



# The Sacramento Bee

## Lessons California should learn from Oroville Dam debacle

*By Kathryn Phillips and Ron Stork  
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The Oroville Dam debacle is a wake-up call to California.

If we heed the call, we may be able to avoid what could certainly be other disasters and wrong turns in the state water system as we head into an age typified by extreme weather events associated with climate change.

In 2005, our organizations, the Sierra Club and Friends of the River, warned the Federal Energy Regulatory Commission, the agency responsible for relicensing hydroelectricity dams, that the earthen emergency spillway on the dam was too dangerous. We said it needed a concrete lining and that FERC should require the dam's operator, the California Department of Water Resources, to build that lining.

The Yuba County Water Agency noted in a technical report on the dam in 2002 that using the emergency spillway could create severe erosion over 50 to 70 acres, sending dirt, rocks and other debris shooting into the waterway below at a rate and scale that could disrupt operations of the huge Oroville-Thermalito Dam complex.

More than 11 years ago, DWR rejected our concerns. This week, we've watched a frightening scene unfold as the emergency spillway began to flood and erode, requiring nearly 200,000 Californians to be evacuated from their homes and businesses.

It's worth noting that we filed our concerns about the spillway a year before the Legislature passed landmark legislation setting targets for reducing climate-change pollution generally.

State leaders and agencies weren't entirely ignorant about climate change in California. Nor was the public, according to polling at the time. Scientists were predicting a range of changes in rain and snowfall patterns because of climate change, and the agencies and leaders knew that.

Even so, a major state agency responsible for managing dams dismissed a chance to adopt measures that would make Oroville Dam safer as we entered a new climate-affected era.

California rivers bear more than 1,300 dams. Most people agree that the cost-effective places to build dams in the state have been taken.

Yet most of those dams, like Oroville Dam, are decades old. Some are seismically unsafe and can't hold the amount of water they were meant to hold. Others haven't had silt removed routinely and have shrunk capacity. Still others need structural updating.

In short, there are a lot of troubled dams that need attention in California.

But against this backdrop, the conversation within the administration of Gov. Jerry Brown and at DWR has focused on building new dams and tunnels.

In 2014, voters passed a broad water bond. To get the two-thirds vote needed to get the bond through the Legislature onto the ballot, the governor insisted on including \$2.7 billion in that bond for water storage. Storage was defined in a way to allow proponents of several dam projects that environmentalists have long opposed to have a shot at some funding.

Now it's time to reject the new-build proponents and focus on ways to use that bond money to make sure existing dams are safe and provide the storage they promised. It's time to use that money for south-of-Delta groundwater storage that will create many times the value and regional resilience of new dams.

California's policymakers – and the agencies like DWR that are supposed to put those policies to work – need to bring their water-system thinking up to date.

The last few years of drought, followed by a year of unusually heavy storms, show that the days of predictable weather patterns are gone. Climate change has taken hold.

Oroville shows that sloppy attention to public safety and the environment won't do.

*Kathryn Phillips is director of Sierra Club California. She can be contacted at [kathryn.phillips@sierraclub.org](mailto:kathryn.phillips@sierraclub.org). Ron Stork is senior policy advocate at Friends of the River. He can be contacted at [rstork@friendsoftheriver.org](mailto:rstork@friendsoftheriver.org).*

*Videos: Oroville dam break would flood almost 200,000 California residents in 7 hours. 0:40. This animation details a worst-case scenario in Oroville, Calif.: dam failure. With 3.5 million acre feet of water held behind the dam, floodwaters would pour through a huge section of Northern California. Residents closest to the dam would have just minutes to evacuate. Patrick Gleason McClatchy*

<http://www.sacbee.com/news/state/california/water-and-drought/article132657829.html>

*Boulders, concrete flown in to strengthen damaged Oroville spillway. Helicopters carried boulders and blocks of concrete onto Oroville's damaged emergency spillway Tuesday in advance of rains predicted for later in the week. Randall Benton The Sacramento Bee*

<http://www.sacbee.com/news/state/california/water-and-drought/article132786194.html>

*Op. ed link. <http://www.sacbee.com/opinion/op-ed/soapbox/article132875519.html>*