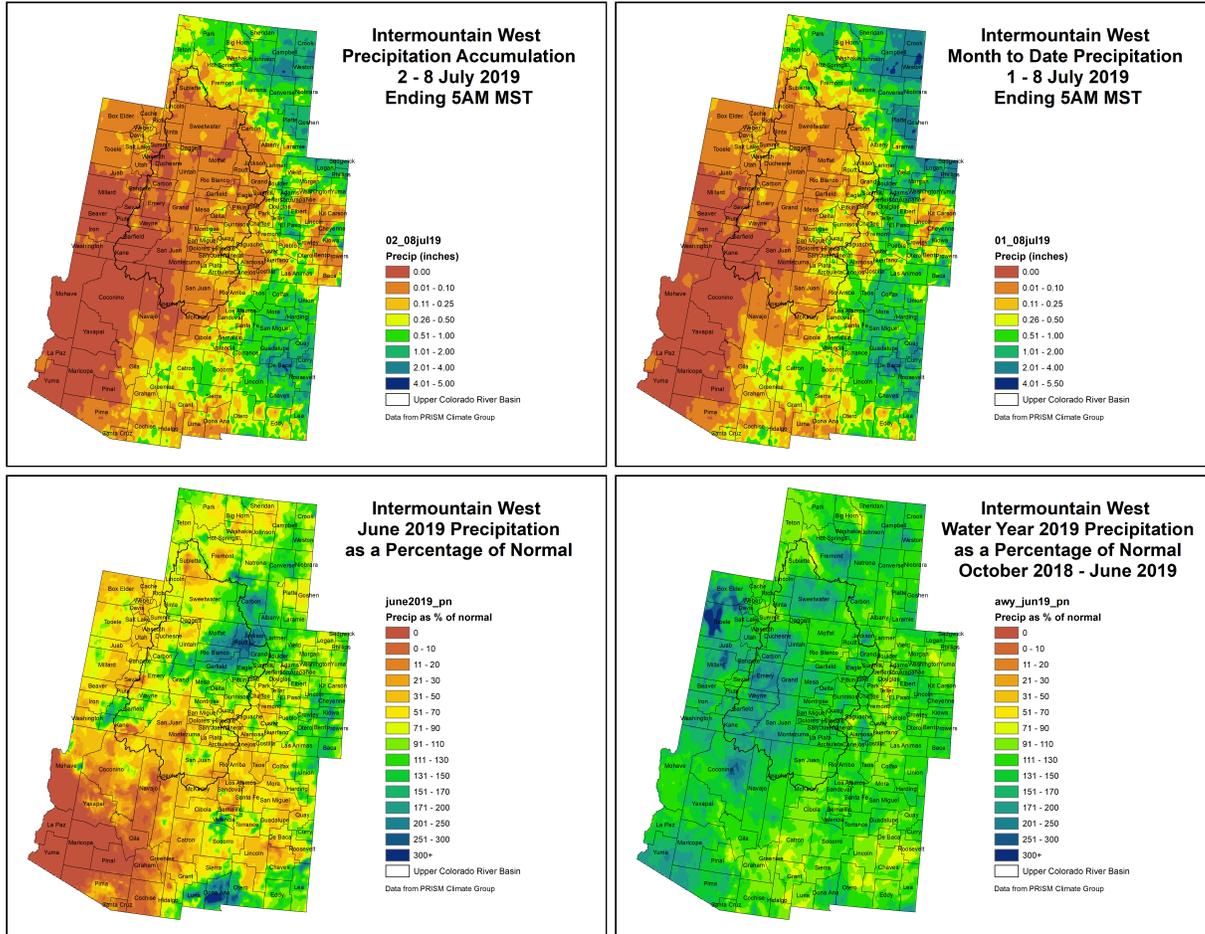


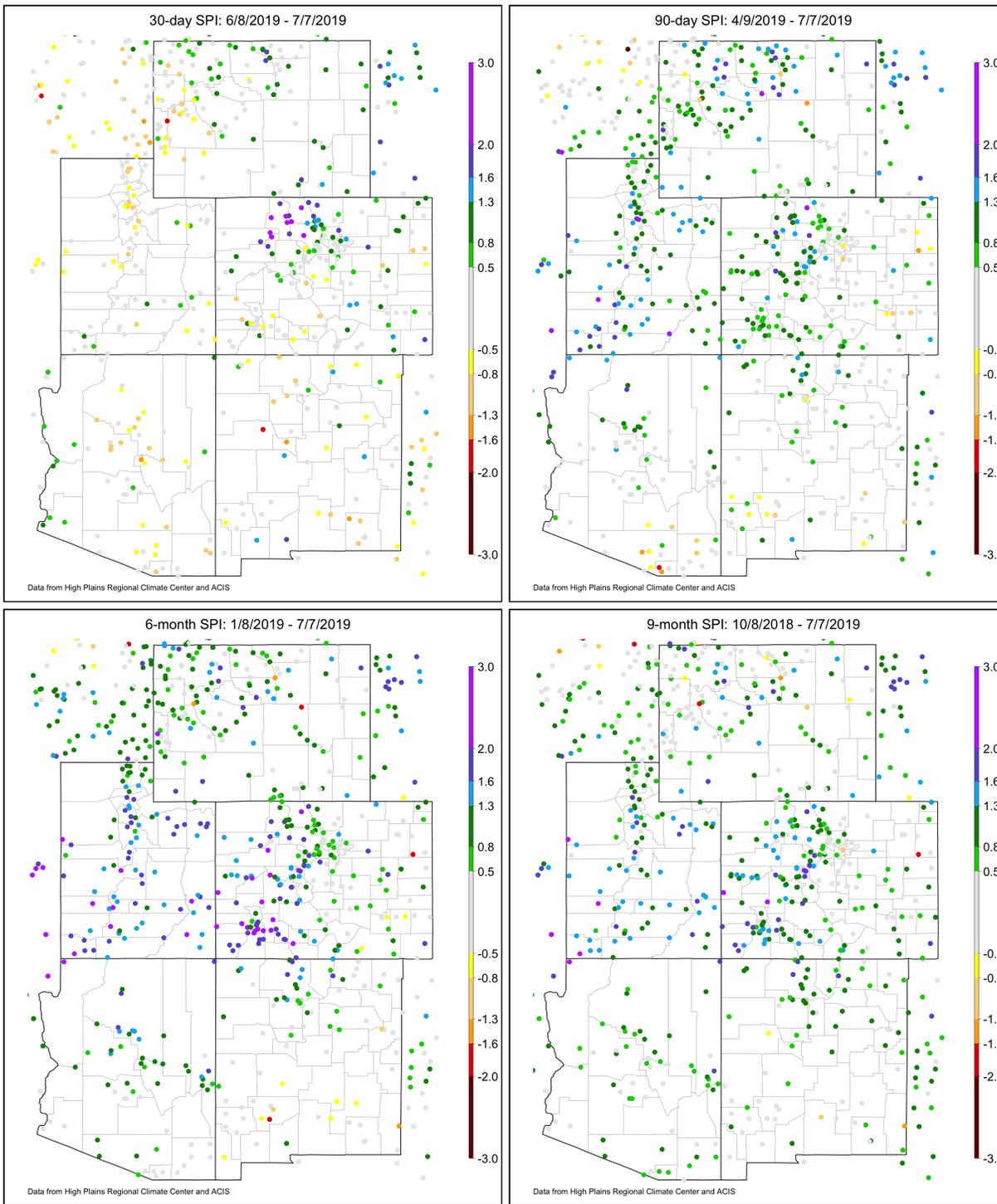
# NIDIS Intermountain West Drought Early Warning System July 9, 2019

## 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.

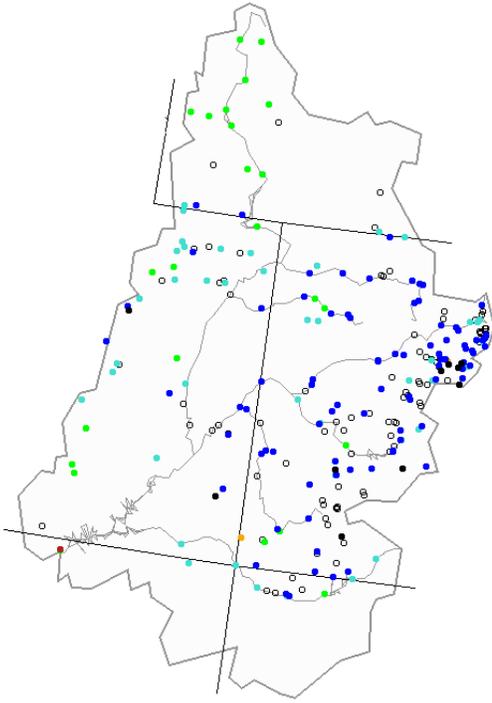
## Standardized Precipitation Index



Standardized Precipitation Index standardizes precipitation accumulations for a specified time period into percentile rankings. Colors match the different drought categories with the U.S. Drought Monitor. 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.

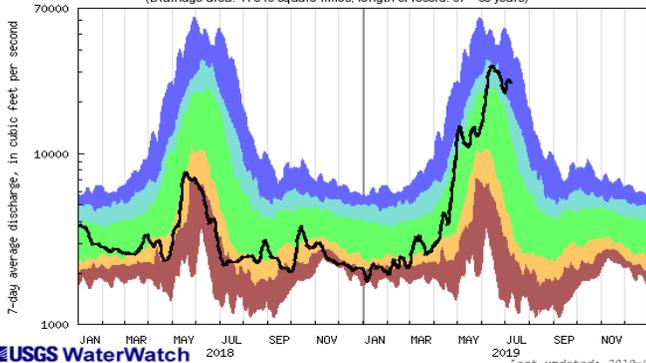
## Streamflow

Monday, July 08, 2019

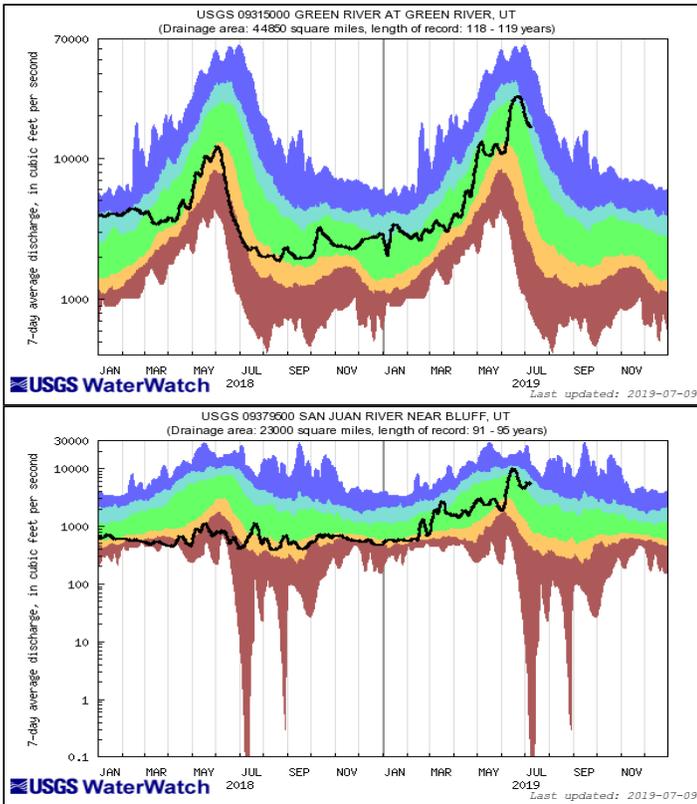


Explanation - Percentile classes							
<span style="color: red;">●</span>	<span style="color: orange;">●</span>	<span style="color: green;">●</span>	<span style="color: cyan;">●</span>	<span style="color: blue;">●</span>	<span style="color: black;">●</span>	<span style="color: black;">○</span>	
Low	<10	10-24	25-75	76-90	>90	High	Not-ranked
	Much below normal	Below normal	Normal	Above normal	Much above normal		

USGS 09163500 COLORADO RIVER NEAR COLORADO-UTAH STATE LINE  
(Drainage area: 17849 square miles, length of record: 67 - 68 years)

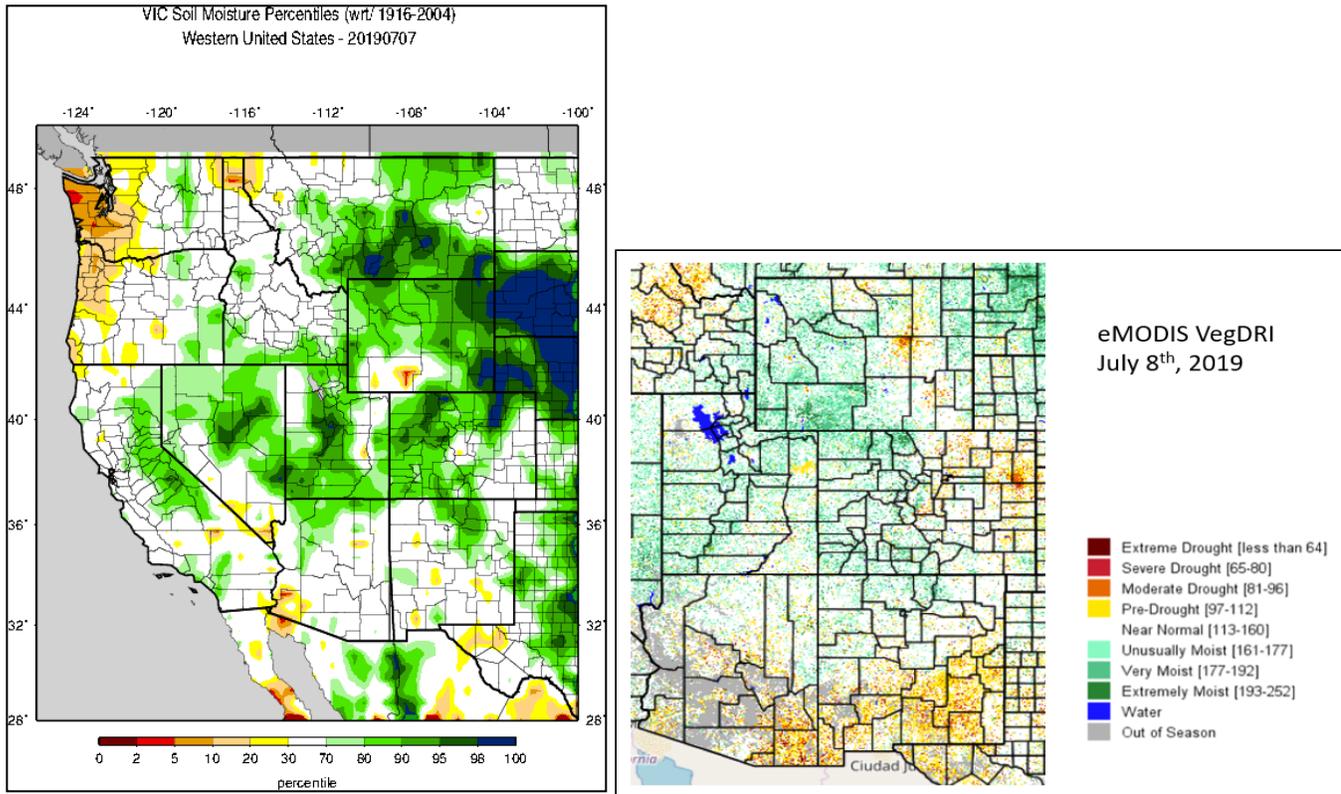


Last updated: 2019-07-09



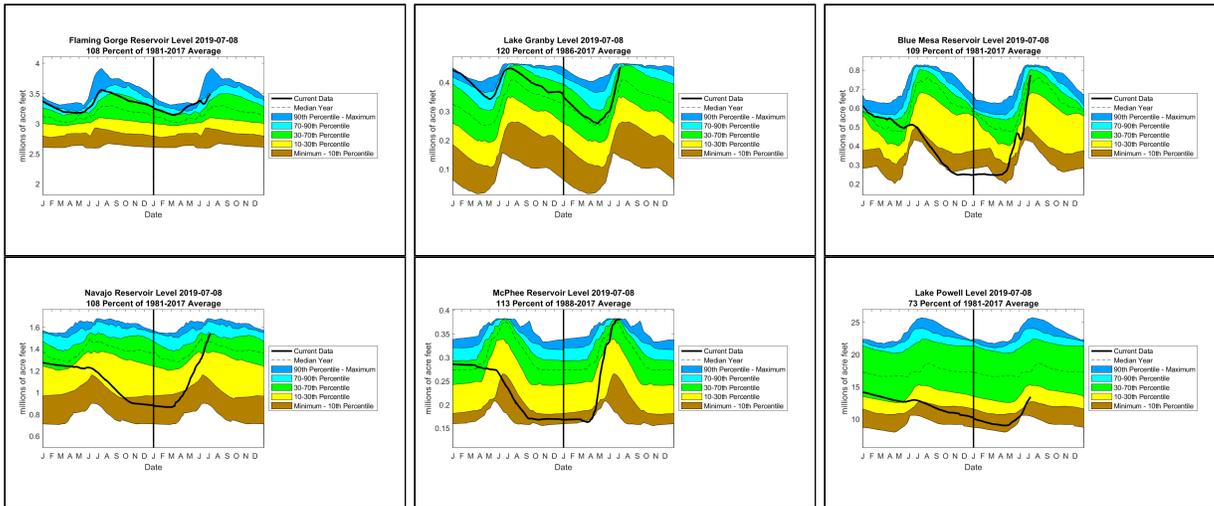
The top left image shows 7-day averaged streamflows as a percentile ranking across the UCRB. The top right image shows 7-day averaged discharge over time at three key sites around the UCRB: The Colorado River at the CO-UT state line; the Green River at Green River, UT; and the San Juan River near Bluff,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

## Surface Water

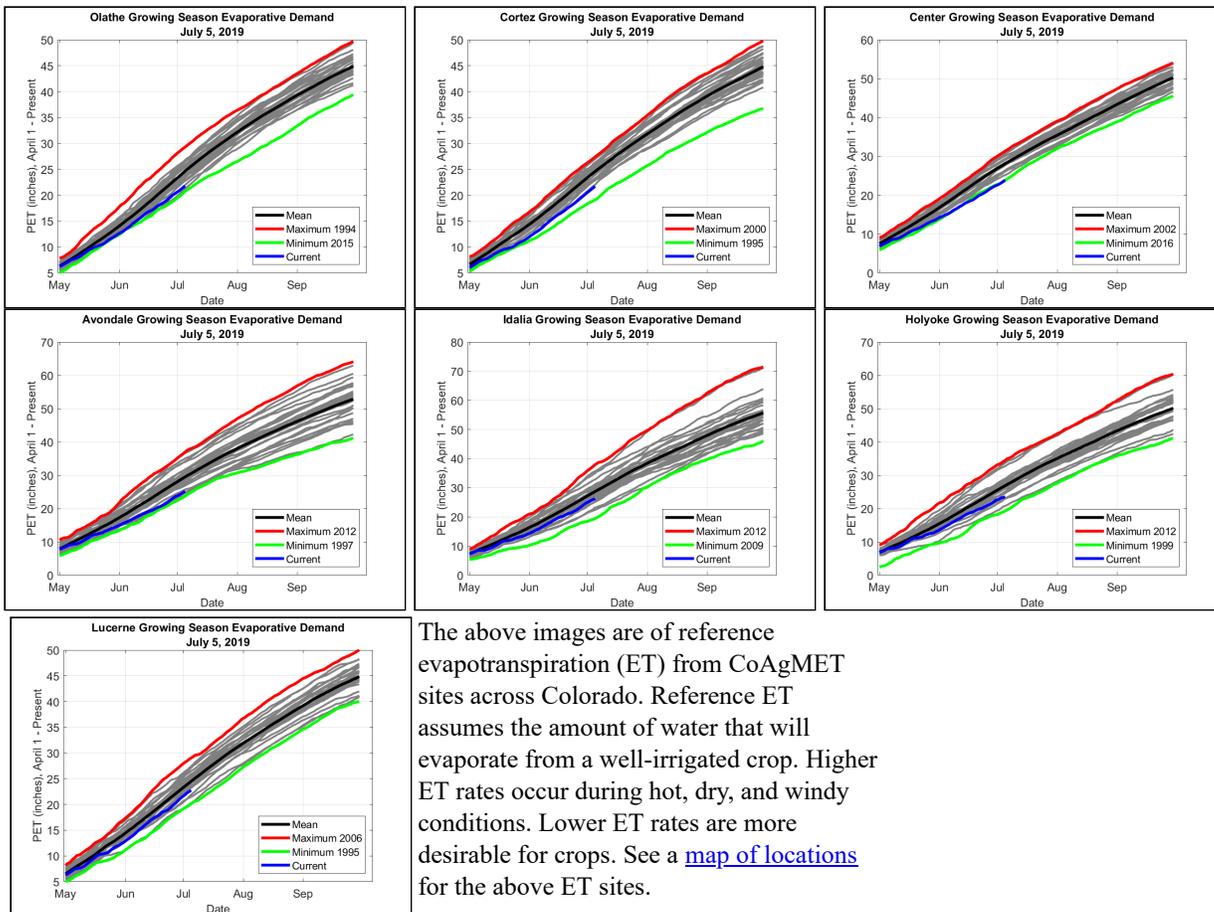


The top left image shows VIC modeled soil moisture as a percentile ranking. The top right image shows satellite-derived vegetation from the VegDRI product (which updates on Mondays).

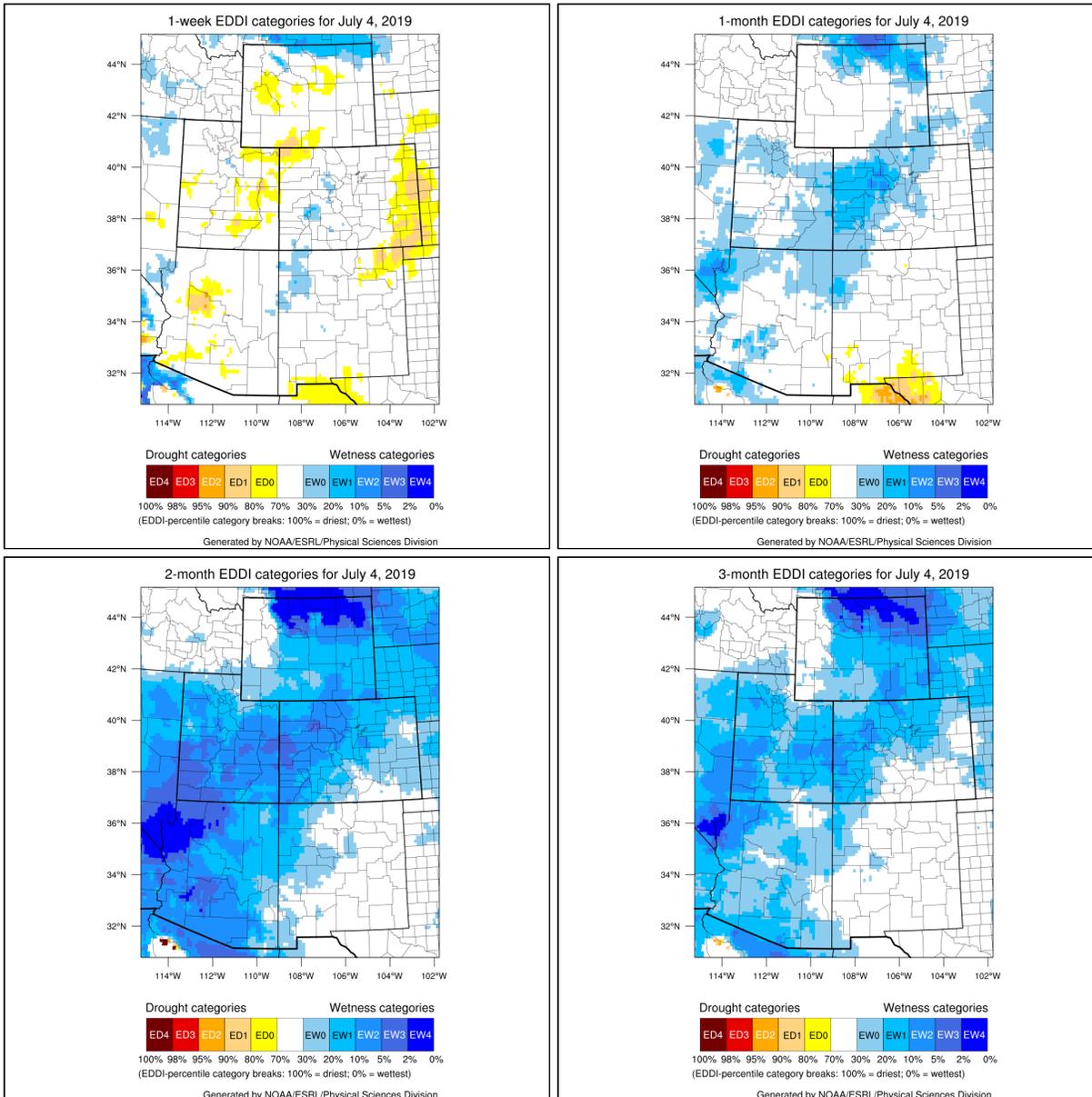
The graphs shown below are plots of reservoir volumes over the past full year and current year to date (black). The dashed line at the top of each graphic indicates the reservoir's capacity, and the background color-coded shading provides context for the range of reservoir levels observed over the past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



## Evaporative Demand

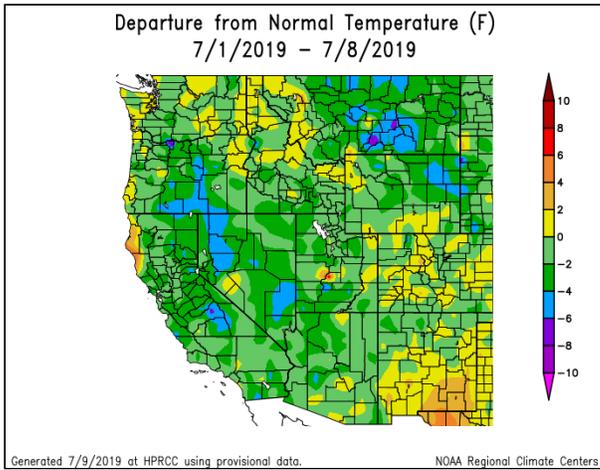
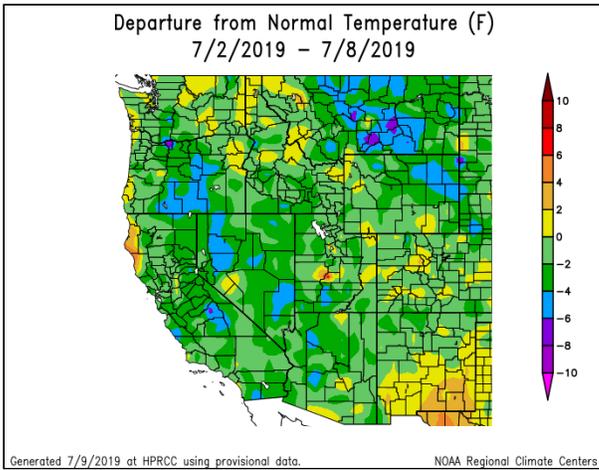


The above images are of reference evapotranspiration (ET) from CoAgMET sites across Colorado. Reference ET assumes the amount of water that will evaporate from a well-irrigated crop. Higher ET rates occur during hot, dry, and windy conditions. Lower ET rates are more desirable for crops. See a [map of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

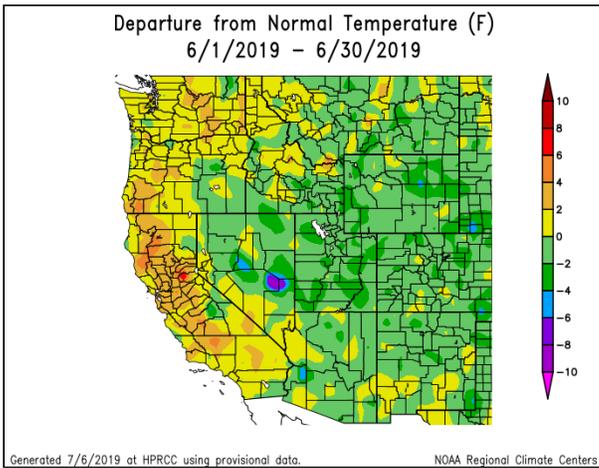


The above images are available courtesy of NOAA's Evaporative Demand Drought Index (EDDI). Drought classification listed is a function of the depth of reference evapotranspiration accumulated over a given period of record with respect to a climatology of 1981-2010. The drought categories displayed are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

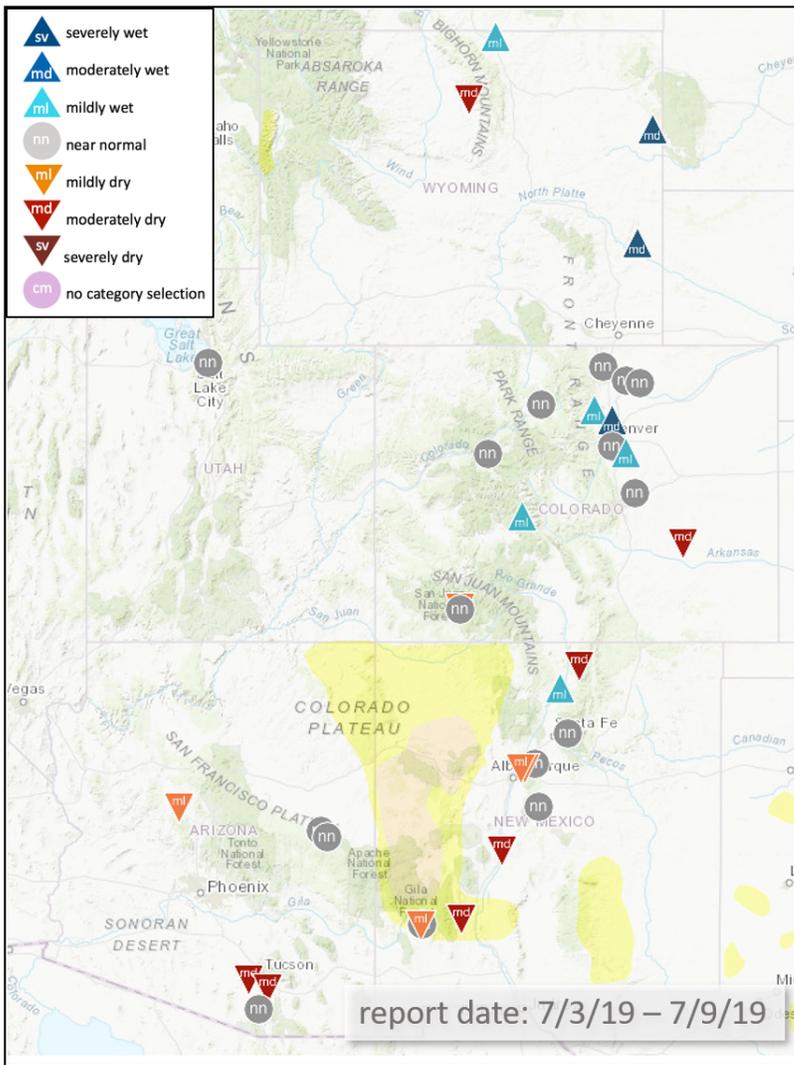
## Temperature



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.



## Condition Monitoring and Impacts

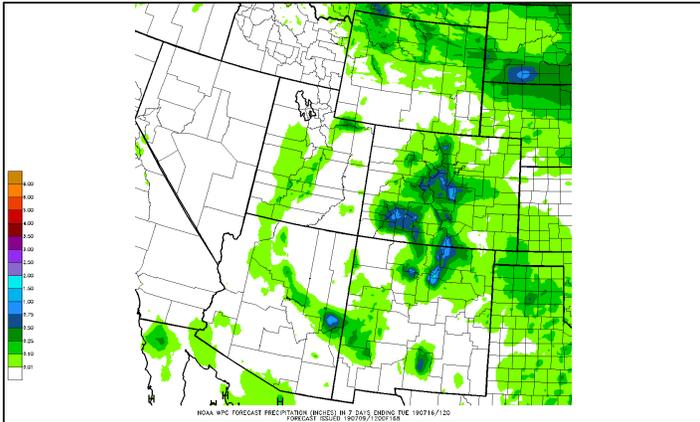
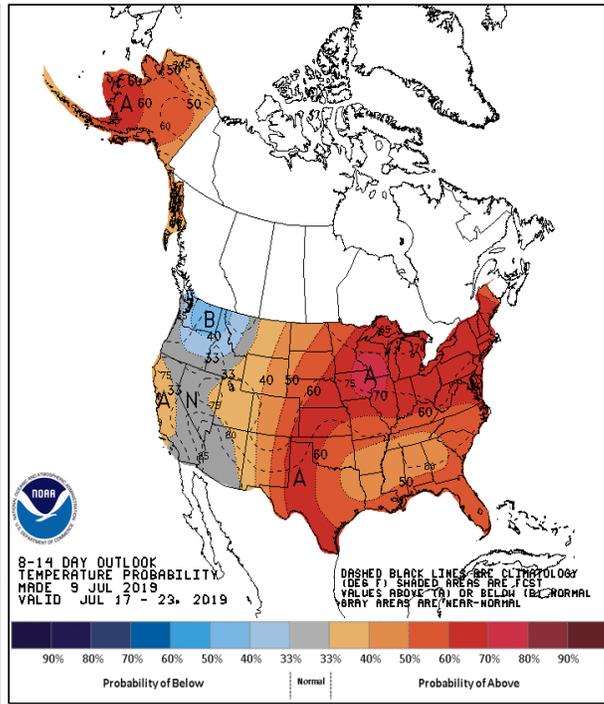
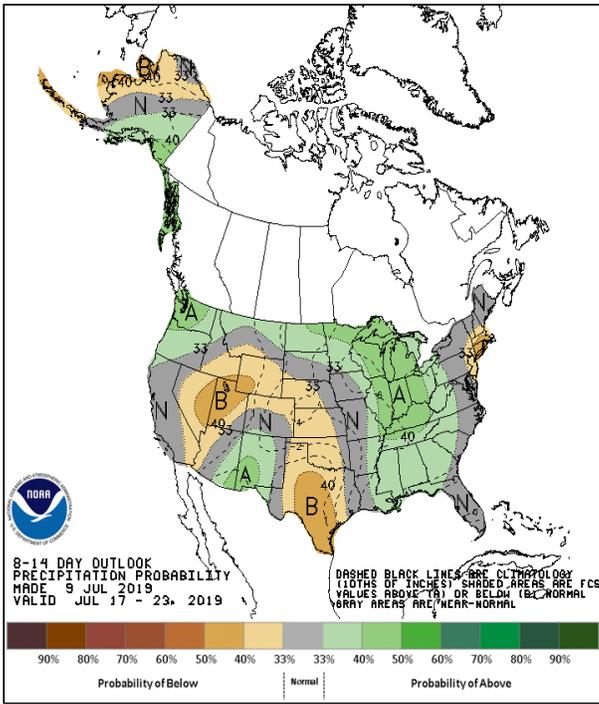


Map of current condition monitoring reports submitted to CoCoRaHS in the last week overlaid on the current U.S. Drought Monitor depiction. Specific impacts reports from local experts listed below.

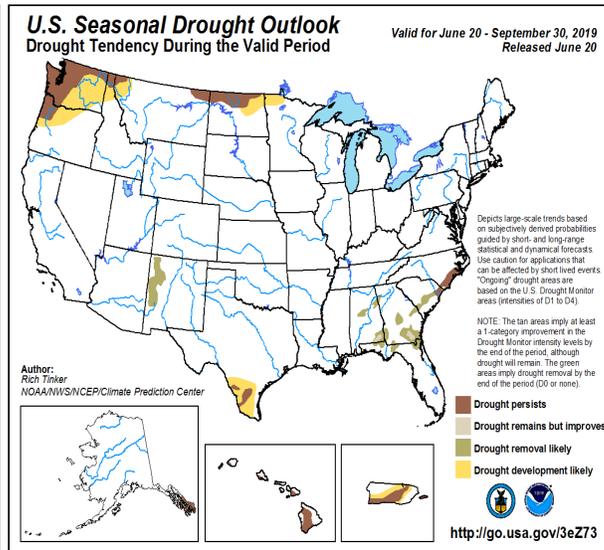
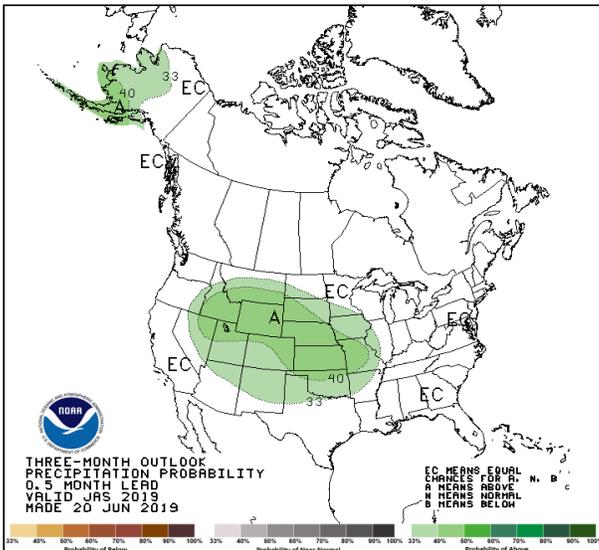
### North Eastern Colorado Extension:

Wheat harvest is going on south of Wray (Yuma County). Compared to other areas, this is about 2 weeks ahead of other areas. Some areas in Washington County looked dry. Pastures weren't green but crops don't look horrible.

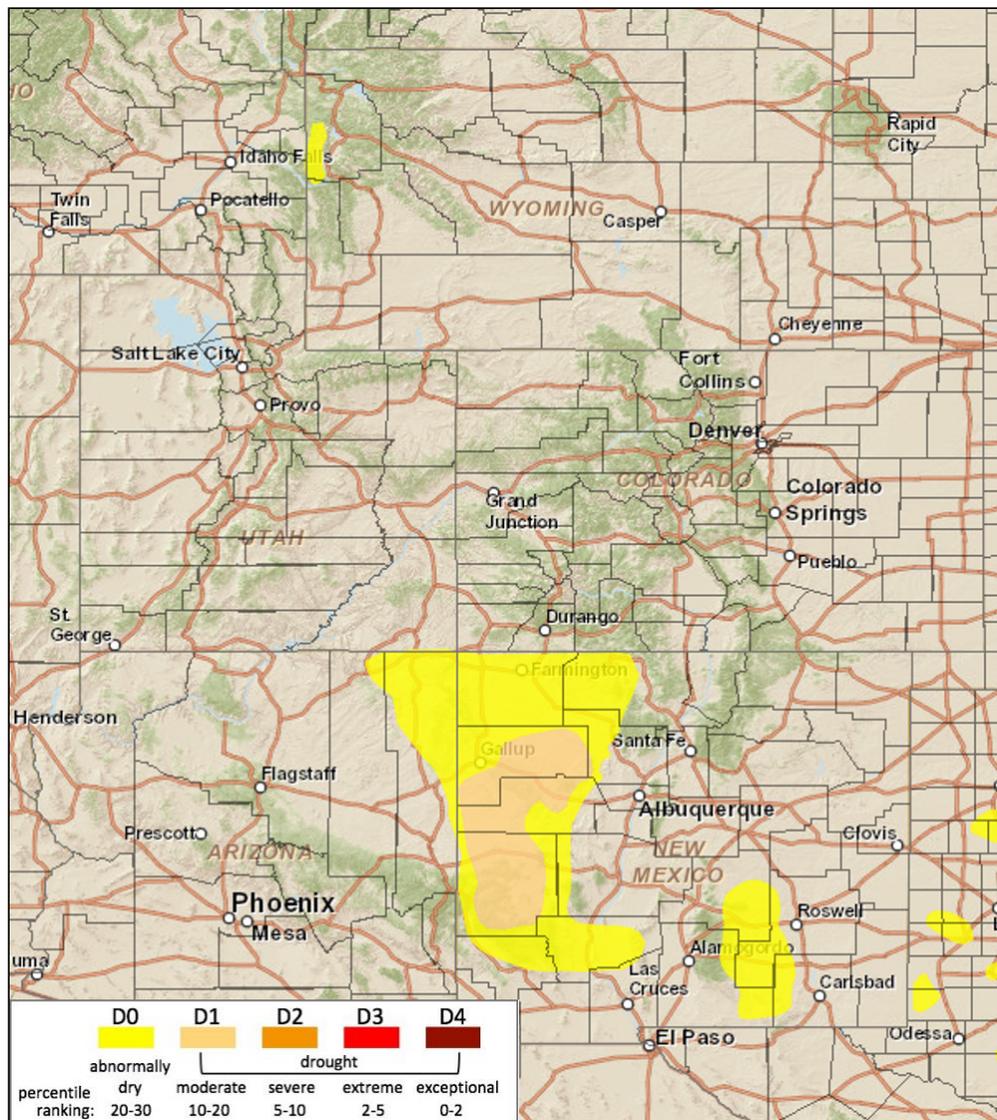
## Outlook



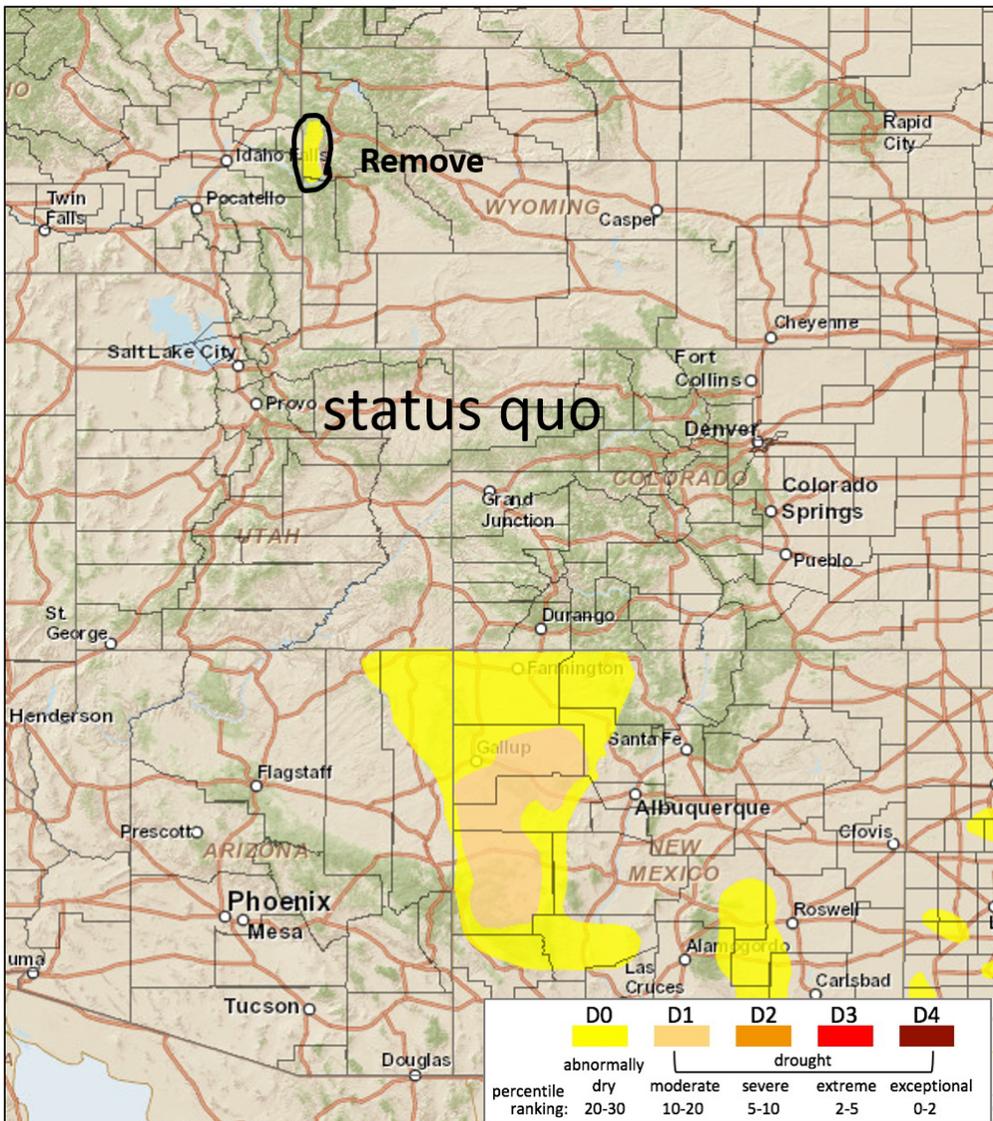
The top two images show Climate Prediction Center's Precipitation and Temperature outlooks for 8 - 14 days. The middle image shows the Weather Prediction Center's Quantitative Precipitation Forecast accumulation for seven days. The bottom left image shows the 3-month precipitation outlook from Climate Prediction Center, and the bottom right image shows the Climate Prediction Center's most recent release of the U.S. Seasonal Drought Outlook.



# Summary and Recommendations



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: July 9, 2019

Last week, the Intermountain West (IMW) continued to see a typical summer pattern, with little precipitation across the Upper Colorado River Basin and isolated thunderstorms east of the Continental Divide. Much of the UCRB and the rest of Utah and Arizona saw less than 0.10" of precipitation. The Upper Green River Basin in Wyoming has been starting to dry out over the last month. This area saw closer to normal precipitation through the winter season, as opposed to the much above normal to the south. With the recent dryness and increasing evaporative demand, this area will be monitored closely.

East of the Divide saw areas with decent precipitation, at least 0.50" and areas that were missed, less than 0.10", which is typical for this time of year. Overall, this area is looking okay for the time. Some dry areas in Colorado; Yuma, Crowley and Otero counties are starting to dry out, but not enough to introduce any dryness to the USDM.

Snow in the high elevations is still melting and the streamflows are showing this with dramatic fashion. A whopping 58% of gauges in the UCRB are in the top 90 percentile. Streamflows in eastern Colorado have come back into normal flows recently, meaning the melt is slowing down.

The next week looks to bring some precipitation to the San Juan Mountains in southwest Colorado and the central part of Colorado. The outlooks for 8-14 days is showing increased chances of below normal precipitation and warmer than normal temperatures for most of the IMW region.

**Recommendations:**

**UCRB:** Status quo is recommended. Precipitation has been a bit lacking for some spots in the past few weeks, which can be typical for this time of year. Continued lower temperatures, late spring melt off, high flowing rivers, lower fire risk, and moisture still in the soils all translate to minimal impacts at this time.

**Eastern CO:** Status quo is recommended. There is a bit of short term dryness in parts of the Arkansas valley and in Yuma County. Continued low evaporative demand is keeping impacts to a minimum in this area as well. We will continue to monitor these areas if dryness continues.

**Wyoming:** The D0 in Teton County can be removed. With above normal precipitation recently, conditions are finally good enough to make Wyoming show Dx free for the first time since 2011. We are keeping an eye on the Upper Green for degradations if conditions stay dry.