

Drought, flooding concern state climatologist at CSU



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Abundant snow and cold winter temps in high valleys

Frequent storms have continued to add to Colorado's high elevation snowpack with many areas of Colorado's mountains and high valleys seeing more snow than they've seen in a decade. Likewise, winter temperatures have been the coldest in 15 years.

Going into the spring thaw, varying levels of precipitation across the state are cause for concern for both flooding and drought, said Nolan Doesken, state climatologist and senior research associate at Colorado State University.

Flooding threat has decreased somewhat in some areas

Several recent weeks of drier than average weather have partially alleviated immediate flooding concerns in the San Juan, Rio Grande and Gunnison river basins due to the above average levels of snow pack that accumulated in December, January and February. Although flooding concerns still exist, Doesken said the impending threat has decreased somewhat.

"Most years, Colorado snows melt in a well-behaved manner," Doesken said. "Melting starts in the valleys and gradually works its way up to higher elevations as we head through spring. This spreads the snowmelt runoff season out over a period of two to three months."

"Threats of major flooding occur when snow melts rapidly at the same time over broad elevation ranges," he said. "Fortunately, high elevation and a systematic pattern of melting mean that Colorado doesn't flood as often as other parts of the country."

Temperatures and precipitation over next several weeks are key

Temperatures and precipitation over the next several weeks will play an important role in the possibility of spring flooding in May or June. Factors that increase the chances of flooding are heavy spring precipitation and below-average temperatures in March and April, which add to the high-elevation snowpack while slowing snowmelt at lower elevations.

Likely high water levels this year mean adequate irrigation water from surface supplies, well-filled reservoirs and good water supplies for both urban areas and recreational uses. But as warm weather approaches, Doesken advises people to be cautious before they jump into the water.

"People may not be used to or aware of the power of moving water," he said. "Also, with so much snow to melt in some areas, river water will be very cold well into June and early July."

Dry conditions on Eastern Plains

While residents in some parts of the state are concerned about the possibility of flooding, others on Colorado's Eastern Plains have been concerned about dry conditions. It has been dry over much of eastern Colorado since last summer. Enough snow fell in recent months to temporarily postpone the potential for significant drought on the plains, but if the state misses out on spring storms, drought conditions can emerge quickly. Blizzard conditions this week in northeast Colorado brought locally heavy snows and large drifts, but many areas were blown nearly clear.

"Temperatures so far in March and early April have been average to below-average across the state," Doesken said.

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