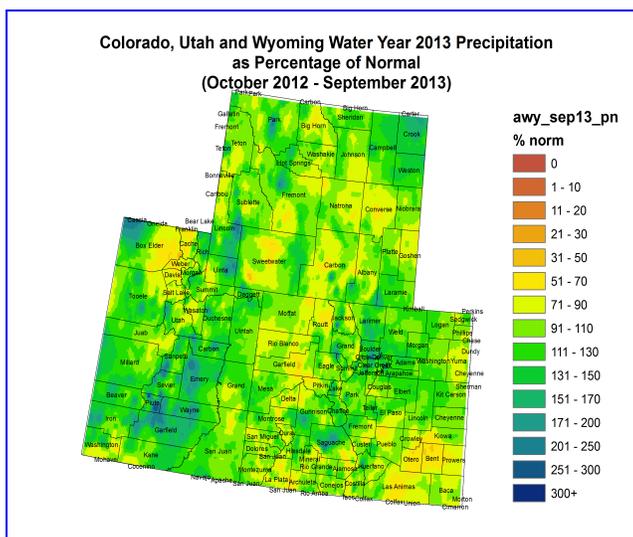
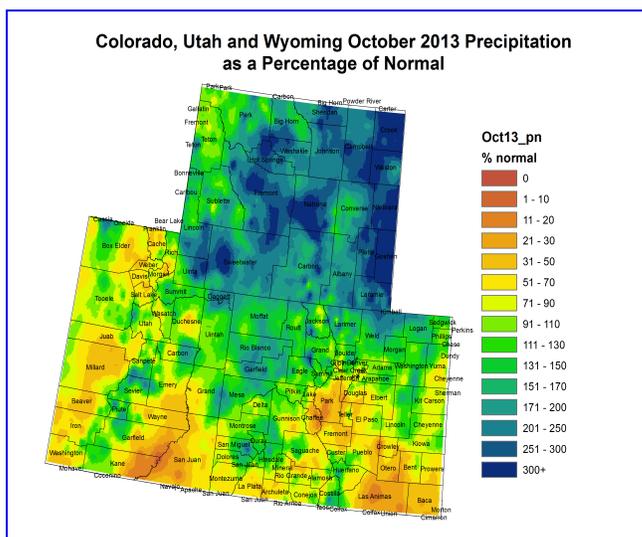
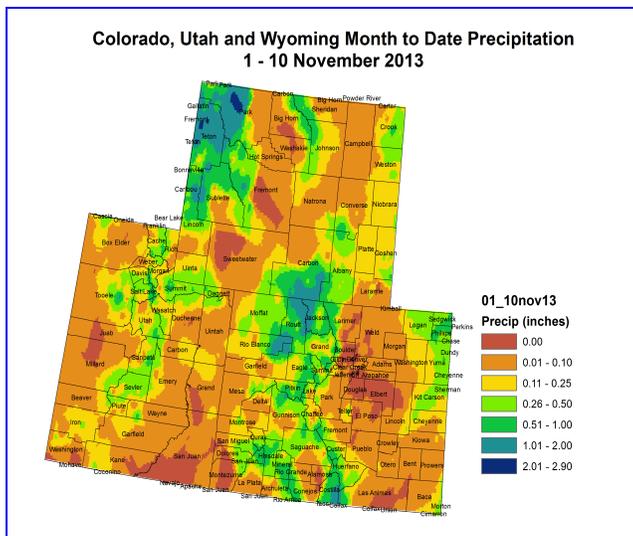
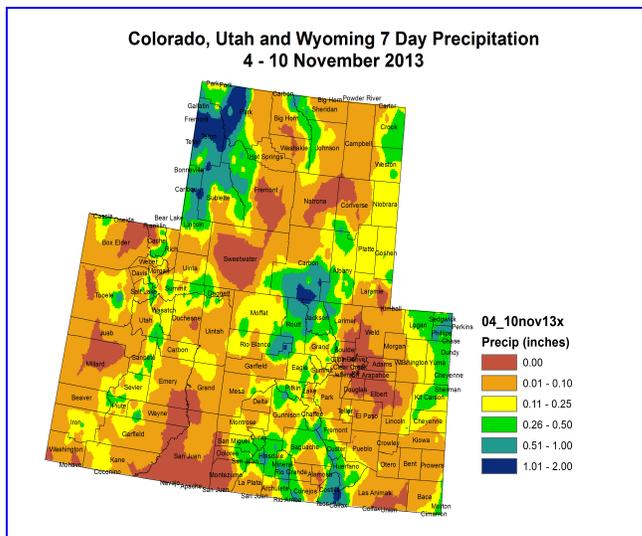


PRECIPITATION



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:

- The northern and western portions of the UCRB were dry with precipitation amounts less than 0.10 inches.
- The eastern portion of the basin along the divide and the San Juan mountains saw amounts up to 1.00 inch
- East of the basin, most of eastern CO was drier, receiving less than .10 inches.

- The northeastern corner of CO received beneficial precipitation up to 1.00 inch.
- In southern CO, the San Luis Valley was drier, receiving less than .10 inches, however the mountains surrounding the valley saw precipitation amounts up to 1.00 inch.
- Much of eastern WY saw 0.25 inches of moisture for the week.

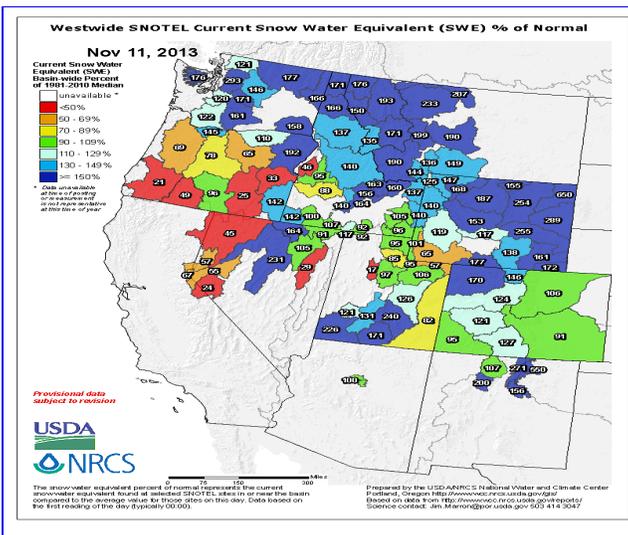
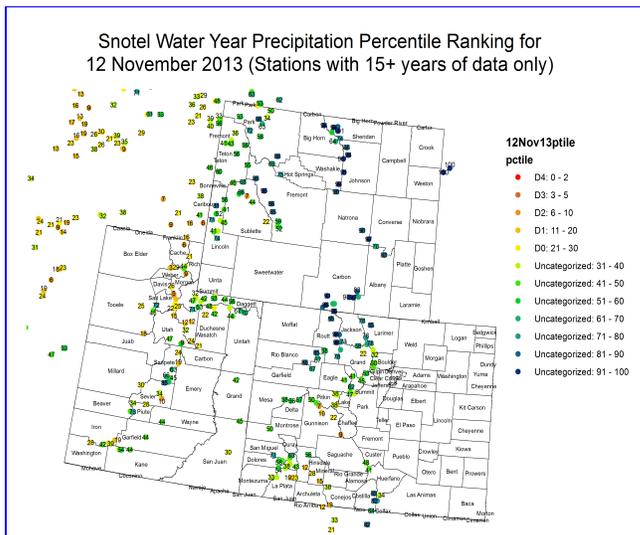
October Precipitation:

- The northern half of the UCRB received near average to above average precipitation
- Most of the Four Corners region and the CO River valley in southern UT were drier, receiving between 30% and 90% of average precipitation for the month
- The Wasatch range and other higher elevations in central UT received near average precipitation
- East of the basin, northeast CO and the Sangre de Cristo mountains in southern CO received near average precipitation
- Most of the Arkansas basin in southeast CO was drier, seeing between 30% and 90% of average precipitation
- Most of WY was very wet for the month, receiving between 130% and 300% of average precipitation

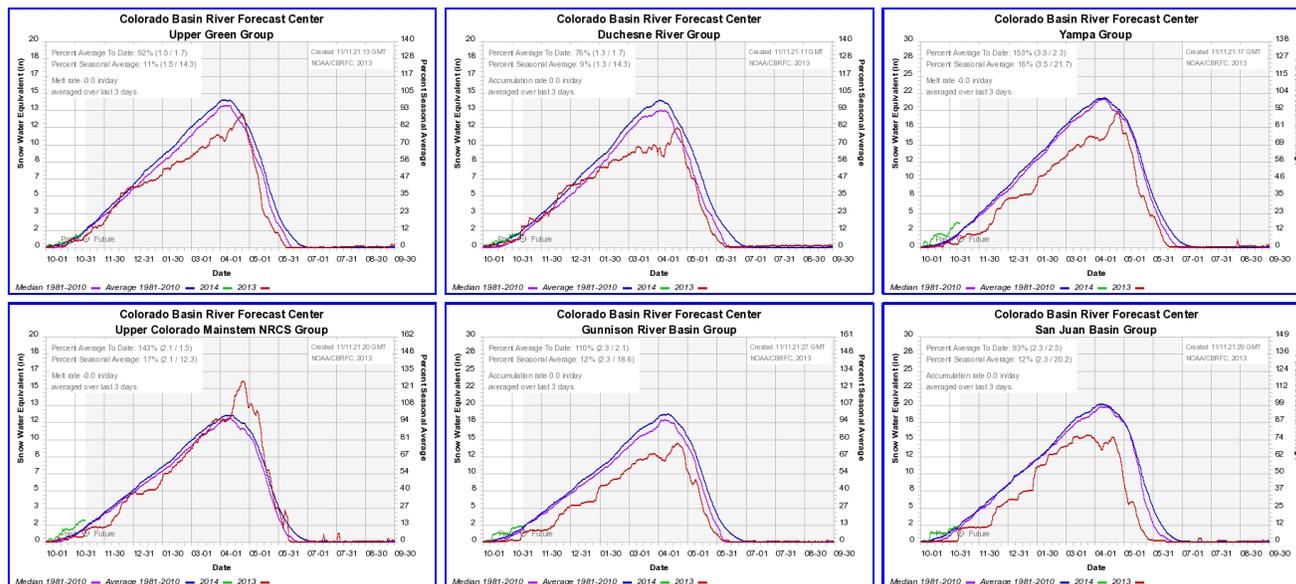
Water Year Precipitation:

- 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

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).



SNOTEL Precipitation Percentiles:

- Most of the UCRB is showing above median percentiles since the beginning of the water year, however they have dropped some since last week.
- The northern and central CO mountains are showing precipitation between the 40th and 97th percentiles
- The San Juans in southern CO are a bit lower, with some precipitation percentiles in the 30s and 40s
- The Uintas in northeast UT are mostly slightly lower than the median percentile, while the central and northern UT ranges are seeing a mixed bag of drier to near median percentiles
- The Wind River and Wyoming ranges in WY are showing percentiles in the 40s to the 90s

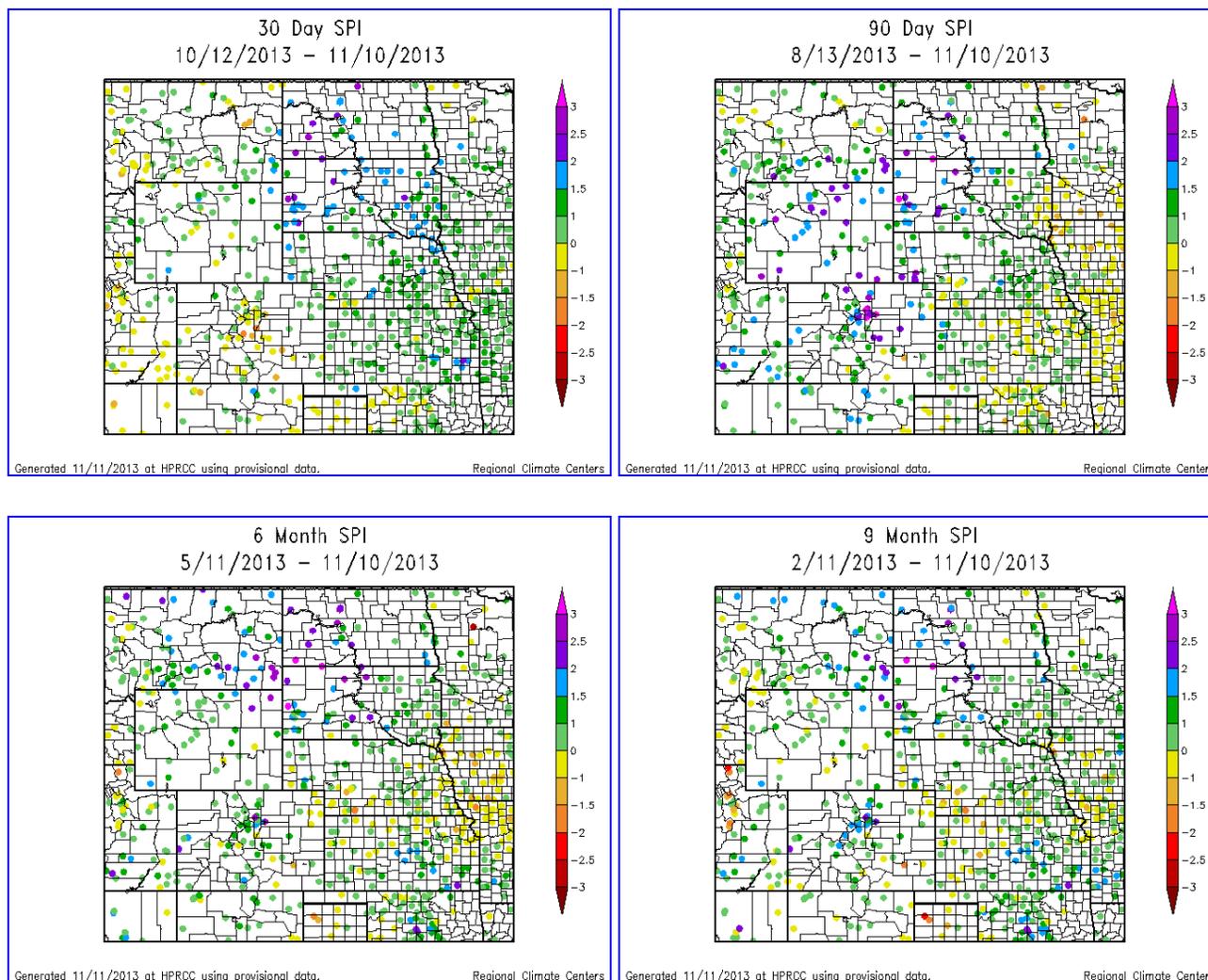
Basin-wide Snow Water Equivalent Percent of Normal:

- The eastern portion of UCRB in CO is seeing SWE values above normal.
- The northern and western portions of the basin are seeing mixed SWE values, some above normal, some much below normal.
- Around the Four Corners, SWE is , slightly below normal.

SWE Timeseries Graphs:

- Most of the sub-basins are showing near normal to above normal SWE accumulations since the beginning of the water year
- The Colorado River headwaters and Yampa basins are greater than 140% of normal snowpack to date.

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.

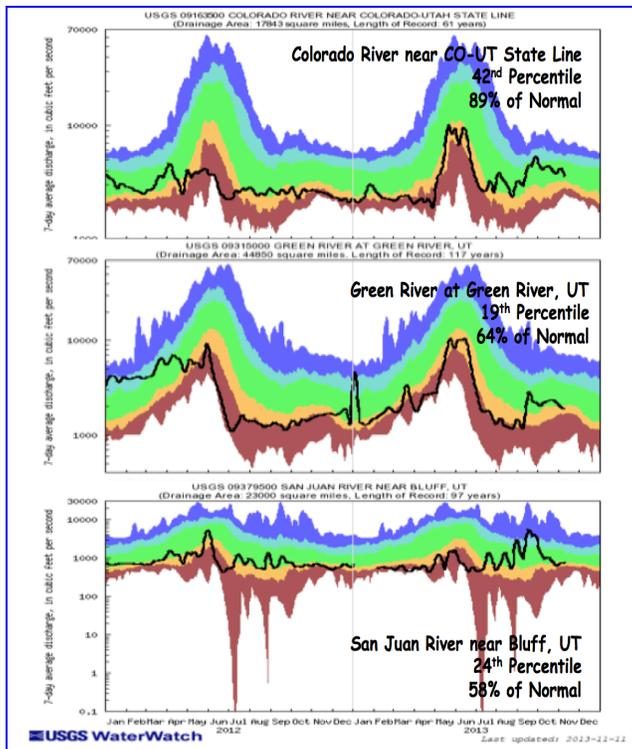
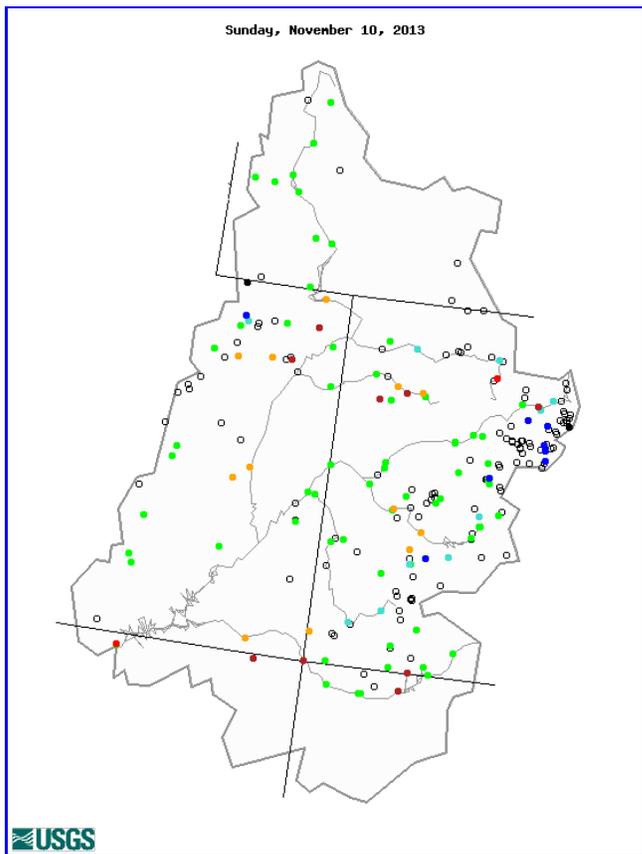
Short Term (30-day):

- Most of the UCRB shows -1 to +1 mixed SPIs, with a couple of isolated wetter locations
- The South Park area, east of the basin in CO, is showing drier SPIs between 0 and -2
- Most of eastern CO showing mixed SPIs between -1 and +1, and slightly drier around Crowley County
- Eastern WY showing wet indicators

Long Term (6-month):

- The majority of the UCRB is showing wet long-term SPIs
 - Central UT and the Wasatch range showing SPIs between -1 and +1
 - Western CO and southwest WY showing wet indicators between 0 and +2
 - Wet SPIs across the northern CO Front Range and eastern WY
 - Parts of northeast CO showing slightly dry SPIs between 0 and -1
 - Some drier indicators across southeast CO, with mixed SPIs between -1.5 and +1
-

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.

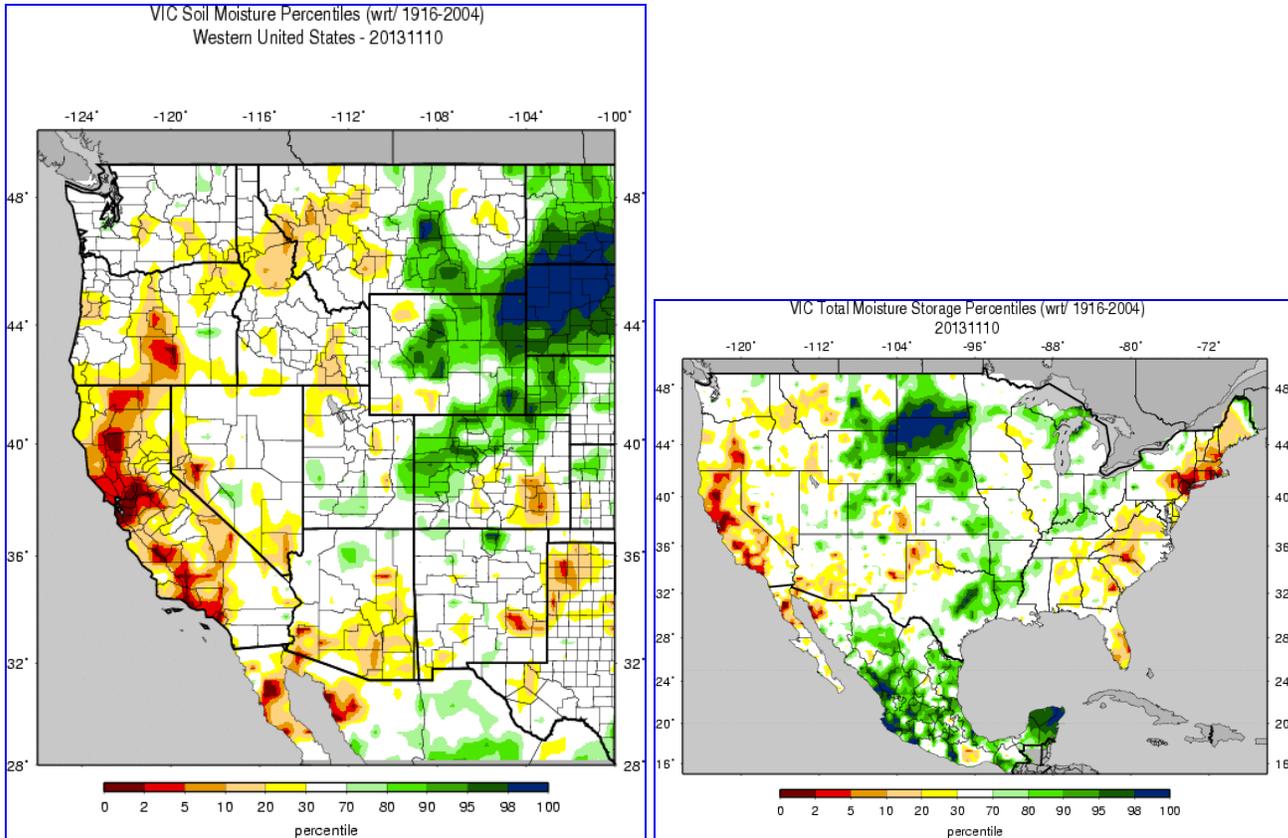
Streamflow Statistics:

- 78% of gages recording in the normal and above 7-day averaged streamflow
- 10% of gages recording much above normal to high flows
- 11% of the gages are recording below the normal for 7-day averaged streamflow
- Only 2% are recording much below normal flows
- Highest flows concentrated around the Colorado River headwaters
- Lower flows around the Lower Green and San Juan River basins
- All three key gages around the basin saw some decreased flows over

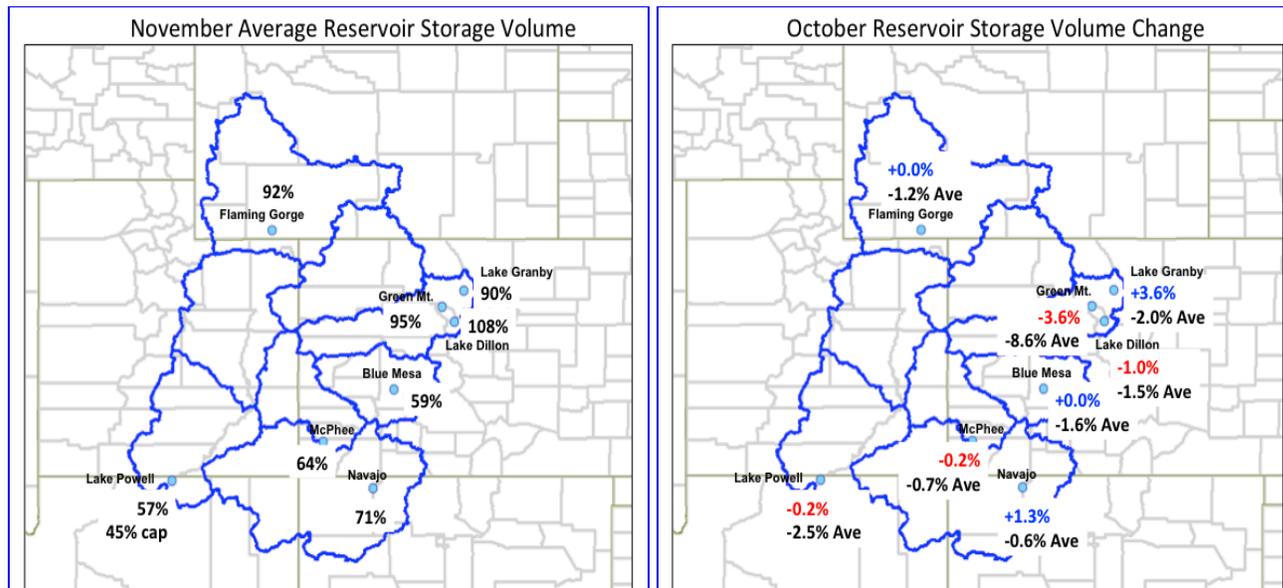
the past week

- The Colorado River near the CO-UT state line currently recording flows in the near normal range, at the 42nd percentile, 89% of Normal
- The Green River at Green River, UT is recording below normal flows, at the 19th percentile, 64% of normal
- The San Juan River near Bluff, UT is just below normal at the 24th percentile, 58% of normal.

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.

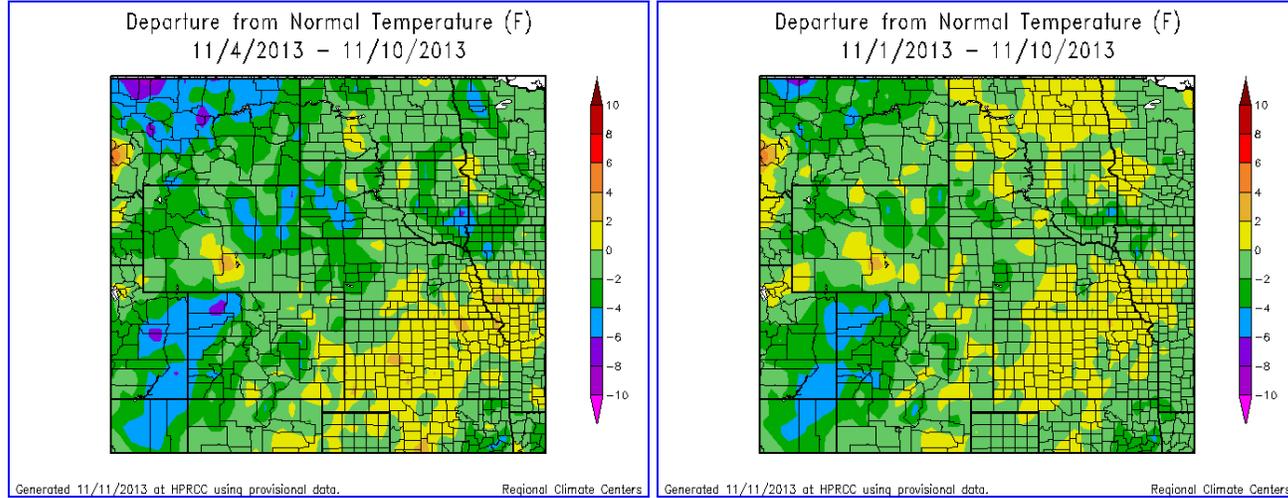
VIC:

- Majority of the UCRB is showing near normal to wet soil moisture conditions
- Parts of northern UT and far southwest WY showing slightly dry soil moisture, with percentiles ranging from the 10th to the 30th
- Soil moisture conditions above the 70th percentile for much of western CO and the Four Corners region
- Northern CO and eastern WY also show wet soil moisture conditions
- Near normal soil conditions in southern CO
- Southeast CO continues to experience dry soil moisture conditions, with some areas below the 20th percentile

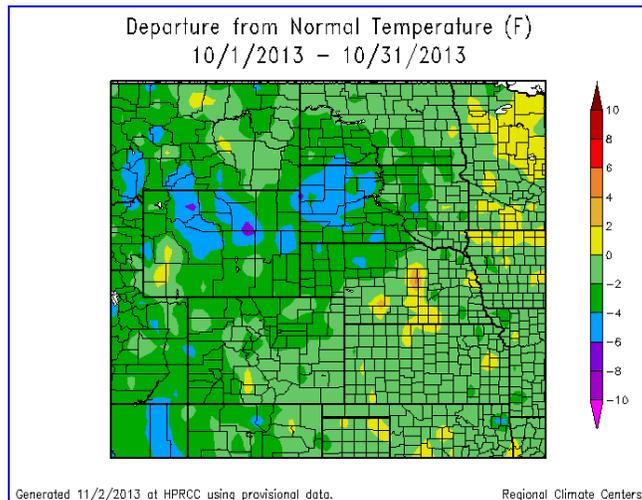
Reservoirs:

- For the month of October, Flaming Gorge, Lake Powell, McPhee, and Blue Mesa saw very small changes in storage volume compared to average.
- Granby and Navajo volumes increased last month
- Dillon and Green Mountain volumes decreased last month, but those decreases were less than what is normal
- The northern reservoirs are all near their November averages, ranging from 90% (Granby) to 108% (Dillon) of average
- The southern reservoirs are all below average, though they have seen some improvement over the past couple months. They range from 57% (Lake Powell) to 71% (Navajo) of average for November

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.



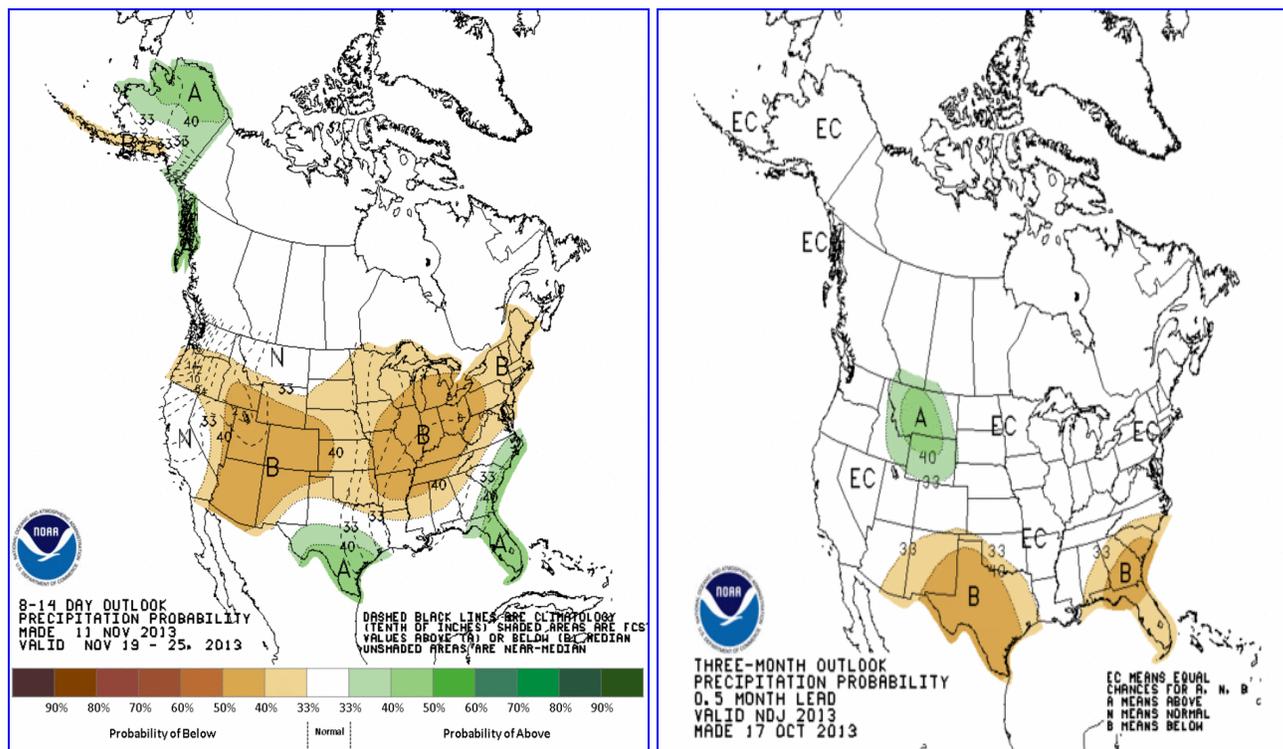
Last Week Temperatures:

- Most of the UCRB saw near normal to below normal temperatures
- Much of the central part of the basin saw temps 4 to 8 degrees below normal
- Temperatures around the Four Corners ranged from 2 to 6 degrees cooler than normal
- Most of eastern CO and WY saw temperatures 0 to 4 degrees cooler than average
- Southeast CO had temperatures slightly above average.

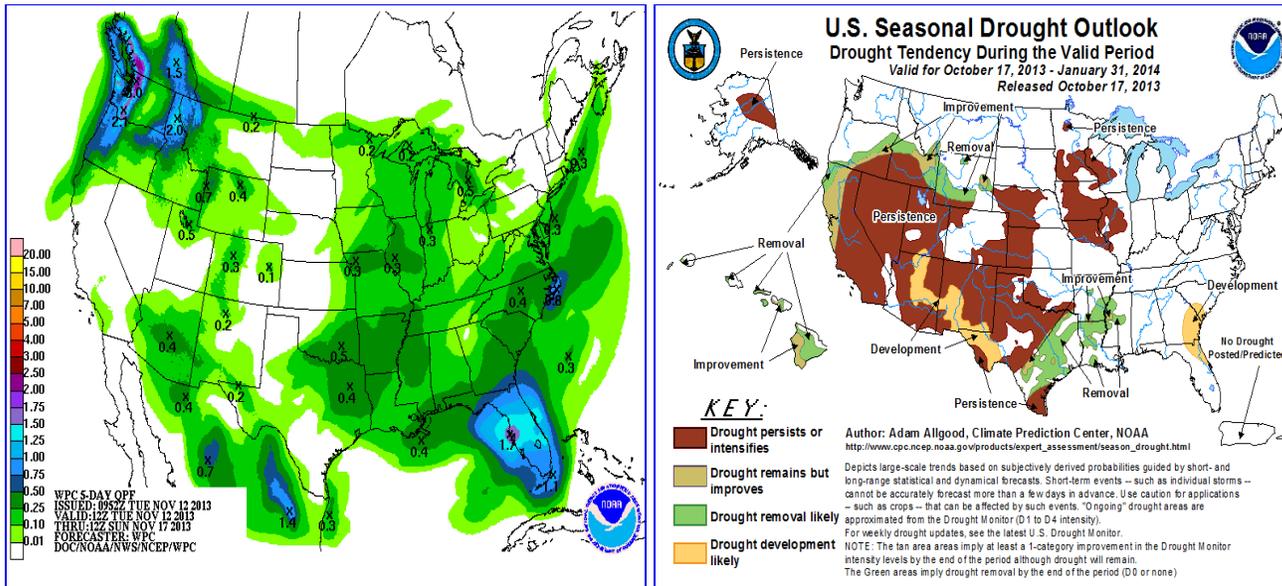
Last Month Temperatures:

- All of the basin saw cooler than average temperatures for the month of October
- Temperatures were 2 to 4 degrees below average for most of the basin
- Temperatures in eastern CO were closer to average, but still 0 to 2 degrees below average for the month
- Most of WY experienced temperatures 2 to 6 degrees colder than average

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.



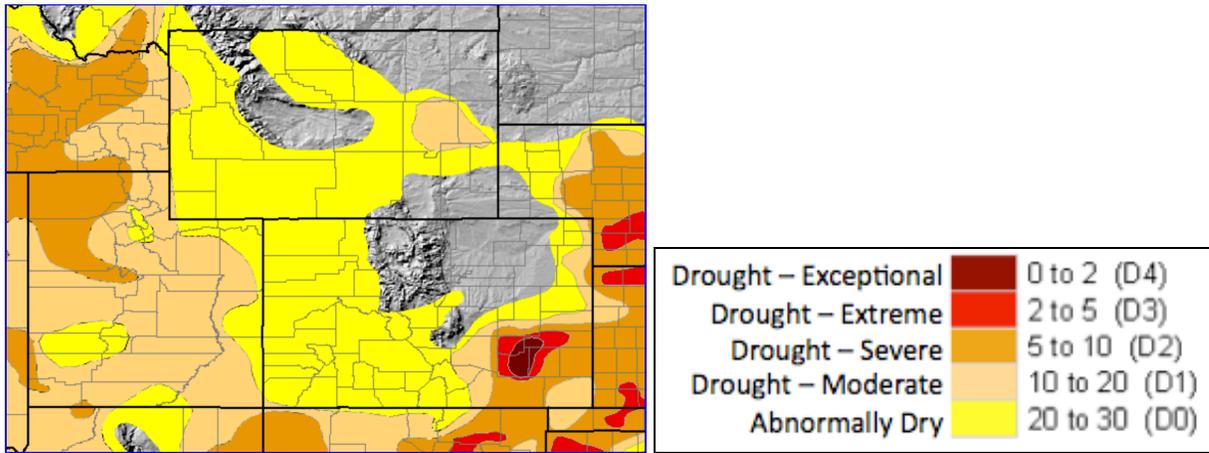
Short Term:

- A ridge will keep the UCRB and eastern CO warmer through Wednesday day.
- A few disturbances will bring a chance showers mainly over the northern mountains Wednesday night through Thursday with cooler temperatures
- A stronger disturbance and possible cold front may come in Sunday bringing cooler temperatures and a slightly higher chance of snow and possible rain showers.
- Next week brings an increased chance of warmer than average temperatures and below average precipitation for most of the basin, eastern CO and WY.

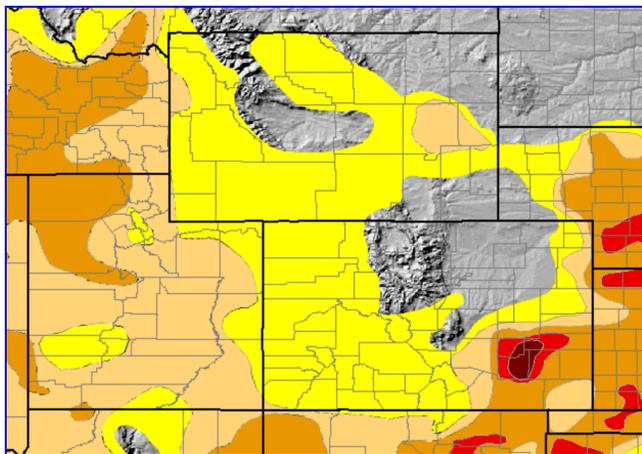
Long Term:

- 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: November 12, 2013

A quiet, cool week across much of the basin and eastern CO. Some precipitation fell around the basin, however not enough to make any additional improvements.

Recommendations**

UCRB:

Status quo is recommended for the Upper Colorado River Basin.

Eastern Colorado:

Status quo is recommended for eastern Colorado.

Wyoming: Status quo as well.

