

Public submission

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Submission to NSW Independent Forestry Panel
Prepared by Dr. Tony Bartlett AFSM

I hereby provide the following submission to the Independent Forestry Panel undertaking consultation to inform the development of NSW's Forestry Industry Action Plan. I am an independent forestry expert with more than 45 years of experience working in Australian and international forestry sectors. I have a PhD from the Australian National University, a MSc from Oxford University and a B. ForSci from University of Melbourne.

I have experience in native forest management, plantations, fire management, forest research, Landcare and forest policy. I have worked in various forestry and fire management roles for the Commonwealth, ACT and Victorian governments and on forestry development projects in Nepal and Vanuatu. I was involved in the development of Victoria's RFAs in the 1990s, managed a commercial plantation business, led the Commonwealth's Forest Industries Branch in the mid 2000s and was a panel member on the Major Event Review of bushfire impacts on the Victorian RFAs in 2021. I was the Forestry Research Program Manager at the Australian Centre for International Agricultural Research Centre (ACIAR) from 2010 until 2018, managing 25 projects located in 14 developing countries. I am currently the Chair of the Board of Responsible Wood, which is responsible for the development and maintenance of the Australian and New Zealand Standard for Sustainable Forest Management (AS/NZS 4708:2021), that is aligned to the PEFC global forest certification standard.

I wish to make comment on the following topics from the Independent Panel's Terms of Reference:

- **Sustainability of current and future forestry operations in NSW.**

Throughout my career of working in forestry for almost 50 years, I have gained considerable experience in sustainable management of native forests in Australia, particularly through contributing to the continuous improvement processes associated with long-term sustainable forest management. This included more than 25 years working in the management of Victoria's native forests and a period overseeing national forest policy while managing the Forest Industries Branch in the Commonwealth Department of Agriculture, Fisheries and Forestry. I have also spent more than a decade working in many different developing countries to improve management of their forests. On the basis of this considerable experience, I can confidently say that Australia's sustainable forest management credentials are among the best in the world and that NSW's forestry operations are being implemented in a sustainable manner.

The Australian Forestry Standard is Australia's national forest certification system, recognized as an Australian Standard, which requires compliance with a series of scientific criteria and indicators aligned to those used to monitor and report on the State of the Forests. It is also recognized (along with the FSC certification scheme) by the Green Building Council of Australia. All of the NSW forestry operations on public land are certified under the Australian Forestry Standard. Regular audits by

independent certification bodies have confirmed that both native forest and plantation operations meet the requirements of the Standard.

I understand that there are many stakeholders who claim that NSW's native forestry operations are not sustainable and some stakeholders who take issue with aspects of plantation forestry. From first-hand experience, I know that the Forestry Corporation of NSW has a very sophisticated system for planning and conducting timber harvesting operations. I recently participated in a review meeting to go through these systems with staff from the Green Building Council of Australia, following complaints to them by some anti-forestry stakeholders. At the conclusion of that meeting, Forestry Corporation and the Certification Body agreed to enhance the content of future audit reports to explain how any non-conformance with environmental requirements are reported publicly. This is a prime example of continuous improvement in what is already a complex system around demonstrating sustainable forest management.

- **Demand for timber products, particularly as relates to NSW housing, construction, mining, transport and retail.**

Currently NSW contributes about 17% of the timber harvested from Australian plantations and native forests, with about 80% of this coming from softwood plantations. However, the total volume of logs harvested from NSW forests annually has declined by about 30% since the 2019-20 bushfires. It is notable that Australia's annual value of all wood products imports increased by about 24% in the two years following the 2019-20 bushfires. The demand for wood products keeps increasing, yet the volume of logs harvested annually continues to decline. Sustainability in relation to forest products also needs to consider whether it is morally sustainable to keep substituting local timber production with supplies from other timber producing countries, many of which do not have the same standards applied to forest management.

NSW State Forests produce some of the most decorative native timbers produced in Australia. Many of these are used in high-value architectural applications and for decorative furniture timbers. Notably, northern NSW is home to some of the very small number of wood processing companies that produce solid or engineered wooden flooring from Australian hardwood timbers, that are in high demand in modern houses. These products primarily come from native forests, managed as State Forests, and cannot readily be substituted by wood from plantation forests.

- **The future of softwood and hardwood plantations and the continuation of Private Native Forestry in helping meet timber supply needs.**

It is well known that over the past three decades there has been a significant shift in the relative volumes of timber produced within softwood and hardwood plantations compared to from native forests. While this has been a good outcome, it has come with considerable cost and a reasonable degree of community conflict in areas where plantation forests have been expanded. However, importantly the total area of plantation forest in Australia has been declining during the past decade while the demand for timber products has been increasing. As indicated above, native forests

also produce some high value products that cannot be sourced from plantations. Moreover, at the global scale there is increasing demand from wood products as living standards rise in many countries and climate mitigation policies promote the substitution of greenhouse gas emission intensive products for renewable products from forests.

Australia cannot afford to cease all timber harvesting in native forests and current trends suggest that, though a sensible forest policy goal, it will be a very significant challenge to increase future wood supplies from plantation forests. The native forests and hardwood plantations in northern NSW are the only remaining source of hardwood poles suitable for use in electricity transmission lines. If access to these timber resources ceases, the Koppers timber preservation plant will close and all new power poles will either need to be made of concrete or steel – both of which are greenhouse gas emission intensive products. By way of comparison, I noted during a trip to British Columbia in 2023 that almost all power lines in that Province used treated timber power poles.

Across Australia, much of the former government-owned plantation forest has been sold to private sector investors. To date, NSW has retained its significant softwood plantation resource in government ownership. Over the last two decades, the loss of plantation forests as a result of major bushfires has increased substantially, including in NSW. If this trend continues, it is highly likely that private sector investors will become reluctant to replant plantations lost to bushfires if they judge that such investments won't reach commercial maturity. This is a significant risk therefore to the important major wood processing industries that rely on timber from plantations.

The decision by the NSW government to replant the softwood plantations destroyed in the 2019-20 Black Summer bushfires is commendable. Without such decisions it is highly likely that some of the capital-intensive wood processing industries in regional NSW would find it difficult to remain commercially viable.

While a future Forest Industry Plan for NSW should foster further expansion of plantation forests within the identified forestry hubs, the NSW government needs to take a holistic view of the important role that public-owned forests play in maintaining the important forest industries. In addition, more effort is needed on identifying practical approaches to better protecting plantation forests from severe bushfires that originate outside the plantation estates.

- **The role of State Forests in maximising the delivery of a range of environmental, economic and social outcomes and options for diverse management, including Aboriginal forest management models.**

State Forests in NSW play a very important role in delivering a very wide range of environmental, economic and social outcomes from forest management. The basis for this embedded in the 1992 National Forest Policy Statement and then through the three Regional Forest Agreements that were signed by the Commonwealth and NSW Governments between 1999 and 2001. In 2018, these three RFAs were extended for a

further 20-year period. These extensions were agreed to following a period of assessment, public consultation, independent review and consideration.

The NSW RFAs have three main purposes, each of which are key components of Australia's National Forest Policy Statement:

- to provide a comprehensive, adequate and representative (CAR) reserve system and provide for the conservation of those areas.
- to provide for the ecologically sustainable forest management (ESFM) and use of forests.
- to provide long-term stability of forests and forest-based industries.

Achieving a balance between environmental, economic and social outcomes requires consideration of a wide range of forest uses and values and a sophisticated system for managing these different uses and values in an integrated way across regional forest landscapes. The NSW RFAs are a contemporary and modernised approach to sustainable forest management, which is supported by outcomes-focused reporting that facilitates long-term sustainability of a very important renewable industry in NSW.

While Victoria has signalled its intention to cancel its Regional Forest Agreements at the end of 2024, on the basis of my long-term experience in the development of RFAs I don't think this decision has been well thought through. RFAs effectively accredit the State-based processes for managing forest values, including Matters of National Environmental Significance. Without such accreditation, States will be required to seek Commonwealth approvals for all activities that have the potential to impact on Matters of National Environmental Significance, including species and communities listed under the Commonwealth EPBC Act. Managing such approval processes will require significant investment in additional government bureaucracies.

The management of State Forests to provide plantation and native timbers to NSW's forest industries not only makes significant economic and social contributions to rural communities, but it also contributes substantial revenue for the NSW government to offset the significant costs associated with managing the very large land estate covered by State Forests. Without this revenue, all of the ongoing costs associated with forest management, including maintaining roads and fire management, would need to be met by appropriation revenues.

- **Opportunities to realise carbon and biodiversity benefits and support carbon and biodiversity markets, and mitigate and adapt to climate change risks, including the greenhouse gas emission impacts of different uses of forests and assessment of climate change risks to forests.**

In relation to this broad topic, I will confine my comments to the climate-change risks to forests, particularly those associated with severe wildfires and tree death during prolonged droughts. By way of background, I was a member of the three-person independent panel that conducted the Major Event Review process following the 2019-20 bushfires as provided for in Victoria's modernized Regional Forest Agreements. Over

the past year, I have devoted considerable time to preparing a review of research related to the impacts of timber harvesting and prescribed burning on forest flammability.

One of the major findings from the Major Event Review process was the existential threat to many forest values from repeated extensive high intensity forest fires, which have become more frequent as a result of climate change. That review found that across the more than 1.5 million hectares of public forest that was burnt about half of the area was burnt at high intensity. Importantly, the review found that the tenure of the forest (National Park or State Forest) made no difference to the proportion that was burnt at high severity. In addition, those Victorian bushfires burnt 872,000 hectares of the CAR Reserve System, established under the RFAs, and 48% of this was burnt at high severity. These findings are in stark contrast to the published research findings from ANU academics that conclude that logging of State Forests makes the forests more flammable (more likely to burn at high severity).

I have reviewed about 20 research publications produced by ANU-affiliated researchers, which have contributed to their Bushfire Science Report No. 3 on the relationships between native forest logging and bushfires. I have undertaken a detailed analysis of the specific research from six of the articles, which details the research that is subsequently quoted in other of their articles. My analysis has been written up into a 90-page report and I am currently distilling this into a series of articles for submission to journals. Some of the key findings from my analysis include:

- ANU academics have produced a series of research papers following the 2009 and 2020 wildfires, aimed at proving disturbance (logging and more recently prescribed burning) makes forests more flammable.
- My analysis has identified a range of weaknesses in their research methods, as well as in some of their assumptions and the analyses, which together cast doubt on the validity of their conclusions.
- Many of their conclusions about the links between logging and fire severity appear to be ideologically based and not well supported by a careful examination of the evidence they have presented.
- The very substantial counter evidence from credible long term bushfire research in Australia is largely ignored in the ANU papers.
- All their research has been published in peer reviewed journals, but not in recognised fire science journals, which means they have not been peer-reviewed by bushfire science experts.
- Their research was conducted in particular forest types, but their findings are being 'generalised' to cover all forest types and translated into emotive language (more fire prone, more flammable) to garner support for policy change.
- Their key finding from this research, that forests that remain undisturbed for more than 70 years become much less flammable, is primarily based on selective use of their own data from mountain ash forests. Importantly, it does not match the ACT lived experience, where a significant area of long unburnt subalpine forest was burnt at high severity in 2020.
- The most recent claims by ANU academics that new research also found that prescribed burning also makes forests more flammable is a theoretical

conclusion from their analysis of selected global literature. They have not done any actual quantitative research on the impacts of prescribed burning on wildfire severity, rather their selected Australian references have been examining effects of previous wildfires on fire severity.

Native forests and plantations are both being increasingly impacted by severe wildfire with devastating consequences for environmental and commercial timber values. The full suite of scientific research on Australian bushfires clearly indicates that fire severity is influenced by a wide range of factors, most notably the prevailing weather conditions. It is well known by Australian bushfire scientists that reducing the quantity and distribution of forest fuels is the only forest management tool that can both reduce fire intensity and increase the likelihood that firefighters can suppress forest fires when they are small. There is also clear evidence from multiple journal articles that prescribed burning conducted within the past 10 years has reduced fire severity in around half of the areas where it has been conducted. Once the fire weather conditions are in the Severe or Catastrophic range, forests burn intensely regardless of the existence of previous prescribed burning.

One of the sometimes-undesirable impacts of intense bushfires is the widespread regeneration of tree species, which leads to a thickening of forests as a result of the presence of dense areas of small diameter trees in the understory. This increased density of small diameter trees changes the forest structure and potentially makes many of the overstorey trees susceptible to death during droughts.

I am aware that this issue of the increased density of severely burnt native forests is of concern to many Traditional Custodians of native forests. During a visit to Ellangowan State Forest in northern NSW in 2023, the change in forest structure and the restrictions on use of cultural fire was raised by the local Aboriginal community:

- A Bandjalang Aboriginal community member described the forest structure after 2020 fires as “upside down forest”, and said that “this forest is so dense that an emu can no longer run through it”
- Fire management is all wrong – now after a bushfire we are not allowed to burn for around 10 years (NSW Bushfire Environmental Assessment Code)
- In the past, after a bushfire we used to do cool burning of these areas in the following summer, burning the grasses which also killed some of the regenerating wattles and eucalypts.

Because climate change is having significant impacts on native forests, particularly through intense bushfires and drought deaths, it is clear that policies that restrict active and adaptive management of forests are working against the goals related to protection of environmental values. If the native forest timber industry is lost from NSW, the State will lose an important component of its forest fire management and suppression capability that no amount of expensive aircraft will be able to replace. In addition, without ensuring that there are viable markets for native timber products, the NSW government will not be able to commercially implement strategic thinning of densely stocked forests to improve their resilience to drought or to reduce bushfire hazards.