Welcome to the next in the series of central US drought status and outlook webinars through the cooperation of several regional partners including NOAA/USDA/RCCs/SCs and several other partnering groups. These webinars are intended to provide a status update and present what we see as the most likely directions weather/climate issues are going from here.

We are taking the opportunity to address some of the longer term weather and climate concerns in the central US to help you all plan a little better in the upcoming months. We hope to deliver information pertinent to your decision making needs. So thanks to those other agencies and organizations for your input to this presentation.

This Webinar is meant to be an overview of the current climate situation and what we may expect in the coming months. It is also meant primarily for stakeholders and partners in other agencies, tribes, state and local governments, universities and various interests from agriculture, water resources, natural resources and ecosystems.
General Information

- **Providing climate services to the Central Region**
  - Collaboration with Jim Angel (Illinois State Climatologist),
    Doug Kluck (NOAA - RCSD) and John Eise (Climate Service Program Manager), State Climatologists and the Midwest Regional Climate Center, High Plains Regional Climate Center, NOAA's Climate Prediction Center, National Drought Mitigation Center, Iowa State University

- **Next Climate/Drought Outlook Webinar**
  - February 21, 2013 (1 PM CST)

- **Access to Climate/Drought Webinars and information**
  - [http://mrcc.isws.illinois.edu/webinars.htm](http://mrcc.isws.illinois.edu/webinars.htm)
  - [http://www.hprcc.unl.edu](http://www.hprcc.unl.edu)

- **Operator Assistance for questions at the end**
The structure of the webinars is to review current climate conditions and put them in some historical context. We will look back at what has led up to the situation we are in and then look ahead using the Climate Prediction Center Outlooks and Drought Monitor Outlooks.
Precipitation averaged across the CONUS in 2012 was 26.57 inches, which is 2.57 inches below the 20th century average. Precipitation totals in 2012 ranked as the 15th driest year on record.
In 2012, the contiguous United States (CONUS) average annual temperature of 55.3°F was 3.2°F above the 20th century average, and was the warmest year in the 1895-2012 period of record for the nation. The 2012 annual temperature was 1.0°F warmer than the previous record warm year of 1998.
Last 30 days Precipitation and Percent of Normal
Snowfall – Percent of Average

Accumulated Snowfall: Percent of Mean
October 1, 2012 to January 17, 2013

Mean period is 1981-2010.

Midwestern Regional Climate Center
MRCC Applied Climate System
Generated at: 1/17/2013 9:49:22 AM CST
This plot is created by the NOAA group NOHRSC which uses various inputs (surface measurements, satellites, airplane flights and other information) to create this map.
Current Soil Moisture

Ensemble Mean - Current Total Column Soil Moisture Anomaly (mm)
NCEP NLDAS Products Valid: JAN 12, 2013

Map showing soil moisture conditions across the United States.

http://www.emc.ncep.noaa.gov/mmb/nldas/drought/
U.S. Hay Areas Experiencing Drought

Reflects January 15, 2013
U.S. Drought Monitor data

Approximately 61% of the domestic hay acreage is within an area experiencing drought, based on NASS 2007 Census of Agriculture data.

- Major and minor agricultural areas are based on NASS 2007 Census of Agriculture data. Counties shaded in gray contain data that are not published by NASS, and hence were not used in delimiting the major and minor agricultural areas. Additional information on these agricultural data can be found at: http://www.nass.usda.gov/

Mapped drought areas are derived from the U.S. Drought Monitor project and do not depict the intensity of drought in any particular location. More information on the Drought Monitor can be found at: http://www.drought.unl.edu/drought_mon/
U.S. Winter Wheat Areas Experiencing Drought

Reflects January 15, 2013
U.S. Drought Monitor data

Approximately 60% of the winter wheat grown in the U.S. is within an area experiencing drought, based on historical NASS crop production data.

Major and minor agricultural areas are derived from NASS county-level crop production data from 2006 to 2010. Additional information on these agricultural data can be found at: http://www.nass.usda.gov/.

Mapped drought areas are derived from the U.S. Drought Monitor product and do not depict the intensity of drought in any particular location. More information on the Drought Monitor can be found at: http://www.drought.usda.gov/monitor/level/.

- Major areas combined account for 75% of the total national production annually.
- Major and minor areas combined account for 99% of the total national production annually.

USDA Agricultural Weather Assessments
World Agricultural Outlook Board
http://coastwatch.glerl.noaa.gov/cwdata/lct/glsea.png
Climate Outlooks

- 6-10 and 8-14 days out
- February
- 3 Months (February - April)
- www.cpc.ncep.noaa.gov
- Drought Monitor Outlook

- Released Thursday 1/17/2013
Temperature and Precipitation Probabilities for Jan 22-26

Temperature
Precipitation
http://www.cpc.ncep.noaa.gov/products/predictions/610day/index.php
Temperature and Precipitation Probabilities for Jan 24-30

Temperature
Precipitation

http://www.cpc.ncep.noaa.gov/products/predictions/610day/index.php
February Temperature and Precipitation Probabilities

Temperature

Precipitation

http://www.cpc.ncep.noaa.gov/products/predictions/30day/
3 Month Temperature and Precipitation Probabilities
(February-April)

Temperature
Precipitation
http://www.cpc.ncep.noaa.gov/products/predictions/long_range/seasonal.php?lead=1
Drought Outlook

U.S. Seasonal Drought Outlook
Drought Tendency During the Valid Period
Valid for January 17 - April 30, 2013
Released January 17, 2013

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

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.

Summary

* **Current Conditions**
  * Improved conditions in the eastern half of Corn Belt
  * Lack of recovery still in the Plains generally
  * Snow drought in some Plains and Midwestern states

* **Predictions**
  * February – colder and wetter in the upper Plains
  * 3-month – colder in Dakotas and Montana, warmer in Colorado and Kansas
  * 3-month – wetter in upper Midwest/Great Lakes region
  * Drought improvement in IL, IA, WI, MN, ND; persist in MO, KS, NE, CO, WY
We will load the recorded Webinar as quickly as we can at the web site mentioned on this slide.

Several other links are included here as were emailed after the webinar last month.
Thank you for coming everyone. What questions do you have at this point?

I/We would like your feedback on the Webinar and it’s worth to you. Please do not hesitate to email your suggestions or questions to me at dennis.todey@sdstate.edu or doug.kluck@noaa.gov. We will be doing a more formal survey and evaluation. That is in process currently.

We will now open it up to questions
National Disaster Recovery Framework

Strengthening Disaster Recovery for the Nation
September 2011

✓ Collaboration
✓ Coordination
✓ Communication
October 9 – Omaha, NE
October 15 – Pueblo, CO
October 17 – Pine Bluffs, AR
November 9 – Tribal Call
November 27 – Archbold, OH
Sec. Vilsack: “Resources are limited, so we will have to be smart.”

✓ The goal of the this new framework and these meetings is to make sure the full resources of the federal government are brought to bear...(from A to V) from Agriculture to Veterans Affairs...and that communication isn’t a barrier.
Issue Subjects from the Drought Meetings:

- Community Planning
- Economic
- Federal Government
- Fire Management
- Forecasting
- Natural Resources Management
- Policy
- Public Health
- Research and Education
- Transportation
5 Main Focus Areas

- Water
- Research
- Regulations
- Forecasting
- Policy
“If we think Creatively and Comprehensively, there isn’t a problem we can’t solve.”

-Secretary of Agriculture, Tom Vilsack
“We must take Change by the hand, for if we don’t, it most assuredly will take us by the throat.”

–Winston Churchill
Actions In Action

✓ Pilot Program by NRCS
  ...to remove sediments from ponds to help provide more water for livestock or irrigation (Kansas & Colorado)

✓ MOU with Department of Commerce (NOAA)
  ...to improve sharing of data and expertise, monitoring networks and drought forecasting efforts
Recovery Support Functions (RSF) created within the National Disaster Recovery Framework:

- Community Planning & Capacity Building (FEMA)
- Economic (EDA)
- Health & Social Services (HHS)
- Housing (HUD)
- Infrastructure (Army Corps)
- Natural & Cultural Resources (DOI)

The RSFs bring together the Federal departments & agencies & other supporting organizations- including those not active in emergency response-to focus on recovery needs.
✓ Agriculture
✓ Commerce
✓ Defense
✓ Education
✓ Energy
✓ HUD
✓ Homeland Security
✓ Interior
✓ Labor
✓ State
✓ Transportation
✓ Treasury
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