

Spring 2018

www.sfwater.org/sunolvalley

866-973-1476



Project Background

The San Francisco Public Utilities Commission (SFPUC), owner and operator of the Hetch Hetchy Regional Water System, is building a new dam to replace the existing Calaveras Dam. The Calaveras Reservoir, impounded by Calaveras Dam, is our system's largest drinking water reservoir in the local Bay Area. When full, it provides more than half of the system's local storage capacity for 2.7 million customers. The existing earth fill dam is 93 years old and is located within 1,500 feet of the active Calaveras Earthquake Fault. In 2001, the SFPUC lowered water levels in the reservoir to less than 40 percent of normal operating capacity in response to seismic concerns. Once completed, the reservoir will be restored to its historic storage capacity of 96,850 acre feet of water (31 billion gallons). 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.

Project Update

To date, nearly 10 million cubic yards of earth and rock materials have been moved. That is an equivalent to three Levi's Stadiums-full of rock and materials. Since the completion of the spillway in April 2016, our construction team has completed several key components of the dam. Crews have completed a new outlet tower, a shaft, and a new 78-inch pipeline incased in concrete to be able to take water out of the reservoir. Our construction teams have also drilled 100 feet down into the rock below the future dam and injected grout to seal up the foundation and left and right abutments.

The dam is currently at an elevation of 694 feet, which is 2/3 of its final height. During the winter and early spring months, the embankment work was stopped but worked continued on some of the dam's support facilities such as the: stream maintenance building, the downstream toe electrical building and the outlet works. The embankment work resumed in March 2018. Construction is expected to be complete mid- 2019, while the entire project is expected to be done at the end of 2019.

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



Rendering of replacement dam

Project Details

The project consists of building a new zoned earth and rock fill dam immediately downstream of the existing dam. This work will restore the Calaveras Reservoir to its historic capacity. The reservoir provides 50% of the Hetch Hetchy Regional Water System's local Bay Area water storage. This storage is crucial to providing adequate water to our customers in times of drought and when Sierra Nevada resources are not available.

- The new dam will have a structural height of **220 feet**, a crest length of **1,210 feet**, and a width of **80 feet** at the crest and **1,180 feet** at the base
- More than **11 million cubic yards of excavation** is required to construct the new dam. This is equivalent to more than 1,550 football fields buried one yard deep. Approximately 3.5 million cubic yards will go into the construction of the new dam, including a buttress fill to stabilize an existing landslide
- The **new spillway will be 1,550 feet long** utilizing 50,000 cubic yards of concrete for the entire spillway
- Upon completion, the Calaveras Reservoir will be restored to its historic nominal storage capacity of **96,850 acre feet (31 billion gallons)**
- The new dam will allow us to **release water into Alameda Creek** in a manner that controls water temperatures and flow rates depending upon the life cycle needs of the fish. We will also install fish screens and a fish ladder at the Alameda Creek Diversion Dam to **support the restoration of Steelhead Trout** to the Alameda Creek Watershed
- A **new intake/outlet shaft tower** has been constructed, consisting of a 20-foot diameter by 163 foot deep vertical shaft and three new adit tunnels. This inlet/outlet structure will convey water to and from the reservoir through a **72-inch diameter steel lined tunnel** and a **78 inch diameter pipeline** downstream

Although 85 percent of the materials for the new dam will come from on-site borrow areas, approximately 300,000 cubic yards of sands and gravels and 150,000 cubic yards of hard rock will need to be imported to the site for construction of the internal filters and drains within the zoned embankment dam.

Construction Site Downstream of Dam



Calaveras Road Closure Update

Calaveras Road will remain closed until further notice. It will remain closed to all types of thru traffic 7 days a week, 24 hours a day between Geary Road and Oakridge Road – near the Alameda/Santa Clara County line remains in effect.

This is due to last year's storm damage along this stretch of road. Under normal conditions and the construction schedule, Calaveras Road would be open to thru traffic on weekends and holidays. However, this is no longer the case, and the road will remain closed every day to all traffic until further notice. [More details online at sfwater.org/calaverasroad](https://sfwater.org/calaverasroad)

To join our road advisory notification list, please send an email to

For more information

24 hour answer line (866) 973-1476

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