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Saving Drops, Filling Bucket

A TreePeople cistern project will collect rainwater for irrigation and firefighting, with plenty left over to create an artificial stream.

By Bob Pool

Most roofers these days are hurrying to finish their work in time to keep the coming winter rains out.

But workers atop one roof in Studio City are rushing to finish in time to keep the rain in.

The construction crew at Coldwater Canyon Park is installing a heavy-duty covering over a 250,000-gallon cistern that will collect rainwater for landscape irrigation, firefighting and to fill an artificial creek for an unusual new nature center.

The concrete water tank is scheduled to be completed in December. After that it will be covered with dirt and turned into a garden for the TreePeople Center for Community Forestry, a planned education and conference area that will be used to promote conservation in Los Angeles.

The urban forestry effort — and its unusual water storage system — is a throwback to the parkland's original roots.

The site at the northern intersection of Coldwater Canyon Avenue and Mulholland Drive was once a field office for William Mulholland, the pioneer Los Angeles water system engineer. Mulholland set up shop there in 1916 while building the nearby Franklin Canyon Reservoir.

The Los Angeles Fire Department took over the place in 1924. Fire officials turned it into Mountain Patrol 1, the city's first wildfire-fighting station, and used it as a nursery to grow experimental fire-resistant plants for the mountains.

From the patrol station, firefighters wearing green uniforms and Stetson hats were dispatched on horseback across the eastern Santa Monica Mountains to man lookout towers and watch for signs of smoke. When dirt roads were cut through the area, firefighters acquired a fleet of fire extinguisher-equipped Model Ts for their patrols.

The mountain patrol was disbanded in 1968, although the city continued using the site as its brush fire headquarters and as a fire station until 1975. That year, Engine Co. 108 moved to a new firehouse nearby and the brush fire headquarters was relocated to a site near the Sepulveda Basin dam.

The relocation came as the result of a land swap between fire officials and the city's Recreation and Parks Department. The Fire Department traded its 12-acre mountain property for a similar amount of land on Sepulveda Boulevard, deciding the new site provided a more central location within the mountain-ringed San Fernando Valley.

Since 1976, parks officials have leased the former Fire Department land to TreePeople. City officials recently approved a new 35-year, renewable no-cost contract to the nonprofit conservation organization.

The underground cistern will be filled with rain runoff collected from portions of the park and from drains that will be built into a 75-space nature center parking lot.

Until now, park runoff has flowed downhill to Studio City storm drains that empty into the Los Angeles River. The river flows into the ocean at Long Beach.

The cistern is expected to hold a year's supply of water for the park. Solar-powered pumps will draw rainwater from it for irrigation and for use at a nursery.

One of the features of the planned nature center is expected to be a 3 1/2-acre urban watershed exhibit that will include an artificial stream and waterfall. Visitors will be able to use hand-operated and pedal-powered pumps to create a simulated rain shower on the center's roof and to activate the stream and the falls. Water will be recycled from the bottom of the creek back into the cistern.

Despite the deadly outbreak of recent brush fires, Los Angeles' rainy season is generally considered to begin Oct. 15. Often, though, actual rain doesn't arrive until after the new year begins.

"We might not miss this rainy season at all. They start putting in the collection pipes this week," said Andy Lipkis, president of TreePeople. "They're also about to start putting in the parking lot pipes. All the polluted runoff from the parking lot will go into the cistern instead of into the canyon."

Filters will remove motor oil and other parking lot contaminants from the runoff before it is stored in the 70-foot-diameter, 15-foot-deep circular tank.

The cistern's steel-reinforced roof will be held up by 96 concrete pillars engineered to support the weight of fully loaded fire trucks. Firefighters will be able to drive their engines on top of the cistern and fill up with water during brush fire emergencies, Lipkis said.

Although Los Angeles city workers excavated the cistern's hole, private donations are paying its \$250,000 construction cost. Government grants and private gifts will finance the remaining \$12-million cost of the center, which is scheduled to open in 2005, he said.

Backers of the nature center say it will continue Coldwater Canyon Park's unusual history as a hard-working conservation site.

As part of their nursery research and forestry work, the early firefighters planted a grove of redwood trees and watched over the region's largest old-growth grove of native black walnut trees. Some of those trees still shade the park.

These days the corrugated-tin stables used for the original horse patrols have been turned into TreePeople's potting sheds. The former Model T fire patrol garages are used to store shovels and other tree-planting equipment. A tin-sided tower in which early firefighters hung their hoses to dry also remains and is considered a park landmark.

Along with the nearly 80-year-old buildings, TreePeople currently uses a series of tent-like yurts and other temporary structures for its environmental education and advocacy work.

The proposed 21,600-square-foot nature center will include offices and classrooms for the group. A conference center will be available for community meetings and for school groups. TreePeople leaders say the new facilities will allow expansion of community programs, including a fruit tree distribution effort that last year gave 2,300 trees to 36 neighborhood organizations.

The cistern idea is a spinoff from a 1998 water recycling experiment by TreePeople at a home on West 50th Street in South Los Angeles. There, collector tanks connected to gutters beneath the house's roof store 3,600 gallons of rain runoff for summertime lawn-watering.

That experiment sounded novel at the time. But experts say cisterns have been used in some arid parts of the world for 4,000 years. And that means local rooftops have some catching up to do if catching rainwater is to catch on in Los Angeles.