

SOCAL UTILITY PRACTICES WHAT IT PREACHES

Burbank Water & Power headquarters demo green infrastructure



Burbank Water and Power is a utility provider that serves 45,000 households and 6,000 businesses in Burbank, CA, with water and electricity. As part of a 10 year, \$500 million modernization of their 22 acre property, they wanted to demonstrate the most environmentally sustainable solutions to the biggest challenges facing water management, conservation, and delivery.

The question they wanted to answer, according to General Manager Ron Davis, who was quoted about the project in the October 2012 issue of *Landscape Architecture Magazine*, was "How do we generate the water and power our customers need with the least impact on the environment?" The answer, in part, was to use Silva Cells for their street trees.

Design firm AHBE proposed five different possible solutions to capture and treat stormwater on the redesigned site: infiltration, flow-through, detention, tree root cells, and rainwater capture. Burbank Water and Power [BWP] decided that they wanted to try them all.

Like all projects, they had to adapt their strategies to the specifics of the site. In this case, there were only eight feet of sidewalk available to redevelop as a green street. They used Silva Cells to create extra space underneath the sidewalk to contain soil for the street trees. Together the soil and the trees act as powerful on-site stormwater management, absorbing, intercepting, and evapotranspiring more and more

water as the tree matures. A Kristar treepod was used along the same stretch of sidewalk to compare the effectiveness of the two systems.

As a result of these solutions, 90 percent of rainfall is being kept on the site and out of storm drains. The streetscape that borders BWP's campus is now a de facto a public demonstration site, where anyone with an interest in green infrastructure can walk by and see how these innovative solutions perform.

Installation Summary:

Soil volume per tree: 1,000 ft³ (28 m³)
Stormwater treatment capacity: approx. 200 ft³
(1496 gallons /0.00459 acre feet)
Catchment area: .11 acres
Number of Silva Cells: 110 decks, 110 frames
Number of trees: 1
Client: Burbank Water and Power
Project designer: AHBE
Contractor: KPRS
Engineers: Fuscoe Engineering
Installation date: August 2010

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