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.

**WYTD Precipitation:**

- Most of the UCRB is below average
- Parts of the Wasatch and Uintah mountains in UT near to above average
- Parts of southwest WY near to above average
- Most of northeast CO near average
- Southeast CO much below average

**Last Month Precipitation:**
- Isolated spots in southwest WY and eastern UT above average
- Most of the lower elevations of eastern UT and western CO below 70% of average
- Parts of northeast CO near to above average
- Southeast CO and far northern CO below average

**Month to Date Precipitation:**

- Widespread moisture has fallen across the UCRB for the month of April to date with widespread areas receiving 2-4 inches and isolated areas receiving 4.0-7.5 inches through NE Utah, Northern and Central Colorado mountains and the Upper Green basin in Wyoming.
- The Eastern plains and urban corridor in Colorado have also received much needed snowfall amounting to 2-4" of liquid equivalent in the foothills/plains of Larimer and Boulder counties with amounts decreasing to the east and south.
- The four corners area has remained dry through April to date receiving less than 0.50".
- The Gunnison and San Juan mountains did not receive as much moisture as the northern basins with most areas receiving 0.50 - 2.00 inches, some isolated areas in San Juan, Hinsdale and Mineral counties saw 2-4 inches.

**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).

http://climate.colostate.edu/~drought/current_assessment.php
SNOTEL Precipitation Percentiles:

- Precipitation percentiles near the median around the Duchesne basin in northeast UT
- Wasatch range and central UT percentiles are variable, ranging from the teens to the 40s
- Western WY percentiles are near to above the median with drier percentiles further to the east
- Northern and central CO mountains showing improvement with percentiles ranging from the 20s to above the median
- San Juans in southwest CO in the single digits and teens

Basin-wide Snow Water Equivalent Percent of Normal:

- Large increases in percents of normal since last week are likely due to continued accumulation during a time when melting is normally occurring
- Most sub-basins in the northern part of the UCRB are between 90% of normal and above normal
- The sub-basins in the southern part of the UCRB are between 64% and 88% of normal

SWE Timeseries Graphs:

- The northern areas are showing around 90% of normal peak snowpack values, while the southern areas are showing less than 80% of normal peak seasonal snowpack
- Most areas are still accumulating snowpack (during normal melting time)
- All graphs show later peak than last year and later peak than normal
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.

**Short Term:**

- Wetter SPIs in the central CO mountains
- Wetter SPIs in southwest WY and northeast UT
- Drier SPIs along southeast UT and southwest CO
- Wetter SPIs along northeast CO and drier SPIs in southeast CO

**Long Term:**

- SPIs between 0 and -1.0 in southwest CO and southeast UT
- SPIs between -1 and -2.5 throughout southeast CO
- Wetter SPIs in northwest CO, western WY
- Mixed wet and dry SPIs in northern UT
STREAMFLOW

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.

Streamflow Statistics:

- 18% of gages recording normal to above normal 7-day average streamflows
- 60% of gages recording much below normal or low 7-day average streamflows
- Overall decrease in streamflows from last week due to cooler than average temperatures and less snowmelt
- 122 gages now reporting, an increase from 90 gages one month ago

http://climate.colostate.edu/~drought/current_assessment.php
The three key gages across the UCRB are reporting much below normal flows, and all showed a slight decrease in flows from last week.

**SURFACE WATER**

The top left image shows VIC modeled soil moisture as a percentile ranking. The top right image shows modeled VIC soil moisture plus snow water equivalent as a percentile ranking.
The above left image shows the percent of average volumes of the major reservoirs in the UCRB. The above right image shows the percent change in volume over a specific time period for the reservoirs.

**VIC:**

- Parts of southern WY are still showing dry soils with improved soil moisture in central and eastern WY
- Eastern UT and western CO showing soil moisture below 30th percentile
- Soil moisture below the 10th percentile for much of southeast CO though there is some improvement from last week
- Near average soil moisture conditions in northeast CO
- Soil moisture model primarily driven by temperature change right now for higher elevations
- When combined with SWE, soil moisture percentiles are higher because of later than average melting showing higher snowpack values

**Reservoirs:**

- Flaming Gorge and Green Mountain near average volumes for April
- Rest of reservoirs below April average (ranging from 43% at Granby to 84% at Blue Mesa)
- Flaming Gorge, Green Mountain, Blue Mesa, and McPhee have begun increasing in volume
- Dillon and Granby still decreasing, which is normal right before snowmelt season begins
- Lake Powell still decreasing in volume though it normally begins increasing this time of year
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.

Last Week Temperatures:

- Much cooler than average temperatures for all of UCRB and the rest of CO
- Temperatures ranging from 2 to 12 degrees below average

Month-to-Date Temperatures:

- Temperatures throughout the UCRB have been cooler than average since the beginning of April
- Eastern CO has been cooler than average since the beginning of the month
FORECAST AND OUTLOOK

The top two images show Climate Prediction Center's Precipitation outlooks for 8 - 14 days (top left) and 3 months (top right). The bottom left image shows the Hydrologic Prediction Center's Quantitative Precipitation Forecast accumulation for the five days between Tuesday 12Z and ending Sunday 12Z. The bottom right image shows the Climate Prediction Center's most recent release of the U.S. Seasonal Drought Outlook.

This Week:

http://climate.colostate.edu/~drought/current_assessment.php
Snow showers on the decline early in the week as ridge builds in from west

Weak low pressure system to pass over southern portion of basin on Thursday, with chance of light showers

**Longer Term:**

- Dry and warmer conditions on tap for the weekend with little to no precipitation
- Chance for showers will return for early next week

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**U.S. DROUGHT MONITOR**

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.

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**Summary: April 23, 2013**

Most of the higher elevations of the UCRB has received between 1 and 4 inches of moisture for the week, with less accumulations in the southern part of the basin. Cooler temperatures and continuing accumulations have
delayed the peak snowpack time for this season, which will help alleviate drought impacts later in the spring and early summer season. The Eastern Plains saw a wonderful Spring snowstorm that dropped 1-2 inches of water over portions of Larimer and Boulder county with amounts decreasing to the south and east over the past week, however it largely missed the Republican and Arkansas river basins in SE Colorado. Southeast CO remains much drier than average. The forecast shows the possibilty for some small disturbances through this week followed by a warming trend.

**Recommendations**

**UCRB:** In light of the recent boost to snowpack in the Yampa, White, North Platte and South Platte basins, improvements are suggested to that region. A reduction in the D3 in Routt, Moffat and Rio Blanco along with a reduction from D2 to D1 through the northern and central mountains of Colorado are suggested.

Degradations from D1 to D2 are suggested in the San Juan and Rio Grand mountains. SPI values across the border in Utah seem to suggest that area should remain D1. The D1 in NW New Mexico will be left to the USDM author.

**Eastern CO:** With more precipitation falling this week, further improvements are warranted in the NE plains with a D2 improvement to D1 in Weld, Adams and Morgan counties as well as a D3 to D2 improvement for eastern Weld, Northern Morgan and Logan counties.

After continued dry and widespread dust storms in SE Colorado over the past week, an increase in the D4 area across eastern Las Animas and northern Baca counties is also suggested.