

# August Conditions & Northeast DEWS Discussion

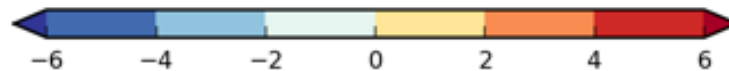
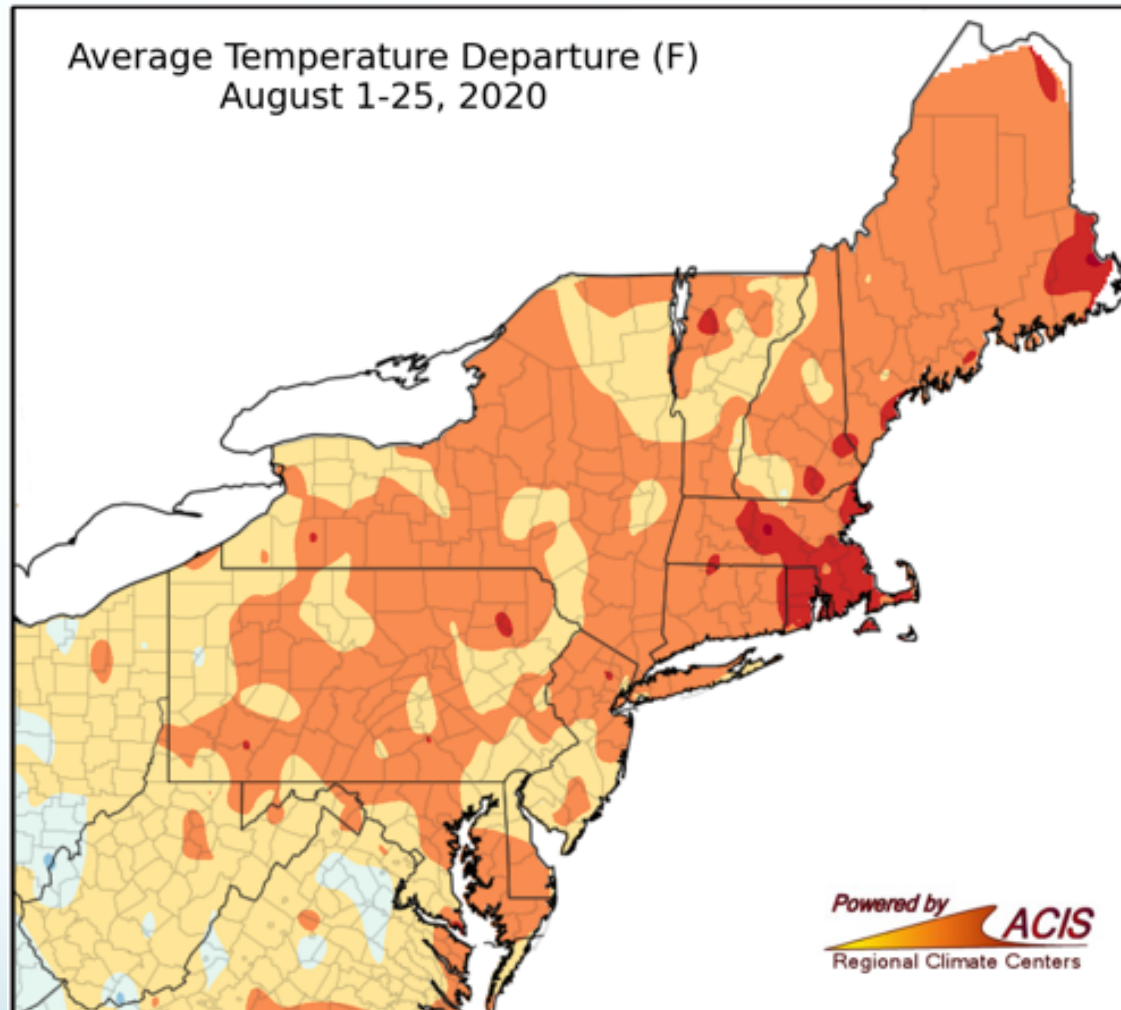
By: Jessica Spaccio, Climatologist  
Northeast Regional Climate Center



Northeast Regional  
Climate Center



# August Temperatures



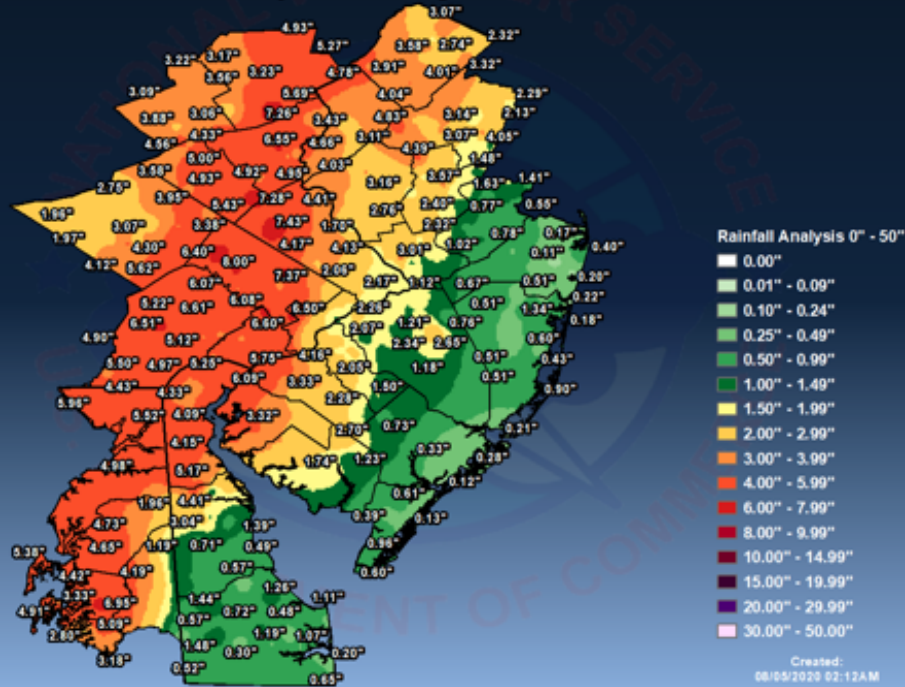
From near normal to more than 4°F above normal



# 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 4<sup>th</sup>

- 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 4<sup>th</sup>

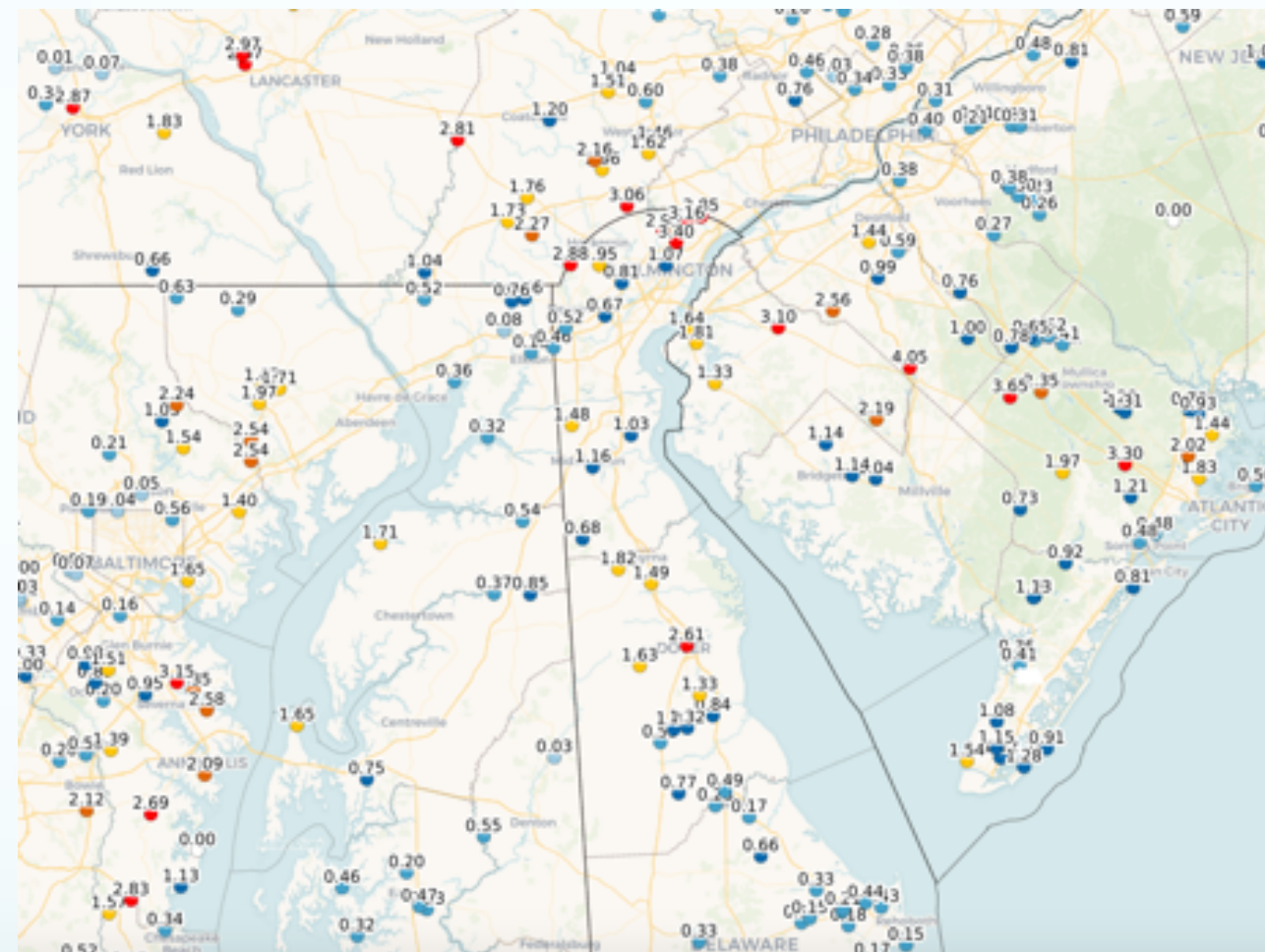


Credit: NWS AKQ

- 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



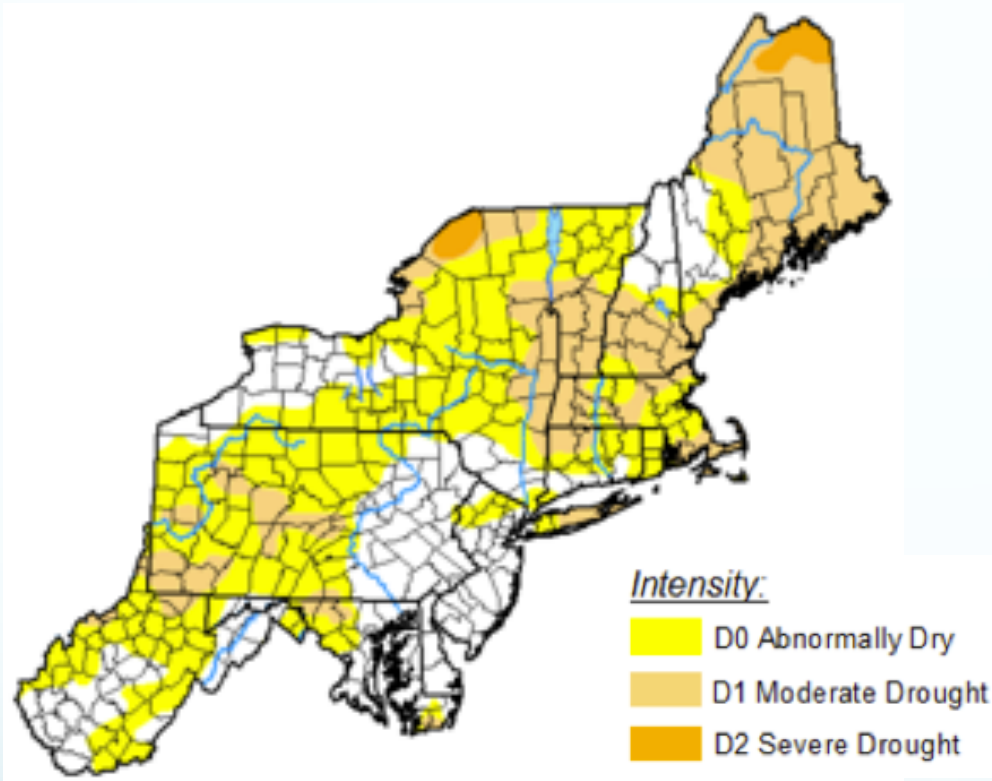
On August 7 Winterthur, DE, had 4.11 inches of rain in an hour (1.03 inches in five minutes), making it a 1,000-year storm event. Northern Delaware experienced some of its worst flash flooding in at least 15 years. (Reported by Dan Leathers, DE State Climatologist)

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.

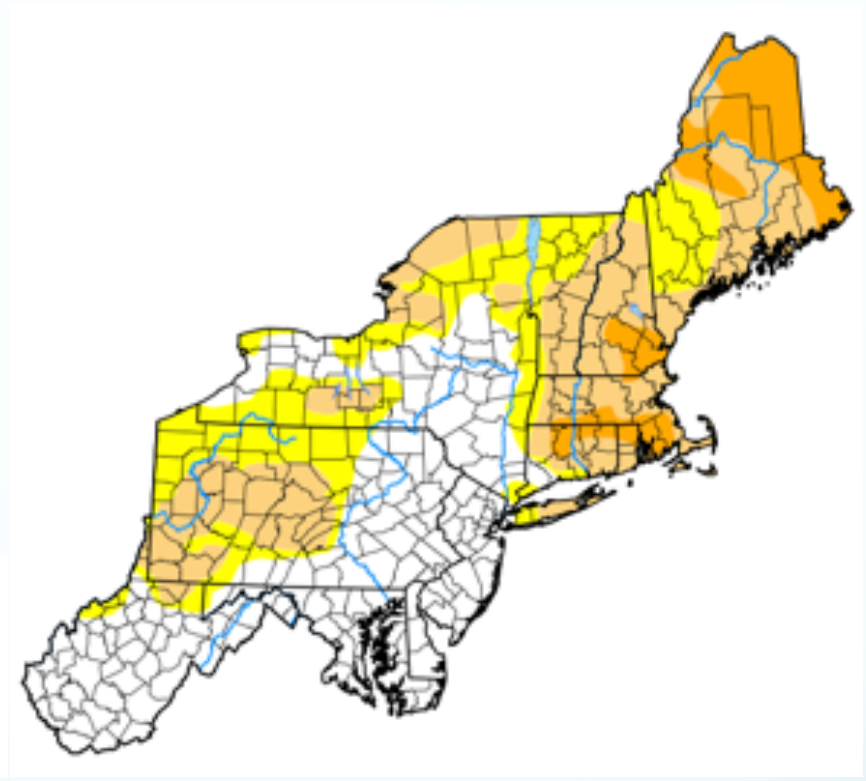


# Drought Monitor



July 28:

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

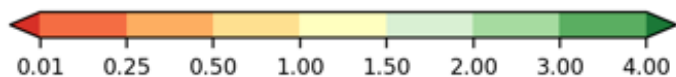
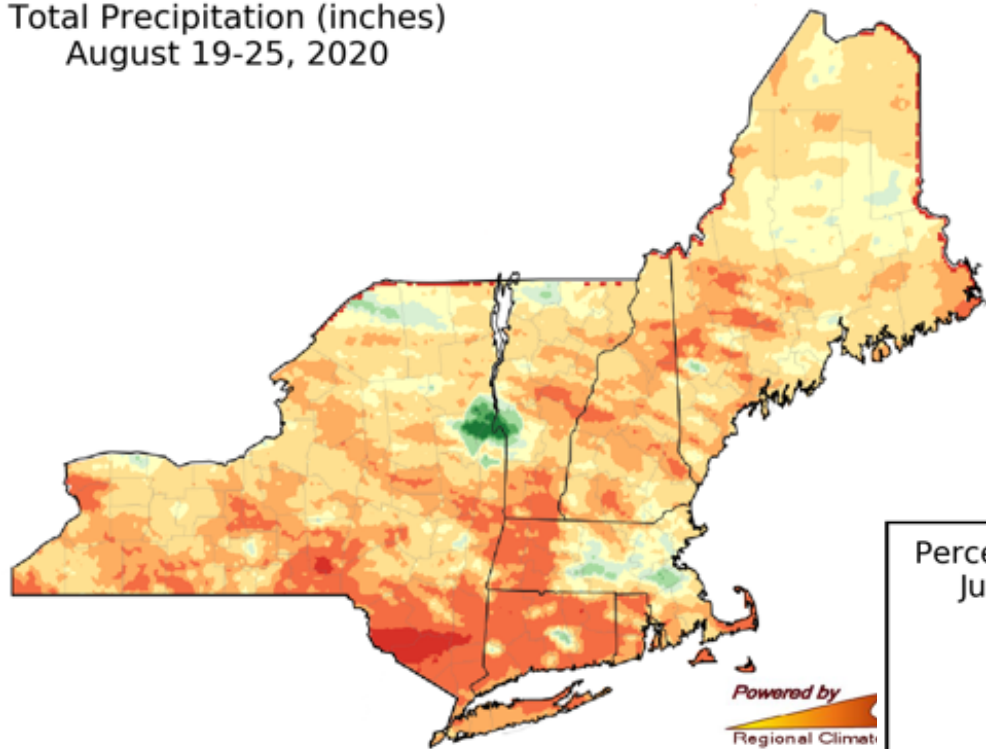


August 25:

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

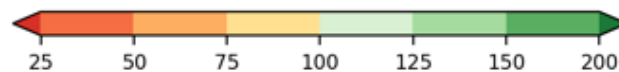
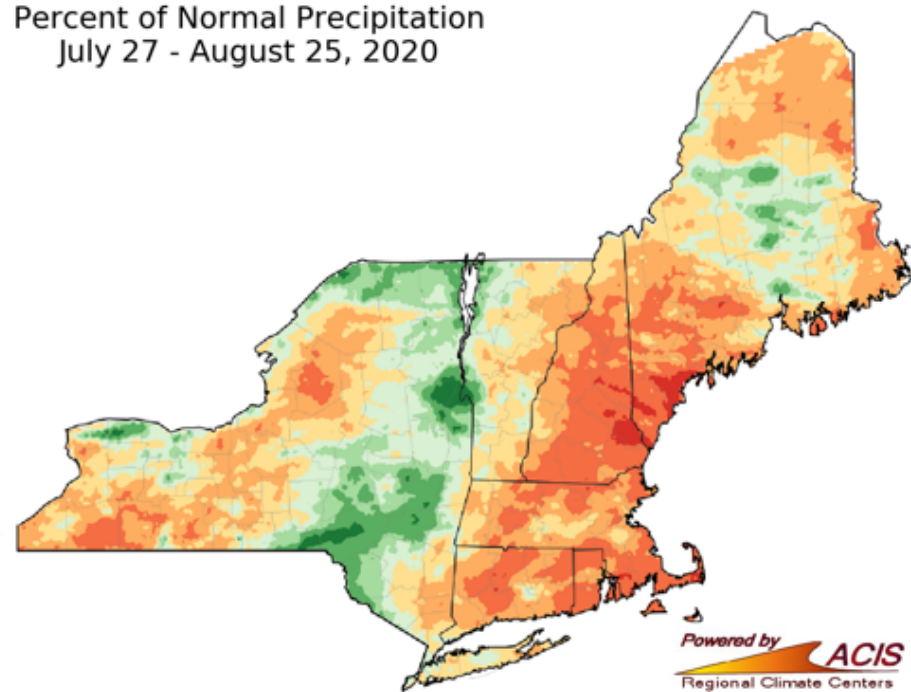


Total Precipitation (inches)  
August 19-25, 2020



# Precipitation

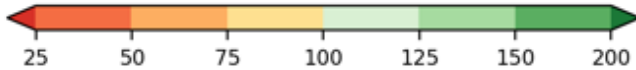
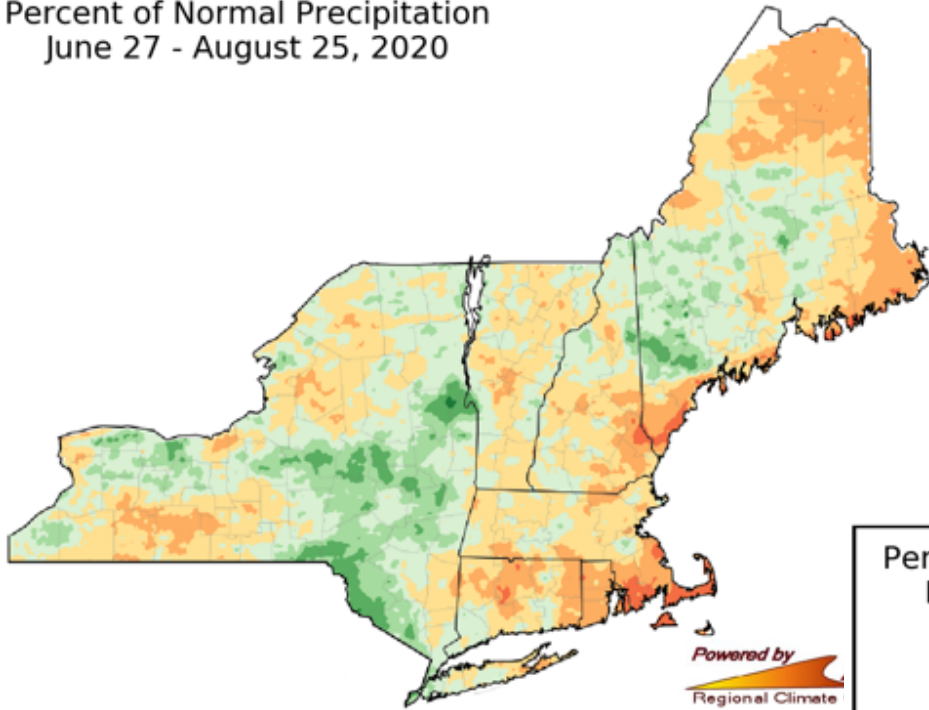
Percent of Normal Precipitation  
July 27 - August 25, 2020



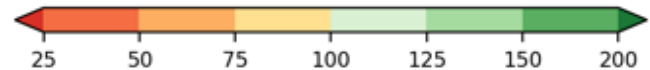
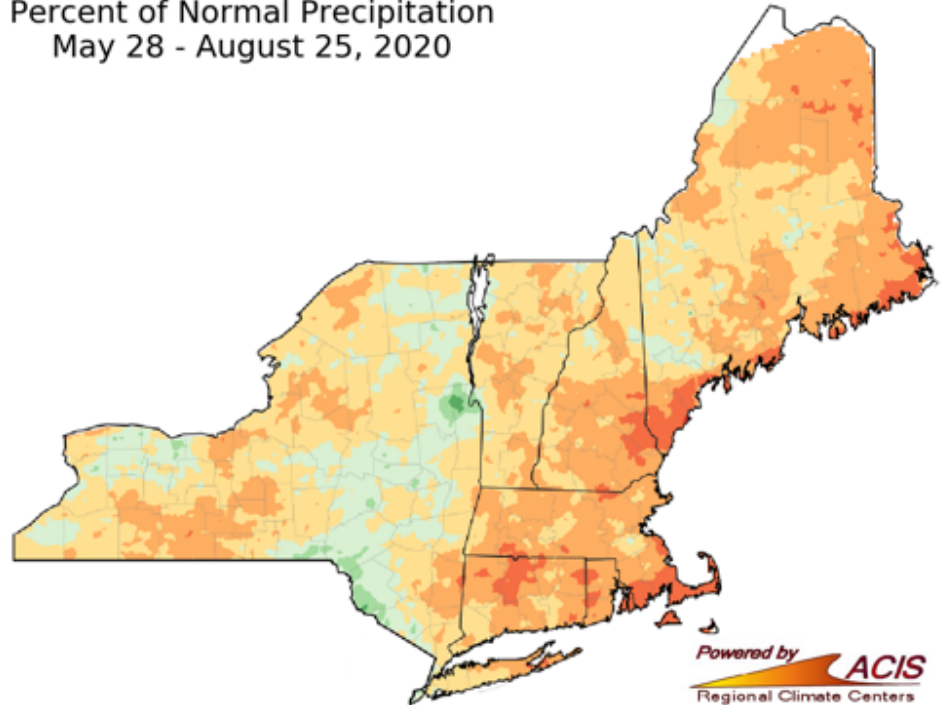


# Precipitation

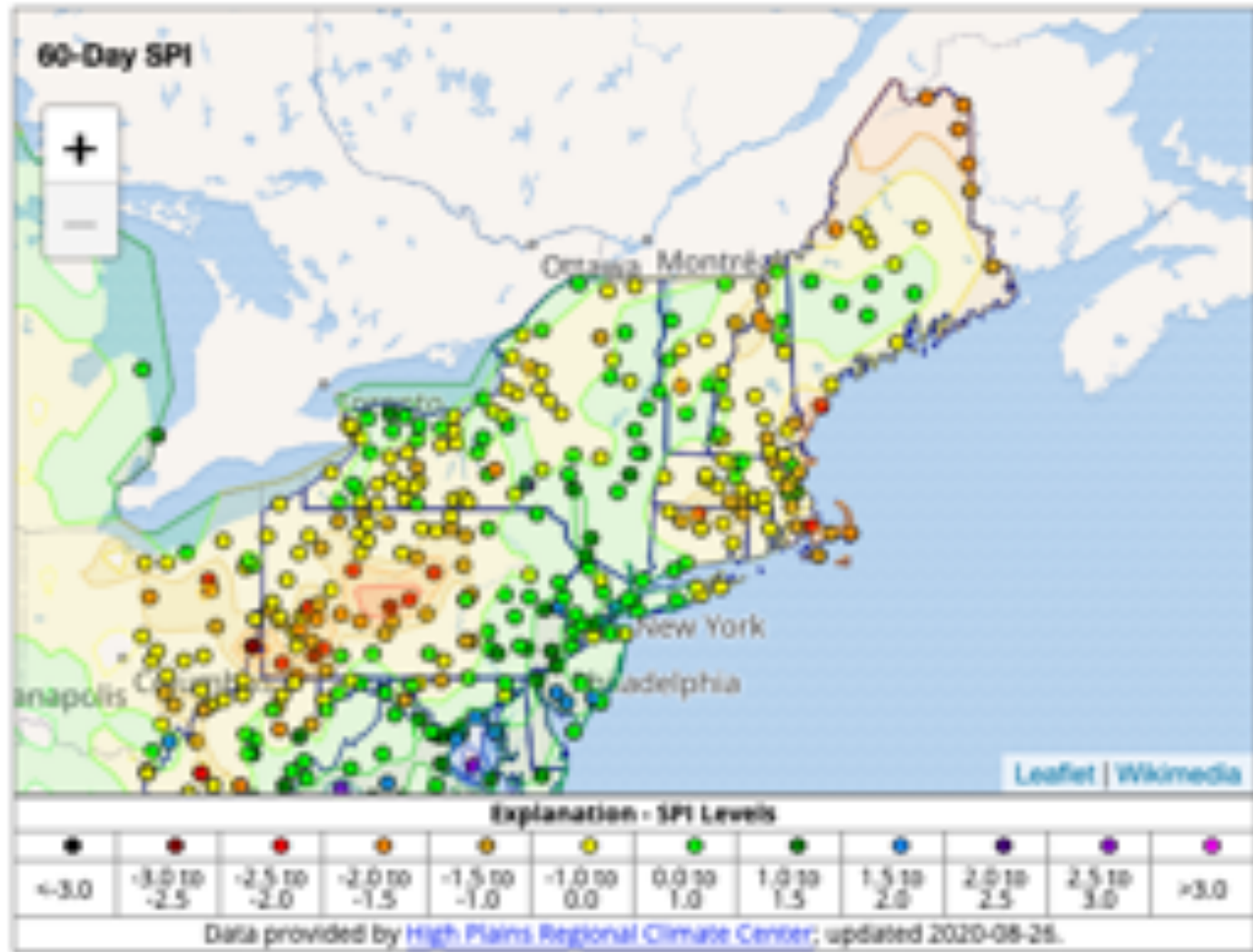
Percent of Normal Precipitation  
June 27 - August 25, 2020



Percent of Normal Precipitation  
May 28 - August 25, 2020

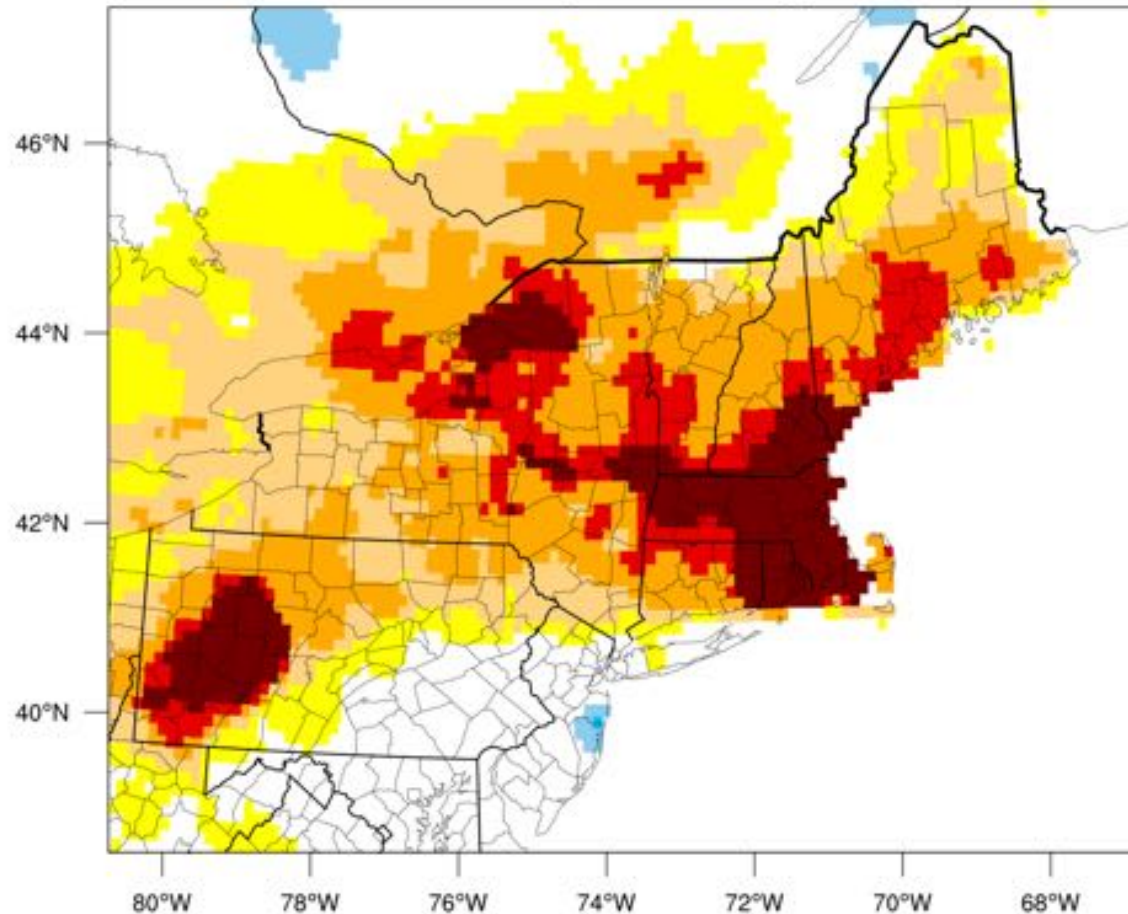


# Standardized Precip Index



# Evap. Drought Demand Index

1-month EDDI categories for August 20, 2020



Drought categories

Wetness categories



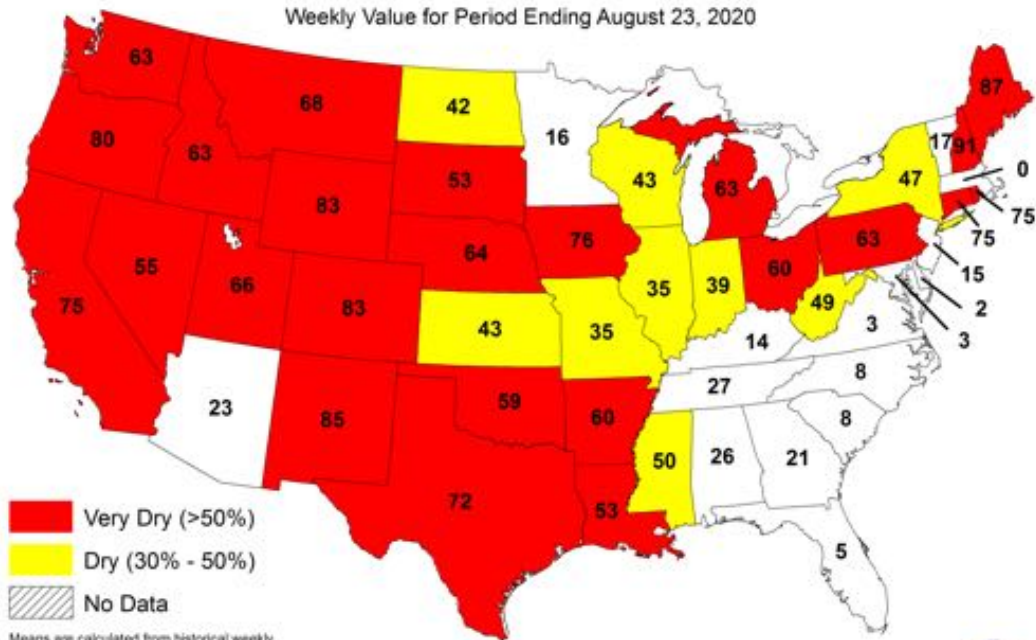
100% 98% 95% 90% 80% 70% 30% 20% 10% 5% 2% 0%  
(EDDI-percentile category breaks: 100% = driest; 0% = wettest)

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

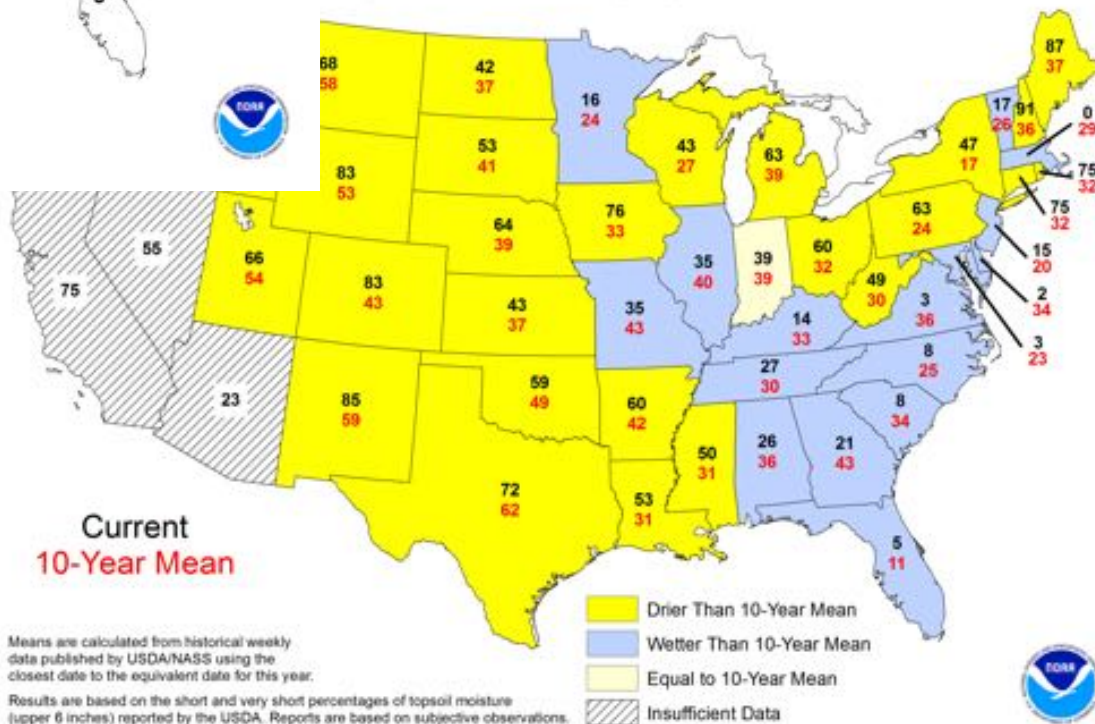


- Very Dry (>50%)
- Dry (30% - 50%)
- No Data

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

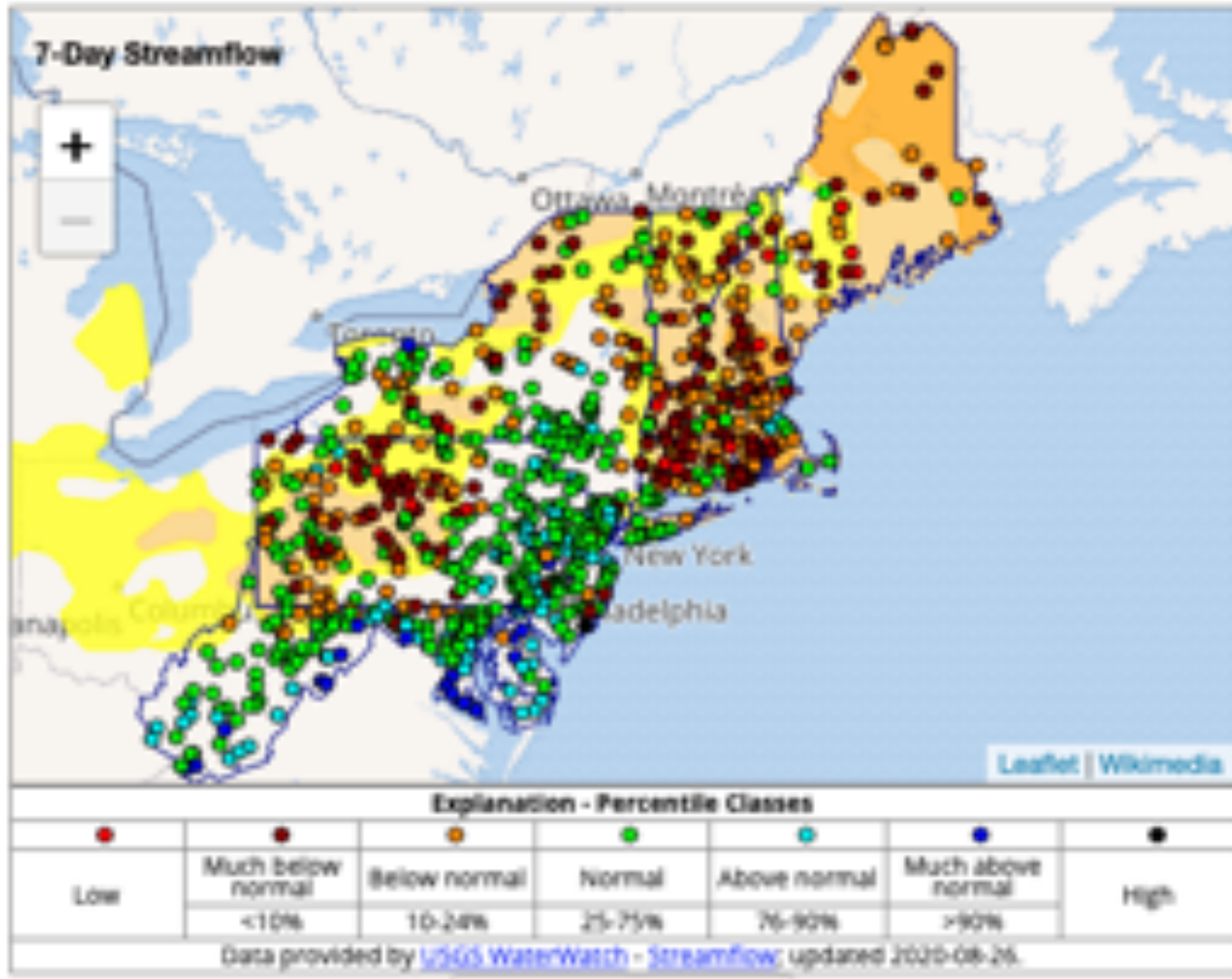
- Drier Than 10-Year Mean
- Wetter Than 10-Year Mean
- Equal to 10-Year Mean
- Insufficient Data

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

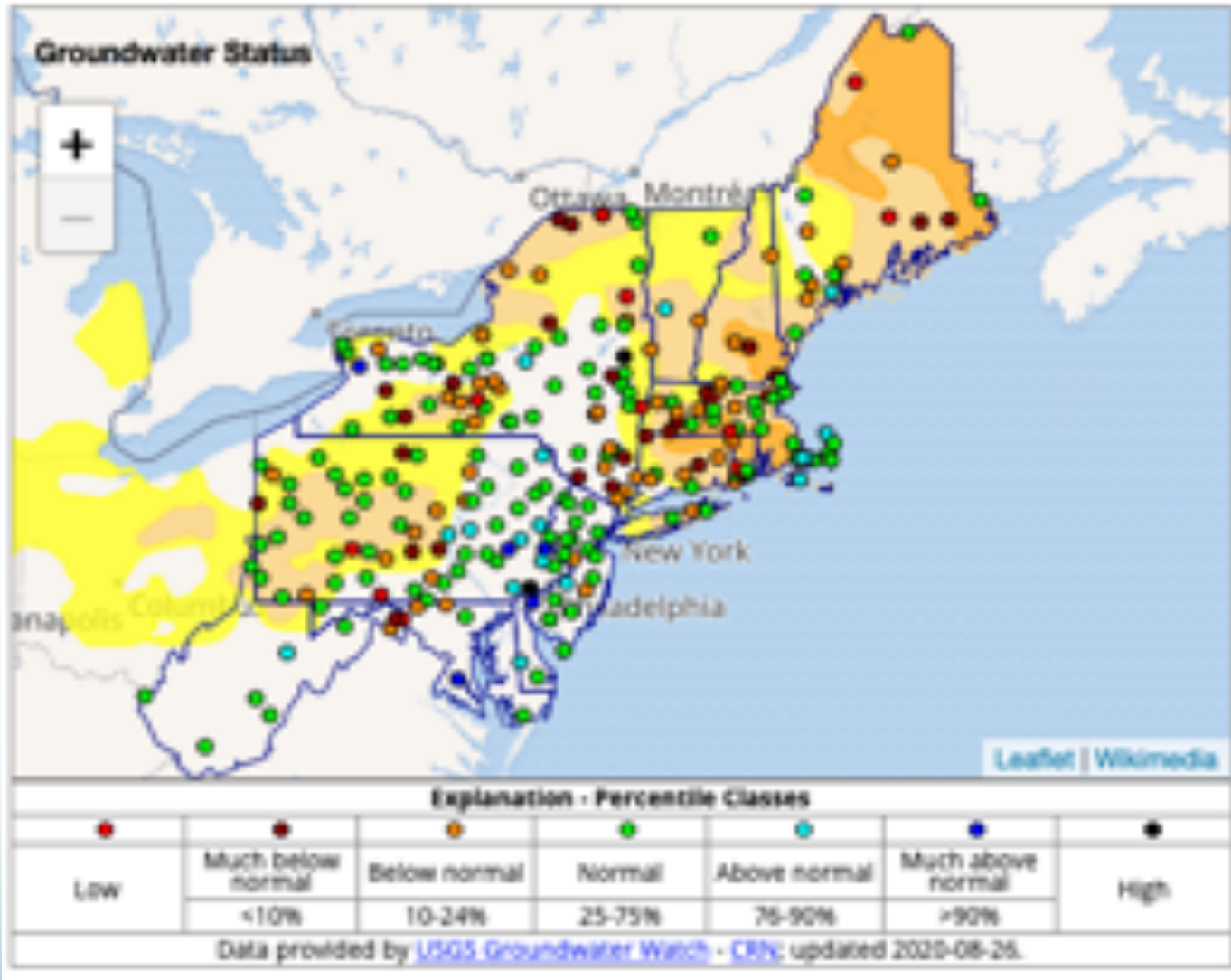
Results are based on the short and very short percentages of topsoil moisture (upper 6 inches) reported by the USDA. Reports are based on subjective observations.



# Streamflow



# Groundwater

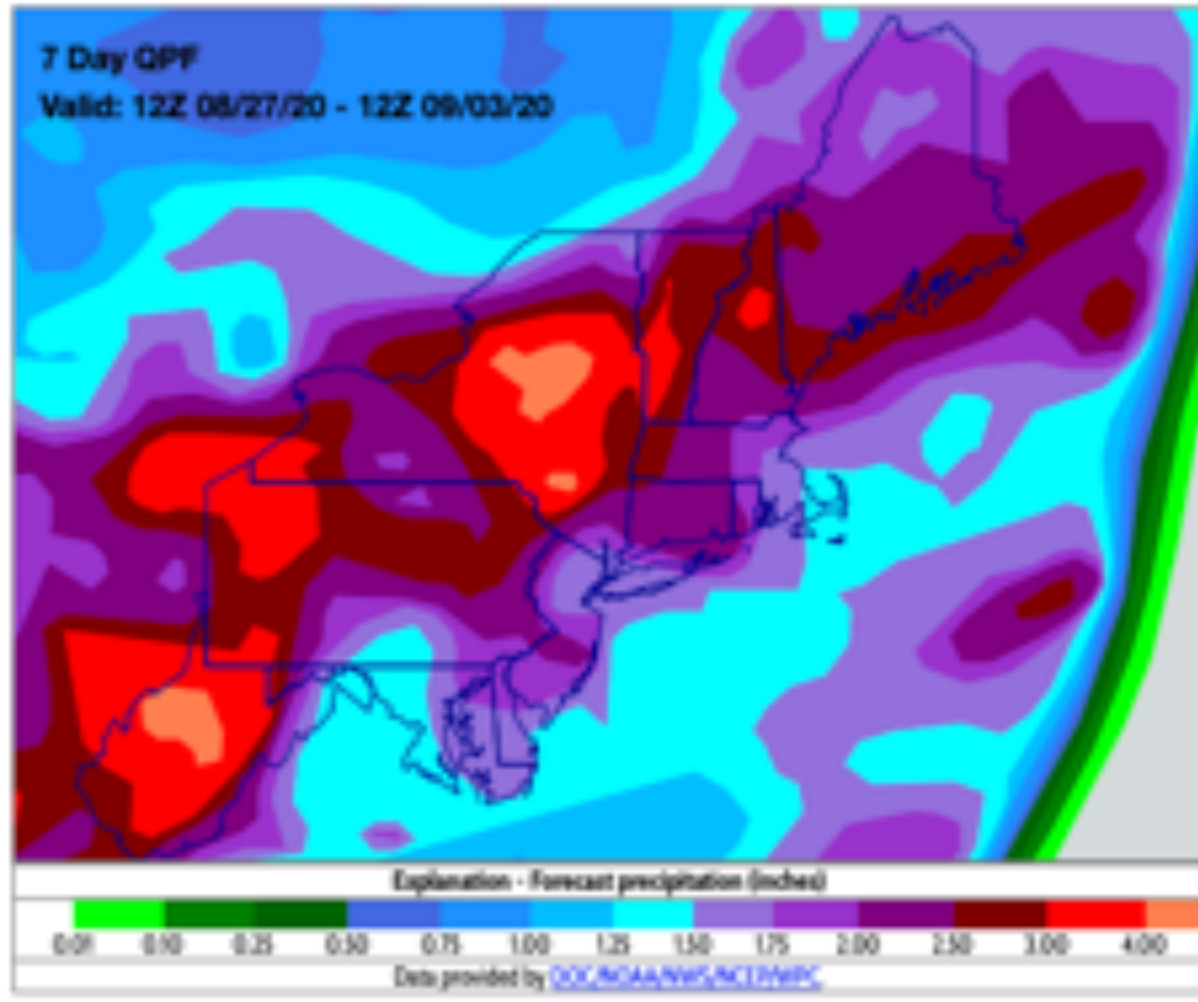


# Impacts

- 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.

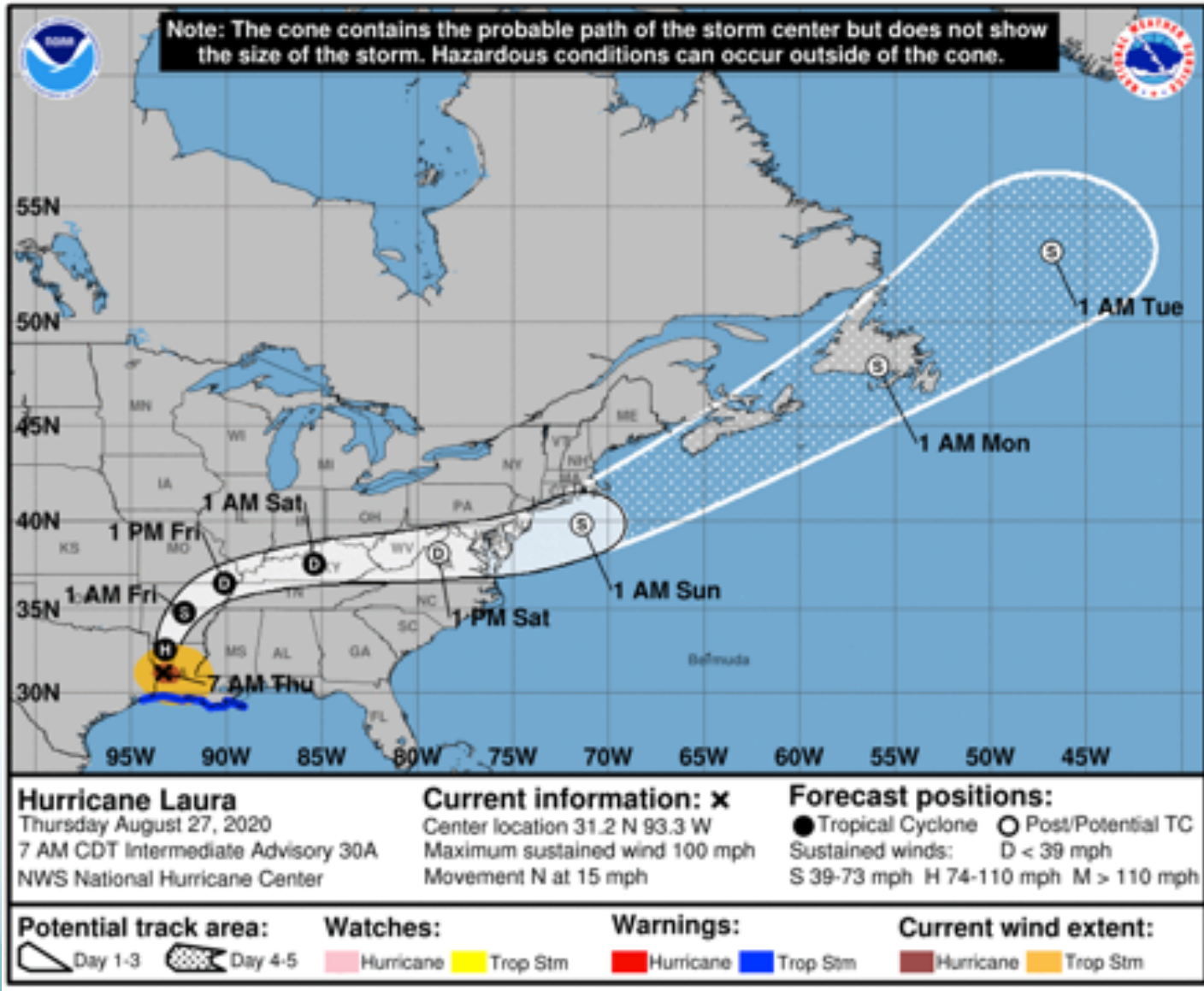


# Precipitation Forecast

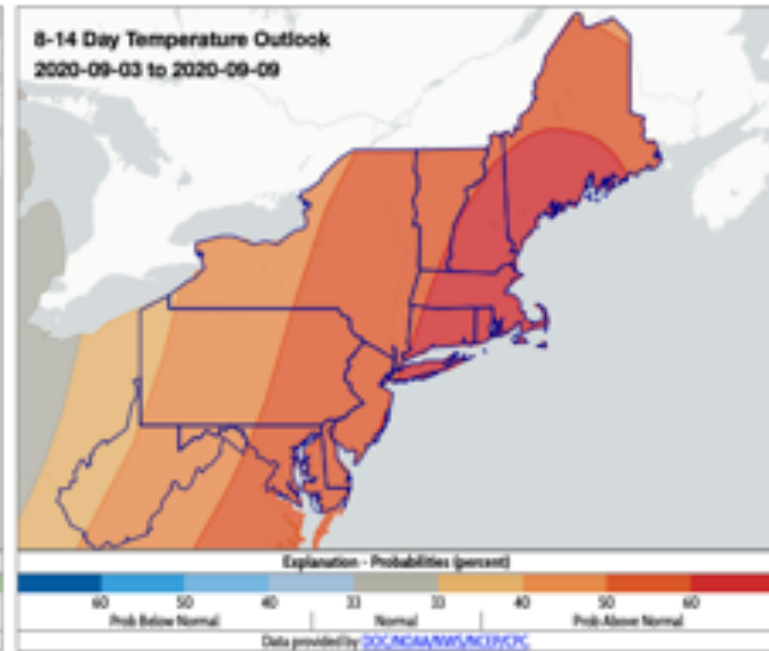
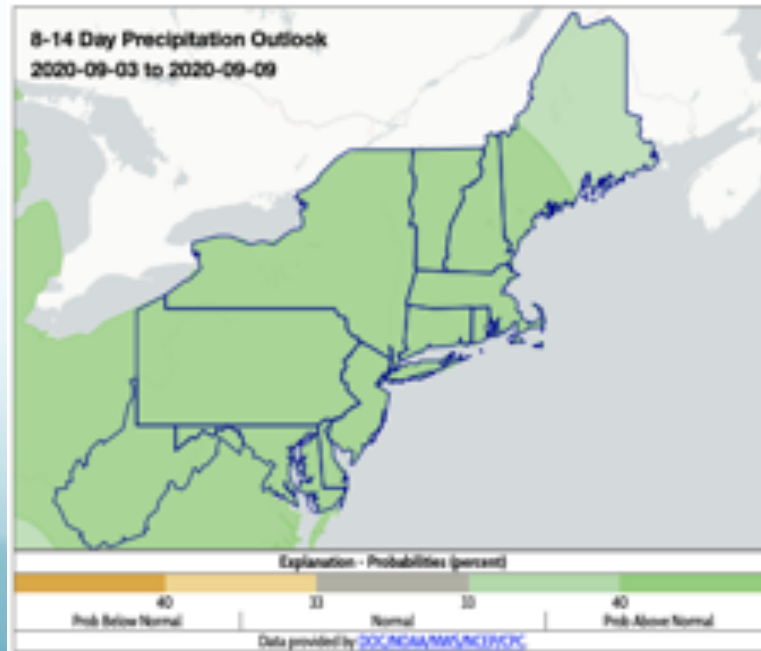
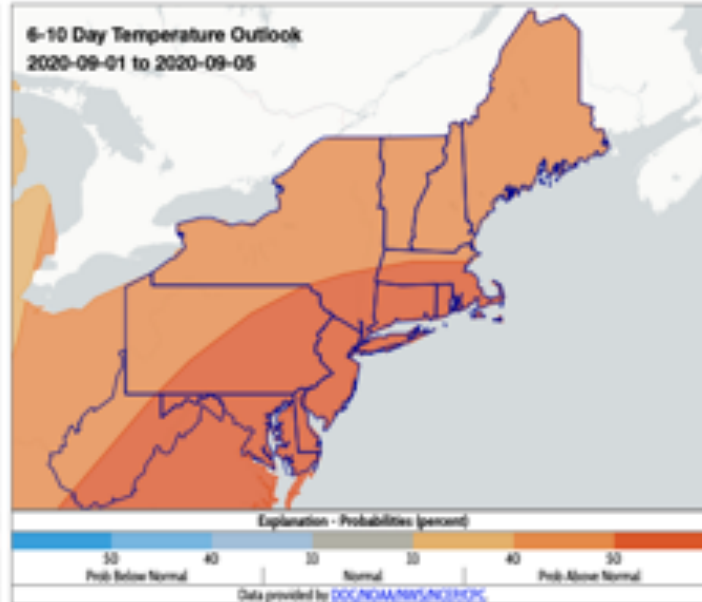
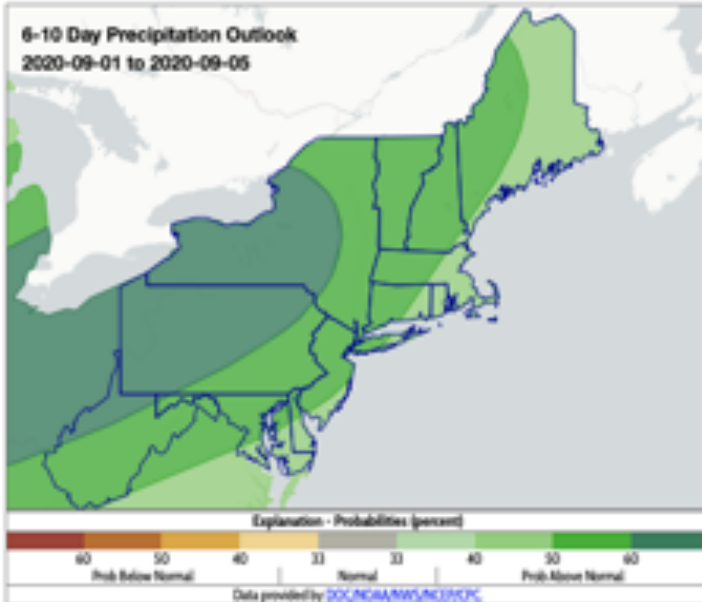




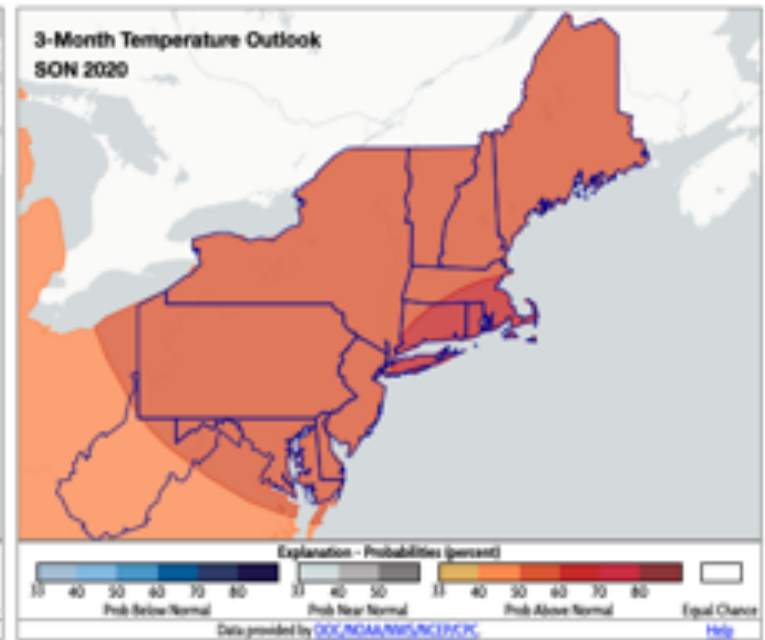
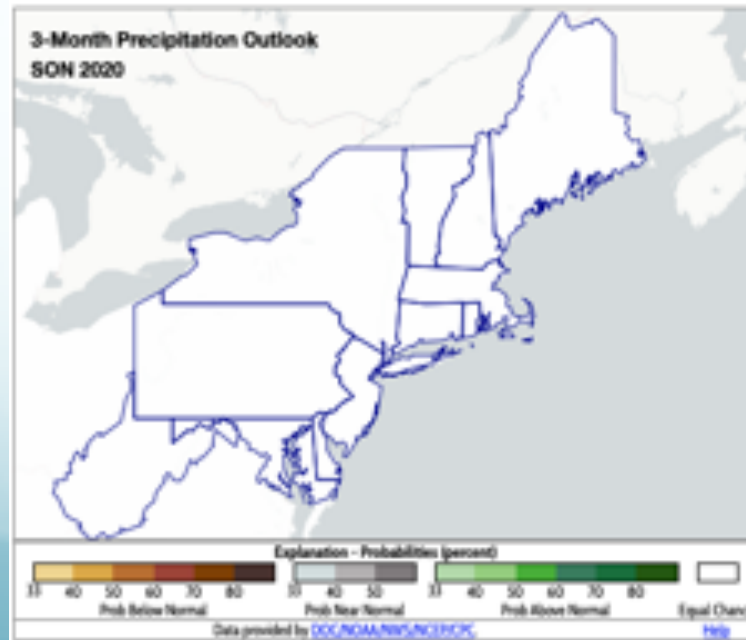
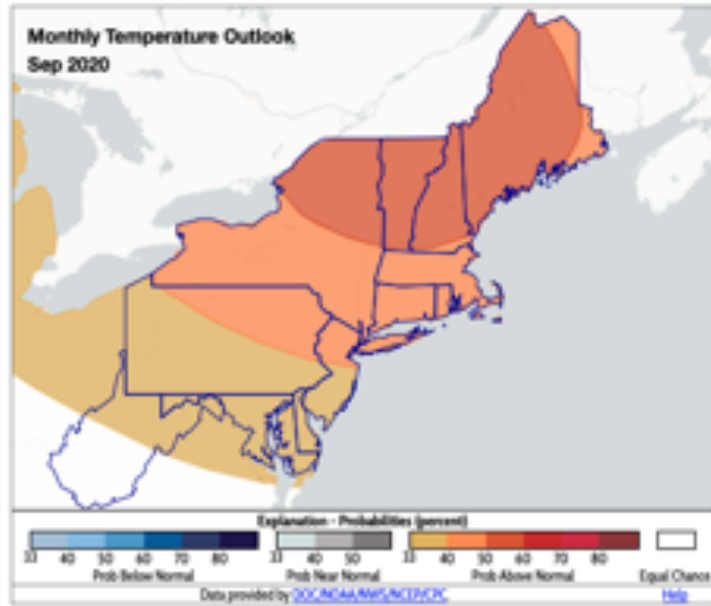
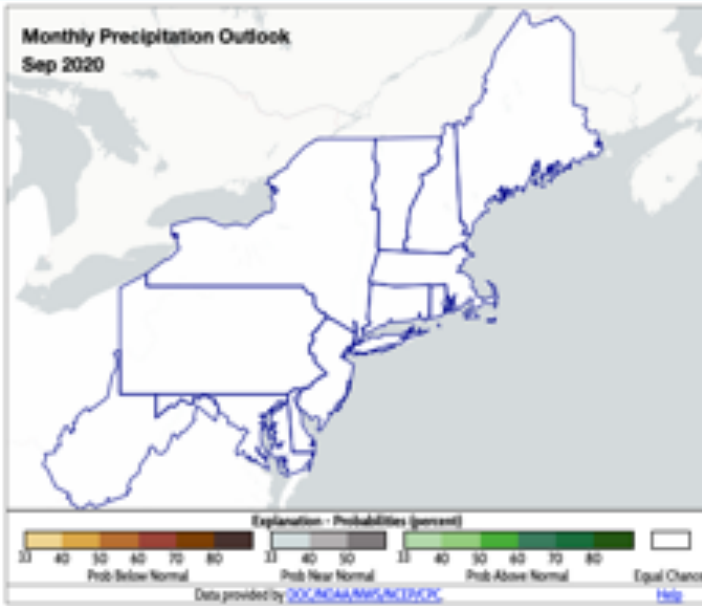
# Precipitation Forecast



# Short-term Outlooks



# Monthly & 3-Month Outlooks



# Contact Information

- [nrcc@cornell.edu](mailto: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

[www.nrcc.cornell.edu](http://www.nrcc.cornell.edu)

