

WEATHER: March may be on the cool side, and wet

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develop that currently has gained moderate strength. The rest of it, maybe not so much.

Snow started flying in the mountains by late September, adorning them with a fresh, white blanket that continued to thicken throughout October and early November, thanks to a spell of cool, wet weather. Here in Sisters, October's precipitation was 132 percent of normal, and up to 160 percent of normal in some surrounding areas. But later in November the weather pattern began to change in a way that's normally seen during an El Niño.

Early in December a high amplitude ridge aloft settled in over the west coast of the U.S. and pretty much made itself at home for an extended period of time. This feature not only had a profound influence on our weather here in the west but also impacted in the midwest and eastern portions of the country. The clockwise circulation of this large bubble of warm air in the mid and upper levels of the atmosphere shunted Pacific storms far to the north around the Pacific Northwest and at the same time drew frigid arctic air from the Canadian Yukon and Northwest Territories southward into the Eastern U.S., sometimes producing subfreezing temperatures and snow all the way down to the

Gulf Coast.

Though it may sound counter-intuitive, the average temperature for December in Sisters was actually about three degrees F below normal, despite all that warm air over us. The key here is that warm air aloft tends to stabilize the atmosphere, preventing mixing with the air below. In fact, because of the longer nights of winter, the ground tends to get colder as it radiates heat into space, strengthening the inversion.

Freezing fog occurred often, sometimes lasting all day. An inch or two of snow fell the day after Christmas. December was extremely dry, receiving only about 5 percent of normal precipitation.

For short periods of time in January, the ridge would weaken a bit then gain strength again, but never budged from its position. Temperatures moderated slightly and only a little bit more snow and rain fell, though still insignificant.

But as February rolled around, forecasting models were hinting at a fundamental pattern change. (Was Punxsutawney Phil trying to tell us something?) Would the correct solution be to dissolve the ridge, move it to another location or keep it right where it's been for the past two months? As it turned out, the ridge maintained its amplitude and strength, but retrograded westward into the eastern Pacific Ocean. Now we would become susceptible to cold air moving down from the north.

On February 17, strong southwesterly winds blew



PHOTO BY JERRY BALDOCK

A late snowfall has markedly enhanced the snowpack this season in the Central Oregon Cascades.

across Central Oregon ahead of the first winter storm of the season, resulting in many downed trees and several power outages. Modified arctic air moved southward behind the front producing the first real snowfall of the season. Five inches of snow was measured in the Crossroads development west of Sisters on February 18, another five inches three days later. Several more inches of the white stuff was added on the morning of February 26.

At this writing, much of that snow is still on the ground. The lowest official temperature during the cold spell was 11 degrees below zero, occurring on the morning of February 23.

Not surprisingly, the average temperature during February was almost 4 degrees below normal. What doesn't seem to make sense, however, is that the total precipitation for the month was just half an inch, almost an inch below normal. The precipitation value

is suspiciously low in light of the fact the Colgate Remote Automatic Weather Station located just four miles west of Sisters received more than 1.5 inches. So it's probably not too big a stretch to assume the precipitation for February was at least normal.

According to the National Water and Climate Center, the snow water equivalent of the snowpack in the Central Oregon Cascades was 51 percent of normal on February 1. By March 1 it was between 60 to 66 percent of normal.

Now that the data for the winter are in, how did the forecasters really do?

Temperatures in December were about three degrees below normal and four degrees above normal in January. That's a push. February came in 3.3 degrees below normal, making the overall winter temperature somewhat cooler than normal. February's precipitation was about normal, but December and January were exceeding dry. This is a clear miss.

The Climate Prediction Center has forecasted that March should see a 60 percent chance of below-normal temperatures and a 50 percent chance of above-normal precipitation in our area.

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