

CARC Meeting Minutes

Wednesday, Nov. 13, 2019

901 Hardin Hall, UNL East Campus

Meeting was called to order at 9:30 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; and Bryan Tuma, Nebraska Emergency Management Agency.

Staff and Audience: Brian Fuchs, National Drought Mitigation Center; Martha Shulski, Nebraska State Climatologist; Steve Roth, Nebraska Department of Agriculture; Nick Streff, National Agricultural Statistics Service; Marcia Trompke, Central Nebraska Public Power and Irrigation District; Mike Moritz, National Weather Service-Hastings; Ginger Willson, Senator Ben Sasse's office; Donny Christensen, Nebraska Emergency Management Agency; Aaron Hird, Natural Resources Conservation Service; Dan Frazee, Congressman Don Bacon's office; Mike Gross, Congressman Don Bacon's office; Ed Holbrook, Nebraska Department of Environment and Energy; and Rezaul Mahoov, High Plains Regional Climate Center.

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 October 25, 2019.

Minutes from the June 4, 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

Upon presenting several U.S. Drought Monitor maps, Fuchs commented that Nebraska has been in one of its wetter periods from the past 20 years of monitoring. From a historical perspective, Nebraska had not gone this long between drought episodes, which raises the question: When is the next drought?

In looking at temperature graphics for the past 30 and 60 days, Fuchs said that Nebraska is stuck in a weather pattern that has been allowing cold weather to come into the region. In the last 30 days, the High Plains Region (which includes Nebraska) has been 6 to 12 degrees below normal. The 60-day trend for the region has been 2 to 4 degrees below normal. He is expecting the end of the year averages for the region to finish slightly below normal.

While precipitation charts and data indicate that Nebraska and much of the region has been in a drier period the past 30 days, precipitation amounts for the past 90 days and the calendar year have been far above normal. This has been especially true for the Dakotas, which have recorded 150 to 200 percent above normal precipitation.

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Soil moisture models indicate Nebraska has adequate moisture going into the winter period. The U.S. Seasonal Drought Outlook for the next three months is not expecting any drought conditions to develop in Nebraska or throughout the region.

The following is Fuchs's climate/drought summary:

- Cooler than normal conditions have dominated the state and region recently with regional temperatures averaging about 2 to 4°F below normal the last 60 days and 4 to 6°F below normal further to the north into the Dakotas.
- Almost the entire state of Nebraska has recorded above normal precipitation for this year so far with areas of north-central Nebraska greater than 12 inches above normal.
- Nebraska is drought free and has been since early September 2018. There has been some abnormal dryness depicted in the southwestern portion of the state since late October. The last time Nebraska had 10 percent or more of the state in drought was August 2017. The last time that Nebraska had over 10 percent of the state in severe drought (D2) was June 2014.
- The seasonal drought outlooks do not show drought conditions developing in Nebraska through the end of January 2020.

Nebraska Water Supply Update

Having experienced a very wet year in 2019, Nebraska's water levels in most of its rivers, streams, lakes and reservoirs are above to well above average for this time of year. This is especially true for rivers, streams and reservoirs in the Missouri and Platte river basins.

During irrigation season there were some dips in water levels but those quickly recovered.

Streamflows in the eastern two thirds of Nebraska continue to be well above average.

The following is Fuchs's water supply summary:

- Early snow accumulations have been taking place in the Rocky Mountains after a very wet 2018-2019 water year.
- Lake McConaughy is currently at 88 percent of capacity which is the same compared to levels in June 2019 (last CARC meeting).
- The Republican River basin reservoirs are slightly lower than in June 2019 as water levels stabilized and water is being shifted for the winter.
- Harlan County Reservoir is holding about 16,752 acre-feet more water now than in June 2019.
- Harlan County is holding about 170,632 acre-feet more water now than at this time last year and is about 196,690 acre-feet above average for this time of year (almost double).
- All reservoir levels and storage should hold steady until or even increase through the winter depending on snow accumulation in the Rocky Mountains.

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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 provided a recap of the meteorological conditions that occurred this past summer through September. She noted the extreme rainfall events that took place from South Dakota through Nebraska and along the Missouri River in Kansas and Oklahoma.

As a result, flooding remains along the Missouri River and is expected to continue for the next several months. In September, the Missouri River was six feet above flood stage at Brownville and Rulo. The National Weather Service has already started warning about the potential of possible severe flooding along the Missouri this spring.

Shulski presented several slides that demonstrated the much above average amounts of precipitation received by several states in the region this year. River and reservoir levels remain high and streamflows across the region are well above normal for this time of year. It was the third wettest January through October in Nebraska on record.

While there are some dry conditions in the first four inches of the soil profile in much of Nebraska, the deeper layers are mostly above normal. There is 30 percent water saturation all the way down to 40 inches deep in the soil. This soil saturation could present issues for potential flooding this spring.

Average temperatures in Nebraska in October were the fifth coldest on record running six degrees colder than normal.

The current outlook for Nebraska for December through February is for equal chances of above or below normal temperatures and a greater chance for above normal precipitation for the northern half of the state.

Shulski outlined potential impacts for this winter and next spring due to high streamflows, water levels and abnormally wet soil:

- Rivers freezing above flood stage
- Freezing of overland flooding
- Long-term soil damage
- Widespread ice jams, including some rivers that are not usually affected by ice jams
- Widespread record flooding again next spring
- Delay or prevention of crop planting

Nebraska Crop Progress and Condition Report

Presented by Nick Streff, USDA NASS

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

Thanks to a drier October and beginning of November, corn harvest in Nebraska has picked up to near normal levels after a slow start due to wetter conditions and a delay in crop development as a result of later planting this spring. The state remains well ahead of harvest progress compared to states in the Eastern Corn Belt that have lagged far behind all fall.

Soybean harvest in the state is completed and production is now estimated to take a significant drop from last year due to less acres planted and about a 4-bushels per acre drop in production.

Winter wheat condition is mostly in good to excellent with 87 percent emergence, slightly ahead of last year and the 5-year average.

Alfalfa production is down 4 percent from last year and all other hay production is down 18 percent from a year ago.

Other Updates from CARC Members/Advisors

Carl Sousek, who represents crop producers on CARC, commented on the extreme weather conditions farmer and ranchers in Nebraska have been faced with this year. USDA Farm Service Agency and Nebraska Resource districts have provided some assistance in regards to conservation needs but there is only so much they can do. He said that while Nebraska farmers have had their share of challenges, their counterparts in the Eastern Corn Belt have had it even worse in regards to getting a crop planted and harvested.

Aaron Hird, USDA-NRCS, mentioned that the Nebraska office issued a special funding initiative, "Cover Crop for Disaster Recovery," in response to the severe weather that caused damages across the state from throughout the first half of the year. As Shulski mentioned in her presentation, 400,000 acres of cropland was certified as prevented planting in 2019 in Nebraska. The funding for cover crops (\$2.3 million) was targeted at those prevented-plant acres and special projects funded through other initiatives and emergency response programs specifically. Approximately 125,000 acres were planted as cover crops with the hope that stabilizing the soil with roots and protecting the surface will help those fields recover but also be resilient if similar future storms result in flooding and damaging water flow.

Bryan Tuma, Nebraska Emergency Management Agency (NEMA), updated the Committee on challenges his agency has gone through since the devastating floods in the state in March. Among those challenges is working through the process to get federal funding for the enormous amount of infrastructure damage that took place across the state. Receiving funding has been a slow process due to extreme weather events and disasters that have taken place across the county the past few years. Tuma commented that one positive that has come from the situation is the partnerships NEMA has forged and maintained as a result of combine efforts during the disasters.

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

Upland prairie hay production has been tremendous. Sub-irrigated meadows were only harvested at 1/3 to 1/2 due to standing water. We baled, big round bales at 2 1/2 times the normal production. George is preparing for drought, as usual. The winter did deplete stored hay reserves and wet years allow you to put up hay for future needs.

All pastures, summer and winter, show an abundance of Indiangrass, which is typical of a wet year. The vegetative portion of all the warm season grasses was lush with minimal seed stocks making up the grass plants.

Yearly moisture total is at 29.7 inches, the months of September and October each received less than an inch.

Weaning has started, as we calve later than most, late May through June. Folks who have weaned are seeing a little lighter weight on calves. Could be stress from the winter, grass lacking nutrition from the abundant rains and rapid plant growth.

The meeting adjourned at 10:39 a.m.