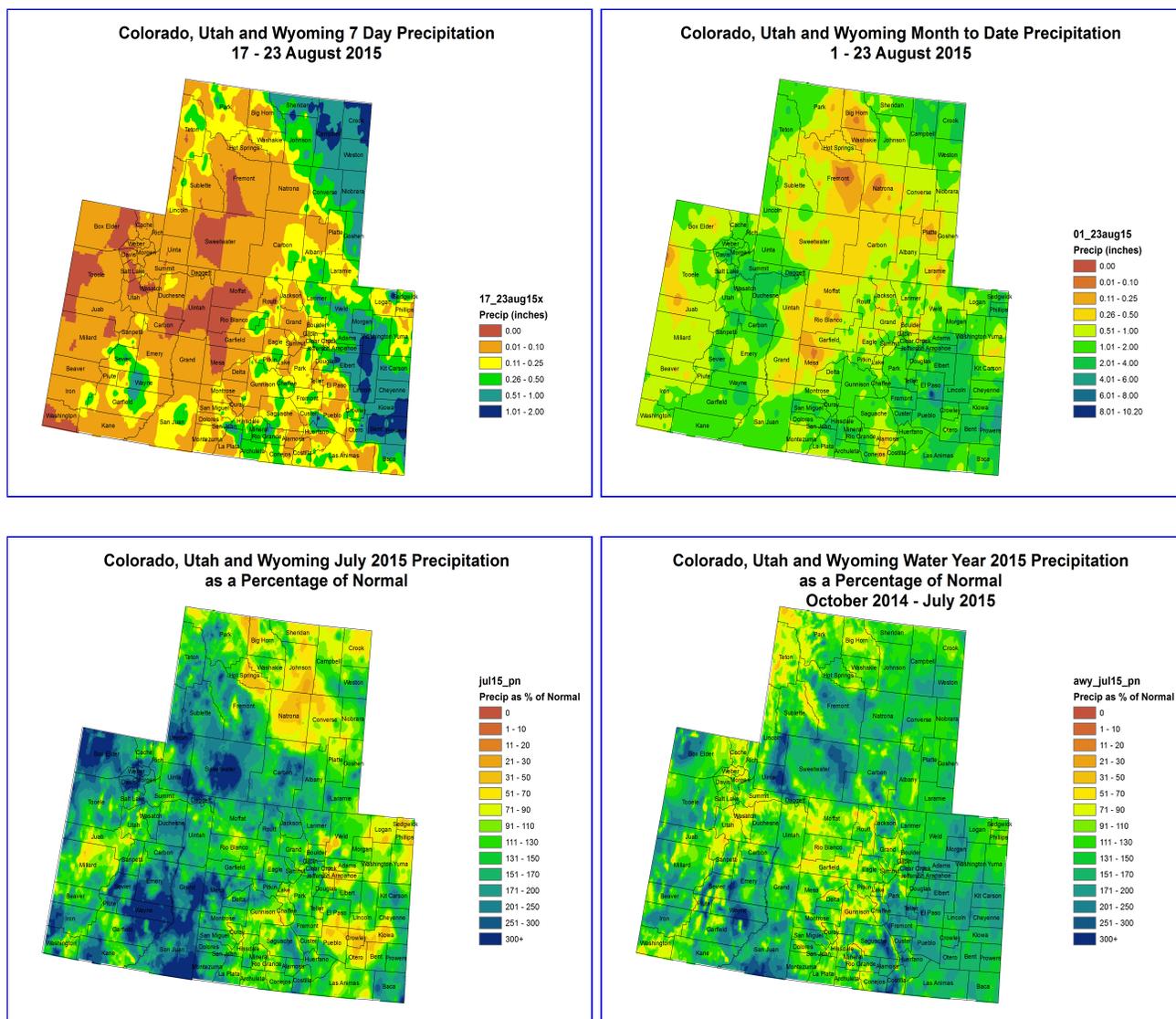


PRECIPITATION



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:

- It was a dry week in the UCRB with the majority of the basin receiving less than 0.10 inches.
- San Juan County, UT saw precipitation totals ranging from 0.10 to 0.50 inches in the central and southern portion of the county.
- In southeastern Colorado, parts of the San Juan Mountains and the Rio Grande River valley received between 0.25 and 0.50, with a few spotty areas above 0.50 inches.
- Central Colorado, in the Gunnison River headwaters, Arkansas River headwaters and the South Platte headwaters precipitation

amounts were between 0.10 and 0.25 inches.

- East of the Divide saw spotty precipitation, with most of the eastern portion of Colorado seeing at least 0.25 inches. From central Larimer County down to northern Baca County, precipitation totals were in the 0.50 to 1.00 inch range, with isolated areas seeing more than 1.00 inch.
- Along the Foothills and Front Range totals were lower, mainly between 0.10 and 0.25 inches for the week, with El Paso and Pueblo seeing less than 0.10 inches.

July Precipitation:

- July was a wet month for the vast majority of the UCRB. East of the divide conditions were more of a mix with some areas ending the month well on the dry side of average.
- The Upper Green River Basin did very well for moisture with respect to average, but this is a climatologically dry time of year for the area. Well over 80% of the region received over 150% of average July precipitation with large parts of Sweetwater, Uinta, and Lincoln Counties over 300% of average for the month.
- Northeast Utah was primarily in the 100-200% of average range. Some small pockets of northern Uintah and northern Duchesne Counties were below average for the month.
- Southeast Utah saw another wet month, seeing 300+ percent of normal through the area.
- Western Colorado saw a mix of near average to well above average moisture for the month of July. Lower elevation areas seem to be favored slightly for the well above average moisture. From Mesa County south along the Colorado-Utah border most areas picked up over 200% of July average. Southern Gunnison and southwest Chaffee Counties were drier than average, and received only 30-70% of July average rainfall.
- The San Luis Valley was mostly in the 100-200% of average range.
- East of the Divide, July precipitation was above normal in northern Larimer County along the Cheyenne Ridge, from Douglas County east along the Palmer Divide all the way out to Kit Carson County, and for the southeast corner of the state. There were some areas that came out concerningly dry. Southeast Larimer and southwest Weld Counties only received 30-50% of normal July precipitation. Farther south, parts of Pueblo, El Paso, Crowley, Lincoln, Kiowa, Bent, and Otero Counties only received 30-70% of normal July precipitation.

Water Year 2015 Precipitation (Oct-July):

- Except for some higher elevation areas, the UCRB and Colorado east of the divide are above average for the water year through the end of July.
- The Upper Green river basin is at or above normal. Eastern Uinta and Lincoln Counties have received over 300% of their normal water year to date precipitation. Eastern Sweetwater County has

seen up to 250% of the normal water year precipitation through July. Sublette and central Sweetwater counties have seen at or slightly above normal precipitation.

- Northeastern Utah has seen a mix of above and below normal precipitation. The higher elevations of the Wasatch and Uintah ranges have seen below normal precipitation, mainly between 50-90% of normal. The lower elevations, especially in Duchesne, Uintah and Carbon counties, have seen up to 150% of normal.
 - Southeastern Utah is now showing well above average precipitation for the water year through July. Parts of Wayne and San Juan Counties are at 300+% of normal.
 - Despite drought in the Winter and very heavy rains in the late Spring, things have balanced out such that western Colorado is having a pretty average water year through July. Most of the area is between 70 and 150% of normal. There's a bias towards lower elevations being a little wetter.
 - The Rio Grande Basin is now showing at or above normal precipitation for the water year through July. Costilla County is mostly over 200% of average.
 - Eastern Colorado is above average for the water year to date almost all the way across the board. Parts of Phillips and Sedgwick Counties are only in the 90-110% of average range. Areas of Morgan, El Paso, and Pueblo Counties are still at over 200% of average for the water year to date.
-

SNOTEL Precipitation Percentiles:

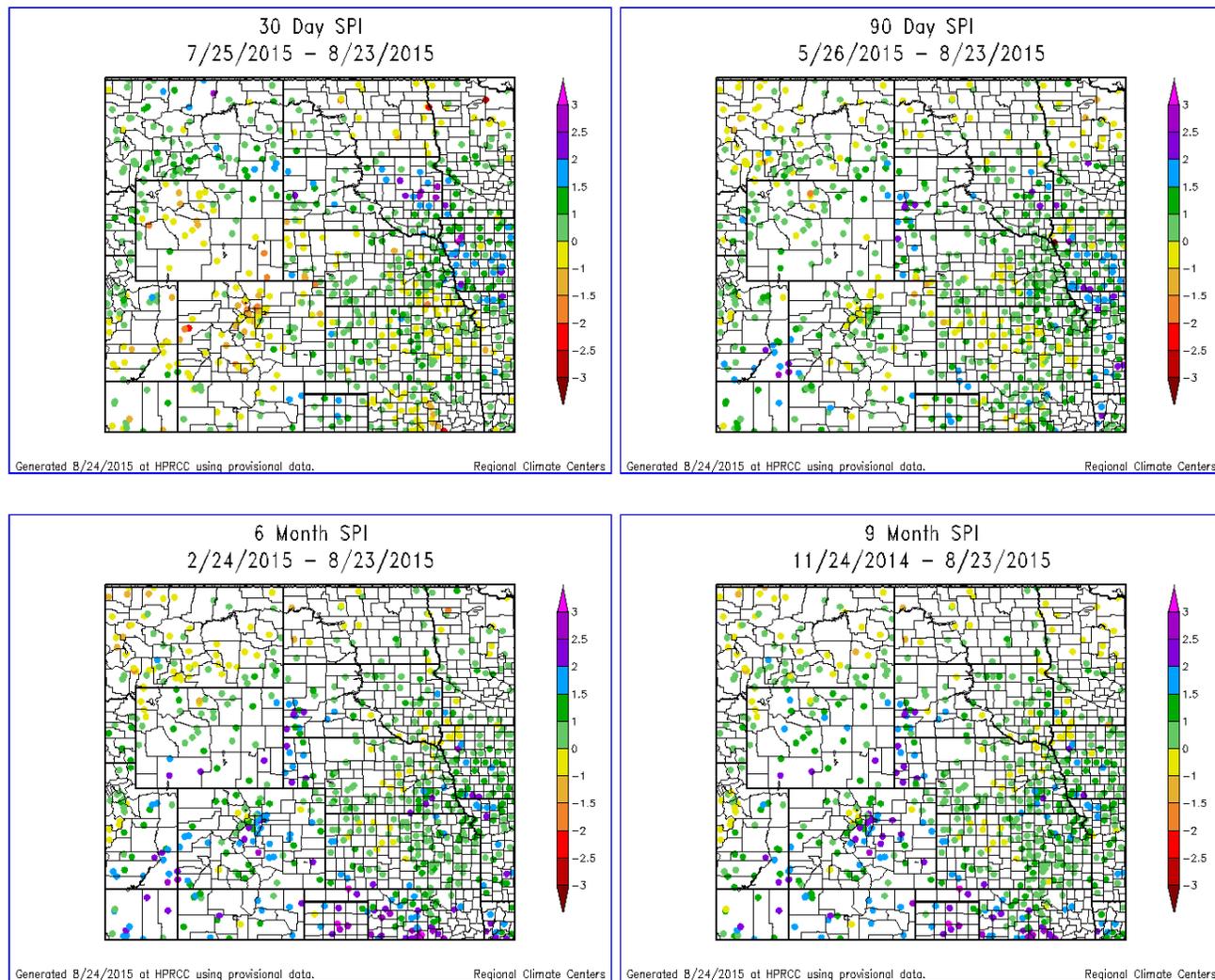
- SNOTEL year to date percentiles across much of the UCRB saw quite a rebound this last week.
- In the Upper Green the percentiles are mostly in the median range between the 32nd to the 59th. Some Snotel sites in eastern Sublette County area a bit lower, down to the 22nd.
- The Wasatch and Uintahs are still showing drier percentiles ranging from the 0 to 63rd, but mostly in the 0-20 range. Many of the percentiles that were the 0th are now in the single digits and teens.
- The northern mountains in Colorado west of the Continental Divide are showing percentiles between the 11th and the 53rd. The Percentiles in the teens and 20s are mainly in eastern Rio Blanco, Garfield and Routt counties.
- The lower elevations of the Colorado and Gunnison are still seeing percentiles below the 39th percentile, however sites along the divide are in the normal range.
- The San Juans are reporting mostly below the 40th percentile, with a number of Snotel sites in the northern San Juans above the 50th percentile.
- The Sangre de Cristo mountains in SE Colorado are near average with percentiles ranging from 35th to 69th.
- The South Platte stations are all mainly at or above the median.

SWE Timeseries Graphs:

- All sub-basins are well into the melt season.
- The peak snowpack was 85% of normal.
- The peak snowpack was 63% of normal.
- The peak snowpack was 68% of normal.

- The peak snowpack was 79% of normal.
- The peak snowpack was 70% of normal.
- The peak snowpack was 67% of normal.

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):

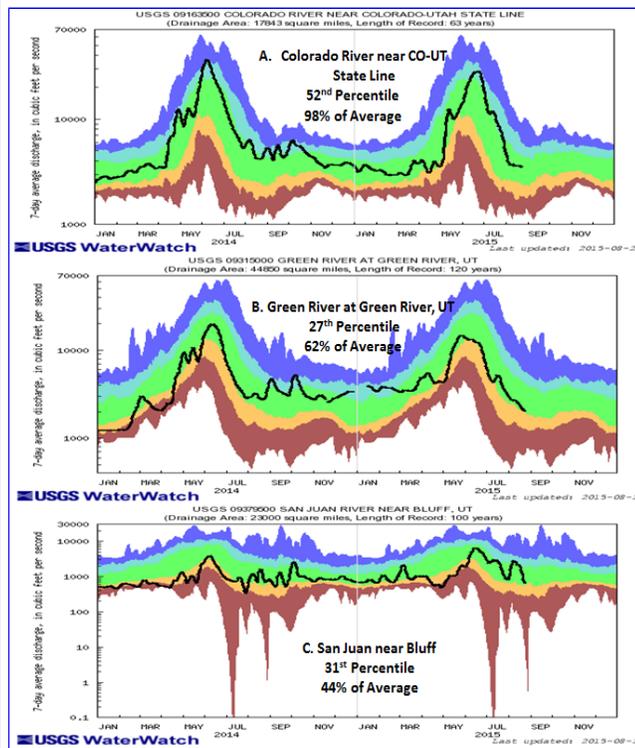
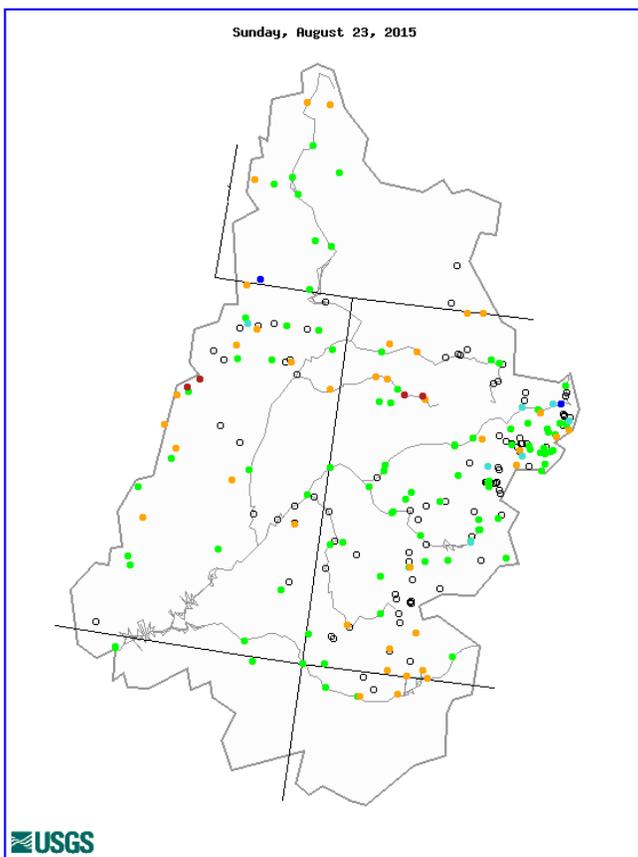
- 30-day SPIs over most of the UCRB are now on the dry side of the SPI scale, with a few wetter SPIs showing up.
- The Upper Green River basin is showing SPIs below normal between 0 and -2. One SPI in northern Sweetwater County is wet, up to +1.5.
- In northeast Utah most SPIs are between 0 and +1.5 with one SPI in central Duchesne County up to +2. Uintah County has an SPI down to -1.5.

- Southeast Utah is showing drying SPIs in the 0 to -1.5 range. Southern San Juan County two points between 0 and +1.5.
- Northwest Colorado is showing SPIs mainly between -1.5 and +1. Grand County has been particularly dry, showing SPIs between 0 and -2.
- Mesa County is also showing dry SPIs between -1 and -2.5.
- SPIs in southwest Colorado are between 0 and -1.
- The Central Rockies have been dry recently, showing SPIs between -1.5 and +1.
- The Front Range has also been dry the last 30 days, with SPIs between -2.5 and 0.
- Most of the 30-day SPIs in northeast Colorado are between -1.5 and +1.
- SPIs in southeast Colorado are mostly on the wet side between 0 and +1, with a few dry SPIs in El Paso and Crowley County.

Long Term (6-month):

- On the 6-month timescale, SPIs are wet for the UCRB, even with the recent dryness. The exception is Grand County.
- The Upper Green has SPIs ranging from +1 to +2.5.
- NE Utah shows most SPIs on the wet side, between 0 and +2. The southern portion of the Wasatch Range in central Utah is a bit drier showing SPIs between 0 and -1.
- Southeast Utah is wet with SPIs between +1.5 and +3.
- Western Colorado is showing SPIs mostly between 0 and +2. Grand County is showing two SPIs in the 0 to -1 range at the 6-month timescale.
- SPIs near the headwaters of the Arkansas and the South Platte are exceptionally wet on the 6-month timescale. Most SPIs are in the +1.5 to +3 range.
- In eastern Colorado, almost all SPIs are still wet on the 6-month timescale. They range from 0 to +2.5. There is one SPI below 0 in northern Washington County.
- The Rio Grande basin is wet at the 6-month timescale with SPIs from +1 to +2.

STREAMFLOW



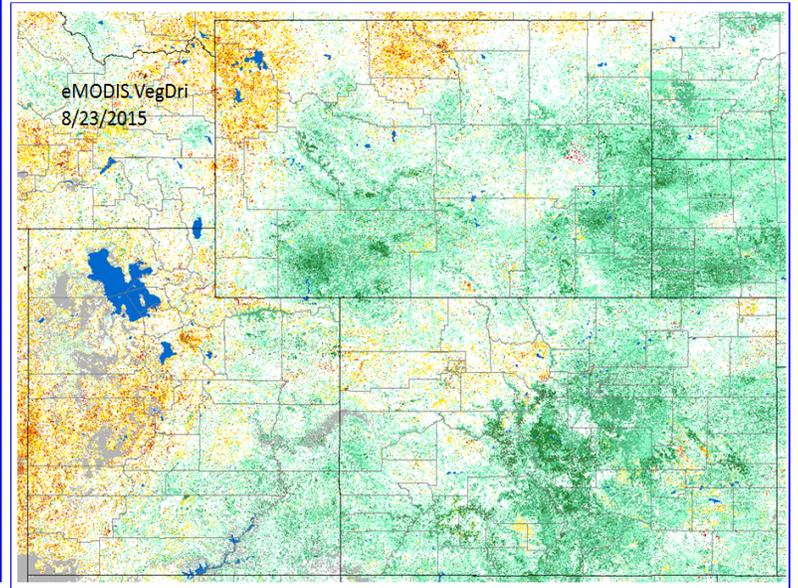
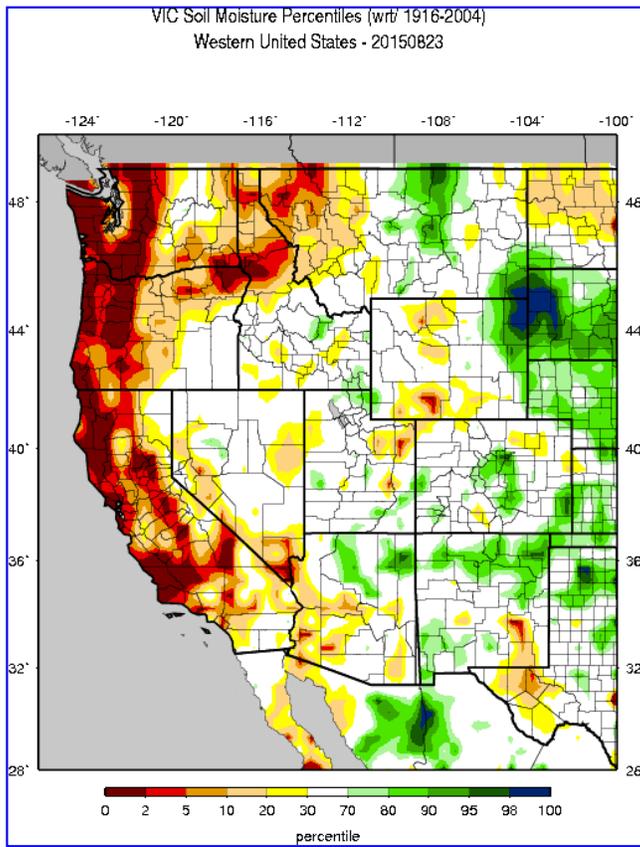
Explanation - Percentile classes							
Low	<10	10-24	25-75	76-90	>90	High	Not-ranked
	Much below normal	Below normal	Normal	Above normal	Much above normal		

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:

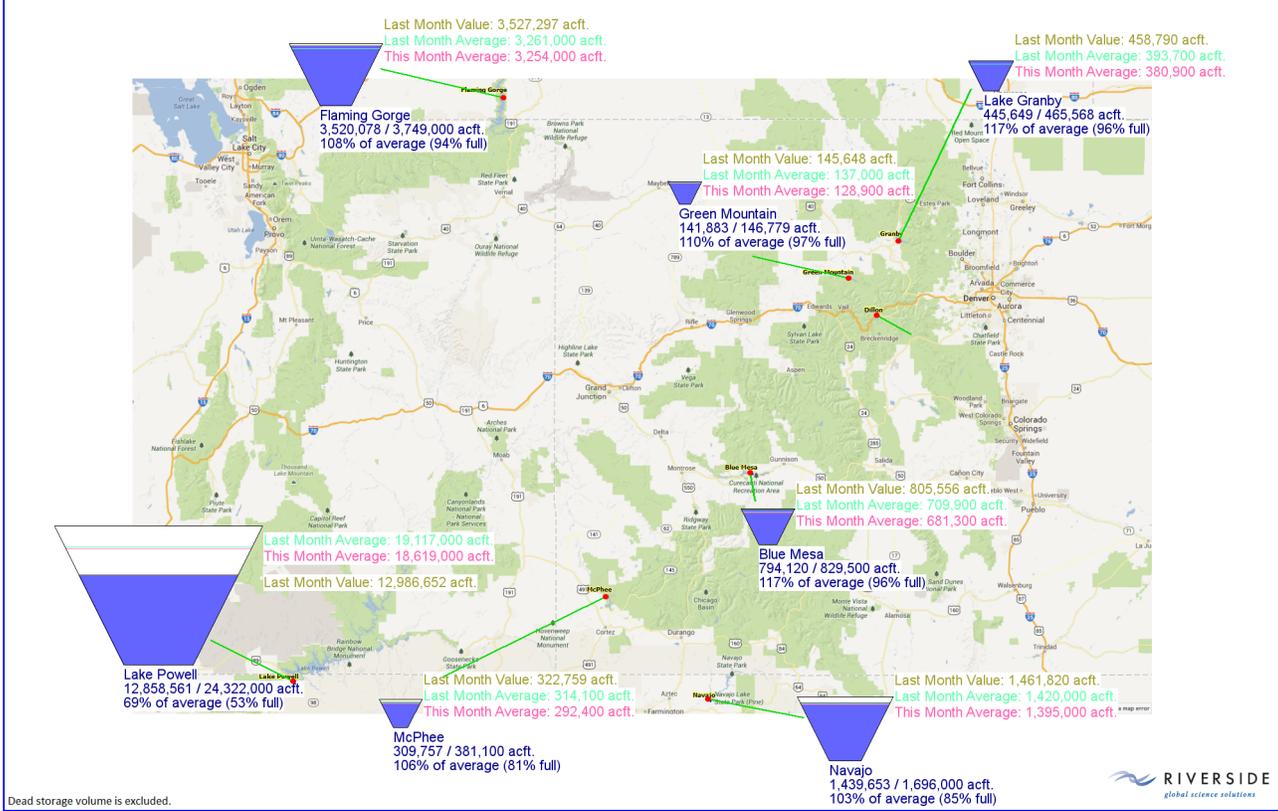
- Streamflows in the UCRB are starting to come down a bit, with more gages reporting in the below normal category.
- 64% of the gages in the UCRB are reporting in the normal range for 7-day average streamflow. 6% of gages are reporting above to much above normal. There are no gages recording record high flows.
- 26% of the gages are recording below normal flows, with 3% of gages in the much below normal for 7-day average streamflow.
- Streamflow on the Colorado River near the CO-UT state line is at the 52nd percentile, 98% of average.
- The Green River at Green River, UT has dropped to the 27th percentile, 62% of average.
- Streamflow at the San Juan near Bluff, UT has dropped greatly to the 31st percentile, 44% of average.

SURFACE WATER



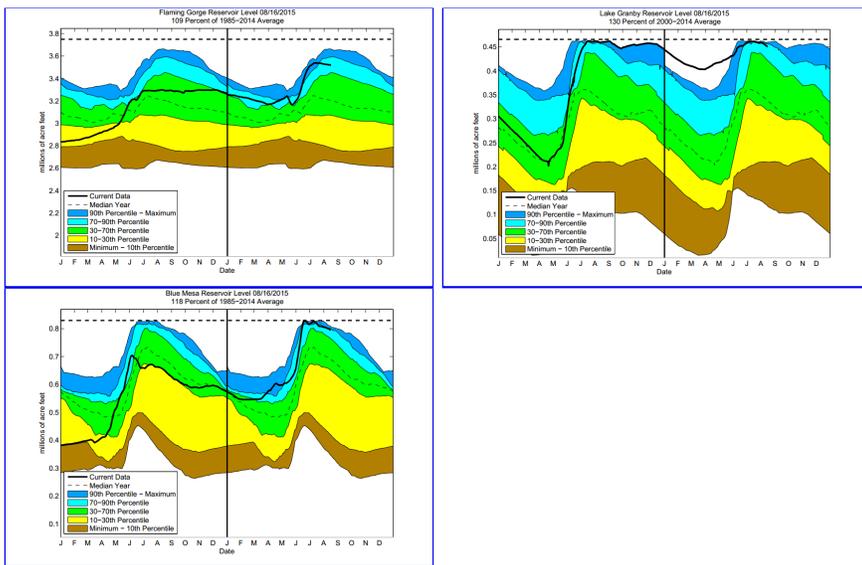
The top left image shows VIC modeled soil moisture as a percentile ranking. The top right image shows satellite-derived vegetation from the VegDRI product (which updates on Mondays).

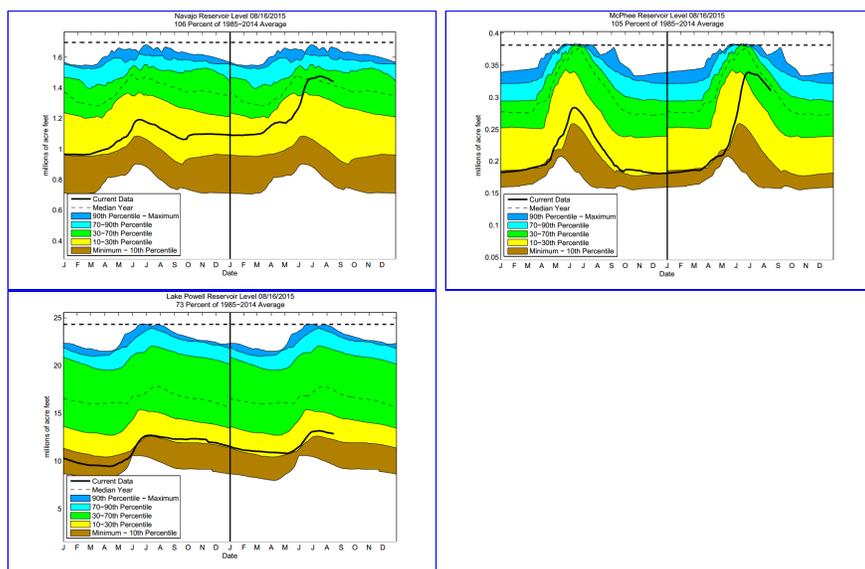
2015/08/24



The above image shows last month's and this month's current volumes of the major reservoirs in the UCRB, with percent of average and percent of capacity.

The graphs shown below are plots of reservoir volumes over the past full year and current year to date (black). The dashed line at the top of each graphic indicates the reservoir's capacity, and the background color-coded shading provides context for the range of reservoir levels observed over the past 30 years. The data are obtained from the Bureau of Reclamation. Some of the reservoir percentiles don't line up at the new year due to differences in reservoir levels at the beginning of 1985 and the end of 2014. Dead storage has been subtracted. Note: Lake Granby data are obtained from the Colorado Division of Water Resources, and only goes back to the year 2000.





VIC:

- Soils are mostly in the average range in the Upper Green River Basin, however have started to dry out with the recent dryness. The southeast portion of Sweetwater County is in the 2-30th percentile range, with a small sliver of 0-2nd percentile showing up. Far west Uinta and Lincoln Counties are above the 70th percentile.
- Much of central Uintah County is in the 2-30th percentile range, and western Duchesne County is between the 10th and 30th percentile, but the rest of the area is in the normal range.
- Southeast Utah is also showing soil moisture mostly in the normal range. Southeast Emery County is showing a dry patch between the 5th and 30th percentile. Northeast San Juan and eastern Grand Counties are above the 70th percentile.
- Western CO soils are in the normal to above normal range. Part of Mesa County above the 70th percentile.
- The San Juans are in the normal to slightly above normal range.
- The San Luis Valley is mostly showing soils mostly in the normal range, with a spot of 10th-30th percentile.
- The Upper Arkansas River Basin is holding onto some wet soils. Much of Chaffee, Park, Lake, Fremont, and Custer Counties are showing soil moisture above the 70th percentile.
- The south and central Front Range are showing soils between the 70th and 90th percentile, but the northern Front Range is in the normal range.
- Following a dry mid-summer, northeast Colorado is showing some below normal soil moisture range. Weld, Morgan, Adams, and Washington County area are between the 10th and 30th percentile.
- Soils in southeast Colorado are in the normal, or slightly above normal.

VegDri:

- The VegDri is showing mostly healthy conditions across the UCRB and eastern Colorado, however more areas are starting to show

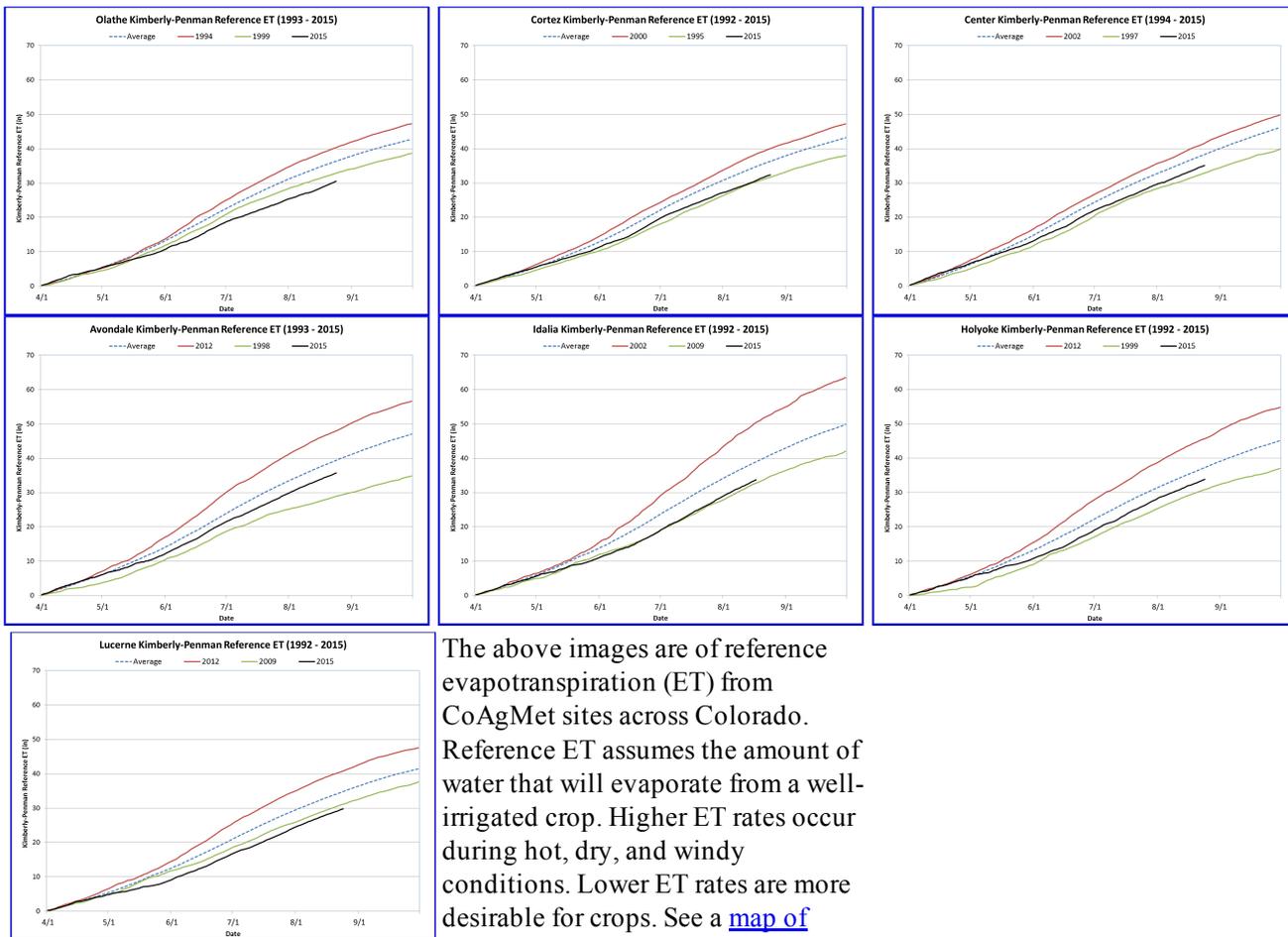
some pre-drought stress. The Wasatch Range is still in the worst shape.

- The Upper Green River Basin shows mostly moist vegetative health conditions with some areas of pre to moderate drought along the northwest flank of the basin in Lincoln and Uinta Counties.
- The Wasatch Mountains are showing pre to moderate drought. The Uintah Mountains are still holding on to a fair amount of pre-drought, especially in the northwestern portion of the range, but starting to show some wet conditions in the southern portion of the range.
- Conditions in the Duchesne River Basin are now showing mostly wet vegetative health.
- In southeast Utah vegetative health is mostly normal or slightly moist.
- Most of western Colorado is in the normal to slightly moist range. Pre-drought still prevails in western Moffat and Rio Blanco Counties. Parts of Grand and Summit Counties are showing some pre-drought. Coverage of pre and moderate drought in northwest Colorado is on the rise.
- The San Luis Valley is showing moist vegetative health conditions.
- The Upper Arkansas and Upper South Platte Basins are showing extremely moist vegetation conditions. This includes Chaffee, Park, Teller, Fremont, and Custer Counties. This area of very moist vegetation extends onto the Front Range and into El Paso, Elbert, Douglas, Jefferson, Adams, and Arapahoe Counties. This has been the case for over a month.
- Northeastern Colorado is holding on to moist conditions near the Front Range, but conditions closer to normal prevail farther east. There are spotty areas of pre-drought in Sedgewick, Phillips, Logan, Yuma, and Washington Counties.
- Southeast Colorado conditions are now mostly moist. Pre and moderate drought has now also popped up in southern Lincoln County and northern Crowley County.

Reservoirs:

- Flaming Gorge is at 108% of its August average.
- Green Mtn is 110% of its August average and is 97% full.
- Lake Granby is at 117% of its August average and 96% full.
- Blue Mesa is 117% of the August average, 96% full.
- Navajo is 103% of its August average.
- McPhee is now at 106% of its August average.
- Lake Powell is now at 69% of the August average, 53% full.

EVAPOTRANSPIRATION

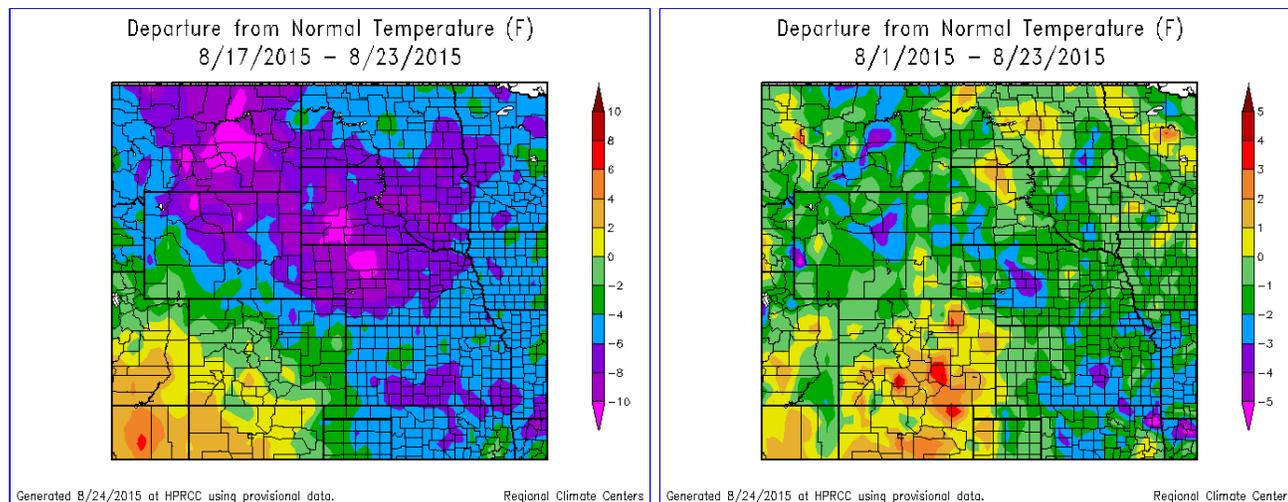


The above images are of reference evapotranspiration (ET) from CoAgMet sites across Colorado. Reference ET assumes the amount of water that will evaporate from a well-irrigated crop. Higher ET rates occur during hot, dry, and windy conditions. Lower ET rates are more desirable for crops. See a [map of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

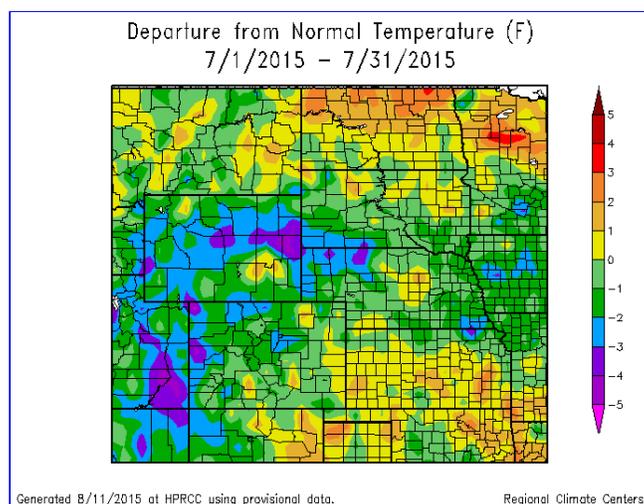
Reference Evapotranspiration:

- Olathe: ET started the growing season at higher than average ET rates and since mid-May has been tracking below the lowest reference ET year of 1999.
- Cortez: ET began a little above normal, but has been tracking below normal since early May. Since the start of July, Reference ET has been nearing the lowest year of 1995.
- Center: Early season ET was higher than the track taken during the record year, but has slowed considerably with respect to the seasonal average, and is now tracking below average.
- Avondale: ET began just above average, but has slowed to below normal.
- Idalia: ET started near average, then tracked with the low year of 2009 from mid-May to late July, and is now tracking a little bit higher, but still much below average.
- Holyoke: ET started around normal and has dropped below normal since the second week of May. It has followed a fairly normal track for the past month or so.
- Lucerne: ET has been tracking lower than the previous record low year in 2009 since the second week of May. It has gained some ground on the low year's track in the past three weeks.

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:

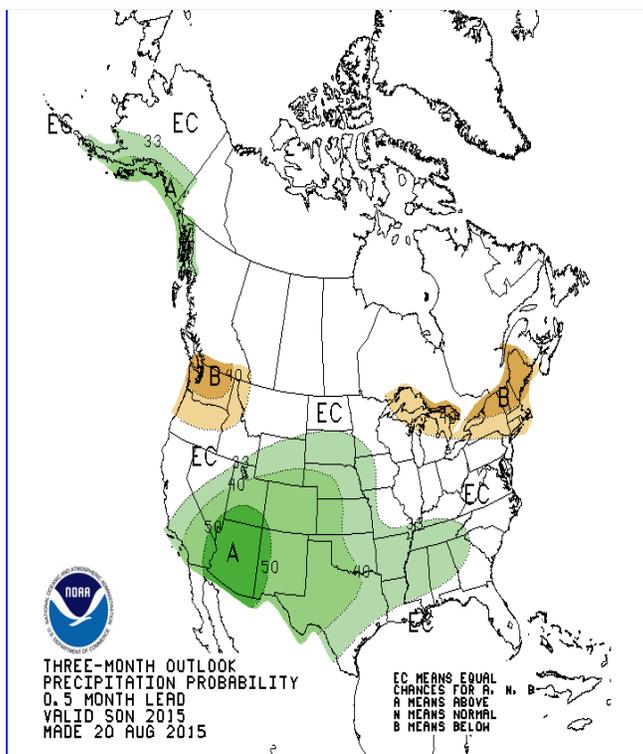
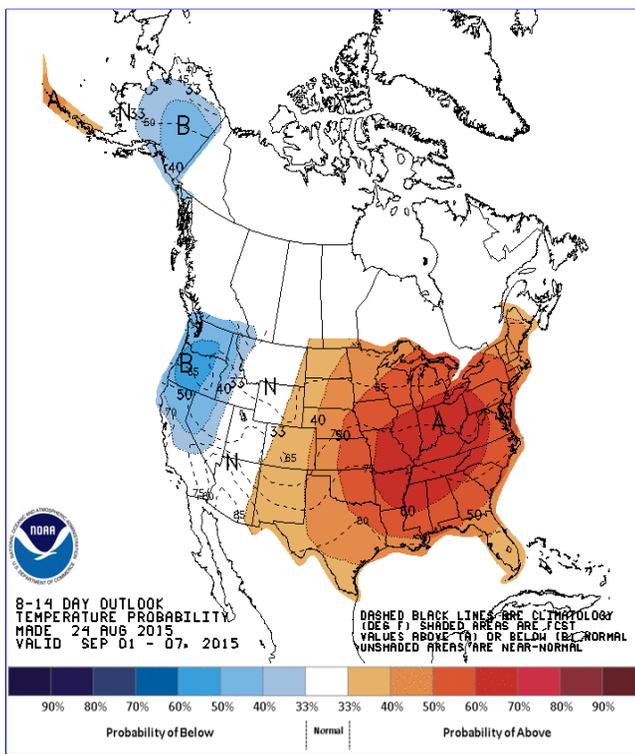
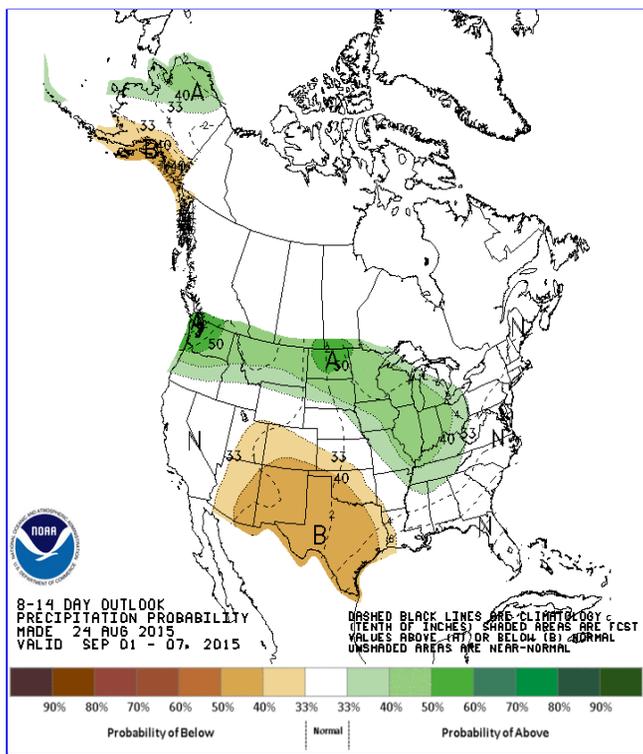
- Temperatures in the UCRB were split last week, with the northern portion of the basin seeing cooler than average temperatures and the southern portion seeing warmer than average.
- The Upper Green Basin in southwest Wyoming and northeast Utah saw 0-4 degrees below normal.
- East central and southeastern Utah, from southern Duchesne and Uintah counties saw temperatures 0 to 2 degrees warmer than normal. West of Grand and San Juan counties saw temperatures 2 to 4 degrees above normal.
- Northwest Colorado was 0 to 2 degrees below normal, with Moffat and Routt Counties seeing 2 to 4 degrees cooler than normal. The cooler temperatures extended into eastern Mesa, Delta, and Gunnison counties.
- Southwest Colorado was 0 to 2 degrees above normal, with the

- Four Corners seeing 2 to 4 degrees above normal.
- The Rio Grande River was 0 to 4 degrees warmer than normal over the past week.
 - East of the divide, temperatures were mostly cooler than normal. Northern Colorado saw temperatures 4 to 6 degrees cooler than normal, with Logan, Sedgwick and Phillips counties seeing 6 degrees and cooler temperatures.
 - South of Adams, Washington and Yuma Counties, temperatures were mainly 2 to 4 degrees cooler than normal, with areas closer to the foot hills 0 to 2 degrees cooler than normal.

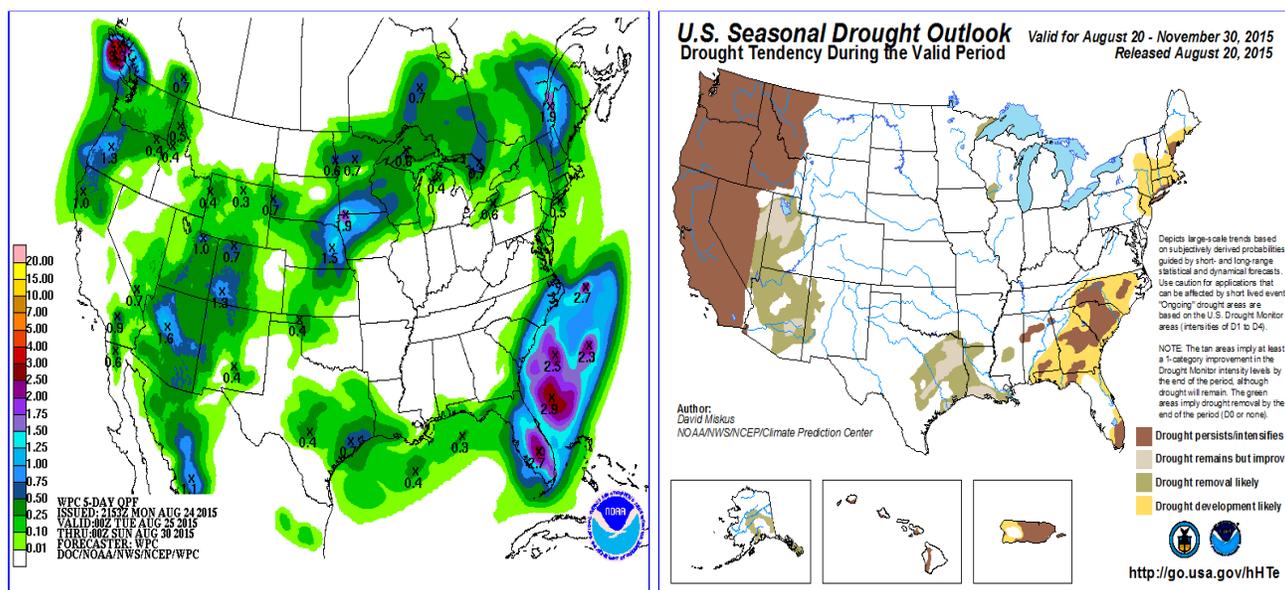
July Temperatures:

- July was a cooler than average month nearly across the board for the UCRB and Colorado east of the divide. There were a few bright spots with above average temperatures.
 - The Upper Green River Basin experienced temperatures mostly between 1 and 3 degrees below normal for the month of July.
 - Likewise, temperatures in northeast Utah averaged out to 1-3 degrees below normal most of the way across the board for the month of July. Southern Duchesne County was only 0-1 degrees below normal.
 - Temperature anomalies were even greater in southeast Utah, and were in the 2-5 degrees below normal range. Northwest San Juan County, and eastern Wayne County show some of the lowest temperature anomalies on the map.
 - Southwest Colorado experienced a July 0-2 degrees below average on the Fahrenheit scale in most areas. Southern Saguache and northern Rio Grande Counties were slightly above average for the month (0-2 degrees).
 - Northwest Colorado was 1-3 degrees cooler than average for the month of July.
 - East of the Divide temperatures for the month of July were mostly 0-2 degrees below normal. The largest above normal area in the region was right along the Kansas border where temperatures were 0-1 degrees above normal. Some other spots slightly above normal include Morgan County and eastern Weld County, and eastern Pueblo County.
-

FORECAST AND OUTLOOK



The top two images show Climate Prediction Center's Precipitation and Temperature outlooks for 8 - 14 days. The middle image shows the 3 months Precipitation outlook. 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: (8/25)

- The UCRB will be on the western side of a high pressure ridge for the majority of the week with eastern Colorado sitting more under the ridge axis. This will mostly make for some warm temperatures over the next week with the exception of Wednesday night through Friday.
- On Wednesday the ridge breaks down a bit and a shortwave trough is forecast to skirt around the periphery of the high. This will bring some lift to the region and some moisture for the UCRB. Western Colorado is expected to average over a quarter of an inch from thunderstorms Wednesday night into Thursday. The San Juan Range is in an ideal position, and could average higher than half an inch. The Wasatch and Uintah Ranges should get some beneficial rains as well.
- As the trough moves across the divide some light rainfall is likely for southeast Colorado. The northeast corner of the state, especially near the Front Range, will likely be in the dry slot.
- On Thursday look for temperatures that are about fifteen degrees cooler across the UCRB, and about ten degrees cooler across eastern Colorado. These temperatures will rebound in a matter of about two days with high pressure reestablishing itself.
- Sunday into Monday hot and dry weather is expected to make a return into the UCRB and eastern Colorado.

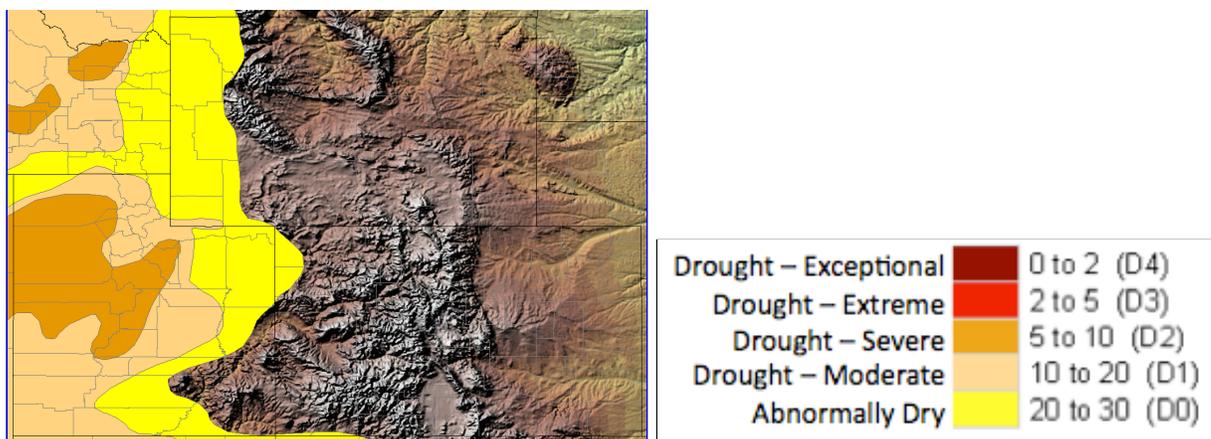
Longer Term:

- The 8-14 day precipitation outlook shows increased chances for above below precipitation for the majority of the UCRB and Colorado east of the divide. These chances are highest in southern Colorado. The northeast corner of Colorado and the Upper Green River Basin are forecast equal chances of above and below average precipitation.
- The 8-14 day temperature outlook shows increased chances for

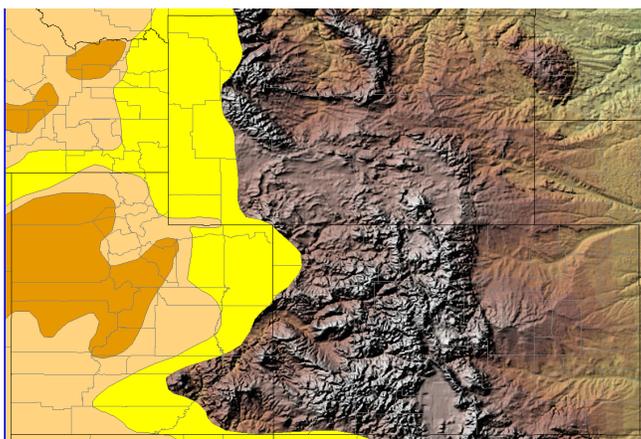
above normal temperatures for the eastern portion of the UCRB and eastern Colorado. These chances are most highly enhanced in far east Colorado. The north and west portions of the UCRB are forecast equal chances of above and below average temperatures.

- The Climate Prediction Center September through November precipitation outlook shows increased chances for above average precipitation across the entirety of the UCRB and Colorado east of the divide. These chances are maximized at low elevations in the southern portion of the basin.
- The seasonal drought outlook indicates that drought is expected to persist or intensify in the western portion of the UCRB through the end of October, but drought development is not likely for the eastern portion of the basin, nor for Colorado east of the divide.

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 for August 25, 2015:

It was a dry week for the Upper Colorado River Basin, with most of the basin seeing less than 0.10 inches of precipitation. Temperatures were below average for the week, keeping evaporative demand down.

Streamflows in the basin have also started to come down, from above

normal to normal, showing signs the spring moisture is starting to run out. 30-day SPIs in the basin are mostly dry, however the 90-day and longer timescales still show wetness. Parts of the UCRB are nearing the time for degradations, however we feel status quo is the best option this week.

Eastern Colorado had a better week in terms of precipitation than the UCRB, seeing greater than 0.10 inches with a large area of over 0.25 inches. Temperatures were below average for eastern Colorado, with farther north seeing the most below normal temperatures. Most short-term (30-day) SPIs on the plains are showing the recent dryness, with the 90-day SPI showing some dryness in northern Colorado and wet for southern Colorado. The long-term SPIs for all of the plains still shows the wet spring. Both soil moisture and vegetation conditions are still showing normal to moist conditions over much of the plains.

Recommendations:

UCRB: Status quo.

Eastern CO: Status quo