i-Tree focus Tree planting strategies

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Developments in i-Tree Eco mean that local authority tree inventories can be used to produce i-Tree studies, without the need for data collection in the field.

Several local authorities in the UK have used their existing inventories, working with Treeconomics, to produce such studies. These include the London Boroughs of Ealing and Camden, Newcastle City Council, and others, including the ten authorities which form Greater Manchester.

Many authorities are now looking at using the information generated by their i-Tree study to produce a tree planting strategy. But why are such strategies necessary? Right now, tree planting is very fashionable with politicians, as recognition grows that trees provide many benefits and are an essential part of our urban infrastructure. However, planting targets are often reduced to numeric promises, such as, 'Across the country we will plant 22,000 large trees and 28,000 small trees from Thanet to Middlesbrough, and Merseyside to Bristol' (1st round, government tree-planting challenge 2020), or, 'We will increase the capital's tree canopy cover by 10% by 2050' (Sadiq Khan, London Assembly).

Such aspirations are welcome, but often they are not based on an understanding of what is there now, nor any real idea of whether they are achievable. Furthermore, can the desired benefits even be achieved? In short, there is rarely a coherent planting strategy in place when such promises are made.

A recent Treeconomics webinar in collaboration with US Tree Care Company Davey chose to focus on tree planting strategies. Attendance was high, with lots of interaction on this thought-provoking topic.

During the webinar, it was suggested that the tree planting process should be strategised, breaking it down into several elements:

- creating a vision: what is wanted? (based on 'What is there now?')
- setting targets which are achievable and deliverable
- creating an action plan, comprising: where to plant, what to plant, how to plant, and what is needed to maintain?
- monitoring and reviewing progress

Strategising in this way would allow:

- uniformity and planning
- articulation of a clear vision
- realistic and achievable targets to be set
- suitable species to be selected
- informed planting techniques to be specified
- appropriate maintenance to be planned
- progress to be monitored and reviewed

In the London Borough of Islington, tree planting opportunities were mapped on a ward-by-ward basis. Priority planting areas were then identified according to a range of indicators, such as areas with high pollution, flood potential, and low canopy cover. Planting could be strategised to meet the specific needs of the borough. Data such as that identified during the Islington study can be communicated to politicians, the public and other stakeholders, who should ideally be involved in the entire process. All parties should understand why planting is taking place, why certain areas have been prioritised, why certain species have been selected and, most importantly, over what timescale targets will be met.

Further information and a copy of webinar presentations can be obtained from Nadine Moreby of Treeconomics: nadine@treeconomics.co.uk.

Spotlight on i-Tree in Australia

***Dr Jenni Garden**, a consultant with Edge Environment, sets out how i-Tree is being used to help promote the value of trees in Australia.*

The use of i-Tree in Australia is currently limited to i-Tree Canopy and i-Tree Eco. Although Eco was adapted for use in Australia 10 years ago, it is only in the last 5–6 that it has been widely adopted by local councils. This uptake has been driven by an increased focus on how to cool urban environments for community wellbeing, environmental health, and economic prosperity.

As a result, trees are increasingly being recognised as a key urban asset, though increasing tree cover is often difficult, given urban development and in-fill, together with community fear and concern about trees (e.g. leaf fall in gutters, eucalypts dropping branches).

Councils are increasingly looking at ways to better understand and strategically manage their trees, whilst also engaging their communities in the promotion of tree benefits. i-Tree Canopy and Eco have both offered a user-friendly, cost-effective, repeatable and scientifically rigorous method for achieving this.

Here are some examples of i-Tree projects that Edge Environment has been involved in.

Council-specific detailed land cover assessments have been carried out using i-Tree Canopy, to provide more detailed

analyses than those provided by the National Canopy Cover Benchmarking Report, released by the University of Technology in 2014. These more detailed assessments use up-to-date aerial imagery, fit-for-purpose land cover categories, and management zone boundaries (e.g. suburb/precinct level, zoning areas) to achieve a finely detailed result.

Edge Environment further developed an approach which combines i-Tree Canopy with more advanced GIS spatial analyses, to quantify past and future trends in land cover change. An example is the City of Charles Sturt's Tree Canopy Cover benchmarking report, which determined that canopy cover had increased on public land over the last 20 years, but had decreased more on private land, leading to an overall loss of cover across the city (circa 40 football fields' worth!), despite the council's planting efforts. This highlighted the importance of educating the community and gaining its support for tree protection and tree planting, if canopy cover and cooling targets are to be achieved.

Urban Greening/Forest/Cooling Strategies and associated online interactives are increasingly being developed by local council managers to define canopy cover targets, quantify urban forest values, establish planting and protection actions and responsibilities, and engage communities. i-Tree Canopy and i-Tree Eco both underpin these efforts, for example, in the Town of Walkerville (SA), City of Burnside (SA), City of Canada Bay (NSW), and City of Melbourne (VIC).

Valuing trees using i-Tree Eco is often undertaken as a way to elevate trees as an urban asset, by quantifying their cost-benefit. i-Tree Eco has also been incorporated as part of a tree valuation formula developed by the City of Melbourne, as a way of better valuing urban trees compared to antiquated amenity-based formulas.

Tree Tags for community engagement is an increasingly popular application of i-Tree Eco. Tree Tag projects have labeled trees in high-foot-traffic areas, converting Eco outputs to relatable metrics as a way of building a personal connection to the tree, and so increasing community knowledge of tree benefits and support for tree protection and planting. Tree Tags form part of a broader range of tree engagement experiences (TrEEs) provided by Edge Environment, such as Tree Trails and vox-pops, as well as projects with schools and environmental groups.

We are confident that projects like these will increase in popularity across Australia, inspiring municipalities to invest in their green infrastructure, and communities, to support these efforts. Although they are the only urban assets to increase in value over time, trees have previously been undervalued and overlooked, though with the help of tools such as i-Tree Canopy and Eco they are now increasingly being recognised and prioritised as a critical part of the urban environment.

In the next issue of the ARB Magazine, Treeconomics will be looking at how i-Tree is being utilised in the United States. It is hoped that sharing ideas and case studies like these will help spark exciting projects in our own towns and cities, and it is this pooling of ideas that inspires the bi-annual European i-Tree conferences. See www.itree-europe.com for details of the 2020 event.

Naming a **new magnolia** at Westonbirt

In early June, Forestry England announced that one of the magnolias at Westonbirt, The National Arboretum had been identified as a new hybrid, *Magnolia sprengeri* × *campbellii*, and asked the public to vote on a new cultivar name it.

The results are in, and the new name for the magnolia is 'Westonbirt Hope'. Staff at Westonbirt Arboretum will now register the tree under its cultivar name.

This impressive tree has been growing for nearly 45 years, and is a Champion tree of the British Isles. The hybrid's parents are *Magnolia campbellii* and the arboretum's famous *Magnolia sprengeri* var. *sprengeri* 'Westonbirt Diva', another showstopper at the arboretum in the early spring.

In 1970 seeds from the 'Westonbirt Diva' were collected by the team at Westonbirt Arboretum, and the resulting young tree was planted in 1975. Magnolias propagated by seed usually take quite a long time to mature to flowering age, so it wasn't until 10–15 years later when the flowers first appeared that it was obvious that the plant was a hybrid.

Andrew Smith, Forestry England's Director at Westonbirt, said, 'The team here at the National Arboretum are very excited to be registering the new magnolia. Our mission is to connect people with trees to improve quality of life, and so we felt that it was important to give the public the final decision on the cultivar name of the new hybrid; it's a fantastic way to engage people with the stunning collection of trees here at the arboretum.'

Magnolia sprengeri × campbellii *'Westonbirt Hope'*