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.

**Last Week Precipitation:**

- Precipitation over the past week was mainly focused on the northern portion of the UCRB in the Green, Yampa, and White river basins.
- These areas saw widespread amounts of precipitation ranging from 0.51-2.00". Isolated areas in Sweetwater and Fremont county, WY saw 3-4" of precipitation.
- Areas in the southern portion of the basin received smaller amounts of precipitation on the order of 0.00-0.25"
East of the basin saw good moisture through Jackson, Larimer, Boulder and Jefferson counties in the range of 0.51-1.00 with amounts decreasing to the east.

Very little precipitation fell in the Rio Grande and Arkansas basins.

September Precipitation:

- Most of the UCRB saw much above average precipitation for September, with a majority of the basin greater than 150% of average
- A few spotty areas in the basin were closer to average
- The Wasatch mountains in northern UT were down to 70% above average
- Thanks to heavy rains most areas of eastern CO and southeastern WY received greater than 300% of average
- Southeastern CO saw less precipitation, especially in Otero, Bent, Kiowa and Prowers counties, between 70% to 130% of average

Water Year Precipitation:

- Much of northeastern UT and western WY have seen near average to slightly above average precipitation for the water year with some drier areas in the Wasatch mountains and in Sweetwater County, WY
- Most areas of eastern UT and western CO have received between 90% and 130% of average precipitation for the water year, with some spotty areas less than 70% of average
- The Four Corners region ranges from 50% to 110% of average with areas up to 150% of average
- The northern and central CO mountains are mostly above average for the water year
- Most of northeast CO is 70% to 130% of average, with areas in the foothills up to 200%
- Most areas of southeast CO are below average, with some regions around the Arkansas River valley between 30% and 50% 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.

**Short Term (30-day):**

- All of the basin is showing wet indicators on the 30-day timescale
- Areas around the Colorado River valley in southeast UT are in the +1 to +2 range
- SPIs throughout much of western CO and the northern part of the basin are between +1 and +3
- SPIs are between +1.5 and +2.5 around the Colorado Headwaters
- SPIs east of the basin are also positive with extremely wet indicators along the Front Range (+2 to >+3) and ranges between -1 and +3 along the CO eastern plains. The Karval station is the only one indicating slightly dry conditions.

**Long Term (6-month):**
• Most SPIs in the basin show near normal to wet SPIs
• Northern UT has some slightly drier SPIs near the Wasatch range
• Wet SPIs in the range of 0 to +1.5 around the Four Corners
• Wettest SPIs are along the Colorado River valley in southeast UT and the Colorado River headwaters
• The northern CO Front Range shows very wet SPIs
• Drier SPIs show up in northeast CO (0 to -1) and in the Arkansas valley (0 to -2)

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:

- 81% of gages recording normal to much above normal 7-day average streamflows
- 5% of the gages recording high flows (highest recorded streamflow for that day of year)
- 7% of the gages are recording below normal 7-day average streamflows and only 7% are recording much below normal flows or lowest flows
- Highest flows concentrated around the Colorado River headwaters
- Three key gages around the basin all now receding after large September precipitation events but still reporting in the normal range.
- The Colorado River near the CO-UT state line currently recording above normal flows at the 65th percentile (108% of normal)
- The Green River at Green River, UT saw a slight decrease in the past couple of days, but still recording flows in the near normal range at the 33rd percentile (73% of normal).
- Flows on the San Juan River near Bluff, UT have declined into the normal range after being much above normal last week. It is now in the 59th percentile (81% of normal).

SURFACE WATER

http://climate.colostate.edu/~drought/current_assessment.php
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 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:**

- Vast improvements to the VIC soil moisture product over the past couple weeks with recent widespread heavy rains.
- Improvements in southern Wyoming due to large winter storm event this week.
- The only areas still showing critically dry soils are on the Eastern plains of Colorado in the Arkansas river valley through southern Lincoln, Crowley, Otero, western Kiowa and Bent counties. That area is still showing soil moisture below the 20th percentile and below the 2nd percentile on the Otero/Bent county line.

**VegDRI:**

- The northern portion of the UCRB continues to show dry vegetation conditions through the Green, Wasatch and Uintas.
- The Colorado River valley showing healthy vegetation conditions with near normal vegetation conditions in southwest CO
- Healthy vegetation showing up around the Colorado mainstem, across the Continental Divide and across the northern CO Front Range
- The Rio Grande, Arkansas and Northeastern corner of CO are still showing pre to moderate drought conditions based off vegetation response.
Reservoirs:

- Lake Dillon currently above average for October
- Flaming Gorge, Green Mountain and Lake Granby are in the 84% to 94% of average range
- The southern reservoirs are a bit lower, ranging from 55% of average (Blue Mesa) to 69% of average (Navajo)
- Many of the reservoirs saw increases during the wet September period with many reservoirs increasing at a time of year when they normally are decreasing storage.

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**EVAPOTRANSPIRATION**

The above images are of reference evapotranspiration (ET) from CoAgMet sites across Colorado. Reference ET assumes the amount of water that will evaporate from a well-irrigated crop. Higher ET rates occur during hot, dry, and windy conditions. Lower ET rates are more desirable for crops. See a [map of locations](http://climate.colostate.edu/~drought/current_assessment.php) for the above ET sites.

**Reference ET:**

- Olathe: ET has dropped over the past couple weeks and is now very near normal for the growing season to date.
- Cortez: ET was near average for July. Slower ET rates have helped lower that to below average for most of August, currently much lower than average and approaching the low year of 1995.
- Center: ET has been slightly below average since the beginning of July.
- Avondale: ET rates have been well above average for most of the growing season, though still below the record ET year of 2012. ET rates have slowed somewhat since late July but are still above average for the growing season.
- Idalia: ET was above average for July. ET rates slowed and ET have been close to average for the past few weeks and is now just slightly above normal for the growing season.
- Holyoke: ET rates dropped to slightly below average after being slightly above average for July. ET has been near average for the past couple of weeks
- Lucerne: ET has been slightly above average since late June.

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:

- The northern portion of the basin saw below average temperatures with the winter storm that hit Wyoming over the past week. The Green river basin saw temperatures 2-8 degrees below normal.
- Similar conditions in eastern Utah and western Colorado with temperatures 0 to 6 degrees below normal with isolated areas 8 degrees below normal.
- The northeastern plains of CO were also mainly 0 to 4 degrees below normal while the southeastern plains were closer to normal temperatures over the past week.

Last Month Temperatures:

- September brought near to above average temperatures across the entire UCRB.
- The northern portion of the basin saw temperatures 0 to 4 degrees above normal with isolated areas up to 6 degrees above normal.
- Eastern Utah and extreme western Colorado was more near normal with temperatures 0-2 degrees above normal.
- The Yampa, White, Upper Colorado, and Gunnison basins all saw temperatures 2-4 degrees above normal.
- The eastern Plains in Colorado saw temperatures 2-6 degrees above normal, with the highest on the far eastern plains near the NE/KS borders.

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:

- Chances for precipitation in eastern Utah and western Colorado as an upper level low accompanying a cold front move through the area Wednesday night into Friday.
• Should bring rain at elevations below 6500' and more significant snow above 7500' along with 20-30 mph winds.
• East of the divide precipitation is expected Thursday PM. Rain showers are expected Thurs into Saturday on the plains.
• 1-1.2" are forecast for the western slope of Colorado spilling into the NE plains. The Uintahs in Utah are also forecast to see up to 0.9" of precipitation with this event.

Longer Term:

• The 8-14 day outlook shows chances for below average precipitation centered over Utah/Arizona border extending into western Colorado.
• The eastern plains show chances for above average moisture on the 8-14 day time scale.
• The three month outlooks shows equal chances for above/below average moisture.
• The seasonal drought outlook is indicating persistence of drought for much of the region.

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.
Summary: October 8, 2013

A winter storm hit the northern part of the UCRB (mainly in Wyoming) this past week but did clip portions of the Uintah mountains in Utah and the Yampa and White River basins in Colorado.

Recommendations**

UCRB:

Improvements are suggested mainly in the northern portion of the basin. All D3 in Wyoming should be improved to D2. The D2 in SW Wyoming with the exception of the extreme SW Sweetwater county should be improved to D1. (All WY recommendations, per Tony Bergantino)

Eastern Colorado:

Status quo is recommended east of the divide.