

Largest California reservoirs releasing water for flood safety

Dale Kasler, Sacramento Bee, 3-24-16

After years of drought, Northern California has so much water that the state's two largest reservoirs are releasing water to maintain flood-control safety.

The water releases from Shasta Lake and Lake Oroville don't mean the drought is over. But they represent the latest evidence that drought conditions are easing as El Niño has brought meaningful amounts of rain and snow to Northern California for the first time since 2012.

Yet the free-flowing water remains a significant source of controversy throughout Northern California. Suburban Sacramentans wondered last month why water was being deliberately spilled out of Folsom Lake instead of stored for future use. Similar complaints are popping up in the northern end of the Sacramento Valley after several days of substantial flood releases from Shasta.

In the Redding area, motorists crossing bridges over the Sacramento River "can see a year's supply of water going by in less than a day," said David Coxey, general manager of the Bella Vista Water District. "I'm getting customer calls."

Lake Oroville is 83% full, or 111% of average for this time of year. A year ago it was roughly half full.

Shasta, the state's largest reservoir, has been releasing significant amounts of water for several days, the first flood-control releases in five years. Lake Oroville, the No. 2 reservoir in California, is scheduled to begin flood-control releases Thursday for the first time since 2012.

Operators of the state's reservoirs said they have only limited wiggle room when it comes to flood safety. Although they say they would like to store as much water as possible, they are required by U.S. Army Corps of Engineers rules to maintain a certain amount of empty "flood space" in their reservoirs, depending on the time of year.

"We don't have an option at this point; we're in flood-control mode," said Kevin Dossey, a senior engineer at the state Department of Water Resources, which operates Oroville.

Dossey said the releases from Oroville won't be enormous, clocking in at around 6,000 cubic feet per second. By contrast, he said releases during the flood of early 1997 topped 100,000 cubic feet per second.

Shasta's releases, meanwhile, are being dialed back as the recent spell of dry weather continues. While the lake was releasing nearly 20,000 cubic feet per second earlier this week, the volume is expected to fall to around 5,000 by next Monday, said spokesman Shane Hunt of the U.S. Bureau of Reclamation, which runs Shasta.

Although the National Weather Service predicted a chance of precipitation for late Sunday, Hunt said Reclamation is adjusting its flood releases with mostly dry weather in mind. “We don’t see a major storm coming on the horizon,” he said.

Shasta and Oroville are the twin anchors of California’s giant water-delivery networks. Shasta is part of the federal government’s Central Valley Project while Oroville serves the State Water Project.

Both facilities, like most of California’s major reservoirs, are governed by the Army Corps’ “rule curves,” which specify how much empty space must be maintained at any given time during winter. The rules generally allow for a certain amount of “encroachment” into the empty space, especially if the forecast calls for dry weather.

Critics, however, have said the rules are outdated and don’t give reservoir operators enough flexibility to take into account state-of-the-art weather forecasting. Army Corps officials say they can’t change their rules without undertaking costly engineering and environmental studies first.

In any event, the rules will soon allow Shasta and other reservoirs to retain more water as March draws to a close. As the end of the rainy season looms, reservoir operators will be able to store water in greater volumes without violating the Army Corps’ directives.

“We become less ‘encroached’ every day just based on the calendar,” Hunt said.

By almost any measure, the releases from Shasta and Oroville illustrate the gobs of precipitation El Niño has delivered to Northern California when compared with the past four winters. Although rain has been spotty at times, the Sierra Nevada snowpack is at 90 percent of average for this time of year, or 10 times as much as in 2015.

Oroville is 83 percent full, or 111 percent of average for this time of year. A year ago, it was around half full.

Shasta is 86 percent full, or 110 percent of average. It was 59 percent full at this time last year.

As the Northern California reservoirs become healthier, pressure builds on state and federal officials to allow farms and cities to use more water.

The state’s top drought regulator, Felicia Marcus of the State Water Resources Control Board, told The Sacramento Bee recently that the urban conservation mandates in effect since last June could be relaxed if wet weather continues through the spring. A decision is likely in May, after officials have more time to gauge the impact of the rainy season on reservoirs, groundwater basins and other key elements of the state’s water supply.

Farm groups also are pushing for relief right away, calling for state and federal officials to pump more water through the Sacramento-San Joaquin Delta to the south state as water cascades down the Sacramento River. Pump operators have resisted, saying they need to keep more water flowing through the Delta to preserve several endangered fish species and maintain water-quality standards.

Even so, Northern California has received enough precipitation that officials have estimated that customers of the State Water Project, including some major farm districts and the mammoth Metropolitan Water District of Southern California, can expect to receive 45 percent of their demands this year. That's more than twice as much as last year.

The federal government's Central Valley Project hasn't released its estimate yet for this year, but said last week there's enough snowpack in the southern Sierra to deliver a 30 percent allocation to agricultural customers in the Friant region of the San Joaquin Valley.

Even a partial allocation indicates the effect of El Niño to improve drought conditions. Most Central Valley Project customers, including the Friant farmers, received no water from the project in 2014 and 2015.