

# NEWS RELEASE

**USDA Forest Service**

**FOR IMMEDIATE RELEASE**

Contact: Dr. Greg McPherson, 530-752-5897

## **Trees in the Coastal Plain Climate Zone Vastly Improve Quality of Life**

**Davis, CA, April 26, 2006** – The quality of life in the Coastal Plain is substantially better because of the efforts communities are making to plant and maintain a variety of trees, according to a new study by the US Forest Service's Center for Urban Forest Research, a Pacific Southwest Research Station. The findings are published in the "Coastal Plain Community Tree Guide: Benefits, Costs, and Strategic Planting."

"Not surprisingly, large trees provide the most benefits to communities in the Coastal Plain" says Center Director, Dr. Greg McPherson. "As communities in this region continue to grow during the next decade, sustaining healthy community forests is critical to the quality of life residents expect, and large trees will continue to play an important part. The role of community trees is to improve human health, conserve stormwater runoff and energy, increase community attractiveness and livability, and foster civic pride. As communities strive to balance economic growth with environmental quality and social well-being, trees take on a significant role."

The Guide will help communities promote energy efficiency through tree planting and stewardship programs that strategically locate trees around homes and businesses.

-MORE-





These same trees, along with other trees planted in backyards, along streets, and in parks, will provide additional benefits such as improved air quality, stormwater reduction, increased property values, reduced stress, and economic growth.

The report quantifies benefits and costs for typical large-, medium-, and small-stature broadleaf trees (*Southern live oak*, *Southern magnolia*, and *flowering dogwood*), as well as a conifer (*loblolly pine*). The analysis assumed that trees were planted in a residential yard site or a public (street/park) site, a 40-year time frame, and a 65% survival rate. Tree care costs were based on findings from a survey of municipal and commercial arborists. Benefits were calculated using tree growth curves and numerical models that consider regional climate, building characteristics, air pollutant concentrations, and prices. Benefits such as energy savings, stormwater runoff reduction, and air pollutant uptake, were up to six times greater than tree care costs for medium and large trees.

Average annual benefits increased with mature tree size, \$14 to \$19 for a small tree, \$31 to \$40 for a medium shade tree, \$50 to \$62 for a conifer, and \$107 to \$127 for a large tree. Benefits associated with reducing stormwater runoff and energy use and increased property value account for the largest proportion of total benefits. Reduced levels of air pollutants and carbon dioxide in the air are the next most important benefits. Energy conservation benefits varied with tree location as well as size. Trees located opposite east- and west-facing walls provide the greatest net heating and cooling energy savings.

The guide covers the entire Coastal Plain region which extends in a narrow coastal band from eastern Texas along the Gulf coast across the panhandle of Florida

-MORE-

and north along the Atlantic Coast to southern North Carolina.

Study partners include the City of Charleston, Davey Resource Group, SC Dept. of Health and Environmental Control, SC Dept. of Natural Resources, Texas Forest Service, USDA Forest Service Southern Region, and the USDA Forest Service Pacific Southwest Research Station.

#####