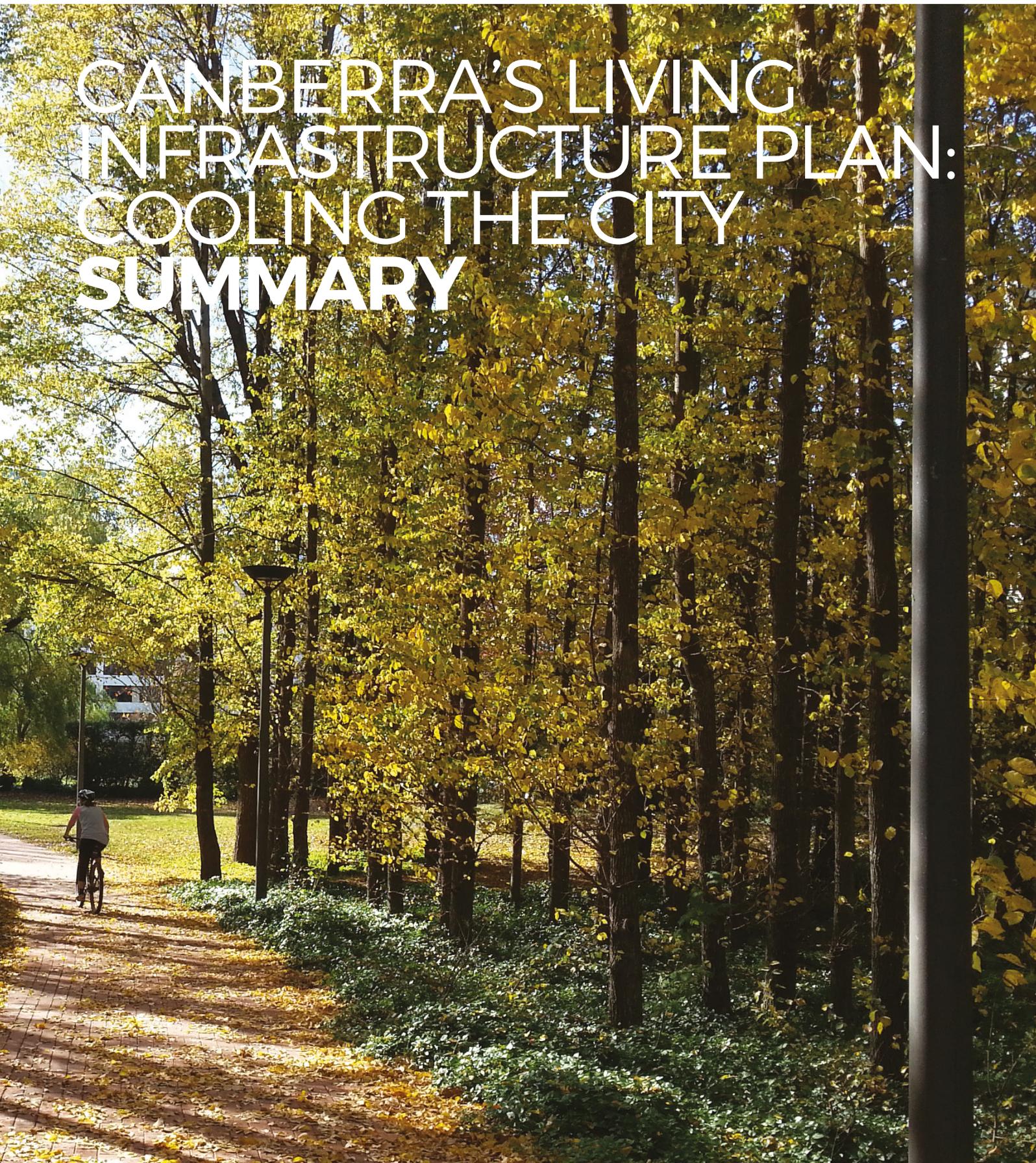


# CANBERRA'S LIVING INFRASTRUCTURE PLAN: COOLING THE CITY SUMMARY



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Canberra's Living Infrastructure Plan  
and to find out how you can be  
part of the solution, visit  
**[www.act.gov.au/climatechange](http://www.act.gov.au/climatechange)**

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# MINISTER'S MESSAGE

Canberra is the beautiful “Bush Capital”. Our city’s living infrastructure – that is, its trees, plants, soils and water systems – help make Canberra a special place to live. This natural environment is highly appreciated by Canberrans, and by visitors to our city.

Living infrastructure improves our wellbeing and health. It helps us connect to nature even while living in an urban environment. It provides space for outdoor recreation. It also provides shade, retains water in the landscape, and supports wildlife and biodiversity.

Canberra is moving into a new era. It is growing quickly, and its climate is changing due to global warming. It is essential that the ACT Government has a plan to respond to these challenges. This plan - the Canberra’s Living Infrastructure Plan: Cooling the City - sets out the ACT Government’s firm commitment to maintain and improve living infrastructure in Canberra. It recognises the critical role that living infrastructure plays in our city, and the increasingly important role it will play, particularly in cooling the city as the climate warms.

Climate change is already affecting Canberra. Its impacts include higher temperatures, and longer and more frequent heatwaves. Canberrans are increasingly suffering from the “urban heat island effect”. This occurs when pavements, roads and buildings absorb the sun’s heat and radiate it back, increasing temperatures day and night. A CSIRO study showed that the urban heat island effect causes large temperature differences between parts of Canberra – up to 10°C or more on a hot day. Locations with lower tree canopy cover experience a greater urban heat island effect, and this has consequent effects on comfort, health, energy use and costs.

This Plan seeks to address these issues. One of the key commitments in the Plan is to a new ‘tree canopy target’. By 2045, we aim to have 30% of Canberra’s urban environment covered by a tree canopy or a tree canopy equivalent (such as green roofs, shrub beds, wetlands and rain gardens etc). This is a significant commitment; currently Canberra’s urban tree canopy is about 21%.

The Plan is also alert to the new pressures that climate change places on our living infrastructure. It will ensure we take the latest science into account and that our living infrastructure is suited to our changing climate – one that is becoming drier and hotter.

Living infrastructure is a critical asset in our city. This plan seeks to protect it, to enhance it, and to take advantage of its benefits to improve wellbeing, amenity, and to help us adapt to the warming climate.

Our combined efforts will help us reach our shared vision for a sustainable, competitive and equitable city which is responsive and resilient to change.

**Shane Rattenbury MLA,**  
Minister for Climate Change and Sustainability.



## ACKNOWLEDGEMENT OF COUNTRY

The ACT Government acknowledges the Australian Aboriginal and Torres Strait Islander peoples of this nation. We acknowledge and pay our respects to Elders, past, present and future of the Ngunnawal people as the Traditional Custodians of the lands on which we live and where we conduct our business. We recognise the significant contribution of the Ngunnawal people and neighbouring Nations—the Ngambri, Ngarigo, Wolgalu, Gundungurra, Yuin and Wiradjuri to the Canberra region. For thousands of years these Nations have maintained a tangible and intangible cultural, social, environmental, spiritual and economic connection to these lands and waters.

# EXECUTIVE SUMMARY

Canberra is growing at one of the fastest rates of any capital city in Australia. Population projections indicate that our city will need to cater for more than 600,000 people by 2050. Canberra's Living Infrastructure Plan: Cooling the City (the Plan) provides strategic direction to help our expanding and densifying metropolitan areas become better prepared for and more resilient to climate change. It identifies options and opportunities provided by living infrastructure measures to enable us to continue to enjoy the benefits of:

- climate resilience
- economic prosperity and
- the amenities of nature
- health and wellbeing.

Through the ACT Planning Strategy 2018 the ACT Government has set a development target of 70% within the existing urban footprint. We recognise that urban density needs to be balanced with a natural environment, green spaces and trees.

The actions in the Plan will ensure we plan, design, construct and manage our city in a way that values, incorporates and protects natural assets. Using a continually expanding suite of living infrastructure options we can strategically and innovatively reduce our climate vulnerability and safeguard the liveability of Canberra.

The Plan also recognises that we need to be proactive in sustaining our city's existing natural assets or we risk losing them. Through an Urban Forest Strategy we will develop a forward plan for stabilising and enhancing our existing urban forest in a changing climate, and as our city form changes through urban intensification and expansion.

The goals that underpin the actions within this Plan are to achieve a:

- » Climate-wise city
- » Prosperous city
- » Nature in the city and
- » Healthy city.

A key goal of this Plan is to adopt and progress towards targets by 2045 that provide Canberra's urban footprint with:

- » the equivalent benefits of a 30% tree canopy cover and
- » 30% permeable surfaces.

We recognise these targets will require carefully tailored solutions to meet the diverse challenges and opportunities of our variable urban environment. We also are aware that these are not goals that the Government can achieve on its own. They require action on public and private land and will therefore be heavily reliant on a strong collaborative and collective effort.

Implementing this Plan to 2025 and beyond will help our growing city adapt to the challenges presented by climate change, and retain its attractiveness as a liveable, prosperous and sustainable 'city in the landscape'. It will help ensure our community has on-going equity of access to the benefits of living infrastructure through a planned, co-operative and locally responsive approach. It will also help safeguard the functioning of our landscape and the water, soil, biodiversity and wildlife systems that it supports and on which we as a community depend.



## GOALS

### Climate-wise city

To reduce the risks from the key climate change impacts of heatwaves, droughts, storms and bushfires, through resilient living infrastructure.

### Nature in the city

To conserve and enhance Canberra’s biodiversity and landscape function, quality of life and sustainability, which are reliant on our urban forest, open spaces, wildlife and water systems.

### Prosperous city

To recognise that our landscapes, with living infrastructure asset components, are an essential part of our economic prosperity that create revenue and jobs.

### Healthy city

To promote community-wide health and wellbeing through access to nature which provides recreational, fitness and relaxation opportunities, and improves mental health.

## ACTIONS

METHODS	ACTIONS	DIRECTORATE TIMING
Accounting for living infrastructure	<b>ACTION 1: Expand existing asset management system</b> Complete inventory and mapping of living infrastructure and expand the public urban infrastructure asset management system to include urban living infrastructure to inform investment decision making, whilst investigating steps to implement an accounting framework, such as the United Nations System of Environmental Economic Accounting (SEEA), to value urban living infrastructure.	EPSDD, TCCS Interim progress report by 2021 Inventory and mapping by 2023
Adopting targets	<b>ACTION 2: Living Infrastructure Targets</b> Achieve 30% tree canopy cover (or equivalent) and 30% permeable surfaces in Canberra’s urban footprint by 2045.	EPSDD Achieve by 2045

METHODS	ACTIONS	DIRECTORATE TIMING
Microclimate assessments	<b>ACTION 3: Microclimate Assessment Guide</b> Prepare a Microclimate Assessment Guide and mandate its use to inform policy and forward planning studies for centres, urban renewal projects and urban intensification precincts, with initial assessment of priority locations to inform a city cooling works program.	EPSDD By 2020
	<b>ACTION 4: Microclimate Assessment Program</b> Introduce requirement(s) for microclimate assessments of significant developments located in centres, urban renewal projects and urban intensification precincts, to assist with development assessment.	EPSDD Commence 2020
Improving processes and community resources	<b>ACTION 5: Climate-wise Landscape Guide</b> Prepare a guide for use by the community and built environment professionals to support effective landscape plans, and increase the opportunity for healthy, climate resilient and biodiverse gardens and public lands.	EPSDD Commence 2020
	<b>ACTION 6: Landscape Plans</b> Require multi-dwelling, mixed use and commercial development applications (DA) to have landscape plans that demonstrate how surface treatments and tree canopy cover targets will be met, and change the processes for certification of DA compliance accordingly.	EPSDD Commence 2020
	<b>ACTION 7: Actsmart Programs</b> Expand Actsmart web-based information and programs to incorporate the Climate-wise Landscape Guide to encourage and support community efforts to improve sustainability outcomes.	EPSDD Commence 2020
Planning our future urban forest	<b>ACTION 8: Tree Protection Act Review</b> Review and update the <a href="#">ACT Tree Protection Act 2005</a> to ensure consistency with the objectives of the Plan and suitability to Canberra's changing climate.	TCCS Commence 2020
	<b>ACTION 9: Develop Urban Forest Strategy</b> Develop a strategic plan for the public urban forest that outlines how the urban forest can be maintained and enhanced to improve amenity in a changing climate and deliver biodiversity outcomes.	TCCS Commence 2020
Learning and doing	<b>Action 10: City Cooling Program</b> Trial city cooling initiatives in high priority locations.	SLA, CRA Commence 2020
	<b>Action 11: 'Oasis' Program</b> Trial local park upgrades in high priority locations including watered grass, trees, seats, lights and drinking fountains.	EPSDD, TCCS Commence 2021
	<b>Action 12: Shadeways Program</b> Support the amenity and safety of active travel on trunk cycle and pedestrian routes with tree canopy shade and water points at key destinations.	TCCS Commence 2021
	<b>Action 13: Demonstration Projects</b> Showcase best practice climate-wise design through display houses and exhibition sites in Government projects.	EPSDD, SLA, Housing Commence 2021
	<b>Action 14: Water Sensitive Urban Design</b> Support trials and demonstration projects to retrofit infrastructure to allow hydration of open spaces using stormwater.	EPSDD Commence 2021
	<b>ACTION 15: Public and private investment</b> Investigate ways to encourage and incentivise living infrastructure on existing and future buildings in Canberra.	EPSDD By 2020

