

LAND7152-Urban Ecology and Landscape Design

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The Need For Greater Urban Forestry Health
In The Randwick Council
(People and Nature)

Acknowledgement of Country

I would like to acknowledge that this project was created on the land of the Gadigal and Bidjigal peoples who traditionally occupied the Sydney Coast. I acknowledge Aboriginal or Torres Strait Islander people, and I pay my respects to Elders past and present.



Figure 1. Gordon's Bay, located between Coogee and Clovelly Beach, in the Randwick Council. (Source: Author)



Figure 2. A tree collapsing, taken at the top of Coogee beach, near the Bali Memorial in Dunningham Park, in the Randwick Council. This tree has since been replaced with another tree. (Source: Author)

Abstract

The Randwick City Council in mid-2025 released a Draft Urban Forest Policy where they set the target of increasing the tree canopy coverage to 22% by 2040. But this target doesn't appear to go far enough, especially considering that other Australian government organisations are aiming for 40% coverage in similar timelines. This report explores the downsides of not having enough tree coverage to human health, whether or not 40% tree coverage is achievable, and makes a case for the RCC to increase the target and do more for the health of its urban forest and community.



Figure 3. Tree canopies from Bangor Park, located about 10mins walk north from the Randwick Sustainability Hub, in the Randwick Council. (Source: Author)

Introduction

In 2025, the Randwick City Council (RCC) released a Draft Urban Forest Policy (DUFPP) with the aim of increasing the tree canopy coverage of the entire RCC area. The draft proposed a new target of “22% canopy cover by 2040” (Randwick City Council 2025, p. 4). Whilst increasing the tree coverage of the area is admirable, arguably, this target does not go far enough to achieve the purpose behind increasing the tree coverage, which is to provide “significant aesthetic and ecological benefits to both people and the environment” (Randwick City Council 2025, p. 4).

It appears that the RCC isn’t doing enough for its urban forestry health, especially after considering that other Australian government organisations, such as City of Melbourne (COM), have vowed to increase their “canopy cover from 22% at present to 40% by 2040” (City of Melbourne 2012-2032, p. 7). The City of Sydney (COS), whilst only aiming for 27% tree cover, is aiming for 40% green cover: “Our target is to increase our overall green cover to 40 per cent across the local area, including a minimum of 27 per cent tree canopy by 2050”

(City of Sydney, p. 8). The COM and the COS do have different conditions than the RCC, however, considering the negative impacts on human health from a lack of tree coverage, it would be worthwhile to see what more the RCC can do to improve its urban forestry health.

This report highlights the negative impacts of poor urban forestry health on a community, explores the viability of 40% tree canopy coverage for the RCC, and compares the RCC's DUFP with the COM's urban forestry plan to identify ways the RCC can develop its urban forestry plan and improve the health of its ecosystem.



Figure 4. Taken from Leete Park, located between Dudley St and Thomas St in Coogee, overlooking the Randwick Council area. (Source: Author)

Downsides of Unhealthy Urban Forestry

There are many problems that come out of not having a healthy urban forest. But there are five issues related to the community and human health that this essay is going to focus on.

1. Mortality

In 2020, Thomas Astell-Burt and Xiaoqi Feng published a report highlighting the link between tree canopy and prevention of cardiometabolic diseases, such as diabetes, hypertension and

cardiovascular disease (Astell-Burt, A & Feng, X 2020). Cardiovascular disease alone “remains the leading cause of mortality globally” and that “Cardiovascular disease in Australia has substantial impacts in terms of morbidity, mortality, and lost revenue to the healthcare system and the society” (Marquina, C et al., 2022, p. 1212). What Thomas Astell-Burt and Xiaoqi Feng realised from their report is that with just small increases in tree canopy numbers, just a 1% increase, there was a reduction in each of these cardiometabolic diseases (Astell-Burt, A and Feng, X 2020, p. 926). Considering the lowering of these diseases and the impacts on mortality rates of these diseases, it is reflected that planting more trees will actually save lives.

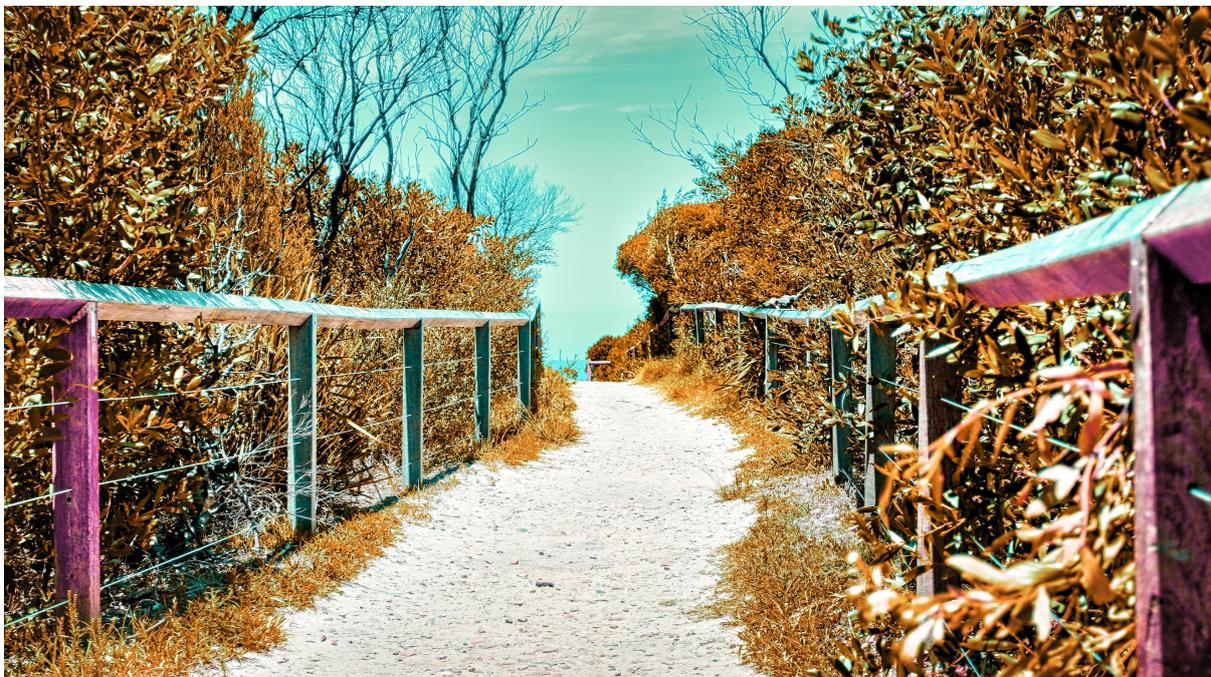


Figure 5. Bush and trees from Dunningham Park, and is the walk path to Kimberley’s Vantage point, located just north of Coogee Beach, in the Randwick Council. (Source: Author)

2. Mental Health Disorders

In 2022, Sungmin Lee, Ryun Jung Lee & Sebastian Scherr released a report exploring the relationship between tree canopies and suicide attempts (Lee, S, Lee, R.J. & Scherr, S 2023). They concluded that “local tree canopy cover could be a useful tool to improve local mental

health-related outcomes including suicide attempts” (Lee, S, Lee, R.J. & Scherr, S 2023, p. 8). While the report also highlighted that the results of tree canopy coverage were more effective in less disadvantaged areas than higher disadvantaged areas, this shouldn’t take away from the notion that there is a correlation between tree canopy coverage and suicide attempts. This report indicates that an increase in tree canopy coverage not only has the potential to reduce suicide attempts and, in turn, deaths, but also has the potential to improve mental health.



Figure 6. Trees and a broken branch reaching up to the sky from Bangor Park, in the Randwick Council. (Source: Author)

3. Overall Health

In 2016, a report was published, looking at urban tree canopies as a prescription for a number of health benefits (Ulmer, J.M. et al., 2016). The report pointed out that areas with greater tree canopies not only had “better social cohesion”, but subjects also had “less type 2 diabetes, high blood pressure, and asthma” (Ulmer, J.M. et al., 2016, p. 60). What separated this research from other papers was that they tied the overall health improvements specifically to the tree canopies, and not involving other ‘green’ classes, such as green cover and green infrastructure (Ulmer, J.M. et al., 2016, p. 60).



Figure 7. Rocks and bush overlooking the ocean, located in South Coogee Wetlands, in Randwick Council. (Source: Author)

4. Negative Economic Impacts

In 2018, a report was issued investigating the economic benefits and costs of trees in urban forests (Song, X.P. et al., 2018). The report analysed 34 published studies and the result of these findings was that “in most cases the benefits of urban trees outweigh the costs” (Song, X.P. et al., 2018, p. 169). The RCC could be earning more money by simply increasing their tree canopy cover target and planting more trees.

The report does mention that it was difficult to assess the direct economic benefits of urban forestry because most of the research done had been on benefits that don’t provide great economic benefits, such as “shading, air quality and carbon regulation” (Song, X.P. et al., 2018, p. 169), and reflects that more study is needed to present the economic benefits of a healthy urban forestry. However, in light of the overall health benefits, lowering of suicide rates and the lowering of cardiometabolic diseases and deaths that come from these negative impacts, an argument could be made of the indirect economic benefits from having a more healthy, calmer

and active community. Should a community have greater overall health, they'd be more equipped to providing more value and, in turn, bring more money back into the community.

If one of the RCC's arguments for not increasing the tree canopy cover target beyond 22% is the cost of increasing the target, then the RCC, from a solely economic perspective, should seriously consider the opportunity cost of not having a thriving community that could come as a result of developing their urban forestry health.



Figure 8. The greens above the waters of Gordon's Bay, located in Randwick Council.
(Source: Author)

5. Increased Crime

In 2024, a report revealed the relationship between urban tree canopy cover and crime in Sao Paulo City. What the researchers concluded was that their “main results showed that 10 % more in tree canopy cover was associated with 1.20 % less crime” (Arantes, B.L. 2024, p. 11). It might be a stretch to suggest that solely increasing the tree canopy coverage will lower crime rates. But what this report is stressing is that holistic solutions evidently contribute to lowering crime rates. Not only would the RCC improve the physical health and economic prosperity of their community by investing in urban forestry health, but they will also help reduce the problems that come out of an unhealthy ecosystem.



Figure 9. Surrounding bushes of Grant Reserve, looking into the open field, located in Randwick Council. (Source: Author)

Is 40% Cover Achievable?

According to the RCC website, the constraints the Council faces in expanding canopy cover are: “limited control over private land”, “land use conflicts on public land”, large areas of green space outside of Council’s control”, “financial constraints” and “community perceptions” (Randwick City Council 2025).

But Gallahar Studio and Studio Zanardo on 4th November 2021 prepared a report for the NSW Department of Planning, Industry and Environment, nominating a target of “40% for Greater Sydney by 2056” and a greater than 25% target for “Urban residential and light commercial areas” (Gallagher Studio & Studio Zandaro 2021, p. 8), reflecting that the RCC isn’t living up to the standards set out by the NSW Department of Planning, Industry and Environment.

Gallahar Studio and Studio Zanardo’s report does suggest that targets be “best developed based on site specific constraints such as density and land use” (Gallagher Studio & Studio Zandaro 2021, p. 8) and the RCC on their website highlighted that they attempted to

“meet the Greater Sydney Commission’s target of 40% tree canopy cover by 2036” (Randwick City Council 2025), but despite these efforts, Randwick’s tree cover remains at just 16%.

However, a 6% increase in tree coverage by 2040 still comes across as unambitious, especially when, again, other Australian governments are reaching for 40%. And what makes this situation even more challenging is that the RCC doesn’t go into specific detail in the DUFPP as to what was tried, what worked, what failed and what they learnt from their attempts to reach the previous 40% cover target. Due to this lack of information, questions remain as to why the RCC is struggling to meet the standards set by the Greater Sydney Commission.

From here, due to the speculative nature of this situation, this essay can only propose suggestions as to what the RCC could do to reach a target beyond the new target of 22%. And the most viable way in which this can be done is by looking at another case that is aiming for a target of 40% tree canopy coverage.



Figure 10. The top of buildings and trees from Coogee Beach, located in the Randwick Council. (Source: Author)

A Tale of Two Cities

The apparent difference between the RCC and the COM is that the COM has a much clearer vision of what it wants its area to look like and a greater understanding of the situation at hand. For example, the COM is looking to develop its urban forest, not just to increase its tree canopy coverage. This is reflected in the COM's vision:

“The City of Melbourne’s urban forest will be resilient, healthy and diverse and will contribute to the health and wellbeing of our community and to the creation of a liveable city.” (City of Melbourne 2012-2032, p. 4)

The COM has strategies to increase “canopy cover”, “urban forest diversity”, “vegetation health”, “soil moisture and water quality”, “urban ecology” and to “inform and consult with the community” (City of Melbourne 2012-2032, p. 39). And although the RCC's DUFPP alludes to some similar methods in its plan, its focus on increasing the tree canopy target misses the opportunity to create a holistic solution like what the COM has done.

The COM also has case studies for each of these strategies. Just looking at the strategy to increase canopy cover, the COM has two case studies to highlight how they plan to increase tree canopy cover: ‘Prioritising the greening of streets – City Road, Southbank’ and ‘Increasing canopy cover, North Melbourne’ (City of Melbourne 2012-2032, p. 41).

In the Southbank case, despite the area being identified as a key ‘public space’, it has been recognised that the space is much larger and presents an opportunity to plant additional trees (City of Melbourne 2012-2032, p. 41). The Southbank case reflects how the COM has already identified opportunities to plant trees, whereas the RCC has identified areas of low tree canopy coverage, i.e. “in the suburbs in the south of the LGA such as Malabar, Little Bay, La Perouse and Port Botany” (Randwick City Council 2025, p. 7), but hasn't gone into exact locations within these areas in its DUFPP, only mentioning that the RCC will “continue to

identify new tree planting opportunities for streets, parks and properties to achieve the canopy cover target” (Randwick City Council 2025, p. 7).

In the North Melbourne case, the COM has highlighted how developing a new central median on Elm Street will enable the street to increase its tree canopy cover from 18 to 65%, and by working with the community the COM will be able to not only increase the coverage on that street, but do so in a way that does not damage the street (City of Melbourne 2012-2032, p. 41). This ingenuity and collaboration with the community not only highlights a more detailed path forward, but also suggests that this plan could be replicated to other streets in Melbourne to ensure they reach their 40% tree coverage target. The RCC has mentioned in its DUFPP that it intends to “deliver consultation, education and communication about the urban forest and tree management in accordance with the Community Engagement Strategy” (Randwick City Council 2025, p. 16). However, under the DUFPP’s ‘Our Community, Our Trees’ section, where the RCC discusses community engagement, the language that is used is more suggestive of what would be done should a tree related situation occur, and doesn’t also go into any specific details as to how the RCC might go about listening to the input that the community might have and how the RCC might work with the community in order to increase the tree canopy coverage (Randwick City Council 2025, p. 16), like what North Melbourne has done.



Figure 11. The top of a tree very close to Grant Reserve, near Coogee Beach, in the Randwick Council. (Source: Author)

Conclusion

Considering the many reasons for greater urban forestry, it would be advantageous for the RCC to, at the very least, reevaluate its tree canopy coverage target. But ideally, the RCC would follow the COM's example and come up with a more holistic solution and a vision for the future of the RCC. This is all not to undermine what the RCC has done for its community, but to highlight what more the RCC and its community can do to build a more thriving ecosystem. By further investing in urban forestry, the RCC will be more equipped to care for and protect the health of its community and environment.

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