

# A Regional Services Perspective:

Responding to the 2011-2013 Southern Plains Drought

and

Looking ahead to the Summer of 2013

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# A Brief Regional Services Overview

# Setting the Stage: Drought Onset

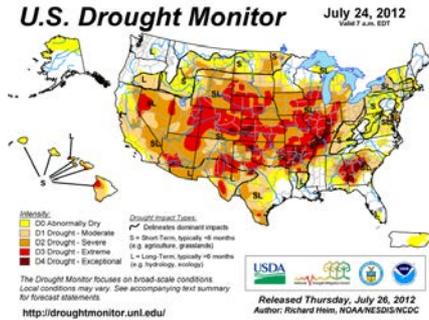
- 2011 drought was predicted
  - Seasonal outlooks picked up on the La Nina signal as early as November 2010.....
  - .....BUT, the rapid intensification and extreme magnitude were not predicted
  - In the end, only partially explainable due to La Nina
  - Aggressive and intense nature of the drought left many struggling to prepare and respond

# Setting the Stage: Drought Response

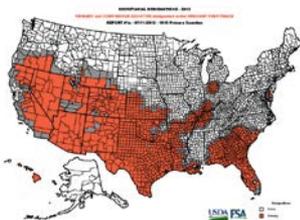
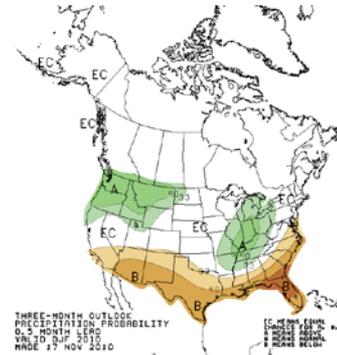
- Many service-providing entities in the region
  - NOAA centers/offices (e.g., National Weather Service)
  - NOAA core partners (e.g., state climatologists)
  - Interagency partners (e.g., DOI, USDA)
  - State, local, private, and NGO organizations
- But, historically a lack of coordination in “real-time” response to evolving impacts of drought
- The onset of the 2011 drought created an opportunity to coordinate a multi-faceted, regional response among multiple partners

# Outlook and Assessment Forums

## Current Conditions

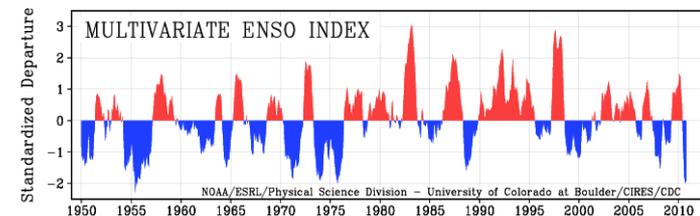
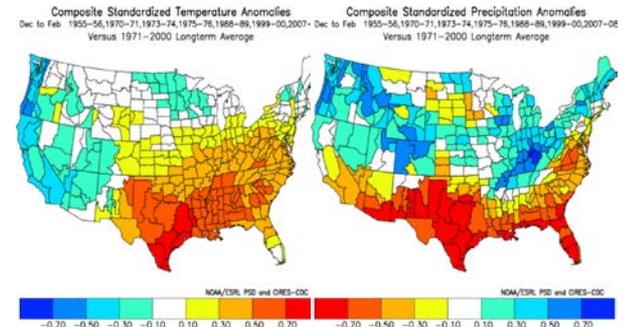


## Short- to Medium-Range Forecasts



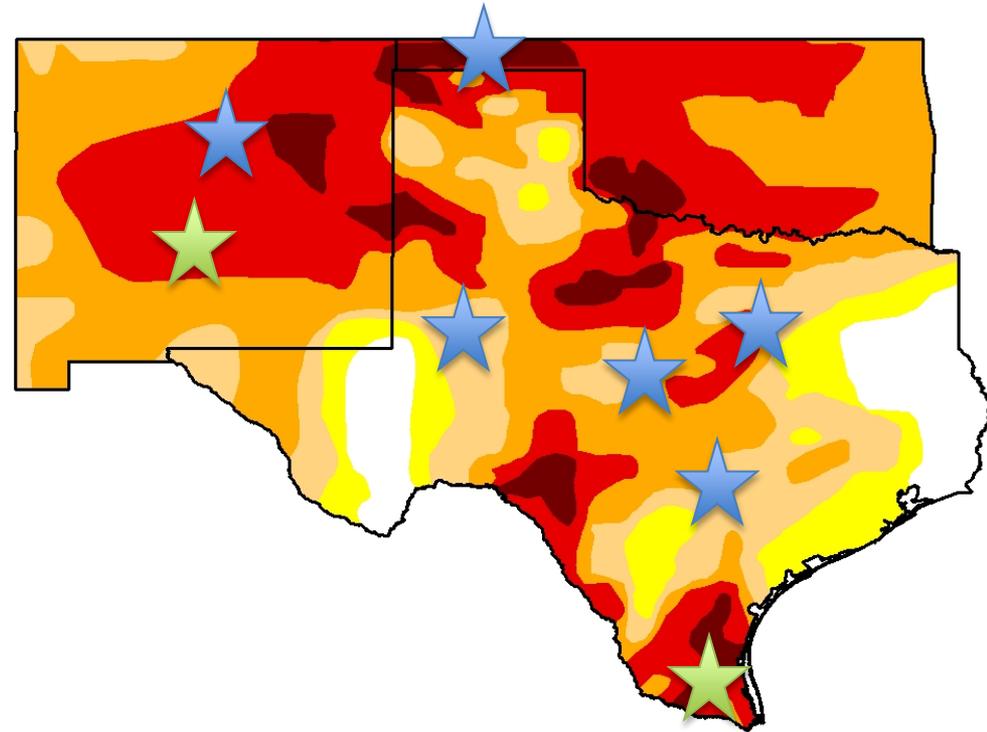
Impacts  
&  
Vulnerability  
&  
Info Needs

ENSO  
Impacts &  
Long-Term  
Trends



# Outlook and Assessment Forums

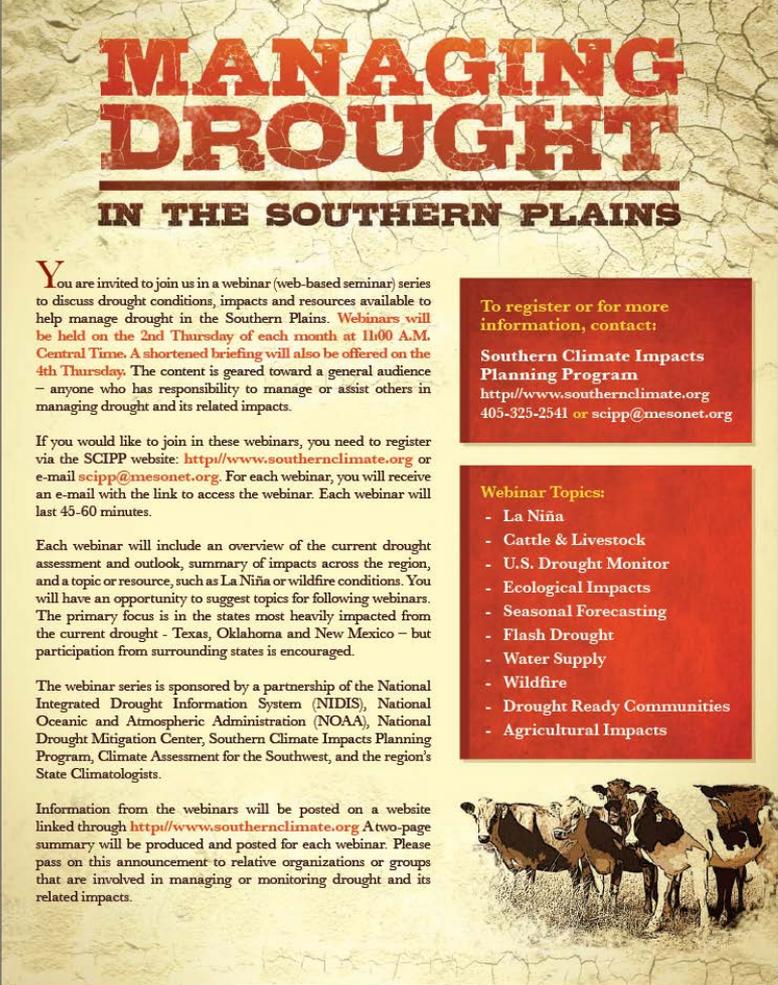
- Bring together multiple impacted sectors:
  - Water resources
  - Agriculture
  - Fish and wildlife
  - Emergency management
- Focus on:
  - Current drought status
  - Potential short- and medium-term changes
  - Assessing the economic and environmental impacts
  - Communicating the message



- Austin TX (June 2011)
- Fort Worth TX (November 2011)
- Lubbock TX (April 2012)
- Santa Fe NM (June 2012 – virtual forum)
- Abilene TX (November 2012)
- Goodwell OK (March 2013)
- \*\* Socorro NM (May 2013)
- \*\* South Texas (TBD)

# Drought Management Webinars

- Led by Southern Climate Impacts Planning Program (SCIPP)
- Webinars on various topics
  - La Niña
  - Flash Drought
  - Water Resources
  - Cattle Industry
  - Seasonal Forecasts
  - Wildfire
  - U.S. Drought Monitor
  - Wildlife
- Webinars are posted on YouTube



**MANAGING DROUGHT**  
**IN THE SOUTHERN PLAINS**

You are invited to join us in a webinar (web-based seminar) series to discuss drought conditions, impacts and resources available to help manage drought in the Southern Plains. Webinars will be held on the 2nd Thursday of each month at 11:00 A.M. Central Time. A shortened briefing will also be offered on the 4th Thursday. The content is geared toward a general audience – anyone who has responsibility to manage or assist others in managing drought and its related impacts.

If you would like to join in these webinars, you need to register via the SCIPP website: <http://www.southernclimate.org> or e-mail [scipp@mesonet.org](mailto:scipp@mesonet.org). For each webinar, you will receive an e-mail with the link to access the webinar. Each webinar will last 45-60 minutes.

Each webinar will include an overview of the current drought assessment and outlook, summary of impacts across the region, and a topic or resource, such as La Niña or wildfire conditions. You will have an opportunity to suggest topics for following webinars. The primary focus is in the states most heavily impacted from the current drought - Texas, Oklahoma and New Mexico – but participation from surrounding states is encouraged.

The webinar series is sponsored by a partnership of the National Integrated Drought Information System (NIDIS), National Oceanic and Atmospheric Administration (NOAA), National Drought Mitigation Center, Southern Climate Impacts Planning Program, Climate Assessment for the Southwest, and the region's State Climatologists.

Information from the webinars will be posted on a website linked through <http://www.southernclimate.org>. A two-page summary will be produced and posted for each webinar. Please pass on this announcement to relative organizations or groups that are involved in managing or monitoring drought and its related impacts.

**To register or for more information, contact:**  
Southern Climate Impacts Planning Program  
<http://www.southernclimate.org>  
405-325-2541 or [scipp@mesonet.org](mailto:scipp@mesonet.org)

**Webinar Topics:**

- La Niña
- Cattle & Livestock
- U.S. Drought Monitor
- Ecological Impacts
- Seasonal Forecasting
- Flash Drought
- Water Supply
- Wildfire
- Drought Ready Communities
- Agricultural Impacts



<http://www.southernclimate.org/>

# Media Outreach and Engagement

- Media has somewhat unique requirements for information delivery, format, and timeliness
- Thus, need to engage as a distinct constituency
  - Media-specific webinars
  - Press conferences and advisories for outlook forums
  - Participation in national NOAA teleconferences
  - Press releases and op-eds to regional media outlooks



# Drought Service Assessment

- A comprehensive review of the 2010-2012 drought situation, including:
  - Meteorological, climatological, and hydrological features
  - Socioeconomic and environmental impacts
  - Regional services provided
  - Lessons learned, best practices, and next steps for early warning
- Being drafted, to be released in summer 2013

# U.S. Drought Portal

**U.S. Drought Portal**  
www.drought.gov

WHAT IS NIDIS? PRODUCTS TOOLS REGIONAL PROGRAMS RESOURCES

Drought in the News Events and Announcements Regional Drought Webinars Regional Drought Early Warning Systems

**Southern Plains**

**Current Drought**

**Oklahoma:** No Significant changes the past month. Significant rains and some snow this week should lead to short term improvements.

**New Mexico:** Conditions continue to deteriorate.

**Texas:** Improvements eastern 1/3 of the state. Little change or slight deterioration elsewhere

**Drought Early Warning Systems**

- ACF River Basin
- California
- Coastal Carolinas
- Four Corners Tribal Land
- Midwest
- Southern Plains
  - Southern Plains Pilot
  - Recovery Links
  - Contacts
  - Upper Colorado River Basin

**Southern Plains Announcements**

- [Southern Plains Drought Outlook and Assessment \(March 7\)](#)  
Thu, Mar 7 2013, 9:00am to 5:00pm
- [West Texas drought outlook and assessment forum](#)  
Thu, Nov 1 2012, 9:30am to 3:00pm
- [Southern Plains Bi-weekly, 2nd and 4th Thursdays, 11AM Central Time](#)

| Region                     | None  | D0-D4  | D1-D4  | D2-D4  | D3-D4 | D4    |
|----------------------------|-------|--------|--------|--------|-------|-------|
| Southern Plains (02/26/13) | 6.61  | 99.99  | 85.14  | 68.16  | 38.9  | 5.98  |
| Southern Plains (02/19/13) | 7.08  | 92.97  | 84.25  | 67.72  | 41.47 | 11.28 |
| Texas (02/26/13)           | 11.29 | 88.71  | 78.11  | 49.88  | 22.02 | 5.17  |
| Texas (02/19/13)           | 12.01 | 87.99  | 73.88  | 49.06  | 25.80 | 7.89  |
| New Mexico (02/26/13)      | 0.20  | 99.80  | 98.46  | 89.78  | 49.88 | 4.39  |
| New Mexico (02/19/13)      | 0.20  | 99.80  | 98.45  | 89.85  | 49.59 | 1.22  |
| Oklahoma (02/26/13)        | 0.00  | 100.00 | 100.00 | 100.00 | 61.68 | 11.80 |
| Oklahoma (02/19/13)        | 0.00  | 100.00 | 100.00 | 100.00 | 86.80 | 41.64 |

## Current/Ongoing Drought Impacts

**Oklahoma City:** imposes more strict water restrictions, withdraws 30,000 acre-feet of water from Canton Lake.

**Oklahoma & Texas:** 100% of winter wheat growing area in severe drought or worse.

**Wichita Falls:** imposes stage 3 water restrictions due to low reservoir storage.

**New Mexico:** statewide reservoir capacity at 20% of normal.

**Texas:** statewide reservoir capacity at 67%, lowest since 1990 for this time of year.

## Southern Plains Drought Outlook

Below normal precipitation and above normal temperatures are expected for the majority of the Southern Plains for the next 3 months through May 2013. This will lead to continued drought conditions for all of Oklahoma and New Mexico. Drought conditions will persist or develop for most of Texas with the exception of East Texas and portions of West Texas in

- Dedicated So Plains page
  - Current drought status
  - How is it affecting me
  - How long will it continue
  - Recovery programs
  - Resources and reports
  - Regional services

- Many other resources

[www.drought.gov](http://www.drought.gov)

On to the Summer 2013 Outlook

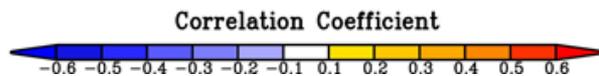
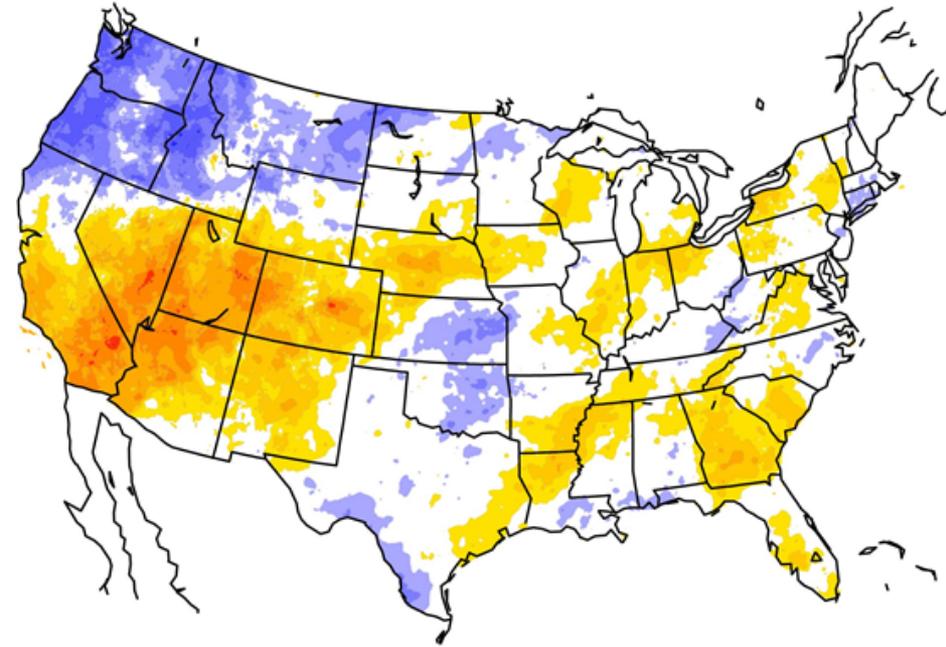
First...what the models are saying



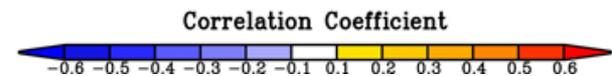
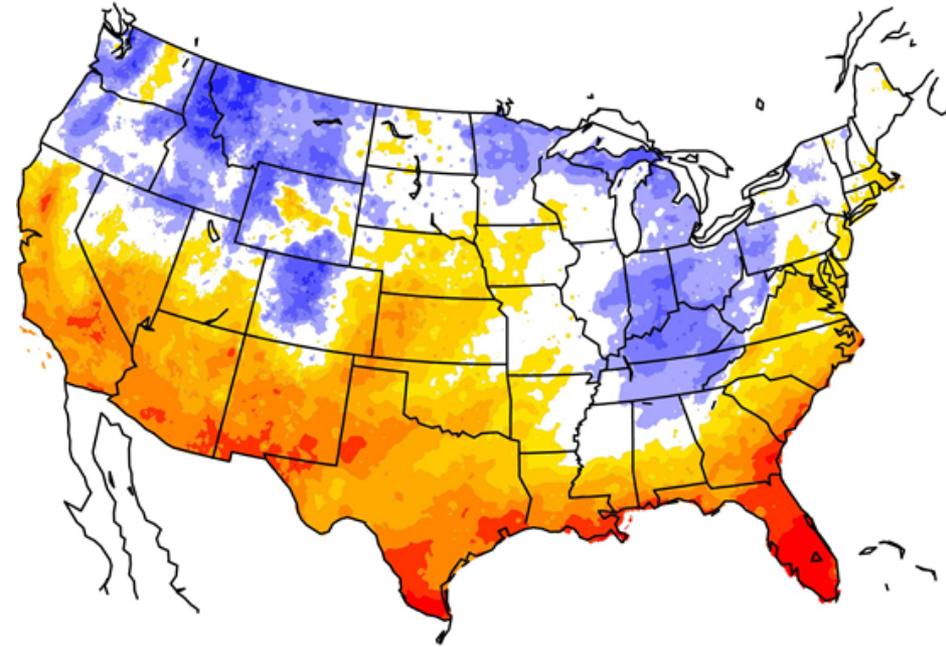
# Typical Fall-Winter La Nina Precipitation

SON Precipitation versus MEI (1956–2005)

DJF Precipitation versus MEI (1956–2005)



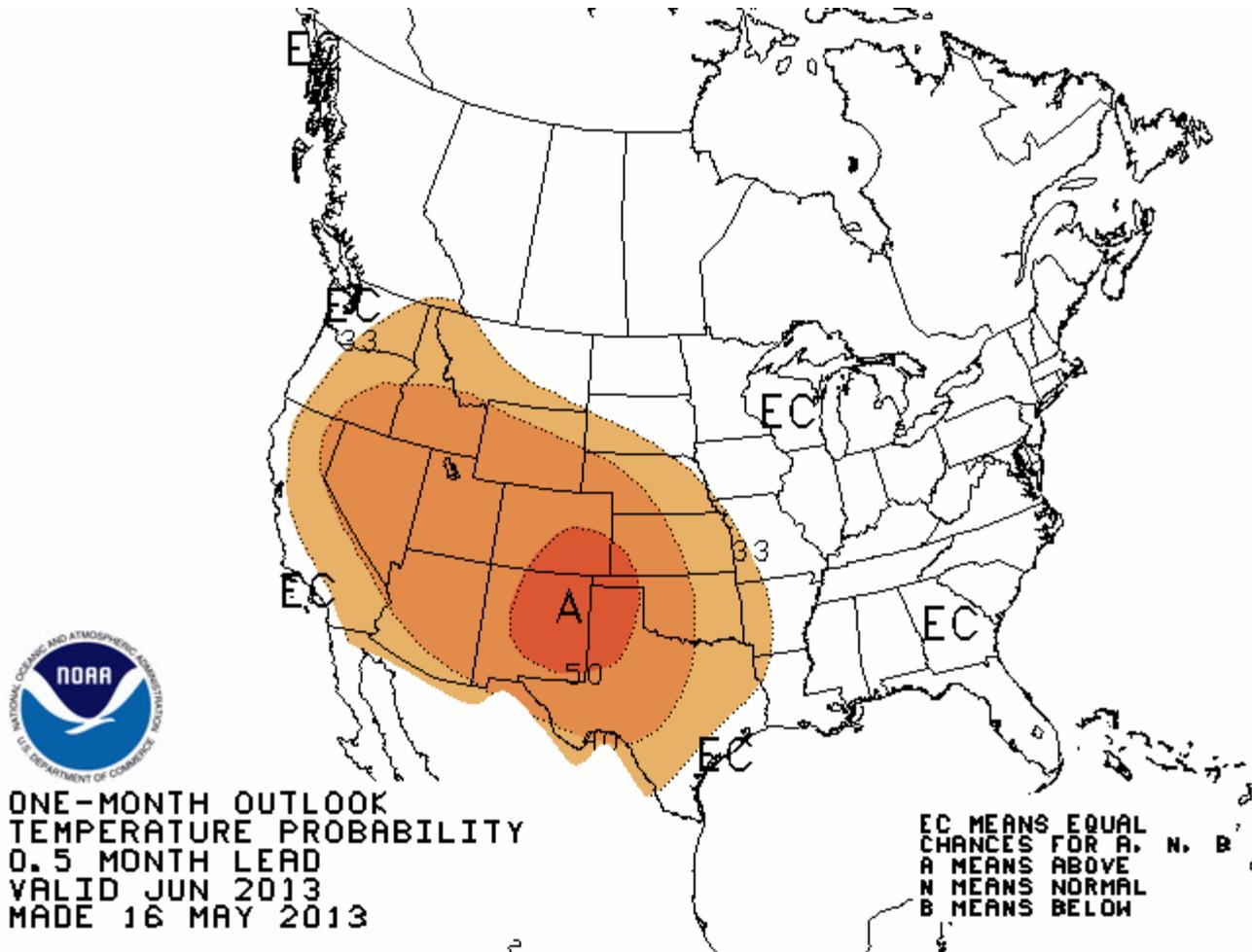
Fall



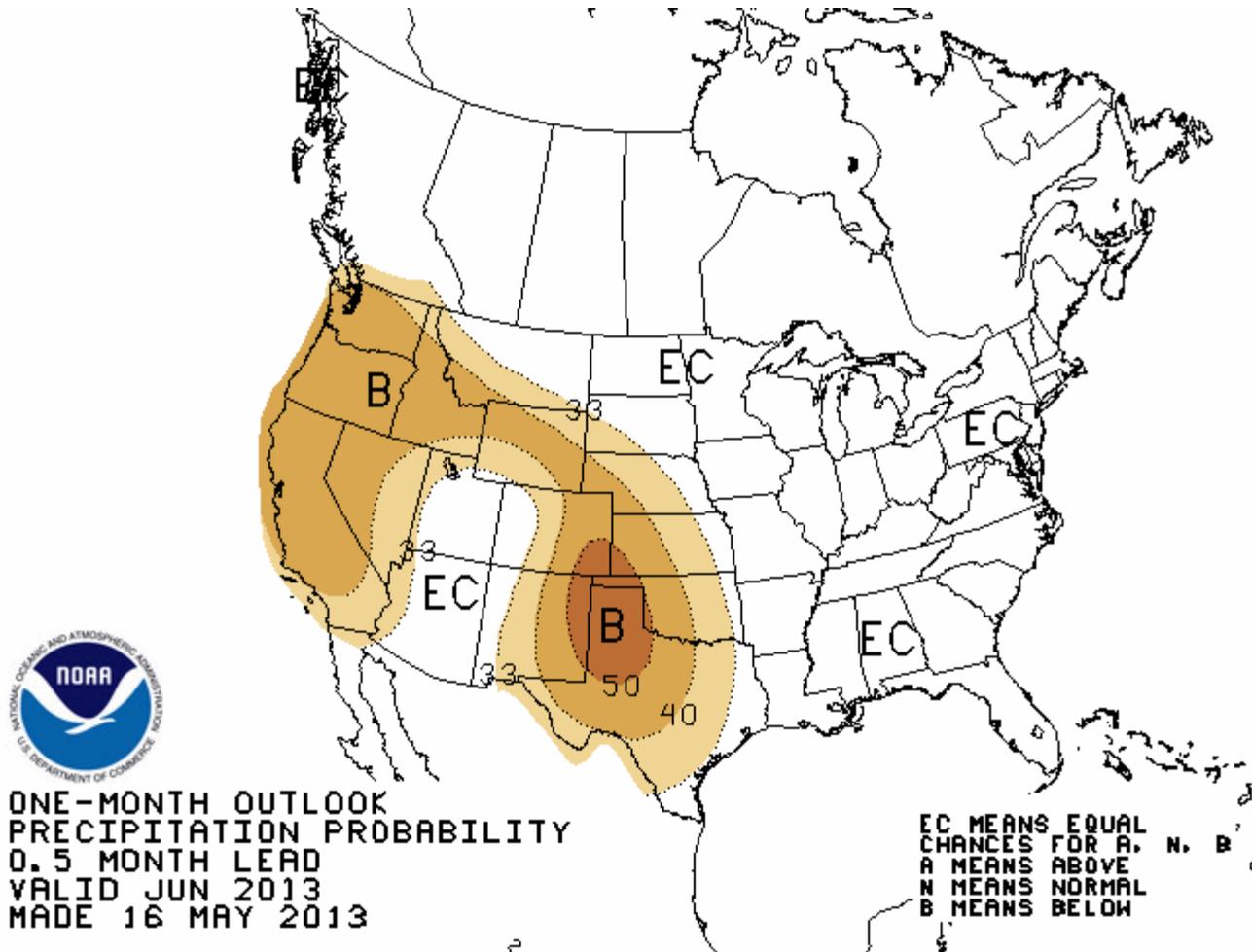
Winter

Next...the official (NOAA) outlooks

# Official June 2013 Temperature Outlook

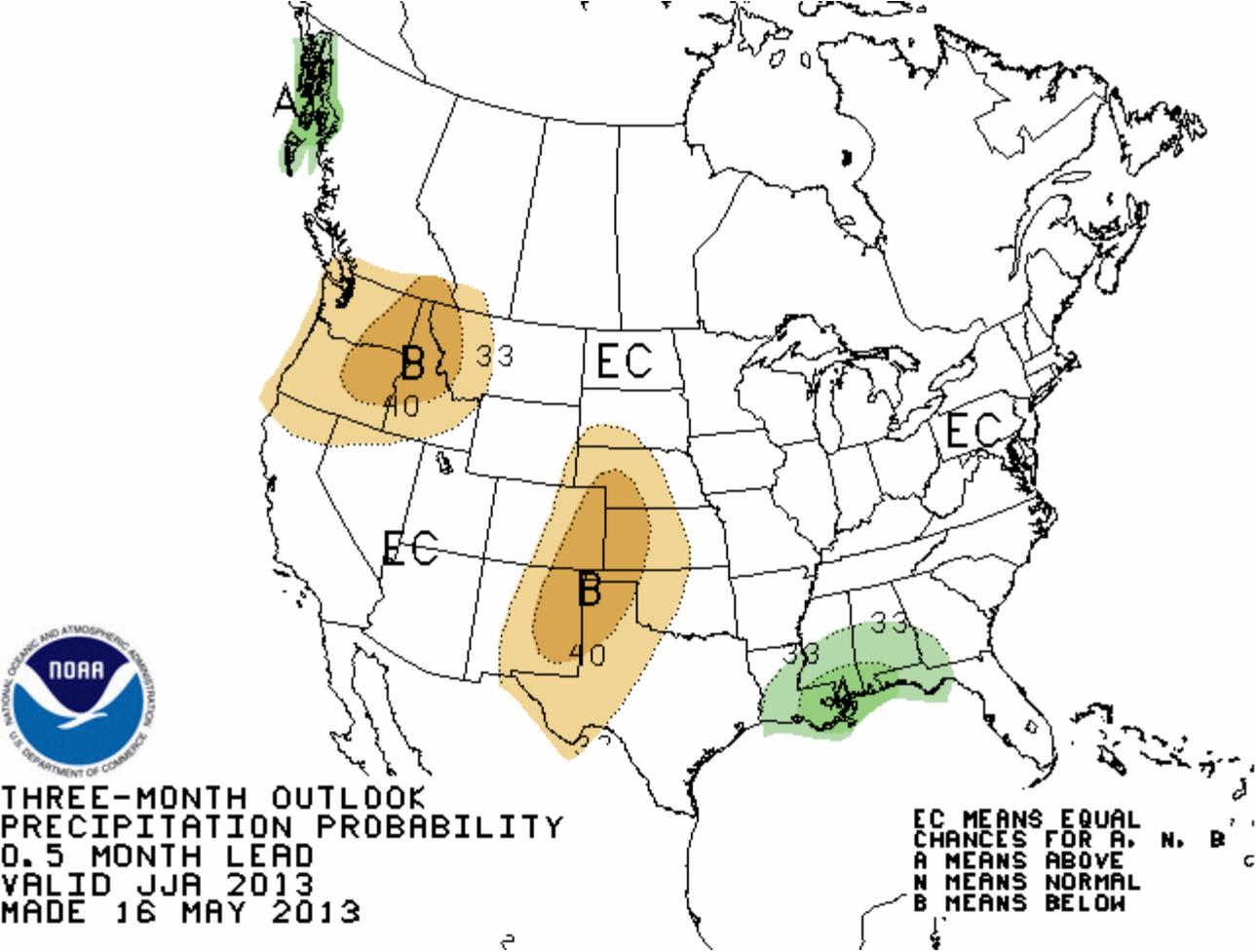


# Official June 2013 Precipitation Outlook





# Official Summer Precipitation Outlook



THREE-MONTH OUTLOOK  
PRECIPITATION PROBABILITY  
0.5 MONTH LEAD  
VALID JJA 2013  
MADE 16 MAY 2013

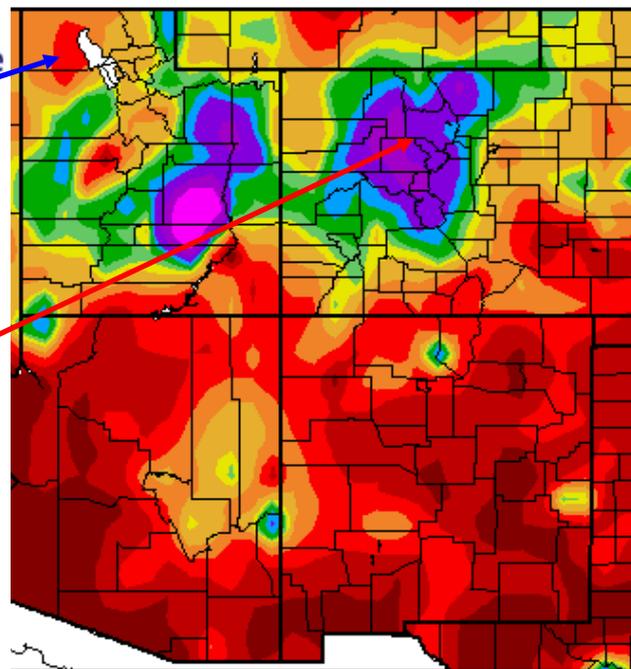
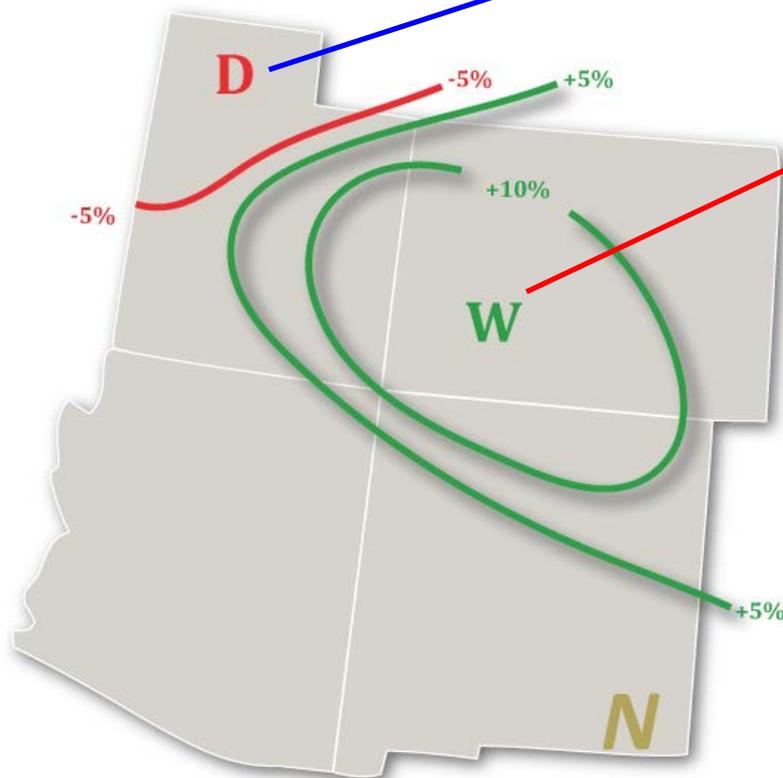
Some new, experimental regional  
forecast guidance

# Spring Forecast Was Pretty Good

4/1/2013 - 5/22/2013

Experimental PSD Precipitation Forecast Guidance

APR - JUN 2013 (Issued March 5, 2013)



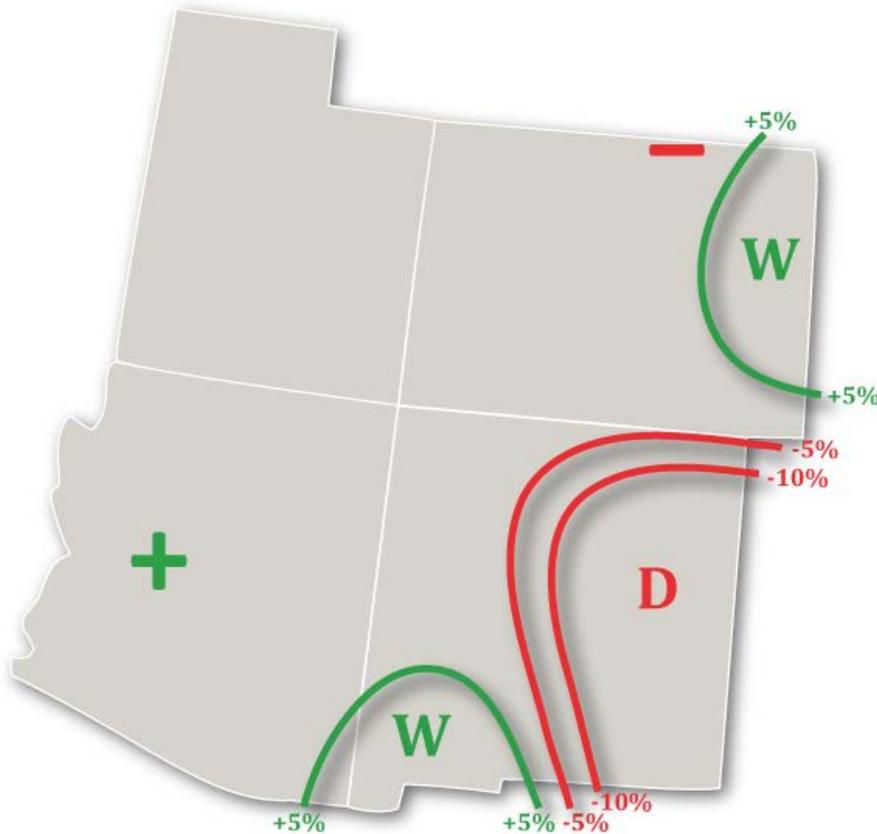
# Summer 2013 Regional Forecast Guidance

## Experimental PSD Precipitation Forecast Guidance

JUL – SEP 2013 (Issued May 14, 2013)

- Regional Forecast Guidance – Key Points:

- Right now, no forecast help from ENSO (neutral)
- Relying on other signals plus historical analogs
- “Cross your fingers... western New Mexico may get a break during the upcoming summer”
- La Nina more likely than not to return by late 2013



- [Klaus.Wolter@noaa.gov](mailto:Klaus.Wolter@noaa.gov)

Finally...the bottom line

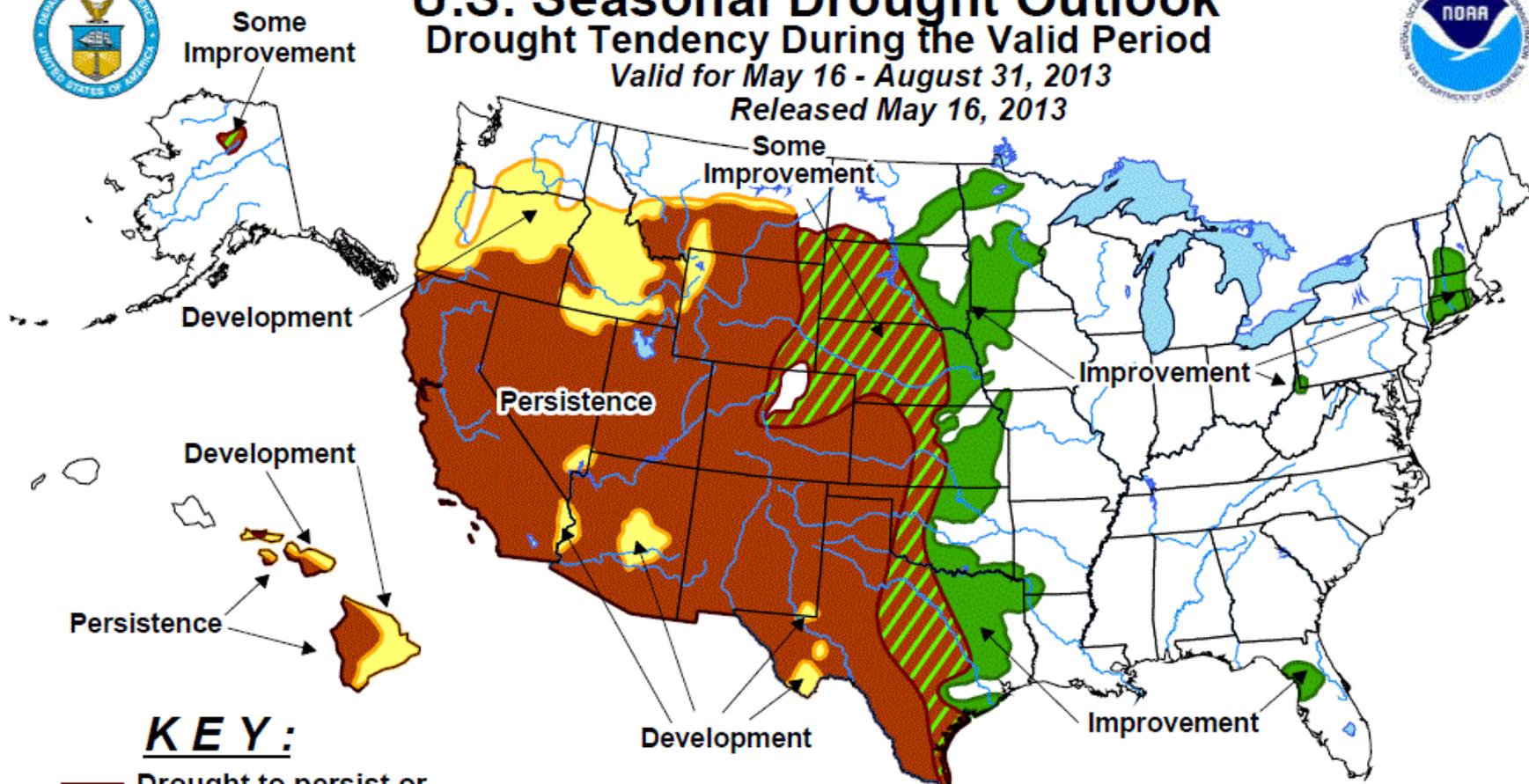


# U.S. Seasonal Drought Outlook

## Drought Tendency During the Valid Period

Valid for May 16 - August 31, 2013

Released May 16, 2013



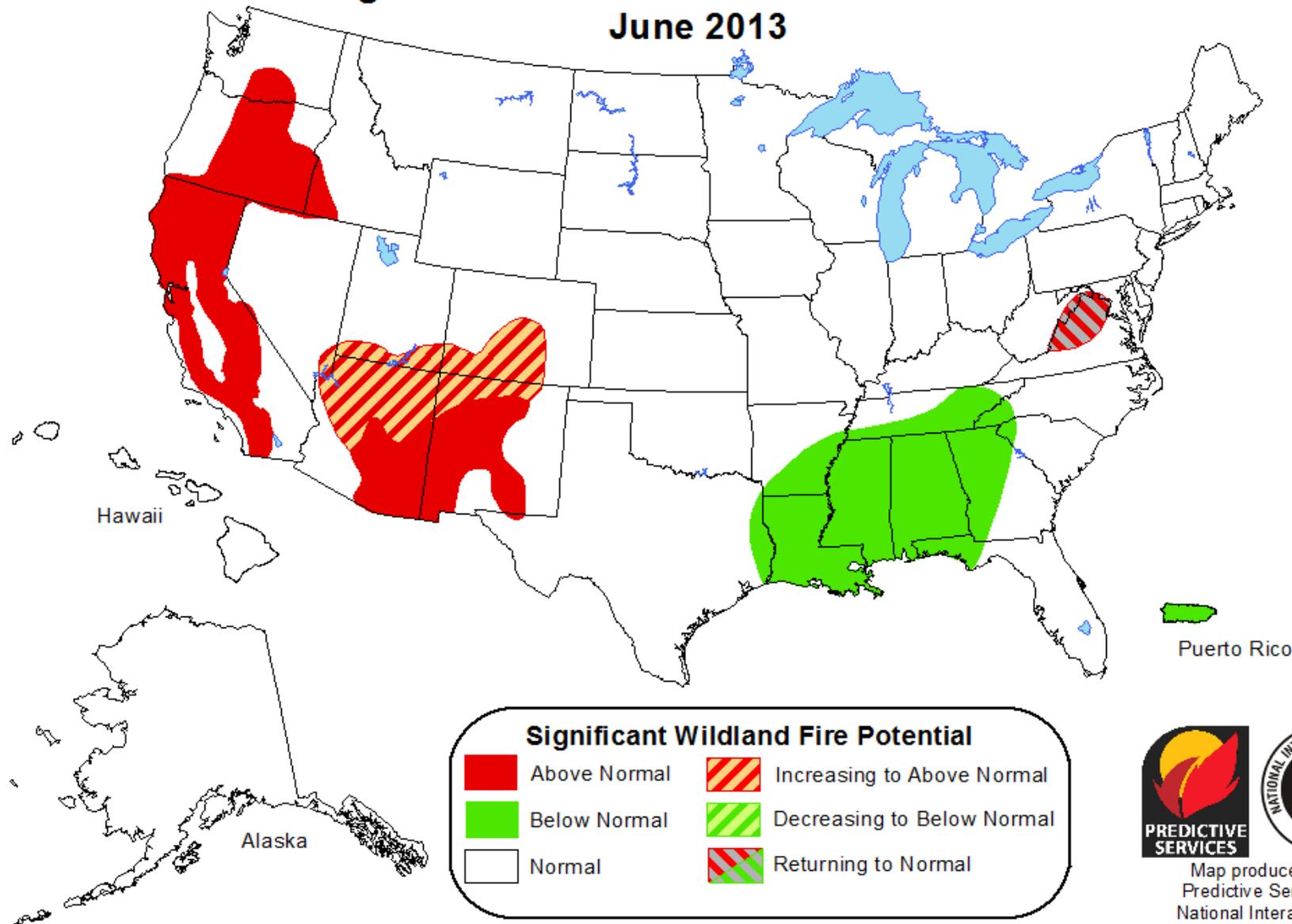
### **KEY:**

-  Drought to persist or intensify
-  Drought ongoing, some improvement
-  Drought likely to improve, impacts ease
-  Drought development likely

No Drought Posted/Predicted 

Depicts large-scale trends based on subjectively derived probabilities guided by short- and long-range statistical and dynamical forecasts. Short-term events -- such as individual storms -- cannot be accurately forecast more than a few days in advance. Use caution for applications -- such as crops -- that can be affected by such events. "Ongoing" drought areas are approximated from the Drought Monitor (D1 to D4 intensity). For weekly drought updates, see the latest U.S. Drought Monitor. NOTE: the green improvement areas imply at least a 1-category improvement in the Drought Monitor intensity levels, but do not necessarily imply drought elimination.

# Significant Wildland Fire Potential Outlook June 2013



## Significant Wildland Fire Potential

|   |              |  |                            |
|---|--------------|--|----------------------------|
|  | Above Normal |  | Increasing to Above Normal |
|  | Below Normal |  | Decreasing to Below Normal |
|  | Normal       |  | Returning to Normal        |

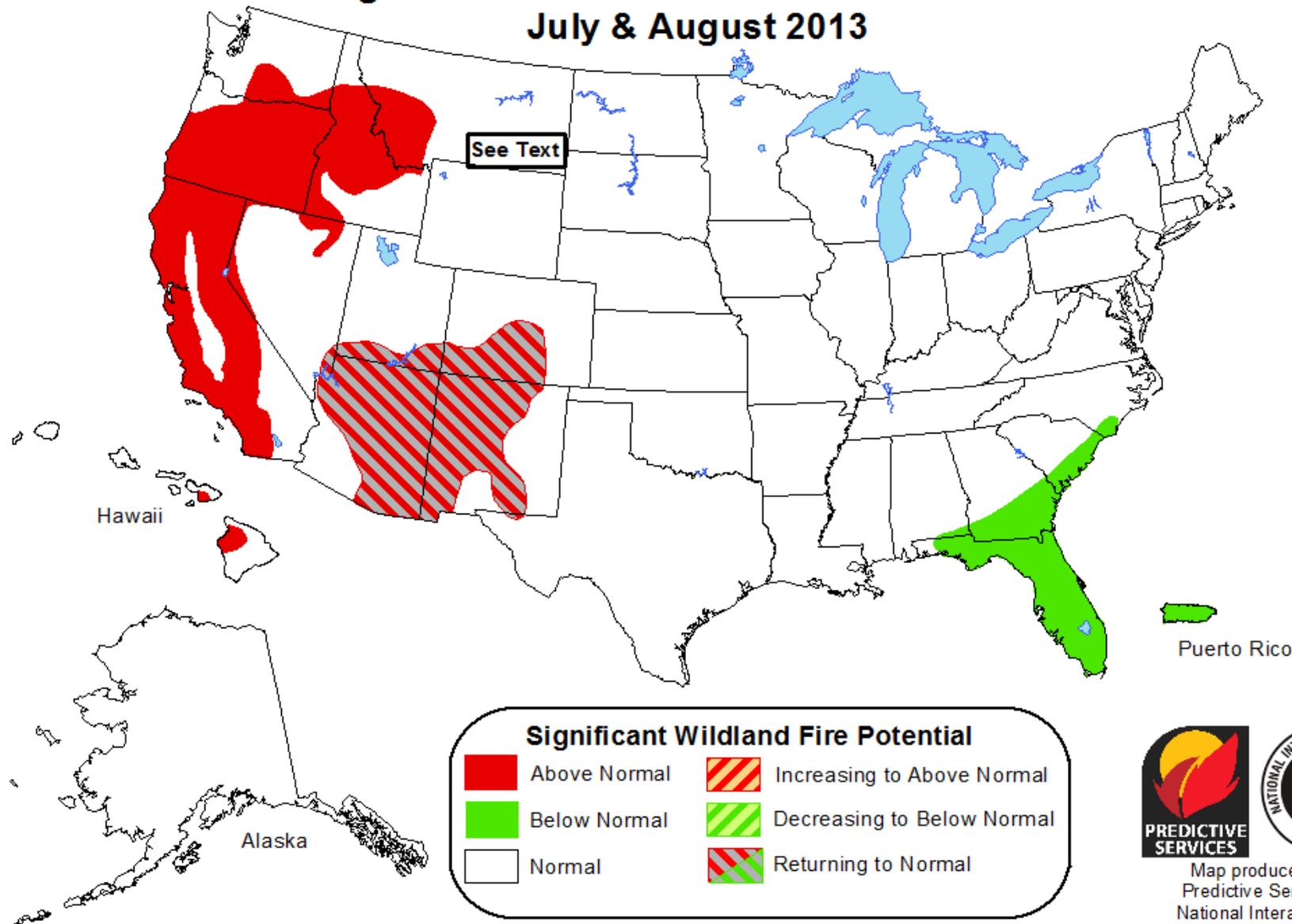


Map produced by  
Predictive Services,  
National Interagency  
Coordination Center  
Boise, Idaho

Issued May 1, 2013  
Next issuance June 1, 2013

Above normal significant wildland fire potential indicates a higher than usual likelihood that wildland fires will occur and/or become significant events. Wildland fires are still expected to occur during forecasted normal conditions as would usually be expected during the outlook period. Significant wildland fires are still possible but less likely than usual during forecasted below normal periods.

# Significant Wildland Fire Potential Outlook July & August 2013



## Significant Wildland Fire Potential

|   |              |  |                            |
|---|--------------|--|----------------------------|
|  | Above Normal |  | Increasing to Above Normal |
|  | Below Normal |  | Decreasing to Below Normal |
|  | Normal       |  | Returning to Normal        |



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Thanks.....

**QUESTIONS?**