
Liveable, high-density neighbourhoods under climate change: *possibility or pipe-dream?*

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October 2024

Context

- A changing climate
- Growing inequality
- Biodiversity crisis
- Growing population
- Implications for health, environment, our economy, and our society



Heatwaves kill more people
than all other environmental
disasters combined.



swelteringcities.org/burning-up

Heatwaves categorised as
severe affect those most
vulnerable, including elderly
people and young children.



swelteringcities.org/burning-up



Business court will blame slow local decision-making for Australia's housing supply crisis

Peak business body proposes deadlines to speed up local councils, saying delays are making developers reluctant to invest

FINANCIAL REVIEW

— The AFR View

Oct 14, 2024 – 8.10pm

Councils are the obstacle as our cities grow

Sydney in particular needs government to listen to needs of the city and the economy, not the executive of local NIMBYs

HOUSING



Gallop at Times

...worsening housing crisis: HIA

CRISIS!

October 16, 2024 • BY Adam Carswell

Domain

Sponsored Property Living Brickworks Building Products October 15, 2024 – 8.55am

Bricks make a comeback to tackle the housing crisis

Sponsored by Brickworks Building Products

FINANCIAL REVIEW

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Councils are the obstacle as our cities grow

Sydney in particular needs local governments who listen to the needs of the city and the economy, not the excessive fears of local NIMBYs.

Local councils in thrall to noisy NIMBY anti-development groups are reckoned to be one of the biggest bottlenecks in the nation's housing supply. So there is merit in the Business Council of Australia's proposal this week to apply some different public pressure by creating a national name-and-shame list of councils that fall behind on their own housing approval targets.

Response

HELP US SHAPE THE FUTURE *for* VICTORIA

Developing a
plan for Victoria



Victoria's Housing Statement

The decade ahead | 2024-2034

VICTORIA



Response

- LGA housing targets
- Redevelopment of public housing -
“Australia’s biggest ever urban renewal project”
- 10% affordable housing, with little definition of what this is
- Reform planning and cut “red tape”,
“unlocking” supply



Developers and a new decision-maker

The most significant part of the housing statement, however, is the chapter called “good decisions made faster”, which details reforms of the state’s planning system.

Statement

The decade ahead | 2024-2034

The changes were welcomed by the Property Council of Australia, the Urban Development Institute of Australia, Master Builders Victoria and the Housing Industry Association, who joined the premier at the announcement on Wednesday.

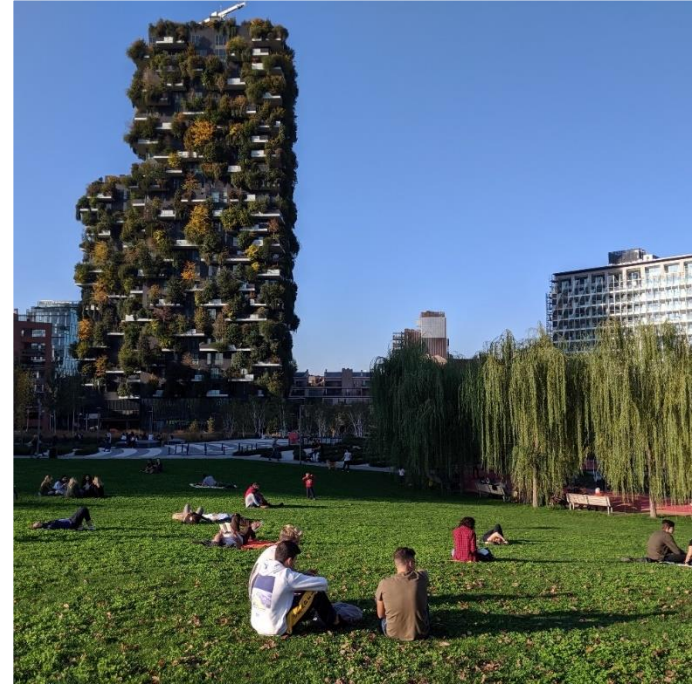
“What it is going to do is to take away residents’ existing rights and council powers. It’s going to be a fundamental change to a democratic decision-making process,” he said.

“It’s going to handover substantial portions of the city to the development industry to be redeveloped without any local or community input.”



The challenge

- Not about “solving” the housing crisis via supply at all cost.
- And not about protecting existing neighbourhood at all costs - low density, high amenity living for the few is not the answer.
- Intensification is needed, but with concern for climate resilience, sustainability, liveability, and equity in the city.



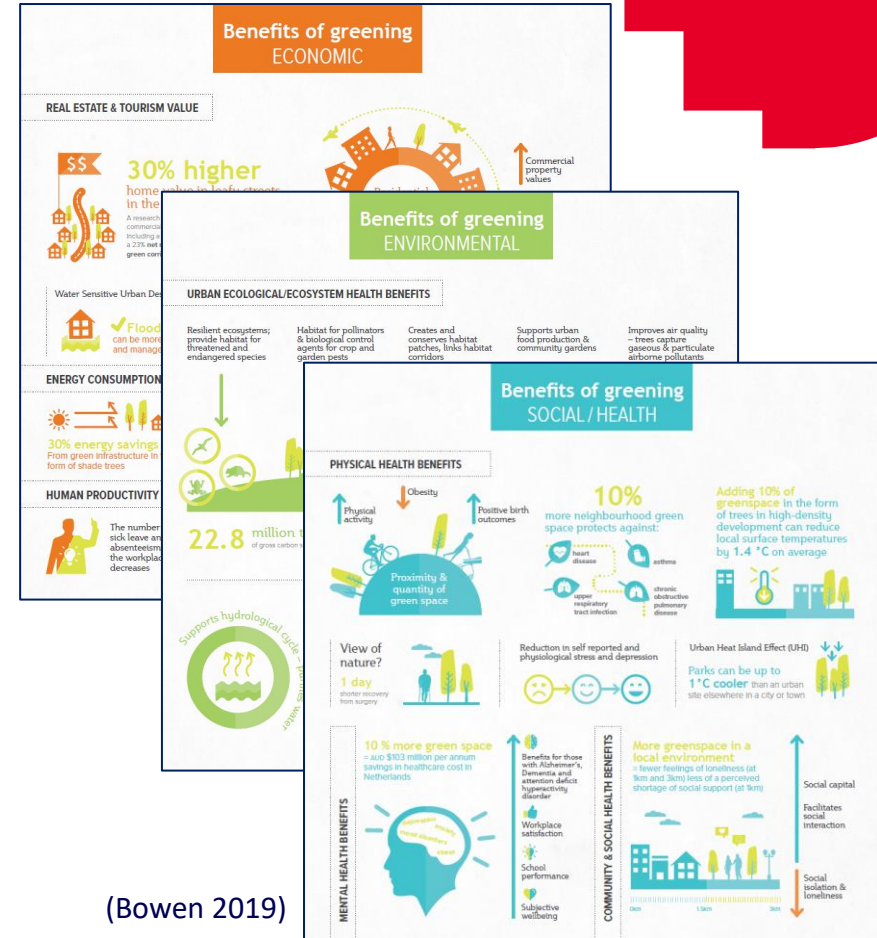
The challenge

- Cities are more than housing
- Full of tensions and conflicts
- How to maximise synergies /co-benefits
- Density done well



Green infrastructure case study

- Human health:
 - heat mitigation
 - supporting active lifestyles
 - mental and physical health benefits
- Other:
 - amenity
 - stormwater management
 - biodiversity

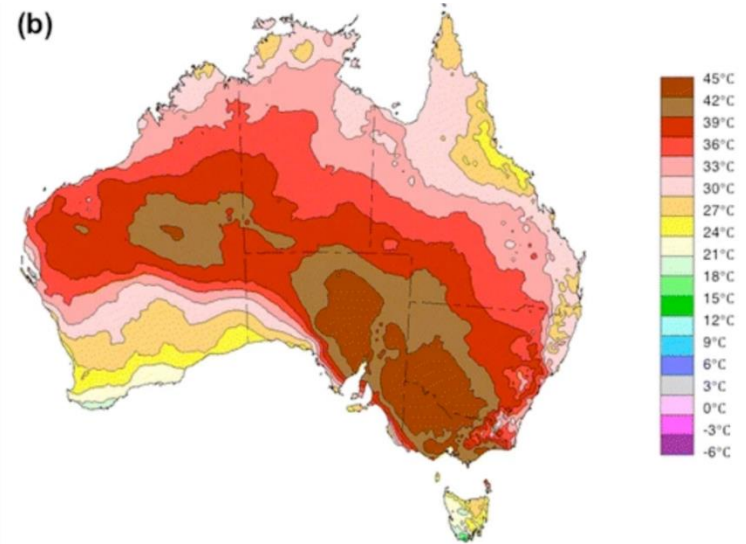


(Bowen 2019)

Green infrastructure case study

Urban heat:

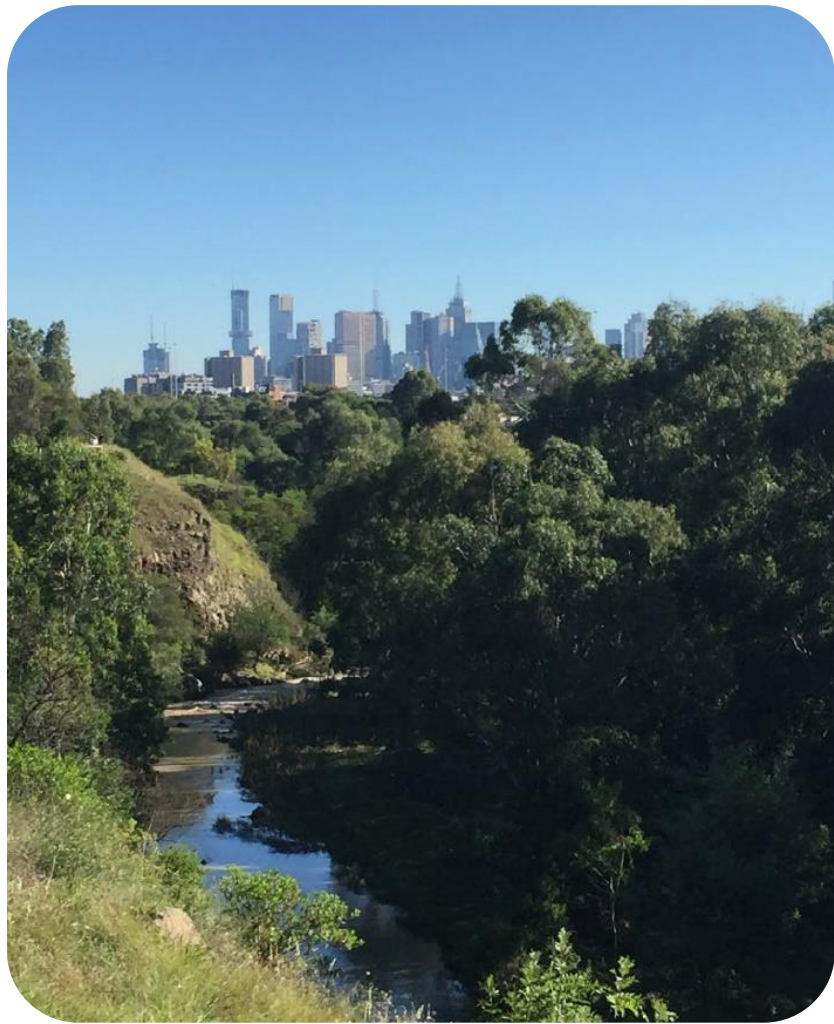
- A combined natural and human-induced disaster for people and the economy.
- A bigger killer than bushfires and floods.
- During the 2009 Black Saturday bushfires, fire killed 173 people, but the heatwave killed 374.
- In 2015, heat caused a productivity loss of \$6 billion.



Sources: Bendigo Advertiser, <https://www.smh.com.au/opinion/heatwaves-are-more-deadly-than-bushfires-and-theyre-going-to-get-worse-20161212-gt9fyl.html>

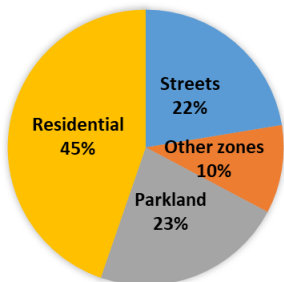
Jacobs, S. J., Vihma, T., & Pezza, A. B. (2015). Heat stress during the Black Saturday event in Melbourne, Australia. *International journal of biometeorology*, 59(6), 759-770

Zander, Kerstin K., et al. "Heat stress causes substantial labour productivity loss in Australia." *Nature climate change* 5.7 (2015): 647-651.

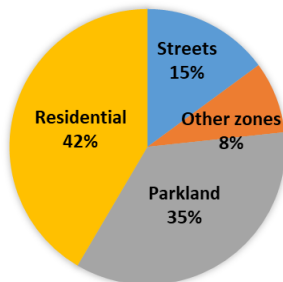




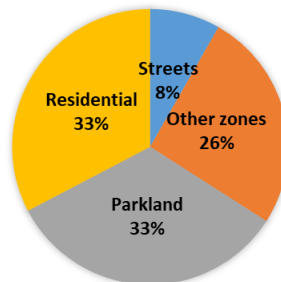
SYDNEY - INNER



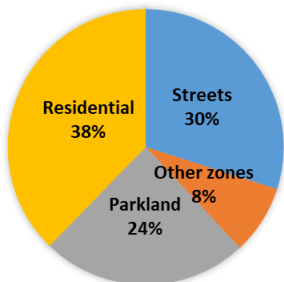
SYDNEY - MIDDLE



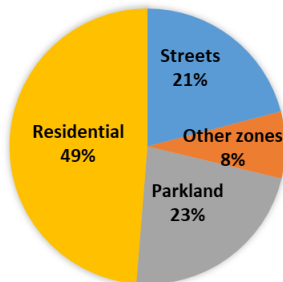
SYDNEY - OUTER



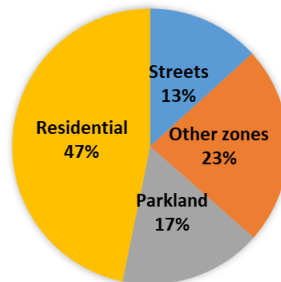
MELBOURNE - INNER



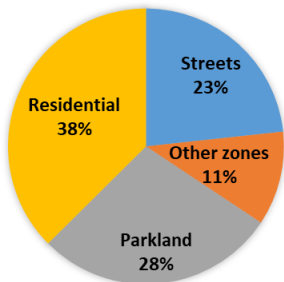
MELBOURNE - MIDDLE



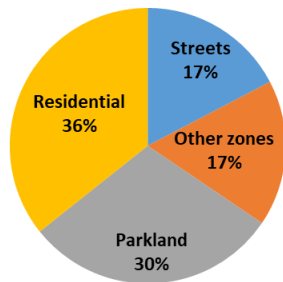
MELBOURNE - OUTER



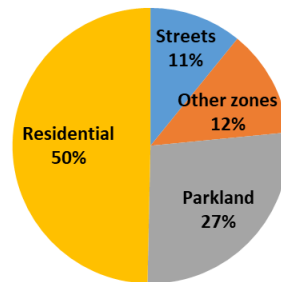
PERTH - INNER



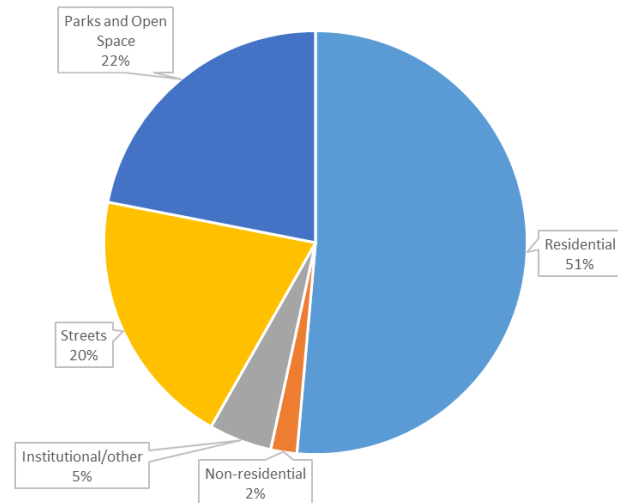
PERTH - MIDDLE



PERTH - OUTER



Whitehorse - contribution to canopy cover by land type

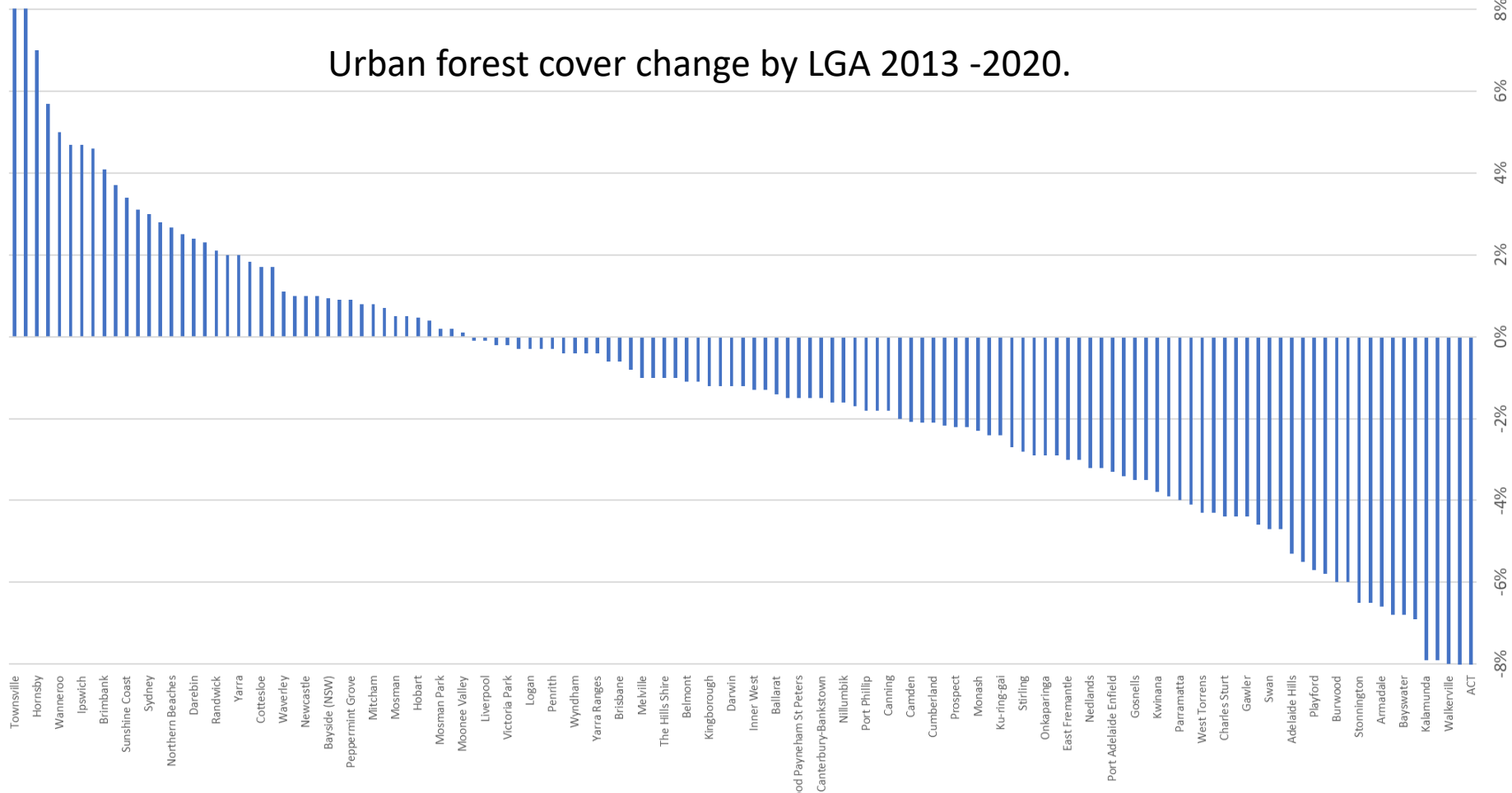


Hurley et al (2020b) Benchmarking Urban Vegetation Cover: Melbourne, Perth, Sydney, Clean Air and Urban Landscape Hub, Melbourne, Australia.



Urban forest cover change by LGA 2013 -2020.

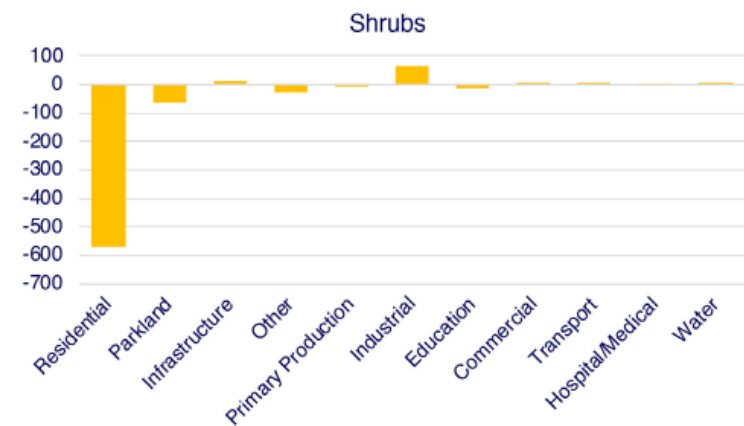
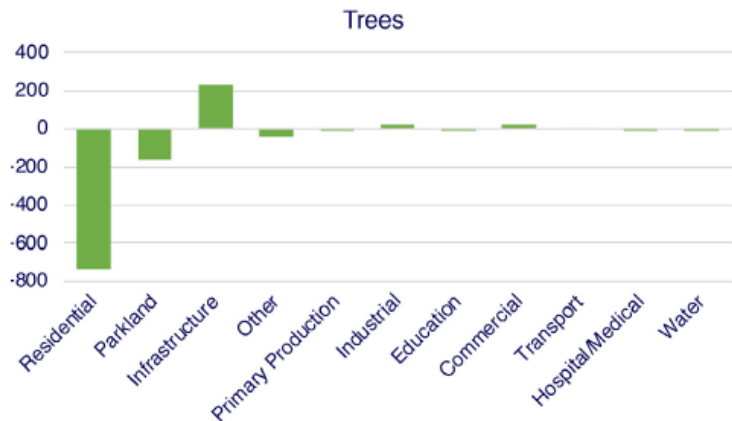
Urban Forest Cover change 2013-2020 (percentage points)



Hurley et al (2020a) Where will all the trees be? - an assessment of urban forest cover and management for Australian cities, prepared for Hort Innovation by the Centre for Urban Research, RMIT University, Melbourne.

Melbourne Urban forest cover change 2014 -2018

Change in Vegetation by Land Use (ha)



Hurley et al (2019) Urban Vegetation Cover Change in Melbourne 2014 - 2018, Centre for Urban Research, RMIT University, Melbourne, Australia.

Figure 3 - Tree Cover Change in Melbourne

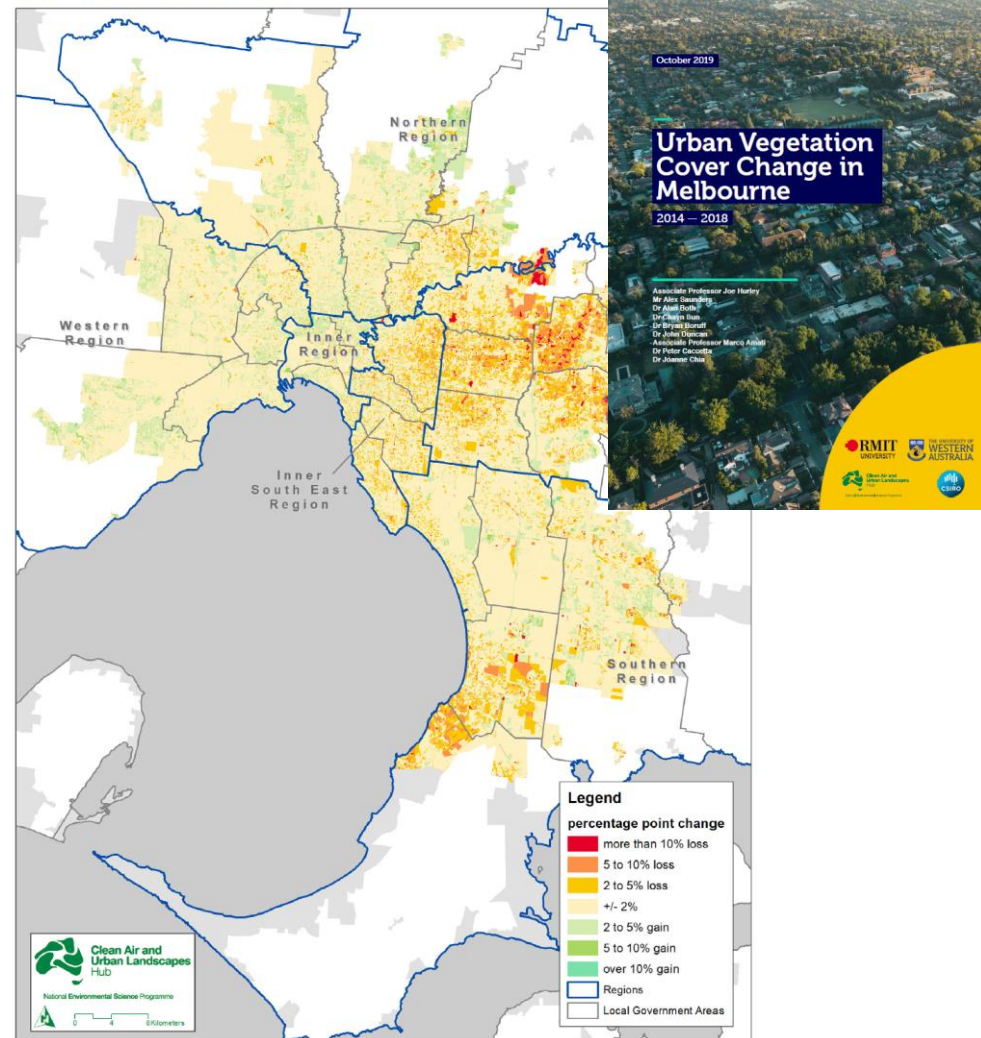










Photo:
Author



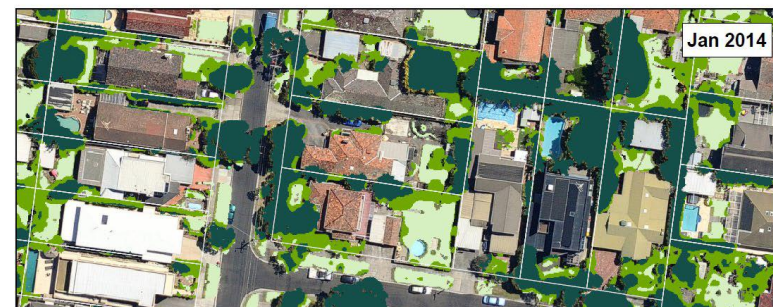
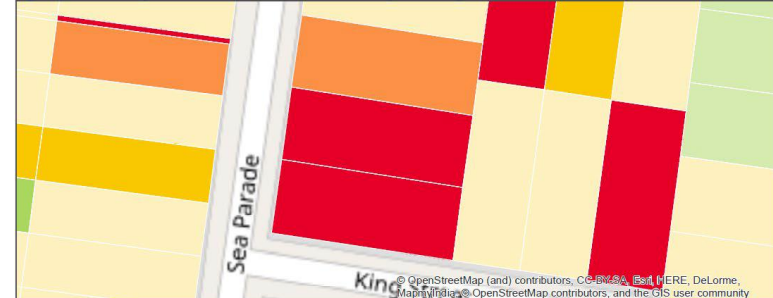
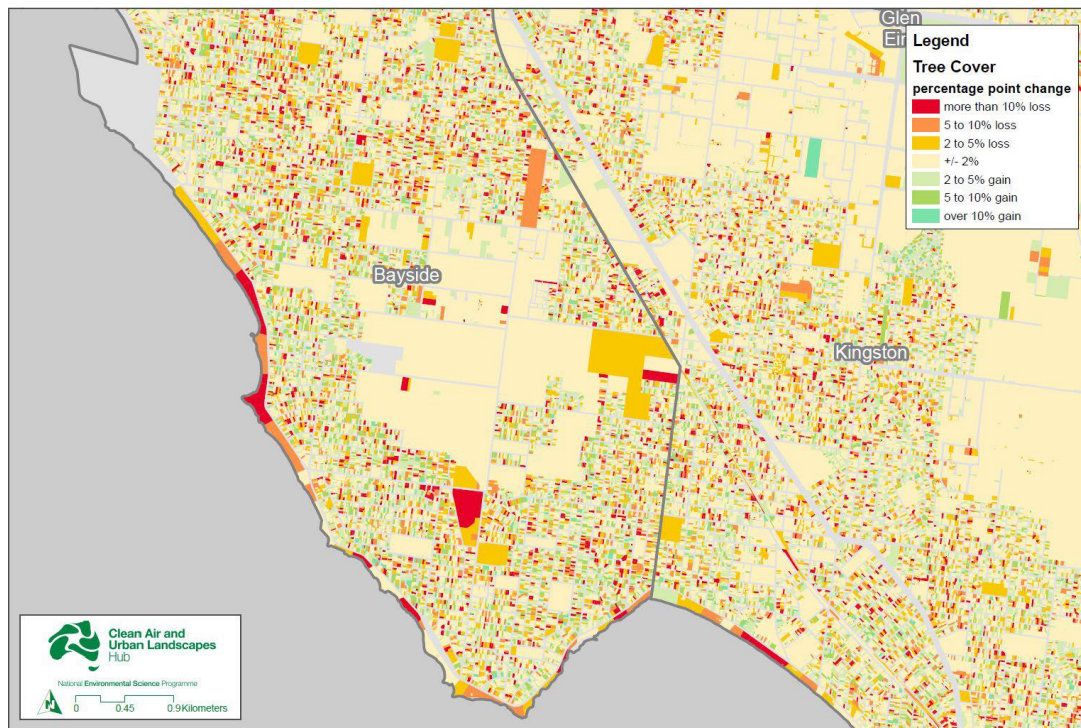
September 2013



August 2014



February 2017



Hurley et al (2020). Metropolitan monitoring and analysis of vegetation cover, heat and land use: Urban Vegetation and Housing Development, Melbourne 2014- 2018, For Victorian Government Department of Environment, Land, Water and Planning. Melbourne, February 2020.

National survey of local government

"On public land we are making fantastic progress, ... but on private land we fight a losing battle because we effectively [have] no power to prevent tree losses and limited influence over developer decision making"

We need "a Council endorsed position on protection of trees on private land. The key barrier to achieving this is elected members' reluctance to engage on the matter due to it being historically politically unpalatable"

We need "better planning controls that enforce tree protection and retention"

We need "state legislative protection for established trees on public and private land"

We need "panning Scheme changes to protect trees and to mandate tree planting for all developers".



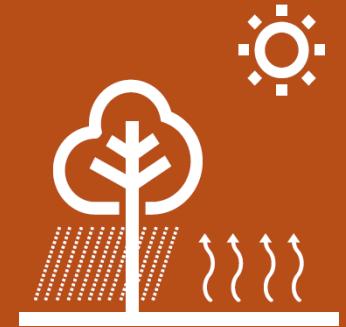
Council Alliance for a
Sustainable Built Environment

Sustainable Subdivisions
Framework
7 Key Sustainable Subdivision Categories

6.0

Urban Heat

Subdivision design for a sustainable future



What's included in this fact sheet:

Why do subdivisions need to reduce urban heat?

Benefits of cooler subdivisions

What should be considered to reduce urban heat in subdivisions?

- Urban heat mitigation
- Access to shelter
- Health and wellbeing

This fact sheet explains how subdivision design can reduce urban heat, manage the effects of urban heat within the subdivision area and maintain human health and wellbeing through periods of extreme heat.

Why do subdivisions need to reduce urban heat?

With the changing climate, Victoria is expected to have more days of extreme heat as well as higher average temperatures of at least 1.5 degrees by 2070. Studies show that air temperature in built up areas, particularly after sunset, can be as much as 7 degrees

The negative impacts of urban heat also extend to disruption to transport operation, increased energy demand, damage to infrastructure, degradation of vegetation and wildlife, and has even shown to have a negative influence on crime rates.

See also: Doyon et al (2020). Evaluating evolving experiments: the case of local government action to implement ecological sustainable design. *Journal of Environmental Planning and Management*, 63(11), 2042-2063.



Key messages

- Density is not the enemy.
- High amenity, liveable neighbourhoods that support sustainability and equity are possible.
- Green infrastructure exemplifies the need to focus on collective impact / benefit.
- Good planning systems ensure that publicly agreed social and environmental values are protected from inappropriate development.
- Removing local voices for development expediency is retrograde action.