

SUMMARY STATEMENT OF SOPHIE STRACHAN ON BEHALF OF KĀINGA ORA – COMES AND COMMUNITIES

1. INTRODUCTION

- 1.1. My name is Sophie Strachan, and I am an Associate Landscape Architect at Beca Limited. My qualifications and experience are outlined in section 2 of my primary statement of evidence.

2. TREE CANOPY FINANCIAL CONTRIBUTION

- 2.1. In my primary statement of evidence dated 20 September 2023, I addressed issues regarding 6.10A Tree Canopy Cover and Financial Contributions. This included a graphic appendix (Appendix B) showing Kāinga Ora sites which I tested the proposed rule on. A Joint Witness Statement (JWS) was prepared by myself and other landscape and arboriculture experts following conferencing on 25 September 2023.
- 2.2. I also attended the hearing (via livestream) held on 17th April 2024 and listened to the presentations of Mr Colin Meurk, Mr Toby Chapman and Ms Anita Hansbury.
- 2.3. Subsequently, my position on the key matters of agreement, disagreement or reservation on the proposed Tree Canopy Cover (TCC) rules are as follows, with reference to the JWS where applicable:
- 2.4. I agree that retaining or having trees on or within residential sites is a positive outcome to the city's landscape and environment.¹ I agree with Mr Meurk that all zones across the city should be investigated as to how they may contribute to the Urban Forest Plan aspirations.
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- 2.5. The current ODP residential development requirements for trees provide for adequate tree canopy cover, including clear requirements for compliance and ensures that trees are planted as part of new developments. However, the current built form standards do not

¹ JWS, Issue 1.

ensure that trees are planted in adequate space to support them to maturity.²

- 2.6. The application of the proposed TCC rules are ambiguous and complex and difficult to determine compliance.³ The rule as written will result in differences and disagreements in terms of what complies. This was exemplified by myself and Ms Riordan returning different levels of compliance with many questions and assumptions for the Kāinga Ora test site examples.
- 2.7. I accept that since the expert conferencing was undertaken, the Christchurch City Council (CCC) have added information to their website to support the tree planting process, including soil calculation information, as well as updating species heights in the Tree species list.
- 2.8. Mr Chapman also mentioned that CCC are continuing to develop tools to measure tree canopy coverage, although did not mention how these tools are intended to be applied in the process or to this rule specifically.
- 2.9. The matters of overlapping canopies and boundary overhang is not resolved. The JWS shows that the experts agreed that the proposed rule currently allows the full canopy area of each individual tree to be counted, regardless of whether there may be overlap of canopies.⁴ The experts agreed that this is contrary to how TCC is calculated on a citywide basis using LiDAR data.
- 2.10. Further to the above issue, I question how the 20% requirement is relevant to a site when this overlapping and overhang is allowed, and no limit is identified.⁵ When looking at the Kāinga Ora test site examples, sites achieve up to 132% TCC (36 Gilberthorpes/13 Amuri Street). In real life, this site will certainly not achieve that level of TCC, which made me think that I had either read the rule wrong, or that it ought to apply to land within the boundaries only, or that the tree classifications were misrepresentative.

² JWS, Issue 2a.

³ JWS Issue 4.

⁴ JWS Issue 6a.

⁵ JWS Issue 6.

- 2.11. The case studies went on to show, that the proposed soil area requirements are challenging for multi-unit development sites. While the sites may provide the 20% landscape area, this was not necessarily the right shape or of the minimum width to meet the soil area requirements.
- 2.12. Experts agreed that the importance of soil volume and minimum tree root dimensions is missed in the proposed Rule 6.10A.4.2.1, Table 1. I note also that there may be a challenge in how these rules apply to trees near to boundaries (similar to the overhang issue), with the likelihood that roots will extend beyond development sites, into neighbouring properties if the boundary treatment allows them to do so.
- 2.13. Ms Hansbury made two comments during her presentation that I disagree with. Firstly, that one tree per 100m² would only provide 10% TCC. This assumes the size of the tree is classified as "small". If the tree were classified "medium", then it would provide adequate TCC.⁶ Further to this, using the TCC calculator I found that one "medium" tree per 250m² would also provide more than 20% TCC. This reflects that the current ODP rules provide a good basis for landscape design for residential development and there may be a simpler method in terms of the specification of trees to help meet TCC goals on a site-by-site basis.
- 2.14. Secondly, Ms Hansbury suggested that trees are planted centrally within the soil area. In my experience, this is not the case, particularly regarding boundary planting. This is a reflection of the urban site constraints which I believe have not been adequately considered.
- ~~2.15. Enforcement of the proposed rule is likely to be challenging and, in my opinion, the existing ODP rules, resource consent and Urban Design panel processes have ensured a balanced outcome at the Kāinga Ora site examples.~~
- 2.16. Regarding the financial contribution part of the rule, I refer to the evidence of Mr Jonathan Cleese and Mr Fraser Colgrave. Council

⁶ [Tree canopy/financial contributions calculator : Christchurch City Council \(ccc.govt.nz\)](https://ccc.govt.nz)

have determined that they are looking to manage the potential adverse effects on ecology, amenity, air equality etc., as a result of the loss of potential tree canopy coverage. The financial contribution rule will have a limit to which it can help mitigate these effects (due to availability of appropriate land elsewhere in neighbourhoods) and does not support the outcome of having more trees on private land, as it offers an alternative.

- 2.17. Overall, the practical application of the proposed TCC rule on a site scale presents several challenges and limitations, as outlined fully in my primary evidence and the JWS. I believe the proposed rule in its current form is not fit for purpose and requires further consideration for its application within the constraints of an urban residential development site.

A handwritten signature in black ink, consisting of stylized initials 'SS' followed by a long horizontal line.

Sophie Strachan

18 April 2024
