

CT Interagency Drought Workgroup

September 17, 2020, 2:00 p.m. EDT, conducted remotely via Microsoft Teams:

[Join Microsoft Teams Meeting](#)

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

Conference ID: 895 389 379#

Agenda

- 1.** Call to order
- 2.** Introductions (if needed)
- 3.** Approval of minutes: 9/3/2020
- 4.** Update on Regional Water/Drought Coordinators (DEMHS)
- 5.** Discuss current conditions and areas of improvement/degradation
 - a. Review summary prepared by OPM (see below) and any questions on agency updates
- 6.** Recommend a course of action in accordance with [State Drought Plan](#):
 - a. Maintain or modify current drought stage for each county
 - b. If modifications are made, review actions to take place in accordance with drought plan
- 7.** Items for next meeting and schedule
- 8.** Adjourn

Drought Conditions Report

September 17, 2020

Connecticut Water Planning Council
Interagency Drought Workgroup

Stage 2 Drought Trigger Summary by Region -- September 17, 2020

	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	105% of normal	50% of normal	80% of normal	81% of normal	84% of normal	54% of normal	68% of normal	59% of normal	8/31/2020
Ground Water (2)	Two out of three months below the 25th percentile	18% stations meet trigger	40% stations meet trigger	60% stations meet trigger	57% stations meet trigger	8% stations meet trigger	40% stations meet trigger	8% stations meet trigger	67% meet trigger	8/31/2020
Streamflow (3)	Two out of three months below the 25th percentile	7% meet trigger	73% stations meet trigger	50% stations meet trigger	25% stations meet trigger	43% stations meet trigger	20% stations meet trigger	0% stations meet trigger	40% stations meet trigger	8/31/2020
Reservoirs (4)	Average levels less than 80% of normal	88% of normal	81% of normal	91% of normal	86% of normal	87.5% of normal	92% of normal	82% of normal	100% of normal	9/16/2020
Palmer Drought Severity Index (5)	-2.0 to -2.99	-2.0 to -2.99	-2.0 to -2.99	-3.0 to -3.9	-2.0 to -2.99	-2.0 to -2.99	-2.0 to -2.99	-2.0 to -2.99	-2.0 to -2.99	8/29/2020
Crop Moisture Index (6)	-1.0 to -1.99	-0.84 to -1.85	-1.85	-1.32	-0.84 to -1.85	-0.84 to -1.85	-0.84 to -1.85	-1.85	-1.85	9/12/2020
VegDRI (seasonal) (7)	Pre-drought stress	25-75% of region	>75% of region	>75% of region	>75% of region	25-75% of region	>75% of region	>75% of region	>75% of region	9/13/2020
Fire Danger (8)	Moderate	Moderate or above	Moderate or above	Moderate or above	Moderate or above	Moderate or above	Moderate or above	Moderate or above	Moderate or above	9/16/2020
U.S. Drought Monitor (9)	Intensity level D1-D2	N-D0	D1-D2	D0-D1	D0-D1	N-D0	D1-D2	D1-D2	D1-D2	9/10/2020

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 localities)
-------------	---	---	--

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 $\geq 65\%$ of stations in the region meet the threshold. Region is identified as not meeting trigger when $\leq 25\%$ 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 $\geq 65\%$ of stations in the region meet the threshold. Region is identified as not meeting trigger when $\leq 25\%$ 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 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.
- (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 3 Drought Trigger Summary by Region -- September 17, 2020

	Stage 3 Trigger	Fairfield	Hartford	Litchfield	Middlesex	New Haven	New London	Tolland	Windham	Data of Record
Precipitation (1)	Three-month total below 65% of normal	84% of normal	46% of normal	69% of normal	62% of normal	74% of normal	58% of normal	63% of normal	62% of normal	8/31/2020
Ground Water (2)	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	8/31/2020
Streamflow (3)	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	8/31/2020
Reservoirs (4)	Average levels less than 70% of normal	88% of normal	81% of normal	91% of normal	86% of normal	87.5% of normal	92% of normal	82% of normal	100% of normal	9/16/2020
Palmer Drought Severity Index (5)	-3.0 to -3.99	-2.0 to -2.99	-2.0 to -2.99	-3.0 to -3.9	-2.0 to -2.99	-2.0 to -2.99	-2.0 to -2.99	-2.0 to -2.99	-2.0 to -2.99	8/29/2020
Crop Moisture Index (6)	-2.0 to -2.99	-0.84 to -1.85	-1.85	-1.32	-0.84 to -1.85	-0.84 to -1.85	-0.84 to -1.85	-1.85	-1.85	9/12/2020
VegDRI (seasonal) (7)	Moderate drought conditions	<25% of region	25-75% of region	>75% of region	25-75% of region	<25% of region	>75% of region	25-75% of region	>75% of region	9/13/2020
Fire Danger (8)	High	High or above	High or above	High or above	High or above	High or above	High or above	High or above	High or above	9/16/2020
U.S. Drought Monitor (9)	Intensity level D2-D3	N-D0	D1-D2	D0-D1	D0-D1	N-D0	D1-D2	D1-D2	D1-D2	9/10/2020

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 localities)
-------------	---	---	--

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 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.
(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 Interagency Drought Workgroup Meeting
September 17, 2020
NWS Boston/Albany Summary

Precipitation:

Rainfall totals for September 1 to 16 were below normal for all of the State except for far southwest CT in the vicinity of Bridgeport, where rainfall was near normal to above normal.

The driest area of the State extended from central Litchfield County through much of north central and eastern CT. Rainfall here was under an inch, and around or less than 50% of normal rainfall MTD.

In far northern Hartford County, far northern and southern Litchfield County, and south central to southwest CT, rainfall month to date ranged from 0.75 inch to 1.5 inch, with localized higher totals of 1 to 2.5 inches near Bridgeport. Rainfall totals MTD were mainly 50 to 75 percent of normal, except 75% to 125% of normal near Bridgeport.

The weather pattern favors below average rainfall during the next 7 days with the forecast of under a half inch of rainfall. Odds favor below normal rainfall during the 8 to 14 day outlook, spanning from September 23 to 29.

Temperatures:

Temperatures from September 1 to 15 averaged above normal across Connecticut, with departures 1 to 3 degrees above normal. However since September 11, temperatures have been near or below normal.

Temperatures are expected to average above normal during Thursday, then fall below normal from Thursday night through next Tuesday. Then above normal temperatures are expected to average above normal during September 23 to 29. Temperatures then average cooler than normal during the first week of October.

NWS Conditions Update

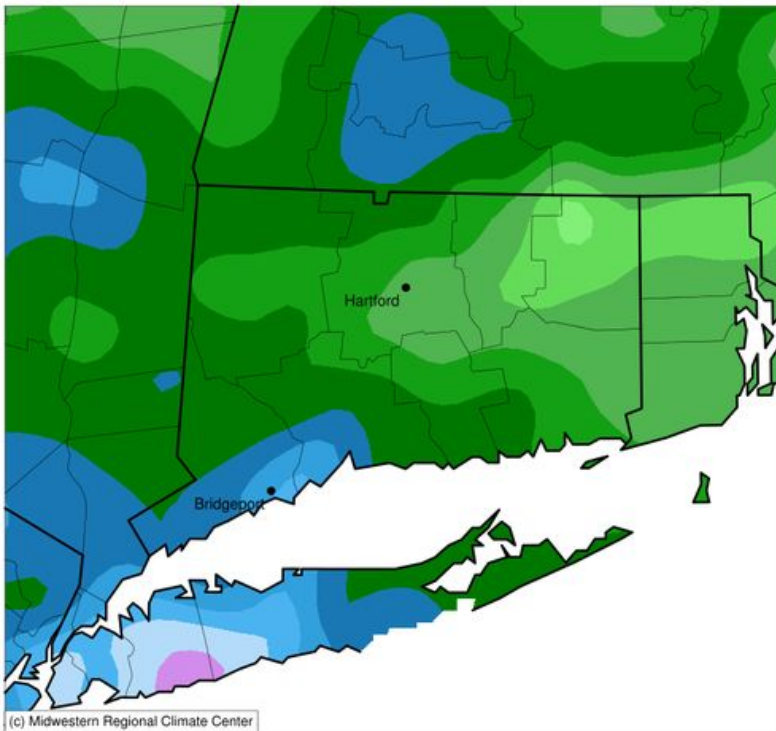
Connecticut Interagency Drought Workgroup Meeting
National Weather Service Boston MA and Albany NY
September 17th 2020



September 1-16 2020 Rainfall

Accumulated Precipitation (in)

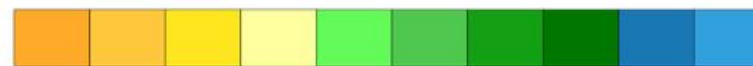
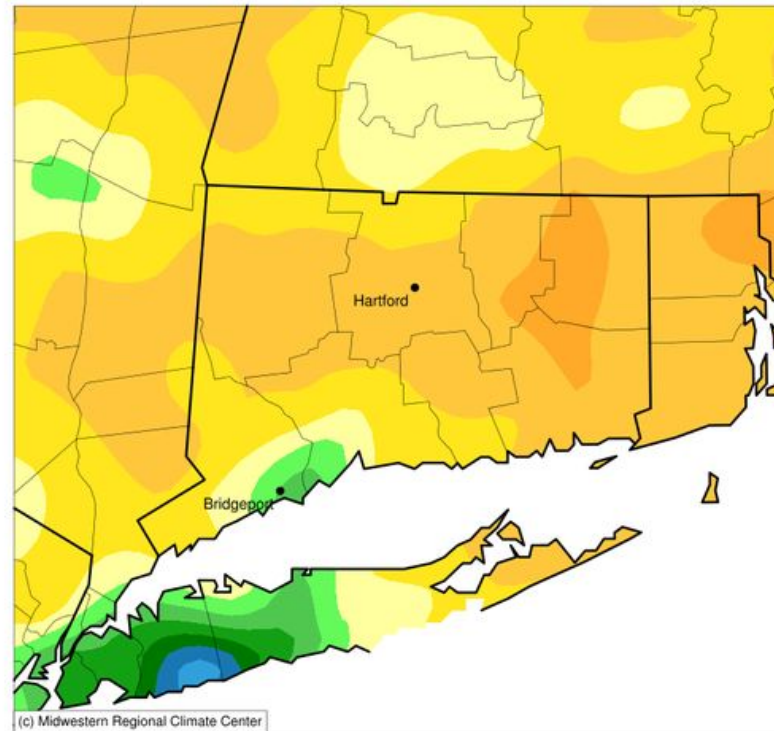
September 01, 2020 to September 16, 2020



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: 9/16/2020 11:09:28 AM CDT

Accumulated Precipitation (in): Departure from 1981-2010 Normals

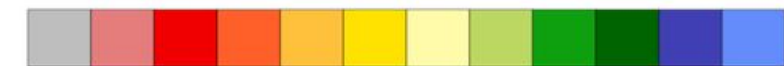
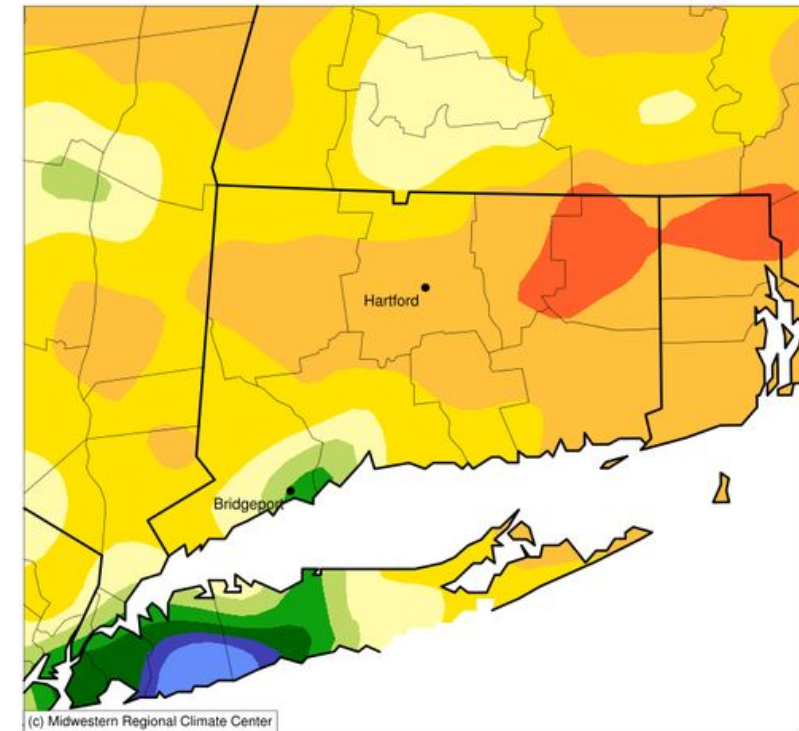
September 01, 2020 to September 16, 2020



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: 9/16/2020 11:11:52 AM CDT

Accumulated Precipitation (in): Percent of 1981-2010 Normals

September 01, 2020 to September 16, 2020



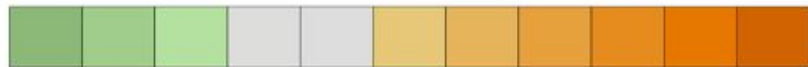
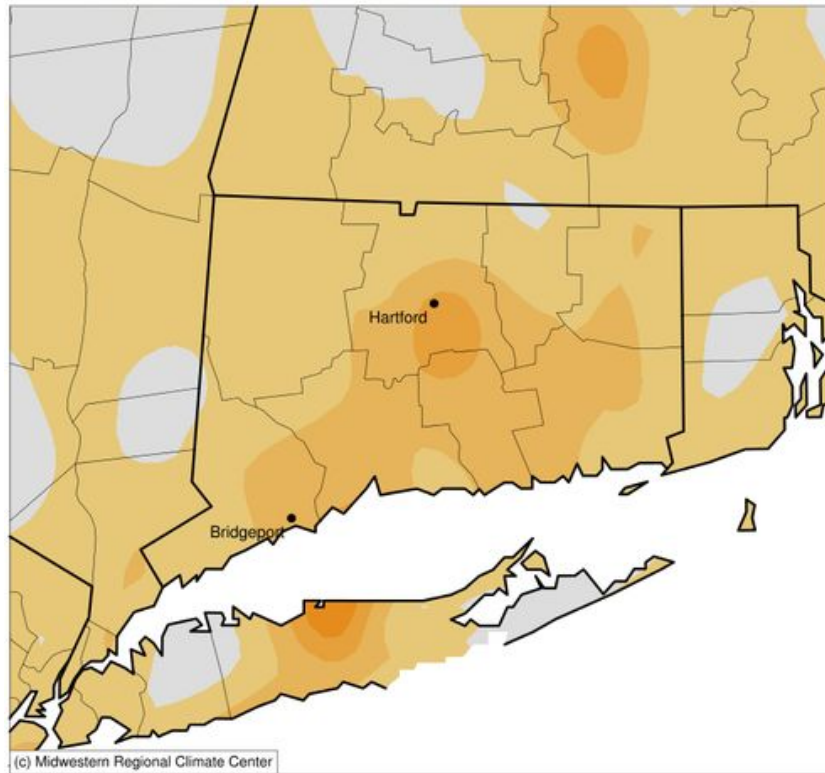
Stations from the following networks used: WBAN, COOP, FAA, GHCN, ThreadEx, CoCoRaHS, WMO, ICAO, NWSLI, Midwestern Regional Climate Center
cli-MATE: MRCC Application Tools Environment
Generated at: 9/16/2020 11:12:46 AM CDT



Temperature Depart. from Normal- September

Average Temperature (°F): Departure from 1981-2010 Normals

September 01, 2020 to September 16, 2020



Stations from the following networks used: WBAN, COOP, FAA, GHCN, ThreadEx, CoCoRaHS, WMO, ICAO, NWSLI, Midwest Regional Climate Center
cli-MATE: MRCC Application Tools Environment
Generated at: 9/16/2020 11:14:52 AM CDT

Preliminary Data Month to Date (MTD)...

Temperatures MTD 1-3 degrees above normal

Hartford, Bridgeport, Groton:

- Averaged ~1 degree above normal MTD.

Bakersville CT:

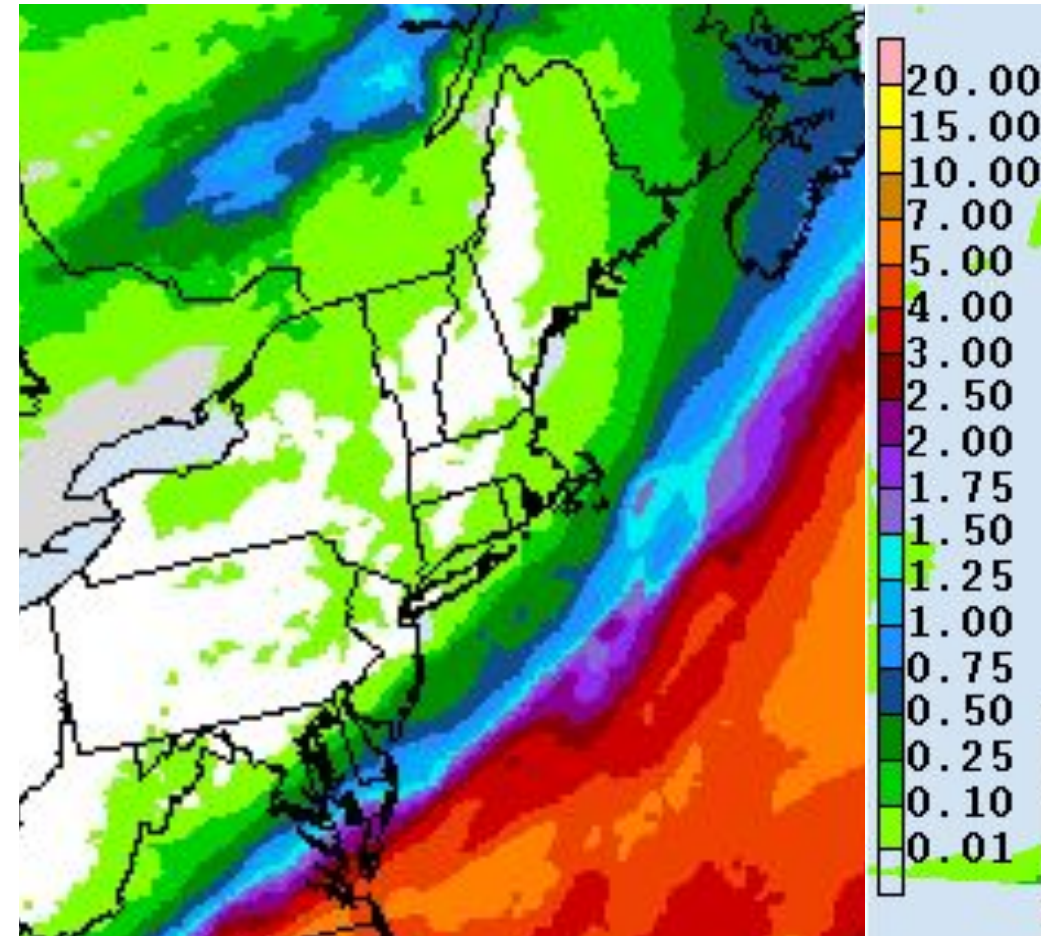
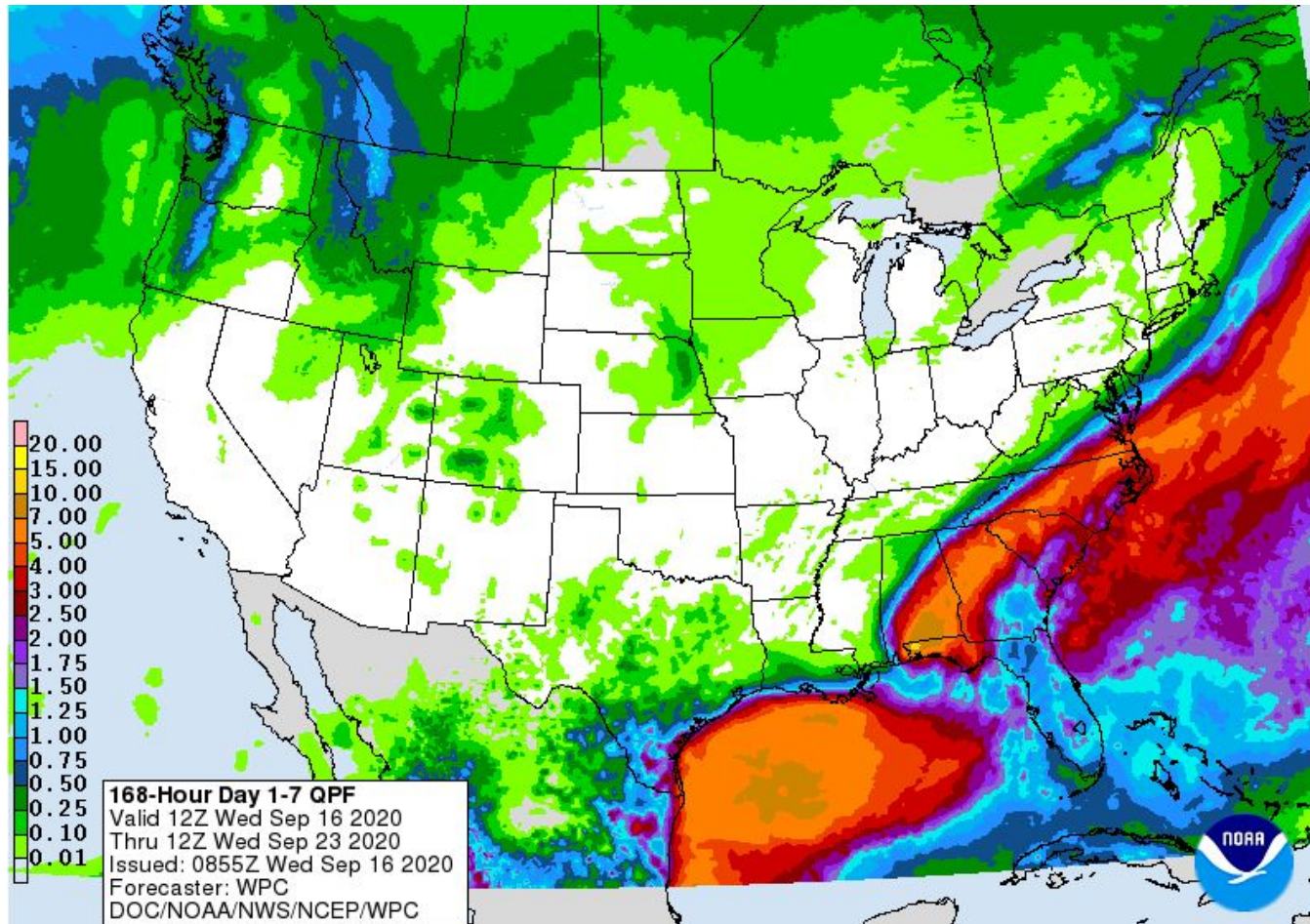
- Averaged 1.6 degrees above normal MTD.

New Haven:

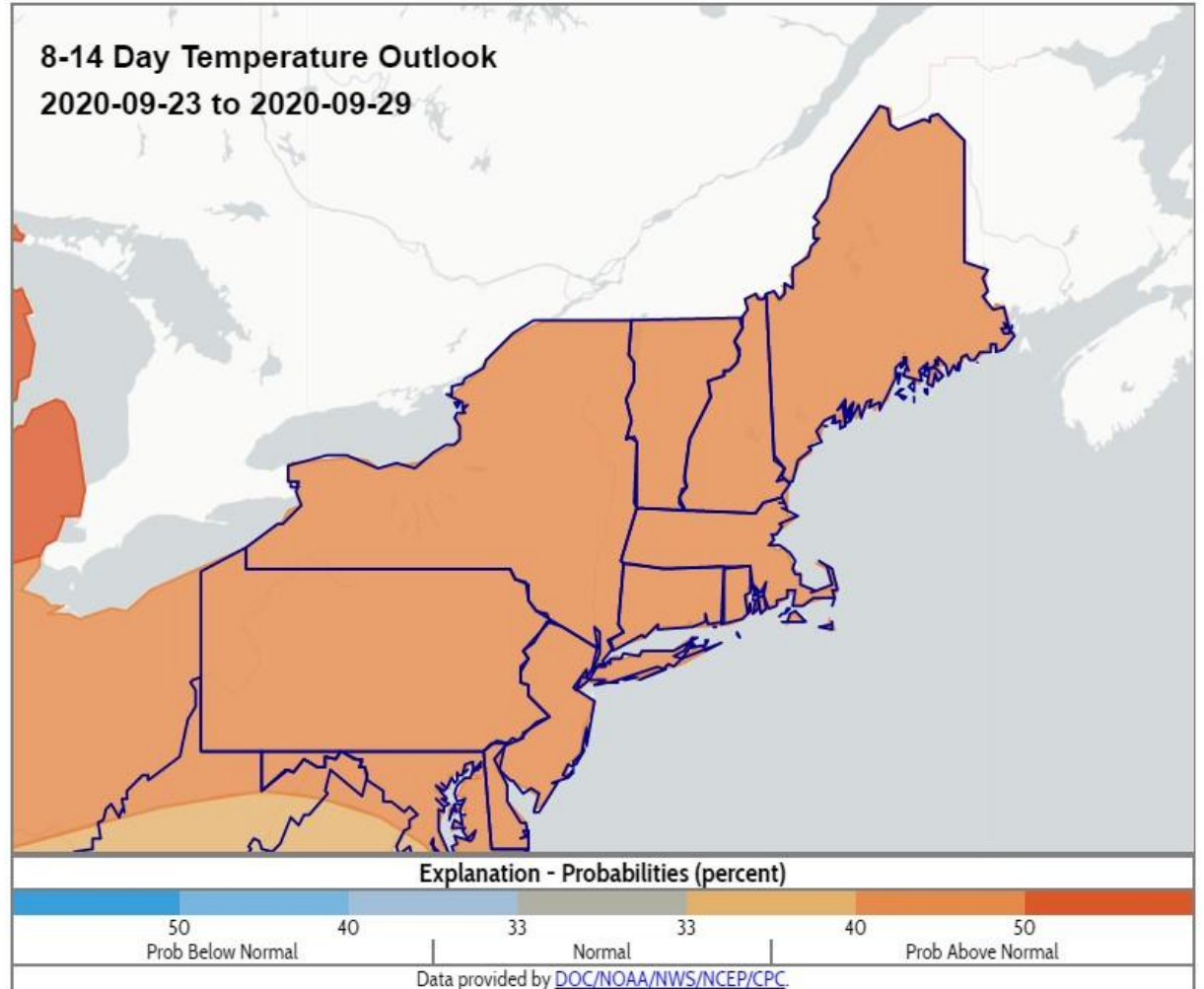
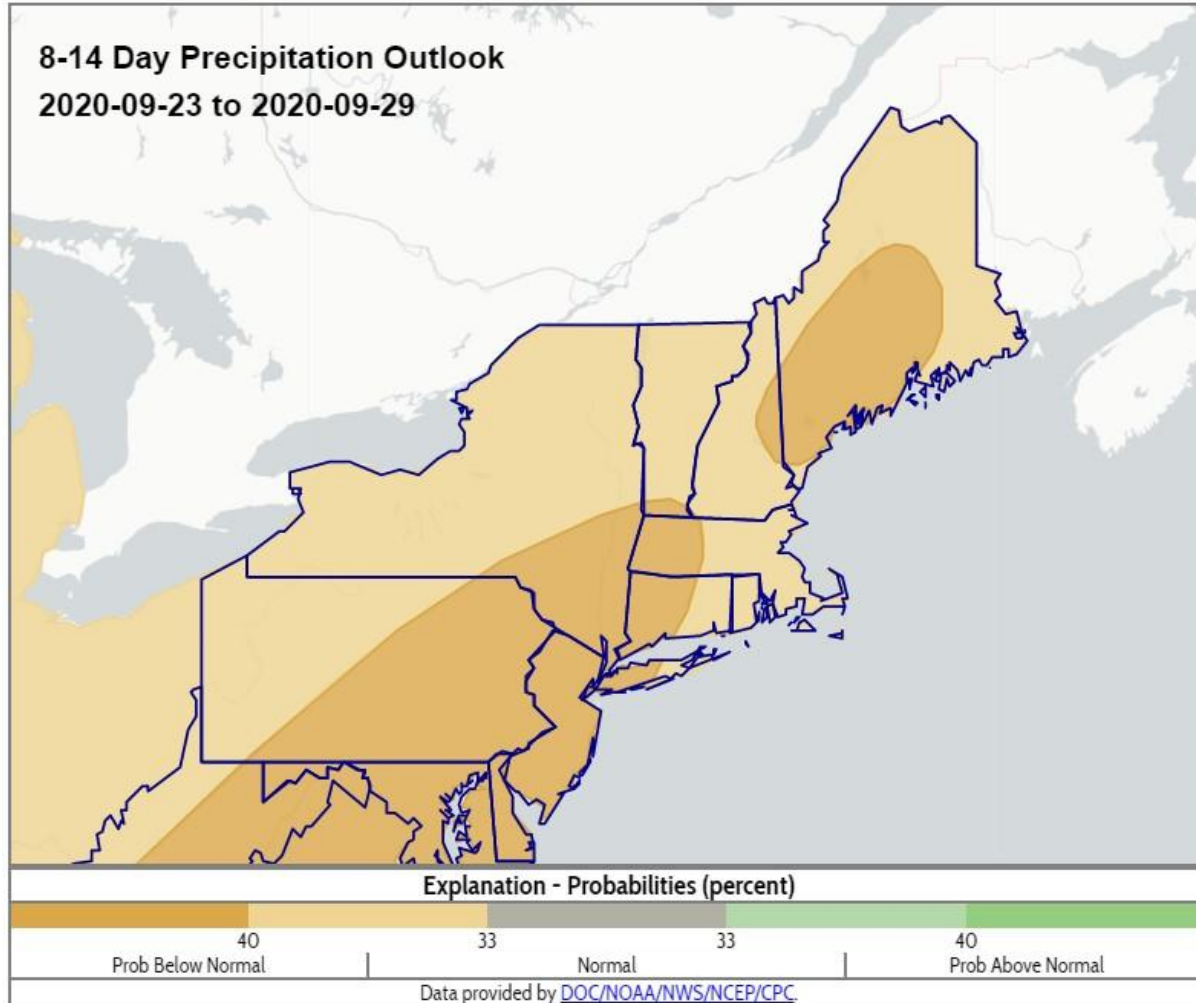
- Averaged ~3 degrees above normal MTD.

Rainfall Forecast Through 8 am Wed 9/23

Temperatures: Below normal Fri-Tue

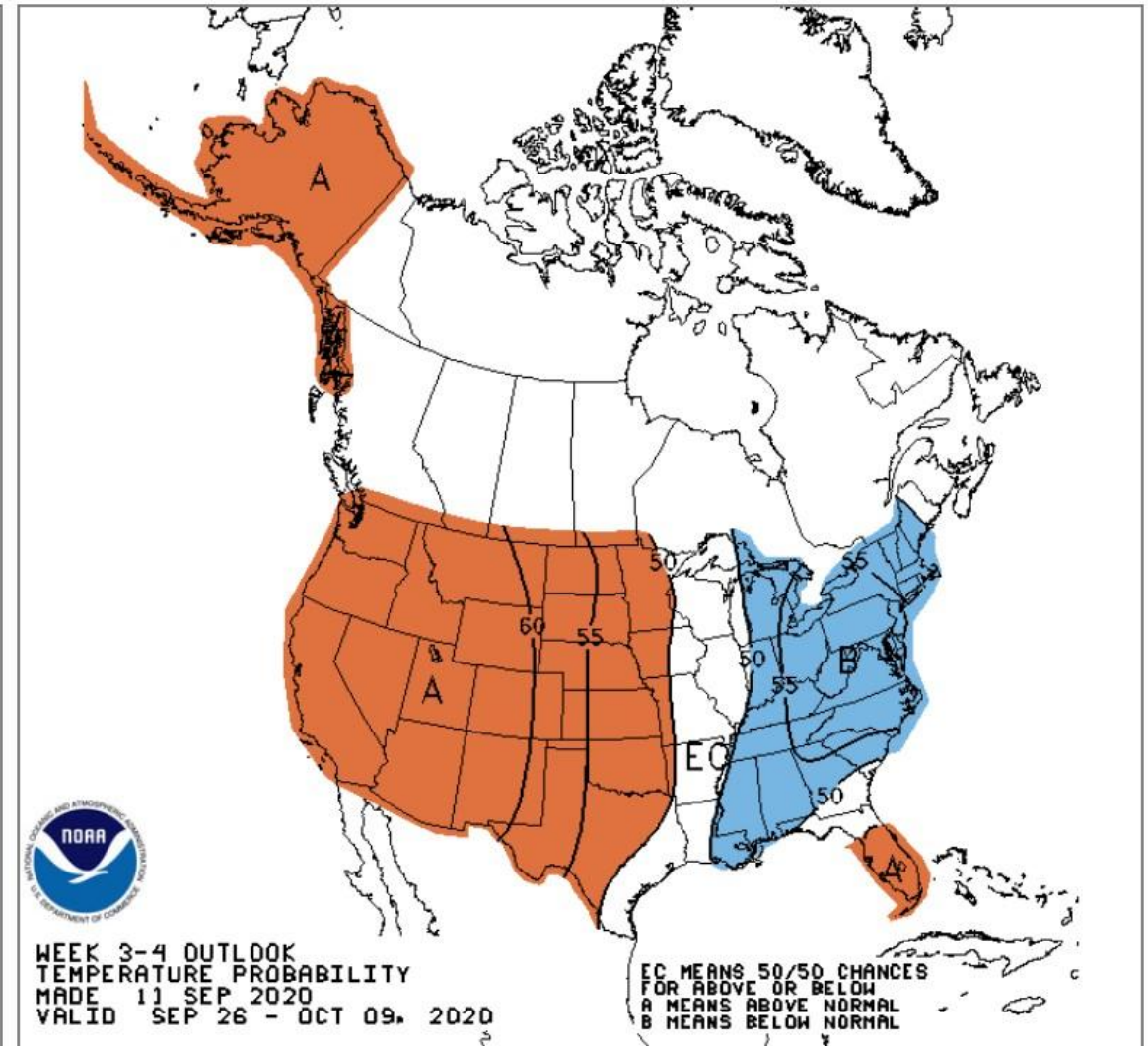
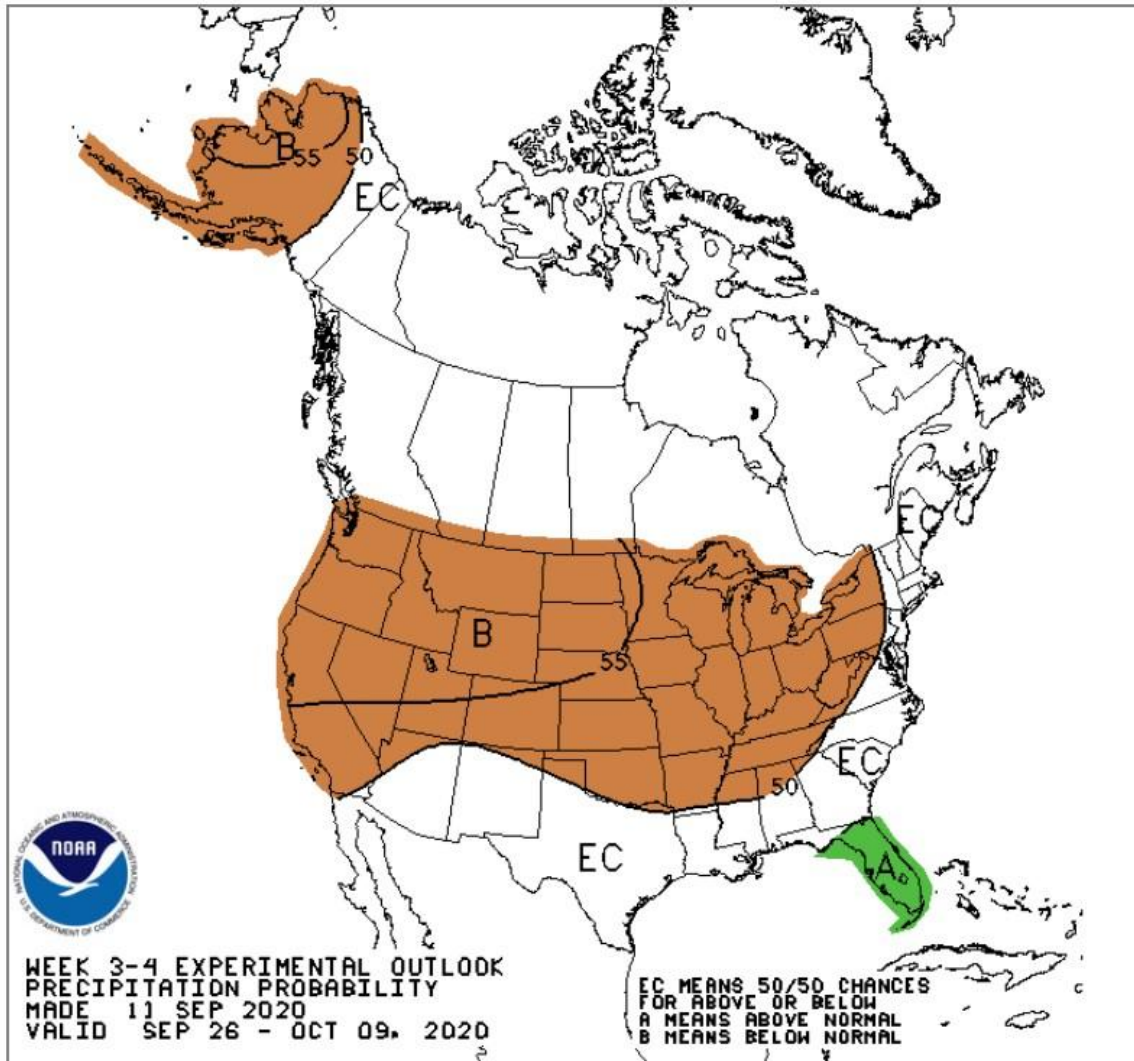


Outlook for Sept 23-29 2020

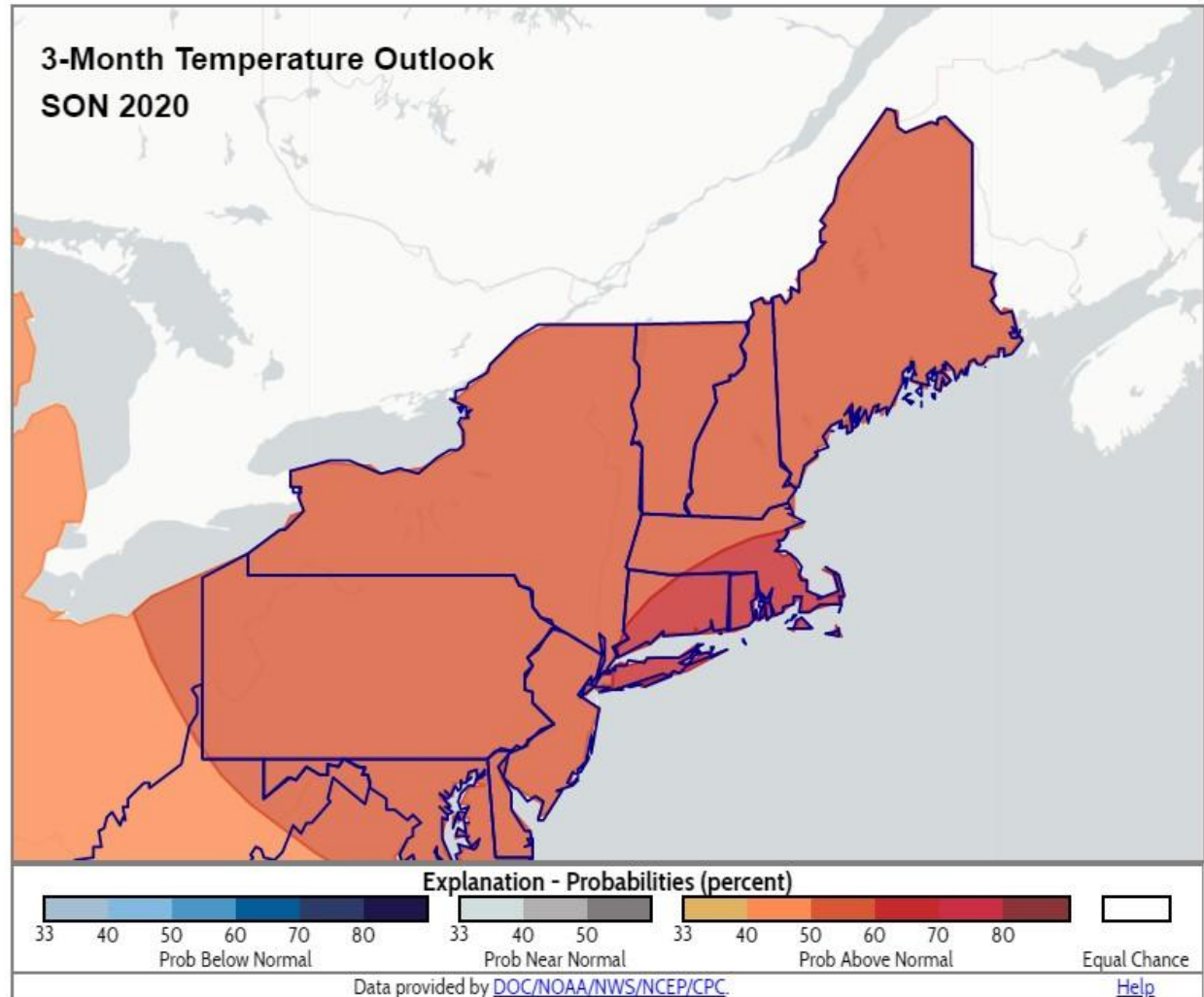
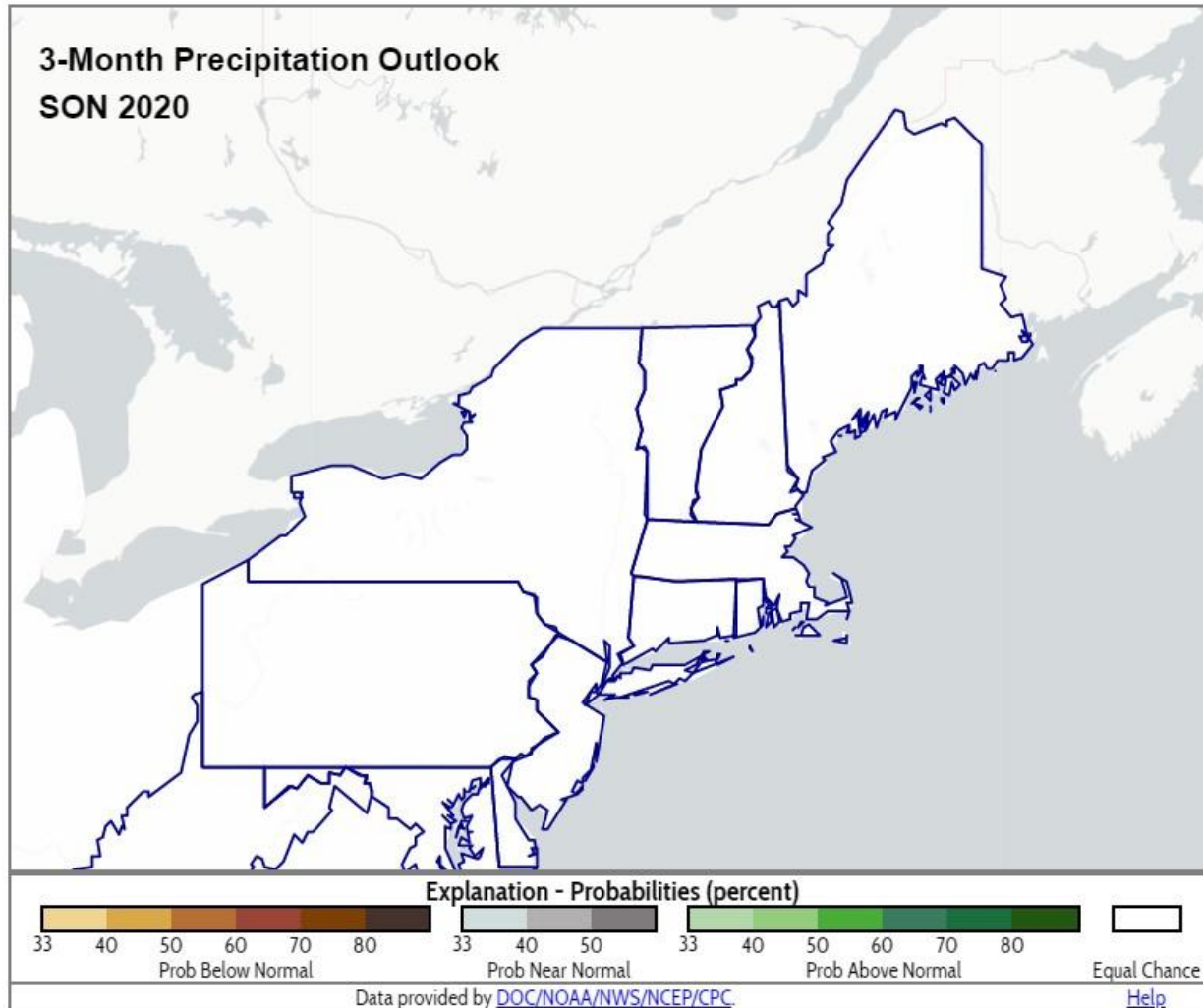


Week 3-4 Outlook*, Sept 26-Oct 9

*Outlook updated at 3 pm EDT Friday



Outlook for Sep/Oct/Nov- Unchanged



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	9/13/2020	52.54	Drought Watch	↓	71.14	74	9/6/2020	55.78	FAIRFIELD
CT0570011	Aquarion Water Co of CT-Greenwich System	9/6/2020	51.71	Drought Watch	↓	69.96	74	8/30/2020	54.92	FAIRFIELD
CT1030021	South Norwalk Electric & Water	9/14/2020	49.68	Drought Advisory	↓	63.25	79	9/8/2020	53.56	FAIRFIELD
CT0150011	Aquarion Water Co of CT-Main System	9/6/2020	73.81	No Drought Stage	↓	82.33	90	8/30/2020	75.76	FAIRFIELD
CT0340011	Danbury Water Department	9/4/2020	76.26	No Drought Stage	↓	78.49	97	8/30/2020	77.85	FAIRFIELD
CT1350011	Aquarion Water Co of CT-Stamford	9/6/2020	69.58	No Drought Stage	↓	70.90	98	8/30/2020	74.60	FAIRFIELD
CT0090011	Bethel Water Dept	9/13/2020	99.32	No Drought Stage	↓	93.48	106	8/30/2020	99.45	FAIRFIELD
CT1310011	Southington Water Department	9/12/2020	23.44	No Drought Stage	↓	63.06	37	9/5/2020	28.36	HARTFORD
CT0170011	Bristol Water Department	9/13/2020	60.67	Drought Advisory	↓	79.52	76	9/6/2020	62.63	HARTFORD
CT0770021	Manchester Water Department	9/13/2020	66.82	Drought Advisory	↓	82.11	81	9/6/2020	68.96	HARTFORD
CT0473011	CTWC - Northern Reg-Western System	9/10/2020	75.18	No Drought Stage	↓	78.20	96	9/3/2020	78.47	HARTFORD
CT0890011	New Britain Water Department	9/3/2020	64.34	Water Supply Alert	↓	65.80	98	8/27/2020	65.51	HARTFORD
CT0640011	Metropolitan District Commission	9/14/2020	85.88	No Drought Stage	↓	85.82	100	9/7/2020	86.84	HARTFORD
CT1220011	Aquarion Water Co of CT-Salisbury Sys	9/6/2020	54.20	No Drought Stage	↓	88.87	61	8/30/2020	56.02	LITCHFIELD
CT1620011	Winsted Water Works	9/13/2020	85.25	No Drought Stage	--	93.74	91	9/6/2020	85.25	LITCHFIELD
CT0980011	Aquarion Water Co of CT-Norfolk System	9/6/2020	92.68	No Drought Stage	↑	97.73	95	8/30/2020	91.95	LITCHFIELD
CT1250011	Sharon Water & Sewer Commission	9/12/2020	100.00	No Drought Stage	--	95.18	105	9/5/2020	100.00	LITCHFIELD
CT1430011	Torrington Water Company	9/4/2020	77.74	No Drought Stage	↓	73.75	105	8/28/2020	79.05	LITCHFIELD
CT0830011	Middletown Water Department	9/13/2020	61.18	Approaching Trigger Level	↑	75.21	81	9/7/2020	59.15	MIDDLESEX
CT0261031	CTWC - Shoreline Region-Chester System	9/10/2020	71.83	No Drought Stage	↓	85.81	84	9/3/2020	74.64	MIDDLESEX
CT0830021	Connecticut Valley Hospital	9/7/2020	85.48	No Drought Stage	↓	90.58	94	8/31/2020	87.72	MIDDLESEX
CT1510011	Waterbury Water Department	8/30/2020	66.87	No Drought Stage	↓	87.28	77	8/23/2020	68.53	NEW HAVEN
CT0608011	CTWC - Shoreline Region-Guilford System	9/10/2020	57.42	No Drought Stage	↓	73.30	78	9/3/2020	63.47	NEW HAVEN
CT0800011	Meriden Water Division	9/7/2020	63.79	No Drought Stage	↓	80.66	79	8/31/2020	65.55	NEW HAVEN
CT0880011	CTWC - Naugatuck Region-Central System	9/10/2020	78.54	No Drought Stage	↓	83.60	94	9/3/2020	79.58	NEW HAVEN
CT0930011	Regional Water Authority	9/13/2020	71.20	No Drought Stage	↓	74.10	96	9/6/2020	73.39	NEW HAVEN
CT1480011	Wallingford Water Department	9/11/2020	77.48	No Drought Stage	↓	76.70	101	9/4/2020	78.74	NEW HAVEN
CT0580011	Jewett City Water Company	9/7/2020	66.36	No Drought Stage	↓	79.20	84	8/31/2020	69.42	NEW LONDON
CT0950011	New London Dept. of Public Utilities	9/6/2020	57.01	No Drought Stage	↓	61.85	92	8/30/2020	59.92	NEW LONDON
CT1370011	Aquarion Water Co of CT-Mystic	9/6/2020	75.27	No Drought Stage	↑	81.76	92	8/30/2020	75.10	NEW LONDON
CT0590011	Groton Utilities	9/7/2020	78.62	No Drought Stage	↓	82.67	95	8/31/2020	80.26	NEW LONDON
CT1040011	Norwich Public Utilities	9/12/2020	79.14	Water Supply Advisory	↓	79.95	99	9/5/2020	81.81	NEW LONDON
CT1340011	CTWC - Northern Reg-Stafford System	9/10/2020	77.80	No Drought Stage	↓↓	94.91	82	9/3/2020	89.63	TOLLAND
CT1630011	Windham Water Works	9/6/2020	100.00	No Drought Stage	--	100.00	100	8/30/2020	100.00	WINDHAM

↑	-Increase since last measurement (less than 10% increase)	Number of systems:		Ave Percent of Normal by County
↑↑	-Increase since last measurement (10% or greater increase)	Greater than or equal to 100% of Normal	6	88.29 FAIRFIELD
↓	-Decrease since last measurement (less than 10% decrease)	Between 90% and 99% of Normal	14	81.33 HARTFORD
↓↓	-Decrease since last measurement (10% or greater decrease)	Less than 90% of Normal	14	91.40 LITCHFIELD
--	-Same measurement as the previous measurement	At 100% Full	2	86.33 MIDDLESEX
				87.50 NEW HAVEN
				92.40 NEW LONDON
				82.00 TOLLAND
				100.00 WINDHAM

Lindquist, Eric

From: Trowbridge, Philip
Sent: Tuesday, September 15, 2020 5:16 PM
To: Wittchen, Bruce; Lindquist, Eric
Cc: Fitting, Corinne; Aarrestad, Peter; Hochholzer, Helene; Hoskins, Douglas; Perry, Jennifer; Foreman, William
Subject: Re: Interagency Drought Workgroup Update

Hello Eric and Bruce,

Below are updates to DEEP's indicators for the IDW. I will be attending the meeting on Thursday for DEEP. Thank you.

Quantitative Indicators

Fire Danger

- Fire Danger currently "Moderate". No new or ongoing fires to report.

Qualitative/Auxiliary Indicators

Fisheries Issues

- Nothing to report

Water Diversions/Well-Field Pumping Issues

- Nothing to report

From: Trowbridge, Philip <Philip.Trowbridge@ct.gov>

Sent: Wednesday, September 2, 2020 8:53 AM

To: Wittchen, Bruce <Bruce.Wittchen@ct.gov>; Lindquist, Eric <Eric.K.Lindquist@ct.gov>

Cc: Fitting, Corinne <Corinne.Fitting@ct.gov>; Aarrestad, Peter <Peter.Aarrestad@ct.gov>; Hochholzer, Helene <Helene.Hochholzer@ct.gov>; Coleman, William <William.Coleman@ct.gov>; Hoskins, Douglas <Douglas.Hoskins@ct.gov>; Perry, Jennifer <Jennifer.Perry@ct.gov>

Subject: Re: Interagency Drought Workgroup Update

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

- Fire Danger currently "Moderate" for Northern counties, "Low" for Southern counties. Expects that it might go to Low statewide if we get enough rain tomorrow. There is still a concern for ground fire at this time of year under the current conditions.

Qualitative/Auxiliary Indicators

Fisheries Issues

- Nothing to report

Water Diversions/Well-Field Pumping Issues