



TEXAS A&M FOREST SERVICE

Benefits of Trees:

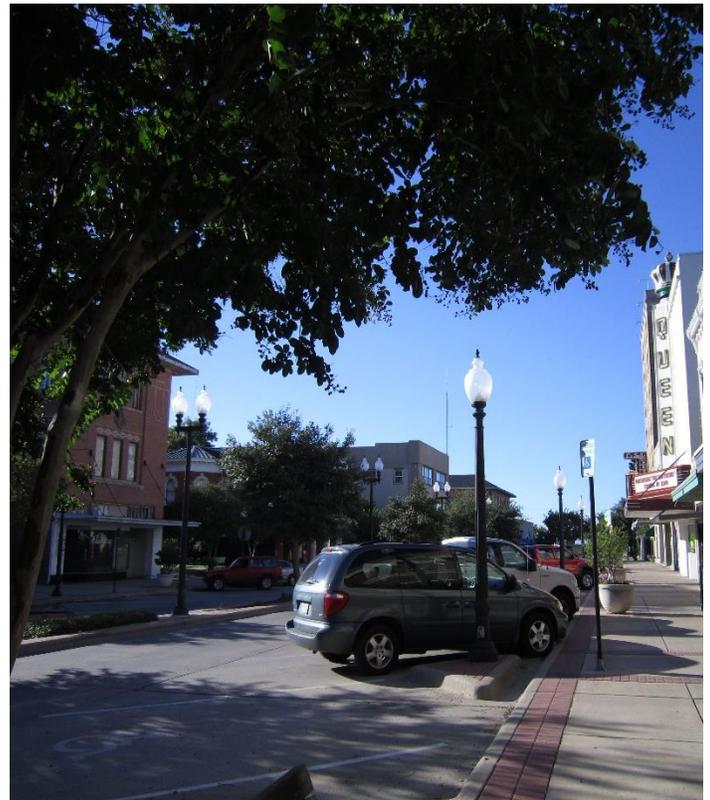
Economic

Trees Require an Investment - Trees provide many environmental, social and economic benefits, but like any other living organism (or for that matter piece of infrastructure) they also incur costs. As trees increase in size, their value and benefits increase. Investing in routine maintenance when a tree is young will help to minimize future costs while helping to maximize benefits and extend their functional lifespan.

- One healthy public tree in its 20th year after planting provides \$96 in benefits and only costs \$36, for an annual net benefit of \$60.
- One hundred healthy yard trees over 40 years provide \$364,000 in benefits and only cost \$92,000, for a 40-year net benefit of \$272,000. (McPherson, E.G.; Simpson, J.R.; Peper, P.J.; Maco, S.E.; Gardner, S.L.; Cozad, S.K.; Xiao, Q. 2005. *Midwest community tree guide: benefits, costs, and strategic planting*)
- A 2005 study of municipal trees in Boulder, CO, estimates the city gets a \$3.67 return on every dollar spent on the urban forest." (Christian Science Monitor, Story by Ethan Gilsdorf, April 26, 2006 on "What is the Value of a Tree?")

Business Stimulus - Trees can be a stimulus to economic development, attracting new business and tourism. Treed commercial retail areas are more attractive to shoppers, apartments rent more quickly, tenants stay longer, and space in a wooded setting is more valuable to sell or rent.

- Rental rates were 7% higher for properties having a quality landscape versus comparable properties lacking that value. (K. Laverne and Winson-Geiederman, 2003. *The Influence of Trees and Landscaping on Rents at Office Buildings. Journal of Arboriculture* 29, 5, 281-290)
- Shoppers are willing to pay about 10% higher prices for products in a shopping area with trees, as opposed to a comparable shopping district without trees. (K. Wolfe (2003). *Public response to the Urban Forest in Inner-City Business Districts. Journal of Arboriculture*, 29, 3, 117-26)
- Shoppers will travel further to visit a shopping district with high quality trees and spend more time there once they arrive. (Wolf, Kathleen (2005) "Business District Streetscapes, Trees and Consumer Response." *Journal of Forestry*)



Property Values - Trees can increase the value of a home. Numerous studies have shown that houses with maintained mature trees sell more quickly and at a higher value than houses with no trees.



- Homes adjacent to parks and open spaces command 8% to 20% higher prices than comparable homes. (*J. Compton (2001) The Impact of Trees and Open Space on Property Values and the Property Tax Base. Ashburn, VA: National Park and Recreation Association*)
- 83% of realtors believe that mature trees have a "strong or moderate impact" on the salability of homes listed for under \$150,000; on homes over \$250,000, this perception increases to 98%. (*Arbor National Mortgage & American Forests*)
- In an analysis of 2,608 real-estate transactions over 10 months, researchers found that homes with "street trees," those planted between the sidewalk and street, sold for \$7,130 more, on average, than homes without street trees. (*Wall Street Journal, October 10, 2013*)

Stormwater Runoff - The canopy of a street tree absorbs rain, reducing the amount of water that will fall on pavement and then must be removed by a stormwater drainage system. Thus enabling communities to save funds by installing surface water management systems that handle smaller amounts of runoff.

- A 32 feet tall street trees can intercept up to 327 gallons of rainfall, (*Center for Urban Horticulture, University of Washington*)
- On average a mature, large canopied tree such as a live oak has the potential to intercept over 5,000 gallons of rainfall per yea. (*McPherson, et al 2006*)
- In Boulder, CO, the average tree intercepts 1,271 gallons of precipitation annually, saving the city \$523,311 in storm-water retention costs. (*Christian Science Monitor, Story by Ethan Gilsdorf, April 26, 2006 on "What is the Value of a Tree?"*)

Air Quality - Poor air quality negatively affects many different aspects of our lives. It can impair human health, damage crops and reduced visibility. Trees can help improve air quality by directly removing pollutants from the air and reducing building energy use and the consequent pollutants from power plants.

- In a 2001 study, trees in the eight county Houston Metro Region removed 60,575 tons of criteria air pollutants valued at over \$295 million. (*Houston's Regional Urban Forest Report*)
- Cooler air temperatures created by tree canopies reduce smog levels by up to 6%. (*Center for Urban Horticulture, University of Washington*)