

May 2017

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 2.6 million customers. The existing earth fill dam is 91 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

Construction began in 2011 to build a new earth and rock fill dam adjacent to the existing dam. To date, the Contractor has moved over seven million cubic yards of earth and rock materials and started to construct the upstream shell of the new dam. Crews have constructed a new tower and shaft with five adits (tunnels) which connect outlet pipelines from the old outlet works tower to the reservoir. We have completed grouting operations on the right and left abutments as well as completed the foundation grout curtain. The new spillway was completed in April 2016. A new 78 inch diameter pipe has been installed and encased in concrete, which will connect to existing lines beneath the old dam to deliver water. The pipeline has been designed to withstand the force of 7.25 magnitude of the maximum credible earthquake from the nearby Calaveras Fault. Now, we are working on dam embankment and the downstream structures such as the stream maintenance building and the valve vault. As of April 2017, the project is 82% complete.

Construction Began: August 2011
Projected Completion: April 2019
Project Cost: \$810M
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 **10 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.



Calaveras Road Closure

Starting January 12, 2017, a full closure of Calaveras Road 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 is in effect.

This is due to 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](http://sfwater.org/calaverasroad)

To join our road advisory notification list, please send an email to onunez@sfwater.org to receive email notifications.

For more information

24 hour answer line (866) 973-1476

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