What Do Trees Do?

(Appendix I)

from http://www.lpb.org/programs/forest.html

"What," you might ask, "is the big deal? Sure, trees are great. They look pretty, they give us a place to have a picnic, but they just sit there. They don't actually DO anything."

At times in our nation's history, many people have believed this to be true. However, in recent years, studies of our urban forests have shown that city trees provide benefits worth many times the cost of their planting and upkeep, even as they just "sit there."

- Just three well-placed trees around a home can lower air conditioning bills by up to 50 percent, and windbreak trees can reduce winter heating bills by up to 30 percent.
- Tree root systems hold soil in place, preventing erosion. Trees also absorb storm water that might otherwise result in flash flooding. A city's urban forest can reduce peak storm runoff by 10 to 20 percent, according to the USDA Forest Service.
- Trees help cleanse the environment. During photosynthesis, trees absorb, or sequester, carbon dioxide and convert it into oxygen for us to breathe. One acre of trees provides enough oxygen for 18 people, and absorbs as much carbon dioxide as a car produces in 26,000 miles. Trees also remove sulfur dioxide and nitrogen oxide, two major components of acid rain and ozone pollution, from the air.
- Trees are natural buffers to harsh weather conditions. Well-forested lands are consistently at least 2 to 4 degrees cooler during the summer and 1 to 2 degrees warmer during the winter than deforested land. This temperature reduction can significantly lower smog production, according to the U.S. Department of Energy. Trees can reduce wind speeds by up to 85 percent, compared to treeless areas. City trees also help to counter the urban heat island effect.
- Trees reduce noise pollution by acting as a buffer and absorbing urban noise. A U.S. Department of Energy study reports that a 100 foot wide and 45 foot tall patch of trees can reduce noise levels by 50 percent.
- Trees increase economic stability by attracting and keeping businesses and shoppers in a community. Mature trees also raise property values by up to 20 percent, according to the American Forestry Association.
- Trees provide homes for animals that would otherwise be unable to survive in an urban habitat.
- Trees help create relaxation and well being. They relieve psychological stresses, and a Texas A&M study indicates that patients in rooms with a view of green and woodland areas have shorter postoperative hospital stays.
- A study of public housing residents in Chicago has shown that trees can play an important role in reducing urban violence.
- Trees add beauty and reflection to our everyday lives. Picture your home and city without trees. Would you still want to live there?