

April 16, 2018 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.

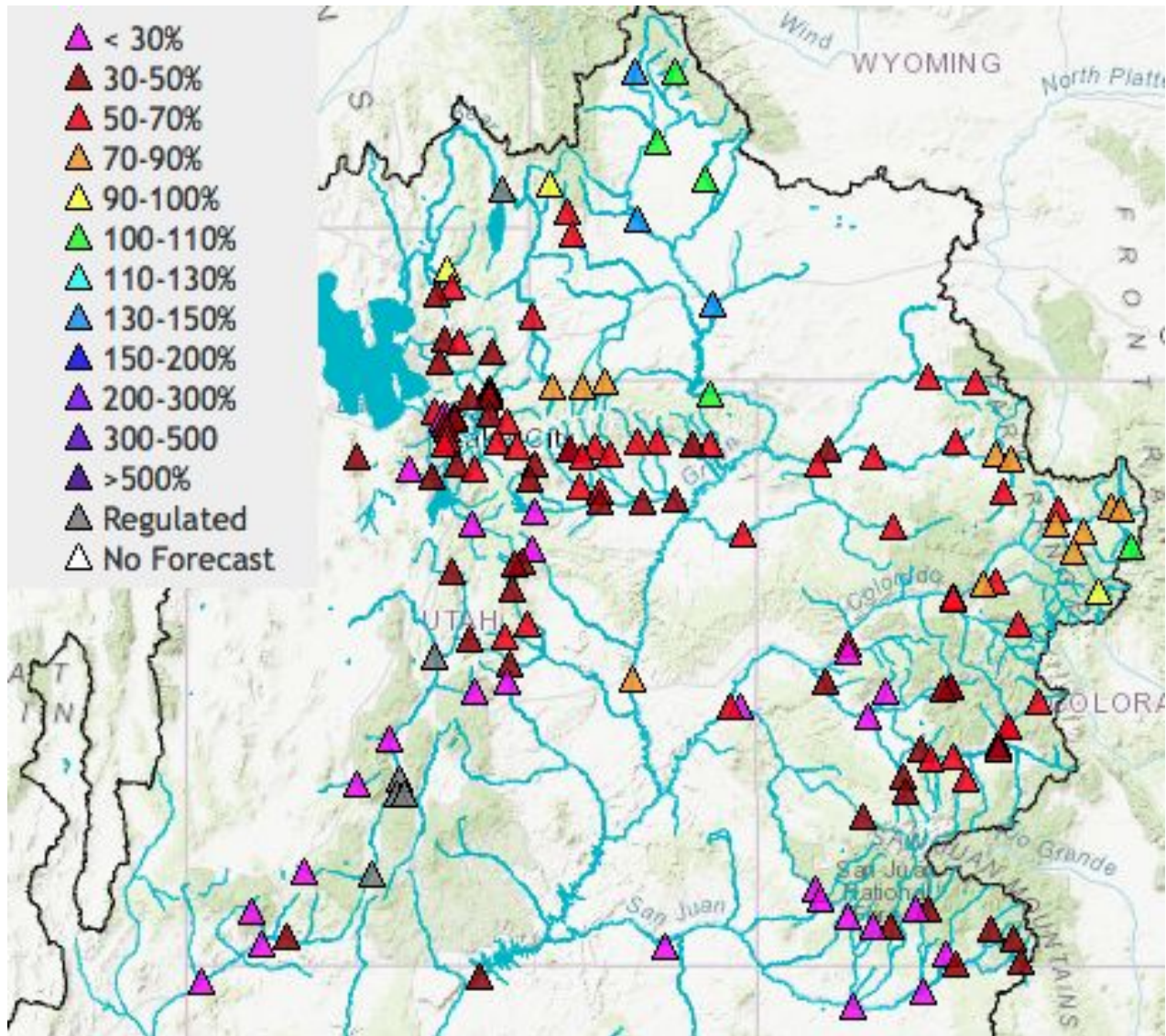
Water Supply Forecast Summary:

The first half of April has been somewhat active over the northern half of the CBRFC forecast area with a few storms already having impacted the area this month. Precipitation has varied but in general basins farther north have benefited most with southern basins not getting as much. The active weather pattern has kept temperatures from staying warm for an extended period and causing accelerated snowmelt. Unfortunately, the Arizona and New Mexico portions of the CBRFC forecast area have been extremely dry so far this month.

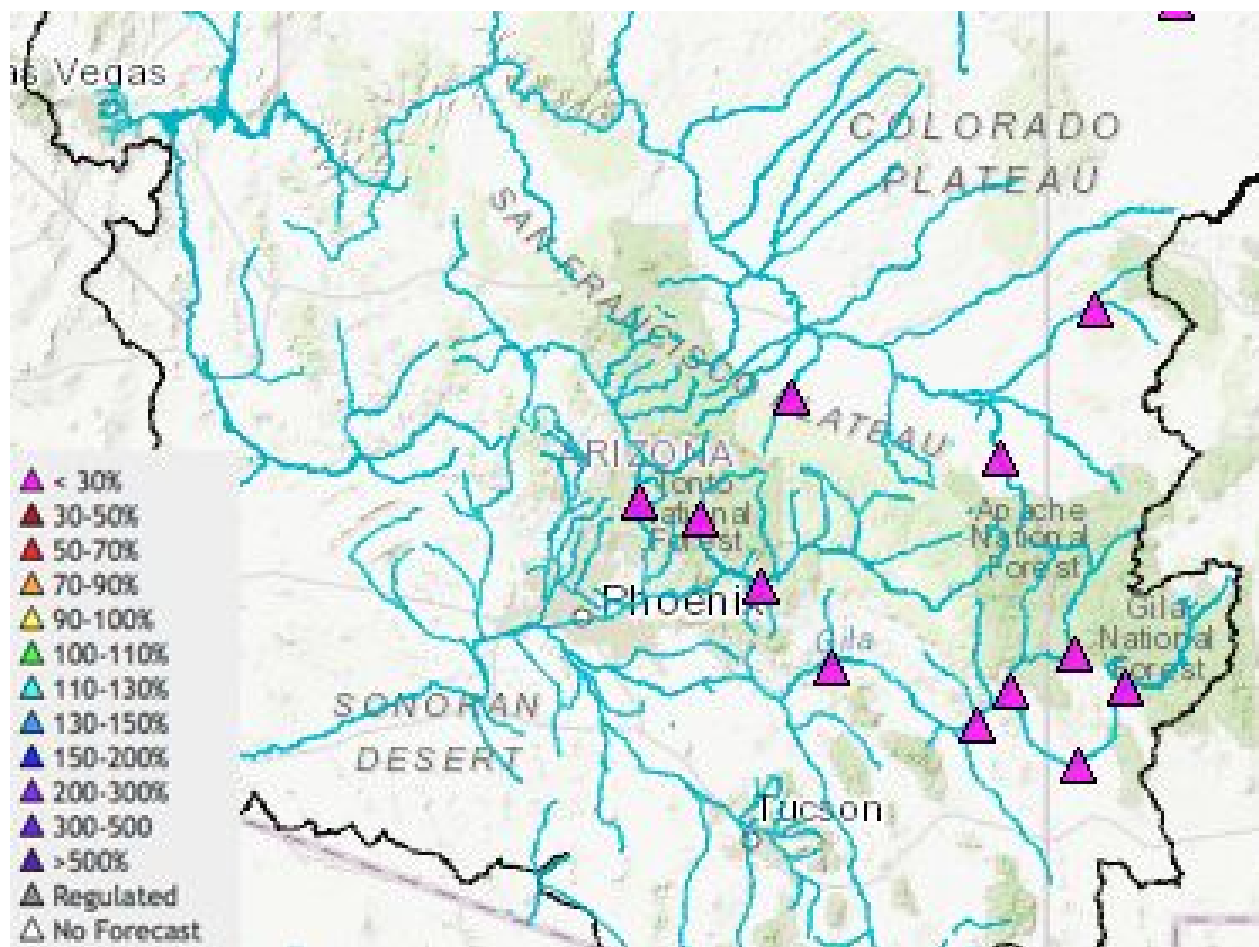
In the Upper Colorado River Basin, the water supply forecast guidance has trended higher since the first of April in the Green River Basin in Wyoming and in the Yampa, Colorado mainstem and Gunnison River basins of western Colorado. The forecast guidance has trended lower in the San Juan and Dolores river basins of southwest Colorado. In the Great Basin, the water supply forecast guidance has trended higher in the Bear River Basin; elsewhere the trend varies, but in general higher elevation basin guidance has trended up and lower elevation basin guidance has trended down since the first of the month.

April-July unregulated inflow forecasts as of mid-April for some of the major reservoirs in the Upper Colorado River Basin include Fontenelle Reservoir 970 KAF (134% of average), Flaming Gorge 1070 KAF (109% of average), Blue Mesa Reservoir 360 KAF (53% of average), McPhee Reservoir 74 KAF (25% of average), and Navajo Reservoir 220 KAF (30% of average). The Lake Powell inflow forecast is 3.30 MAF or 46% of average.

Seasonal Water Supply Forecasts:



Upper Colorado, Great, Virgin River Basins: 2018 April-July forecast volumes as a percent of 1981-2010 average as of April 15th 2018 (50% exceedance probability forecast)



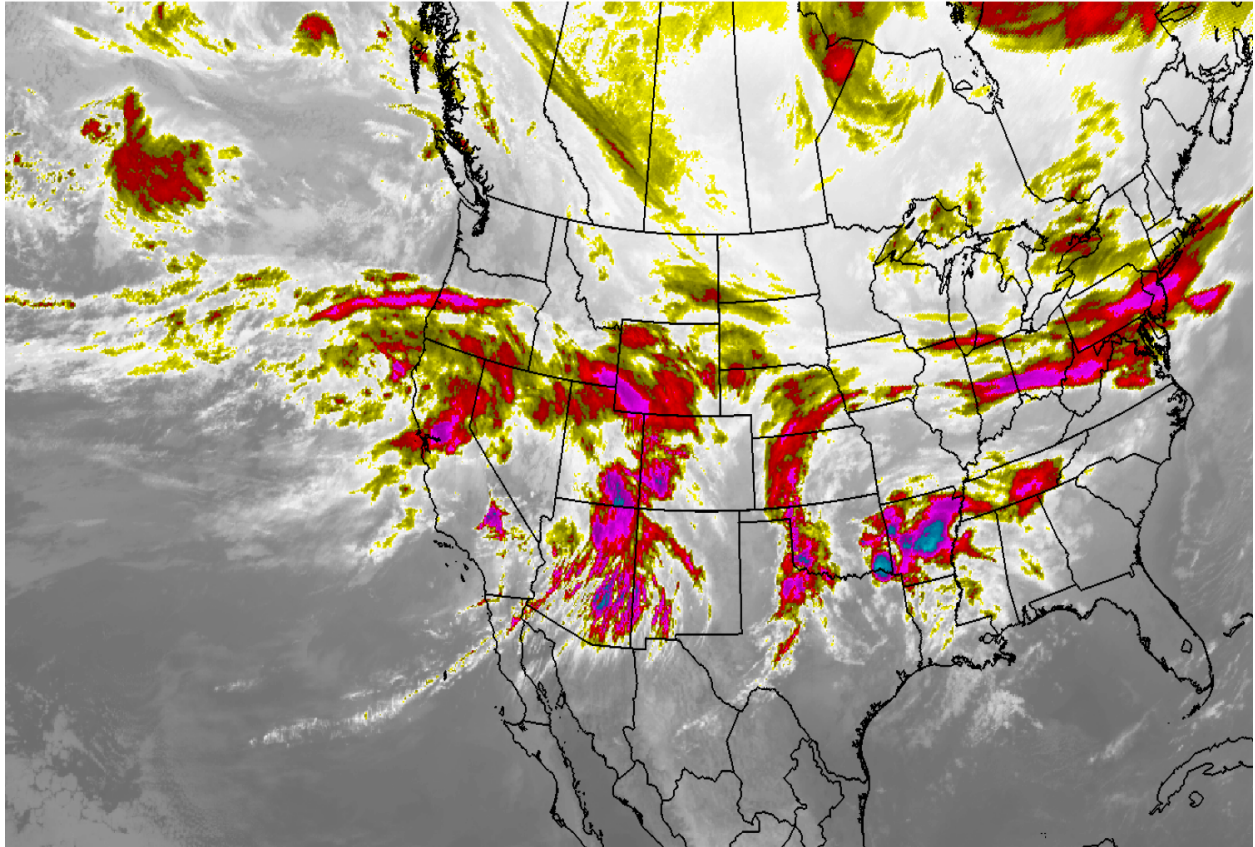
Lower Colorado Basin (AZ/NM): 2018 April-May forecast volumes as a percent of 1981-2010 median as of April 15th 2018 (50% exceedance probability forecast)

For specific site water supply forecasts click [here](#)

Water Supply Discussion

Weather Synopsis:

The first half of April has been fairly active over the northern half of the CBRFC forecast area with storms occurring every five days or so. A storm at the start of the month brought precipitation only to the very far northern basins. This was followed by a widespread warm precipitation event that impacted most of the area north of the Arizona and New Mexico state lines and was followed by much below average temperatures. The most recent precipitation event was colder and brought snow to some parts of the northern half of the CBRFC area.



Satellite image from April 6th shows a warm, wet system poised to impact the northern half of the CBRFC area.

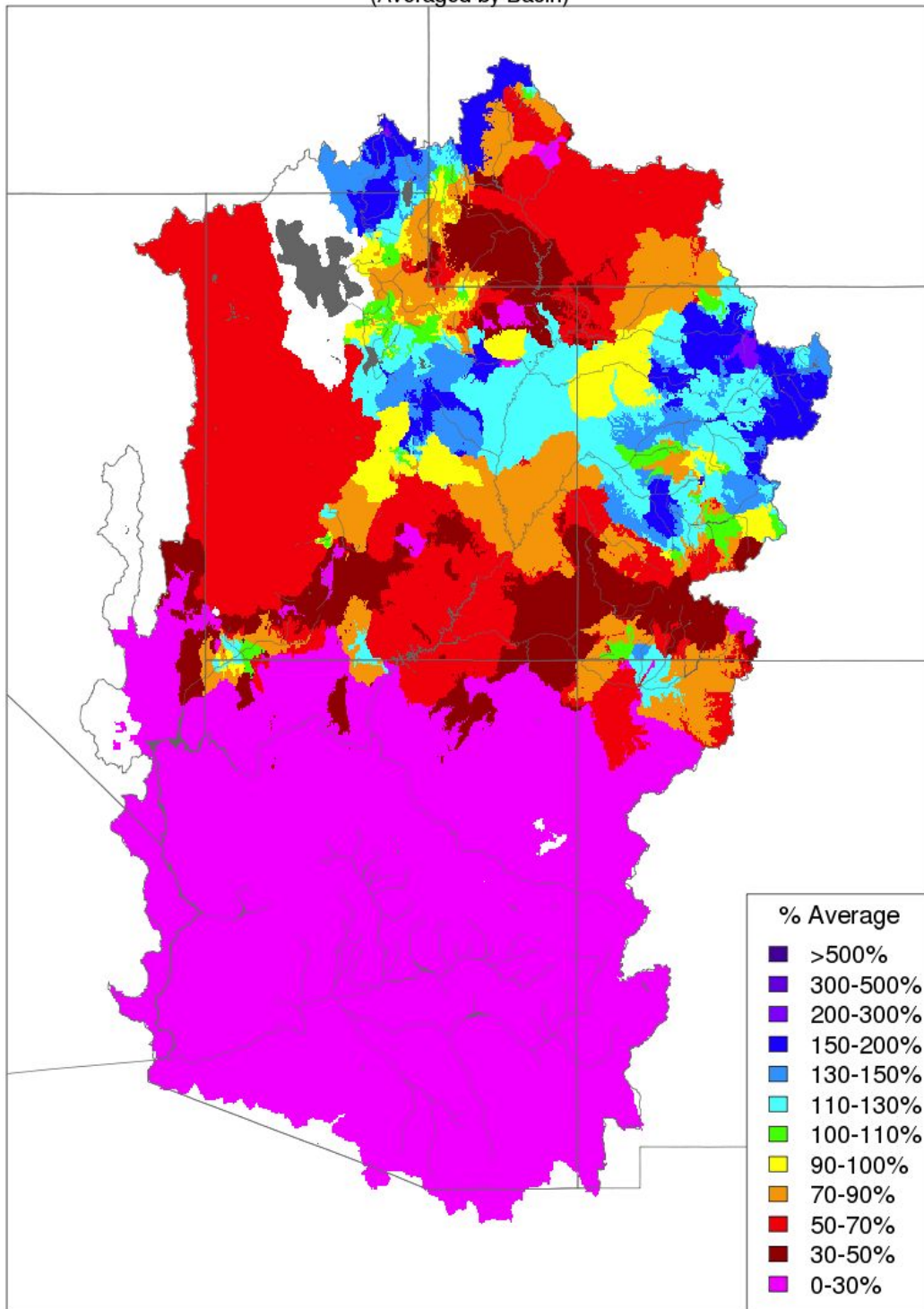
Precipitation and Temperature:

Precipitation has varied widely over the CBRFC forecast area so far during April. Basins that have benefited the most from the storms this month include the Green River Basin above Fontenelle Reservoir in Wyoming, the Bear River Basin in southern Idaho and the Yampa River Basin and Colorado River mainstem basins in northwest Colorado which have all had between 130 and 200 percent of average precipitation so far this month. Most of the rest of the areas in the Great Basin have had between 80 and 130 percent of average and the Gunnison River Basin is near normal overall. However, areas in southern Utah and southwest Colorado, including the Virgin, Dolores and San Juan basins, have generally had less than 50 percent of average precipitation this month. It has been even drier farther south in Arizona and western New Mexico which have had less than 30 percent of average precipitation.

While the amount of precipitation has varied widely across individual basins, these frequent storms have caused temperatures to fluctuate between above and below average every few days which has kept the snowpack from melting too quickly in southern basins and even gaining snow in some northern basins.

Month to Date Precipitation - April 16 2018

(Averaged by Basin)

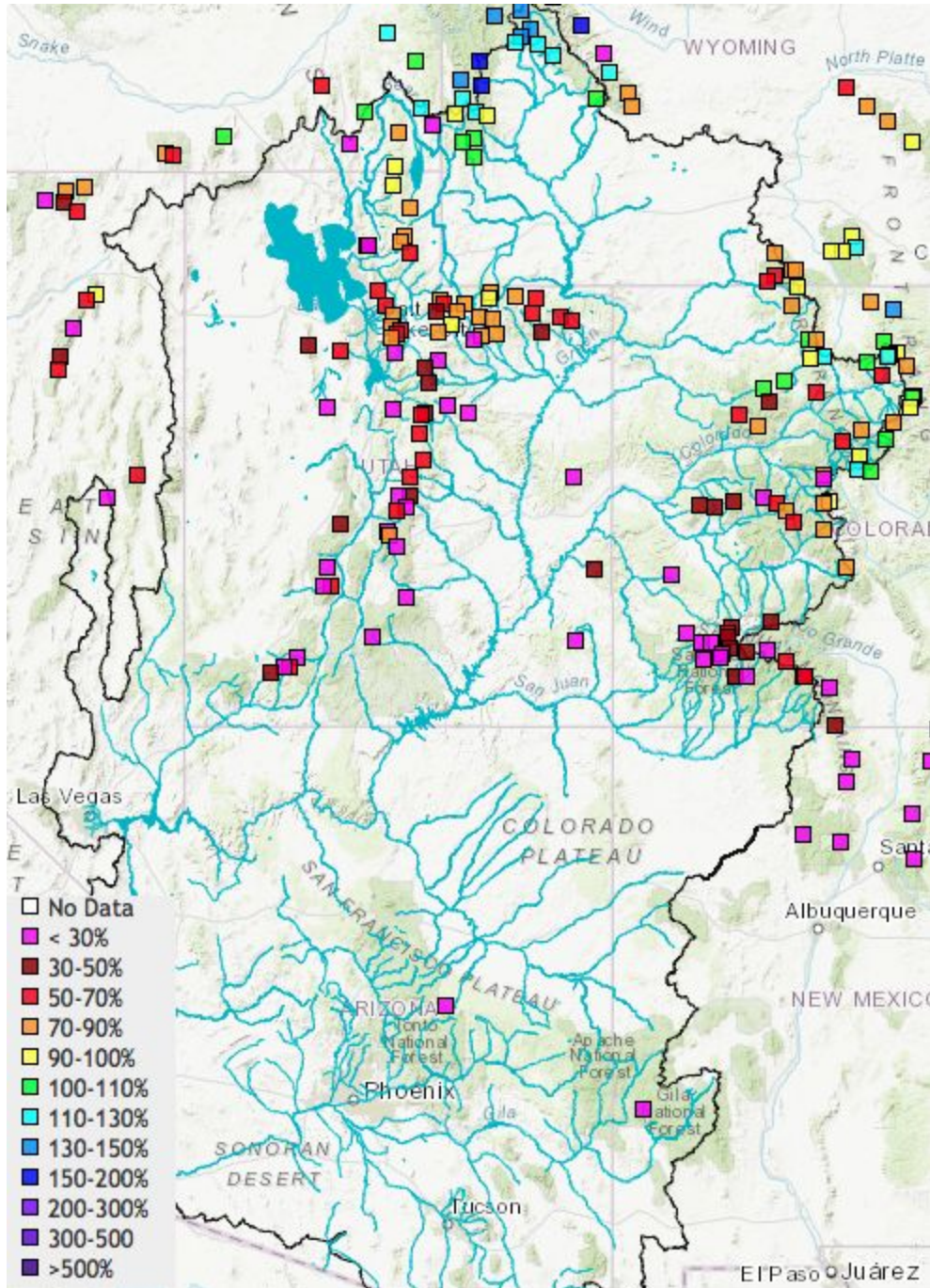


Prepared by NOAA, Colorado Basin River Forecast Center
Salt Lake City, Utah, www.cbrfc.noaa.gov

Month to date Percent Average Precipitation through April 16th
(Averaged by basins defined in the CBRFC hydrologic model)

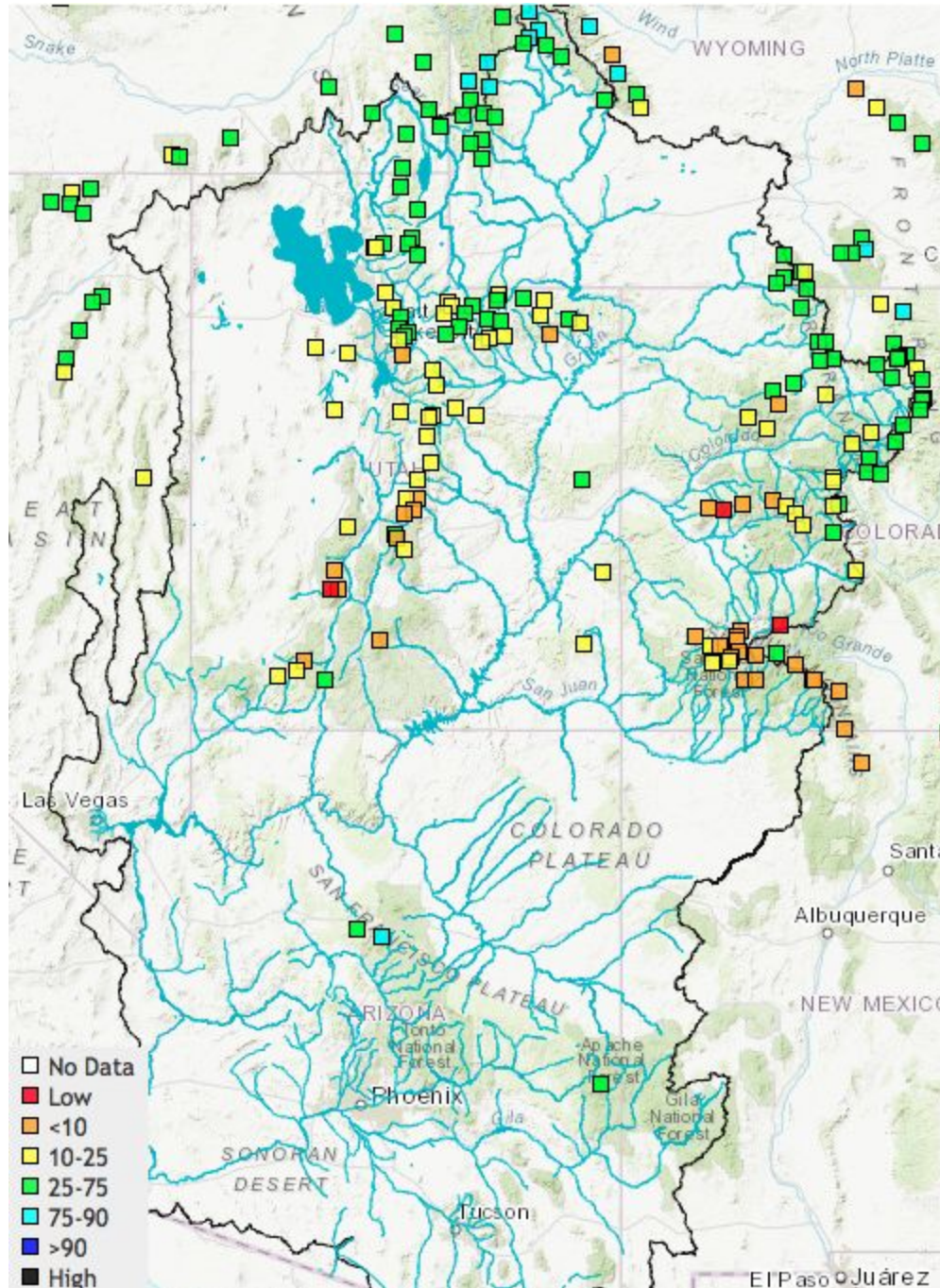
Snowpack:

Snow conditions remain very poor over most of the CBRFC forecast area. Near to above average snow conditions still exist in the extreme northern headwaters of the Green River Basin in Wyoming, while the eastern headwaters of the Colorado River Basin has near average snow conditions at this time. Outside of those two areas, individual SNOTEL sites are generally reporting less than 75 percent of median, with many reporting less than 50 percent of median.



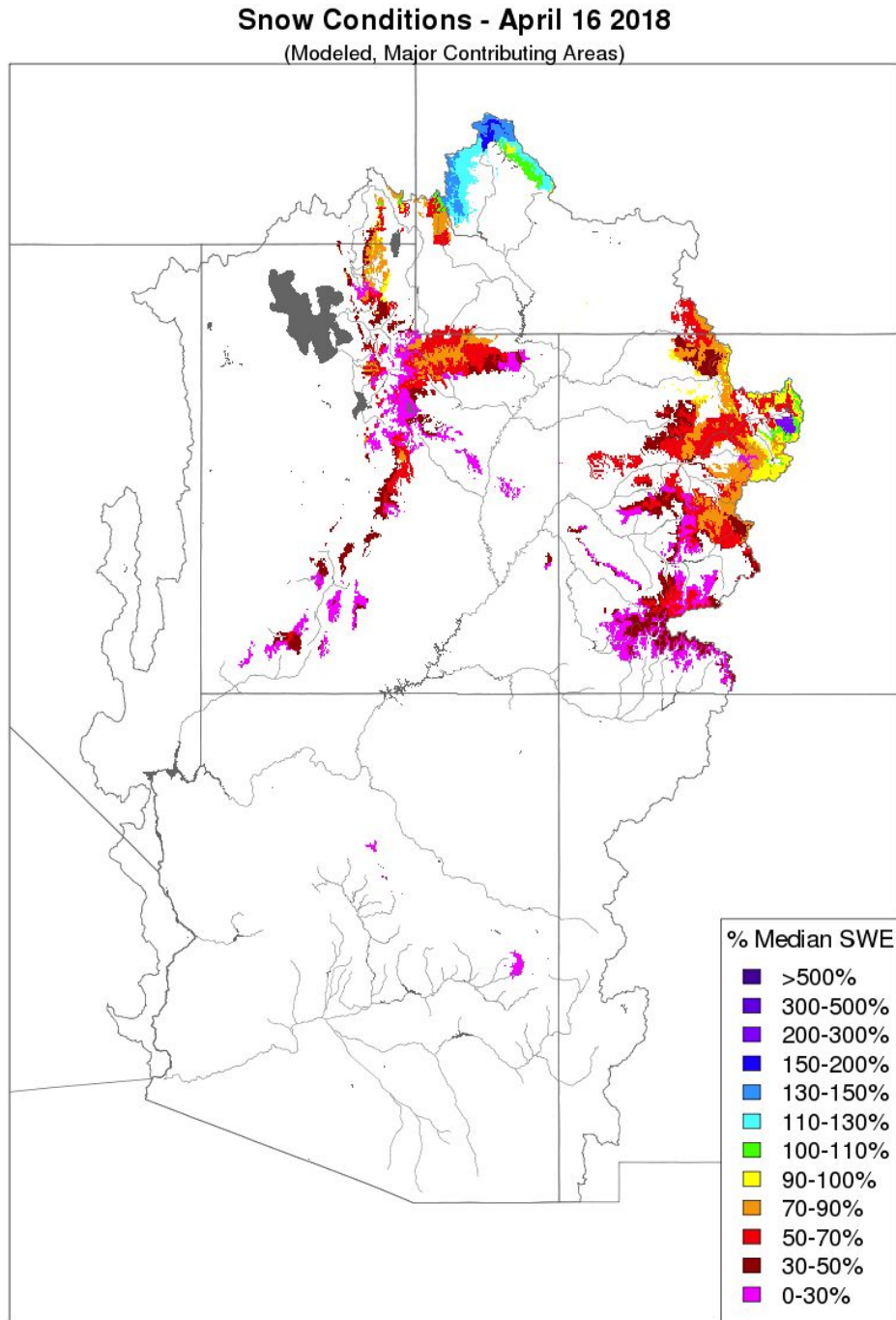
Percent Median Snow Conditions as of April 16th 2018

The snow percentile image displayed below indicates where the current snow measurement ranks in the historical record (typically 35-40 years) for each site. In contrast to earlier in the season, when many sites were indicating the lowest values on record for that time of year, only a few sites are now depicted with red boxes. Sites with orange boxes are in the bottom 10 percent of the record, which generally means they are in the bottom four.



Snow Percentile Image: Historical SNOTEL ranking as of April 16th 2018

The image below is the representation of snow in the CBRFC hydrologic model. Only those areas that provide the greatest contribution to the April-July runoff volumes are displayed. The snow represented in the model closely mirrors the SNOTEL image. The takeaway message is that poor snowpack conditions are widespread as indicated by the hydrologic model.



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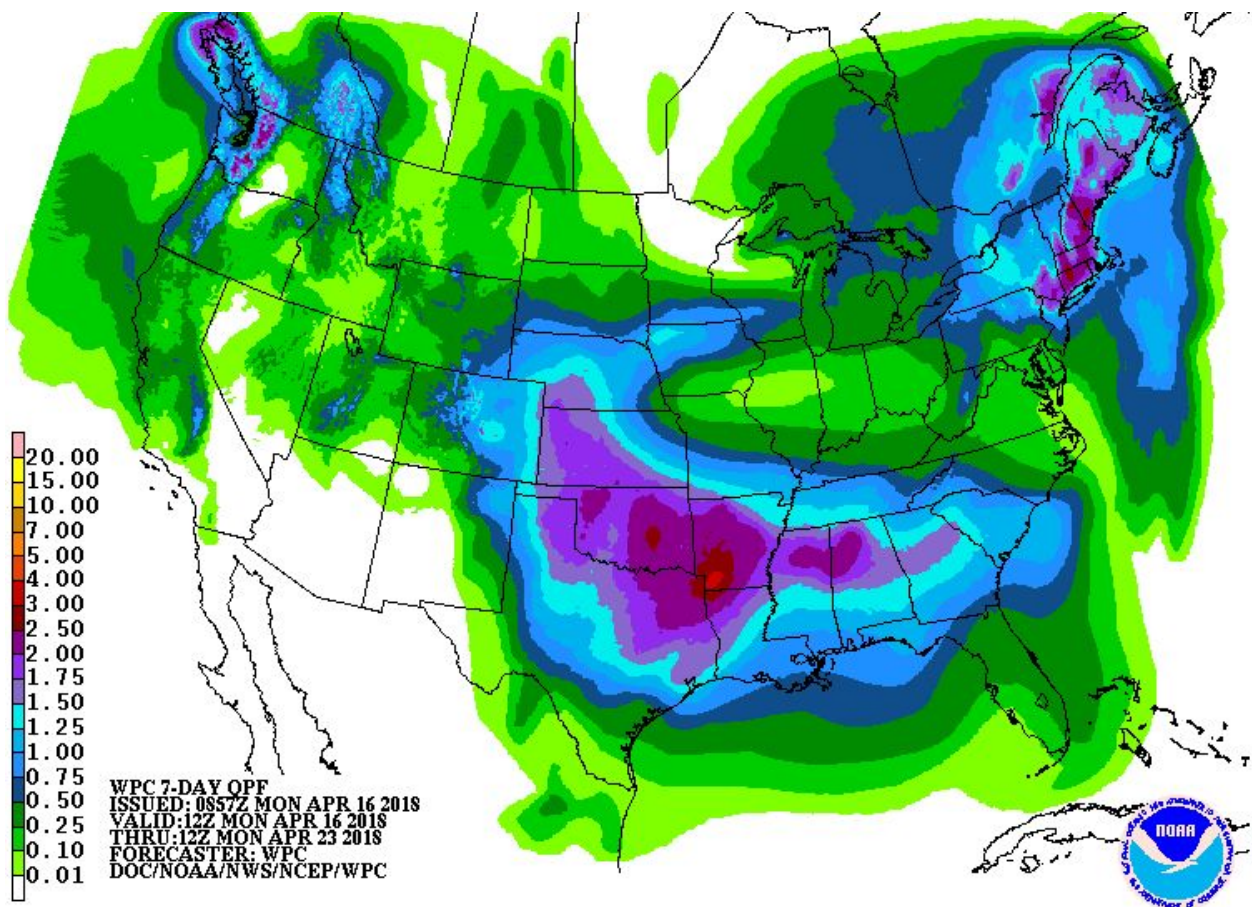
Modeled Snow: Snow representation from the CBRFC hydrologic model April 16th 2018

For updated SNOTEL information, click [here](#).

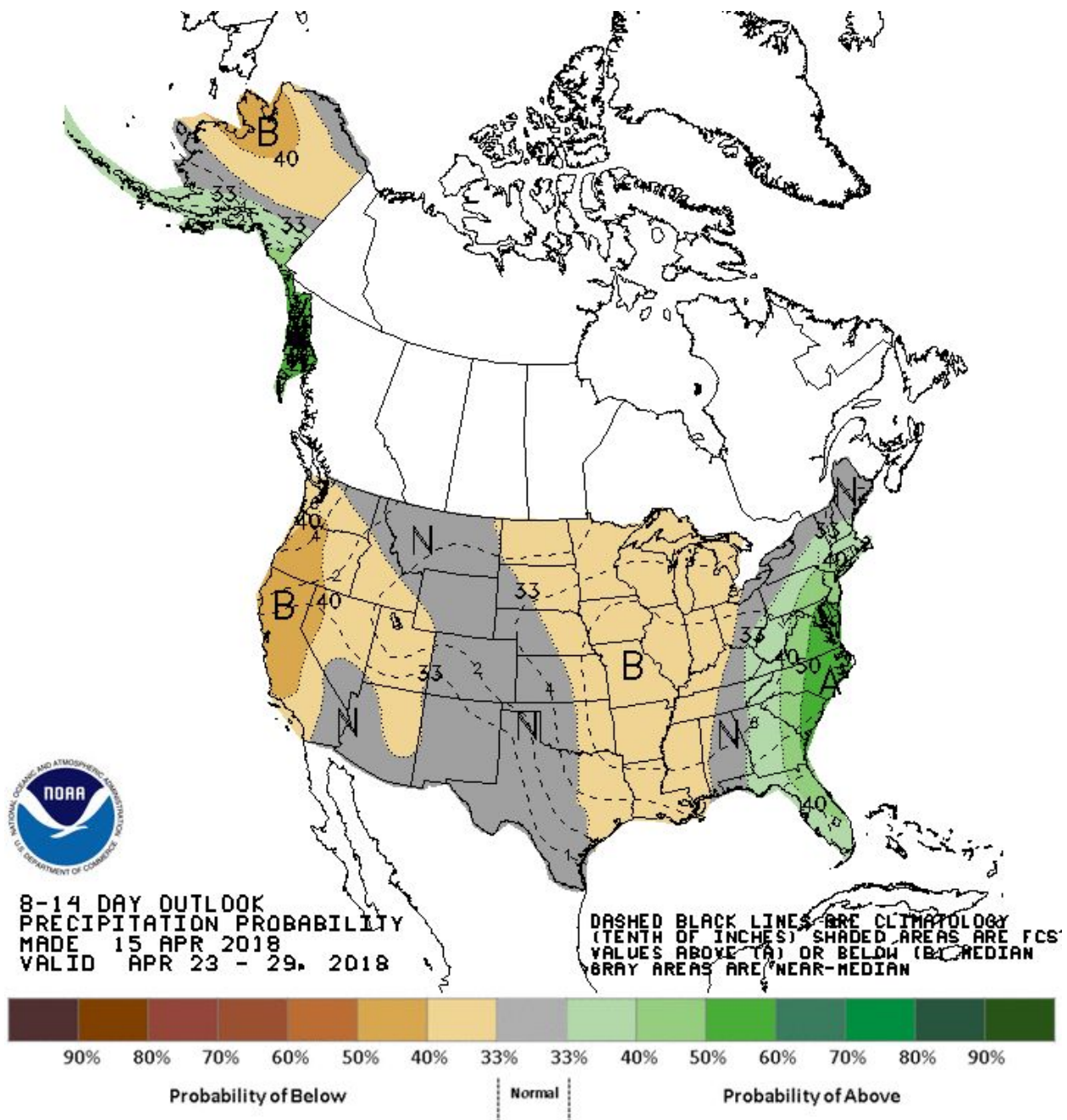
For CBRFC hydrologic model snow conditions, click [here](#)

Upcoming Weather:

Two storm systems are forecasted to impact mainly the Upper Basin over the next week. A quick moving system will bring mainly light snowfall amounts to portions of Utah, Wyoming, and northern Colorado on Tuesday. Then a cutoff low pressure system will move across the Four Corners region into Colorado by Friday. This system has the potential to produce higher precipitation totals, especially over the Yampa, Colorado mainstem, and Gunnison basins in Colorado. Very little precipitation is expected over much of the Lower Basin. Temperatures through the next week will be normal to slightly below normal. The outlook for the final week of April is more uncertain, however near normal precipitation chances are slightly favored (see 8-14 day precip outlook below).



NWS Weather Prediction Center precipitation forecast for Apr 16-23, 2018



NWS Climate Prediction Center 8-14 Day Precipitation Outlook for April 23-29, 2018.

End Of Month Reservoir Content Tables

- [Green River Basin](#)
- [Upper Colorado River Basin](#)
- [San Juan River Basin](#)
- [Great Salt Lake Basin](#)
- [Sevier Basin](#)

Basin Conditions and Summary Graphics

[Green River Basin](#)

[Upper Colorado River Basin](#)

[San Juan River Basin](#)

[Great Salt Lake Basin](#)

[Sevier River Basin](#)

[Virgin River Basin](#)