

CARC Meeting Minutes (DRAFT)

Thursday, Nov. 12, 2021

Nebraska Department of Agriculture

301 Centennial Mall South, 4th Floor, Lincoln, NE

Meeting was called to order at 9:02 a.m.

In Attendance:

Committee members: Cicely Batie (Chair), Nebraska Department of Agriculture; Dr. Shuhai Zheng, Nebraska Department of Natural Resources; Carl Sousek, crops farmer representative; Erv Portis Nebraska Emergency Management Agency; Mark Svoboda, National Drought Mitigation Center; Becky Wisell, Nebraska Department of Health and Human Services

Staff and audience: Brian Fuchs, National Drought Mitigation Center; Martha Shulski, Nebraska State Climatologist; Nick Streff, National Agricultural Statistics Service; Steve Roth, Nebraska Department of Agriculture; Donny Christensen, Nebraska Emergency Management Agency; Neil Moseman, Office of Senator Fischer; Scott Cardenas, USDA NRCS

Committee Chair Cicely Batie opened the meeting stating that CARC follows provisions in Nebraska's Open Meetings Act. A copy of the Act was available at the Nebraska Department of Agriculture for review. She also had copies available of the affidavits of the public notices published in the Lincoln Journal Star (Oct. 15) and Kearney Hub newspapers (Oct. 22, 2021). She also introduced new CARC members Erv Portis, NEMA and Becky Wisell, DHHS.

Minutes from the July 22, 2020, CARC meeting were accepted as presented.

Batie said the Nebraska Department of Agriculture offices will be relocating to the Fallbrook area in Lincoln this spring and that a determination for the location of the next CARC meeting will be made at a later date.

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 presented U.S. Drought Monitor maps from different time periods the past year and a half demonstrating that while there continues to be many areas of drought at various stages in the western half of the country, there have been some areas of improvement in recent months.

That same pattern has held true for Nebraska, with areas of drought varying the past several months in both scope and intensity.

Warmer than normal temperatures coupled with widely scattered precipitation amounts, has resulted in what Fuchs described as a "roller coaster" of drought conditions in much of the region, including Nebraska.

Fuchs said he is paying particular attention to increasing drought conditions in Texas and Oklahoma that can have an indirect impact on Nebraska's probability of increasing drought.

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With cooler temperatures occurring in the Pacific, off the west coast of the U.S., a La Nina event is expected to take place this winter. Fuchs said that he will pay particular attention how the storm track sets up across the U.S. in mid-to-late December. In a typical La Nina event, conditions south of the track tend to be warmer and drier than normal during the winter. Areas north of the track tend to be colder and wetter than normal during the winter. The position of the storm track can determine which type of conditions may occur in Nebraska depending on which side of the track an area is located. He added that track can fluctuate which means conditions in parts of Nebraska could be warm and dry during one period of time, and switch to cold and wet conditions fairly rapidly.

The National Weather Service winter outlook (Dec.-Jan-Feb.) for Nebraska calls for equal chances of above or below normal temperatures and precipitation.

The following is the climate/drought summary from Fuchs:

- Temperatures have been warmer than normal throughout the High Plains into the Autumn season, which have been ideal for harvest conditions, but still contributing to the drought in the region. Over the last 60 days, most all the region was 2° to 4°F above normal with the greatest departures in the Dakota's where departures were 6 to 8 degrees above normal.
- Much of the region has recorded above normal temperatures this year with the Dakota's being the warmest with departures of 3° to 5°F above normal for 2021. Precipitation has been spotty and inconsistent this year with some areas very wet at times and then followed up by dryness or vice versa. A few pockets in eastern Nebraska, northcentral and southeast Kansas, southern Colorado, central Wyoming, and northeast South Dakota are showing above normal precipitation for the year.
- Nebraska is currently showing 31.57% of the state in drought. Most of the drought is moderate drought (D1) to severe drought (D2) with a pocket of extreme drought (D3) in the panhandle. This compares to early July when 21.77% of the state was in drought with only 2.15% in D2.
- The seasonal drought outlook that goes through the end of January has current drought persisting during this time.

Nebraska Water Supply Update

Nebraska's water supplies along the Platte River Basin have been relatively normal the past year with fluctuations in reservoir levels reflective of an active irrigation season this past summer. However, Fuchs pointed out the water inflows along the basin have been trending lower. He said it will be important to monitor snowpack in the Wyoming mountain ranges this winter. Runoff from that area is important in supplying water along the Platte when growing season begins in the spring. He added that storage in the reservoirs in the North Platte River Basin that feeds water into Nebraska are already at lower level than normal.

Meanwhile, most reservoirs along the Republican River Basin in Nebraska were drawn down substantially during the busy irrigation system and remain relatively low. However, the Harlan County Reservoir has maintained normal to slightly above normal storage capacity throughout the year.

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The following is Fuch's Water Supply Summary:

- Lake McConaughy is currently 59.8% of capacity and has been slowly rising since the end of the irrigation season.
- Upstream reservoirs in Wyoming are low with the series of dams on the north Platte basin only at 45% of capacity.
- The Republican River basin reservoirs are lower than they were in July 2021 as water levels have stabilized with the end of irrigation season and less demand.
- Harlan County Reservoir is holding about 20,000 acre-feet less water now than in July 2021.
- Harlan County is holding about 2,000 acre-feet more water than the historical average for this time of year.

Nebraska Climate Update

Presented by [Nebraska State Climatologist](#) Martha Shulski,

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

So far in 2021, Nebraska has experience mostly above average temperatures while precipitation has been spotty. Some areas of the state have received normal to above normal amounts of precipitation while there continues to be areas or pockets of very dry conditions.

As of the first week of November, 35% of the state has short to very short topsoil (first 6 inches) moisture, while subsoil moisture was 50% short to very short.

Shulski outlined the following implications to agriculture as a result of present conditions:

- Soil moisture values in east central and southeast Nebraska have reached levels similar to mid-January last year, but the western third of Nebraska has used up September and October moisture due to the very late frost/freeze. Grasses still grew requiring moisture that was significantly less than was received across the eastern quarter of Nebraska.
- If we can keep ground freeze up at bay, there is still an opportunity to build soil moisture reserves given decent storm activity.
- However, we are closing in on our dry season (Dec.-Jan.-Feb.) where each month accounts for approximately 2% to 3% of our annual total.

The following was her outlook summary for Nebraska for the winter months:

- Relatively weak La Niña, therefore other factors will come into play.
- We will be watching atmospheric river events on the west coast.
A very early event occurred late October and it translated eastward into a stormy pattern for the northern/central Plains.
- Recent climate trends point to warm early winter and cold/wet late winter.
- Northern Rockies should see above normal snowfall year, especially if the active pattern continues (at least one storm per week over the past two month).
- Likely to have sufficient subsoil moisture to get crops off to a good start and enough to produce a respectable crop as long as dry conditions don't develop before mid July.

Shulski said that her office utilizes the Nebraska Mesonet weather stations to gather air temperature, humidity, liquid precipitation, wind speed and direction, solar radiation, barometric pressure, soil temperature and soil moisture data from across the state. They are currently 64

stations located in 47 counties in Nebraska. Current plans are to add one weather station in 2022 and 6 more in 2023.

Nebraska Crop Progress and Condition Report

Presented by Nick Streff, Regional Director [USDA NASS Nebraska Office](#)

Note: Statistics, reports and other details are available on Streff's PowerPoint presentation that can be found at [carc.nebraska.gov](#).

The November USDA NASS Crop Production report estimates record production in 2021 for Nebraska's two largest crops, corn, and soybeans.

The state's 2021 corn crop is forecast at 1.83 billion bushels, up 3% from last year. Corn yield is forecast at 191 bushels per acre, 1 bushel below the record set in 2018.

The November estimate for Nebraska's soybean production is 344 million bushels, up 15% from last year. Soybean yield is forecast at a record 62 bushels per acre, 1 bushel more than the previous record set in 2016.

NASS released its second alfalfa and other hay crop production report for Nebraska in October. While alfalfa production of 3.74 million tons was up 15% from last year, all other hay production at 2.48 million tons was down 20% from a year ago. Total alfalfa and other hay production of 6.2 million tons was down slightly from the previous year.

Streff said that the reduction in non-alfalfa hay production was reflected in the monthly pasture condition reports that started the season off in lower than normal condition and remained that way throughout the growing season.

Other Updates from CARC Members/Advisors

Batie read the following report submitted by committee member Barb Cooksley, livestock producer representative, who was unable to attend the meeting:

"We ended the growing season with rainfall a little above average, around 19 inches. Since we calve late our pairs are still in summer pastures with plenty of grazing left. We will begin to bring in pastures next week and start our weaning process. A wonderful grazing year, few flies, few hot still days and when it was hot and still, solar wells in the pastures pumped water for cattle in addition to the traditional windmills.

Moisture in the soil profile going into winter looks good. That will be a plus for spring grass growth next year."

Committee member, Dr. Shuhi Zheng, provided an update from the Nebraska Department of Natural Resources (NDNR) and submitted the following report:

Water Administration:

During water year 2021, NDNR had its most intensive level of water administration within the last 5 years. Most of the administration occurred along the Platte River in the Central and Upper Platte, though we did have a two-week period where we were closed for NGPC Instream Flow targets in the lower Platte and its tributaries. The Department also issued closing notices in the Republican and Niobrara River basins, and in the Hat Creek basin.

Wyoming Reservoir Storage:

Based on the North Platte River Basin Water Supply Report, the reservoir storage at the end of September was 86% of the average. The report is available at the link below:

https://www.usbr.gov/gp/lakes_reservoirs/wareperts/wsnpocet.pdf

Republican River Compact Compliance Forecast:

NDNR will be presenting their Republican River forecast for next year at a meeting on November 15th. We do not anticipate next year being a Compact Call Year (carry over water supplies and accounting balances are sufficient for compliance).

The meeting was adjourned at 10:17 a.m.