

The San Francisco Public Utilities Commission (SFPUC) delivers water from the Hetch Hetchy Reservoir in Yosemite National Park to 2.6 million people in 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 and replacing them with a new Bay Tunnel.



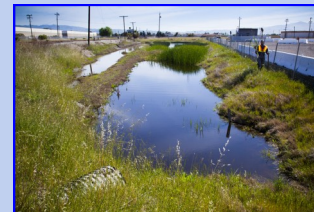
## Protecting the Environment

The project areas are home to a wide variety of plants and animals.

The SFPUC has studied the environmental impacts on sensitive species within the three sites and is implementing special mitigation measures. These include monitoring programs during construction to protect the plants and animals that call these areas home. All personnel on site receive special training to identify critical species such as burrowing owls, red legged frogs, and the tricolor black bird, to name a few.

Environmental inspectors and biological monitors are also on site regularly to ensure compliance with the project's environmental

mitigation measures, regulatory permits and other best practices.



Wetlands adjacent to the Receiving Shaft site in Newark are being protected during construction activities.

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).

**Para Información en Español, comuníquese con Lilia Ledezma al 650-771-1237 o lledez-**



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## Bay Tunnel Project Update Fact Sheet



[www.sfgwater.org/Bay Tunnel](http://www.sfgwater.org/Bay Tunnel)

Summer 2013

The Bay Tunnel Project consists of a five-mile-long tunnel under the San Francisco Bay, passing through environmentally-sensitive marshlands and mudflats. There are vertical shafts at each end of the tunnel.

### Construction Details:

Contractor: Michels/Jay Dee/ Coluccio Joint Venture

Contract Value: \$215.2M

Percent Complete: 81% as of June 2013

Construction Start: April 2010

Final Completion: Spring 2015

#### The Tunnel:

Length: 5 Miles  
Diameter: 15-ft excavated diameter

Tunnel Lining: 10-in thick pre cast Concrete segments; 108-in diameter steel pipe



#### The Shafts:

Launch Shaft: San Mateo County  
124-ft finished depth; 58ft inside diameter

Receiving Shaft: Newark, CA  
86-ft finished depth; 28ft inside diameter

The Tunnel Boring Machine (TBM):  
Diameter: 14Ft-11-5/10in (4.56m)  
Trailing Gear: 600-Ft

### Bay Tunnel Project Prepares for Pipe Installation

The contractor for the Bay Tunnel completed excavation to the Newark Shaft in early January—6 months early. The project has extracted the tunnel boring machine (TBM) from the retrieval shaft during the second half of April.

Bay Tunnel Project is currently installing the 5-mile pipeline that will link the existing segments of BDPL Nos. 1 and 2 and the future BDPL No. 5 in the East Bay with those on the Peninsula. The pipe installation started from the Peninsula shaft lowering the pipe spools, placing them on a carrier connected to a railroad car and delivering them through the tunnel to the Newark Shaft where the first segment was blocked into final location. The end of each pipe spool is being fitted and welded to connect and secure each joint. The Contractor expects to complete installing the pipe liner in early fall 2013.

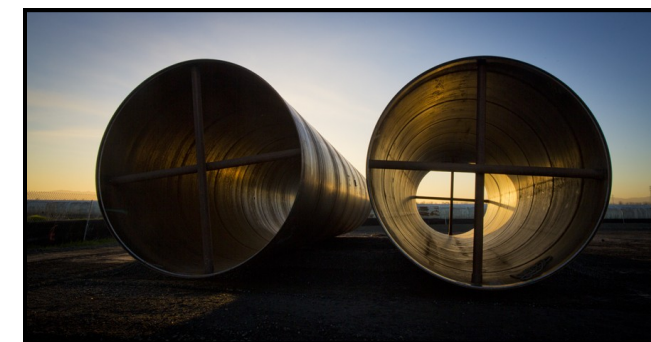
Due to the sensitive-surrounding environment and wetlands; crews froze the ground prior to excavating the shaft. The contractor installed 50 freeze pipes, each 128-feet-long that formed a 28-ft-diameter circle to shape the tunnel shaft. At the center of the tunnel shaft, 10-60-ft-long pipes were installed to freeze the bottom of the receiving shaft. All this work was done to prevent movement of groundwater and avoid leakage during construction.



View into the retrieval shaft: Tunnel boring machine breaking through. Crews preparing to cut it for its removal.



Close-up: Installation of freezing pipes 128 feet down into the ground to form the Newark retrieval shaft.



40-ft X 9-ft diameter steel pipe spools part of the 5 mile pipeline connecting the East Bay to Peninsula Bay Division Pipelines.