

CARC Meeting Minutes (approved June 28, 2016)  
Tuesday, Nov. 17, 2015  
9:30 a.m. 901 Hardin Hall East Campus  
Meeting called to order at 9:34 a.m.

In Attendance:

*Committee Members:* Bobbie Kriz-Wickham (chair), Nebraska Department of Agriculture; Barb Cooksley, Rancher; Mary Baker, Nebraska Emergency Management Agency; Michael Hayes, National Drought Mitigation Center; Rick Koelsch, University of Nebraska Extension; and Mike Thompson (for Committee member Shuhai Zheng), Nebraska Department of Natural Resources

*Staff and Audience:* Mark Svoboda, National Drought Mitigation Center; Brian Fuchs, National Drought Mitigation Center; Al Dutcher, State Climatologist; Steve Roth, Nebraska Department of Agriculture; Jordan Dux, Nebraska Farm Bureau; Wayne Vanek, Natural Resources Conservation Service; Martha Shulski, University of Nebraska-High Plains Regional Climate Center; Barb Mayes Boustead, National Weather Service; Nick Streff, National Ag Statistics Service; Boone McAfee, Nebraska Corn Board; Jason Lambrecht, U.S. Geological Survey; Scott Sprague, Nebraska Dept. of Health and Human Services; Doug Klein, USDA Farm Service Agency; and Claire Pohlen, representative for Congressman Jeff Fortenberry

Committee Chair Bobbie Kriz-Wickham opened the meeting.

Minutes from the May 20, 2015, CARC meeting were accepted by the Committee.

Reports were provided as follows:

**Nick Streff, USDA-NASS, *Crop Report***

A handout with the USDA Nov. 1 crop production, yield and soil moisture reports was provided. The report will be posted on the CARC website.

Streff noted that based on November 1 conditions, Nebraska's 2015 corn crop is forecast at a record high 1.68 billion bushels, up 5 percent from last year. Average corn yield is also forecast at a record high of 187 bushels per acre average, up 8 bushels from last year.

Soybean production in Nebraska is forecast at a record high 291 million bushels, 1 percent above last year. Record soybean yield is forecast at 56 bushels per acre average, up 2 bushels from a year ago.

Sorghum production for Nebraska is forecast at 1.35 million tons, up 94 percent from a year ago. Record yield is forecast at 106 bushels per acre average, up 24 bushels an acre from last year.

Streff pointed out that as of Nov. 15, 2015, the topsoil moisture for Nebraska was 6 percent very short, 26 percent short, 67 percent adequate, and 1 percent surplus. The subsoil moisture was 6 percent very short, 28 percent short, 65 percent adequate and 1 percent surplus.

**Brian Fuchs, National Drought Mitigation Center, *Water Availability and Outlook Report***

Current Drought Conditions in Nebraska and the region

In showing slides of the U.S. Drought Monitor maps, Fuchs pointed out that last November Nebraska was in fairly good shape statewide with only a few counties categorized as abnormally dry. However, as the map from May of this year (the last CARC meeting) demonstrated, there was an area from the SW corner of the state, extending into the NE corner of the state that was growing in dryness with some abnormally dry and D1 areas. The most recent map, Nov. 10, 2015, shows that rainfall in some of the previously dry areas this fall had eliminated the majority of the drought areas in Nebraska. Only a small area along the Kansas border was still in the abnormally dry to D1 stage.

In looking at the Drought Monitor classification changes for the last three months, Nebraska had a small area along the Kansas border that had a one class degradation of change, going from no drought to a D1 stage. However, since Jan. 1, 2015, Nebraska had several counties, primarily in the SW area of the state, which had a one drought class improvement.

In May of 2015, Drought Monitor maps showed 20 percent of Nebraska in D1 classification, while the November Drought Monitor map shows Nebraska with only 1.7 percent of the state in D1 classification.

Data showing the percent of normal precipitation in Nebraska for the last 30 days reveals that much of the central part of the state to the west was above normal precipitation. In southwest Nebraska where there had been D1 drought conditions, precipitation was far above normal, alleviating some of those dry conditions.

Extending the percent of normal precipitation data for Nebraska over the previous 60 and 90 day periods, maps show several areas of the state had begun drying out mid- to late- summer, with early drought conditions building in those areas. However, the fall rains have now alleviated some of those concerns.

Current top- and sub-soil moisture maps have Nebraska in fairly good shape except in the southern portion of the state, extending along the Kansas border to southcentral Nebraska. The soil moisture in that area is starting to denigrate and become fairly dry.

The U.S. Seasonal Drought Outlook map, valid through Jan. 31, 2016, shows Nebraska in good shape, with no predicted drought conditions.

There continues to be a high probability that the El Nino event will continue to intensify through early- to mid- winter, likely bringing with it above normal temperatures and precipitation in Nebraska. The current outlook for this spring is more of a neutral pattern. However, past history has shown that an El Nino event has been followed by a La Nina event. La Nina many times brings with it below normal temperatures and precipitation to Nebraska.

Water supply conditions

Lake McConaughy is currently 85 percent of maximum capacity, an increase of 7 percent since the CARC meeting in May. This is unusual since the increase took place during the peak irrigation season. This was due to above normal rainfall, less irrigation and more water being released from the Platte River Basin.

Inflows into McConaughy have declined recently since more water is being held in Wyoming.

Meanwhile, snowpack in the upper North Platte River Basin that feeds into McConaughy has already begun accumulating, with 1 to 2 feet of snow reported in some areas since Oct. 1.

The Platte River continues to have above normal flows for this time of year, and it is expected to continue.

The Republican River Basin is the one area of the state that has below normal river flows due to some drier conditions in that area this summer.

In summary, Fuchs said there are no hydrological issues in the state as we go into winter.

**Al Dutcher, State Climatologist: *Nebraska Climate Update***

Dutcher's overview of the Nebraska weather since the May CARC meeting was that the spring was very wet for much of the state, followed by a very dry period toward late summer. That dry spell resulted in a drawdown of some stored water due to increased irrigation at that time. However, rain and snow across the state this fall is alleviating some of the drought concerns.

Dutcher said there are some concerns of a possible overabundance of water this spring, if Nebraska continues to have a full water profile in the soil through the winter and receive heavy snows in the river basin areas.

In looking at precipitation trends for Nebraska in the next 30 to 60 days, Dutcher said the western half of the state should be positive for soil moisture recharge. For southern and southeastern Nebraska, he expects a negative soil moisture recharge during that time period.

The probability for the El Nino event to continue through winter, and possibly strengthen, continues to be very high. This El Nino event may go down as the strongest in history.

The potential impacts of El Nino in 2016 for Nebraska include:

- Strong fall/early winter low pressure systems
- Higher snow water equivalent storms (wetter snow events)
- Unfrozen ground could result in above normal soil moisture recharge during winter months
- Split flow during winter could mean above normal temperatures, light storm activity (Jan.-Feb.)
- Heavy mountain snows could test Platte watershed reservoir storage
- Tendency for wet and cool conditions during late winter through mid-spring
- Dry trend if El Nino is still in place going into early summer

Nebraska does have the potential for a lot of snowfall, but snow could be wet and if the hard frost doesn't come, that could make a difference on how snow recharges the dry soil. Temperatures may fluctuate.

Dutcher's presentation will be posted on the CARC website.

Barb Mayes Boustead from the National Weather Service in Omaha pointed out that El Nino forecasts can be very difficult to predict because just one degree variance can be the difference between receiving one inch of snow or six inches of snow, or one inch of snow and no snow. That small temperature difference can also mean the difference from receiving rain instead of snow.

**Bobbie Kriz-Wickham, CARC Chair: *Revised Drought Mitigation and Response Plan, and revised CARC website***

Kriz-Wickham mentioned that the drought plan revisions had been done as a result of the suggestion from committee member Barb Cooksley at the last meeting. Parts of the document had become outdated since it was approved in 2000.

The primary revisions included updating the language to be current and in the present tense, along with revisions of many of the agency and organization descriptions.

Kriz-Wickham said the Planned Mitigation Actions matrices at the back of the drought plan still need to be reviewed and revised. She plans to contact the persons or agencies/organizations who were originally involved in the development of the matrices to review the document and make suggested changes.

After all revisions to the Drought Mitigation and Response Plan are complete, the document will be presented to CARC for approval.

### **Misc. Business and Comments**

Committee member Mike Hayes, Director, National Drought Mitigation Center, told committee members that he was leaving his current position to take a faculty position at the University of Nebraska-Lincoln. Hayes said that he will remain director until the position is filled, following an international search for a new director.

Martha Shulski, Director, High Plains Regional Climate Center (HPRCC) announced that the University of Nebraska-Lincoln will be establishing an official State Climatology Office on campus beginning Jan.1, 2016. As a result, she will be resigning her position with HPRCC to take the position as State Climatologist. Al Dutcher, who has been serving as State Climatologist but not in an official office capacity, will take the role as Associate Climatologist in the new office. Natalie Umphlett with NOAA, has been appointed Interim Director of the HPRCC while an international search for a permanent director for the center is being conducted.

Kriz-Wickham reminded meeting attendees that the Drought Mitigation Center will be celebrating their 20<sup>th</sup> anniversary on December 8<sup>th</sup> from 5-7 p.m. at the International Quilt Study Center and Museum in Lincoln. She called attention to the important contributions by the center's staff to CARC over the years and encouraged people to attend the anniversary celebration.

Committee member Rick Koelsch inquired if CARC should consider taking up other topics at meetings in addition to drought. He felt the committee should consider looking at other significant weather events, such as extreme rain events, to see if there is a need for assessment and possible mitigation steps that could be taken.

Most of the discussion by committee members centered on extreme rain events and the availability of data and other resources to analyze such event probabilities and possible mitigation.

Kriz-Wickham said she would contact some of the committee members who expressed the most interest in the topic and ask them to assist in examining the needs and resources needed to pursue the idea. She did say that a segment of upcoming meetings could be set aside to discuss other events outside of drought.

Meeting adjourned at 11:21 a.m.