

Council Meeting of
July 17, 2007

Honorable Mayor and Members
of the City Council
City Hall
Torrance, California

Members of the Council:

SUBJECT: Public Works – Appropriate Water Enterprise Funds and approve a project for T-1 Vault Upgrades for Confined Space Compliance. Expenditure: \$400,000

RECOMMENDATION:

The Public Works Director recommends that the City Council appropriate \$400,000 from the Water Enterprise Fund and approve a project budget for T-1 vault upgrades needed to bring the facility into compliance with California Code of Regulations, Title 8 requirements.

Funding

Funding for this is available from the Water Enterprise Funds.

BACKGROUND/ANALYSIS

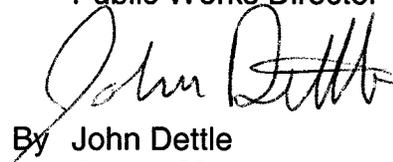
The City of Torrance owns and operates five flow control vaults for our potable water connections to the Southern California Metropolitan Water District (MWD). The vaults are all below grade concrete structures and pursuant to Title 8 of the California Code of Regulations are permit required confined spaces. Permit required confined spaces require the worker entering the vault to wear a harness and tether line and for workers to man a tripod and wench outside the vault to pull the worker out of the vault should there be an injury or the worker became unconscious. One of the risks associated with confined spaces is a worker succumbing to toxic fumes (that can accumulate in below ground vaults) and passing out. When this happens it is important to remove the worker using the harness, tether line and winch, without another worker entering the vault.

Four of the five vaults consist of one or two pipes that go through the vault with meters and flow control valves installed in line. These vaults have access hatches that provide clear worker access that would allow a worker to be easily removed from the vaults using the harness, tether line and winch, should that person become unconscious.

The T-1 Flow Control Vault was constructed circa 1951 as the first MWD interconnection. During recent inspections by the City's Risk Manager, the T-1 Flow Control Vault was found not to be in compliance with Confined Space regulations as described in California Code of Regulations, Title 8 and a new project was developed to bring the facility into compliance, as soon as possible. This fifth vault has the inlet and outlet pipes and valves coming in the vault under the roof of the vault and four pipes through the vault with meters and flow control valves. The vault is located in the middle of 190th Street, just west of Western Avenue. Access is obtained by one hatch in the corner of the vault or a tunnel in the other corner of the vault. Due to the configuration of the vault and limited access, should a worker cross any of the pipes as required by most tasks, there is a very high likelihood that the tether line would get caught on a pipe fitting and the worker would not be able to be retrieved. This project would remove the T-1 vault and all the piping inside the vault. The inlet and outlet headers would be reinstalled outside a new vault with only two pipes going through the vault with meters and flow control valves. A new access hatch would be located for the worker to enter the hatch between the two pipes. This configuration, which is consistent with the other MWD interconnections, allows the worker to work on both pipes without crossing a pipe, i.e., without anything for the tether line to get caught on. It is also proposed that the vault be relocated from the middle of 190th Street to the parkway of 190th Street to improve safety of the workers outside the vault. The budget request of \$400,000 from the Water Enterprise Funds for T-1 Vault Upgrades is sufficient to relocate the vault.

Respectfully Submitted,

ROBERT J. BESTE
Public Works Director


By John Dettle
Project Manager

CONCUR:



Robert J. Beste
Public Works Director



Eric Tsao
Finance Director



LeRoy J. Jackson
City Manager