

Sierra snowpack good, but dry spell still a threat

Peter Fimrite, San Francisco Chronicle, 1-29-11

There's still water in the California hills even after a month of mostly lawn chair and margarita weather.

The overall water content of the Sierra snowpack is 108 percent of normal for this time of year, according to measurements taken of the state's frozen water supply Friday.

That may sound pretty good, until it is compared to the measurements taken a month ago by the California Department of Water Resources. The water content in the Sierra snow had almost double the norm in December after relentless storms pounded the state.

The drop off in the last month is being blamed on the prevailing La Niña weather pattern, which meteorologists say often means early rains and cold weather followed by dry conditions in the late winter and spring.

"We had such a phenomenal beginning. Unfortunately January is much more typical of the La Niña condition," said Frank Gehrke, the chief snow surveyor for the Department of Water Resources, after finishing the last measurement Friday at historic Phillips Station off Highway 50 south of Lake Tahoe. "The question is, how much longer is this going to continue?"

Almost two-thirds of the water used to irrigate millions of acres of farmland and quench the thirst of California's 38.8 million people is contained in the Sierra snowpack.

The water content Friday was 125 percent of normal at Phillips, which is the traditional spot where the survey results are announced because the snow there is usually close to the median in depth and water content. The entire Central Sierra averaged 126 percent of normal.

The northern Sierra measured 108 percent of normal Friday. The wettest area is the southern Sierra, which measured 176 percent of normal thanks to the heaping piles of ice and snow that blanketed the region in December and haven't yet dissipated.

There is, at this point, no shortage of water in the reservoirs. The problem at this time of year is that the state's big reservoirs are required to leave a certain amount of space - from 10 to 20 percent of capacity - for flood-control purposes.

As a result, Lake Oroville, the primary storage reservoir for the State Water Project, is only at 68 percent of capacity, which is slightly above average for this time of year. Shasta Lake, which is part of the U.S. Bureau of Reclamation's Central Valley Project and is the largest reservoir in the state, is currently at 76 percent of capacity, which is 112 percent of normal.

It would be nice, Gehrke said, if the department could store more water during the winter, but the danger of a sudden storm overwhelming a reservoir and causing a flood is just too great. "To be honest, right now weather forecasts aren't that accurate, so you have to be cautious with your reservoir storage," Gehrke said. "The consequences for a mistake are pretty significant."

The department is in the midst of an effort to develop systems for releasing water more quickly and improve short term weather forecasting. The project, called the Hydrometeorological Testbed, is a partnership with the National Oceanic and Atmospheric Administration, the National Weather Service, Army Corps of Engineers

and the Bureau of Reclamation. Larger spillways are being studied along with sensors, radar and other storm tracking instrumentation, Gehrke said.

"If we could improve things a little bit," he said, "it would be a very economic way to provide more water."

As of now state and federal water managers expect to deliver most, if not all, of the water that cities and agencies have requested in 2011, but that could change if the dry spell continues much longer. Only modest amounts of rain are forecast this weekend, and no big storms are on the horizon.

"The likelihood of major storm activity starts to really drop off as you move toward the spring," Gehrke said. "If we have a February like the last month, I think you will see some worried faces because we are going to start losing snowpack."