

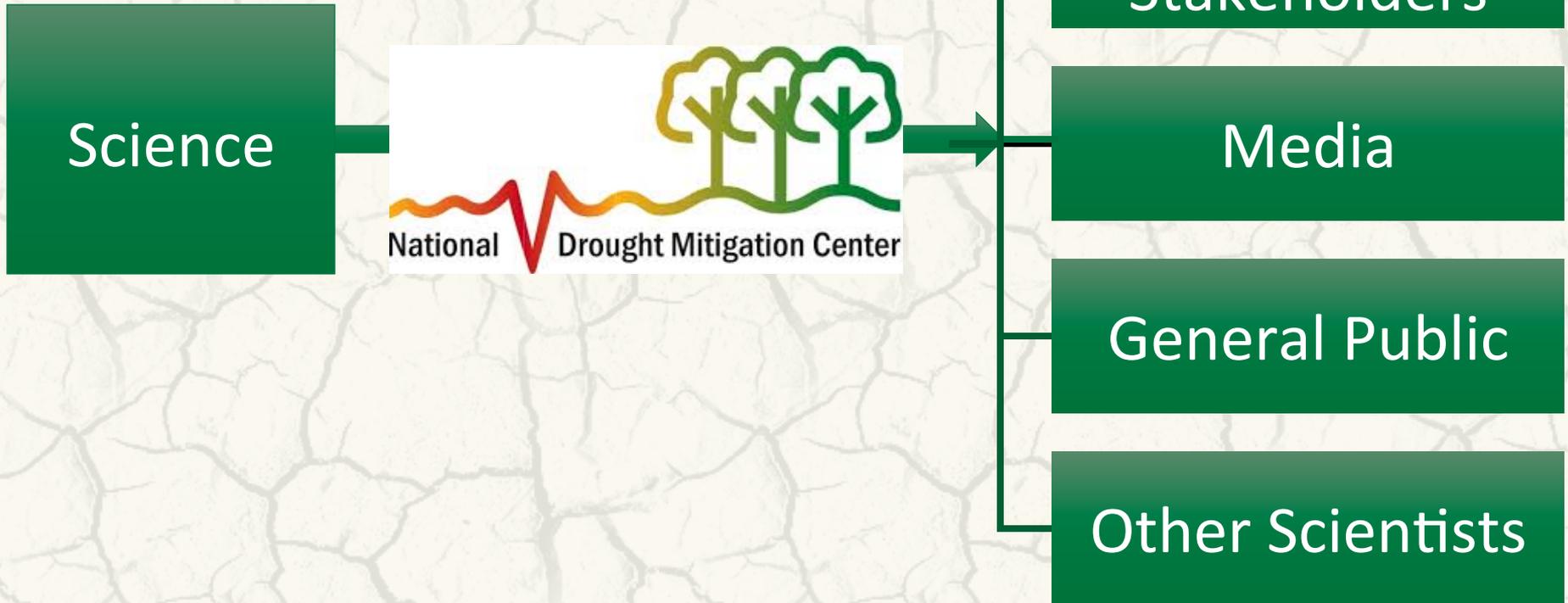
# The U.S. Drought Monitor



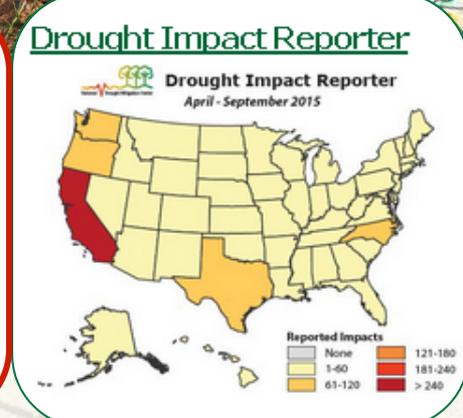
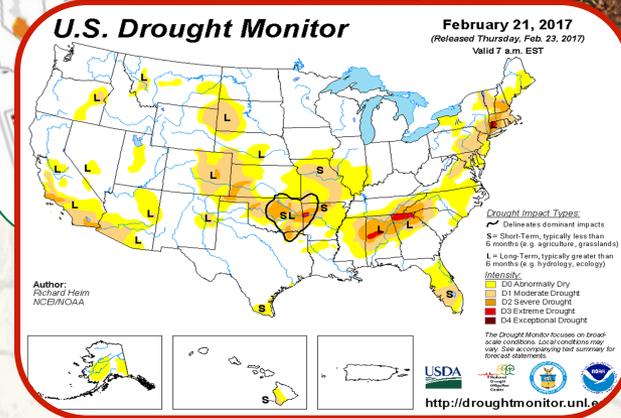
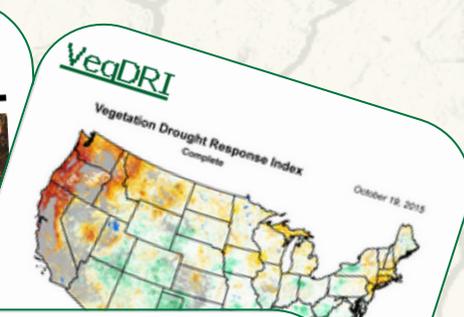
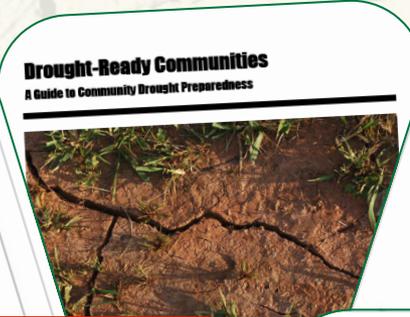
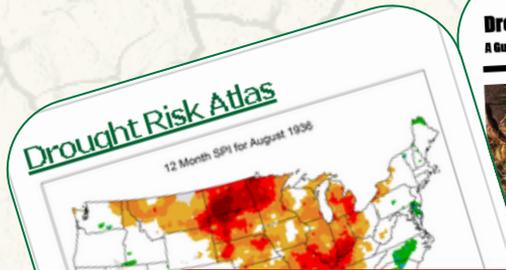
Deborah J. Bathke  
National Drought Mitigation Center  
NOAA's Drought Risk Management Research Center  
University of Nebraska-Lincoln  
February 29, 2017



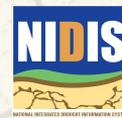
# National Drought Mitigation Center (NDMC)



# Tools for drought risk management



[drought.unl.edu](http://drought.unl.edu)

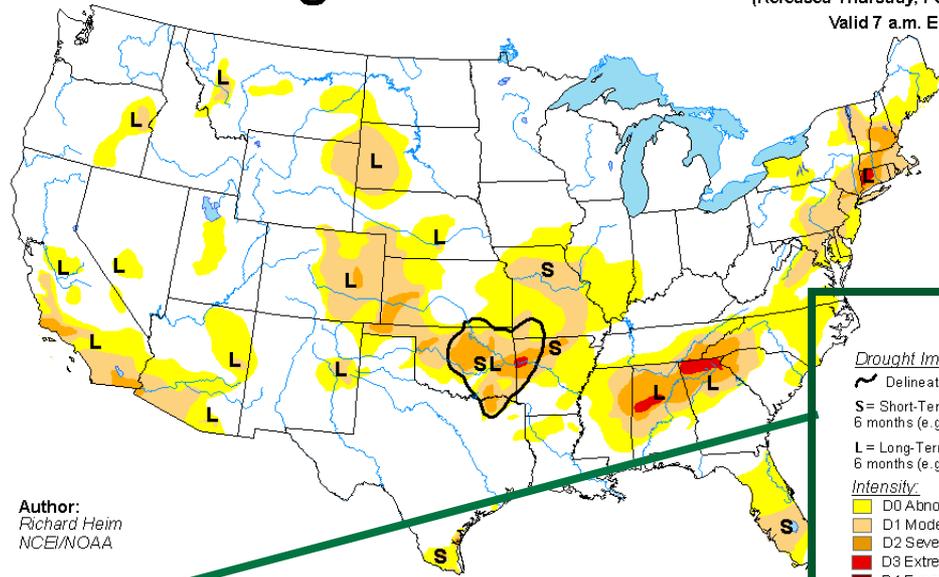


# What is the U.S. Drought Monitor?

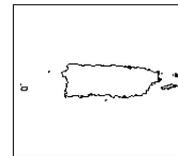
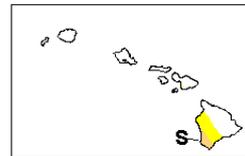
Weekly representation of **current** drought conditions

## U.S. Drought Monitor

February 21, 2017  
(Released Thursday, Feb. 23, 2017)  
Valid 7 a.m. EST



Author:  
Richard Heim  
NCEI/NOAA



Drought Impact Types:  
~ Delineates dominant impacts  
S= Short-Term, typically less than 6 months (e.g. agriculture, grasslands)  
L = Long-Term, typically greater than 6 months (e.g. hydrology, ecology)

Intensity:  
D0 Abnormally Dry  
D1 Moderate Drought  
D2 Severe Drought  
D3 Extreme Drought  
D4 Exceptional Drought

The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. See accompanying text summary for forecast statements.



<http://droughtmonitor.unl.edu/>

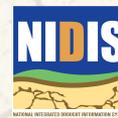
### Drought Impact Types:

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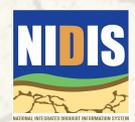
### Intensity:

- D0 Abnormally Dry
- D1 Moderate Drought
- D2 Severe Drought
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The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. See accompanying text summary for



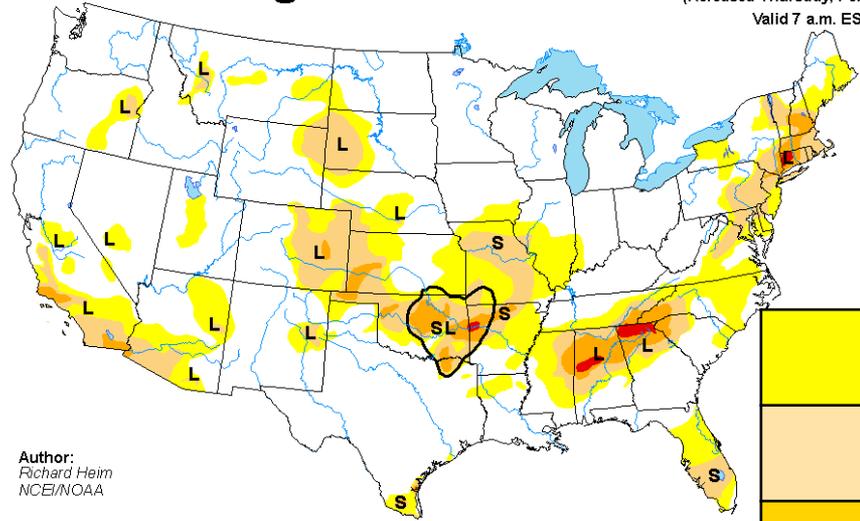
# The US Drought Monitor Is Not



# Drought categories use percentiles

## U.S. Drought Monitor

February 21, 2017  
 (Released Thursday, Feb. 23, 2017)  
 Valid 7 a.m. EST



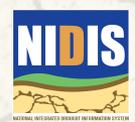
Author:  
 Richard Heim  
 NCEI/NOAA



USDA  
<http://dr>

### Percentile

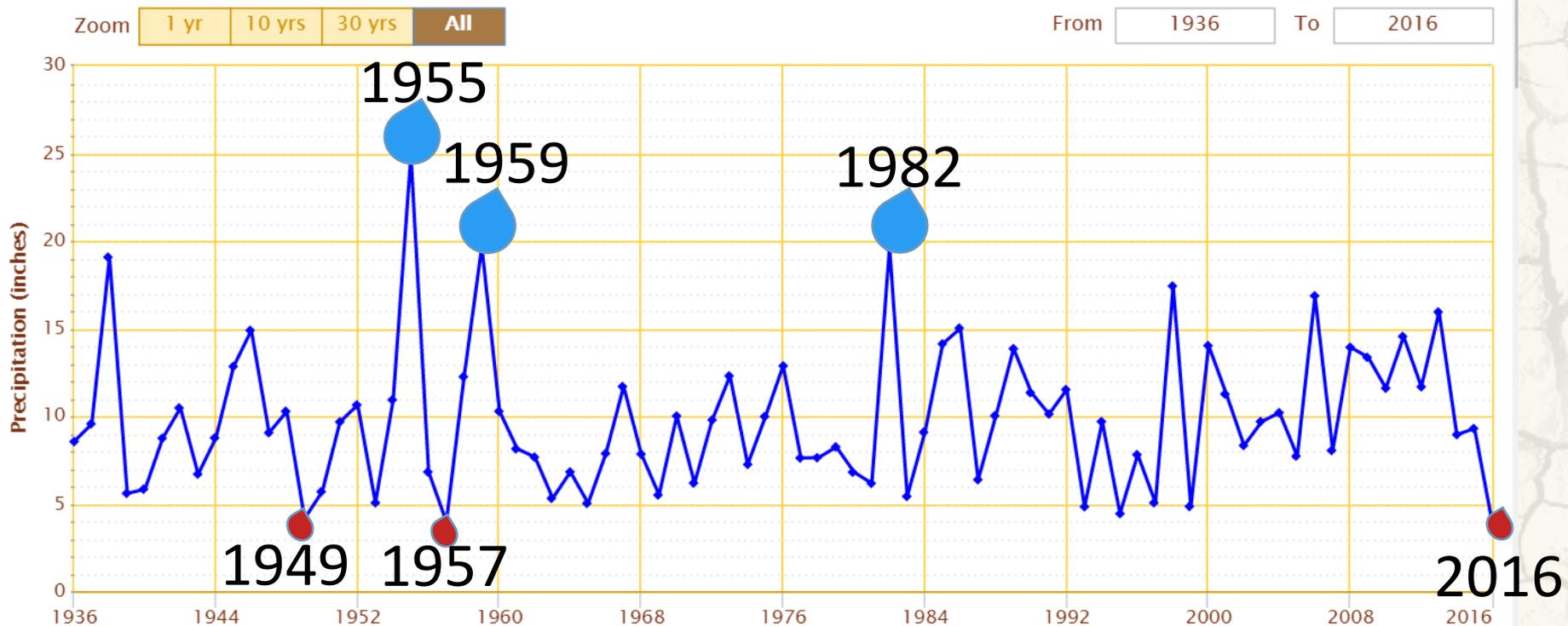
	D0	Abnormally Dry	21-30
	D1	Moderate Drought	11-20
	D2	Severe Drought	6-10
	D3	Extreme Drought	3 - 5
	D4	Exceptional Drought	1 - 2



# What are percentiles?

Total Precipitation – Jun through Aug – BOSTON, MA

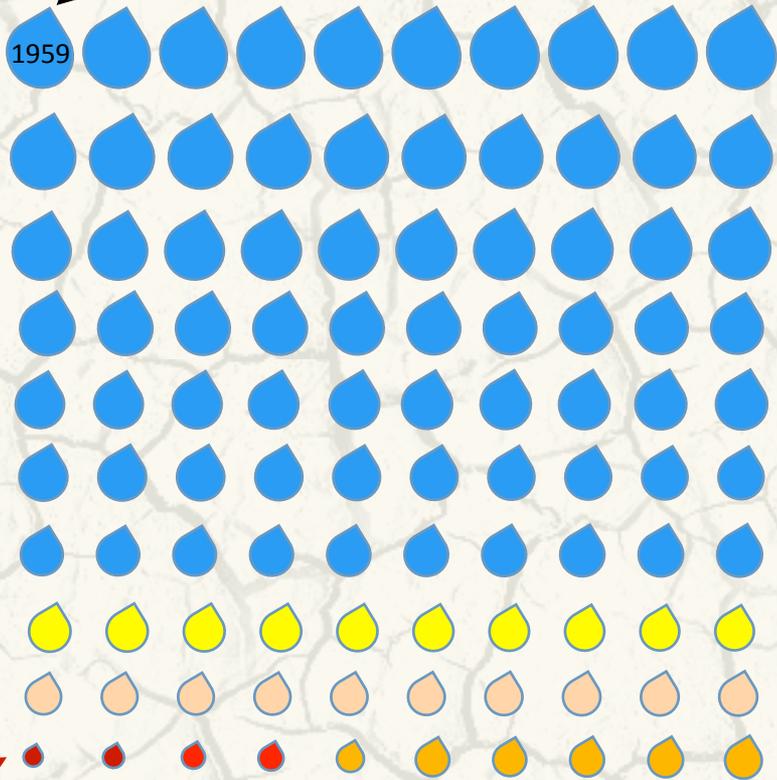
Use navigation tools above and below chart to change displayed range



# What are percentiles?

			Percentile
	D0	Abnormally Dry	21-30
	D1	Moderate Drought	11-20
	D2	Severe Drought	6-10
	D3	Extreme Drought	3 - 5
	D4	Exceptional Drought	1 - 2

**Most Precipitation**  
1959: 24.89"



Near  
Normal  
31-100  
Percentile

2016 1957 1949

**Least Precipitation**  
2016: 3.92"

1 - 2 percentile



# What does this mean for the map?

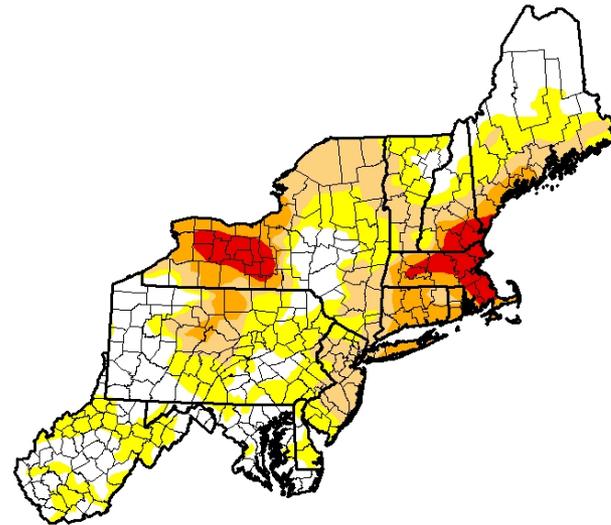
Percentile

	D0	Abnormally Dry	21-30
	D1	Moderate Drought	11-20
	D2	Severe Drought	6-10
	D3	Extreme Drought	3 - 5
	D4	Exceptional Drought	1 - 2

In 2016, conditions were among the worst in the historical record

## U.S. Drought Monitor Northeast

September 13, 2016  
(Released Thursday, Sep. 15, 2016)  
Valid 8 a.m. EDT



### Intensity



*The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. See accompanying text summary for forecast statements.*

Author:  
Eric Luebbehusen  
U.S. Department of Agriculture



<http://droughtmonitor.unl.edu/>

# The map is more than just precipitation

Vegetation Health



Streamflow

Wildfire Conditions



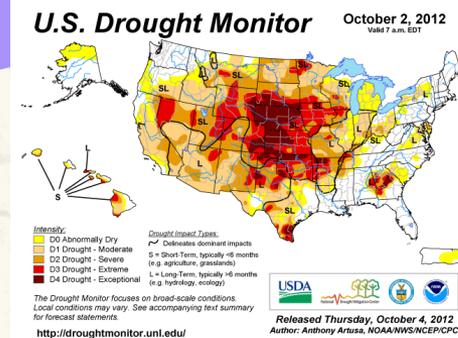
Soil Moisture



Reservoir Levels



Precipitation



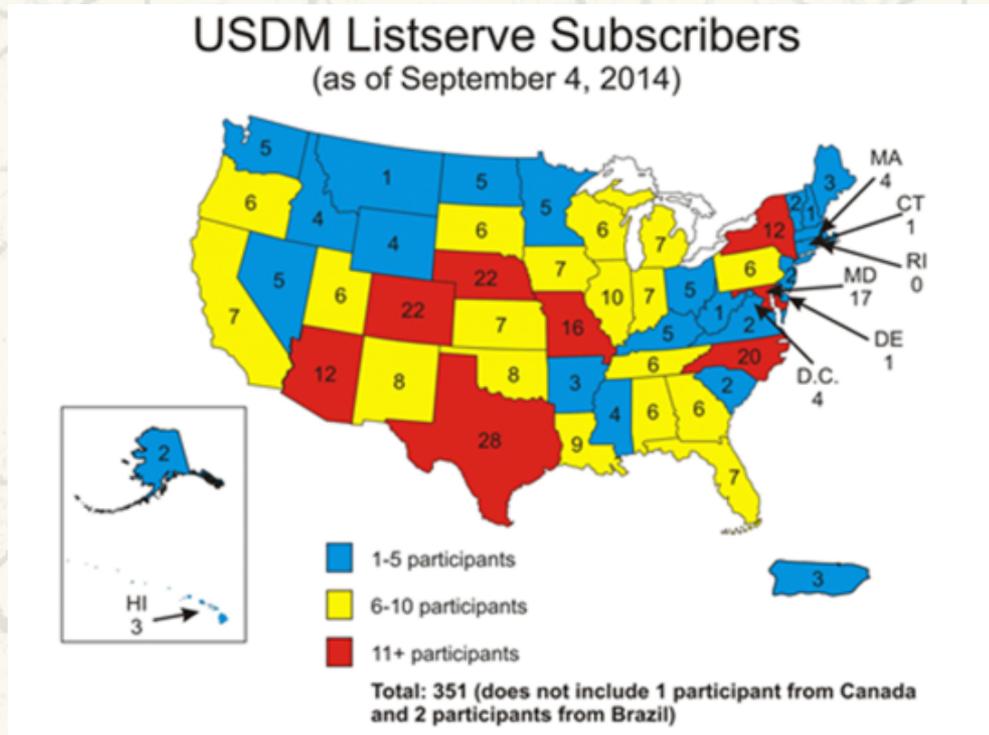
Many others!

# The map incorporates local expert input & impact data

**National Drought Mitigation Center**  
**Drought Impact Reporter**  
[droughtreporter.unl.edu](http://droughtreporter.unl.edu)

Map | Advanced Search | Submit a Report | About the DIR | Help

Massachusetts | 01-01-2016 - 12-31-2016

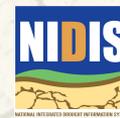


Impact Counts | Impacts List | Page 1/3 | Report Counts | Reports List | Page 1/5

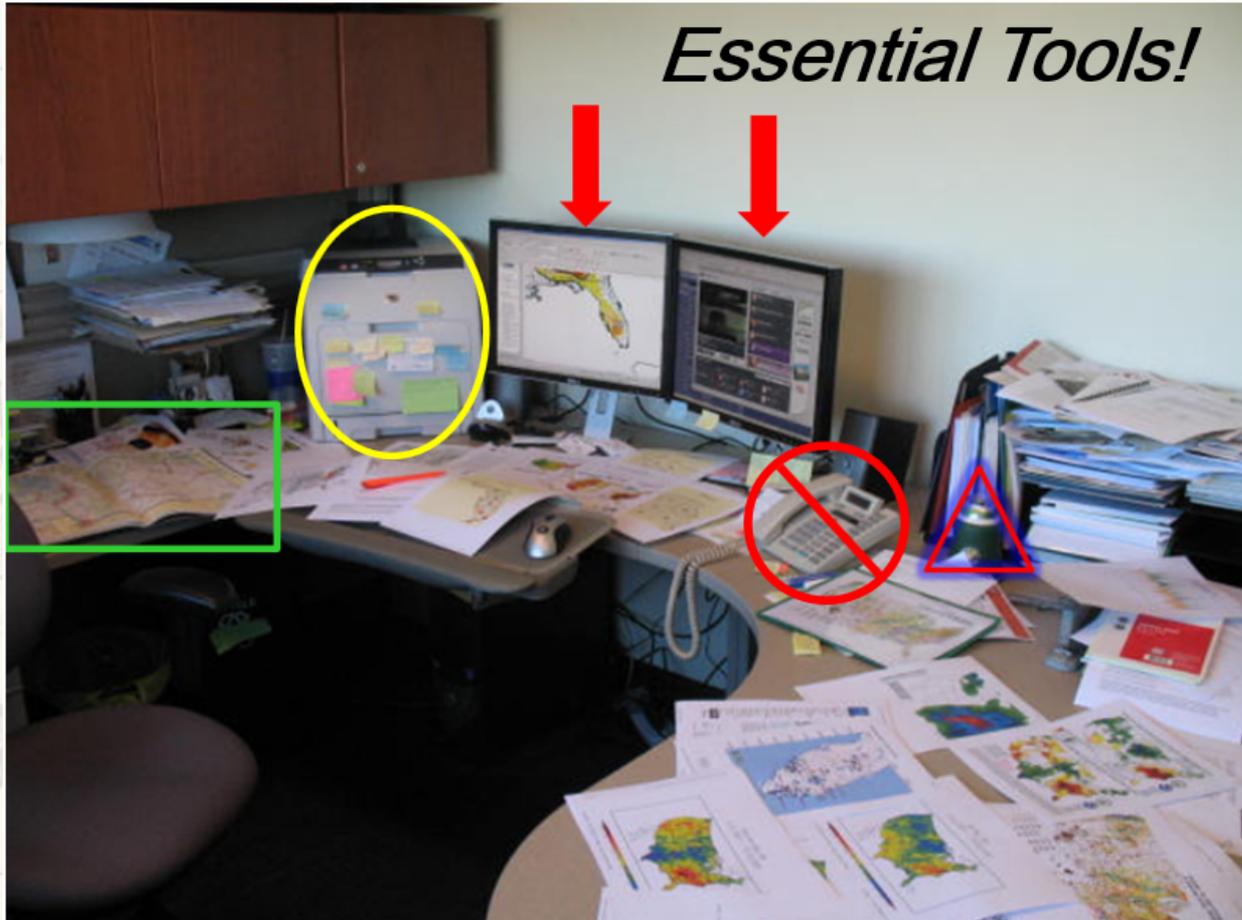
**Water conservation encouraged in Massachusetts as drought persisted**  
 Duration: 12-14-2016 - unknown

**Drought warning, advisory continued for Massachusetts**  
 Duration: 11-09-2016 - 12-09-2016

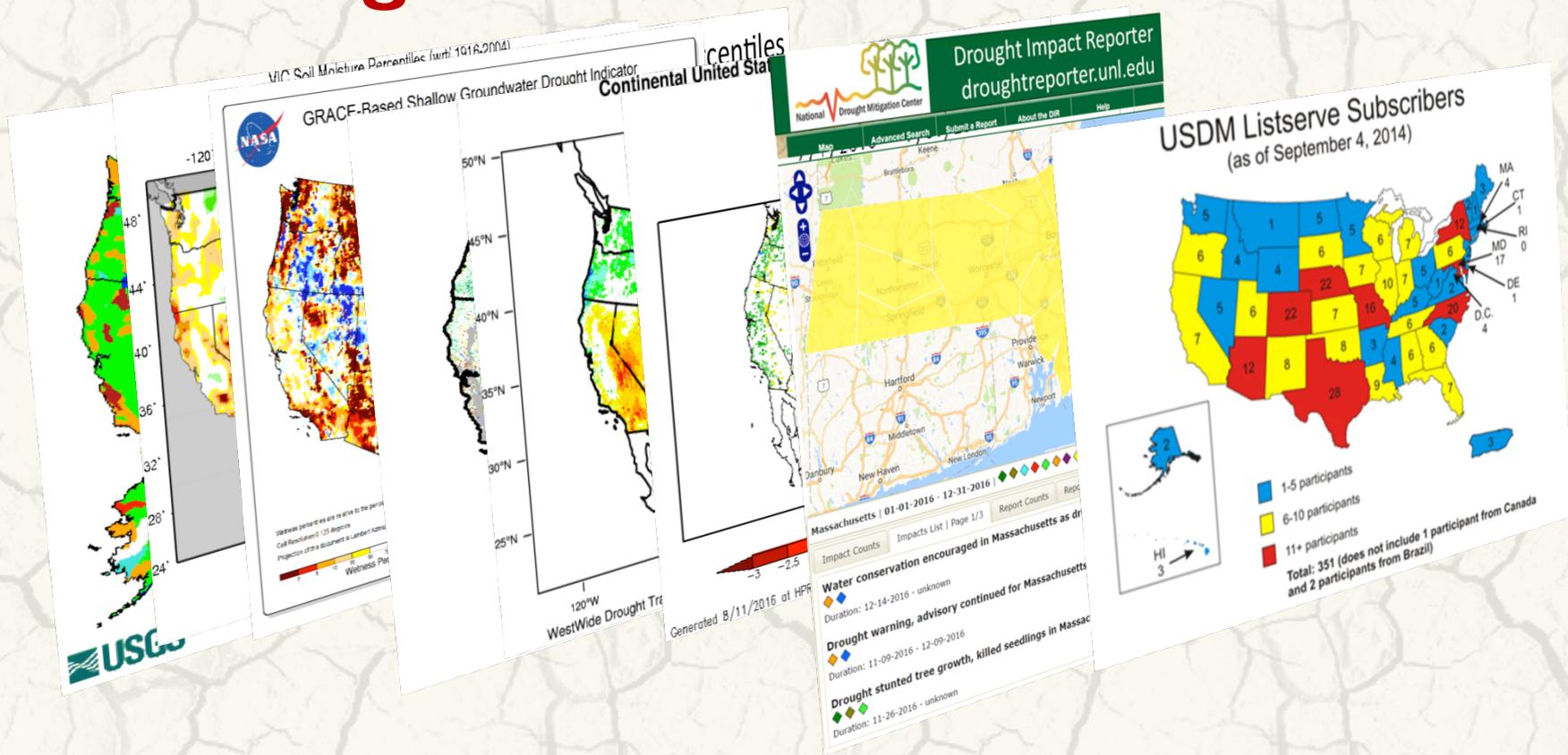
**Drought stunted tree growth, killed seedlings in Massachusetts**  
 Duration: 11-26-2016 - unknown



# The author analyzes and synthesizes all data & local input into one drought map



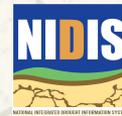
# Convergence of Evidence



# Timeline

[Month] [Day] [Year] - [Month] [Day] [Year]

	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
7:00 am							
:30		<b>Data</b>			<b>Final</b>		
8:00 am							
:30		<b>Cut off</b>			<b>Map</b>		
9:00 am							
:30					<b>Release</b>		
10:00 am				<b>Near</b>			
:30				<b>Final</b>			
11:00 am				<b>Draft</b>			
:30							
12:00 am							
:30							
1:00 pm							
:30							
2:00 pm							
:30							
3:00 pm							
:30							
4:00 pm							
:30							
5:00 pm							
:30							
6:00 pm							
:30							
7:00 pm							
:30							



# Authorship rotates among 13 individuals from national & regional offices.



**Questions?**

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**[dbathke2@unl.edu](mailto:dbathke2@unl.edu)**  
**402-472-6199**

