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Price tag nearly doubles to \$2.5 billion for huge new dam project in Santa Clara County

New studies show unstable geology at proposed site near Pacheco Pass, putting project in jeopardy



The Santa Clara Valley Water District has proposed building a 319-foot tall dam on Pacheco Creek in Southern Santa Clara County near Highway 152 and Henry Coe State Park, a location shown here in August, 2019. But the project's chances of success have suffered a major setback as geological studies of the area have shown that there is unstable rock, which would increase the cost of the new dam and reservoir from \$1.3 billion to \$2.5 billion. (Photo: Santa Clara Valley Water District)

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In a major and potentially fatal setback for plans to build the largest dam in the Bay Area in more than 20 years, the price tag to construct a new reservoir in southern Santa Clara County near Pacheco Pass has nearly doubled, from \$1.3 billion to \$2.5 billion.

The project, proposed by the Santa Clara Valley Water District, a government agency based in San Jose, calls for a 319-foot-high dam to be built along Pacheco Creek in the rural canyons just north of Highway 152 near Henry W. Coe State Park. For the past three years, the district has considered the dam to be a key part of the future water plans for 2 million people in the South Bay.

But studies by a contractor earlier this year found the area has unstable rock. About 130 test borings found that crews would have to dig down at least 30 feet deeper to hit bedrock than previously thought. That will add three years to construction — from five to eight years — and add least \$1 billion or more in additional costs, [water district engineers estimate](#).

“You want to put your foundation on bedrock, solid granite,” said Chris Hakes, the water district’s deputy operating officer for dam safety and capital delivery. “There are historic slides in the area, loose material that is subject to movement. You don’t want to put your foundation on that obviously because if there is any sort of seismic event, or even heavy rains or mudslides, it could undermine the foundation.”

On Jan. 12, the district’s board is scheduled to consider alternatives to the project. Most of the costs would be funded by water rate increases.

The project, if it is ever built, would construct a reservoir that holds 140,000 acre feet of water — nearly as much as all 10 existing dams the water district currently operates. It would be the largest new reservoir built in the Bay Area since 1998 when the Contra Costa Water District built Los Vaqueros Reservoir in eastern Contra Costa County.

PROPOSED RESERVOIR

The Santa Clara Valley Water District is proposing to build a new dam and reservoir on Pacheco Creek near Pacheco Pass.



Members of the water district’s board know the high price tag could be fatal. They say they are trying to learn more about why the costs have soared.

“I would not vote for going ahead with the project until there is a deeper look at the cost,” said board member Gary Kremen, chairman of the district’s water storage committee. “It has to be done. We do need the emergency water supply. But I’m not sure it makes sense at \$2.5 billion.”

Critics of the project, including several environmental groups, say the district should instead focus on other more realistic projects, like helping fund a project to raise the height of the dam at Los Vaqueros Reservoir, expanding the use of recycled water, and boosting conservation by paying more to residents to remove lawns and replace old, inefficient appliances like toilets, washing machines and dishwashers.

“The water district board should recognize that this is the death knell for that project,” said Jonas Minton, water program manager for the Planning and Conservation League, an environmental group based in Sacramento. “There are several much more cost-effective ways of increasing water reliability for their customers.”

Under the current plan, the water district would replace a small, existing dam and reservoir on the site and build the new Pacheco Dam about half a mile upstream.

The existing reservoir was built on the North Fork of Pacheco Creek in 1939. It holds only 5,500 acre-feet of water behind an aging 100-foot-high earthen dam, while the new reservoir would hold more than 23 times as much. The district hopes to take water it now stores in nearby the massive San Luis Reservoir and pipe it into the new Pacheco reservoir, filling it during wet years.

In addition to storing more water — something the district made a priority after the recent 2012-16 drought — district officials say that the project also would have environmental benefits. It would provide a more regular supply of water downstream for endangered steel head trout, they note.

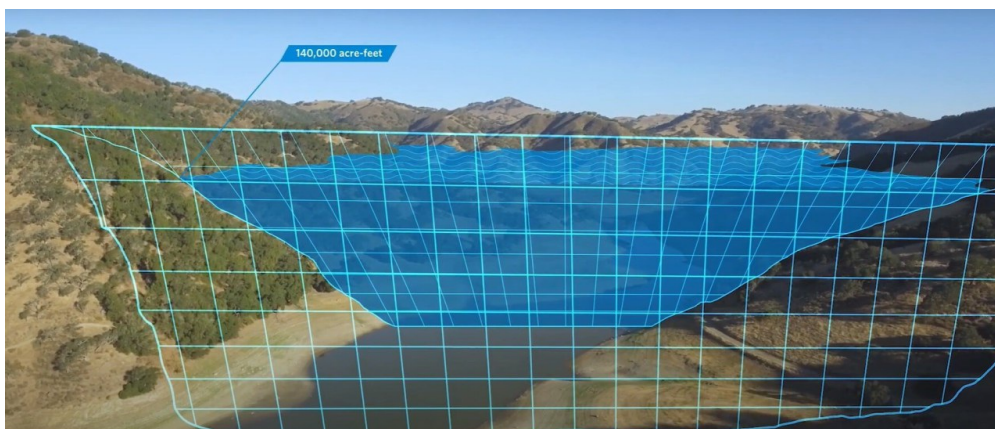
The water district received a huge boost in 2018 when the administration of former Gov. Jerry Brown awarded it \$485 million from Proposition 1, a \$7.5 billion water bond passed by voters in 2014. But to get that money, it must complete draft environmental studies by Dec. 31 and show how it will pay for most of the rest of the costs.

Complicating those tasks, in February, AECOM, an engineering firm based in Los Angeles, drilled down to 340 feet on the site and found problems. The water district staff now is working on five alternatives, including building a smaller dam, or moving it upstream. That would likely would submerge some parts of Henry Coe State Park. Decades ago, the water district considered the same site, and withdrew plans after controversy over impacts to the state park.

The geological problems are not new. In 1993, the district hired a firm to study of the area, although it did not do test borings. It noted locations near Coe Park had the best geology. Two sites closer to the existing old dam — near where the current project is proposed — had “the possibility of old landslide deposits,” the [report by Wahler Associates](#) concluded, adding “it is considered likely that deep excavations would be required to achieve a suitable foundation for a large dam at this site.”

The issue highlights the difficulty of building large new dams in California, where the geology is tricky and many of the best sites are already taken.

“I don’t want to see this thing go under,” said board member Dick Santos at a recent meeting. “I want to see it survive. What can we do to try to save this project?”



The Santa Clara Valley Water District has proposed building a 319-foot tall dam on Pacheco Creek in Southern Santa Clara County near Highway 152 and Henry W. Coe State Park. It would sit on the site of a small reservoir built in the 1930s. Shown here is the water district's depiction of what the new dam would look like. (Photo: Santa Clara Valley Water District)



Paul Rogers has covered a wide range of issues for The Mercury News since 1989, including water, oceans, energy, logging, parks, endangered species, toxics and climate change. He also has worked as managing editor of the Science team at KQED, the PBS and NPR station in San Francisco, and has taught science writing at UC Berkeley and UC Santa Cruz.

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