

CARC Meeting Minutes

Wednesday, July 29, 2020
Nebraska Department of Agriculture
301 Centennial Mall South, 4th Floor
Lincoln, NE

Meeting was called to order at 9:32 a.m.

In Attendance:

Committee members: Amelia Breinig (chair), Nebraska Department of Agriculture; Dr. Shuhai Zheng, Nebraska Department of Natural Resources; Matt Joeckel, UNL Conservation and Survey Division; Carl Sousek, crops farmer; Bryan Tuma, Nebraska Emergency Management Agency; and Rick Rasby, University of Nebraska Extension.

Staff and Audience: Brian Fuchs, National Drought Mitigation Center; Martha Shulski, Nebraska State Climatologist; Steve Roth, Nebraska Department of Agriculture; Matt Gregg, National Agricultural Statistics Service; Marcia Trompke, Central Nebraska Public Power and Irrigation District; Ginger Willson, Senator Ben Sasse's office; Aaron Hird, Natural Resources Conservation Service; Rezaul Mahmood, High Plains Regional Climate Center; Lee Klein, Congressman Fortenberry's Office, Neil Moseman, Senator Fischer's office, Eric Zach, Nebraska Game and Parks; David Pearson, NOAA; Doug Klein, Farm Service Agency; and Philip Poyner, National Weather Service, Hastings.

Committee Chair Amelia Breinig opened the meeting stating that CARC follows provisions in Nebraska's Open Meetings Act. A copy of the Act was available for review. She also had copies available of the affidavits of the public notices published in the Lincoln Journal Star and Kearney Hub newspapers on July 15, 2020.

Minutes from the Nov. 13, 2019, CARC meeting were accepted by the Committee as presented.

Reports were provided as follows:

Nebraska Drought Conditions and Water Supply Update

Presented by Brian Fuchs, National Drought Mitigation Center

Note: Maps, statistics, charts and other details are available on Fuchs's PowerPoint presentation that can be found at carc.nebraska.gov.

Past/Current Climate & Drought Report

Fuchs showed several U.S. Drought Monitor maps from the past year to the present to demonstrate how conditions have significantly changed. As of July 2019 there were no dry or drought conditions in the High Plains states. By July 2020, areas of abnormally dry and drought conditions had increased significantly in that same region. High Plains states include Nebraska, Wyoming, Colorado, North Dakota, South Dakota and Kansas.

Nebraska has followed that same trend going from zero drought conditions last July to having nearly 58 percent of the state in some category of dry or drought conditions this year. Most of that area (33 percent) was abnormally dry, with 22 percent in D1 or moderate drought conditions and 1 percent in D2 or severe drought conditions.

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Contributing to the dry conditions was a very warm July that saw a majority of high temperatures in the state range from 1-2 degrees Fahrenheit above normal, with pockets 3-4 degrees Fahrenheit above normal.

Fuchs says there has been anywhere from three to four category degradations of drought throughout the region. Colorado is one of the hardest hit states in the High Plains to date with the southern fourth of the state in extreme drought. Drought is also expanding rapidly in the other High Plains states.

Several precipitation charts that were presented demonstrated just how far behind normal the drought areas in Nebraska have been this calendar year. Some parts of western Nebraska have received less than 70 percent of normal rainfall to date. There are also areas of northeast Nebraska that have received below 70 percent of normal rainfall for the year as well. Only areas of northcentral Nebraska have had above normal precipitation for the year.

Despite the hot temperatures and dry condition in much of the state, sub-soil moisture has been adequate thanks to last year's wetter than normal conditions.

Fuchs made note that in the last six years Nebraska has not had any large areas of significant drought. Based on historical data and trends, there is an increasing probability that the state could see a significant drought in the not too distant future.

The National Climate Prediction Center's August-through-October Season Drought Outlook indicates that some areas of Nebraska currently in drought could see those conditions persist through October.

The following is the climate/drought summary presented by Fuchs:

- Warmer than normal conditions have dominated the state and region recently with regional temperatures averaging about 2-4 degrees Fahrenheit above normal the last 60 days.
- Almost the entire state of Nebraska has recorded below normal precipitation for 2020 so far with areas of northcentral Nebraska the anomaly with 4 inches above normal precipitation.
- Nebraska is currently showing 22.92 percent of the state in drought and this has been trending upwards over the last three months. Most of the drought is moderate (D1) with some pockets of severe in the Panhandle.
- The seasonal drought outlook has drought persisting in Nebraska through the end of October in the areas that are currently in drought. Some improvements could be seen in the far northwest part of the state as well as the extreme northeast.

Nebraska Water Supply Update

Water capacities for Nebraska's primary reservoirs have been dropping rapidly in the past few months due to the increased irrigation demand during hot, dry conditions. However, those reservoirs had had ample supplies due to the storage of water that took place during last year's historically wet year.

Fuch said that Nebraska's two largest reservoirs, Lake McConaughy and Harlan County, benefitted from runoff from last year's heavy rains and snowmelt. As a result, both reservoirs have been able to adequately supply irrigators in the area.

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Even reservoirs in the Republican River Basin, which typically run low in the summer have had enough water for irrigators.

Stream and river flow charts presented by Fuchs showed that most waterways in Nebraska continue to be above normal flow for the summer.

Following the water supply update, Aaron Hird, Natural Resources Conservation Service, asked if there were concerns of the return of flooding along the Missouri River following last year's devastating floods in those areas.

CARC member Brian Tuma, Nebraska Emergency Management Agency, said that he receives regular reports from the Army Corps of Engineers who manage the Missouri River. He said the Corps reports that efforts have been ongoing to lower levels of reservoirs along the river. The Corps is trying to increase as much capacity as possible in the reservoirs to mitigate the possibility of flooding this coming spring. Tuma added that drier conditions this summer have allowed for progress of repairing damaged levies along the Missouri.

The following is the water supply summary presented by Fuchs:

- Lake McConaughy is currently 70.7 percent of capacity and has been dropping rapidly due to a high irrigation demand.
- The Republican River basin reservoirs are about the same as they were in November 2019 as the water level has stabilized and is being transferred due to irrigation.
- Harlan County Reservoir is holding about 95,222 acre-feet less water now than in November 2019.
- Harlan County is holding about 185,363 acre-feet less water now than at this time last year and is about 42,420 acre-feet above average for this time of year.

Nebraska Climate Update

Presented by Martha Shulski, Nebraska State Climatologist

Note: Maps, statistics, charts and other details are available on Shulski's PowerPoint presentation that can be found at carc.nebraska.gov.

Shulski gave a recap of climate conditions in Nebraska since the 2020 growing season began. What started with a cooler than normal May turned into hot and dry conditions with the state recording its ninth warmest June on record. Most notable were the above normal low temperatures, which had a considerable impact on overall climatological conditions.

There was also a lack of precipitation throughout much of the state in June. It was the 18th driest June in Nebraska on record. Shulski pointed out that there were some localized heavy rains but not a lot of widespread general precipitation. Shulski described the scattered amounts of rain this season as "the haves and the have nots."

July conditions in the state were fairly consistent with those of June.

The most recent U.S. Drought Monitor map indicates that Nebraska has seen a one to three drought class degradation in the past 90 dates. Regions of the state are experiencing anywhere from abnormally dry to extreme drought conditions.

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The hot, dry weather is creating worsening conditions for soil moisture in western Nebraska. Recent rains in central and southeast Nebraska has helped to maintain adequate soil moisture. Overall subsoil moisture has been dropping the past 90 days.

Shulski mentioned that crop conditions in the state are starting to show effects of the lack of rainfall in some areas. She said that there were also some localized high winds up to 80 miles an hour that caused considerable damage to corn in some areas due to high incidences of green snap. In addition, pasture conditions in western Nebraska continue to deteriorate.

The six-month outlook from the National Weather Service indicates that Nebraska has a high probability of above normal temperatures. The outlook for precipitation during that period for most of the state calls for equal chances of above or below normal precipitation.

Shulski gave the following summary of key impact from the current weather conditions in Nebraska:

- Increasing pattern of dryness across Nebraska in which half is abnormally dry or worse.
- Slow start to severe weather season, but picking up lately.
- Range and pasture conditions showing declines.

Nebraska Crop Progress and Condition Report

Presented by Matt Gregg, Deputy Regional Director SDA NASS

Note: Due to technical difficulties, Gregg was unable to give his presentation verbally. His PowerPoint presentation includes May hay stocks report, 2020 planted acres and progress condition for soybeans and corn, 2020 winter wheat planted acres and yield, and upcoming USDA-NASS report release dates. Gregg's PowerPoint can be found at carc.nebraska.gov.

Other Updates from CARC Members/Advisors

Breinig read the following report submitted by CARC member Barb Cooksley who represents Nebraska's cattle industry and was unable to attend the meeting:

Sandhills are green and still holding surface water in valleys. Hilltops are drying out with the hot winds. Warmer temperatures have allowed the warm season grasses to produce good leaf growth. Storms around, but not on the ranch, have produced damaging winds and hail to many areas.

Rain/snow moisture for January through end of June is 18.5 inches; 9.7 in May and 5.5 in June, so far, 1 inch plus in July. Average annual precipitation is 19-22 inches. Let's hope it doesn't end now!

Doug Klein, Nebraska State Farm Service Agency office, submitted the following comments: *We are starting to get Emergency Hay/Graze request for CRP (Conservation Reserve Program) acres. At the moment, we have the following counties approved: Chase, Dawes, Dundy, Sioux and Stanton.*

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CARC member Rick Rasby, University of Nebraska Extension-Lincoln, provided the following comments: *UNL Extension has edited and developed new materials on managing drought conditions. Meanwhile, we have reports of cow-calf pairs coming off pastures in the southwestern part of the state because of poor pasture conditions. We are also hearing hay production is down substantially in some areas. As a result, hay prices are starting to increase. We are fortunate to have the Drought Mitigation Center in Nebraska and Martha Shulski as our State Climatologist.*

The meeting adjourned at 10:31 a.m.