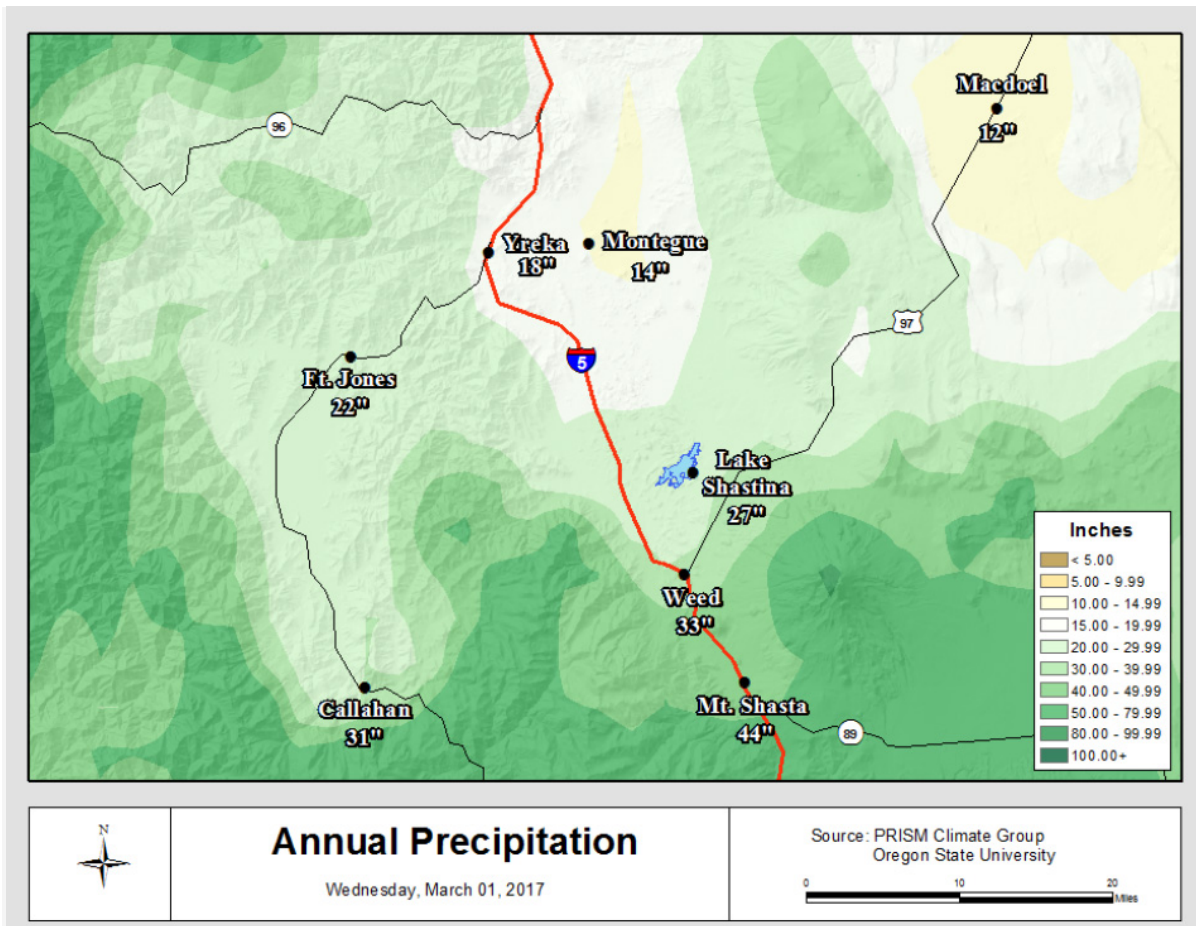


Lake Shastina's Weather "Bubble"



Most residents here can't fail to notice that it sometimes is partly cloudy or even sunny here when snow or rain is pelting Weed and Mt. Shasta. A lot of us moved here for this very reason, the annual precipitation here was around 16" when I last looked (before this winter hit) whereas Weed and Mt. Shasta were in the 40 and 50 inch range.

So why are we here in the Shasta Valley blessed? A client of ours here in Shastina is a professional weatherman and provided the answer:

As for why Lake Shastina gets robbed...the word(s) is Downslope wind. A wind directed down a slope, often used to describe winds produced by processes larger in scale than the slope.

Because this flow produces subsidence, downslope winds experience warming, drying, increasing stability, and clearing if clouds are present. In any direction this valley gets a downslope wind since we are surrounded by mountains.

So the winds run down into our 'bowl', compress (think molecules jamming into each other), heat up, and help dissipate the clouds and storms.

Abner Weed moved his sawmill from Igerna (near Mott) near where Roseburg is now because the winds blew so dependably here that they would dry out the green lumber he produced. Are these the same downslope winds we're talking about here?

According to Nathan, my source for this article the answer is yes, especially when the prevailing wind is from the south and it slides down the north slope of Mt. Shasta towards us here in Lake Shastina.

And is it always windy here? Again, that prevailing wind (and especially when a high or low weather system is moving our way) blows up the Sacramento Canyon and the moisture in it condenses as it rises. This is called the orographic effect, resulting in more precipitation as the air mass rises, right up to the 3,900 foot summit where Black Butte seems ready to slide down on Interstate 5.

A large scale example of orographic climate is the Sierra Nevada range where the western slopes are green and snow covered on the peaks but when you cross into Nevada it turns into dry desert.

At Black Butte, air is squeezed between Mt. Shasta and the Eddys on its rush north and picks up speed as it falls toward us here in the Shasta Valley in a more directed flow. So yes, we get more wind, thanks to the prevailing flow from the south, and more pronounced during weather systems when they are moving our way.

Yreka, while also surrounded by mountains, does not have this wind 'gate' and as a tradeoff, has more fog.

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