

*The Drought Monitor*  
And  
Recent Dryness in the Northeast

Rich Tinker [rich.tinker@noaa.gov](mailto:rich.tinker@noaa.gov)

Climate Prediction Center

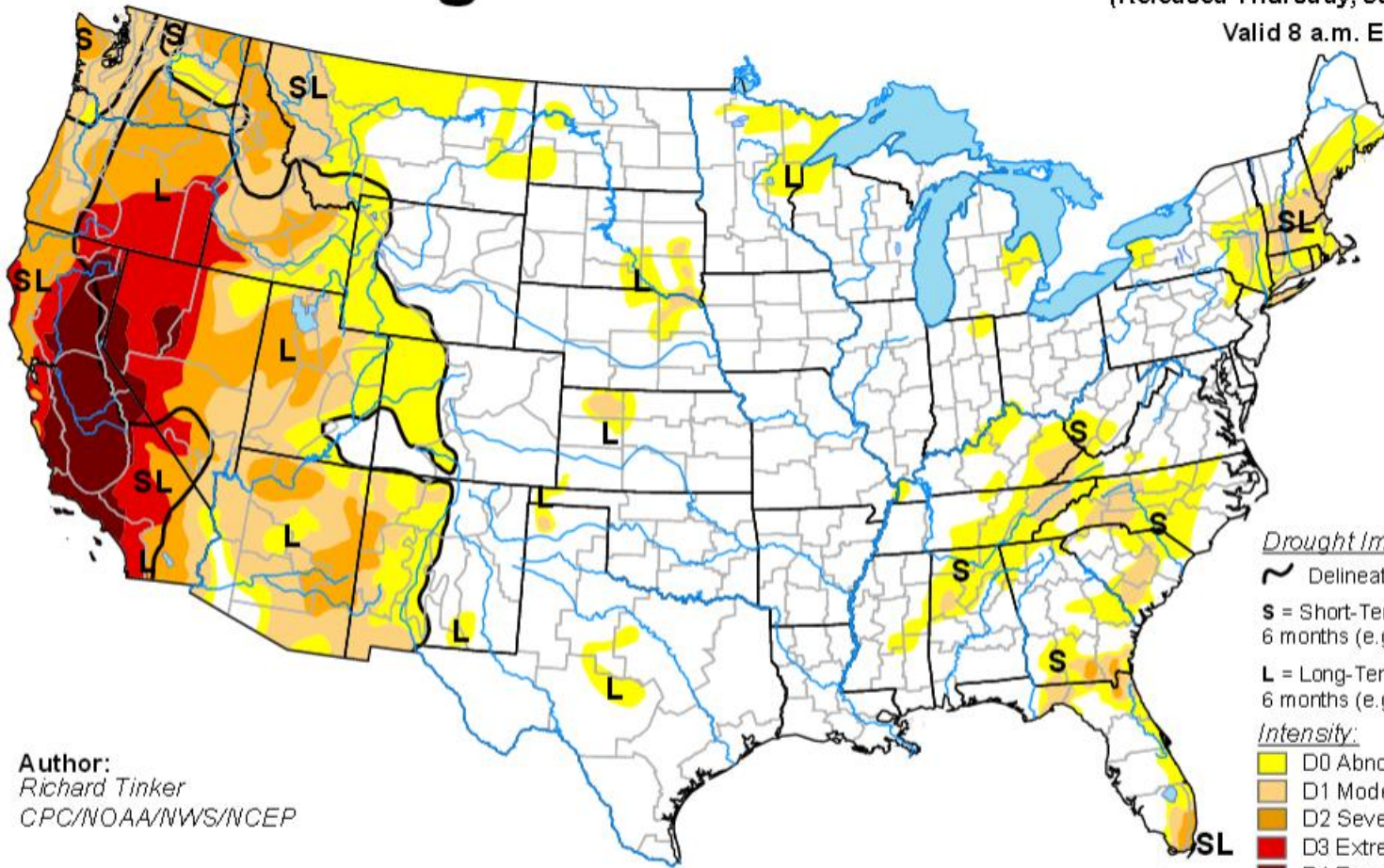
June 30, 2015

# U.S. Drought Monitor

June 23, 2015

(Released Thursday, Jun. 25, 2015)

Valid 8 a.m. EDT



Author:  
Richard Tinker  
CPC/NOAA/NWS/NCEP

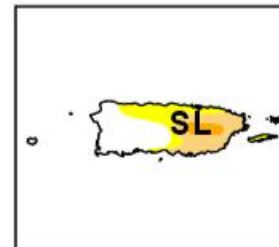
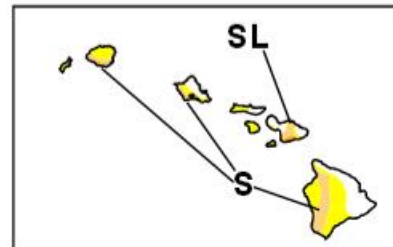
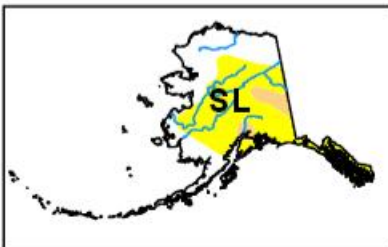
Drought Impact Types:

- ~ 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/>

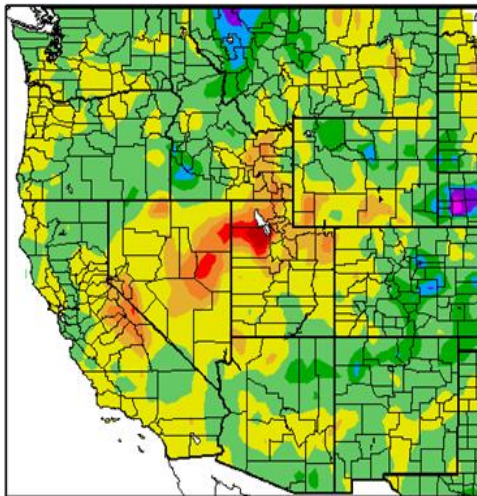
# Drought Severity Classification

		Ranges					
Category	Description	Possible Impacts	Palmer Drought Index	CPC Soil Moisture Model (Percentiles)	USGS Weekly Streamflow (Percentiles)	Standardized Precipitation Index (SPI)	Objective Short and Long-term Drought Indicator Blends (Percentiles)
D0	Abnormally Dry	Going into drought: short-term dryness slowing planting, growth of crops or pastures. Coming out of drought: some lingering water deficits; pastures or crops not fully recovered	-1.0 to -1.9	21-30	21-30	-0.5 to -0.7	21-30
D1	Moderate Drought	Some damage to crops, pastures; streams, reservoirs, or wells low, some water shortages developing or imminent; voluntary water-use restrictions requested	-2.0 to -2.9	11-20	11-20	-0.8 to -1.2	11-20
D2	Severe Drought	Crop or pasture losses likely; water shortages common; water restrictions imposed	-3.0 to -3.9	6-10	6-10	-1.3 to -1.5	6-10
D3	Extreme Drought	Major crop/pasture losses; widespread water shortages or restrictions	-4.0 to -4.9	3-5	3-5	-1.6 to -1.9	3-5
D4	Exceptional Drought	Exceptional and widespread crop/pasture losses; shortages of water in reservoirs, streams, and wells creating water emergencies	-5.0 or less	0-2	0-2	-2.0 or less	0-2

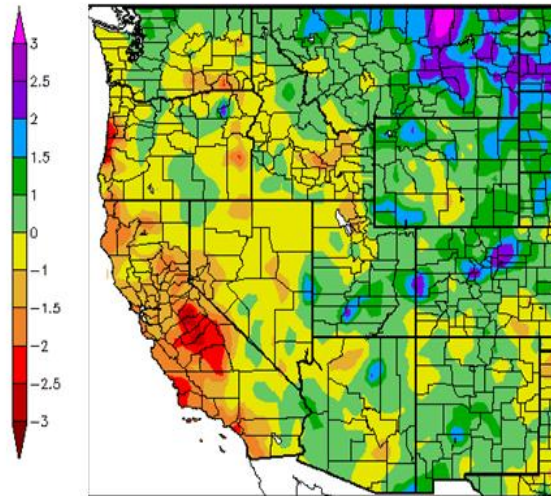
Short-term drought indicator blends focus on 1-3 month precipitation. Long-term blends focus on 6-60 months. Additional indices used, mainly during the growing season, include the USDA/NASS Topsoil Moisture, Keetch-Byram Drought Index (KBDI), and NOAA/NESDIS satellite Vegetation Health Indices. Indices used primarily during the snow season and in the West include snow water content, river basin precipitation, and the Surface Water Supply Index (SWSI). Other indicators include groundwater levels, reservoir storage, and pasture/range conditions.



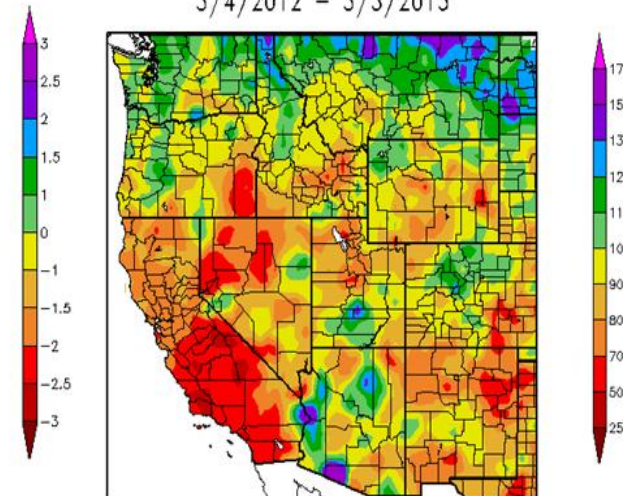
Water Year SPI  
10/1/2014 - 3/2/2015



24 Month SPI  
3/3/2013 - 3/2/2015



Percent of Normal Precipitation (%)  
3/4/2012 - 3/3/2015



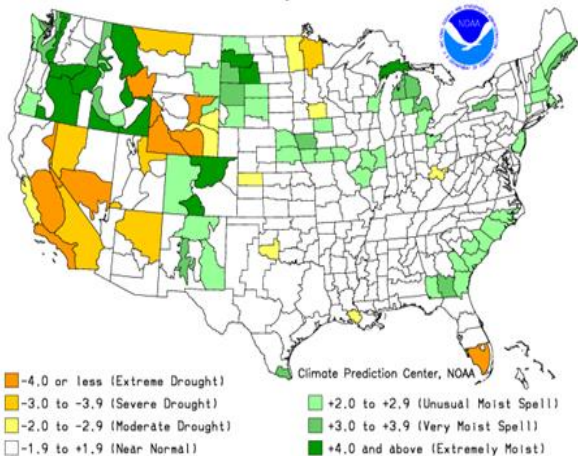
Generated 3/3/2015 at HPRCC using provisional data.

Regional Climate Centers 5 at HPRCC using provisional data.

Regional Climate Centers 15 at HPRCC using provisional data.

Regional Climate Centers

Drought Severity Index by Division  
Weekly Value for Period Ending FEB 28, 2015  
Long Term Palmer



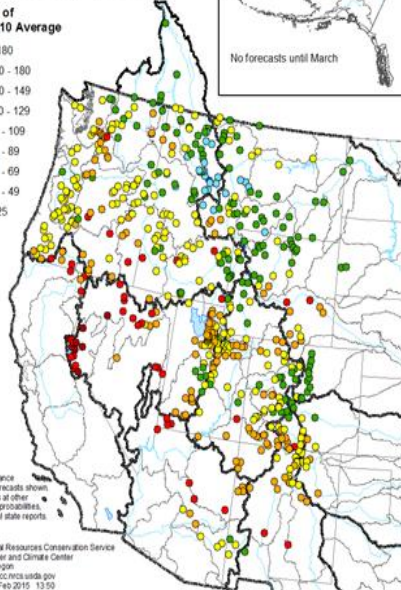
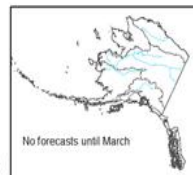
Spring and Summer  
Streamflow Forecasts  
as of February 1, 2015

Percent of  
1981-2010 Average

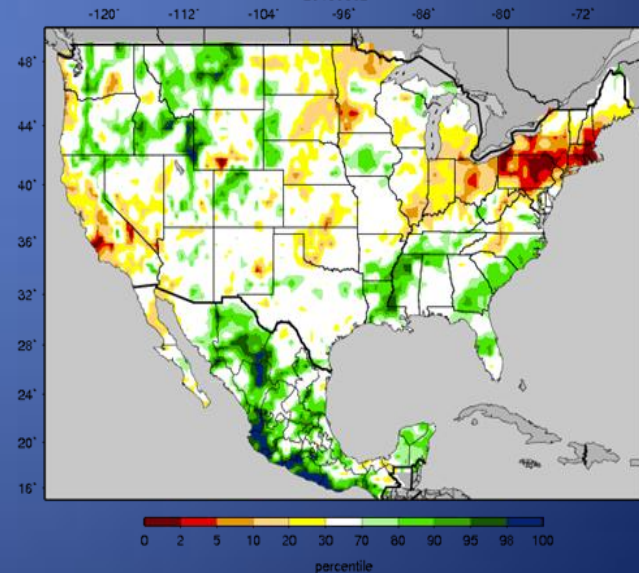
- > 180
- 150 - 180
- 130 - 149
- 110 - 129
- 90 - 109
- 70 - 89
- 50 - 69
- 25 - 49
- < 25

50% exceedance  
probability forecasts shown  
For forecasts at other  
exceedance probabilities,  
see individual state reports

Prepared by:  
USDA Natural Resources Conservation Service  
National Water and Climate Center  
Portland, Oregon  
http://www.nrcs.usda.gov  
Created: 6 Feb 2015 13:50

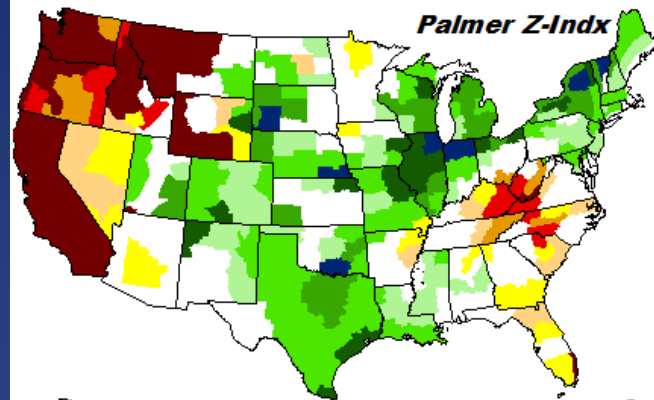


VIC Soil Moisture Percentiles (wrt 1916-2004)  
20150302



# A Few Longer-Term Indicators

**Objective *Short-Term* Drought Indicator Blend Percentiles -- Jun 20, 2015**

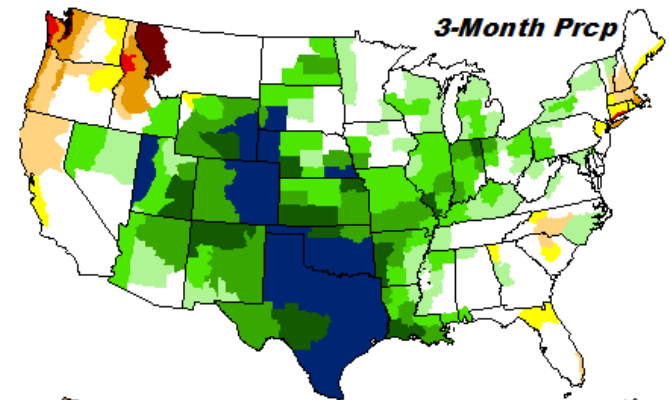


**Palmer Z-Indx**

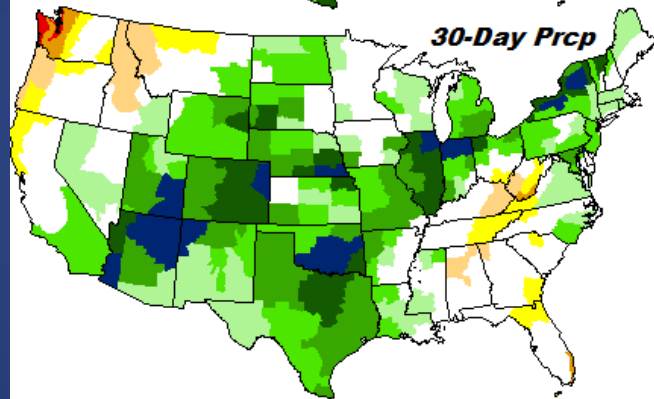


NWS / NCEP  
Climate  
Prediction  
Center

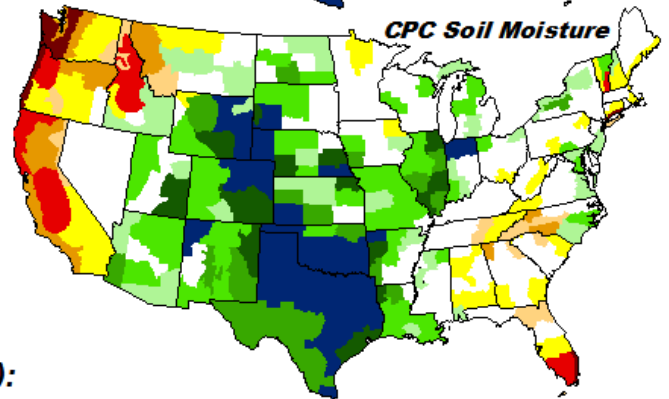
NESDIS  
National  
Climatic  
Data Center



**3-Month Prcp**

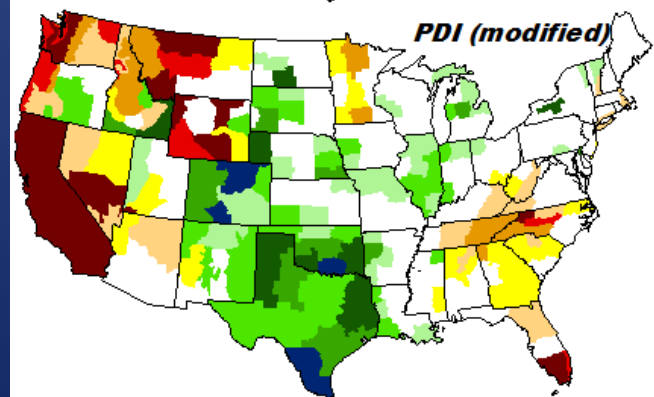
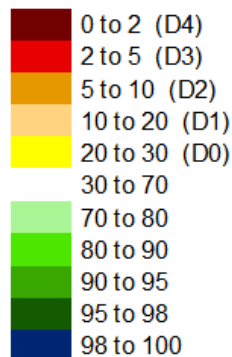


**30-Day Prcp**



**CPC Soil Moisture**

**Percentile  
(D0-to-D4 equivalent):**

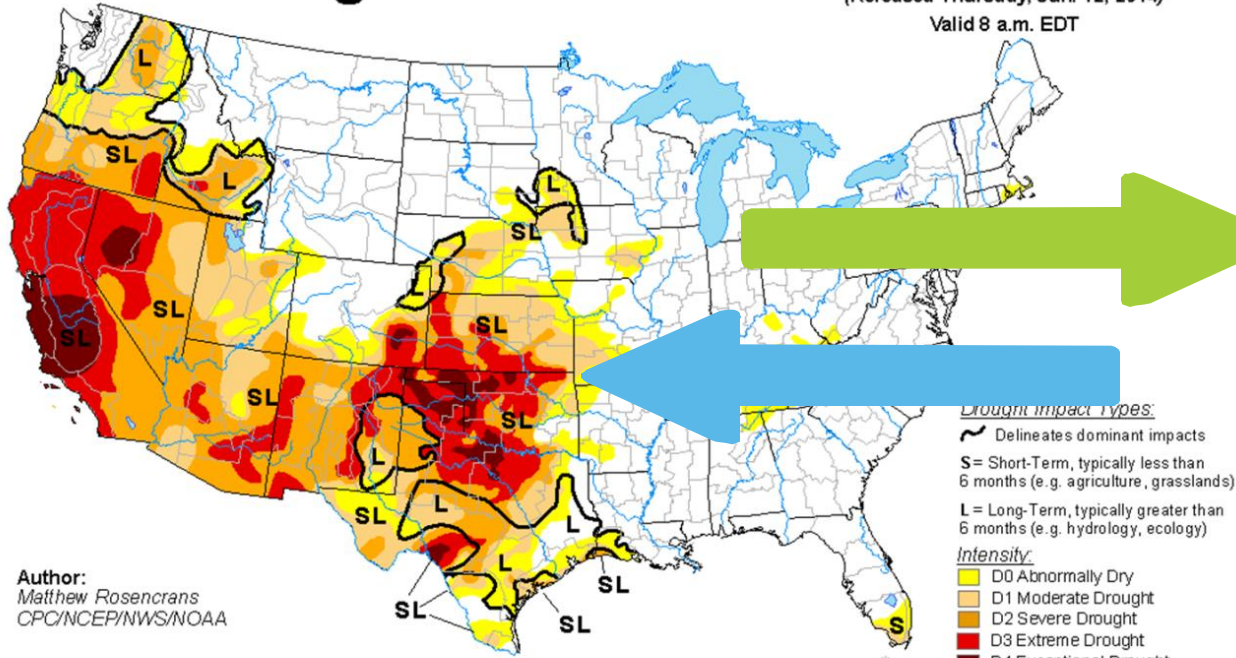


**PDI (modified)**

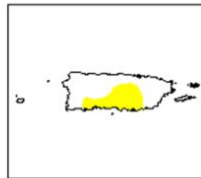
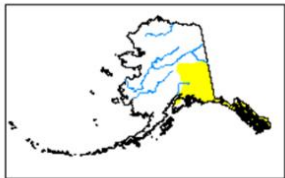


# U.S. Drought Monitor

June 10, 2014  
(Released Thursday, Jun. 12, 2014)  
Valid 8 a.m. EDT



Author:  
Matthew Rosencrans  
CPC/NCEP/NWS/NOAA



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

Regional Weather Service  
Offices

State Climatologists

Weather Service  
Hydrologists

Local/Regional Water  
Supply Experts

National Drought Mitigation  
Center

U. S. Dept. of Agriculture  
(National Agricultural  
Statistics Service)

Natural Resources  
Conservation Service

Desert Research Institute

**OVER 300 GIVEN  
OPPORTUNITY TO  
COMMENT**

# U.S. Drought Monitor Northeast

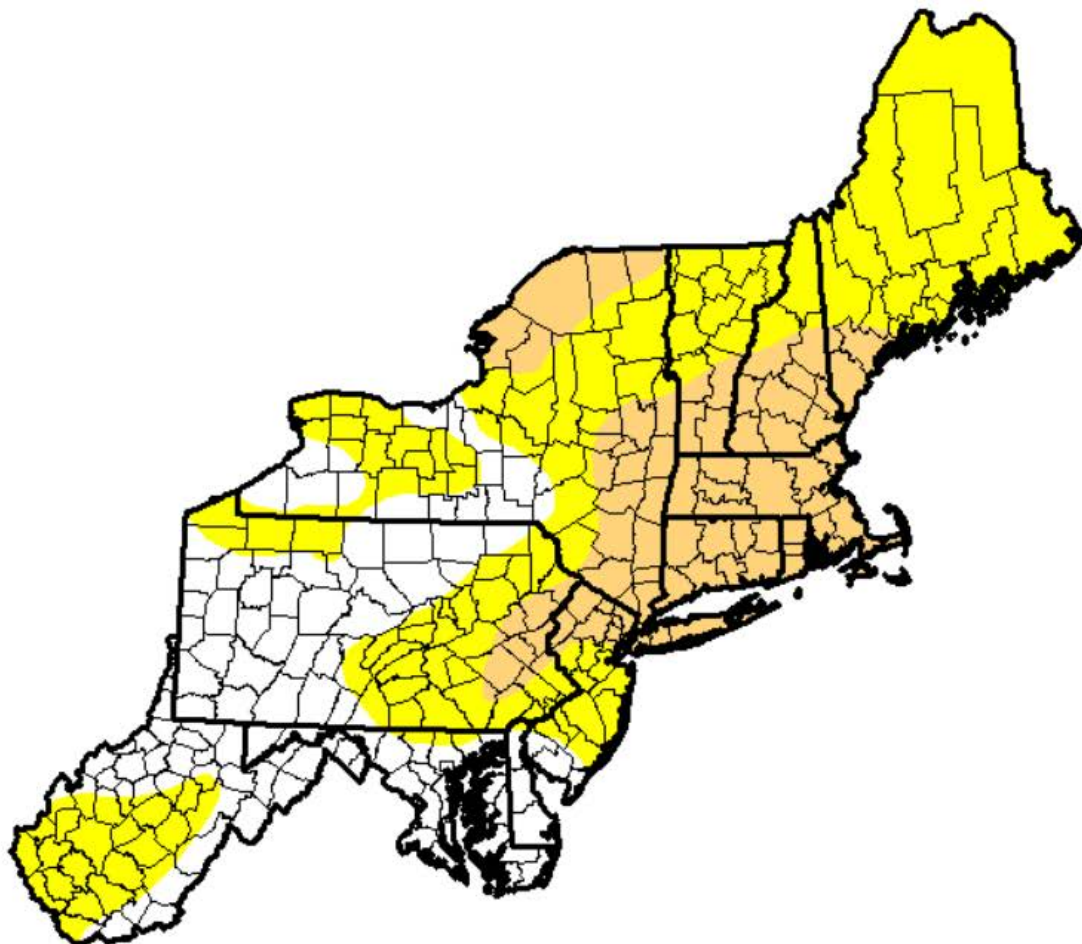
**May 26, 2015**

*(Released Thursday, May. 28, 2015)*

Valid 7 a.m. EST

*Drought Conditions (Percent Area)*

	None	D0	D1	D2	D3	D4
<b>Current</b>	29.44	46.93	23.64	0.00	0.00	0.00
<b>Last Week</b> <i>5/19/2015</i>	36.04	41.22	22.74	0.00	0.00	0.00
<b>3 Months Ago</b> <i>2/24/2015</i>	82.69	17.31	0.00	0.00	0.00	0.00
<b>Start of Calendar Year</b> <i>12/30/2014</i>	86.73	13.27	0.00	0.00	0.00	0.00
<b>Start of Water Year</b> <i>9/30/2014</i>	65.88	30.56	3.56	0.00	0.00	0.00
<b>One Year Ago</b> <i>5/27/2014</i>	98.68	1.32	0.00	0.00	0.00	0.00



Intensity:

- D0 Abnormally Dry
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- D4 Exceptional Drought

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**Author:**

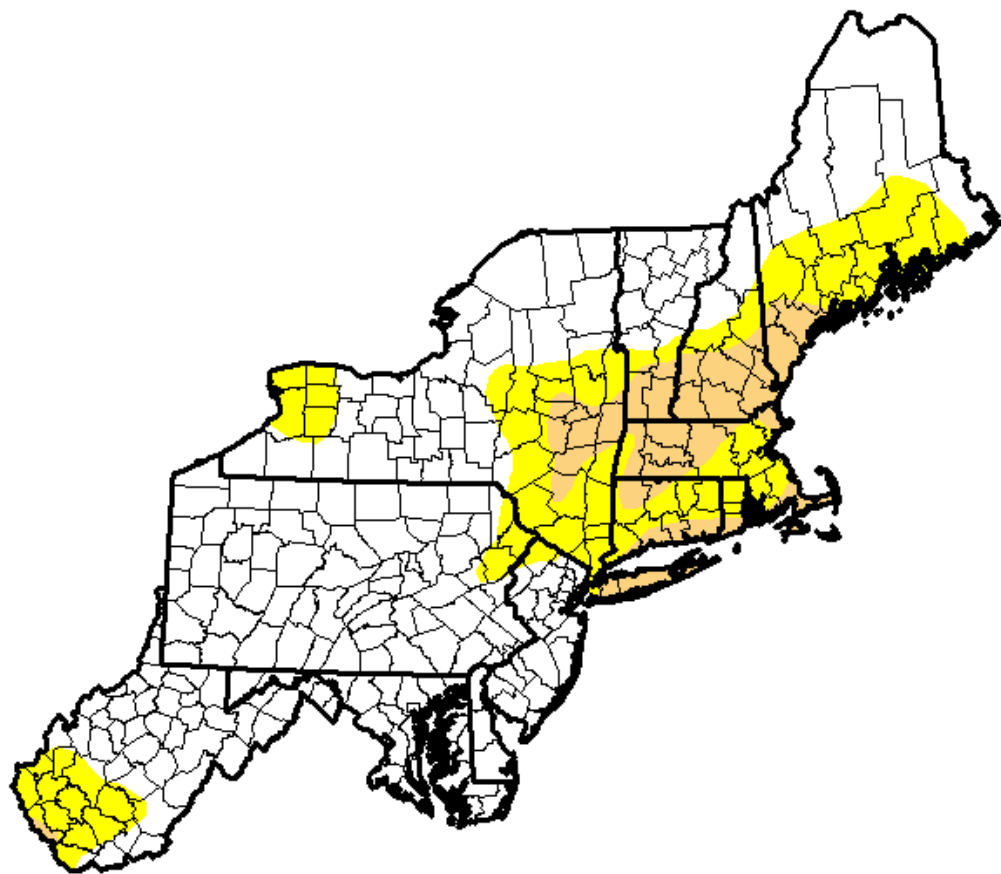
*Brad Rippey*

*U.S. Department of Agriculture*



# U.S. Drought Monitor Northeast

**June 23, 2015**  
(Released Thursday, Jun. 25, 2015)  
Valid 8 a.m. EDT



*Drought Conditions (Percent Area)*

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
<b>Current</b>	68.62	31.38	10.17	0.00	0.00	0.00
<b>Last Week</b> <i>6/16/2015</i>	57.83	42.17	13.97	0.00	0.00	0.00
<b>3 Months Ago</b> <i>3/24/2015</i>	74.91	25.09	0.00	0.00	0.00	0.00
<b>Start of Calendar Year</b> <i>12/30/2014</i>	86.73	13.27	0.00	0.00	0.00	0.00
<b>Start of Water Year</b> <i>9/30/2014</i>	65.88	34.12	3.56	0.00	0.00	0.00
<b>One Year Ago</b> <i>6/24/2014</i>	98.26	1.74	0.00	0.00	0.00	0.00

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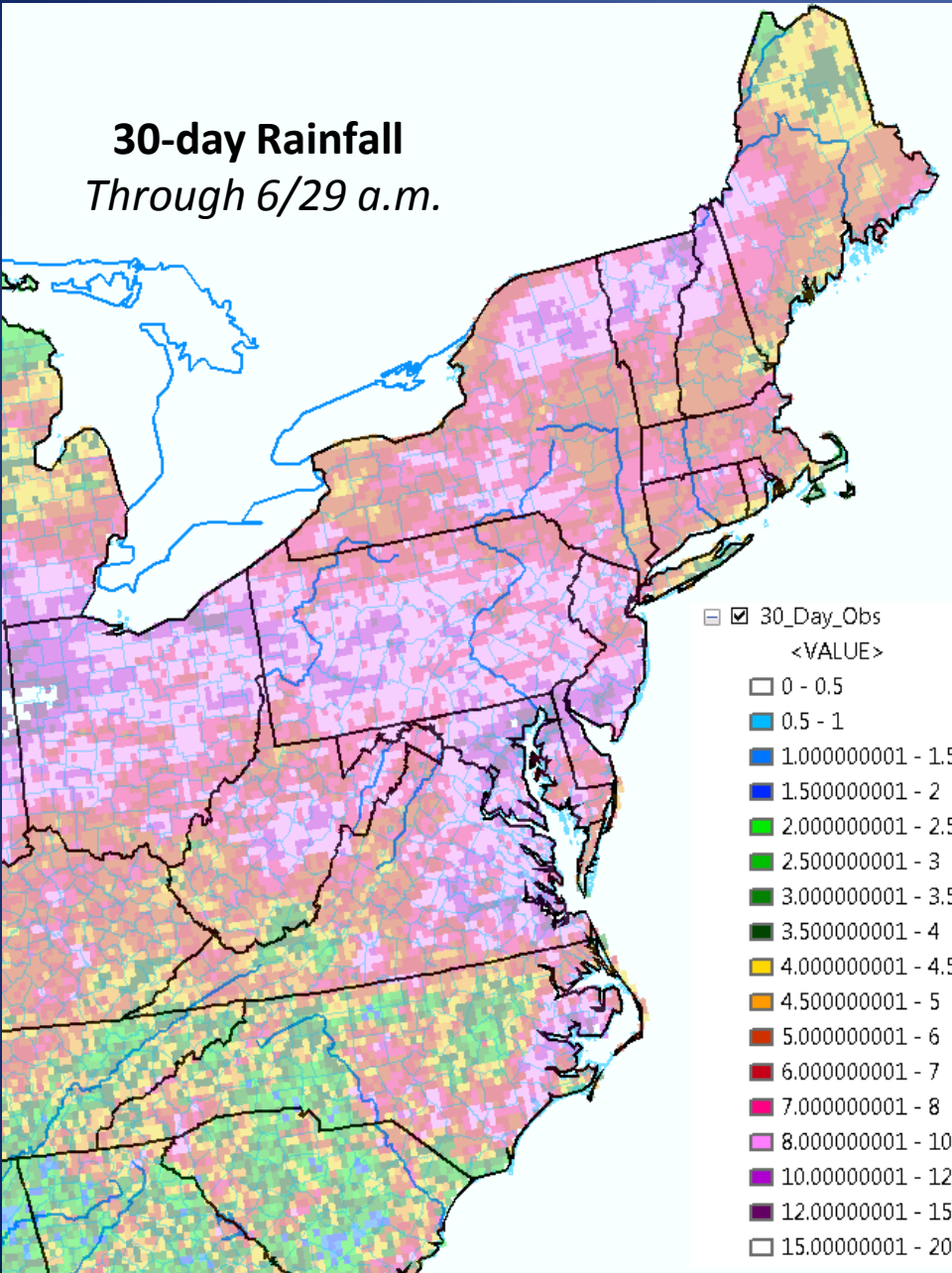
**Author:**  
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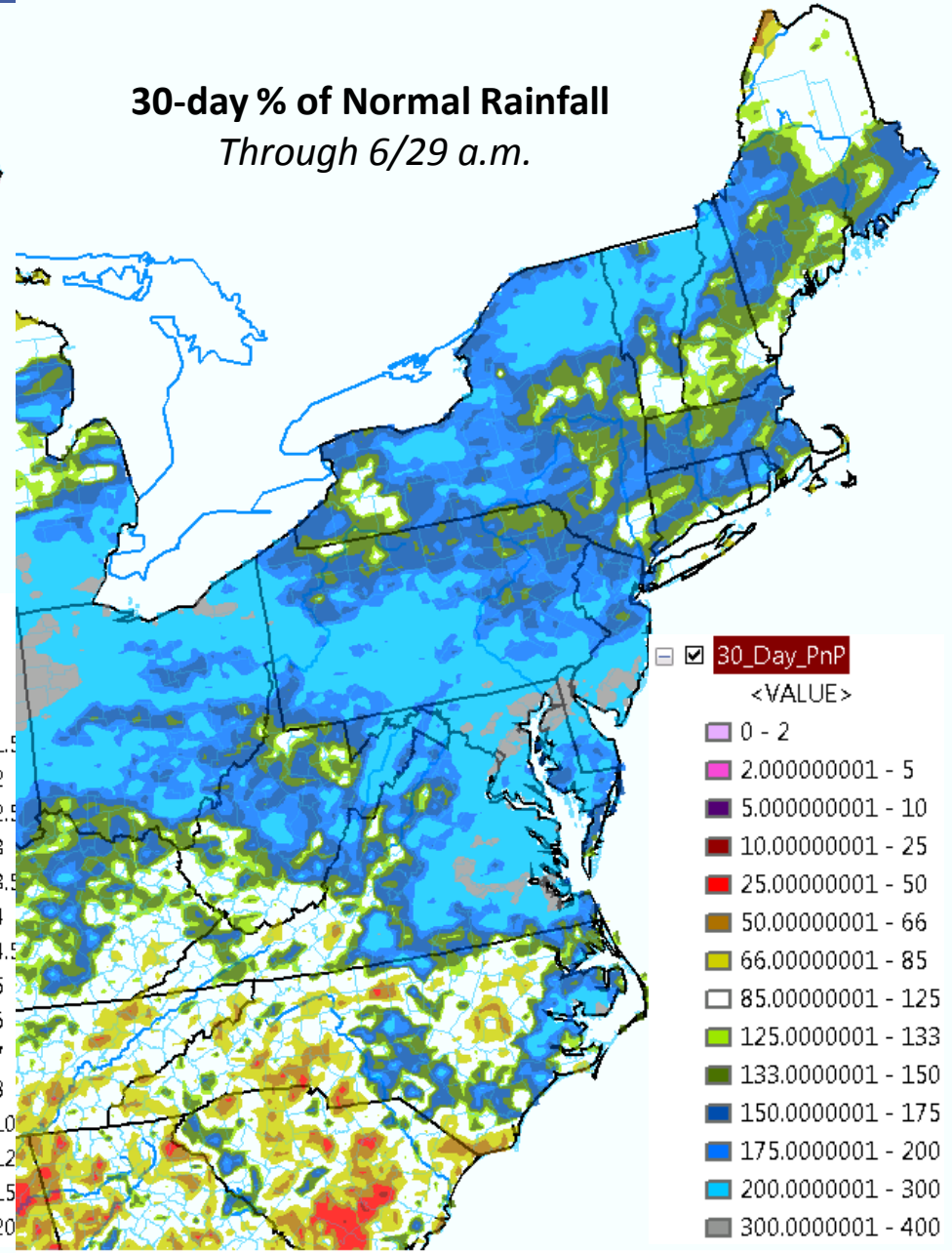


# Short-Term Conditions (improvement)

**30-day Rainfall**  
*Through 6/29 a.m.*

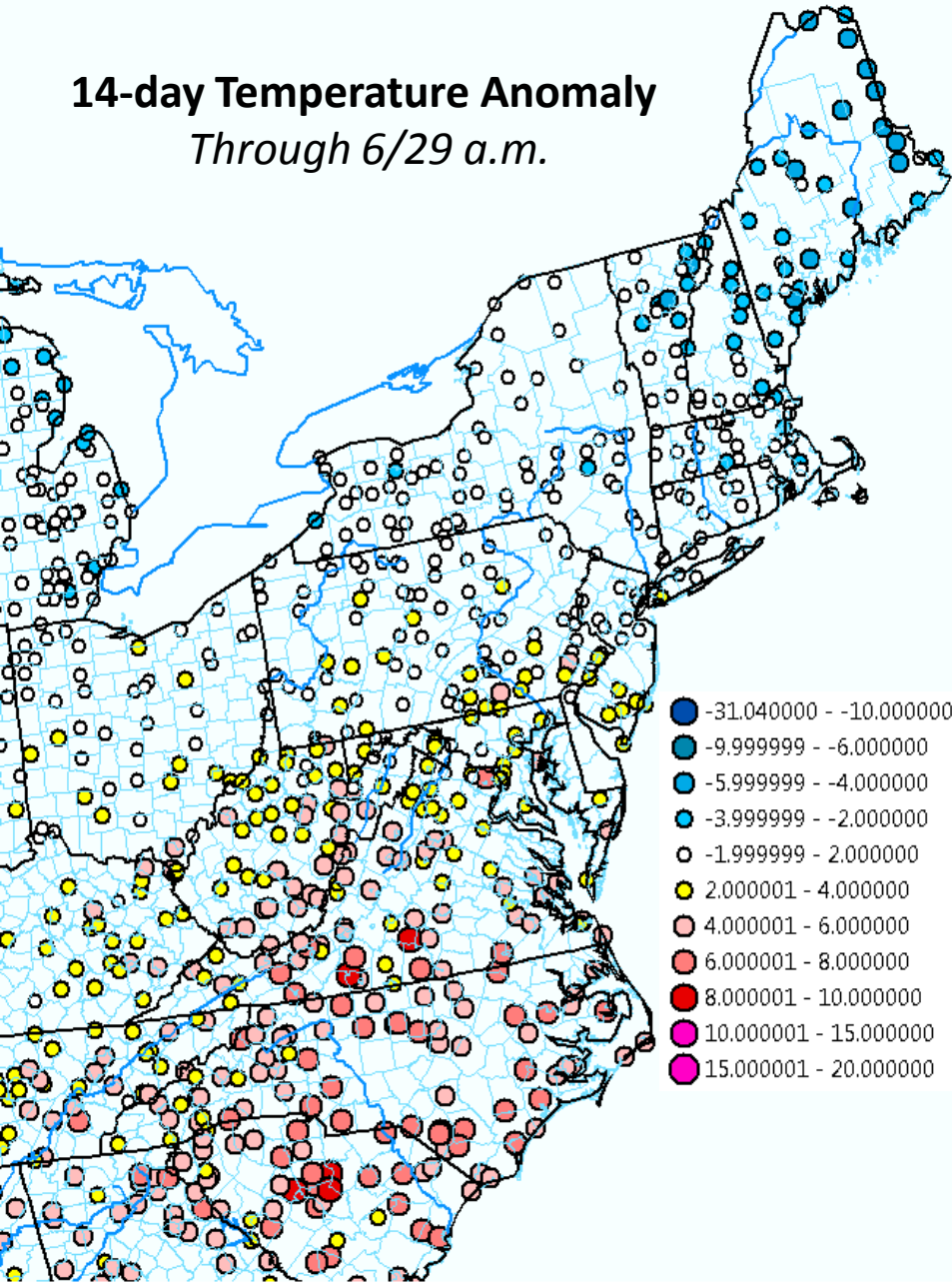


**30-day % of Normal Rainfall**  
*Through 6/29 a.m.*

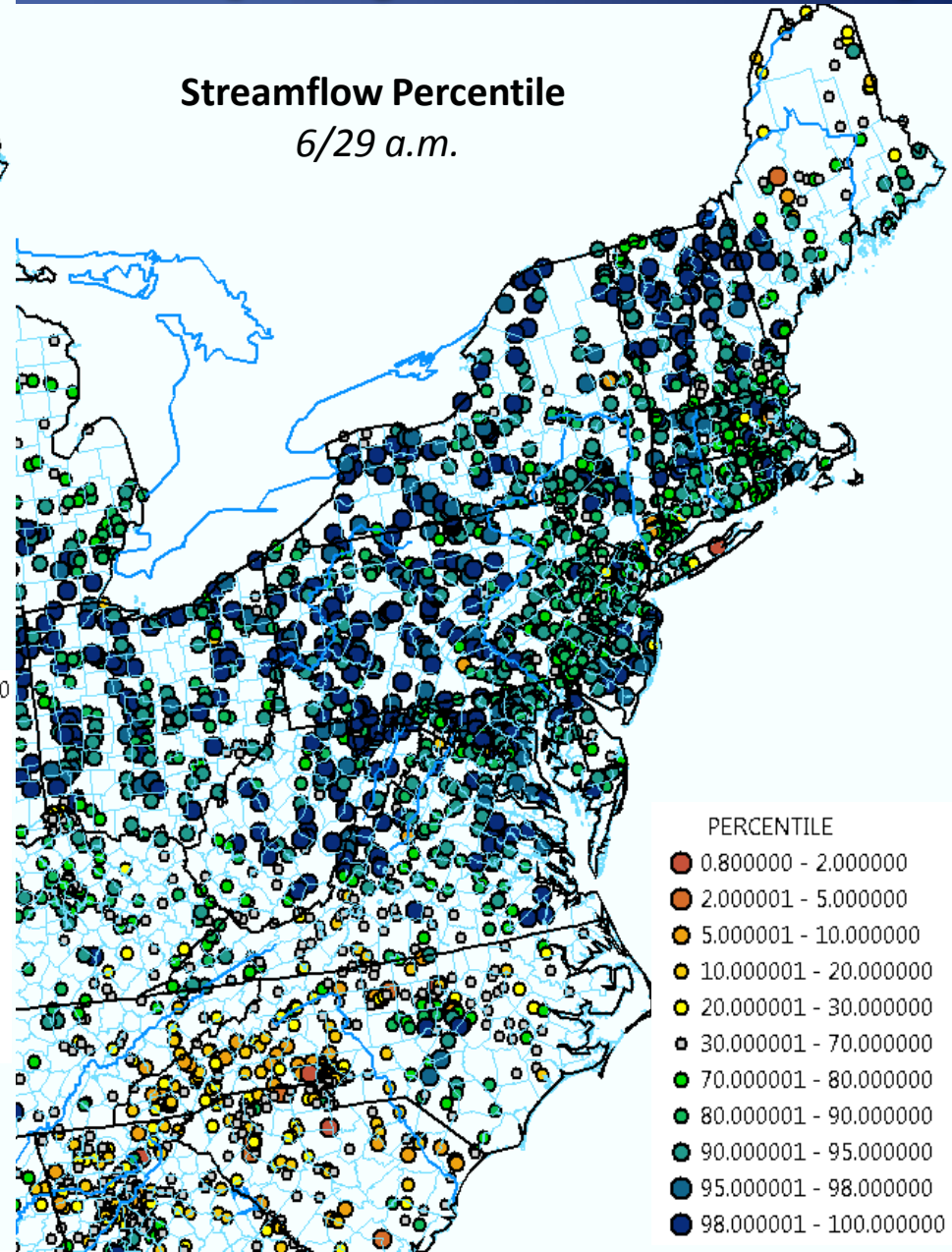


# Short-Term Conditions (improvement)

14-day Temperature Anomaly  
Through 6/29 a.m.



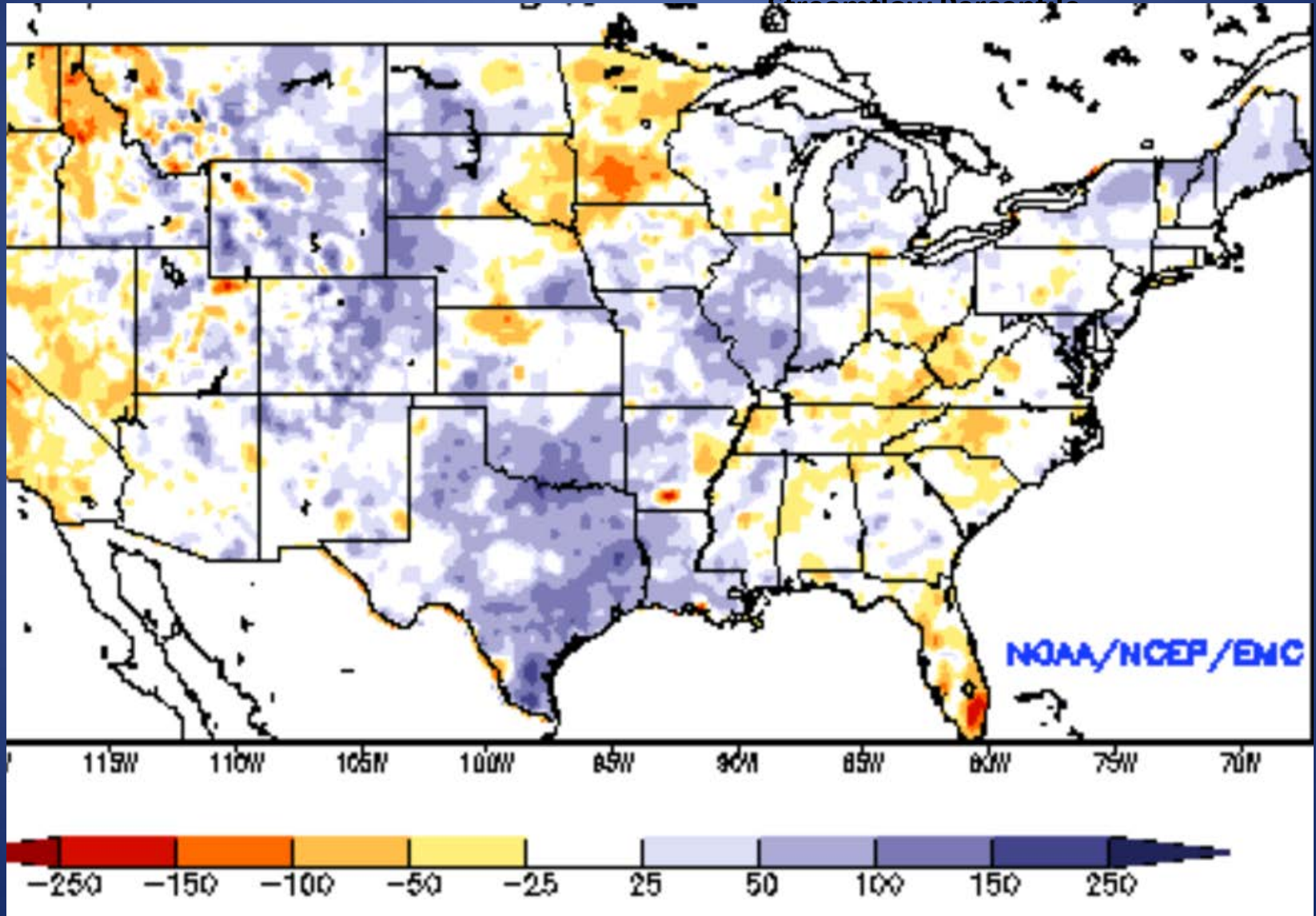
Streamflow Percentile  
6/29 a.m.





# Short-Term Conditions (improvement)

NLDAS Total Column Soil Moisture *Through 6/25*





# Longer-Term Conditions (still some significant deficits)

