## Sierra water content 10 times less than what it was in 2011

Location	Eleva	tion	Snow	Depth		Vater ontent	% of Long Term Average
Alpha	7,600	feet	19.4	inches	4.9	inches	18
Phillips Station	6,800	feet	17.7	inches	3.9	inches	16
Lyons Creek	6,700	feet	30.5	inches	8.3	inches	33
Tamarack Flat	6,500	feet	24	inches	6	inches	26

Source: DWR

## By Kathryn Reed

PHILLIPS STATION — "In California we talk about averages and normal, but it doesn't describe our weather well. We have more extremes."

Tuesday's snow survey compared to a year ago is an example of the extremes Frank Gehrke is talking about. On Feb. 28 the water content near the entrance of Sierra-at-Tahoe was 16 percent of normal compared to 178 percent of normal a year ago.

Gehrke, who measures the snow near Echo Summit five times a year for the state Department of Water Resources, won't make any predictions about what March will bring. But to play catch up "we need a significant, major turn around in the storm track," Gehrke said.

The snow depth was 17.7 inches, with 3.9 inches worth of water.



Frank Gehrke finds little snow to measure Feb. 28 near Sierra-at-Tahoe. Photo/Kathryn Reed

Years like this were also recorded in 1945, 1963 and 1991. In '45 and '91 the slow start was followed by a tremendous March. But history does not necessarily repeat itself.

"We're not doing too well up here," Gehrke said.

To those who don't live in the area it might have been hard to believe Gehrke. He was breaking tracks as he snowshoed through fresh snow. Trees were covered with white stuff. A bitter wind whipped through the air and storm clouds passed overhead.

But snow in the Sierra has been scarce as the measurements show. Storms have been sporadic at best.

Normally the water content increases with the February measurement by 4 to 5 inches. In the past month it went up one-tenth of an inch.

There is so little snow, with so little water content that instead of measuring each of the stops along the route, Gehrke pours the collections into a bucket to be measured at the end.

"In shallow snowpacks it's more accurate to weigh it in bulk,"

he said.

While those in Tahoe know the dismal snowfall has created a cash-flow problem for most businesses in the region, the impact to the rest of California likely won't be felt until this summer or later.

Reservoirs are doing OK based on runoff from last winter, but the State Water Project has reduced the amount of water it expects to deliver to entities down stream to 50 percent of their allocation. This is down from projections of 60 percent. Last year these 29 public agencies that service 25 million Californians and nearly a million acres of irrigated farmland received 80 percent of their allocation.

If the snowpack does not improve this year, water managers will need to think about how best to allocate resources for next year.

But March is trying to do its best to not be dry and disappointing. The winter storm warning issued by the National Weather Service is from 10pm Wednesday to noon Thursday — the first day of March. With it, expect 2 to 4 feet of snow above 7,000 feet and 12 to 30 inches below that elevation.