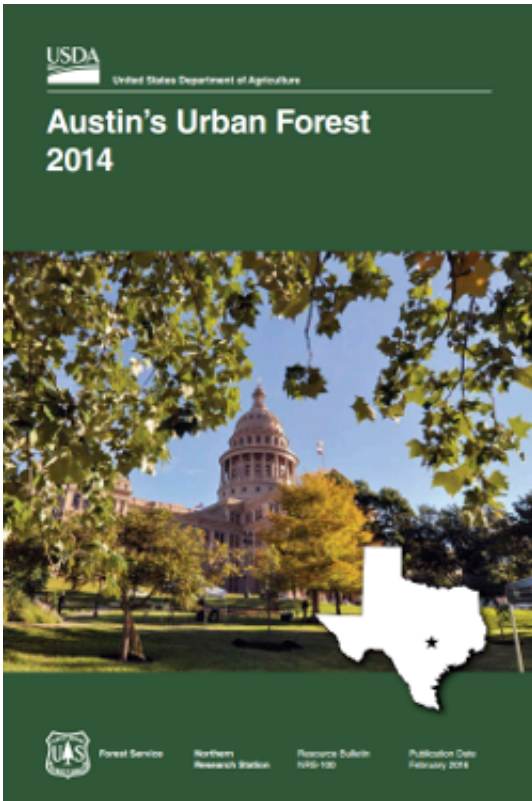


Austin's urban forest

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Austin's Urban Forest 2014

The U.S. Forest Service recently published its first urban forest assessment—providing details on the composition and health of the Austin, Texas urban forest, and documenting the contributions trees make to the environment, economy and the well-being of the community's residents.

According to the report, Austin's [trees](#) provide almost \$34 million in services and benefits to the community in [air pollution](#) removal, [carbon sequestration](#) and [energy savings](#).

Using Forest Service Forest Inventory and Analysis (FIA) data, [Austin's Urban Forest 2014](#) estimates the quantity, health, composition and benefits of Austin's trees. Since 1930, the FIA program has provided information on the nation's forests, but has largely excluded urban areas. In 2014, FIA began an annualized urban inventory program, partnering with Forest Service i-Tree researchers to analyze FIA data collected from city plots and quantify benefits. Austin, Texas, is one of the first cities to be included in the new FIA Urban Inventory Program.

"Austin is an ideal location because of our long-term relationships with the State of Texas and the enthusiasm of the Texas A&M Forest Service to collaborate on and support the program," said David Nowak, lead author of Austin's Urban Forest 2014 and research forester with the Forest Service Northern Research Station. Texas A&M Forest Service (TFS) conducted the field work, coordinated with the Forest Service on data analysis, and helped write the report.

Austin is one of the fastest growing communities in Texas. With population continuing to increase - and with the growing recognition of the environmental and economic benefits that trees contribute in urban areas - there's a pressing need to provide up-to-date, objective information to city governments, nonprofits, and consultants to strengthen urban forest management and advocacy efforts. Results from this first urban inventory serves as a baseline for future studies and validates the importance of Austin's trees.

"We found that throughout the city, an estimated 33.8 million trees provide a canopy cover of 30.8 percent, which in turn provides a wide range of important benefits," said Nowak. "These include air pollution

removal, reduced carbon emissions and stormwater runoff, reduced energy use for buildings, and carbon sequestration."

- The economic value of air pollution removal is based on the number of cases per year of avoided health effects. Using i-Tree Eco, the researchers estimated that Austin's urban trees remove 1,253 tons of air pollution per year with an associated value of \$2.8 million.
- Similarly, the trees of Austin helped reduce surface water runoff by an estimated 65 million cubic feet a year and sequestered about 92,000 tons of carbon per year with an associated \$11.6 million per year.
- Trees affect energy consumption by shading buildings, providing evaporative cooling, and blocking winter winds. The net effect of Austin's trees on residential energy costs is \$18.9 million annually.

The report also includes details on tree species, forest composition, and forest health. Researchers concluded that a number of factors will impact Austin's urban forest in the future, including insect and disease infestations, invasive trees and other plants, the aging and loss of larger trees, changes in the management and use of the forest, and human population growth.

"While data from this report captures the urban forest resource and the benefits the city and its people derive from it, future monitoring is necessary to show how it's changing over time," said Tom Brandeis, research forester with the Forest Service Southern Research Station FIA unit and co-author of the report. "For now, managers can use these data as a baseline to inform long-term management plans and policies needed to sustain a healthy urban forest and the benefits it provides."

In addition to the report, a survey of urban landowners is being

conducted on issues concerning trees in urban areas. Texas A&M Forest Service also will soon launch an online application called My City's Trees on TexasForestInfo.com that will enable users to access and explore more information on Austin's urban forest.

Provided by USDA Forest Service

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