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

U.S. Drought Monitor

Composite Standardized Temperature Anomalies

Composite Standardized Precipitation Anomalies

Multivariate ENSO Index

Standardized Departure

NWS/ESRL/Physical Science Division - University of Colorado at Boulder/CHRES/CDC
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

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

- 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

Southern Plains Drought Outlook

Below normal precipitation and above normal temperatures are expected for the majority of the Southern Plains for the next 2 months through May 2012. 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...
On to the Summer 2013 Outlook

First...what the models are saying
Return to La Nina Later in 2013?
Typical Fall-Winter La Nina Precipitation

SON Precipitation versus MEI (1956–2005)

DJF Precipitation versus MEI (1956–2005)

Correlation Coefficient

-0.8 -0.6 -0.4 -0.2 0.0 0.2 0.4 0.6

Fall

Winter
Next...the official (NOAA) outlooks
Official June 2013 Temperature Outlook

ONE-MONTH OUTLOOK
TEMPERATURE PROBABILITY
0.5 MONTH LEAD
VALID JUN 2013
MADE 16 MAY 2013

EC MEANS EQUAL
CHANCES FOR A, N, B
A MEANS ABOVE
N MEANS NORMAL
B MEANS BELOW
Official June 2013 Precipitation Outlook
Official Summer Temperature Outlook

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

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

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

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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:**
- Brown: Drought to persist or intensify
- Yellow: Drought development likely
- Green: Drought likely to improve, impacts ease
- Red & Yellow: Drought ongoing, some improvement

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
- Returning to Normal
- Normal

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.

Map produced by Predictive Services, National Interagency Coordination Center Boise, Idaho
Issued May 1, 2013
Next issuance June 1, 2013
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Thanks.....

QUESTIONS?