

The Mountain Mirror

Donner Pass, California

16 January 2017

How
a drought
ends

School Rock at Donner Pass. I know what you're thinking: How did wagon trains get over that?

How a drought ends

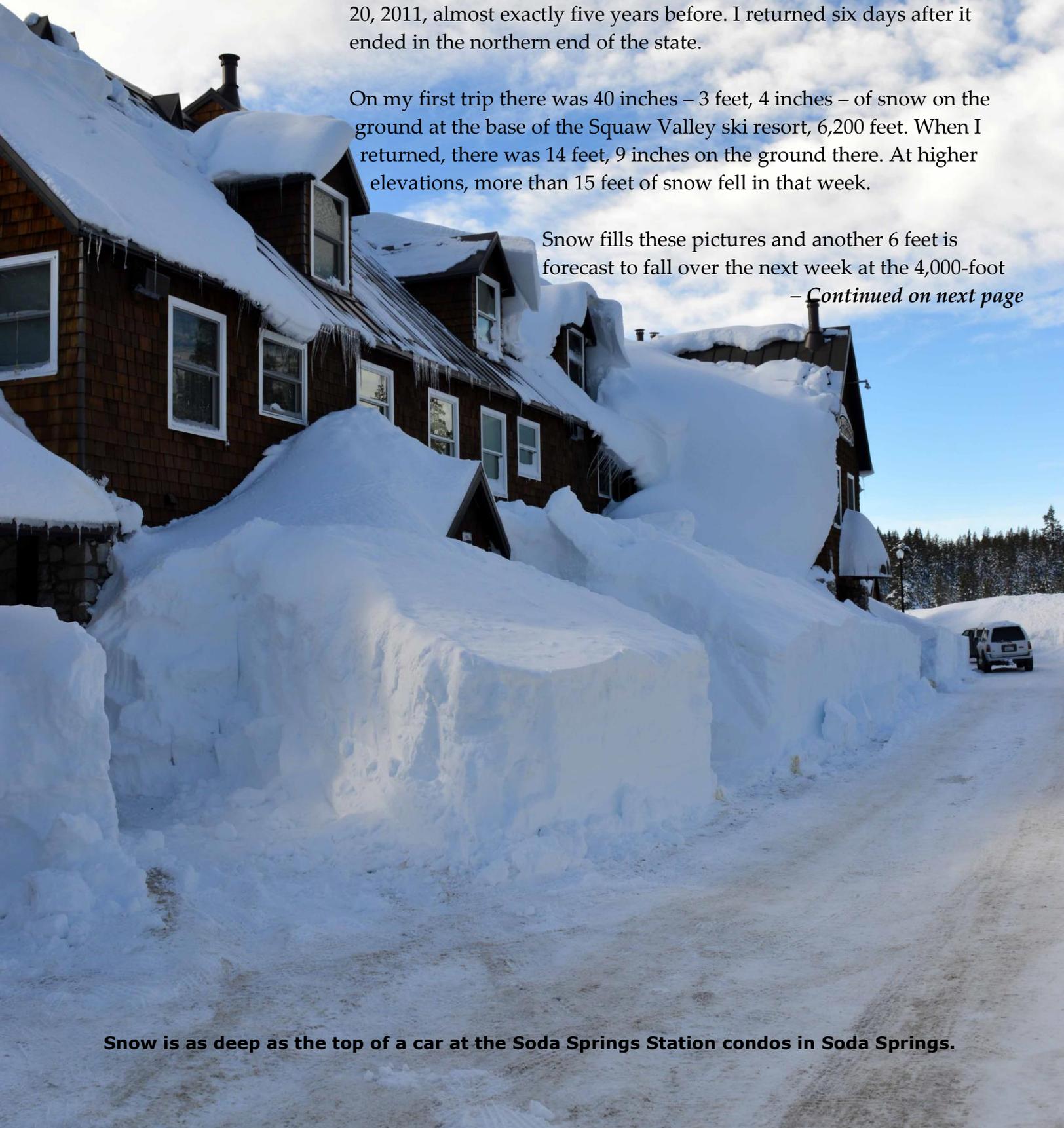
I returned to Donner Pass in the Sierra Nevada on Monday, a month to the day from when I visited to shoot pictures for my holiday newsletter.

On the first visit, California was in a drought that officially began Dec. 20, 2011, almost exactly five years before. I returned six days after it ended in the northern end of the state.

On my first trip there was 40 inches – 3 feet, 4 inches – of snow on the ground at the base of the Squaw Valley ski resort, 6,200 feet. When I returned, there was 14 feet, 9 inches on the ground there. At higher elevations, more than 15 feet of snow fell in that week.

Snow fills these pictures and another 6 feet is forecast to fall over the next week at the 4,000-foot

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Snow is as deep as the top of a car at the Soda Springs Station condos in Soda Springs.

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level. More is forecast where I was higher up.

It's a lot of snow, and it has fallen over a brief time. It means we're on pace for a normal winter for the first time in years.

That's important in a state where the largest single reservoir of fresh water lies frozen on the mountains – about a third of all surface water in California.

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Downtown Truckee looks a bit more wintry than it did last month.



Donner Creek is frozen over.

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Yet some of our precipitation was lost.

In the month between my two Sierra visits, 15 inches of rain fell when warm storms swept into the mountains (that's more rain than San Jose gets in a normal year). Not only did that water flow to the ocean – there aren't enough reservoirs to hold it all – but it melted much of the snow that had fallen earlier, which also flowed to the sea.

Sacramento, which sits in a massive river delta that feeds water to San Francisco Bay, is an island at present. Driving to the mountains through the capital on Interstate 80 means crossing the 3-mile Yolo Causeway, which normally is over dry land but now is a lake. That's intentional; it's flood protection for the city.

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The ridge line emerging from the clouds is the crest of the Sierra Nevada seen from the eastern side. It illustrates how steep the wall of mountains was to those crossing the continent to reach California. The western slope of the Sierra is far gentler.

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The drought's end doesn't mean everything is rosy with the state's water picture.

During the five years of drought, ever deeper wells were drilled in the Central Valley to get to sub-surface water. In some places the valley floor dropped a foot or more. Now the hydrologists say aquifers at the southern end of the valley may never be replenished by precipitation.

California is a dry state where one of every 12 Americans lives and where agriculture is a bigger industry than anywhere else in the country. There's no better recipe for water shortage.



At 7,000 feet, Donner Pass is at the top of the ridge on the previous page. It was even with the top of the clouds Monday. Looking east, down into the cloud, you can the Donner Pass Road. Donner Lake is in the distance, hidden beneath he cloud.