

Rikki Belder



Expert Panel
GPO Box 1815
Adelaide SA 5001

16 December 2022

Dear Mr Stimson and Expert Panel Members,

This correspondence constitutes my submission related to the “Questions for Tree Policy” as put forth in the Discussion Paper – Planning and Design Code Reform Options (October 2022).

I was relieved to learn of the review of the Planning and Design Code, particularly given the state of Adelaide’s declining urban tree canopy. From February to May 2022, I undertook research towards production of the report *Urban tree protection in Australia: Review of regulatory matters* (Belder et al. 2022). I have comments further to the recommendations made in the report, and I thank you for the chance to make a submission to the Panel.

The loss of trees – particularly from private property – continues to concern the South Australian community, as evidenced by the many public comments to planning applications for the removal of regulated or significant trees, in addition to the community turn-out to the urban trees forum – also attended by Minister Champion in October 2022. The research report and reports written by the Conservation Council of South Australia have provided an evidence base for the concerns as recognised in the Discussion Paper.

I understand that the Panel is not primarily concerned with governmental election promises; however, I wish to note that the recommendations made in the *Urban tree protection in Australia* report would fall short of the Labor election promise for South Australia to have “Australian best practice for tree removal regulations”. I believe this election promise to be of high value for the future of South Australia, and I encourage the Panel to keep this promise in mind when reviewing tree policy. The final report was written before the change of government and recommendations were based on average values, rather than the most stringent criteria for protection. It is also understood that monitoring and implementation must be considered alongside policy changes; however, these are problems to solve, and not necessarily barriers to the changes that are required to secure South Australia’s urban canopy.

The following pages address questions posed in the Discussion Paper to the best of my ability and expertise. I summarise the following points of focus, as South Australian regulations currently include:

- Inadequate tree protection criteria, resulting in a scarcity of trees protected from damage or removal.
- Overly generous exemption criteria, which negates the protection criteria in place in many cases.
- Gross under-valuing of urban trees via minimalistic offset payment requirements.
- Lack of requirement of community notification and provision for jurisdictions to audit or monitor protected trees.

Discussion Paper questions for consultation – Tree policy

Questions for consultation: Native vegetation and planning policy

1. What are the issues being experienced in the interface between the removal of regulated trees and native vegetation?
2. Are there any other issues connecting native vegetation and planning policy?

Comments:

As per the *Urban tree protection in Australia* report, proximity-based exemptions seen in South Australia are inconsistent with those interstate, and reduce available protection for large, valuable trees – both native and non-native. Regarding the interface between regulated trees and native vegetation, I support the Conservation Council of South Australia's position on the interaction between the Native Vegetation Regulations (2017) and the Planning and Development Code. The Conservation Council recommend clearances based on bushfire attack level, which would likely reduce confusion and unnecessary removal of large, native trees.

Questions for consultation: Master planned/greenfield developments and tree planting

1. What are the implications of master planned/greenfield development areas also being required to ensure at least one (1) tree is planted per new dwelling, in addition to the existing provision of public reserves/parks?
2. If this policy was introduced, what are your thoughts relating to the potential requirement to plant a tree to the rear of a dwelling site as an option?

Comments:

I strongly support a requirement for master-planned/greenfield development areas to plant at least one tree on the site of each new dwelling. I also strongly support a requirement to plant a tree to the rear of a dwelling wherever practicable. I believe that requiring trees be planted on dwelling sites may result in a reduction in the planting of street trees, if there is no requirement that trees be planted at the rear of a property where practicable. Requirement for planting at least one tree per dwelling site brings master planned sites in line with the expectations of all other development sites and has the potential to help ensure proper canopy distribution across the wider sites.

Relying on such development areas to meet canopy requirements by planting in parks and on streets gives rise to concentrated areas of built structures, with reduced shade, shelter, and biodiversity integration. Urban heat islands within such sites are likely, and this could be confirmed using the aerial mapping services available within the Adelaide area. The health and environmental benefits of integrating trees appropriately with the built environment surely provide enough incentive for the Panel to go ahead and recommend that master planned sites be expected to fulfil the tree-per-dwelling criteria.

It is important to note that requiring trees to be planted does not in itself ensure an increase in the tree canopy, particularly if trees may be planted at the rear of a property. There is a risk that new plantings may not be maintained adequately or may be deliberately removed after some period of time. Policy should include clear requirements to maintain trees, and provision for random or routine inspection via available aerial imagery. Aerial imagery providers (such as Nearmap and Aerometrix) can provide high-resolution aerial imagery, capable of assessing the retention and growth of trees planted on new properties.

Summary: I support both the requirement for master planned sites to plant at least one tree per dwelling, as per the guidelines, and a requirement to plant at the rear of a property wherever practicable. I also support investigation towards remote, random aerial inspection of compliance.

Question for consultation: Dimension-based and species-based protections

1. What are the implications of reducing the minimum circumference for regulated and significant tree protections?
2. What are the implications of introducing a height protection threshold, to assist in meeting canopy targets?
3. What are the implications of introducing a crown spread protection, to assist in meeting canopy targets?
4. What are the implications of introducing species-based tree protections?

Comments:

Relating to all above questions, the implications include a greater number of trees being placed under protection, alongside a requirement for effective monitoring of compliance. The *Urban tree protection in Australia* report provides a strong evidence base that the circumference for regulated and significant tree protections requires significant reduction to align with the average of interstate protection. I again refer to the Labor election promise, and encourage the Panel to consider that the numerical value chosen for reduction in circumference, and the introduction of height and crown spread thresholds, should be chosen on the basis of South Australia's urban canopy targets. It is possible that machine learning methodologies could be applied to aerial imagery to explore the potential future outcomes for canopy distribution, based on current tree size, location and policy scenarios.

I note the following statement made in the Discussion Paper:

“The Panel acknowledges the need for significant economic analysis to be undertaken before such figures could be arrived at. The economic analysis would need to identify what the broader implications of amending and/or introducing the regulations would be, and not only how that would impact development outcomes and land supply, but equally whether there is sufficient professional capability in South Australia to manage increased regulation (i.e., trained arborists to undertake tree analysis and reporting).”

I am concerned at the implication that numerical thresholds for tree protection may be limited by current, or perceived potential, professional capability in South Australia to manage increased regulation. I strongly encourage the Panel to consider the world-class academic resources available in South Australia, to develop technology-based solutions to ensuring regulation. Both student, and academic staff, at the South Australian universities can contribute to improving the professional capabilities to meet environmental requirements for a resilient state. I also encourage the Panel to consider the backing of the Labor government's election promise of bringing South Australia's protections in line with national best practice, as indicative of their willingness to invest in solutions to maintaining the regulations that the panel deems necessary.

In addition, the Panel and all reviewing parties henceforth should consider implementing interim regulations to protect against the rapid removal of trees that would stand to be protected under changed or added dimensional thresholds. There is a danger that developers or private land-owners may seek to remove trees that fall below the current circumference threshold once a date for policy change is announced.

Summary: All points suggested by the Panel are strongly supported, as this would result in a greater number of trees under protection; however, numerical thresholds should be based on South Australia's canopy requirements and not unduly influenced by economic considerations – there is no way, other than maintaining and improving tree canopy, to achieve South Australia's tree canopy targets, regardless of development goals. If possible, the Panel may wish to consider recommending interim protections for trees that stand to be protected under future policy, to discourage removals from being undertaken prior to policy change becoming effective.

Question for consultation: Proximity-based exemptions to tree protection

1. Currently you can remove a protected tree (excluding *Agonis flexuosa* (Willow Myrtle) or Eucalyptus (any tree of the genus) if it is within ten (10) metres of a dwelling or swimming pool. What are the implications of reducing this distance?
2. What are the implications of revising the circumstances when it would be permissible to permit a protected tree to be removed (i.e. not only when it is within the proximity of a major structure, and/or poses a threat to safety and/or infrastructure)?

Comments:

I reiterate my support of the recommendations in the *Urban tree protection in Australia* report regarding reducing proximity-based exemptions in line with those found in interstate jurisdictions. I believe reducing the 10m distance will positively affect tree canopy preservation. Reducing this distance may carry with it a need to educate the community regarding tree-related risks, and an increase in arborist inspections, to reduce unfounded negative views on trees near dwellings. An increase in government support of arborist training may be beneficial to multiple potential regulatory changes identified throughout the tree policy section of the Discussion Paper. I refer again to the Labor election promise, and to the Panel's ability to recommend action in the best interests of the environment and future of South Australia's canopy.

Questions for consultation: Tree valuation and off-set scheme payments

1. What are the implications of increasing the fee for payment into the Off-set scheme?
2. If the fee was increased, what are your thoughts about aligning the fee with the actual cost to a council of delivering (and maintaining) a tree, noting that this would result in differing costs in different locations?
3. What are the implications of increasing the off-set fees for the removal or regulated or significant trees?

Comments:

The Discussion Paper contains a correct assertion that the fees payable in South Australia are vastly inadequate to represent the value of trees, or the risks associated with reduction in urban canopy, based on recognised industry valuation methods. Increasing the offset fee payment may discourage the use of the offset scheme in favour of incorporating appropriate tree planting space in development plans. As per the *Urban tree protection in Australia report*, appropriate mechanisms for valuing trees are available, and these should be adopted.

I strongly support the Panel in recommending South Australia align with multiple jurisdictions interstate in adopting an industry-developed valuation methodology which go some way to considering replacement planting costs, amenity and biodiversity values as outlined in the Discussion Paper. I also bring to the attention of the Panel, the recommendation made in the *Urban tree protection in Australia* report, to consider the appropriateness of scaling offset fees based on

development value, to combat the potential for wealthy investors to pay offsets in preference of incorporating green-space (and therefore trees) into development plans.

Additional considerations for the Panel

Earlier this year, a case study involving a significant River Red Gum (*Eucalyptus Camaldulensis*) in Clapham highlighted a number of short-falls of South Australia's tree protections, which extended those that had become apparent through my work towards the *Urban tree protection in Australia* report. I wrote to Minister Champion regarding my concerns, and he encouraged me to contact the Panel. In addition to my responses to the questions for consultation, I provide the following recommendations for the Panel's consideration.

Monitoring of protected trees, and protection of dead trees

Currently, the *Planning Development and Infrastructure Act 2016* (PDI Act) and associated *Planning, Development and Infrastructure (General) Regulations 2017* do not require monitoring of the health or status of regulated (including significant) trees. This results in a lack of awareness of tree condition, and, in turn, a lack of evidence of the associated timing and causation of tree harm. Independent assessment of tree condition following receipt of a removal application is also not required by South Australian regulations and is left at the mercy of Council discretion and resources. The lack of mandatory, regular or application-triggered assessment of regulated trees lends to situations in which a tree may be damaged or killed with insufficient evidence for disciplinary action under South Australian law.

As per the PDI Act, **dead trees are exempt from protection and can be cleared without approval.** Provision for removal of dead trees without approval creates a legislation loophole, which can be exploited. In the absence of monitoring of regulated trees, those who apply to undertake tree removal may damage trees at any time, causing rapid or delayed tree death, without evidence of the causation. I urge the Panel to consider the position taken by numerous jurisdictions interstate, which is to retain dead trees, where safe and practicable, for habitat value, thereby discouraging deliberate tree damage and retaining biodiversity value.

Regular monitoring – either remotely, or by random inspection – and post-application tree assessments could be mandated in South Australia's legislation, to reduce incidents of tree loss due to unchecked damage (whether accidental or deliberate), or health concerns such as disease or water stress. A number of jurisdictions across Australia require tree assessment by independent, council-selected arborists, or officers trained in arboriculture, following each application for works affecting protected trees. Brimbank City Council (Victoria) and the City of Canterbury Bankstown (New South Wales) are examples of such jurisdictions. Such assessment provides unbiased and up-to-date reporting on tree health that can be referenced, should any harm come to the tree. I encourage the council to consider recommending the government invest in a tree inspection task-force, alongside consultation with academic and professional communities towards technology-assisted monitoring systems, particularly considering an increased number of protected trees under the recommended changes to the regulations.

Adopting Australian Standards for tree protection zones and pruning

South Australian regulations fail to stipulate any requirement for a tree protection zone (TPZ), such as that which is defined by Australian Standard AS 4970-2009 *Protection of Trees on Development Sites*. Adherence to AS 4970-2009 is mandatory in many jurisdictions across Australia. This results in the automatic application of a calculable zone surrounding a protected tree, within which development activities cannot be undertaken without prior permission. The automatic requirement for a TPZ ensures excavation and clearing-related stress to the tree root system is avoided. Adherence to the

relevant Australian Standard, AS 4970-2009, should be included within South Australian policy as a minimum measure of protection.

I agree with the Conservation Council of South Australia's position, and the recommendation made in the Urban tree protection in Australia report, for the inclusion of the requirement to prune protected trees according to AS 4373 Pruning of Amenity Trees. I also encourage the Panel to review their position on whether a frequency limit to pruning activities should be included within South Australia's tree policy.

Community notification of proposals concerning regulated trees

It appears that there is no legislated requirement in South Australia to actively notify local residents (including neighbours) of applications for regulated tree removal. This greatly reduces the community's ability to advocate for the retention of assets that directly affect their lives and the lives of future generations. The ecosystem services and amenity provided by regulated trees, particularly in urban areas, are of substantial benefit to the wider public, and the consequences of tree removal extend to air quality, thermal comfort and biodiversity interaction within a wide radius of the tree. Threats to regulated trees are therefore a matter of public interest, regardless of whether the tree is located on public or private land. Decisions regarding matters of public interest should be subject to a robust, accessible, and transparent consultation process to ensure the public is afforded the opportunity to influence outcomes.

Development applications are required to be listed on the State Planning portal, but this is not equivalent to active and universally-accessible notification. In South Australia, it is up to members of the public to search or sign up for email notification of applications within a nominated area. Not only is this method infeasible for some members of the public, it is also unreasonable to expect members who do sign up to maintain constant attention to notifications received via email. In the case of the River Red Gum that was threatened with removal earlier in 2022, neighbouring residents on whose property the tree is partly located **received no form of notification** and became aware of the application for the tree's removal only by chance. I believe it is unreasonable to expect stakeholders to assume full responsibility for becoming aware of threats to high-value community assets.

It is a strong argument that the broader community deserves to be actively notified in the case of development related to regulated trees. At minimum, I suggest that the Panel consider recommending a requirement for the local authority to formally notify residents of properties within a calculable radius of a regulated tree, upon lodgement of tree-removal applications. Trees are highly valued by the community.

In addition, the outcomes of planning applications are currently not made available on the public-facing PlanSA database. Information regarding a decision is limited to whether a decision has been made, and omits the outcome, including the attachment of any applicable conditions. I hope the Panel agrees that it is appropriate for information on application outcomes to be included in the public-facing database for applications related to regulated trees.

Concluding remarks

Regulated trees are an asset to the local community, but the broader issues of climate change adaptation, urban biodiversity conservation, and liveability of our cities mean that the retention of urban tree canopy is no longer purely a local or economic issue. I believe the issue extends beyond planning and development considerations, and must include academic and industry stakeholders to undertake appropriate reform and achieve targets in an efficient manner.

I would like to draw attention to the following statements in the Discussion Paper:

- “Trees, their healthy establishment, and ongoing management, along with their resilience to climate change are also important”.
- “...the Panel is unlikely to make specific numeric recommendations for revision of these regulations in the absence of further economic analysis”.

Words are important in projecting attitudes towards reform, and I would like to see the Panel raise their assessment of the value of trees to “critical”. Undue urgency is not desirable; however, bold action would not be misplaced. Having spent many hours researching Australian tree protection regulations and jurisdictional policies, I am aware of the possibilities for reform via the Planning and Design Code. This work highlighted the importance of implementing bold protection measures, both numeric and non-numeric, in a timely fashion to combat the climate change and biodiversity loss crises. South Australian reform will no doubt benefit from the information regarding those jurisdictions who have already implemented stricter regulations, but there remains the opportunity to pioneer regulations that are required for South Australia to meet its own targets – such regulations may differ from those that have allowed other jurisdictions to move forward effectively.

Given the environmental policies presented by councils across South Australia, the introduction of the “resilient” and “adapt” council groups concerned with climate change adaptation, and numerous environmental reports (at international and local levels), I strongly encourage the Panel to go ahead and support numeric recommendations, where appropriate, as a starting point for reform. Numeric recommendations have been made in the *Urban tree protection in Australia* report, with a solid evidence base, and I believe it would be remiss of the Panel not to include its standpoint on the dimensional protection criteria, regardless of further economic analysis. Challenges will be encountered alongside any change; but further reform is always possible, and I hope to see the Panel align with the existing evidence in the first instance.

I support the Conservation Council’s top ten priorities for reform to our tree laws in addition to my comments. I also invite the Panel to reach out regarding the *Urban tree protection in Australia* report, if any further insight or background data may assist in their review and recommendations.

Thank you for considering my submission, and best wishes for this important review.

Yours sincerely,

Rikki Belder

B.Eng (Biomedical) (Hons)
PhD Candidate – Horticulture

M: [REDACTED]
E: [REDACTED]