

Drought: Historical & Future Trends DEWS Resources

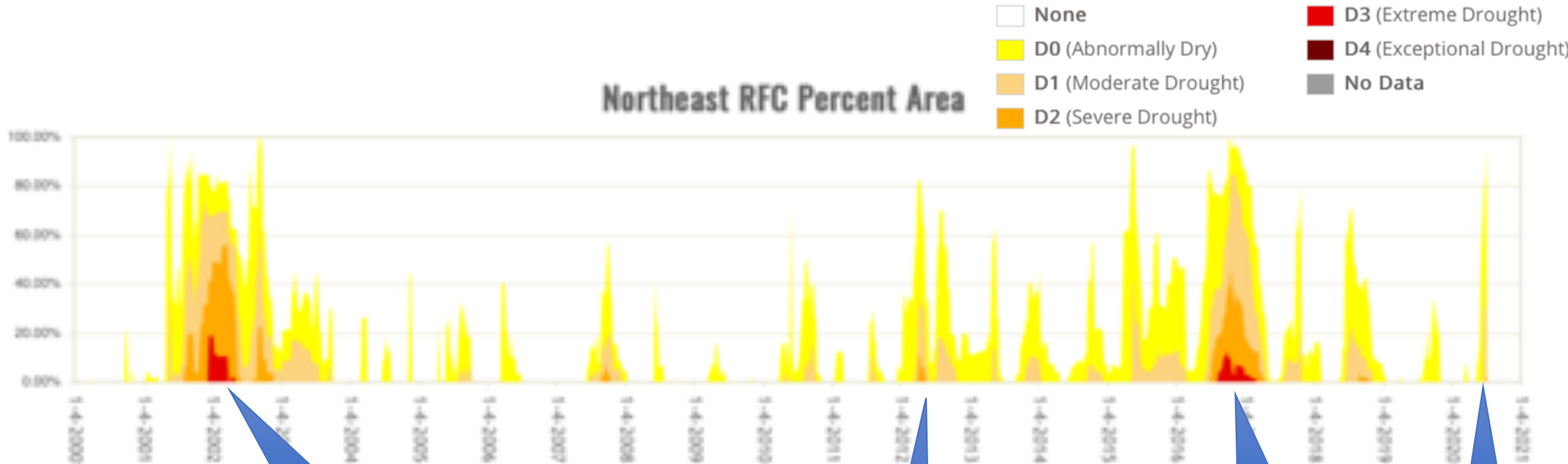
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Northeast Regional
Climate Center

History of Drought



DM began in 2000

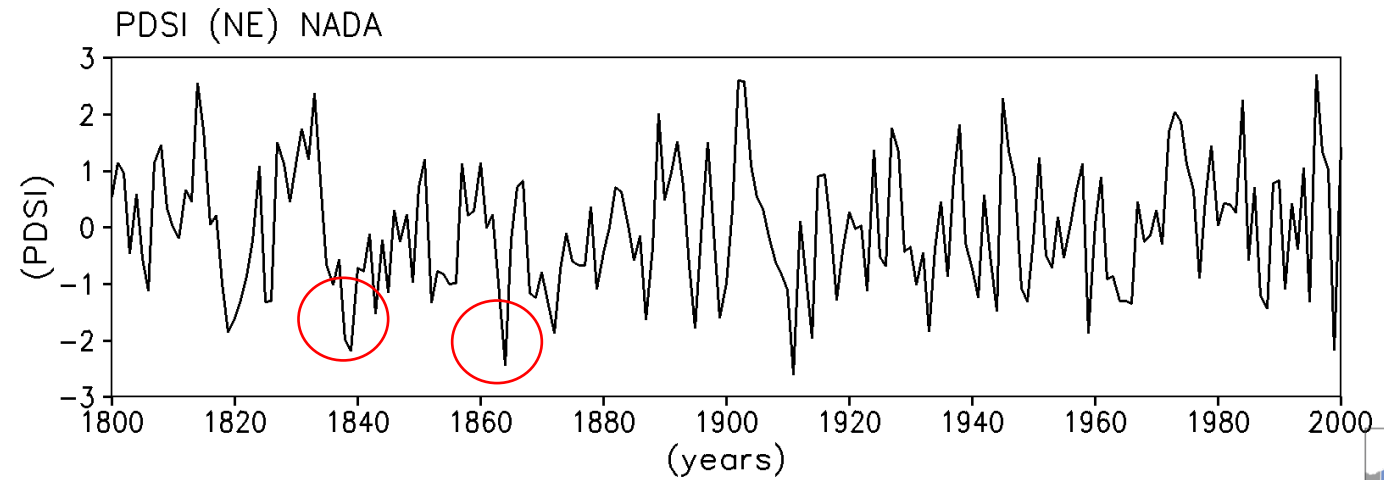
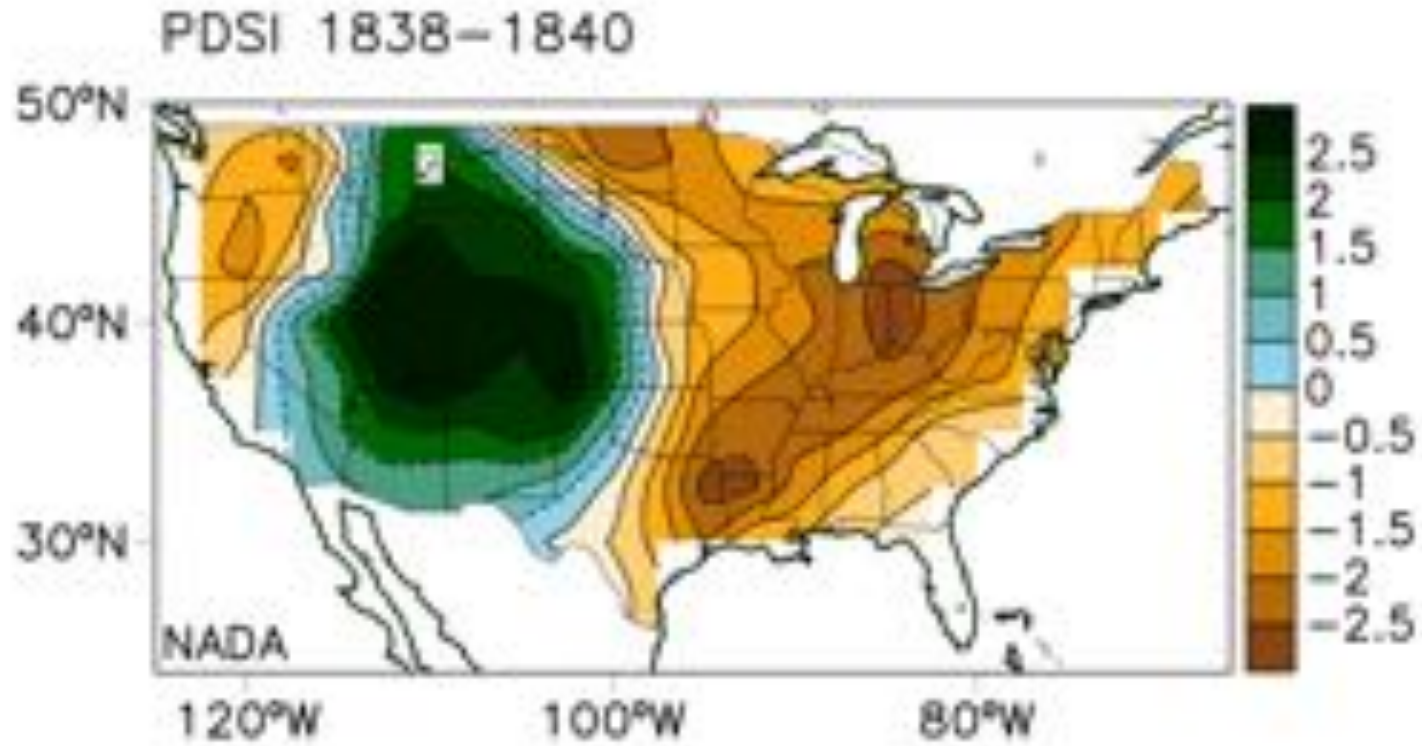
Drought of 2002

2012

2016-2017

Present

Droughts in 1800's

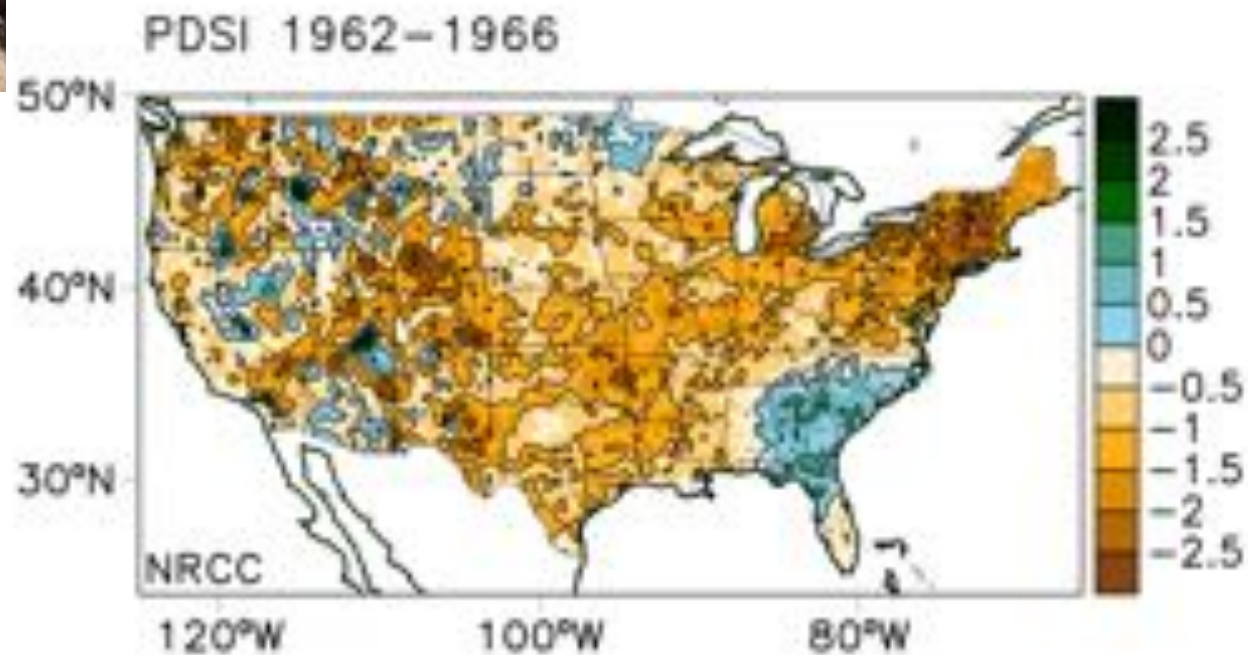


Northeast US 1960's



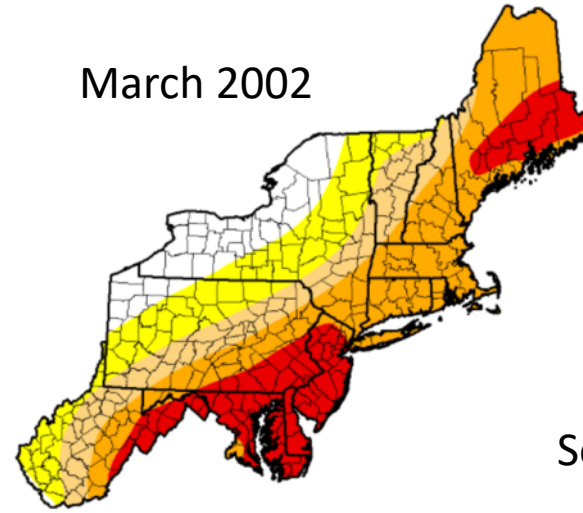
Lasting from 1961-1967.
Almost 50% of the Northeast
was in extreme or severe
drought from 1964-1967.

NYC reservoirs were down to
25% capacity.

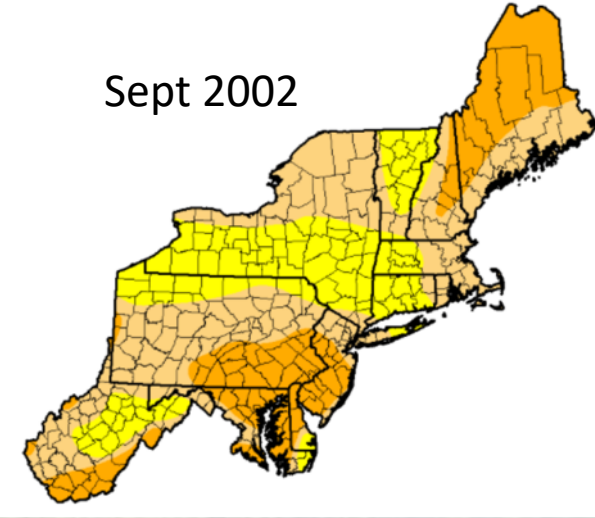


2000-2003

March 2002



Sept 2002



Cannonsville Reservoir in Delaware County, NY.
Lower photo shows same view as upper except at
6.5% capacity (Dec 20, 2001)

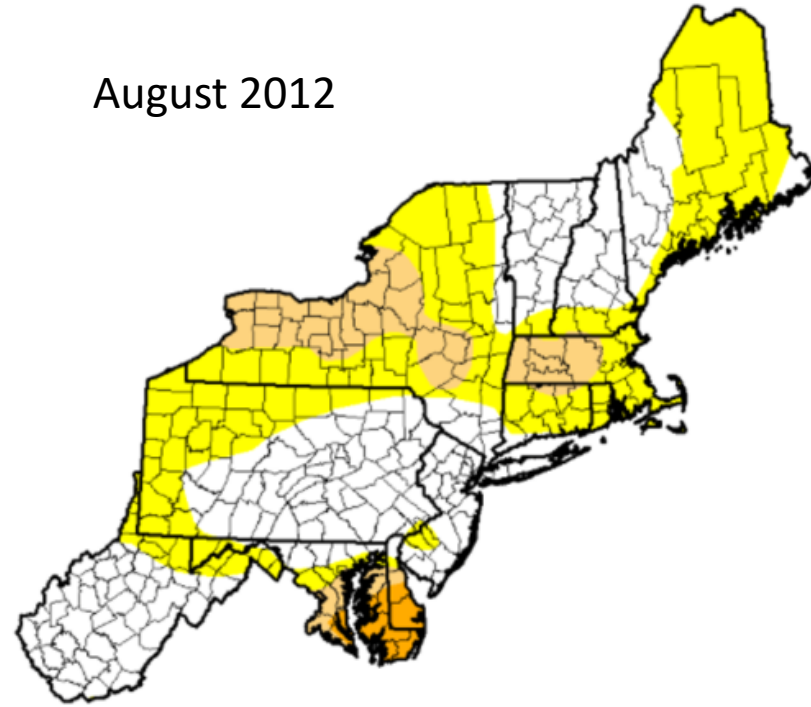
100-yr drought on the St. John
River at Ninemile, Maine
(September 2002).



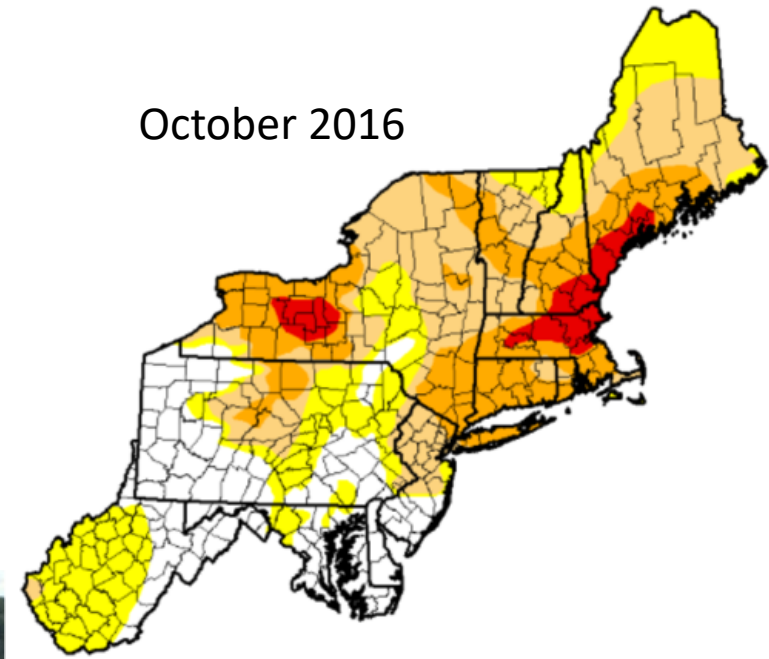
Summer 2012



August 2012



2016 Drought



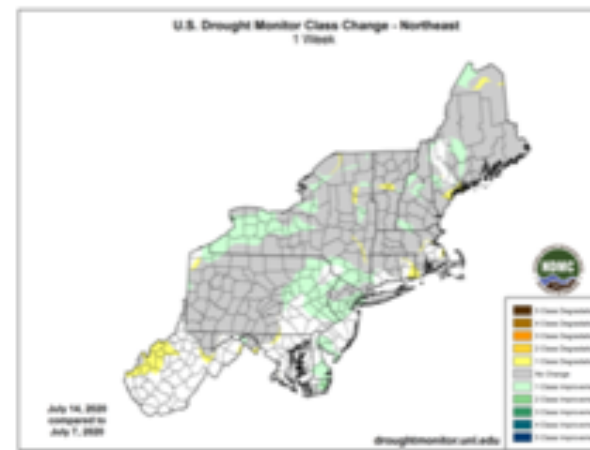
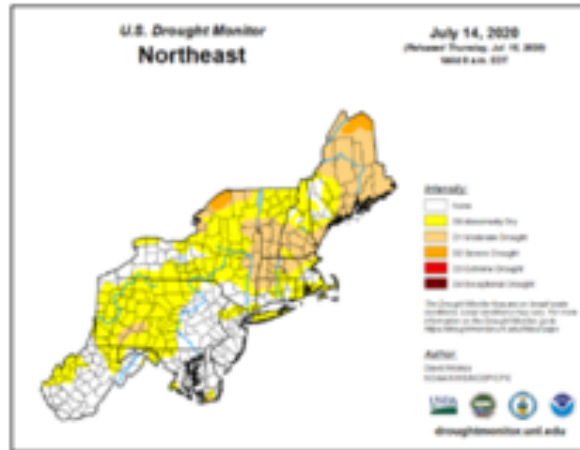


Click a state to zoom maps below

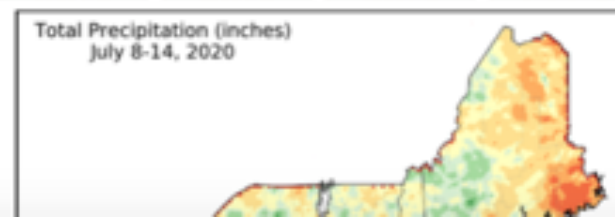
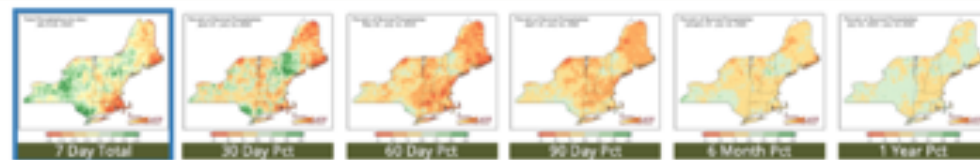
Drought Status Update

July 16, 2020 - Enough precipitation fell during the past week to prevent further deterioration in many areas and improve conditions in some areas. Many locations did not see their drought status change, but there were slight improvements in drought conditions in small portions of northwestern/western Maine, southwestern New Hampshire, and northwestern New York. The most notable change was in abnormal dryness, which is eased in parts of western/southeastern New York, western Connecticut, northern New Hampshire, and western Maine. However, moderate drought expanded in coastal Maine, while abnormal dryness expanded in eastern Connecticut and southern Rhode Island. The U.S. Drought Monitor released on July 16 showed 42% of the Northeast DEWS region in a

US Drought Monitor (updated weekly)

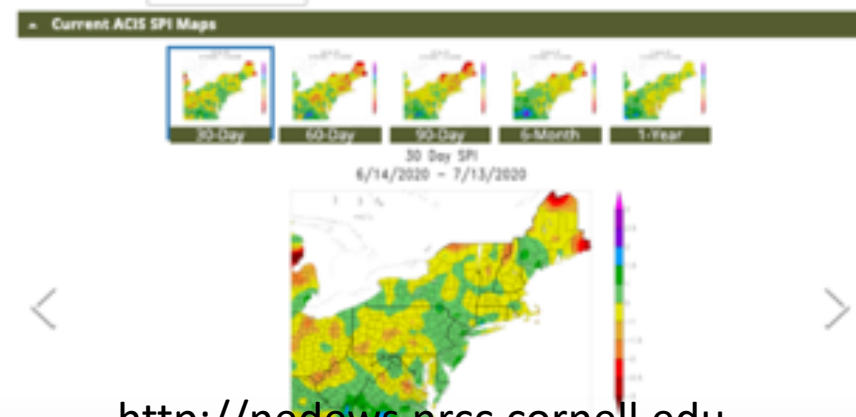
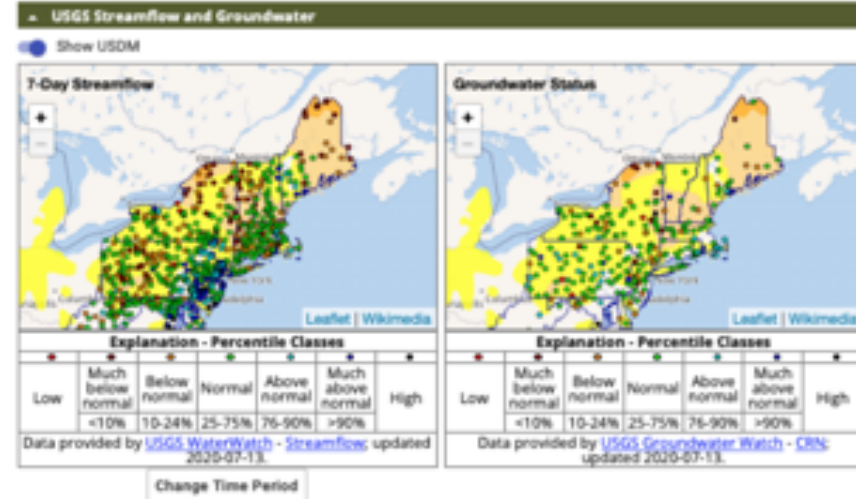
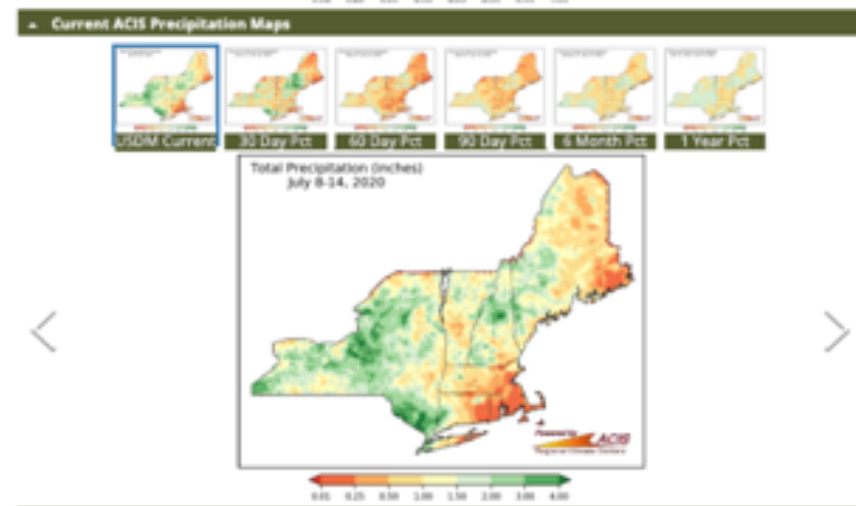


Last USDM Week (ending 2020-7-14) ACIS Precipitation Maps



- Drought Monitor
- Precipitation
- Streamflow & Groundwater
- Drought indices
- Outlooks

2020 – low water levels in Maine

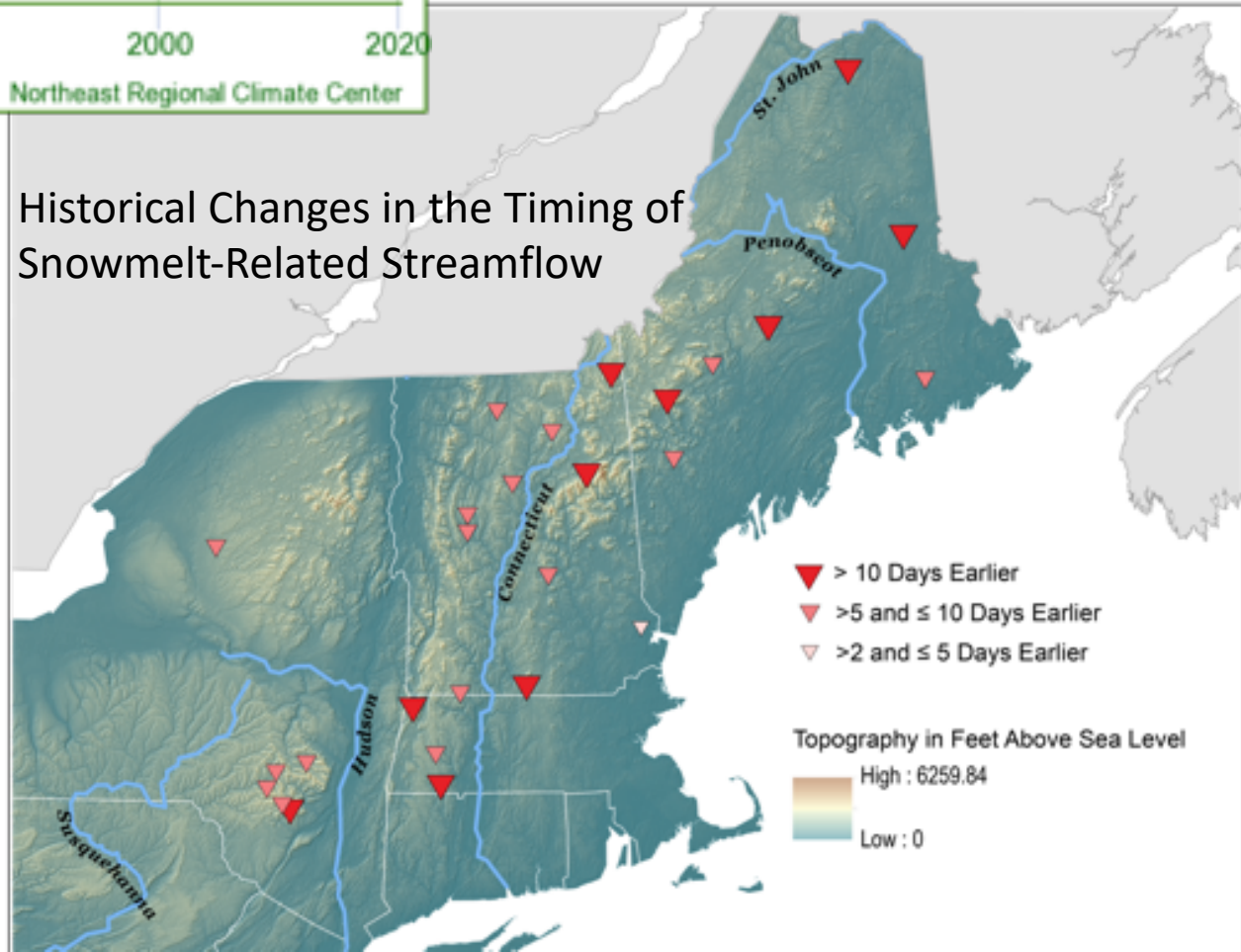


Northeast Temperature Time Series (Annual)



Drought is not impacted simply by precipitation.

Historical Changes in the Timing of Snowmelt-Related Streamflow



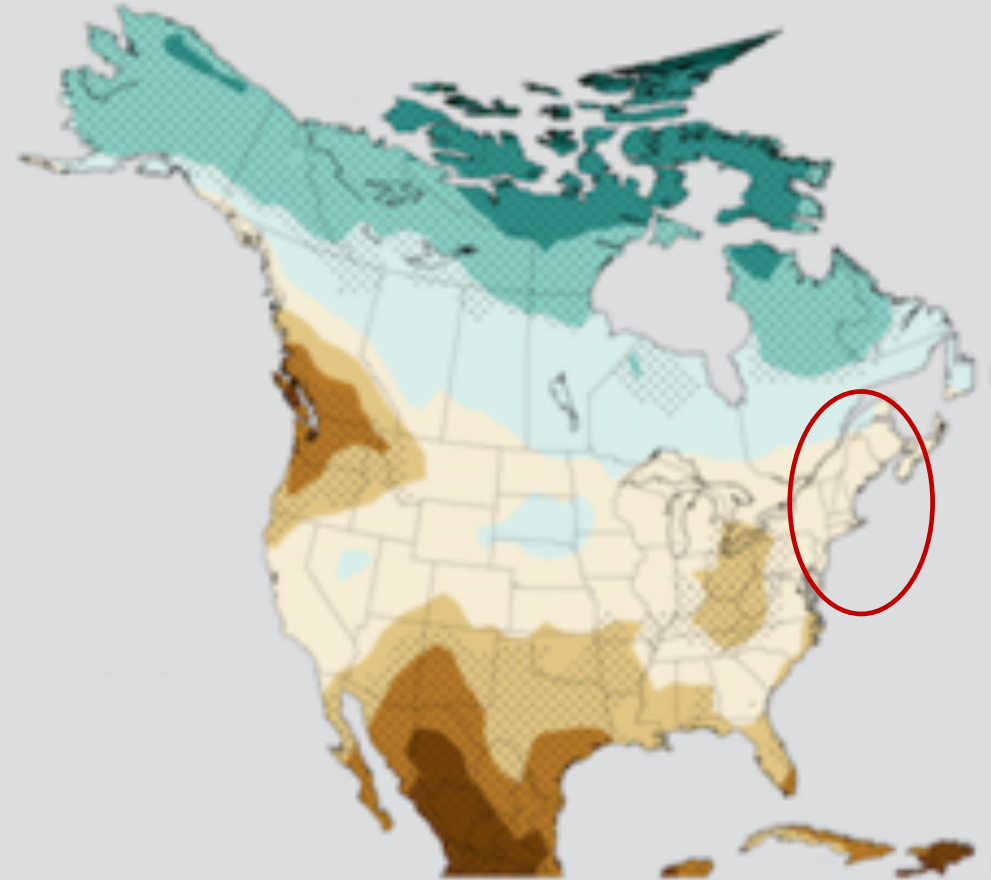


projections

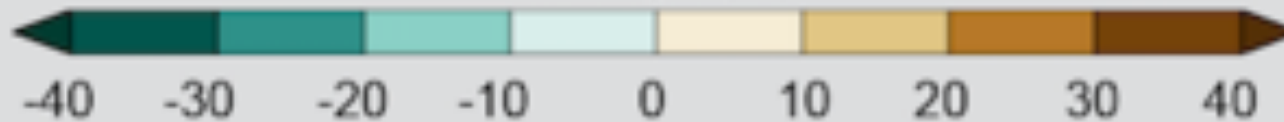
Changes in Consecutive Dry Days

Rapid Emissions Reductions (RCP 2.6)

Continued Emissions Increases (RCP 8.5)

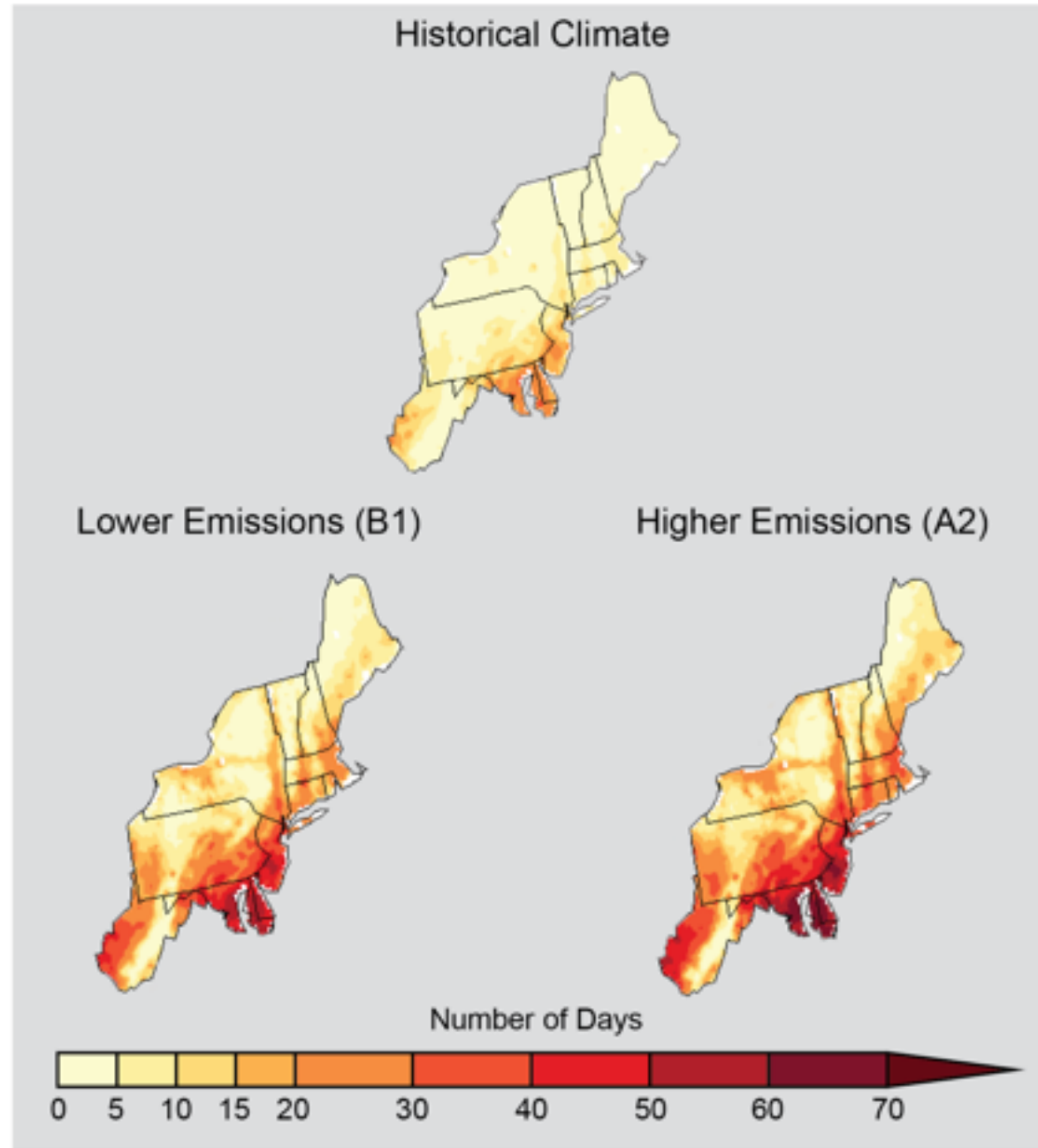


Change (%)



Seasonal drought risk is also projected to increase in summer and fall as higher temperatures lead to greater evaporation and earlier winter and spring snowmelt.

Projected Increases in the Number of Days over 90°F



Area with Snow Cover for at least 30 days

Under high emissions scenario



Droughts currently occur every 2-3 years

Number of consecutive dry days expected to increase.

Hot days expected to increase.

Decrease in snow on the ground & earlier spring snowmelt.

Summer drought is expected to increase.



Contact Information

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