

*Excerpts from Published Work...*



## The Benefits of Trees

LINK: <http://canopy.org/tree-info/benefits-of-trees/>

### Public Health and Social Benefits:

**Clean air:** Trees produce oxygen, intercept airborne particulates, and reduce smog, enhancing a community's respiratory health. The urban canopy directly contributes to meeting a city's regulatory clean air requirements.

Access to trees, green spaces, and parks promotes greater physical activity, and reduces stress, while improving the quality of life in our cities and towns.

- Urban landscaping, including trees, helps lower crime rates.
- Studies show that urban vegetation slows heartbeats, lowers blood pressure, and relaxes brain wave patterns.
- Girls with a view of nature and trees at home score higher on tests of self-discipline.

### Environmental Benefits:

**Climate change:** Trees sequester carbon (CO<sub>2</sub>), reducing the overall concentration of greenhouse gases in the atmosphere. [Read more about trees and climate change here.](#)

#### **Energy conservation:**

- A tree is a natural air conditioner. The evaporation from a single tree can produce the cooling effect of ten room-size, residential air conditioners operating 20 hours a day.
- Acting as a natural air-conditioner, Palo Alto's lush canopy ensures that summer temperatures are at least 6 to 8 degrees lower than in comparable neighborhoods without trees.
- Tree windbreaks can reduce residential heating costs 10-15%; while shading and evaporative cooling from trees can cut residential air-conditioning costs 20-50%.

**Water filtration and retention:** Urban forests promote beneficial water quality and reduce storm water management costs.

- Palo Alto street and park trees can intercept 135 million gallons of rainwater. Trees capture and slow rainfall and their roots filter water and recharge the aquifer. Trees reduce storm water runoff, which reduces flooding, saves city storm water management costs, decreases the flow of polluted water into the Bay, and protects the banks of the San Francisco Creek.

**Wildlife habitat:** Trees provide important habitats for numerous bird, insect and animal species.

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### **Economic Benefits:**


Communities and business districts with healthy tree-cover attract new residents, industry, and commercial activity.

- Homes landscaped with trees sell more quickly and are worth 5% to 15% more than homes without trees.
- Where the entire street is tree-lined, homes may be worth 25% more.
- Trees enhance economic stability by attracting businesses; people linger and shop longer when trees are present.
- Where a canopy of trees exists, apartments and offices rent more quickly and have a higher occupancy rate; workers report more productivity and less absenteeism.

### **Tree Benefit “Fun Facts”:**

- Trees provide inviting and cool areas for recreation and relaxation such as playgrounds and parks.
- Trees create a tapestry of color and interesting form that changes throughout the year.
- The color green is calming and relieves eye strain.
- Trees screen unattractive views and soften the harsh outline of masonry, metal, asphalt, steel and glass.
- People walk and jog more on shaded streets, which encourages interaction with neighbors and improves the sense of community.
- Trees absorb and block sound, reducing noise pollution by as much as 40 percent.

### **Sources and Resources:**

- Read Canopy’s [feature news story](#)  about the benefits of urban trees.
- [Center For Urban Forestry Research – Pacific Southwest Research Station](#). Part of UC Davis, the mission of the Center for Urban Forest Research is to demonstrate new ways that trees add value to communities and convert results into financial terms to stimulate more investment in trees.
- [University of Washington Nature Within](#). Features research on people’s perceptions and behaviors regarding nature in cities.
- [Urban Forest Ecosystem Institute](#). Addresses the increasing need for improved management of the urban forests in California. Offers tree selection and care tools.
- [i-Tree](#). i-Tree is a state-of-the-art, peer-reviewed software suite from the USDA Forest Service that provides urban forestry analysis and benefits assessment tools.
- [Green Cities: Good Health](#). Research from the University of Washington on the affects of urban trees on city health, safety, and quality of life.
- [Green Cities Research Alliance](#). Collaboration from the US Forest Service and research partners to investigate a wide range of topics related to urban forests and green infrastructure.