



HETCH HETCHY  
WATER SYSTEM  
IMPROVEMENT  
PROGRAM

# Fact Sheet



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## Bay Division Pipeline Reliability Upgrade Project **BAY TUNNEL**

September 2010

### Background

The San Francisco Public Utilities Commission (SFPUC) delivers water from the Hetch Hetchy Reservoir in Yosemite National Park to 2.5 million people throughout the Bay Area. Many portions of the Hetch Hetchy System are aging and in need of upgrades. As part of its Water System Improvement Program, the SFPUC will be decommissioning its older pipelines where they cross the San Francisco Bay with a new Bay Tunnel. **The Bay Tunnel Project** will consist of a 5-mile-long tunnel under the San Francisco Bay, passing through environmentally sensitive marshlands and mudflats, and a vertical shaft at each end of the tunnel.



### Our Next Steps

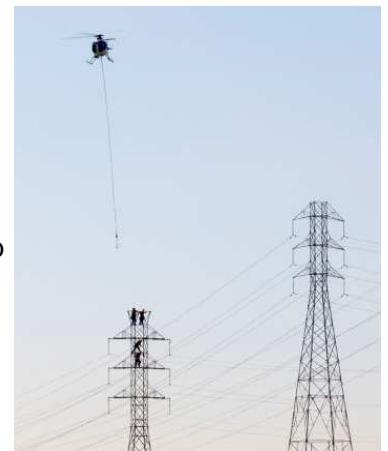


*Lifting steel cage for the shaft wall.*

Starting in August 2010, Michels / Jay Dee / Coluccio will excavate the 141-foot-deep, 58-foot in diameter Ravenswood shaft on the SFPUC-owned jobsite located in Menlo Park. This shaft will have 3-foot thick watertight walls and a 12-foot thick concrete floor slab for strength and support, and to prevent ground movement and water leakage into the shaft. A special clamshell bucket will be used to pick up earth spoils inside the shaft and put them in designated bins to be recycled or disposed of properly. The entire shaft construction process is estimated to take five to six months.

When the excavation of the shaft is complete, a tunnel boring machine will be lowered into the shaft. The 15-foot diameter tunnel will be excavated below the floor of the Bay and will emerge in a similar shaft in Newark in the East Bay. All tunneling activities will be monitored to ensure that safety standards are upheld, and impacts to the surrounding environment and neighborhoods are minimized.

The project will construct a temporary electrical substation that will interconnect to PG&E's 115 KV transmission line. Modification of 45 Transmission tower peaks between Menlo Park and Mountain View will be completed before the end of the year.



*A helicopter shuttled workers and fiber optic peaks for the tower modification.*

## Protecting the Environment While We Work

The SFPUC has an extensive mitigation and monitoring program in place to protect any cultural and biological resources in the work area. All personnel on site receive special training to identify threatened and endangered species, including the Salt Marsh Harvest Mouse (pictured), California Tiger Salamander, and several special-status shorebirds such as the California Clapper Rail. Special fencing has been installed around the perimeter of the site to keep these animals out of the work areas. Environmental inspectors and specialty biological monitors are also on site regularly to ensure compliance with the project's environmental mitigations measures, regulatory permits and other SFPUC best practices.



## Bay Tunnel Project - Hetch Hetchy Water System Improvement Program



*The tunnel boring machine, which is being specially designed for this project, will be brought on site in Summer of 2011, once the Ravenswood Shaft excavation is complete. Parts of the tunnel boring machine will be assembled on site.*

***This project is a component of the \$4.6 Billion Hetch Hetchy Water System Improvement Program to seismically upgrade and repair the regional water system's aging pipelines, tunnels and dams.***

## Project Schedule

Normal work hours are 7 a.m. to 6 p.m. When tunneling begins, underground work will be 24-hours a day due to project demands. Work will be monitored closely to ensure that noise and light are minimized. Construction is expected to be completed in 2015.

## Need More Information?

If you have questions about the project, please call our 24-hour answer line: **800-571-6610** or e-mail us at [baydivision@sfgwater.org](mailto:baydivision@sfgwater.org). For more information please visit our website at [www.sfgwater.org/baytunnel](http://www.sfgwater.org/baytunnel).



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