

August Conditions & Northeast DEWS Discussion

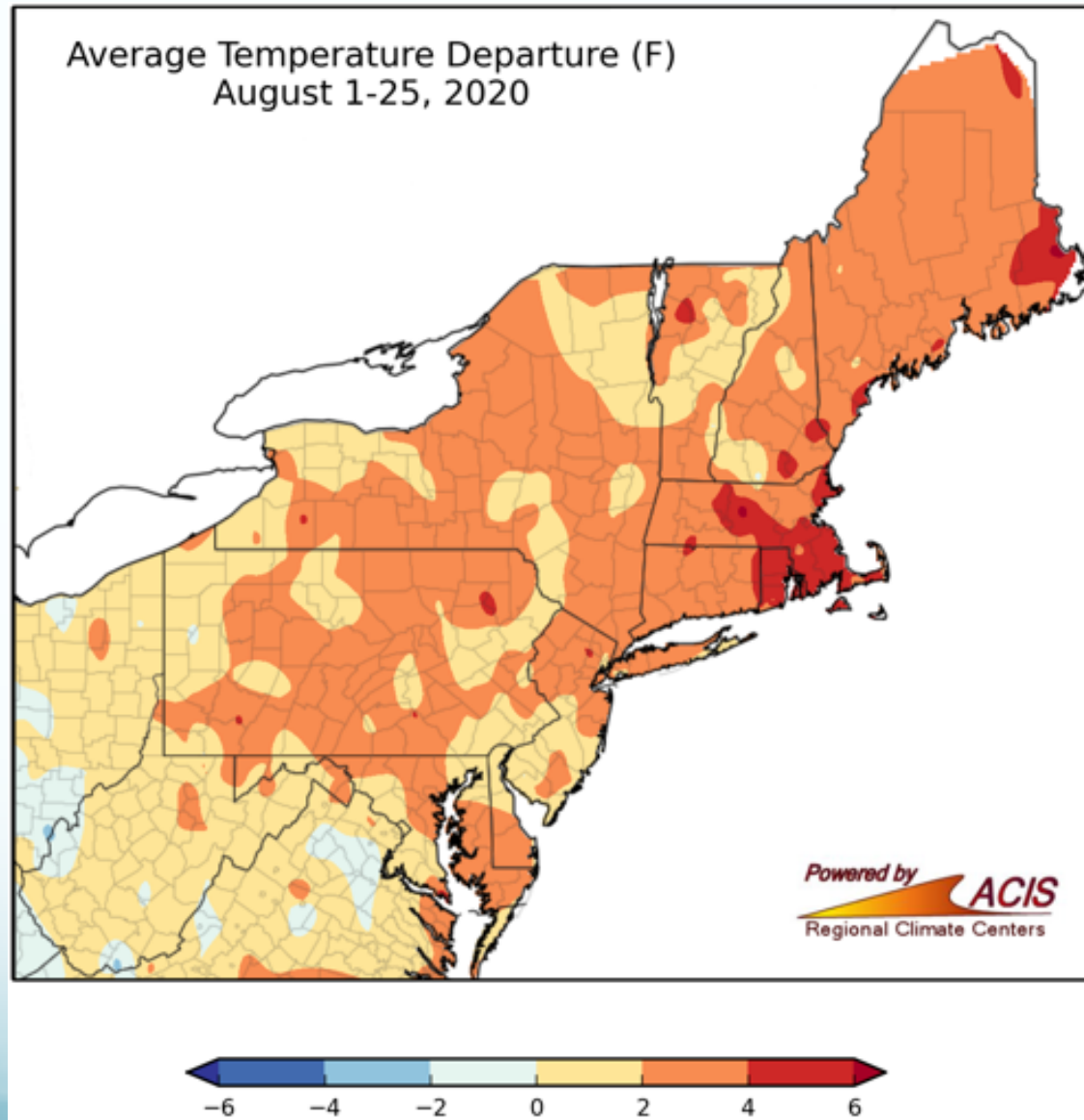
By: Jessica Spaccio, Climatologist
Northeast Regional Climate Center



Northeast Regional
Climate Center

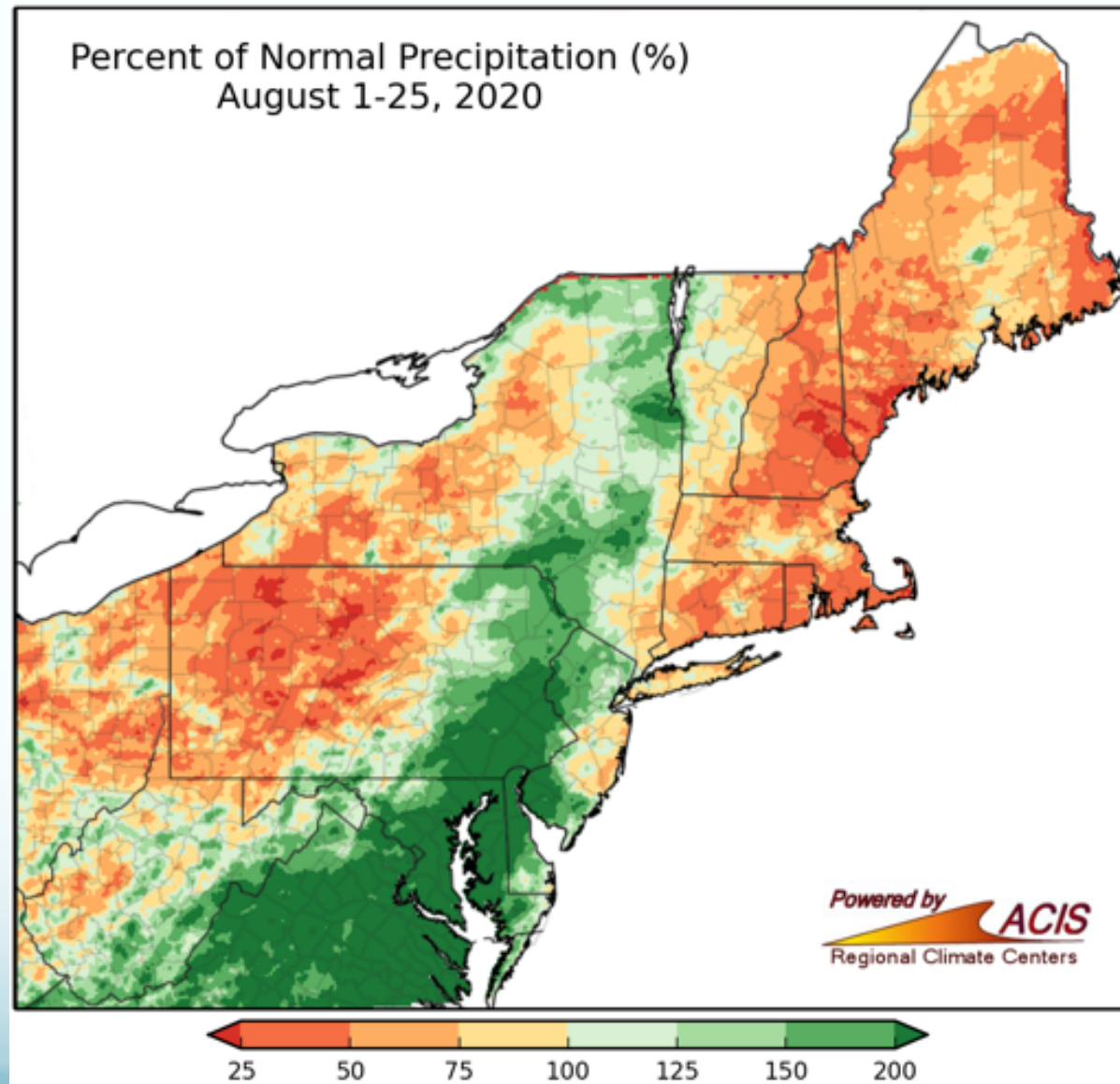


August Temperatures



From near normal to more than 4°F above normal

August Precipitation



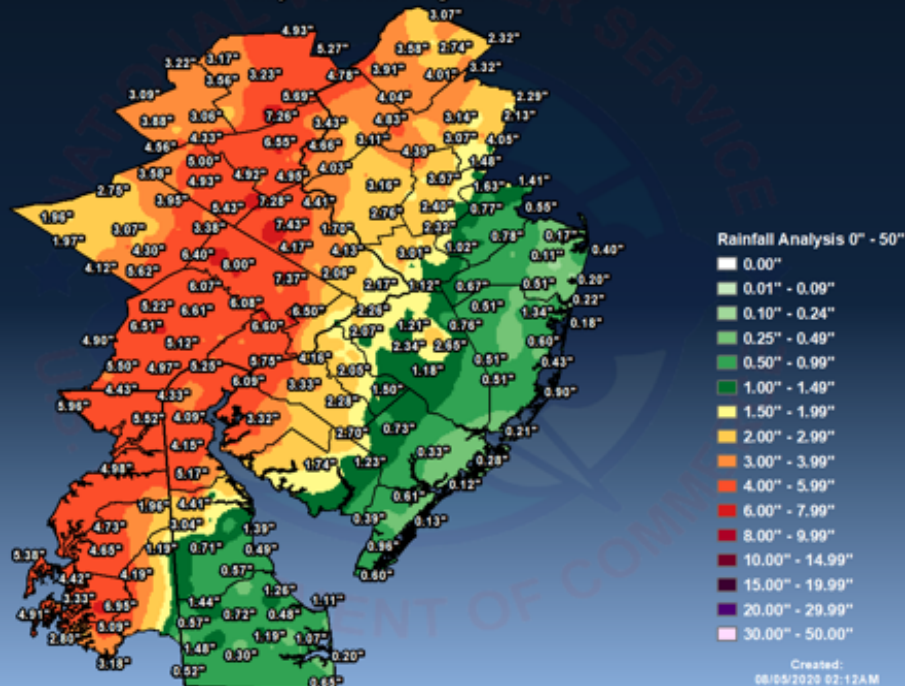
From less than 25% of normal to more than 200% of normal



National Weather Service Mount Holly/Philadelphia

Tropical Storm Isaias Preliminary Storm Total Rainfall

Analysis Data Source: Regional Observations



This is an experimental product. Care should be taken in using the data. Unofficial observations are plotted. Values at interpolated locations may not represent actual precipitation totals at that location.

Credit: NWS
Philadelphia/Mt.
Holly

Tropical Storm Isaias August 4th

- Earliest "I" named storm on record
- Greatest rain totals of 4-9"
- Allentown, PA had wettest August day with 4.92" of rain
- Significant flooding, especially in southeast Pennsylvania



Tropical Storm Isaias August 4th

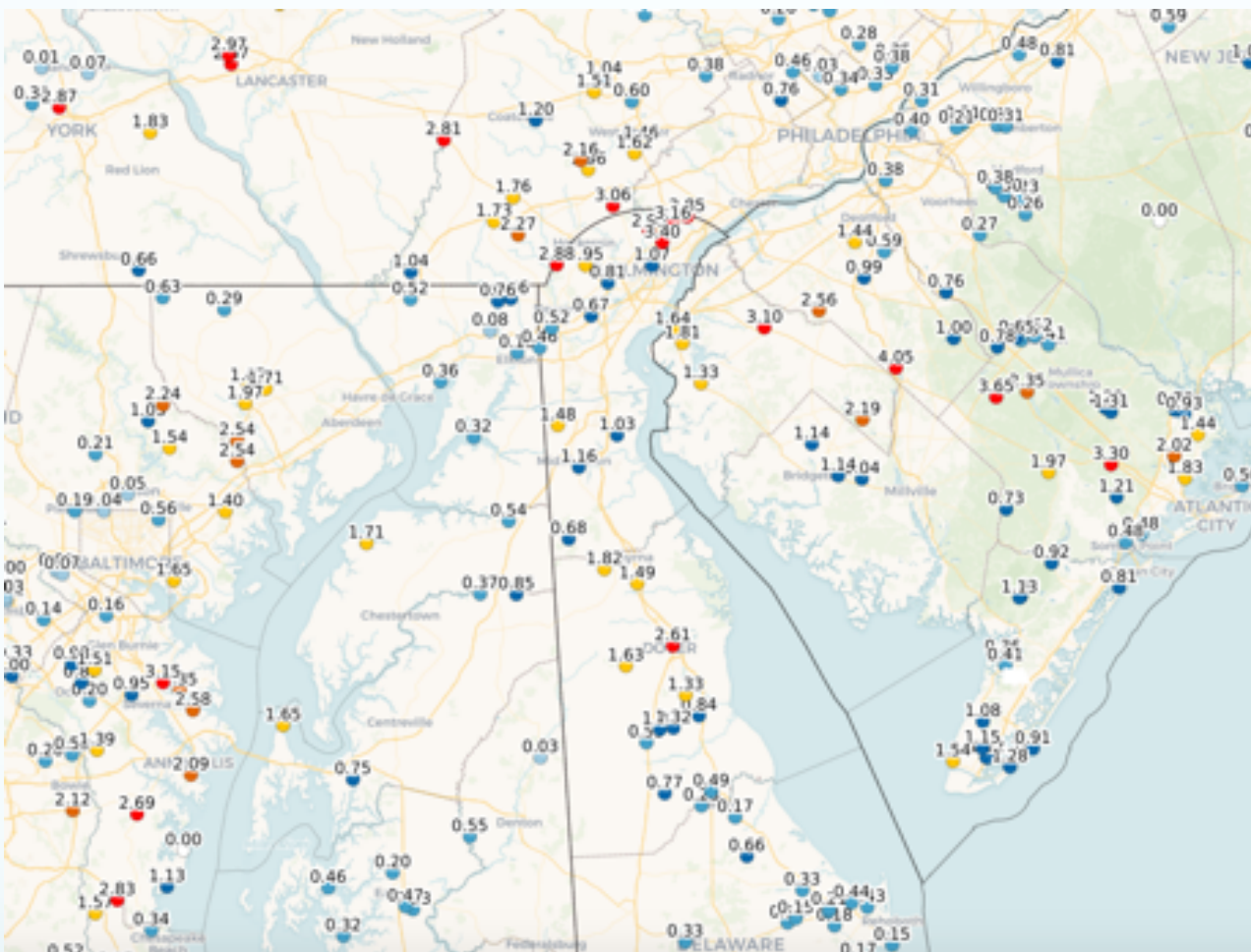


Credit: NWS AKQ

- 16 tornadoes (9 in MD, 3 in DE, 2 each in PA and NJ, and 1 in CT)
- In Delaware one tornado was on the ground for over 35 miles, the state's longest tornado track on record.
- Storm's highest wind gusts were 60–78 mph; Mt. Washington had its highest August wind gust of 147 mph.



August Flash Flooding



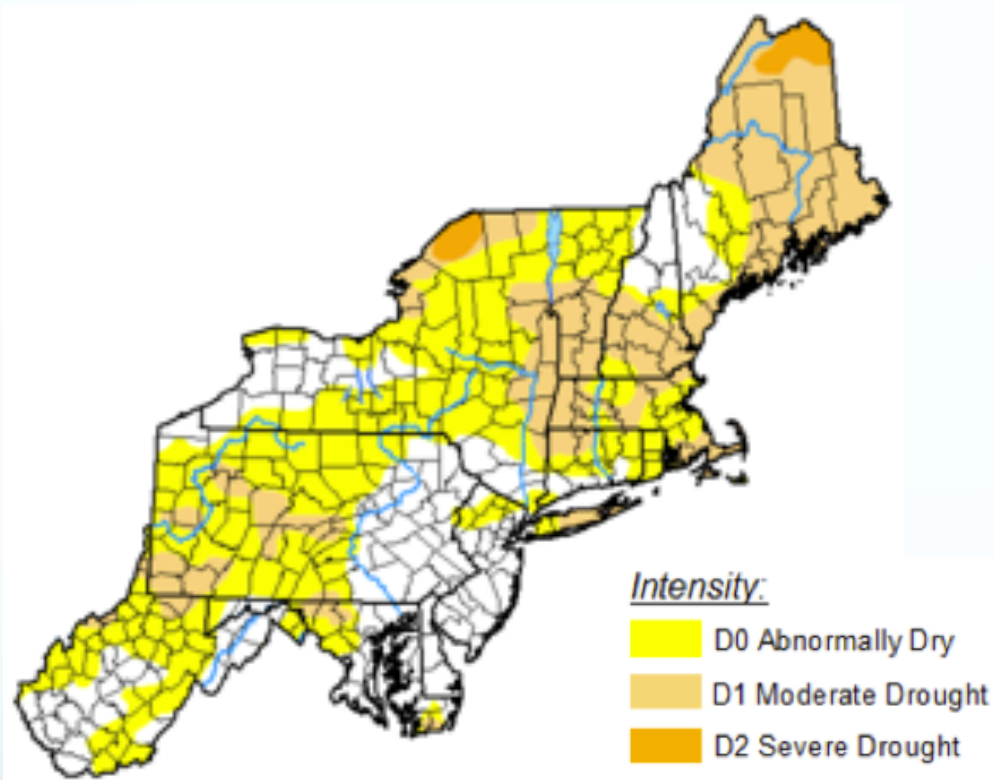
On August 7 Winterthur, DE, had 4.11 inches of rain in an hour (1.03 inches in five minutes), making it a 1,000-year storm event. Northern Delaware experienced some of its worst flash flooding in at least 15 years. (Reported by Dan Leathers, DE State Climatologist)

Credit: CoCoRaHS

In southeast Pennsylvania - Chester Creek had one of its five highest water levels on record for the second time in less than a week.

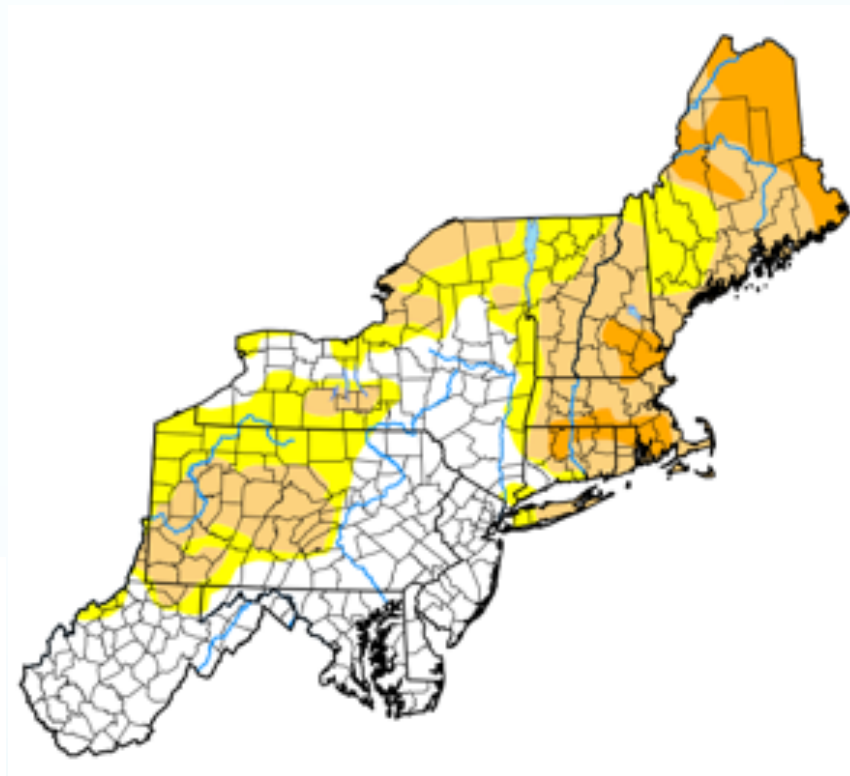


Drought Monitor



July 28:

29% of the region was in a moderate or severe drought
42% was abnormally dry

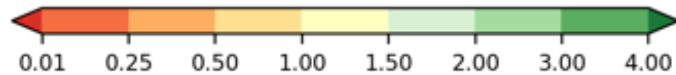
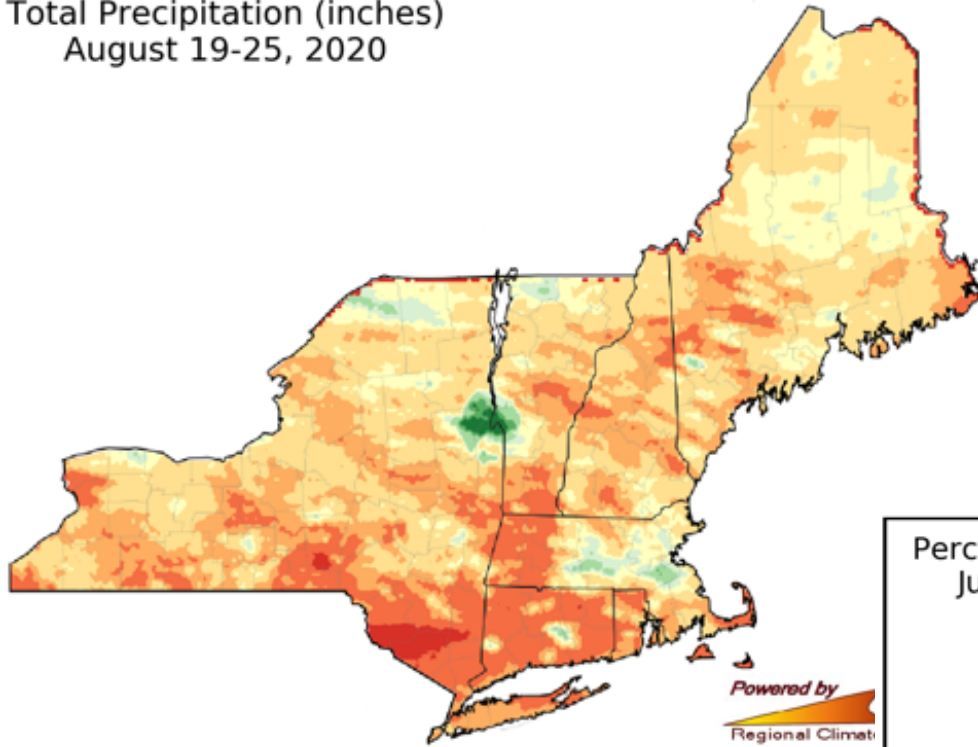


August 25:

37% of the region was in a moderate or severe drought
23% was abnormally dry



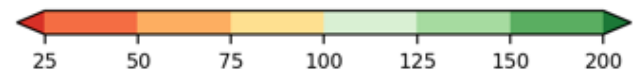
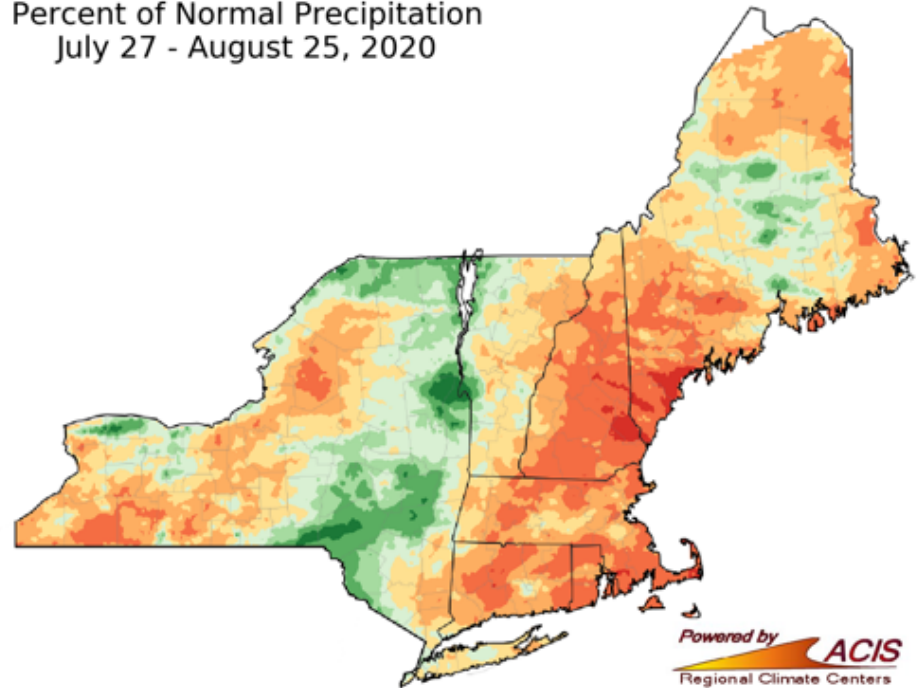
Total Precipitation (inches)
August 19-25, 2020



Powered by
Regional Climate

Precipitation

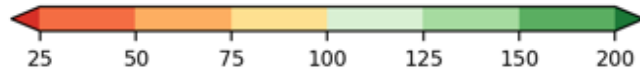
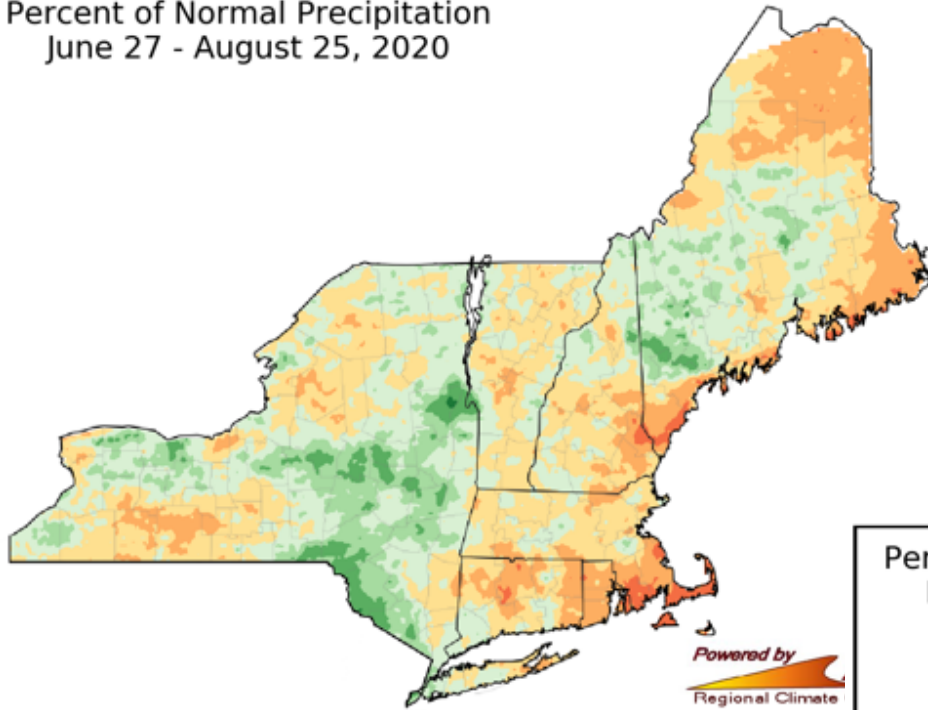
Percent of Normal Precipitation
July 27 - August 25, 2020



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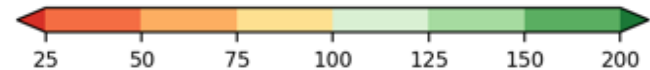
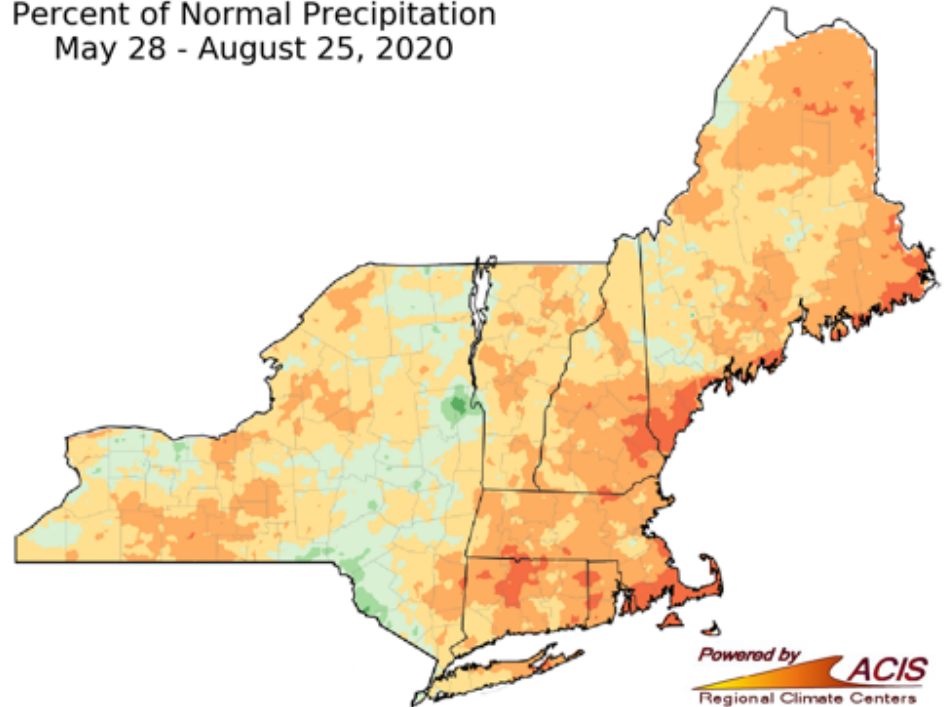


Percent of Normal Precipitation
June 27 - August 25, 2020

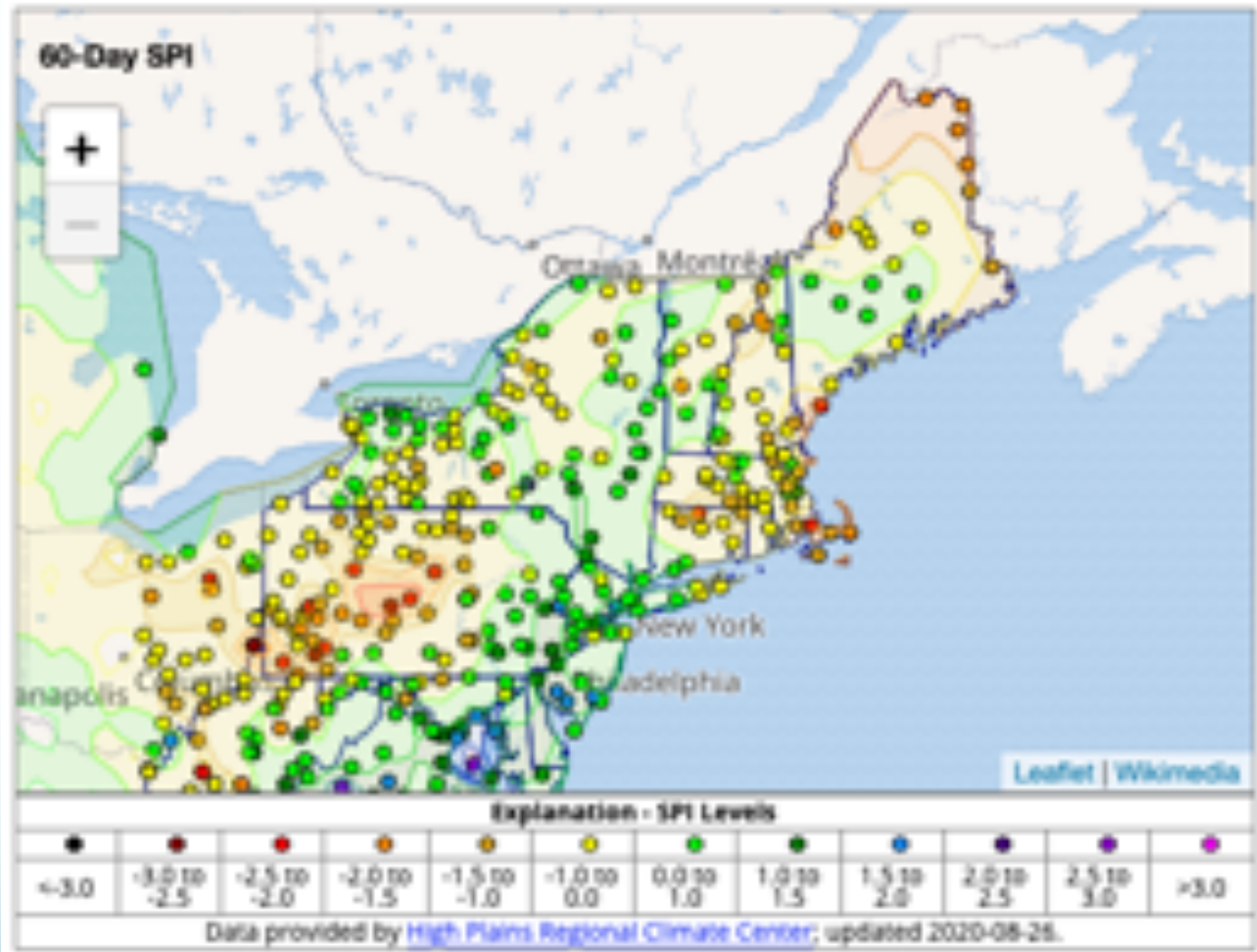


Precipitation

Percent of Normal Precipitation
May 28 - August 25, 2020

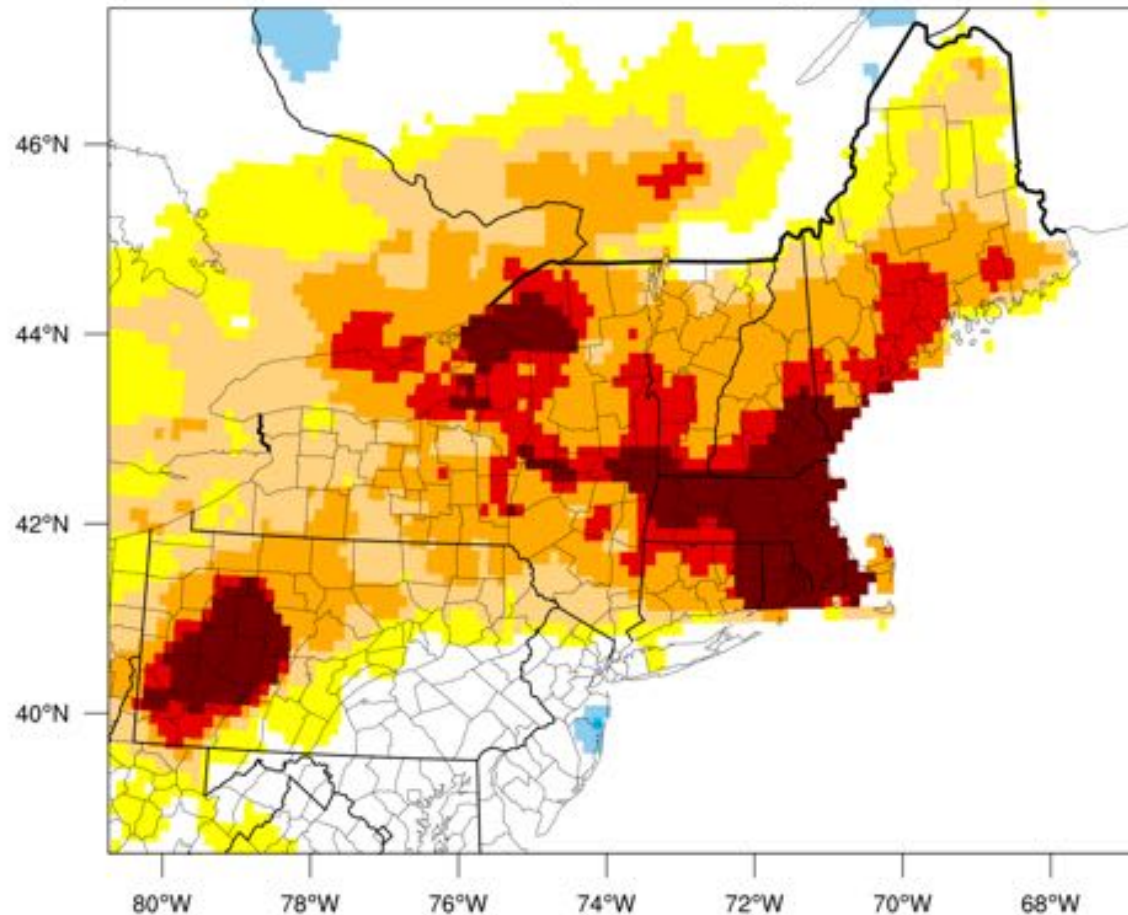


Standardized Precip Index



Evap. Drought Demand Index

1-month EDDI categories for August 20, 2020



Drought categories

Wetness categories



100% 98% 95% 90% 80% 70% 30% 20% 10% 5% 2% 0%

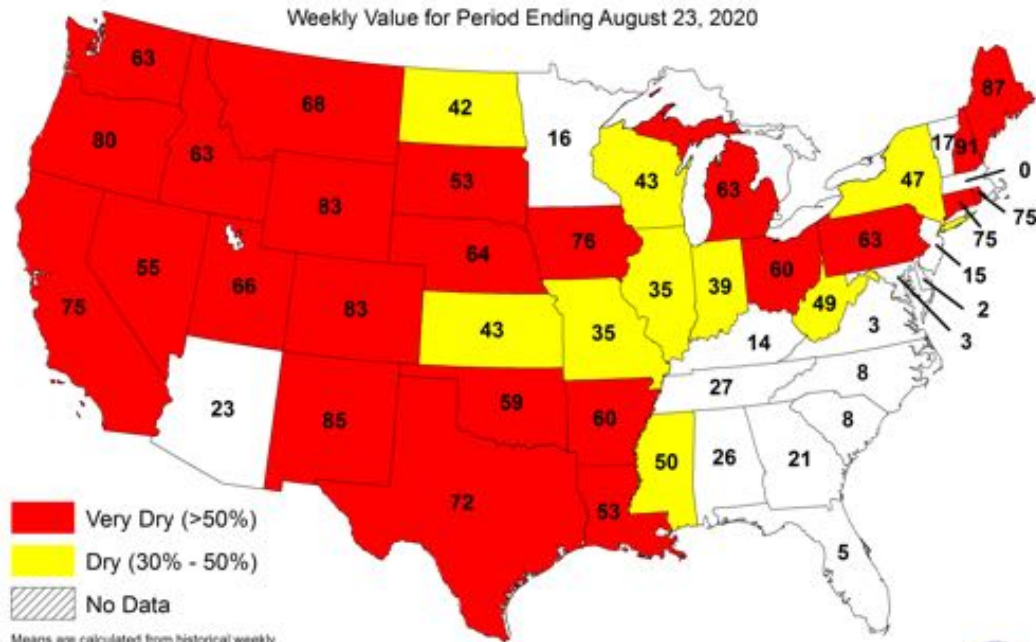
(EDDI-percentile category breaks: 100% = driest; 0% = wettest)

Generated by NOAA/ESRL/Physical Sciences Laboratory



Soil Moisture

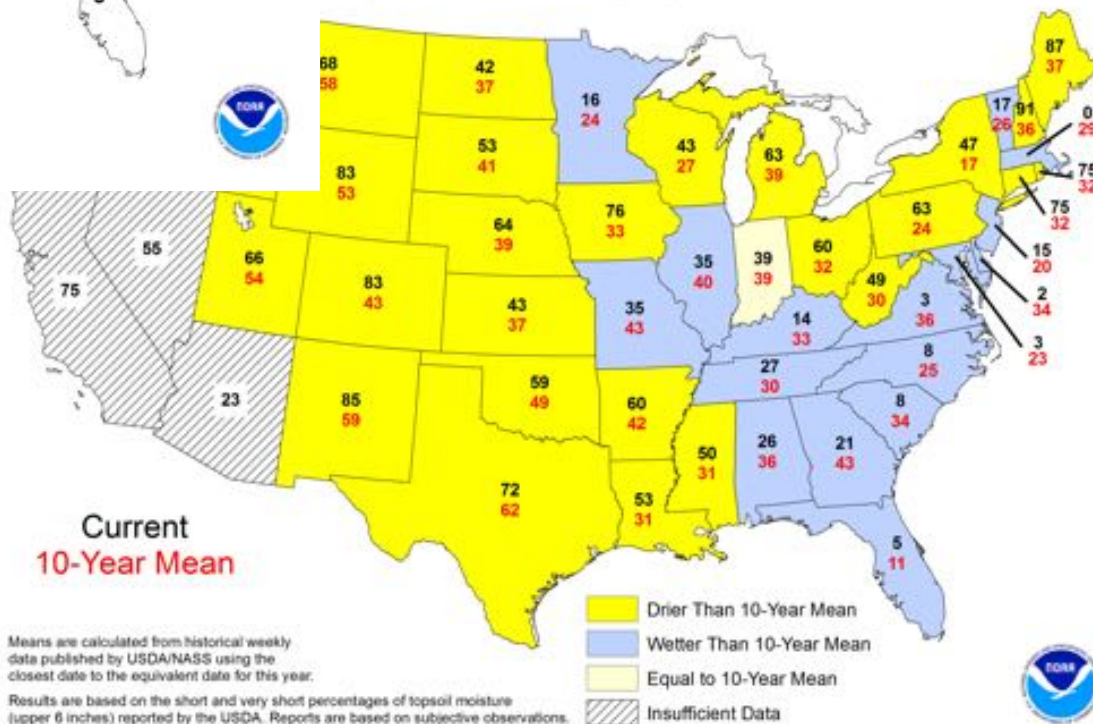
USDA Topsoil Moisture by Short-Very Short
Percent of State Area
Weekly Value for Period Ending August 23, 2020



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. 10-Year mean
Weekly Value for Period Ending August 23, 2020



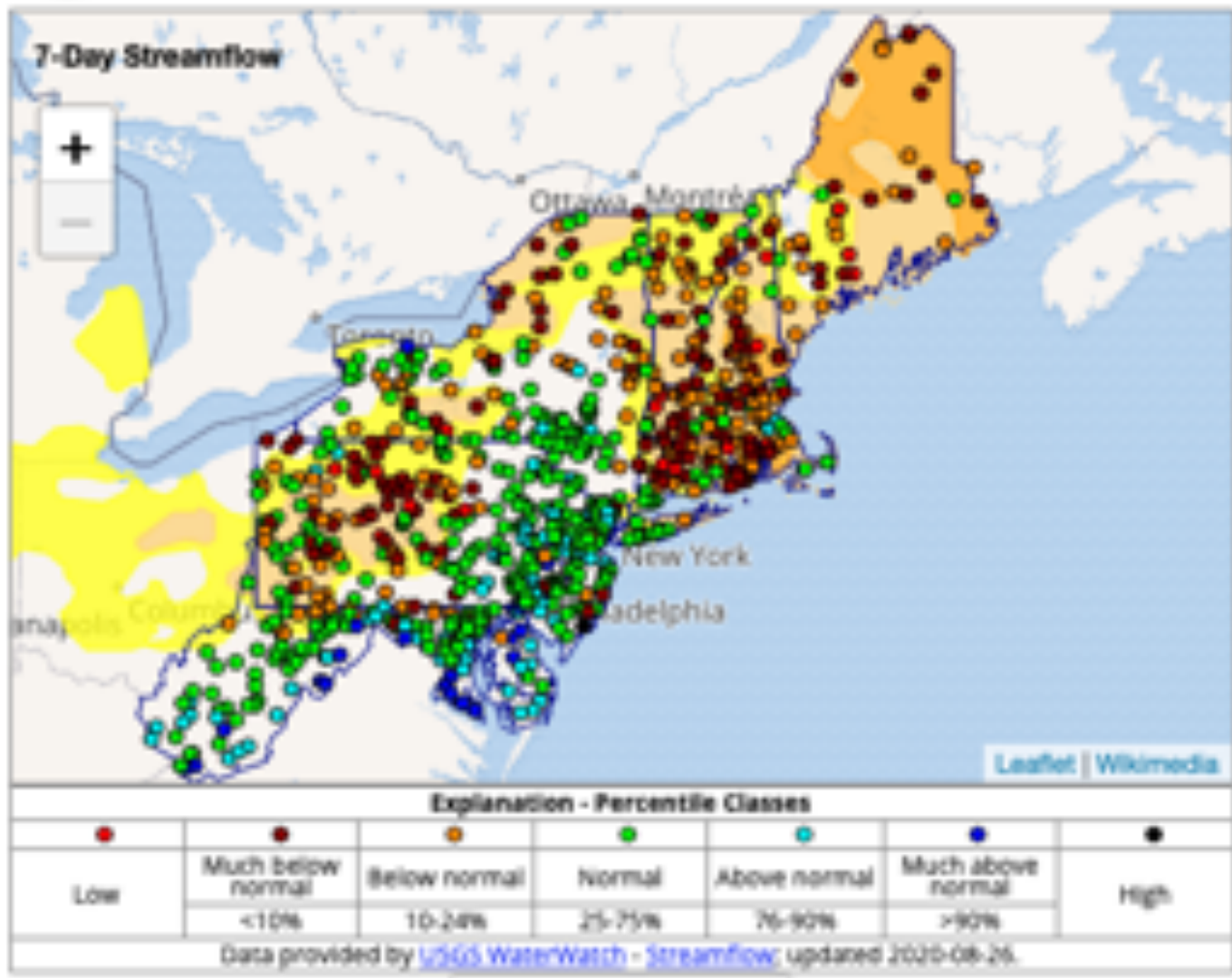
Current
10-Year Mean

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

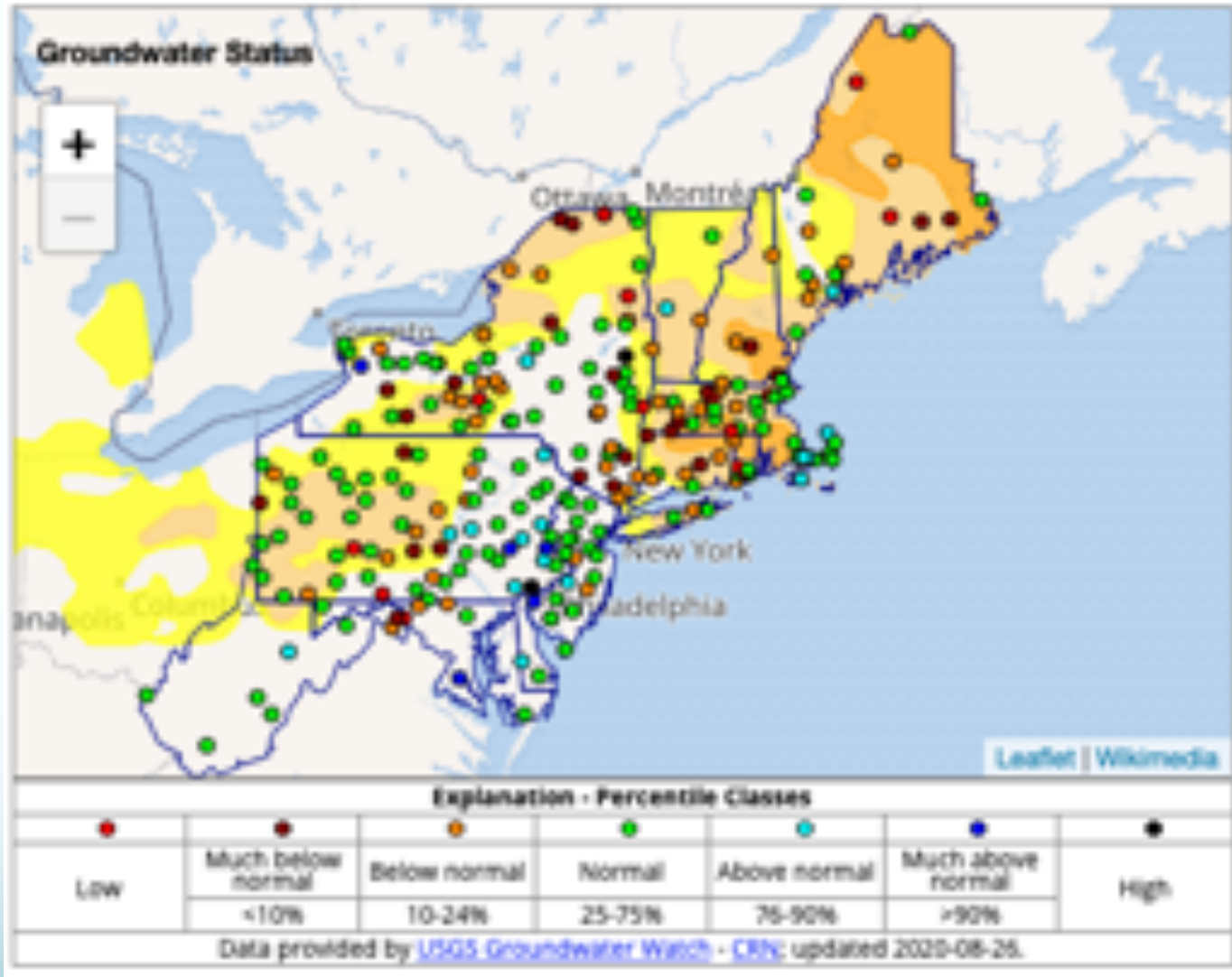
Results are based on the short and very short percentages of topsoil moisture (upper 6 inches) reported by the USDA. Reports are based on subjective observations.



Streamflow



Groundwater

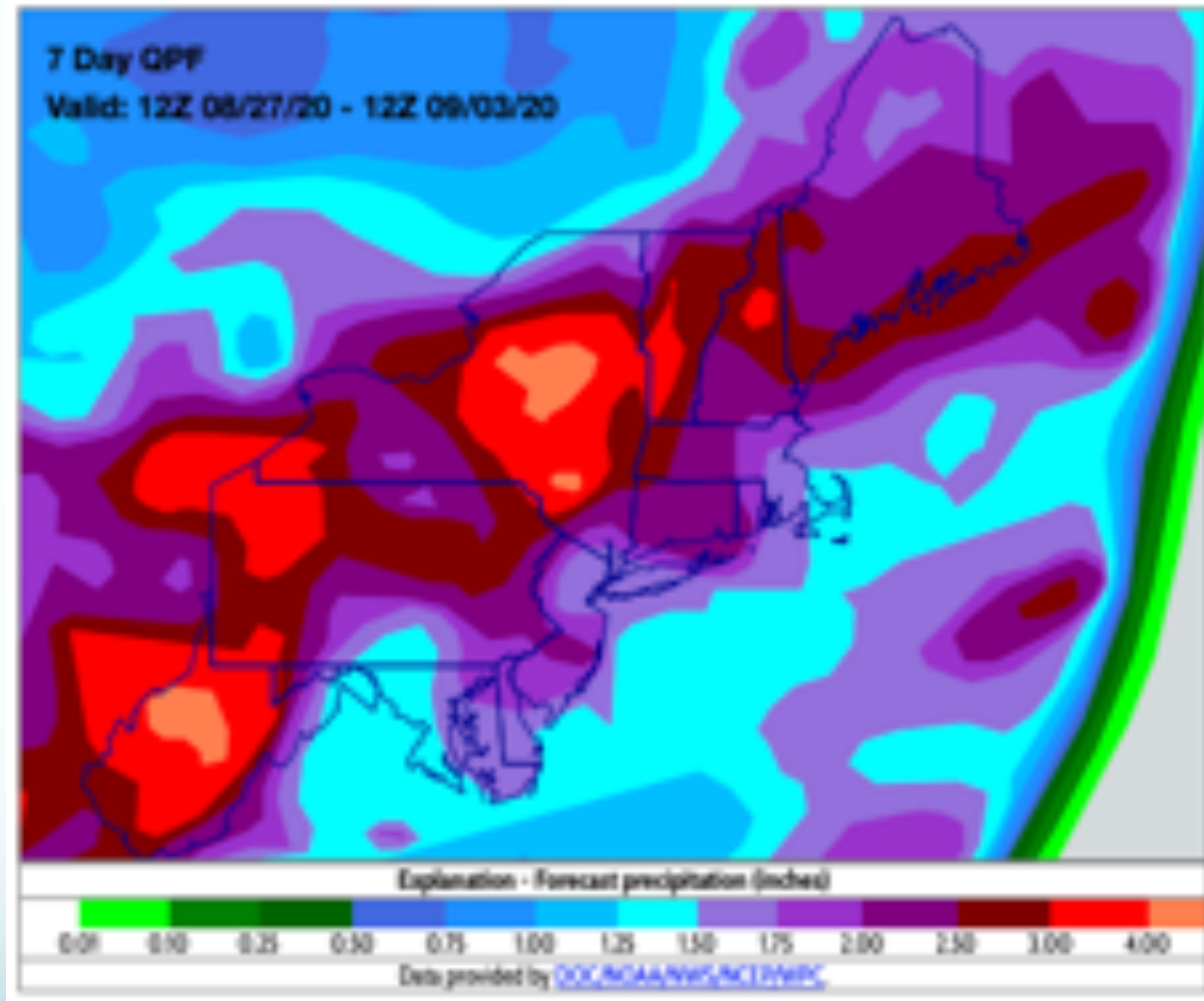


Impacts

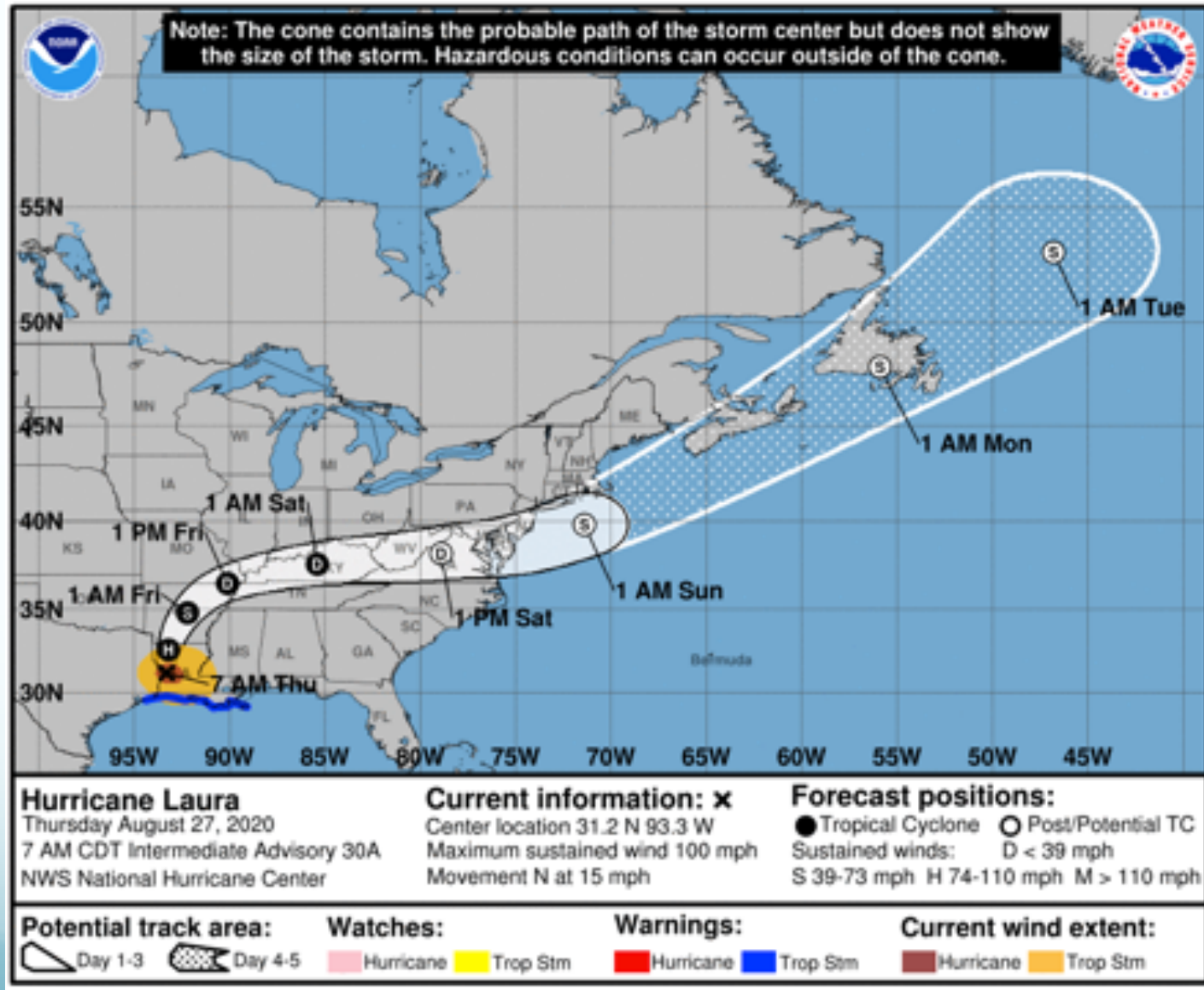
- Elevated fire risk in New England
- Water restrictions in place for numerous locations in Massachusetts, New Hampshire and several locations in Connecticut.
- Some shallow wells in Downeast Maine went dry.
- Some farmers are irrigating to keep crops growing. Some crop losses in non-irrigated fields.
- Smaller-sized apples reported in New England
- Leave turning yellow/brown and dropping earlier than usual.
- Brown yards
- Fewer mosquitos in Massachusetts.



Precipitation Forecast

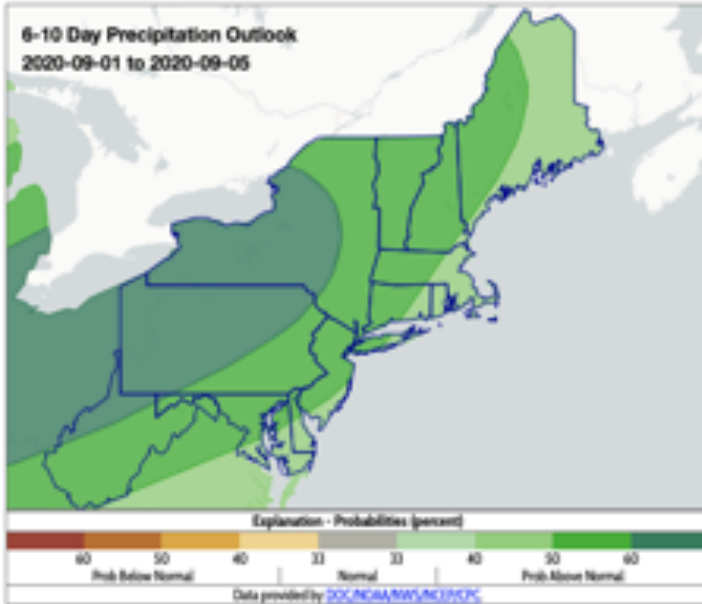


Precipitation Forecast

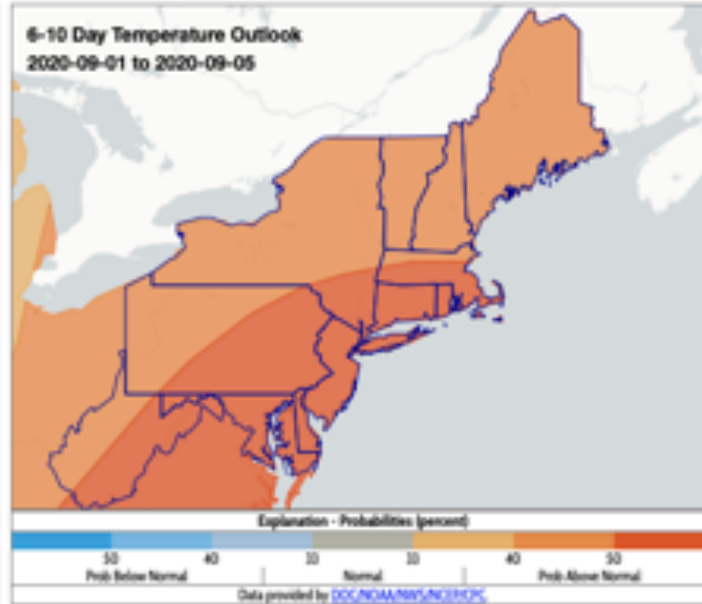


Short-term Outlooks

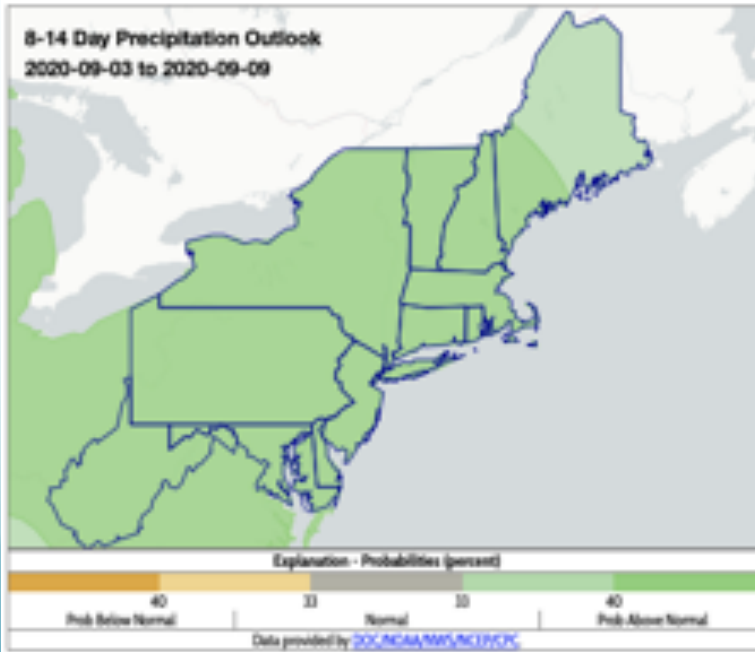
6-10 Day Precipitation Outlook
2020-09-01 to 2020-09-05



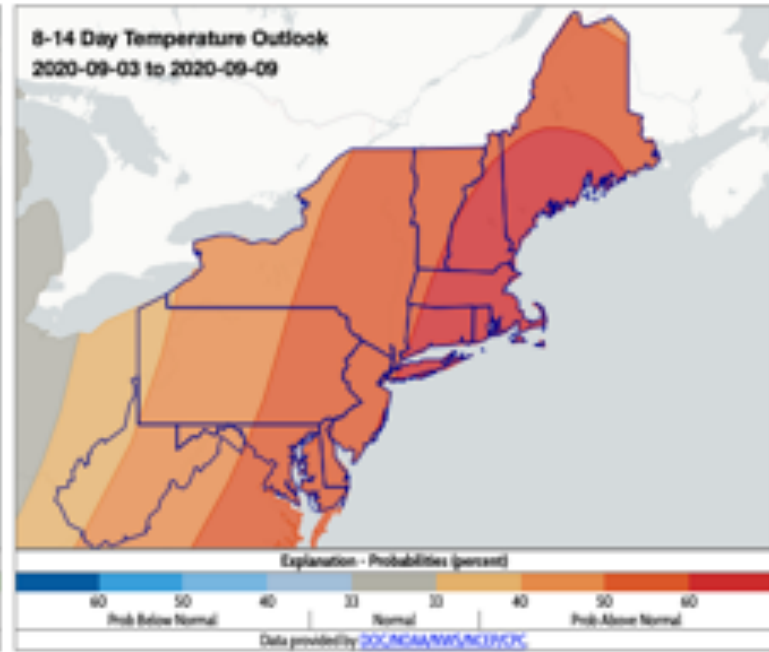
6-10 Day Temperature Outlook
2020-09-01 to 2020-09-05



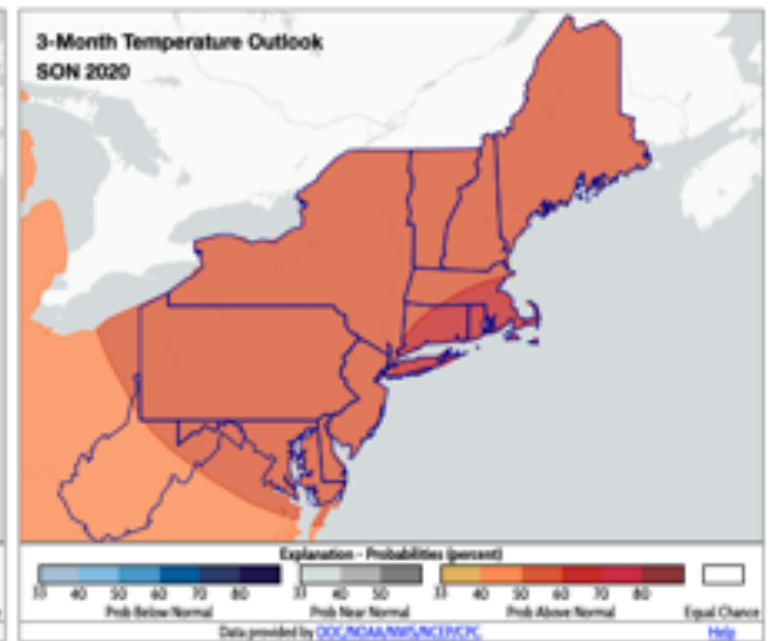
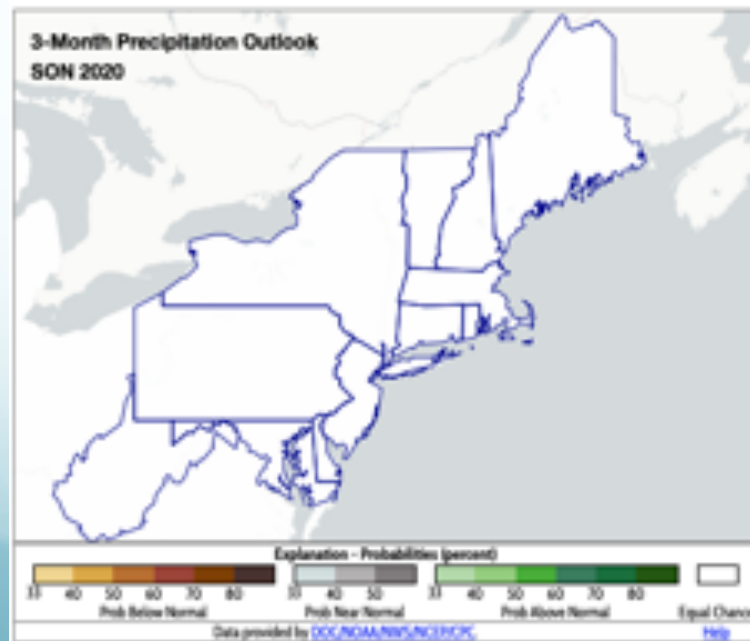
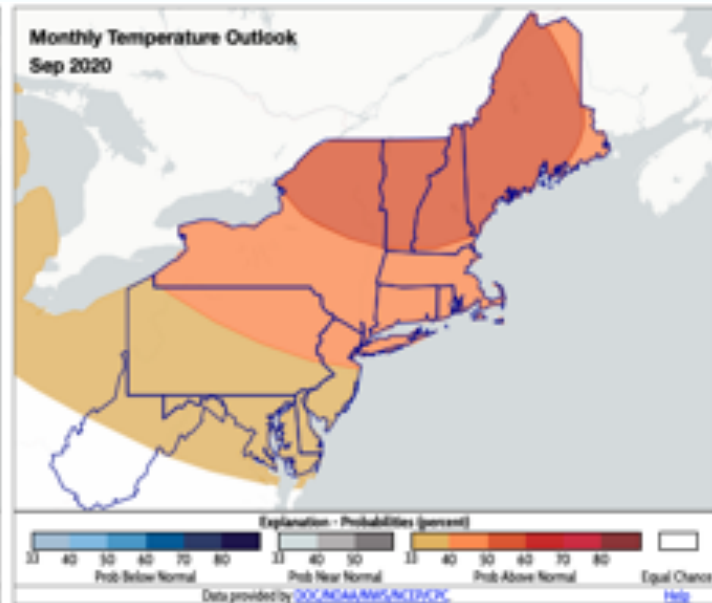
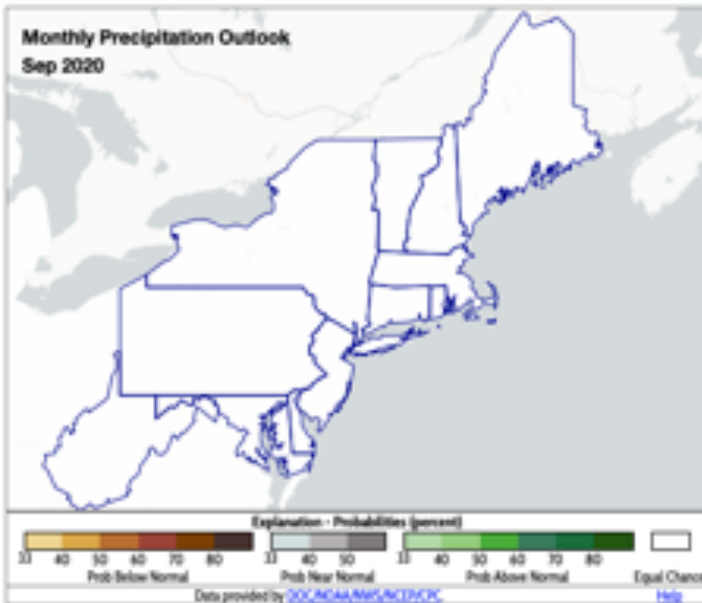
8-14 Day Precipitation Outlook
2020-09-03 to 2020-09-09



8-14 Day Temperature Outlook
2020-09-03 to 2020-09-09



Monthly & 3-Month Outlooks



Contact Information

- nrcc@cornell.edu
- 607-255-1751

Upcoming Webinars

- Tuesday, September 29 at 9:30am
 - Earth system models and applications for climate and marine fisheries
- Thursday, October 29 at 9:30am
 - Drought projects
- Thursday, November 19 at 9:30am
 - El Niño forecasts for the 2020-21 season

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