

## **CARC Meeting Minutes**

Thursday, July 22, 2021

Nebraska Department of Agriculture  
301 Centennial Mall South, 4<sup>th</sup> Floor, Lincoln, NE

Meeting was called to order at 9:06 a.m.

### In Attendance:

*Committee members:* Cicely Batie (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; Mark Svoboda, National Drought Mitigation Center; State Senator Bruce Bostelman

*Staff and Audience:* Brian Fuchs, National Drought Mitigation Center; Steve Roth, Nebraska Department of Agriculture; Nick Streff, National Agricultural Statistics Service; Scott Dicke, Central Nebraska Public Power and Irrigation District; Dusty Way, Central Nebraska Public Power and Irrigation District; Jacy Hauge, Nebraska Cattlemen; Taylor Nicolaisen, National Weather Service, Omaha/Valley; Van Dewald, National Weather Service, Omaha/Valley; Kevin Rempe, KMTV; Caitlin Connell, KMTV; Kelly Brunkhorst, Nebraska Corn Board; Josh Jelden, Senator Deb Fischer's Office; Clinton Verner, Nebraska Legislative Fiscal Office; Cynthia Lamm, Legal Counsel, Legislature's Natural Resources Committee; Donny Christensen, Nebraska Emergency Management Agency

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 and Kearney Hub newspapers on July 2, 2021.

Minutes from the Dec. 8, 2020, CARC meeting were accepted by the Committee as presented.

Batie noted that due to unforeseen circumstances, State Climatologist Martha Shulski, was unable to attend the meeting but provided her prepared PowerPoint presentation. Brian Fuchs agreed to present Shulski's PowerPoint in her absence.

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](http://carc.nebraska.gov).*

### Past/Current Climate & Drought Report

In comparing U.S. Drought Monitor Maps from July 2020 to Dec. 2020 to July 2021, Fuchs noted the changes in drought conditions.

A year ago, most of the country, including Nebraska, had primarily abnormally dry conditions with just a few pockets in D1, D2 or D3 drought. By December, drought conditions had increased significantly in both area and intensity. Several states in the southwest had already developed extreme to exceptional drought conditions. All of Nebraska experienced some stage of drought, with the worst being in the Panhandle and southwest corner of the state.

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By July of this year, Nebraska, and states to the south (KS, OK, TX), saw significant improvements in drought conditions compared to December. Meanwhile, extreme and exceptional drought conditions persisted or expanded in most of the western U.S., as well as areas of the Dakotas.

Fuchs noted that fall/winter droughts in Nebraska have historically had varying results. The drought in the state this past fall and winter was the most significant drought in the state in recent years. However, late winter and spring precipitation allowed much of the state to recover from the more severe drought conditions.

Fuchs said that in the early 2000s, Nebraska saw late-year drought develop into significant drought the following year. However, there were other similar fall/winter droughts in the past couple of decades that were able to recover prior to the growing season. This unpredictability makes it uncertain what the state will be facing in the coming months.

Fuchs reviewed several precipitation, temperature and soil moisture charts that demonstrated how Nebraska moved in and out of drought in the past year and what may lie ahead.

The Climate Prediction Center's 3-month outlook for August through September for Nebraska calls for a greater chance of above normal temperatures and below normal precipitation. The U.S. Seasonal Drought Outlook for July through September indicates that drought will persist in the western third of the United States, as well as the Dakotas and along the north central border of Nebraska. Drought will continue to develop in the western third of Nebraska.

It was also noted that the National Weather Service has issued a La Nina watch with equal chances of a light to moderate La Nina developing. Such an event could have a noticeable impact on several areas of the U.S., including Nebraska.

### Climate Drought Summary

- Temperatures that have been cooler than normal recently (last 30 days), near normal at 60 days, and near normal to slightly below normal for the calendar year. That, coupled with the spotty summer thunderstorms, has been favorable in not allowing widespread drought to develop.
- Nebraska has had some very wet months and very dry months so far this year and the annual totals to date show how spotty the precipitation has been with some areas well above normal and others well below normal. Local conditions will vary drastically depending on if rains were received or not.
- Nebraska is currently showing 21.77% of the state in drought. Most of the drought is moderate drought (D1) with some severe drought (D2) in the northeast. This compares to early January when 100% of the state was in drought with over half in D2.

### Nebraska Water Supply Update

Overall, water supplies in the state have been close to normal for this time of year which is near the peak of irrigation season.

Fuchs presented several charts showing current and past water capacity level for lakes and reservoirs in the Platte and Republican River basins. Most of the conservation pools were near to slightly above or below normal compared to the historical averages.

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Most of the stream flows in the state remain strong.

### Water Supply Summary

- Lake McConaughy is currently 66.7% of capacity and has been slowly dropping since the start of the irrigation season and the surge necessary for the environmental account.
- The Republican River basin reservoirs are higher than they were in December 2020 as water levels increased since last winter's CARC meeting. Irrigation demand has been normal so far.
- Harlan County Reservoir is holding about 21,087 acre-feet, which is more water than at the last CARC meeting held in December 2020.
- Harlan County is holding about 84,480 acre-feet less water currently than the historical average for this time of year.

### **Nebraska Climate Update**

Prepared by Nebraska State Climatologist Martha Shulski, presented by Brian Fuchs.

*Note: Maps, statistics, charts and other details are available on Shulski's PowerPoint presentation that can be found at [carc.nebraska.gov](http://carc.nebraska.gov).*

Fuchs presented the slides provided by Shulski. Much of the information had also been included in his presentation.

Shulski's PowerPoint presentation included the following key points:

### Agriculture Impacts

- Severe weather – significant hail damage around Alliance, bin and pivot damage around York, so far green snap not as prevalent
- Disease – light thus far, southern rust showing up in southeast Kansas
- Southeast – Reports of very good to excellent corn and soybean conditions
- Dryland corners likely to see water/heat stress

### Outlook Summary

- Widespread warm and dry signal for August and fall to early winter.
- Drought conditions likely to worsen for western half of state.
- Widespread impacts to corn production partially dependent on current and near-term weather conditions (heat) and timely rains going forward.
- If the hit or miss precipitation pattern we've had thus far persists, would see variable impacts across state.

### **Nebraska Crop Progress and Condition Report**

Presented by Nick Streff, Regional Director USDA-NASS

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

The Nebraska hay stocks report released in May were at approximately 1 million tons which is near the 10-year average but below the 1.4 million tons in 2020. Hay production for 2020 was at 6.4 million tons, above the ten-year average of 5.8 million tons.

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The final corn planted for Nebraska in 2021 of 9.7 million acres was down from the previous year of 10.2 million acres. Soybean planted acres were up slightly from the previous year.

Nebraska wheat yield for 2021 is forecast at 50 bushels an acre which would be an increase of 9 bushels an acre from last year. Total wheat production is forecast to increase 23% from 2020.

Corn progress and condition was rated at 78% good to excellent, while soybean progress and condition was rated 81% good to excellent. Both were ahead of several other states around the country. Overall crop development in Nebraska is currently on schedule.

The abnormally dry to drought conditions in several areas of Nebraska has resulted in only 29% of pasture and rangeland conditions in the state being good to excellent and 57% rated as only fair.

Streff said that with severe to extreme drought in many areas west of Nebraska, and hot and dry conditions expected in the state the next few weeks, hay and pastureland could be short going into fall and winter.

Release of upcoming reports for USDA NASS are available on the PowerPoint.

### Other Updates from CARC Members/Advisors

Batie stated that Doug Klein, Price Support and Conservation Programs Chief, Nebraska State Farm Service Agency Office, was unable to attend the meeting but requested the following information be given:

*The FSA Livestock Forage Program (LFP) becomes available as counties are in the D2 drought category for eight weeks, or automatically, if they hit D3 or D4 drought categories. In addition, with a D3 or D4 drought designation, FSA triggers water transportation cost benefits. Emergency haying and grazing options of CRP trigger with a D2 designation. For more information and details, contact the local FSA service center.*

CARC member Mark Svoboda added that there is a tool on the National Drought Mitigation Center that producers can access to determine eligibility for FSA programs.

Carl Sousek, crops farmer representative for CARC, provided the following report:

*"I want to give an update on activities of commodity groups in relation to climate and environment. Due to my involvement with the Nebraska Corn Growers and National Corn Growers Association (NCGA), I will focus on corn.*

*NCGA recently released a National Corn Sustainability report and goals. Farmer leaders of NCGA are setting five environmental national efficiency goals to further enhance corn production sustainability in the United States by 2030:*

- *Increase land use efficiency by 12%*
- *Increase irrigation water use efficiency by 15%*
- *Reduce soil erosion by 13%*
- *Increase energy use efficiency by 13%*
- *Reduce greenhouse gas (GHG) emissions by 13%*

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*The entire report can be viewed on NCGA's website. These are national goals of the corn industry. After six years of serving on this Action Team, I have transitioned off of the committee. The current chair is now Andy Jobman of Gothenburg.*

*The NCGA has made a decision to discontinue the Soil Health Partnership. There were approximately 4,200 acres of Nebraska crop land enrolled in this program. NCGA is encouraging individual producers, land grants and Extension to utilize the seven years of data to continue to adopt practices to improve soil health.*

*Brandon Hunnicutt of Giltner has been elected as chairman of the board of Field to Market. Field to Market has developed the Field Print Calculator, which has been adopted by many commodity groups to act as framework for brands, retailers, suppliers and farmers to measure the environmental impacts of commodity production and identify opportunities for continued improvement.*

*The NCGA has contracted with the University of Arkansas to conduct a Life Cycle Assessment(LCA) of corn production in the United States. The results will help to better understand the carbon footprint of corn production and provide data to corn end users. The results are expected to be released for peer review within 60 to 90 days."*

The following is a summary of the report presented by Shuhai Zheng, Nebraska Department of Natural Resources (NDNR) representative for CARC:

### Water Rights Closing:

As of July 22, there are 52 natural flow rights and 61 storage rights that were closed in Platte River basin. There are 128 natural flow rights and 82 storage rights that were closed in Republican River basin. There are 16 natural flow rights and 4 storage rights that were closed in Niobrara River basin.

### Drought Planning Activities:

The Lower Platte Natural Resources District and NDNR staff plan to conduct a tabletop exercise for drought response on August 24.

The Republican Natural Resources District and NDNR are conducting surveys in support of drought planning in the basin.

The Upper Platte NRD and NDNR were successful in getting U.S. Bureau of Reclamation funds to support their drought planning activities.

### Missouri River Related Efforts:

As dry conditions persisted in the upper Missouri River basin, the Army Corps of Engineers reduced releases from Gavins Point Dam since July 1 and forecast a low winter releases of 12,000 cubic feet per second. NDNR staff have been in contact with the river water intake operators and asked them to prepare for the potential low flow conditions. The city of Blair might need to plan for the low winter release since their current intake would become inoperable and their on-going intake upgrade project will not be ready for operation until the end of 2022.

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NDNR and other three lower Missouri River basin states (Iowa, Kansas, Missouri) are currently working with the Corps in developing alternatives for flood risk reductions.

CARC member Mark Svoboda stated that the Nebraska State Drought Plan has not been updated for over 20 years even though it has been talked about. He said it really should be updated every five years. He added that this is the time to begin doing updates while the state is not in a severe drought because it would be more difficult to try to do it during a drought. He would like to see any planning to include the Department of Natural Resources and the Natural Resource Districts.

CARC Member Matt Joeckel, UNL-Conservation and Survey Division, mentioned the CSD provides a [Nebraska Statewide Groundwater-Level Monitoring Report](#) that can be found on their website. Those are issued annually in February.

With many new observers and advisors in attendance for the meeting, Svoboda asked Fuchs to recap the information he gave in last December's CARC meeting regarding meetings that have been taking place among state weather and climate experts in an effort to share and coordinate information.

Fuchs said under the initiative from David Pearson with the National Weather Service in Valley, a group of interested parties began meeting on the UNL campus in 2018. They discussed how to better be involved in the U.S. Drought Monitor process for Nebraska. The first meeting included representatives from the National Weather Service offices in Nebraska, National Drought Mitigation Center (NDMC), Nebraska State Climate Office, High Plains Regional Climate Center and the University of Nebraska Extension. The NDMC established an email listserv for those involved in the effort to communicate on a regular basis. Pearson conducted monthly calls to discuss the current climate conditions in the state. As drought conditions expanded and intensified across the state in 2020, additional meetings, webinars and emails were used to communicate among the group. Additional personnel involved in weather and climate became active in the group as well. Because the group was active and established, the drought of 2020 did not catch Nebraska "off guard." There are 44 people subscribed to the Nebraska Drought email listserv. Fuchs added that this is an open group and invited anyone interested in participating to contact him.

The meeting adjourned at 10:41 a.m.

Note: CARC member Barb Cooksley was unable to attend the July 22 meeting and had emailed a report. It was inadvertently missed. Here is the report:

*Rain in the Sandhills has been spotty, but so much more than to the north and west. Our ranch has received close to 14 inches so far this calendar year, 3.13 so far in July. Grass growth has been good, with extended cool season grass production and now warm season grasses predominating the pastures. Leaves are lush and thick, cattle*

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*doing well, flies and grasshoppers not a problem, at this time. We are now harvesting and baling prairie hay for future use in the upcoming winter or for the dry years ahead.*

*We are thankful for our current situation and pray for those needing relief from the drought and floods. – CARC Member Barb Cooksley*