

SNOW PACK GETS A BOOST

Snow accumulation was off to a slow start in November and in the beginning of December. On Dec. 2, snowpack throughout most of Colorado hovered around 50-60% of average, with precipitation nowhere to be seen.

But holiday storms — dropping over 100 inches of snow in some parts of the mountains — have boosted the Gunnison River Basin's snowpack to 142% of average.

"It's still very early in the snow accumulation season," said Ashley Nielson, senior hydrologist at the Colorado Basin River Forecast Center. "But we are off to a good start."

In January, forecasters only know about 40-50% of the season's total snowpack accumulation and the previous fall's soil moisture conditions. Weather from January to May still leaves four months of the unknown.

Even so, December snow storms "drastically" improved the January water supply forecasts, which currently range from 90-115% of average for the Gunnison River Basin, Nielson said.

Soil moisture conditions within most of the basin have also improved, but the area will likely still deal with a deficit entering the new year, a factor that can impact the efficiency of spring runoff once the snow begins to melt, she said. The timing and magnitude of runoff is driven by a combination of factors, including snow and soil moisture conditions and spring weather.

There are years that spring weather will "make or break the water supply season," Nielson said.

Nielson said there are questions to ask like: Is the spring warm and dry, or cool and wet? How does the snow melt? When does the snowpack accumulation season end? The answers are all "important to determining what our actual runoff looks like," she said.

According to the National Weather Service, the Gunnison Basin will remain in a La Niña-driven pattern until late winter, resulting in a higher chance for below average precipitation and above average temperatures in the basin. The trend is expected to continue into the summer. La Niña is the name given to cyclical temperature variations in the Pacific Ocean that can affect weather patterns around the world.

Despite sitting at 142% of normal snowpack at the beginning of the month, current levels are only 66% of the Gunnison River Basin's normal peak, which usually occurs in April.

Blue Mesa forecast

Blue Mesa Reservoir ended the calendar year at an elevation of 7,434.5 feet. This was half a foot lower than the levels seen at the reservoir at the end of 1977, setting a new record low for elevation on Dec. 31. As of Jan. 18, the reservoir sat 85 feet below full pool, or 28% full.

According to projections from the Bureau of Reclamation (BOR), the January most-probable runoff forecast for Blue Mesa is 650,000 acre-feet between April and July, filling the reservoir to about 64% in 2022.

The forecast places Blue Mesa projections in the "dead center" of the historical record and in the middle of an average dry year, said Erik Knight, a hydrologist for the BOR.

December snow accumulation in the upper basin exceeded the total amount normally received in both December and January combined, but "we would need a lot more snow to arrive in the springtime to get us up to those wetter years we saw back in 2019 or 2017," Knight said.

Last year, water from the Blue Mesa and Flaming Gorge reservoirs was sent downstream in emergency releases to protect the critical elevation of Lake Powell. The BOR is not planning additional releases in 2022.

Instead of calling for water from the upper reservoirs again, the BOR will withhold 350,000 acre-feet of water in Lake Powell until April, to allow spring runoff to reach the reservoir, said Robert Henrie, BOR regional dam safety coordinator. The same amount will be released later in the year.

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