

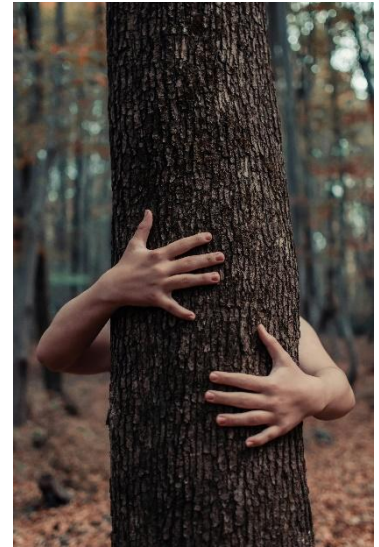
## Understanding the health benefits of trees

The benefits of trees have been studied extensively by scientists for years. By now most of us are starting to understand just how important our canopy cover is, and the role trees play to support our health.

### Did you know just how amazing trees are?

Not only do trees improve mental health for those who live close to urban forests. Trees cool our streets, reduce air pollution, lessen the risk of flooding, reduce noise and wind, increase property prices, provide food and habitat for wildlife.

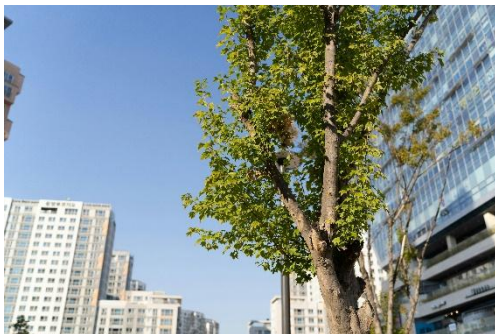
**ArbWest committee member Nick Hayes (pictured below) commented: “We know that living near parks or tree-filled reserves significantly improves quality of life and improve our physical and mental health.”**



Urban greenspaces, according to scientists, act as preventive public health measures by encouraging social interaction, physical activity, and reducing stress levels.

**“Achieving suitable canopy cover requires more than just planting trees in public spaces though,” Nick Hayes said. “Preserving and planting trees on private properties, such as residential yards and commercial spaces, is essential,” he added.**

And how about this? Policymakers can use tree canopy expansion to enhance public health and thereby reduce healthcare costs.



### Environmental Benefits of Trees

#### Cooling Urban Areas

- Tree cover can reduce air temperatures by 1 to 8°C and wind speeds by up to 10%.
- Properly placed trees shade buildings, reducing air conditioning use during summer and heating costs during winter.

### Pollution Removal

- Trees act as “natural air conditioners” by absorbing gaseous pollutants and airborne particles.
- Larger trees (77 cm+ in diameter) remove 70 times more pollution annually than smaller trees.

### Carbon Storage

- Photosynthesis is the process of carbon capture, during photosynthesis, trees absorb CO<sub>2</sub> from the atmosphere through tiny pores in their leaves called stomata. They then convert this carbon into organic matter (such as sugars) using energy from sunlight. This organic matter is essential for the tree’s growth, and the carbon is stored in the tree's tissues—its trunk, branches, leaves, and roots.

- Carbon sequestration is the carbon absorbed by trees and stored in the form of biomass. The trunk, branches, and leaves contain a significant amount of carbon. Roots also store carbon. In some cases, the carbon in root systems can be particularly long-lasting, as roots decay slowly over time.

### **Water Quality and Soil Erosion**

- Trees filter nutrients, sediments, and pollutants, increasing groundwater recharge.
- In medium-sized cities, tree cover prevents the loss of over 10,800 tons of soil annually.



### **Wildlife Habitats**

- Trees support diverse wildlife, including native bird species, which thrive in areas with large, diverse tree populations.

### **Real Estate Value**

- Homes in tree-lined neighbourhoods consistently sell for higher prices, proving that trees significantly enhance property value and desirability.
- Tree-covered streets also attract businesses, increase productivity, and shorten real estate turnover times.

### **Energy Savings**

- Tree shading reduces summer cooling costs while shielding buildings from harsh winter winds, providing year-round energy efficiency.



### **Mental and Physical Health**

- Viewing nature reduces stress, improves recovery times in hospital patients, and promotes overall well-being.
- Psychiatric patients in green environments show higher sociability and lower stress levels.

### **Social Interactions**

- People feel more comfortable and are more likely to socialize in shaded, tree-filled areas than in urban hardscapes.
- People are willing to pay more to live close to tree-covered parks.

### **Recreation and Aesthetic Appeal**

- Large, mature street trees enhance a neighbourhood's attractiveness and create a sense of community. Parks with trees are preferred for their beauty and calming effect.

### **Noise and Climate Control**

- Trees provide natural sound barriers, reducing noise pollution by up to 7 dB per 100 feet of forest.

- The rustling leaves offer soothing “white noise,” masking urban sounds.



*Nick Hayes*

#### **The evidence is clear**

Trees are essential for healthier, happier, and more sustainable urban environments. They offer a cost-effective solution to improve public health, combat urban heat, and enhance biodiversity while contributing to economic and social well-being. By prioritising urban tree canopy preservation and expansion, communities can build greener, more resilient futures.