

INTRODUCTION

The urban forest is a critical element of cities as it contributes to the health and wellbeing of urban inhabitants. In creating resilient communities it is necessary to develop strategies that deal with climate change, the urban heat island effect, urban intensification, population growth and cultural identity. The urban forest in the City of Melbourne, composed of approximately 75,000 trees in the public realm, is capable of reducing stormwater runoff, providing shade and cooling, as well as connecting communities by creating a sense of place and enhancing streets and spaces for recreation.

The Urban Forest Strategy developed by the City of Melbourne set strategies, standards and targets for promoting a resilient city that will be able to maintain its ecological functions under periods of constant environmental and anthropogenic pressures. Implementation of this program has led to incremental increase in canopy cover, replacement of the ageing tree population, increased surface permeability and diversification of green infrastructure. In so doing Melbourne has confirmed and strengthened its renowned reputation as a beautiful “garden city”.

KEY INTERVENTIONS

In 2010 the City of Melbourne started to address its ageing tree population and increased urban heat island, which had aggregated over nearly a decade of drought. Recognising that close **to 23 per cent of the tree population could be lost within ten years**, the urban forest strategy set about planning ahead for the future of Melbourne’s trees in a way that responds to climate change and urban expansion, reinforces Melbourne’s character and enhances the wellbeing of its inhabitants.

The **vision and objectives for the strategy were developed in conjunction with stakeholders** from the public and political domain, and in late 2011 and mid 2012 the draft propositions were taken to various community engagement forums to provide all members of the community the opportunity to offer feedback. Different channels for engagement were utilised, such as an **“Eco-City” Forum**, consultation for different precincts, online forums, a

corporate website page for the strategy, video content, articles and editorials in the mainstream media, and an “Urban Forest Art and Design Competition”.

MEASURABLE OUTCOMES

The Urban Forest Strategy has established a program for the **immediate to long-term development of an adaptable and resilient forest**, based on targets for increasing canopy cover, species diversity, surface permeability, water management and community participation – all of which take full account of the inherent economic, social and environmental benefits of increasing urban vegetation.

Over the past five years the Council has committed an average of AUD 1.5 million annually for the implementation of the strategy. From 2010 to 2013, the municipality has planted more than 12,000 trees through individual projects and the annual planting program.



1. Urban Forest Lemon Scented Gums Birdwood Ave. Transforming the “tan track” with Corymbia citriodora (Lemon Scented Gums), a species

proven to grow well in Melbourne, combined with landform changes to adapt landscapes for climate change

In conjunction with the Royal Botanic Gardens, the City of Melbourne has also started trialling alternative species for diversifying the urban forest. **Stormwater harvesting and water sensitive urban design projects** have been implemented for improving water management, while areas of permeable pavement have been incorporated throughout the city to improve soil moisture. These projects have been initiated in diverse situations throughout the city, not only located in high profile locations; therefore they represent a **variety of efficient solutions that readily allows transferability to other urban circumstances**.

Specific targets of the urban forest strategy include: doubling canopy cover from 22.5 % to 40% by 2040; 5:10:20 will be the maximum percentage of the tree population composition by species:genus:family; and 90% of the tree population will be healthy by 2040.

GOVERNANCE

The City of Melbourne’s governing document Council Plan 2013-2017 has adopted the targets established in the Urban Forest Strategy in relation to increased canopy cover and species, and will be reported on an annual basis. The Lord Mayor of Melbourne engendered the support of the Council’s elected members as well as the wider community: “In politics, so much is driven by the artificial... election cycle. Not this plan. Our trees are too important.” (Robert Doyle, 2011)

The **strategy has also formed the basis for the development of other associated policies** and outcomes such as the Urban Forest Diversity Guidelines, urban forest community engagement plan, urban forest precinct plans, master plans for avenues and boulevards, the Growing Green Guide, the exceptional tree register, and the Urban Ecology and Biodiversity Strategy.

By understanding the quantity, diversity and health of the City’s urban forest the municipality is able to monitor and review planting programs, species selection and green infrastructure management projects. The **development of a genuinely participatory program** facilitated the integration of academics, professionals and the community in the decision-making process.

CONCLUSION

The development of an urban forest strategy with long-term planning horizons sets a worldwide example on how cities can implement a “whole-of-forest” approach to understanding and managing its response to climate change and urban growth, and adapting the urban landscape for future resilience. The City of Melbourne has demonstrated how well-designed urban forest management continues to deliver ecological, economic and social benefits while enhancing the city’s biodiversity, health and wellbeing.

CREDITS AND LINKS

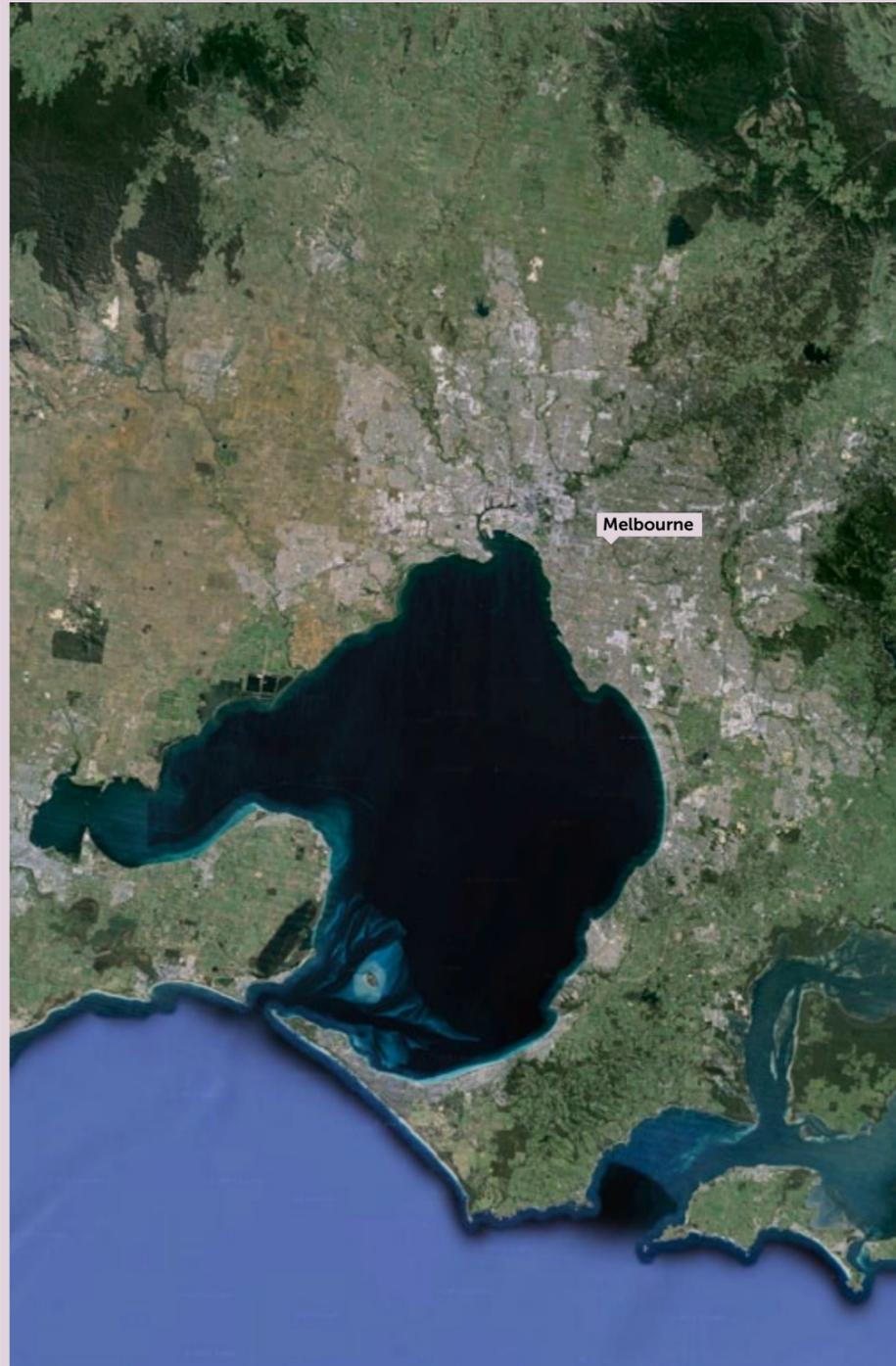
<https://www.melbourne.vic.gov.au/Sustainability/UrbanForest/Pages/About.aspx>

<https://www.melbourne.vic.gov.au/Sustainability/SavingWater/Pages/Watersensitivedesign.aspx>

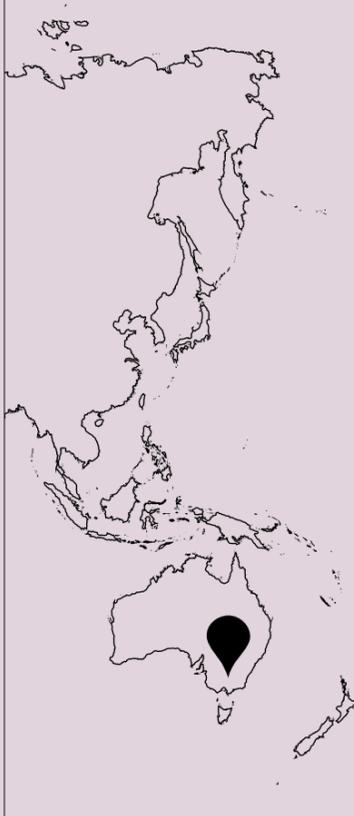
<https://www.melbourne.vic.gov.au/aboutcouncil/plansandpublications/councilplan/Pages/CouncilPlan.aspx>

https://www.melbourne.vic.gov.au/Sustainability/UrbanForest/Documents/Urban_Forest_Diversity_Guidelines.pdf

<http://growinggreenguide.org>



MELBOURNE



COORDINATES
37°52'S 145°08'E
 AREA
1,705 sq mi
 POPULATION
4,170,000
 DENSITY
2,445.75 sq mi
 GDP total
\$998.265 billion
 GDP per capita
\$42,640



Map. Urban Forest Useful Life Expectancy mapping for the City of Melbourne's trees between March 2011 and April 2012. 35,000 trees were assessed with results indicating that 23% of the tree population will be at the end of its useful life in the landscape within ten years and 39% within twenty years



2. Urban Forest Stressed Elm Fitzroy Gardens. Many of the magnificent elm avenues in Melbourne's heritage landscapes are approaching the end of their life

75,000 trees compose the public realm of the urban forest in Melbourne
12,000 trees have been planted from 2010 to 2013



3. Urban Forest Thermal image of central Melbourne, taken late at night, which shows how paved unshaded surfaces store heat from solar radiation and retain it long into the night, contributing to increased temperatures in urban areas



FROM HEAT ISLAND TO "A CITY IN A FOREST"