LEGISLATIVE ASSEMBLY
FOR THE AUSTRALIAN CAPITAL TERRITORY

STANDING COMMITTEE ON PLANNING, TRANSPORT, AND CITY SERVICES
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Submission Cover Sheet

Inquiry into Urban Forest Bill 2022

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Draft Urban Forest Bill (UFB)

ACT Urban Woodland Rescue is a Landcare group dedicated to the protection and enhancement of Canberra's local grassy ecosystems both within and outside the urban fabric. We formed around a pilot project which is restoring the understorey and middle storey of Box Gum Woodland to a small pocket park in Weston to protect mature and hollow bearing trees.

The Tree Protection Act 2005 is central to the protection of Canberra's urban forest and its capacity to provide amenity, ecological and environmental benefits to Canberra residents.

Any future Act which replaces the TPA must improve on some of its significant failings in particular the failure to protect mature trees which are keystone features of Canberra's urban forest.

In its current form ACT Urban Woodland Rescue considers the proposed Urban Forest Bill (The Bill), will weaken the protection of trees on private and public land.

If unamended, the proposed Bill will undermine tree protection in Canberra, its biodiversity and further compromise the ecological services provided by Canberra's urban forest by incentivising the removal of mature trees and vegetation.

This will increase urban heat island effects (UHI) and result in an urban landscape which is less resilient and less able to meet the challenges of climate change.

Changes to the objects of the Urban Forest Bill (UFB)

The current approach to urban forest management ignores ecosystem function which is driven by our local plant communities and Canberra's geographical location as a water limited city.

Instead the Bill focuses on meaningless metrics like generic canopy cover by replacing mature trees with saplings which are at a high risk of mortality and consume large amounts of water in exchange for minimal ecosystem services.

The generic canopy cover metric of 30% remains in the current objects but the deadline of 2045 for meeting this metric has disappeared. Part 2 s6(d)

The government clearly no longer believes this metric is valuable or achievable and seeks to avoid accountability.

Notably the government has moved away from "upholding" Canberra's biodiversity including "maintaining and enhancing biodiversity, habitat and resources for wildlife" (Exposure Draft Urban Forest Bill Part 2 s6(f)) to the current object where it says it will simply "contribute" to biodiversity in urban areas (UFB Part 2,s6(c)).

To "uphold" Canberra's biodiversity implies protecting it from the opposing forces which would diminish it.

In this case the opposing forces are numerous and include developers, some residential landowners, the ACT government and other large capital interests seeking to benefit from planning policies promoting land financialization in the city.

The replacement object states the government will "contribute to urban biodiversity".

The decision to contribute to something is a decision to change the governments role in relation to Canberra's biodiversity from protection to compensation.

Protection implies a focus on the substantive interests of Canberra's biodiversity and the ecological services it has evolved to provide the community .

To contribute to something is frequently associated with giving money. In this case the removal of mature trees in exchange for monetary compensation is a key feature of this Bill.

This does not equate to the protection of biodiversity, the conditions for the provision of ecological services or the claim that the Bill will "support a resilient and sustainable urban forest ...in a changing climate." (UFB Part 2,s6(a))

Resilience in plant communities comes with age and this Bill promotes a permanently young urban forest.

1. The Objects of the proposed Bill

1.1 The Bill proposes to replace the current Tree Protection Act 2005 (TPA). It is being promoted as "keeping and expanding" its main elements.

However the objects of the new Bill are different from the current TPA.

New provisions have been added to allow for tree removal on condition of a fee or sapling replacement.

This signals a fundamental change in the way the urban forest in Canberra is valued and managed.

These changes are likely to intensify the poor management approach to tree protection facilitated by the current TPA which has led to the loss of large numbers of mature trees.

1.1.2 Section 3(1)(a) of the current TPA focuses on the broad "protection of individual trees in the urban area" across both private and public land.

A focus on trees as individual's allows for the protection of the individual qualities of trees including their range of ages, species, location, proximity to other vegetation, unusual shapes including hollows.

Section 3(1)(c) of the current (TPA)also protects the cumulative benefits of individual trees as urban forest values.

Urban forest values are defined in the current TPA as the amenity, economic and environmental benefits derived from trees across public and private land pursuant to s3(2) (TPA). This is a recognition that the benefits provided by trees is greater then the sum of their parts.

1.1.3 The proposed Bill on the other hand focuses on canopy coverage. An approach which recasts trees as generic parts of a mixed species forest plantation allowing them to be treated as disposable objects. (Urban Forest Strategy)

This strategy devalues the qualities of individual trees like their age, species, whether they have hollows, where they are located in the landscape including landscape connectivity and the shade and other benefits they provide.

This is illustrated in section 6(a) of the Bill which sets the standard to which the urban forest will be managed and valued as a canopy coverage of 30%.

This means the presence of any vegetation across the landscape irrespective of whether it has the requisite qualities to provide amenity, economic or environmental benefit will meet the standard.

1.1.4 The new focus on a canopy coverage in the Bill will amplify the shortcomings of the existing management approach which has resulted in the loss of large numbers of mature trees.

Under the TPA a forestry/arboricultural approach is being used to significantly underestimate the useful life of trees in the urban landscape. This is referred to as Useful Life Expectancy (ULE) in the Urban Forest Strategy.

This method reduces a tree's value to its preferred harvestable age which in forestry is the age at which a tree produces its maximum harvestable timber volume.

The preferred harvestable age of an urban tree has been determined as a rotational harvest length of a maximum of 80 years. (Urban Forest Strategy)

This results in a permanently young urban forest and a loss of significant benefits produced by trees as they age including carbon sequestration, habitat, lower water requirements leading to a significant efficiency in provision of ecological services particularly in the face of a warming climate.

Jeremy Barrell an expert arboriculturalist, author of safe useful life expectancy (SULE) in urban trees, and forester with the Institute of Chartered Foresters has identified the deliberate underestimation of a trees life expectancy as a serious issue in the management of urban trees.

In February 2017 Jeremy Barrell found that tree management principles were being misapplied by Sheffield City Council. He found that:

- Healthy trees with decades of life left in them were being felled causing significant loss of tree benefits,
- A reliance on conventional forest management theory for optimising timber volume production was leading to a biological rotation or life expectancy standard which bears no relationship to the functions of urban trees which are to provide various ecological benefits to residents and local wildlife.
- A common trend in premature removal of urban trees was a useful life expectancy of approximately 80 years because this meets a financial estimate of their value.
- Felling urban trees at 80 years could represent a potential sacrifice of 75% of the total benefits provided by those trees. See table 1 attached : Optimised urban tree benefits rotation length table below. (Jeremy Barrell *Tree Benefits: the missing part of the street tree cost benefit analysis equation* https://www.charteredforesters.org/2017/02/tree-benefits/)

1.1.5 Section 6(c)(UFB) implies that most trees on private land will not receive the same protection as trees on public land unless they are recognised as individual trees of significance or value.

This distinction is consistent with:

- a plan to harvest trees at a young age before a large number of the benefits they provide are realised
- a deregulation of protection for trees on private land where most trees are located and

- a lack of regard for the role landscape connectivity plays in the provision of ecological services to Canberra residents.

1.1.6 Section 6(g) (UFB) describes the incorporation of the value of trees and their protection requirements into the design and planning of development using weak aspirational language that indicates the government is seeking to deregulate tree protection to the arbitrary decisions of the private sector and residential land owners.

1.1.7 Section 6(f) (UFB) refers to 'upholding the vitality of the urban forest system'. Vitality is a term used in arboriculture and forestry which refers to standards applied to identify the health of a tree. This forms part of the approach which treats trees as part of a mixed species plantation indicating this is the primary concern.

This is a devaluing of the protection of complex attributes of trees that allow for biodiversity, habitat and resources for the wildlife and facilitate ecological services as benefits for the Canberra community.

In their current form objects 6(a),(c),(f) and (g) (UFB) of The proposed Bill are inconsistent with the protection of Canberra's urban forest. The provision of benefits and ecological services including carbon sequestration, cooling, wind mitigation, slowing water and habitat which requires trees to remain upright for long periods of time not 80 years.

1.1.8 Recommendation:
Change the objects to:

- **recognise that it is the individual qualities of trees including their range of ages, species, location, proximity to other vegetation, unusual shapes including hollows etc which act cumulatively to provide ecological resilience and benefits to the community as well as wildlife across the urban landscape.**
- **protect and enhance individual trees by treating them as part of an urban forest which is defined by its landscape connectivity and evidence based species selection to support the resilience of the local ecosystem.**
- **ensure urban development cannot compromise mature trees and contributes positively to landscape connectivity and local ecosystem health.**
- **incorporate ecological decision making into the management of trees and the urban forest.**
- **revise the use of current estimation of a trees useful life expectancy and create a standard that protects the benefits provided by trees through long term retention in the landscape.**

2. Canopy Coverage

Canopy coverage can be a misleading metric and yet it appears to be the metric being used to set the standard for management and value of Canberra's urban forest under the proposed Bill.

Canopy coverage is commonly measured as net change in greenspace or vegetation cover. It does not measure change due to dynamic gains and losses of vegetation.

As a result canopy coverage can be misleading because large net losses in urban vegetation within the landscape can be represented as no net change at all.

This is significant because long-term changes have been found to impact the flow of ecosystem services including UHI effects.

Long term changes in urban vegetation reflect the quality of the urban environment and the health of the population. (Timalsina, B.; Mavoa, S.; Hahs, A.K. *Dynamic Changes in Melbourne's Urban VegetationCover-2001 to 2016*. Land 2021, 10, 814. https://doi.org/10.3390/ land10080814*814,2/16*)

This has been illustrated in a study of changes in urban vegetation across 6 Local Government Areas (LGA) in Melbourne applying an approach which examined the dynamic rather then net changes of urban vegetation across a 15 year interval.

The results indicate Greater Melbourne has possibly lost over 300 square kilometres in urban vegetation cover across the 32 LGA's between 2001 and 2016. This is more than 100 times the size of Central Park in New York City; and equates to a loss of 21.85 square kilometres annually. (Timalsina, B.; Mavoa, S.; Hahs, A.K. *Dynamic Changes in Melbourne's Urban VegetationCover-2001 to 2016.* Land 2021, 10, 814. https://doi.org/10.3390/ land10080814*81413/16*)

The authors opine that despite taking into account numerous government strategies *Greening the West, City of Melbourne Urban Forest Strategy 2012–2032, Living Links, Mornington Peninsula Landcare Bio-Links and Gardens for Wildlife* their research clearly highlights that the loss of vegetation is a clear and ongoing trend. (Timalsina, B.; Mavoa, S.; Hahs, A.K. *Dynamic Changes in Melbourne's Urban VegetationCover-2001 to 2016*. Land 2021, 10, 814. https://doi.org/10.3390/land10080814*814,11/16*)

2.1 Recommendation:

- **auditing and documentation of mature and next generation trees**
- **do not preference the net change metric**
- **develop targets which reflect complex vegetation standards and numbers expected across the landscape.**
- **include provisions which require the active registration by government of mature native trees and next generation trees across private and public land.**

3. Deregulation of tree protection

3.1 Payment for tree removal

The approval of tree removal on condition of payment of payment of a fee or sapling replacement will facilitate the removal of trees and has result in ongoing losses of trees as it has in other jurisdictions.

While the use of payment for tree removal is promoted as tree protection in its current form it will inevitably lead to larger losses of mature trees particularly on private land.

This is illustrated in the fee scales for tree replacement which are so low it is arguable they are likely to incentivise the removal of mature trees. (see Urban Forest Bill fact sheet)

This is further illustrated by the financial contributions per tree which are calibrated on a sliding scale so that RZ1 suburban zoning blocks attract the lowest average contribution per tree removal even though trees on private land are essential to the provision of biodiversity, landscape connectivity and protection from UHI effects. (see Urban Forest Bill fact sheet)

In Melbourne similar legislation has led to significant losses and the trend for loss of vegetation is down - see mature native tree submission.

Similar legislation in Adelaide is reportedly leading to losses of up to 70 000 mature trees a year. (https://www.adelaide-parklands.asn.au/blog/2021/11/26/sos-for-adelaides-maturetrees)

3.1.1 Recommendation:
The proposed Bill must:

- **regulate tree removal based on an assessment of landscape connectivity which identifies existing mature trees and vegetation.**
- **Limit the grounds for removal based on landscape connectivity, biodiversity.**
- **increase protection for mature native trees given the loss of mature native trees is a key threatening process the grounds for their removal should be restricted to exceptional circumstances.**
- **Notify the market which blocks are conducive to urban density and to what degree of urban density based on landscape connectivity mapping and the distribution and amount of vegetation required to mitigate UHI effects based on available evidence.**

4. The decision maker on requests for tree damaging activities on public land

Section 13(b) of The Bill identifies the director-general as the decision maker for trees on public land.

By excluding the Conservator of Flora and Fauna as the decision maker for tree removals on public land, the Bill implies the lens used to determine whether a 'public tree' is removed will likely be informed by a forestry/arboricultural standard rather then a conservation lens.

The use of a forestry/arboricultural lens with its focus on maximising timber production is implicated in the premature and unnecessary removal of trees.

Firstly by reducing the value of a tree to a maximum life expectancy of 80 years.

Secondly by further reducing their value if the tree does not match unnatural standards regarding the shape and appearance of its canopy, height, perceived flaws like hollows or dead branches. These perceived flaws are also routinely used to justify premature and unnecessary tree removal on the grounds of risk.

4.1 Recommendations:

- **The Conservator of Flora and Fauna should be the decision maker for tree removals on public land.**
- **Unnatural standards regarding the aesthetics of trees should be abandoned in favour of standards that reflect whether they function and are providing amenity, economic and environmental benefits to the community.**

5. Broad discretionary powers

The Bill contains broad discretionary powers for decision makers and the Minister regarding the removal of trees. This arguably provides minimal protection to trees increasing the likelihood that mature trees will not be retained in the landscape.

5.1 Decision makers discretion

This is demonstrated in the broad discretionary powers granted to decision makers being the Conservator of Flora and Fauna and the Director General as to when to authorise the removal of a protected tree.

Under the current TPA and proposed Bill decision makers are not required to seek advice from an advisory panel (s24 UFB) While they must consider advice from the Heritage Council or an Aboriginal Organisation regarding an Aboriginal cultural tree pursuant to

s28(4)(c)(UFB) most applications for tree removal will be assessed under the approval criteria at s28(4)(a) (UFB) which are at the discretion of the Minister and anything the decision-maker considers relevant at s28(4)(d) (UFB).

Where discretion is broad it reduces the opportunity for scrutiny and diminishes the capacity of the community to participate in the protection of their local environment.

It is also less likely to result in evidence based decisions.

Under the current planning strategies the exercise of broad discretion if permitted to continue under the UFB provisions can be expected to continue the significant loss of mature trees and complex vegetation in Canberra's urban forest.

5.1.2 Ministerial discretion

In section 21(1)(a), The Minister is given broad discretion to determine through 'the approval criteria' the grounds for granting permission for the removal of a tree.

Pursuant to s28(4)(a), 'the approval criteria' must be considered when deciding whether permission is granted for the removal of a tree.

The substantive content of the approval criteria is absent from the body of the Bill.

The provision appears to create a power for the Minister to publish approval criteria by order allowing the Minister wide discretion in determining when a tree will be removed.

While the provision is subject to disallowance the period for consideration of disallowance provisions is narrow and if unamended it appears the Minister may repeatedly vary the 'approval criteria' without those criteria being subject to scrutiny.

5.1.3 Recommendation:

- **the substance of the approval criteria should be outlined in the body of the final Act.**
- **decision makers should have limited discretion when granting requests for tree removal and be required to substantiate the evidence they rely on for their decisions when satisfying criteria clearly detailed in the body of the Act**

6. Reporting and Transparency Provisions

The Bill must include provisions for the monitoring and transparent reporting of tree removal and tree protection outcomes including trees lost where planning approvals over rule decisions not to allow tree removal.

6.1 Recommendation :

- **provisions requiring mandatory monitoring and transparent reporting on all tree removal and tree protection outcomes should be included.**
- **regulatory requirements should include photographs of tree canopy before and after pruning.**
- **Photographs before and after tree removal including photos of the damage relied on for the removal.**
- **This information should form part of a transparent auditing process assessing the reliability of tree removal recommendations for trees on both leased and unleased land and reporting to the community.**

7. Notification and Challenge Provisions

Provision must be made for notifying the community of tree removal and allowing the community to contest tree removals. If the Government is to succeed in engaging the community in caring and valuing the urban forest they must engage them as rightful stakeholders with the ability to challenge and require transparent and independent review of tree removal requests.

7.1 Recommendation:

- **provisions need to be included to require formal visual notification of tree removal for a reasonable period of time.**
- **provisions need to be included that allow the community and community groups to challenge tree removals to protect landscape connectivity, prevent urban heat island effects and allow the community to provide a check and balance on government activities.**

The Urban Forest Bill will require significant amendments.

There is a serious imperative to rectify the proposed Bill given the failure of the current TPA to protect Canberra's mature trees, the recognition that the loss of Canberra's mature native trees is a key threatening process and the need to ensure the urban forest is resilient in the face of a warming climate.

ACT Urban Woodland Rescue and its supporters look forward to examining the evidence based approaches taken to amend the Urban Forest Bill to ensure it will protect and

enhance Canberra's biodiversity and the capacity of Canberra's urban forest to provide ecological services which will require the protection of its mature trees.

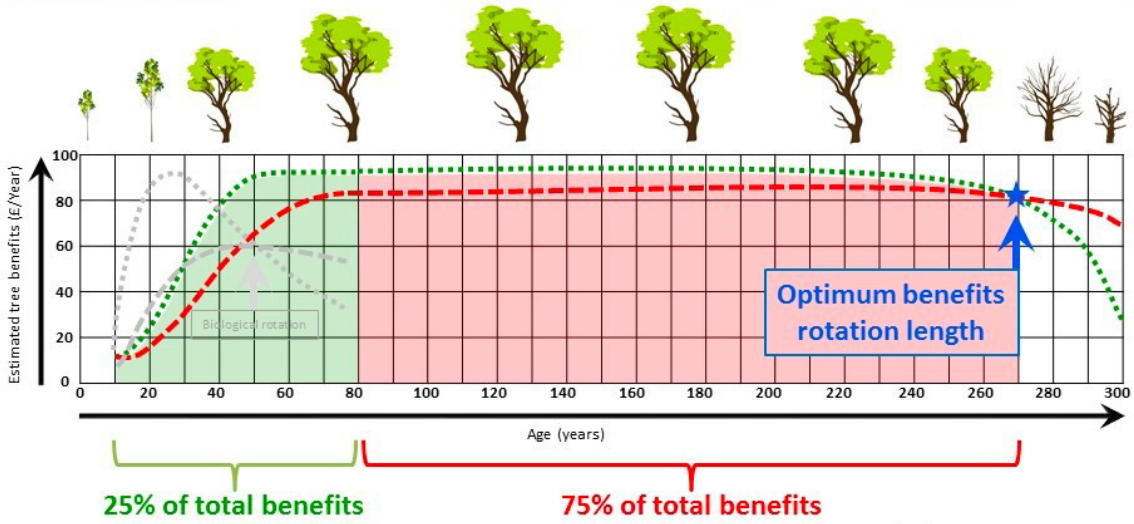
Your Sincerely,

[redacted]

Alice Hathorn
Convenor and Founder ACT
Urban Woodland Rescue mb: [redacted]
September 2022

Table 1

Optimised urban tree benefits rotation length



This is a simplistic diagrammatic representation prepared for the Sheffield Trees Action Group seminar held on 21/01/17 showing one approach to estimating the optimum rotation length for urban trees based on the financial benefits they provide. It is a conceptualisation based on estimated figures to demonstrate the principle, and the reality of individual circumstances may vary considerably from this simplistic view. For these reasons, it should be referenced with caution and applied intelligently, taking full account of the individual circumstances of each situation.

From conventional forest management theory for optimising timber volume production, the most efficient point to fell and replant is where the current annual increment and mean annual increment curves cross (both in grey). This is called the biological rotation and is at about 51 years in this example. Extrapolating this principle to urban trees, and considering the delivery of tree benefits rather than timber volume, the current annual tree benefits curve (green dots) crosses the mean annual tree benefits curve (red dashes) around 270 years of age (blue arrow). Felling at around 80 years of age delivers about 25% of the potential benefits (green shading) that leaving the trees to their full optimised benefits rotation could deliver. Put another way, up to 75% of the potential benefits those trees could deliver (red shading) are sacrificed through premature removal.