



SURREY

Mobilizing communities through sustainable long-term planning

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Source: Adobe Stock Photo

THE SCIENCE

Adequate urban forests in cities can bring significant benefits to communities, such as the removal of atmospheric pollutants, noise reduction, microclimate regulation and mitigation of urban heat island conditions. In rapidly growing cities, the incorporation of an adequate tree cover can be challenging, as new developments are designed quickly to respond to a significant population increase. As such, the inclusion of trees into new developments is often considered as an afterthought once new roads and buildings are already built. In addition, as cities grow, the monitoring and maintenance of older trees that provide a great amount of shade also needs to remain a priority for municipal leaders in order to control the urban heat island effect.

The planning of an expansive and healthy urban forest requires the participation of several entities within local governments, such as the Parks, Engineering, and Planning Departments. The inclusion of other key players such as local residents and educational institutions is also important to implement successful greening initiatives that will resonate with community members.

THE TRIGGER

Surrey is a rapidly growing city with approximately 12,000 new residents moving within its borders every year. This rapid increase in population has been happening for many years now and is one of the main reasons the City of Surrey started looking closely at urban tree-related issues in the late 1970s. When development happens at such a fast pace, the urban forest cover also decreases quickly as trees are cleared to prepare the land for new construction. Approximately 5,000 trees are planted in Surrey on public property every year and while most of them are planted in new neighbourhoods, the city aims to plant 1,000 trees in older areas annually. Surrey is also able to save 3,000 mature trees per year on private property due to its private property tree protection by-law, which aims to reduce the number of trees that are unnecessarily removed, killed or damaged. The by-law also requires the replanting or replacement of trees that have been felled. Without this by-law those trees would not be replaced.

THE APPROACH

Over the last 40 years, Surrey has developed a robust street tree management plan that encompasses several programs and promotes participation by residents. As part of its greening strategies, the city created a private property tree by-law in 2006 to protect the entire tree cover located on private property across the city. When property owners wish to remove trees on their properties, they need to apply for a permit and ensure that the tree to be removed will be replanted or replaced elsewhere. In addition, Surrey recently developed the Shade Tree Management Plan 2016-2036, which guides the planning, design, development, and maintenance of Surrey's public property shade trees. The combination of these two programs means that every tree over 30 cm in diameter and above 1.4 meters in height located on private property in the city is listed in an inventory and protected by the city.



Figure 22: *The private property tree by-law in Surrey protects trees located on private property (Source: City of Surrey)*

In Surrey, residents are also encouraged to plant more trees through the city's tree voucher program where they can purchase a voucher for \$25 and use it to buy a tree of a value up to \$75. The city also assists residents who purchase vouchers by helping them pick the right type of tree species for their property and providing recommendations on where to plant the tree on their lot to maximize shading potential.

The city has initiated two volunteer community organizations to promote citizens' involvement in the protection of Surrey's trees. The first organization composed of Surrey's residents is called the Tree Team and focuses on canvassing neighbourhoods to educate residents on the importance of street trees, hosting tree-themed information booths at various events in Surrey, and encouraging residents to plant backyard trees. The second organization called the Surrey Youth Stewardship Squad engages youth in spreading information on the many benefits of trees. The group's initiatives also include planting native trees, cleaning up Surrey's parks and shorelines, and removing invasive plants. Both organizations have been in place for over a decade.

THE OUTCOME

Making trees a priority in Surrey allowed the city to plan for a future under climate change where a growing population is expected to face more extremely hot days.

The priority on protecting trees in Surrey means that hard infrastructure sometimes needs to be planned differently to protect and maintain the tree cover. In certain cases, this means planning wider boulevards to include medium- and large-sized trees and in others, it means moving a sidewalk to protect an existing tree that has been there for many years. On private property, new house plans are redesigned to minimize the removal of trees.

Surrey recently began exploring the idea of developing guidelines to increase planting in the downtown core, as this more urbanized section of the city is more prone to the urban heat island effect. City staff is also looking at making changes to soil requirements under concrete in order to install structured soil that would provide adequate conditions for trees to grow in highly urbanized areas.

A WORD FROM SURREY

When asked what advice he would like to give to other municipalities who would like to implement tree-related initiatives in their community, Neal Aven, Urban Forestry and Environmental Program Manager for Surrey's Parks division, emphasized the need to get input from the community on greening initiatives. "In order for people to have a sense of ownership about a resource like trees, it is important to involve residents in an advisory role. Supportive elected officials are also crucial because they have their pulse on what the people in the city are interested in and can translate these interests into policy development," said Mr. Aven. Steve Whitton, Tree and Landscape Manager for the City of Surrey, added that "it is important to have a well-staffed team on these programs as well as a strong private property by-law to overview development permits and make sure the approved developments won't damage the tree cover. This allows city staff to look after and manage every single tree of a certain size in the city." Mr. Whitton also emphasized the importance of a strict enforcement of tree by-laws in order to maintain high tree cover targets.