Interesting Facts

In Milwaukee, where urban trees cover about 16 per cent of the city, trees reduce stormwater flows by 22 per cent. The city saves an estimated $15.4 million by avoiding the construction of additional retention capacity. In Austin, heavy rains make stormwater management a priority issue. Austin's tree canopy, almost twice that of Milwaukee's at approximately 30 per cent, reduced stormwater flow by 28 per cent, providing the city with an estimated $122 million in savings (MacDonald, 1996).

Hurricane Hugo devastated Charleston, South Carolina, in 1989. Little was spared: homes, churches, power lines, and the urban forest were all heavily damaged or destroyed. 200 residents were asked to identify the single most special physical feature of Charleston damaged or destroyed by Hugo. People identified the urban forest more often than any other aspect of Charleston (i.e. more than churches, historic buildings or homes) (Vigo, 1990).

Computer simulations using standard building and tree configurations for cities across the U.S. indicate that shade from a single well-placed, mature tree (about 25-ft crown diameter) reduces annual air conditioning use 2 to 8 percent and peak cooling demand 2 to 10 percent (Simpson and McPherson, 1996). Several investigators have documented dramatic (30 - 50%) differences in cooling-energy use between houses on landscaped and un-landscaped sites (Akbari, 2002).

A major study of Chicago estimated that trees in that city annually removed 15 metric tons of carbon monoxide, 84 tons of sulfur dioxide, 89 tons of nitrogen dioxide, 191 tons of ozone, and 212 tons of small particulates. The estimated value of this pollution removal was $1 million for trees in the city itself and $9.2 million for the entire Chicago area (Nowak, 1994).

The ambient air temperature difference between an urban heat island and a vegetated area can be as much as 2-10 degrees F. The temperature measured directly above man-made surfaces can be as much as 25 degrees F hotter than the air temperature beneath a forested area (Akbari et. al., 1992; Simpson and McPherson, 1996).

Using the city of Davis, California as a model, existing data on the benefits and costs of municipal trees were applied to the results of a sample inventory of the city’s public and private street trees. Results indicate that Davis maintained nearly 24,000 public street trees that provided $1.2 million in net annual environmental and property value benefits, with a benefit–cost ratio of 3.8:1 (Maco and McPherson, 2003).

One acre of forest absorbs six tons of carbon dioxide and puts out four tons of oxygen. This is enough to meet the annual needs of 18 people. - U.S. Department of Agriculture

There are about 60 to 200 million spaces along our city streets where trees could be planted. This translates to the potential to absorb 33 million more tons of CO2 every year, and saving $4 billion in energy costs. - National Wildlife Federation

Trees properly placed around buildings can reduce air conditioning needs by 30 % and can save 20 - 50 % in energy used for heating. - USDA Forest Service

Trees can be a stimulus to economic development, attracting new business and tourism. 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. - The National Arbor Day Foundation

The planting of trees means improved water quality, resulting in less runoff and erosion. This allows more recharging of the ground water supply. Wooded areas help prevent the transport of sediment and chemicals into streams. - USDA Forest Service

In laboratory research, visual exposure to settings with trees has produced significant recovery from stress within five minutes, as indicated by changes in blood pressure and muscle tension. - Dr. Roger S. Ulrich Texas A&M University

A tree can grow to manufacture five pounds of pure oxygen per day, consume carbon dioxide to fight the "greenhouse effect" that threatens our survival, and provide the cooling equivalent of ten room-size air conditioning units.

sources: www.sactree.com
http://www.cfr.washington.edu/research.envmind/consumer.html
http://www.treelink.org
http://www.arborday.org/trees/benefits.cfm
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