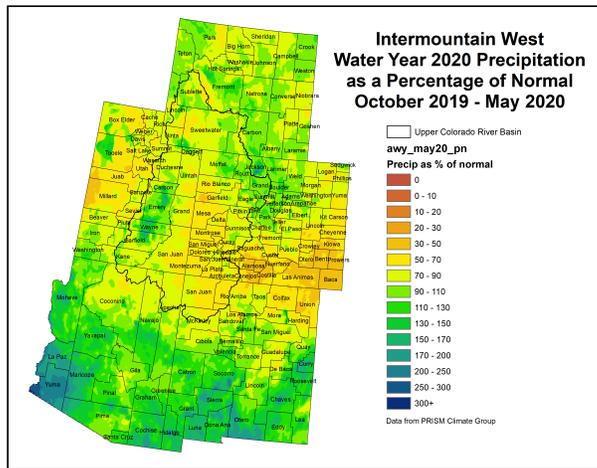
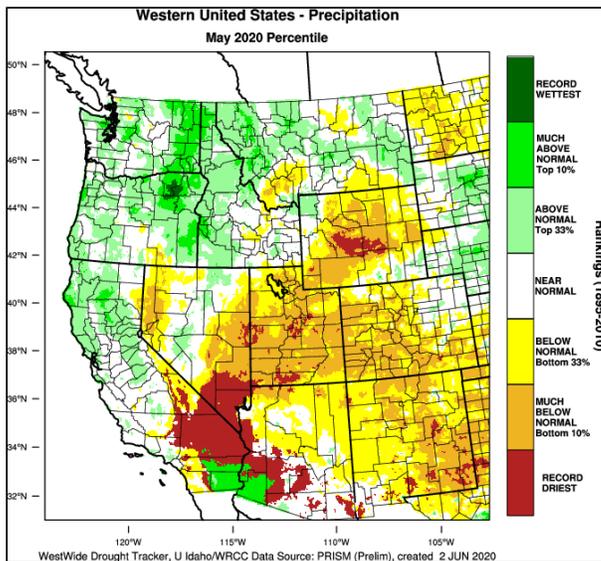
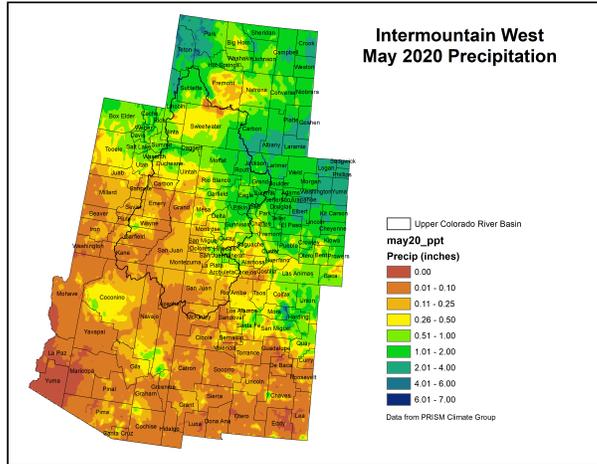
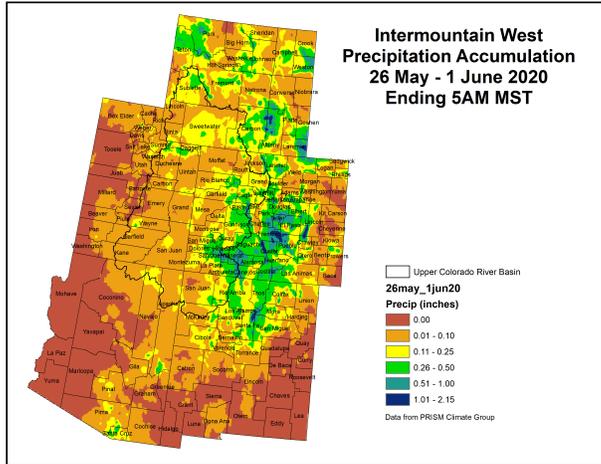


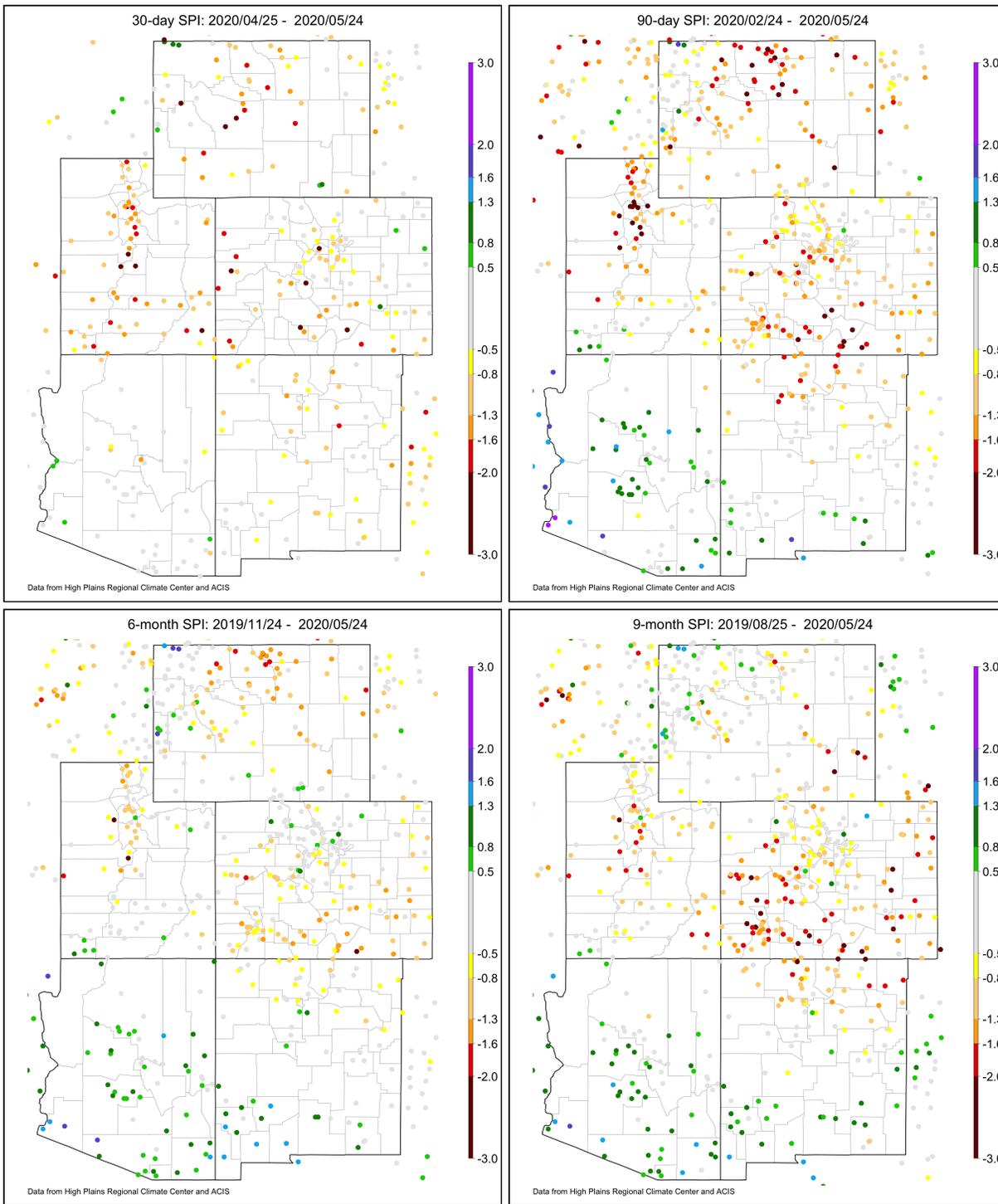
NIDIS Intermountain West Drought Early Warning System June 2, 2020

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.

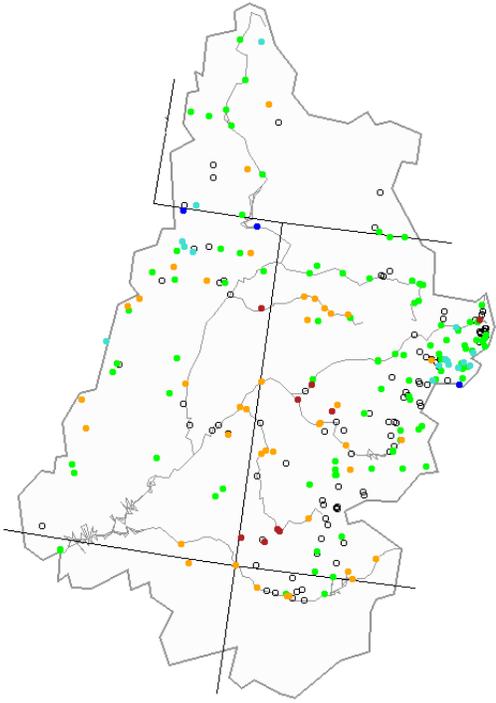
Standardized Precipitation Index



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

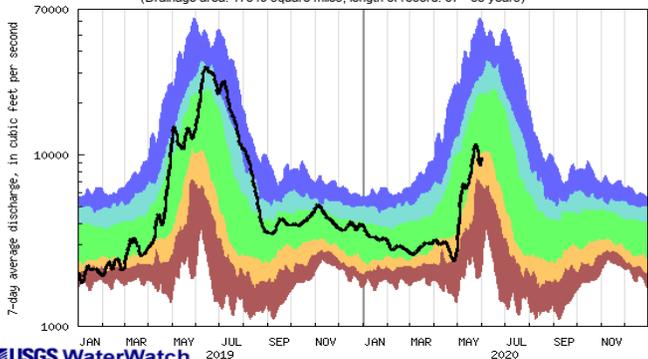
Monday, June 01, 2020



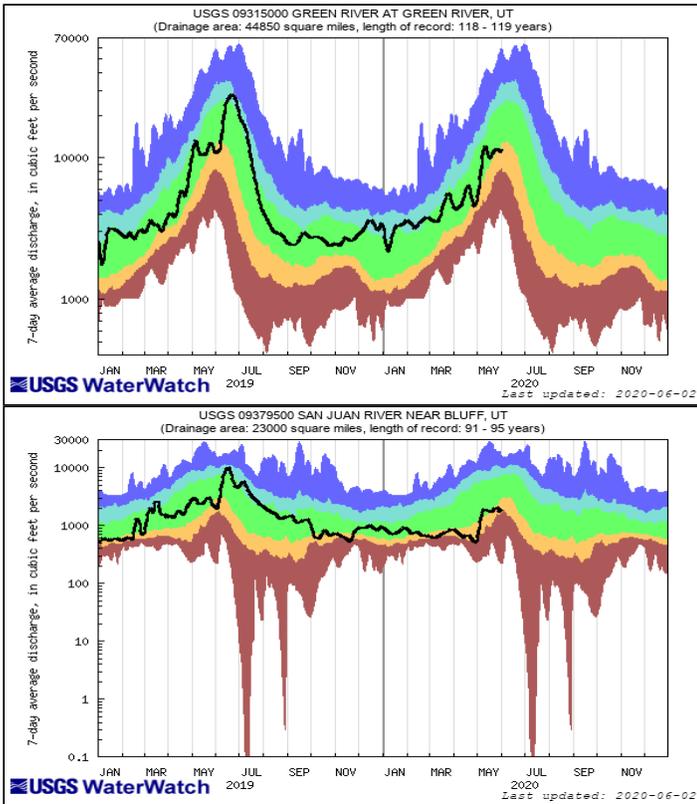
Explanation - Percentile classes							
●	●	●	●	●	●	○	
Low	<10 Much below normal	10-24 Below normal	25-75 Normal	76-90 Above normal	>90 Much above normal	High	Not-ranked



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

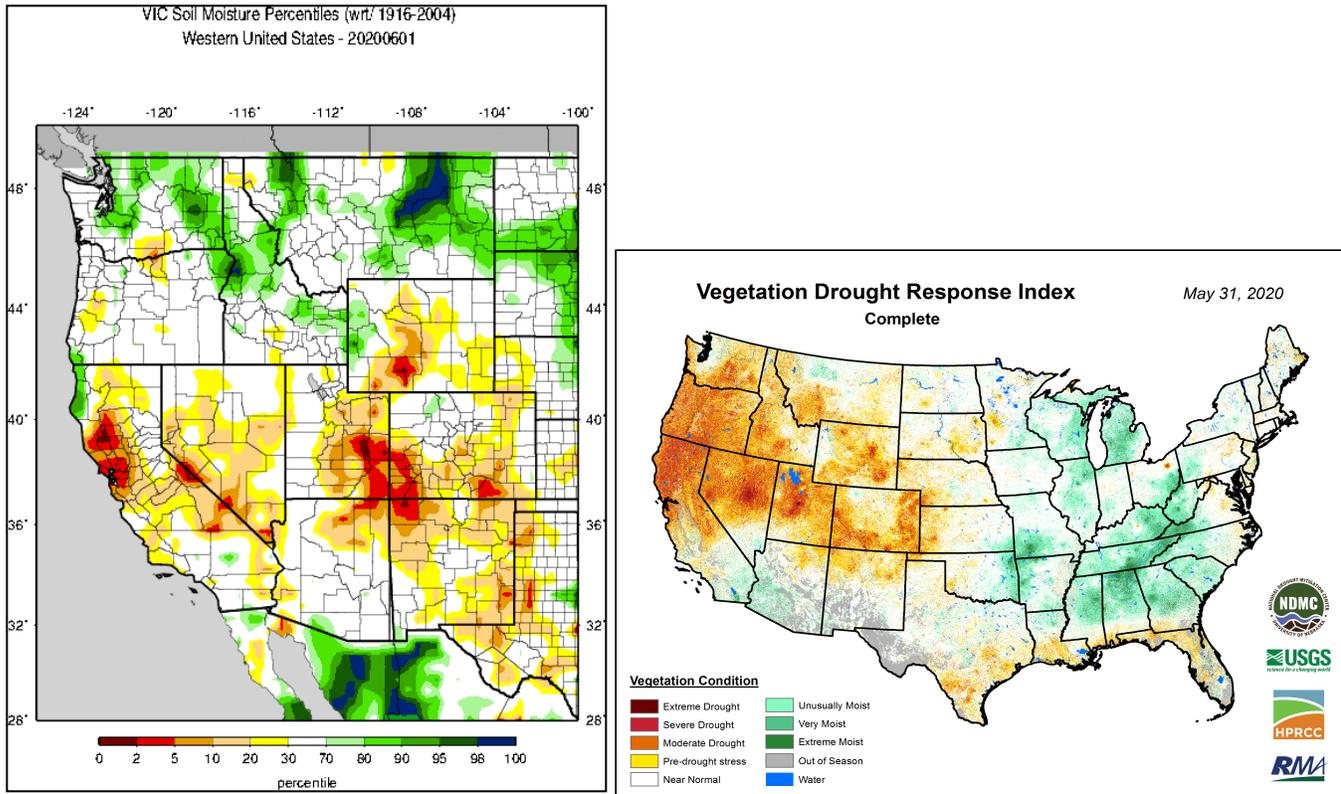


2020
Last updated: 2020-06-02



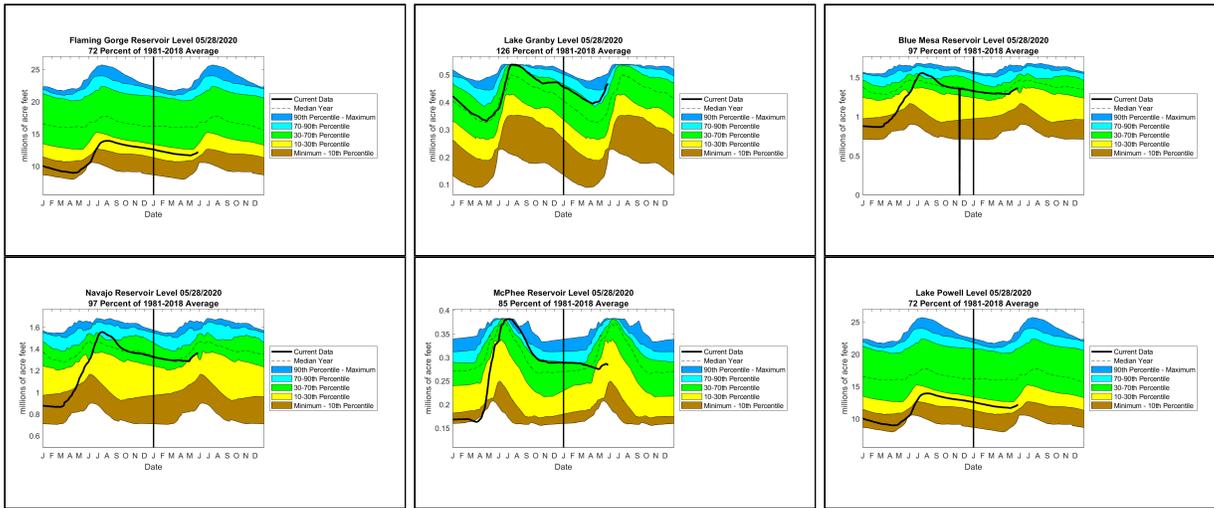
The top left image shows 7-day averaged streamflows as a percentile ranking across the UCRB. The top right image shows 7-day averaged discharge over time at three key sites around the UCRB: The Colorado River at the CO-UT state line; the Green River at Green River, UT; and the San Juan River near Bluff,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

Surface Water

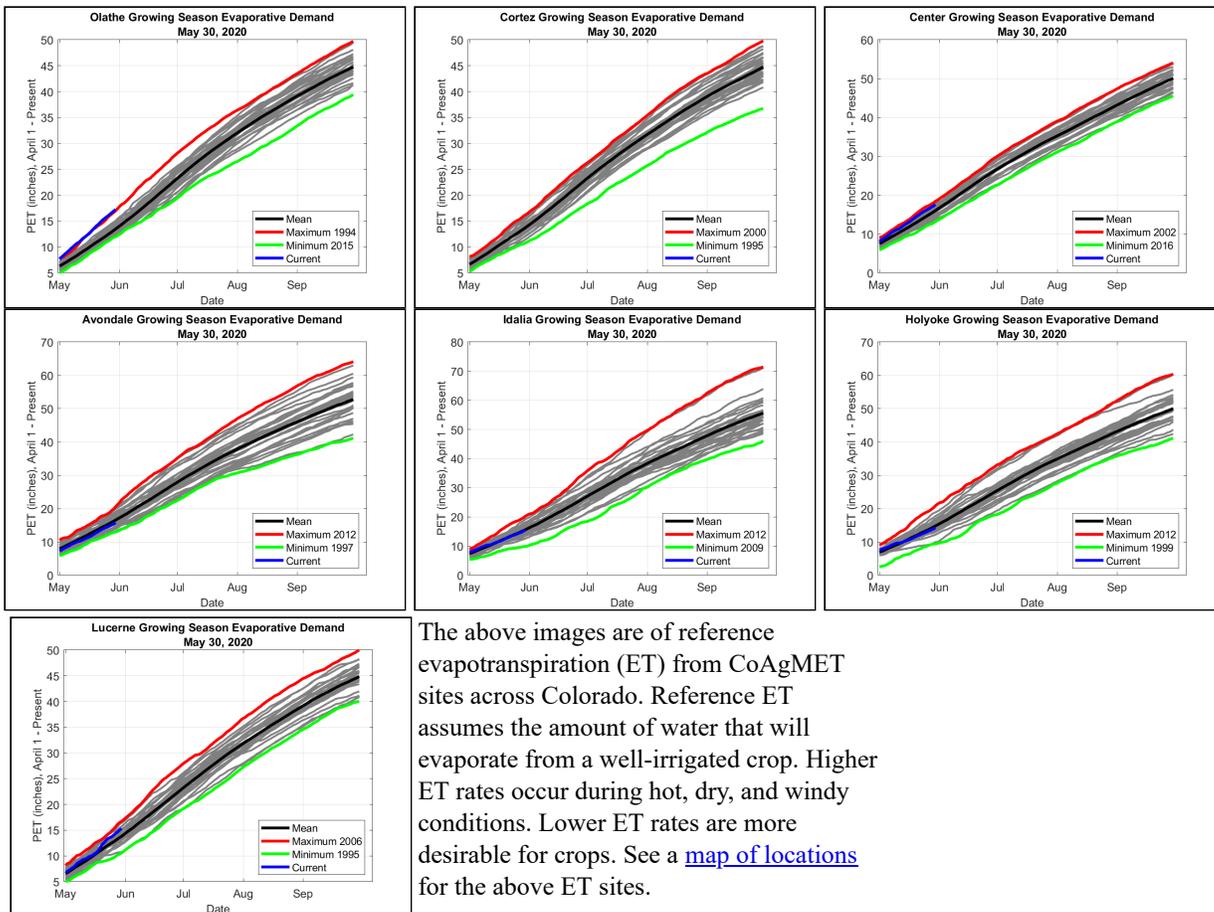


The top left image shows VIC modeled soil moisture as a percentile ranking. The top right image shows satellite-derived vegetation from the VegDRI product (which updates on Mondays).

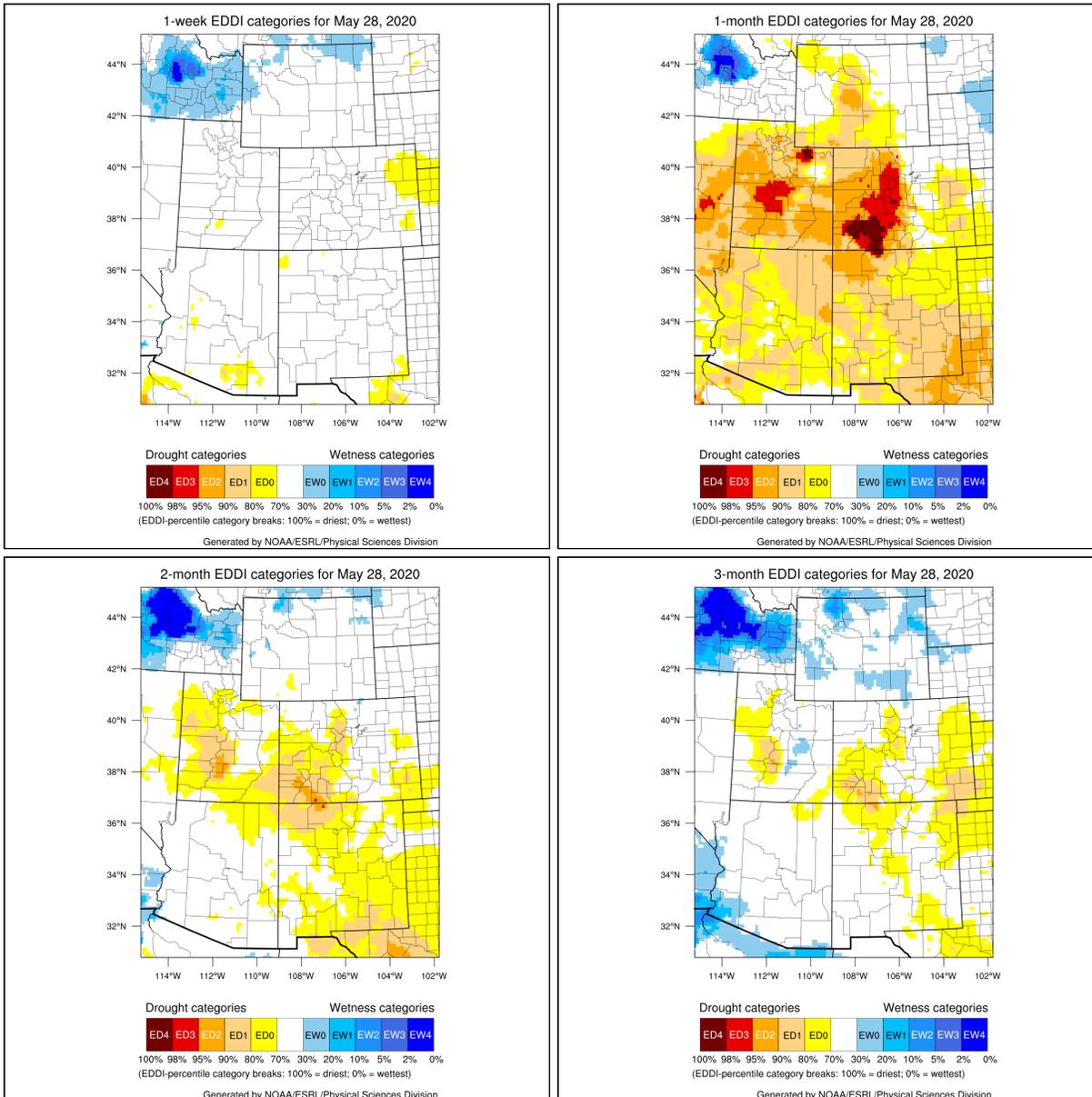
The graphs shown below are plots of reservoir volumes over the past full year and current year to date (black). The dashed line at the top of each graphic indicates the reservoir's capacity, and the background color-coded shading provides context for the range of reservoir levels observed over the past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

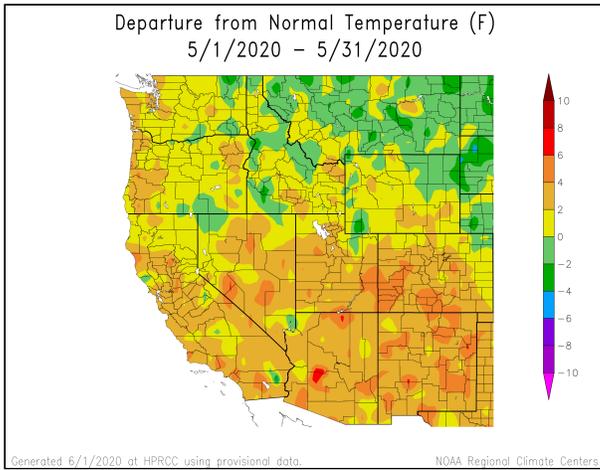
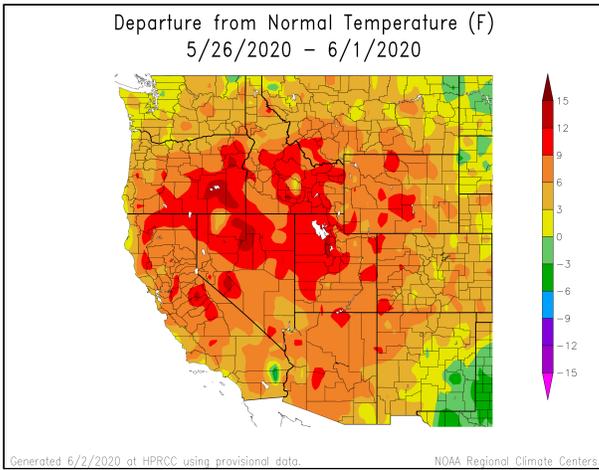


The above images are of reference evapotranspiration (ET) from CoAgMET sites across Colorado. Reference ET assumes the amount of water that will evaporate from a well-irrigated crop. Higher ET rates occur during hot, dry, and windy conditions. Lower ET rates are more desirable for crops. See a [map of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

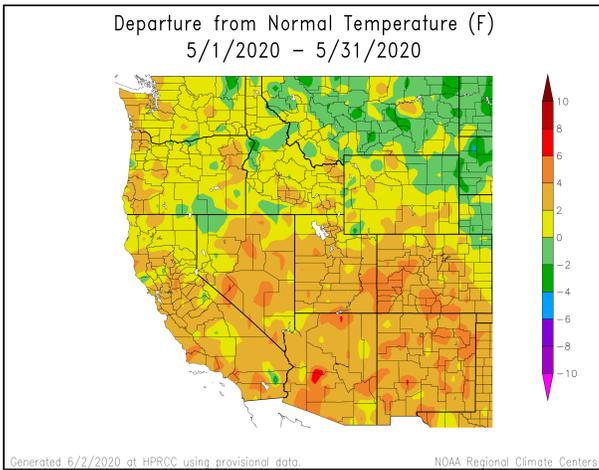


The above images are available courtesy of NOAA's Evaporative Demand Drought Index (EDDI). Drought classification listed is a function of the depth of reference evapotranspiration accumulated over a given period of record with respect to a climatology of 1981-2010. The drought categories displayed are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

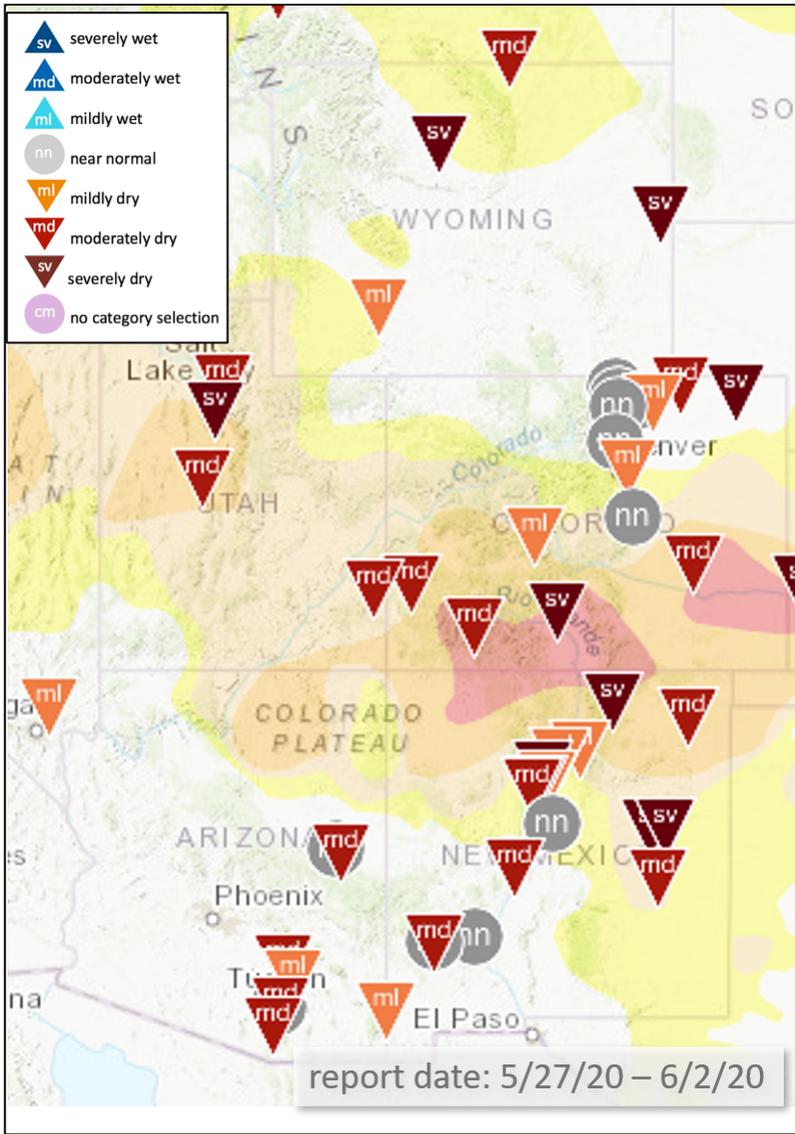
Temperature



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.

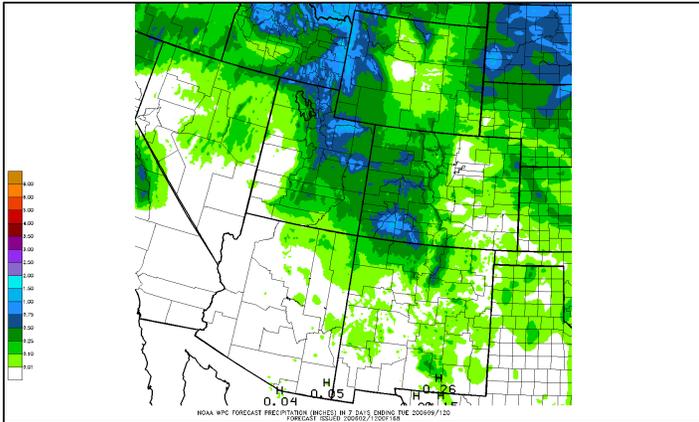
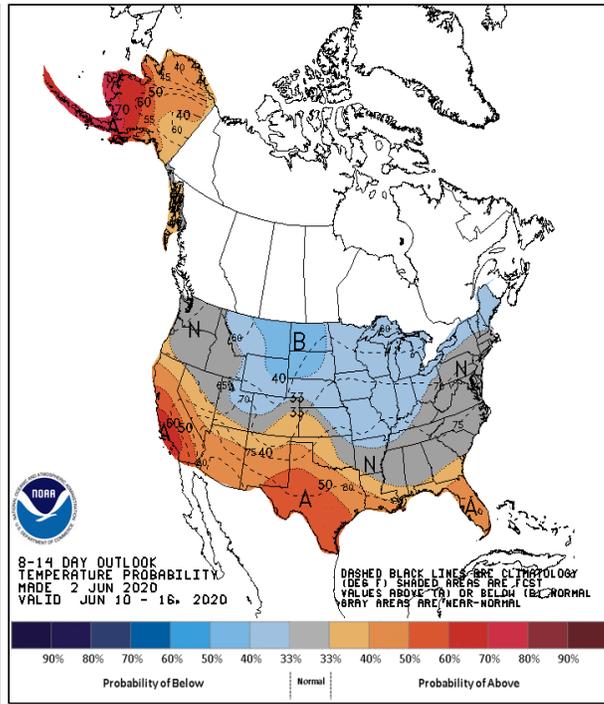
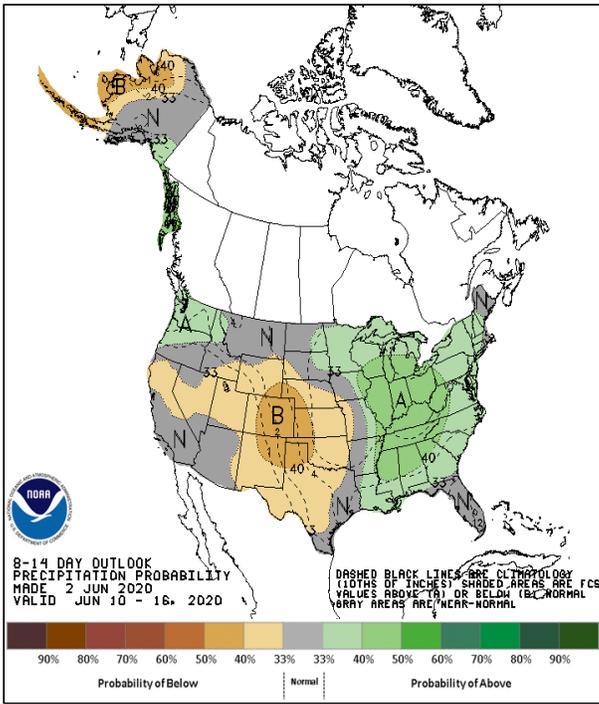


Condition Monitoring and Impacts

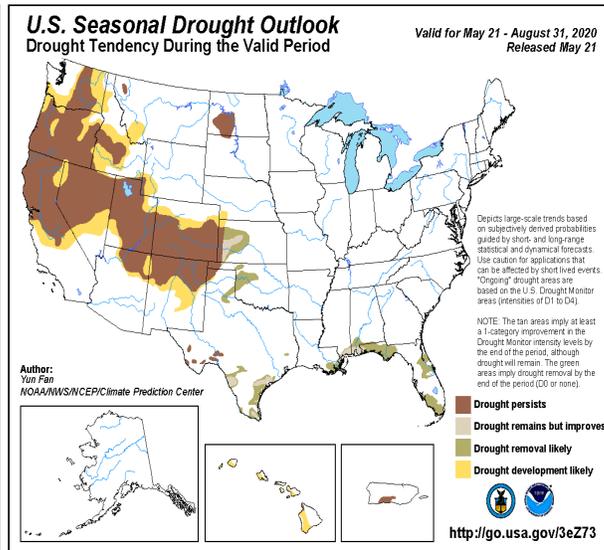
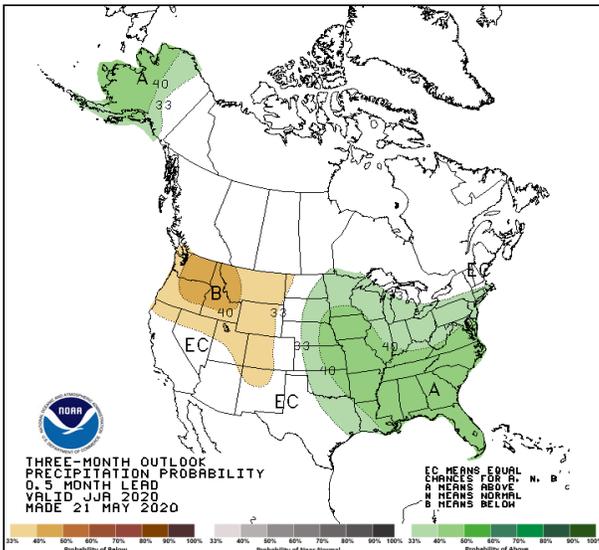


Map of current condition monitoring reports submitted to CoCoRaHS in the last week overlaid on the current U.S. Drought Monitor depiction. Specific impacts reports from local experts listed below.

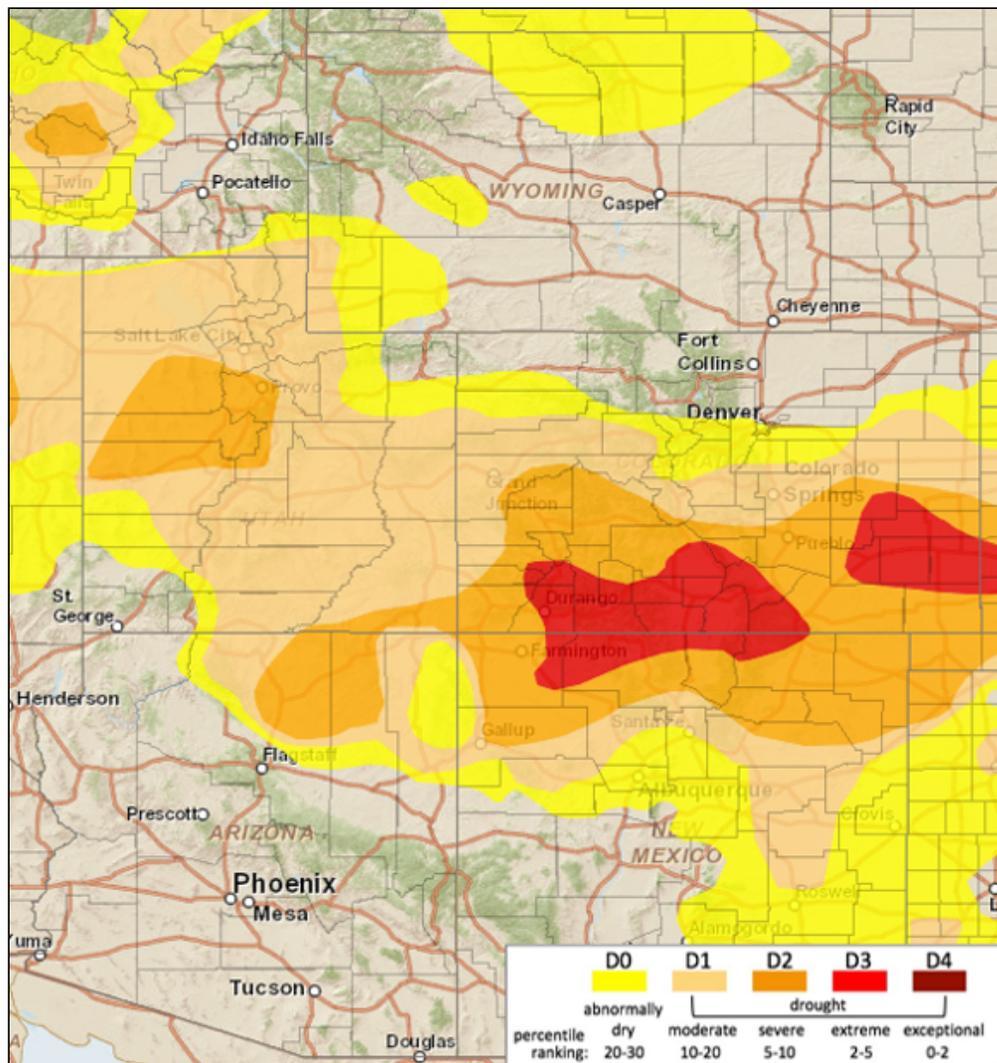
Outlook



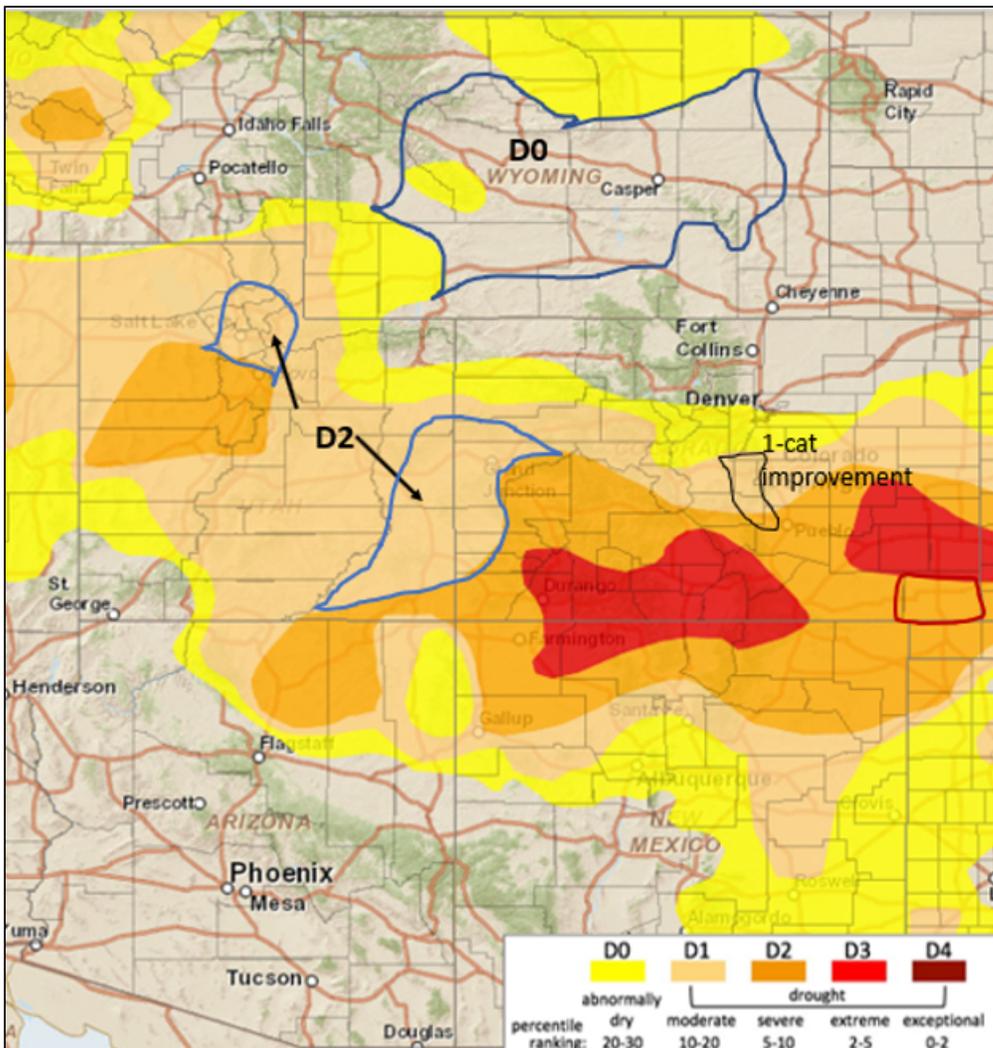
The top two images show Climate Prediction Center's Precipitation and Temperature outlooks for 8 - 14 days. The middle image shows the Weather Prediction Center's Quantitative Precipitation Forecast accumulation for seven days. The bottom left image shows the 3-month precipitation outlook from Climate 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: June 2, 2020

May in the Intermountain West Region saw the beginning of the summer precipitation pattern with the bulk of the precipitation showing up in eastern Colorado and eastern Wyoming. Less precipitation fell in the Upper Colorado River Basin, the rest of Utah and much of Arizona and New Mexico. Northeastern Colorado saw the best precipitation for the month with near normal conditions. Southeastern Colorado though, continued the dry pattern when precipitation should be increasing, which is not great for an already dry area. Western Colorado, most of Utah, and much of Wyoming are also continuing the dry trend.

Not helping the dryness in the IMW was the much above normal temperatures seen in May. Most of the IMW region saw 2-4 degrees warmer than normal and much of western Colorado and eastern Utah seeing 4-6 degrees above normal. There were a few spots with near normal temperatures, which include northeastern Colorado and northeastern Wyoming. The warm temperatures drove up evapotranspiration rates further drying out a region that has little water to give.

It appears streams and rivers in the Upper Colorado River Basin have seen their peak flow with flows starting to drop. The basin saw an overall drop in streamflows, with the number of streamgages seeing above normal flows dropping and the number of gages seeing below normal flows increasing. The three main sites in the basin appear to be peaking now or have peaked with

flows in the Colorado and Green River fighting to stay in the normal range. The San Juan River seems to be fighting to stay in the below normal range.

As expected, soil moisture is dropping and vegetation health is mainly in the drought categories.

The outlook for the next week is hopeful for precipitation through Utah and western Colorado, with a nice bullseye in the parched San Juan Mountains. Little to no precipitation is in the forecast for eastern Colorado and most of New Mexico and Arizona. Unfortunately, beyond next week, it looks like the dry trend is back with increased chances of below normal precipitation through the IMW region.

Recommendations:

UCRB: Widespread D2 expansion is recommended in western Colorado and eastern Utah along with D2 expansion around the Salt Lake City area. This expansion is driven mostly by poor SPEI numbers on multiple timescales out to 5 months. Low SPI and precipitation percentiles over the past 5 months back this up as well.

Colorado: Improvement is recommended in central Colorado through Teller, southeastern Park, eastern Fremont, northwestern Pueblo, and far western El Paso counties. This area received 1-2 inches of new precipitation over the last week. A 1-category improvement is being proposed, which will improve the D1 to D0 in Teller, Park, Fremont, and El Paso and improve D2 to D1 in Fremont and Pueblo.

Baca County: With D3 being recommended in the adjacent states, we are recommending D3 be included in this expansion and connect to the existing D3 in southeastern Colorado.

Wyoming: Widespread D0 is being recommended in Wyoming. The D0 expansion will connect the north central D0 with the southwest D0 and extending east to Albany County. Conditions in Wyoming have continued to dry out and it looks like it's time for degradations.