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Wyoming's Climate: July 2011

Snowpack and Streamflow

The record snowpack of this season still lingers at the high elevations although most of the SnoTel sites have all but melted out. There are still roads in the Snowies that are closed and which may not open this year. Streamflow is well above normal for this time of the year with a few exceptions such as Dinwoody Creek and Bull Lake Creek in Fremont County and South Piney Creek in Johnson County. Of the sites in the National Weather Service's Advanced Hydrologic Prediction Service, only the North Platte River near Henry was still in the Action Stage at the end of July.

Precipitation

The dryness that began last month continued and increased in July. There were exceptions in a few places, however, with the southwestern corner of the state receiving in excess of 150% of Normal precipitation. The northeast corner was likewise wetter than most of the state and received above average for the month. Casper and Worland also were between 110% and 130% of Normal. Rawlins, which broke its record precipitation amount for the 5th, was also above the Normal for the month. Many stations throughout the rest of the state, however, received less than 50% of Normal precipitation with several of these being under 25%.

There was one other exception to the dryness in Wyoming this month. This was the southeast corner of the state, specifically Laramie County, where precipitation there caused the most significant weather event of the month. An intense storm on the night of 12 July unleashed a total of 2.43" of precipitation on the Cheyenne station. 1.46" of that fell within a 45-minute period. The daily total of 2.43" for the 12th of July broke the previous record rainfall amount of 1.69" for that date, which was set in 1981.

There were four CoCoRaHS reports for the storm that ranged from 3.19" to 3.82". The hail accompanying the storm was reported to be up to 2" in diameter in places and caused significant damage. Initial damage estimates put the possible total at greater than \$25 million.

While dryness prevailed throughout much of Wyoming this month, Cheyenne's 5.63" total made it the second wettest July since records began in 1871. Only July of 1896, with 6.35", was wetter.

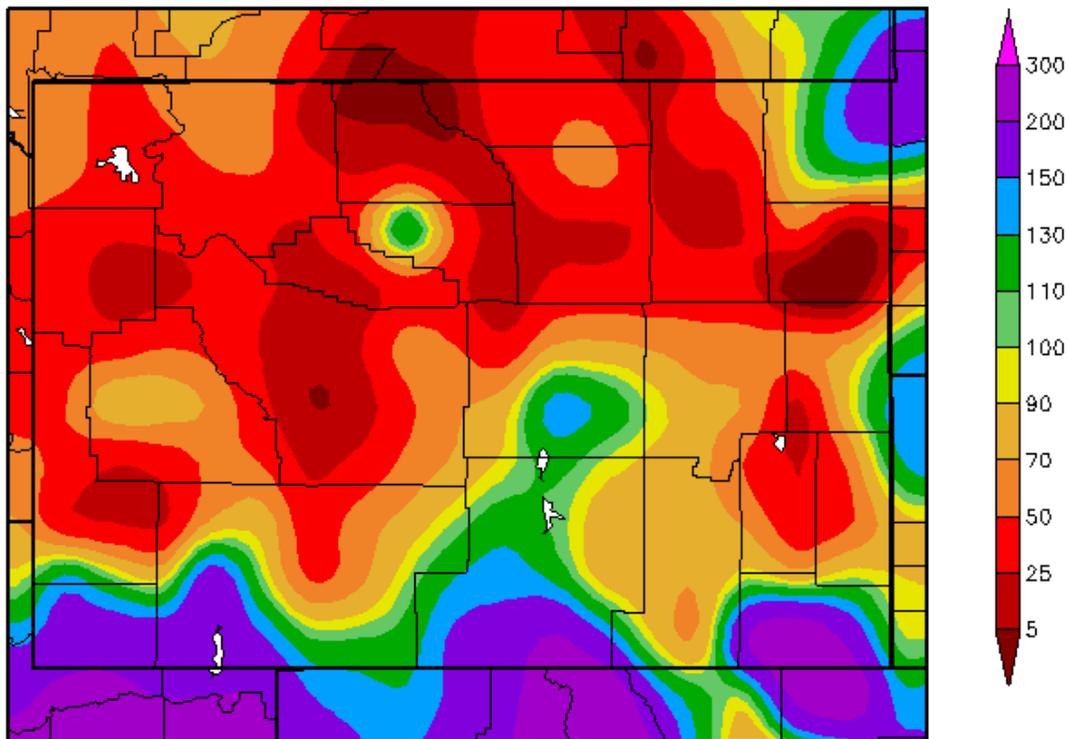
Temperature

Temperatures across the state for July were at or above Normal for most stations with the exceptions being near Flaming Gorge and near the southern edge of Yellowstone Park. While a handful of stations reported July temperatures within a degree above Normal, the rest were 1-5°F above Normal with most falling in the range of 2-4°F above Normal.

According to the US Drought Monitor (<http://www.drought.unl.edu/dm/monitor.html>) Wyoming remained “drought free” again for the month of July. Since January 2000 there have been less than 10 months total when the state has enjoyed a similar US Drought Monitor status. Heading into August 2011 the focus has shifted from the potential of flooding to keeping a watch on the dryness that has started to take precedence in portions of the state.

This report was prepared by the Wyoming State Climate Office, which is a division of the Wyoming Water Resources Data System at the University of Wyoming. More information can be found at: <http://www.wrds.uwyo.edu> and http://www.wrds.uwyo.edu/sco/climate_office.html. Special thanks to the National Weather Service’s Riverton and Cheyenne Offices and the NRCS Casper Office for supplying much of the data and information used in this report.

Percent of Normal Precipitation (%) 7/1/2011 – 7/31/2011

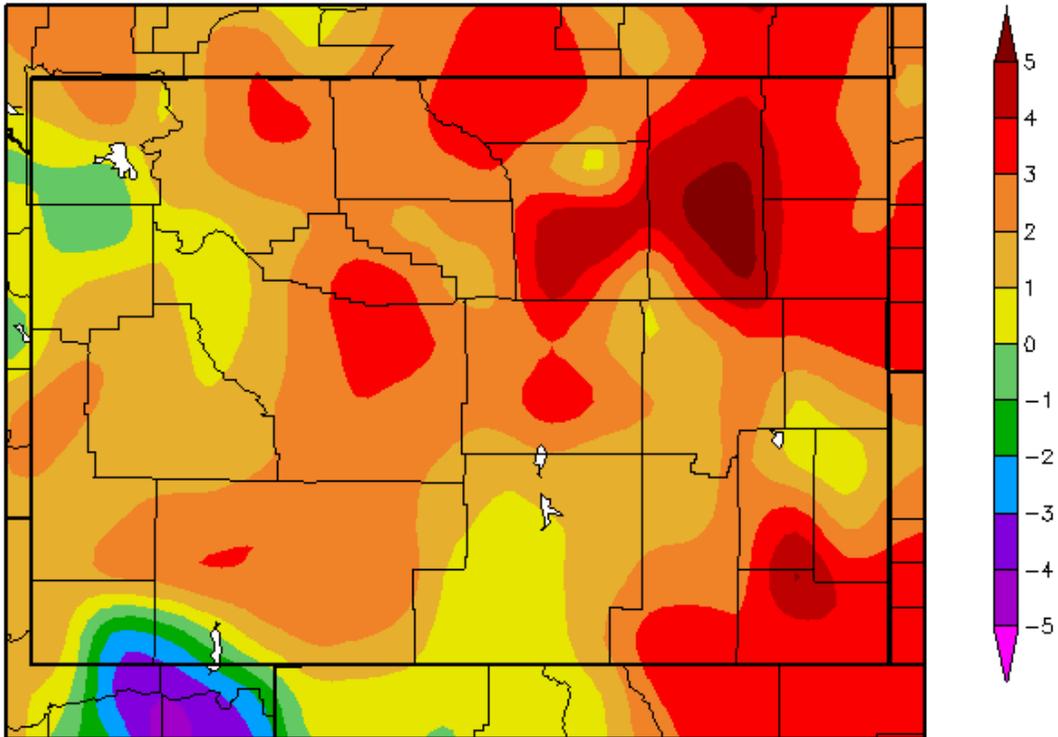


Generated 8/1/2011 at HPRCC using provisional data.

Regional Climate Centers

Map showing July 2011 precipitation as a percentage of historical averages (vs. 1971-2000 “normal” period) for Wyoming. Courtesy of the High Plains Regional Climate Center.

Departure from Normal Temperature (F)
7/1/2011 – 7/31/2011



Generated 8/1/2011 at HPRCC using provisional data.

Regional Climate Centers

Map showing mean July 2011 temperatures as departures from historical averages (vs. 1971-2000 “normal” period) for Wyoming. Courtesy of the High Plains Regional Climate Center.