

Submission to the Royal Commission into National Natural Disaster Arrangements

Executive Summary

FIFWA welcomes the opportunity to make a written submission to the Royal Commission into National Natural Disaster Arrangements. This submission provides a Western Australian perspective on Natural Disaster Arrangements (specifically associated with wildfire or bushfire, as the terms are used interchangeably in this submission) as they relate to key stakeholders in native forests and plantations.

Recommendations from the submission are listed below.

Recommendation 1: Adoption of a landscape scale, tenure blind, whole of government, multi-agency approach to wildfire mitigation, response, suppression, and recovery.

Recommendation 2: All levels of government to adopt mechanical fuel reduction as a wildfire mitigation tactic and commence rolling out an effective program across WA.

Recommendation 3: South west WA is used as a case study for successful prescribed burning practice.

Recommendation 4: All levels of government in WA maintain decentralised land management staff in smaller townships.

Recommendation 5: Continue closing national parks and reserves to the public during periods of severe to catastrophic fire danger ratings.

Recommendation 6: All levels of government to recognise plantations as assets and critical infrastructure.

Recommendation 7: WA should not be overlooked in funding and/or loans for industry rebuilding. WA's fire season have not been as dramatic as SE Australia but nonetheless are crippling for the plantation industry future.

Recommendation 8: That the Commonwealth and State governments recognise the importance of actively managed forests for contributing to the maintenance of road networks, and considers funding for roading as a critical part of wildfire mitigation.

Recommendation 9: Commonwealth and State governments place a moratorium upon any further expansion of the national park estate across the nation, until a plan can be developed that will prevent national parks from being community fire hazards and biodiversity incinerators.

Recommendation 10: Commonwealth and State governments recognise the importance of retaining timber industries for maintaining an efficient and cost-effective ground based firefighting capability.

Recommendation 11: Land management agencies learn more about local Traditional Knowledge and incorporate traditional forest fire management practices where relevant.

FIFWA submits that responsibility for fire management should be considered with a landscape scale, tenure blind, whole of government, multi-agency approach. FIFWA strongly encourages using all the tools in the mitigation toolbox, especially mechanical fuel reduction. FIFWA calls for recognition of plantations as assets and critical infrastructure; and recognition of industry supported bushfire mitigation and response. FIFWA is a proponent of actively managed forests and incorporating traditional land and fire management practices.

FIFWA values this opportunity to provide a WA perspective on Natural Disaster Arrangements as they relate to key stakeholders in forests and plantations, and welcomes the Commission to contact FIFWA Project Officer Lucy Mulcahy on 9472 3055 or lucy@fifwa.asn.au should any questions arise from this submission.

Sincerely,



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The Royal Commission into National Natural Disaster Arrangements

Forest Industries Federation of WA (FIFWA) is the industry association for the timber industry in Western Australia. Our membership includes major companies and businesses that operate in the WA timber industry, including commercial plantation growers and managers, harvest and haulage operators, exporters, and timber processors in both the plantation and native timber industry sectors.

The State's native regrowth forests and the public and private plantation estates are valuable assets and the foundation upon which the Western Australian timber industry is built. Protecting these assets from fire is of utmost importance to our industry. Timber supplied from WA forests supports significant integrated local processing, manufacturing and exporting, generating over 6000 direct jobs, most of which are regionally based.

We appreciate the opportunity to submit comments to the Royal Commission into National Natural Disaster Arrangements ("Bushfires Royal Commission"), to reinforce the feedback shared at the Community Forum in the Swan Valley on 13th March 2020. FIFWA recognises that Western Australia was not as heavily impacted as the eastern states by the 2019/2020 summer wildfires. In that regard, we offer this submission to provide a WA perspective on Natural Disaster Arrangements as they relate to key stakeholders in native forests and plantations.

Further, we recognise the Commission will call upon numerous subject matter experts and draw upon all available relevant publications, so we provide the generalised comments below. We welcome you to contact us should you wish to discuss any matter further.

Responsibility for fire management – landscape scale, tenure blind, whole of government, multi-agency approach

FIFWA supports the Bushfires Royal Commission's inquiry into (a) the "responsibilities of, and coordination between, the Commonwealth and State, Territory and local Governments relating to preparedness for, response to, resilience to, and recovery from, natural disasters, and what should be done to improve these arrangements"; and welcomes the opportunity to provide the following comments.

It is generally recognised by forest managers across Australia that improved coordination between the numerous actors involved in fire preparedness, response, resilience, and recovery is needed. FIFWA echoes the call for a landscape scale, tenure blind, whole of government, multi-agency approach recommended by many. Such a collaborative approach would allow subject matter experts to be directly involved in decision making. This is particularly important when the responsibilities of State government agencies are modified following a change of government for example.

The image from Australian Forest Products Association¹ below illustrates the complexities from the native forest industries' perspective. A tenure blind approach towards to preparedness for, response to, resilience to, and recovery from bushfires would benefit the health of the forest, the safety of the community and ease bureaucratic burdens for those directly involved in bushfire mitigation, suppression, and recovery. The media covering salvage harvesting highlighted some of the complexities of recovery for example. At first, much of the general public was not aware of the improved safety outcomes and mis-labelled industry as 'greedy'.

¹ *Using fire and machines to better fire-proof our country towns*, Australian Forest Products Association, February 2020

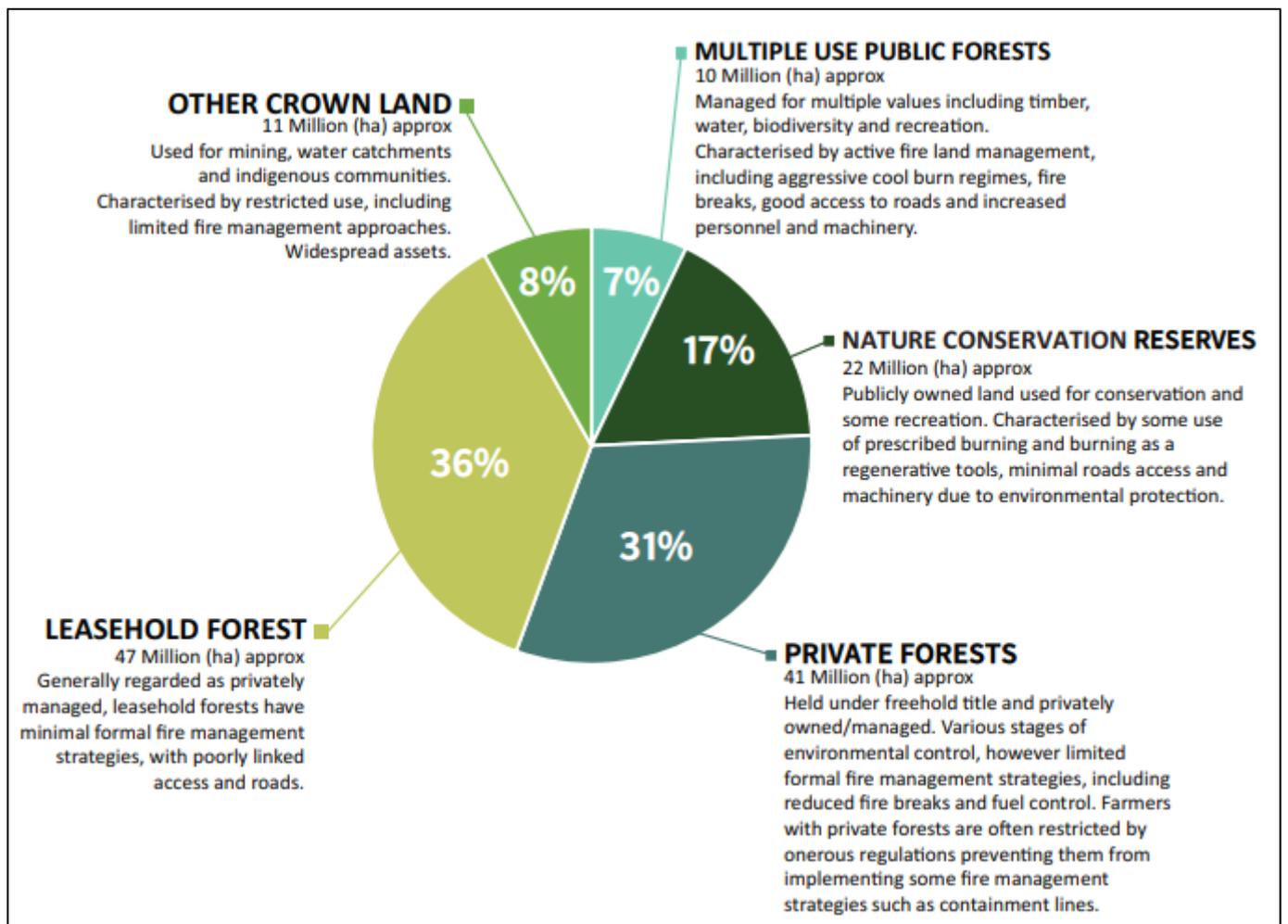


Figure 1 – Land tenure categories of native forest in Australia²

The proposed landscape scale, tenure blind, whole of government, multi-agency approach would boost recognition that there is no one-size-fits-all solution to wildfire mitigation, response, suppression, or recovery. The approach would provide an excellent foundation for adaptive management and enable the exploration of all opportunities for improvement and possible tactics. A significant amount of fire management expertise resides with land management agencies, forestry companies and private landholders. Non-collaborative approaches risk losing those capabilities, to the detriment of forests and communities.

Recommendation 1: Adoption of a landscape scale, tenure blind, whole of government, multi-agency approach to wildfire mitigation, response, suppression, and recovery.

Using all the tools in the mitigation tactic toolbox

FIFWA supports the Bushfires Royal Commission’s inquiry into (b) “Australia’s arrangements for improving resilience and adapting to changing climate conditions, what actions should be taken to mitigate the impacts of natural disasters”; and (f)(i), investigating “land management, including hazard reduction measures”.

FIFWA recognises there is no one-size-fits-all approach to wildfire mitigation and supports using a variety of tools, as afforded by an adaptive management approach that considers the whole landscape, irrespective of tenure. Some of these tools will be addressed below and should be considered in concert with other mitigation tactics.

² Using fire and machines to better fire-proof our country towns, Australian Forest Products Association, February 2020

A) Mechanical fuel reduction

FIFWA supports mechanical fuel reduction as a tool to reduce the size, likelihood, and severity of bushfires in WA. FIFWA particularly encourages policy settings that will expedite the take-up of mechanical fuel reduction in WA. This is in line with Opportunity Three from the 2016 Waroona Fire Enquiry³. FIFWA hopes that all levels of government start adopting mechanical fuel reduction and commence rolling out an effective program across WA.

There has been a multi-agency approach to addressing Opportunity Three, involving the Department of Fire and Emergency Services (DFES), Department of Biodiversity, Conservation and Attractions (DBCA), Forest Products Commission (FPC) and WA Department of Water (DWER). WA's forest industries are also actively involved in the mechanical fuel reduction trials.

Perhaps most relevant to this enquiry is the informal feedback from experienced fire and forest managers such as Euan Ferguson who headed the Waroona Fire Enquiry, and recently toured the mechanical fuel reduction trial site in south west WA. The group's observations echoed and endorsed findings from other experienced fire fighters and land managers – fire behaviour in the treated areas would be radically different than in the untreated controls, and that maintaining an intense crown fire would be very unlikely. The group also noted that besides preventing coppice re-shooting, they could not see how a forest could be better treated to make it resilient to fire, moderate fire behaviour and safer for firefighters.

The trials have received positive informal feedback from various parties. WAFarmers Beekeepers Section was impressed during their field tour⁴ of the trial site, noting mechanical fuel reduction “would seem to have less of an effect on beekeeping and honey production than a prescribed burn every 4-6 years. Over time the canopy of the trees left would grow larger and honey production may not be affected.” Teachers from numerous local schools have shared similar positive comments, expressing surprise that the thinned, unburnt treatment area had even been harvested at all. This suggests that the general public may be supportive of mechanical fuel reduction, in addition to industries like forestry, honey production, and wine making.

Social license to operate is an important consideration for forest industries, and also for wildfire mitigation. The public-forest interface is increasing as more people move to regional towns for a “tree change”. Smoke, haze and ash associated with prescribed burns can negatively impact the general public and industries like honey production and wine making. Mechanical fuel reduction can be a better option for some areas of forest in this regard.

Other benefits of mechanical fuel reduction can be likened to “drought-proofing” the forest, or making it more resilient to the drying climate we are experiencing. Past forest management practices have led to overstocked forests in WA and drought deaths are seasonally observed in the jarrah forest in the summer-autumn when trees are most highly stressed. Using silvicultural techniques such as thinning, as part of sustainable forest management, delivers wildfire mitigation outcomes through reducing fuel loads; improves the health of the forest by reducing competition for resources; and increases groundwater recharge and streamflow.

Additionally, drought stressed forests respond more poorly to fires than actively managed, thinned forests (also a reflection of the reduced resilience of overstocked forests). For a local example, this has been observed and recorded in the Wellington Discovery Forest with much concern by the experienced foresters comprising the Friends of the Wellington Discovery Forest. Following a fire that started adjacent to the Wellington Discovery Forest in December 2013, and then encroached the Wellington Discovery Forest - more than 60% of the jarrah trees were killed and no epicormic shoots have since appeared. Normally after a summer fire, most jarrah trees although defoliated by the fire, produce epicormic shoots and new leaves within a few months. The Friends of the Wellington Discovery Forest attribute this change to the low soil moisture at the time of the fire and consequently in the trees, due to both the drying climate and the impact of an overstocked forest.

³ Ferguson, E. "Reframing rural fire management: report of the Special Inquiry into the January 2016 Waroona Fire." *Government of Western Australia: Perth, WA, Australia* (2016).

⁴ *Beekeepers explore alternatives to prescribed burning*, WA Farmers Media Release, August 2019, unpublished

Here the requirement of a tenure blind approach to wildfire mitigation is highlighted. In areas of State forest it is possible to thin the forest or remove timber for sale as forest products, and therefore maintain a sufficient number of trees to balance the water storage in the soil with a lower tree stocking. By contrast, rules and regulations for national park tenure for example, prevent silvicultural treatments such as thinning and mechanical fuel reduction. A license to sell forest products is only granted under limited conditions. This means if the predictions for a continued reduction in rainfall in the south west prove correct, drought deaths in national parks will not only become unsightly but will be hazardous for visitors as dead trees drop limbs and block roads and tracks needed for fire suppression access.

Private landholders have a role to play in managing forest fuels. There is significant “green tape” that discourages private landholders managing their fuels responsibly. Outdated terminology on application permits that align thinning with land clearing is one example of discouragement.

With appropriate government policy it is possible that much of the excess fuel in the forest could be harvested and used for generating renewable power generation (including co-firing opportunities), biofuel or value added items like engineered wood products. There is already some progress in this regard, with the mid-term audit of the Forest Management Plan 2014-2023 recommending the FPC continue to seek access to markets for other bole volume and undertake trials of suitability for various engineered wood products.

It is important to note that FIFWA considers the potential market opportunities offered by mechanical fuel reduction as a secondary benefit. Human life is paramount, with safety of the community and firefighters of utmost concern.

Recommendation 2: All levels of government to adopt mechanical fuel reduction as a wildfire mitigation tactic and commence rolling out an effective program across WA.

B) Prescribed burning

As with forest managers across Australia, FIFWA is an active proponent of prescribed burning. Prescribed burning helps reduce fuel loads in forests and the associated risks of catastrophic wildfire, and is crucial in maintaining healthy forests. FIFWA gratefully acknowledges the bipartisan support of prescribed burning at the WA State government level.

In 2019 FIFWA welcomed WA Environment Minister Hon Stephen MLC’s announcement that the State Budget will include \$22 million over four years for the Enhanced Prescribed Burning Program implemented by the Department of Biodiversity, Conservation and Attractions (DBCA). FIFWA is not only supportive of the fundamental benefits to the forest, community and infrastructure enabled by the increased funding and ongoing commitment; but also to improving community perception of prescribed burning.

With such funding DBCA is more likely to meet its prescribed burn targets. This is helpful in improving their social license to perform prescribed burns. Prescribed burns can achieve various objectives (for example post-harvest burns to enable regeneration; lower the risk of a wildfire encroaching on a nearby community; a variety of burns to manage wildlife habitat for specific threatened species⁵ and so on) and their reporting in the media is usually limited to either the total area treated, or only the actual area burnt. This is another example where there is no one size fits all solution and enhanced science communication would help. In both reporting scenarios, agencies like DBCA are blamed by the general public for ‘not burning enough’ or ‘unnecessarily burning too much forest’. Educating the general public about the quantitative and qualitative measurements of success for a range of prescribed burns is important. Community perception of the media can create doubt at the political level, so it is crucial that the general public supports prescribed burning.

⁵ Burrows, N & McCaw, L. "Prescribed burning in southwestern Australian forests." *Frontiers in Ecology and the Environment* 11.s1 (2013): e25-e34.

Local observations by a range of foresters concludes that traditionally unacceptable scorch heights (indicator of fire heat) are regular DBCA burn results. More complex ignition plans need to account for variations in fuel types and levels, rather than same day ignitions for large contiguous forest blocks. A continuous improvement approach to the prescribed burn program would be ideal and allow DBCA to meet both area burn targets and burn plans that complement nature conservation outcomes. This may already be happening through post-burn reviews, but that is not being communicated externally. This leads to uncertainty regarding the implementation of appropriate corrective actions. It is certainly more time consuming to conduct burns with multiple ignitions but the outcomes can be very different and more favourable to maintain social licence. The government should be providing more specific funding to ensure that continuous improvement occurs.

WA is noted for its demonstrated ability to maintain a robust and sizable prescribed burn program. Besides the obvious benefits to fire mitigation, it supports a decentralised professional land management infrastructure across south west WA. This maintains a cohort of experienced, locally knowledgeable and locally based fire responders to safeguard rural communities.

A recently published report authored by a group of well-respected forest and fire managers⁶, practitioners and researchers noted:

There is compelling evidence for the greater use of prescribed burning to reduce wildfire risks and impacts, rather than committing increasing resources to wildfire suppression. The potential negative impacts of prescribed burning can be managed effectively using existing knowledge and tools. Clear communication of the benefits of prescribed burning can influence political and public opinion in its favour. More investment in training, human capacity and supporting resources is required to safely and effectively deploy prescribed burning more widely to reduce future wildfire risks.

While the report is focused on south eastern Australia, the above conclusions are relevant for WA and heartily supported by FIFWA.

Again, the requirement of a tenure blind approach to wildfire mitigation is highlighted. Terrain, vegetation types, soil dryness and weather conditions for example do not observe tenure boundaries. Where practicable, nor should prescribed burn plans. Prescribed burns must be applied to national parks.

FIFWA supports a multi-agency approach to prescribed burning, for many reasons. Recently DBCA has included the timber industry as a stakeholder on a daily email update outlining the day's planned prescribed burn and the status of current prescribed burns. This level of forward planning enables industry to volunteer resources should appropriate machinery or trained staff be working in the vicinity of the planned burns. This ad-hoc, grass roots approach is a great example of collaboration. Further, some districts have welcomed industry input into planning the prescribed burn program. These informal collaborations enhance forest management. Industry's formal role in wildfire mitigation and suppression is explored later in this submission.

FIFWA reiterates feedback provided at the 2017 prescribed burning forum held in WA and urges all parties involved to reaffirm commitment to a collaborative approach to managing the inherent uncertainty in prescribed burning operations, as well as our support for ongoing research and application of research outputs.

Recommendation 3: South west WA is used as a case study for successful prescribed burning practice.

Recommendation 4: All levels of government in WA maintain decentralised land management staff in smaller townships.

⁶ Morgan, G. W., et al. "Prescribed burning in south-eastern Australia: history and future directions." *Australian Forestry* (2020): 1-25.

C) Other considerations

While prescribed burning and mechanical fuel reduction are certainly the key tactics in the mitigation toolbox, a variety of other actions would improve mitigation, suppression, response, and recovery. An example from the 2017 prescribed burning forum is a simple dress code. By requesting attendees not wear their official uniform it encouraged a truly collaborative approach in all of the workshops and discussions held. When forming a whole of government, multi-agency approach, seemingly minor considerations like this are important to ensure meaningful collaboration. Consideration of a “neutral” meeting place is one suggestion.

FIFWA supports closing national parks and reserves to the public during periods of severe to catastrophic fire danger ratings, and communicated this with WA’s Minister for the Environment Hon Stephen Dawson MLC earlier this year. FIFWA considers that closing public access to State forest (specifically including State-owned plantations) during periods of severe to catastrophic fire danger may also be a valuable wildfire mitigation tool. Not only would it reduce the inherent risk of human-lit fire (either through arson or accident), it would give State-owned plantations the same recognition as national parks. In this regard, public perception of plantations as valuable assets would be boosted. Privately owned plantations are already closed to the public, but this perception of plantations as valuable assets would flow to them.

Public perception drives policy making and political decision making, and therefore if the public sees plantation forests as valuable, they are more likely to be classified as an asset and/or critical infrastructure by wildfire response agencies.

Recommendation 5: Continue closing national parks and reserves to the public during periods of severe to catastrophic fire danger ratings.

Recognition of plantations as assets and critical infrastructure

FIFWA echoes the national call for Australia’s forestry assets, and specifically plantations, to be considered critical infrastructure. This categorisation means they become a firefighting and mitigation priority, which is important because they can take decades to recover if destroyed by fire. With such a highly integrated supply chain, this loss creates short and long-term supply issues to downstream processing centres as well as harvest and haulage operators.

The impact of resource reduction, processing facility loss and a shrinking plantation estate is keenly felt across many sectors, including residential and commercial construction using structural and sawn timber, laminated veneer lumber and particleboard; paper products; packaging; and more. Relying on imported timber for all of these products could result in a loss of nearly 3670 jobs in WA, and about \$215 million contribution to Gross Regional Production – considering the forest products supply chain up to the point of secondary processing⁷.

The losses being suffered by the forest industry through fire are increasing at a far faster rate than would be expected based just on area affected by bushfire in the landscape, as demonstrated in Figure 2 below. Left unaddressed this trend could severely hamper future investment in plantations, at a time when WA is already facing future timber supply shortage.

⁷ Schirmer, J, Mylek, M, Magnusson, A, Yabsley, B & Morison, J. Socio-economic impacts of the forest industry Western Australia. *Forest and Wood Products Australia* (2017).

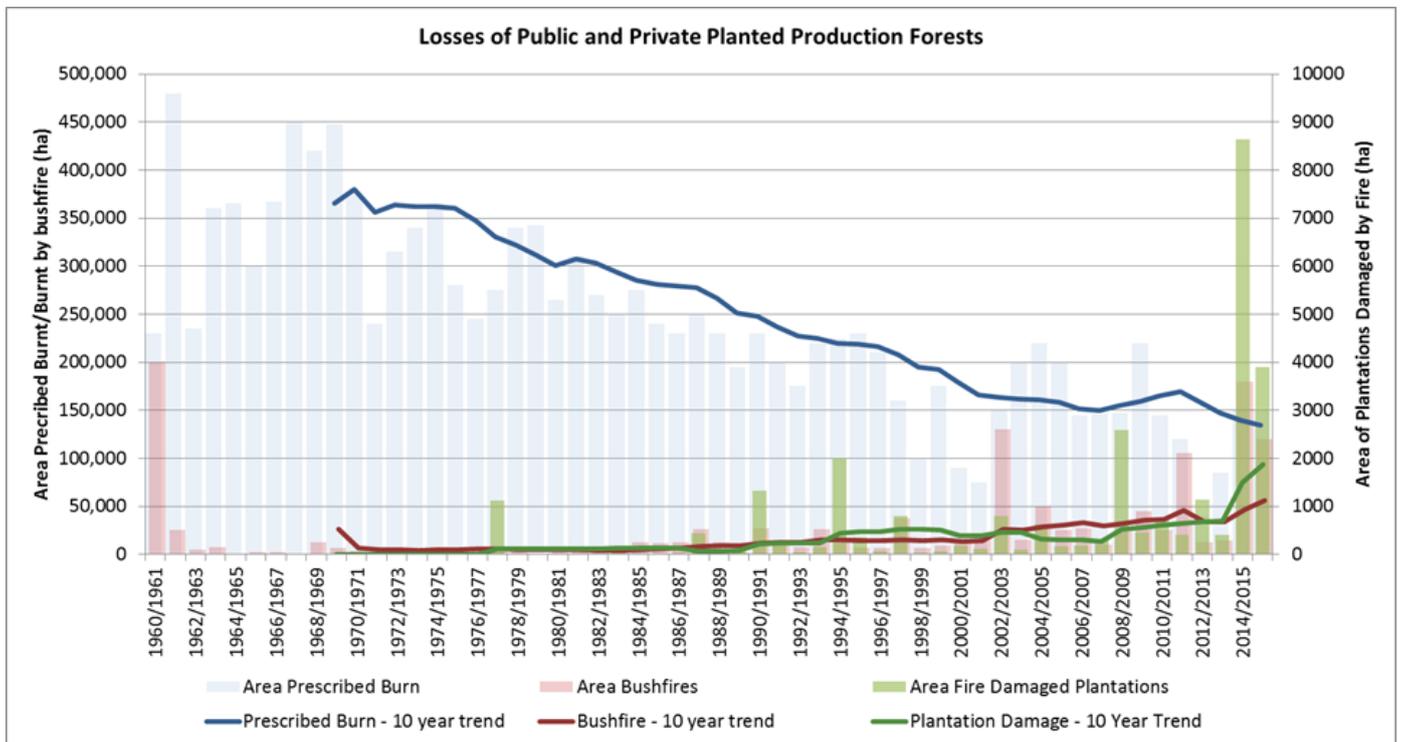


Figure 2 - Fire Losses of Planted Production Forests

Ninety percent of plantation fire losses are a result of fires that originate from outside the plantation. The majority of plantations are surrounded by State owned native forests with 7-year or greater fuel loadings, putting them at extreme risk of loss through bushfires.

Currently prescribed burning targets appear to be focussed on heavily populated areas (town site protection), power infrastructure, recreational and conservation areas. Wildfire Threat Analysis needs to value plantations for their return to the state, downstream processing values, domestic market sales, exports and ultimately the flow-on value to the WA economy.

The recognition of forestry assets as critical infrastructure should also be applied when considerations are given to recovery funding and timber salvaging operations. Apart from the apparent values to the community and industry, this is especially important when looking to Australia’s economic recovery post COVID-19. A recent report from ABARES⁸ examining impacts of COVID-19 on Australian agriculture, forestry and fisheries trade noted:

Bushfires that ravaged much of south-east Australia over summer significantly affected many forestry production areas. A softening of domestic and global markets, plus disruption to supply chains, may limit opportunities for the sector. This would depress producer prices or delay sale opportunities, limiting the ability to salvage fire-damaged trees. If processing in international markets is disrupted more significantly, the lack of domestic processing alternatives may extend to limiting sales. This will depend largely on the recovery of Chinese processing.

FIFWA submits that governments need to support forest products industries with flexible arrangements and support packages that enable timber salvaging operations and recovery of asset loss. The current COVID-19 pandemic has highlighted the essential nature of forest products industries.

Recommendation 6: All levels of government to recognise plantations as assets and critical infrastructure.

⁸ Greenville, J McGilvray, H Cao & LY Fell, J. Impact of COVID-19 on Australian agriculture, forestry and fisheries trade, ABARES Research report, Canberra, April 2020

Recommendation 7: WA should not be overlooked in funding and/or loans for industry rebuilding. WA's fire season have not been as dramatic as SE Australia but nonetheless are crippling for the plantation industry future.

Don't lock them up and leave – we must actively manage forests

FIFWA strongly opposes converting any land from State forest tenure to more restrictive tenures such as national park tenure. FIFWA submits that actively managed forests pose less fire risk to the community.

FIFWA holds that undermanaged national parks with high fuel loads pose a significant public safety concern. It is worth noting the Inquirer Euan Ferguson made the following observation in the Waroona Inquiry (2016)⁹:

The decline in hazard reduction burning can also be attributed to changes in forest policy in old growth forests. In the late 1980s there was a push from the community to establish national parks and nature reserves as a way of protecting old growth forests. The success of these movements saw the creation of the Shannon National Park and Lane Pool Reserve in the 1980s. An unintended consequence of this change in forest policy is that the forest industry, which had previously played a significant role in fire suppression and hazard reduction burning, was no longer the fire management resource that it once was. From 2000 onwards large uncontrollable wildfires burning in forests with heavy fuel loads have become more frequent.

Locking up multiple-use State forest into national parks is unnecessary, considering that several layers of policy and legislation ensure that adequate areas of high conservation value forest are in reserve and State forests meet the requirements for Comprehensive, Adequate and Representative Reserve System for Forests in Australia. It is also unwise considering lessons from past fire seasons, and the future drying climate.

WA's forest industries have always been proactive about fire management. Beyond the silvicultural applications of fire, industry has collaborated with researchers and government agencies on mechanical fuel reduction trials. Such trials would likely not take place in a national park, given the restrictions associated with that tenure.

Another benefit of actively managed forest is road and track maintenance. Due to limited resources, roads and tracks in national parks are generally less well maintained than those in production forests. Limited access causes significant problems during wildfire suppression. Industry contributes a significant amount to road and track maintenance. Conservative estimates are that industry has contributed about \$500 per kilometre to track maintenance in some production forests in the south-west.

Actively managed forests also provide significant carbon benefits when compared to national parks. The IPCC 4th Assessment¹⁰ report states a "sustainable forest management strategy aimed at maintaining or increasing forest carbon stocks, while producing an annual sustained yield of timber, fibre or energy from the forest, will generate the largest sustained mitigation benefit." A recent landmark study of a Eucalypt forest in NSW¹¹ had similar conclusions, highlighting the importance of both mature and young trees in carbon storage in a world with rising carbon dioxide levels.

FIFWA holds that if governments submit to public pressure to convert State forest to national park that the risk of a large, uncontrolled wildfire will greatly increase in that area.

Recommendation 8: That the Commonwealth and State governments recognise the importance of actively managed forests for contributing to the maintenance of road networks, and considers funding for roading as a critical part of wildfire mitigation.

⁹ Ferguson, E. "Reframing rural fire management: report of the Special Inquiry into the January 2016 Waroona Fire." *Government of Western Australia: Perth, WA, Australia* (2016).

¹⁰ Parry, Martin, et al., eds. *Climate change 2007-impacts, adaptation and vulnerability: Working group II contribution to the fourth assessment report of the IPCC*. Vol. 4. Cambridge University Press, 2007.

¹¹Jiang, Mingkai, et al. "The fate of carbon in a mature forest under carbon dioxide enrichment." *Nature* 580.7802 (2020): 227-231.

Recommendation 9: Commonwealth and State governments place a moratorium upon any further expansion of the national park estate across the nation, until a plan can be developed that will prevent national parks from being community fire hazards and biodiversity incinerators.

Industry supported bushfire mitigation and response

Another negative impact of converting State forest to national park is losing the quick response opportunities that industry presents. Many employees in WA's forest industries are literally uniquely placed to respond to wildfires, as their workplaces may be subject to fire or adjacent to a wildfire. In addition, many employees in WA's forest industries are highly trained in fire suppression and come equipped with vital machinery to construct containment lines, clear tracks and provide water supplies. The rapid response by an in-situ forest industry worker or crew could even prevent a minor fire progressing or developing into a wildfire.

FIFWA recognises the importance of sound forest management practices and the significant role they play in wildfire mitigation (for example residue placement) and suppression (for example staff training for fire awareness and appropriately maintained plant). In turn many local governments recognise FIFWA as an authoritative voice and refer to the FIFWA developed *Code of Practice for Timber Plantations in Western Australia* in their policies. The Code of Practice is regularly reviewed to ensure it reflects best practice and current industry standards, by consulting with a wide range of stakeholders and subject matter experts. It also allows industry to implement any recommended opportunities for improvement.

FIFWA recognises the capacity within the industry to support bushfire mitigation and response, and drives the WA Plantation Managers Fire Co-Operative, which is open to FIFWA members and non-members. Co-Operative Members developed and committed to the *WA Plantation Managers Fire Agreement*. This agreement formalises joint fire suppression resourcing arrangements for companies that are signatories to the Agreement. Basically, signatories to the agreement agree to share fire suppression resources (personnel and plant) when called upon, and within reason. For example if committing resources to wildfire suppression in a neighbouring district places their own assets at risk, a signatory is within rights to decline offering support. The Agreement is reviewed, modified, and renewed each year, ahead of the fire season. This means it always reflects best practice and incorporates recommended opportunities for improvement, such as those delivered through the Office of Bushfire and Risk Management.

Members of the WA Plantation Managers Fire Co-Operative also provide spatial data, updated annually. This data is compiled into an online GIS atlas and a traditional printed atlas. The atlas is available to DBCA, DFES, FPC and relevant LGAs, as well as industry. The atlas outlines plantation species, the managing authority and who to contact in case of emergency.

Further, the *WA Plantation Managers Fire Agreement* is the pillar of the Memorandum of Understanding between the Department of Fire and Emergency Services; the Department of Biodiversity, Conservation and Attractions; the plantation industry; and local government authorities who choose to be signatories. It is useful to note here that FPC are signatories to the WA Plantation Managers Fire Co-Operative under their share farm agreements, and are therefore part of the MOU. The MOU has seen automatic vehicle locators installed in applicable fire appliances, industry spatial data uploaded into DFES' Computer Aided Dispatch system, and enhanced training opportunities as some examples of success beyond the fundamental wildfire suppression resource sharing opportunities.

Representatives from DFES, DBCA and industry meet twice a year, pre and post fire season, to prepare for the coming season and review tactics that did and did not work. The WA Plantation Managers Fire Co-Operative also formally meet with DFES representatives once a year. This is in addition to various companies meeting with local DFES representatives as required throughout the year, and industry representation on the State Bushfire Advisory Council. The various avenues for communication help break down perceived barriers and raise awareness of issues before they become critical.

FIFWA also drives the Forest Industry Safety and Training Co-Operative, again open to FIFWA members and non-members. A key goal for the Forest Industry Safety and Training Co-Operative is to roll-out basic fire awareness training for all field personnel across industry, and wildfire suppression training where appropriate. FIFWA is working with a variety of agencies including DFES, DBCA, FPC, local governments, TAFEs and RTOs to realise the goal.

The aim of detailing the initiatives above is to highlight the proactive and collaborative nature of industry; the prominence of wildfire mitigation and suppression in industry workforce development; and industry's willingness to implement adaptive management. Wildfires destroy the resource WA's forest industries depend on and do not respect tenure boundaries nor organisational changes. FIFWA welcomes any policy or funding arrangements that would further enhance interagency collaboration and break down perceived "them and us" barriers.

Recommendation 10: Commonwealth and State governments recognise the importance of retaining timber industries for maintaining an efficient and cost-effective ground based firefighting capability.

Djarlma Plan – WA State industry plan incorporating traditional land and fire management practices

FIFWA supports the Bushfires Royal Commission's inquiry into "any ways in which the traditional land and fire management practices of Indigenous Australians could improve Australia's resilience to natural disasters". This is reflected in the Djarlma Plan¹², WA's forestry industry development plan. The Djarlma plan was launched in 2019 by Forestry Minister Hon Dave Kelly MLA, with the name is inspired by the Noongar concept of Djarlma, which reflects the interconnected relationship of people with forests and woodlands.

One strategy of the Djarlma Plan is to support Aboriginal people to manage forests and woodlands for spiritual and ecological values. A recognised way to achieve this is to collaborate with researchers and Aboriginal communities to better understand the threats to forest health and to identify opportunities to adapt forestry operations. Another action identified in the Djarlma Plan is to promote Aboriginal-led engagement in the forestry industry, including through the application of Traditional Knowledge, employment and the development of Aboriginal forest enterprises. There are numerous avenues to learn more about the ways in which the traditional land and fire management practices of Indigenous Australians could improve Australia's resilience to natural disasters, and for those practices to be implemented.

The Djarlma Plan also depicts bushfire management as a shared responsibility between DBCA, DFES, FPC, local government and industry.

Importantly, the Djarlma Plan was developed under the guidance of a multidisciplinary independent panel, and both government and industry are responsible for achieving the key actions. The Djarlma plan encourages collaboration within and between government agencies, within and between private sector organisations, and between the government and the private sector. FIFWA strongly encourages a similar collaborative approach to any wildfire documents that may be developed as a result of this Royal Commission.

Recommendation 11: Land management agencies learn more about local Traditional Knowledge and incorporate traditional forest fire management practices where relevant.

Conclusion

FIFWA submits that responsibility for fire management should be considered with a landscape scale, tenure blind, whole of government, multi-agency approach. FIFWA strongly encourages using all the tools in the mitigation

¹² The Djarlma Plan for the Western Australian Forestry Industry. Forest Products Commission of Western Australia (2019).

toolbox, especially mechanical fuel reduction. FIFWA calls for recognition of plantations as assets and critical infrastructure; and recognition of industry supported bushfire mitigation and response. FIFWA is a proponent of actively managed forests and incorporating traditional land and fire management practices.

