

Drought Conditions Report

September 3, 2020

Connecticut Water Planning Council
Interagency Drought Workgroup

Stage 2 Drought Trigger Summary by County -- September 3, 2020

	Stage 2 Trigger	Fairfield	Hartford	Litchfield	Middlesex	New Haven	New London	Tolland	Windham	Data of Record
Precipitation	Two-month total below 65% of average	No	Yes	No	No	No	Yes	No	Yes	8/31/2020
Ground Water	Two out of three months below the 25th percentile	18%	40%	60%	57%	15%	40%	8%	67%	8/31/2020
Streamflow	Two out of three months below the 25th percentile	7.10%	72.70%	50%	25%	42.90%	20%	0%	40%	8/31/2020
Reservoirs	Average levels less than 80% of normal	Refer to DPH Report	Refer to DPH Report	Refer to DPH Report	Refer to DPH Report	Refer to DPH Report	Refer to DPH Report	Refer to DPH Report	Refer to DPH Report	9/2/2020
Palmer Drought Severity Index	-2.0 to -2.99	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	29-Aug-20
Crop Moisture Index	-1.0 to -1.99	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	29-Aug-20
VegDRI (seasonal)	Pre-drought conditions	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	30-Aug-20
Fire Danger	Moderate	No	Yes	Yes	No	No	No	Yes	Yes	2-Sep-20
U.S. Drought Monitor	D1-D2	No	Yes	No	No	No	Yes	Yes	Yes	1-Sep-20

Connecticut Precipitation
National Weather Service Offices
Boston/Norton MA, Albany NY, Upton NY
Preliminary Precipitation Data (inches) by County
Precipitation Data Through August 2020
Includes CoCoRaHS data

CT 1 Month August 2020	Rainfall	Departure	Percent	Normal
Litchfield	3.84	-0.55	87	4.39
Hartford	2.54	-1.80	58	4.34
Tolland	2.64	-1.33	66	3.97
Windham	2.46	-1.71	59	4.17
Fairfield	3.27	-1.18	74	4.45
New Haven	3.09	-0.86	78	3.95
Middlesex	3.31	-0.71	82	4.02
New London	2.21	-2.26	49	4.47

CT 2 month Jul-Aug 20	Rainfall	Departure	Percent	Normal
Litchfield	7.15	-1.82	80	8.97
Hartford	4.50	-4.41	50	8.91
Tolland	5.40	-2.50	68	7.90
Windham	4.96	-3.47	59	8.43
Fairfield	9.16	0.45	105	8.72
New Haven	6.68	-1.30	84	7.98
Middlesex	6.81	-1.59	81	8.40
New London	4.41	-3.78	54	8.19

CT 3 month Jun-Aug 20	Rainfall	Departure	Percent	Normal
Litchfield	9.33	-4.25	69	13.58
Hartford	6.18	-7.36	46	13.54
Tolland	7.83	-4.65	63	12.48
Windham	7.93	-4.84	62	12.77
Fairfield	11.05	-2.10	84	13.15
New Haven	9.18	-3.20	74	12.38
Middlesex	8.33	-5.03	62	13.36
New London	7.13	-5.13	58	12.26

CT 4 month May-Aug 20	Rainfall	Departure	Percent	Normal
Litchfield	12.59	-5.39	70	17.98
Hartford	9.05	-8.91	50	17.95
Tolland	10.95	-5.62	66	16.58
Windham	11.64	-5.15	69	16.79
Fairfield	13.51	-4.03	77	17.54
New Haven	12.07	-4.55	73	16.62
Middlesex	11.73	-5.85	67	17.58
New London	10.83	-5.20	68	16.03

CT 5 month Apr-Aug 20	Rainfall	Departure	Percent	Normal
Litchfield	17.55	-4.63	79	22.18
Hartford	13.96	-8.31	63	22.26
Tolland	16.45	-4.74	78	21.19
Windham	17.02	-4.36	80	21.38
Fairfield	18.79	-3.19	85	21.98
New Haven	17.73	-3.26	84	20.99
Middlesex	17.74	-4.26	81	22.00
New London	15.72	-4.86	76	20.58

CT 6 month Mar-Aug 20	Rainfall	Departure	Percent	Normal
Litchfield	21.21	-5.12	81	26.34
Hartford	18.02	-8.35	68	26.37
Tolland	20.65	-4.88	81	25.53
Windham	21.21	-4.62	82	25.83
Fairfield	22.50	-3.83	85	26.34
New Haven	21.98	-3.37	87	25.34
Middlesex	22.09	-4.27	84	26.35
New London	20.12	-5.32	79	25.45

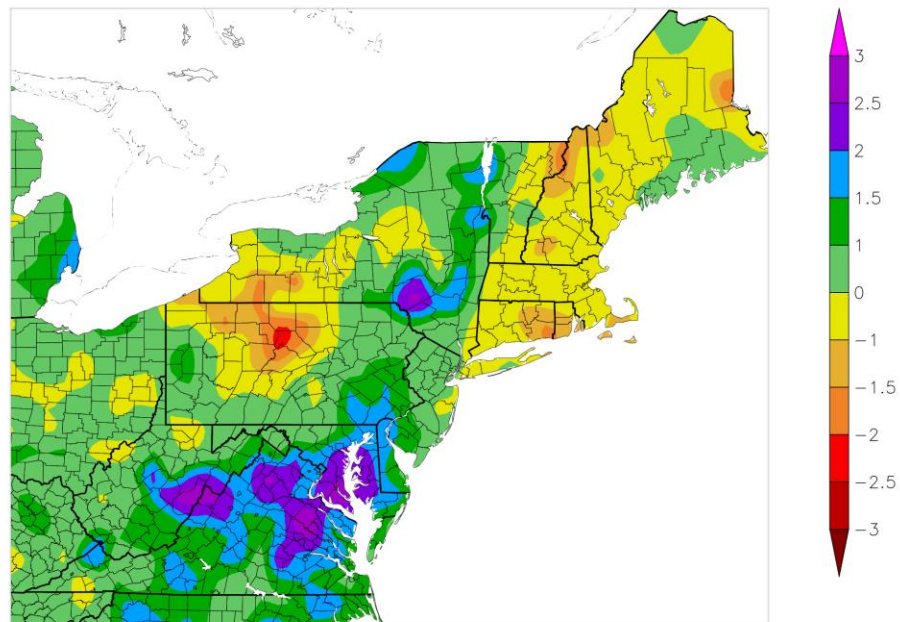
CT 7 month Feb-Aug 20	Rainfall	Departure	Percent	Normal
Litchfield	24.46	-5.20	82	29.66
Hartford	21.65	-7.99	73	29.64
Tolland	24.03	-4.84	83	28.88
Windham	24.53	-4.59	84	29.12
Fairfield	25.86	-3.58	88	29.43
New Haven	25.62	-2.88	90	28.50
Middlesex	25.80	-3.90	87	29.69
New London	23.68	-5.17	82	28.86

CT 12 month Sep 19-Aug 20	Rainfall	Departure	Percent	Normal
Litchfield	47.00	-3.72	93	50.72
Hartford	43.11	-7.74	85	50.84
Tolland	45.69	-4.37	91	50.06
Windham	45.77	-4.40	91	50.17
Fairfield	46.57	-3.64	93	50.21
New Haven	47.10	-1.59	97	48.69
Middlesex	47.56	-3.60	93	51.16
New London	45.92	-3.98	92	49.89

CT 24 month Sep 18-Aug 20	Rainfall	Departure	Percent	Normal
Litchfield	107.10	5.66	106	101.44
Hartford	105.32	3.63	104	101.69
Tolland	109.99	9.86	110	100.13
Windham	113.16	12.81	113	100.35
Fairfield	112.72	12.30	112	100.42
New Haven	112.83	15.46	116	97.38
Middlesex	113.50	11.18	111	102.32
New London	114.38	14.60	115	99.79

CT 36 month Sep 17-Aug 20	Rainfall	Departure	Percent	Normal
Litchfield	162.20	10.04	107	152.16
Hartford	157.92	5.39	104	152.53
Tolland	163.58	13.39	109	150.19
Windham	167.26	16.74	111	150.52
Fairfield	165.98	15.35	110	150.63
New Haven	163.32	17.26	112	146.06
Middlesex	166.19	12.71	108	153.48
New London	164.83	15.15	110	149.68

Monthly SPI 8/1/2020 – 8/31/2020

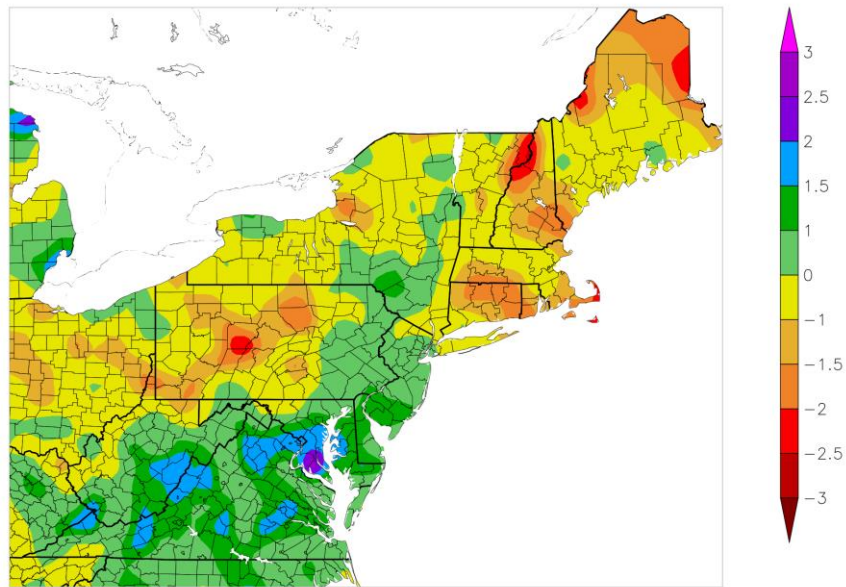


Generated 9/2/2020 at HPRCC using provisional data.

NOAA Regional Climate Centers

Map 1. August 2020 SPI.

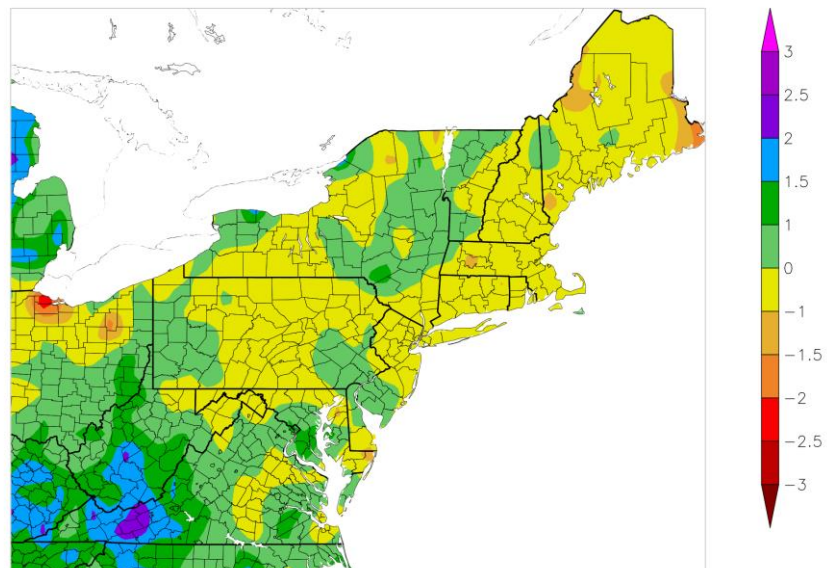
3-Month SPI 6/1/2020 – 8/31/2020



Generated 9/2/2020 at HPRCC using provisional data. NOAA Regional Climate Centers

Map 2. Three month SPI ending August 2020.

12-Month SPI 9/1/2019 – 8/31/2020



Generated 9/2/2020 at HPRCC using provisional data. NOAA Regional Climate Centers

Map 3. Twelve month SPI ending August 2020.

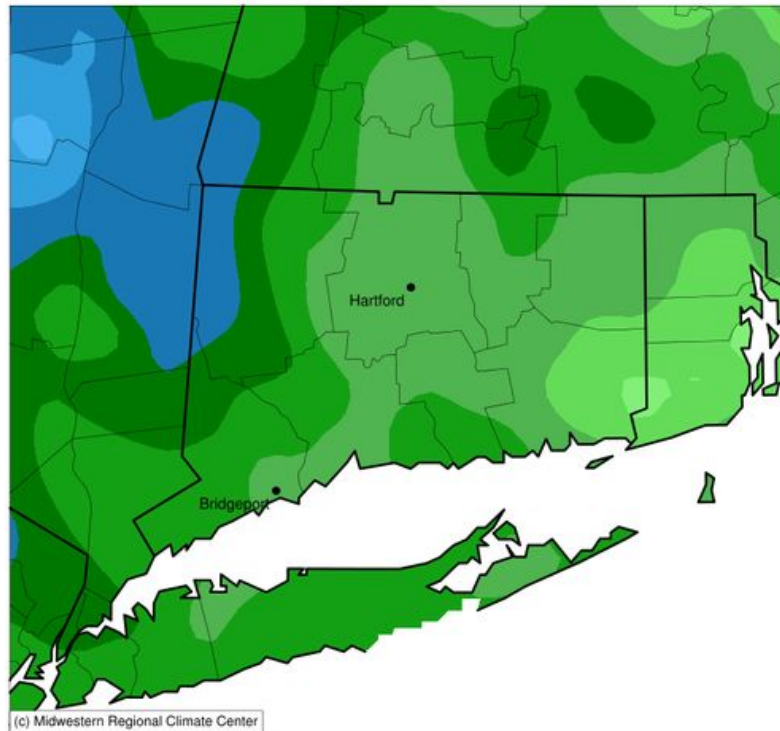
NWS Conditions Update

Connecticut Interagency Drought Workgroup Meeting
National Weather Service Boston MA and Albany NY
September 3rd 2020



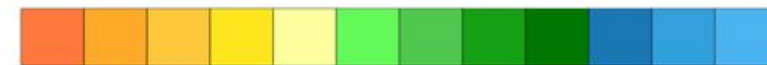
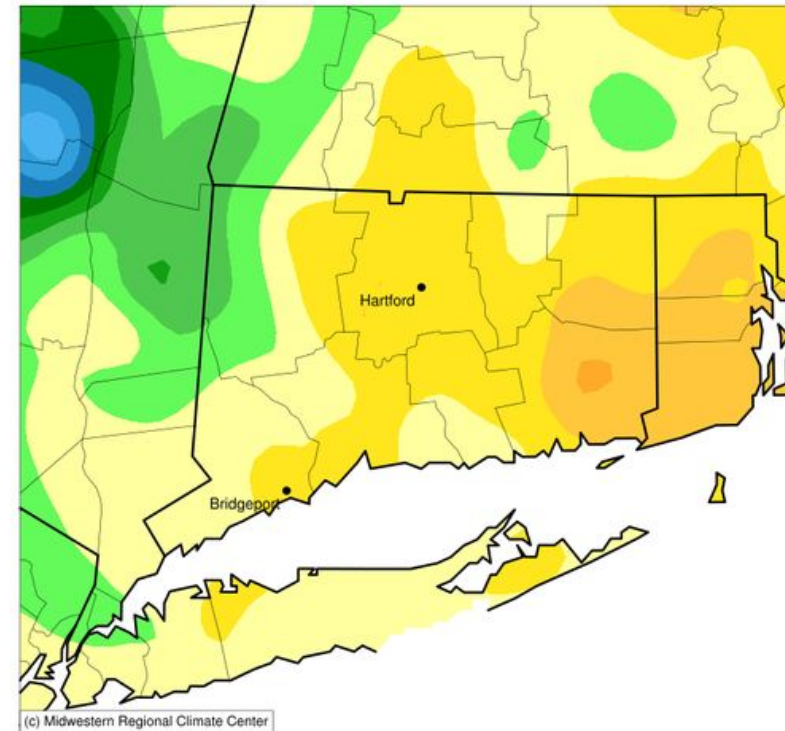
August 2020 Rainfall

Accumulated Precipitation (in)
August 01, 2020 to August 31, 2020



0.01 0.1 0.5 1 1.5 2 3 4 5 7.5 10 12.5 15
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: 9/2/2020 1:49:16 PM CDT

Accumulated Precipitation (in): Departure from 1981-2010 Normals
August 01, 2020 to August 31, 2020



-4 -3 -2 -1 0 1 2 3 4 5 6
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
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Middlesex	8.33	-5.03	62	13.36
New London	7.13	-5.13	58	12.26

Defining Criteria for a **Stage 2 Incipient Drought**:
2 Month precipitation <65% of normal

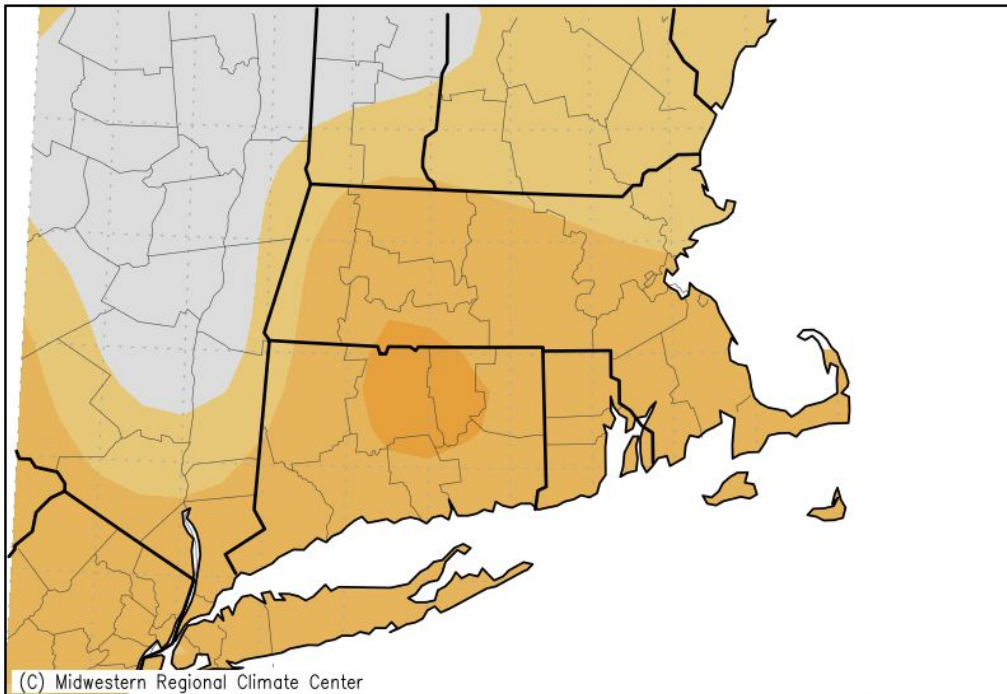
Hartford, Windham and New London Counties meet the above criteria for **Stage 2**

Defining Criteria for a **Stage 3 Moderate Drought**:
3 Month precipitation <65% of normal

Hartford, Tolland, Windham, Middlesex and New London Counties meet the above criteria for **Stage 3**

Continued Heat during August...

Average Temperature (°F): Departure from Mean
August 1, 2020 to August 31, 2020



Mean period is 1981–2010.



Midwestern Regional Climate Center

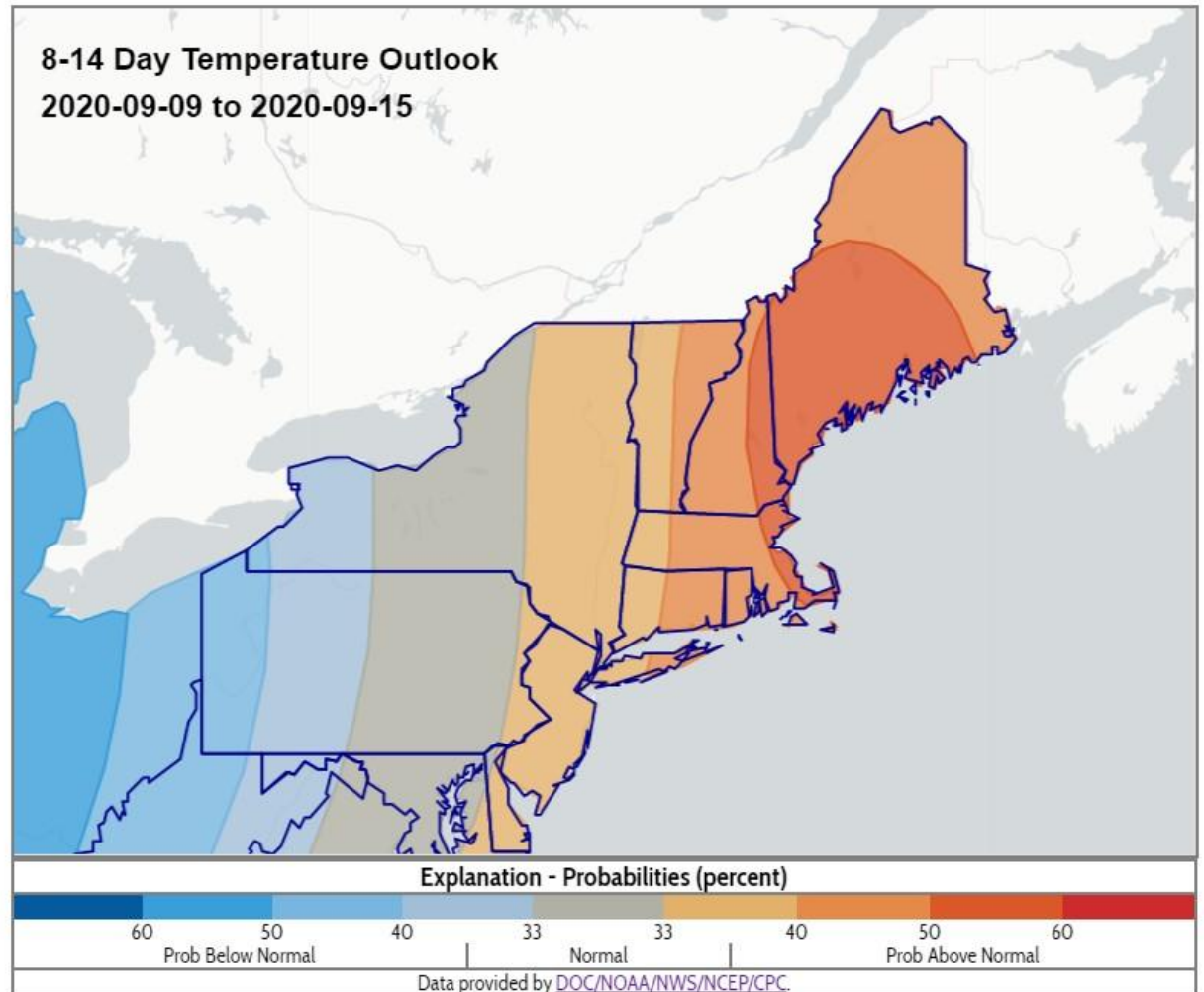
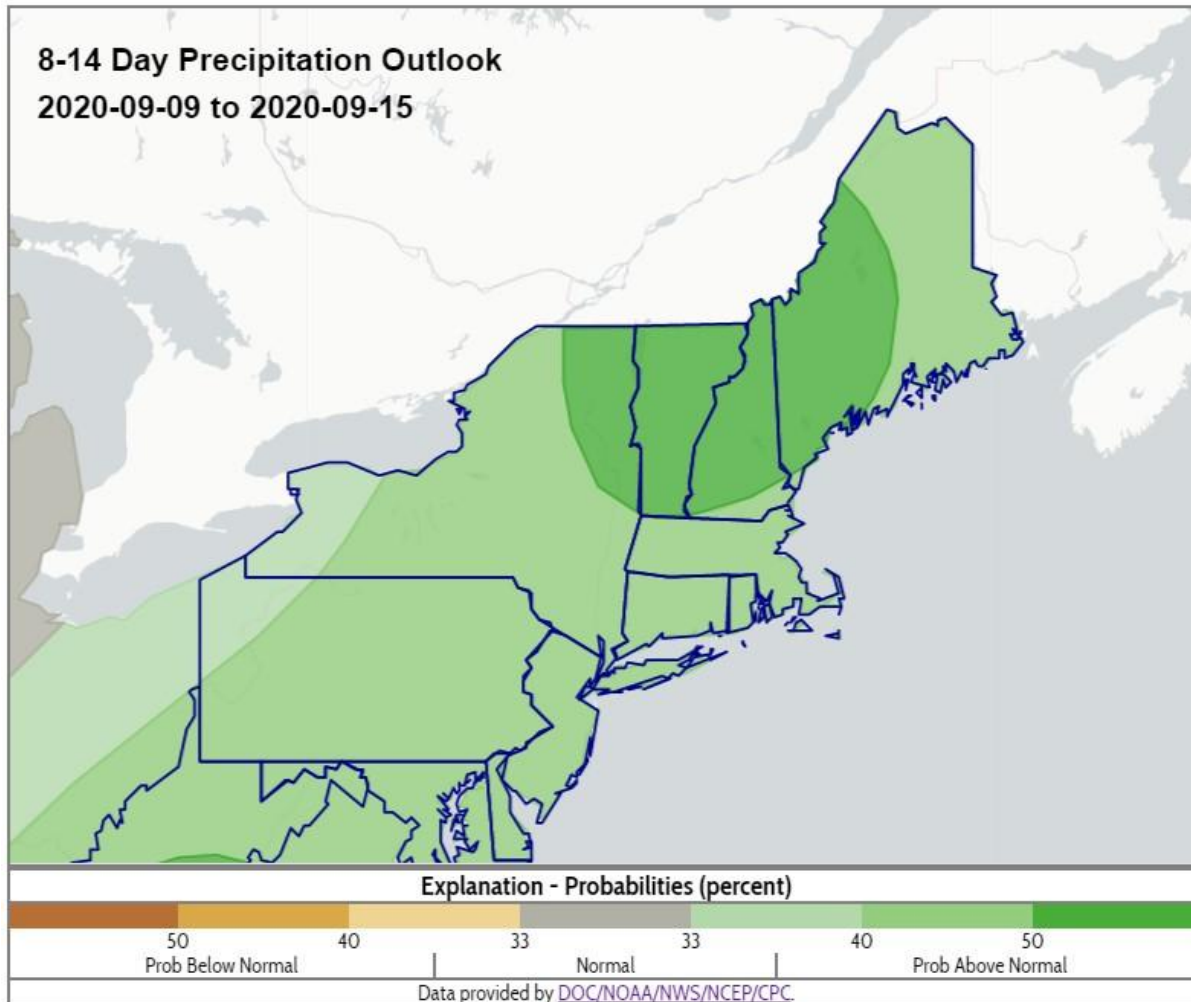
cli-MATE: MRCC Application Tools Environment

All information below is preliminary...

- **Bridgeport:**
 - 3rd hottest August on record.
 - 2nd hottest summer on record.
- **Hartford:**
 - 7th hottest August on record.
 - Tied hottest summer on record.
(also driest summer on record*)
- **Storrs:**
 - 6th hottest August on record.
 - Within top 3 hottest summers on record.
- **Norfolk:**
 - 10th hottest August on record.
 - Hottest (and 10th driest) summer on record.

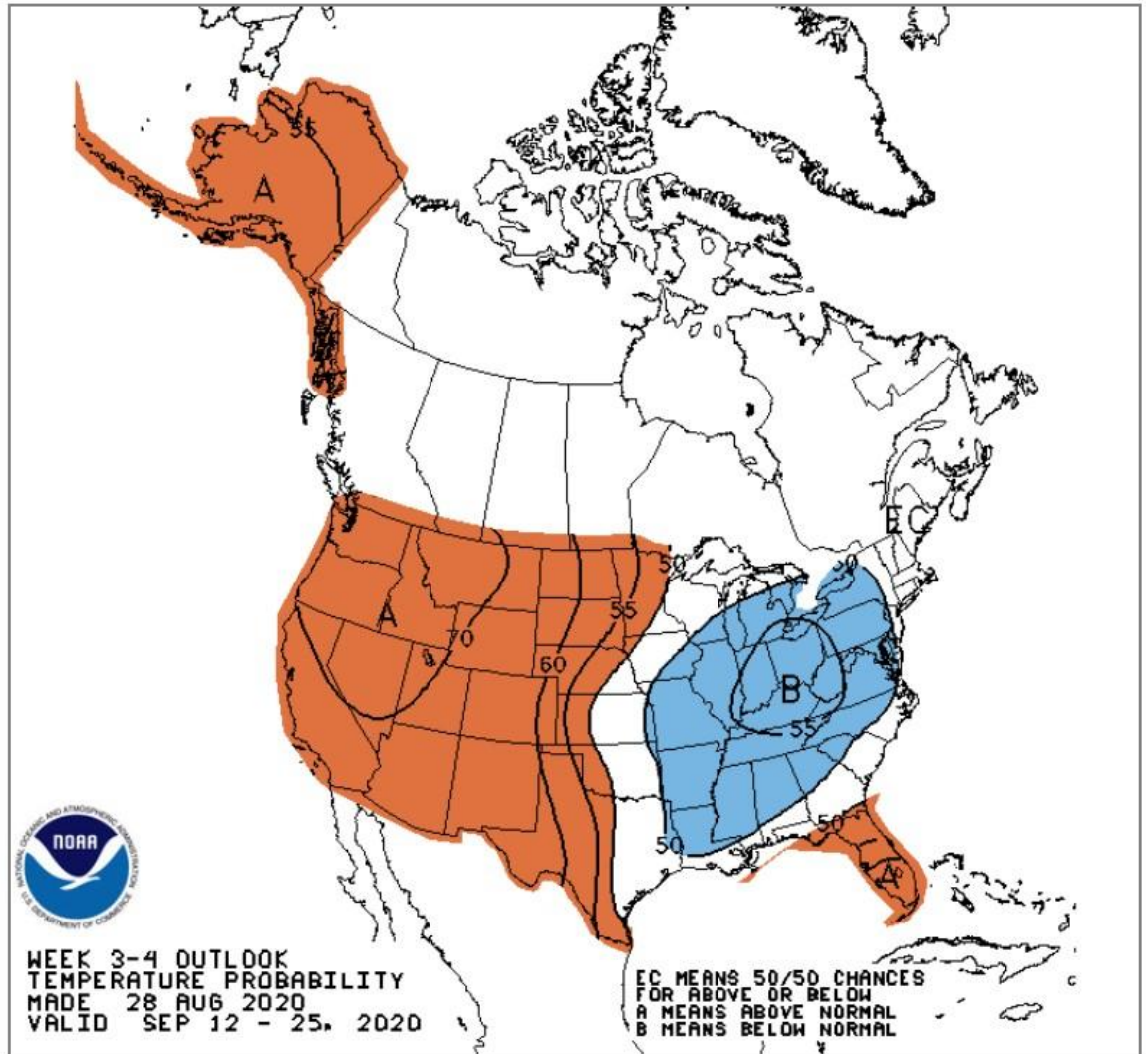
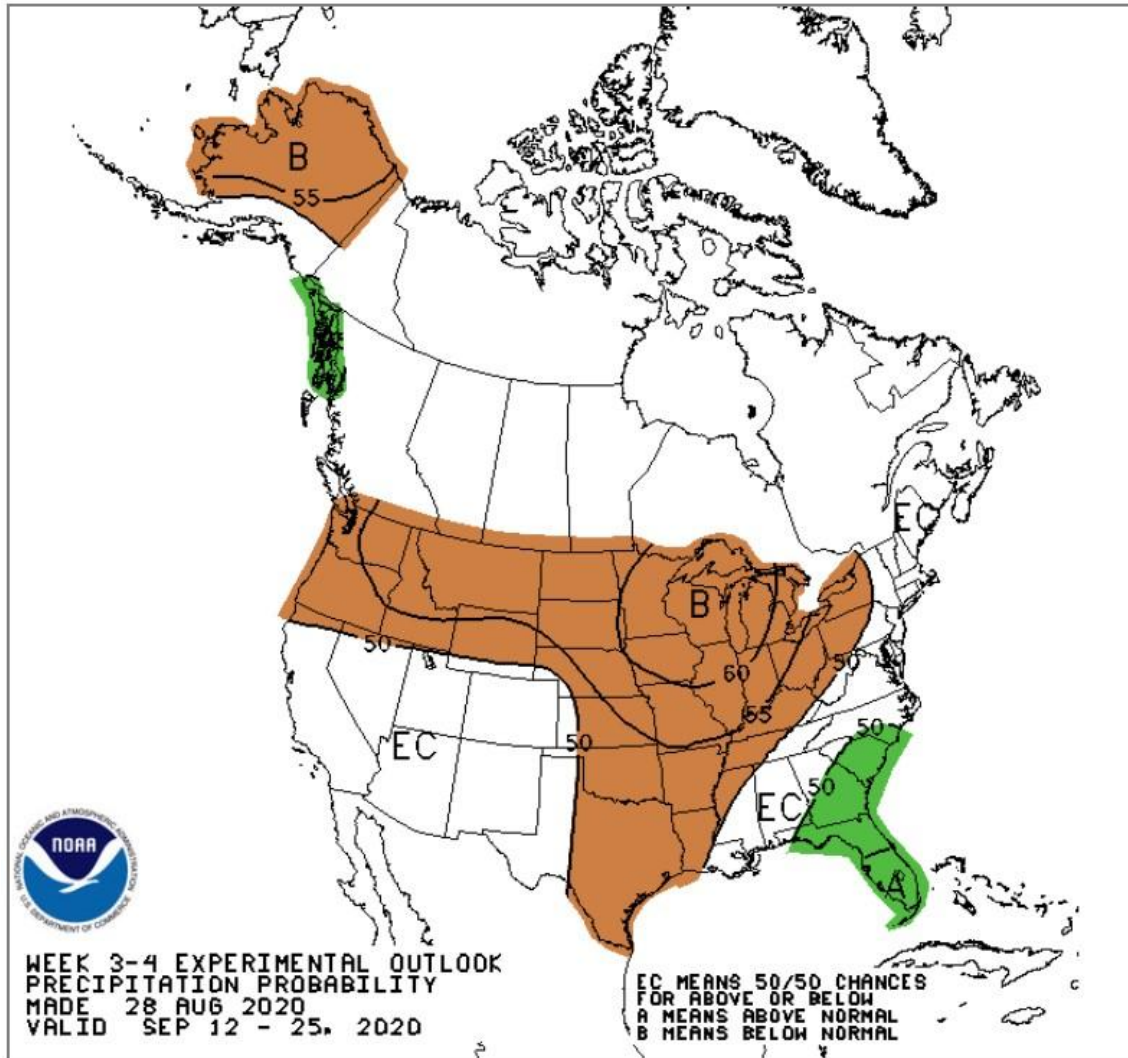
* possible low bias, lowest reported total rainfall for the state

Outlook for Sept 9-15 2020

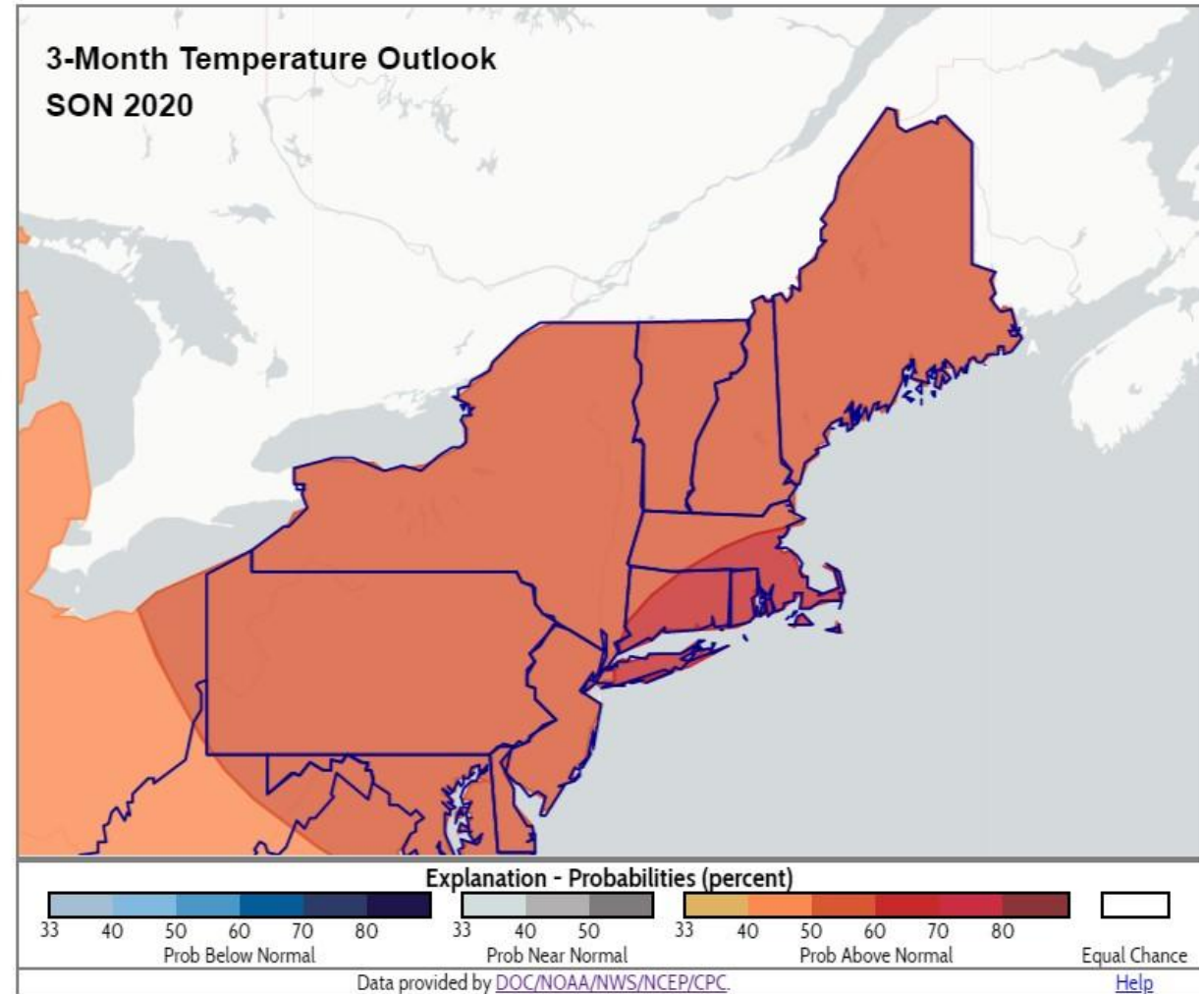
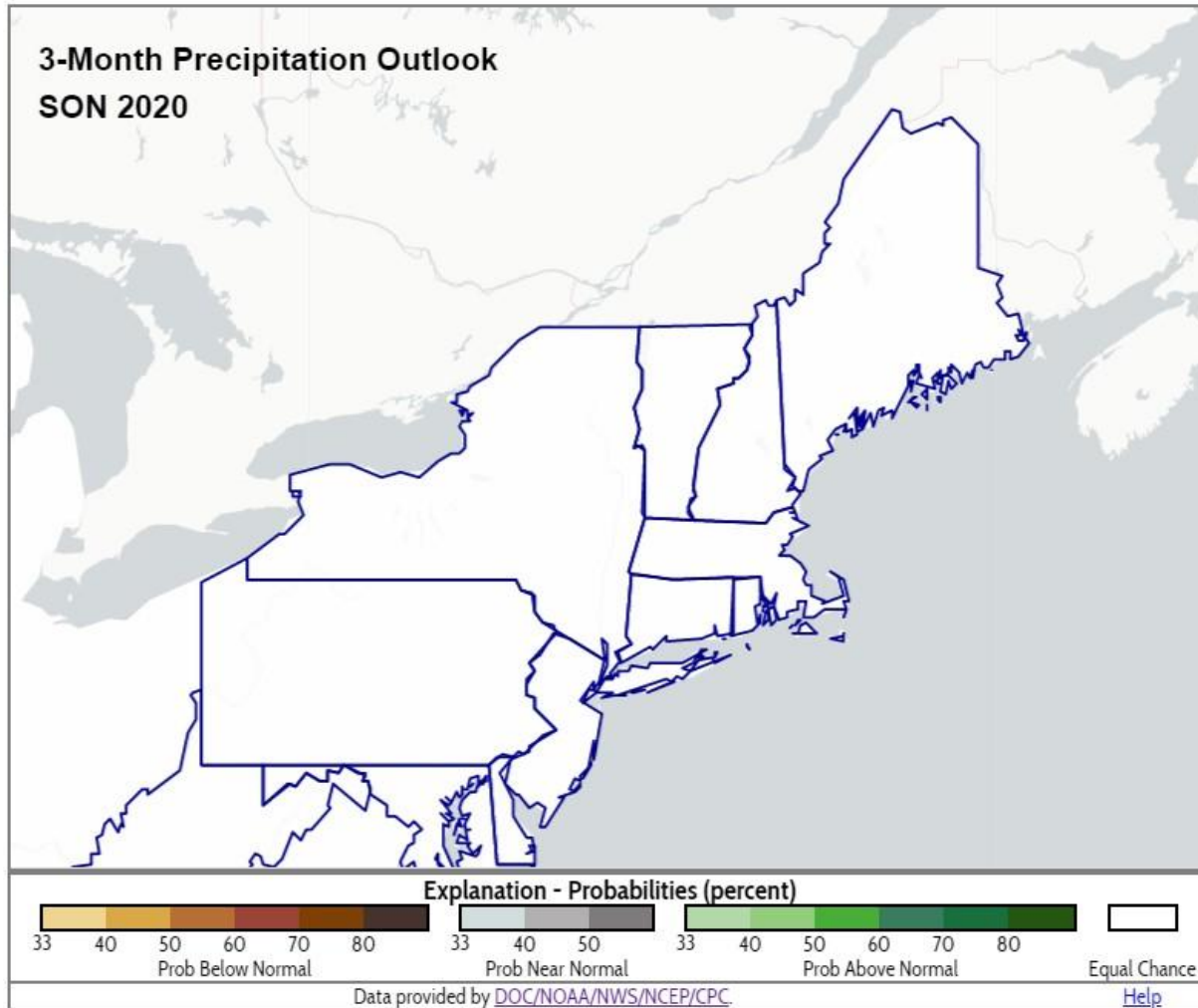


Week 3-4 Outlook*, Sept 12-25

*Outlook updated at 3 pm EDT Friday



3 Month Outlook- Sep/Oct/Nov



NWS Update for Connecticut Interagency Drought Workgroup
September 2, 2020
NWS Boston/Albany Summary

Past precipitation:

Based on preliminary observations (not all stations reporting), the biggest winner for August rainfall was Litchfield County, though even 3.84 average inches only placed it at 87 percent of normal precipitation. Middlesex County came in next at 3.31 inches and 82 percent of normal. Fairfield and New Haven Counties fared okay, with percentages of normal in the 70s and rainfall totals of 3.27 and 3.09 inches, respectively. Hartford, Tolland, Windham and New London Counties fared the poorest, with rainfall totals around two and a half inches, which equates to about 66 to 49 percent of normal precipitation.

A couple of nuances in the July rainfall were noted within 2 portions of the State. Far western Litchfield County had higher rainfall totals of over 5 inches, much higher than the eastern portion of that County. Also far southeastern New London County saw significantly lower rainfall than the rest of the county, with monthly rainfall of one to one and a half inches.

Several counties continue to meet the criteria for Stage 2 Incipient Drought (rainfall <65% of normal in 2 months) or Stage 3 Moderate Drought (rainfall <65% of normal in 3 months):

Counties meeting Stage 2 criteria for July-August: Hartford, Windham and New London. Counties that met this criteria last month but no longer do: Litchfield, Tolland and Middlesex Counties

Counties meeting Stage 3 criteria for June-August: Hartford, Tolland, Windham, Middlesex and New London Counties. Counties that met this criteria last month but no longer do: Litchfield County

Note: August data is from 122 sites, including NWS Coop observers, ASOS and CoCoRaHS. Only sites with the full month's worth of data, or limited 1-3 days missing on zero precip days, were included. (Since the data was pulled together very early this month, we had a few less totals than usual- not everyone had all their rainfall data in as of the morning of September 2nd.) Monthly rainfall totals are grouped by county and averaged. NWS monthly "normals" at 41 stations across the State are averaged to determine monthly normals by county. The most recent NWS normals utilize data between 1981 and 2010. At the end of 2020, new normals will be calculated, using the period of 1991 to 2020.

August Temperatures:

August 2020 continued the hot summer in Connecticut. Preliminary rankings follow for some stations with long-standing records:

-Bridgeport CT:

3rd hottest August on record and 2nd hottest summer on record. Records go back to 1948.

-Hartford CT:

7th hottest August on record and tied for hottest summer on record. Records go back to 1905.

-Storrs CT:

6th hottest August on record and in the top 3 hottest summers on record. Records go back to 1888.

-Norfolk CT:

10th hottest August on record and hottest summer on record. Records go back to 1932.

Forecast Rainfall and Temperatures:

Rainfall is expected to be below normal through next Tuesday, with above normal rain possible during the week 2 outlook.

- The best chance for rain in the near term will be Thursday night, under a half inch of rain is expected.
- Otherwise mainly dry weather prevails through next Tuesday.
- The outlook for September 9 to 15 from the Climate Prediction Center indicates above normal rainfall is probable during this period.

Overall temperatures in both the short term and long range (fall) are expected to average above normal to normal.

- Temperatures are expected to average above normal during Thursday and Friday, then near normal through next Tuesday.
- Looking further ahead to September 9-15, the Climate Prediction Center indicates warmer than normal temperatures are likely for the area.
- Temperatures will likely average above normal for much of the fall.

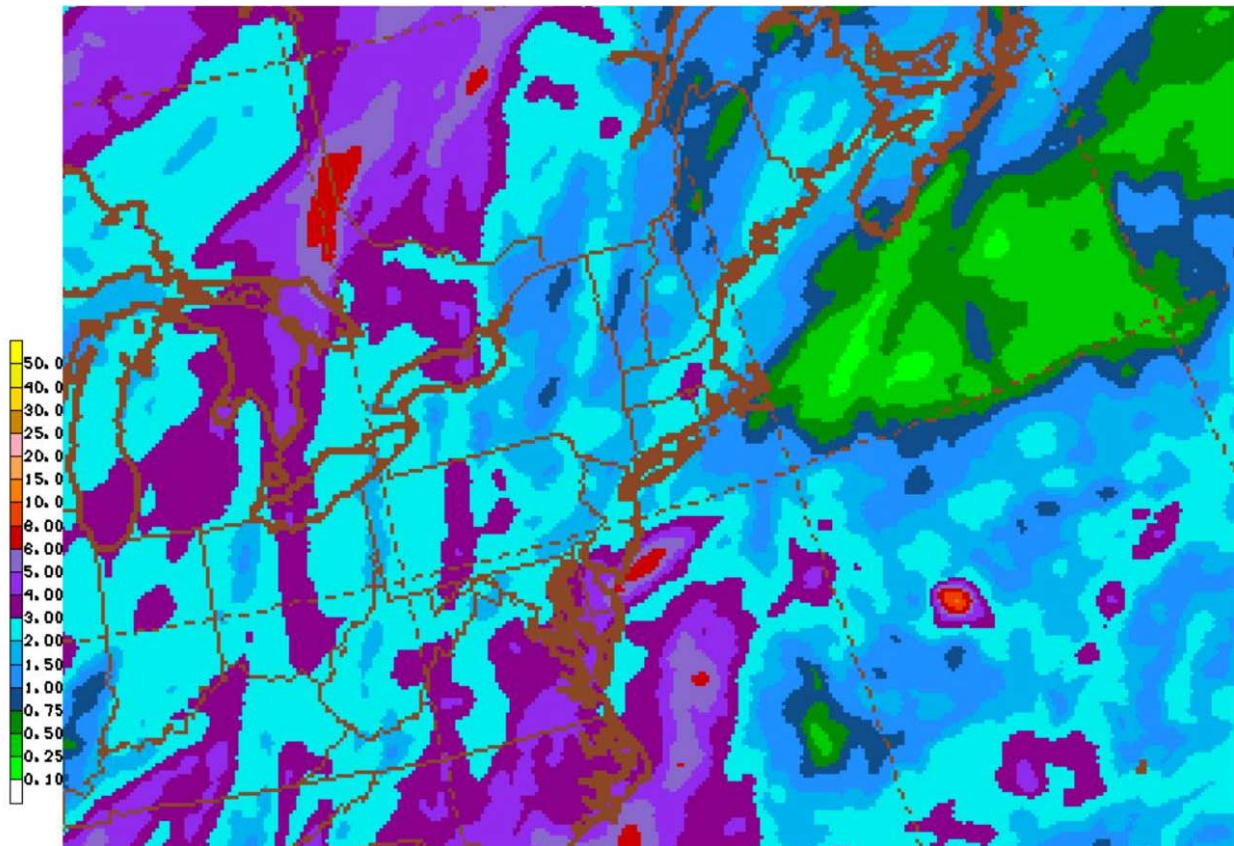
From: [Glowacki, Douglas](#)
To: [Lindquist, Eric](#); [Aarrestad, Peter](#); [Anderson, Stephen](#); [Baran, Robert](#); [Belk, Nicole](#); [Bellucci, Christopher](#); [Bergeson, Brenda](#); [Belkowski, John](#); [Cohen, Jason](#); [Dumais, Kenneth](#); [Dunham, Alan](#); [Fitting, Corinne](#); [Foreman, William](#); [Furbush, Nancy](#); [Grady, Kevin](#); [Harkey, Steven](#); [Heft, Martin](#); [Hochholzer, Helene](#); [Hoskins, Douglas](#); [Hurlburt, Bryan](#); [Imulane@usgs.gov](#); [Kenny, Robert](#); [King-Corbin, Linda](#); [Matheu, Lori](#); [McAuliffe, Elizabeth](#); [Morley, Dan D.](#); [Morrison, Jon](#); [Nguyen, Quat](#); [Pafford, Matthew](#); [Perry, Jennifer](#); [Reeves, Sylvia](#); [Sargent, Timothy](#); [Smith, Jaime](#); [Smith, Laverne](#); [Slarn, Jeffrey](#); [Stevens, Graham](#); [Stewart, Rita](#); [Soul, Maria](#); [Tetreault, Ryan](#); [Troxbridge, Philip](#); [Westergard, Britt](#); [Wingfield, Betsy](#); [Willchen, Bruce](#)
Cc: [Bao, Vandana \(GEA\)](#); [Crawley, Kathleen \(DOA\)](#)
Subject: 14-Day Precipitation Outlook
Date: Wednesday, September 2, 2020 4:18:39 PM

Good Afternoon,

Rainfall for the next two weeks looks slightly above normal with the GFS model generally showing 1.5 – 3.0” inches of rainfall across our area (see below). Most of this rainfall is associated with a deep trough that is forecast to form across the eastern U.S. from the middle to end of next week. The trough is forecast to deliver a soaking rainfall to states east of the Mississippi. One concern is that if any tropical storms or hurricanes form or move close to the U.S. east coast next week they could get pulled into the trough and sent up the east coast. At this time there are no significant threats, but I will be keeping an eye on any potential development in the Bahamas or Caribbean next week.

Sincerely,

Douglas W. Glowacki
Emergency Management Program Specialist
DESPP / DEMHS
1111 Country Club Road, Middletown CT
Cell: 860-250-2358

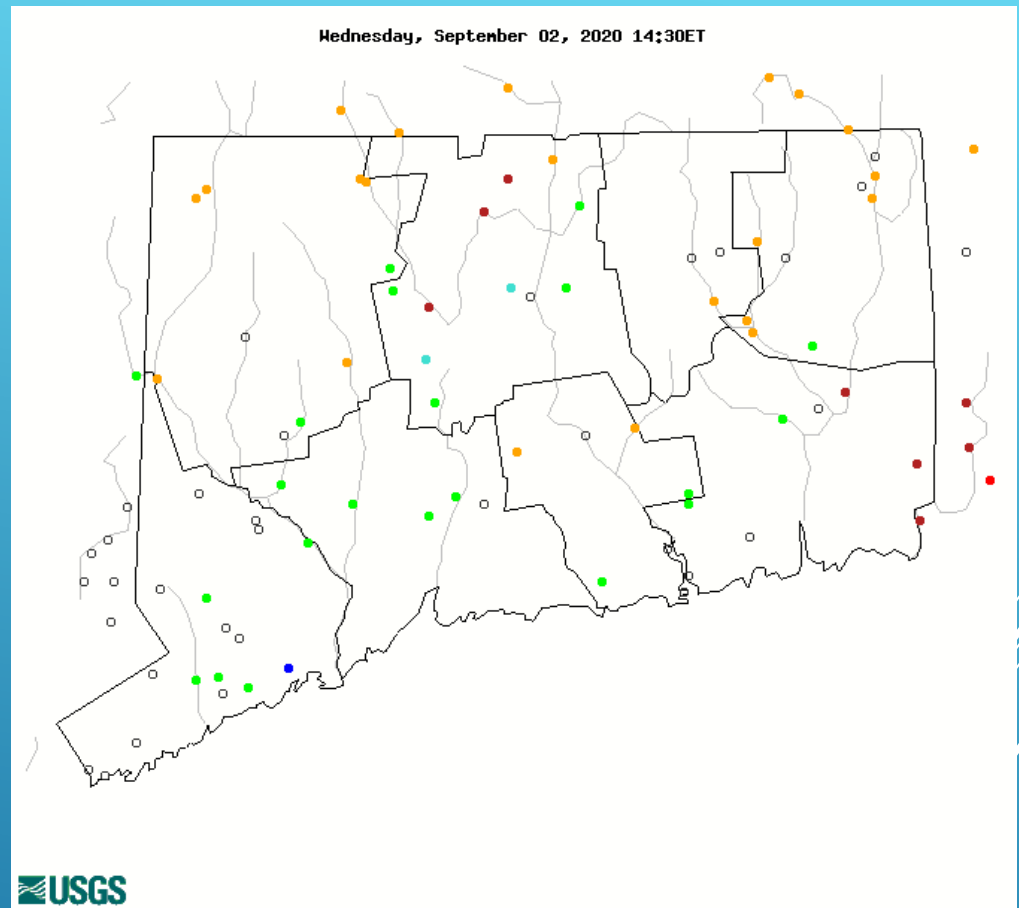




U.S. Geological Survey

**Status of streamflow
and groundwater levels,
as of September 2, 2020**

DAILY STREAMFLOW CONDITIONS










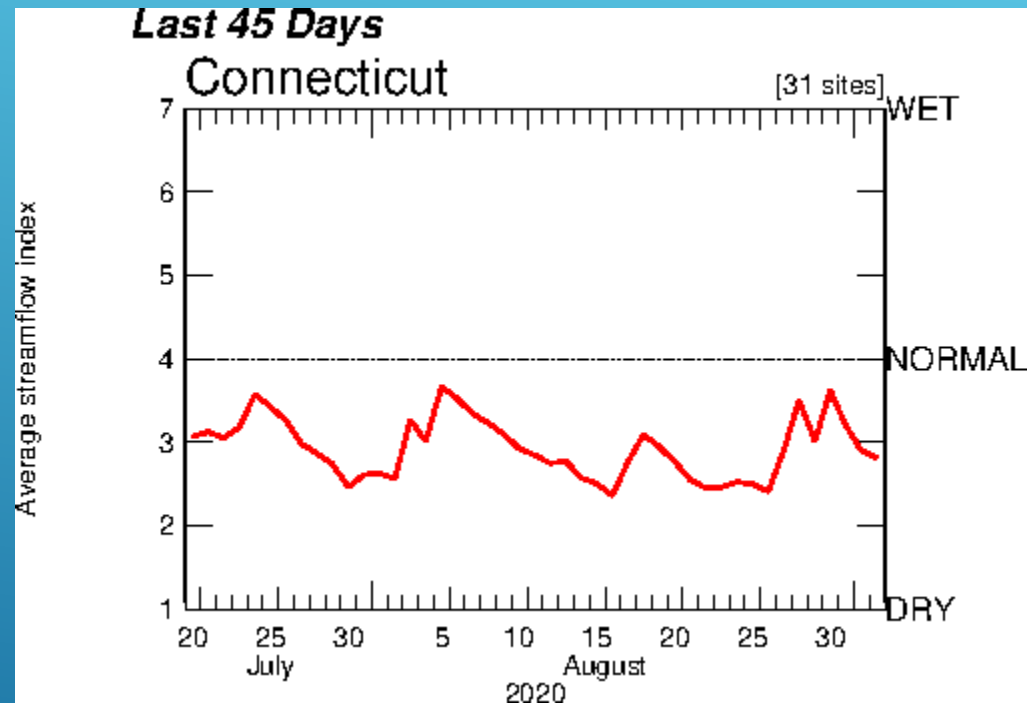
Explanation - Percentile classes						
Low	<10	10-24	25-75	76-90	>90	High
	Much below normal	Below normal	Normal	Above normal	Much above normal	
1	2	3	4	5	6	7

[https://waterwatch.usgs.gov/?m=real
&r=ct&w=map](https://waterwatch.usgs.gov/?m=real&r=ct&w=map)

https://waterwatch.usgs.gov/index.php?r=ct&id=real&sid=w__plot

CONNECTICUT STREAMFLOW TREND

Explanation - Percentile classes						
						
Low	<10	10-24	25-75	76-90	>90	High
	Much below normal	Below normal	Normal	Above normal	Much above normal	
1	2	3	4	5	6	7



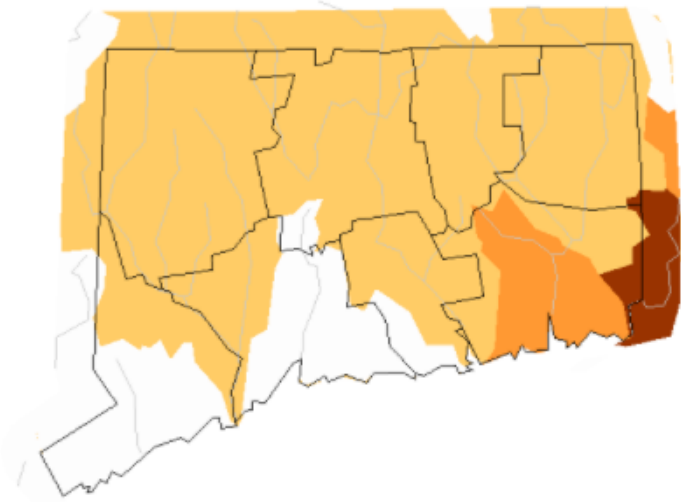
Streamflow trending below
normal on a statewide basis

Basins with below
normal streamflow
during the last 7
days

Map of below normal 7-day average streamflow compared
to historical streamflow for the day of year (Connecticut)

Connecticut

Tuesday, September 01, 2020



Click map to obtain more detailed drought information for the state

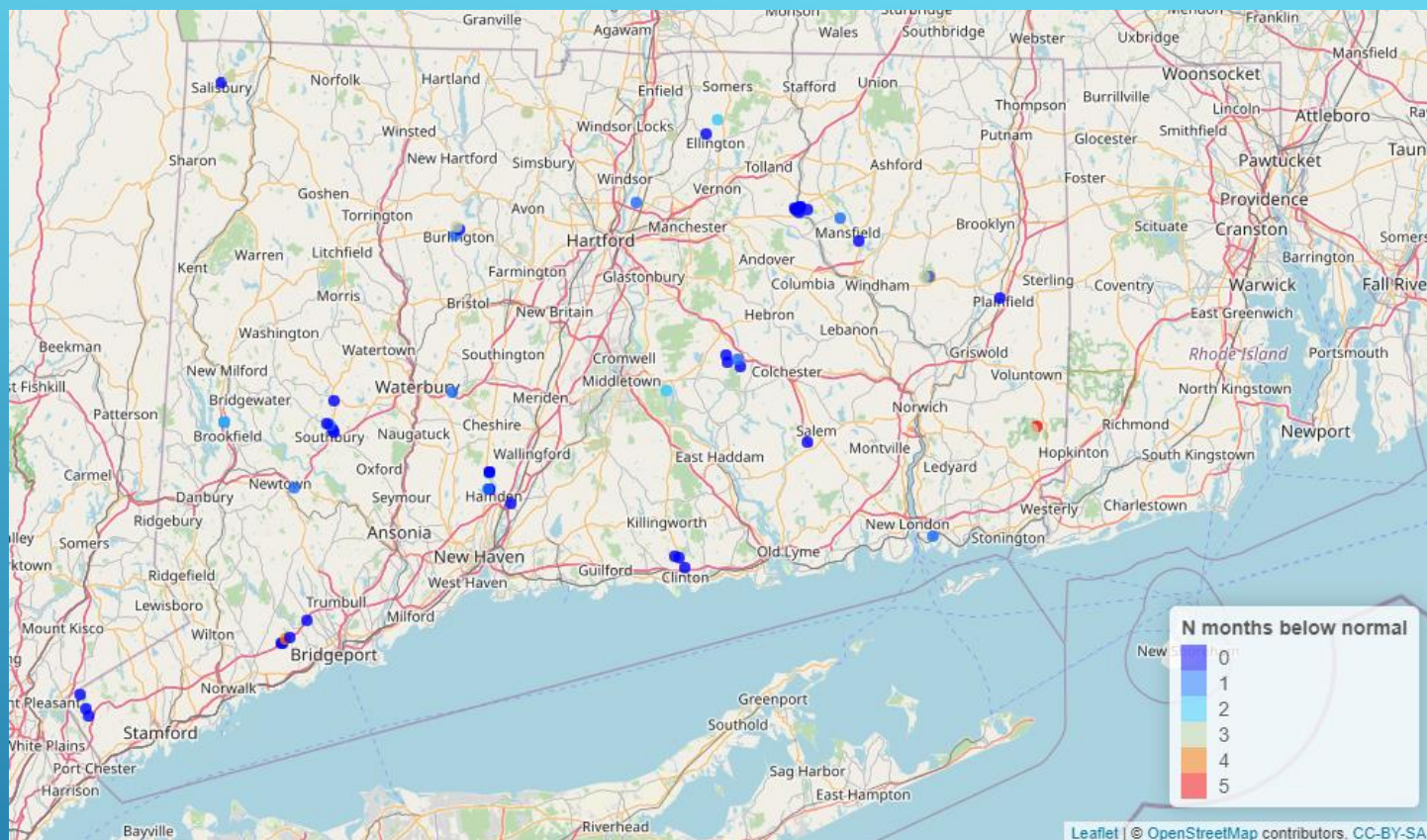
Explanation - Percentile classes			
Low	<=5	6-9	10-24
Extreme hydrologic drought	Severe hydrologic drought	Moderate hydrologic drought	Below normal

STREAMFLOW CONDITIONS

<https://waterwatch.usgs.gov/index.php?m=dryx&r=ct>



Provisional data, subject to review and revision



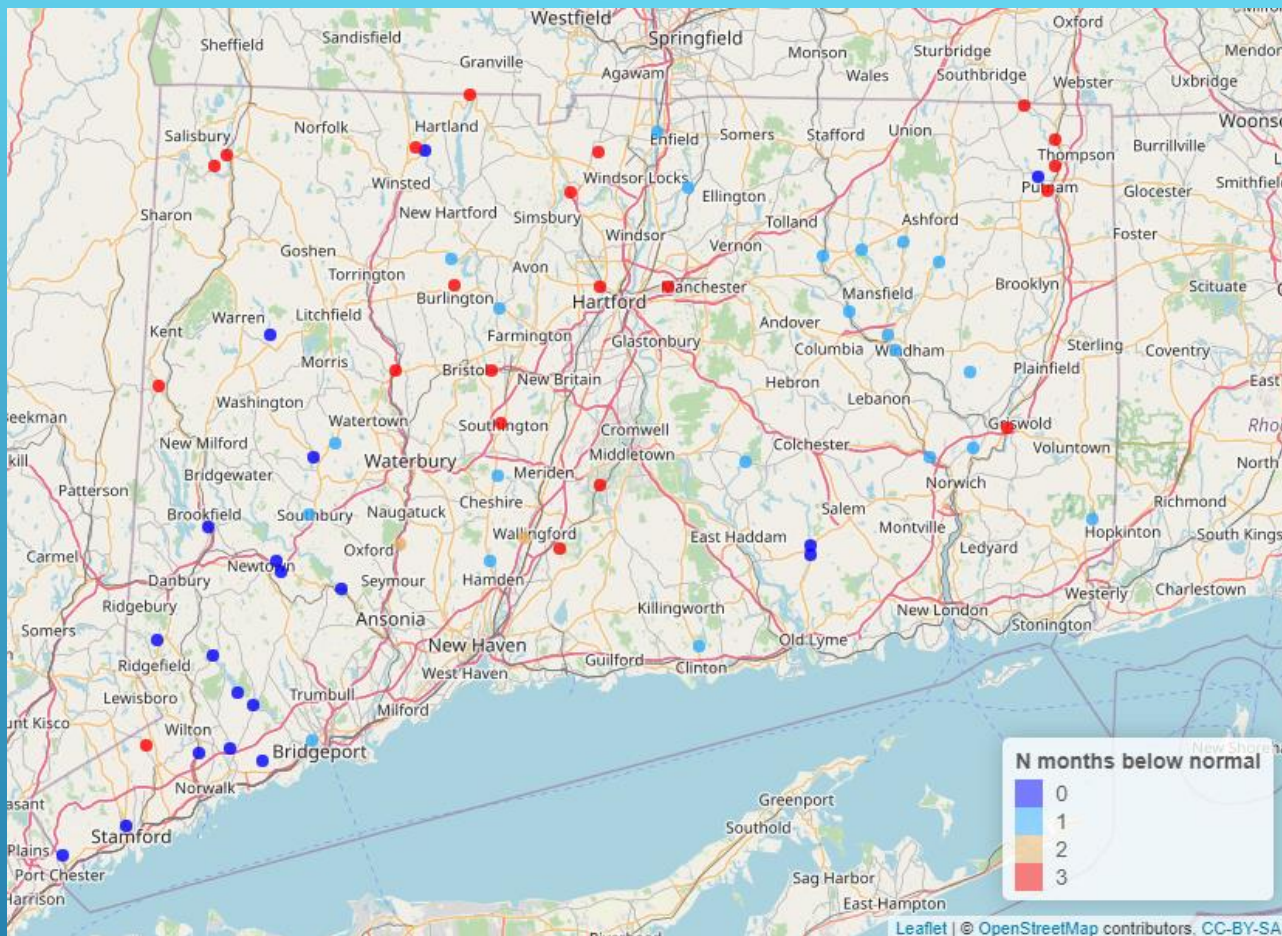
CONSECUTIVE MONTHS OF BELOW NORMAL GROUNDWATER LEVELS (<25 PERCENTILE), AUGUST 2020

County	Number of wells	Number of wells below normal for 2 or more consecutive months		Percent
Fairfield	11	2		18.2
Hartford	10	4		40
Litchfield	5	3		60
Middlesex	7	4		57.1
New Haven	13	2		15.4
New London	5	2		40
Tolland	12	1		8.3
Windham	6	4		66.7

END OF AUGUST 2020 SUMMARY BY COUNTY



Provisional data, subject to review and revision



CONSECUTIVE MONTHS OF BELOW NORMAL STREAMFLOW (<25 PERCENTILE), AUGUST 2020

County	Number of gages	Number with median flows below normal for 2 or more consecutive months	percent
Fairfield	14	1	7.1
Hartford	11	8	72.7
Litchfield	10	5	50
Middlesex	4	1	25
New Haven	7	3	42.9
New London	5	1	20
Tolland	3	0	0
Windham	10	4	40

AUGUST STREAMFLOW SUMMARY BY COUNTY



Provisional data, subject to review and revision

Department of Agriculture – Drought Status Report

Parameter	Reported Conditions			
	As of 8/23/2020		Current Conditions (9/2/2020)	
	Report Date	Status	Report Date	Status
Palmer Drought Severity Index (map)	8/22/2020	No change, northwest still shown as severe, rest of the state in moderate drought	8/29/2020	Improved, entire state now shows moderate drought
Palmer drought severity index (data)	8/22/2020	Northwest: -3.18 Central: -2.61 Coastal: -2.41	8/29/2020	Northwest: -2.90 Central: -2.44 Coastal: -2.40
Precipitation needed to end drought (in.)	8/22/2020	Northwest: 8.41 Central: 7.04 Coastal: 6.86	8/29/2020	Northwest: 7.82 Central: 6.73 Coastal: 7.07
Crop Moisture (current map)	8/22/2020	All except coastal shown as excessively dry, coastal is shown as abnormally dry.	8/29/2020	Improved, entire state now showing abnormally dry
Topsoil moisture (current map)	8/16/2020	Some improvement with 32% of the state as short-very short on moisture in top 6 inches of soil	8/30/2020	No change, still shows 32% of the state as short-very short on moisture in top 6 inches of soil
Topsoil moisture (current vs. 5 yr. mean)	8/16/2020	Improved, now shows 32% short-very short, compared to a 5 yr mean of 30%	8/30/2020	Improved, now shows 32% short-very short, compared to a 5 year mean of 40% - this says we are wetter than the 5 yr mean
Veg DRI (% of CT land area shown as pre-drought, moderate, severe or extreme)	8/23/2020	Veg DRI shows another degradation this week. Most notably the % of land mass reporting near normal conditions has dropped significantly over the last couple weeks, from 70% on 8/9, to now (8/23) reporting only 8% of our land mass with near normal conditions.	8/30/2020	Veg DRI shows some improvement this week, with the % of land mass reporting near normal conditions moving up from 8% last week to over 12% this week.
Drought Monitor Report for CT	8/18/2020	Drought monitor shows worsening conditions, with severe drought showing in the northern counties of CT.	8/25/2020	Drought monitor still shows severe drought in northern counties of the state. The 8/25 report also shows more of the state in severe drought than was the case on 8/18 (24.83 vs. 18.93% of land area, respectively).
NASS Crop Progress Report (New England)	8/17/2020	Shows a slight improvement regionally. Topsoil moisture supplies were 19 percent very short, 26 percent short, 55 percent adequate. Subsoil moisture supplies were 14 percent very short, 30 percent short, 56 percent adequate.	8/30/2020	Shows no significant change regionally, with 52% adequate for topsoil, 55% adequate for subsoil.

Summary: Data still show dry conditions throughout the state, but several of these indicators (i.e., palmer drought and crop moisture, topsoil moisture as compared to 5 year mean, and Veg DRI) seem to be improving.

Explanatory notes:

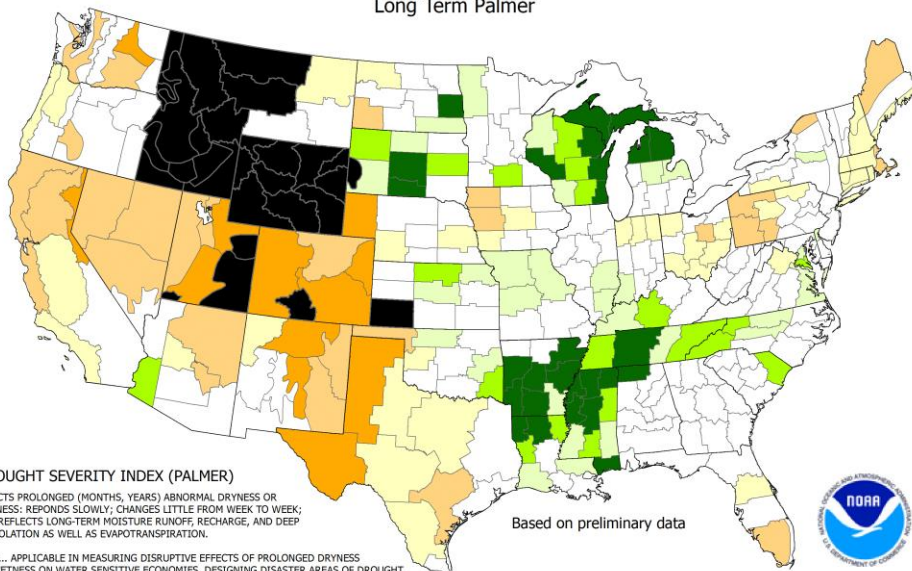
Palmer Drought Severity Index: The Palmer Drought Severity Index (PDSI) uses readily available temperature and precipitation data to estimate relative dryness. It is a standardized index that generally spans -10 (dry) to +10 (wet). Maps of operational agencies like NOAA typically show a range of -4 to +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://vegdril.unl.edu/Home/VegDRITables.aspx?CT>.

Drought Severity Index by Division
Weekly Value for Period Ending Aug 29, 2020
Long Term Palmer

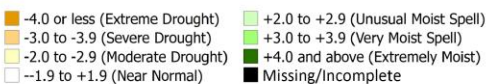


DROUGHT SEVERITY INDEX (PALMER)

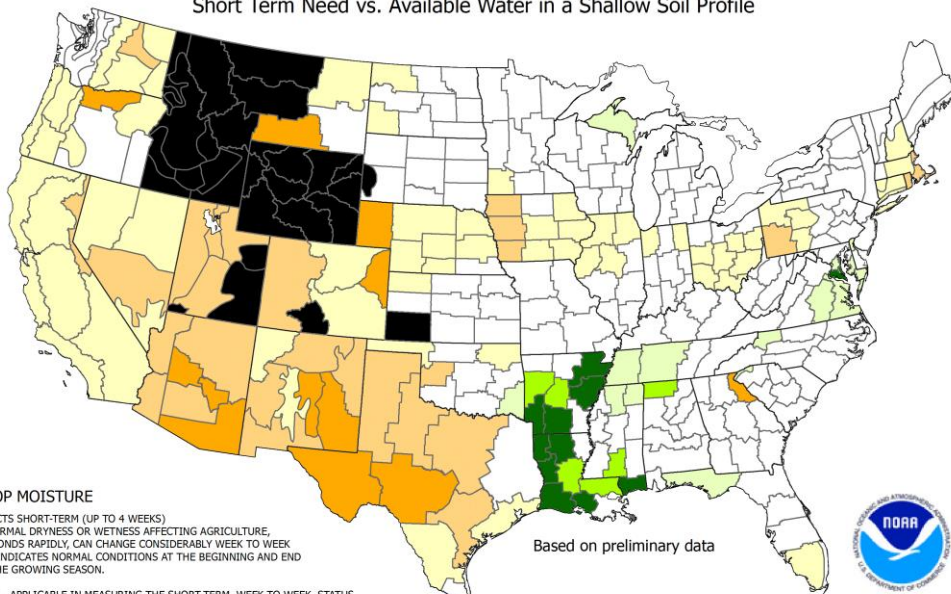
DEPICTS PROLONGED (MONTHS, YEARS) ABNORMAL DRYNESS OR WETNESS; RESPONDS SLOWLY; CHANGES LITTLE FROM WEEK TO WEEK; AND REFLECTS LONG-TERM MOISTURE RUNOFF, RECHARGE, AND DEEP PERCOLATION AS WELL AS EVAPOTRANSPIRATION.

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 OFFSHORE-TERM (FEW WEEKS) STATUS OF DROUGHT OR WETNESS SUCH AS FREQUENTLY AFFECTS CROPS AND FIELD OPERATIONS (THIS IS INDICATED BY THE CROP MOISTURE INDEX).



Crop Moisture Index by Division
Weekly Value for Period Ending Aug 29, 2020
Short Term Need vs. Available Water in a Shallow Soil Profile



CROP MOISTURE

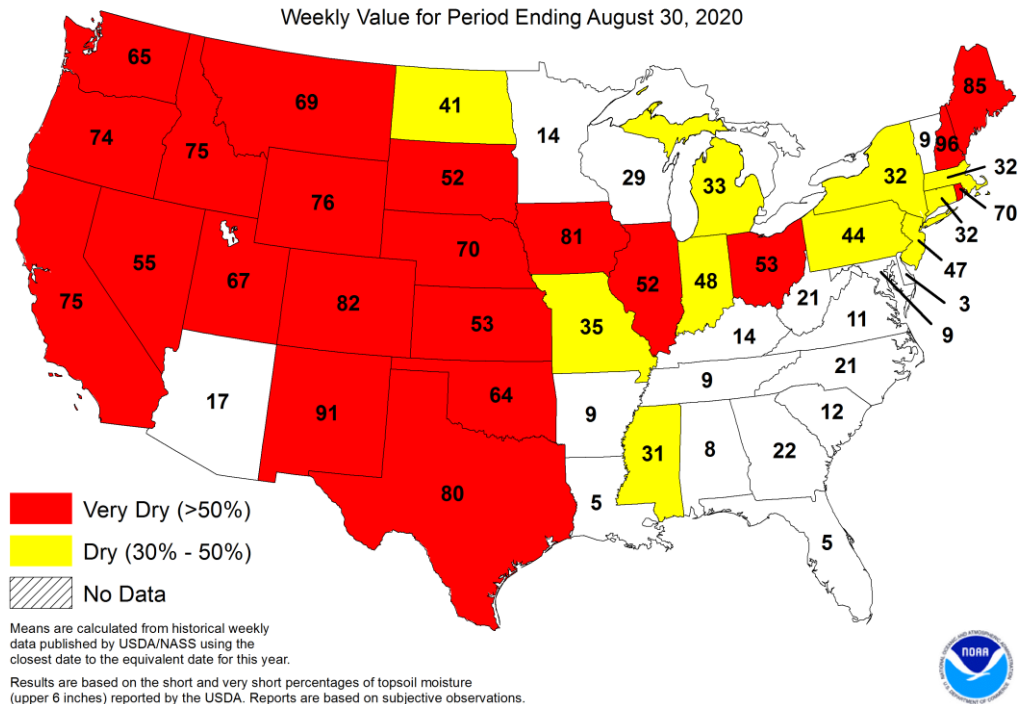
DEPICTS SHORT-TERM (UP TO 4 WEEKS) ABNORMAL DRYNESS OR WETNESS AFFECTING AGRICULTURE, RESPONDS RAPIDLY, CAN CHANGE CONSIDERABLY WEEK TO WEEK AND INDICATES NORMAL CONDITIONS AT THE BEGINNING AND END OF THE GROWING SEASON.

USES... APPLICABLE IN MEASURING THE SHORT-TERM, WEEK TO WEEK, STATUS OF DRYNESS OR WETNESS AFFECTING WARM SEASON CROPS AND FIELD OPERATIONS

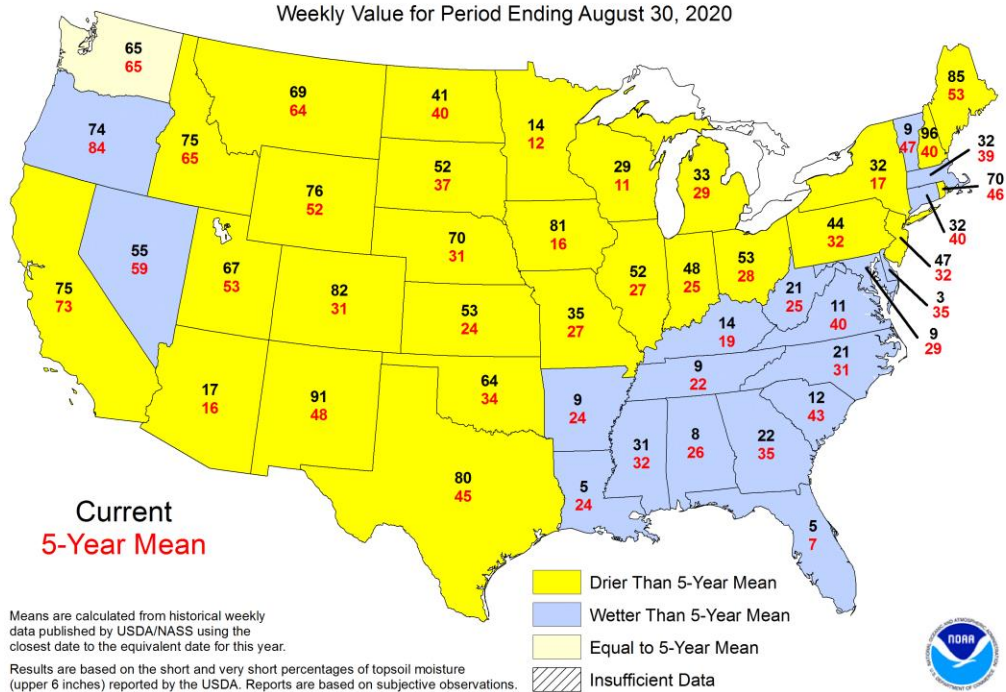
LIMITATIONS... MAY NOT BE APPLICABLE TO GERMINATING AND SHALLOW ROOTED CROPS WHICH ARE UNABLE TO EXTRACT THE DEEP OR SUBSOIL MOISTURE FROM A SHALLOW SOIL PROFILE, OR FOR COOL SEASON CROPS GROWING WHEN TEMPERATURES ARE AVERAGING BELOW ABOUT 55°F. IT IS NOT GENERALLY INDICATIVE OF THE LONG-TERM (MONTHS, YEARS) DROUGHT OR WET SPELLS WHICH ARE DEPICTED BY THE DROUGHT SEVERITY INDEX.



USDA Topsoil Moisture by Short-Very Short
Percent of State Area
Weekly Value for Period Ending August 30, 2020



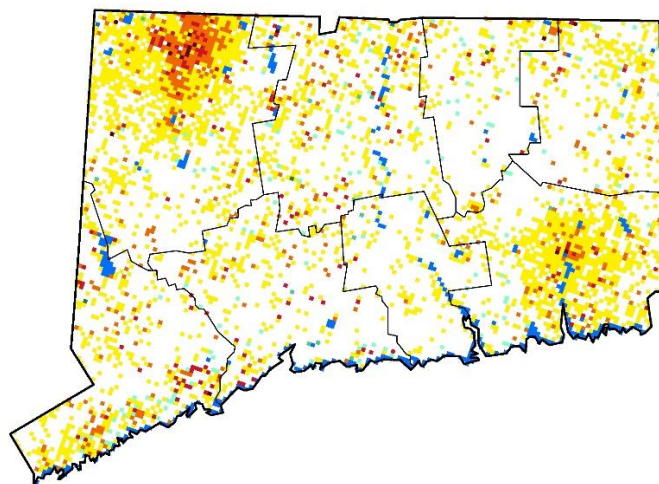
USDA Topsoil Moisture by Short-Very Short
Current Vs. 5-Year mean
Weekly Value for Period Ending August 30, 2020



Vegetation Drought Response Index

Complete: Connecticut

August 9, 2020



Vegetation Condition

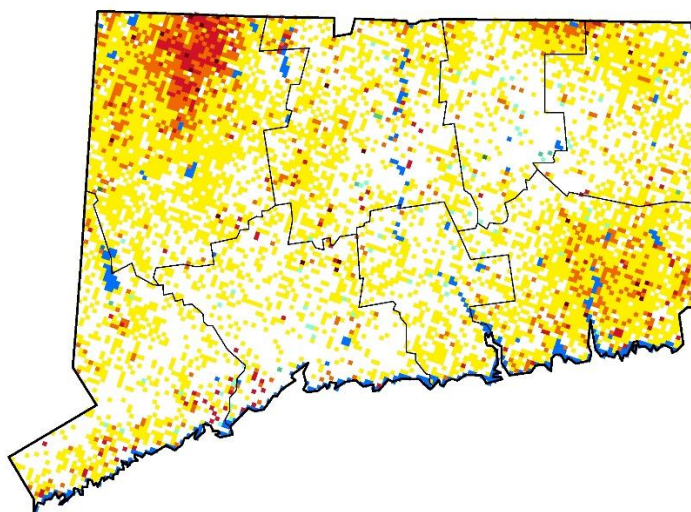
- Extreme Drought
- Severe Drought
- Moderate Drought
- Pre-drought stress
- Near Normal
- Unusually Moist
- Very Moist
- Extreme Moist
- Out of Season
- Water



Vegetation Drought Response Index

Complete: Connecticut

August 16, 2020



Vegetation Condition

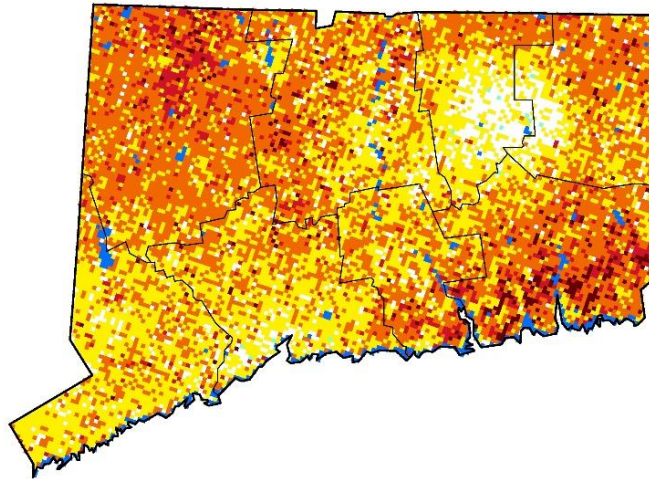
- Extreme Drought
- Severe Drought
- Moderate Drought
- Pre-drought stress
- Near Normal
- Unusually Moist
- Very Moist
- Extreme Moist
- Out of Season
- Water



Vegetation Drought Response Index

Complete: Connecticut

August 23, 2020



Vegetation Condition

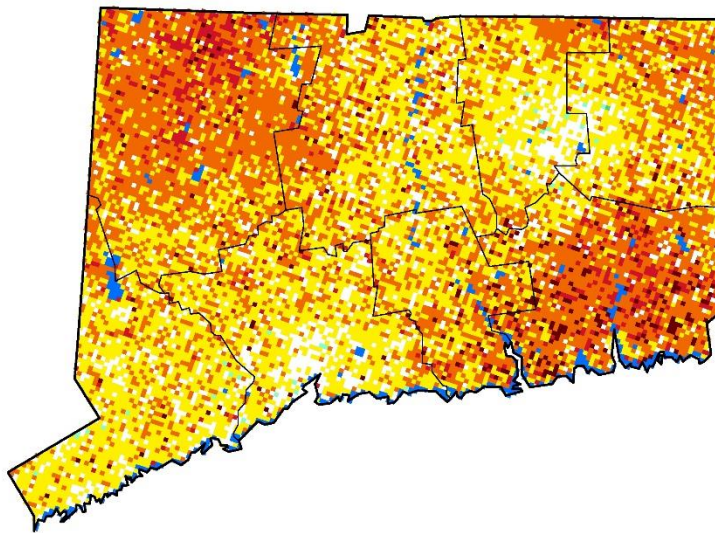
- Extreme Drought
- Severe Drought
- Moderate Drought
- Pre-drought stress
- Near Normal
- Unusually Moist
- Very Moist
- Extreme Moist
- Out of Season
- Water



Vegetation Drought Response Index

Complete: Connecticut

August 30, 2020

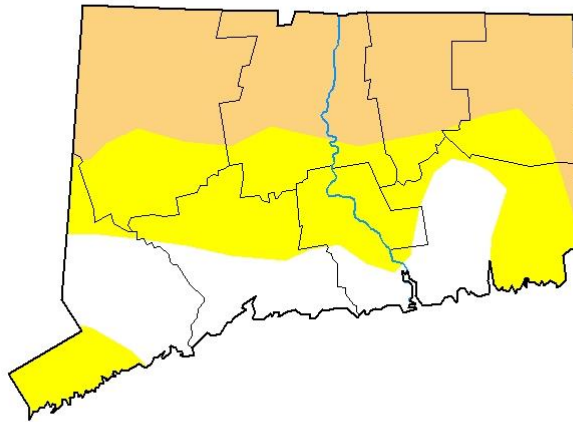


Vegetation Condition

- 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 4, 2020

(Released Thursday, Aug. 6, 2020)

Valid 8 a.m. EDT

Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	23.12	76.88	39.53	0.00	0.00	0.00
Last Week 07-28-2020	23.12	76.88	20.38	0.00	0.00	0.00
3 Months Ago 05-05-2020	100.00	0.00	0.00	0.00	0.00	0.00
Start of Calendar Year 12-31-2019	100.00	0.00	0.00	0.00	0.00	0.00
Start of Water Year 10-01-2019	49.88	50.12	0.00	0.00	0.00	0.00
One Year Ago 08-06-2019	81.79	18.21	0.00	0.00	0.00	0.00

Intensity:

None	D2 Severe Drought
D0 Abnormally Dry	D3 Extreme Drought
D1 Moderate 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>

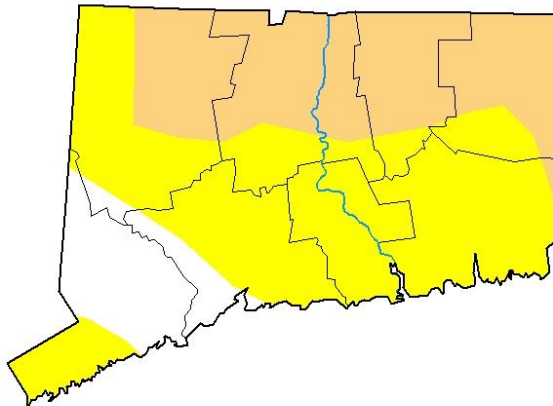
Author:

Brian Fuchs
National Drought Mitigation Center



droughtmonitor.unl.edu

U.S. Drought Monitor Connecticut



August 11, 2020

(Released Thursday, Aug. 13, 2020)

Valid 8 a.m. EDT

Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	12.77	87.23	34.13	0.00	0.00	0.00
Last Week 08-04-2020	23.12	76.88	39.53	0.00	0.00	0.00
3 Months Ago 05-12-2020	100.00	0.00	0.00	0.00	0.00	0.00
Start of Calendar Year 12-31-2019	100.00	0.00	0.00	0.00	0.00	0.00
Start of Water Year 10-01-2019	49.88	50.12	0.00	0.00	0.00	0.00
One Year Ago 08-13-2019	81.79	18.21	0.00	0.00	0.00	0.00

Intensity:

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

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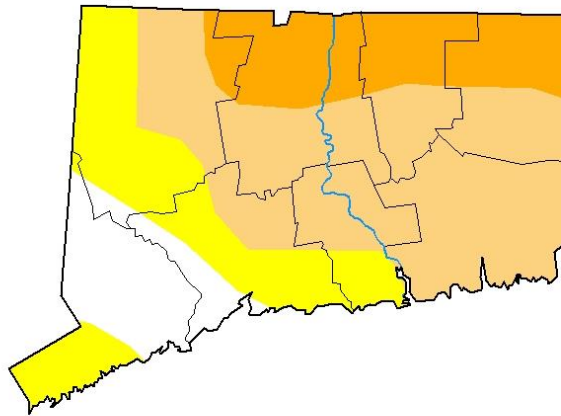
Author:

Brian Fuchs
National Drought Mitigation Center



droughtmonitor.unl.edu

U.S. Drought Monitor Connecticut



August 18, 2020
(Released Thursday, Aug. 20, 2020)
Valid 8 a.m. EDT

Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	12.77	87.23	64.93	18.93	0.00	0.00
Last Week 08-11-2020	12.77	87.23	34.13	0.00	0.00	0.00
3 Months Ago 05-19-2020	100.00	0.00	0.00	0.00	0.00	0.00
Start of Calendar Year 12-31-2019	100.00	0.00	0.00	0.00	0.00	0.00
Start of Water Year 10-01-2019	49.88	50.12	0.00	0.00	0.00	0.00
One Year Ago 08-20-2019	81.79	18.21	0.00	0.00	0.00	0.00

Intensity:

None	D2 Severe Drought
D0 Abnormally Dry	D3 Extreme Drought
D1 Moderate 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>

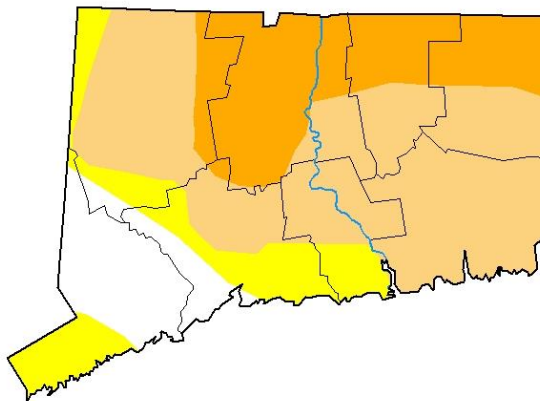
Author:

David Simeral
Western Regional Climate Center



droughtmonitor.unl.edu

U.S. Drought Monitor Connecticut



August 25, 2020
(Released Thursday, Aug. 27, 2020)
Valid 8 a.m. EDT

Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	12.77	87.23	73.03	24.83	0.00	0.00
Last Week 08-18-2020	12.77	87.23	64.93	18.93	0.00	0.00
3 Months Ago 05-26-2020	100.00	0.00	0.00	0.00	0.00	0.00
Start of Calendar Year 12-31-2019	100.00	0.00	0.00	0.00	0.00	0.00
Start of Water Year 10-01-2019	49.88	50.12	0.00	0.00	0.00	0.00
One Year Ago 08-27-2019	81.79	18.21	0.00	0.00	0.00	0.00

Intensity:

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

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Author:

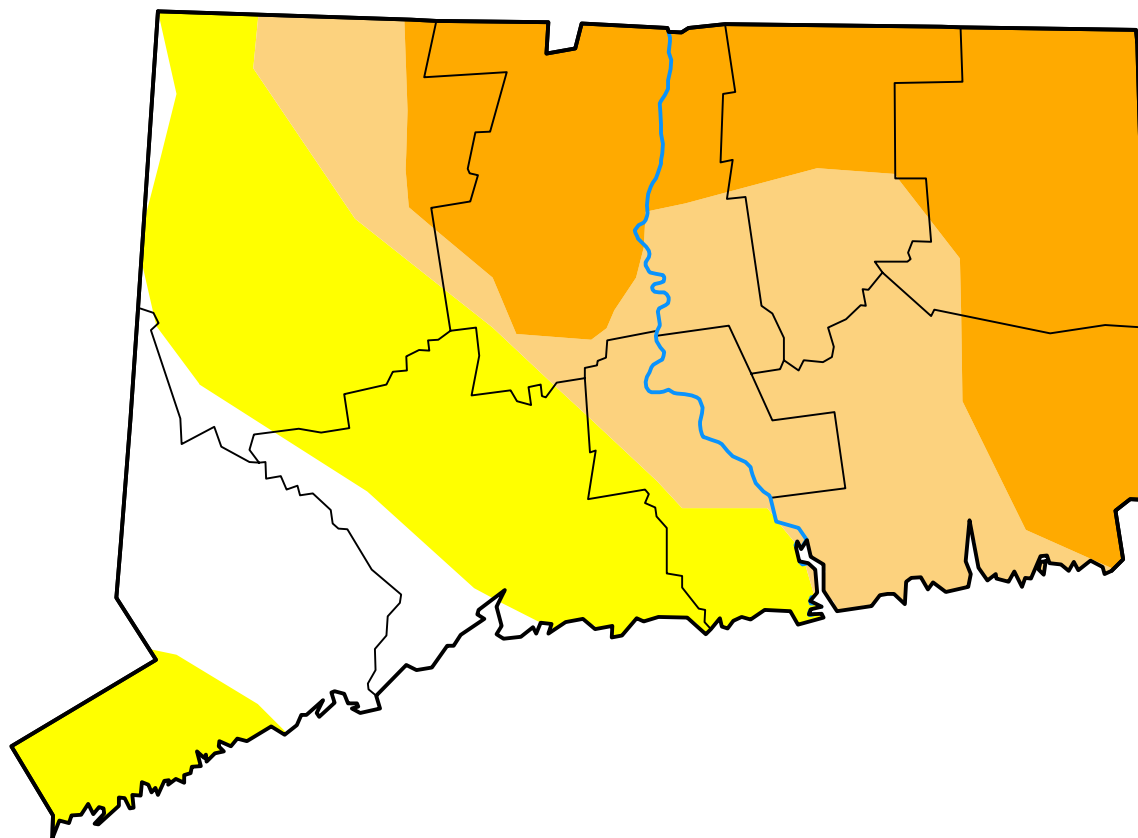
David Simeral
Western Regional Climate Center



droughtmonitor.unl.edu

U.S. Drought Monitor Connecticut

September 1, 2020
(Released Thursday, Sep. 3, 2020)
Valid 8 a.m. EDT



Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	13.43	86.57	58.18	32.29	0.00	0.00
Last Week <i>08-25-2020</i>	12.77	87.23	73.03	24.83	0.00	0.00
3 Months Ago <i>06-02-2020</i>	100.00	0.00	0.00	0.00	0.00	0.00
Start of Calendar Year <i>12-31-2019</i>	100.00	0.00	0.00	0.00	0.00	0.00
Start of Water Year <i>10-01-2019</i>	49.88	50.12	0.00	0.00	0.00	0.00
One Year Ago <i>09-03-2019</i>	96.52	3.48	0.00	0.00	0.00	0.00

Intensity:

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

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Author:

Richard Tinker
CPC/NOAA/NWS/NCEP



droughtmonitor.unl.edu

From: [Trowbridge, Philip](#)
To: [Wittchen, Bruce](#); [Lindquist, Eric](#)
Cc: [Fitting, Corinne](#); [Aarrestad, Peter](#); [Hochholzer, Helene](#); [Coleman, William](#); [Hoskins, Douglas](#); [Perry, Jennifer](#)
Subject: Re: Interagency Drought Workgroup Update
Date: Wednesday, August 19, 2020 10:13:06 AM
Attachments: [image003.png](#)
[Outlook-jnk3magr.png](#)

Hello Eric and Bruce,

Below are updates to DEEP's indicators for the IDW. Doug Hoskins will be attending the IDW meeting tomorrow for DEEP. Thank you.

Quantitative Indicators

Fire Danger

- The rain we received over the last few days has temporarily lowered the fire danger statewide. We are currently at Low in Fairfield, New Haven, Middlesex, & New London Counties and Moderate in the rest of the state. This ratings are not expected to go higher anytime in the next few days.

Qualitative/Auxiliary Indicators

Fisheries Issues

- Nothing to report

Water Diversions/Well-Field Pumping Issues

- Emergency public water supply interconnection from the Regional Water Authority to Town of Southington has been activated.

Philip Trowbridge, P.E.
Assistant Director
Planning and Management Division
Water Protection and Land Reuse Bureau
Connecticut Department of Energy and Environmental Protection
79 Elm Street, Hartford, CT 06106-5127
P: 860-424-3718 | E: Philip.Trowbridge@ct.gov



Surface Reservoir Capacity Measurements and Trends

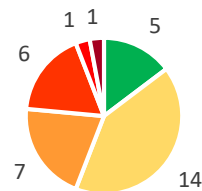
9/2/2020 Update

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.

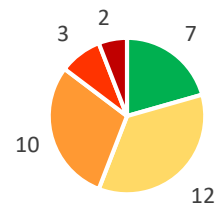
Key takeaways:

- Almost all systems have reported readings from the past week or so.
- 5 out of 34 reservoir systems are at or above their normal percent full for this time of year. Decrease of 12 systems from last 3 weeks. The overall state average is **75% full** (last week – 76.7% full) and the **state average percent of normal is 89 %** (last week – 90.7% of Normal).
- 14 systems are reporting below normal condition between 90 and 99% of Normal indicated by the red numbers in the table (decrease in 2 systems from last week). **15 systems are below 90% (Increase of 10 systems from 3 weeks ago)**. Of the 15 systems below 90%, 7 systems are between 80 and 89% of Normal, 6 systems are between 70 and 79% of Normal, 2 system is below 70% of Normal.

Number of Surface Water Systems
Percent of Normal



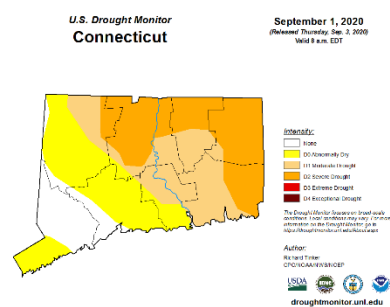
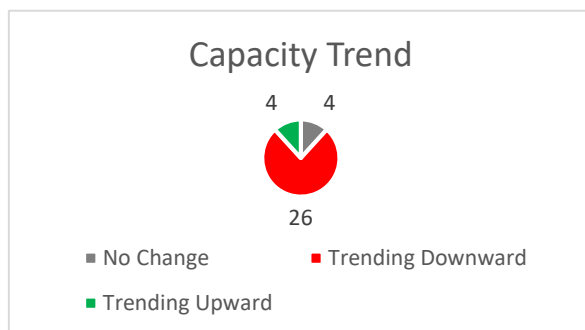
Last weeks Number of Surface Water Systems
Percent of Normal



■ >=100% ■ 90-99% ■ 80-89% ■ 70-79% ■ 60-69% ■ 40-45%

■ >=100% ■ 90-99% ■ 80-89% ■ 70-79% ■ 60-69%

- 2 systems have reported that they are currently at 100% full. No change from last week.
- 26 systems are trending downward in capacity from their previous measurements. 4 are indicating slight improvement from last week. 4 systems with no change in capacity.



- Changes in drought status for PWS since last week
 - No changes in drought declarations since last week
- US Drought Monitor has included a 1 class and 2 class improvements in Litchfield County and SW Hartford County. They have also included a 1 class degradation in southern Windham and eastern New London counties to D2 Severe Drought. More info can be found here:

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

PWSID	PWS Name	Most Recent Reading Date	Percent Full	Current Status	Trend	Historical Average	Percent of Normal	Previous Date	Previous Percent Full
CT1310011	Southington Water Department	8/29/2020	31.60	No Drought Stage	↓	69.93	45	8/22/2020	38.03
CT1220011	Aquarion Water Co of CT-Salisbury Sys	8/16/2020	59.75	No Drought Stage	↓	89.56	67	8/9/2020	63.58
CT0830011	Middletown Water Department	8/30/2020	61.63	Approaching Trigger Level	↓	82.85	74	8/23/2020	62.46
CT0570011	Aquarion Water Co of CT-Greenwich System	8/23/2020	58.84	Drought Watch	↓	78.22	75	8/16/2020	62.07
CT1030011	Norwalk First Taxing District	8/30/2020	58.49	Drought Advisory	↓	77.02	76	8/23/2020	61.19
CT0170011	Bristol Water Department	8/30/2020	66.06	Drought Advisory	↓	84.52	78	8/23/2020	68.13
CT1510011	Waterbury Water Department	8/23/2020	68.53	No Drought Stage	↓	87.35	78	8/16/2020	70.51
CT1030021	South Norwalk Electric & Water	8/31/2020	57.04	Approaching Trigger Level	↓	71.84	79	8/24/2020	58.54
CT0608011	CTWC - Shoreline Region-Guilford System	8/27/2020	63.37	No Drought Stage	↓	79.14	80	8/20/2020	69.00
CT0800011	Meriden Water Division	8/24/2020	67.93	No Drought Stage	↓	84.07	81	8/17/2020	70.28
CT0580011	Jewett City Water Company	8/24/2020	71.46	No Drought Stage	↓	85.12	84	8/17/2020	73.50
CT0770021	Manchester Water Department	9/1/2020	71.59	Drought Alert	↓	82.23	87	8/23/2020	74.05
CT0950011	New London Dept. of Public Utilities	8/30/2020	59.92	No Drought Stage	↓	68.57	87	8/23/2020	61.99
CT0261031	CTWC - Shoreline Region-Chester System	8/27/2020	76.42	No Drought Stage	↑	87.32	88	8/20/2020	74.57
CT1370011	Aquarion Water Co of CT-Mystic	8/23/2020	72.68	No Drought Stage	↑	81.83	89	8/16/2020	72.65
CT0890011	New Britain Water Department	8/27/2020	65.51	Approaching Trigger Level	↓	73.03	90	8/20/2020	68.50
CT0150011	Aquarion Water Co of CT-Main System	8/23/2020	77.50	No Drought Stage	↑	86.51	90	8/16/2020	76.32
CT1620011	Winsted Water Works	8/30/2020	86.07	No Drought Stage	--	95.45	90	8/23/2020	86.07
CT0880011	CTWC - Naugatuck Region-Central System	8/27/2020	79.64	No Drought Stage	↓	86.56	92	8/20/2020	84.87
CT0980011	Aquarion Water Co of CT-Norfolk System	8/23/2020	92.32	No Drought Stage	↓	98.23	94	8/16/2020	94.14
CT0930011	Regional Water Authority	8/30/2020	75.10	No Drought Stage	↓	79.77	94	8/23/2020	76.59
CT0473011	CTWC - Northern Reg-Western System	8/27/2020	78.94	No Drought Stage	↓	82.75	95	8/20/2020	81.75
CT0590011	Groton Utilities	8/24/2020	82.51	No Drought Stage	↓	85.58	96	8/17/2020	84.03
CT0830021	Connecticut Valley Hospital	8/24/2020	87.94	No Drought Stage	↓	91.37	96	8/17/2020	89.36
CT1350011	Aquarion Water Co of CT-Stamford	8/23/2020	74.56	No Drought Stage	↓	76.93	97	8/16/2020	77.00
CT1340011	CTWC - Northern Reg-Stafford System	8/27/2020	92.65	No Drought Stage	--	95.61	97	8/20/2020	92.65
CT0640011	Metropolitan District Commission	8/31/2020	87.59	No Drought Stage	↓	89.60	98	8/24/2020	88.51
CT0340011	Danbury Water Department	8/23/2020	81.80	No Drought Stage	↓	82.27	99	8/16/2020	82.08
CT1480011	Wallingford Water Department	8/28/2020	79.42	No Drought Stage	↓	80.03	99	8/21/2020	80.88
CT1630011	Windham Water Works	8/30/2020	100.00	No Drought Stage	--	100.00	100	8/23/2020	100.00
CT1430011	Torrington Water Company	8/28/2020	79.05	No Drought Stage	↓	78.85	100	8/21/2020	80.79
CT1040011	Norwich Public Utilities	8/29/2020	85.80	No Drought Stage	↓	84.83	101	8/22/2020	87.17
CT0090011	Bethel Water Dept	8/30/2020	99.45	No Drought Stage	↑	94.28	105	8/23/2020	99.13
CT1250011	Sharon Water & Sewer Commission	8/15/2020	100.00	No Drought Stage	--	95.50	105	8/8/2020	100.00
			75.03			84.32	88.99		

↑	-Increase since last measurement (less than 10% increase)
↑↑	-Increase since last measurement (10% or greater increase)
↓	-Decrease since last measurement (less than 10% decrease)
↓↓	-Decrease since last measurement (10% or greater decrease)
--	- Same measurement as the previous measurement

Number of systems:		
Greater than or equal to 100% of Normal		5
Between 90% and 99% of Normal		14
Less than 90% of Normal		15
At 100% Full		2