

Massachusetts Drought Task Force Meeting NWS Update

National Weather Service

Tuesday November 8th , 2016

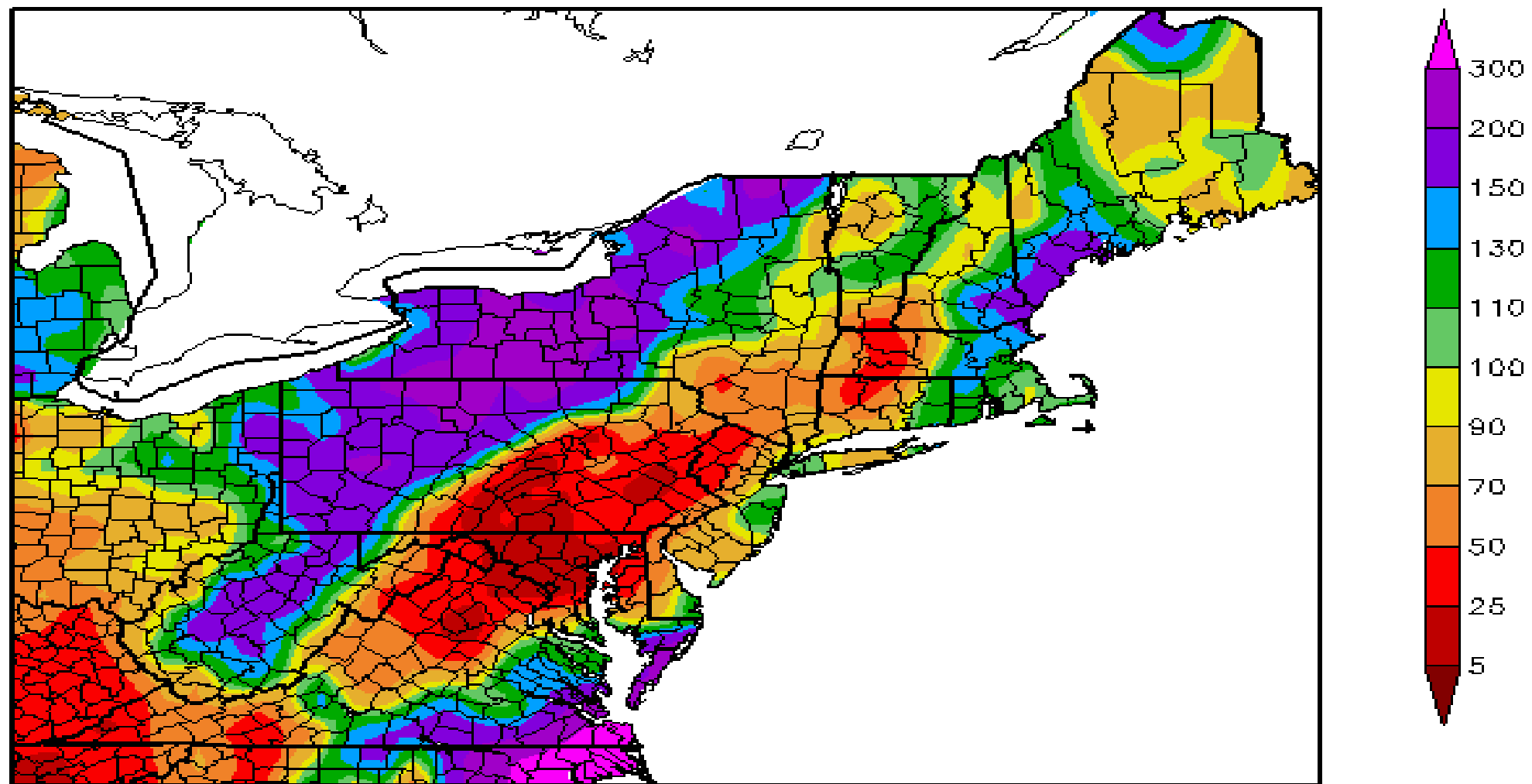
Alan Dunham, Hydrologic Program Leader

National Weather Service
Boston, MA



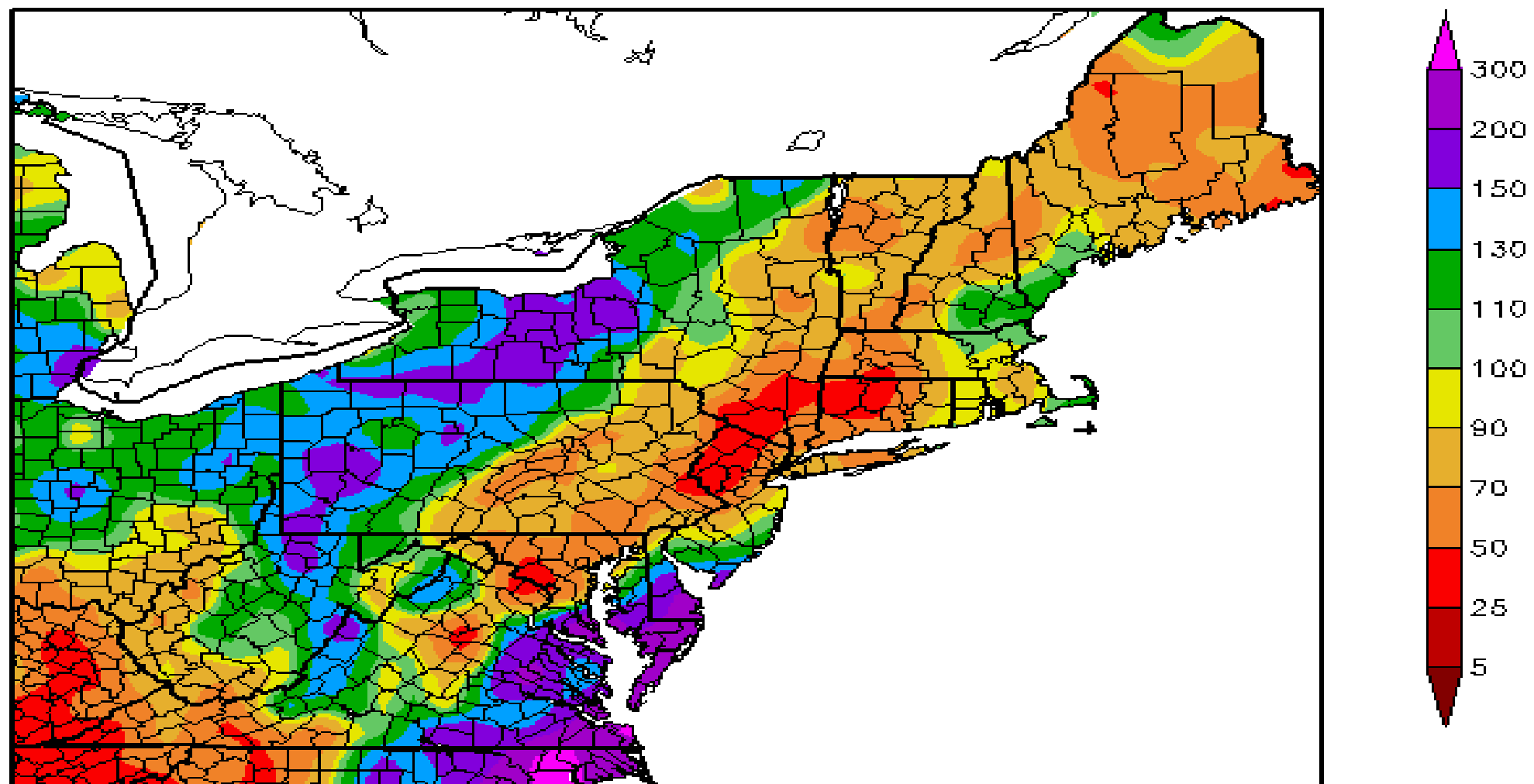
30 Day Percent of Normal

Percent of Normal Precipitation (%)
10/7/2016 – 11/5/2016



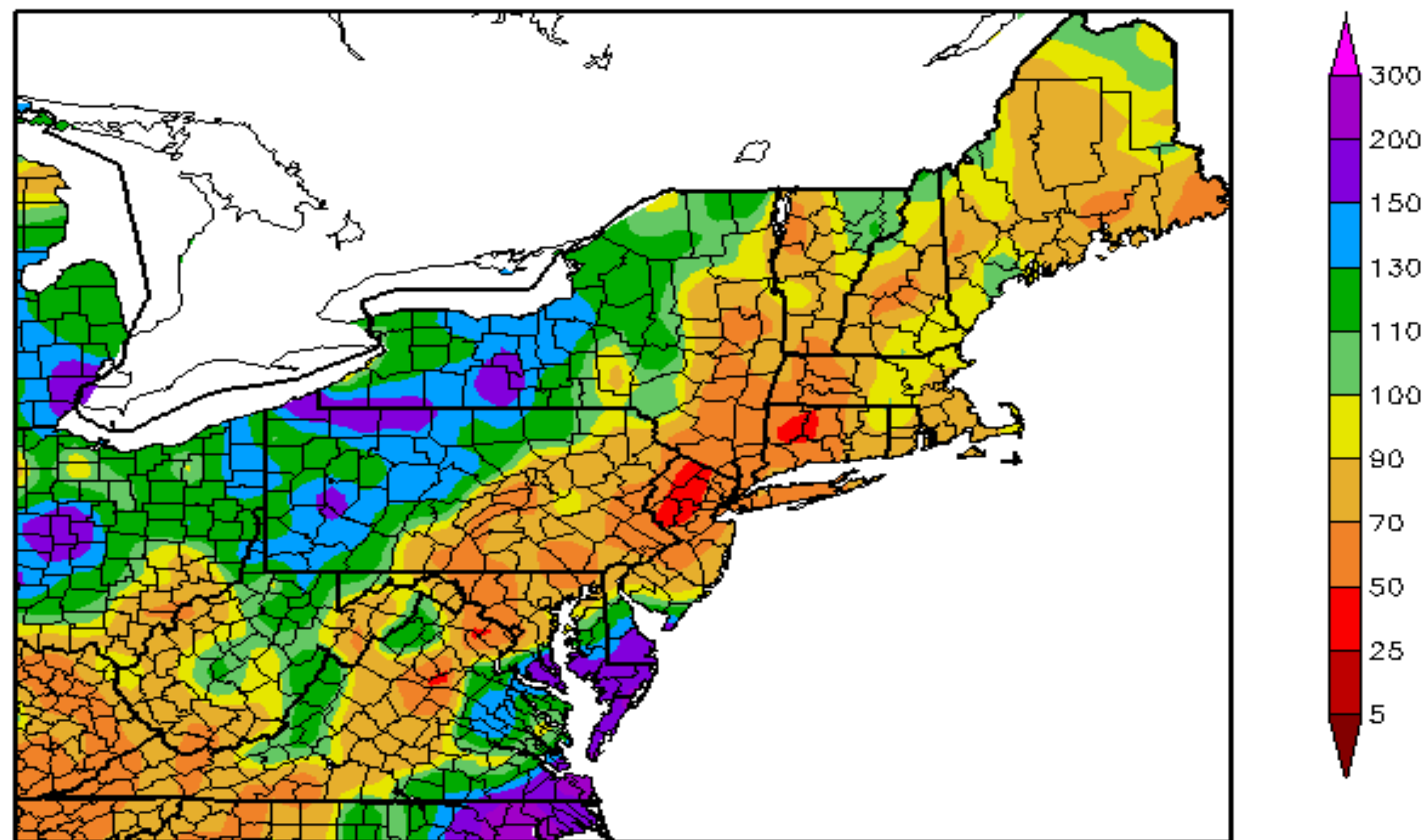
60 Day Percent of Normal

Percent of Normal Precipitation (%)
9/7/2016 – 11/5/2016



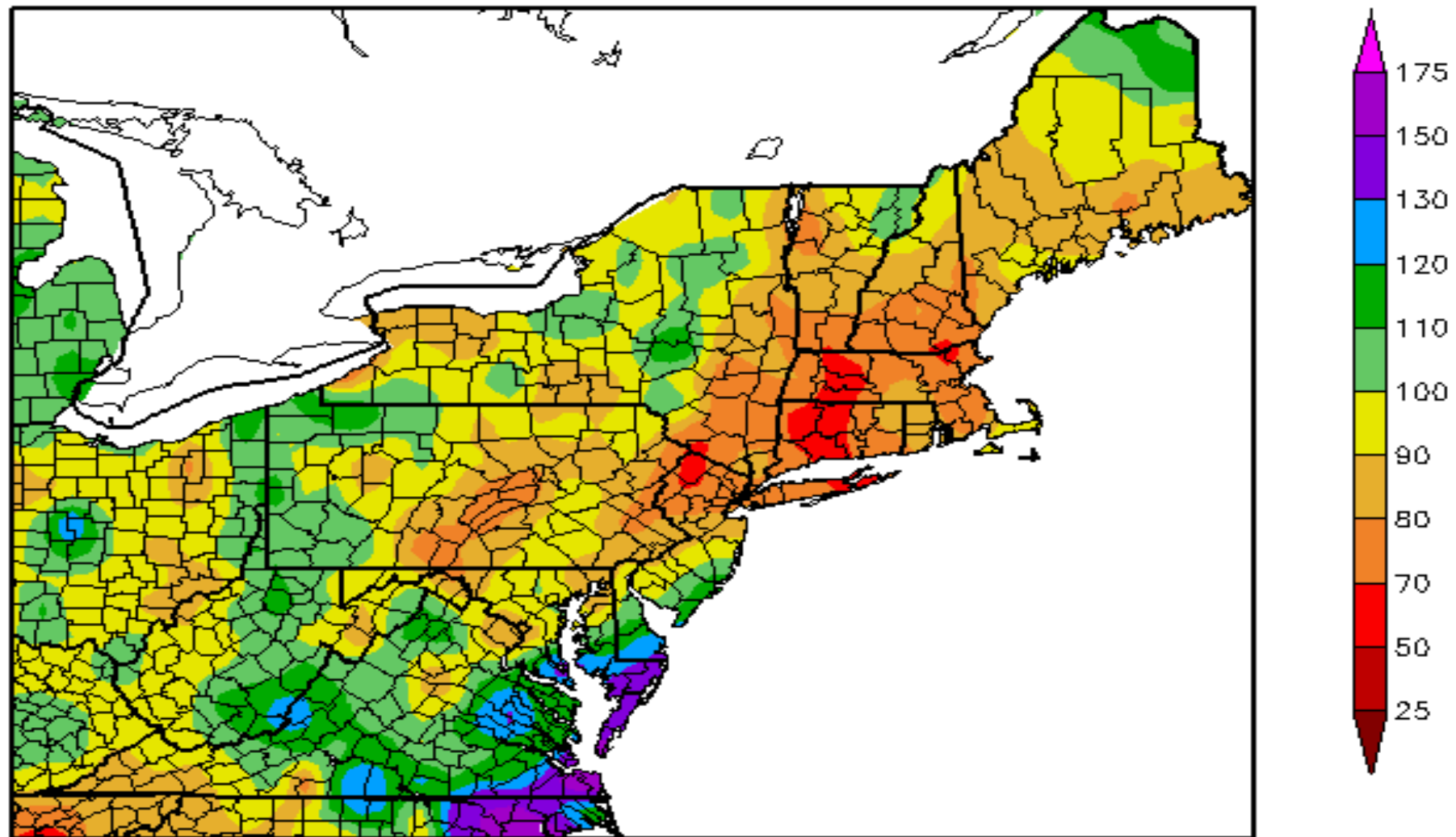
90 day Percent of Normal

Percent of Normal Precipitation (%)
8/8/2016 – 11/5/2016



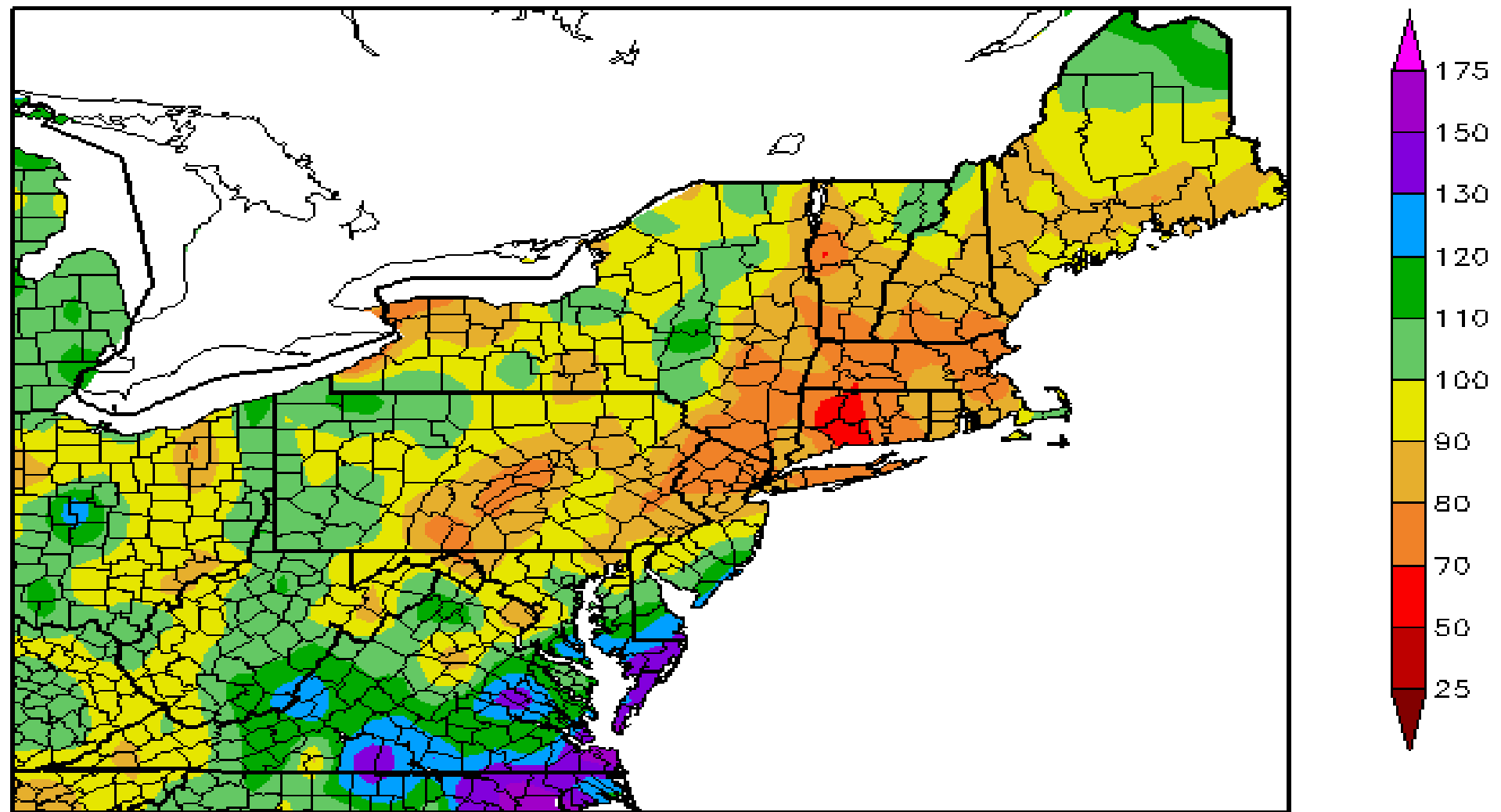
2016 Percent of Normal

Percent of Normal Precipitation (%)
1/1/2016 – 11/5/2016



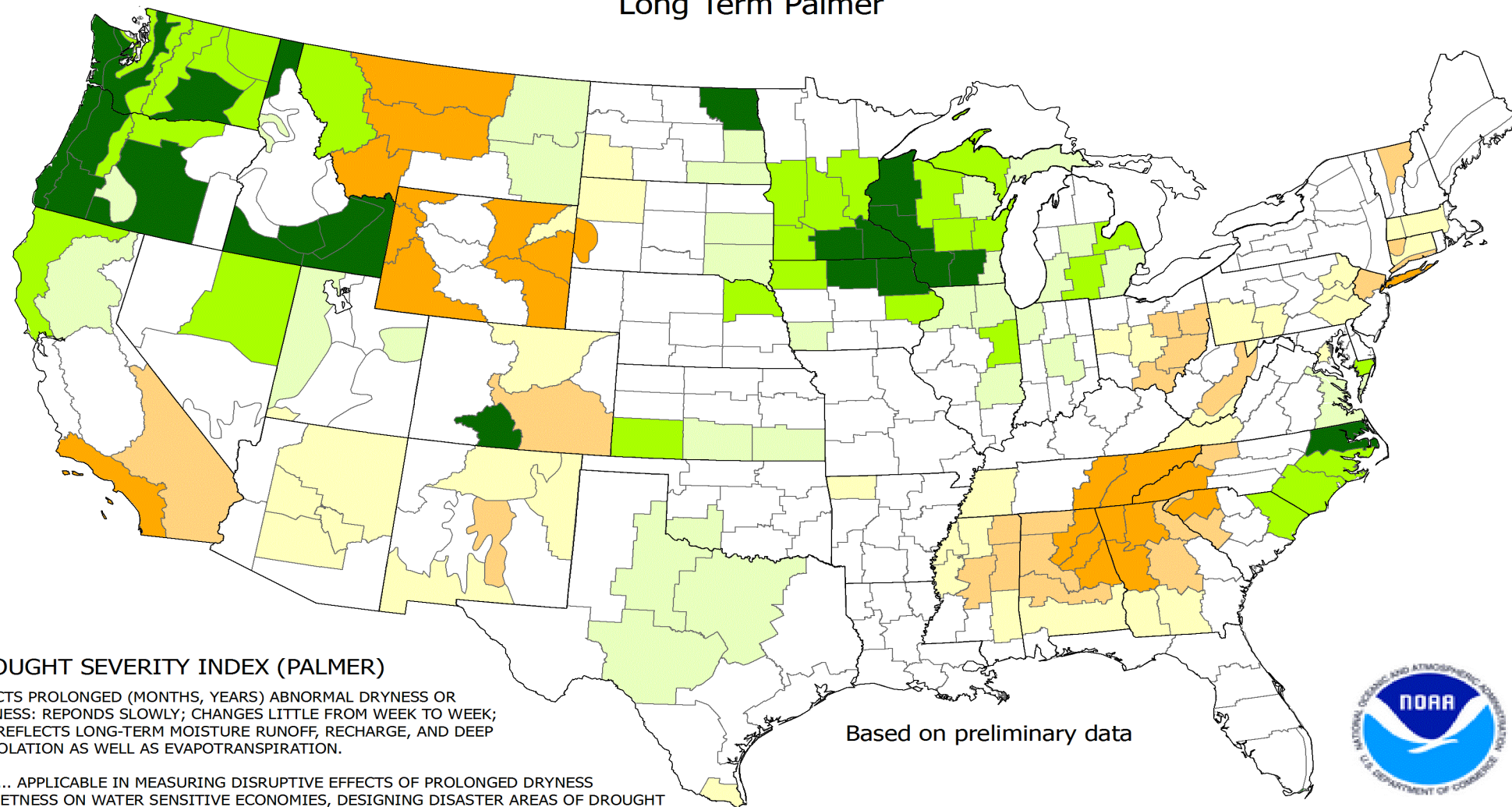
12 Month percent of Normal

Percent of Normal Precipitation (%)
11/6/2015 – 11/5/2016



Palmer Drought Index 10/29/16

Drought Severity Index by Division
 Weekly Value for Period Ending Oct 29, 2016
 Long Term Palmer



DROUGHT SEVERITY INDEX (PALMER)

DEPICTS PROLONGED (MONTHS, YEARS) ABNORMAL DRYNESS OR WETNESS; REponds SLOWLY; CHANGES LITTLE FROM WEEK TO WEEK; AND REFLECTS LONG-TERM MOISTURE RUNOFF, RECHARGE, AND DEEP PERCOLATION AS WELL AS EVAPOTRANSPIRATION.

USES... APPLICABLE IN MEASURING DISRUPTIVE EFFECTS OF PROLONGED DRYNESS OR WETNESS ON WATER SENSITIVE ECONOMIES, DESIGNING DISASTER AREAS OF DROUGHT OR WETNESS; AND REFLECTING THE GENERAL LONG-TERM STATUS OF WATER SUPPLIES IN AQUIFERS, RESERVOIRS AND STREAMS.

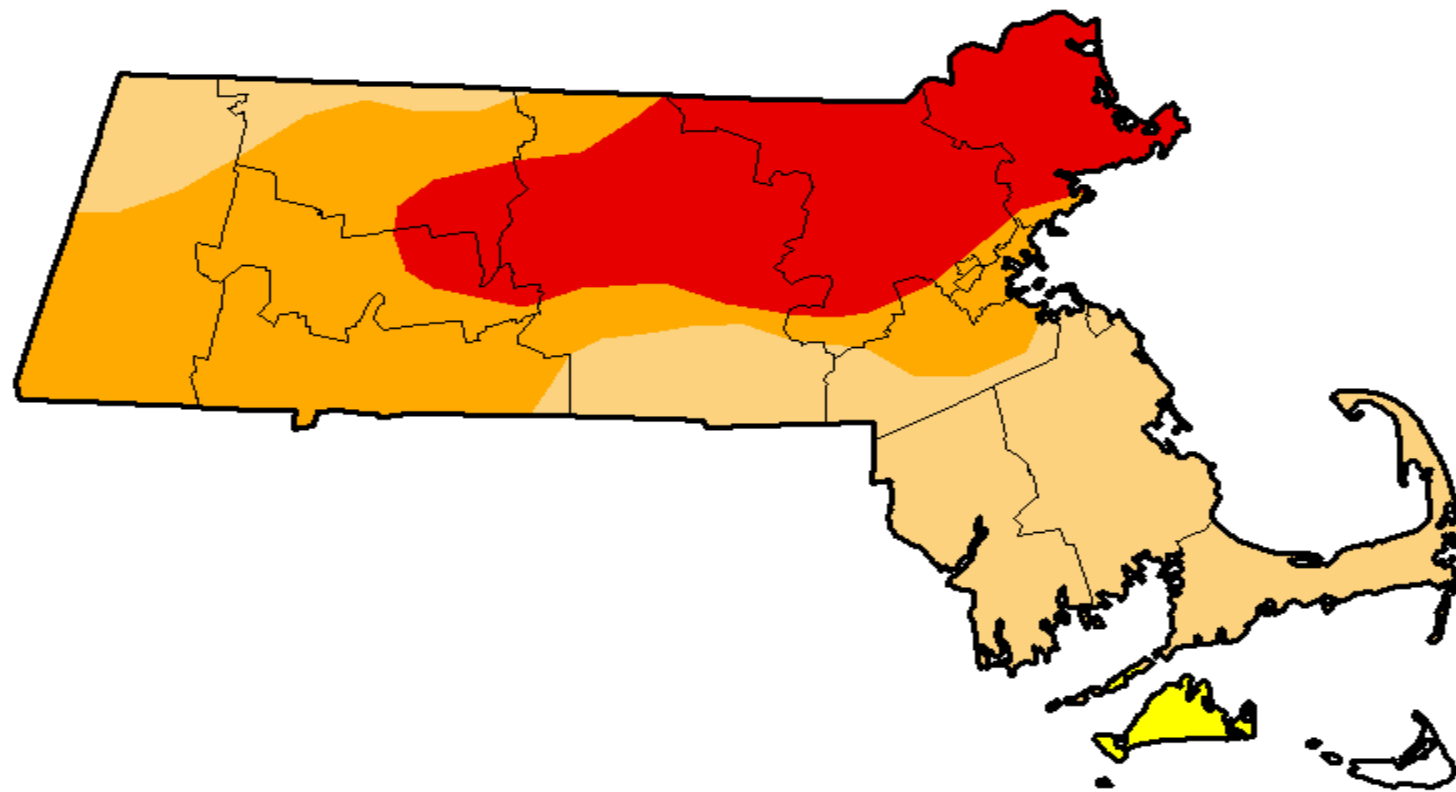
LIMITATIONS... IS NOT GENERALLY INDICATIVE OFFSHORT-TERM (FEW WEEKS) STATUS OF DROUGHT OR WETNESS SUCH AS FREQUENTLY AFFECTS CROPS AND FIELD OPERATIONS (THIS IS INDICATED BY THE CROP MOISTURE INDEX).

Based on preliminary data

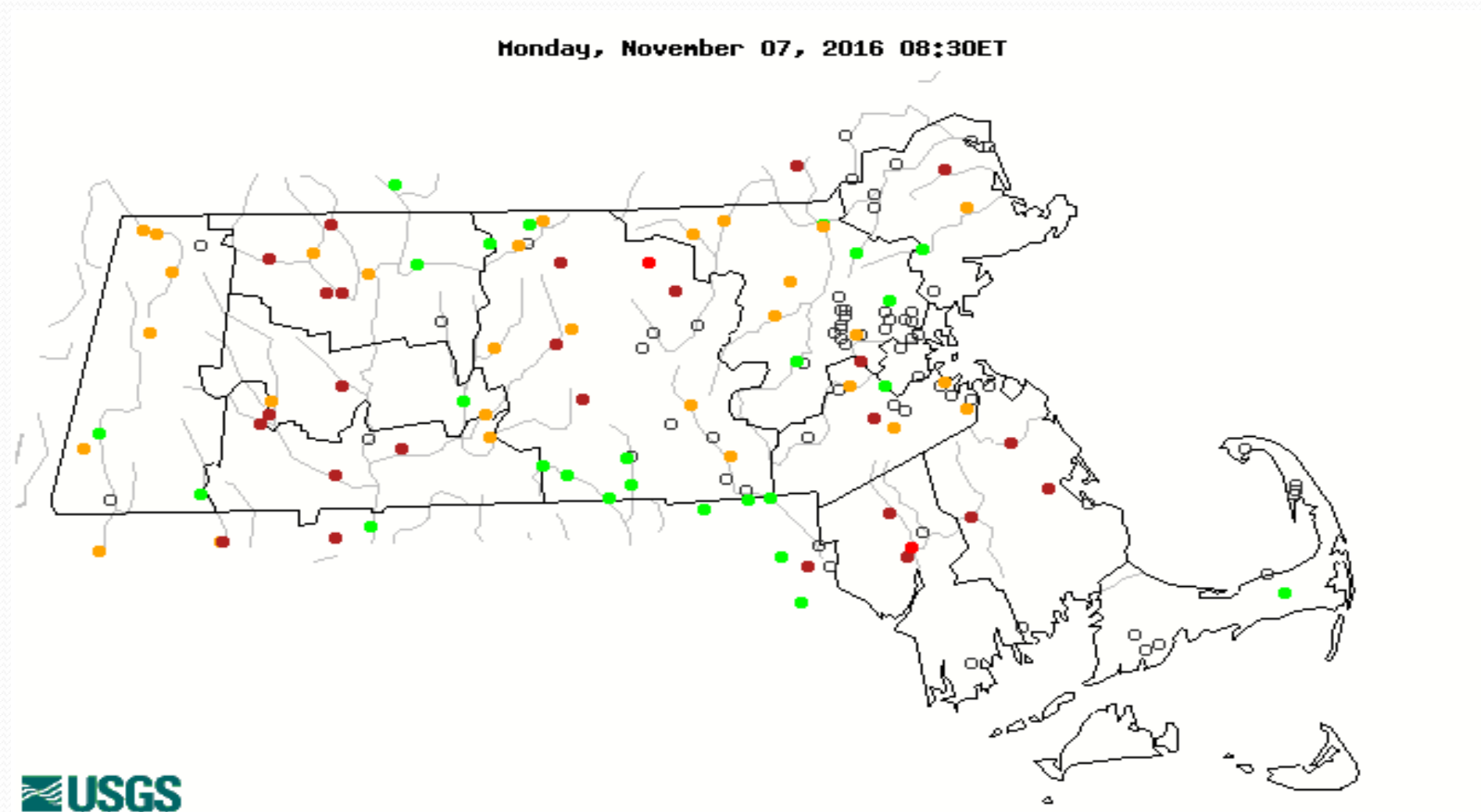


- | | |
|-----------------------------------|--------------------------------------|
| ■ -4.0 or less (Extreme Drought) | ■ +2.0 to +2.9 (Unusual Moist Spell) |
| ■ -3.0 to -3.9 (Severe Drought) | ■ +3.0 to +3.9 (Very Moist Spell) |
| ■ -2.0 to -2.9 (Moderate Drought) | ■ +4.0 and above (Extremely Moist) |
| ■ --1.9 to +1.9 (Near Normal) | |

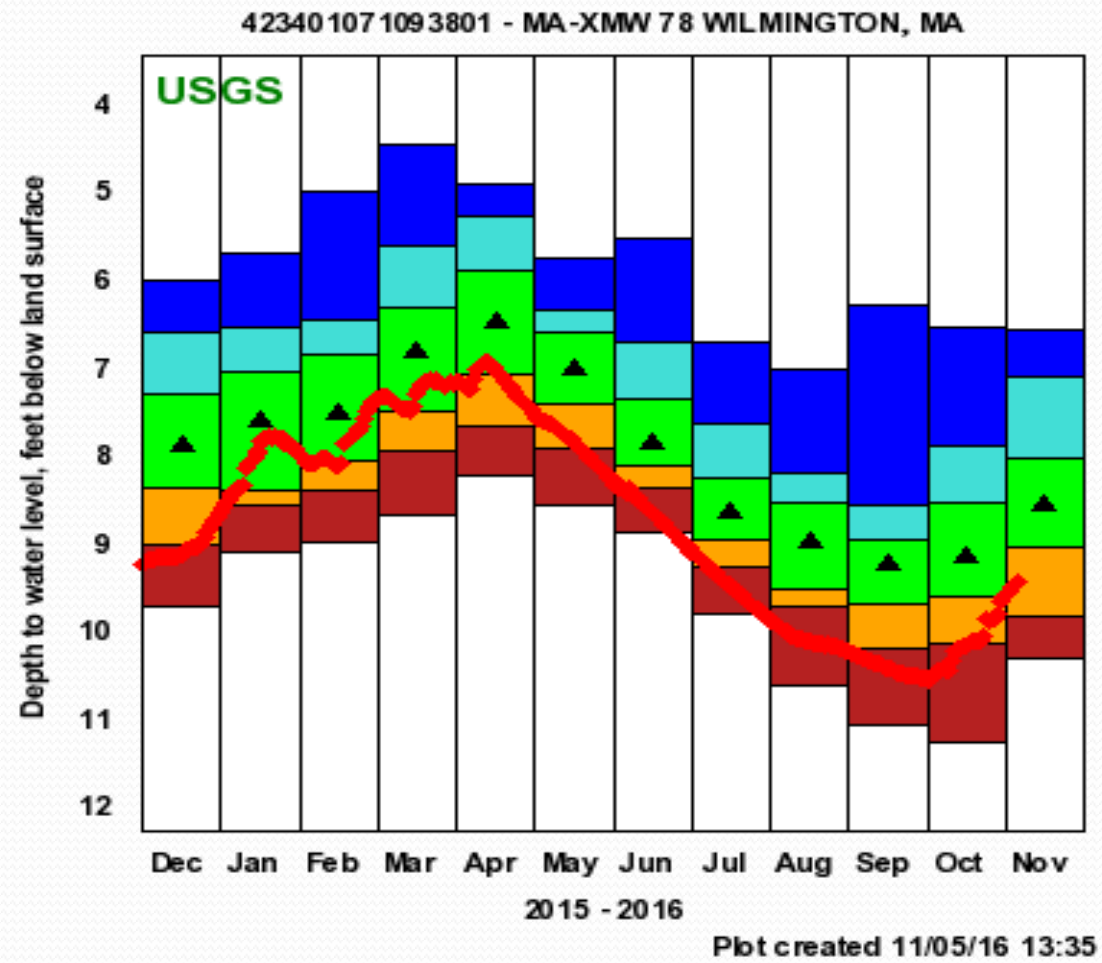
Drought Monitor 11/01/16



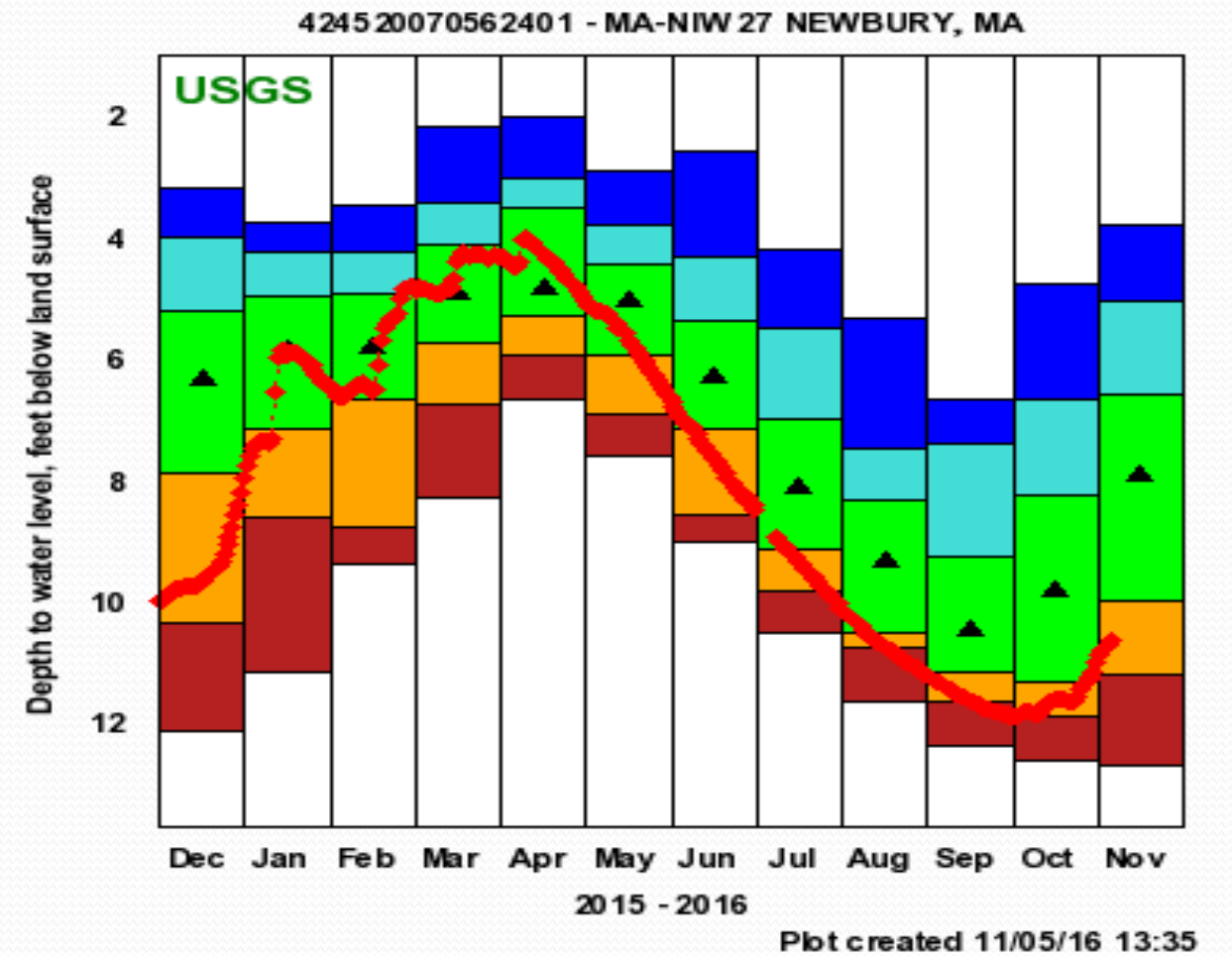
Stream flow 11/07/16



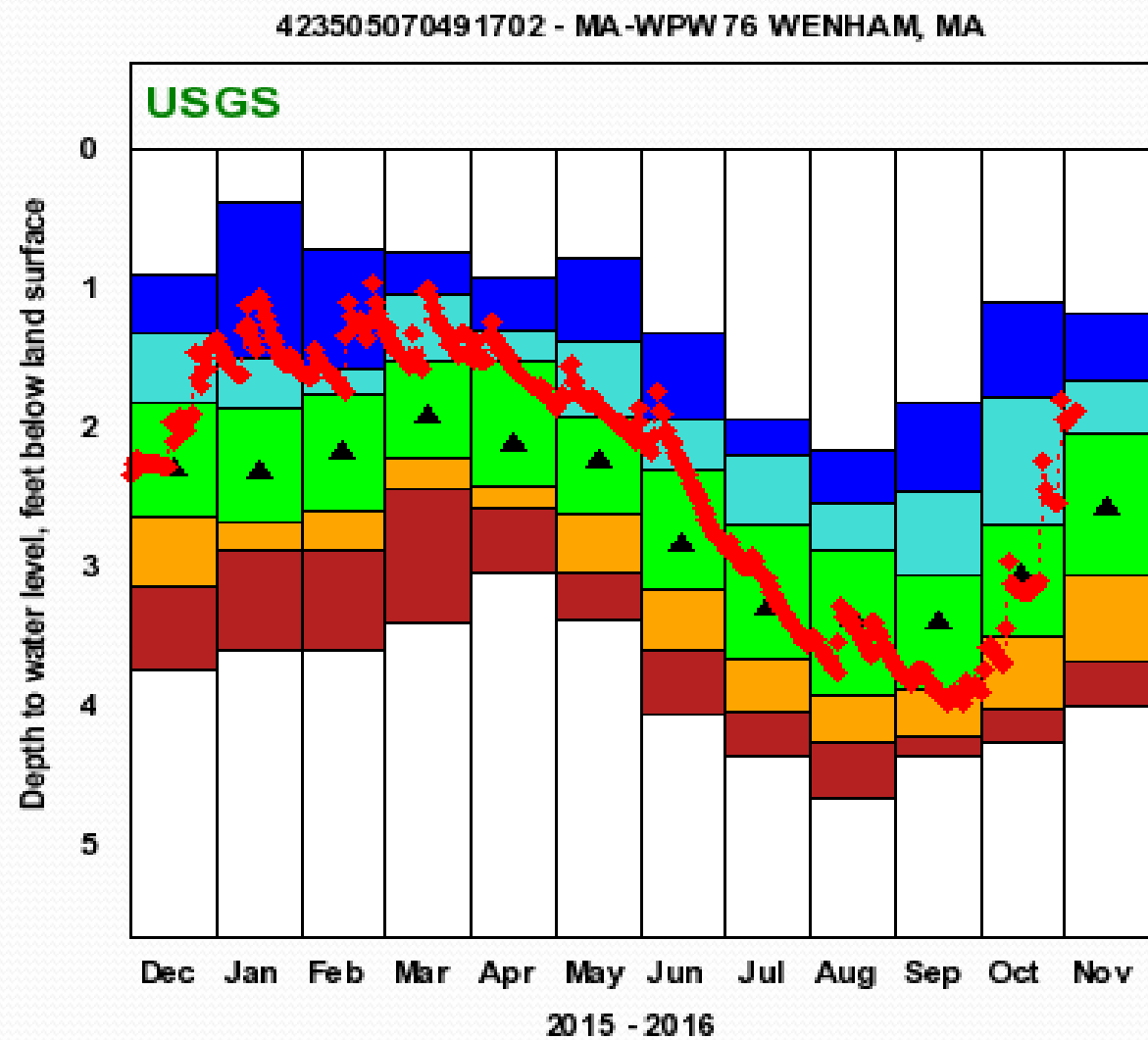
Wilmington Depth 12.0



Newbury Depth 19.8

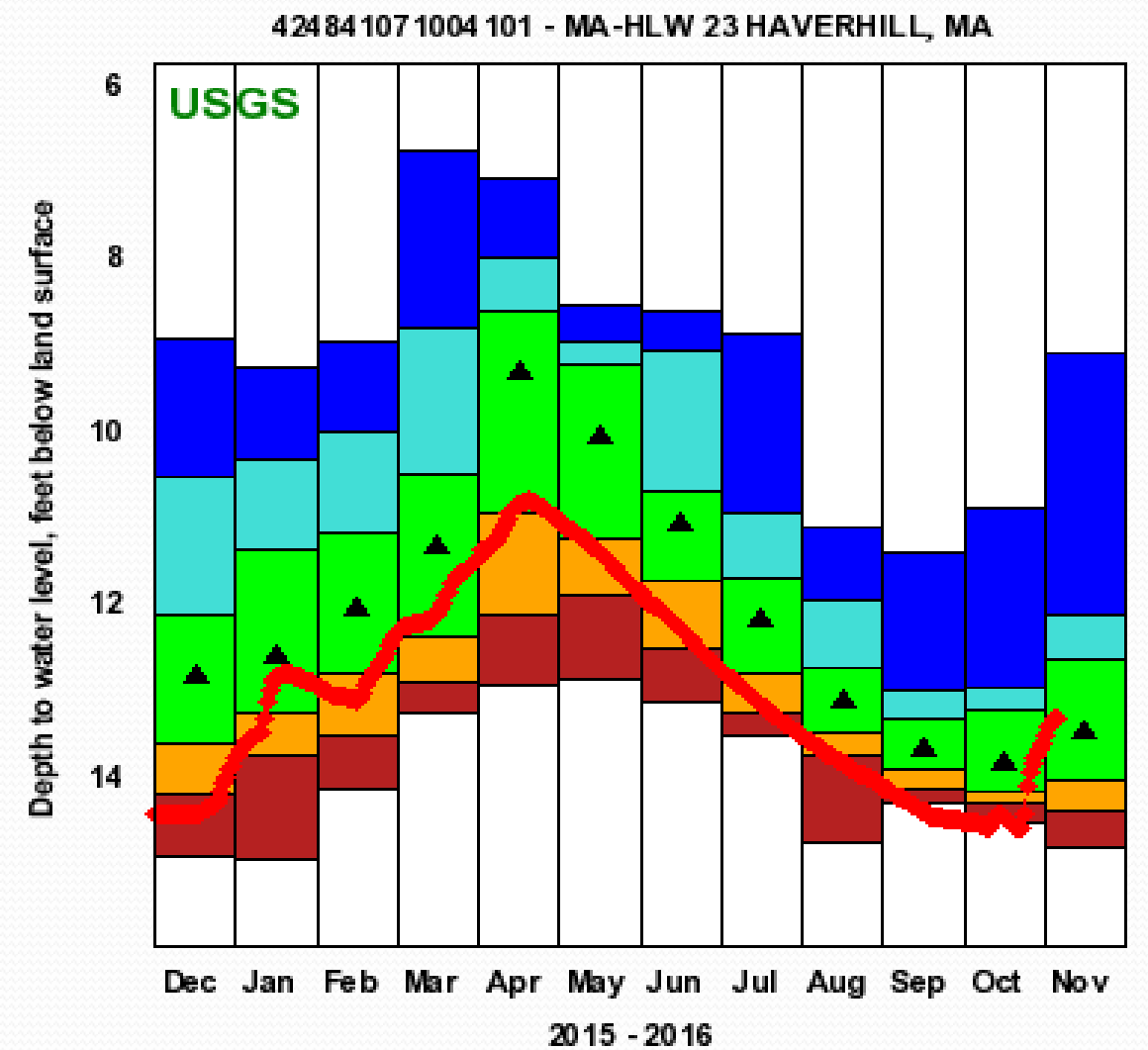


Wenham Depth 22.0



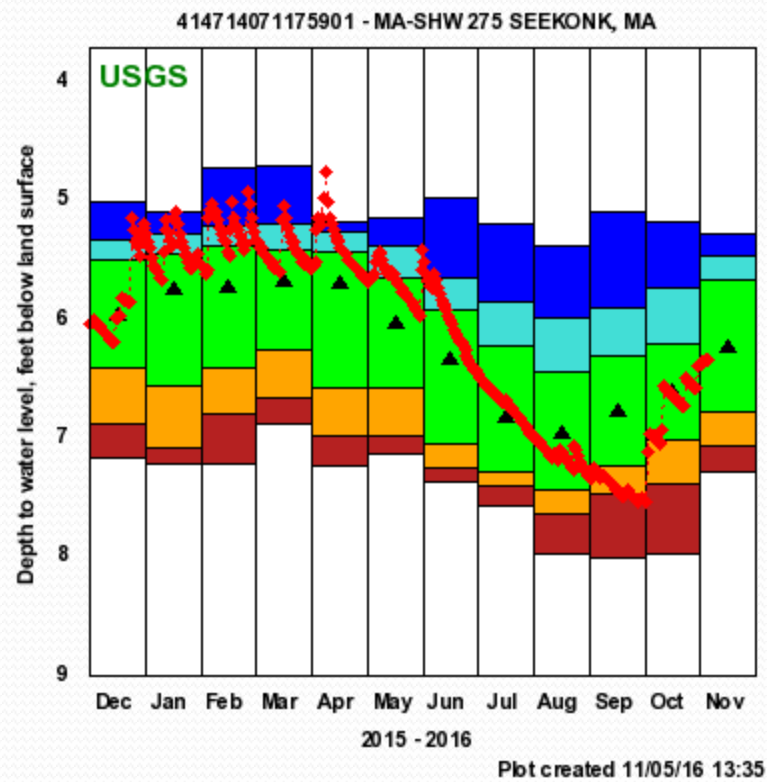
Pbt created 11/05/16 13:35

Haverhill Depth 15.1

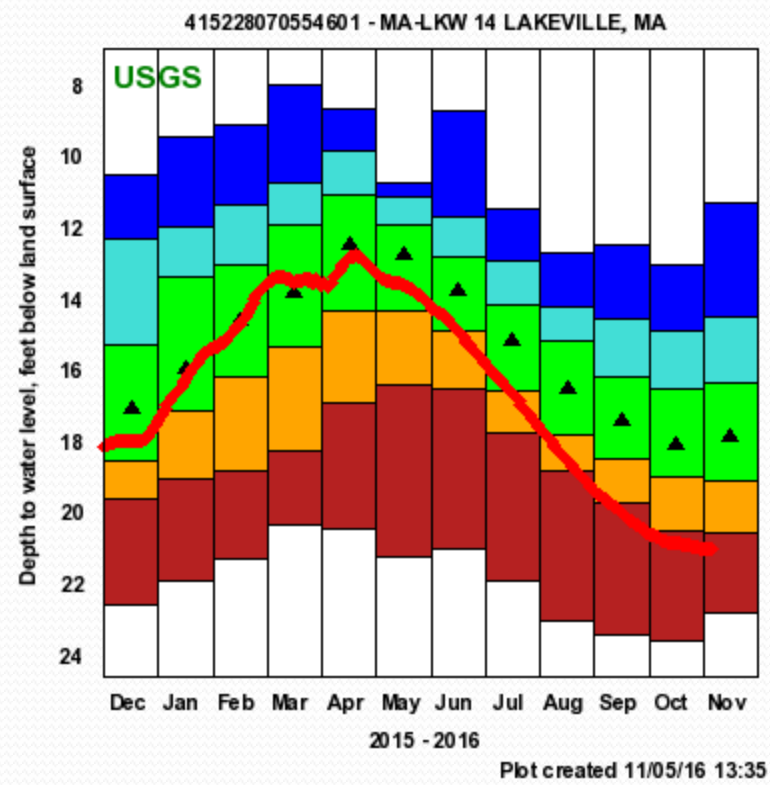


Pbt created 11/05/16 13:35

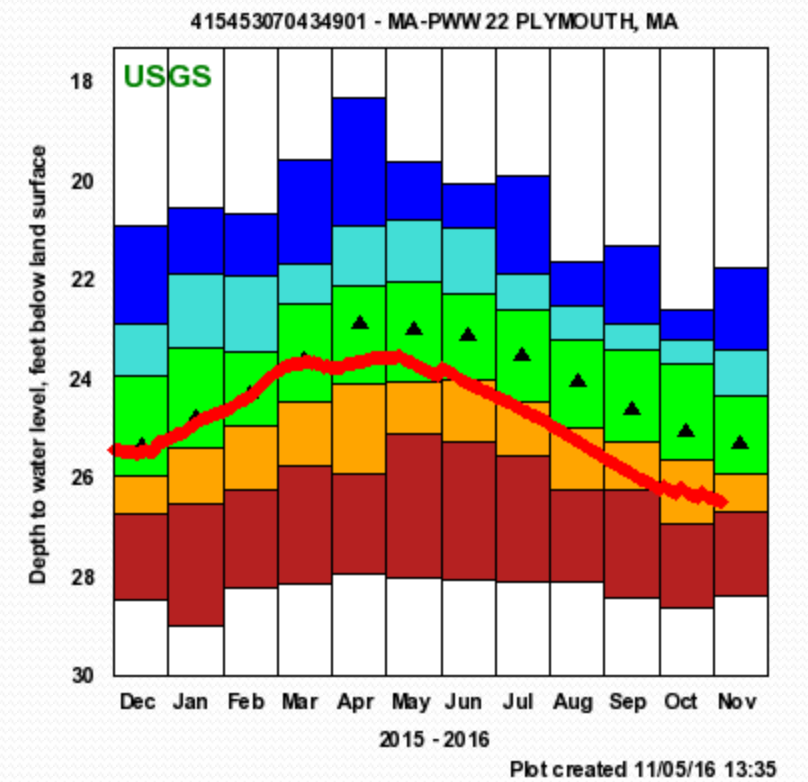
Seekonk 14.4



Lakeville 41.0



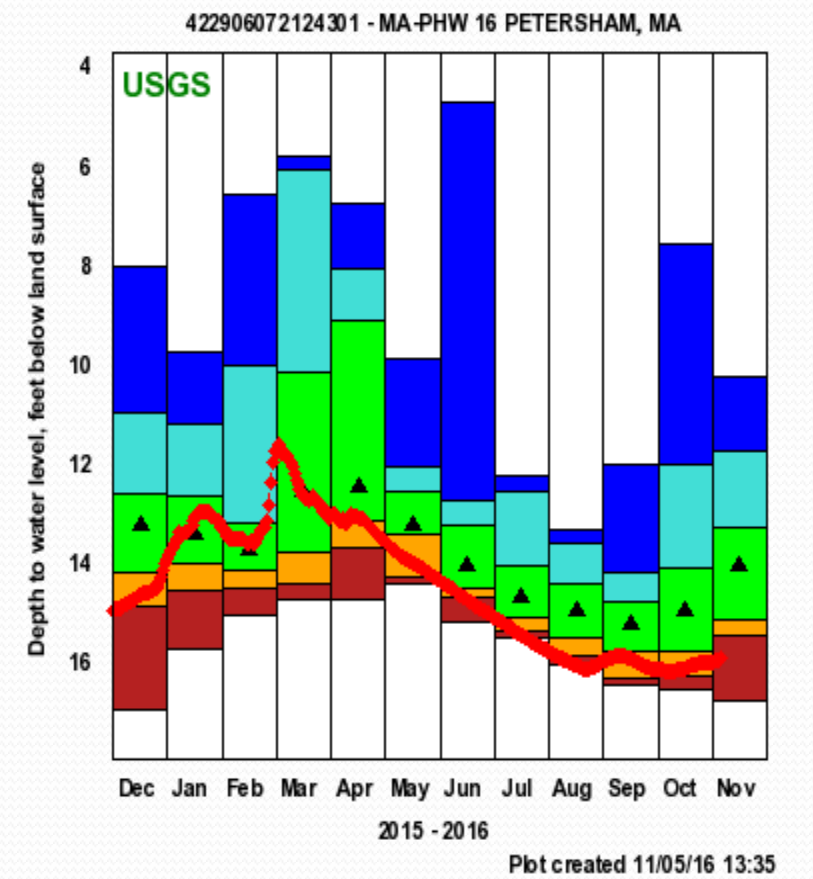
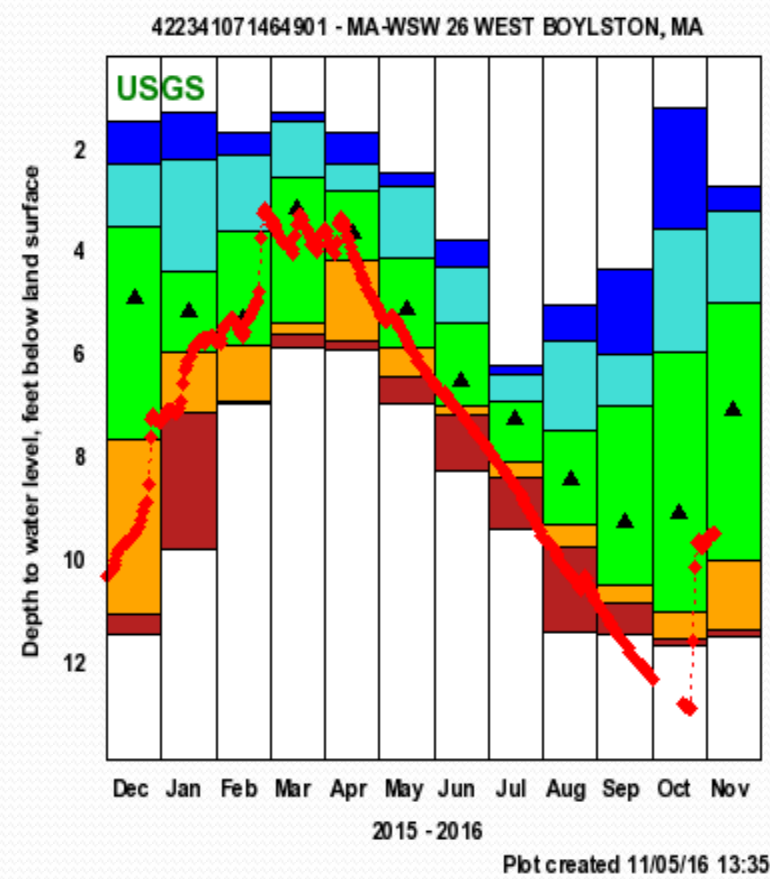
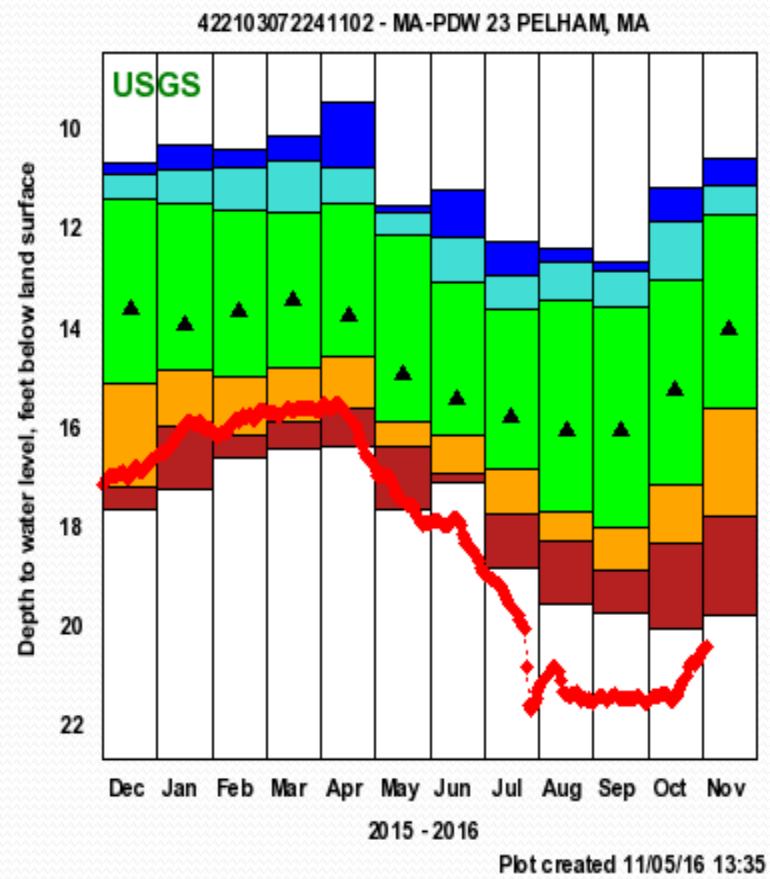
Plymouth 40.0



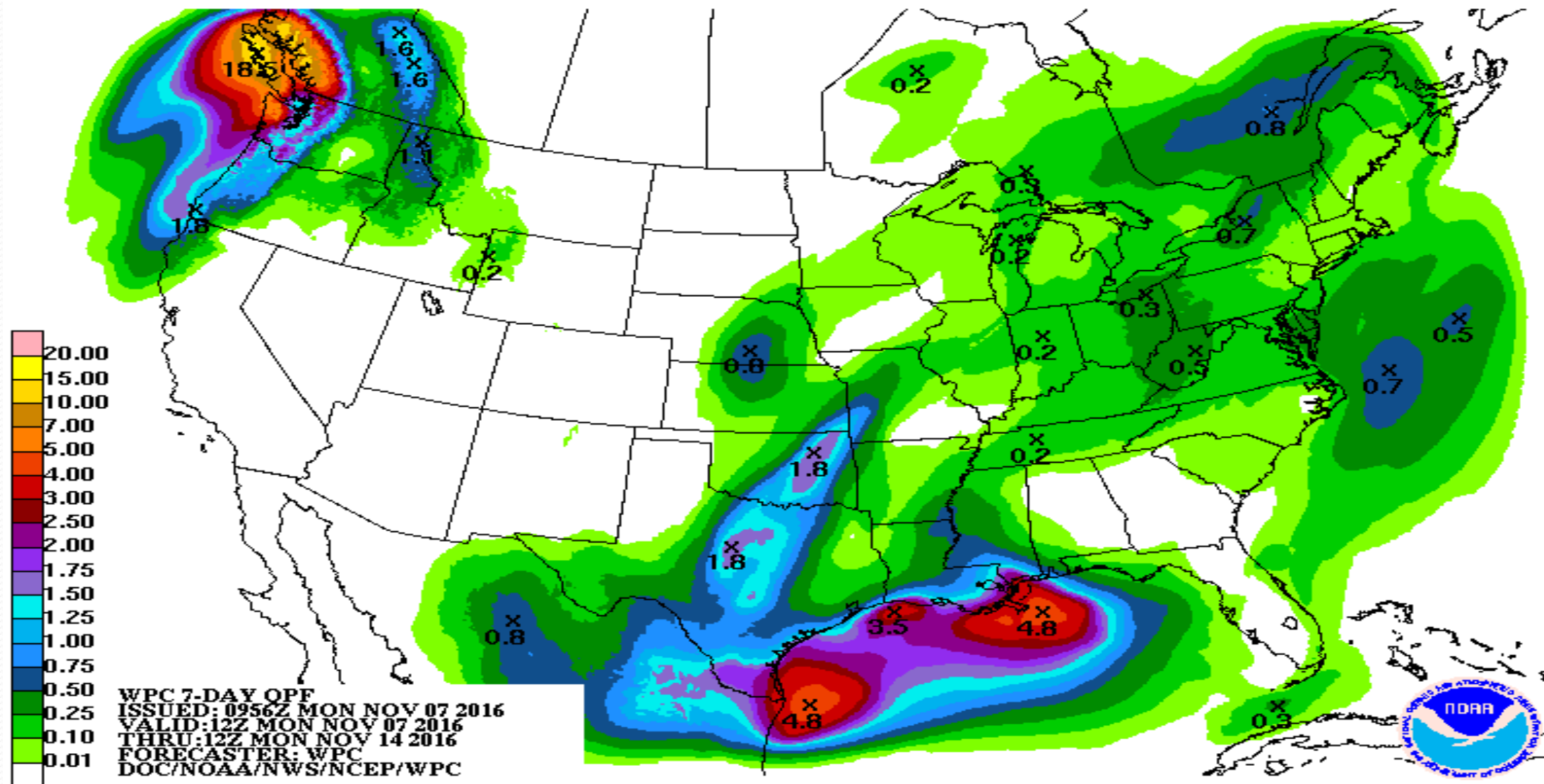
Pelham 740.0

West Boylston 16.8

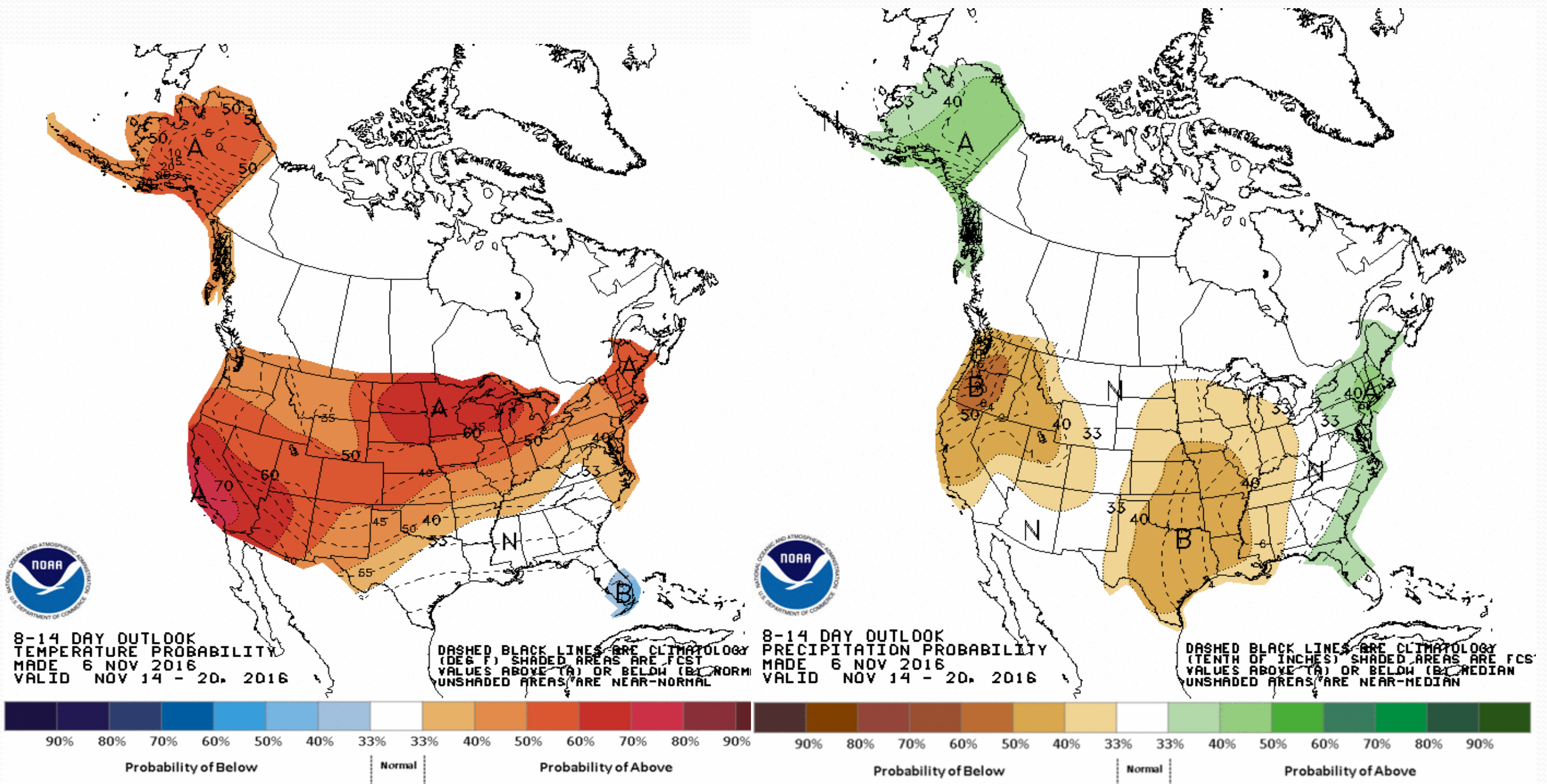
Petersham 39.0



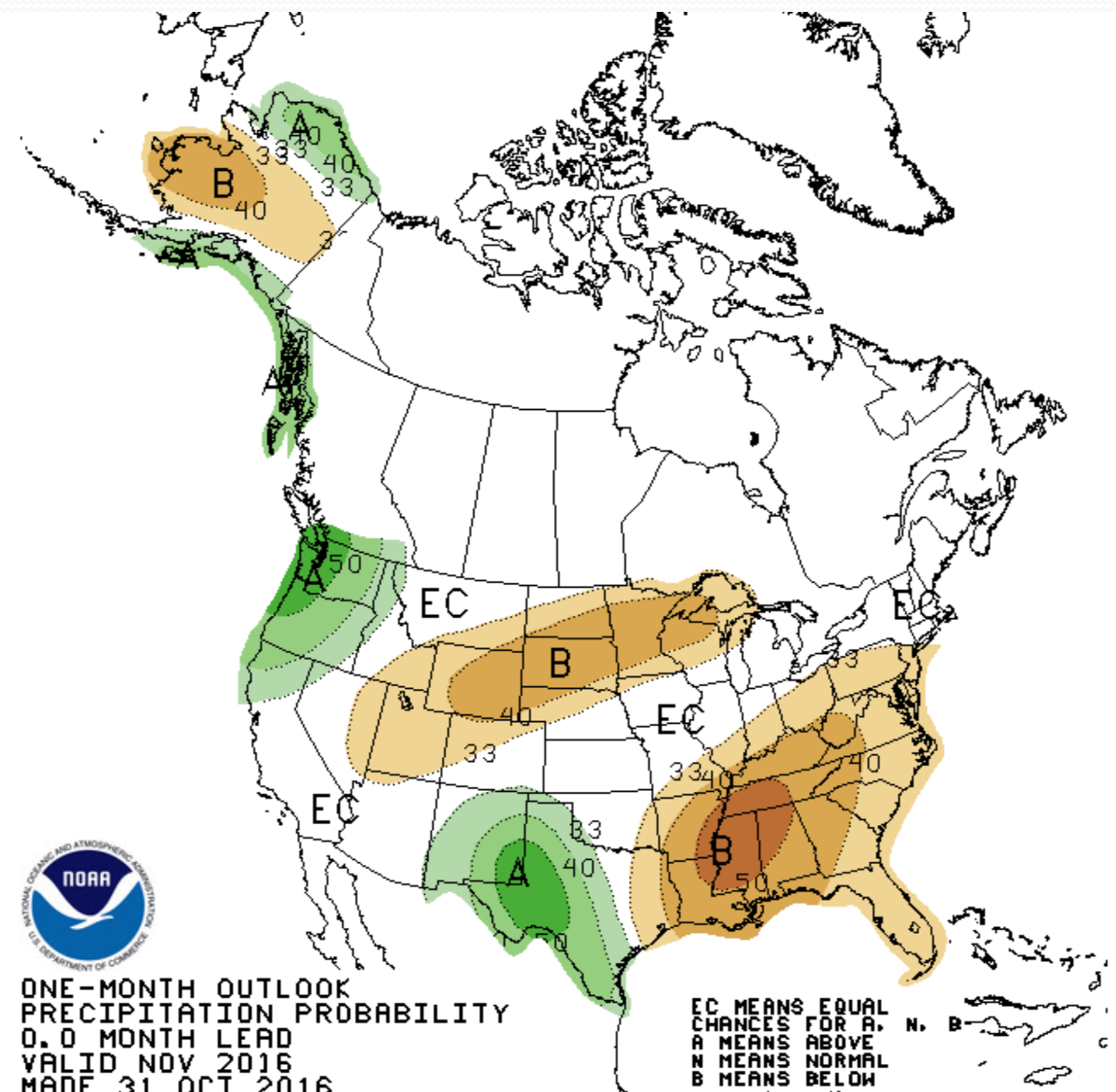
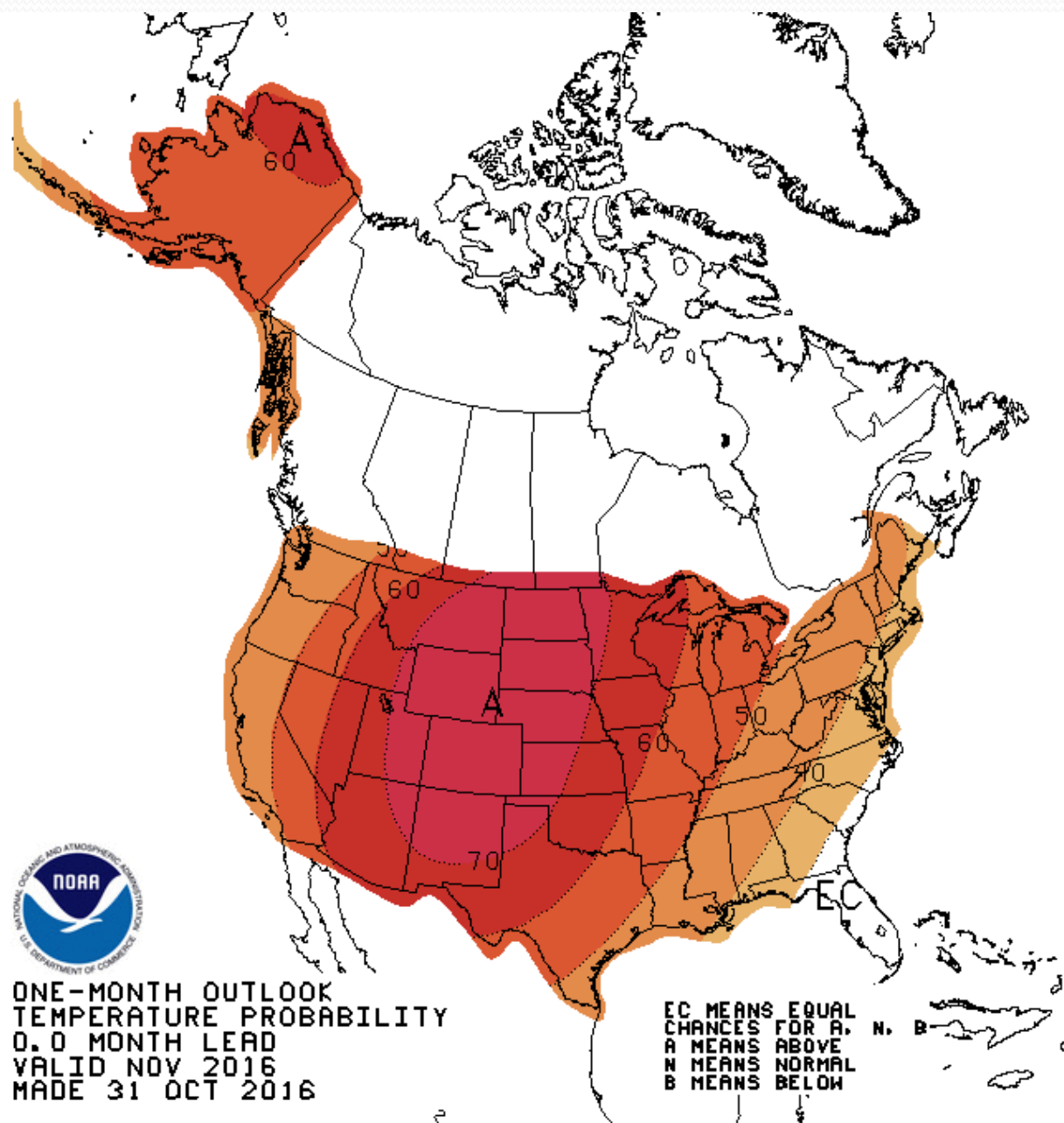
7 Day Precip Nov 07-14



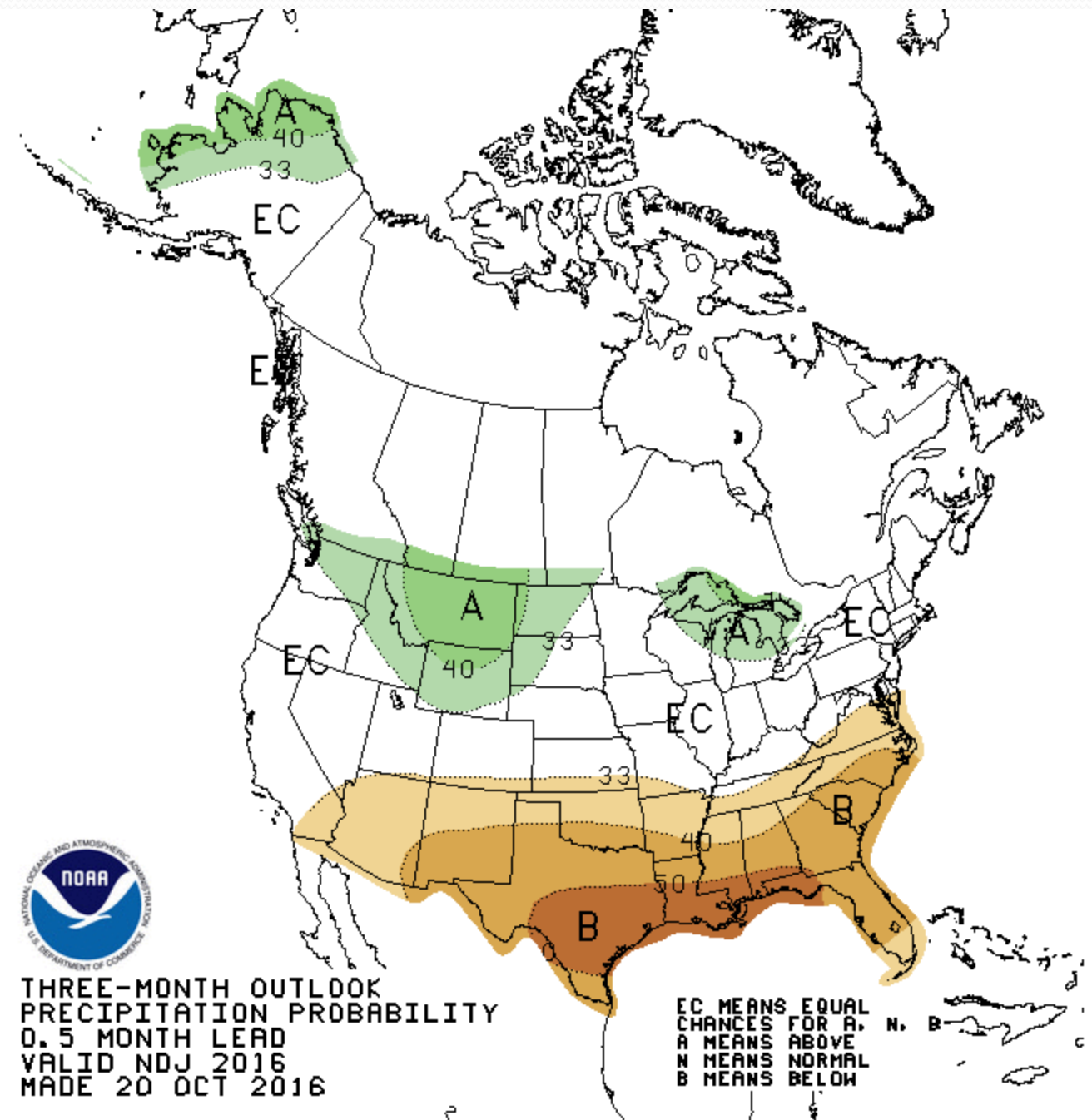
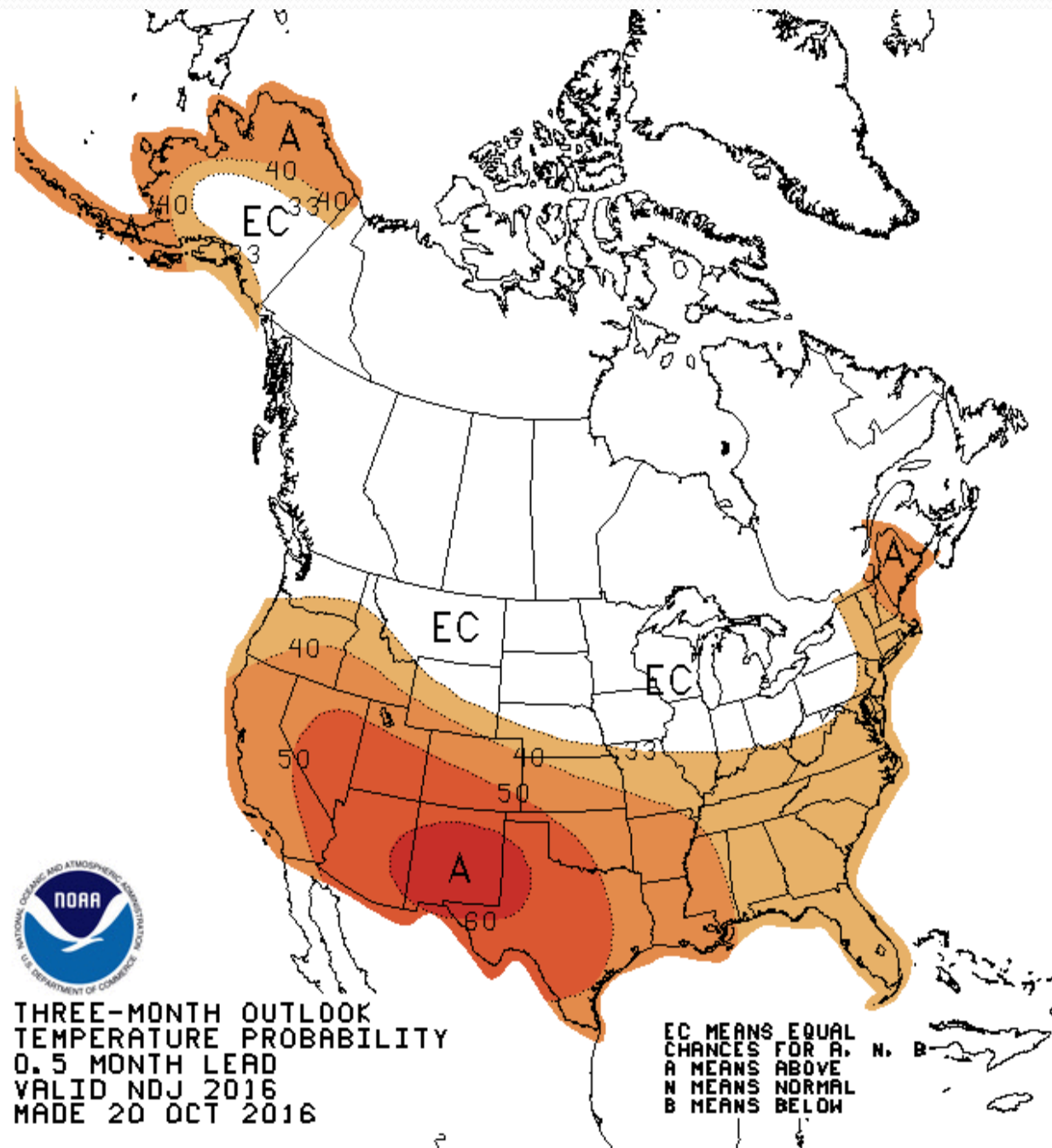
8-14 Day Fcst 11/14-20/16



Outlook for Nov 2016



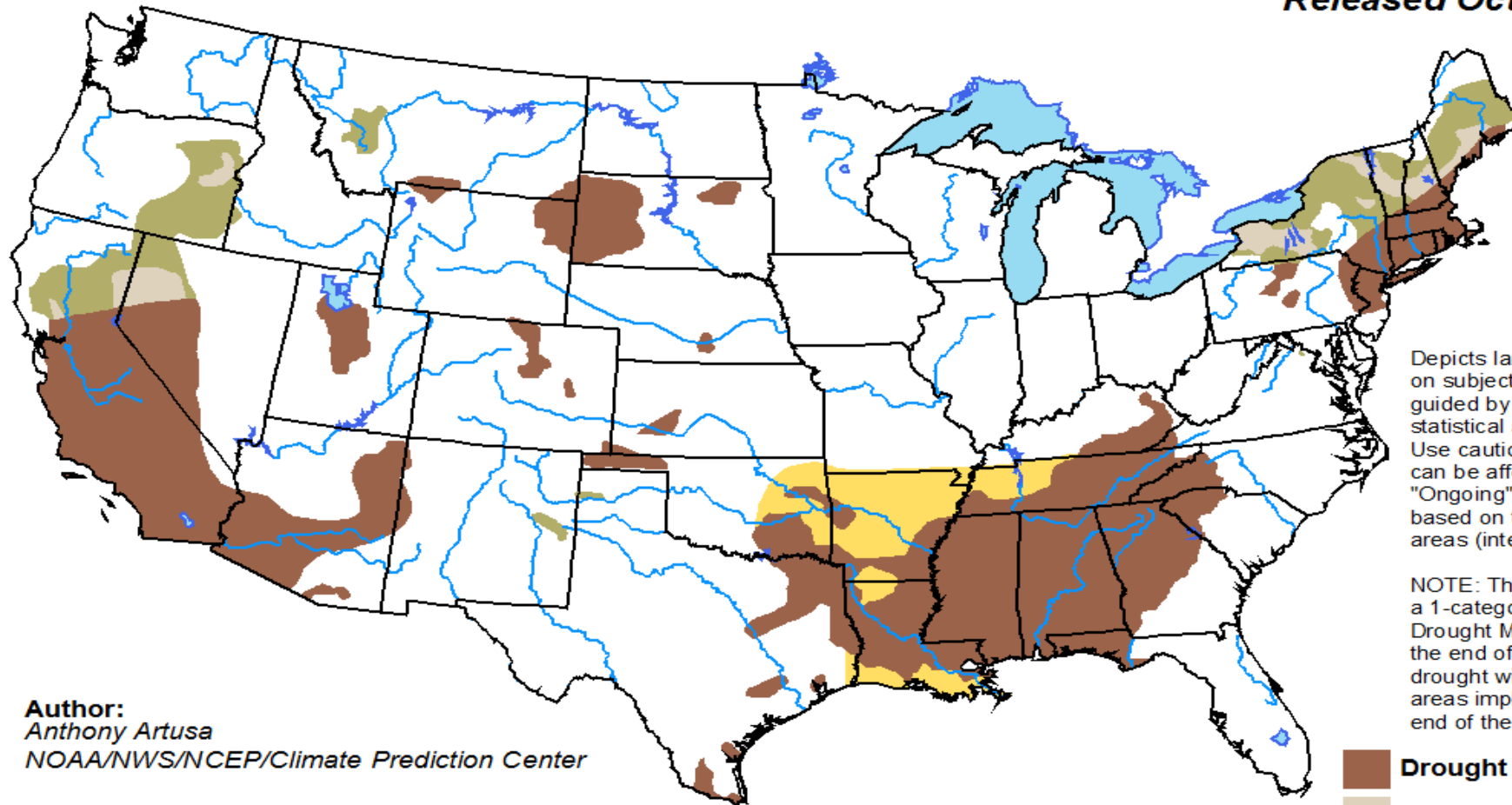
Outlook Nov, Dec, Jan



Drought outlook Nov

U.S. Monthly Drought Outlook Drought Tendency During the Valid Period





Valid for November 2016
Released October 31, 2016

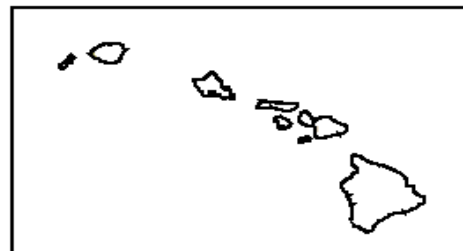
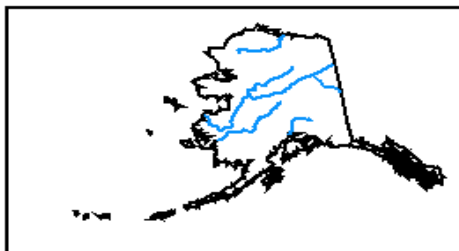


Depicts large-scale trends based on subjectively derived probabilities guided by short- and long-range statistical and dynamical forecasts. Use caution for applications that can be affected by short lived events. "Ongoing" drought areas are based on the U.S. Drought Monitor areas (intensities of D1 to D4).

NOTE: The tan areas imply at least a 1-category improvement in the Drought Monitor intensity levels by the end of the period, although drought will remain. The green areas imply drought removal by the end of the period (D0 or none).

Author:
Anthony Artusa
NOAA/NWS/NCEP/Climate Prediction Center

-  **Drought persists**
-  **Drought remains but improves**
-  **Drought removal likely**
-  **Drought development likely**

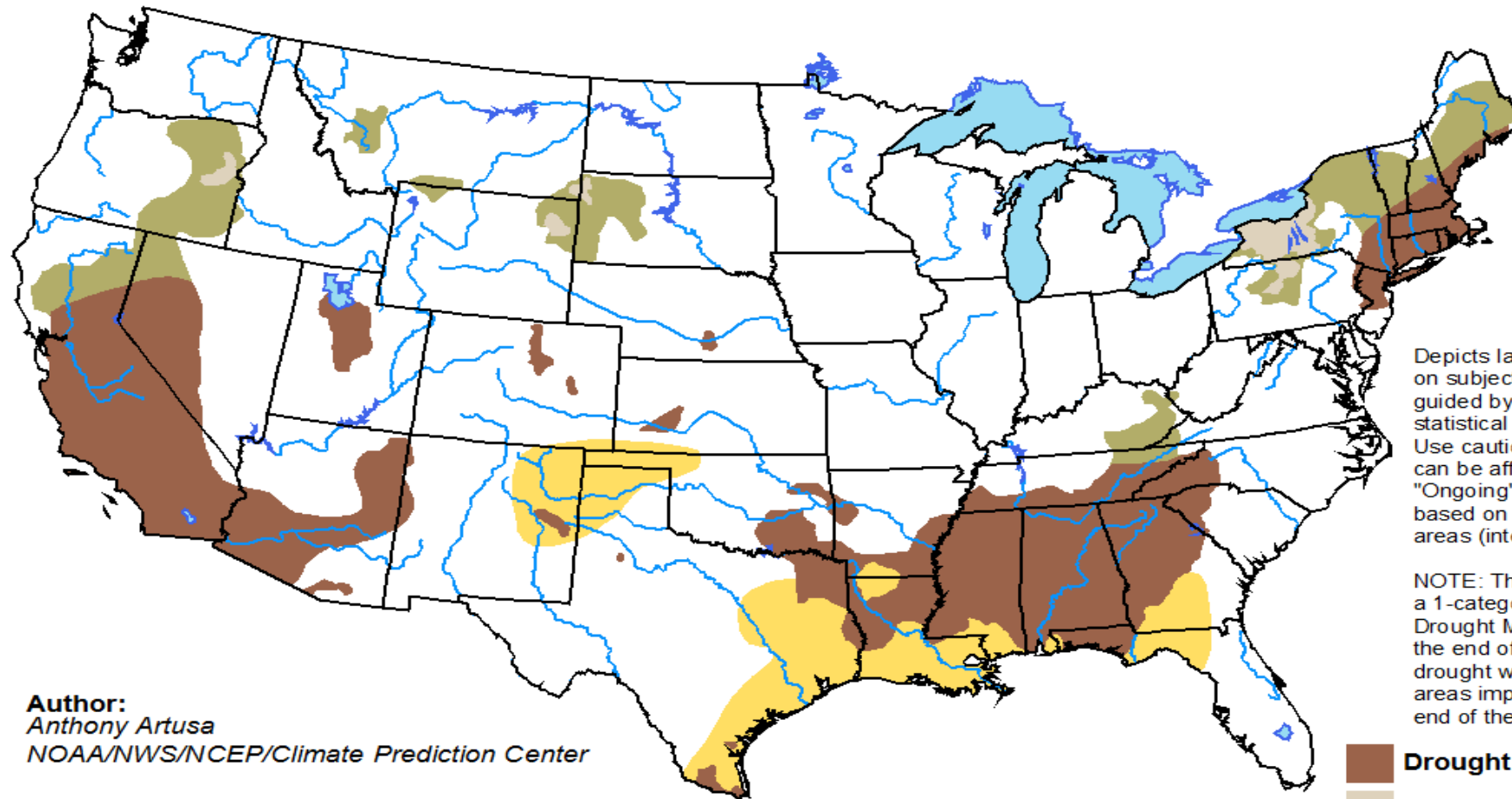


<http://go.usa.gov/3eZGd>

Drought Outlook thru Jan 2017

U.S. Seasonal Drought Outlook Drought Tendency During the Valid Period





Valid for October 20 - January 31, 2017
Released October 20, 2016

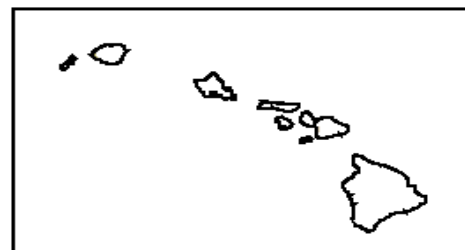
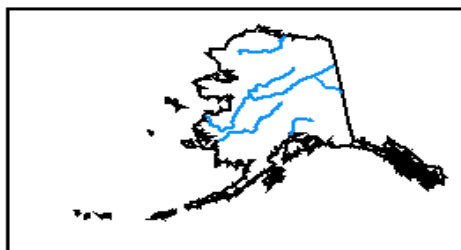


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<http://go.usa.gov/3eZ73>