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Loss of Mature Native Trees - Draft Action Plan

The Canberra Ornithologists Group (COG) wishes to make comments on the Draft Action Plan released by the ACT Government for public comment.

COG is a volunteer-based community group with around 400 members whose mission includes the conservation of native birds and their habitats. COG undertakes long-term surveys/monitoring of birds in ACT woodlands and analyses data for trends. COG plays an active role in advocating for protection of native vegetation as bird habitat, and for the mitigation of threats to and impacts on native birds.

1. The ecological significance of mature native trees

Mature native trees are a key structural element of ecosystem biodiversity, but to date their protection has not been well addressed in ACT planning systems. As a consequence, too many mature native trees are being lost. Mature trees are routinely removed for greenfield development, and those that are retained are often subsequently declared unsafe: the Draft Action Plan (pp.14-15) notes that between 2015 and 2020 'almost a thousand mature trees were lost across greenfield sites'. This direct loss combines with loss due to climate change, drought, fire and old age, and modelling suggests that these keystone structures could be lost within 120 years if current, unsustainable practices continue.

Moreover, mature native trees cannot be replaced directly by planting large numbers of young trees. It can take 100 years before the unique features of mature native trees are produced, and their contribution continues to increase with age. While efforts are being made to plant thousands of trees across the ACT, there is an unavoidable time lag while the trees grow to maturity. The ecological value of mature native trees cannot meaningfully be offset.

This is recognised in the first objective of the Draft Action Plan:

> *"Protect existing mature native trees—recognising that large, mature trees are disproportionately valuable to ecosystems, and the considerable delay inherent in replacing a standing MNT"*
> *ACT Government, Loss of Mature Native Trees Key Threatening Process, Draft Action Plan, 2022, page 11.*

The value of mature native trees, particularly those with hollows, is significant generally for biodiversity, but especially for birds. A large number of bird species are reliant on hollow-bearing trees for nesting and refuge.

> *"Twenty-nine percent (29%) – more than a quarter of all bird species recorded at trees of varying sizes across the Canberra region – were exclusively recorded in large trees greater than 80cm DBH (at least 100 years old) (Le Roux et al. 2014)".*
> *Excerpt from the nomination of the loss of mature native trees as a key threatening process, page 6.*

Although a range of species of wildlife utilise mature native trees for shelter, forage and breeding, COG comments are essentially restricted to birds. In the ACT, a number of bird species are listed as threatened under the Commonwealth *Environment Protection & Biodiversity Conservation Act 1999* and/or the *ACT Nature Conservation Act 2014*, including the Swift Parrot, Superb Parrot, Brown Treecreeper, Gang-gang Cockatoo[1] and Glossy Black-Cockatoo. Mature trees are also embedded in their ecological communities, many of which are listed as threatened in their own right, such as Box-Gum Grassy Woodland.

Lastly, these trees, and their communities of dependent animals, also have important values for human well-being including cultural values, mental health, and contributions to ecosystems services such as production of clean air and water. Tree removal, both on an individual scale and at a landscape scale, is a real threat to these values.

2. Main deficiency in the Draft Action Plan

COG was a lead participant, with others from several volunteer community groups, in researching and drafting the submission to the ACT Government nominating the loss of mature hollow-bearing trees as a key threatening process. COG also provided to the ACT Scientific Committee supporting documentation concerning key threatened bird species dependent on these trees for breeding, such as the Brown Treecreeper and Superb Parrot.

COG therefore welcomes the Draft Action Plan on Loss of Mature Native Trees, as an important step in mitigating the loss across the landscape of these keystone structures for biodiversity. COG also considers that all 30 of the actions in the Draft Action Plan are worthy, and supports most as proposed (see the Attachment for notes on some actions).

However, COG considers that there is a serious imbalance in the Plan, with the main threats causing loss of mature native trees not being addressed in these actions. Indeed, apart from Action 15, the proposed actions are largely advice on measures to limit loss of mature native trees in existing suburbs, or processes or measures to take when a mature native tree is to be removed: they do not cover measures to retain mature native trees in the surrounding landscape of the ACT (phrased as the 'agricultural' content in the Plan) against their major ongoing threats.

COG is, therefore, not convinced that this Action Plan will have the necessary regulatory strength to genuinely and effectively implement the measures that are required to address the loss of old native eucalypts during urban development on greenfield sites, which is the key threatening process for mature native trees in the ACT, with very significant impacts on biodiversity and threatened species.

Action 15 is most relevant in the context of protecting trees in new urban greenfield sites, but this Action as currently phrased is far too weak. It is also unclear how this Action intersects with the Urban Forest Bill and revised Planning legislation, to act together to strengthen protection of trees in greenfield sites and strengthen the role of the Conservator in providing advice and decision-making that cannot be overridden.

The key recommendation of COG is that Action 15 should be reviewed and re-cast to significantly strengthen its ability to protect and prevent loss of mature native trees in greenfield and infrastructure sites.

Recommendation 1:
Action 15 be reviewed and re-cast to strengthen actions to protect and prevent loss of mature native trees in greenfield and infrastructure sites.

[1] Appendix A in the Draft Action Plan should be updated to include the Gang-gang Cockatoo, listed as endangered under Commonwealth legislation in March 2022.

Weakness is also present in the language of several actions, particularly but not only Action 15, with loose and open language, terms such as 'as far as possible', and words such as 'should' or 'may' instead of 'must'. This language needs to be tightened, explicit timeframes included, and explicit criteria articulated on occasions where judgement is permitted.

3. Rewording Action 15 to minimise loss of mature native trees in new greenfield developments

Different approaches are needed to address loss of mature native trees in existing urban settings, and loss in greenfield sites. The same overall strategy and principles of restricting loss and aiding recruitment should apply, but the difference is that very early strategic planning to manage mature native trees is essential in greenfield sites.

Indeed, loss of mature native trees in greenfield sites can easily be rectified by good strategic planning at the earliest stages of design, well before engineering cut-and-fill decisions are made, and provided a holistic approach is taken to retention, recruitment and connectivity of mature native trees in the landscape.

Action 15 therefore needs to include stronger and targeted measures that ensure no mature native trees are approved for removal in greenfield sites without stringent requirements being met.

Recommendation 2:
A reworded Action 15 should mandate measures to protect existing mature native trees at greenfield sites, including:

- **Early scoping and assessment of mature native trees before urban planning, mandated in relevant legislation.**
- **Enhanced criteria for determining significance of trees.**
- **Mandatory requirement for tree retention plans for all new estates.**
- **Minimum targets for mature native tree retention at greenfield sites.**

a) Early scoping and assessment before urban planning, mandated in relevant legislation

A full and proper understanding of the constraints on a greenfield site/development before any urban planning even starts is fundamental to ensuring the best outcomes for biodiversity.

- Legislative instruments, including the *Planning Act* and *Urban Forest Bill/Act*, need to state clearly the requirements for protecting mature trees at the start of any consideration of a greenfield future urban area.
- Surveys and assessments for mature native trees should be undertaken at the initial stage of greenfield site consideration, and details of the environmental and other information needs to be gathered must be specified through relevant legislation, e.g. in EIS scoping requirements or via enhanced Tree Survey Guidelines. Protection of mature trees has to be a pre-requisite of any future urban development; once it is known **what trees must be retained**, planning around the future built area can proceed accordingly.

b) Enhanced criteria for determining significance of trees

There should be additional criteria developed for determining the significance of trees; this would include hollow-bearing trees; trees of exceptional, high, medium and low quality as habitat; and landscape context and connectivity values.

- These criteria must be explicit about biodiversity values (as opposed to amenity values or risk, which are the main focus of existing criteria under the *Tree Protection Act 2005*).

- It should be explicit that hollow-bearing, exceptional, high and medium quality habitat trees cannot be removed except any very tightly defined circumstances; and that urban planning needs to make allowance for these trees and incorporate them appropriately into estate plans so that the trees can survive and endure over time, e.g. within mini-reserves, pocket parks, green corridors, buffer areas, and not in locations where they may need to be removed due to risk issues or safety concerns.
- The habitat value of dead trees also needs to be included in the criteria.

c) Mandatory requirement for tree retention plans for all new estates

A mature native tree retention and recruitment plan must be required for all new estate developments and urban infrastructure, as part of Estate Planning Approvals. The Conservator of Flora and Fauna should develop guidelines and minimum standards for such plans. Currently, the only requirement is guidelines for Tree Protection Plans during actual development works.

These mature native tree retention plans must be approved by the Conservator of Flora and Fauna and must not be able to be overridden by the planning directorate or the Minister. This has to be a legislative requirement.

The previous Action 9 of the 2019 Draft Action Plan regarding mini-reserves should be re-instated (see notes in Attachment), and the proposed guidelines should include details on appropriate size of mini-reserves, and stepping-stone distance to other mini-reserves or areas already formally in reserve. The guidelines should expand the existing fencing requirements to cover all proposed mini-reserve sites. These areas should be fully fenced, with appropriate buffers, be planted with suitable similar species and landscaped as soon as possible, to aid ongoing recruitment after site hand-over. This must be a condition of development approval.

The guidelines should also have specific re-planting requirements so that, if a mature tree is to be removed, the Estate Plan must identify an additional area set aside for planting the same species and associated understorey. The Draft Action Plan suggests a 20:1 planting ratio for the loss of each mature tree [page 20]. This should be cross-referenced as a requirement in the Urban Forest Bill.

d) Minimum targets for mature native tree retention

Minimum targets for mature native tree retention must apply in urban estate plans with mandatory compliance. A figure of 80% retention is suggested as appropriate for large estates, and 95% retention for small projects. Retained trees must include all the high-value trees most valuable for biodiversity, that is, hollow-bearing, exceptional, high and medium quality habitat trees. In addition, criteria should be established around restoration potential and connectivity of particular sites.

4. Tree retention in urban open space

A critical issue for mature native trees in urban landscapes is their long-term survival. Currently, many isolated trees that were originally retained on house blocks, in nature strips/verges or in very small urban open spaces inevitably over time are removed because of risk or other factors like declining tree health.

There should therefore be a focus in criteria and guidelines for urban open space on retaining and protecting trees to ensure their long-term survival and retention, such as within pocket parks, mini-reserves, green corridors, buffer areas, and other public lands. The Fowles Street Park, Weston, which is used as a case study in the Draft Action Plan, serves as a useful model.

Isolated trees with significant values (such as hollows) should be incorporated into urban open space forms. Planning should similarly address the longevity of new plantings undertaken to supplement or provide replacement trees, to ensure they can come to fruition and maturity.

Mini-reserves could be established around isolated mature native trees, with supplementary plantings. Within the urban context these should be designed to develop and maintain habitat values, and be complemented by signage, landscaping and/or erection of barriers to ensure public awareness of both conservation value and risk.

Public facilities such as walking and cycling paths, to provide amenity and a sense of community, could appropriately be incorporated into green corridors, as part of necessary community infrastructure and open space.

Catchment Groups should receive additional funding to assist with formation of local Parkcare groups to look after mini-reserves into the future in collaboration with PCS/TCCS.

Recommendation 3:
The focus of tree retention in urban planning should be in open spaces such as mini-reserves, pocket parks, green corridors and buffer areas, that can ensure long-term tree survival, including of isolated trees and dead trees with significant habitat values.

5. Data on mature native trees and recruitment

There must be an effective and timely public reporting process on the status of mature native trees across the ACT. COG recommends that a public register be established that reports on:

- How many mature native trees are present as at 1 July each year, using 1 July 2020 as the baseline (LiDAR data).
- How many mature native trees are in the urban footprint, how many are on rural lands, and how many are in future urban areas.
- How many mature native trees are lost each year in the various land tenures.
- The list of approved mature native tree retention plans.

In addition it would be useful to include some accountability and/or strategic indicators in the TCCS or Environment Annual Reports/Budget Papers.

Recommendation 4:
A public register be established that reports annually on the status of mature native trees in the ACT.

6. Intersection of Action Plan with ACT legislation for trees protection

Effective implementation of the Loss of Mature Native Trees Action Plan will require integration with other ACT strategy and legislation relevant to the protection of trees, principally the current Urban Forest Strategy and the *Tree Protection Act 2005* (which is to be replaced by the Urban Forest Bill 2022 under current consideration). It is unclear to COG how the specifics of the intersection of the Action Plan with the other relevant legislation will operate. Some comments are offered below.

The Urban Forest Strategy has a focus on new plantings, but this is not a substitute for retaining mature native trees. Likewise the *Tree Protection Act 2005* provides a reasonable basis for managing existing mature trees in urban settings, however it has an overarching focus on amenity and risk in the urban setting rather than on the biodiversity values of these trees. There is therefore a need to be clear about the different objectives of the Urban Forest Strategy and the *Tree Protection Act*, and not conflate either of these with the need to retain mature native trees outside the urban setting for biodiversity benefits, as addressed in the sections above.

The proposed Urban Forest Bill 2022 will replace the *Tree Protection Act 2005*. However, the provisions relating to registering and regulating trees, and to approval to remove trees, are essentially the same in both. These provisions are weak in regard to protection of mature native trees at development sites, and the lack of mandatory requirements to retain significant mature native trees is a major gap. The new requirement to replant more trees or pay a levy when a mature tree is removed will be ineffective unless the fee structure creates a significant financial incentive to retain mature native trees.

COG welcomes that the Urban Forest Bill covers both leased and private land, and that the definition of a regulated tree now includes slightly smaller trees to fit with ecological advice.

Recommendation 5:
As part of relevant legislation to effectively implement some actions of the Loss of Mature Native Trees Action Plan, the Urban Forest Bill should include mandatory minimum targets in regard to retention of mature native trees at greenfield development sites.

Recommendation 6:
As part of relevant legislation to effectively implement some actions of the Loss of Mature Native Trees Action Plan, the Urban Forest Bill should include strengthened provisions/measures to protect mature native trees at development sites.

7. Conclusion

Whether this Action Plan will be effectively implemented consistent with its objectives, and make a meaningful difference to the retention of mature trees in the ACT, will depend on a number of factors, but most crucially the commitment to tree retention in relation to new urban greenfield development by planning authorities. This will in turn require appropriate levels of resourcing to fully implement actions.

COG is willing to discuss these matters further in a collaborative approach, to find the right processes and mechanisms to achieve the outcomes needed to protect as many mature native trees in the landscape as possible, to build up tree recruitment in the right locations, and effectively implement best-practice ongoing management. All these are crucial to assist in restoring biodiversity in the ACT landscape, including threatened and declining bird species, especially species such as the Brown Treecreeper which have disappeared from urban and peri-urban reserves.

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Yours sincerely

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Attachment: Additional Notes on the Actions in the Draft Action Plan

As indicated in its submission, COG considers that all 30 of the actions in the Draft Action Plan are worthy, and supports most as proposed. Implementation will require clarity on resourcing, timelines and priorities. Some of the actions are fairly straightforward, routine and sensible and should be implemented immediately.

The 2019 version of the Draft Action Plan contained an additional action (Action 9 in that version) about mini-reserves. That action should be reinstated in the Action Plan.

- Action 9 in the 2019 version stated: "Designate mini-reserves around isolated MNTs within the urban context with specific aim of developing and maintaining habitat values. Ideally these should be formally identified in planning documents. These can be complemented by signage, landscaping and/or erection of barriers to ensure public awareness of both conservation value and risk."

- This also aligns with Objective 2 of the current draft Action Plan, which states: "Protect/enhance ecological context of existing mature native trees—recognising that the ecological function of MNTs may be enhanced when proximal to other biodiversity attributes, such as understorey vegetation, coarse woody debris and patches of high floral and/ or faunal diversity; and substantially reduced when isolated in a highly modified urban environment without natural ground cover, shrubs and rocks, logs and other structural habitat elements". The Fowles St mini-reserve provides an excellent example of such an approach.

The earlier 2019 draft of the Action Plan also made the important point that protection of existing mature native trees is far more cost-effective and time-effective than removal and subsequent regeneration. This statement should be reflected in the Action Plan.

Lastly, throughout the Action Plan, mature native trees should be referred to as 'mature native trees' not MNT.

Action No.	Action	Notes
1	For ACT Government employees and contractors, develop formal policy regarding: a. constraining circumstances under which to lop or fell non-registered native trees in urban public spaces to extend standing life of trees, particularly through to hollow development and beyond b. guidance for the evaluation of the ecological value of native trees in urban context e.g. connectivity value, food tree, nest tree, isolated or in group c. combining the above in a risk assessment format with appropriate formal training of assessors d. guidance to ensure the most ecologically valuable use of felled timber (e.g. re-site as standing tree, use as coarse woody debris) e. investigating alternative engineering solutions prior to removing MNTs for infrastructure reasons.	This action only covers a policy for removal of trees in urban public places, so does not deal with land-clearing for new urban development. A similar policy should apply to proponents putting forward DAs for urban development on greenfield sites, and should include the requirement to determine impacts on mature trees at a very early stage in the development process.
4	a. Use appropriate technologies (e.g. LiDAR) and ground-truthing to identify and estimate the current standing population of MNT in the urban environment and estimate rate of loss over future years. b. Use the data to model the trajectory of the MNT population in urban leasehold land. c. Use the above to evaluate the overall effect of this action plan in the urban context and revise accordingly. d. LiDAR/remote-sensed data used by EPSDD to identify tranches of trees to nominate for registration under the Tree Protection Act. These would need to be evaluated against the qualitative criteria of the Act.	It should be a high priority to get data on the mature native trees across the ACT, not just in the urban environment, and the action should be rephrased accordingly.
5	Develop policy for identifying and evaluating isolated public urban trees of high ecological priority for retention and protection. See Actions 1 and 3.	As per Action 1, should apply to other land not just urban land.
8	a. Support research into the ecology of key fauna species and their habitat use in the urban context (e.g. Superb Parrots). b. Identify species at risk from MNT loss in urban woodland and develop research/management priorities. c. Develop models to evaluate landscape connectivity for taxonomic groups other than birds (as data become available). See Barrett and Love 2012.	These are good actions, strongly supported, but should be carried out across mature native trees in the rural environment, not just the urban context.

Action No.	Action	Notes
10	In selected areas, encourage artificial creation of hollows in standing dead trees to accelerate development of habitat quality variables. Such hollows should be carved into the existing structure where possible (e.g. using chainsaws) or additional hollows added by attachment of natural or artificial hollows to the existing structure. Nest boxes typically should not be used as they do not have appropriate thermal properties and degrade quickly. Monitoring (e.g. via automatic cameras) should be conducted to collect data to determine usage to inform adaptive management.	Specify that the design of nest boxes/artificial hollows is targeted for individual species, based on research and evidence. Maintenance of nest boxes should also be specified, particularly to ensure undesirable/introduced species have not taken over.
11	Encourage greenfield estate development or infill development approvals to identify locations likely to support MNT in the long term within the urban matrix (e.g. open spaces with little foot traffic). These should ideally have existing mature trees, but some valuable locations may require additional (or initial) planting. See also Action 2. b. Encourage developers/TCCS to install complementary landscaping to minimise public risk and enhance habitat value where feasible: → including plantings to ensure regeneration/replacement of trees in the longer term → including both existing and proposed development areas. See also Action 13.	Current phrasing is not mandatory – 'encourage', 'ideally'. Replace with wording stating these considerations are mandatory against specified criteria.
15	Where broadacre sites are to be cleared for conversion to urban development, the actions cited above for the urban environment should be considered proactively. Planning should identify key locations with a view to ensuring that the context (location, connectedness, surrounding vegetation) is maintained to maximise the retention of MNT and their biodiversity values.	See submission, particularly sections 2 & 3.