

California 'street tree' benefits valued at \$1 billion

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US Forest Service researchers estimate that trees along California streets provide municipalities and residents benefits worth \$1 billion. Credit: U.S. Forest Service

Streets lined with gold? Not exactly, but a new report from the U.S.

Forest Service's Pacific Southwest Research Station estimates trees lining Californian streets and boulevards provide benefits to municipalities and residents worth \$1 billion.

"Structure, Function and Value of Street Trees in California, USA," published in this month's issue of *"Urban Forestry and Urban Greening,"* is the most up-to-date and comprehensive inventory of "street trees" within California. Using municipal inventories analyzed in i-Tree, a computerized tree inventory and management suite, researchers were able to create a composite picture of not only the number of California's street trees, but also their species, size, location and associated benefits.

With an estimated 9.1 million trees lining California's streets and boulevards, it averages to about one street tree for every four residents. But according to the recently published study, room remains for another 16 million street trees to be planted, if resources allowed.

"Sometimes it's easy to think of trees along city streets as mere aesthetics, or worse, a nuisance with falling leaves and limbs or uprooting sidewalks," said research forester and lead author Greg McPherson. "But what our study shows is that these trees have a real monetary benefit to the municipalities and residents who care for them."

From carbon storage (\$10.32 million) and removal of air pollutants (\$18.15 million) to interception of rainfall (\$41.5 million) and energy savings from both heating and cooling (\$101.15 million), California's street trees are paying big dividends. They even bolster property values and home sale prices to the tune of \$838.94 million.

"We've calculated for every \$1 spent on planting or maintaining a street tree, that tree returns, on average, \$5.82 in benefits," McPherson said. "These trees are benefiting their communities 24 hours a day, 365 days a year."

The report also highlights trends and tree demographics McPherson and his colleagues say they hope will guide urban foresters in future decisions regarding what trees to plant and where.

For example, while the number of street trees have increased from 5.9 million in 1988, tree density has actually fallen from 105 to 75 trees per mile, nearly a 30 percent drop. And while statewide species diversification appears respectable with only one species claiming more than 10 percent relative abundance (London planetree at 10.5 percent), individually, 39 of the 49 studied communities were over-reliant on a single species, potentially making their urban forest susceptible to a species-specific disturbance or pathogen.

"Municipal foresters can use data from this study to see how their trees compare to other cities in their climate zone or in the state," McPherson said. "It might help allocate resources, whether it be to increase planting to address low density or species diversification, increase pruning to manage predominately younger trees for structure and form, control pests and disease or intensively manage older [trees](#) so as to not lose them prematurely."

Provided by USDA Forest Service

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