

April 17, 2020 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

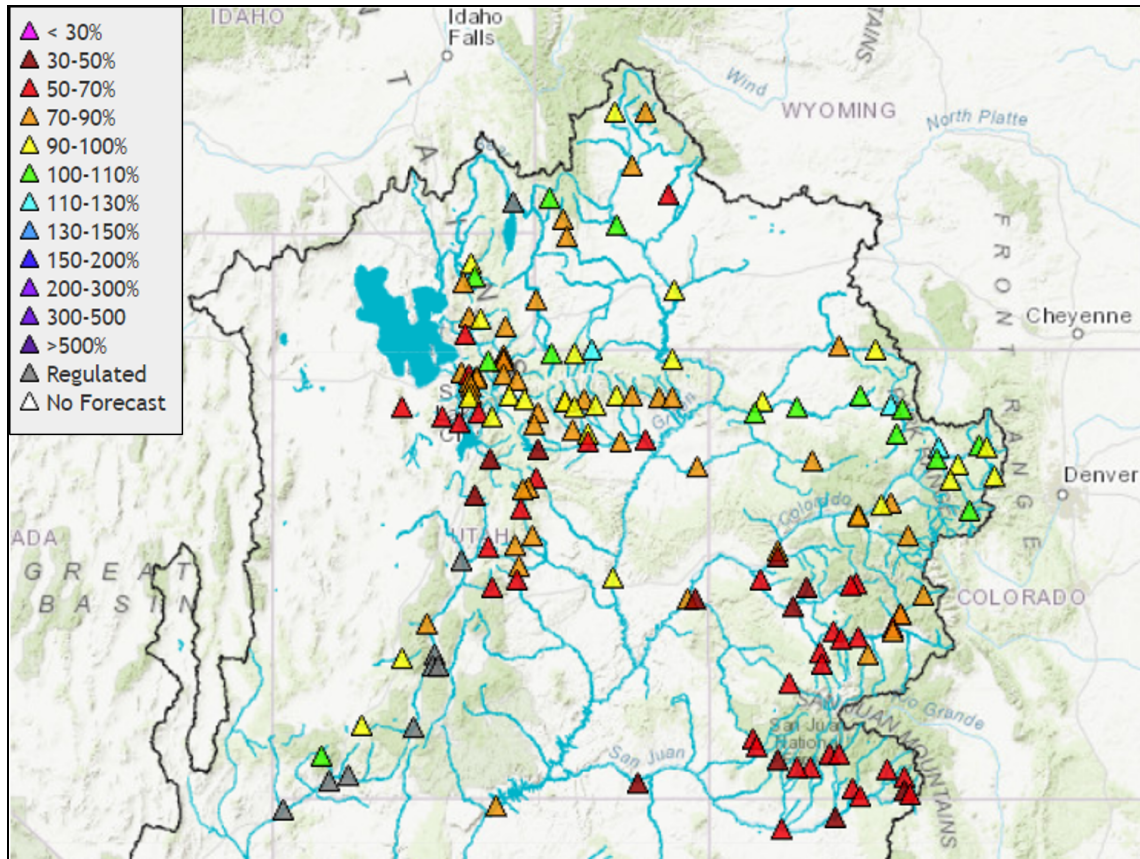
April-July water supply volume forecasts are near to below average throughout the Upper Colorado River Basin and Great Basin. Mid-April observed snow water equivalent (SWE) conditions are generally near to slightly above normal (median) across the Upper Colorado River Basin and Great Basin. Runoff volume guidance during the first half of April has generally declined across the Great Basin and Upper Colorado River Basin as a result of below average April 1-16 precipitation. Within the Upper Colorado River Basin, the highest forecast volumes with respect to average are in the Upper Colorado River mainstem, White/Yampa, and Virgin basins, where volume guidance is generally near the 1981-2010 historical average. Mid-April water supply volume guidance is generally slightly below average in the Green and Duchesne basins and well below average across southwest Colorado (Gunnison, Dolores, San Juan basins).

April-July unregulated inflow forecasts for some of the major reservoirs in the Upper Colorado River Basin include Fontenelle Reservoir 685 KAF (94% average), Flaming Gorge 900 KAF (92% of average), Blue Mesa Reservoir 490 KAF (73% of average), McPhee Reservoir 167 KAF (57% of average), and Navajo Reservoir 380 KAF (52% of average). The Lake Powell inflow forecast is 5.3 MAF (74% of average), a four percent decrease from April 1.

Water supply volume guidance in the Great Basin is most favorable in the Bear River Basin, where forecasts are near to slightly below average. The April-July water supply outlook in the Six Creeks, Weber, Provo/Utah Lake, and Sevier basins is slightly below to well below average.

April-to-date precipitation across Arizona has been highly variable with some basins receiving much above average precipitation and other basins receiving well below average precipitation. Lower Colorado River Basin January-May water supply guidance has not changed significantly during the first half of April and volume guidance is generally well above the 1981-2010 historical median due to much above median runoff to date as a result of above normal water year precipitation.

Seasonal Water Supply Forecasts



Upper Colorado, Great, Virgin River Basins: April-July runoff volume guidance as of April 16, 2020.
(percent of 1981-2010 average).

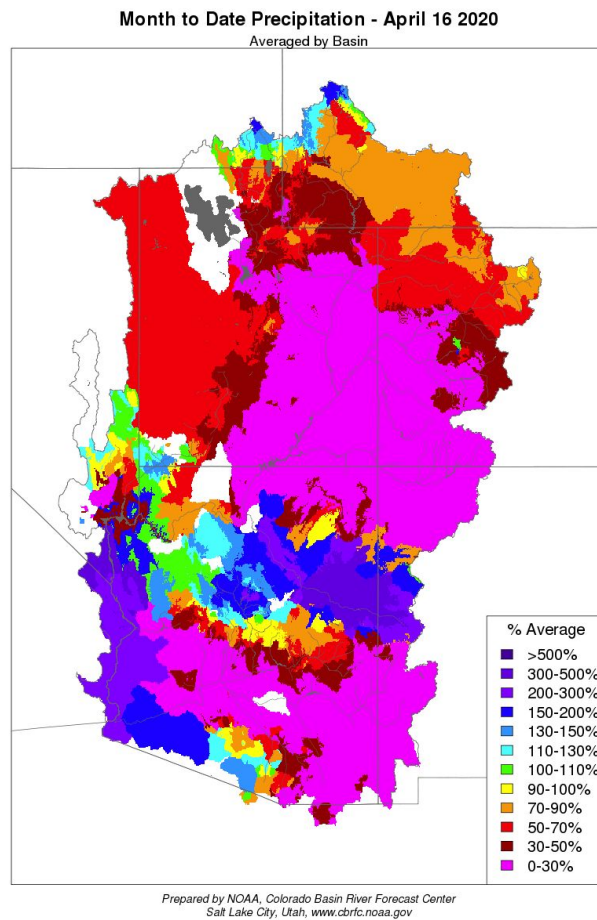
For specific site water supply forecasts click [here](#)

Water Supply Discussion

Weather Synopsis (April 1-16)

The weather pattern during the first half of April generally featured northwesterly flow aloft over the Intermountain West, with storm systems moving across Wyoming and northern Utah/Colorado. With the exception of the northern Bear and Upper Green basins near the Idaho/Wyoming border, month-to-date precipitation has been near to below normal over much of the Upper Colorado Basin and Great Basin. The extremes span from 110-150% of normal in the Upper Green to less than 30% of normal in southwest Colorado (San Juans). The Yampa Basin and Upper Colorado headwaters have been below normal while the rest of Colorado and Utah, including the majority of the Great Basin, has seen much below normal precipitation. For the Lower Basin, precipitation normally begins to drop off as we head into April. A weak storm system and stalled cold front did produce 1-2 inches of rain over the headwaters of the Verde and Little Colorado on April 12-13, resulting in above normal precipitation in these basins.

Large temperature fluctuations are common during the spring, and it has been no different through the first half of April. Near to above normal temperatures in the first 10 days quickly transitioned to well below normal (10-20 degrees) temperatures during April 12-16. This has resulted in a significant reduction in snowmelt across much of the Upper Basin over the last five days.



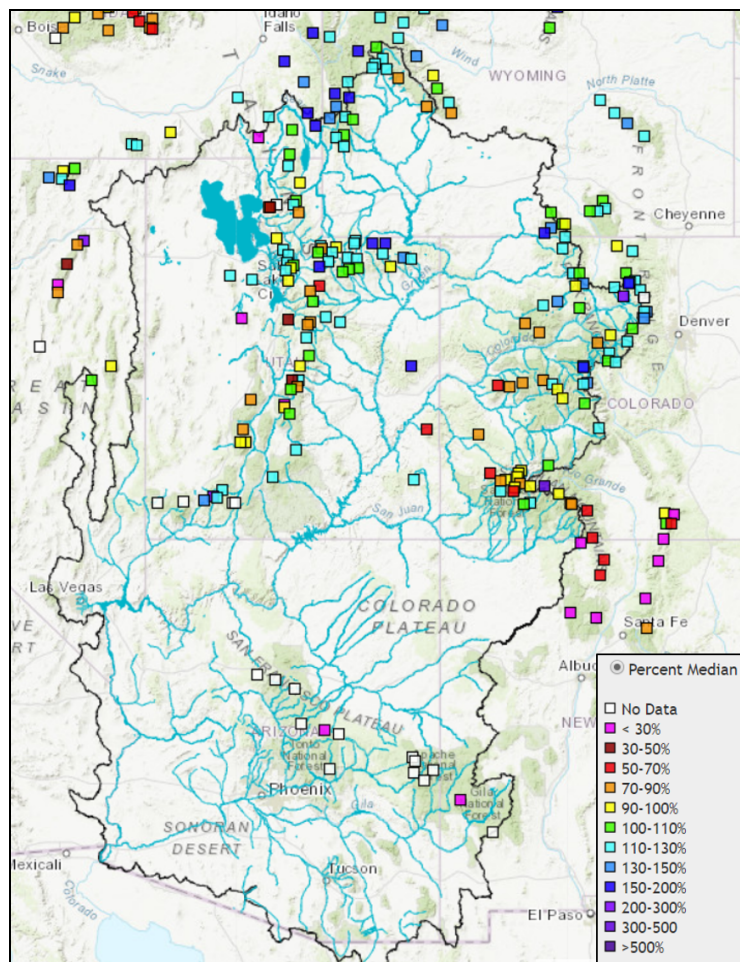
April 1-16, 2020 percent of average precipitation.
(Averaged by basins defined in the CBRFC hydrologic model)

Snowpack

Observed snow water equivalent (SWE) conditions as of mid-April are generally near to slightly above normal (median) across the Upper Colorado River Basin and Great Basin. SWE conditions as a percent of the 1981-2010 median have for the most part declined across the region since early April as a result of below average precipitation during the first two weeks of April. Exceptions include the northern Bear and Upper Green basins near the Idaho/Wyoming border and the Virgin River Basin in southwest Utah, where April-to-date precipitation has been near to above average. Snow has almost entirely melted out across the mountainous areas of the Lower Colorado River Basin (Arizona).

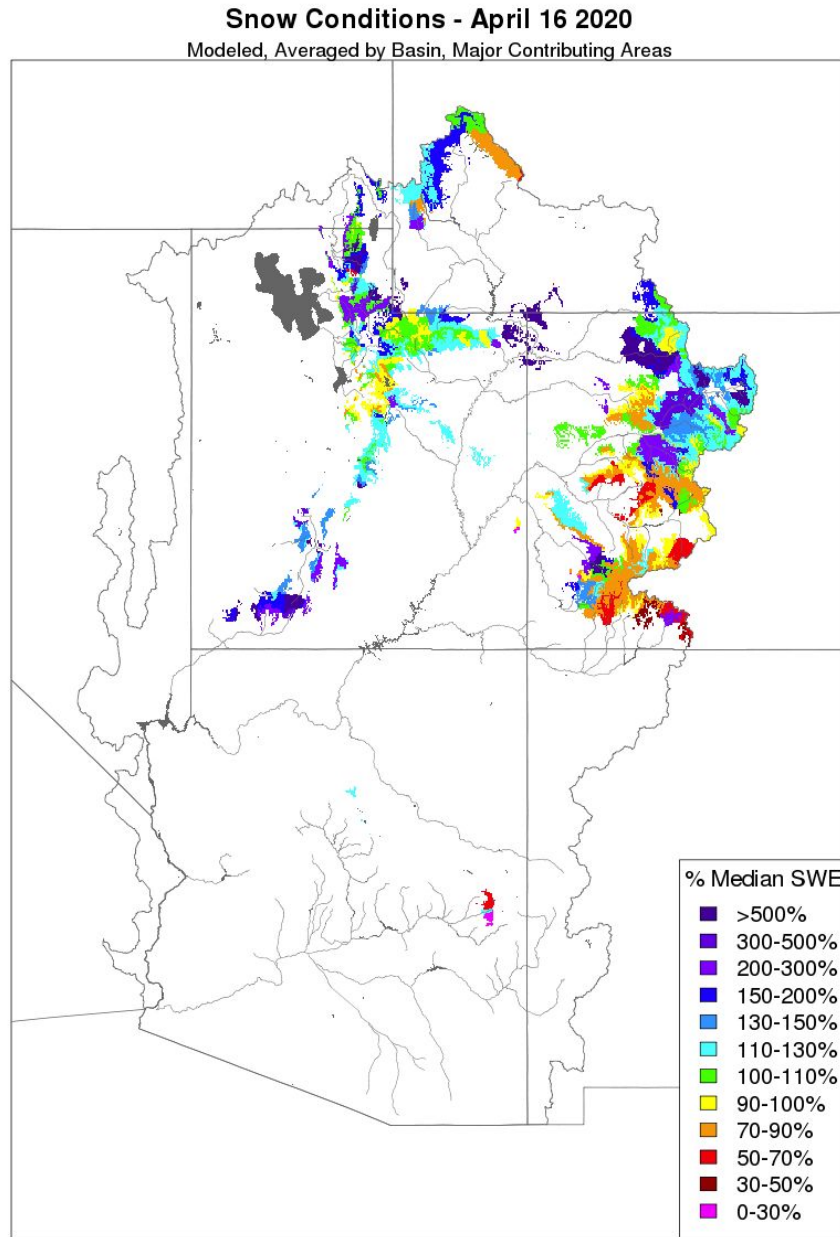
Basin SWE conditions as a percent of the 1981-2010 median continue to be most favorable (>125% of normal) in the Virgin River Basin. Upper Colorado River mainstem basins above Kremmling and Upper Green River basin snow conditions are slightly above normal. SWE conditions in the Duchesne, Lower Green, White/Yampa, and Upper Colorado River mainstem basins below Kremmling are near normal as of mid-April. Snowpack conditions in the Gunnison, Dolores, and San Juan basins in southwest Colorado are near to slightly below normal.

Great Basin SWE conditions remain above normal in the Six Creek basin, and near normal in the Bear, Weber, Provo/Utah Lake, and Sevier basins. Mid-April observed (SNOTEL) conditions as a percent of the 1981-2010 historical median are shown in the image below.



Observed (SNOTEL) percent median SWE conditions as of April 16, 2020.

The image below is the representation of mid-April CBRFC model snow conditions in areas that provide the greatest contribution of April-July runoff. Model snow conditions correlate well with SNOTEL conditions throughout the Colorado River and Great Basins.



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

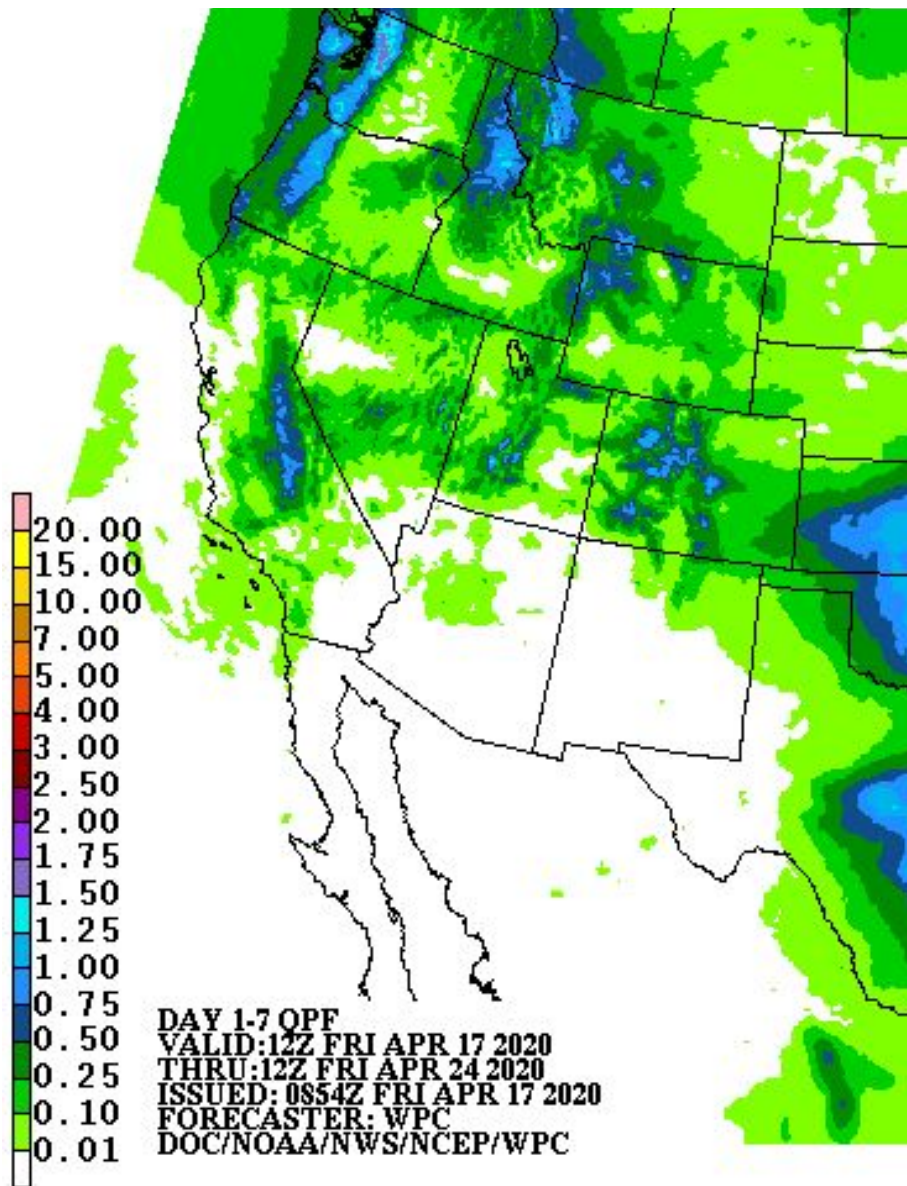
CBRFC hydrologic model snow conditions in significant runoff areas as of April 16, 2020.

For updated SNOTEL information refer to click [here](#)

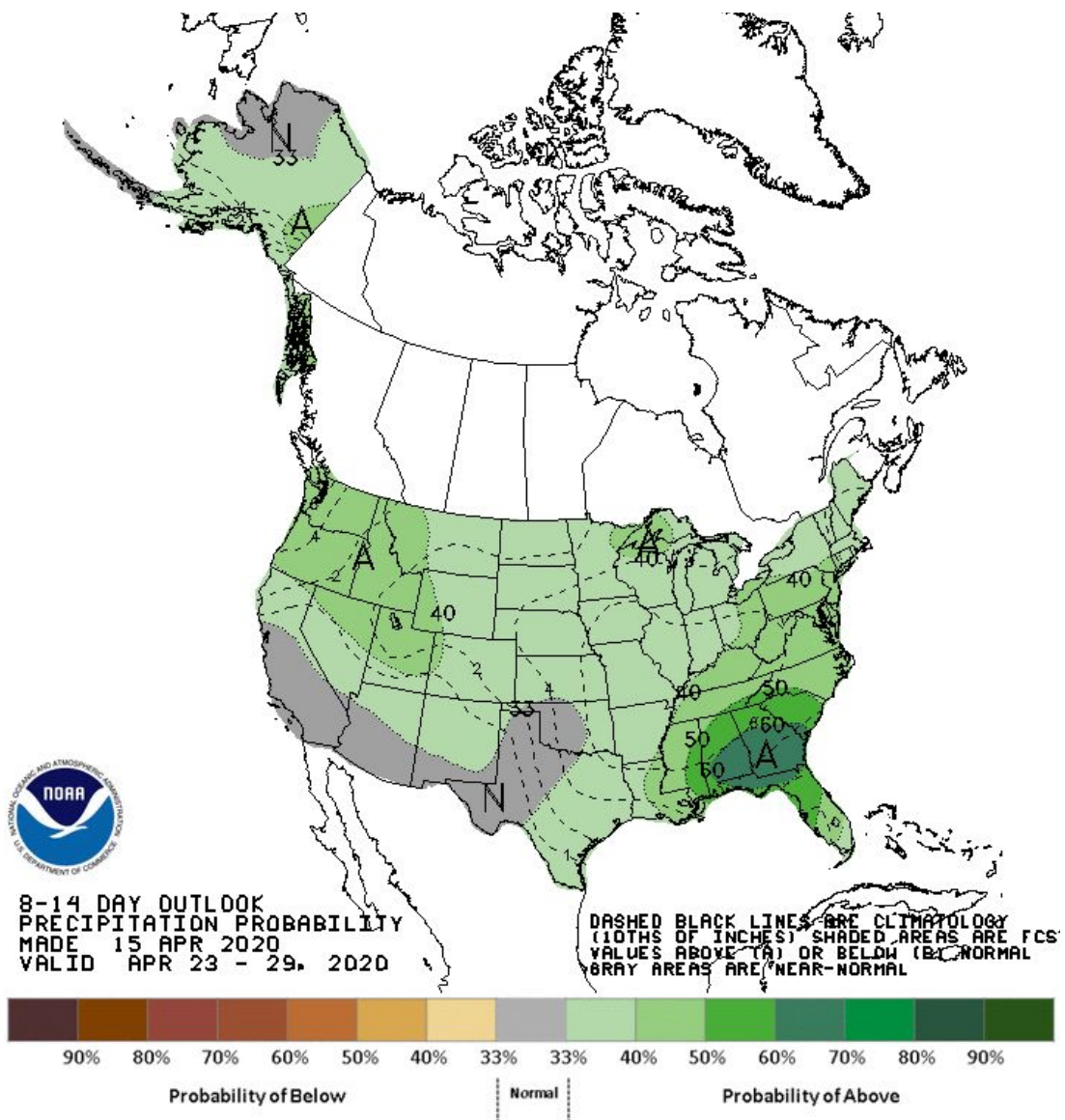
For CBRFC hydrologic model snow click [here](#)

Upcoming Weather

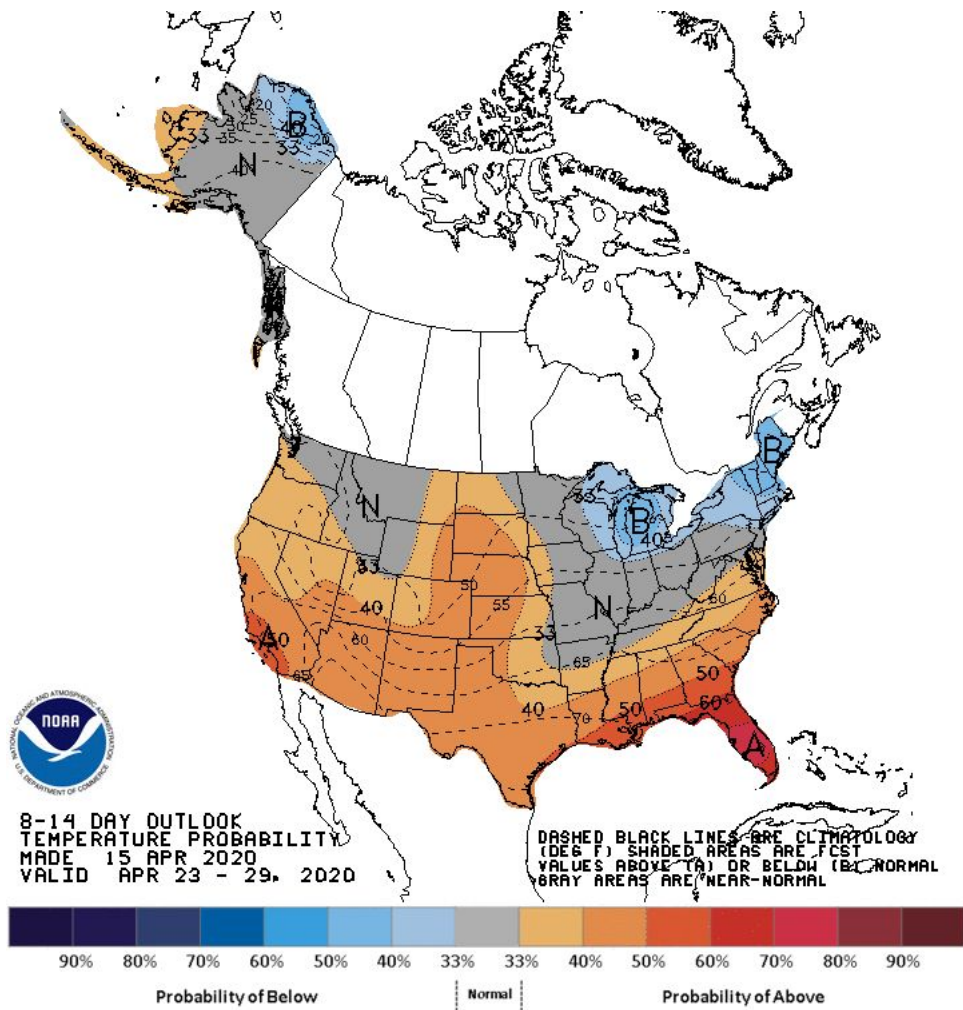
The deep trough that has been over the Intermountain West over the past five days will begin to weaken today, with gradually warming temperatures into the weekend and early next week. A couple of weak storm systems will move across southern Utah/Colorado (one on April 18 and another around April 21). These systems will promote scattered afternoon showers and associated cloud cover over portions of Utah/Colorado through early next week. However, only modest precipitation amounts are forecasted through April 23, with the highest amounts of 1-1.5 inches across the mountains of Colorado. Although temperatures will warm to near to slightly above normal through the next week, a more prolonged period of well above normal temperatures that would result in significant snowmelt is not expected over the next 7-10 days. Uncertainty increases by the last week of April (April 23-29), with the Climate Prediction Center suggesting slightly elevated chances for above normal precipitation and near to slightly above normal temperatures.



NWS Weather Prediction Center precipitation forecast for April 17-24, 2020.



NWS Climate Prediction Center precipitation probability forecast for April 23-29, 2020.



NWS Climate Prediction Center temperature probability forecast for April 23-29, 2020.

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](#)

End Of Month Reservoir Content Tables

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