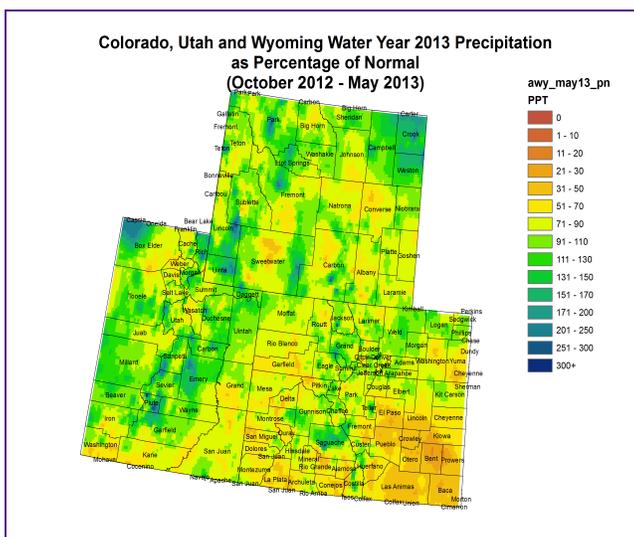
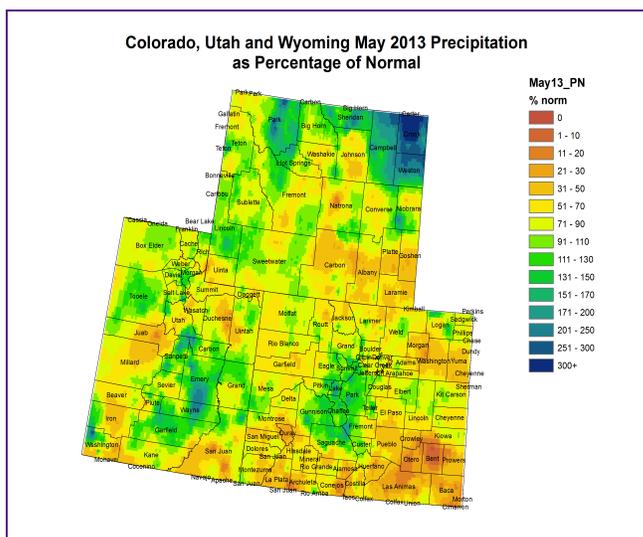
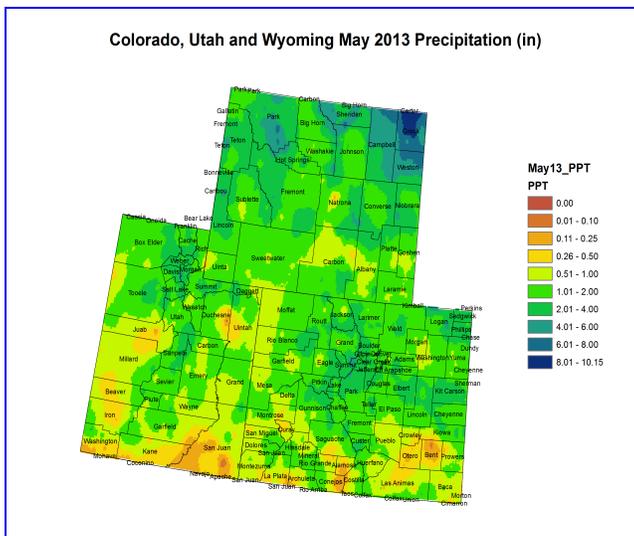
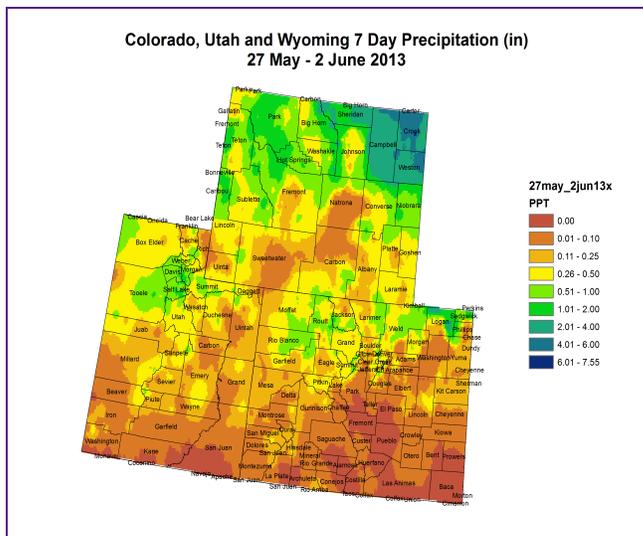


PRECIPITATION



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 below 70% of average with many areas lower than 50%

of average

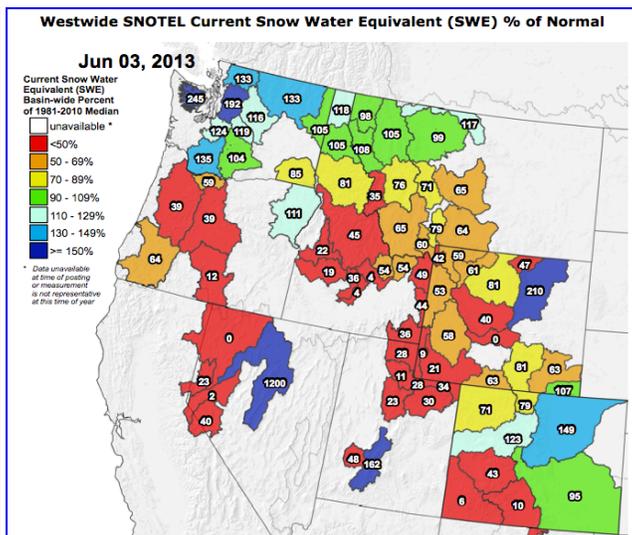
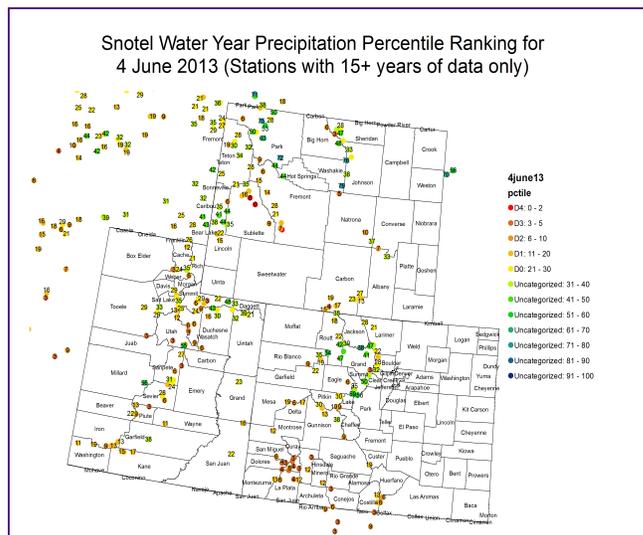
May Precipitation:

- 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

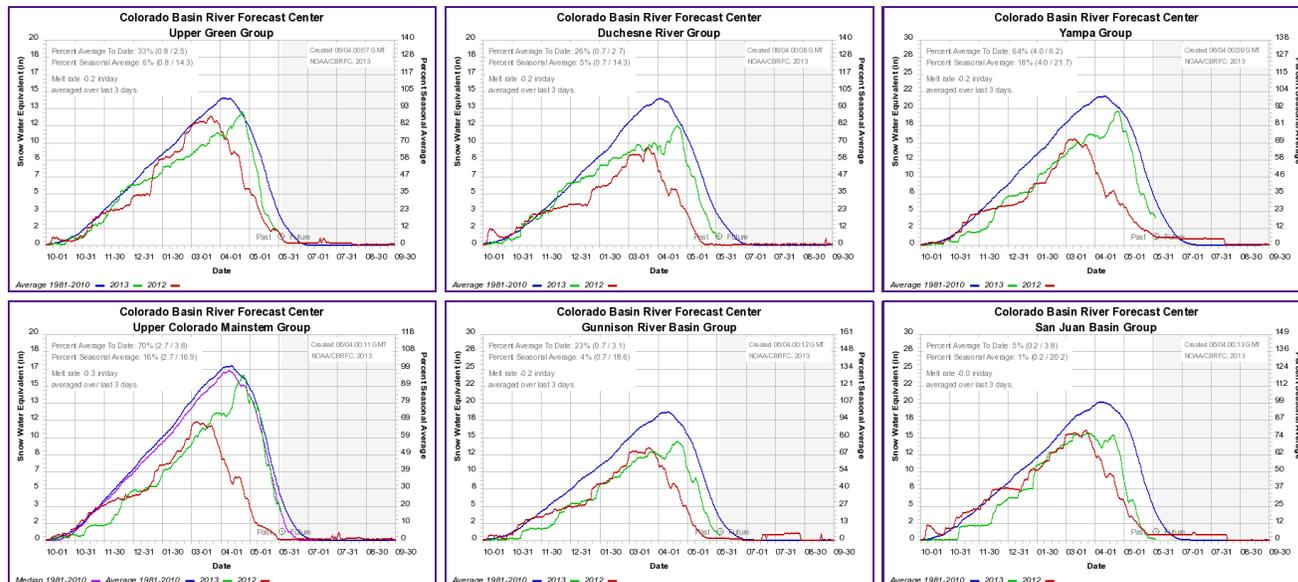
Last Week Precipitation:

- Most of the basin saw very little precipitation, with some spotty shower activity in the northern part of the basin
- Spotty areas in northern UT, western WY, and northwest CO received between .5 and 1 inch of precipitation
- Most of the basin received less than .25 inches of moisture, and some parts near the Four Corners received no precipitation for the week
- Some parts of northeast CO and southeast WY received between .25 and 1 inch of precipitation for the week
- Southeast CO and San Luis Valley were much drier, receiving less than .10 inches and many areas receiving no precipitation

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:

- Precipitation percentiles near to just below the median around the Duchesne basin in northeast UT
- Wasatch range and central UT percentiles are lower, ranging from the single digits to the 20s
- Western WY percentiles are just below the median with percentiles dropping to single digits and teens just to the east in Sublette county.
- Northern and central CO mountains showing better conditions with percentiles ranging from the teens to median and slightly above.
- San Juans in southwest CO are now mainly in the single digits with a few sites reporting in the low teens.

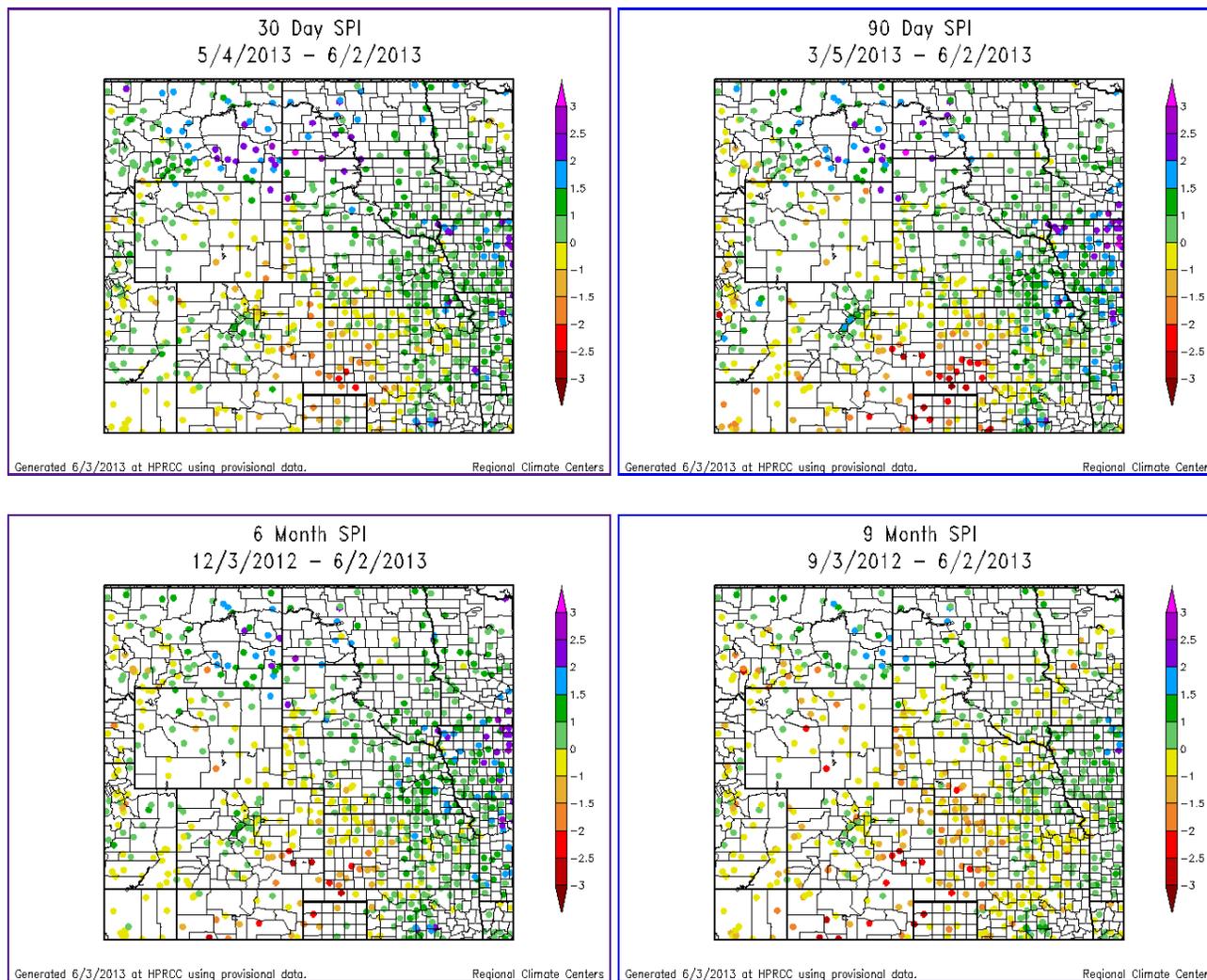
Basin-wide Snow Water Equivalent Percent of Normal:

- Percents of normal will be highly variable during the melt season. Compared with normal melting rates, faster melting or further accumulations can cause anomalously small or large values in percents of normal

SWE Timeseries Graphs:

- The northern areas reached around 90% of normal peak snowpack values, while the southern areas reached less than 80% of normal peak seasonal snowpack
- All graphs show later peak than last year and later peak than normal
- Most basins are melting at a rate of .2 inches per day and have less than 2 inches left
- The Yampa-White and Colorado Mainstem basins have more than 2 inches remaining
- The San Juan Basin is now mostly melted out, almost a month earlier than it normally melts out

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):

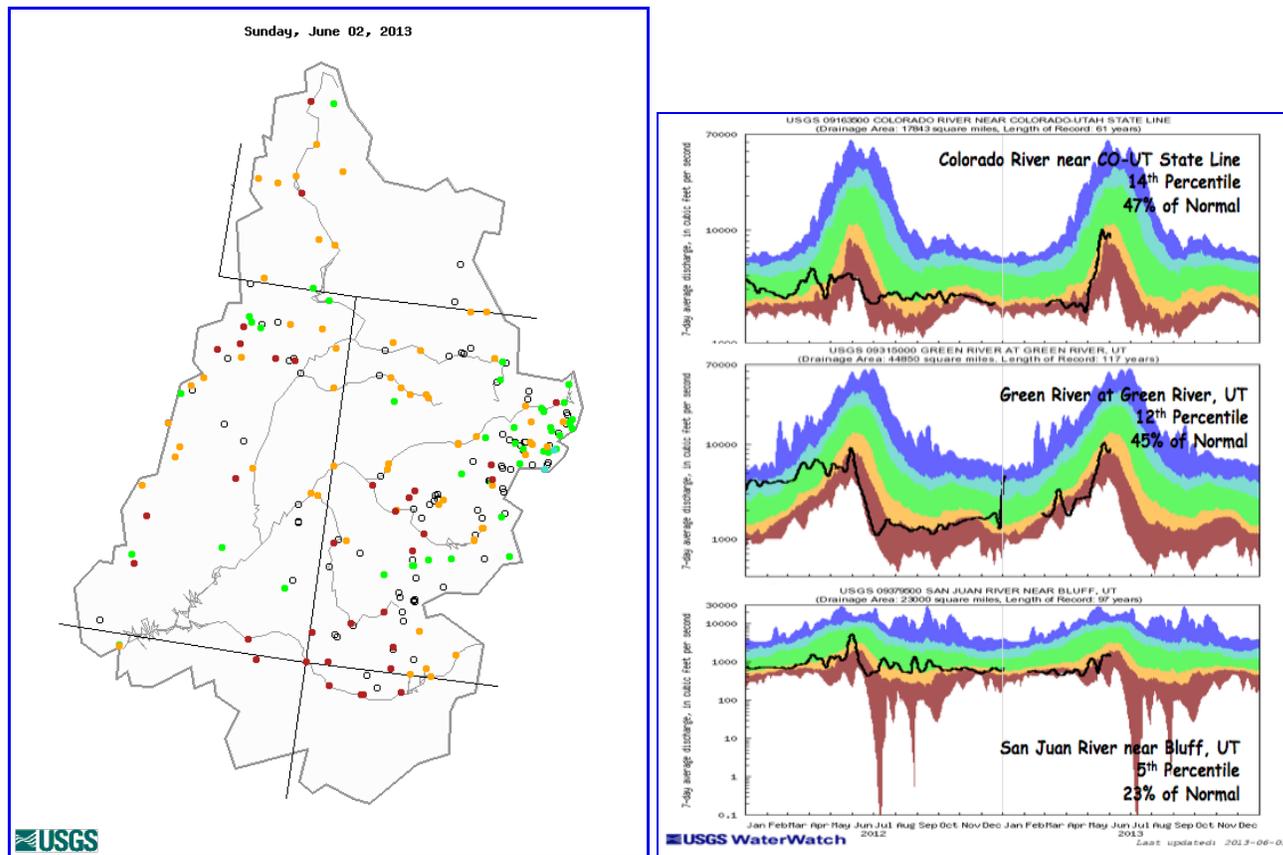
- Near normal SPIs through most of the UCRB
- Slightly drier SPIs in northern CO
- Slightly wetter SPIs near Arkansas headwaters, but very dry SPIs downstream in southeast CO
- Drier SPIs in northeast CO

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 for most of the Front Range and northeast CO
- Very dry SPIs (down to -3) in southeast CO

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		

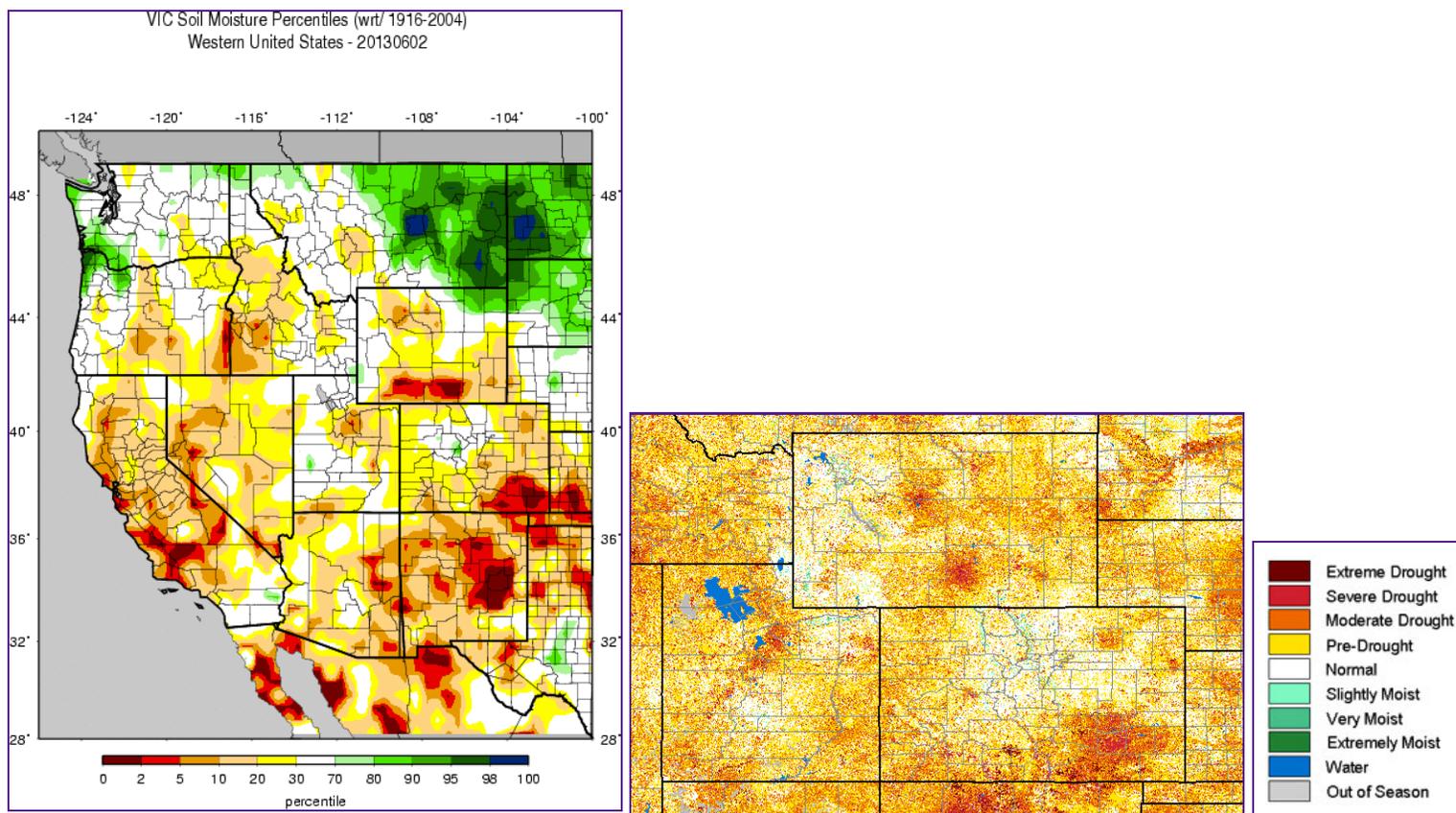
The top left image shows 7-day averaged streamflows as a percentile ranking across the UCRB. The top right image shows 7-day averaged discharge over time at three key sites around the UCRB: The Colorado River at the CO-UT state line; the Green River at Green River, UT; and the San Juan River near Bluff, UT. All streamflow data provided by United States Geological Survey.

Streamflow Statistics:

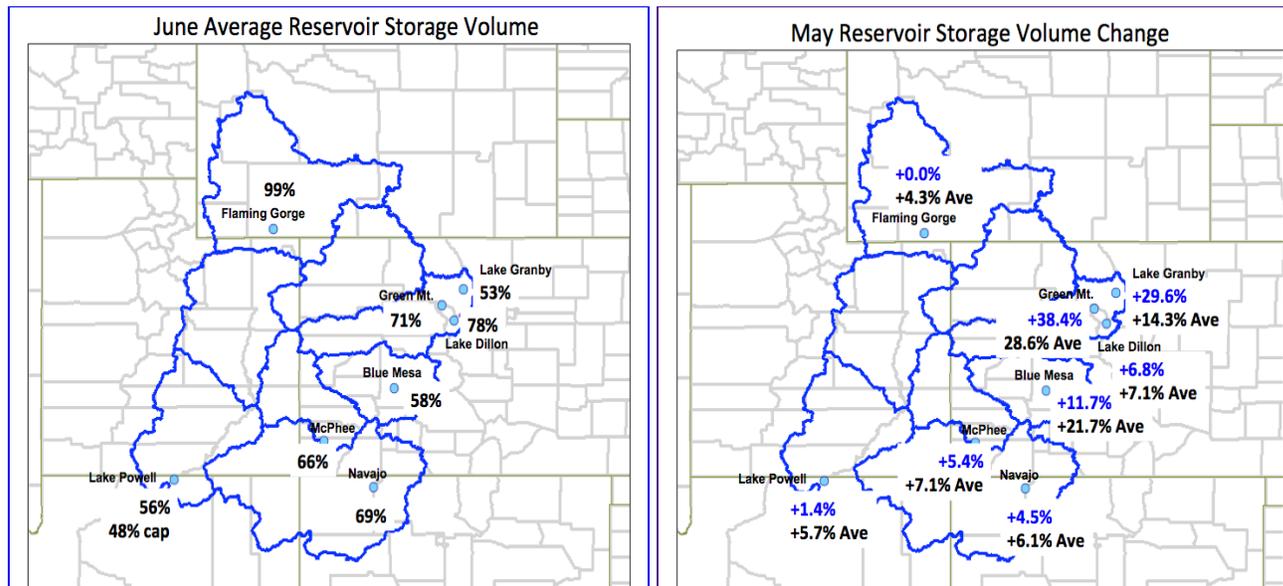
- 33% of gages recording normal to above normal 7-day average streamflows

- 24% of gages recording much below normal 7-day average streamflows
- A decrease in the 7-day average flow was seen over much of the basin. This is likely due to most streams already reaching their peak flows and now dropping
- Near normal flows still showing up near the headwaters regions in the central and northern CO mountains
- 140 gages now reporting
- All three key gages in the basin have slightly decreased in flows this past week
- The Colorado River near the CO-UT state line and the Green River at Green River, UT are recording flows in the below normal category (at the 14th and 12th percentiles, respectively). The San Juan River near Bluff, UT is recording much below normal flows at the 5th 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:

- Drier soil moisture conditions over southern WY
- Northeast UT soil moisture below the 20th percentile in many areas
- Soil moisture below the 30th percentile for most of western CO
- Near normal soil moisture for the northern and central CO mountains
- Soil moisture below the 30th percentile for most of northeast CO
- Very dry soil moisture in southeast CO, with many areas below the 5th percentile

VegDRI:

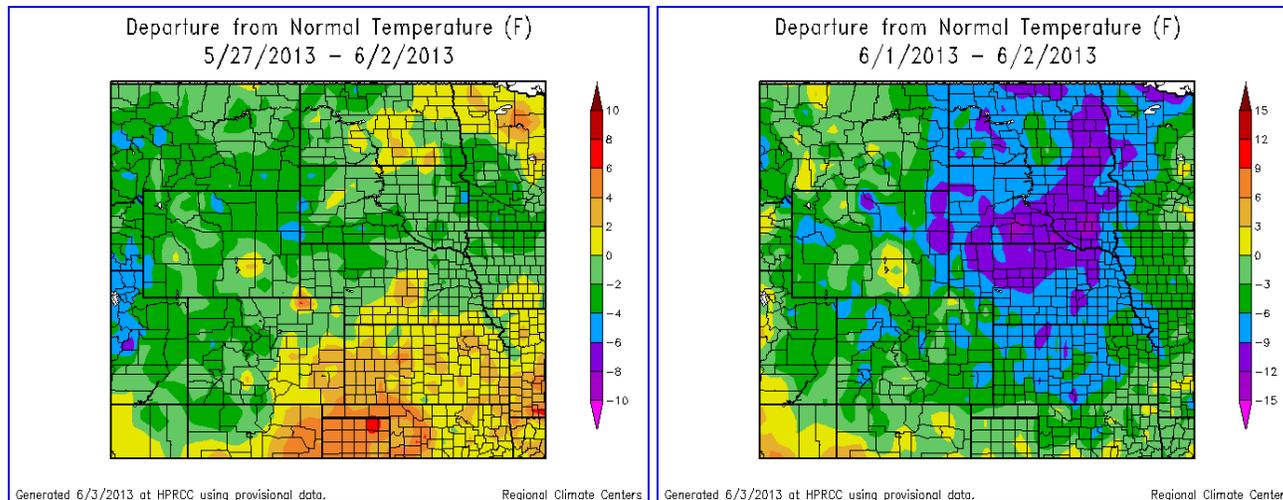
- Dry vegetation showing up along the Wasatch Range in northern UT with better vegetation conditions along the Uintahs
- Dry vegetation along eastern UT/western CO and extending down to the Four Corners
- Better vegetation conditions in northern CO with deteriorating conditions moving eastward
- Extremely dry vegetation in southeast CO

Reservoirs:

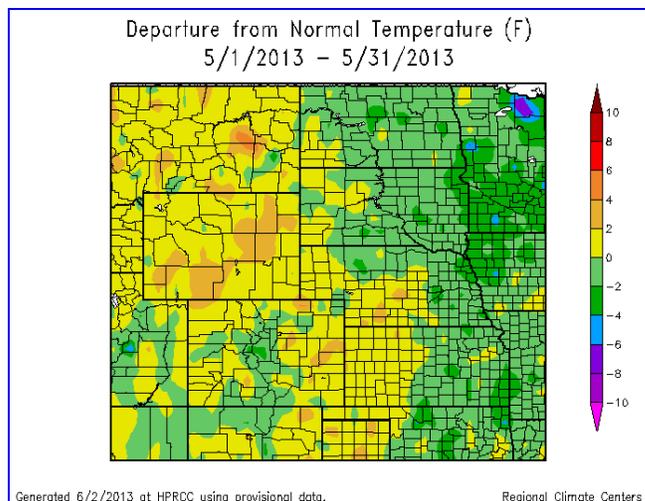
- Lake Granby and Green Mountain saw very large increases in volume for the month of May. The remaining major reservoirs in the basin also increased, but less than what is normal for this time of year
- Flaming Gorge increased only slightly in May, and has been decreasing for the past week
- Flaming Gorge is near its average June volume

- The remaining reservoirs are below average for June, ranging from 53% at Lake Granby to 78% at Lake Dillon

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.



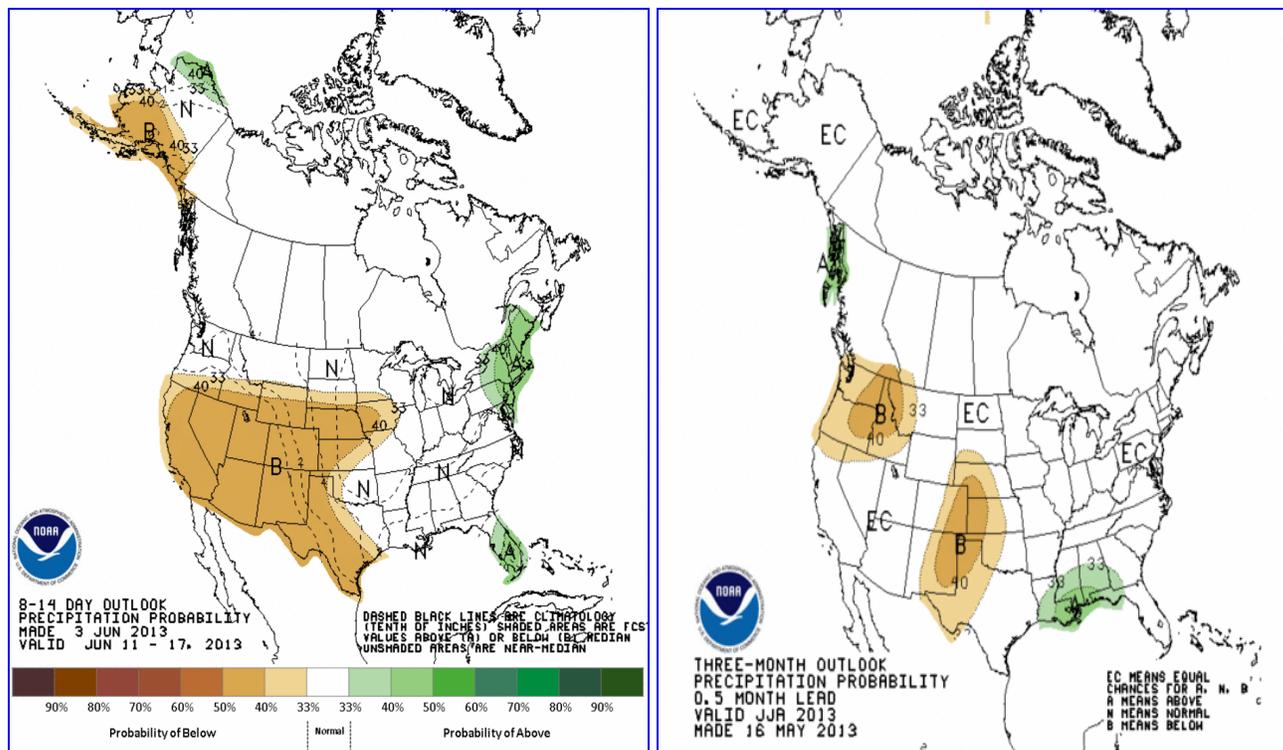
Last Week Temperatures:

- Temperatures were below normal for most of the UCRB, with most areas 2 to 4 degrees cooler than average
- Northeast CO saw near to slightly below average temperatures
- Southeast CO was slightly warmer than average, with some areas seeing temperatures 2 to 4 degrees above average

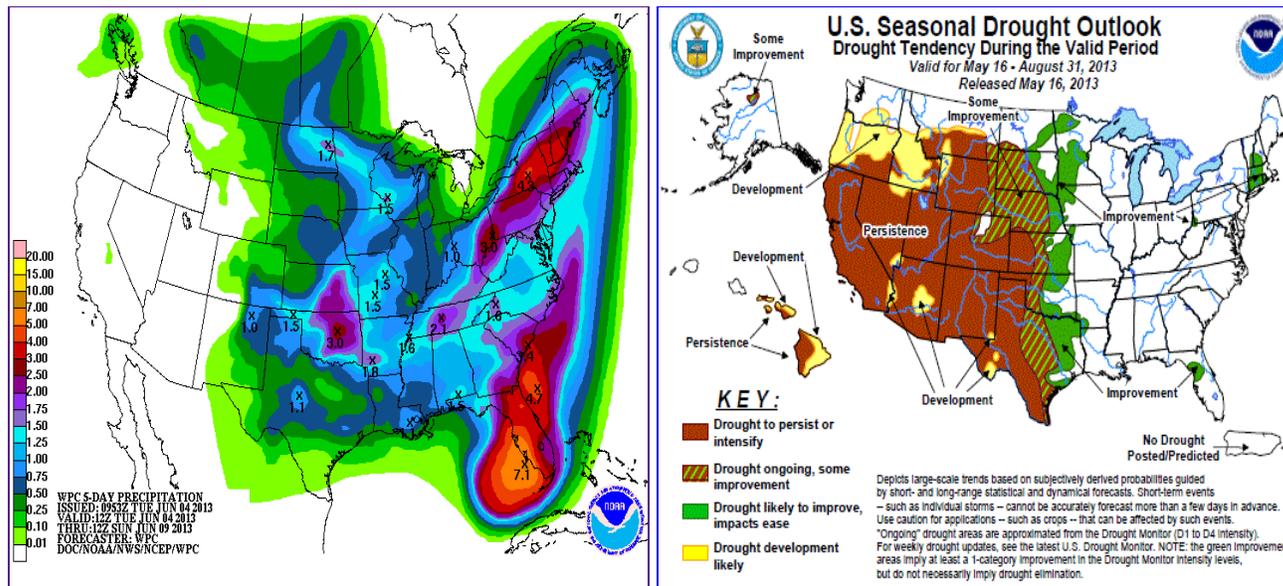
Last Month Temperatures:

- 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.



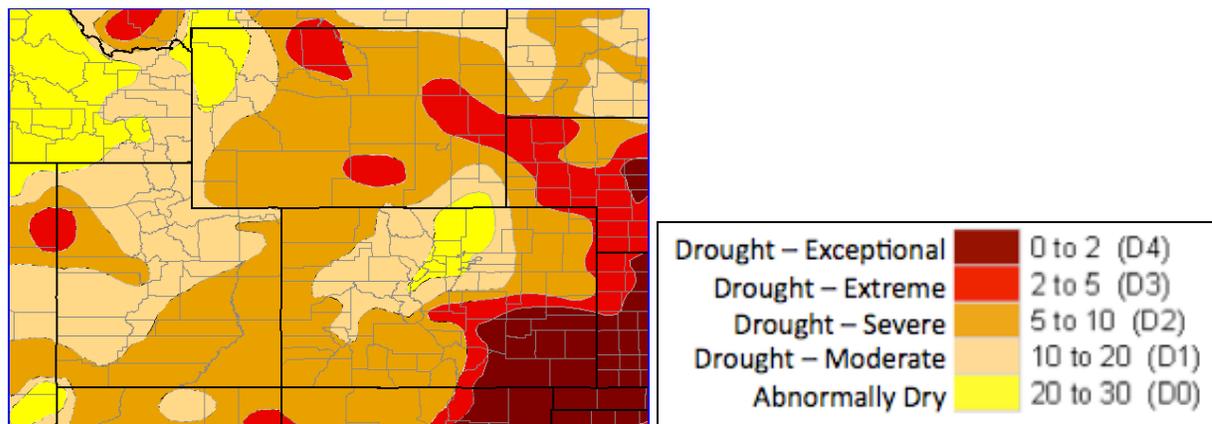
This Week:

- A few weak disturbances passing through the region could bring spotty thunderstorms to the higher elevations Tuesday night and through Wednesday
- Expect drier and windier conditions in the lower elevations, with red flag warnings (increased fire danger) in parts of western CO
- Shower activity is also expected today and tomorrow over the CO Front Range and eastern plains
- Expect dry and warm conditions throughout most of the region going into the weekend

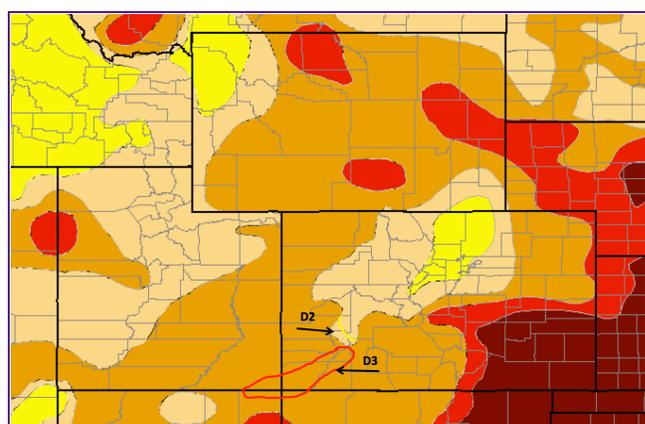
Longer Term:

- Warmer and drier conditions are expected to extend into next week
- The three month outlook through August shows drier than normal conditions are likely

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 4, 2013

Drier conditions have returned to most of the region over the past week. Though temperatures were still moderate, most of the basin received little precipitation, streamflows are on the decline, reservoirs are slow to increase in volume, and soil moisture/vegetation conditions are beginning to deteriorate throughout much of the basin. No relief has been seen or is expected for southeast CO either, where the area is entering its third consecutive summer in drought. Although spotty thunderstorm activity is expected across the basin over the next couple days, expect a quick return to warmer and drier conditions.

Recommendations

UCRB: As conditions continue to deteriorate in the Four Corners region, it is recommended to introduce an area of D3 (and adjust the D2 line accordingly) in southwest CO (red shape for D3, yellow line for D2). In this new D3 area, many of the SNOTEL WYTD precipitation percentiles are below the 5th percentile, May precipitation was below 50% of average, and streamflows along the San Juan River in the area are around the 5th percentile. In the

expanded D2 area (Ouray County), May precipitation was below 30% of average.

The current U.S. Drought Monitor (USDM) author has removed the D1 area just south of Lake Powell in northern AZ for this week's map.

Eastern CO: Status quo is recommended for eastern CO. Northeast CO has seen much improved conditions, but the soils still quickly dry out after rains. Conditions in southeast CO continue to deteriorate, and it may require some further expansion of the D3/D4 lines in the near future.