



HETCH HETCHY
WATER SYSTEM
IMPROVEMENT
PROGRAM

Calaveras Dam Replacement Fact Sheet



Hetch Hetchy
Regional
Water
System

Services of San Francisco
Public Utilities Commission

Summer 2012

www.sfwater.org/sunolvalley

866-973-1476



Project Summary

The San Francisco Public Utilities Commission, operator of the Hetch Hetchy Regional Water System, is rebuilding Calaveras Dam, our largest local Bay Area drinking water reservoir. The existing earth fill dam is located near the active Calaveras earthquake fault. We lowered water levels in the reservoir to less than 40 percent of the reservoir's historic capacity in response to seismic concerns in 2001. The project will construct a new dam equal in height next to the existing seismically-vulnerable dam so that the historic capacity of the reservoir can be restored. The new Calaveras Dam will be one of only a few major dams built in the State of California in the last 30 years.

The Calaveras Dam Replacement Project is the largest project among the 81 projects of our \$4.6 billion Water System Improvement Program. The Hetch Hetchy Regional Water System delivers drinking water to 2.6 million Bay Area customers.

As of July 2012, the project has moved 1 million cubic yards of existing earthen materials excavated from the dam foundation. Our team excavated approximately 20,000 cubic yards per day of materials which were then moved to disposal areas within the project site. Other major construction work that began in August 2011 includes: completion of an active treatment system, completion of the dike foundation for a disposal site, soldier pile wall installation for the right abutment, construction of a new intake shaft underway, excavation work for connecting adits and tunnels.

Construction Began: August 2011
Projected Completion: Late 2015
Total Project Cost: \$416 Million

Construction Contractor:
 Joint Venture of Dragados USA, Flatiron
 Construction, and Sukut Construction



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 approximately half 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 **7 million cubic yards of excavation** is required to construct the new dam. This is the equivalent of 1,200 football fields buried 1 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 40,000 cubic yards of concrete
- Upon completion, the Calaveras Reservoir will be restored to its historic 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** will be 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 90 percent of the materials for the new dam will come from on-site borrow areas, approximately 300,000 cubic yards of sands and gravels will need to be imported to the site for construction of the internal filters and drains within the zoned embankment dam.

The SFPUC has sought permission from Alameda County to temporarily close Calaveras Road south of Geary Road to the county line for an 18 month period starting in 2013 on weekdays only. The closure is necessary to protect the safety of the public on the road, while large trucks haul sands and gravels to the site. Visit our website to stay updated on road closure dates.



Calaveras Dam Project Team Excavating Materials in the Foundation for the New Dam



Rendering of the New Calaveras Dam

For more information
(866) 973-1476
sfwater.org/sunolvalley
mle@sfwater.org
blauppe@sfwater.org

