

# Crews begin dismantling key California dam

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For nine decades, the 10-story-high concrete dam with its rusted pipes, railings and valves has stood in the wooded canyons between the Big Sur hills and the picturesque town of Carmel, blocking the natural flows of the Carmel River.

When San Clemente [Dam](#) was built in 1921, the curved arch structure was a key source of water for growing Monterey Peninsula towns. But now it's obsolete and at risk of collapsing in an earthquake. And its reservoir is so silted up with sand and gravel that it hasn't been used to supply water since 2002.

In a project that will be watched by engineers and biologists across the nation, construction crews on Friday were to begin a three-year, \$84 million project to tear down the hulking landmark - California's largest dam-removal project ever. The work will open up 25 miles of upstream tributaries and creeks so endangered [steelhead trout](#) can return to their historical spawning grounds.

"It's going to be beautiful," said Rob MacLean, standing on the dam's crest this week. "You won't even notice it was ever here."

MacLean is president of California American Water, the San Diego-based company that owns the dam.

When state inspectors declared in 1991 that the 106-foot-tall dam was at risk of failure in an earthquake - which could wipe out hundreds of homes downstream - the company had two choices: shore it up for \$49

million, or tear it down for \$84 million.

At first, the water company leaned toward buttressing the dam because it was the cheaper alternative. But a long-running legal battle loomed. The [National Marine Fisheries Service](#) said it was not likely to issue permits for the repair work because the dam blocked the migration of steelhead trout, a silvery fish protected by the federal Endangered Species Act.

The impasse was broken after Cal Am named a new president, and U.S. Rep. Sam Farr, whose district includes Monterey, Santa Cruz and San Benito counties, renewed his push for removal. Under the deal they struck, Cal Am will provide \$49 million by raising rates on its 110,000 water customers in Monterey County. An additional \$25 million will come from the California Coastal Conservancy in Oakland, through state parks and water bonds. The remaining \$10 million will come from federal grants and private donations.

"There are 1,400 dams in California that are 25 feet or higher," said Brian Stranko, regional manager for the Nature Conservancy, an environmental group that donated \$1 million. "You can imagine how much rearing and spawning habitat is lost behind them. We don't have enough success stories. This project demonstrates the art of the possible."

Construction crews won't simply pack the base of the dam with dynamite, however. That would release all of the sediment that has accumulated behind the dam - an estimated 2.5 million cubic yards, or enough to fill 250,000 dump trucks - and kill everything in the river. It would also likely flood the 1,500 homes downstream.

Under the contract, awarded to Granite Construction of Watsonville, Calif., the Carmel River will be permanently rerouted for half a mile into an adjacent stream, San Clemente Creek. The giant sediment pile

will be blocked off on either end. And the crews with cranes and excavators will claw away at the dam, tearing it to rubble in the summer of 2014 and 2015.

"It will be broken down, chipped in pieces," said project manager Jeff Szytel. "We don't anticipate doing any blasting."

The steel will be hauled away. Concrete pieces will be buried in the sediment pile, which will eventually be covered with native plants. Crews also will tear out the Old Carmel River Dam, a 32-foot-high structure half a mile downstream built in the 1880s to provide water for the famed and long-gone Hotel Del Monte, the resort that was the precursor to Pebble Beach.

The largest dam removal project in U.S. history was the work two years ago to tear down the 110-foot Elwha Dam and 210-foot Glines Dam on the Elwha River on Washington's Olympic Peninsula, both of which were silted up and obsolete. In California, the largest dam ever removed was the 55-foot Sweasey Dam on the Mad River near Eureka in 1970 after it silted up. About 50 smaller dams in California, mostly 10 feet or so high, have been removed in the past 20 years. A \$150 million project to tear down the 165-foot Matilija Dam in Ventura County, Calif., which is also silted up, was approved in 2004 by county officials but has been mired in delays because of funding shortfalls and fights between environmentalists and the Army Corps of Engineers over what to do with the silt behind it.

The San Clemente project triggered a debate over who should pay for removing the dam.

When Cal Am Water asked the state Public Utilities Commission for approval to charge the cost to its ratepayers, a consumer group balked. The Division of Ratepayer Advocates argued that Cal Am's shareholders

should pay the full costs because the public wasn't going to get any new water supplies from the job. It also tried to block Cal Am from charging ratepayers its usual 8 percent profit for the job. The PUC disagreed and voted 4-1 to allow Cal Am to raise rates \$2.55 a month for the average customer for 20 years.

"It sets a bad precedent," said Dan Sanchez, water manager with the ratepayer organization. "Sure, there may be some environmental benefit. But that doesn't give a utility a right to earn a full rate of return on an asset it's writing off."

The project gives new momentum to removing dams in California, many environmentalists say, after several big projects have stalled over funding questions and difficulties removing masses of sediment.

"I'm more of a pragmatist," said Steve Evans, with Friends of the River in Sacramento. "I just don't see dam removal happening without some kind of public support, whether it be with grants or rate increases or something else. I think this is a good compromise. It shows public-private partnerships do work, and I think it gives hope for other dam-removal projects."

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