



THE CITY OF SAN DIEGO

**WATER DEPARTMENT PRESS RELEASE**

FOR IMMEDIATE RELEASE:  
December 13, 2004

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**CITY OF SAN DIEGO ADDS TO DRINKING WATER STORAGE**

*Completion of 35-Million Gallon Reservoir Marks Milestone at  
Alvarado Water Treatment Plant*

San Diego, CA... The City of San Diego has completed construction of the 35-million gallon Earl Thomas Reservoir, the world's largest pre-stressed concrete drinking water reservoir. The Earl Thomas Reservoir was successfully placed in service on December 10, 2004 marking a major milestone in the upgrade and expansion project at the Alvarado Water Treatment Plant.

The construction of the Earl Thomas Reservoir is an integral part of the City of San Diego Water Department's Capital Improvements Program to create a safe and reliable water treatment and distribution system, with state-of-the-art facilities at the lowest possible cost to our customers.

"The completion of the Earl Thomas Reservoir is significant in our long-term water storage goals," said Frank Belock, Jr., director, City of San Diego Water Department. "Total storage capacity at the Alvarado plant will increase from 42- to 77-million gallons of drinking water. The additional storage capacity will improve the plant's response to daily fluctuations in the City's

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water demand,” added Belock. The Alvarado Water Treatment Plant provides safe drinking water to almost half of San Diego’s 1.2 million residents. The plant’s service area spans approximately 36,366 acres – or more than 54 square miles.

The construction management firm of CH2M Hill worked with the general contractor C.E. Wylie and the engineering teams of DYK Inc., Malcolm Pirnie Inc., and Richard Brady & Associates to construct the record-breaking Earl Thomas Reservoir, which has an inside diameter of 406 feet, depth of 38 feet, and a volume of 35 million gallons. The Earl Thomas Reservoir is named posthumously for a long-time Water Department superintendent. The contractor placed more than 20,600 cubic-yards of concrete, scheduled 2,280 concrete truck deliveries, and used 58 reels of pre-stressing strand, 594 1-3/8 inch diameter thread bars and 1,486 gallons of epoxy. The new reservoir will help the plant meet new, stricter water quality regulations and improve long-term water system reliability for San Diego with a useful life of more than half a century.

“One key component of the new Earl Thomas Reservoir will be its seismic stability. The design of this pre-stressed concrete tank considers both vertical and horizontal accelerations, the sloshing of water and overturning moments,” said Max Dykmans, president DYK Inc. Dykmans added that neoprene bearing pads separating the roof and floor from the core-wall, allow the wall, roof and floor to act independently of each other in the event of an earthquake. Special seismic cables are designed to comfortably control the lateral seismic forces, while allowing free movement of the wall under normal tank loads.

The contractor began work on this \$26 million project in August 2002. With the completion of the reservoir, the contractor will now begin work on backfilling, paving and landscaping the area surrounding the reservoir. All work on this phase of the upgrade and expansion is estimated to be completed in spring 2005.

These upgrades and improvements ensure the City of San Diego continues to meet the growing demand for clean, safe drinking water. Additional information about the Alvarado Water Treatment Plant Upgrade and Expansion project can be found online at [www.sandiego.gov/water](http://www.sandiego.gov/water) or by calling the Public Information line at 619-533-6607.

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