What is happening?

The Calaveras Dam Replacement Project has been completed. Crews have replaced the seismically-vulnerable old dam with the New Calaveras Dam.

The site has been restored. The reservoir has begun to refill with local run off.

What does this mean?

Approximately 85% of the water the San Francisco Public Utilities Commission (SFPUC) serves our customers comes from Hetch Hetchy Reservoir in the Sierra Nevada Mountains. The remaining 15% originates from five Bay Area Reservoirs. Calaveras Reservoir, when full, is the largest Bay Area Reservoir in the SFPUC's Hetch Hetchy Regional Water System. It accounts for 40% of our Bay Area Storage. Because of concerns about the seismic reliability of the original 93-year-old dam, the reservoir volume has been kept to 40% capacity, or less, since 2001. Now that the new dam is complete, the SFPUC has begun the process of refilling the reservoir.

The restoration of Calaveras Reservoir to its historic water levels makes the water supply for 2.7 million SFPUC customers in four Bay Area Counties significantly more reliable. This is particularly important in times of drought or when Hetch Hetchy supplies are unavailable. Calaveras Reservoir, when full, can store 96,850 acre-feet, or 31 billion gallons of water.
About the New Dam

The New Calaveras Dam was constructed immediately downstream as a replacement of the old dam. This zoned earth and rock fill dam consists of 7 zones of different materials. The majority of the earth, rock, sand, and clay used to construct the new dam was sourced from onsite. The seven zones were placed foot by foot, like a layer cake turned on its side, for two years. The new dam can withstand a 7.25 magnitude earthquake on the nearby Calaveras Fault, which is located approximately 1,000 feet from the dam. The new dam along with its new ancillary facilities—including the intake tower, outlet works and piping, and maintenance buildings— are all designed to withstand a major earthquake. A 3.4 magnitude quake shook the area under Calaveras Reservoir over Labor Day 2018. No damage occurred to the new dam or its accompanying structures.

The Calaveras Dam Replacement Project moved approximately 12 million cubic yards of earth and rock to construct the new dam. Approximately four million cubic yards of the excavated materials were used in the new dam, while the remainder was placed in other areas on site. The Project has moved enough rock and soil to fill Levi’s Stadium from top to bottom four times.

New Calaveras Dam by the Numbers

- Construction on the Calaveras Dam Replacement Project began in August 2011.
- Construction of the embankment for the new dam began in May 2016.
- The dam is:
  - 220 feet high
  - 1,220 feet in crest length and 80 feet wide at the crest
  - 1,180 feet wide at the base
- The Calaveras Earthquake Fault is located approximately 1,000 feet from the new dam.
- A total of 12 million cubic yards of earth and rock were moved as part of the project. This is like filling Levi’s Stadium from top to bottom, four times.
- A total of 4 million cubic yards of earth and rock materials were used to construct the new embankment dam.
- The dam rose about a foot a day during construction.
- The earth and rock fill dam consists of seven different zones of materials, all compacted with heavy equipment.
- Hiring Locally
  - To date, more than 1,600 workers contributed 1.5 million total craft hours to construct this project.
  - Nearly 40% of the craft hours were worked by residents of San Francisco or our Regional Service Territory.
  - More than 50% of all the apprentice hours for this project were performed by local and Regional Service Territory resident apprentices.

What happens to the old dam?

Approximately one third of the old dam has been removed to create an approach channel to allow reservoir water to reach the replacement dam. The remaining two thirds of the old dam did not need to be removed, and therefore has been left in place.

Water System Improvement Program

The Calaveras Dam Replacement Project is the largest project of the $4.8 billion Water System Improvement Program (WSIP) to repair, replace, and seismically upgrade key components of the Hetch Hetchy Regional Water System. The San Francisco Public Utilities Commission, together with our 26 wholesale customers, launched the WSIP in 2002. The WSIP is more than 97% complete, and is one of the largest water infrastructure programs in the country.

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About the Calaveras Dam Replacement Project

Construction Began: August 2011
Scheduled Construction Completion: May 2019
Project Cost: $823M
Construction Management: Black & Veatch and SFPUC
Designer: AECOM / URS and SFPUC
Construction Contractor: Joint Venture of Dragados USA, Flatiron West Inc. and Sukut Construction