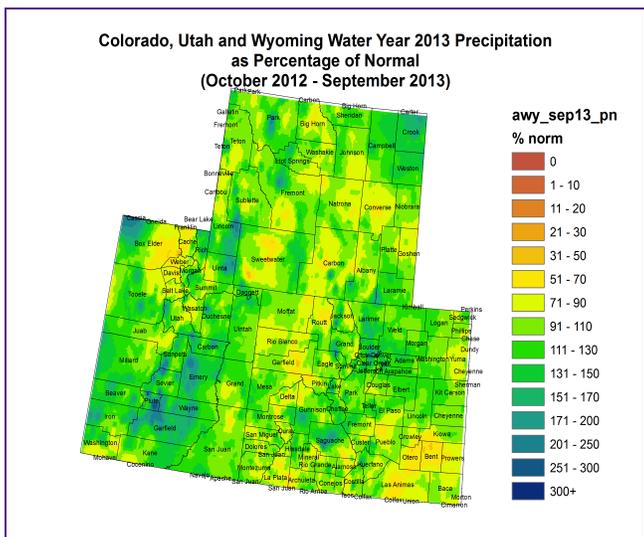
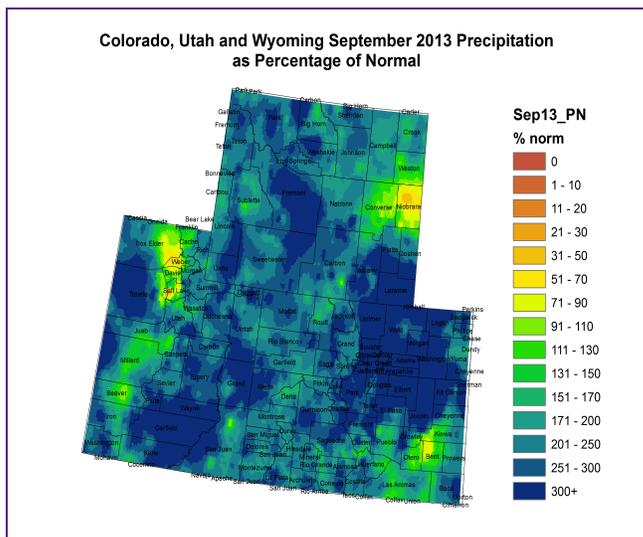
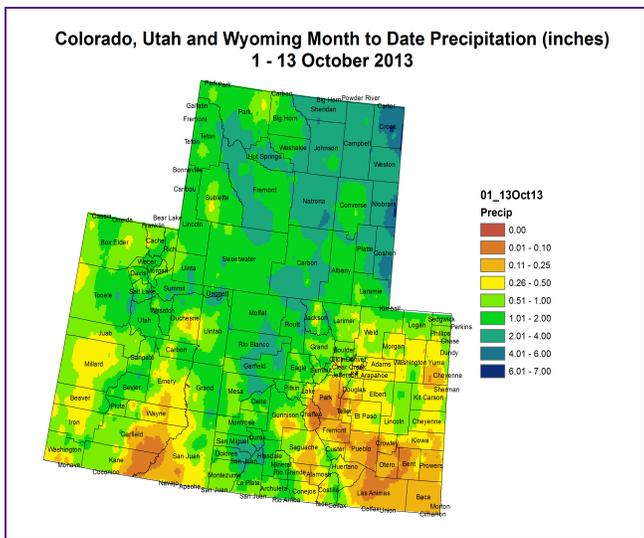
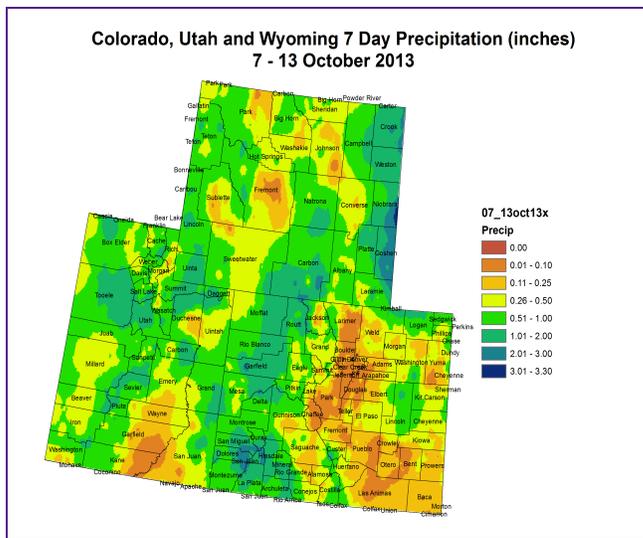


PRECIPITATION



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.

Last Week Precipitation:

- Many areas of the basin, including western CO, western WY, and northeast UT received between .50 and 2 inches of precipitation
- The Colorado River valley above Lake Powell and the higher elevations in northern CO were a bit drier, receiving less than .50 inches for the week
- Some spotty areas of the San Juan mountains in southwest CO received between 2 and 3 inches

- Most of the CO Front Range and southeast CO were drier, receiving less than .10 inches
- East-central and northeast CO received between .25 and .50 inches, with a couple of locations receiving between .50 and 1 inch
- Eastern WY received between .50 and 3 inches of moisture for the week

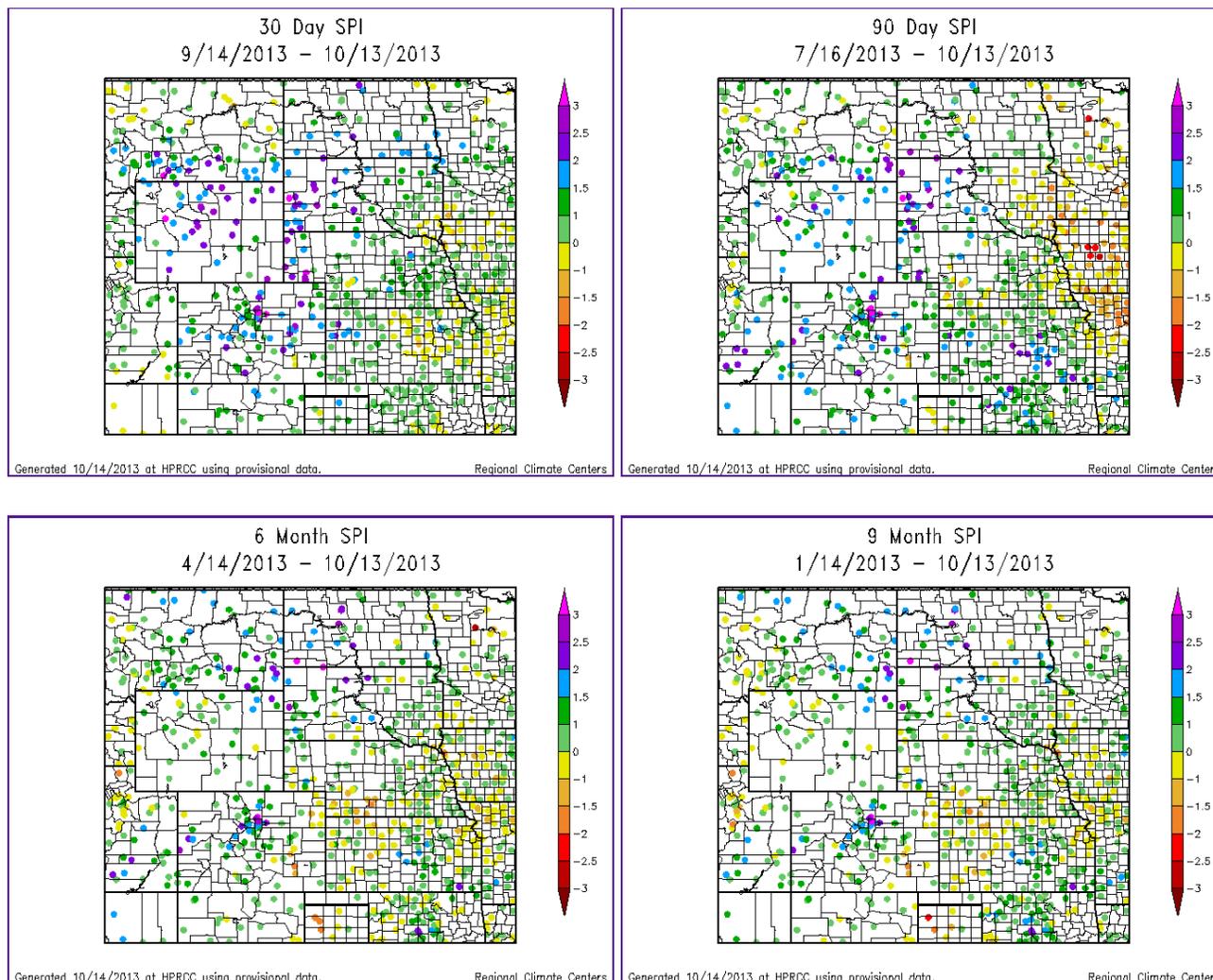
September Precipitation:

- 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 received near average to slightly above average precipitation for WY2013 with some drier areas in the Wasatch mountains and in Sweetwater County, WY
- Most areas of eastern UT and western CO received between 90% and 130% of average precipitation for WY2013, with some spotty areas less than 70% of average
- The Four Corners region ranged from 50% to 110% of average with areas up to 150% of average
- The northern and central CO mountains were mostly above average for the water year
- Most of northeast CO was 70% to 130% of average, with areas in the foothills up to 200%
- Most areas of southeast CO were 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):

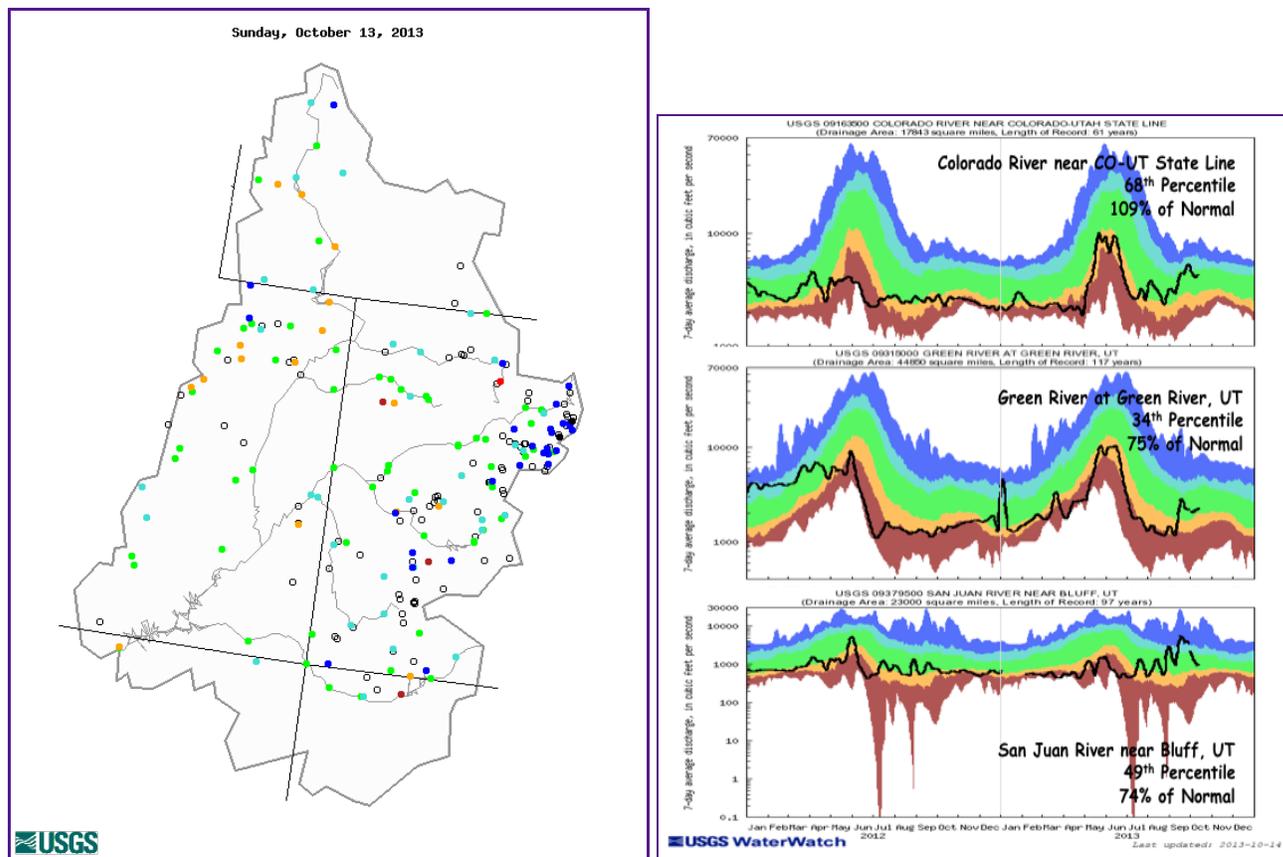
- Most of the basin is showing wet indicators on the 30-day timescale
- Areas around the Colorado River valley in southeast UT are in the -1 to +1 range
- SPIs throughout much of western CO and the northern part of the basin are between +1 and +2
- SPIs east of the basin are also positive with extremely wet indicators along the Front Range (+2 to >+3)
- A couple of slightly dry indicators (0 to -1) show up in southeast CO

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 -1.5) and in the Arkansas valley (0 to -2)

STREAMFLOW



Explanation - Percentile classes

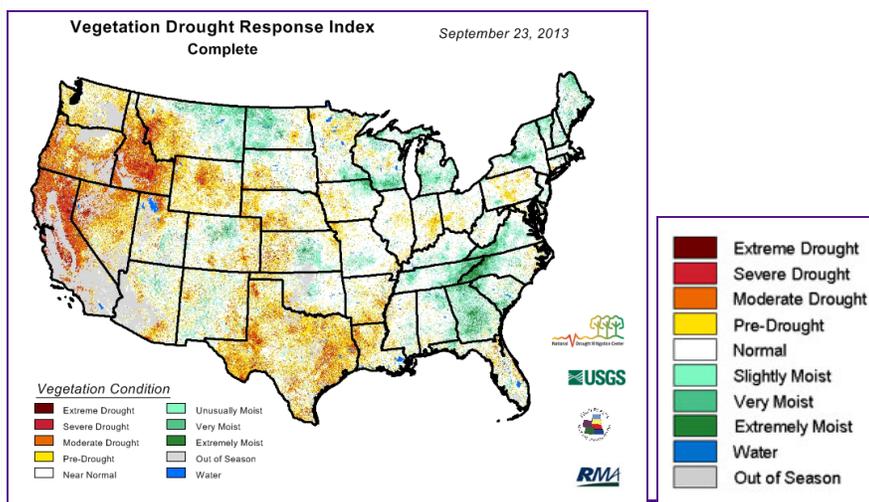
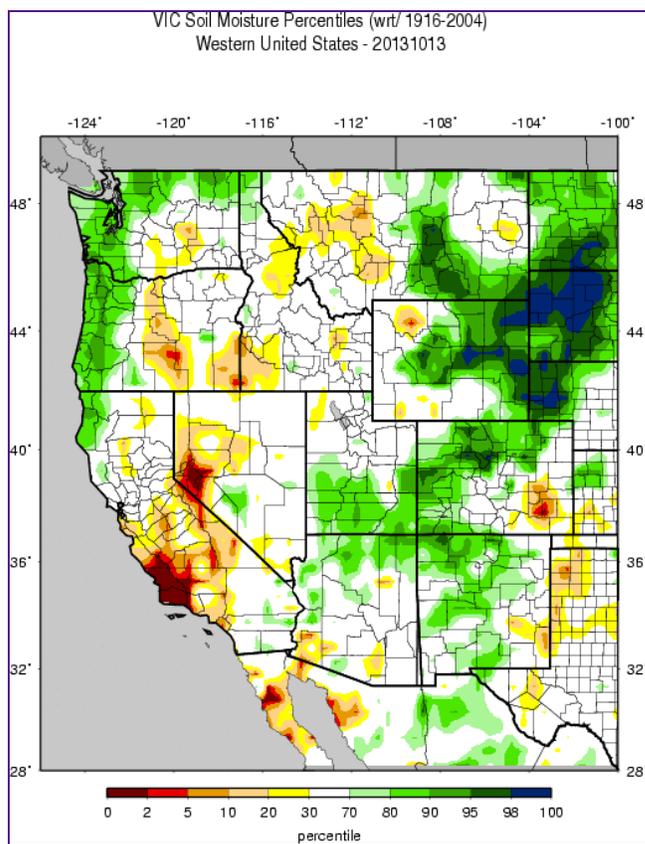
Low	<10	10-24	25-75	76-90	>90	High	Not-ranked
	Much below normal	Below normal	Normal	Above normal	Much above normal		

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.

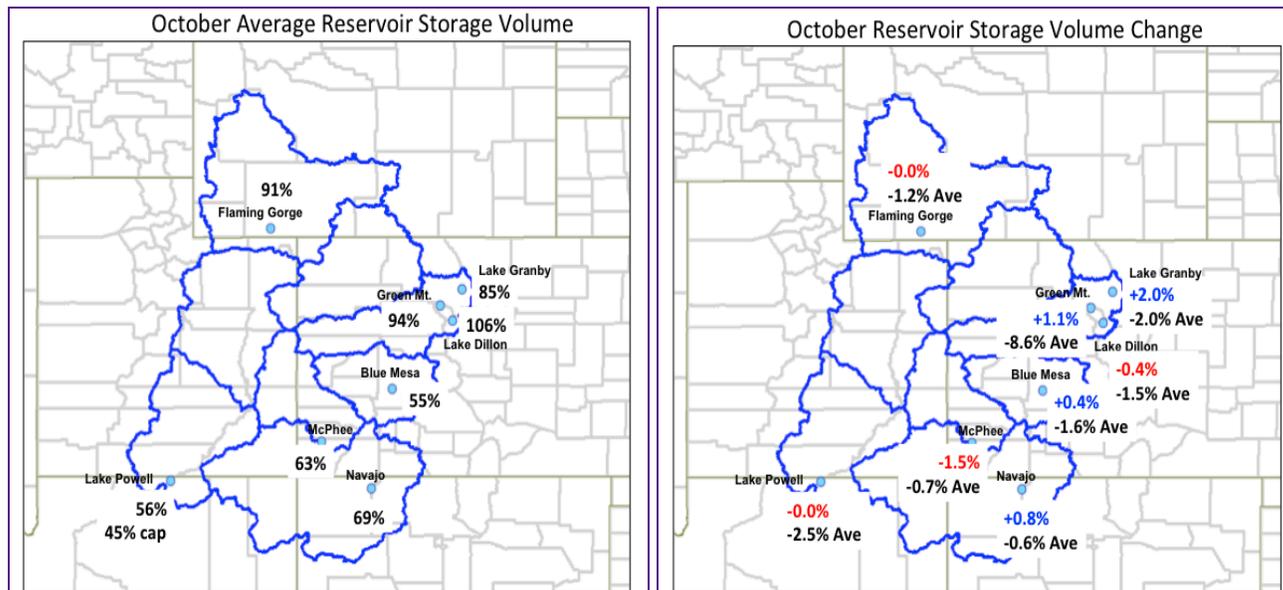
Streamflow Statistics:

- 86% of gages recording normal and above 7-day average streamflows
- 21% of the gages recording much above normal to high flows (highest recorded streamflow for that day of year)
- 14% of the gages are recording below normal or lower 7-day average streamflows
- Only 3% are recording much below normal or low 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 flows at the 68th percentile (109% of normal) and saw a slight increase over the past couple days
- The Green River at Green River, UT saw a slight increase over the past couple days and is recording at the 34th percentile
- Flows on the San Juan River near Bluff, UT have decreased over the past couple of weeks and are currently in the near normal range at the 49th percentile

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 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 since heavy rains fell over the entire region last month
- Near normal soil moisture conditions in the northern part of the basin and across northern UT
- Wet soil moisture conditions show up over western CO, southern UT, and the southern part of the UCRB
- Wet soil moisture is also prevalent over eastern and central WY and northern CO
- Dry soil moisture continues to dominate an area of southeast CO along the Arkansas River valley

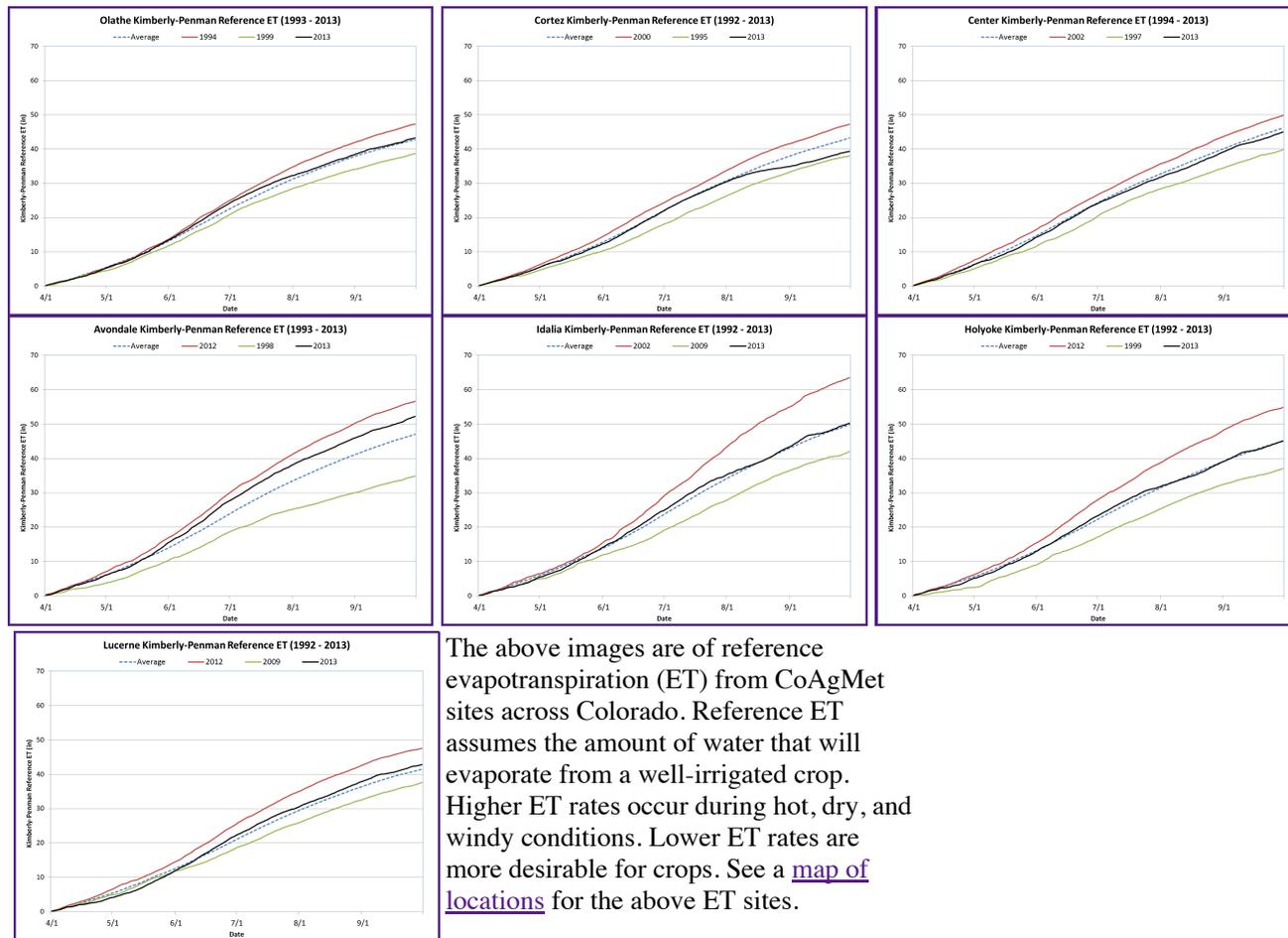
VegDRI:

- The northern portion of the UCRB continues to show dry vegetation conditions through the Green, Wasatch and Uintas
- The Colorado River valley and southwest CO showing near normal vegetation conditions
- 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:

- Granby, Green Mountain, Blue Mesa, and Navajo have all seen volume increases since the beginning of the month. All normally see decreases during this time of year
- Lake Powell and Flaming Gorge have stayed near steady since October 1 and Dillon has seen a very small volume decrease
- McPhee has seen a larger volume decrease in the past two weeks than it normally experiences for all of October
- The northern reservoirs are all near their October averages, ranging from 85% (Granby) to 106% of average (Dillon)
- The southern reservoirs have seen some improvement since August, but are a bit lower than average, ranging from 55% (Blue Mesa) to 69% (Navajo) of average

EVAPOTRANSPIRATION



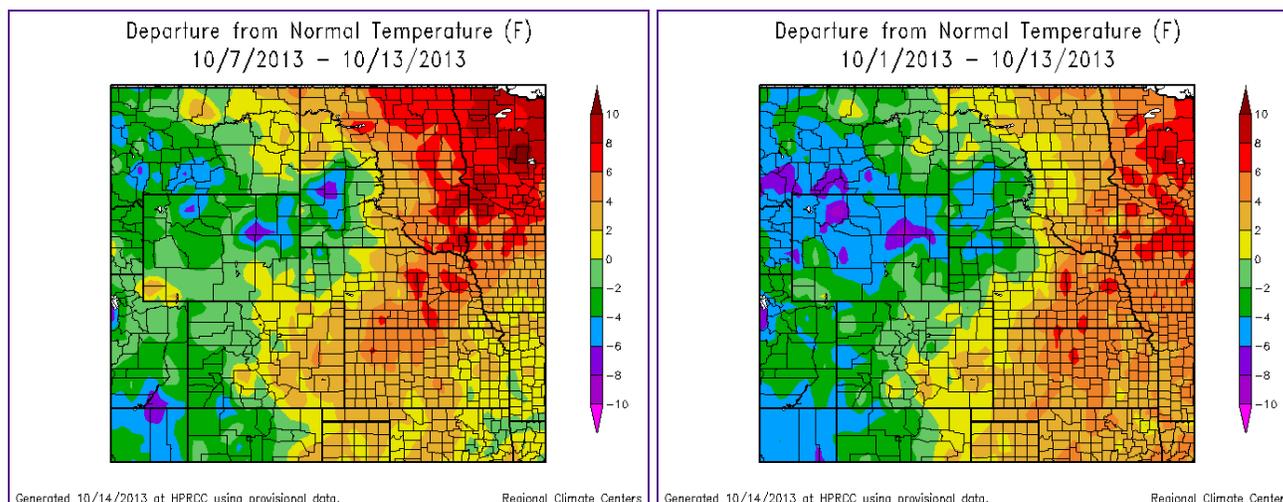
Reference ET:

- Olathe: ET has dropped over the past couple weeks and is now very

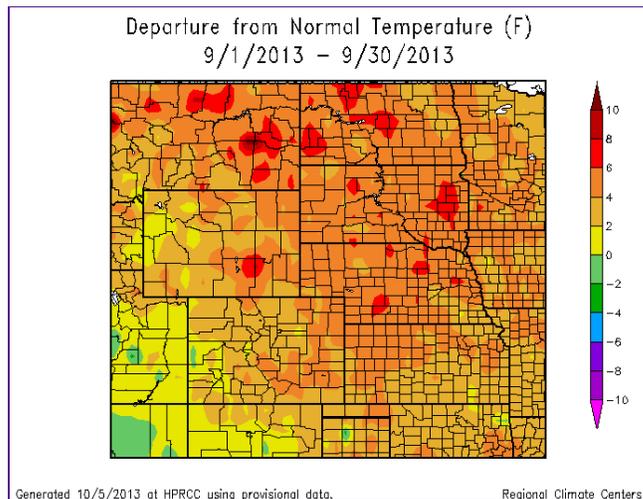
near normal for the growing season to date.

- 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.



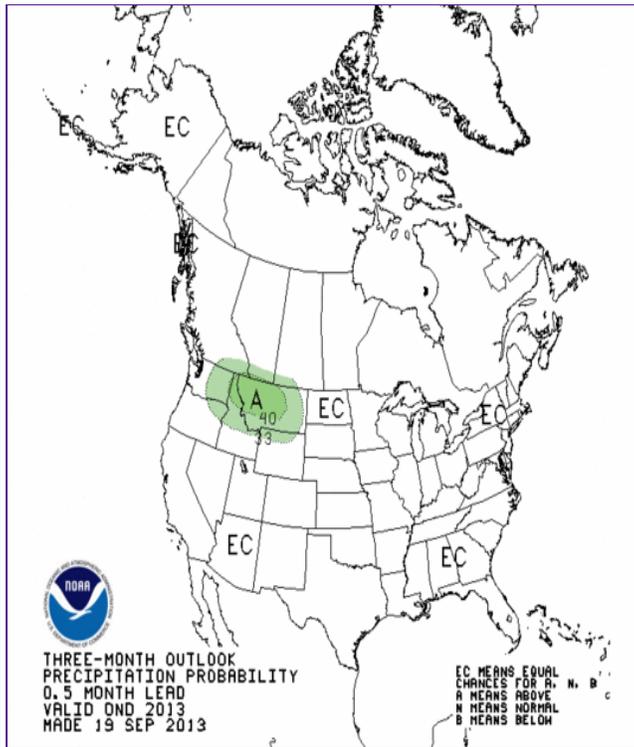
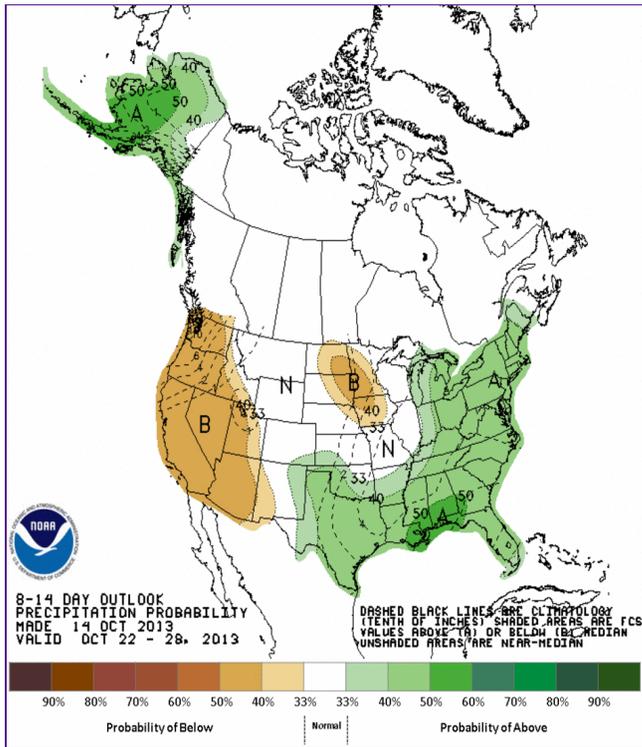
Last Week Temperatures:

- Most of the basin saw cooler than average temperatures last week
- The northern portion of the basin experienced near average to 2 degrees below average temperatures
- Temperatures in the southern part of the basin were 2 to 6 degrees cooler than average
- Temperature across eastern WY were near average to 6 degrees below average
- The CO plains saw slightly warmer than average temperatures

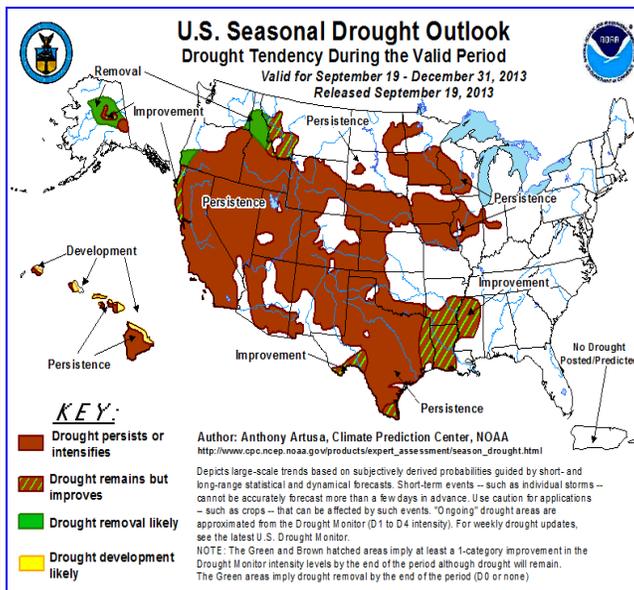
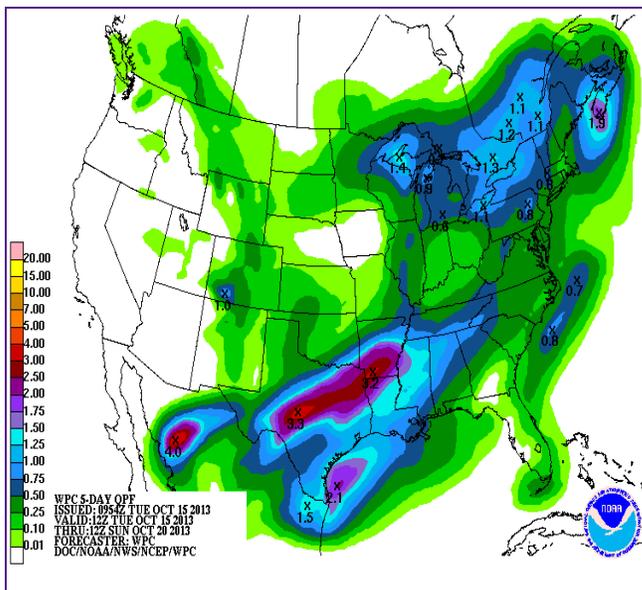
Last Month Temperatures:

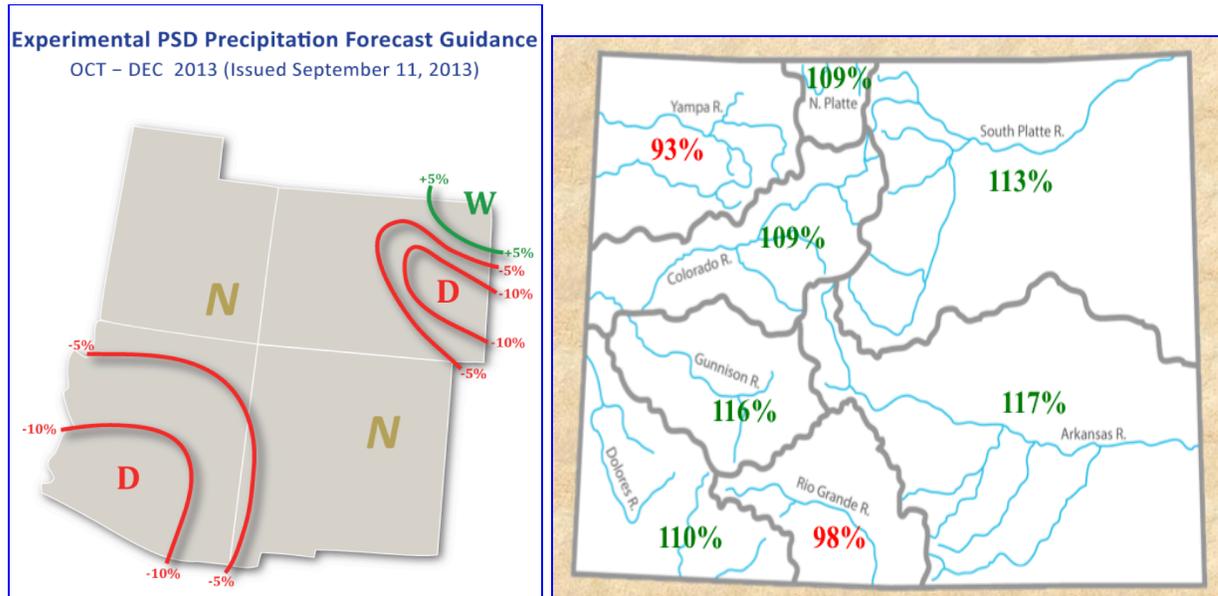
- September brought near to above average temperatures across the entire UCRB.
- The northern portion of the basin saw temperatures 0 to 4 degrees above normal with isolated areas up to 6 degrees above normal.
- Eastern Utah and extreme western Colorado were closer to normal with temperatures 0-2 degrees 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.





Two above images created by Klaus Wolter. The left image shows the experimental statistical forecast for October - December precipitation. The right image shows the median forecast for January 1 snowpack.

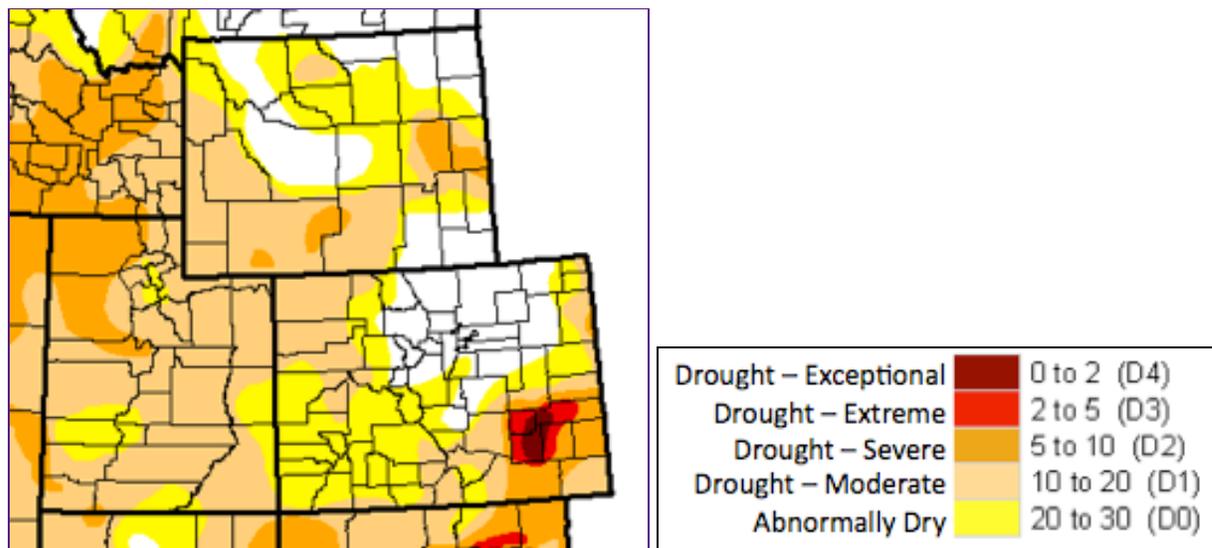
Short Term:

- Some isolated showers expected across the eastern part of basin with the passage of a cold front Thursday and into Friday
- Next week, with strong ridging over the Pacific Northwest, expect a mostly dry, benign pattern for the region

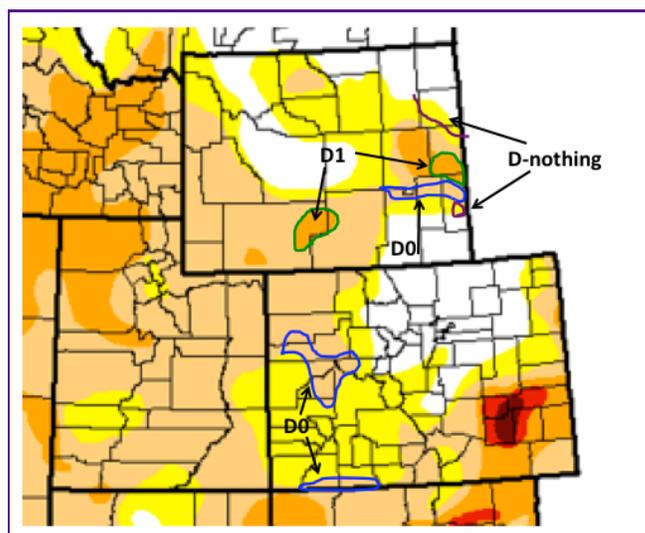
Long Term:

- Models pointing to near-neutral ENSO conditions for the winter
- CPC calling for equal chances between wet/dry/near normal conditions for the fall and into winter
- Klaus Wolter's experimental forecast product calls for an increased chance of dry conditions in southeast CO and much of Arizona, with near normal conditions across the UCRB
- Klaus Wolter's new early season snowpack forecast shows the chance for above average January 1 snowpack values for most of the sub-basins in CO, with slightly below average January 1 snowpack values for the Yampa and Rio Grande sub-basins

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 15, 2013

Beneficial moisture fell across much of the lower elevations of the UCRB while the higher elevation mountains in Colorado were a bit drier.

Streamflow and soil moisture remain in good condition across the basin after a very wet September. Northern reservoirs are in good condition. The southern reservoirs are still a bit low, but have seen improvement since August. Some isolated showers are expected, but no major storms are on the horizon for the basin at this time.

Recommendations**

UCRB: Due to the beneficial precipitation that fell last week, a trimming of the D1 is recommended in western CO (blue shape). This area received

between 1 and 2 inches in the past week, in addition precipitation for the previous week and closer to normal precipitation for the past water year.

Additionally, it is recommended to remove the D1 from La Plata and Archuleta counties in southwest CO (blue shape). There were other areas that could have possibly been improved, but decided to leave status quo because it either had lower percents of average for the last water year, or didn't receive as much precipitation this month. These areas will be closely monitored for possible near-future improvements.

Status quo is recommended for the remainder of the basin.

Eastern Colorado: Status quo is recommended for the rest of Colorado

Wyoming: Some minor areas of improvement are recommended, mostly for eastern WY, where 1 to 3 inches of precipitation fell last week, and a small area in southern WY that has received 1 to 2 inches since the beginning of the month. Green shapes denote improvement from D2 to D1; the blue shape denotes improvement from D1 to D0; the purple lines are for elimination of D0. We defer to the USDM author and SD experts on how the D0 - D2 lines cross from WY/SD border.