

## January 17, 2019 Water Supply Forecast Discussion

The [Colorado Basin River Forecast Center \(CBRFC\)](#) geographic forecast area includes the Upper Colorado River Basin, Lower Colorado River Basin, and Eastern Great Basin.

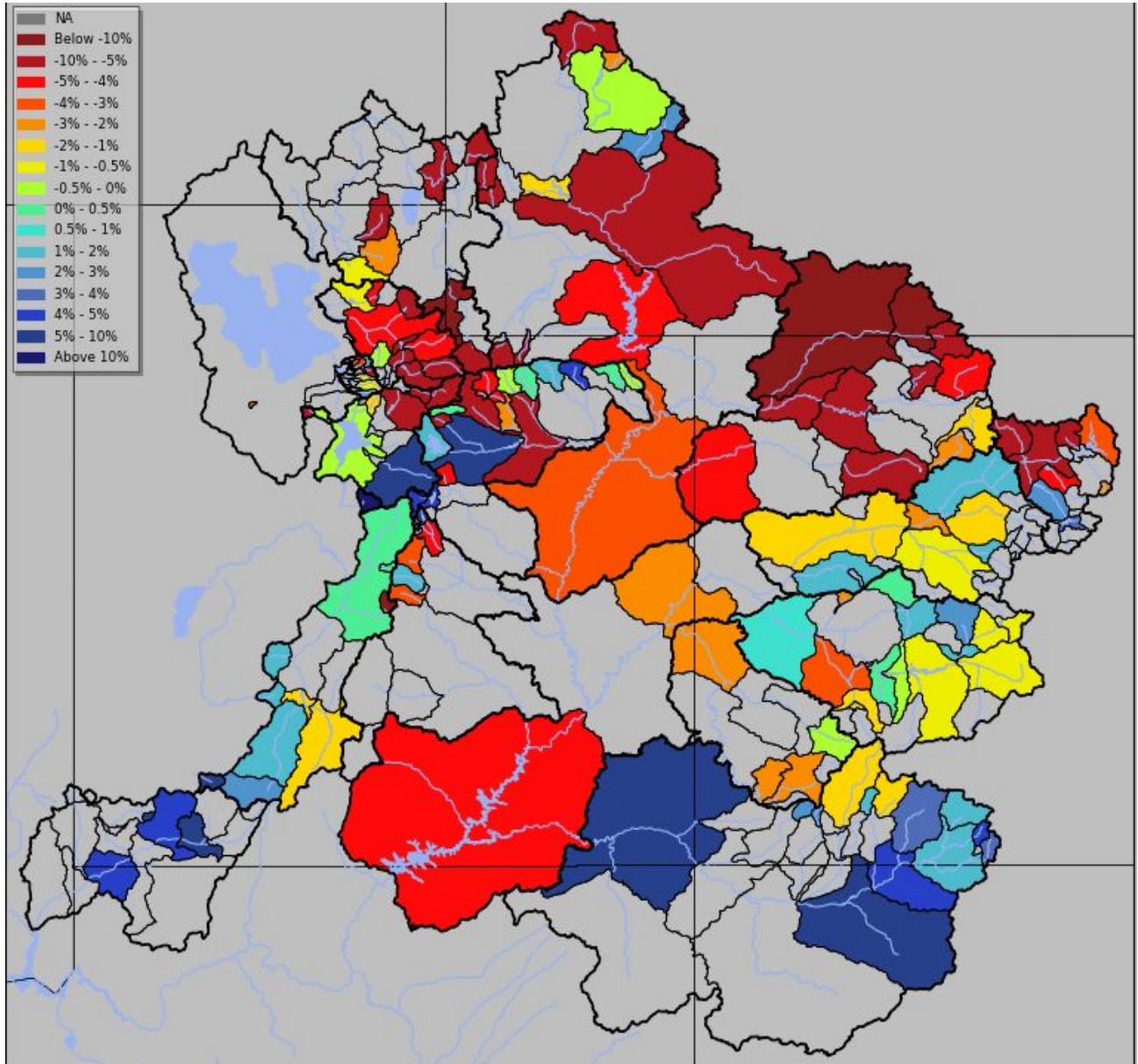
### **Water Supply Forecast Summary:**

As of mid January, April-July water supply volume forecasts remain below average throughout the Upper Colorado River Basin and Great Basin. In the majority of the area snow conditions have remained the same or slightly worsened due to below average precipitation during the first 15 days of the month. However, there was some minor improvement in snow conditions in parts of the San Juan, Gunnison, and Duchesne River Basins although impacts to forecast runoff conditions were fairly minimal. Widespread dry soil moisture conditions entering the winter season continue to have a negative impact on forecasts even in those areas where snow conditions are near normal (median).

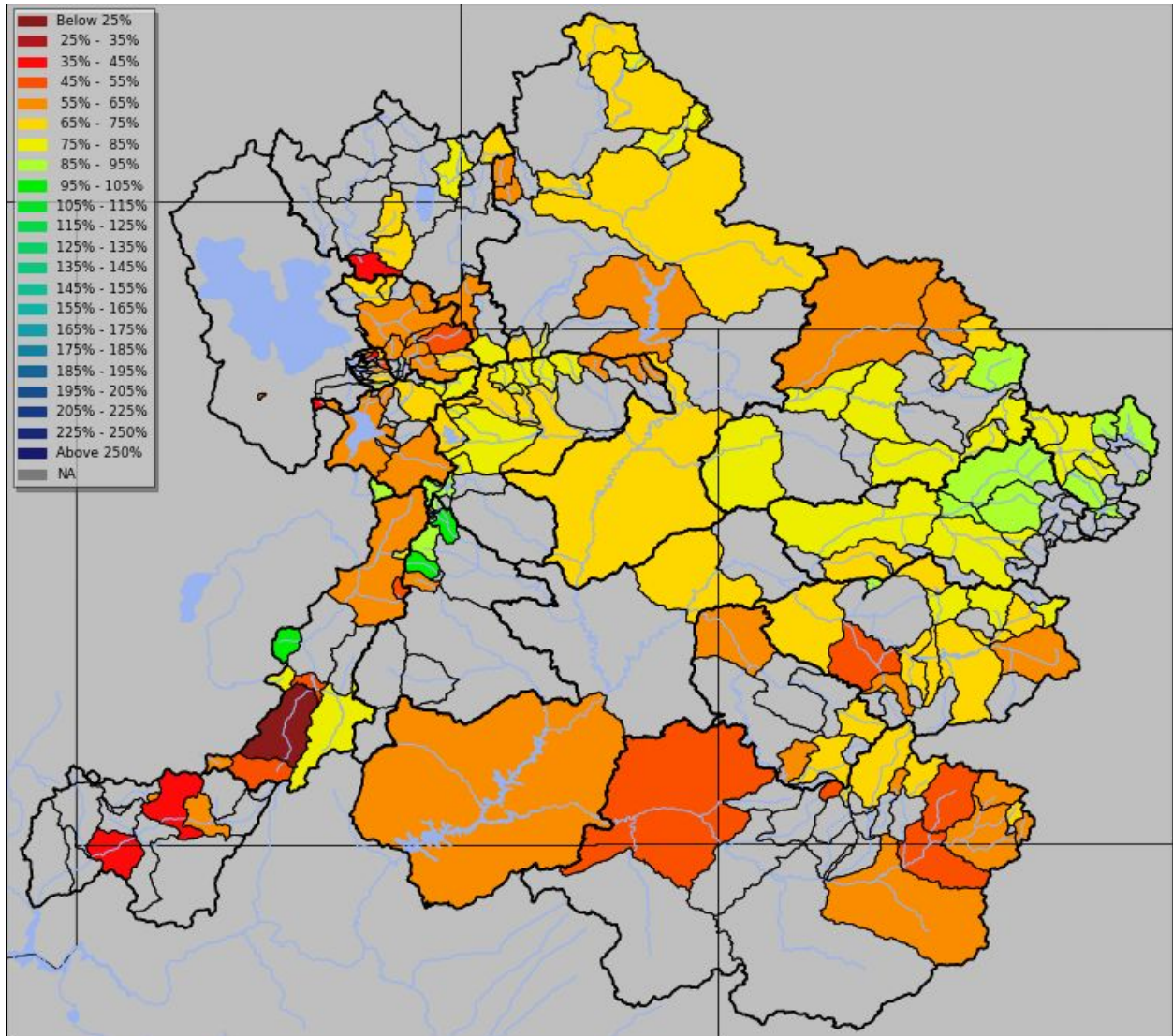
April-July unregulated inflow forecasts for some of the major reservoirs in the Upper Colorado River Basin include Fontenelle Reservoir 500 KAF (69% average), Flaming Gorge 630 KAF (64% of average), Blue Mesa Reservoir 500 KAF (74% of average), McPhee Reservoir 190 KAF (64% of average), and Navajo Reservoir 385 KAF (52% of average). The Lake Powell inflow forecast is 4.55 MAF (64% of average). The only change since early January was to Navajo Reservoir with an increase in the forecast of 15 KAF.

Precipitation was near to above average for the first half of January in parts of the Lower Colorado River Basin. This resulted in a slight increase in forecast guidance in the Virgin, Salt, Gila, and Verde River Basins. However April-July forecast runoff volumes in the Virgin River Basin remain below average and January-May runoff volumes in the Lower Colorado River Basin of Arizona remain below median as of mid January.

Seasonal Water Supply Forecasts:



Trend in the April-July runoff volume forecast guidance from January 1 to January 15, 2019.  
(Change in April-July percent of average)



April-July runoff volume guidance as of January 15, 2019.  
(percent of 1981-2010 average)

For specific site water supply forecasts, refer to: <https://www.cbrfc.noaa.gov/rmap/wsuf/wsuplist.php>

## Water Supply Discussion

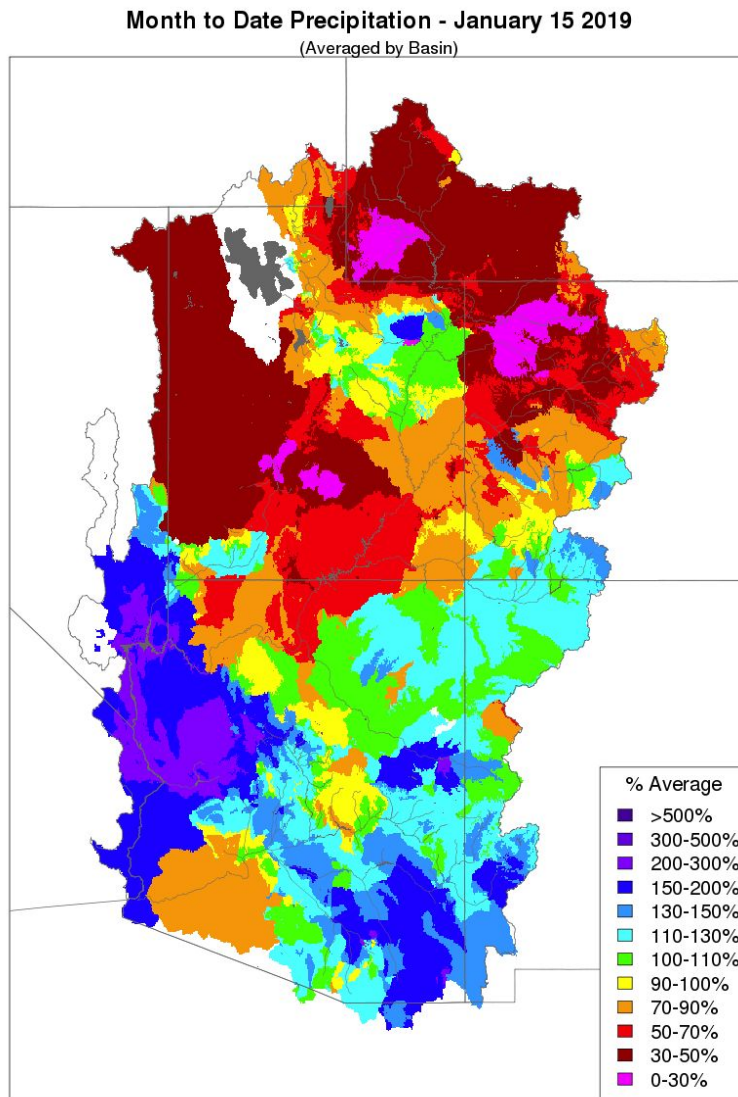
### Weather Synopsis:

Storm systems during the first half of January generally favored the southern half of the CBRFC forecast area. A storm system the first weekend of the month was responsible for much of the precipitation that occurred in the Lower Colorado River Basin that extended northward into parts of the Virgin and San Juan Basins and into east central Utah. A ridge of high pressure dominated before and after that storm system and resulted in drier conditions over

much of the northern half of the CBRFC forecast area.

**Precipitation:**

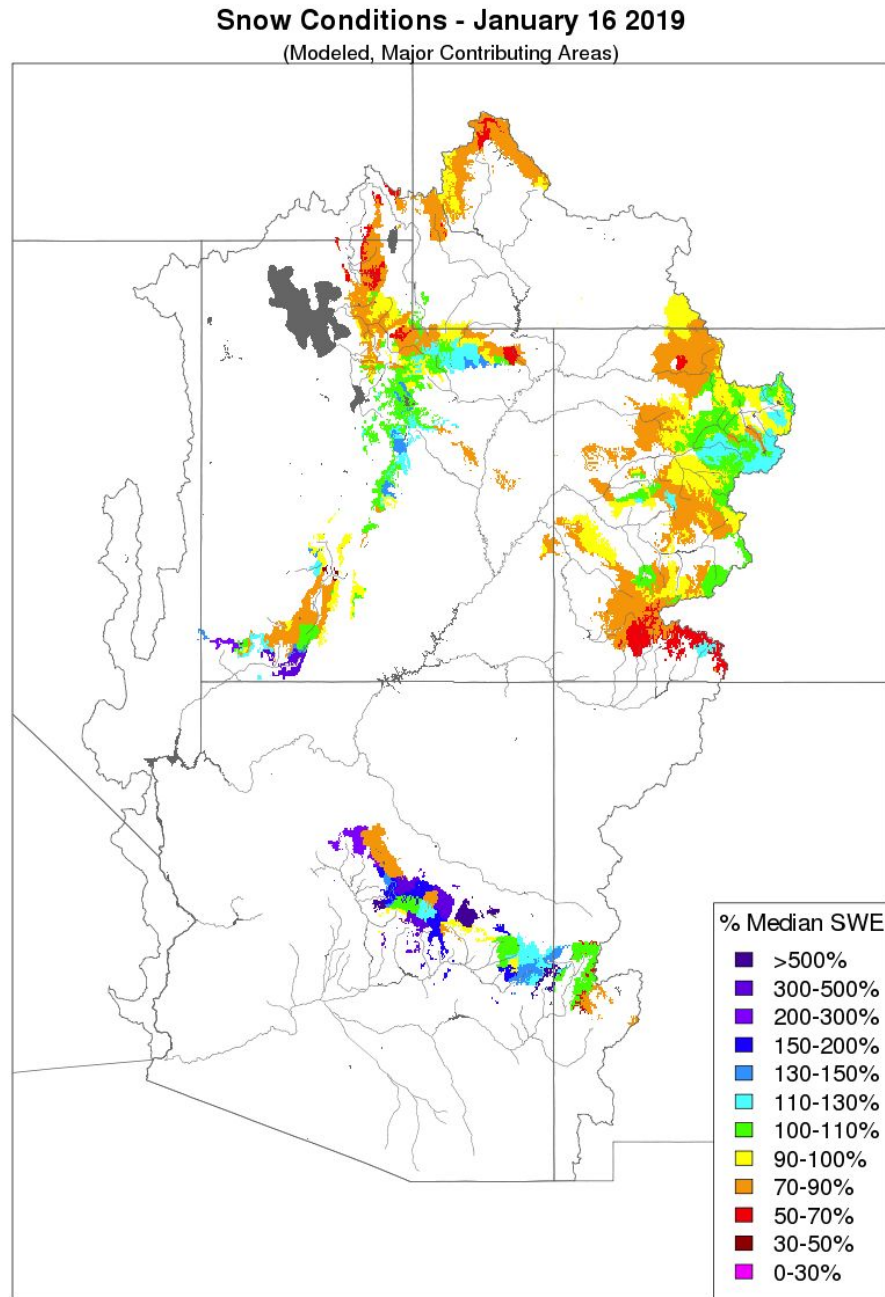
Precipitation for the first half of January was highly variable with some areas receiving above average precipitation and other areas receiving below average precipitation. Upper Colorado River basins that received below normal precipitation during the first half of January include the Green, White, Yampa, and Upper Colorado mainstem basins. Precipitation for the first half of January was near to above average in the Price and San Juan basins and near to below average in the Duchesne, Gunnison, and Dolores river basins. Within the Great Basin, the Bear, Weber, and Six Creek basins received below average precipitation during the first half of January while the Provo/Utah Lake basin received near normal precipitation. January-to-date precipitation was generally near to above average across the Lower Colorado River Basin; westernmost areas including the Bill Williams and Verde basins received much above average precipitation. The image below shows precipitation during the first half of January, as a percent of average.



Prepared by NOAA, Colorado Basin River Forecast Center  
Salt Lake City, Utah, [www.cbrfc.noaa.gov](http://www.cbrfc.noaa.gov)



The image below is the representation of snow in the CBRFC hydrologic model. The snow represented in the model closely mirrors the SNOTEL image. Current snow conditions across the basin are a bit of a mixed bag with below normal snow conditions across the the majority of the basin with a few exceptions where normal to above normal conditions exist.



*Prepared by NOAA, Colorado Basin River Forecast Center  
Salt Lake City, Utah, [www.cbrfc.noaa.gov](http://www.cbrfc.noaa.gov)*

Snow representation from the CBRFC hydrologic model January 16, 2019.

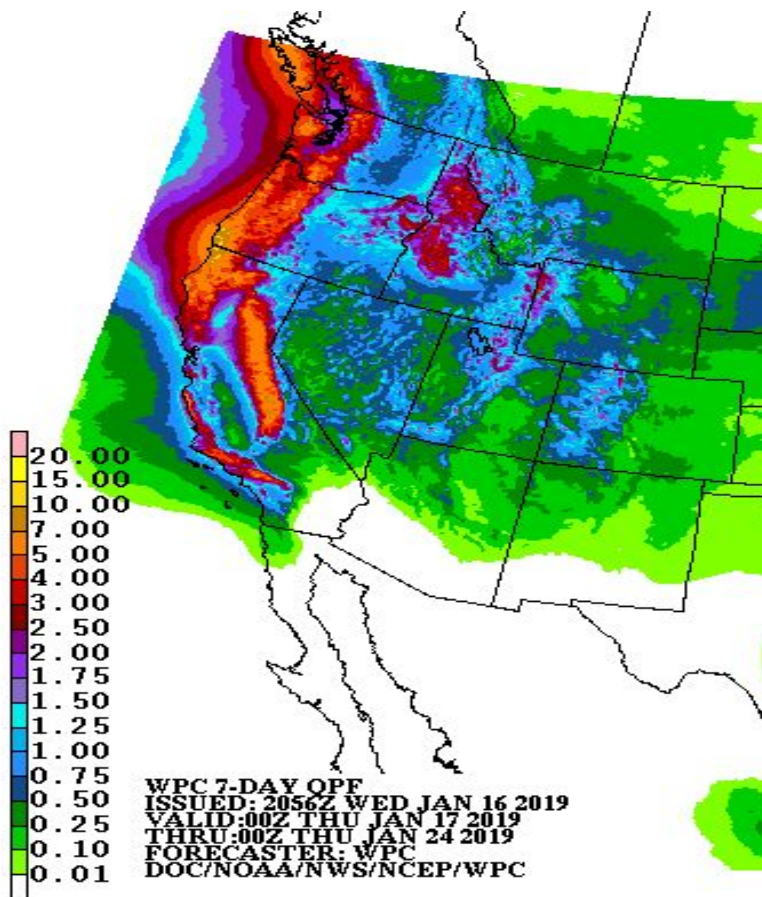
For updated SNOTEL information refer to: <https://www.cbrfc.noaa.gov/lmap/lmap.php?interface=snow>

For CBRFC hydrologic model snow, refer to:

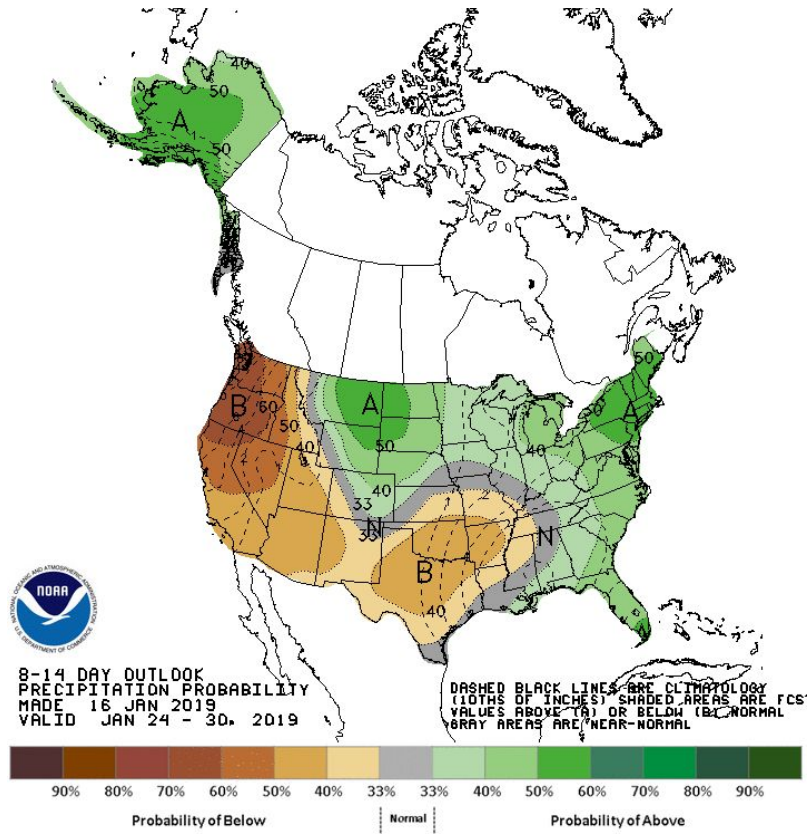
<https://www.cbrfc.noaa.gov/rmap/grid800/index.php?type=monthly&area=cbrfc&year=2017&month=1&day=&hour=&type=snow>

### Upcoming Weather:

An active storm pattern will occur over the next week across the Western U.S. Two potent storm systems (one on Jan 18-19 and another on Jan 21) will impact much of the Upper Colorado Basin, producing widespread heavy snow over the mountains of Utah, Colorado, and Wyoming. Orographically favored mountain locations over the Upper Colorado Basin can expect to receive a total of 2-4 inches of precipitation over the next week. Lesser precipitation amounts are expected over Arizona due to the more northern track of these storm systems. The upcoming week will result in a significant improvement to Western snowpack, with the month of January looking more and more likely to end with near to above normal precipitation over much of the Upper Colorado Basin. The weather pattern will transition to a ridge off the West Coast by the middle of next week. This will bring a general drying trend to much of the Colorado Basin, except perhaps in the Upper Green and Colorado Headwaters where weak systems could clip these areas and bring lighter precipitation amounts.



NWS Weather Prediction Center precipitation forecast for Jan 17 - 23, 2019.



NWS Climate Prediction Center precipitation probability forecast for Jan 24-30, 2019.

For our online publication that contains basin conditions, summary graphics, and end of month reservoir content tables, refer to: <https://www.cbrfc.noaa.gov/wsup/pub2/map/html/cpub.php>