions.
Palmer drought severity index (data)	5/28/22	Northwest: 1.48 Central: -0.54 Coastal: -1.42		Northwest: -2.64 Central: -2.85 Coastal: -3.54
Precipitation needed to end drought (in.)	5/28/22	Northwest: 0 Central: 1.23 Coastal: 3.77	7/09/22	Northwest: 7.52 Central: 8.68 Coastal: 10.73
Crop Moisture (current map)	5/28/22	Entire state shows favorably dry, with NW CT showing slightly more crop moisture.	7/09/22	Entire state shows slightly dry or higher
Topsoil moisture (current map)	5/29/22	Favorable conditions- map shows **5%** of CT topsoil as short-very shot in topsoil moisture.	7/10/22	Very dry conditions- more than 50% of CT topsoil is shown as short or very short on topsoil moisture
Topsoil moisture (current vs. 5 yr. mean)	5/29/22	Map shows **3% less** topsoil area in CT as short-very short vs the 5-year mean.	7/10/22	**63%** of topsoil is currently short or very short, vs. the CT 5-year mean of **12%**
Veg DRI (% of CT land area shown as pre-drought, moderate, severe or extreme)	5/29/22	**87%** of cropland is near normal **6%** of cropland is in "pre-dought stress" **1.5%** is in moderate drought or higher	7/10/22	**12.74%** of cropland is near normal **50.29%** is in Pre-drought **28.11%** is in Moderate Drought **4.72%** is in Severe Drought **0.99%** is in Extreme Drought
Drought Monitor Report for CT	5/31/22	As of 5/31, **47.8%** of the state was abnormally dry, mostly in Eastern CT. **21.2%** of the state was in "Moderate Drought", all within Eastern CT.	7/05/22	As of 7/7, **62%** of the state was abnormally Dry or drier. **39.5%** of the state was in Moderate Drought, concentrated in New London, Windham, Tolland, eastern Litchfield, Middlesex and Hartford Counties.
NASS Crop Progress Report (New England)	5/3/22	Shows **55%** of **topsoil** moisture as adequate and **45%** as surplus. **Subsoil** this week was **76%** subsoil was adequate, **22%** was surplus, and **2%** was short.	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 percent very short, **30** percent short, **47** percent adequate, and 3 percent surplus. Subsoil moisture supplies were **15** percent very short, **26** percent short, **56** percent adequate, and **3** percent surplus.

Summary: Data from all of these indicators showed drought conditions 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.

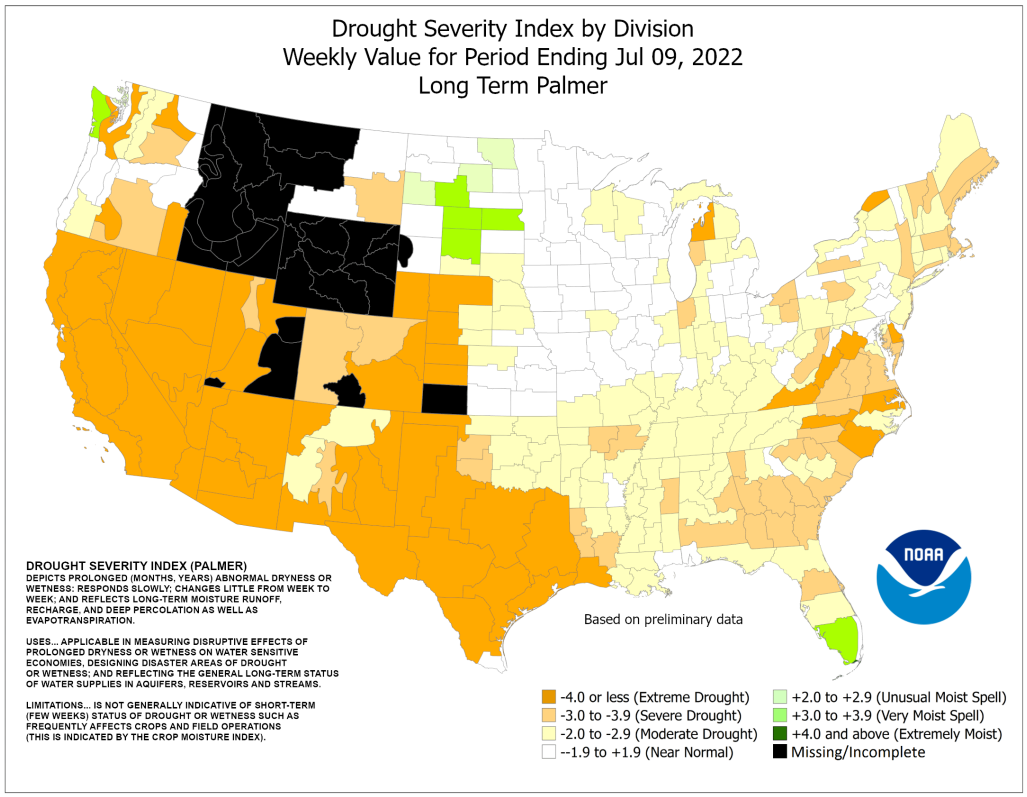
Explanatory notes:

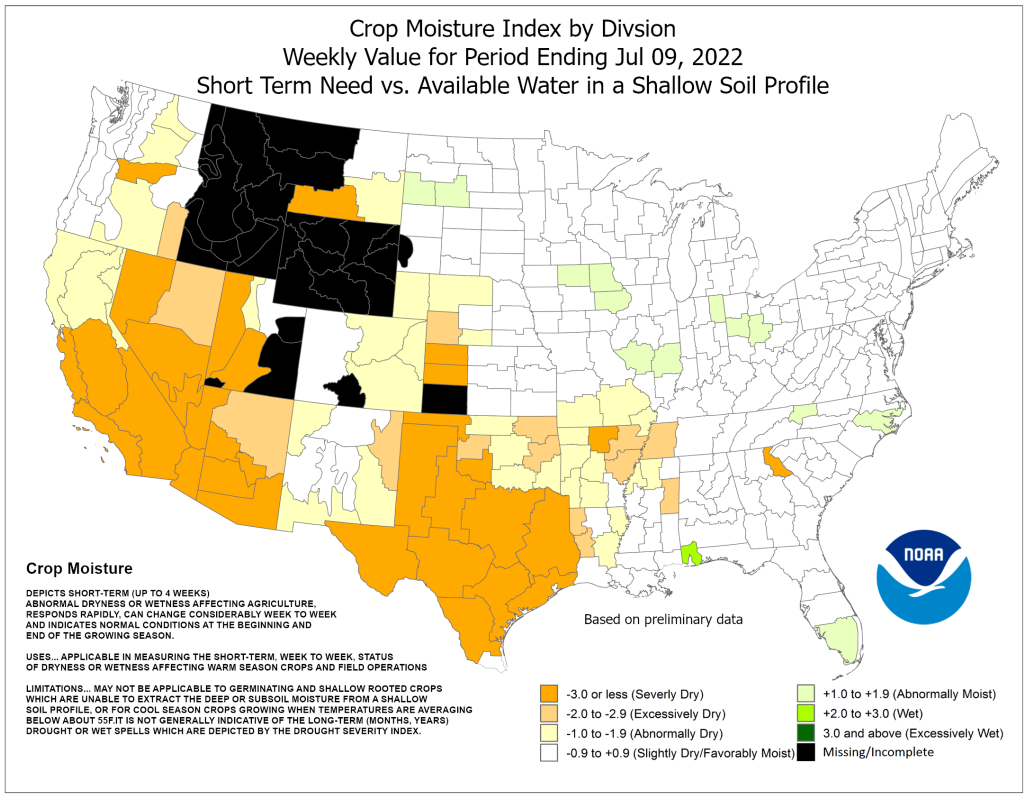
Palmer Drought Severity Index: The Palmer Drought Severity Index (PDSI) uses readily available temperature and precipitation data to estimate relative dryness. It is a standardized index that generally spans -10 (dry) to +10 (wet). Maps of operational agencies like NOAA typically show a range of -4 to +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 percentages 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-km2 resolution) than other commonly available drought indicators such as the U.S. Drought Monitor. The state statistics table is located here: https://vegdri.unl.edu/Home/VegDRITables.aspx?CT.

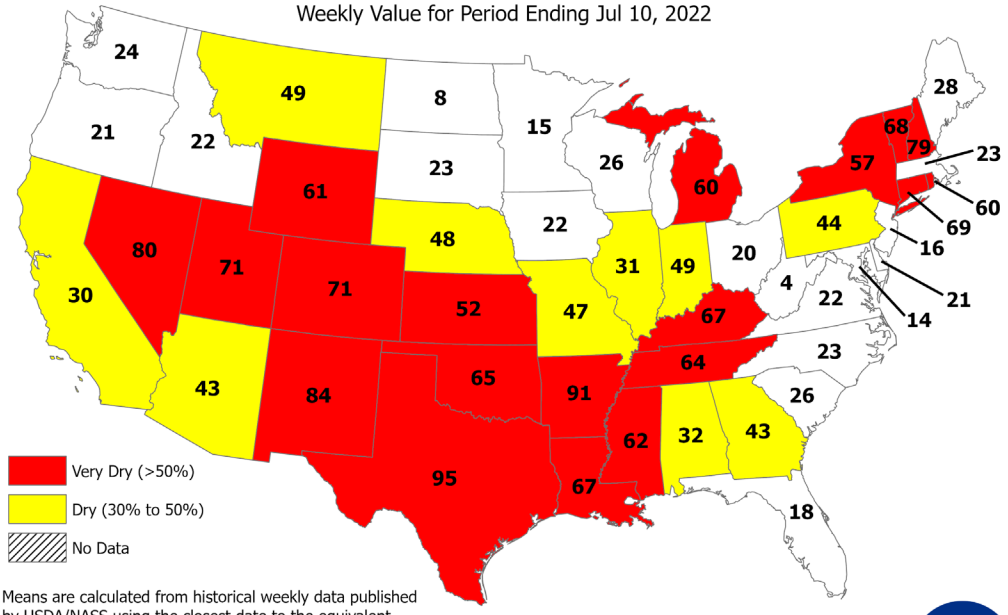

Drought Severity Index by Division
Weekly Value for Period Ending Jul 09, 2022
Long Term Palmer
DROUGHT SEVERITY INDEX (PALMER)
DEPICTS PROLONGED (MONTHS, YEARS) ABNORMAL DRYNESS OR WETNESS: RESPONDS SLOWLY; CHANGES LITTLE FROM WEEK TO WEEK; AND REFLECTS LONG-TERM MOISTURE RUNOFF, RECHARGE, AND DEEP PERCOLATION AS WELL AS EVAPOTRANSPIRATION.
USES... APPLICABLE IN MEASURING DISRUPTIVE EFFECTS OF PROLONGED DRYNESS OR WETNESS ON WATER SENSITIVE ECONOMIES, DESIGNING DISASTER AREAS OF DROUGHT OR WETNESS; AND REFLECTING THE GENERAL LONG-TERM STATUS OF WATER SUPPLIES IN AQUIFERS, RESERVOIRS AND STREAMS.
LIMITATIONS... IS NOT GENERALLY INDICATIVE OF SHORT-TERM (FEW WEEKS) STATUS OF DROUGHT OR WETNESS SUCH AS FREQUENTLY AFFECTS CROPS AND FIELD OPERATIONS (THIS IS INDICATED BY THE CROP MOISTURE INDEX).
Based on preliminary data
NOAA
-4.0 or less (Extreme Drought)
-3.0 to -3.9 (Severe Drought)
-2.0 to -2.9 (Moderate Drought)
--1.9 to +1.9 (Near Normal)
+2.0 to +2.9 (Unusual Moist Spell)
+3.0 to +3.9 (Very Moist Spell)
+4.0 and above (Extremely Moist)
Missing/Incomplete


Crop Moisture Index by Divsion
Weekly Value for Period Ending Jul 09, 2022
Short Term Need vs. Available Water in a Shallow Soil Profile
Crop Moisture
DEPICTS SHORT-TERM (UP TO 4 WEEKS) ABNORMAL DRYNESS OR WETNESS AFFECTING AGRICULTURE, RESPONDS RAPIDLY, CAN CHANGE CONSIDERABLY WEEK TO WEEK AND INDICATES NORMAL CONDITIONS AT THE BEGINNING AND END OF THE GROWING SEASON.
USES... APPLICABLE IN MEASURING THE SHORT-TERM, WEEK TO WEEK, STATUS OF DRYNESS OR WETNESS AFFECTING WARM SEASON CROPS AND FIELD OPERATIONS
LIMITATIONS... MAY NOT BE APPLICABLE TO GERMINATING AND SHALLOW ROOTED CROPS WHICH ARE UNABLE TO EXTRACT THE DEEP OR SUBSOIL MOISTURE FROM A SHALLOW SOIL PROFILE, OR FOR COOL SEASON CROPS GROWING WHEN TEMPERATURES ARE AVERAGING BELOW ABOUT 55F.IT IS NOT GENERALLY INDICATIVE OF THE LONG-TERM (MONTHS, YEARS) DROUGHT OR WET SPELLS WHICH ARE DEPICTED BY THE DROUGHT SEVERITY INDEX.
Based on preliminary data
NOAA
-3.0 or less (Severly Dry)
-2.0 to -2.9 (Excessively Dry)
-1.0 to -1.9 (Abnormally Dry)
-0.9 to +0.9 (Slightly Dry/Favorably Moist)
+1.0 to +1.9 (Abnormally Moist)
+2.0 to +3.0 (Wet)
3.0 and above (Excessively Wet)
Missing/Incomplete

USDA Topsoil Moisture by Short-Very Short

Percent of State Area

Weekly Value for Period Ending Jul 10, 2022



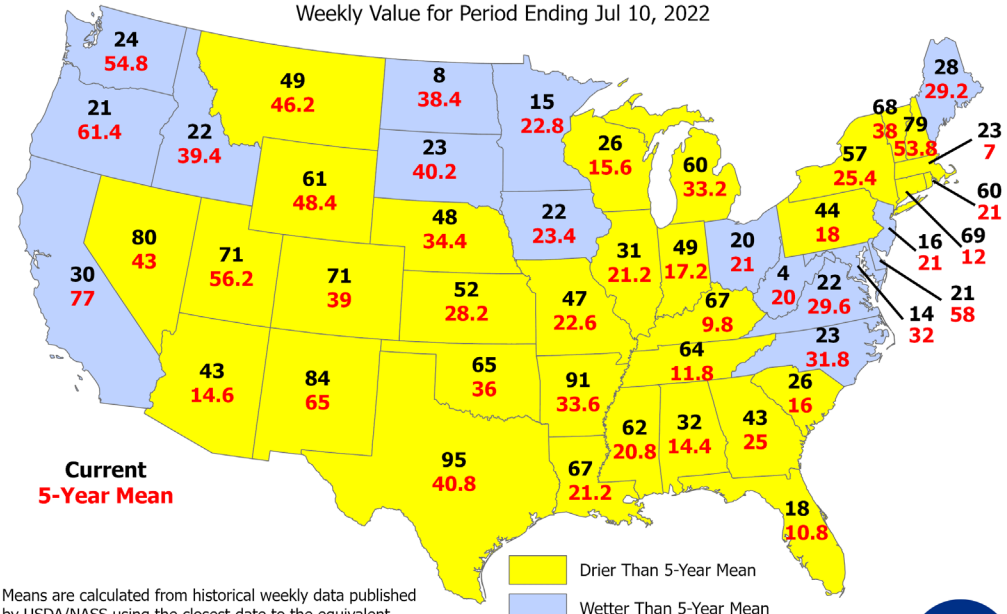
Means are calculated from historical weekly data published by USDA/NASS using the closest date to the equivalent date for this year.

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 10, 2022



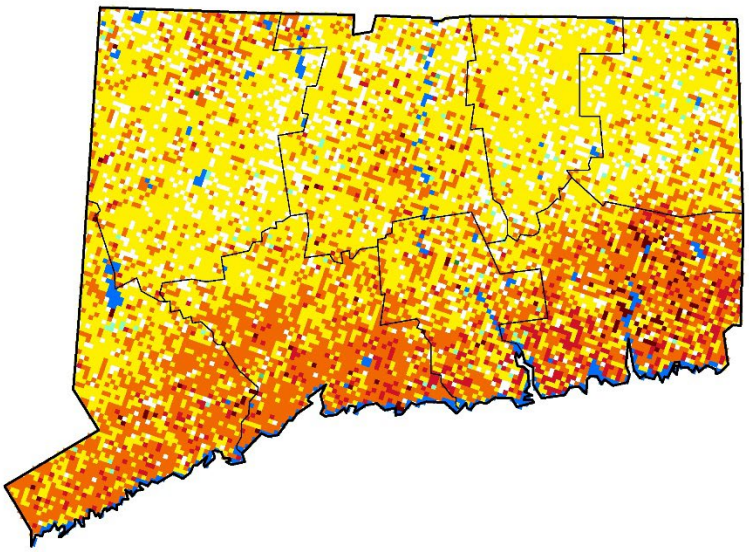
Means are calculated from historical weekly data published by USDA/NASS using the closest date to the equivalent date for this year.

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

July 10, 2022

Complete: Connecticut

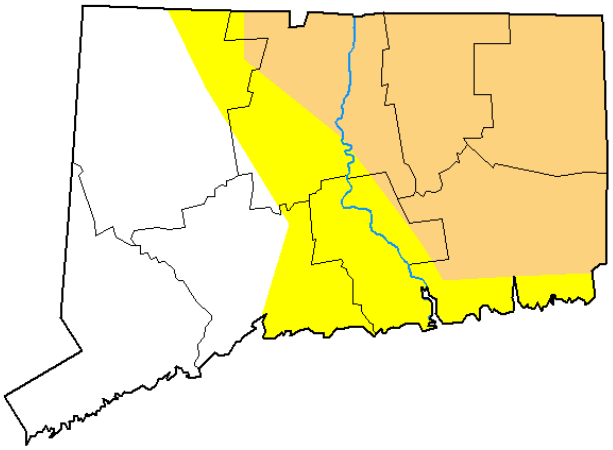


Vegetation Condition

- 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



July 5, 2022

(Released Thursday, Jul. 7, 2022)

Valid 8 a.m. EDT

Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	37.56	62.44	39.48	0.00	0.00	0.00
Last Week 06-28-2022	37.85	62.15	39.48	0.00	0.00	0.00
3 Months Ago 04-05-2022	98.56	1.44	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 07-06-2021	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:
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CPC/NOAA

droughtmonitor.unl.edu

CT Interagency Drought Workgroup
Water Resources, Fisheries, and Forestry Conditions Report
Provided on 7/13/2022 by Doug Hoskins, CT Department of Energy and Environmental Protection

Status of water resources –

- Our DEEP stream observers have noted low flows throughout the state consistent with USGS stream gage readings. The DEEP Diversion Program is beginning to get reports of low/no stream flow exacerbated by public drinking water and irrigation withdrawals (e.g. DEEP Fisheries' Bride Brook entry below). In some cases, it is difficult to determine Diversion jurisdiction given that there may be no meter installed on irrigation pumps, and estimates based on pump specs, runtime and irrigated acreage must be relied on. The program is considering the purchase of a portable ultrasonic water meter to allow more accurate determinations of pump withdrawal rates during compliance site visits.

Fisheries impacts-

- Farmington River: West Branch Farmington River and Farmington River flows are well below typical levels for mid-July with The MDC currently releasing only the required minimum flow of 50 cfs from West Branch Reservoir. For the purposes of supporting adequate habitat and conditions for trout in the river DEEP is currently augmenting flows with 25 cfs from the Fisheries pools for a total combined release of 75 cfs from West Branch Reservoir and water temperatures in the West Branch Farmington remain cool. Farther downstream however, Farmington River flows at the Unionville and Tariffville gauges on several recent days have been close to or below the previous recorded daily low flows for those days and water temperatures are likely becoming marginal.

- Bride Brook (East Lyme): There was a large Alewife kill downstream of Bride Lake on 7/7/22 when the water leaving the lake began drying up in the streambed roughly 150-200m downstream. DEEP Fisheries mortality estimates range from 10-15,000 yoy's (young-of-the-year) initially, but likely more in the realm of 30,000 by the time assessment was completed. The town has a wellfield in the vicinity that can draw a maximum of 1.86 gpd from the unconsolidated sediments in the vicinity of the fish kill. By 4:00 PM the brook had almost entirely dried up and efforts to save fish were hindered greatly (DEEP Fisheries saved roughly 5,000). Their diversion permit requires them to restrict withdrawals during specified low flows. Based on the lake staff gauge readings during the event and observations made by UConn on the week of the 4th, it appears that the pumps were dialed back on 7/5/22. An investigation is underway to determine if the Town was compliant with permit restrictions.

Fire danger-

- The Spring Fire Season is over. So far there have been 74 fires covering 269 acres officially recorded, but that is not all the fires CT has had this year. There were a few larger fires influencing the number this spring (160 acre fire and 21 acre fire). DEEP Forestry doesn't capture all of the statistics, and data are still being entered. Things have somewhat moderated with full green up/leaf out, but if we continue with limited rain in the forecast, the state may see summer drought fires earlier than later, which would include fires that are harder to extinguish because they get into the ground. The Forest Fire Danger Level for Wednesday, July 13, 2022 is HIGH everywhere except MODERATE in Northern Litchfield, Northern Hartford, Northern Tolland, and Northern Windham counties.

PWSID	PWS Name	Day of Supply Remaining	Percent Full	Percent Of Normal	Most Recent Reading Date	Days of Supply at 100% Full	Current Status	County Served
CT1030021	South Norwalk Electric & Water	197.62	94.7	102	6/27/2022	230.95	No Drought Stage	FAIRFIELD
CT0570011	Aquarion Water Co of CT-Greenwich System	220.76	99.3	104	6/5/2022	187.74	No Drought Stage	FAIRFIELD
CT1030011	Norwalk First Taxing District	160.41	84.1	99	7/3/2022	165.34	No Drought Stage	FAIRFIELD
CT1350011	Aquarion Water Co of CT-Stamford	364.86	98.6	107	6/5/2022	281.4	No Drought Stage	FAIRFIELD
CT0150011	Aquarion Water Co of CT-Main System	407.44	99.3	104	6/5/2022	461.14	No Drought Stage	FAIRFIELD
CT0340011	Danbury Water Department	471.33	98.2	106	6/19/2022	446.46	No Drought Stage	FAIRFIELD
CT0090011	Bethel Water Dept	145920	99.9	105	7/3/2022	4562.5	No Drought Stage	FAIRFIELD
CT1310011	Southington Water Department	189.52	97.5	119	7/2/2022	205.1	No Drought Stage	HARTFORD
CT0770021	Manchester Water Department	148.7	99	107	7/3/2022	160.68	No Drought Stage	HARTFORD
CT0890011	New Britain Water Department	256.23	87.1	99	6/30/2022	277.21	No Drought Stage	HARTFORD
CT0170011	Bristol Water Department	281.71	99.3	109	7/3/2022	267.11	No Drought Stage	HARTFORD
CT0473011	CTWC - Northern Reg-Western System	375.86	84.1	90	6/30/2022	469.66	No Drought Stage	HARTFORD
CT0640011	Metropolitan District Commission	719.75	95.9	103	7/4/2022	732.09	No Drought Stage	HARTFORD
CT1220011	Aquarion Water Co of CT-Salisbury Sys	137.31	100	101	6/5/2022	183.54	No Drought Stage	LITCHFIELD
CT1430011	Torrington Water Company	397.2	84.7	98	7/1/2022	517.9	No Drought Stage	LITCHFIELD
CT1620011	Winsted Water Works	610	100	102	7/4/2022	637.41	No Drought Stage	LITCHFIELD
CT1250011	Sharon Water & Sewer Commission	1077.83	100	105	6/4/2022	1107.07	No Drought Stage	LITCHFIELD
CT0980011	Aquarion Water Co of CT-Norfolk System	3838.1	100	101	6/5/2022	9666.67	No Drought Stage	LITCHFIELD
CT0830011	Middletown Water Department	331.48	87.7	92	6/26/2022	443.07	No Drought Stage	MIDDLESEX
CT0261031	CTWC - Shoreline Region-Chester System	448.94	95.5	102	6/30/2022	487.89	No Drought Stage	MIDDLESEX
CT0830021	Connecticut Valley Hospital	1224.35	98.3	104	6/27/2022	1308.93	No Drought Stage	MIDDLESEX
CT0608011	CTWC - Shoreline Region-Guilford System	132.04	91.8	95	6/30/2022	147.82	No Drought Stage	NEW HAVEN
CT1510011	Waterbury Water Department	359.51	94	98	6/19/2022	388.91	No Drought Stage	NEW HAVEN
CT0800011	Meriden Water Division	357.67	87.6	96	6/26/2022	334	No Drought Stage	NEW HAVEN
CT0880011	CTWC - Naugatuck Region-Central System	281.21	97.2	101	6/30/2022	285.53	No Drought Stage	NEW HAVEN
CT0930011	Regional Water Authority	391.65	91.7	100	6/26/2022	418.97	No Drought Stage	NEW HAVEN
CT1480011	Wallingford Water Department	549.72	90.8	106	7/1/2022	544.61	No Drought Stage	NEW HAVEN
CT1370011	Aquarion Water Co of CT-Mystic	91.42	100	102	6/5/2022	101.78	No Drought Stage	NEW LONDON
CT0580011	Jewett City Water Company	285.15	97.6	100	6/27/2022	242.58	No Drought Stage	NEW LONDON
CT0950011	New London Dept. of Public Utilities	265.3	81.5	105	7/3/2022	348.74	No Drought Stage	NEW LONDON
CT1040011	Norwich Public Utilities	301.22	93.5	104	7/2/2022	343.56	No Drought Stage	NEW LONDON
CT0590011	Groton Utilities	421.69	96.7	101	6/28/2022	430.27	No Drought Stage	NEW LONDON
CT1340011	CTWC - Northern Reg-Stafford System	207.76	98.4	99	6/30/2022	200.82	No Drought Stage	TOLLAND
CT1630011	Windham Water Works	73.42	100	100	7/3/2022	71.93	No Drought Stage	WINDHAM

Division of Emergency Management and Homeland Security: Long-Range Precipitation Outlook
Provided via email on 7/13/2022 by Doug Glowacki, DEMHS

During the next 16 days the GFS model is now forecasting above normal rainfall with a total of around 3" for Connecticut (see map below. Most of this rainfall is the result of afternoon shower and thunderstorm activity. This type of rainfall can be hit or miss. Toward the end of the month, the GFS model is indicating that a deep trough may form along the east coast. The trough could deliver more widespread rainfall, however troughs can be a magnet for tropical storms and hurricanes during the summer and fall.