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 UCRB and eastern Colorado experienced a dry week with the exception of the northern Rockies and western Uintah Range.
- The Upper Green River Basin in Wyoming saw 0.25-1.00" of precipitation in Lincoln and Sublette Counties. Lower elevations, such as central Sweetwater County remained dry.
- Eastern Utah saw less than 0.50 inches. Summit County received up to 0.50", but most of eastern Utah picked up less than 0.10" over the past seven days.
- The Yampa and Colorado River Headwaters received 0.25-1.00" of
precipitation over the past week. Most of western Colorado, and all of southwestern Colorado, received less than 0.10".

- The Rio Grande Basin saw less than 0.10 inches of precipitation in the valley and at higher elevations.
- With the exception of some precipitation in far west Larimer County and in western Jackson County conditions were dry east of the divide over the past week. The Front Range and eastern Plains received less than 0.10" of precipitation.

January Precipitation:

- January, the UCRB mainly saw at or above normal precipitation for the month.
- In the Upper Green River Basin, Sublette County was near normal, Sweetwater County saw areas with up to 200% of normal and there was an area of over 200% of normal for the month in Lincoln and Uinta counties.
- Eastern Utah saw near to slightly above normal precipitation in the northern areas, with over 200% of normal January precipitation in the southern parts of Utah.
- Western Colorado saw mostly near to above normal precipitation for the month. Mesa, Delta, Montrose and parts of Gunnison counties saw areas of over 200% of normal January precipitation.
- East of the Divide saw a month with normal to above normal precipitation from Logan County down to western Las Animas County, up to the Divide. East of this line was drying, with much of this area seeing less than 50% of normal January precipitation.

Water Year 2016 Precipitation (Oct-Jan):

- Most of the UCRB and eastern Colorado has seen a near to above normal start to the 2016 Water Year through January.
- Most of the Upper Green Basin is seeing a normal start to the water year, with Lincoln and Uinta counties seeing much above normal.
- Eastern Utah is also starting off with a normal water year through January. Southern Utah has seen over 170% of normal precipitation through January.
- Western Colorado is mostly normal or slightly above normal to start the water year as well.
- Eastern Colorado has mostly seen a normal to above normal start to the water year. Southeastern and parts northeastern Colorado is over 170%.

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:

- SNOTEL Water Year precipitation percentiles in the Upper Green Basin are mostly below the median, but there is a pronounced gradient from northwest to southeast. Percentiles in the northwest portion of the Upper Green River Basin are between 17 and 70 with more numbers closer to the median. Percentiles in the southwest portion are between 0 and 23.
- The Uintah Range is in the average range, but there is a lot of spread. SNOTEL water year to date percentiles are between 27th and 74th.
- In the Wasatch Range precipitation percentiles are generally above average. There is a spread from the 34th to 98th percentile with most numbers in the 50-80th percentile range.
- The northern Rockies in Colorado extending into Wyoming percentiles are in the normal range. A
few percentiles in Routt, Larimer and along the Divide in Grand counties, are above the 60th percentile. In Carbon County there are still a couple stations below the 10th percentile.
- The Rockies of central Colorado have fallen a little in percentile ranking, but are still in pretty good shape. There is an anomaly in Eagle County at the 18st percentile, but the rest range from the 30th to 77th percentile.
- The San Juans are well above the median for the water year to date, with most above the 70th percentile. Percentiles in Mineral and Hinsdale Counties the only below the 70th, but still above the median.
- The Sangre de Cristos right around average at the 34th to 59th percentile.

SWE Timeseries Graphs:

- The Upper Green Basin has rebounded a bit, now at 90% of median snowpack to date.
- The Duchesne basin is at 85% of median snowpack.
- The Yampa River Basin is at 96% of median snowpack to date.
- The Upper Colorado River Mainstem is now at 102% of median snowpack.
- The Gunnison Basin is at 108% of median snowpack for the season to date.
- The San Juan Basin is at 106% or median 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):

- SPIs in the UCRB are mostly in the normal range (-1 to +1) over the past 30 days.
- All SPIs in the Upper Green River Basin are in the normal range.
- All 30-day SPIs in eastern Utah are in the normal range.
- 30-day SPIs in western Colorado are characterized by a south to north gradient. Most SPIs are above 0 with a couple in the +1.5 to +2 range in Routt and Mesa Counties. There is one SPI below 0 in Montezuma County and one in the -1 to -1.5 range in Dolores County.
- The Rio Grande Basin is in the normal range.
- East of the divide, SPIs are also characterized by a south to north gradient, but there is more variance than in western Colorado. The southeastern portion of the state is showing SPIs mostly below zero with SPIs in the -1 to -1.5 range in Otero and western Las Animas Counties. North of Pueblo all 30-day SPIs are positive except for one in Washington County. Areas such as Teller, El Paso, Larimer, Logan, and Kit Carson Counties are all showing SPIs above +1.5.

Long Term (6-month):

- 6-month SPIs in the UCRB are still trending a bit on the wetter side for lower elevations and a bit on the drier side for higher elevations.
- The Upper Green River Basin is a little drier than average over the last six months. Northern Sweetwater County is showing a SPI between -1 and -1.5
- The Duchesne River Basin and the Uintah Range in eastern Utah are showing SPIs in the normal range (-1 to +1) over the past six months.
- Southeast Utah is wet at the six month timescale. SPIs are between 0 and +2.
- Western Colorado is still in the normal range, but now most stations are reporting above 0, with a few exceptions in Gunnison, Saguache, Rio Grande, and Mineral counties. One SPI in Mesa County is in the +1.5 to +2 range.
- The San Luis Valley is showing 6-month SPIs in the normal range, but now tending on the drier side of normal.
- East of the divide the majority of 6-month SPIs are between -1 and +1. Washington County is still showing some long-term dryness with SPIs down to -1.5. The Pueblo, Crowley, and Fremont County area is below normal for the last six months.
STREAMFLOW

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:

- The majority of stream gages in the UCRB are now ice-affected and not reporting. Only 46 out of 140 gages are reporting.
- 79% of gages are reporting in the normal to much above normal range for the 7-day average streamflow.
- 21% of gages reporting are in the below normal range. No gages are reporting much below or lowest.
- The Colorado River at the CO-UT state line is at 103% of normal and in the 65th percentile.
- The Green River at Green River, Utah is reporting at 133% of 7-day average, which corresponds to the 82nd percentile.
- The San Juan River near Bluff, Utah is reporting at 75% of average,
which corresponds to the 75th percentile.

SURFACE WATER

The top left image shows VIC modeled soil moisture as a percentile ranking. The top right image shows VIC+SWE.
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:

- Modeled soils moisture in the Green River Basin in Wyoming continues to be much below normal. Most of eastern Sweetwater County, soil moisture is below the 2nd percentile. All of Sweetwater, and now parts of Sublette and Uinta Counties are below the 20th percentile.
- Southeast Utah is showing above average soil moisture for this time of year whereas northeast Utah is showing below average soil moisture. Uintah County is particularly dry at between the 10th and 20th percentile.
- Soils in western Colorado are by and large either in the normal range or a bit above normal. Areas farther south are more likely to be above normal. Some dry soils extend down into Moffat County from the north.
- Soils in the Upper Rio Grande part of Colorado are mostly in the normal range with some wetter soils near the Colorado-New Mexico border.
- Soils in northeastern Colorado are mostly in the normal range. Jefferson, Broomfield, Adams, Boulder, and southern Weld/southeast Larimer counties are showing wet soils between the 70th and 98th percentile. Some areas in east-central Colorado are showing soil moisture in the 10th-30th percentile range, but most of the high plains are in the normal range. Southern Washington County in particular is dry and is in the 10th-20th percentile range.
- Soils in southeastern Colorado range from dry to wet. In eastern Pueblo and El Paso Counties as well as Crowley and Otero and Lincoln Counties soils are still showing up below the 30th percentile. Soils in the southeast corner of the state in Baca, Prowers, and eastern Kiowa Counties are between the 70th and 90th percentile.

Reservoirs (based on the graphs below the map):

- Flaming Gorge is at 103% of average.
Lake Granby is at 134% of average.
Green Mountain is now at 71% of the December average and 44% full.
Blue Mesa is at 114% of average.
Navajo is at 110% of average.
McPhee is at 94% of average.
Lake Powell is 71% of average.

**EVAPOTRANSPERSION**

The above images are available courtesy of NOAA’s Evaporative Demand Drought Index (EDDI). Drought classification listed is a function of the depth of reference evapotranspiration accumulated over a given period of record with respect to a climatology of 1981-2010. The drought categories displayed are in line with the US Drought Monitor's Percentile Ranking Scheme [http://droughtmonitor.unl.edu/AboutUs/ClassificationScheme.aspx](http://droughtmonitor.unl.edu/AboutUs/ClassificationScheme.aspx). Data used to generate these maps come from the North American Land Data Assimilation System Phase-2 (NLDAS-2) project, which assimilates observations of temperature, wind speed, radiation, and vapor pressure deficit. The date indicates the last day of the period of record, and the week number indicates the window size for the period of record.

**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 through the UCRB were between below normal and much above normal last week.
- In southwestern Wyoming, temperatures were 5 to 20 degrees above average.
- The Yampa and Duchesne basins were the coolest part of the UCRB with respect to average over the last week. Here temperatures were mostly 0 to 10 degrees below average.
- Southeast Utah was by and large in the normal range at within five degrees on either side of average.
- Southwest Colorado was 0 to 10 degrees above normal over the last week with the exception of the high valleys in the Gunnison Basin. Here temperatures remained 0-10 degrees below average.
- The San Luis Valley saw temperatures 5 to 10 degrees above average.
- East of the Divide in Colorado, temperatures were primarily above average, especially in the foothills and on the Front Range. Areas closer to higher terrain were 10 to 15 degrees above average.
whereas areas farther out on the plains were 0-10 degrees above average. The far northeast corner of the state experienced temperatures closest to average.

January Temperatures:

- The UCRB for January was in the normal to slightly cooler than normal range, with temperatures between 2 to -4 degrees from normal.
- Further north in the Yampa and North Platte river basins temperatures were, on average, below normal with spots in Moffat and Jackson counties nearing 8 degrees below normal.
- The Upper Green River Basin in Wyoming saw temperatures mostly below normal in Uinta, Sweetwater, and Fremont counties, and at or above normal in Lincoln and Sublette counties.
- Eastern Utah was at or below normal for January temperatures. Eastern Carbon and northeastern Emery counties were the coolest, down to 10 degrees below average.
- Southwest Colorado was slightly below normal for temperatures, while an area in southeast Gunnison/northwest Saguache counties was fairly far below normal at 8 degrees or colder than their January average.
- Colorado east of the divide was at or above normal for temperatures in January. The coldest area was southern Park County at 8 degrees below normal, while most of the high plains, save for the far northeastern part of the state, were between 0 and 4 degrees above normal.

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: (2/16)

- Once again, this week will be dominated by high pressure and warmer than average temperatures across the UCRB and eastern Colorado.
- Thursday morning through Friday morning a fast-moving shortwave disturbance is expected to traverse the area. This should bring some substantial snowfall to the Upper Green River Basin (1-3" of liquid water content) and some more modest moisture totals to the Uintah and Rocky Mountains (0.5-1" of liquid water content).
- Along with the snowfall in the northern Rockies will come very warm, windy conditions for eastern Colorado including fire danger.
- Beginning Friday a high pressure ridge builds back into place calming winds and bringing above average temperatures to most areas for the weekend.
- On Monday models hint at some weak upslope forcing for eastern Colorado, which may lead to some light precipitation, but expect totals to be primarily below a tenth of an inch.

Longer Term:

- The 8-14 day precipitation outlook shows increased chances for below average precipitation for the entirety of the UCRB and eastern Colorado. These chances are strongest west of the Continental Divide.
- The temperature outlook shows increased chances for above average temperature for the entirety of the UCRB and eastern Colorado. These chances are lowest in the western portion of the basin.
- The Climate Prediction Center February through April precipitation outlook shows increased chances for above average precipitation for all but the far northwest end of the UCRB and all of eastern Colorado. These odds maximize in southeast Colorado.
- The seasonal drought outlook for February through April indicates
that no drought development is likely in the UCRB or eastern Colorado.

**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: February 16, 2016**

The last week can be characterized by the UCRB largely remaining under high pressure conditions with the northernmost portion of the basin and eastern Colorado ending up in more of a gradient zone. The Bear River Divide just south of the Tetons, and the Rabbit Ears Pass area received the most precipitation of anywhere the the UCRB picking up between 0.50 and 1.00". Areas just downstream of these locations such as the Wind River Range in Wyoming, and much of northeast Colorado ended up much windier than average. Wind played a role in the whole lee of the Rockies in Colorado experiencing above average temperatures over the past week all the way from Fort Collins to Trinidad. Under non-arctic high pressure the UCRB experienced mostly above average temperatures as well, but high mountain and river valleys with snowpack such as the Yampa River Valley and Taylor Park area experienced below normal temperatures with cold, stable air pooling in the valleys.
For the UCRB and eastern Colorado this week will be another "easy" assessment. The warm and windy conditions across eastern Colorado and the eastern portion of the Upper Green River Basin are coming on the heels of a significant widespread snowfall event the week before. Looking at SPIs of timescales from one to six months it appears that D0 is just about correctly situated as is. The UCRB and eastern Colorado are currently situated under a high pressure ridge with another shortwave trough expected to move over the Upper Green River Basin and eastern Colorado on Thursday. This will bring potential for another big windstorm and some fire weather danger on the eastern plains. Longer range models are showing some promise for wetter conditions returning some time in the beginning of March. For now no major changes will be recommended.

**Recommendations:**

**UCRB:** Status quo. Even with the precipitation last week, areas that are in D0 are still showing dry soils and missed out on most of the precipitation from the last week.

**Eastern Colorado:** It is recommended that D0 be expanded to encompass the remainder of Washington County with the exception of the southern part of its border with Morgan County. This is in an effort to incorporate areas of low modeled soil moisture with the already existing D0 directly to the east.