



**Urban Green**

# Benefits of Trees

Trees are broadly held as being among Oregon citizen's most cherished values. Trees work for you non-stop. They are a part of community infrastructure and vital to our personal and environmental health. They are a legacy we plant and leave for many generations, impacting our neighborhoods with better quality of life, business climate, and sense of place.

The urban tree canopy improves many important aspects of our life and culture.

## Air Quality

Trees help us clean the air. Tree leaves absorb dirty air and remove pollutants. Particulate pollution like dust is deposited on the leaves. Plus, trees absorb carbon dioxide and produce oxygen for us to breathe.

- Trees cool the air by releasing moisture into the air through a process called transpiration.
- 100 trees remove up to five tons of CO<sub>2</sub> per year
- 100 trees remove about 1000 lbs of pollutants per year, including:
  - 400 lbs of ozone
  - 300 lbs of particulates

If we can preserve our neighborhood trees, as well as plant and nurture more trees throughout the North Clackamas County area, they will help to improve our current air quality, with many health benefits, as well as helping us do our own small part in mitigating the threat of global climate change.

## Water Quality

Trees help clean our water by holding rainfall on the leaves and branches, making the threat of flooding less likely. The tree roots hold soil in place so that it is not washed away in severe storms. Water is cleaned as it passes through the roots and into the groundwater. And we can save water on irrigation when there is a tree shading the lawns that we water.

- 100 mature trees catch about 250,000 gallons of rainwater per year
- They decrease polluted runoff
- They decrease soil and hill erosion

## Energy Savings

Trees save energy by shading buildings and reducing the need for air conditioning in the hot summer months. This energy saving is particularly important because the shade helps reduce peak energy consumption at the hottest time of the day. In addition to direct shade



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on buildings, trees cool entire neighborhoods by releasing moisture into the air and shading surfaces like parking lots and streets that hold heat in the sun.

In the winter, trees can help reduce heating costs by buffering the wind.

- Save up to 30% of annual cooling costs
- Save 10-25% of energy used for heating
- An additional 1 million trees strategically planted could save \$10 million in energy savings.

## **Trees Are Essential Habitat For Many Species**

The tree canopy is essential for sustaining a viable ecosystem for birds, small animals, and the rest of the web of life that surrounds us. These creatures also have a right to survive. As the science of ecology informs us, all creatures depend on a balanced ecosystem for survival. For true sustainability, we must protect the habitats of these creatures. Overly large houses on tiny, denuded lots are detrimental to all living things.

## **Property Values**

Houses in tree lined neighborhoods sell for a premium in Clackamas County. The trees give the neighborhoods a sense of place, a community where neighbors know one another, and slow traffic as drivers sense the enclosed space in these tree tunnels.

- Each large front yard tree can add 1% to sales price
- Large specimen trees can add 10%, or more, to property values.

## **Commercial Benefits**

Studies have shown that trees are good for business. Shoppers will search for that one shaded parking spot on hot summer days, and shops located in cool shopping districts see the influence of trees by:

- More frequent shopping
- Longer shopping trips
- Shoppers are willing to spend more for parking
- Shoppers spend 12% more for goods



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## Social and Psychological Benefits

Studies show that trees help us humans feel peaceful and secure as they bring a bit of nature into our urban environments. Community trees are vital to community health.

- Trees reduce levels of domestic violence and foster safer, more sociable neighborhood environments (Sullivan and Kuo, 1996).
- Views of nature reduce the stress response of both body and mind when stressors of urban conditions are present (Parsons et. al., 1998).
- Trees (along with other plants) absorb high-frequency noise which is the most distressing frequency range for humans (Miller, 1997).
- Hospital patients that see trees need less medication and have faster recovery times following surgery (Ulrich, 1985).

## Community Benefits

Trees bring people together, where neighborhoods are made stronger by the shady streets and parks. Trees cast shade in the evenings that encourages residents to come out and enjoy walks and bike rides in their neighborhoods. Trees slow drivers as they make them feel enclosed in the tree tunnels. Neighborhood tree plantings are events that neighbors join in to get to know each other and form new relationships. In these ways, trees can bring people together.

## Urban Green

Urban Green is an association of informed citizens living within the Urban Growth Boundary in Clackamas County that have joined together to help preserve and enhance the natural features of our neighborhoods.

You can get involved! Pledge your support of the Urban Green Tree Conservation Ordinance today.