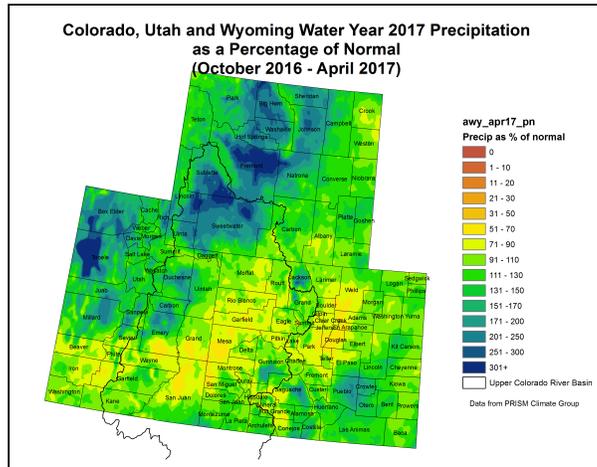
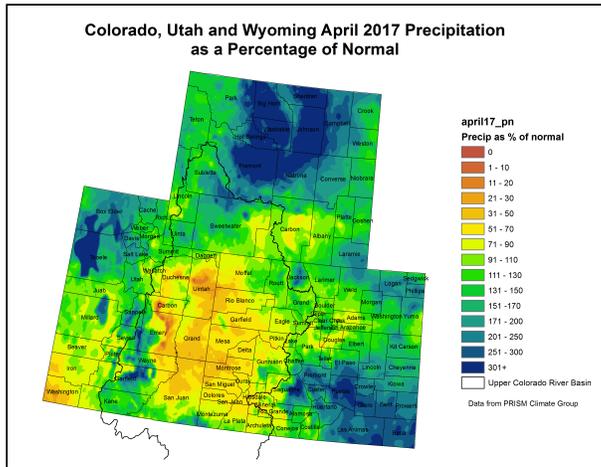
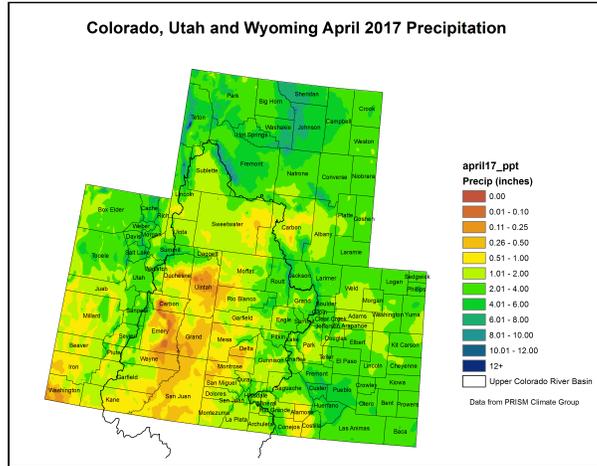
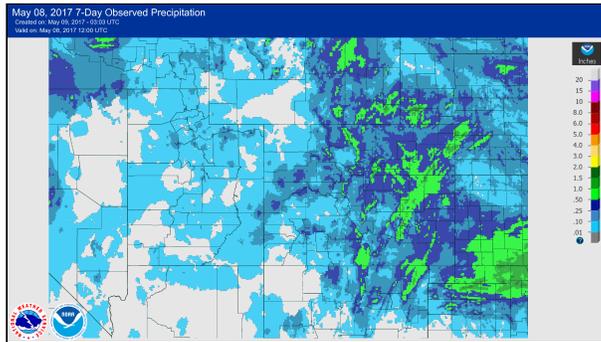


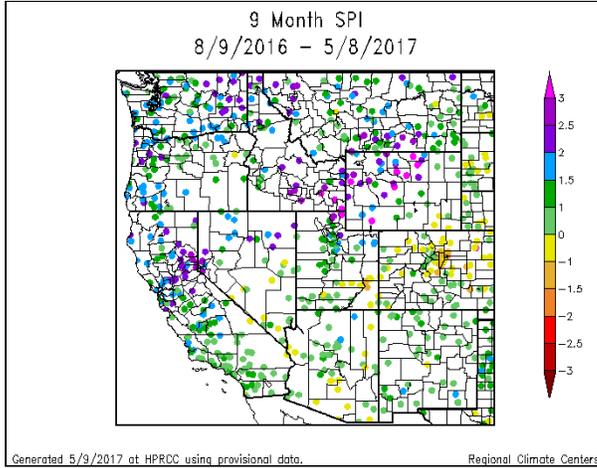
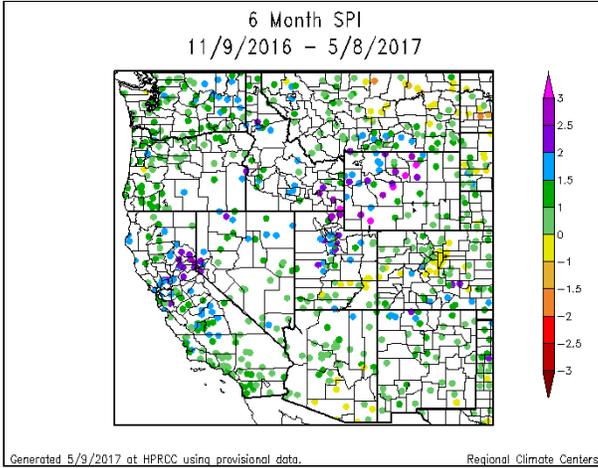
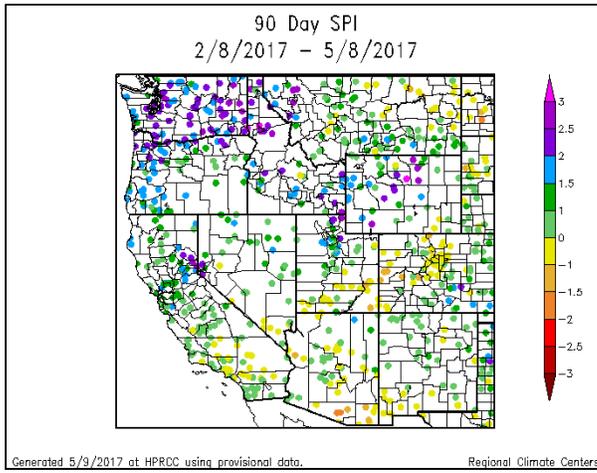
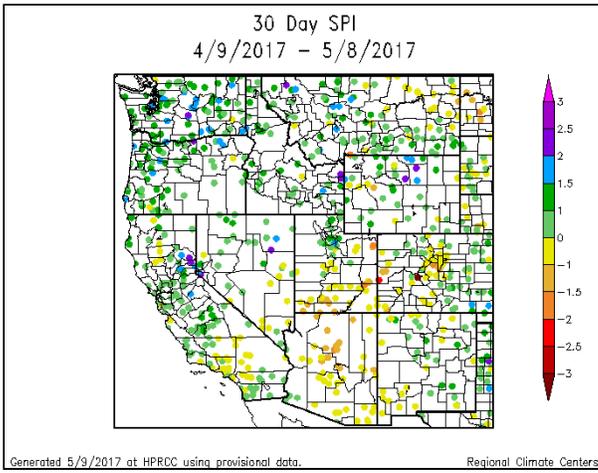
# NIDIS Intermountain West Drought Early Warning System May 9, 2017

## Precipitation



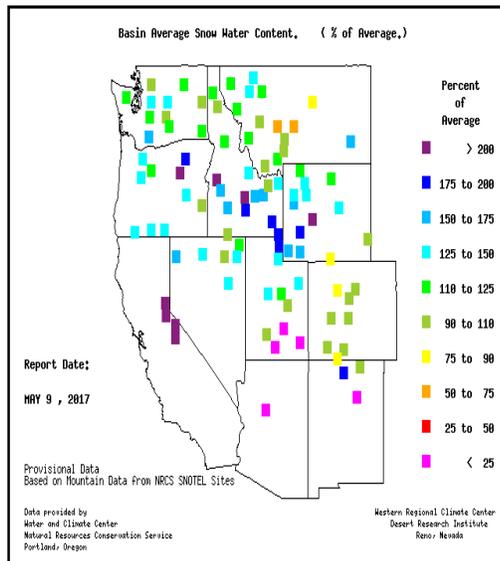
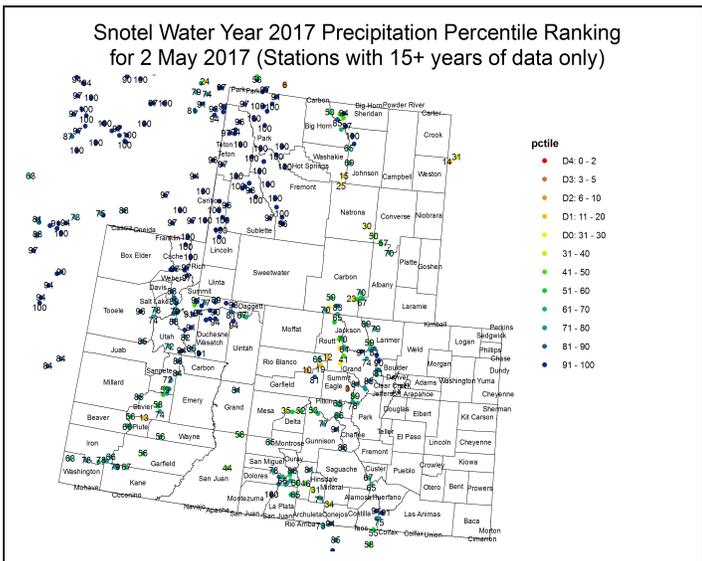
The images above use daily precipitation statistics from NWS COOP, CoCoRaHS, and CoAgMet stations. From top to bottom, and left to right: most recent 7-days of accumulated precipitation in inches; current month-to-date accumulated precipitation in inches; last month's precipitation as a percent of average; water-year-to-date precipitation as a percent of average.

## Standardized Precipitation Index



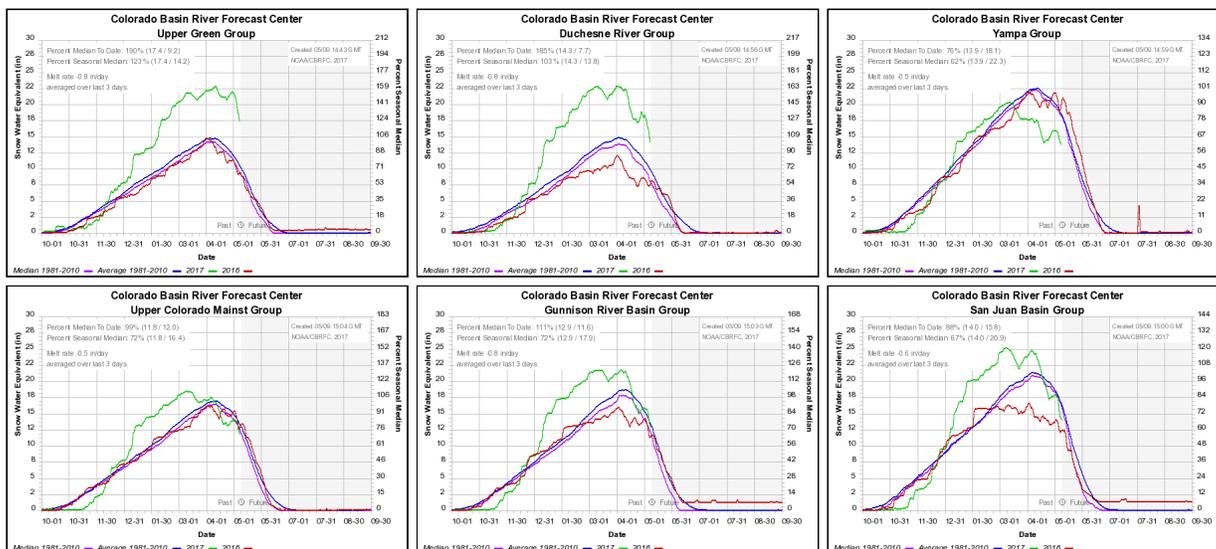
Standardized Precipitation Index standardizes precipitation accumulations for a specified time period into percentile rankings. -1.0 to -1.5 is equivalent to a D1 to D2. -1.5 to -2.0 is equivalent to a D2 to D3. -2.0 and worse is equivalent to a D3 to D4. 30- and 60-day SPIs focus on short-term conditions while 6- and 9-month SPIs focus on long-term conditions. SPI data provided by High Plains Regional Climate Center.

## Snotel and Snowpack

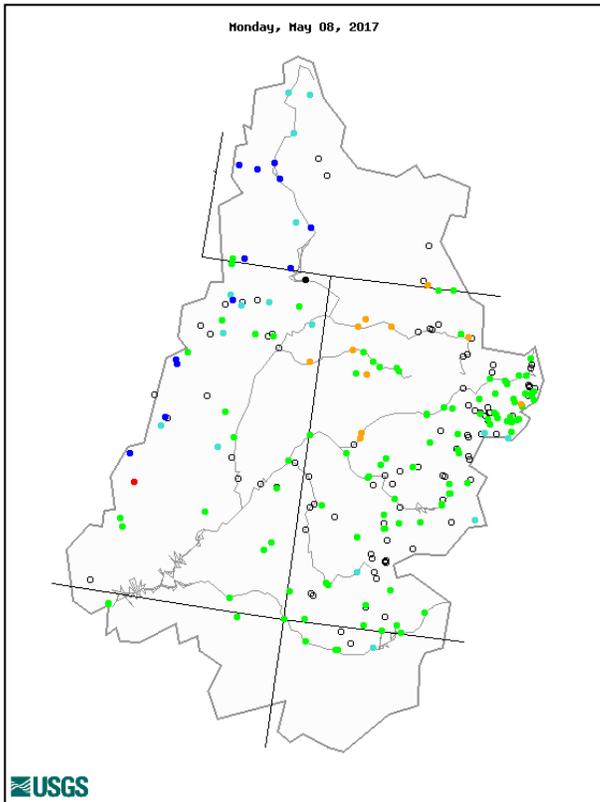


The top left image shows the Natural Resources Conservation Service's SNOTEL water-year-to-date precipitation percentile rankings. The top right image shows sub-basin averaged snow water equivalent accumulations as a percent of average. The images below show accumulated snow water equivalent in inches (green) compared to average (blue) and last year (red) for

several different sub-basins across the UCRB (and were created by the Colorado Basin River Forecast Center).

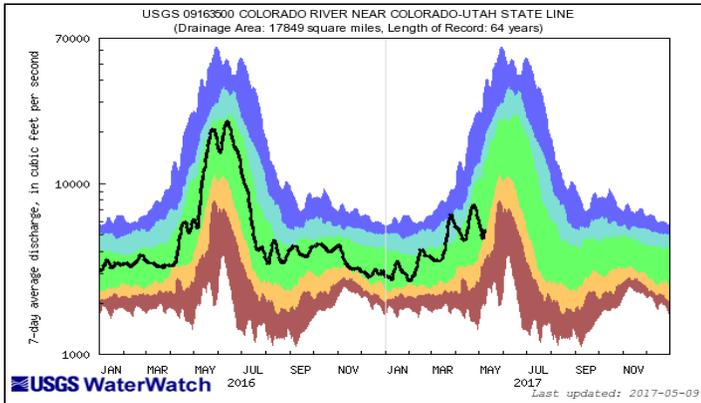


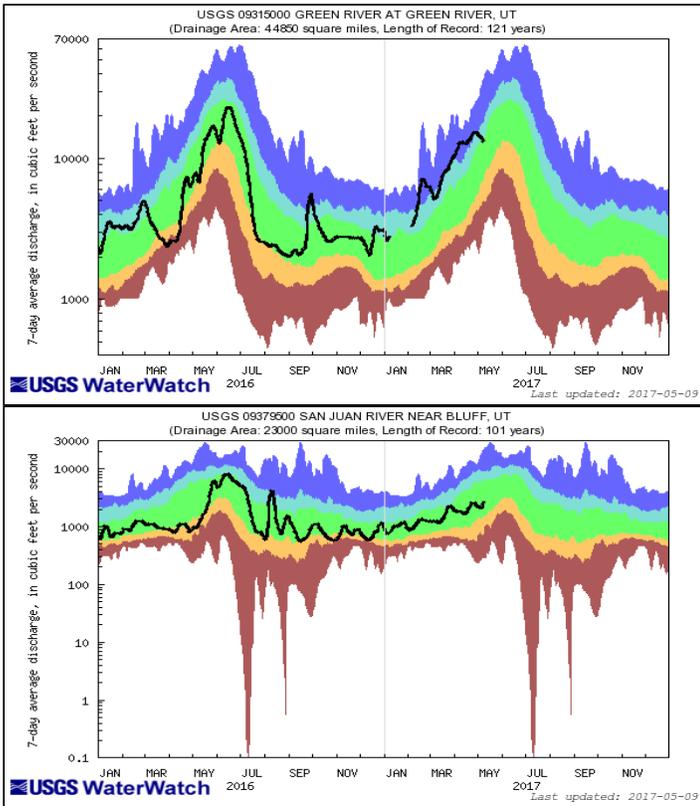
# Streamflow



Explanation - Percentile classes

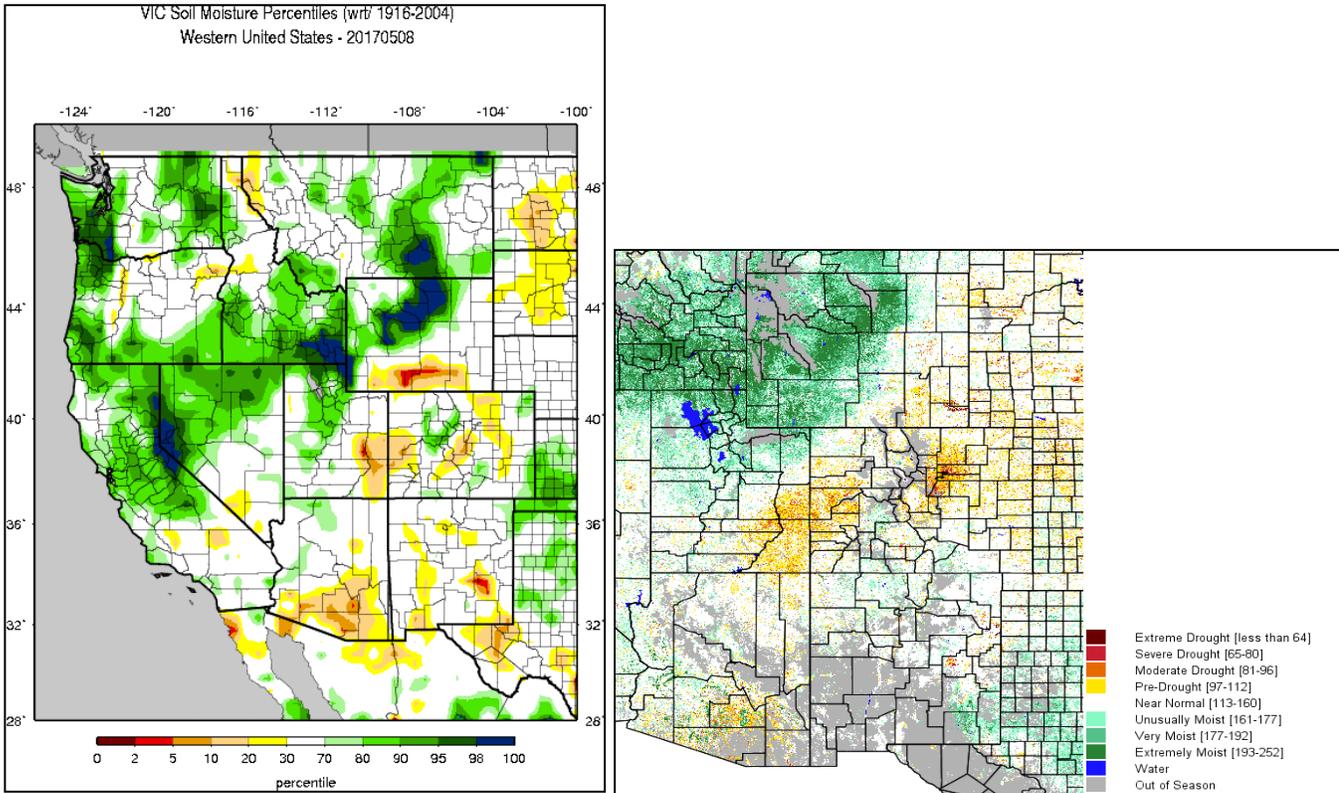
<span style="color: red;">●</span>	<span style="color: orange;">●</span>	<span style="color: green;">●</span>	<span style="color: cyan;">●</span>	<span style="color: blue;">●</span>	<span style="color: black;">●</span>	<span style="color: black;">○</span>
Low	<10	10-24	25-75	76-90	>90	High
	Much below normal	Below normal	Normal	Above normal	Much above normal	Not-ranked





The top left image shows 7-day averaged streamflows as a percentile ranking across the UCRB. The top right image shows 7-day averaged discharge over time at three key sites around the UCRB: The Colorado River at the CO-UT state line; the Green River at Green River, UT; and the San Juan River near Bluff, UT. All streamflow data provided by United States Geological Survey.

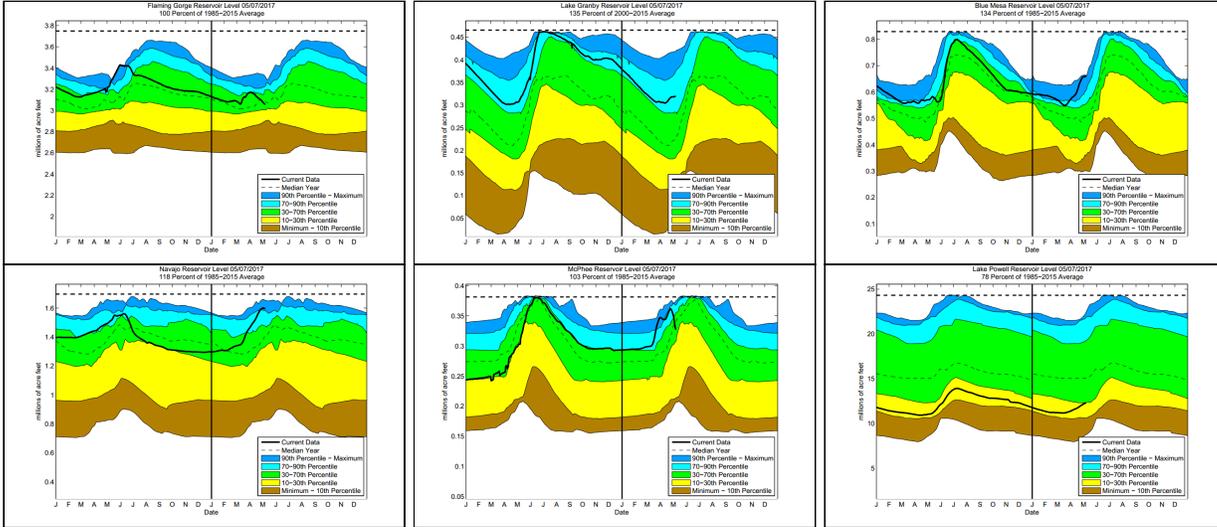
## Surface Water



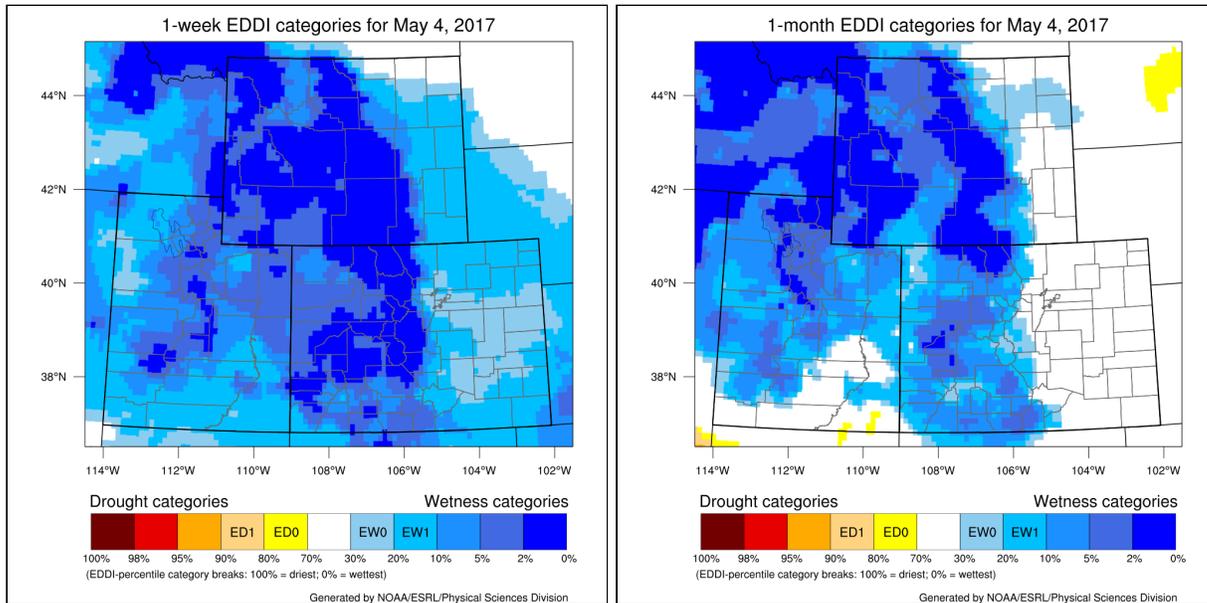
The top left image shows VIC modeled soil moisture as a percentile ranking. The top right

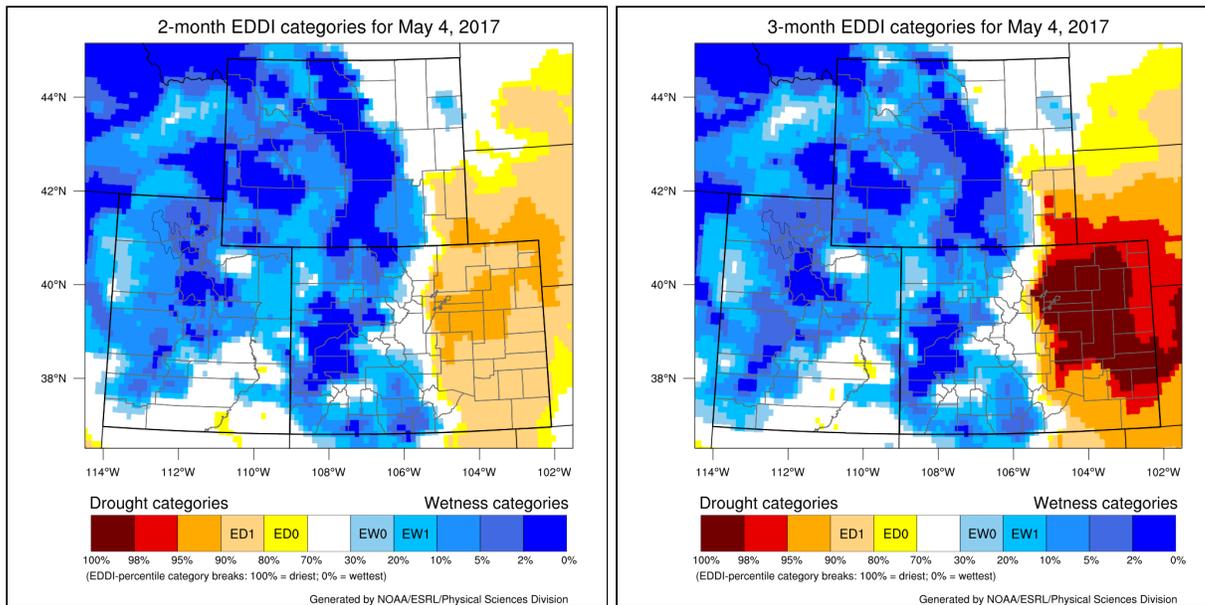
image shows satellite-derived vegetation from the VegDRI product (which updates on Mondays).

The graphs shown below are plots of reservoir volumes over the past full year and current year to date (black). The dashed line at the top of each graphic indicates the reservoir's capacity, and the background color-coded shading provides context for the range of reservoir levels observed over the past 30 years. The data are obtained from the Bureau of Reclamation. Some of the reservoir percentiles don't line up at the new year due to differences in reservoir levels at the beginning of 1985 and the end of 2014. Dead storage has been subtracted. Note: Lake Granby data are obtained from the Colorado Division of Water Resources, and only goes back to the year 2000.



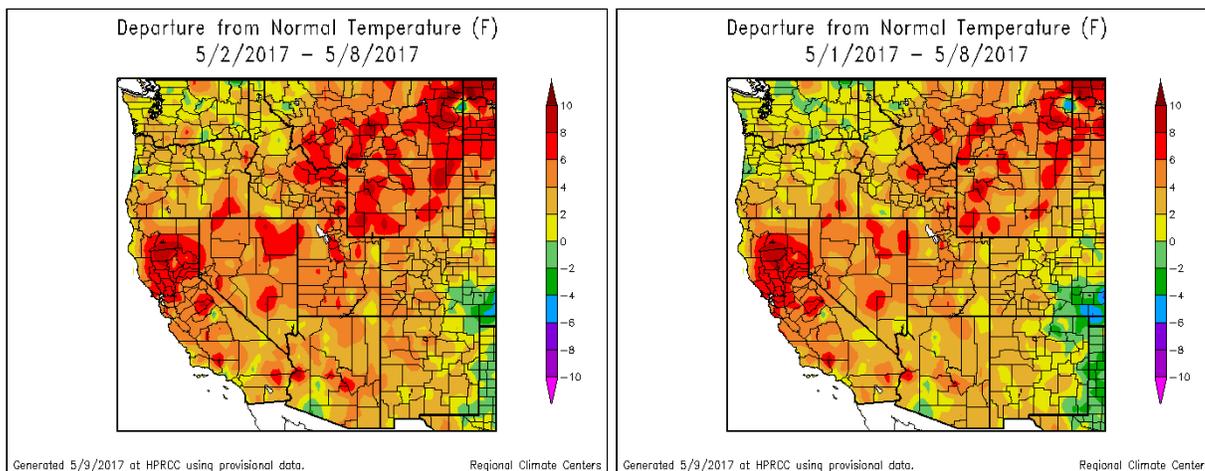
## Evaporative Demand



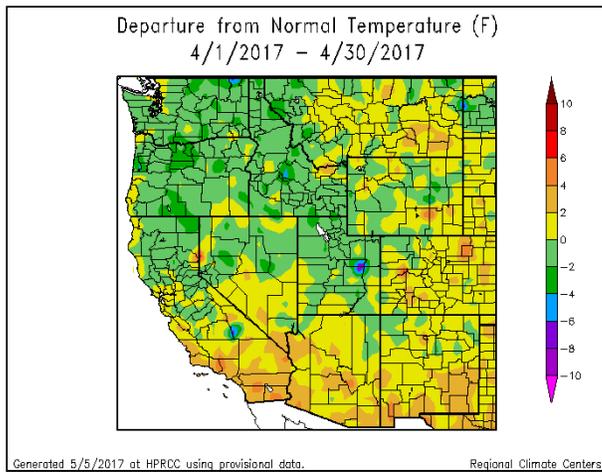


The above images are available courtesy of NOAA’s Evaporative Demand Drought Index (EDDI). Drought classification listed is a function of the depth of reference evapotranspiration accumulated over a given period of record with respect to a climatology of 1981-2010. The drought categories displayed are in line with the [US Drought Monitor’s Percentile Ranking Scheme](#). Data used to generate these maps come from the North American Land Data Assimilation System Phase-2 (NLDAS-2) project, which assimilates observations of temperature, wind speed, radiation, and vapor pressure deficit. The date indicates the last day of the period of record, and the week number indicates the window size for the period of record.

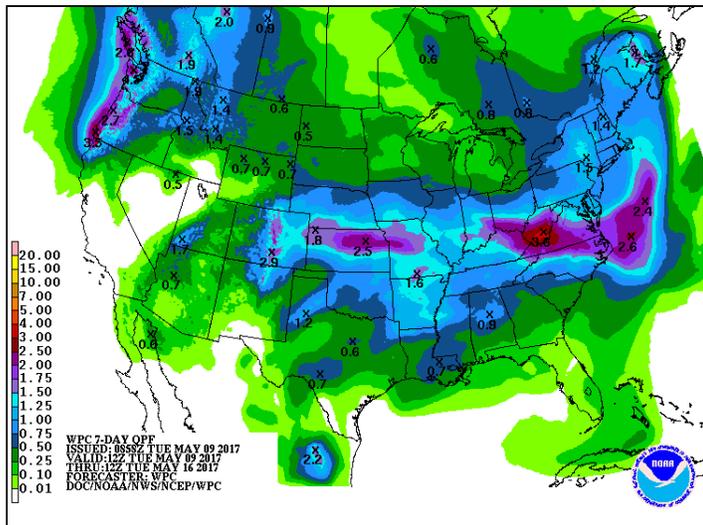
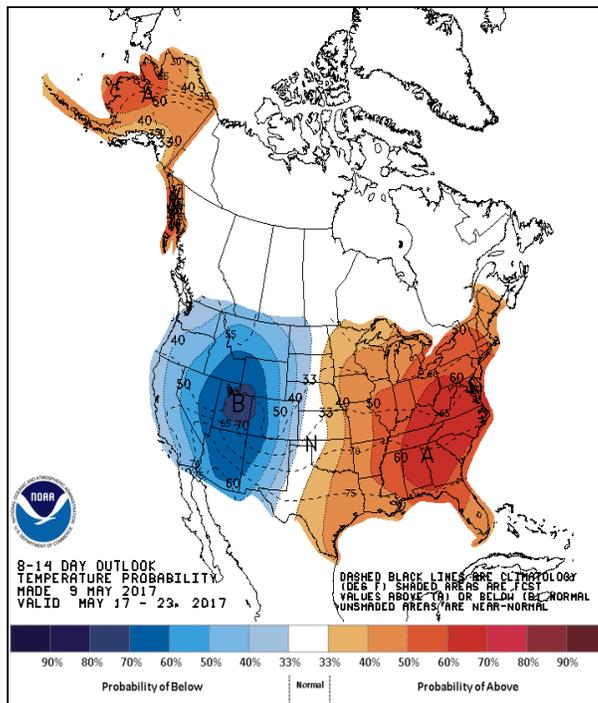
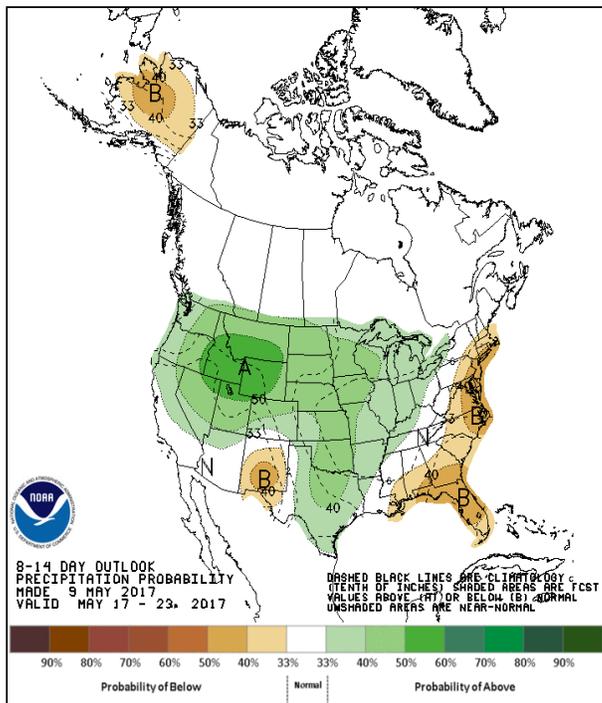
## Temperature



All images show temperature departures from average over different time periods (last 7 days on top left; month-to-date on top right; last full month on bottom). Temperature departure maps provided by HPRCC ACIS.

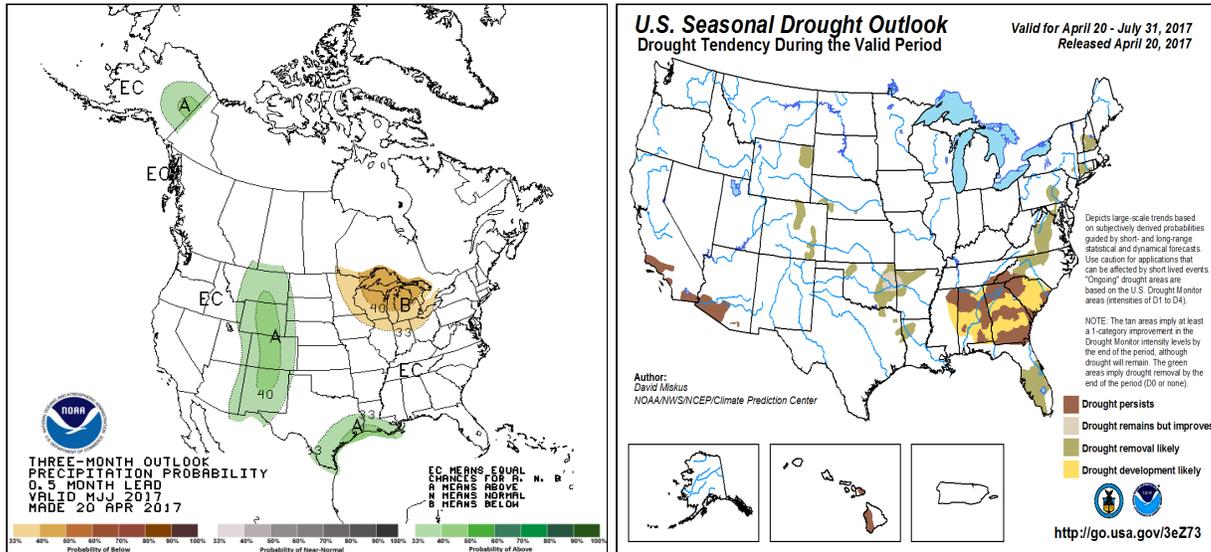


# Outlook

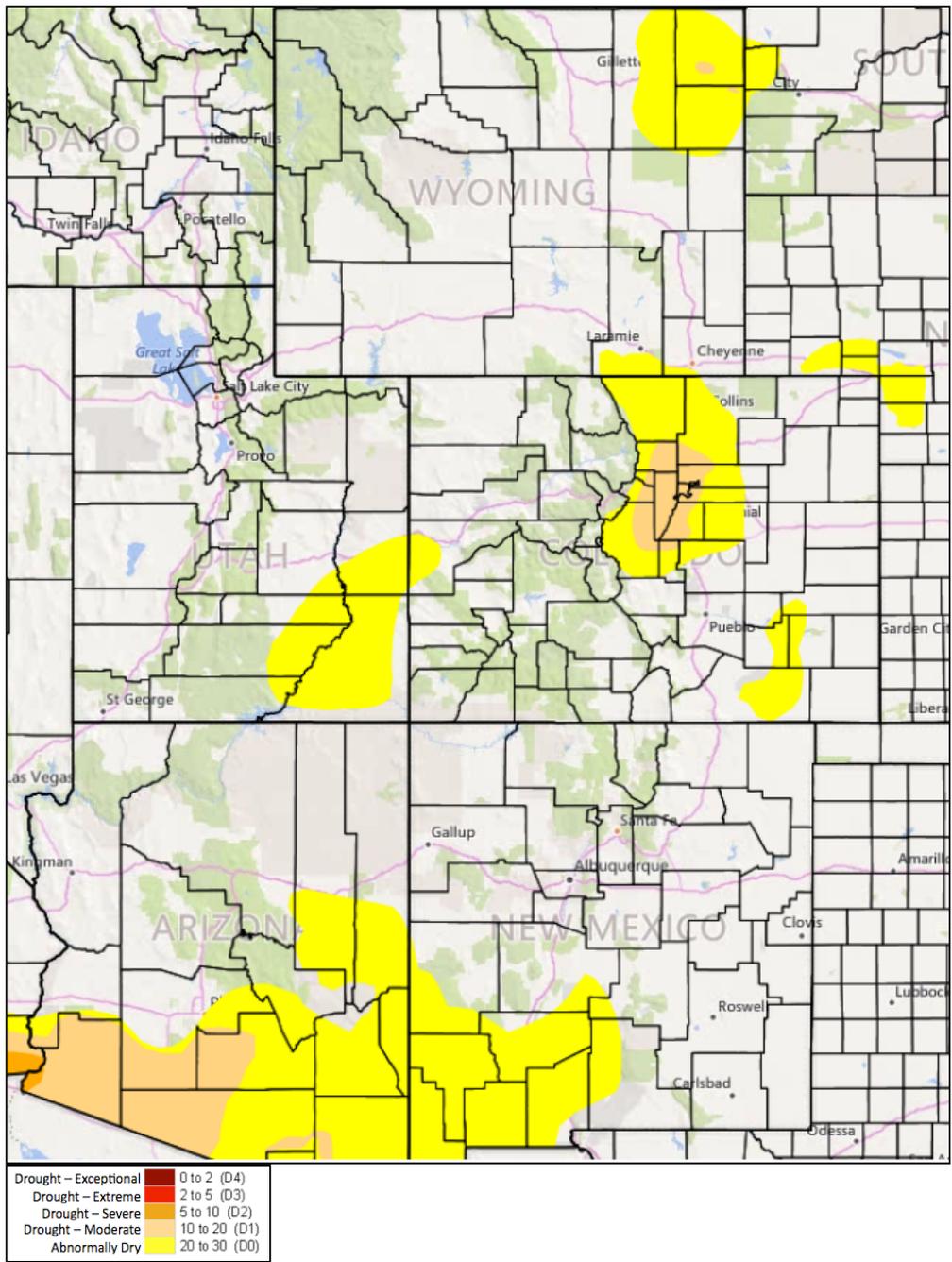


The top two images show Climate Prediction Center's Precipitation and Temperature outlooks for 8 - 14 days. The middle image shows the Weather Prediction Center's Quantitative Precipitation Forecast accumulation for seven days. The bottom left image shows the 3-month

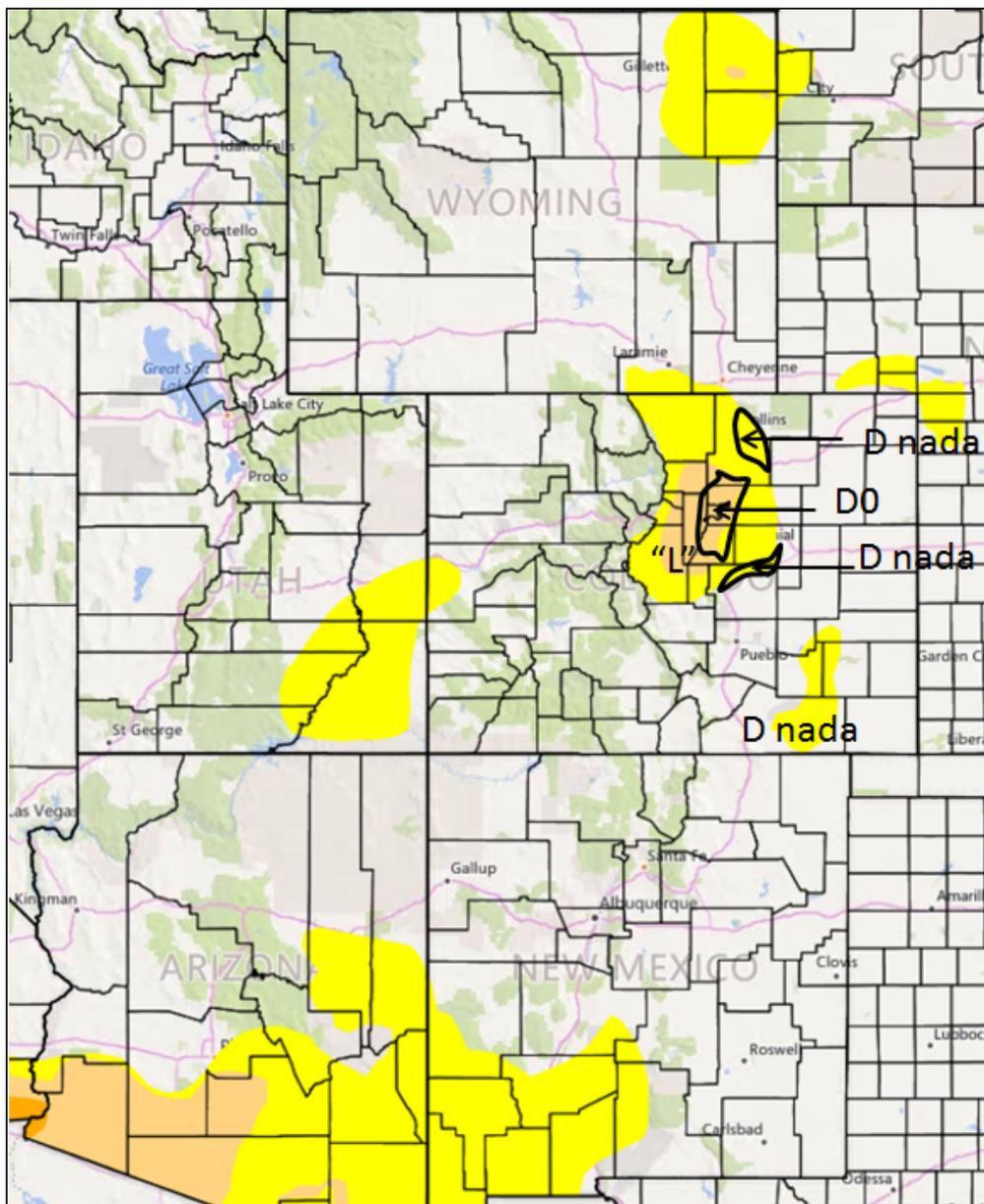
precipitation outlook from Climate Prediction Center, and the bottom right image shows the Climate Prediction Center's most recent release of the U.S. Seasonal Drought Outlook.



## Summary and Recommendations



Above is the most recent release of the U.S. Drought Monitor map for the UCRB region. Below shows the proposed changes for this week, with supporting text.



### Summary: May 9, 2017

Conditions over the past week have been hotter and drier than normal for the Upper Colorado River Basin. This has led to the most rapid snowmelt rates yet seen in the basin this season. This is particularly true for the Upper Green River Basin and Duchesne River Basin. These are both basins that amassed well above average snowpack for the season. Streamflows are much above normal now in these basins. On the east side of the UCRB, flows are normal to above normal along the San Juan, Dolores, Gunnison, and Colorado River Basins. The Yampa and White River are showing some below normal, which is unsurprising given the Yampa and White River Basins reported below average seasonal snowpack this year. Drier than average conditions in March and April have led to dry soils to start the growing season in southeast Utah, and west-central Colorado. What little agriculture is present in these regions is primarily irrigated, and water supplies from streams and reservoirs are in good shape to handle the extra demand. Neither expansion nor intensification of drought classification in this area seem appropriate at this time. Some of the basin's major reservoirs, Navajo, Blue Mesa, and Granby, are all currently at above average storage and rising. Lake Dillon is in fine shape as well. Flaming Gorge is currently releasing large volumes of water to prepare for the much above average snowpack and streamflows in the Upper Green River Basin. Lake Powell is the highest it has been in early May in over five years.

In eastern Colorado the past week was wetter. Rains came in several, generally lighter rounds through the middle of last week. This was followed by warmer and drier than average conditions over the weekend. On Monday, the rains returned hard and fast and brought severe weather to much of the I25 corridor. Heavy rains came slightly later in northeast Colorado. This included a flash flood warning in Greeley. Rains over the past week were sufficient in southeast Colorado and parts of northern Colorado for doing away with more of the drought that developed last summer and fall.

### Recommendations

**UCRB:** Status quo:

**Eastern Colorado:** It is recommended that D1 be removed from southwest Weld County, western Adams, Arapahoe, and Douglas Counties, eastern Jefferson County, and all of Denver County. This area received several bouts of rain over the past week including a hard downpour with hail yesterday afternoon.

It is recommended that D0 be removed from southeast Colorado.

It is recommended that D0 be removed from central Weld County in northern Colorado. This area was in flash flood danger yesterday.

It is recommended that D0 be removed from north-central El Paso County, and south-central Elbert County.