Massive Northern California reservoir project scaled back to reduce costs

Sites Reservoir in Colusa County would send water statewide, but $5.1 billion was too expensive

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An ambitious plan to build the largest new reservoir in California in 40 years to supply water to homes and businesses from the Bay Area to Los Angeles, along with Central Valley farmers, is being scaled back considerably amid questions about its $5 billion price tag and how much water it can deliver.

Sites Reservoir is proposed for construction in remote ranch lands in Colusa County, about 70 miles north of Sacramento. The reservoir, originally designed to be four times as big as Hetch Hetchy Reservoir in Yosemite National Park and nearly as big as San Luis Reservoir between Gilroy and Los Banos, received more money than any other project two years ago from a water bond passed by state voters during California's historic drought.

But supporters still haven't found enough to pay all the construction costs.

So, late last month, the agency planning the reservoir, the Sites Project Authority, issued new plans. Although Sites is among the most high-profile water projects in the state, they have gone largely unnoticed due to the coronavirus pandemic.

Under the new approach, the price tag will be cut roughly 40% from $5.1 billion to $3 billion. The reservoir's size will shrink from 1.8 million acre feet to 1.5 million acre feet. Plans to build an 18-mile pipeline east to the Sacramento River to fill the reservoir were dropped in favor of using existing canals. A hydro-power pumping station was cut. And significantly, the amount of water the reservoir is expected to deliver on average, known as the “annual yield,” was cut in half from 505,000 acre feet to 243,000 acre feet.
Backers say the reservoir, which would still be California's seventh largest, nevertheless remains on track.

“This is a step in the right direction to making this project a reality for the state of California,” said Jerry R. Brown, executive director of the Sites Project Authority.

Brown, no relation to the former governor, was hired last month after previously working as general manager of the Contra Costa Water District, where he oversaw expansion of Los Vaqueros Reservoir.

Making the project more affordable, he said, will increase the likelihood that water agencies will contribute — from farmers in the Sacramento Valley and San Joaquin Valley to urban users like the Santa Clara Valley Water District in San Jose, the Zone 7 Water Agency in Livermore, and the Metropolitan Water District in Los Angeles, all of whom have expressed interest.

So far, 21 agencies have put up $27 million for planning and studies. Another $19 million is due by Oct. 1.

“We took to heart what people told us and said we need to take a step back and re-evaluate this,” he said. “We've developed a right-sized project that is affordable and buildable.”

But the changes highlight how difficult it is to construct huge new water projects in California, even as the state heads into a dry summer following a disappointing winter rainy season.

“All of us have done something like this in our lives,” said Jay Lund, director of the UC Davis Center for Watershed Sciences. “You go out on the market and see how big a house or car you can buy at first, but then when you sharpen your pencil and do the finances more seriously, you decide you can only afford something a little smaller.”

Environmentalists were more blunt.

“To me it just shows it’s a project that’s struggling to pay for itself,” said Ron Stork, a senior policy advocate for Friends of the River, a group that opposes the project.

The changes will delay the start of construction from 2022 to at least 2023, although planners say they still hope to finish by the original date of 2030.
“The probability of it happening at this price is much higher,” Lund said. “But the probability of any major new water project is always small in California.”

There are several reasons, he noted.

First, many of the best locations for dams are already taken. Second, environmental laws like the Clean Water Act and Endangered Species Act mean rivers can’t be dammed, wiping out fish and other wildlife, as they were generations ago.

Finally, it’s hard to fund them. Not only did California voters pass Proposition 13 in 1978, requiring a two-thirds majority to raise most taxes, but in 1986, former President Reagan changed federal law to require states to pay a greater share of the huge costs of building dams to curb federal spending.

The idea for Sites has been around since the 1950s. Politically, it has a big advantage: It would be an “off-stream” reservoir. Instead of damming a river, a remote valley 10 miles west of the sleepy farm town of Maxwell would be submerged, the water held in by two large dams and up to nine smaller “saddle dams” on ridges.

The reservoir would be filled by diverting water from the Sacramento River — California’s largest river — in wet years, and releasing it in dry years for farms and cities, along with fish and other species in the Sacramento-San Joaquin River Delta.

The project has multiple challenges, however.

The state Department of Fish and Wildlife, which must issue permits, said the original plan would take too much water out of the Sacramento River, harming salmon, steelhead and other species. That’s in part why planners reduced the annual yield in the revised plans.

Then there’s money. Sites’ planners, who are mostly political and farm leaders in the Sacramento Valley, asked the Brown administration for $1.6 billion from Proposition 1, a bond passed in 2014 by voters. They got half, $816 million. They also were awarded a $439 million loan from the U.S. Department of Agriculture. They also are seeking at least $1 billion in other federal loans, and $1.2 billion from water agencies that would buy the water.

But Sacramento Valley farmers already have groundwater and senior water rights. And because many grow low-value crops like rice, they can’t afford a project that is too expensive.
Silicon Valley and Los Angeles may be interested. But they have alternatives, like building local reservoirs, expanding recycled water and conservation, and cleaning contaminated groundwater, which may be cheaper.

“People are already saving water for rough periods,” Stork said. “That’s why this project is probably in trouble.”

To get the state bond money, the project must lock in 75% of its outside funding and finish its draft environmental studies by Jan. 1, 2022.

If built, Sites would be the largest new reservoir in California constructed since 1979, when the Army Corps of Engineers completed construction on the 625-foot high New Melones Dam on the Stanislaus River near Jamestown, in the Sierra Foothills of Calaveras County at a capacity of 2.4 million acre feet.

“It’s a steep hill to climb,” Lund said. “But it’s not as steep at $3 billion as it would be at $5 billion.”