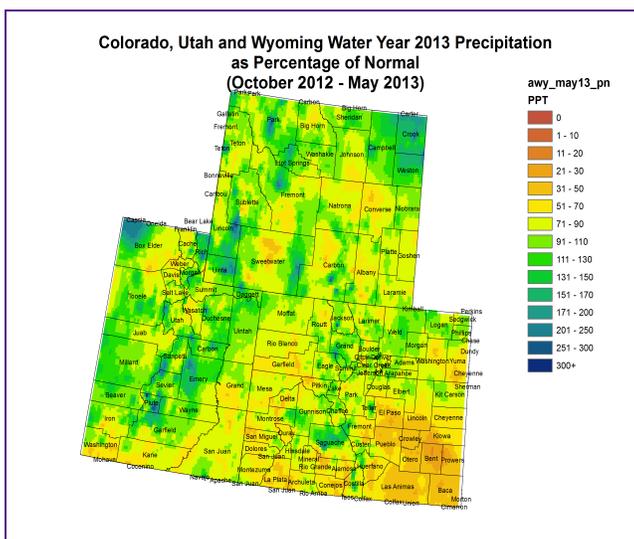
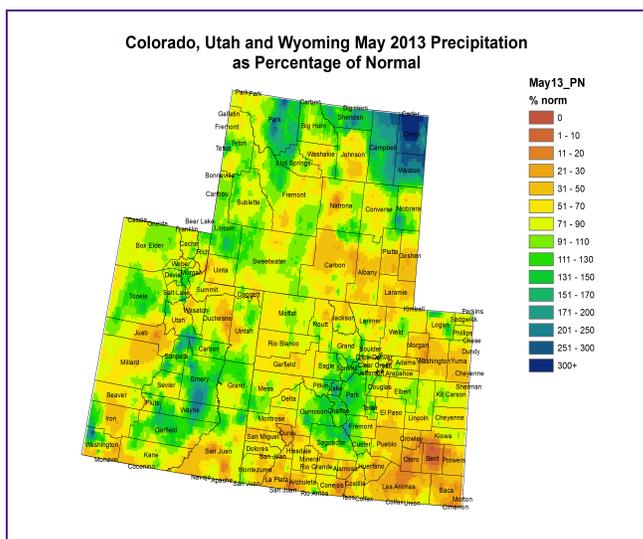
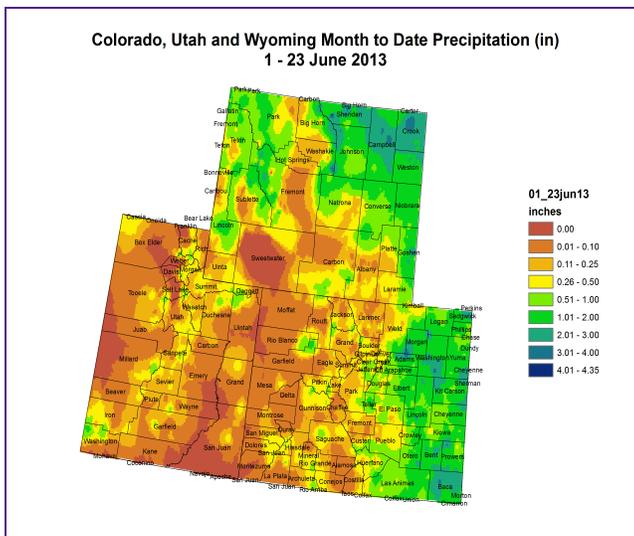
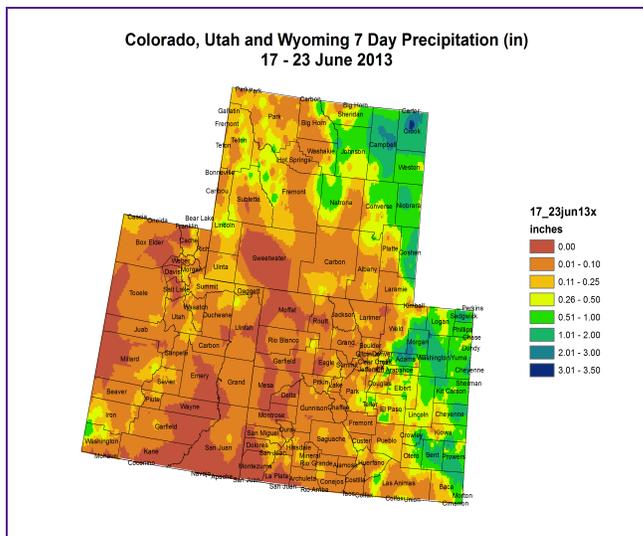


# PRECIPITATION



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.

## WYTD Precipitation:

- Much of eastern and northern UT and western WY have seen near average precipitation for the water year with some drier areas in the Wasatch mountains and in Sweetwater County, WY
- Western CO is drier than average, around 70% to 90% of average in northwest CO and 30% to 90% ranges around the Four Corners region
- The northern and central CO mountains are near average
- Northeast CO is near to slightly below average with some drier patches around Washington and Yuma counties
- Southeast CO about 70% of average with many areas lower than 50%

of average

### **May Precipitation:**

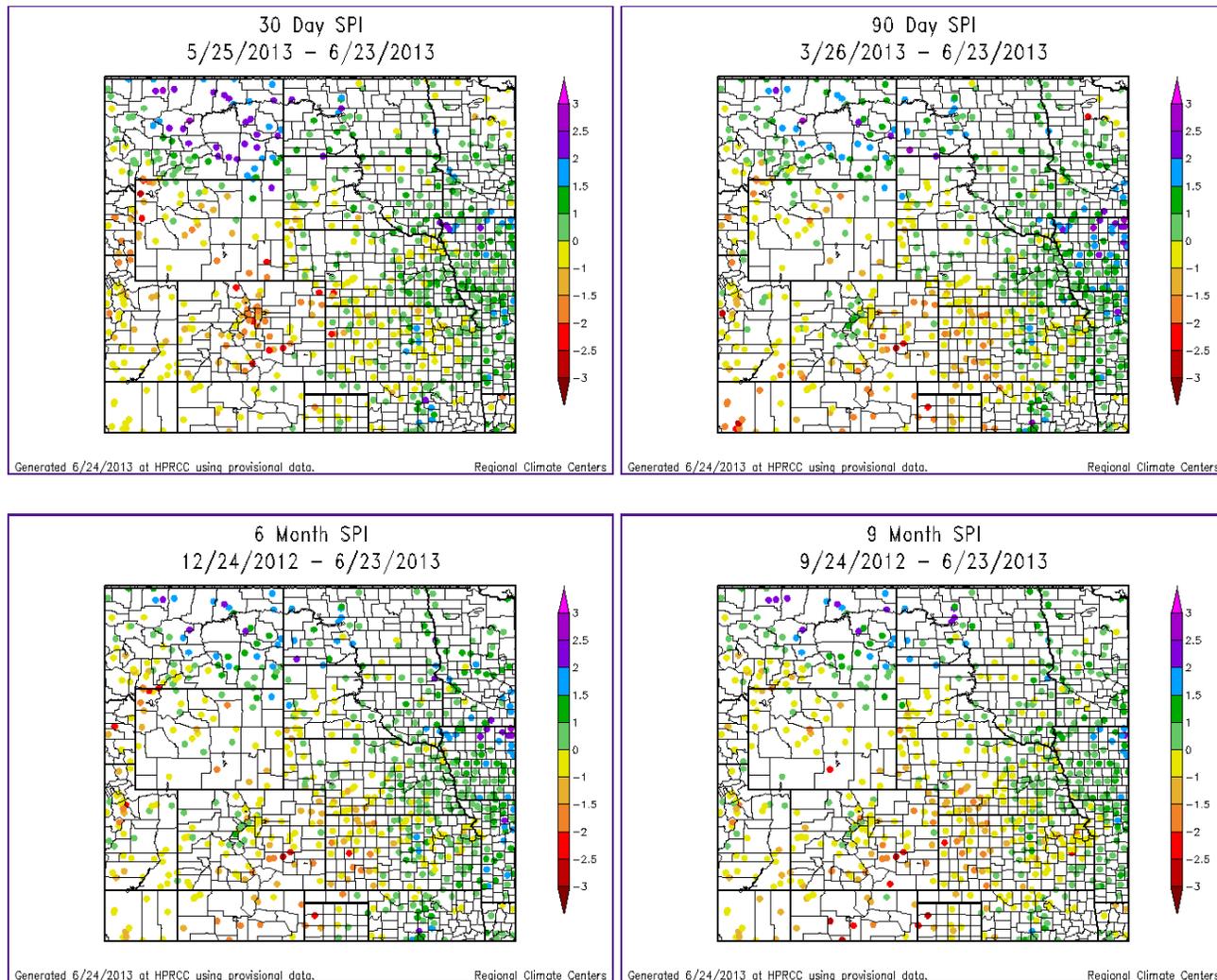
- Spotty drier than average and wetter than average conditions scattered through the UCRB
- Western WY near average, central UT slightly wetter than average, and central CO mountains near average
- Most of western CO drier than average, Four corners mostly below 70% of average, and northeast UT also drier than average
- Mostly drier than average in northeast CO and southeast WY, with some spotty areas receiving less than 50% of average precipitation for the month
- Southeast CO and the San Luis Valley much drier than average for May, with most areas less than 50% of average

### **Last Week Precipitation:**

- Over the past week (June 17-23, 2013) very little moisture has fallen over the UCRB. Parts of northern Utah and areas of the Upper Green river basin saw less than 0.25". The rest of the basin received less than 0.10".
- East of the divide saw much higher amounts of precipitation over the past week. Much needed moisture ranging from 0.25-2.00" fell across the most of the Eastern Plains fo Colorado.
- Morgan and Adams Counties saw some areas of over 3.00" thanks to intense thunderstorms.
- The rain on the plains was mainly convective thunderstorm activity falling on very dry soils, so the effectiveness of infiltration is questionable, but the moisture was very welcome.

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## **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.

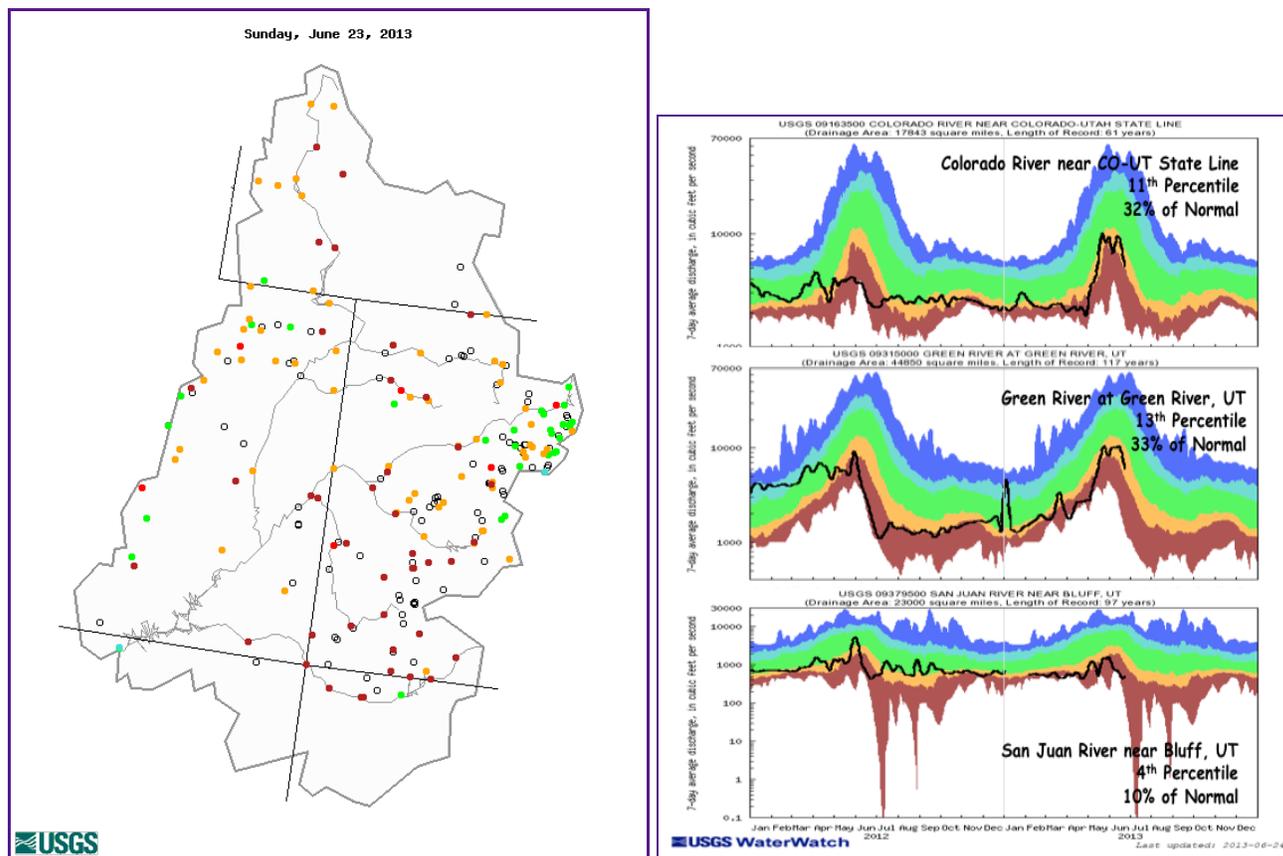
### Short Term (30-day):

- Dry SPIs for most of the basin
- SPIs have dried out over the past week in ne UT and sw WY, all SPIs are negative this week after being near normal in recent weeks.
- SPIs between -1 and -2 for the northern and central CO mountains
- Four Corners region showing SPIs between 0 and -1.5
- Very dry SPI's dominate the eastern plains with the worst in the Upper Arkansas basin. NE plains range from -1 to -2 with the SE plains in the -1 range, with a few stations showing the recent moisture with SPI up to 1.

### Long Term (6-month):

- SPIs between -1 and +1 throughout most of the UCRB with some drier SPIs in the Wasatch Range and a few wetter SPIs in the northern and central CO mountains
- SPIs between 0 and -1.5 for most of the Front Range and northeast CO
- Very dry SPIs (down to -3) in southeast CO

## STREAMFLOW



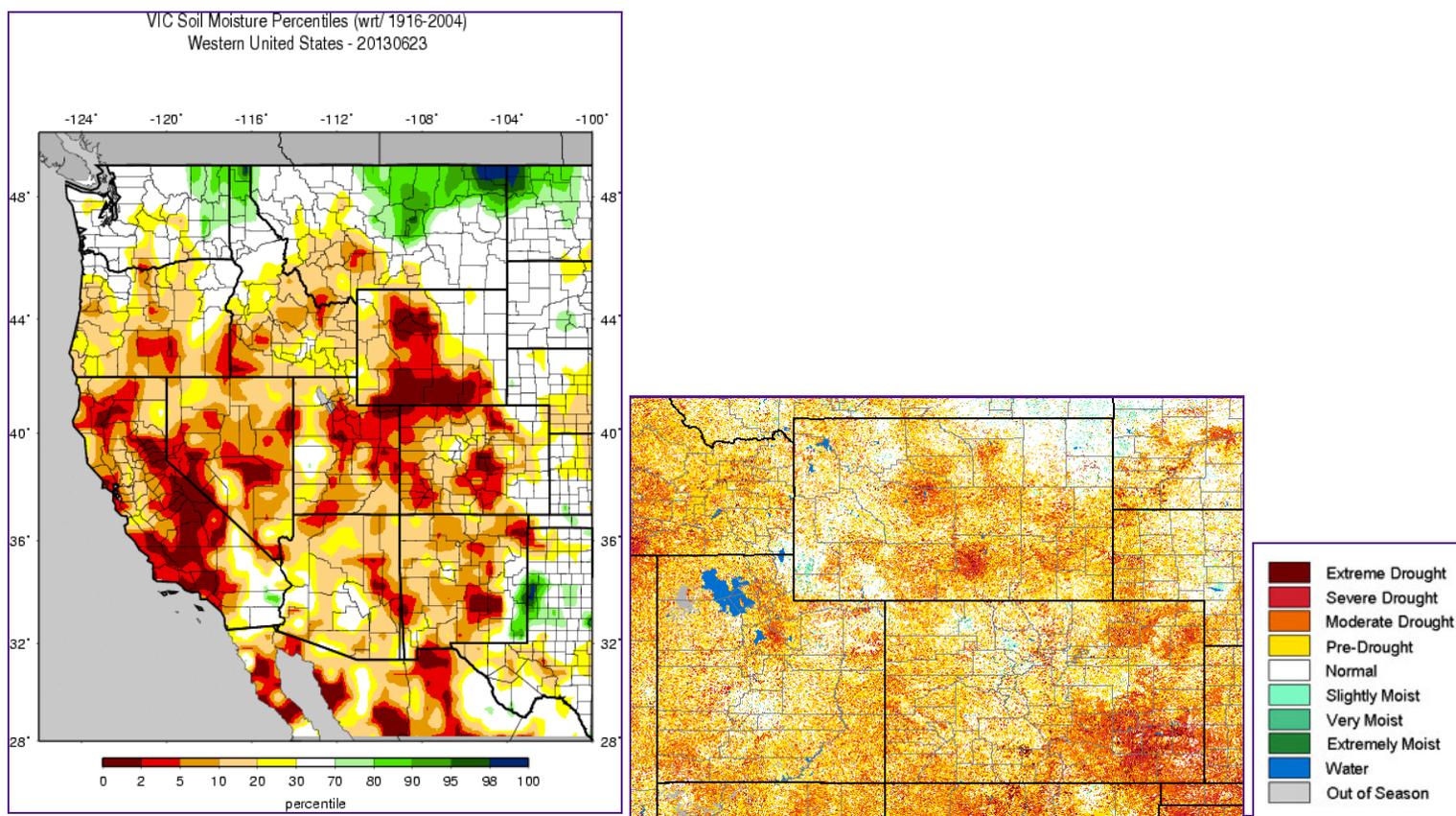
Explanation - Percentile classes							
	<span style="color: red;">●</span>	<span style="color: orange;">●</span>	<span style="color: green;">●</span>	<span style="color: cyan;">●</span>	<span style="color: blue;">●</span>	<span style="color: black;">●</span>	<span style="color: gray;">○</span>
Low	<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.

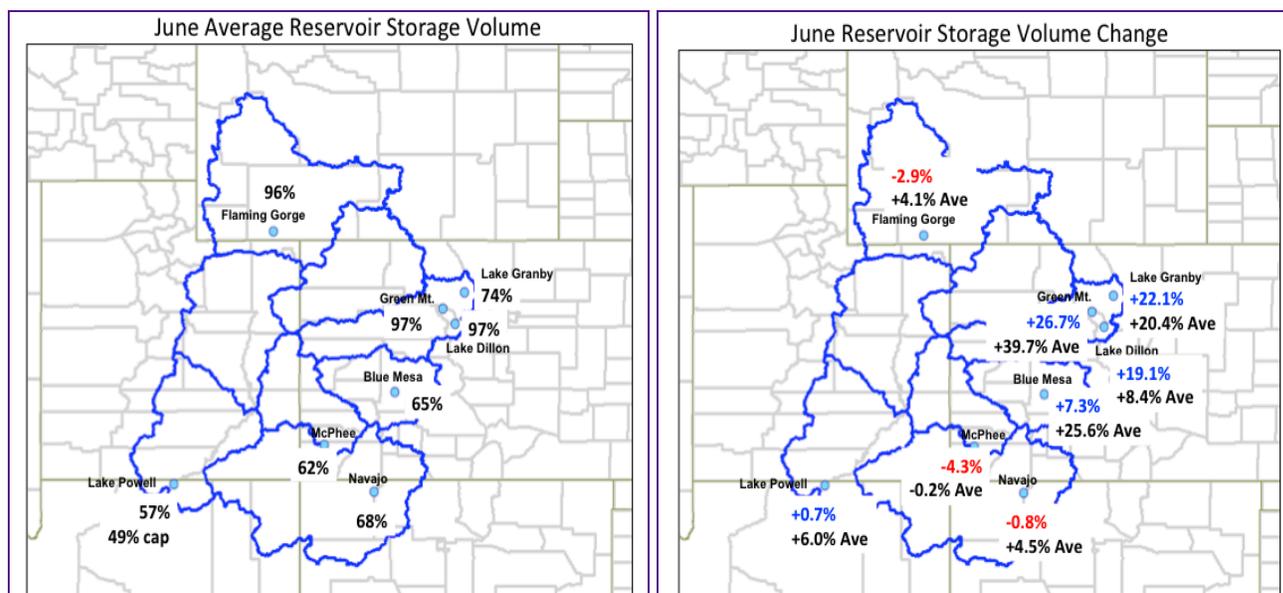
### Streamflow Statistics:

- 20% of gages recording normal to above normal 7-day average streamflows
- 34% of gages recording much below normal 7-day average streamflows and 42% are reporting below normal.
- Much lower streamflows concentrated on the Gunnison, Dolores and San Juan rivers. The middle White river is also seeing much below normal flows.
- Near normal flows still showing up near the headwaters regions in the central and northern CO mountains with a few sites dropping into the below normal category.
- 144 gages now reporting
- The Colorado River near the CO-UT state line is at the bottom end of the below normal range at the 11th percentile (32% of normal). The Green River at Green River, UT is showing flows in the below normal range at the 13th percentile (33% of normal).
- The San Juan River near Bluff, UT is reporting much below normal flows, currently at the 4th percentile (10% 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:**

- Soil moisture conditions over southern WY are very dry in the 0-5th percentiles for much of the area.
- Northeast UT soil moisture below the 10th percentile in many areas
- Soil moisture below the 20th percentile for most of western CO and eastern UT.
- Near normal soil moisture for the central mountains in CO with drying in the northern mountains of CO.
- NE CO had improving soil moisture conditions in the extreme NE portion, dry soils continue for the rest of NE CO.
- Very dry soil moisture in the Upper Arkansas Basin, with improved soil moisture (normal range) in SW CO.

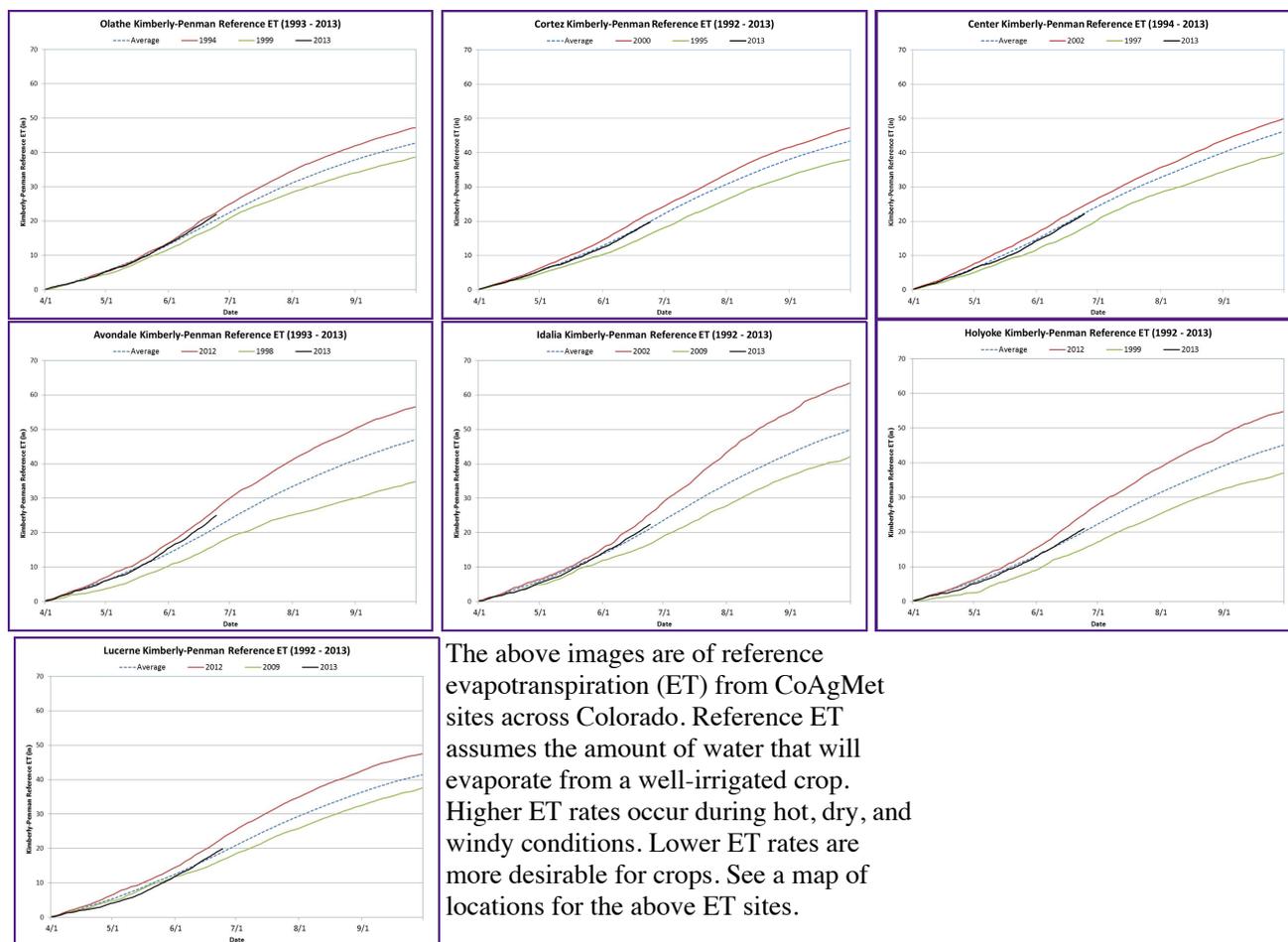
**VegDRI:**

- Dry vegetation showing up along the Wasatch Range in northern UT with slightly better vegetation conditions along the Uintahs
- Vegetation conditions in southwest WY are near normal, however starting to dry out in the last week.
- Dry vegetation along eastern UT/western CO and extending down to the Four Corners
- Dry vegetation conditions in northern CO with deteriorating conditions moving eastward
- Extremely dry vegetation in southeast CO, even with the recent moisture

### Reservoirs:

- Flaming Gorge slightly below average for June, with the remaining reservoirs ranging from 57% of average (Lake Powell) to 97% of average (Dillon)
- Flaming Gorge, McPhee and Navajo have been decreasing in volume since the beginning of the month, when normally increasing through June.
- Dillon, Lake Granby, Blue Mesa and Green Mountain continue to see volume increases
- Lake Powell continues to see much below normal volume increases

## EVAPOTRANSPIRATION



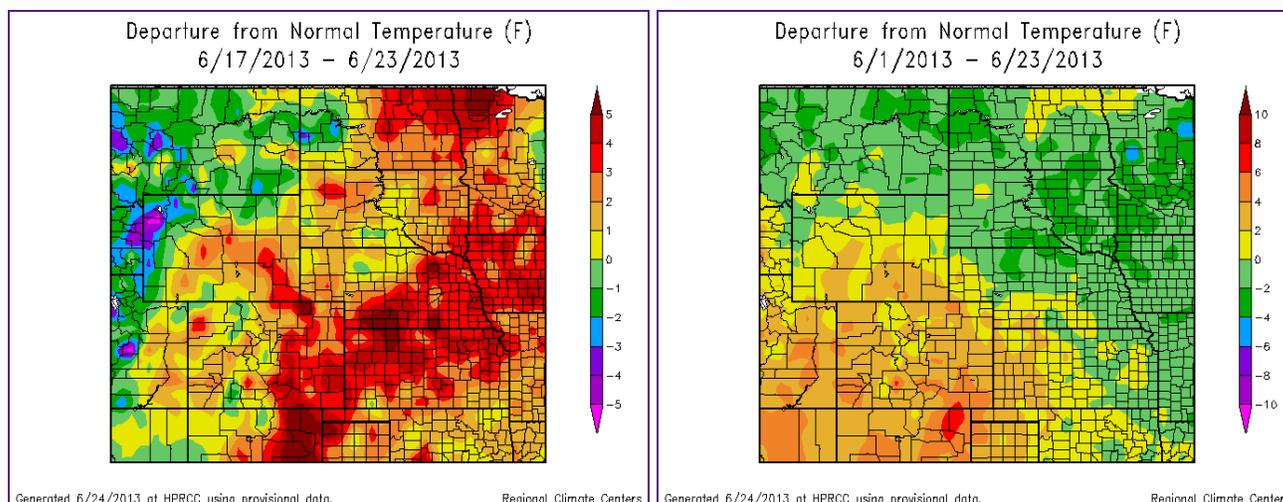
### Reference ET:

- Olathe: Above average ET since the beginning of the growing season, approaching the high year.
- Cortez: Near normal growing season ET to date
- Center: ET was below average for most of May, but has seen an

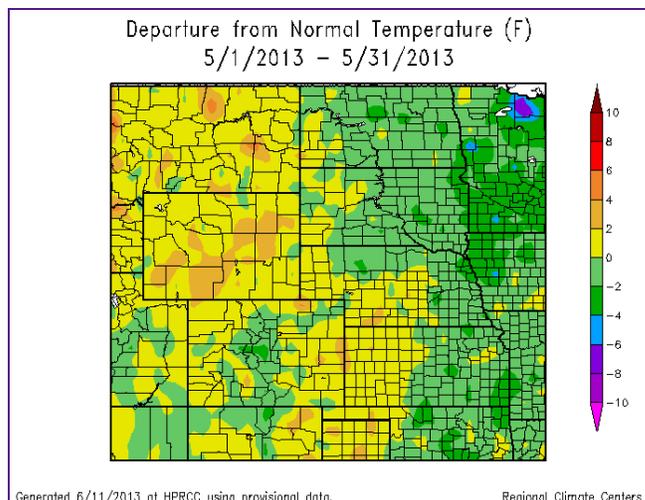
increase in ET and is now closer to average

- Avondale: For most of May, ET was near average but recent warm temperatures, low dew points and winds have increased ET above normal, but still lower than the maximum year of 2012.
- Idalia: Below average ET for most of April and May, increased and is now slightly above average
- Holyoke: ET was slightly below average for April but is now just slightly above normal.
- Lucerne: ET has been lower than the previous minimum year of 2009 for much of April and May but has now ramped up to just slightly above normal for the growing season.

## 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.



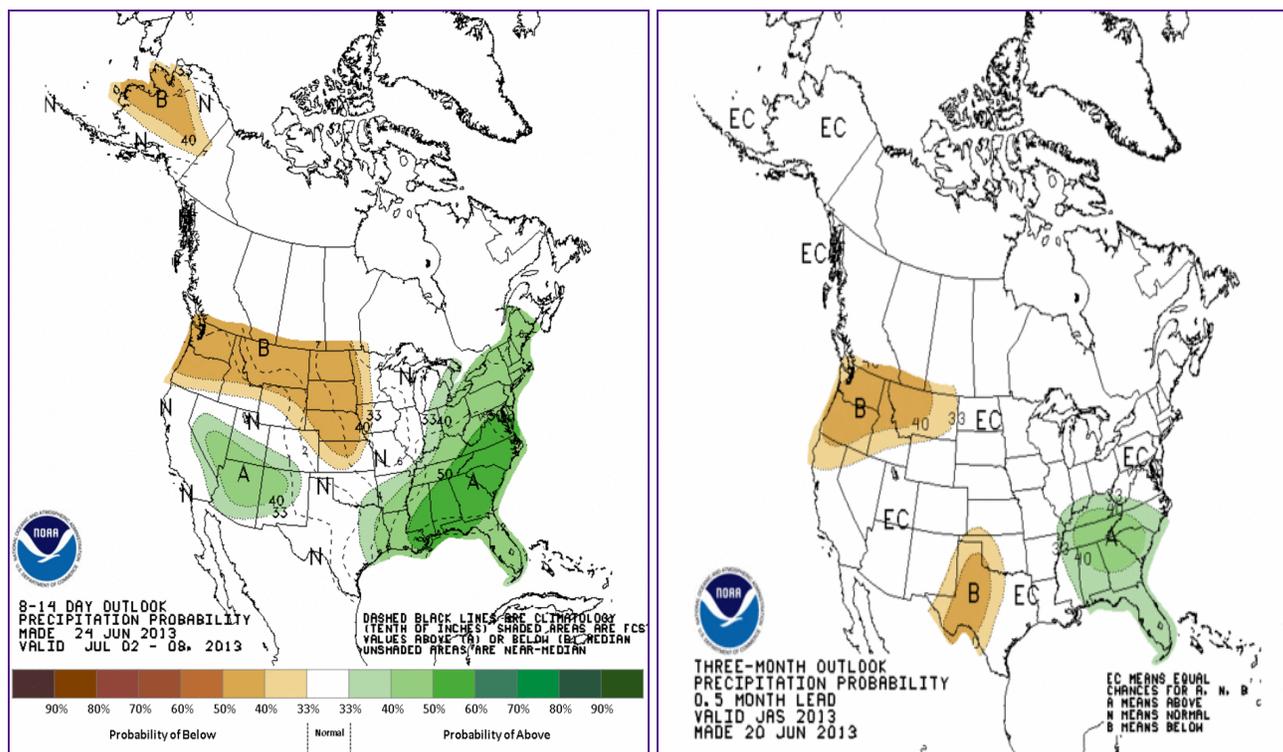
### Last Week Temperatures:

- Temperatures were mainly above average across the UCRB, with a few isolated areas just below average
- The northern part of the basin saw temperatures ranging from 2 to 4 degrees above average
- Temperatures across the southern part of the basin were 2 to 3 degrees warmer than average
- The northern mountains in CO were near to just below average
- The eastern San Juans and western Rio Grandes were just below average (-1 to -2 degrees)
- East of the basin, much above normal temperatures prevailed in the range of 2 to 5 degrees warmer than normal.

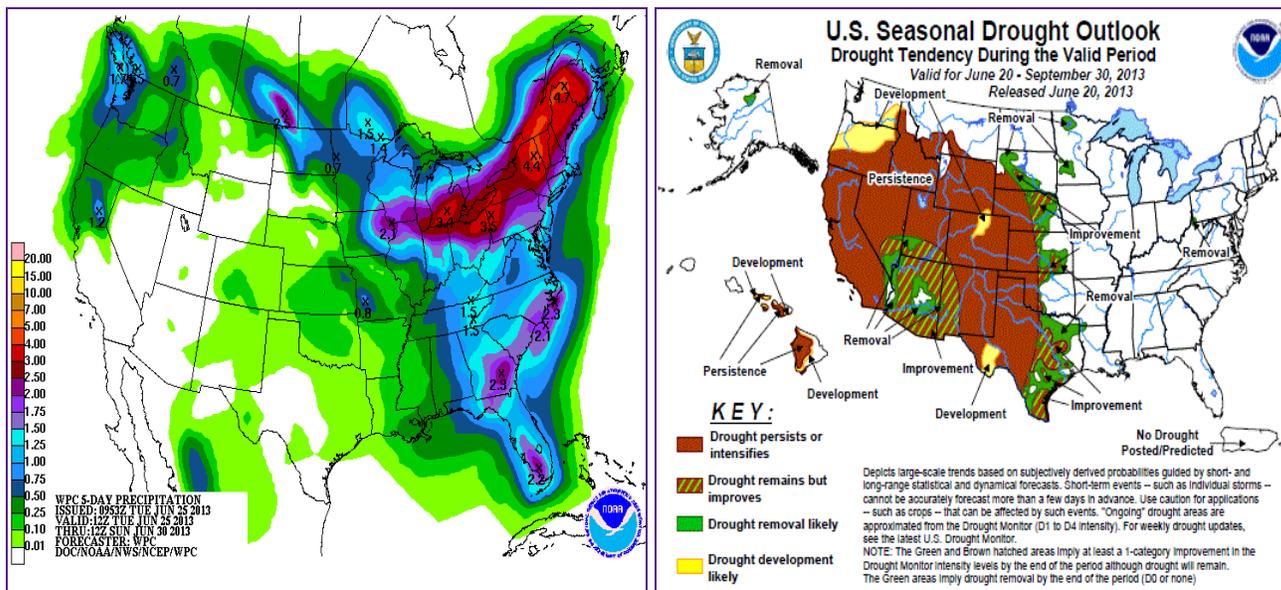
### Last Month Temperatures:

- Temperatures across the basin ranged from 2 degrees colder than average to 2 degrees warmer than average for the month of May
- Warmer than average temperatures were mostly found in WY and cooler than average temperatures were mainly confined to the higher elevations
- Near normal temperatures seen across most of eastern CO

## 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.



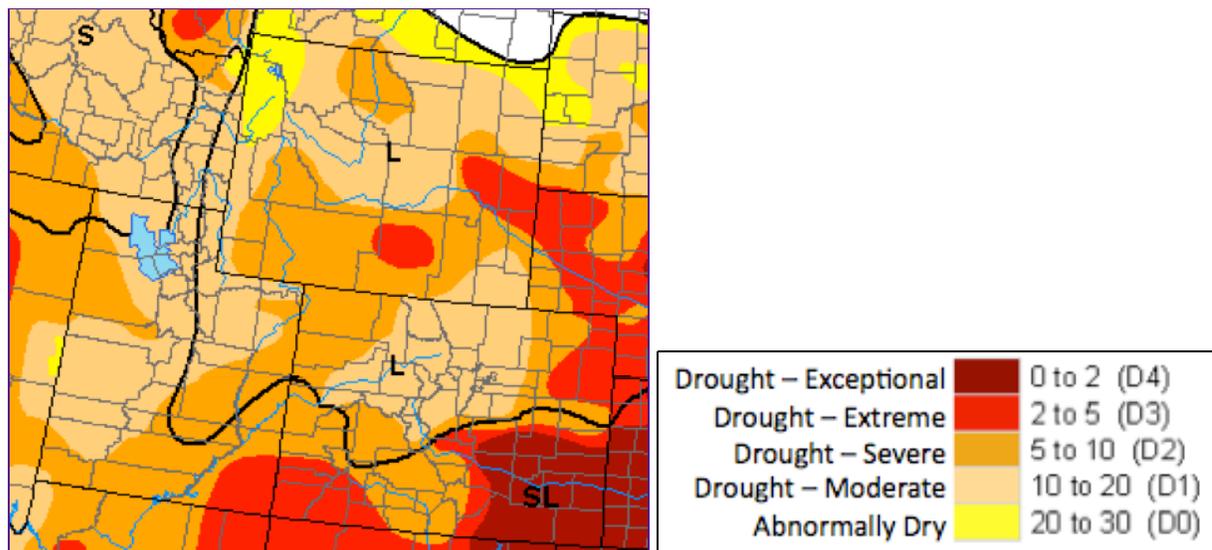
**This Week:**

- Strong ridge of high pressure will bring dry conditions and above average temperatures on Tuesday and Wednesday
- Very dry and warm conditions will persist through the rest of the week over much of the basin
- Expect the eastern plains to remain dry until the weekend when a slight chance of showers returns

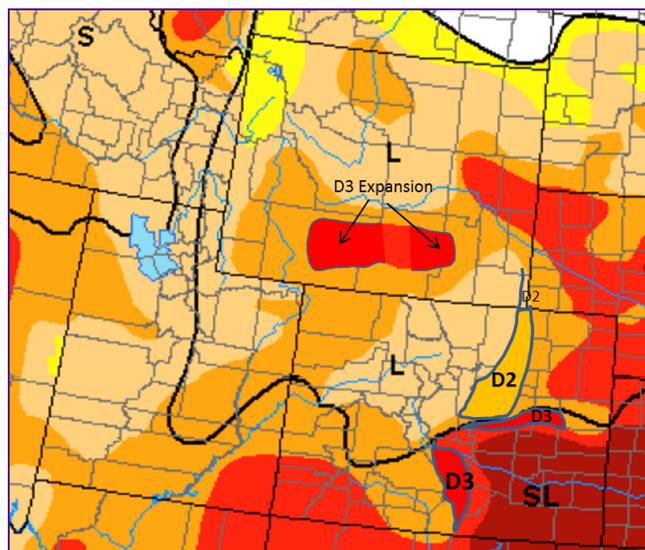
**Longer Term:**

- The 8-14 day outlook still suggests the potential for early monsoon moisture in southern portions of the basin
- The three month outlook through August shows above average temperatures and near normal precipitation

**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: June 25, 2013**

Conditions in the UCRB have not improved with very little precipitation falling and above average temperatures persisting in the last week. The dry and warm conditions will continue with a slight chance for precipitation later in the week, however may bring some dry thunderstorms, not helping fire conditions.

East of the basin in the plains of Colorado, spotty convective thunderstorms, some severe, continued causing heavy downpours causing much of the rain to runoff rather than infiltrate into the soils. Continued dry and warm conditions caused vegetation conditions to deteriorate.

**Recommendations\*\***

**UCRB:**

- Due to the degradations last week, status quo is recommended for most of the basin.
- Expansion of D3 west into Sweetwater County, WY is recommended for the northern portion of the basin.

**Eastern CO:**

- Expansion of D2 further west into Weld, Adams, Arapahoe, Denver and Douglas Counties in Colorado and north into eastern Laramie County, Wyoming is recommended based on degrading vegetation conditions from the VegDRI and Vegetation Health Index products.
- Expansion of D3 north in Lincoln and Elbert Counties and a west expansion of D3 into Custer and Huerfano Counties is recommended due to dryness and vegetation.