

# Expert: Warm winter with rain for Tahoe

By Kathryn Reed

INCLINE VILLAGE – El Nino is already here. Now it's a matter of waiting to see what the ramifications of it will be to the greater Lake Tahoe area.

This particular El Nino is on target to be comparable to 1982-83 and 1997-98 – the biggest ones in the last 100 years.

This was some of the information Kelly Redmond, regional climatologist for the Western United States with the Desert Research Institute, shared with more than 150 people during a lecture at the Tahoe Environmental Research Center in Incline Village on Oct. 29.

El Nino is the warming of the ocean waters. Everything else is a consequence of an El Nino. They tend to peak in the winter.

During El Ninos the jet stream drops south because the atmosphere reacts to the warming ocean. More moisture goes to Southern California, often leaving the Northwest dry. The Lake Tahoe-Reno area is often bypassed in normal El Nino years.

One thing that is different in the ocean now compared to the previous two large El Ninos are the two blobs sitting off the west coast of North America. Redmond said in his career he has not seen anything like this before. How they might affect El Nino is unknown.



El Nino is not a sure bet to  
create a banner snow year.  
Photo/LTN file

“There is little to suggest that a big El Nino causes more snow,” Redmond said. “We tend to get more extreme events.”

While moisture of any kind is welcome after four years of drought, if it comes in the form of rain, that could impact the local economy and water storage down stream. Tahoe is missing about a year’s worth of precipitation. That means it would take the equivalent of two year’s of wet stuff to make things normal.

Normal is a relative word for these parts. Redmond said this area has the most variable precipitation in the United States.

“It goes up and down tremendously,” he said while a chart depicting that fact was shown on the screen. “This is why you need reservoirs to balance things out.”

The models are also indicating this will be a warm winter, though not as warm as last year. This in turn will mean the snow line will be higher. More rain than snow is likely to be the end result.

“How the precipitation falls makes quite a bit of difference. Snow is free storage,” Redmond said. “There are 2½ to three Shasta dams worth of water just sitting there. It wasn’t there this year.”

Snow needs freezing overnight temperatures to keep its

consistency. It needs a break from the melting sun. But that hasn't been happening of late. The trend is that the overnight temps are steadily increasing. This is especially true in the spring.

Data from 1948-2015 for the months of October to March show the average freezing level in the basin being 8,700. Last winter it was 2,000 feet higher than that.