



Comparison of Australia's Capital Cities Tree Laws

2022

Foreword

I congratulate the Conservation Council of SA on presenting this comparative dataset aimed at informing and highlighting the work that we, as Capital Cities, need to do to ensure the increase of our tree canopies.

Adelaide is the world's only 'city in a park' surrounded by 760 hectares of beautiful Park Lands and the City of Adelaide is committed to increasing greening throughout the CBD and North Adelaide.

Environmental leadership is one of the pillars of the City of Adelaide's Strategic Plan (2020-2024) and our ambition is to increase our canopy cover to a minimum of 25 per cent in the CBD and 40 per cent in North Adelaide by 2040.

Increasing canopy cover within the dense, built up urban environment of a Capital City is a continual challenge requiring the joint effort of State and Local Government as well as our residents, businesses and community.

Each Capital City is unique and needs to adopt their own strategic approach to increasing canopy coverage by planting more suitable trees and identifying and greening public city spaces.

There is no 'one size fits all' approach to increase canopy coverage and each Capital City needs to think innovatively and strategically to achieve this including initiatives such as incorporating new trees as part of all major infrastructure upgrades, offering incentives to residents and businesses and trialling new ideas.



Adelaide, of course, has the added challenge of being the driest city, in the driest state on the driest continent. This galvanises my Council to focus on cooling, greening and water retention and usage.

We invest in an annual program of tree planting, irrigation systems and smart meters, and take care of the 150,000 park land trees and 7000 street trees in the city. We also offer incentives to residents to establish gardens in their nature strips and invest in alternative irrigation infrastructure.

More recently, the City of Adelaide has advocated for and secured a partnership with the South Australian Government for a program new green walls, cool corridors and rooftop gardens across our CBD.

There is more work to do, and at a faster pace.

As a capital city, increasing greening is vital for the health and wellbeing of our communities, particularly as we face higher temperatures due to climate change, and we are ready to rise to the challenge!

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Executive Summary

Australia's capital cities are where most of our population is concentrated. They are also particularly vulnerable to urban heat island effect – the build up of dangerous heat in streets and neighbourhoods during the day and night. With most of the space filled with bitumen and concrete, they present some of the most difficult environments in which to maintain and grow an urban forest. Yet maintaining and expanding tree canopy is essential to the health and wellbeing of city residents and workers as the climate warms.

Our capital cities are also climatically diverse, with not only varying average temperatures but also significant variation in seasonal rainfall. The City of Adelaide has the lowest average rainfall and some of the highest temperatures of any capital city in Australia. This presents a substantial policy and practice challenge to urban greening.

This report is an addition to the “Comparison of Australia's Tree Laws” published in 2021, designed to look specifically at the tree protections in place for Australia's capital cities.



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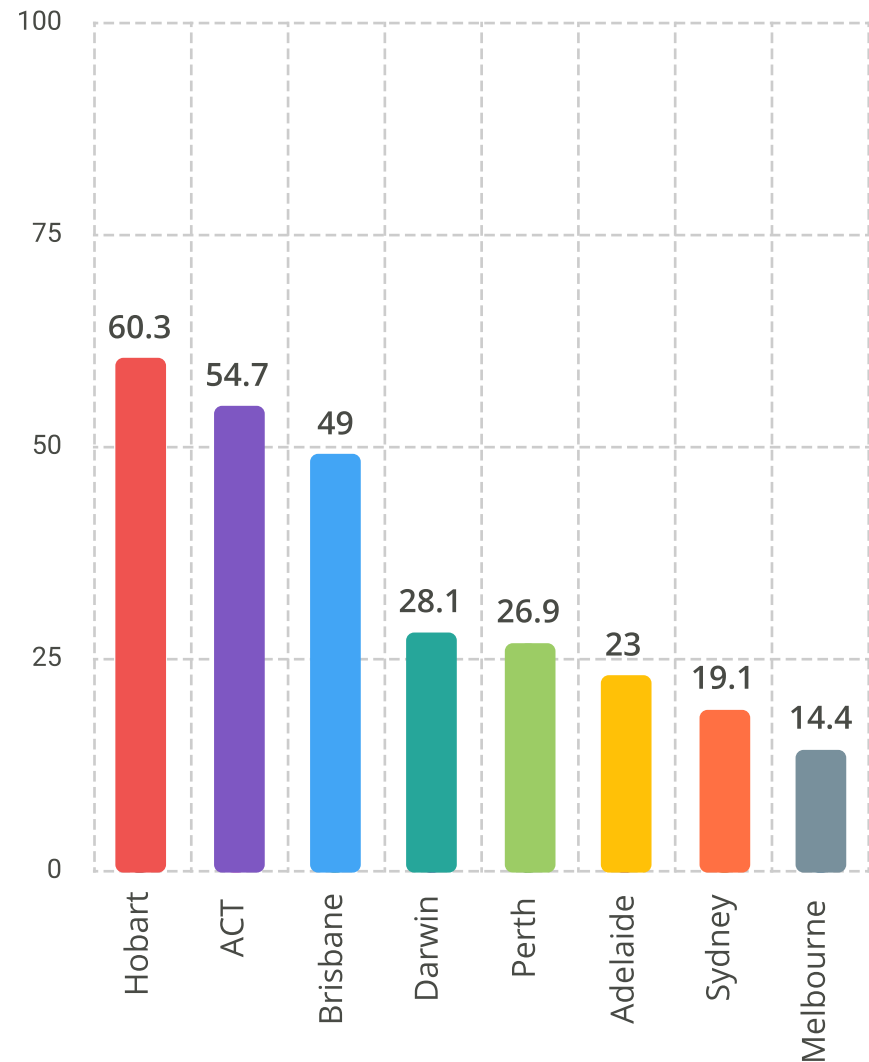
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Executive Summary Cont.

Greener Places Better Spaces (an organisation backed by Hort Innovation Australia) has been measuring tree canopy cover across Australia's LGAs, in conjunction with RMIT, CSIRO Data61 and the Institute for Sustainable Futures at the University of Technology Sydney. Since 2014, their reports have helped guide policy makers by highlighting best practice across Australia.

Whilst the City of Adelaide is blessed with world-renowned Park Lands which contribute significant tree canopy coverage, disappointingly, we have the third lowest tree canopy cover, at 23%, of all capital cities in Australia. Well established links between urban density and tree canopy show that typically, the higher the density, the lower the levels of tree canopy. Despite having a population density over 5.5 times less than the City of Sydney and almost 3 times less than the City of Melbourne, Adelaide lags behind both these cities in terms of canopy cover on a per capita basis. Adelaide's population density does not justify the low level of tree canopy that we currently have.

Tree canopy coverage % per city



* Canopy data sourced from Greener Places Better Spaces

Executive Summary Cont.

With the exception of the ACT, South Australia is the only state that sets uniform tree protection laws across all councils. As these laws are some of the weakest in the nation, the City of Adelaide is constrained in its ability to retain and improve tree canopy.

The City of Adelaide remains one of the few SA councils to list significant trees through the Planning and Design Code. Whilst trees on these lists are exempt from the 10m rule (which allows for the clearance of any tree within 10m of a dwelling, excluding Eucalyptus and *Agonis flexuosa*), so many of the “significant trees” on the City of Adelaide’s list have been cut down without council permission that the list is currently not maintained by the City of Adelaide.

Thankfully, according to the RMIT/Better Places, since 2016 the City of Adelaide has experienced a small increase in tree canopy cover of 1.6%. In 2022, further data will emerge for Adelaide as a comprehensive LiDAR analysis, facilitated by Green Adelaide, will provide the first update on tree canopy since the initial LiDAR scan in 2018.

Law reform is urgently needed if Adelaide is to have any chance of catching up to the level of protection afforded to trees in other capital cities.



Reading this report

The icons featured below have been used across this report to make identifying areas of interest / comparison easier:



Trees are **PROTECTED** if they meet one of the following requirements



The **EXEMPTIONS** that exist to remove a protected tree



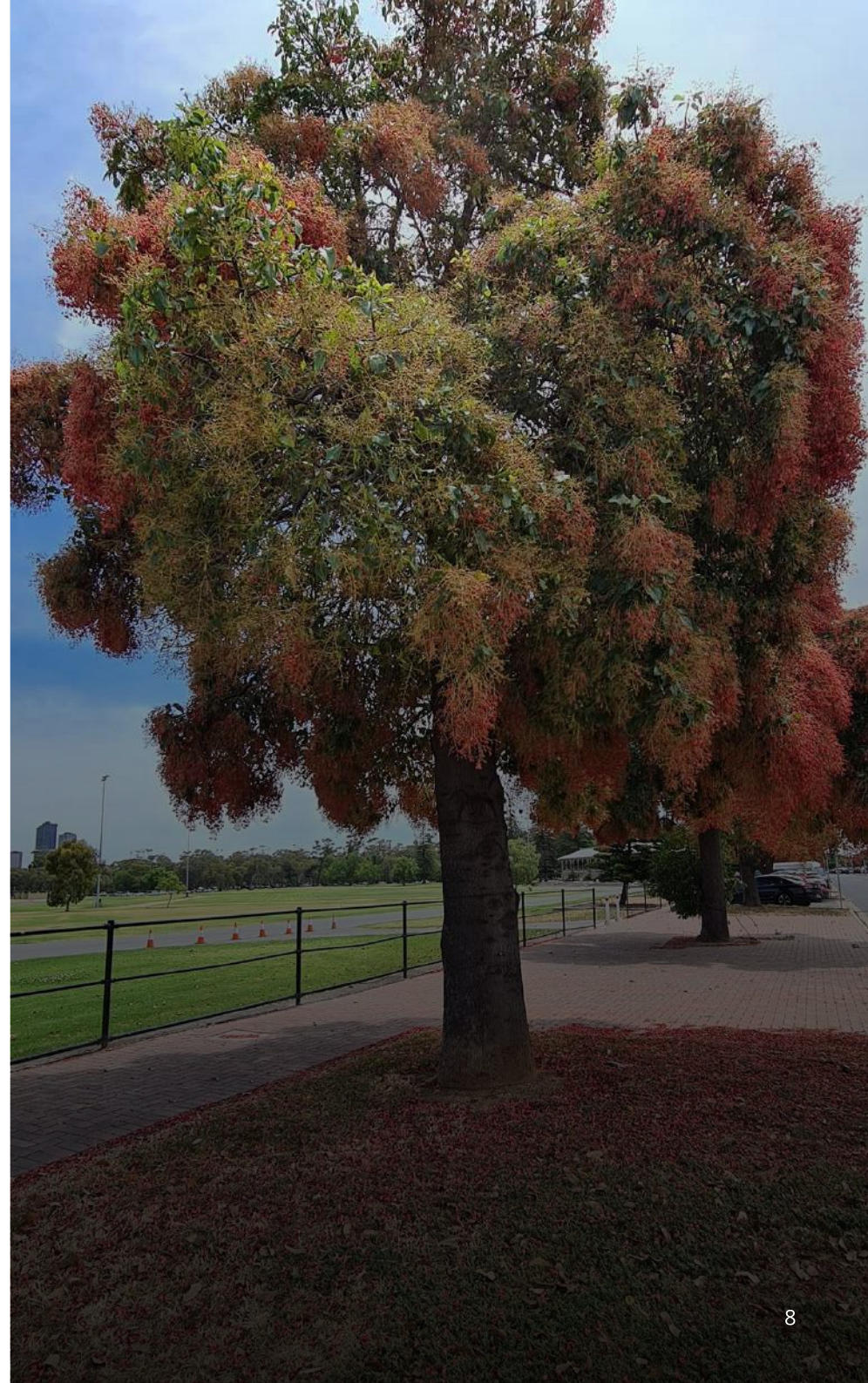
What is the process to **PRUNE** a tree?



What are the **PENALTIES** for illegal tree damaging activity?











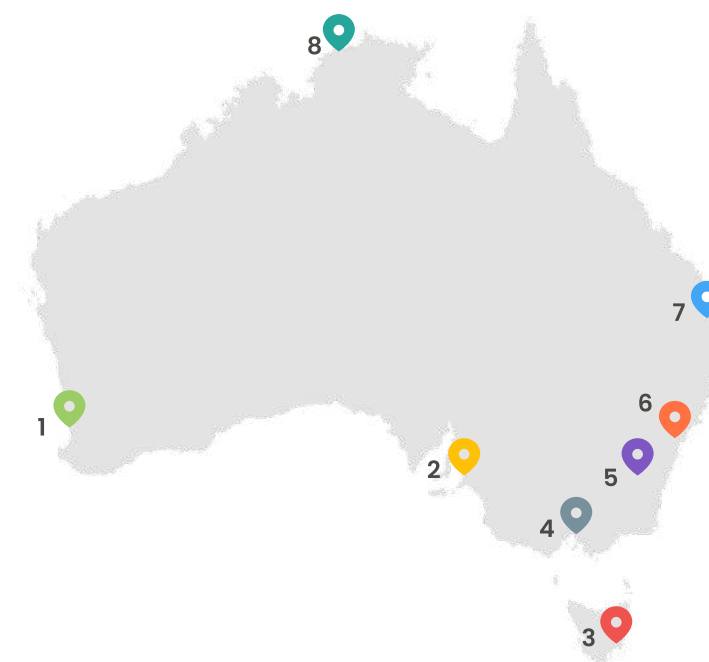
What key **LEARNING** or **IDEAS** are there from this jurisdiction?



Capital city comparison

Australia's capital cities present some of the most difficult environments to establish, maintain and grow an urban forest. With the highest population densities in Australia, these cities are not only more vulnerable to heat island effects but they also expose substantial populations to thermal stress, making tree establishment and retention critical.

<p>1  City of Perth</p> <p>Canopy in 2020 26.9%</p> <p>% change since 2016 Up 3.7%</p> <p>Population Density 2,101.6/km²</p>	<p>5  Australian Capital Territory (Canberra)</p> <p>Canopy in 2020 54.7%</p> <p>% change since 2016 Up 9.1%</p> <p>Population Density 181k/m²</p>
<p>2  City of Adelaide</p> <p>Canopy in 2020 23%</p> <p>% change since 2016 Up 1.6%</p> <p>Population Density 1,634.6/km²</p>	<p>6  City of Sydney</p> <p>Canopy in 2020 19.1%</p> <p>% change since 2016 Up 0.3%</p> <p>Population Density 9,211.5/km²</p>
<p>3  City of Hobart</p> <p>Canopy in 2020 60.3%</p> <p>% change since 2016 Up 10.5%</p> <p>Population Density 701.4/km²</p>	<p>7  Brisbane City Council</p> <p>Canopy in 2020 49%</p> <p>% change since 2016 Up 2.4%</p> <p>Population Density 933.9/km²</p>
<p>4  City of Melbourne</p> <p>Canopy in 2020 14.4%</p> <p>% change since 2016 Up 1.9%</p> <p>Population Density 4,791.1/km²</p>	<p>8  City of Darwin</p> <p>Canopy in 2020 28.1%</p> <p>% change since 2016 Up 4.2%</p> <p>Population Density 744.6/km²</p>



For consistency, canopy data is sourced from the *Greener Places Better Spaces* reports.

City of Adelaide



Protected

- A trunk circumference of 2m or more measured at a point 1m above natural ground level
- For multiple trunks, a total circumference of 2m or more at an average circumference of 625mm per trunk
- Is listed on the Significant Tree Register



Exemptions

- Any tree within 10m of a dwelling or inground swimming pool (excludes any Eucalyptus species, Willow Myrtle and trees listed on the Significant Tree Register)
- 24 species of tree are also exempt from being protected, such as London Planes and Silver Maples



Penalties

The person who undertakes the work to the regulated/significant tree is the person responsible for the breach.

Fines of up to \$120,000 apply.



Pruning

Pruning of less than 30% of a tree crown can be done without council approval.



Learning / Ideas

The current Significant Tree Register for the City of Adelaide is no longer maintained or updated. As a result, a number of trees on this list have been cut down.

City of Sydney



Protected

- Has a height of 5m or more
- Or a canopy spread of over 5m
- Or has a trunk diameter of more than 30cm measured at ground level
- Is listed on the Significant Tree Register
- Is listed as a heritage tree



Exemptions

- Trees that are 'imminently dangerous'
- Trees listed as exempt from protection which are typically weeds such as:
 - Tree of Heaven
 - Rubber Tree



Penalties

Maximum penalties of up to \$2 million may be imposed against companies and \$500,000 for in the case of individuals.



Pruning

Application must be submitted unless pruning:

- Does not remove more than 5% of a tree's canopy
- Does not impact the health or structural stability of the tree
- Is undertaken using AS4373 (Pruning of Amenity Trees) and a qualified arborist (Minimum AQF Level 2)



Learning / Ideas

Depending on the level of tree protection, applications to remove trees sometimes require development consent. This results in public notification that the tree is to be removed.

City of Melbourne



Protected

- Listed on the Exceptional Tree Register
- Or listed on the National Trust's Significant Tree Register
- Or protected via a planning scheme using:
 - Vegetation Protection Overlays
 - A Tree Protection Management Plan (typically used on development sites)



Pruning

Application must be submitted to council to prune a tree. If approved, pruning will be carried out using AS4970 - Protection of Trees on Development Sites or AS4373 - Pruning of Amenity Trees.



Exemptions

No exemptions exist to remove protected trees.



Learning / Ideas

Trees are protected during development. To ensure their survival, a bond or bank guarantee equivalent to the combined amenity and ecological value of subject trees is held for the duration of the works. If the tree is damaged or dies, part of or the entire bond may be forfeited.

City of Darwin



Protected

There are no protections for trees on private land.

City of Hobart



Protected

- Listed on the Significant Tree Register
- Or an area protected with a heritage or biodiversity overlay

It would also appear that the City of Hobart plans to assess further protections for trees on private property.

“Investigate and consider the development of a policy and possible regulatory control for the protection of trees on private property with a view to it becoming part of overarching urban forests strategy for the City.”

City of Hobart 2017 Tree Strategy

City of Perth



Protected

Protects trees through a significant tree register.



Learning / Ideas

The City of Hobart notifies adjoining property owners of an application to remove a tree listed on the City's Significant Trees Register.



Penalties

A fine of up to \$10,000.



Protected

- Listed as a heritage tree
- Or classified as a Significant Landscape Tree (SLT)
- Or covered with a Vegetation Protection Order (VPO)
- Or covered protected under Development Approval Conditions
- Or protected with Land Covenants
- Or mapped as an area of Significant Native Vegetation (SNV)
- Or classified as Significant Urban Vegetation (SUV) -
 - Covers both native and exotic vegetation on private property, that is generally mature and/or prominent in the landscape, or has specific historical or cultural value in Brisbane.



Exemptions

- Present an immediate and significant threat to persons or property
(SNV, SUV)
- The whole trunk is located within 3m of a dwelling on less than 4,000sqm (Excludes **SLT**)
 - The whole trunk is located within 6m of a dwelling on over 4,000sqm (Excludes **SLT**)
 - Has a circumference of less than 30cm from 1.4m above the ground (SNV, SUV) (Excludes **SLT**)
 - For building a fence - No permit is required to remove a tree within 3m of a property boundary if the tree is smaller than 20cm in trunk diameter measured at 1.4m above the ground. **(SNV, SUV)**
 - Classified as a weed under the Council Biosecurity Plan



Learning / Ideas

Brisbane City Council's vegetation protections are managed through the Natural Assets Local Law 2003 (NALL). NALL links with their planning system where homeowners can download maps to show which vegetation is protected and the level of protection. These overlays deliver a more tailored approach to vegetation protection. This system is the most complex of any capital city but they do have a very high level of canopy cover.



Pruning

Pruning is allowed for up to 20% of the live foliage within a 12 month period, or where the part removed is distributed evenly.

- Pruning to be done according to AS4373
- Does not apply to Significant Landscape Trees.

Conclusion

Taken at face value, the 1.6% growth in Adelaide's tree canopy cover reported by Greener Places Better Spaces is encouraging. However, the 23% overall canopy cover hides substantial differences in canopy across different areas of the city.

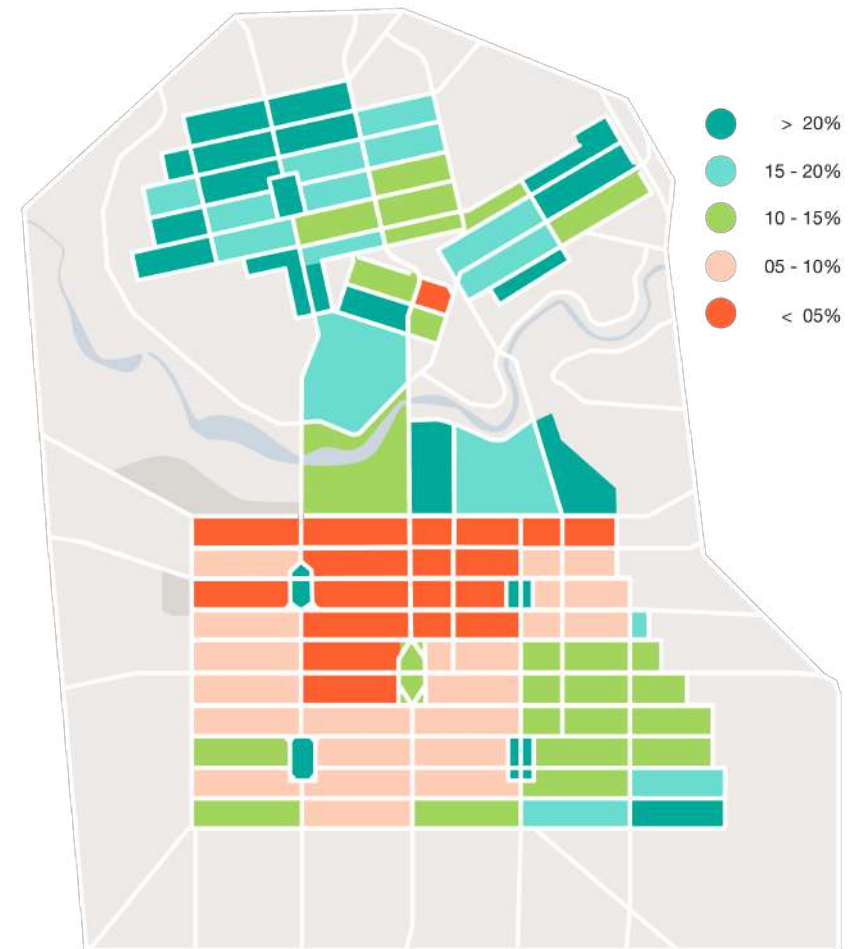
Adelaide is surrounded by a belt of green space - the Adelaide Park Lands, with the City Centre, south of the Karrawirri Parri/River Torrens and North Adelaide to the north. When the canopy cover of the Park Lands is removed from calculations, the figures reveal a vastly different story.

Research undertaken as part of the City of Adelaide's 'Green City Plan' in 2018 showed that, when compared with North Adelaide, the city centre is starved of trees.

At 28.2%, North Adelaide is a leafy suburb, with tree-lined streets and green spaces making it one of Adelaide's greener inner-city suburbs. South of the Karrawirri Parri/River Torrens, the story is vastly different, with the city centre's average of 14.3%.

When tree canopy across the city centre is analysed by quarter, the figures reveal that the north-west area has less than 5%. Many streets do not have even one single tree.

Many of Adelaide's best-known precincts, including the Central Markets, the West End, Rundle Street, King William Street, Hindley Street and North Terrace have less than 5% tree canopy cover. Equity of access to canopy is an important principle; many of the areas with low canopy cover are major activity areas for the city's daily worker and visitor population.



Conclusion Cont.

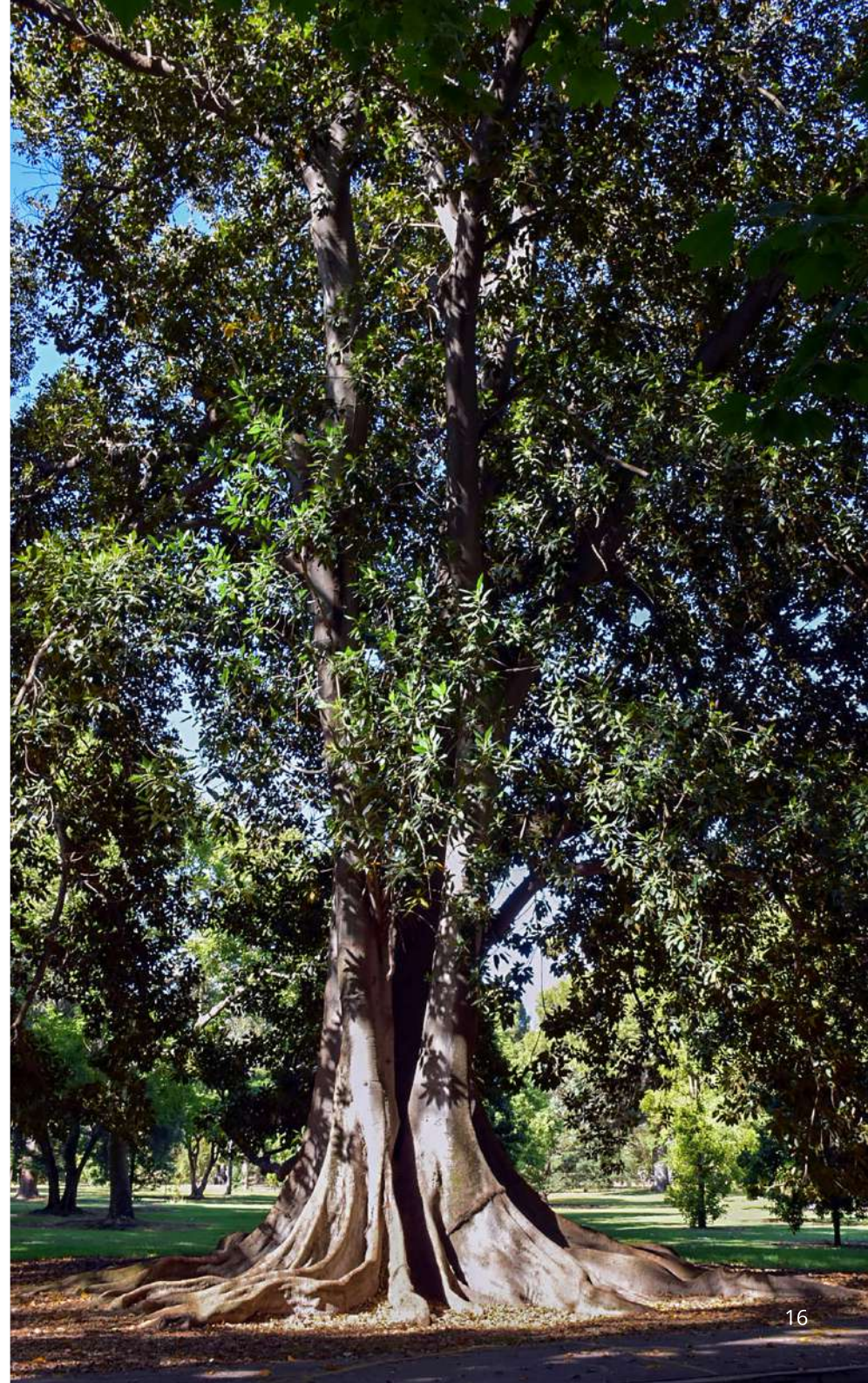
There is good news: council tree planting programs work. The 2016-2020 target of 1,150 extra street trees was focused on the hotter streets and achieved in just over 2 years. This accounts for a large part of the increase in Adelaide's tree canopy cover and will help mitigate the heat island effect in these areas.

South Australia's one-size fits all approach to tree protections cannot be reasonably expected to deliver a 'best practice' outcome that works for the City of Adelaide, as it faces more intense pressure from development density and underground services than do other councils. Aside from the City of Darwin, the City of Adelaide is the only capital city that does not have an actively updated list of "significant" trees.

Whilst the headline figure of 23% tree canopy, with a recent 1.6% increase is a positive outcome, the 2018 City of Adelaide's 'Green City Plan' reveals a far more sobering situation with far-reaching implications.

The recent heatwave across the United Kingdom has been felt hardest in their most urbanised areas. The temperatures reached in these areas had been predicted for 2050, yet they arrived almost 30 years earlier. The early arrival of these temperatures highlights the urgent need for increasing tree canopy coverage across the City of Adelaide.

Predictions for extreme heat in Adelaide are much more dire than for the UK and many other cities in Australia. We must act now.



References

All jurisdiction information has been resourced from the relevant council / Jurisdiction website.

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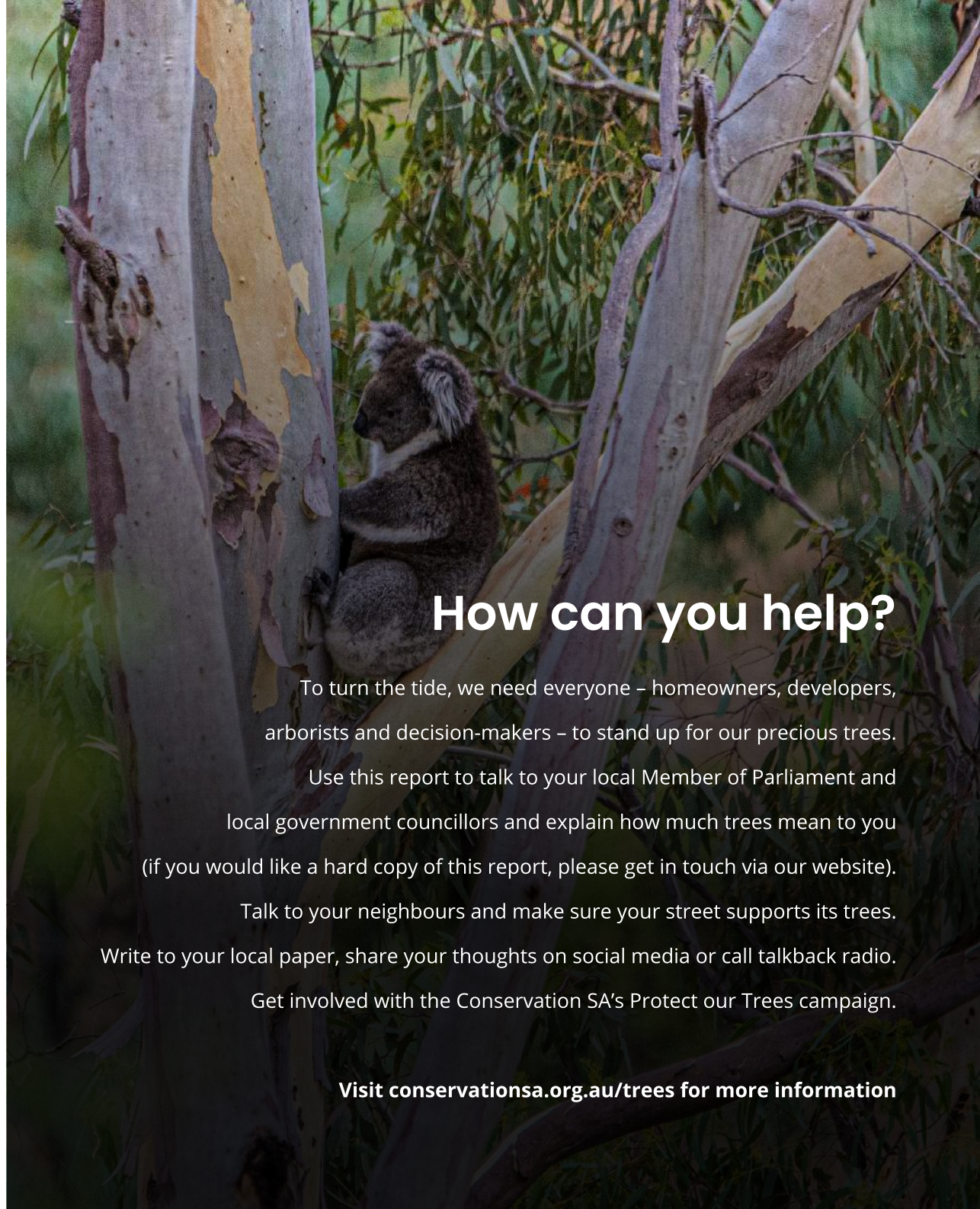
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How can you help?

To turn the tide, we need everyone – homeowners, developers, arborists and decision-makers – to stand up for our precious trees.

Use this report to talk to your local Member of Parliament and local government councillors and explain how much trees mean to you (if you would like a hard copy of this report, please get in touch via our website).

Talk to your neighbours and make sure your street supports its trees. Write to your local paper, share your thoughts on social media or call talkback radio.

Get involved with the Conservation SA's Protect our Trees campaign.

Visit conservationsa.org.au/trees for more information