

**Climate Assessment Response Committee Meeting  
April 8, 2004**

**Members Present:**

|                              |                                    |
|------------------------------|------------------------------------|
| Barb Cooksley                | Steve Soberski for Roger Patterson |
| Greg Ibach                   | Merwin Fricke                      |
| Mark Kuzila                  | Don Wilhite                        |
| Dayle Williamson             | Jack Daniel for Richard Nelson     |
| DeLynn Hay for Elbert Dickey |                                    |

**Members Absent:**

|              |               |
|--------------|---------------|
| Roger Lempke | John Erickson |
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Chairman Greg Ibach called the meeting to order at 10:08 a.m.

Al Dutcher, Nebraska State Climatologist and Chairman of the Water Availability and Outlook Committee, told the Committee about a panel discussion the University sponsored entitled “Water, Water, When and Where.” He said it is available via video streaming on the CARC web site.

Mark Svoboda with the National Drought Mitigation Center provided a Nebraska drought conditions update. He showed the U.S. Drought Monitor from August 19, 2003, noting that going into the fall Nebraska was experiencing severe drought conditions across the Panhandle and the southern part of the state. He showed the April 6, 2004, U.S. Drought Monitor, and called attention to the strip of near normal to normal conditions in extreme eastern Nebraska. The drought has pushed back to Kearney, westward, he said.

He showed a series of Percent of Normal Precipitation maps. Over the past year, there are substantial deficits in the Panhandle of Nebraska, Colorado, and Wyoming. Looking back two and three years, the picture gets even bleaker in those areas, he said.

Svoboda showed a Departure from Normal Temperatures map for March and noted warm, dry air over the Rocky Mountains caused early, quick runoff of existing snow. Generally, he said, March and April provide valuable snow pack, but he said it’s unrealistic to believe we’ll get any recovery at this point in time.

Svoboda reviewed a United States Geological Survey (USGS) map of stream flows in Nebraska for April 7. Many areas, particularly in the Republican River basin, set new low stream flows for that day. He also showed a USGS map comparing the below normal seven-day average stream flows to historical stream flows for the week of April 6. He said this map shows that eastern Nebraska, while improved at present, could have some difficulties if the spring turns dry.

Svoboda reviewed snow water equivalency charts. He noted that in the Upper North Platte basin in Wyoming the snow water equivalency was 85 percent of average in mid-March, however, that

number dropped to 65 percent of average by the beginning of April. Based on Snotel data, the Upper North Platte River basin is about 10 inches ahead of normal on water melt out. The South Platte basin snow pack also is way below normal, based on Snotel information.

The impact of the snow availability maps is reflected in the Lake McConaughy status report, Svoboda said. Inflows are well below normal and the lake is at 38.5 percent of capacity, which is seven foot below where the lake level was at this time last year. Dutcher noted that the lake's projected peak capacity will be reached in the next few weeks, when it normally doesn't happen until sometime in May.

Under Lake McConaughy's "worst case scenarios," Svoboda said if the drought continues, the lake may drop 30 to 40 feet, reaching a record low level. Also, if the drought continues, 200,000 acre feet of water could be left in the lake at the end of the 2004 irrigation season, and if it falls to this point, it is unlikely it could fill enough to guarantee full delivery of irrigation water for the 2005 season, he said. If Nebraska Public Power District uses its full supply of water and no water remains in the environmental account, the lake could be dry by the end of the 2005 season. The Committee discussed what the term "dry" actually meant in terms of whether there would be some minimum pool of water left in the lake.

Svoboda reviewed water availability in the Republican River Basin. Based on a report from the Bureau of Reclamation's McCook office, there has been no improvement this spring, and inflows are worse than 2002 and 2003. The decrease in water availability is causing strain on irrigation districts for meeting payroll and keeping personnel in place.

The reservoir levels in the Republican River Basin remain low. Harlan Reservoir fell from 52 percent capacity in March 2003 to 37 percent currently. Enders Reservoir is at 28 percent of capacity, and Swanson Reservoir is at 26 percent of capacity.

Forecasts released in mid-March show a chance of below normal temperatures for Nebraska in April through June, Svoboda said. The precipitation outlook for the same time period offers equal chances of normal, above normal, or below normal. There is no strong ocean signature, Svoboda said, so he doesn't expect any substantial changes in the new forecast maps expected next week.

He reviewed the U.S. Seasonal Drought Outlook map, noting that drought conditions will persist in the West.

Member Don Wilhite discussed the general status of reservoir levels in the West, noting that only California has snow water content that is at normal levels. All other areas are much below normal.

Dutcher noted that the problem with early melt off in the mountains is that it cuts off cold air to the atmosphere and that stops thunderstorms from forming. He cautioned that conditions are shaping up to mirror the 2002 drought.

Dutcher reviewed precipitation maps for the past month. He noted there has been no significant moisture in western Nebraska, Wyoming, or eastern Colorado over that time period. Most areas across the wheat belt have received 5 percent or less of normal precipitation over the past month.

Dutcher also reviewed a precipitation map for the period of January 1, 2004, through April 6, 2004. He called attention to the green section of the map over eastern Nebraska, noting the late January snow storm dumped 5-8 inches of moisture there.

He reviewed Precipitation and Percent of Normal Precipitation maps for the period of October 2003 through April 6, 2004. He noted that these maps show a good part of the wheat belt is at 25 percent of normal precipitation. He said wheat in some of these areas has never emerged.

In some areas of the southeast corner of Nebraska, there is not much room left in the soil profile for additional moisture, he said. In western Nebraska much of the soil profile contains less than three inches of available moisture.

Dutcher showed a Departure from Normal Precipitation map for the time period from April 2001 through April 2004. Most of the state has precipitation deficits ranging from 4 to 20 inches. In the west, some areas have lost a full year's worth of precipitation, he said.

Dutcher reviewed expected irrigation deliveries for the season. Some districts will still have a full supply of water, while others may choose not to deliver any water due to the low supplies. In a couple of cases, the lake level is too far below the level needed to deliver water to gravity-fed irrigation canals. Dutcher also said that the Platte River flows are significantly lower than this time last year. He said the river east of Kearney could run dry in the first weeks of July, rather than August as it did in 2003.

Member Barb Cooksley noted that the Dismal River has lower flows than usual. Dutcher agreed and said that may be indicative of a lower water table.

Steve Soberski, Co-chair of the CARC Agricultural, Natural Resources and Wildlife Subcommittee, reported on the Subcommittee's recent meeting. He provided a handout that lists eight possible recommendations highlighted by the Subcommittee after reviewing the state's drought plan. He noted that many of the recommendations would require a funding source.

Committee members discussed the various recommendations.

Chairman Ibach noted that the eight possible recommendations will next be reviewed by CARC's Risk Assessment Committee. That Committee will then forward recommendations to the full CARC.

Jack Daniel, Co-chair of the CARC Municipal Water Supply, Health and Energy Subcommittee, provided a report of municipal water supply conditions. He noted there is a great deal of work going on in the state to get public water systems regionalized.

Daniel also said that on the North Platte River from the Wyoming border to Bridgeport, communities are having public water system problems due to the drought. He said officials in his division of HHSS are concerned about areas in the Panhandle that rely on recharge from irrigation to help support their public water supply systems. He said they will work with communities to look at water use restrictions.

Daniel said his Subcommittee reviewed its mitigation matrix and provided mostly minor wording changes. He noted that one area the Subcommittee felt needed work was in reviewing long- and short-term drought contingency plans for all public water supply systems. Currently, regulations require such plans be in place, but there is really no oversight to ensure the plans are effective, he said. Daniel noted that HHSS has hired an individual for this purpose. Member Mark Kuzila noted the significance of having this individual in place to fulfill that need identified by the Subcommittee.

Ibach noted that RAC will meet soon to review the Subcommittees' recommendations.

Bobbie Kriz-Wickham reviewed the 2004 grasshopper suppression program. Sign-up is to begin April 26.

Member Barb Cooksley noted, in response to a question about pasture conditions, that her family has altered its cattle operation by selling some yearlings they would normally keep in order to save as much pasture as possible for grazing needs.

Member Merwin Fricke noted farm ponds are very dry.

The meeting was adjourned at 11:30 a.m.

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