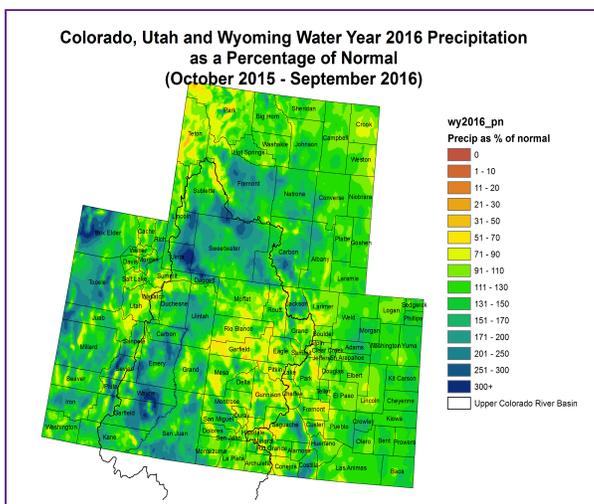
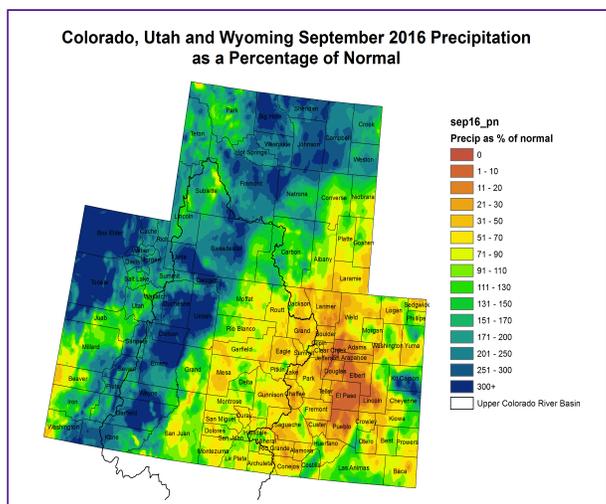
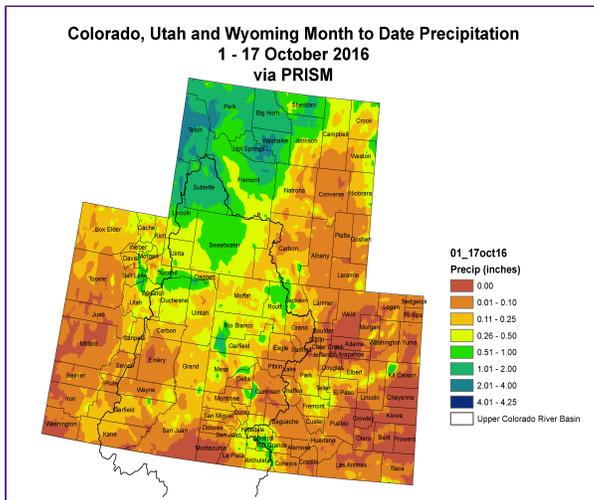
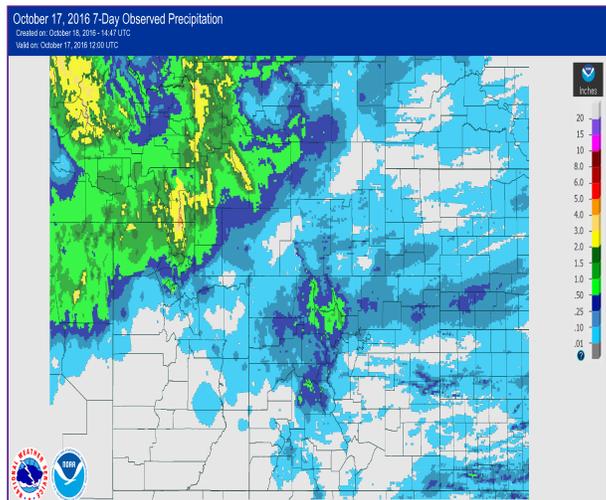
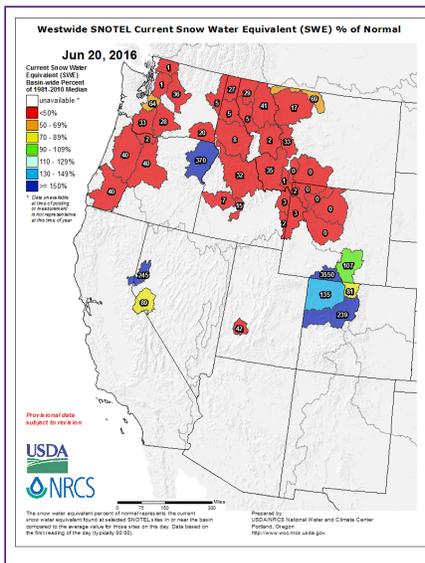
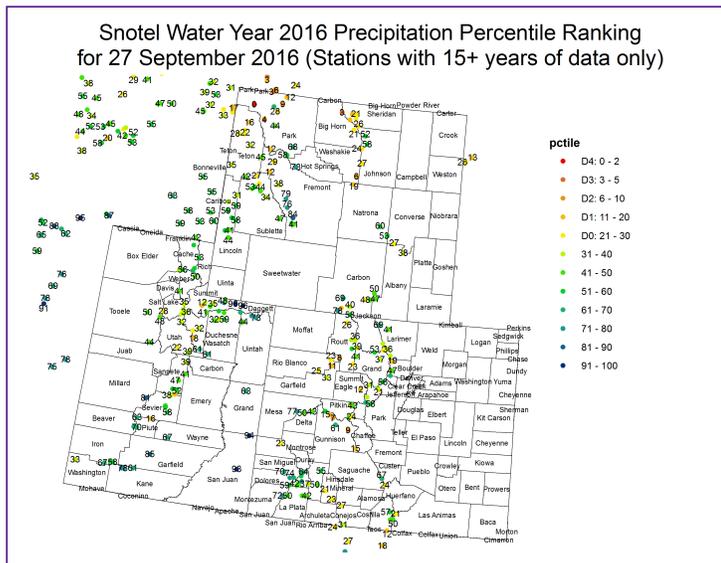


PRECIPITATION

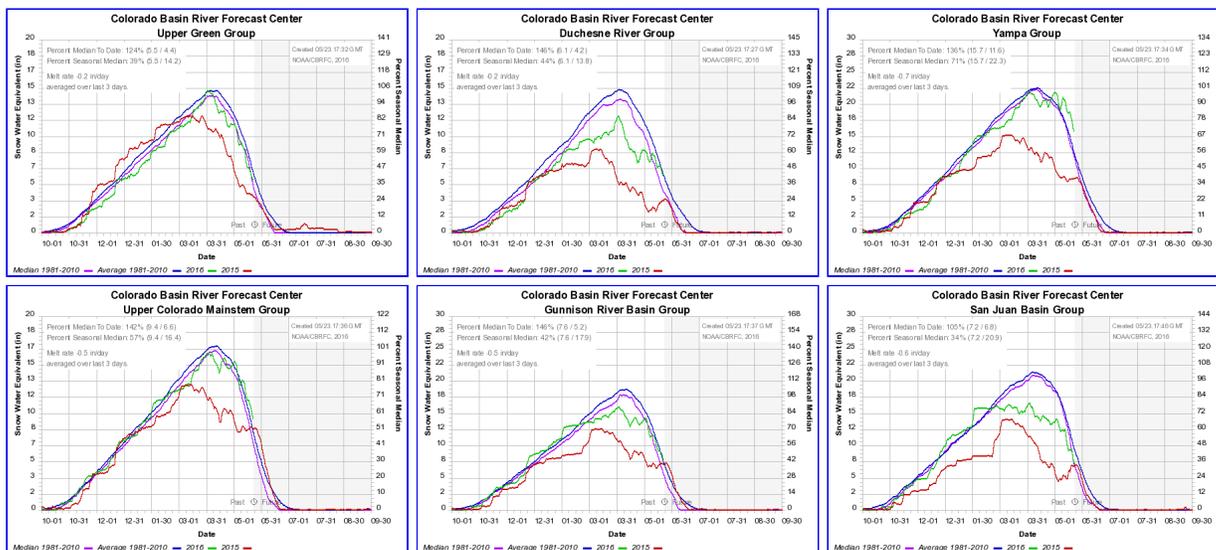


The images above use daily precipitation statistics from NWS COOP, CoCoRaHS, and CoAgMet stations. From top to bottom, and left to right: most recent 7-days of accumulated precipitation in inches; current month-to-date accumulated precipitation in inches; last month's precipitation as a percent of average; water-year-to-date precipitation as a percent of average.

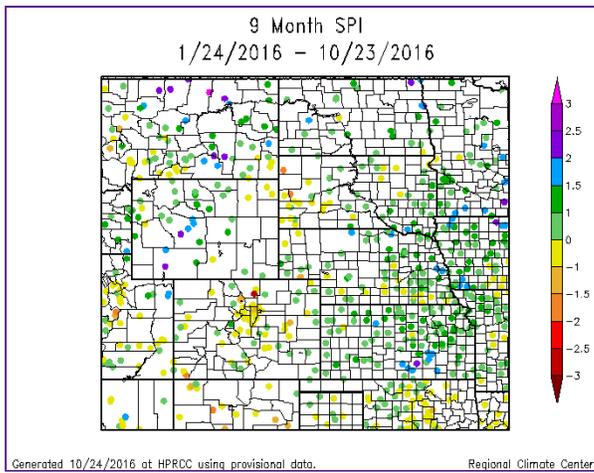
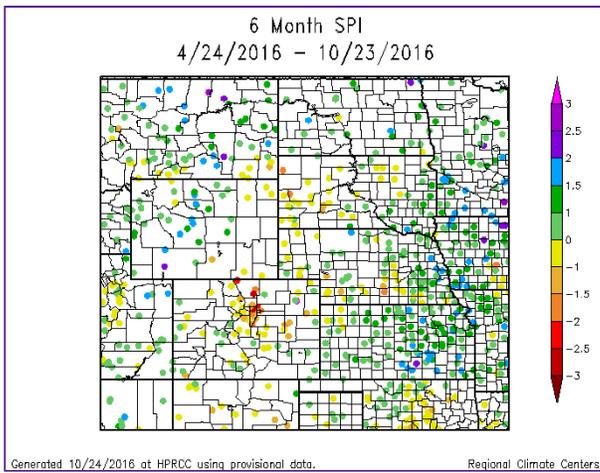
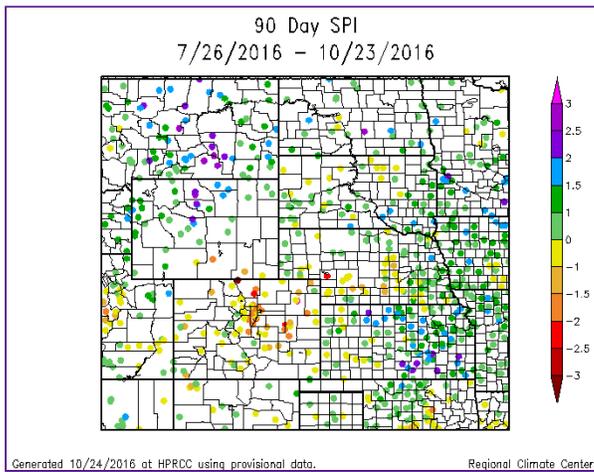
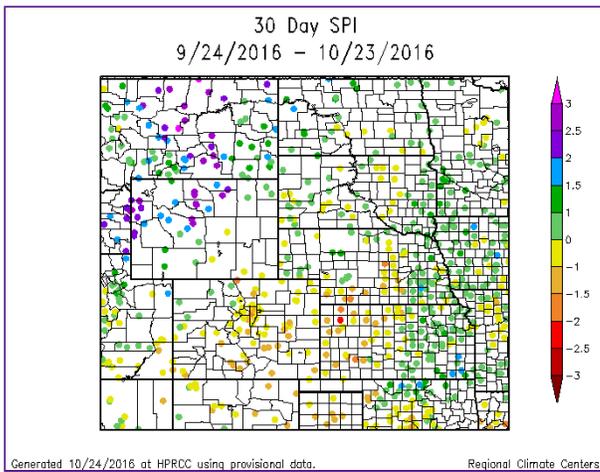
SNOTEL AND SNOWPACK



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).

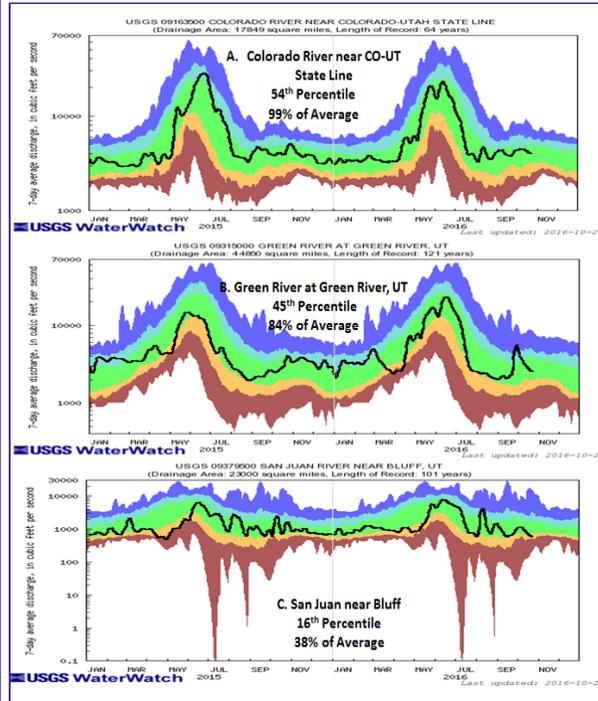
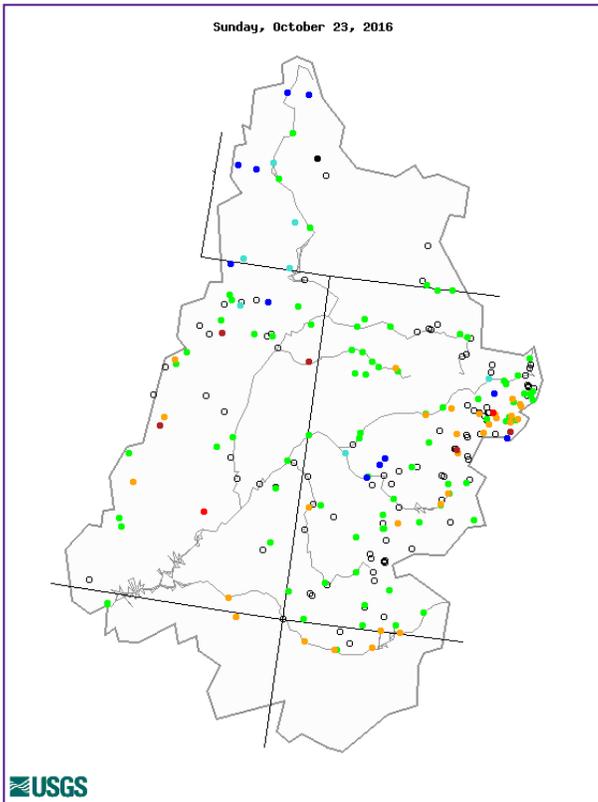


STANDARDIZED PRECIPITATION INDEX



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.

STREAMFLOW

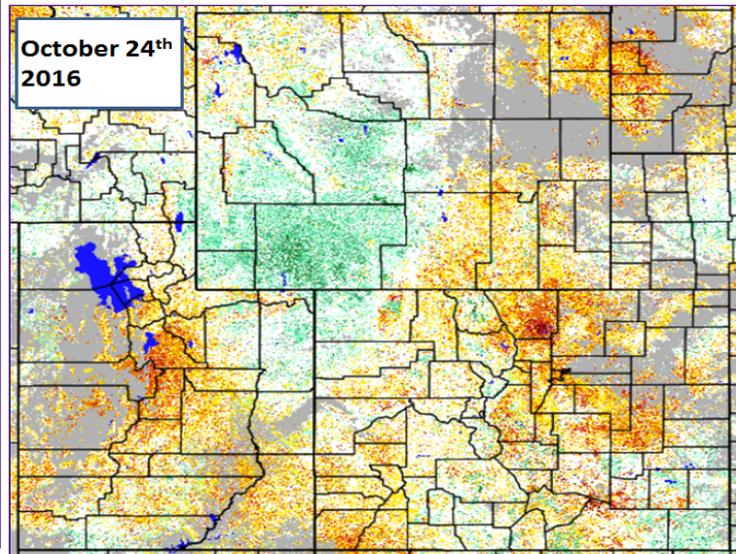
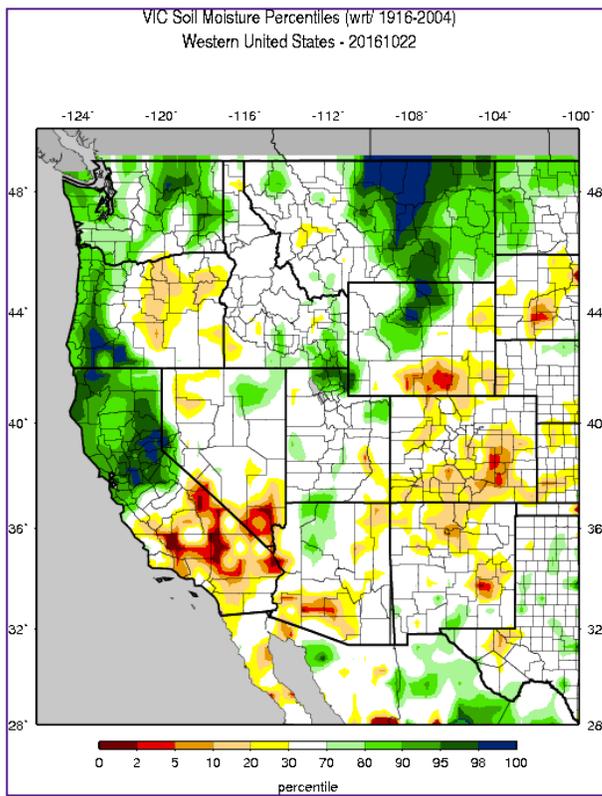


Explanation - Percentile classes

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

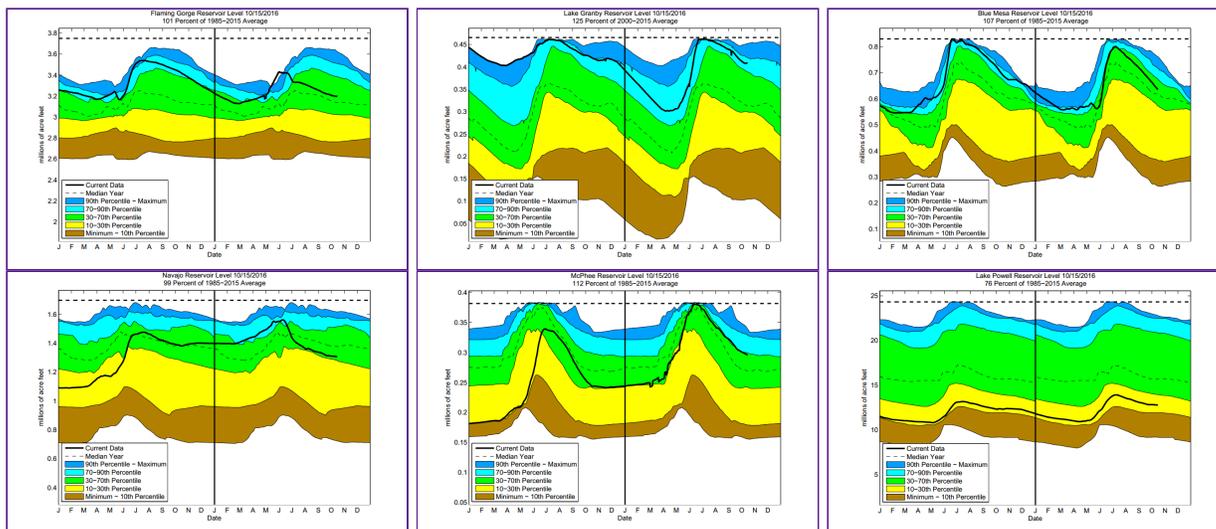
The top left image shows 7-day averaged streamflows as a percentile ranking across the UCRB. The top right image shows 7-day averaged discharge over time at three key sites around the UCRB: The Colorado River at the CO-UT state line; the Green River at Green River, UT; and the San Juan River near Bluff,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

SURFACE WATER

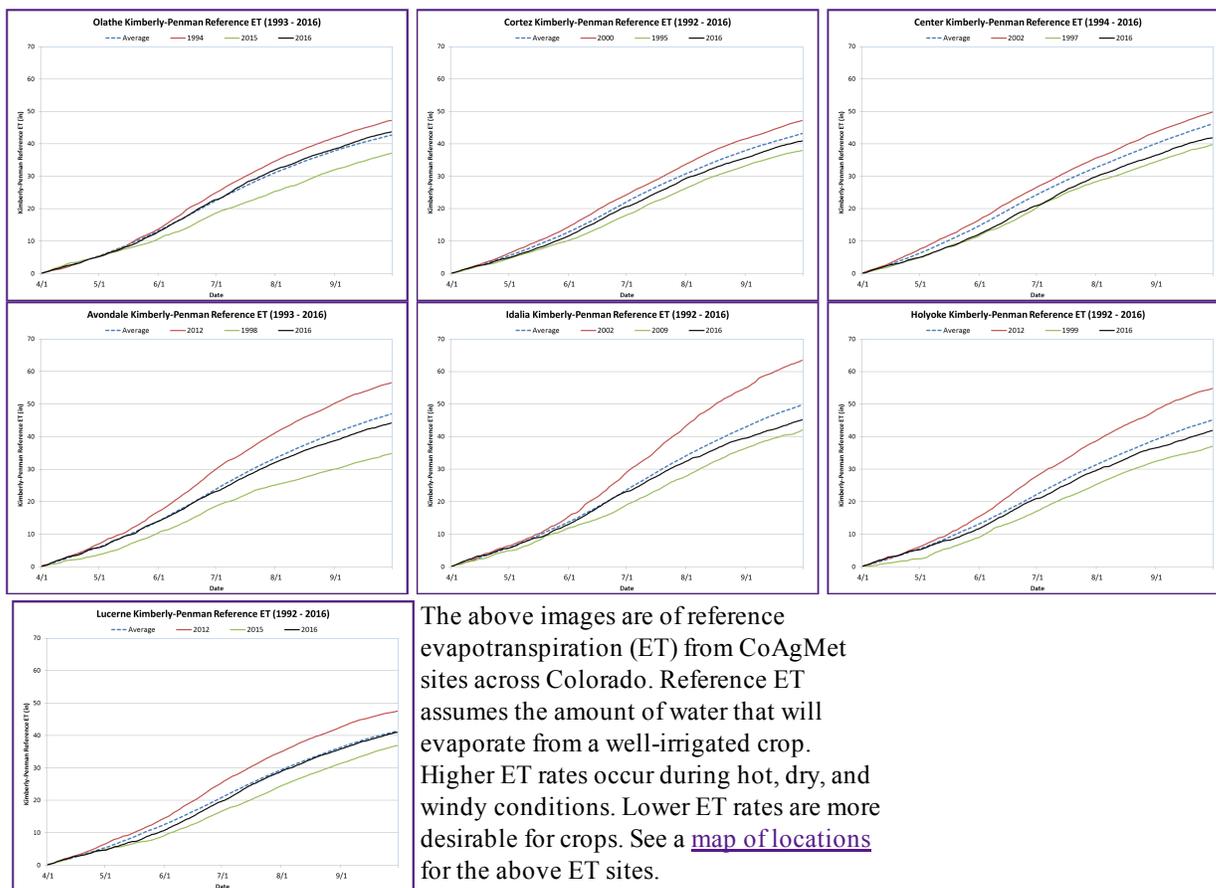


The top left image shows VIC modeled soil moisture as a percentile ranking. The top right image shows satellite-derived vegetation from the VegDRI product (which updates on Mondays).

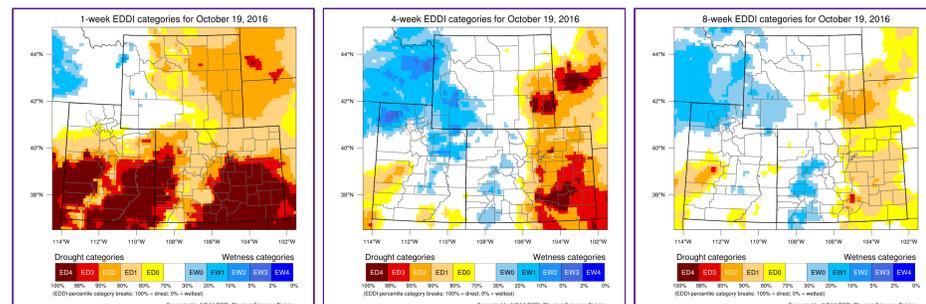
The graphs shown below are plots of reservoir volumes over the past full year and current year to date (black). The dashed line at the top of each graphic indicates the reservoir's capacity, and the background color-coded shading provides context for the range of reservoir levels observed over the past 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.

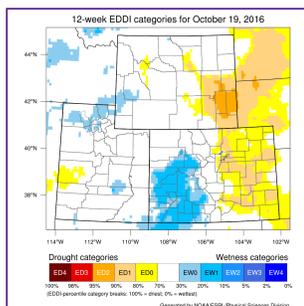


EVAPOTRANSPIRATION



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.

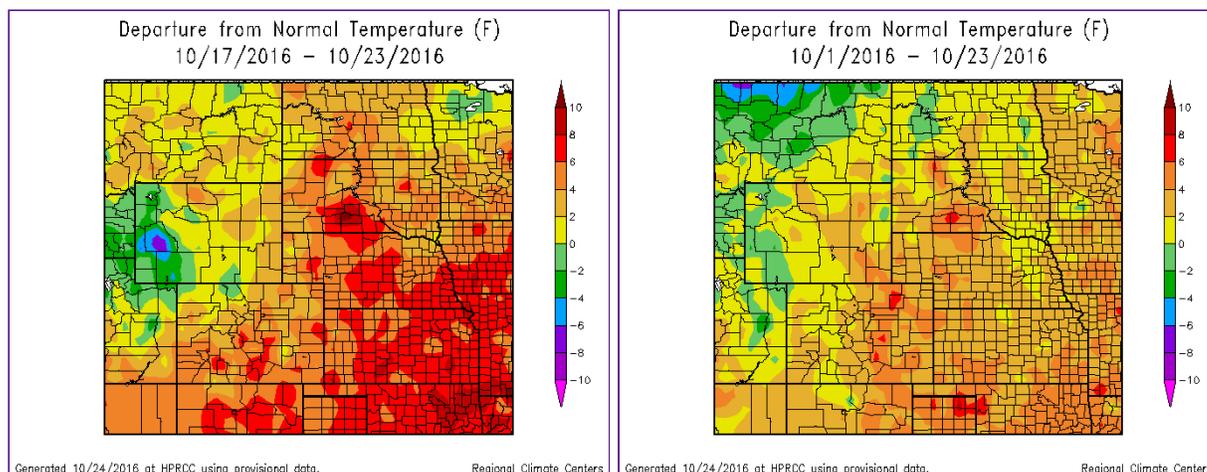




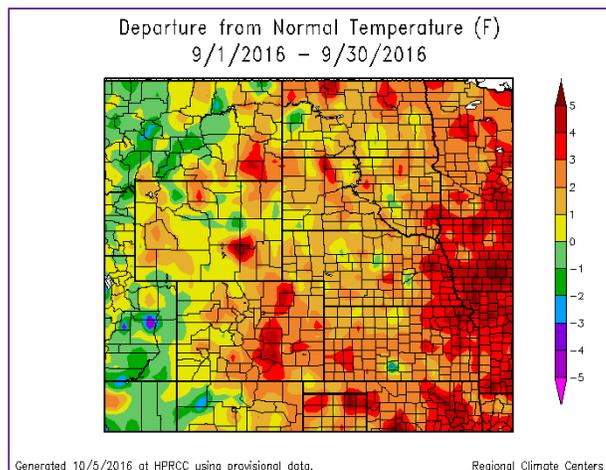
The above images are available courtesy of NOAA's Evaporative Demand Drought Index (EDDI). Drought classification listed is a function of the depth of reference evapotranspiration accumulated over a given period of record with respect to a climatology of 1981-2010. The drought categories displayed are in line with the US Drought Monitor's Percentile Ranking Scheme

<http://droughtmonitor.unl.edu/AboutUs/ClassificationScheme.aspx>. 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..

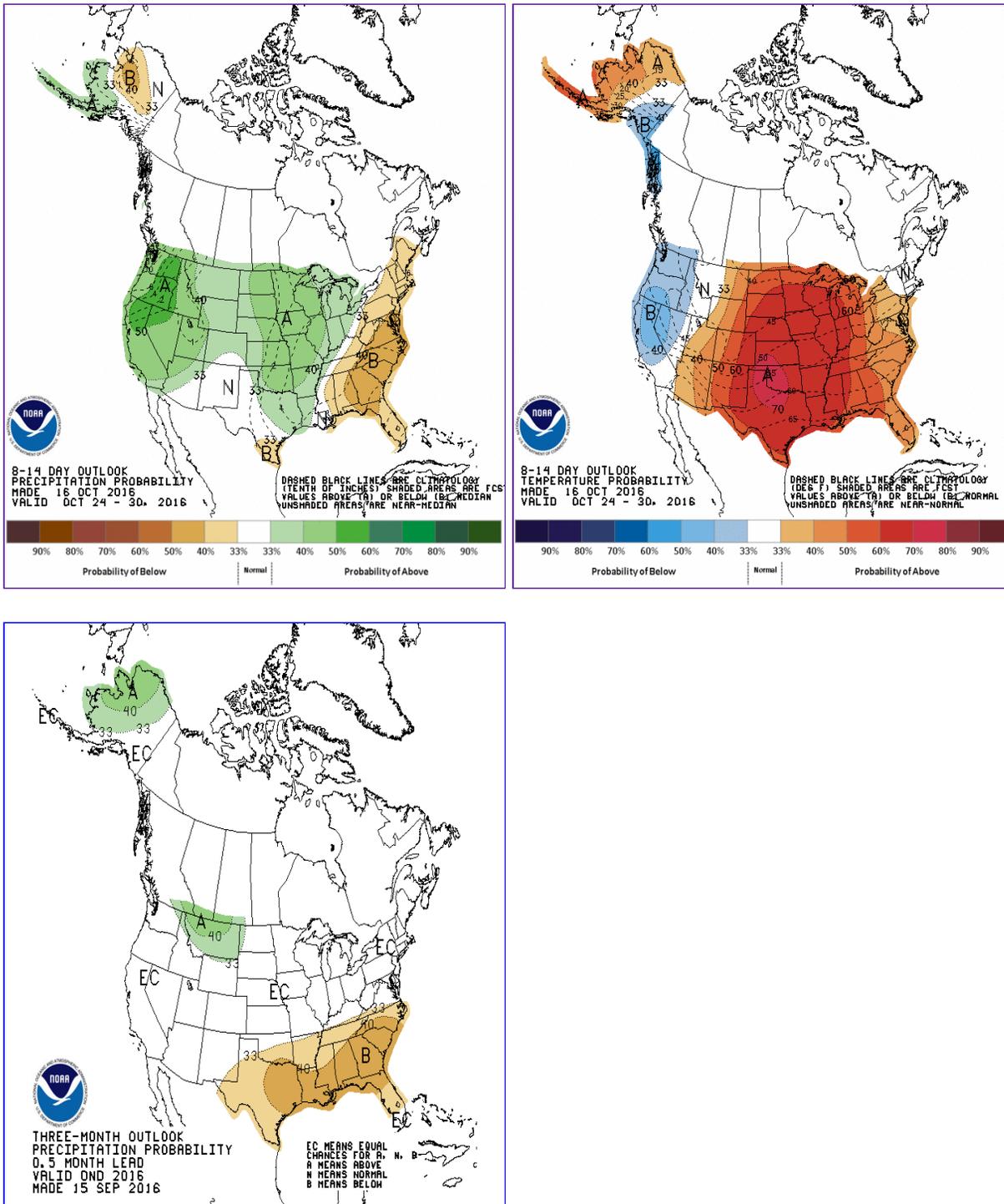
TEMPERATURE



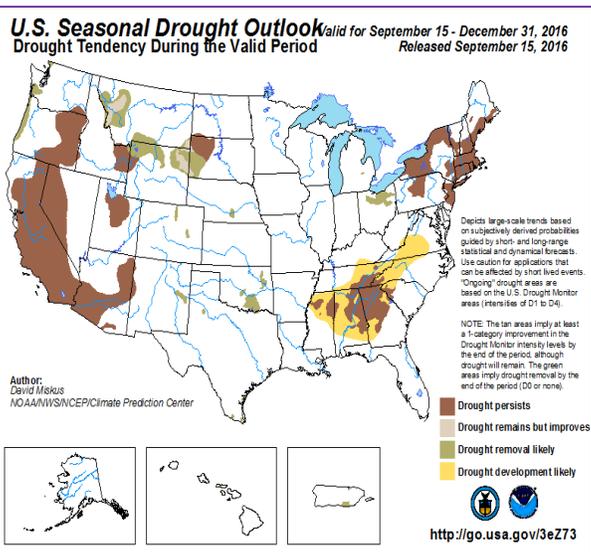
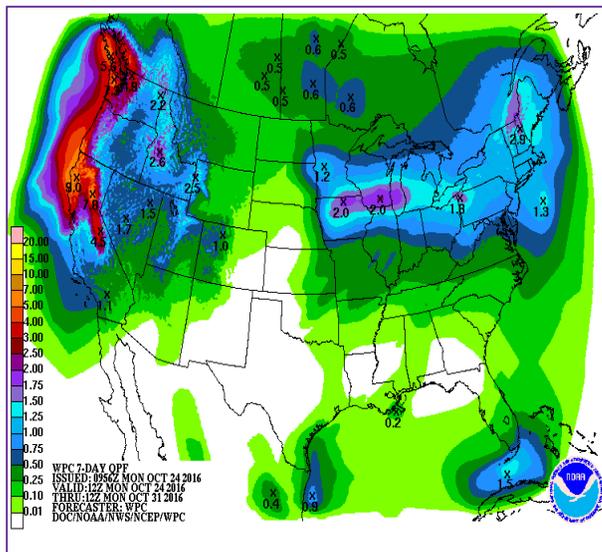
All images show temperature departures from average over different time periods (last 7 days on top left; month-to-date on top right; last full month on bottom). Temperature departure maps provided by HPRCC ACIS.



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 Weather Prediction Center's Quantitative Precipitation Forecast accumulation for the seven days between Tuesday 12Z and ending Tuesday 12Z. The bottom right image shows the Climate Prediction Center's most recent release of the U.S. Seasonal Drought Outlook.



10/4

Next Week:

Wednesday-Friday: An upper-level low is spinning over the northwestern quadrant of the United States. Right now only the northern end of the basin is within the reach of cold air below this low pressure system, but on Thursday a cold front will drop through the center of the basin and northeast Colorado. This brings with it 15 degree cooler temperatures and a chance for 0.25-0.50" of precipitation for northwest Colorado. Eastern Colorado may see some precipitation as well, but the forcing for rain will be muted by downslope winds.

The weekend and beyond: This weekend warmer, drier air settles in from the southwest. Look for slightly above average temperatures this weekend with isolated showers near the Four Corners.

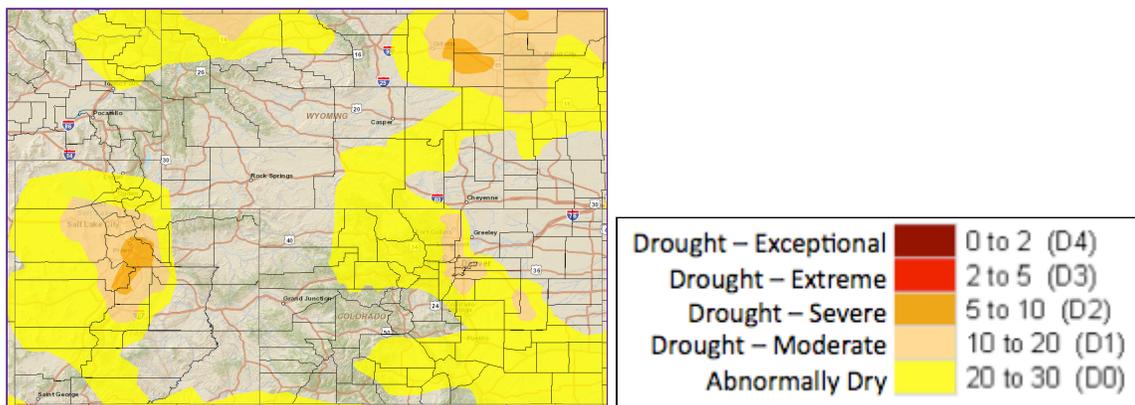
Longer Term:

Precipitation: The 8-14 day outlook shows a slightly increased chance of below average precipitation for the UCRB and eastern Colorado.

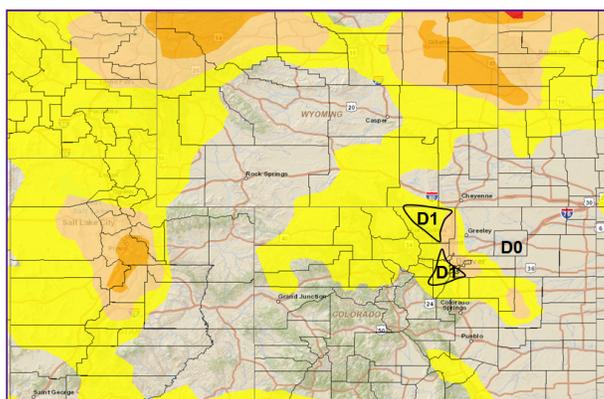
Temperature: The 8-14 day temperature outlook shows a substantial increase in chance of above average temperatures over the UCRB and eastern Colorado. These chances will be highest in eastern Colorado.

Drought: Development of new drought is predicted as being unlikely for any given location in the Upper Colorado River Basin and eastern Colorado over the September through November time frame. The drought in eastern Colorado is predicted to improve.

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: October 25, 2016

The past week brought over half an inch of precipitation to much of the Upper Colorado River Basin including the headwaters of the Green River, the Yampa Basin, and the Colorado River Mainstem from the Grand Mesa westward. Weekly precipitation amounts tapered towards the Continental Divide and to the southeast. In contrast, Colorado east of the divide experienced less than 0.10" of precipitation over the past week with the exception of the Cameron Pass area in Larimer County.

Temperatures were near-to-slightly above average in the Upper Colorado River Basin over the past week with a gradient pointing from north to south. In the headwaters of the Green River Basin temperatures were 6-8 degrees below normal, but southern Utah near Lake Powell were 2-4 degrees above normal for the week. Once again, conditions were less encouraging east of the Continental Divide in Colorado with temperatures 2-6 degrees above average across the board.

Streamflows in the Upper Colorado River Basin have stayed mostly in the normal range over the past week. Some lower flows have persisted in Summit County and Eagle County, which feed into the Colorado Mainstem. Flows along the San Juan River are falling into the below normal range. Reservoir storage in the basin remains in the normal range in the northern and central Upper Colorado River Basin and tapering into the below normal range in the south end of the basin. Navajo Reservoir has fallen nearly below the 30th percentile, and should be monitored closely going forward.

Evaporative demand has been in the normal to slightly below normal range in the Upper Colorado River Basin over the past four weeks, but much above average in eastern Colorado. Remotely-sensed vegetative health conditions and modeled root zone soil moisture are beginning to reflect this imbalance towards above average water demand, and below average precipitation over this timescale. Southeast Colorado has fallen below the 30th percentile in terms of Variable Infiltration Capacity modeled soil moisture over the last several weeks. Southern Lincoln County, Crowley County, Otero County, and eastern Pueblo County are below the 10th percentile. Precipitation is still above average in this area on three-to-six month timescales, so it can be left D0 over this week, but should be watched for potential degradation in coming weeks.

Recommendations

UCRB: Status quo is recommended for the UCRB.

Eastern Colorado: It is recommended that D0 be expanded in northeast Colorado to include all but Phillips, Sedgewick, eastern Logan, and northeast Yuma Counties. This was included in draft #1. Thank you, Dave!

Furthermore, it is recommended that D1 be expected into central, north and northwest Larimer Counties. COOP stations such as Hohnholtz Reservoir and Rustic have fallen more than 4.5" below average for the calendar year to date.

It is recommended that D1 be added to southern Jefferson County, extreme western Douglas County, and extreme northeast Park County. These areas are likewise showing precipitation deficits of 4-5" for the year to date, largely owing to dry conditions over the past four months.

Fort Collins, Loveland, and Waterdale COOP stations are showing more extreme deficits for the past five months, and rank in the bottom 10 percentile since the middle of May. While this only covers a small area, southeast Larimer County could be reduced to D2. Reservoir supplies are still robust in this area, and the D2 would cover only a small area, so we'll defer to the drought monitor on this suggestion.