

# Storm not nearly enough to bust California drought

**Kurtis Alexander, San Francisco Chronicle, 1-10-15**

The pair of wet and windy storms that pounded Northern California over the weekend, bringing as much as 13 inches of rain in some spots and knocking down trees all over, helped push state rainfall totals to just about average for the season.

That's the good news.

But with the wet weather gone, and sunny skies in the forecast for at least the next week, the drought picture hasn't brightened much. The big reservoirs that provide the bulk of the state's drinking water remained much lower than normal on Monday, as did the Sierra snowpack that fills them.

"We didn't come close to alleviating the deficit that we're in," said Doug Carlson, a spokesman for the state Department of Water Resources. "We are right on par with where we were last year, and last year was a really bad year."

Three dry years have left California water supplies urgently low. With the rainy season more than halfway over, many communities have begun looking to extend water restrictions put in place last year, while farms across California are bracing for cuts by state and federal sources. Californians have weathered the drought so far, but they've done so by using less water, efforts that may have to be ramped up in the coming year.

## **Reservoirs down**

As of Sunday, the state's two biggest reservoirs, Shasta Lake and Lake Oroville, stood at just 71 percent and 64 percent of their usual supply, respectively, for this time of year.

Meanwhile, the East Bay Municipal Utility District, which serves parts of Alameda and Contra Costa counties with water from the Sierra's Pardee Reservoir, was at 73 percent of its normal supply. San Francisco's Hetch Hetchy system was at 70 percent.

San Francisco residents have been asked to voluntarily reduce water use by 10 percent, but in a sign that tighter conservation measures may lie ahead, the San Francisco Public Utilities Commission is reprogramming its billing system to handle water quotas, should managers choose to go that route.

"We're waiting to see what February, March and April bring us," said commission spokesman Tyrone Jue. "Hopefully, we'll see a turn of events."

For water managers, a central problem is the lack of snow in the Sierra. Snow is vital because it stores water until the dry spring and summer months, when it melts and gives reservoirs an additional boost. Snow typically accounts for up to a third of the state's total water supply.

This weekend's wet system, as well as the stormy weather that gripped the state in early December, were relatively warm, dropping snow only at the highest points. California's snowpack on Monday measured just 27 percent of average for this time of year.

## **Warmest year**

"Last year was the warmest year on record in California and the world," Carlson said. "When the storms

blow through as warm storms, it's going to disappoint a lot of people — reservoir operators as well as ski resort operators.”

The dry January forced a handful of resorts, including Tahoe Donner off Interstate 80, to take the unprecedented step of closing mid-season. Though as much as 23 inches of snow fell on the Sierra crest from Friday to Monday morning, most of the snow fell at 7,500 feet or higher. Ski resorts at high elevations reported much-improved conditions, though low-lying resorts got little more than a dusting.

Jeffrey Mount, a geologist who studies water and a senior fellow at the Public Policy Institute of California, said while snow has been sparse, the wet start to February was a positive development.

“It would have been nice if we packed in a little snow, but if you're in a fourth year of drought, you take what you can get,” he said. “It's not like this water was lost — it's being captured as we speak into the reservoirs. These reservoirs do have plenty of space.”

The Department of Water Resources has estimated that the Sierra needs 150 percent of average precipitation this season, about 75 inches of rain or the snow equivalent through September, to begin bringing reservoirs back to normal. The range has seen almost 30 inches so far, about 102 percent of average to date — with the wet months quickly running out.

### **Heating up**

Dry weather is expected to return to Northern California through the weekend, with the Bay Area seeing temperatures steadily climbing.

“It could be pretty warm by the end of the week,” said Austin Cross, a meteorologist with the National Weather Service. “We're thinking low 70s, but it may be warmer than that.”

The same mass of high-pressure air that sat over the Pacific Ocean in January and kept storms from making land is developing, according to the weather service. The system — sometimes called the Ridiculously Resilient Ridge because of how it diverted storms for three straight years — made for a rainless January in San Francisco, a first since record-keeping began during the Gold Rush.

The storms that slipped through this weekend brought 1.47 inches of rain to the city, according to the weather service. San Jose saw 1.68 inches. Oakland International Airport recorded 1.93 inches.

### **Drenched spots**

The biggest rain hit the North Bay and the Santa Cruz Mountains. The Sonoma County community of Venado, west of Healdsburg, got 13.68 inches of rain over the weekend, while Mount Umunhum south of Los Gatos received 10.16 inches.

The storms also brought powerful winds, as high as 70 mph in San Mateo and Contra Costa counties, knocking down trees and electrical lines and leaving thousands without power.

Communities along the coast that get their water from local sources were better served over the weekend.

Marin County, which operates a series of reservoirs around Mount Tamalpais, saw its storage jump to 118 percent of average for this time of year. The city of Santa Cruz remained below average in terms of storage, but much better off than in November when reservoir levels hit their lowest point in two decades.

“We got some bump from the weekend,” said Toby Goddard of the Santa Cruz Water Department. “What happens in February and March will determine our water supply outlook for the rest of 2015.”