

January 18, 2022 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

Mid-January snow water equivalent (SWE) conditions remain above normal across the Upper Colorado River Basin and Great Basin despite the region seeing mostly dry weather over the past 10 days. Mid-January SWE conditions generally range between 110-140% of normal across the Upper Colorado River Basin and 110-130% of normal across the Great Basin. Lower Colorado River Basin SWE conditions are currently 55-155% of normal.

Water supply volume guidance during January has trended with month-to-date precipitation. Northern basins including the Upper Green, Bear, Weber, White/Yampa, and Colorado River headwaters have received near to above normal January precipitation generally leading to small (+/- 10%) changes in water supply volumes compared to the volume outlook at the beginning of the month. Below to much below average January-to-date precipitation across southern basins including the Duchesne, Gunnison, San Juan, southern Great Basin, and Lower Colorado River Basin has led to declines in spring runoff volume guidance since the beginning of the month.

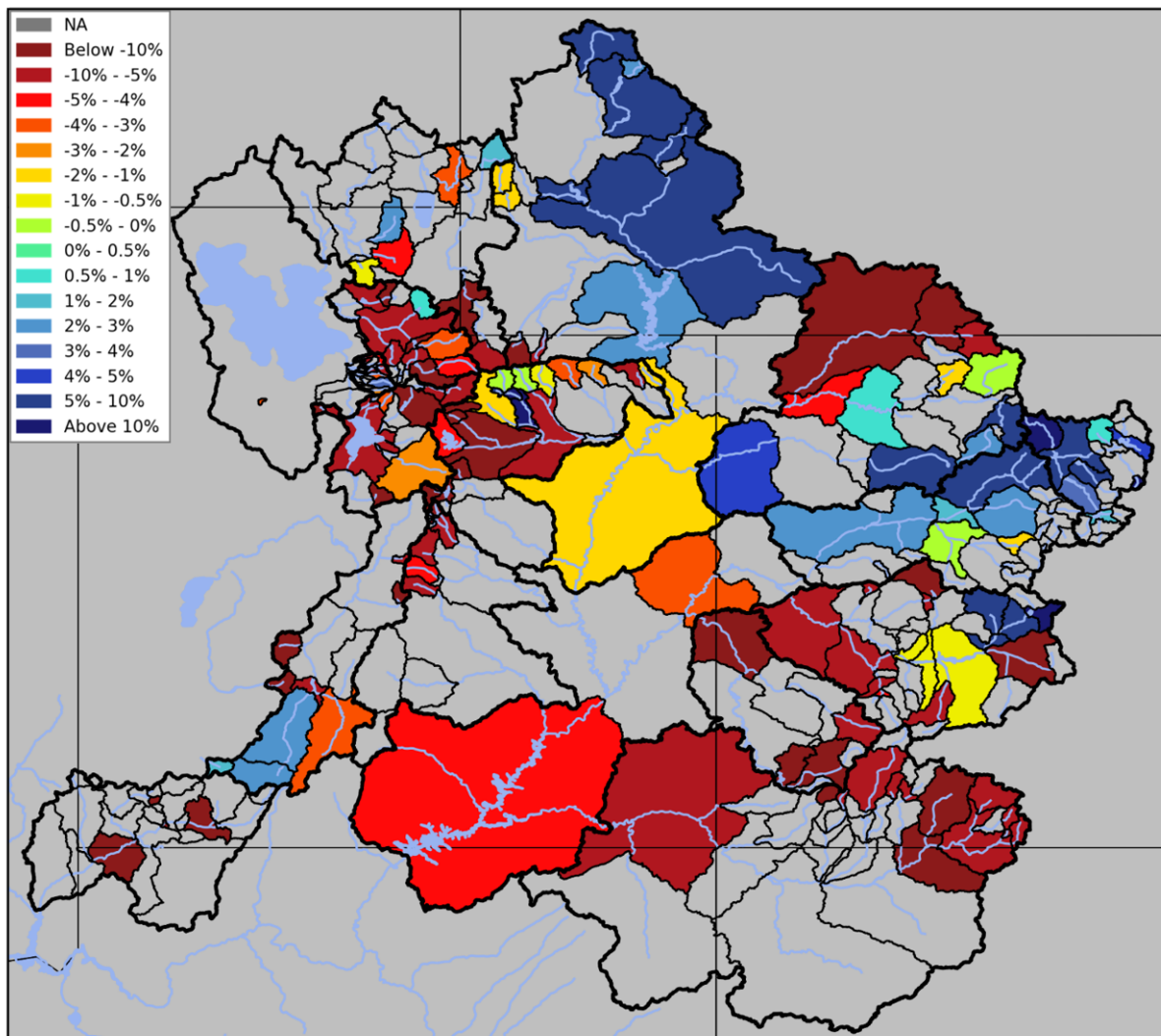
January 18 water supply guidance (% of normal) by basin:

Basin	Water Supply Guidance Range
Upper Green	75-105%
Duchesne	80-110%
White/Yampa	90-130%
Upper Colorado Mainstem	90-120%
Gunnison	80-120%
Dolores	80-90%
San Juan	70-95%
Bear	75-105%
Weber	90-105%
Six Creeks	95-120%
Provo/Utah Lake	70-130%
Sevier	90-120%

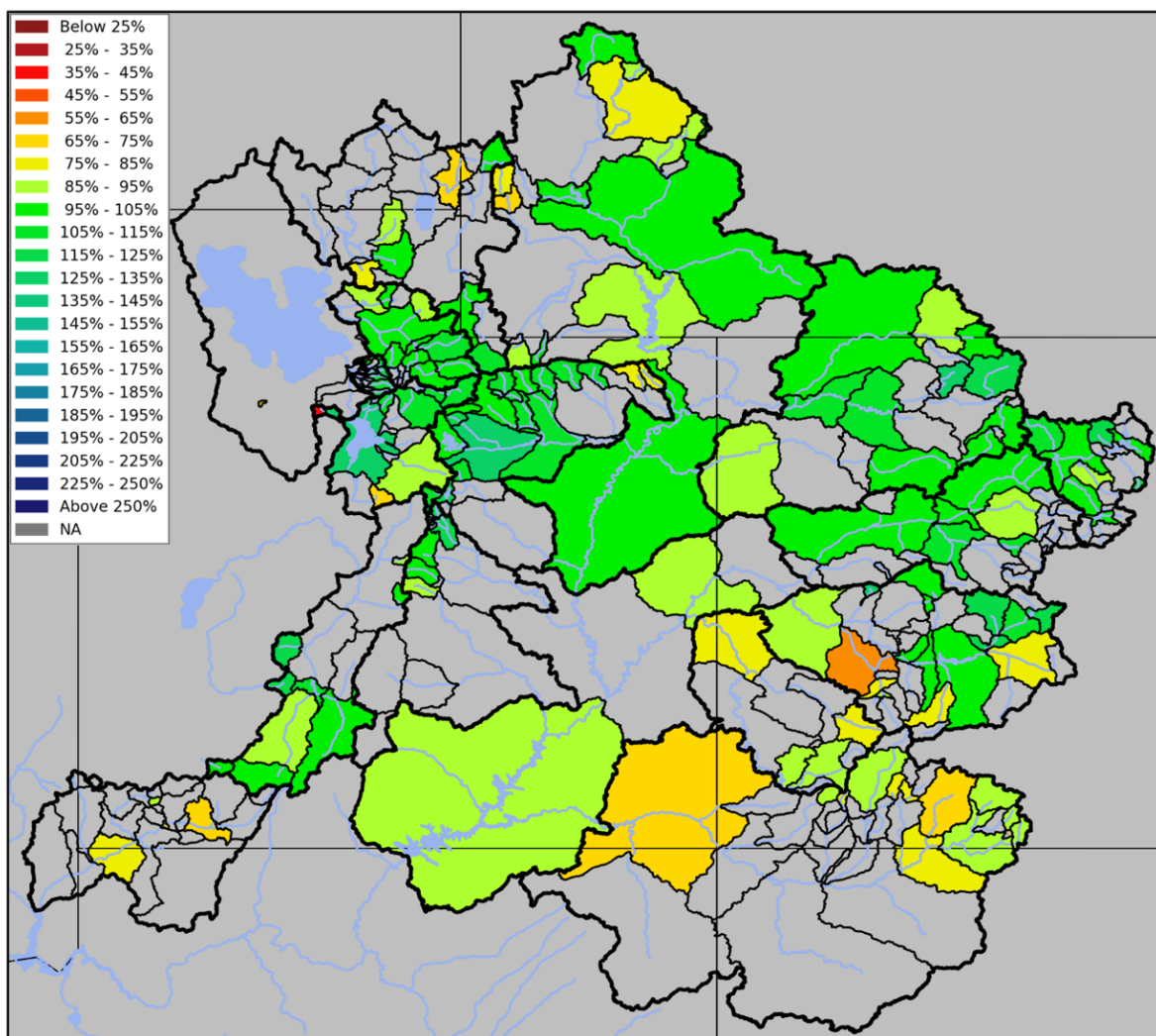
Mid-January April-July unregulated inflow forecasts for some of the major reservoirs in the Upper Colorado River Basin include Fontenelle Reservoir 700 KAF (95% average), Flaming Gorge 860 KAF (89%), Blue Mesa Reservoir 650 KAF (102%), McPhee Reservoir 230 KAF (90%), and Navajo Reservoir 510 KAF (81%). The Lake Powell inflow forecast is 6.1 MAF (95% of average), a four percent decrease from the early January forecast.

Arizona is expecting to see very light precipitation amounts today into tomorrow, with higher elevations across southwest Wyoming, northern Utah, and western Colorado forecast to get 0.25-50" of precipitation Friday into Saturday (January 21-22). Weather models are in agreement that the ridge of high pressure will persist through the end of the month, limiting any significant widespread precipitation totals over the next two weeks.

Seasonal Water Supply Forecasts



Trend in the April-July runoff volume forecast guidance from January 1 to January 18, 2022
(Change in April-July percent of average)



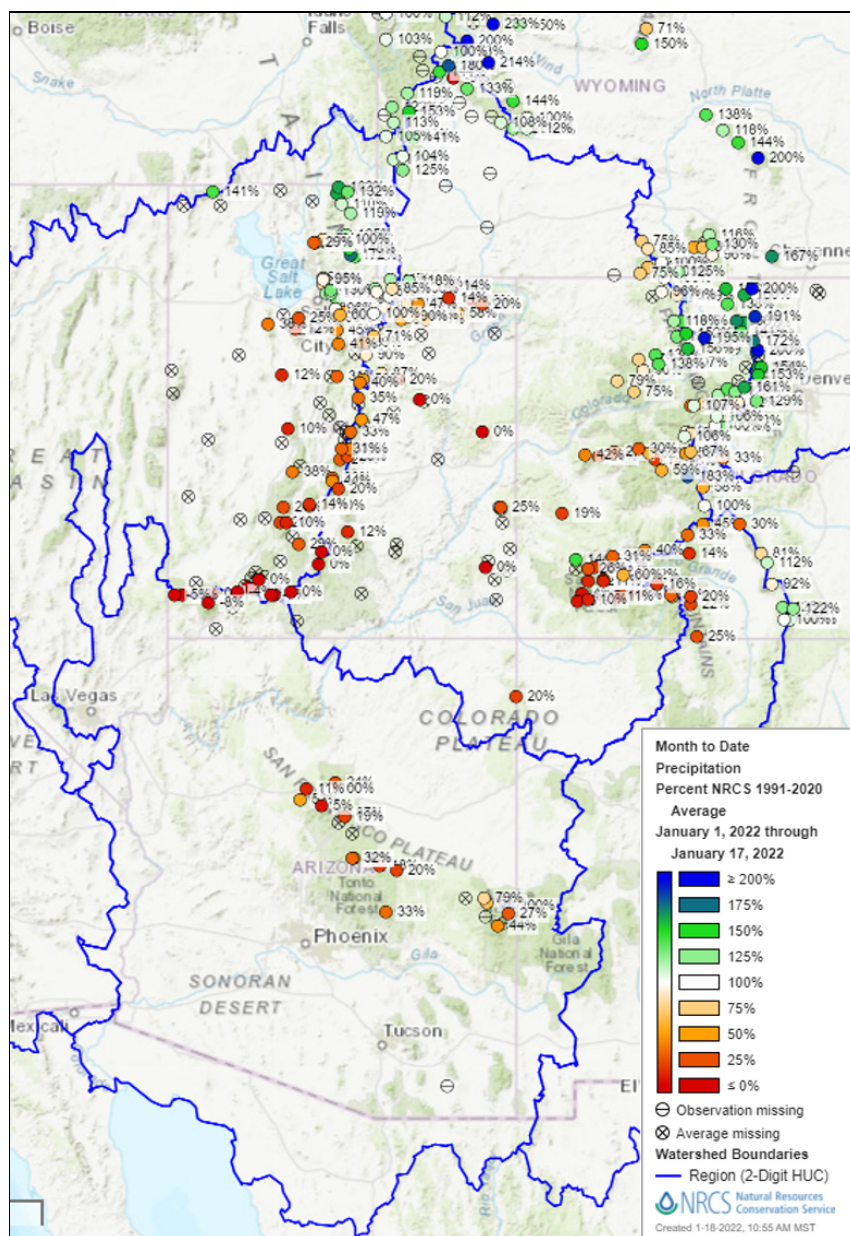
April-July runoff volume guidance as of January 18, 2022
 (percent of 1991-2020 average)

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

Water Supply Discussion

Weather/Precipitation

The wet and active weather pattern that began during the second week of December continued through the first week of January bringing modest precipitation to southern Arizona at the start of the month. Northwestern flow brought widespread 1-3" precipitation amounts to northern basins (Upper Green, Bear, Weber, White/Yampa, Upper Colorado headwaters) during January 3-8, with a handful of locally higher 4-6" amounts reported across the Great Basin and Upper Colorado River Basin. Precipitation during the first half of January was below to much below (0-50% of average) across southern basins, with southwest Utah/Colorado seeing the driest conditions. An anomalous ridge of high pressure settled over the region during the second week of January leading to mostly dry weather through the middle of the month.



Snowpack

Snow water equivalent (SWE) conditions improved significantly from early December to early January. December 5 - January 10 was a very active and wet stretch of weather, with most SNOTEL stations across the region reporting precipitation values that were 150-200% of average and above the 90th percentile during this period.

December 5 - January 10 Basin SWE Summary (NRCS SNOTEL)

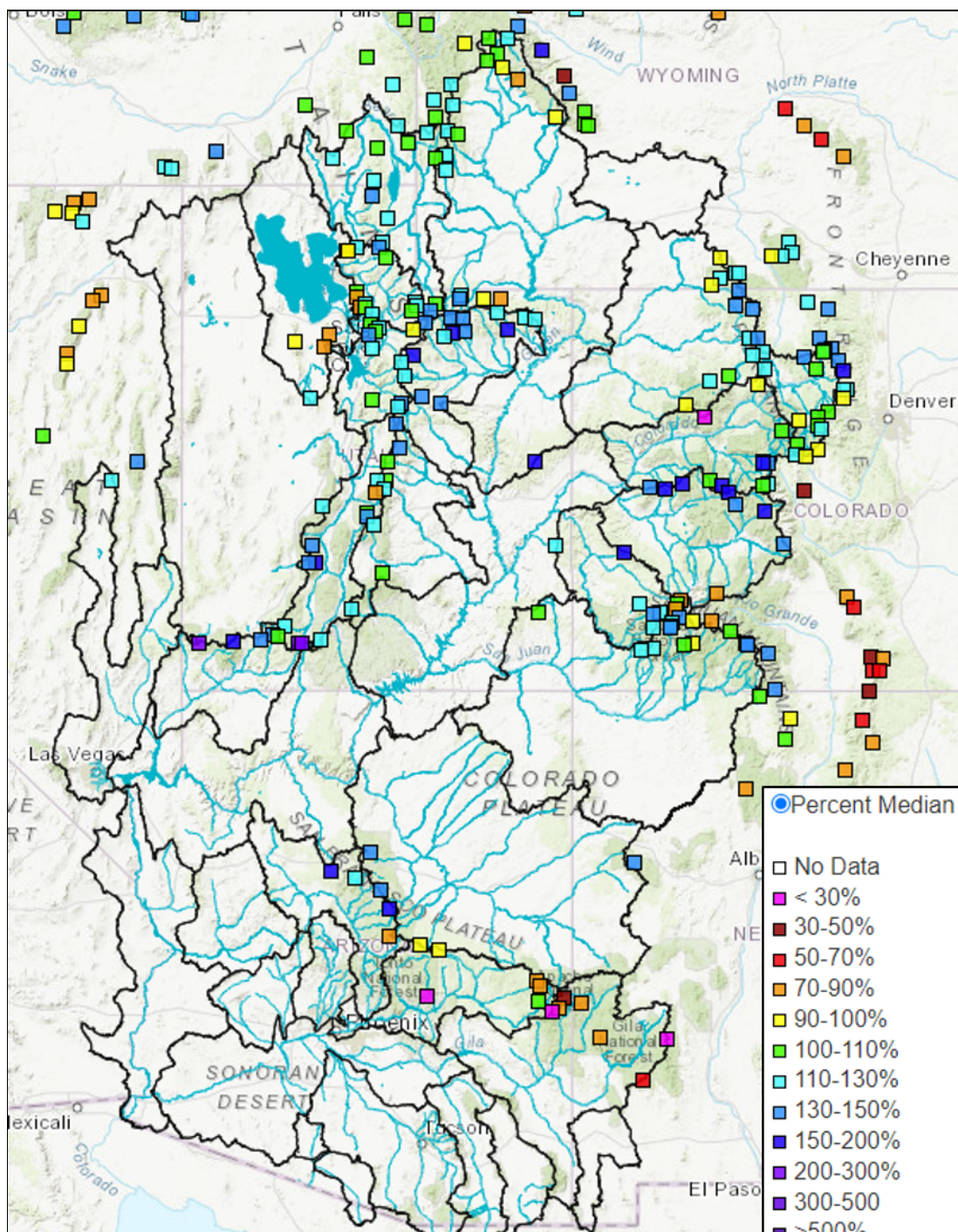
Basin	Dec5 %Median SWE	Jan10 %Median SWE
Upper Green	51	128
Duchesne	47	155
White/Yampa	59	130
UC Headwaters	59	126
Roaring Fork	61	150
Gunnison	47	146
Dolores	32	130
San Juan	28	126
Bear	34	141
Weber	27	129
Provo/UT Lake	24	128
Sevier	19	142
Virgin	0	177
Little Colorado	2	112
Verde	19	135
Salt	11	95
Upper Gila	23	81

Current snow water equivalent (SWE) conditions remain near to above normal across the Upper Colorado River Basin and Great Basin despite the region seeing mostly dry weather over the past 10 days. SWE conditions in northern basins including the Upper Green, Bear, Weber, White/Yampa, and Colorado River headwaters have remained steady or slightly improved since the beginning of the month primarily due to precipitation during January 3-8. Snowpack conditions in basins to the south have deteriorated during January as a result of below average precipitation.

Mid-January SWE conditions (images below) across the Upper Colorado River Basin generally range between 110-140% of normal with the best SWE conditions in the Duchesne and Roaring Fork River Basins (140%); Gunnison (135%), Dolores (120%), Upper Green and San Juan (115%), Upper Colorado River headwaters (110%).

Great Basin mid-January basin SWE conditions are slightly above average: Sevier (130% of normal), Bear (125%), Weber and Provo/UT Lake (110%). SWE conditions since the beginning of January have slightly improved in the Bear and Weber Basins, with the Sevier Basin seeing the largest decline in snowpack conditions.

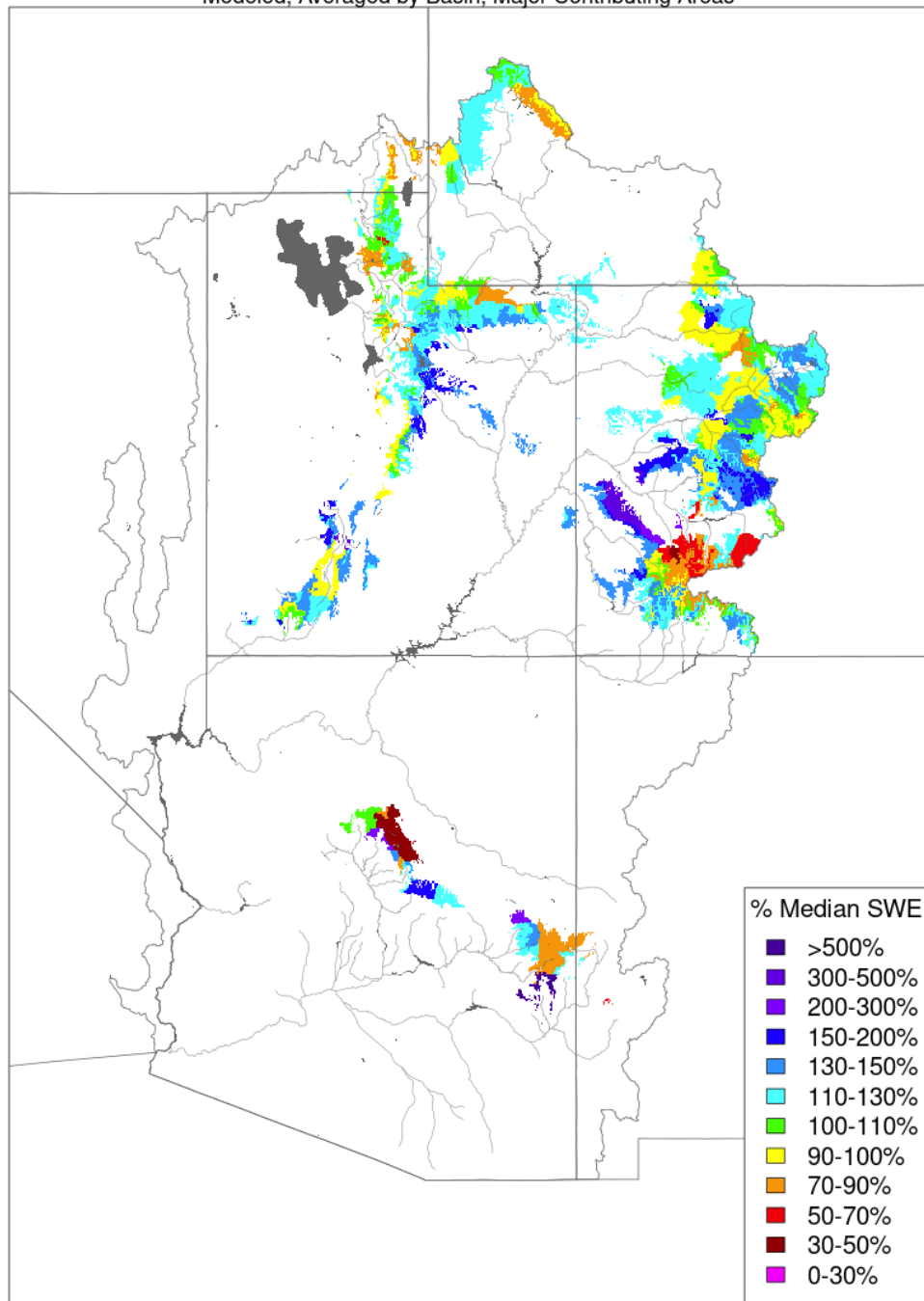
Lower Colorado River Basin SWE conditions have declined since the beginning of the month and currently range between 55-155% of normal. Despite the Virgin River Basin seeing the largest decline in percent of normal SWE conditions since the beginning of the month, SWE conditions remain above normal (155%).



SNOTEL percent median SWE - January 18, 2022

Snow Conditions - January 18 2022

Modeled, Averaged by Basin, Major Contributing Areas



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

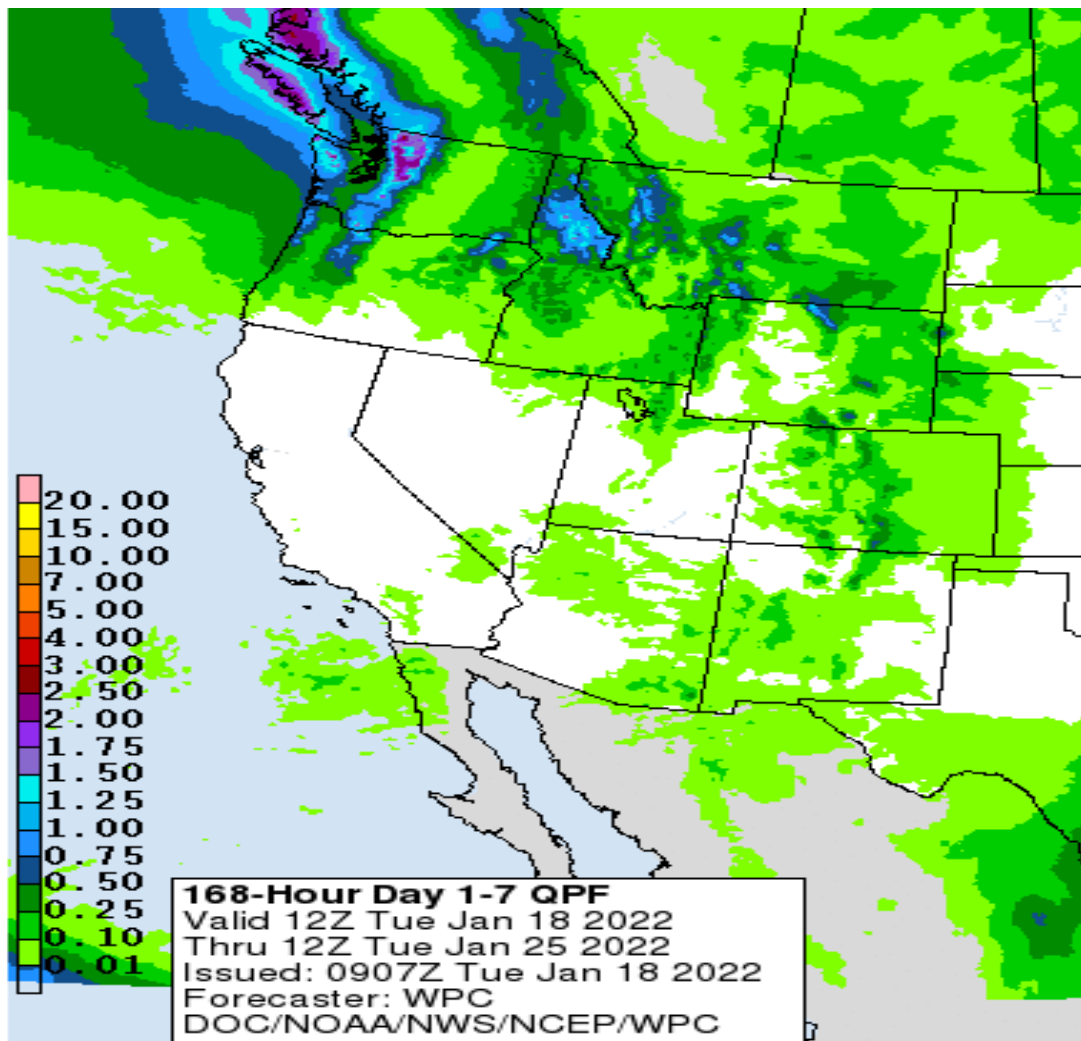
CBRFC hydrologic model percent median SWE - January 18, 2022

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

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

Upcoming Weather

The forecast period begins with a ridge set up over the Pacific Coast. A trough will dig along the eastern edge of the ridge, bringing a chance of precipitation across the region Friday and Saturday (January 21-22). Unfortunately, precipitation totals will likely be relatively low, with the highest amounts of around 0.25 to 0.50 inches confined to the higher elevations of the Rocky Mountains. Elsewhere across the region, precipitation totals will be lower. Looking ahead, weather models are in agreement that the ridge over the Pacific Coast will persist through the end of the month. This ridge will limit any meaningful widespread precipitation totals through the end of the month, and is being indicated by the Climate Prediction Center as an increased probability of below normal precipitation totals extending through the two week period. Associated with the ridge, there is also an increased chance that temperatures will be above normal across the Colorado River Basin through the end of January, and near normal in the Great Basin due to possible valley inversions.



Weather Prediction Center precipitation forecast for January 18-25, 2022

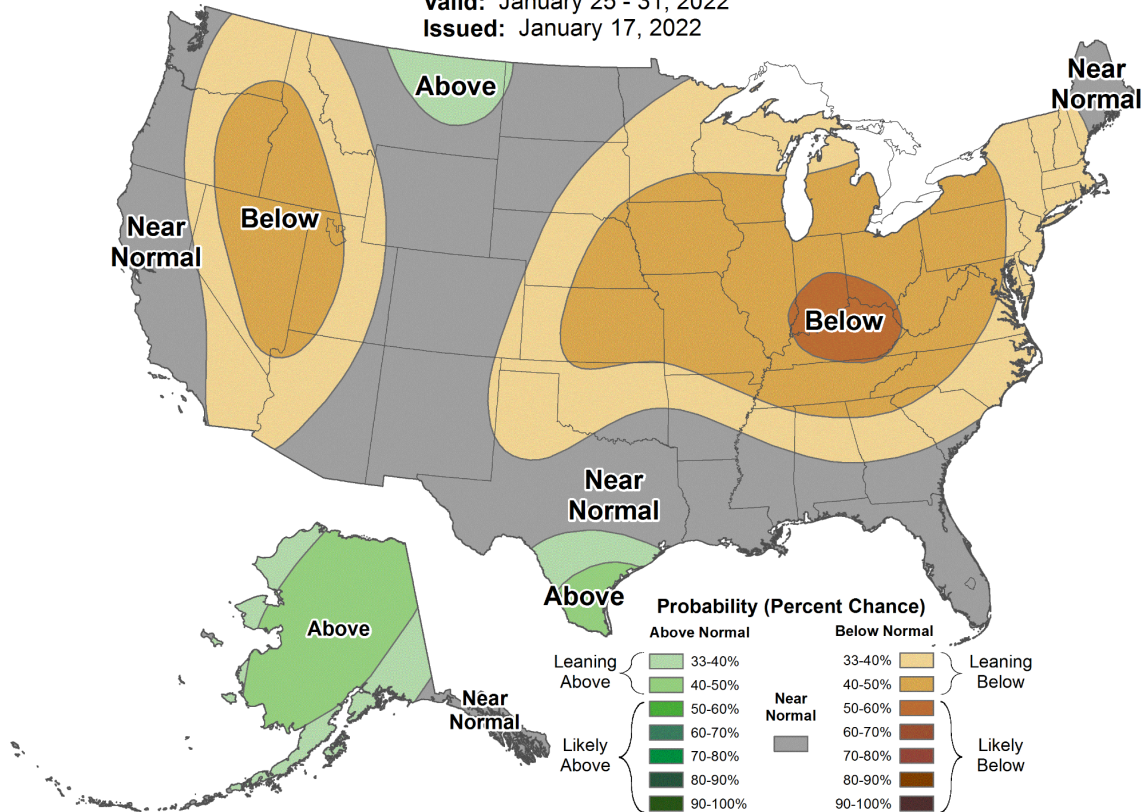


8-14 Day Precipitation Outlook



Valid: January 25 - 31, 2022

Issued: January 17, 2022



NWS Climate Prediction Center precipitation probability forecast for Jan 25- Jan 31, 2022

For CBRFC's beginning of the month online publication that contains basin conditions, summary graphics, and end of month reservoir content tables, refer to the following links.

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](#)