February 16, 2022 Water Supply Forecast Discussion

The <u>Colorado Basin River Forecast Center (CBRFC)</u> geographic forecast area includes the Upper Colorado River Basin, Lower Colorado River Basin, and Eastern Great Basin.

Water Supply Forecast Summary

Much below average precipitation during the first two weeks of February has led to declines in the spring water supply outlook. Upper Colorado River Basin water supply guidance has generally decreased by around 10% during the first half of February with April-July volumes currently ranging between 55-105% of normal. Great Basin April-July volume guidance has decreased by around 15% since the beginning of February and currently ranges between 50-90% of normal. Lower Colorado River Basin January-May water supply guidance has also decreased with seasonal volumes across Arizona forecasted to trend drier given the current La Niña conditions.

February 15 water supply guidance (% of normal) by basin:

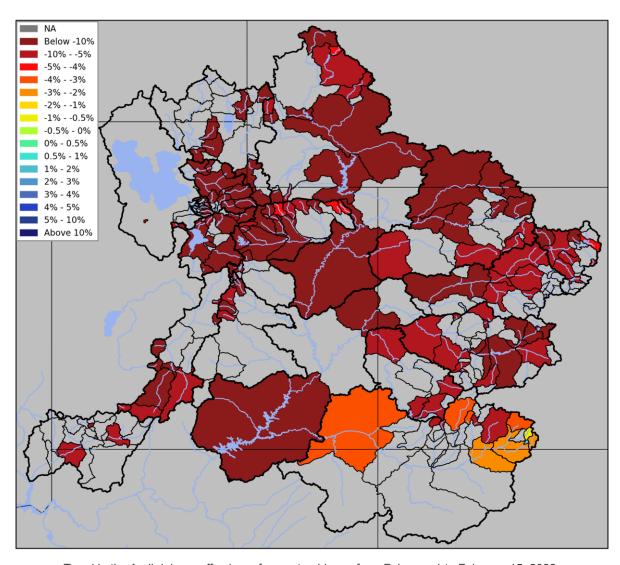
Basin	Water Supply Guidance Range
Upper Green	55-80%
Duchesne	60-95%
White/Yampa	70-100%
Upper Colorado Mainstem	70-95%
Gunnison	65-105%
Dolores	55-70%
San Juan	55-80%
Bear	50-90%
Weber	50-80%
Six Creeks	70-90%
Provo/Utah Lake	50-85%
Sevier	50-90%

The recent extended dry period has started to outweigh the very wet start to the snow accumulation season with snow water equivalent (SWE) conditions going from above normal in mid-January to near/below normal by mid-February. Current SWE conditions generally range between 85-110% of normal across the Upper Colorado River Basin and 75-95% of normal across the Great Basin. Lower Colorado River Basin SWE conditions are currently 40-105% of normal.

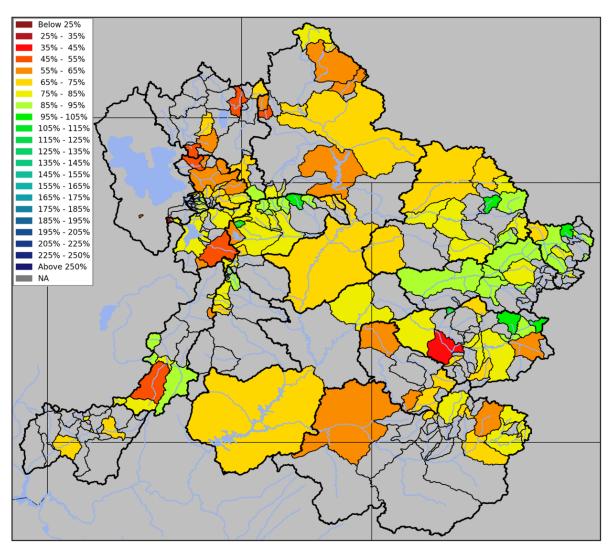
Mid-February April-July unregulated inflow forecasts for some of the major reservoirs in the Upper Colorado River Basin include Fontenelle Reservoir 530 KAF (72% average), Flaming Gorge 650 KAF (67%), Blue Mesa Reservoir 525 KAF (83%), McPhee Reservoir 160 KAF (63%), and Navajo Reservoir 415 KAF (66%). The Lake Powell inflow forecast is 4.2 MAF (66% of average), a 12 percent decrease from the early February forecast.

The large-scale weather setup has shifted to favor a more active pattern with a series of weather disturbances expected to impact the area over the next 7 to 10 days. The weather systems expected to impact the area through the end of this week will bring generally less than a half of an inch of precipitation, though locally higher amounts are possible along the higher elevations of Colorado. There is the potential for a wetter storm early next week that would produce between a half and three quarters of an inch of precipitation for the higher elevations of Utah, Colorado, and Arizona.

Seasonal Water Supply Forecasts



Trend in the April-July runoff volume forecast guidance from February 1 to February 15, 2022. (change in April-July percent of average)



April-July runoff volume guidance as of February 15, 2022. (percent of 1991-2020 average)

For specific site water supply forecasts click here.

Water Supply Discussion

Weather/Precipitation

The dry weather pattern that began during the second week of January continued through mid-February, amounting to around five weeks (January 9-February 15) of much below average precipitation across the region. January 9-February 15 precipitation at most SNOTEL sites fell below the 5th percentile and ranked as the driest on record during this period.

Precipitation during the first half of February fell below the 15th percentile and ranked in the driest three on record at most SNOTEL stations across the Great Basin and Colorado River Basin. The only moisture worth noting in February is 0.50-1.50" of precipitation along parts of the Continental Divide within Colorado, notably across San Juan River headwater basins above Navajo reservoir.

Month to Date Precipitation - February 16 2022 Averaged by Basin % Average >500% 300-500% 200-300% 150-200% 130-150% 110-130% 100-110% 90-100% 70-90% 50-70% 30-50% 0-30% Prepared by NOAA, Colorado Basin River Forecast Center Salt Lake City, Utah, www.cbrfc.noaa.gov

Percent of average precipitation - February 1-15, 2022.

Snowpack

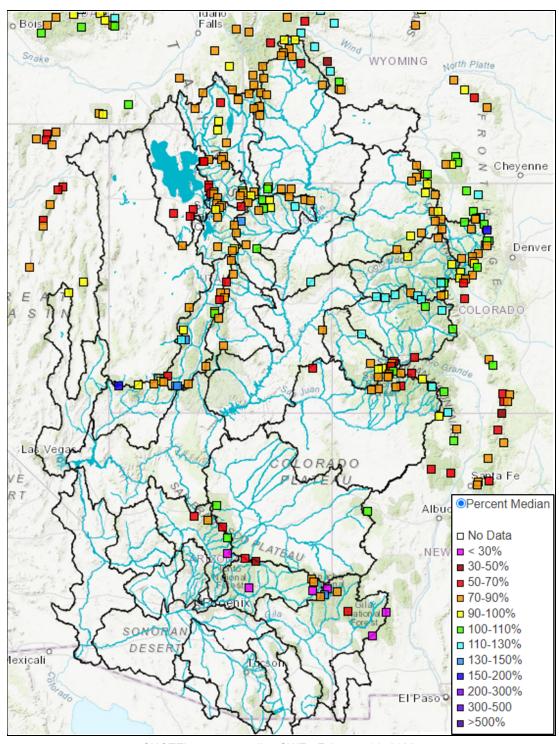
The recent extended dry period has started to outweigh the very wet start to the snow accumulation season with snow water equivalent (SWE) conditions going from above normal in mid-January to near/below normal by mid-February. Current SWE conditions generally range between 85-110% of normal across the Upper Colorado River Basin and are most favorable along the divide of the Roaring Fork and Gunnison River Basins in western Colorado. Around two and half to three months remain in the Upper Colorado River Basin high elevation snow accumulation season.

Mid-February Great Basin SWE conditions are generally below normal (75-85%) with the exception of parts of the Sevier River Basin (95%).

Lower Colorado River Basin SWE conditions are currently 40-105% of normal, with the Virgin River Basin in southwest Utah faring the best.

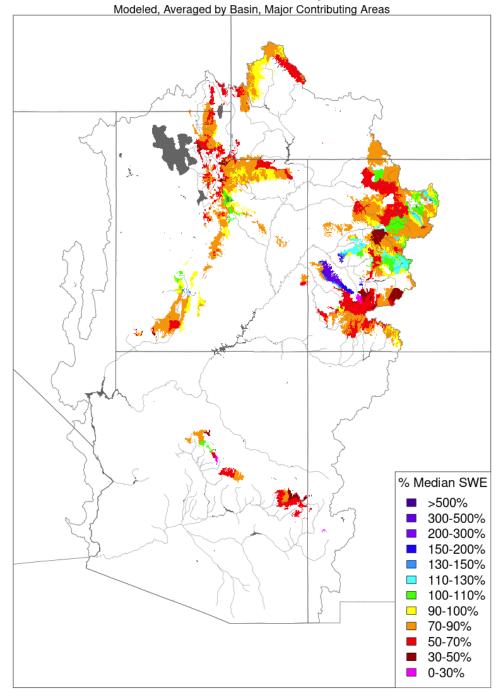
January 15-February 15 basin SWE summary (NRCS SNOTEL):

Basin	Jan15 %Median SWE	Feb15 %Median SWE
Upper Green	119	87
Duchesne	145	98
White/Yampa	123	86
UC Headwaters	122	95
Roaring Fork	144	108
Gunnison	139	104
Dolores	126	85
San Juan	120	91
Bear	130	86
Weber	117	76
Provo/UT Lake	117	75
Sevier	135	93
Virgin	164	103
Little Colorado	95	58
Verde	121	75
Salt	82	60
Upper Gila	67	39



SNOTEL percent median SWE - February 16, 2022.

Snow Conditions - February 16 2022



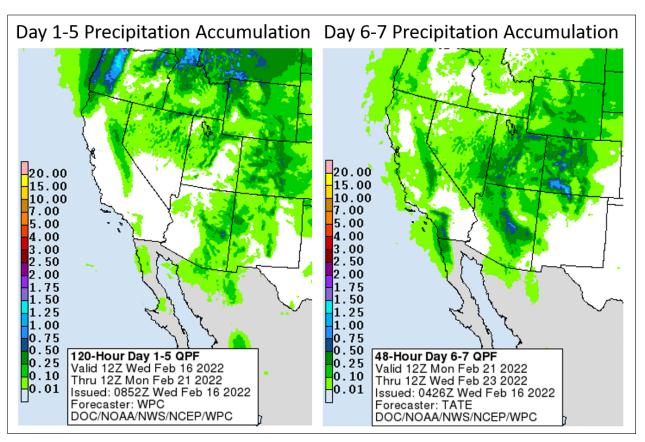
Prepared by NOAA, Colorado Basin River Forecast Center Salt Lake City, Utah, www.cbrfc.noaa.gov

CBRFC hydrologic model percent median SWE - February 16, 2022.

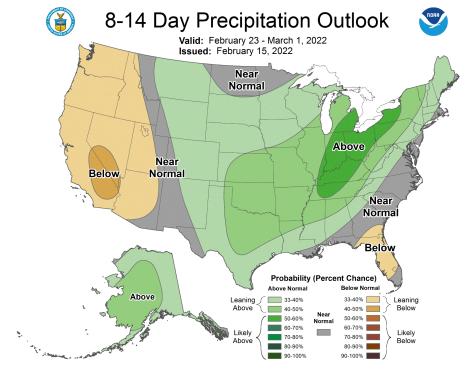
For updated SNOTEL information refer to click <u>here</u>. For CBRFC hydrologic model snow click <u>here</u>.

Upcoming Weather

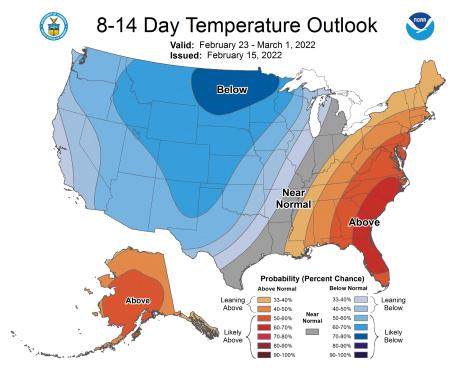
The large-scale weather setup has shifted to favor a more active pattern with a series of weather disturbances expected to impact the area over the next 7 to 10 days. The weather systems expected to impact the area through the end of this week will bring generally less than a half of an inch of precipitation, though locally higher amounts are possible along the higher elevations of Colorado. There is the potential for a wetter storm early next week that would produce between a half and three quarters of an inch of precipitation for the higher elevations of Utah, Colorado, and Arizona. By the end of next week, the majority of the area will have received precipitation, with the greatest totals along the Continental Divide. In between weather systems, temperatures will rebound to above-normal levels. In the 10 to 14 day period, drier than normal conditions are favored across western Utah and most of Arizona with near to above normal precipitation possible along the Continental Divide. Below normal temperatures are favored across the region during the last week of February.



Weather Prediction Center precipitation forecast for February 16-23, 2022.



NWS Climate Prediction Center precipitation probability forecast for February 23-March 1, 2022.



NWS Climate Prediction Center Temperature Outlook for February 23- March 1, 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.

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