

Drought Monitor and Medium to Long Range Outlooks

**Julie Dian-Reed
NWS Wilmington**

July 2, 2012

**julia.dian-reed@noaa.gov
Service Hydrologist**

NWS Wilmington Drought Page

The screenshot shows a web browser window displaying the National Weather Service Forecast Office website for Wilmington, OH. The page is titled "NWS Wilmington Drought Page" and features a navigation menu with links for Home, News, Organization, and Search. A search bar is located in the top right corner. The main content area is divided into several sections:

- Local forecast by "City, St" or zip code:** A search box with "City, St" and a "Go" button.
- Current Hazards:** Includes links for Watches/Warnings, Convective Outlook, and Hazardous Outlook.
- Current Conditions:** Includes links for Observations, Storm Reports, Satellite Images, Hydrologic Data, Rivers & Lakes, and AHPS.
- Radar Imagery:** Includes links for Local and Nationwide.
- Forecasts:** Includes links for Public Aviation, Fire Weather, and Climate (Local, National, More...).
- Weather Safety:** Includes links for Storm Ready and Preparedness.
- Weather Radio:** A link for weather radio information.

The main content area is titled "NWS Wilmington Drought Page" and features a "Drought Status / Indices" section with a "US Drought Monitor" link. The "US Drought Monitor" section includes a map of the United States showing drought conditions as of October 9, 2007. The map is color-coded by severity, with red indicating the most severe drought. The map is titled "U.S. Drought Monitor" and "October 9, 2007". Below the map is a legend and a "Map of Ohio and vicinity" link. The "Map of Ohio and vicinity" link is highlighted in blue. The "Map of Ohio and vicinity" link is highlighted in blue. The "Map of Ohio and vicinity" link is highlighted in blue.

The "Drought Status / Indices" section includes links for:

- US Drought Monitor
- Current Week
- Mid Ohio-valley Drought Map
- National 6-week loop
- National 12-week loop
- Drought Classifications
- Experimental Indicators
- Short-Term
- Long-Term
- Palmer Drought Index
- Fire Behavior Drought Index
- Current Drought Impacts

The "Hydrologic Impacts & Precipitation" section includes links for:

- 7-day mean Streamflow Levels
- Area Hydrographs
- Standardized Precip Indices
- Daily Temperatures & Precipitation
- Automated Station Rainfall: HTML
- Rainfall Analysis

The "Drought Forecasts" section includes links for:

- 30 and 90 day outlook graphics
- Seasonal Drought Outlook

The "Crop & Vegetation Impacts" section includes links for:

- Crop Moisture Index
- Soil Moisture Index
- Current Fire Danger Level
- Ohio ONR Forestry Fire Danger
- Kentucky Burn Ban

The "Other Drought Links" section includes links for:

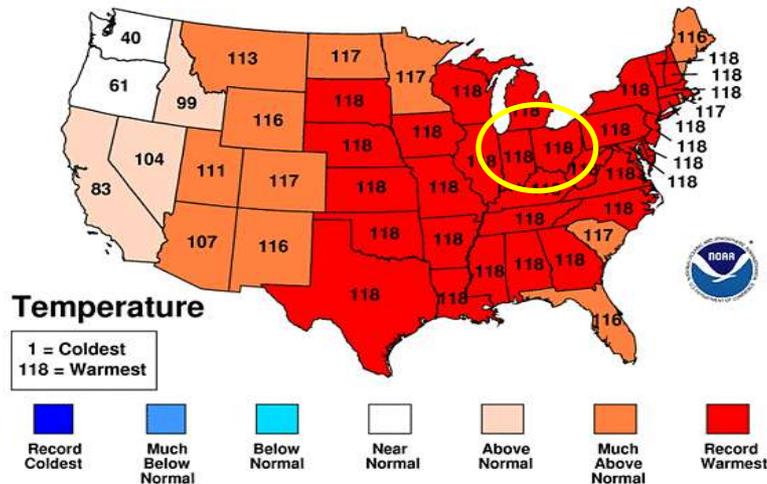
- NWS Wilmington Drought Statement
- NOAA's Drought Information Center

- Discussion (updated bi-weekly) is specifically for NWS Wilmington area
- Graphics update as available and are relevant for Ohio valley

Spring 2012

March-May 2012 Statewide Ranks

National Climatic Data Center/NESDIS/NOAA



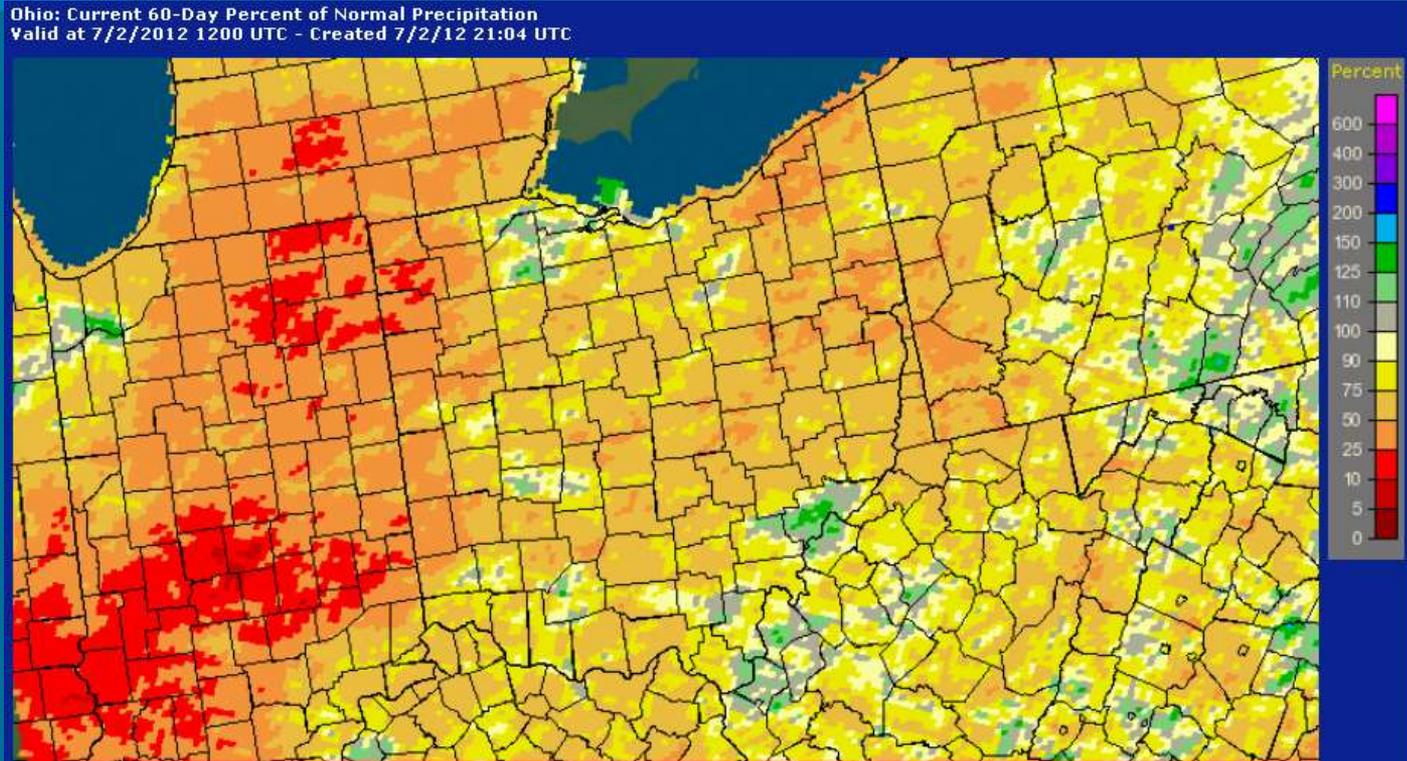
March-May 2012 Statewide Ranks

National Climatic Data Center/NESDIS/NOAA



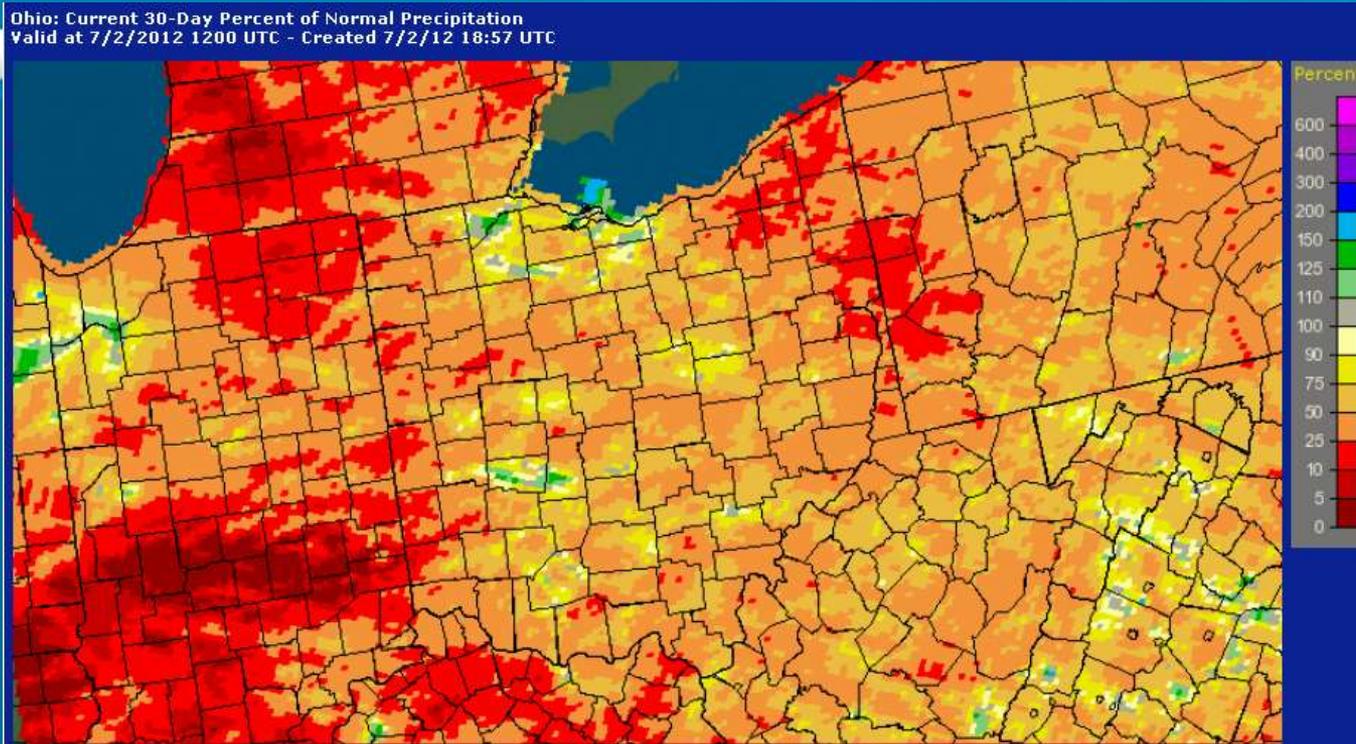
- Spring 2012 was the warmest on record for Ohio Valley
- Evapotranspiration rates were above normal
- Drying expanded to the Northeast through the Spring
- 8th driest spring for Indiana and 11th driest in Tennessee

60-day Rainfall Percent of Normal



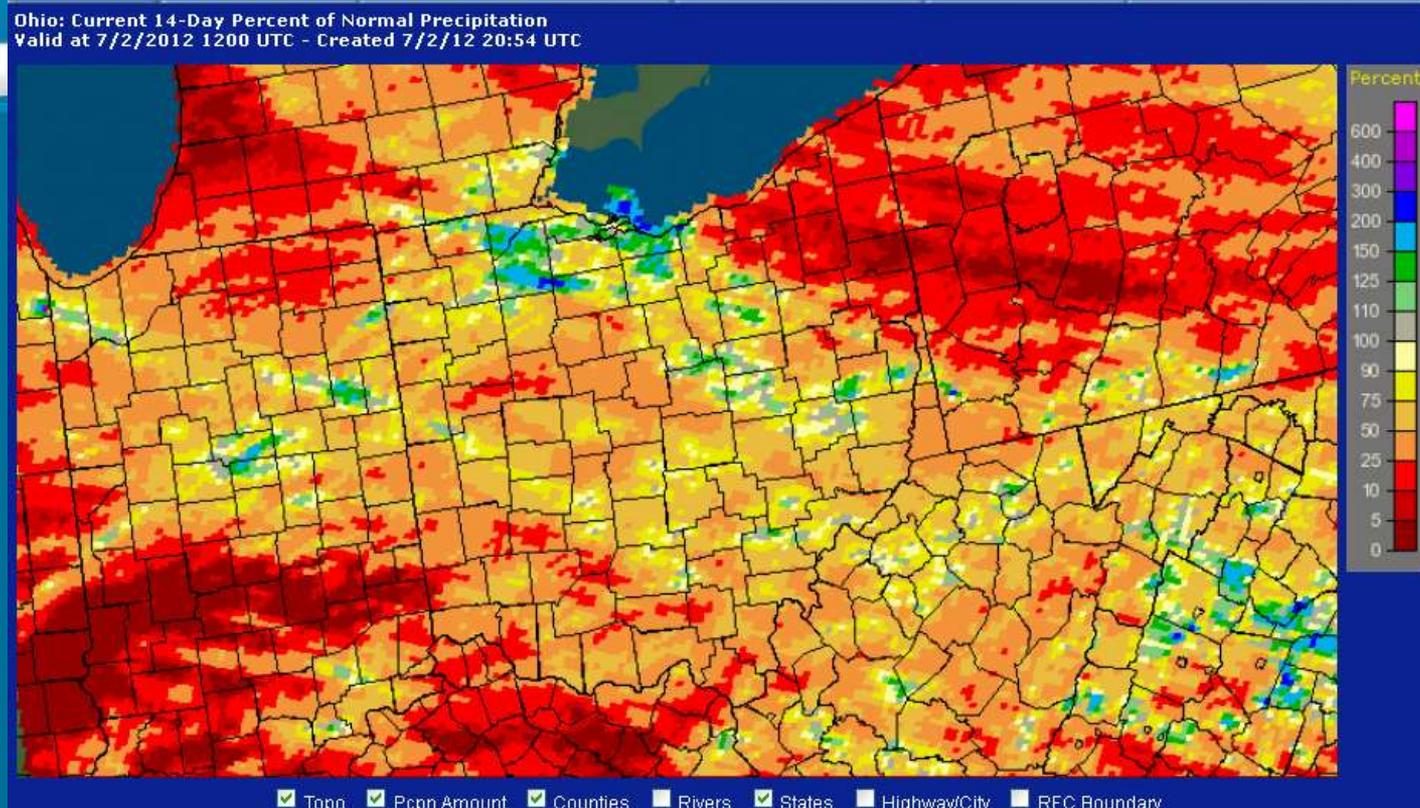
What began over Indiana is growing into Ohio

Percent of Normal Last 30 days



- Rainfall was generally below normal
- Less than 50% of normal in parts of Ohio
- Driest areas in parts of southern Indiana, southern Illinois and Kentucky with less than 0.50 inches of rainfall

Percent of Normal Last 14 days



- Note the high variability of Rainfall
- Some areas 'hit/miss' with precipitation

Current Drought Monitor

U.S. Drought Monitor

June 26, 2012

Valid 7 a.m. EST

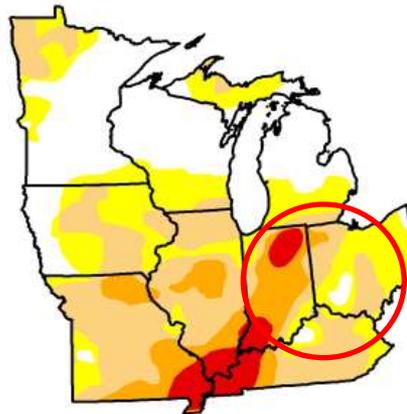
Midwest

Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	28.87	71.13	45.76	15.27	5.28	0.00
Last Week (06/19/2012 map)	28.94	71.06	37.84	11.96	3.49	0.00
3 Months Ago (03/27/2012 map)	68.34	31.66	19.06	6.32	0.00	0.00
Start of Calendar Year (12/27/2011 map)	71.84	28.16	13.42	6.80	0.00	0.00
Start of Water Year (09/27/2011 map)	58.85	41.15	14.01	5.03	0.00	0.00
One Year Ago (06/21/2011 map)	98.82	1.18	0.17	0.00	0.00	0.00

Intensity:

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



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

<http://droughtmonitor.unl.edu>



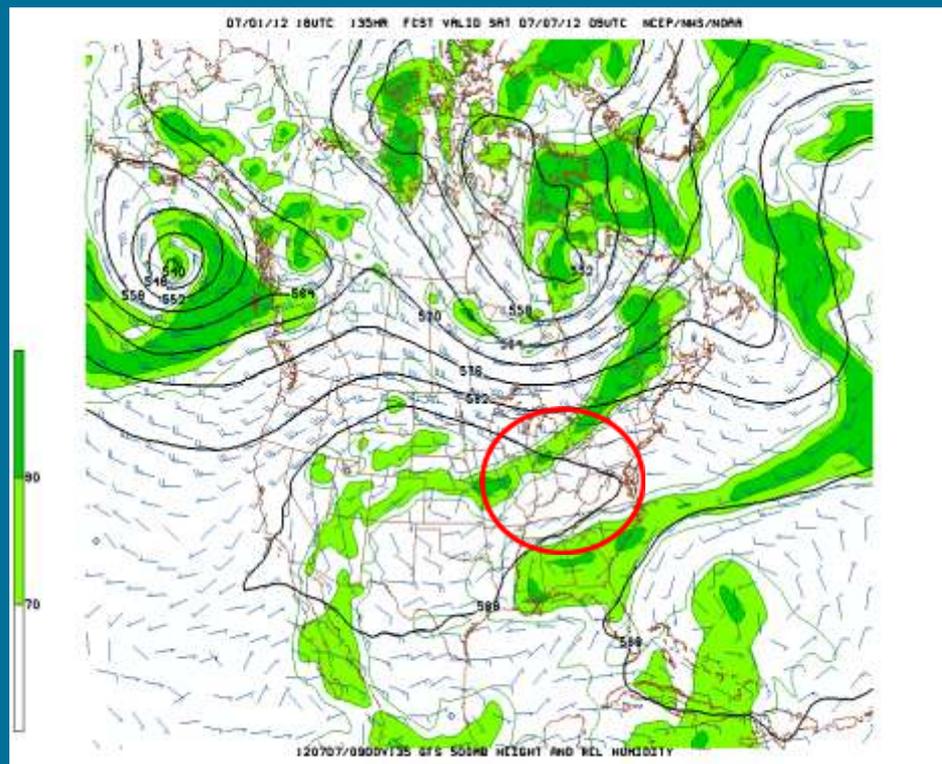
Released Thursday, June 28, 2012

Richard Heim, National Climatic Data Center, NOAA

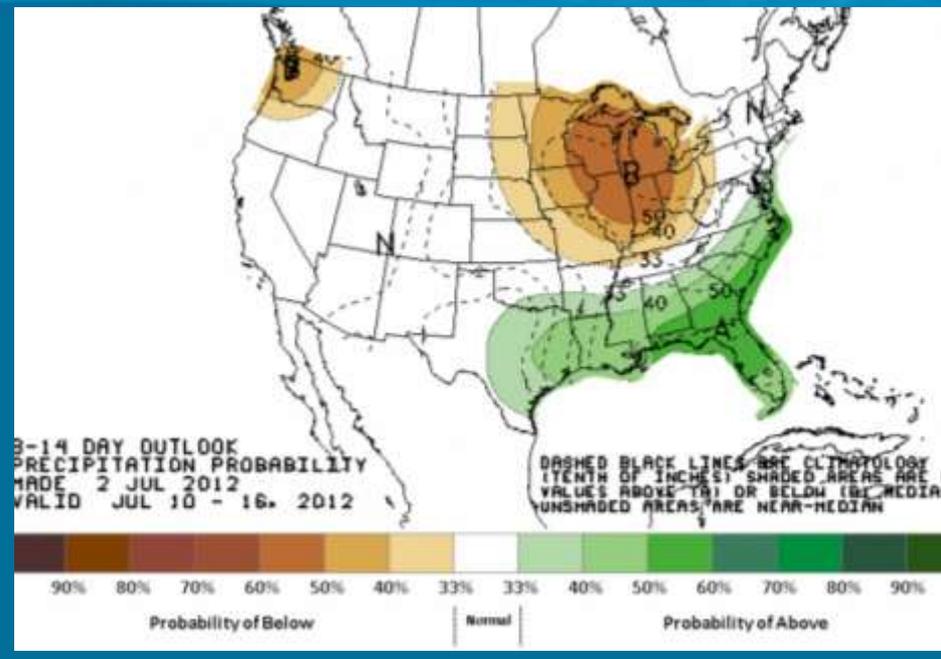
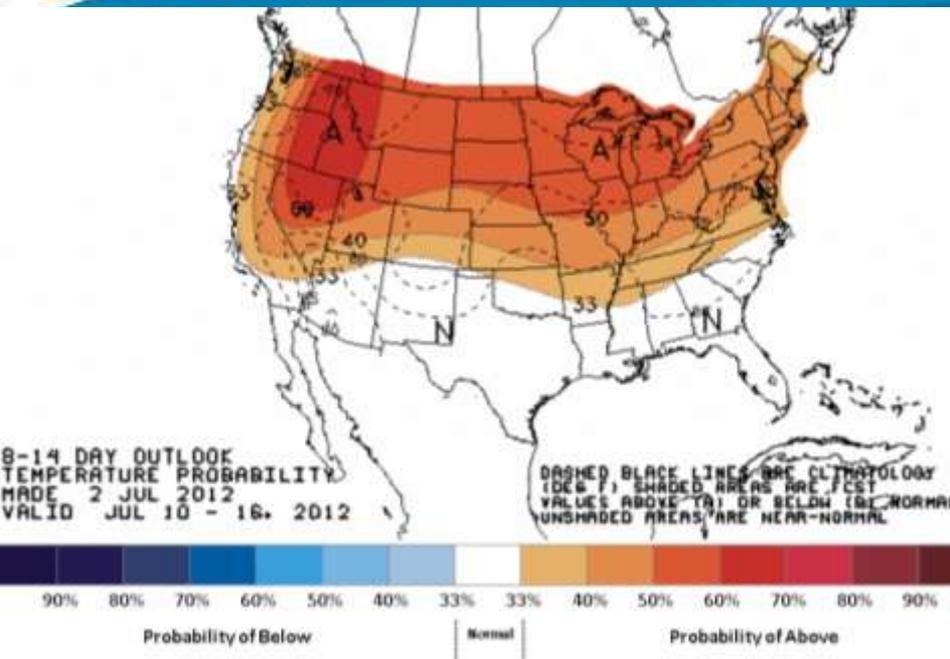
- Increase in drought coverage in last few weeks due to below normal rainfall and very high temperatures
- Main drought area is from Tennessee into Kentucky and Indiana and Illinois
- Drought Product only updated each Thursday
- Input from NWS, State Climatologists, Climate Scientists

July 2-8

- Hot and humid weather persists
- Scattered storms especially early in the week and again on the weekend
- Some risk of severe storms from the 4th-6th
- Widespread 90s with 100s not out of the question by the weekend



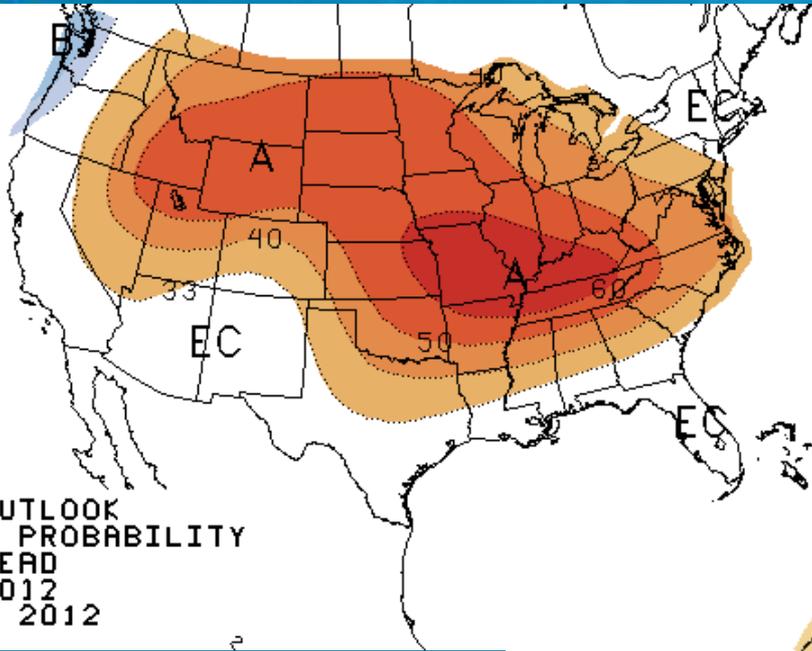
Outlook Through Mid July



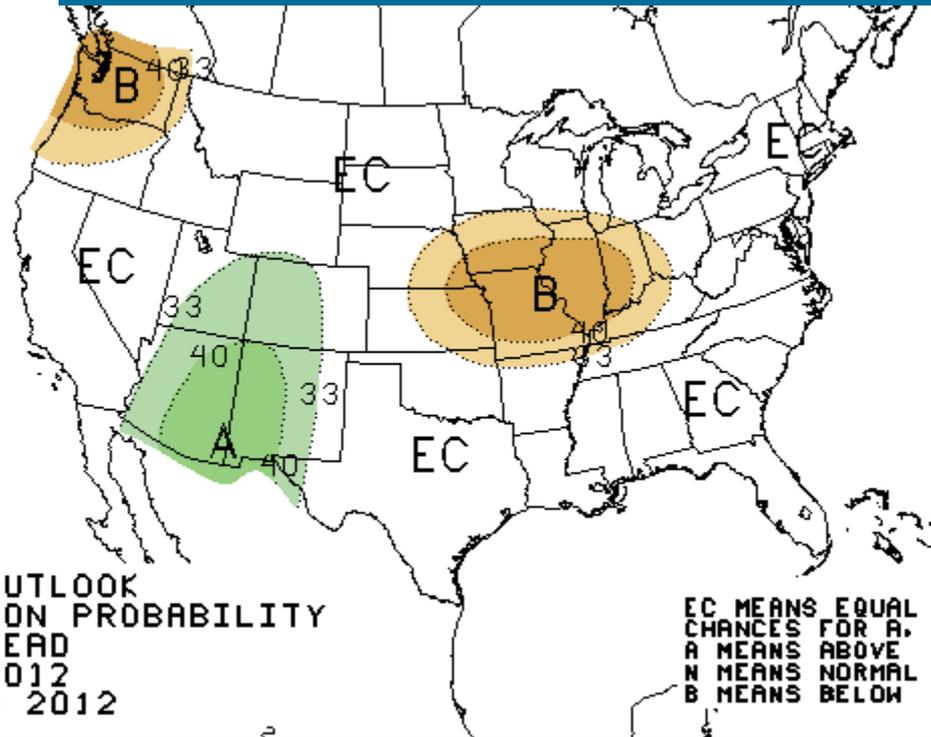
- Below normal rainfall will persist in the lower Ohio basin. Likely not as dry as June.
- Soil moisture is an important factor in summer rains. The drier the soil, less low level moisture to allow developing storms to persist = Less Rain

July Outlook

- While Signal for above normal temperatures remains, less confident in below normal precipitation through especially the 2nd half of July



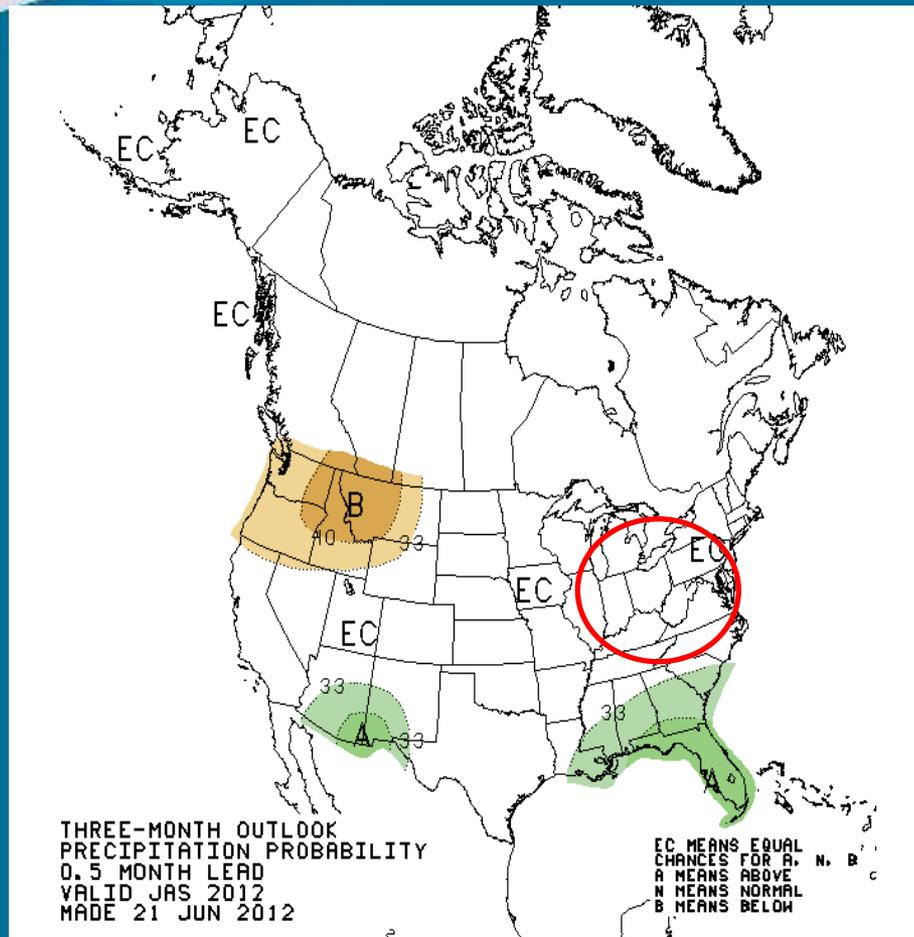
ONE-MONTH OUTLOOK
TEMPERATURE PROBABILITY
0.0 MONTH LEAD
VALID JUL 2012
MADE 30 JUN 2012



ONE-MONTH OUTLOOK
PRECIPITATION PROBABILITY
0.0 MONTH LEAD
VALID JUL 2012
MADE 30 JUN 2012

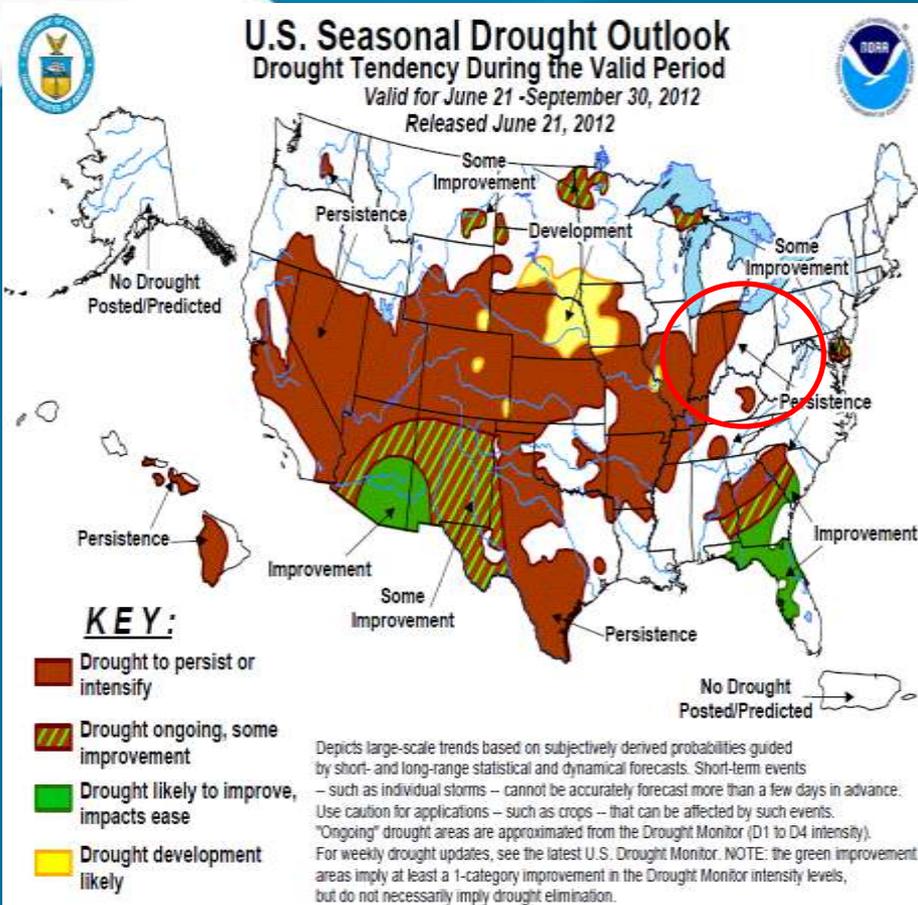
EC MEANS EQUAL
CHANCES FOR A.
A MEANS ABOVE
N MEANS NORMAL
B MEANS BELOW

July-September Rainfall Outlook



- There is a chance for some rainfall improvement as we go into August or September as soil moisture becomes less of a factor
- However, confidence is not high in this forecast

July-September Drought Outlook



- Drought will persist in the lower Ohio Valley through summer
- Variability in occasional Thunderstorm Complexes will result in drought expansion and contraction at times

Drought Outlook Summary

Drought will likely persist in lower Ohio Valley into Cumberland Valley this summer

Drought will fluctuate in areal coverage and intensity over the short-term with rains and hot weather fluctuations

Official NWS outlook calls for possibly some improvement by autumn

Confidence is low currently, but if an El Nino develops this winter, dry weather could re-strengthen in parts of Ohio and Cumberland Valley