

# Sierra snowpack at 33% of average



Shasta Lake is well below normal for this time of year. Photo/Kathryn Reed

**By Kathryn Reed**

Even though the snowpack was increasing as it was being measured Tuesday morning near the entrance of Sierra-at-Tahoe, it will need to keep falling the rest of the winter to significantly ease the impact of California's drought.

The Dec. 30 reading was the first manual measurement of the season. Frank Gehrke with the Department of Water Resources found 21.3 inches of snow at Phillips Station, with a water equivalency of 4 inches. This is 33 percent of average.

Even so, it's an improvement over last year at this time when the measurement was at a record low of 20 percent of average, which was the same reading in 2012.

Water content at this location is normally 12 inches for this time of year.

Phillips had its lowest early-January water content reading of 0.1 inch in 2012, in a snow depth of 0.6 inches. On Jan. 3, 2014, Phillips had 2.3 inches of water content in 9.3 inches of snow. Besides that reading and the similar one in 2012, the

driest January readings at Phillips were in 1987 (0.9 inches of snowpack water content), 1981 (2 inches), 1976 (2.7 inches) and 2000 (3 inches). Records at Phillips go back 50 years.

“Although this year’s survey shows a deeper snowpack than last year, California needs much more rain and snow than we’ve experienced over the past two years to end the drought in 2015,” Mark Cowin, director of the Department of Water Resources, said in a statement.

If the snow doesn’t come, this would be the fourth consecutive drought year.

While December rains in much of the state have been above normal, the snowfall has not kept pace. And on the South Shore there has been even less compared to the North Shore-Truckee region or even Kirkwood. Part of the problem is the storms, until now, have been relatively warm.

Without a large accumulation of snowpack, the reservoirs downstream are apt to remain low. The Sierra snowpack supplies about one-third of the water needed by residents, agriculture and industry.

Lake Oroville in Butte County, the State Water Project’s principal reservoir, is at 38 percent of its 3.5 million acre-foot capacity (61 percent of its historical average for the date), while Shasta Lake north of Redding, California’s and the federal Central Valley Project’s largest reservoir, is at 41 percent of its 4.5 million acre-feet capacity (66 percent of average for the date).