

August Conditions & Northeast DEWS Discussion

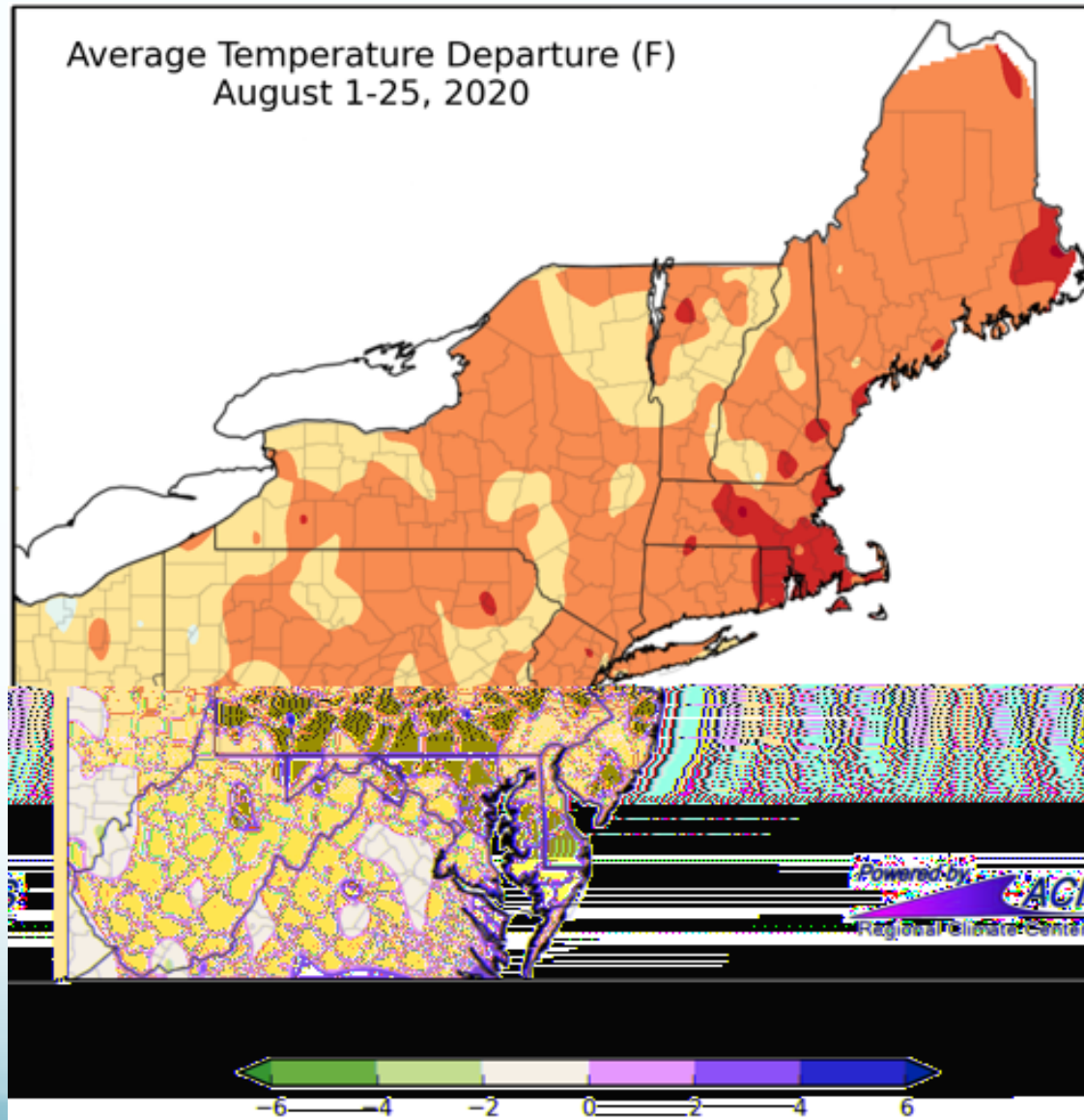
By: Jessica Spaccio, Climatologist
Northeast Regional Climate Center



Northeast Regional
Climate Center

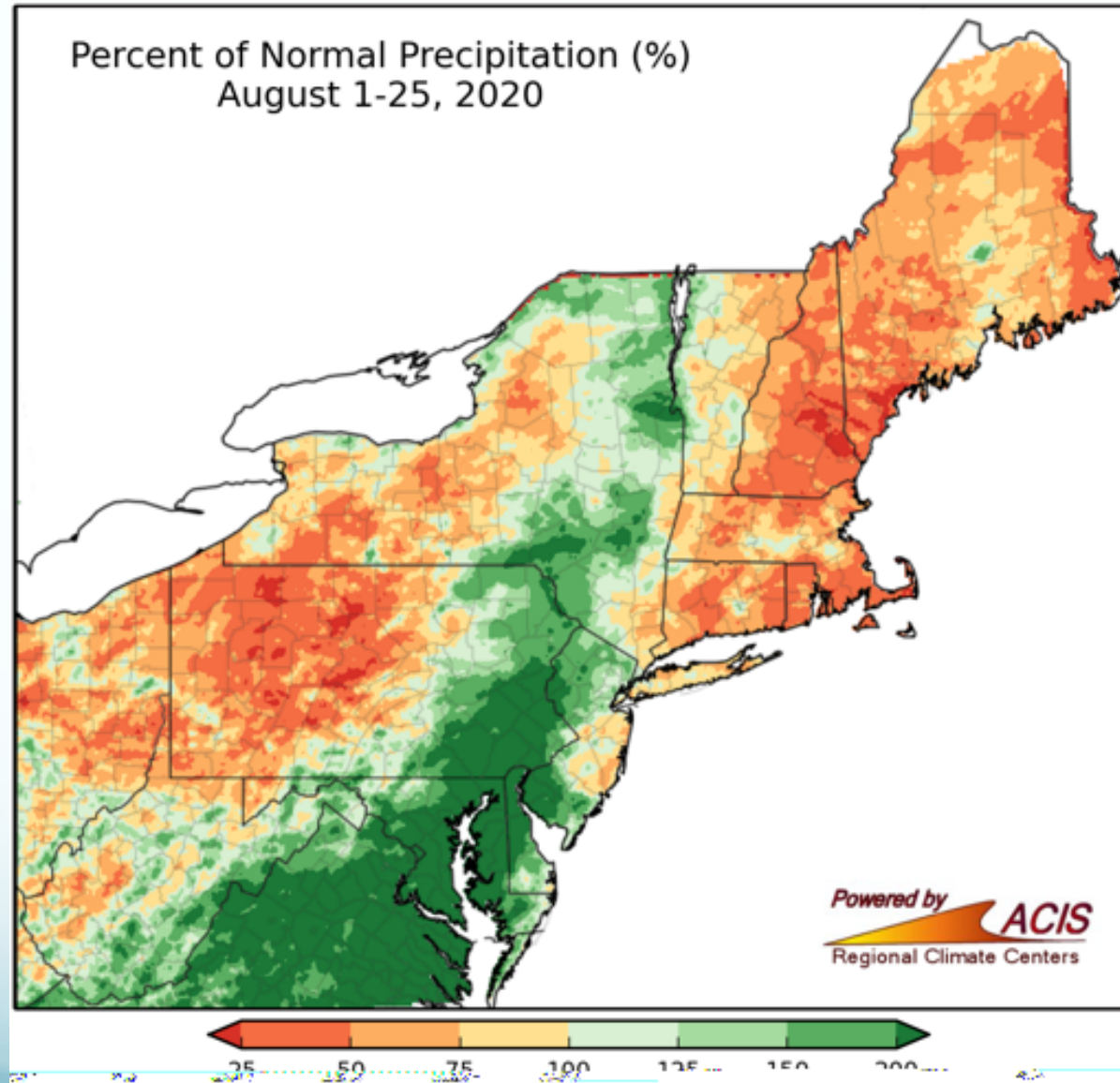


August Temperatures



From near normal to more than 4°F above normal

August Precipitation



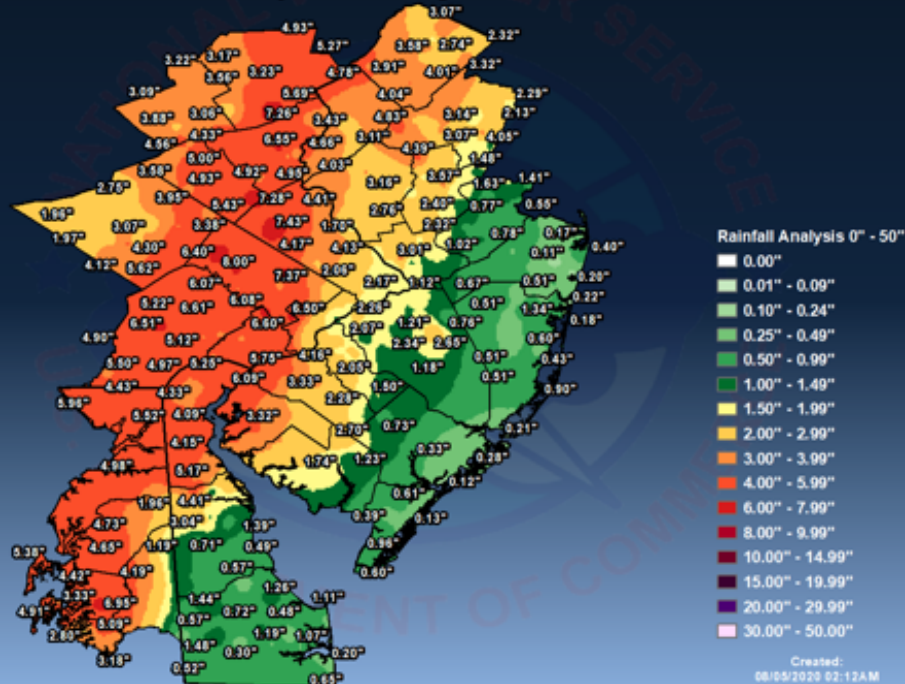
From less than 25% of normal to more than 200% of normal



National Weather Service Mount Holly/Philadelphia

Tropical Storm Isaias Preliminary Storm Total Rainfall

Analysis Data Source: Regional Observations



Tropical Storm Isaias August 4th

Credit: NWS Philadelphia/Mt. Holly

- 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

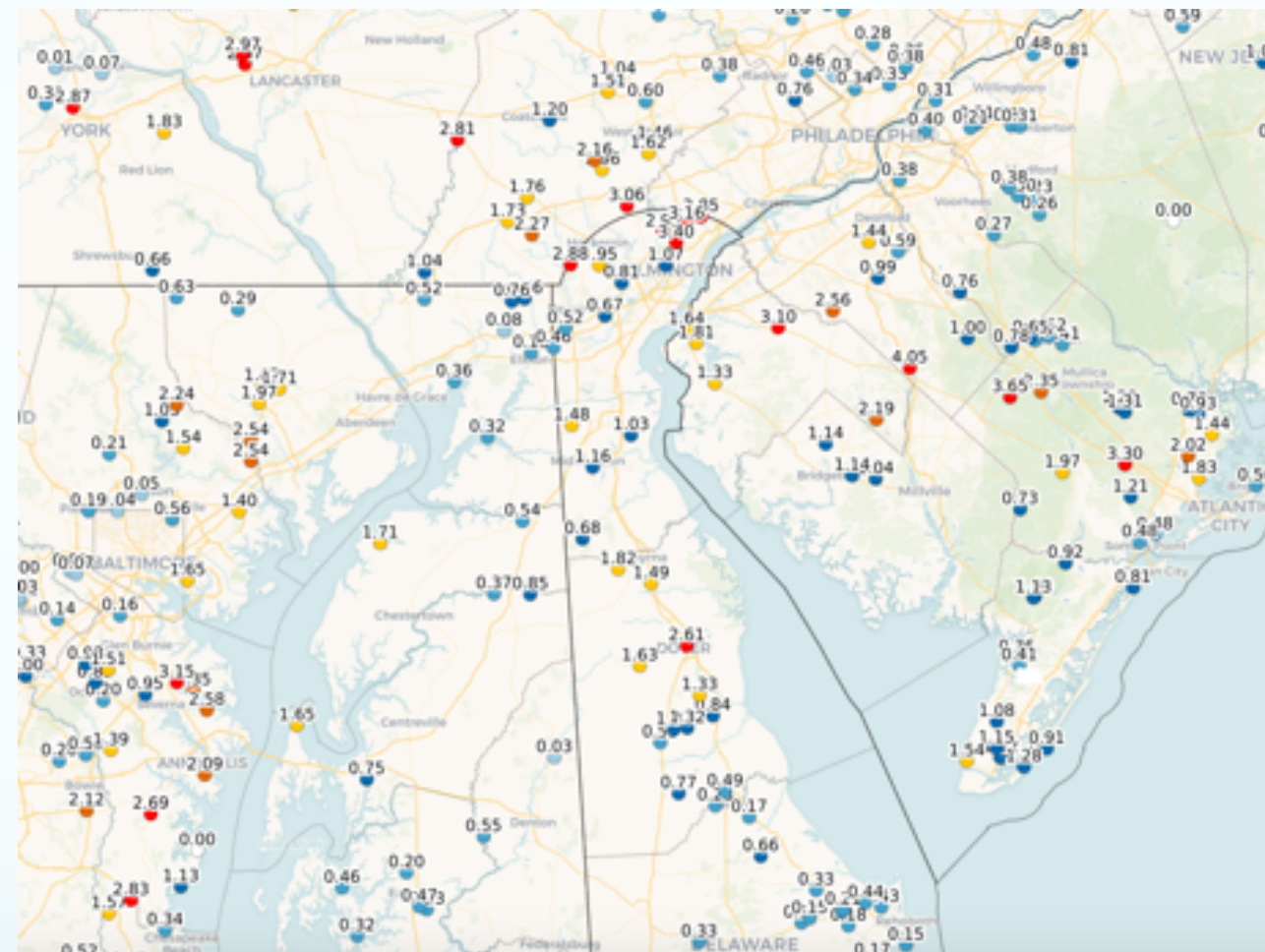


Credit: NWS AKQ

- 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



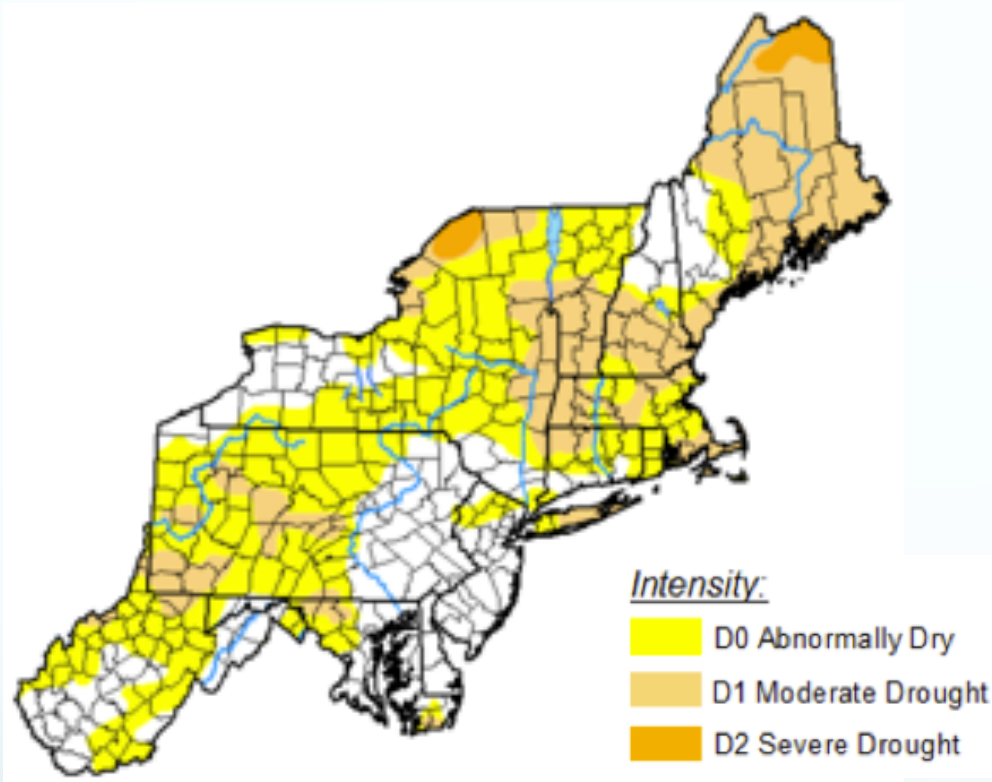
On August 7 Winterthur, DE, had 4.11 inches of rain in an hour (1.03 inches in five minutes), making it a 1,000-year storm event. Northern Delaware experienced some of its worst flash flooding in at least 15 years. (Reported by Dan Leathers, DE State Climatologist)

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.

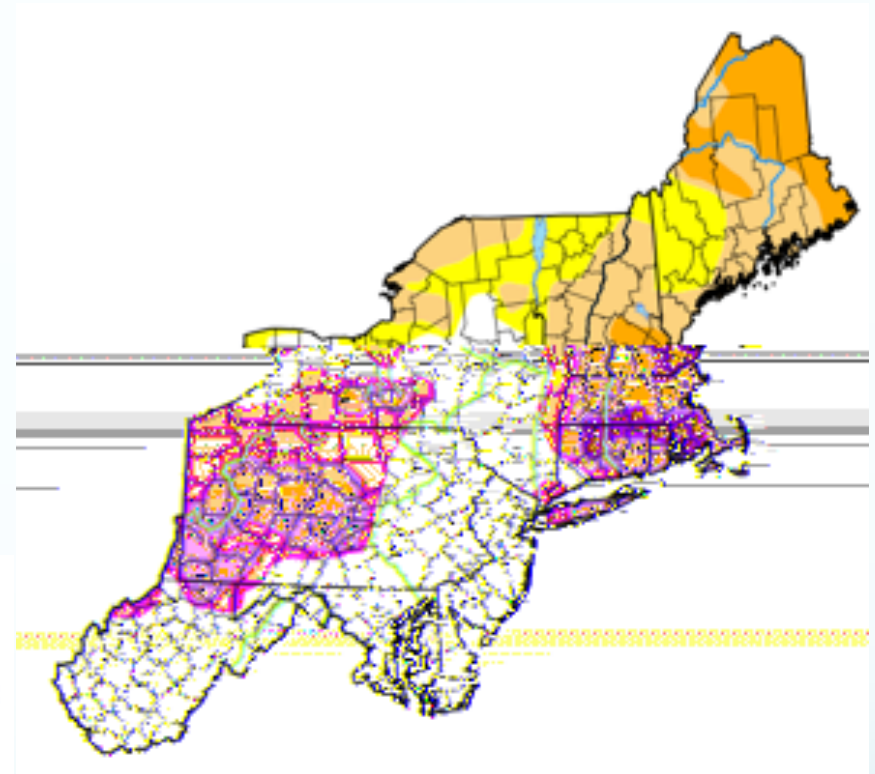


Drought Monitor



July 28:

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

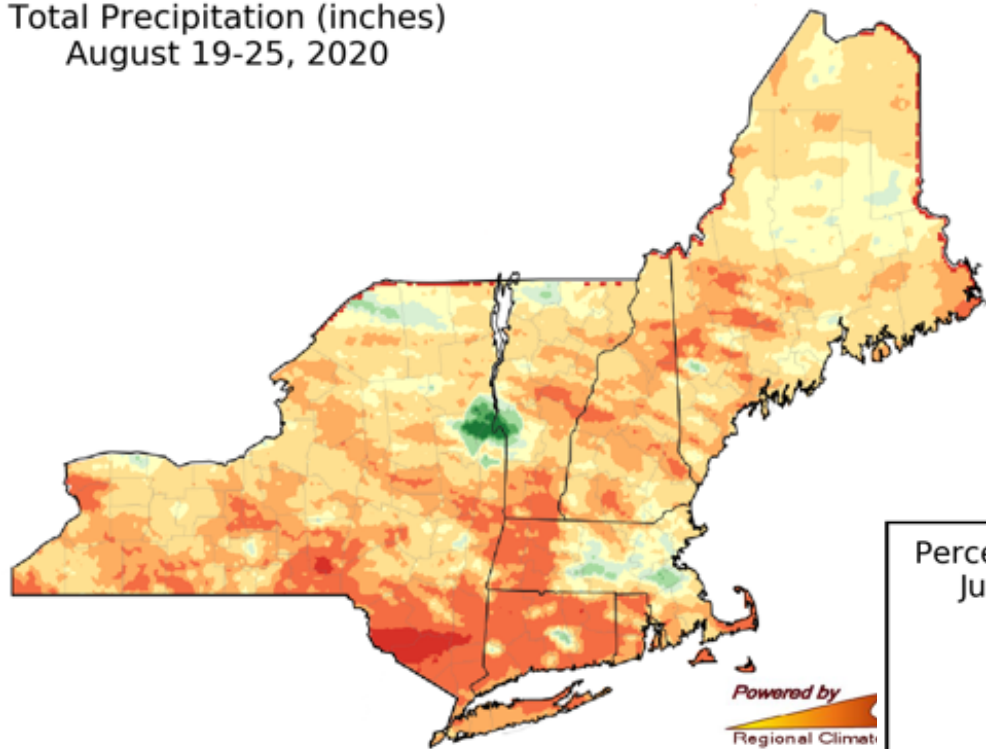


August 25:

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

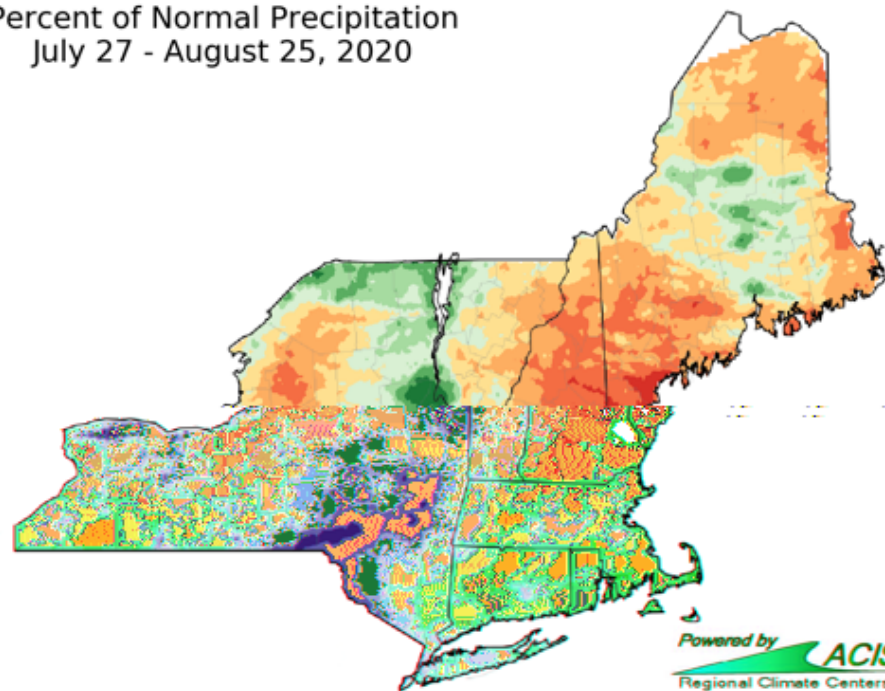


Total Precipitation (inches)
August 19-25, 2020

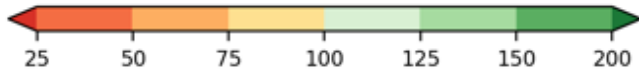
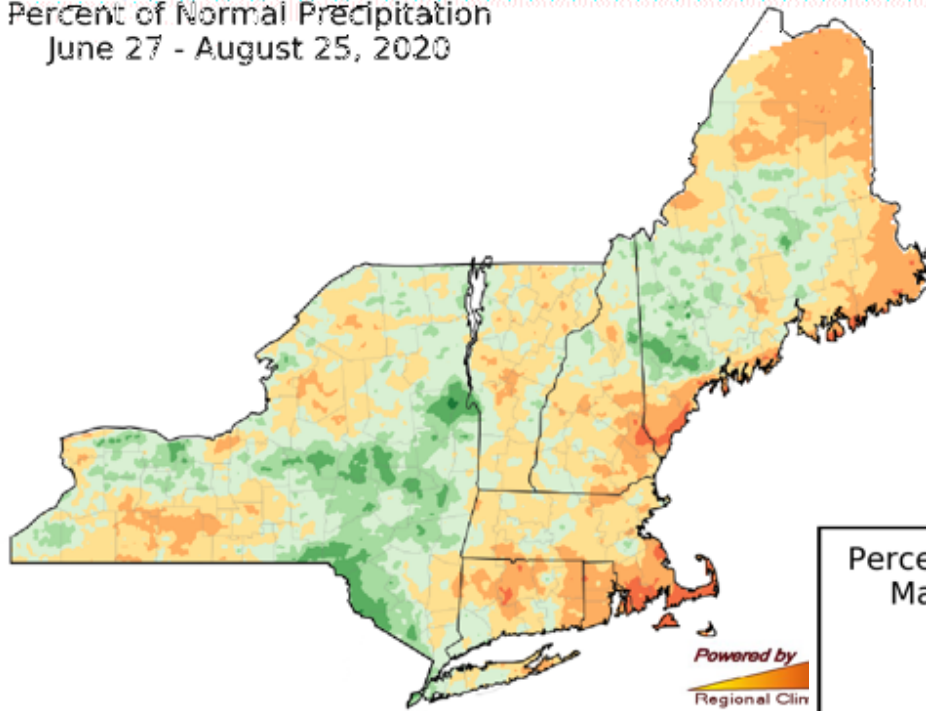


Precipitation

Percent of Normal Precipitation
July 27 - August 25, 2020

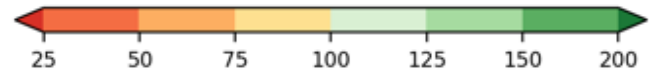
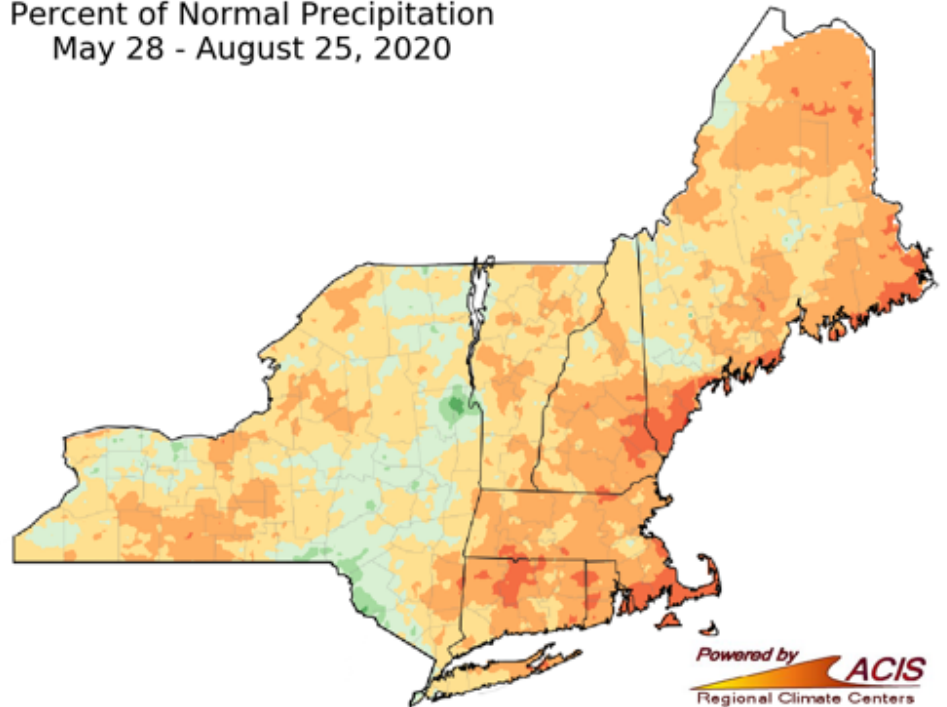


Percent of Normal Precipitation
June 27 - August 25, 2020

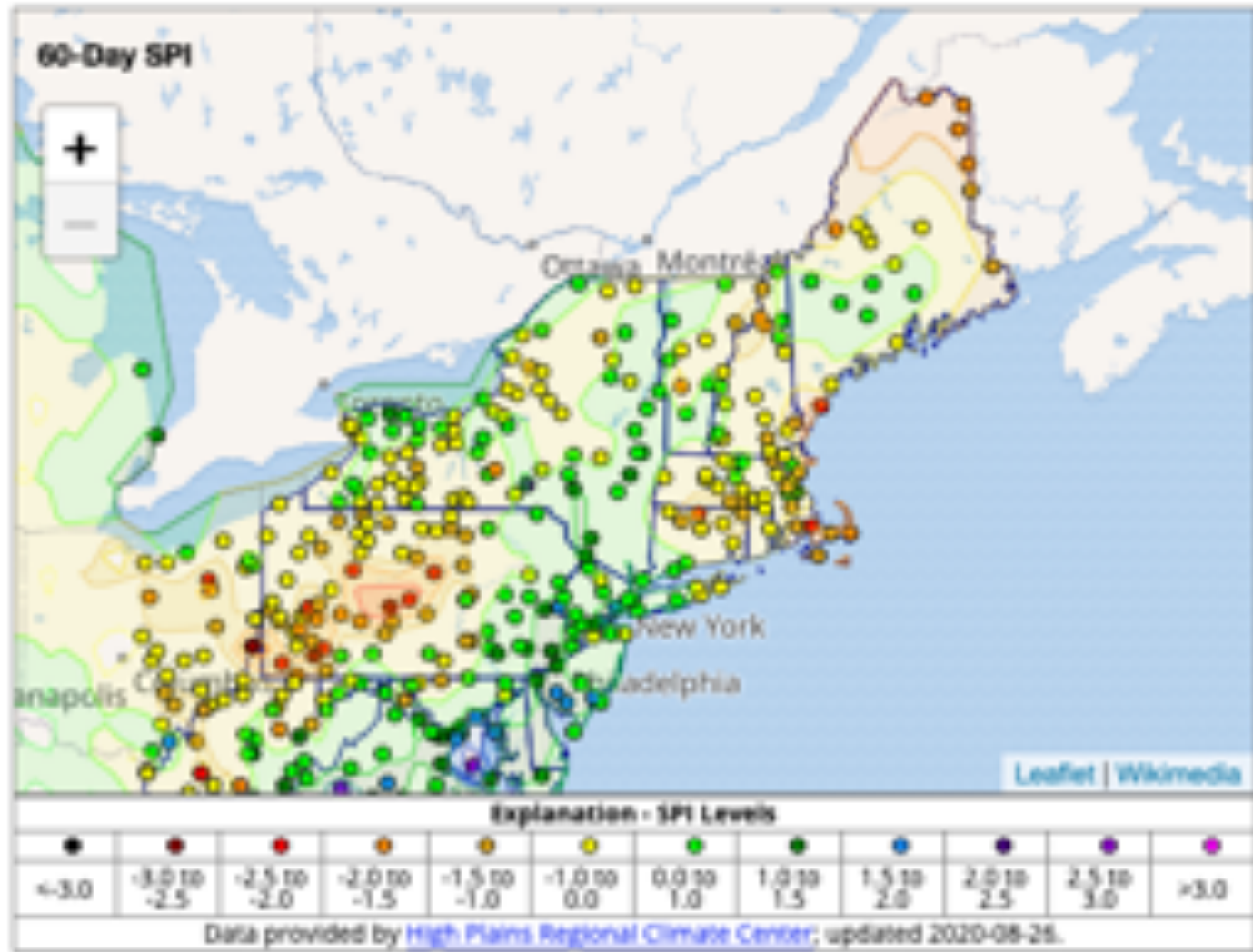


Precipitation

Percent of Normal Precipitation
May 28 - August 25, 2020

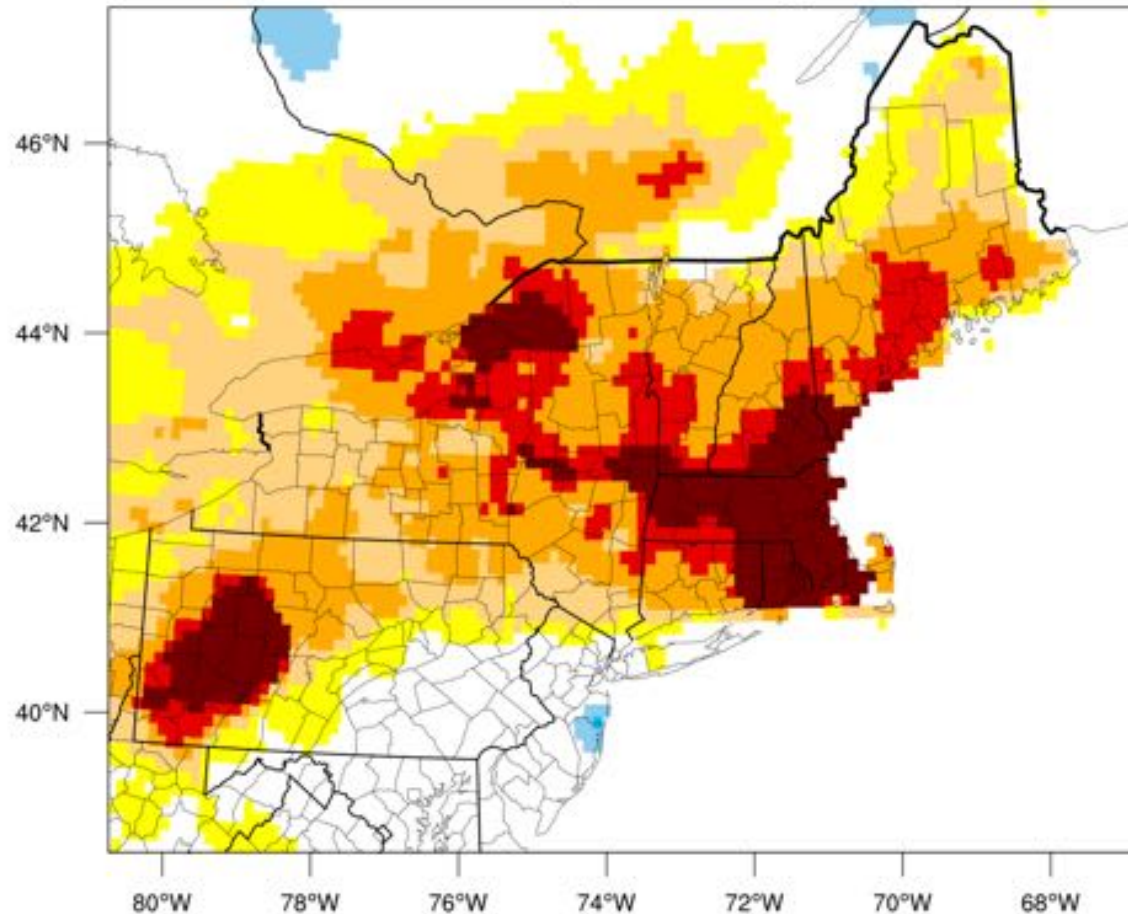


Standardized Precip Index



Evap. Drought Demand Index

1-month EDDI categories for August 20, 2020



Drought categories

Wetness categories



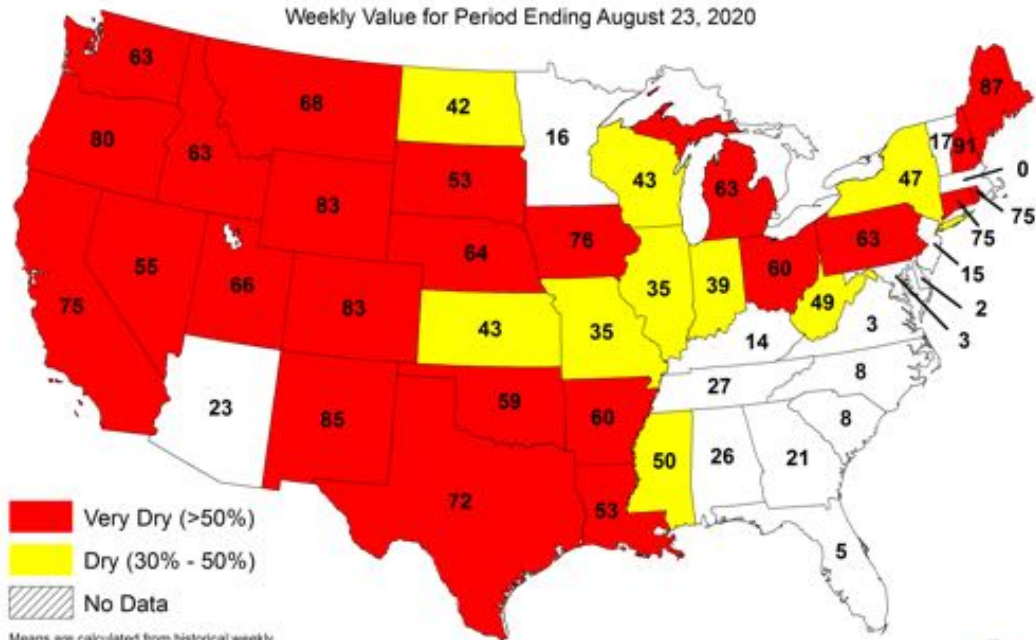
(EDDI-percentile category breaks: 100% = driest; 0% = wettest)

Generated by NOAA/ESRL/Physical Sciences Laboratory



Soil Moisture

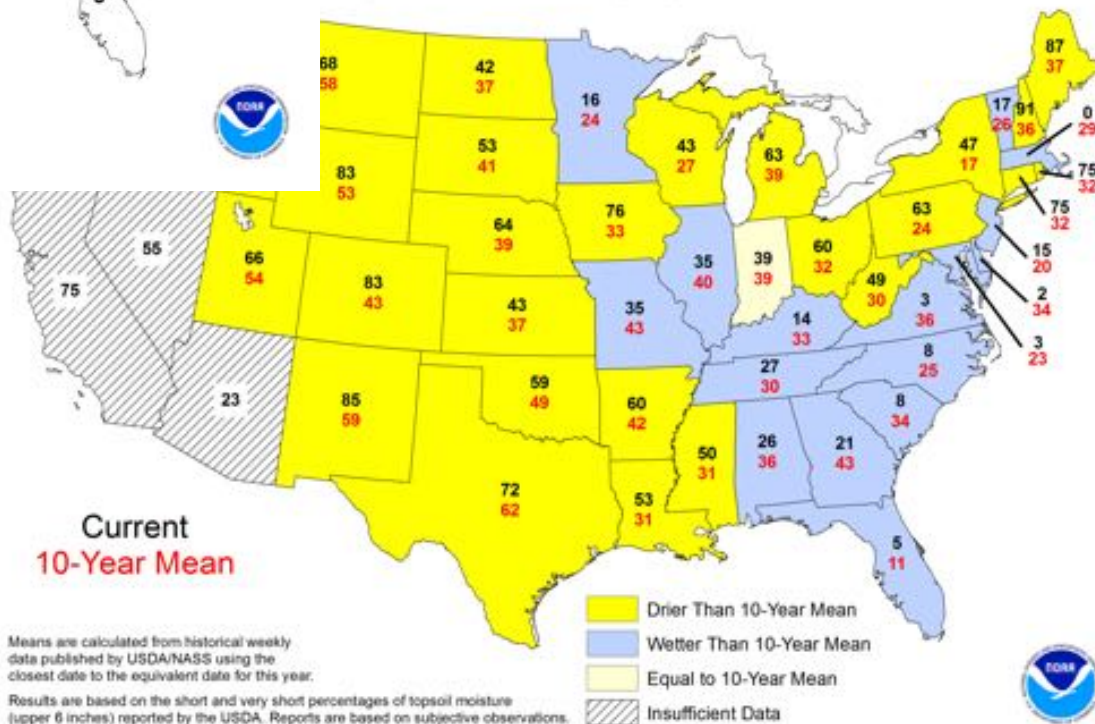
USDA Topsoil Moisture by Short-Very Short
Percent of State Area
Weekly Value for Period Ending August 23, 2020



■ Very Dry (>50%)
■ Dry (30% - 50%)
 No Data

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



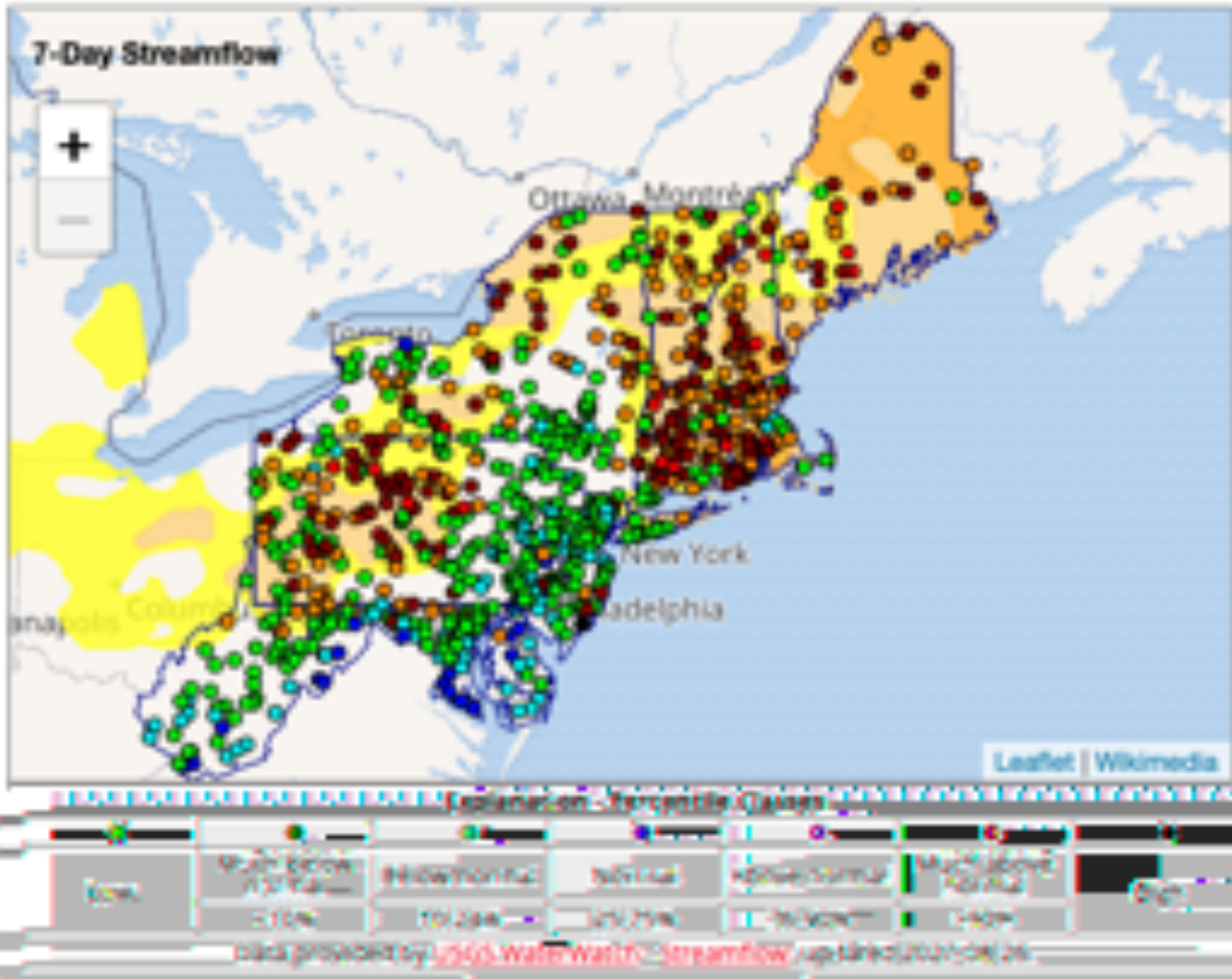
Current
10-Year Mean

■ Drier Than 10-Year Mean
■ Wetter Than 10-Year Mean
■ Equal to 10-Year Mean
 Insufficient Data

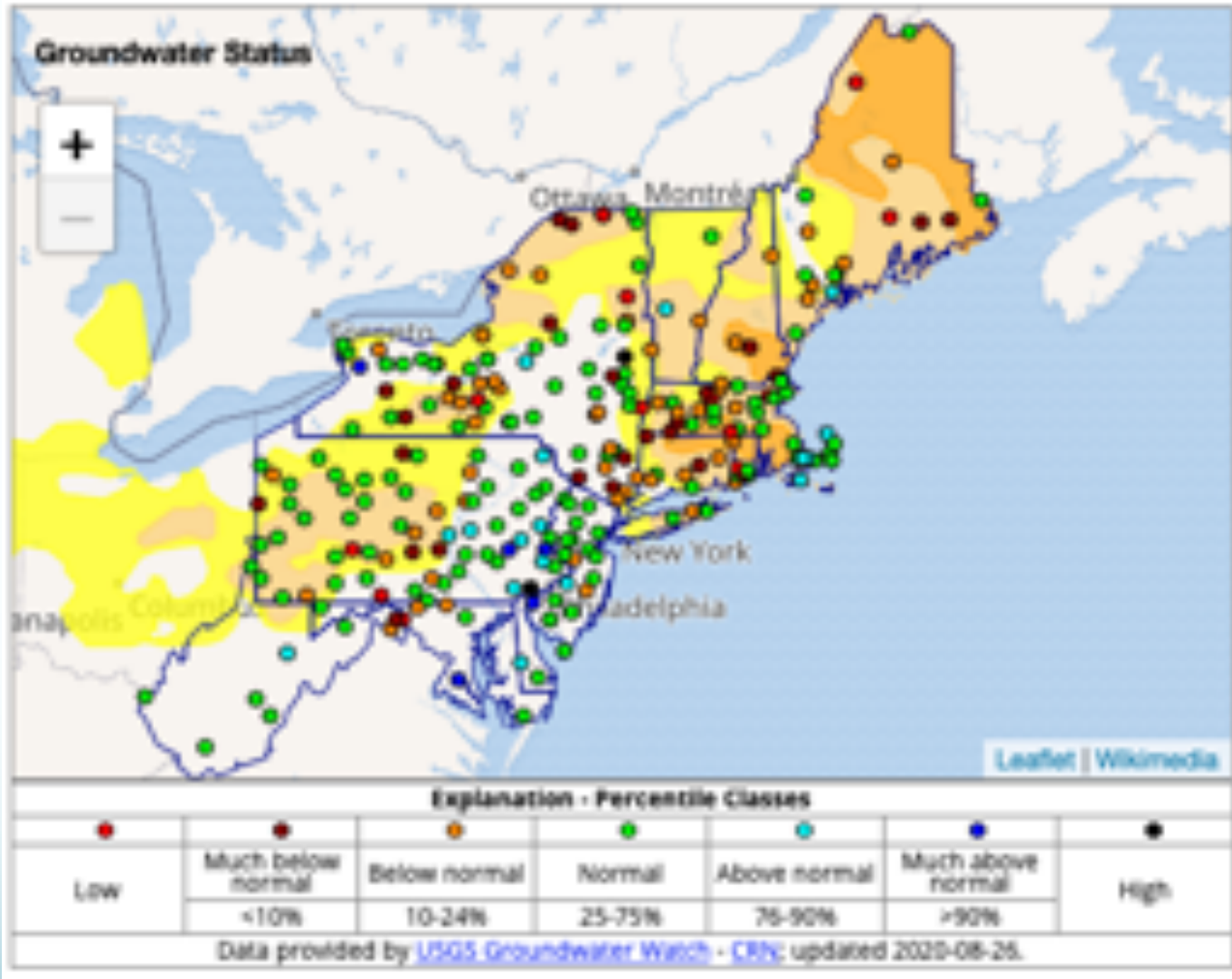
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Streamflow



Groundwater

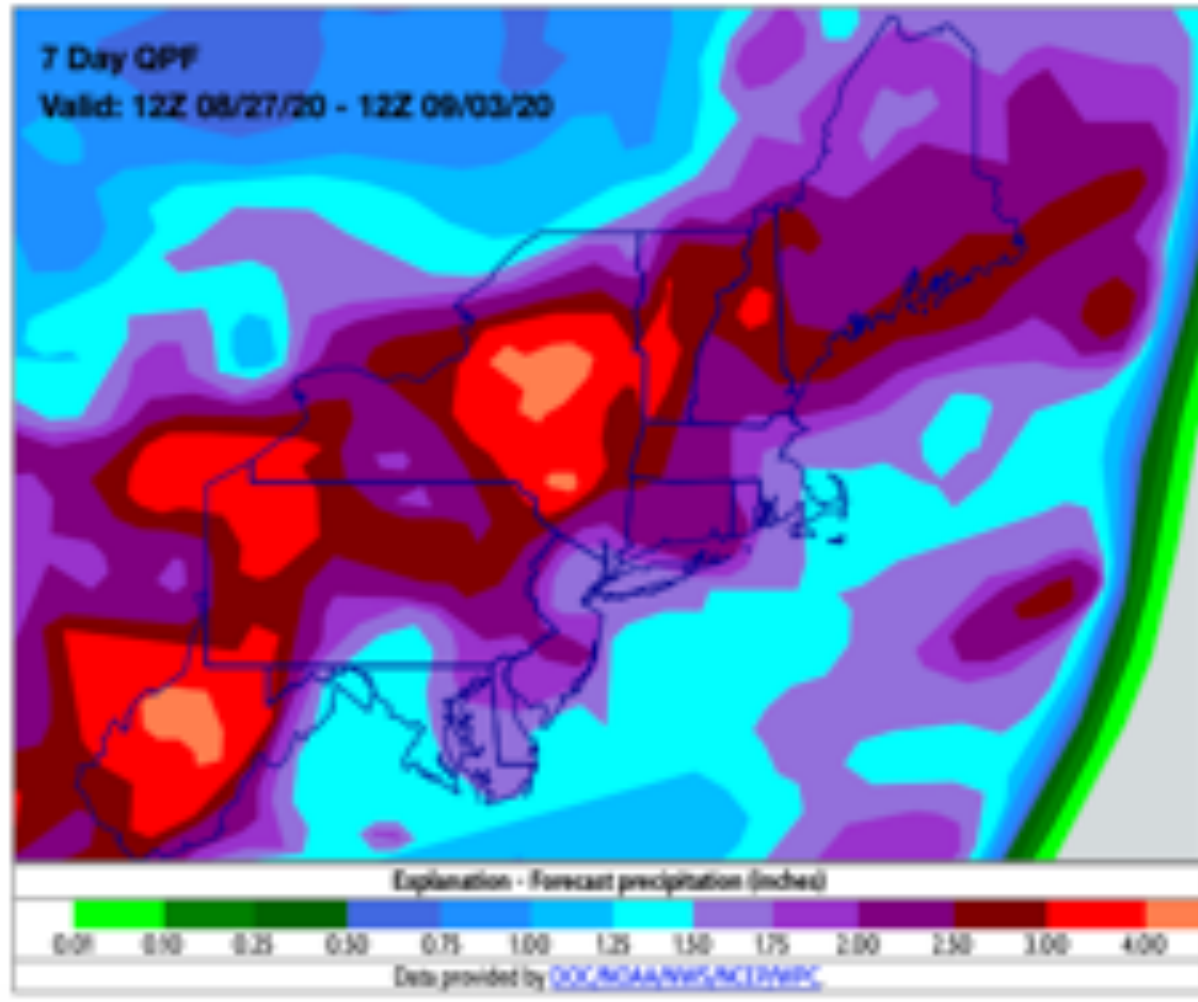


Impacts

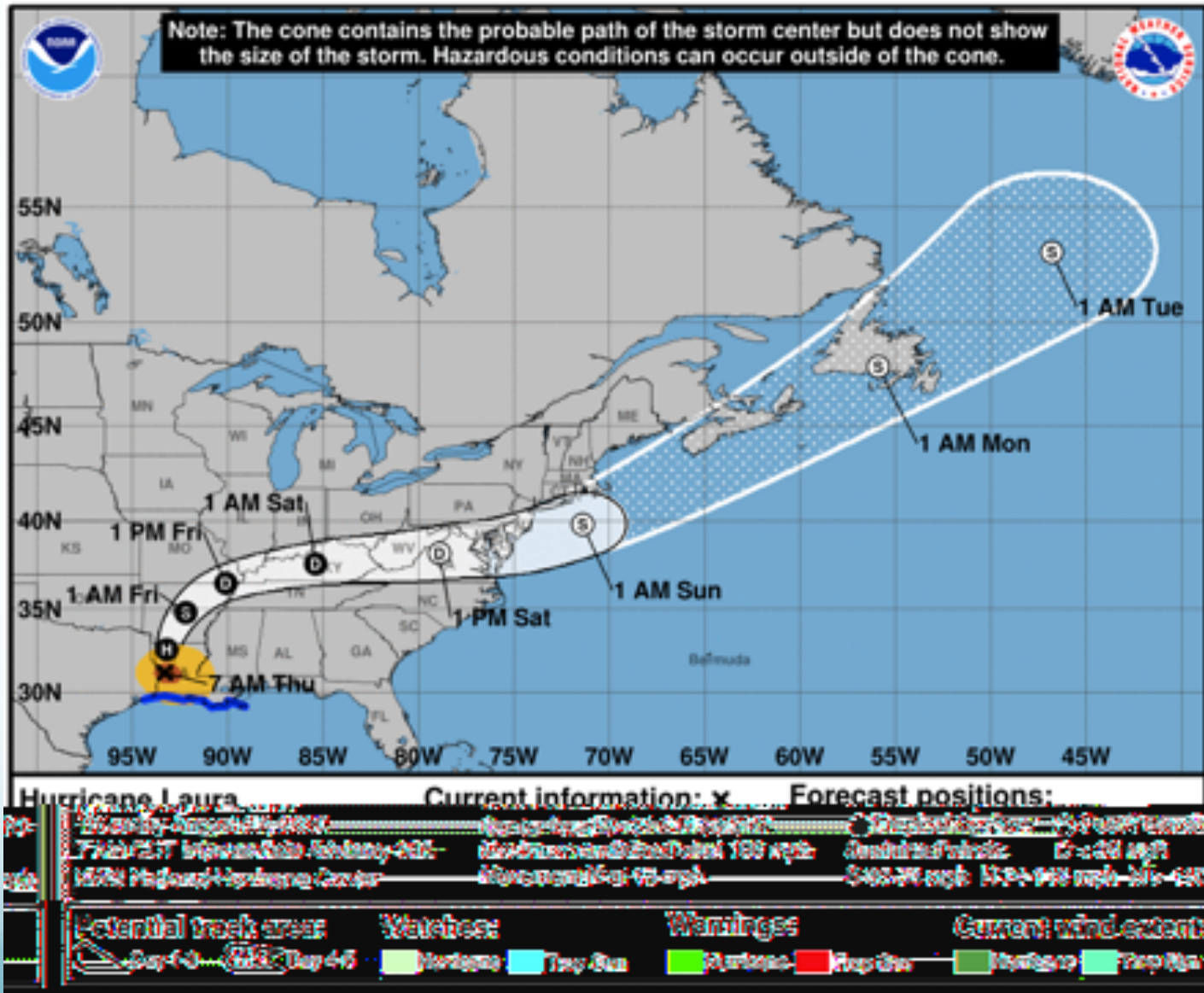
- Elevated fire risk in New England
- Water restrictions in place for numerous locations in Massachusetts, New Hampshire and several locations in Connecticut.
- Some shallow wells in Downeast Maine went dry.
- Some farmers are irrigating to keep crops growing. Some crop losses in non-irrigated fields.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



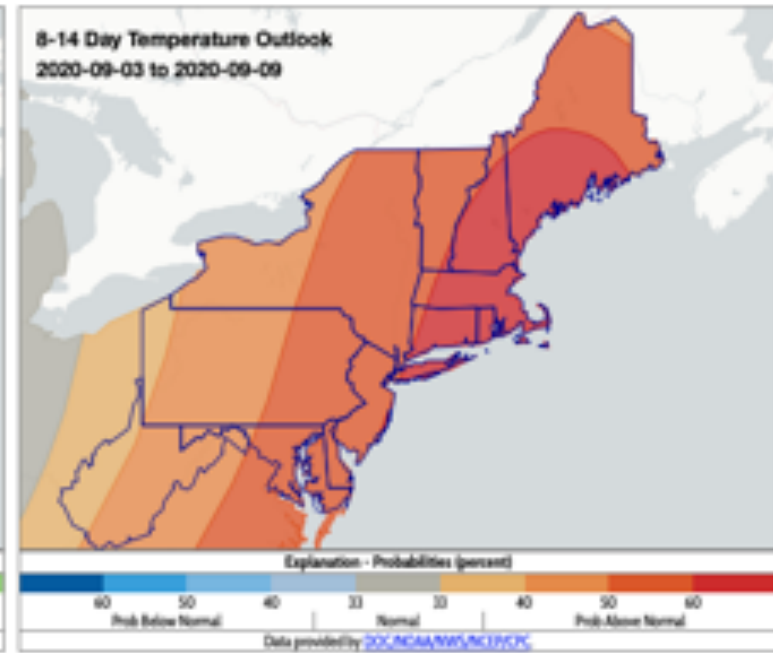
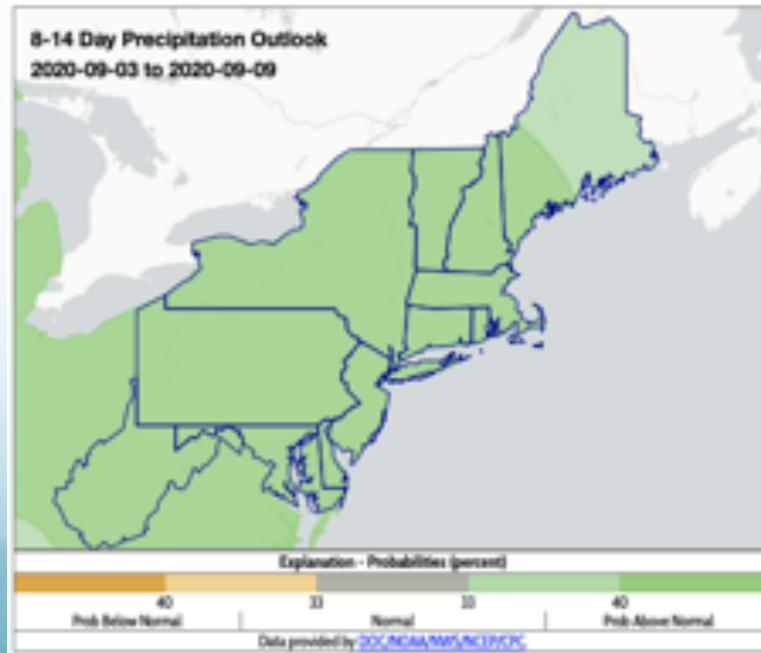
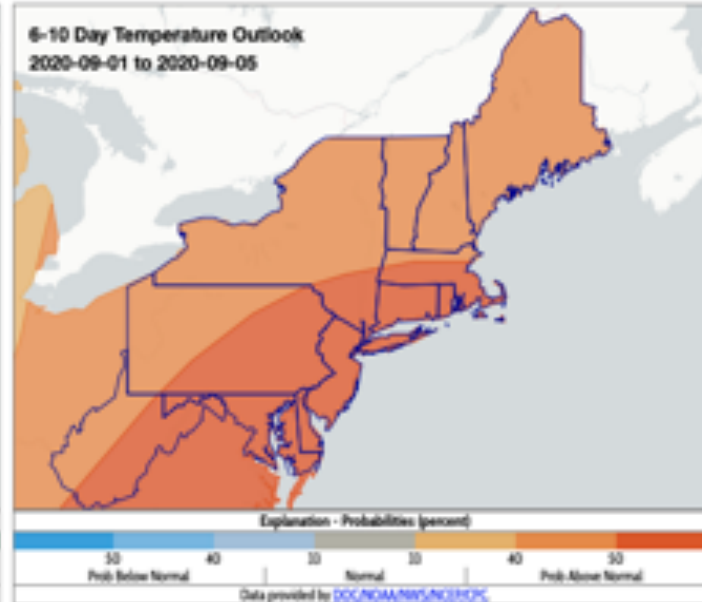
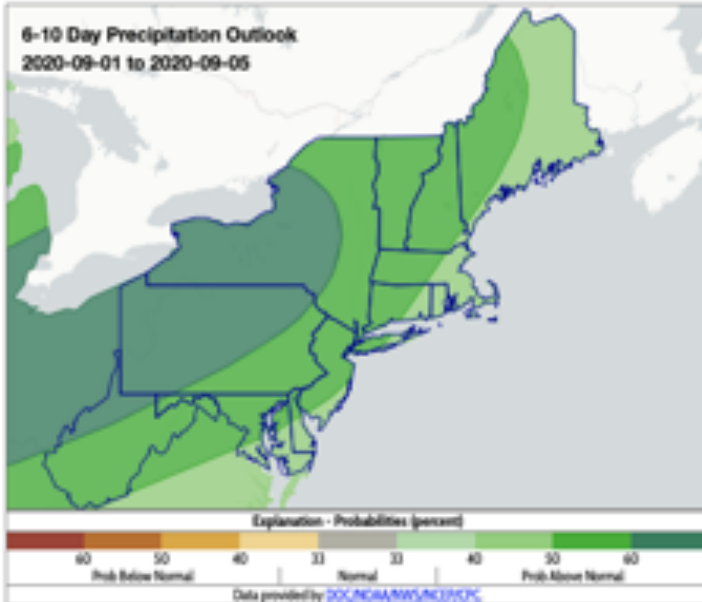
Precipitation Forecast



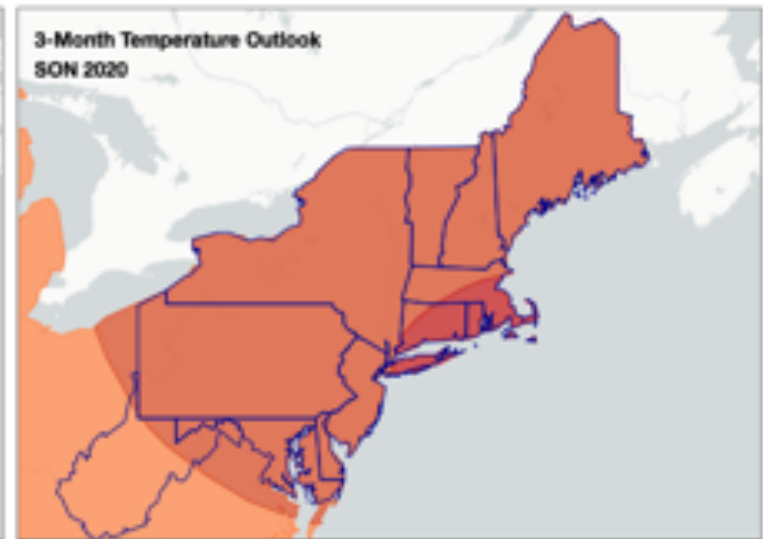
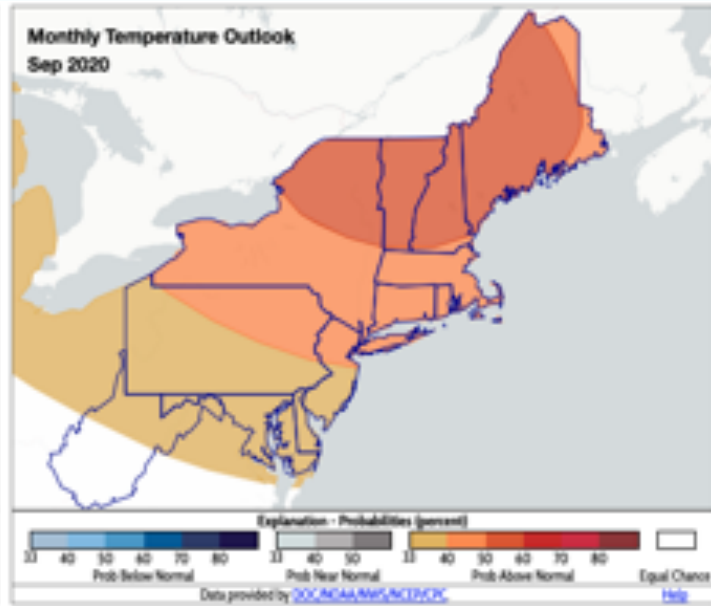
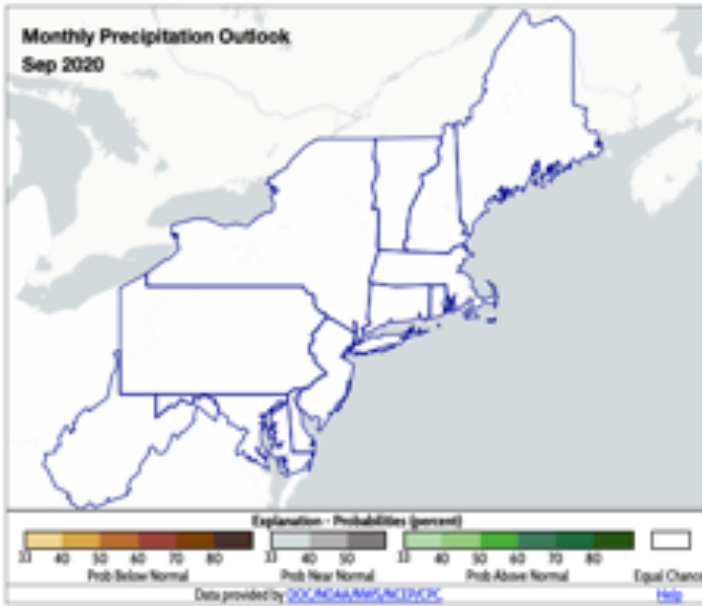
Precipitation Forecast



Short-term Outlooks



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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