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Submission

Public Inquiry into the January 2016 Waroona Fire

Introduction

The Forest Industries Federation WA (FIFWA) is the association for the timber industry in Western Australia. FIFWA is representative of almost all the major companies and businesses that operate in the WA timber industry, including commercial plantation growers, harvest and haul operators, and processors in both the native and plantation sectors.

The States 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 as the timber supplied from these forests supports significant integrated local processing and manufacturing and generates over 5,500 direct jobs, most of which are regionally based.

One active division within our association is the FIFWA Plantation Fire Co-operative. The Cooperative is comprised of plantation growers and managers who participate in active fire suppression and mitigation to protect their estates and respond to calls from both DPaW and DFES for support in fires that threaten plantations.

We appreciate the opportunity to provide input into the 2016 Waroona Fires Public Inquiry and provide feedback itemised against the specific Terms of Reference. The losses in plantation estate from the Waroona fires were particularly calamitous and have lead our industry to identify several key areas where changes in fire suppression, mitigation and response may significantly reduce the severity of future fires in WA. We have also taken this opportunity to offer some recommendations and suggest areas of more general reform for consideration in the review process.

Terms of Reference 1. - The Response to the January 2016 Waroona Fire

(a) Bush Fire Prevention and Mitigation Activities.

Evidence from 55 years of history is that the managed reduction of forest fuels, through prescribed fire, has delivered to the people of Western Australia a huge dividend through minimisation of asset losses and suppression costs. Until the late 1990's fire crews attended 300 or more fires in the forest per year, but 90% were extinguished before they reached 10 hectares in size¹.

There is a clear link between the decline in area treated annually under benign conditions for fuel reduction, and the increase in area burned annually in destructive and costly wildfires (see Figure 1).

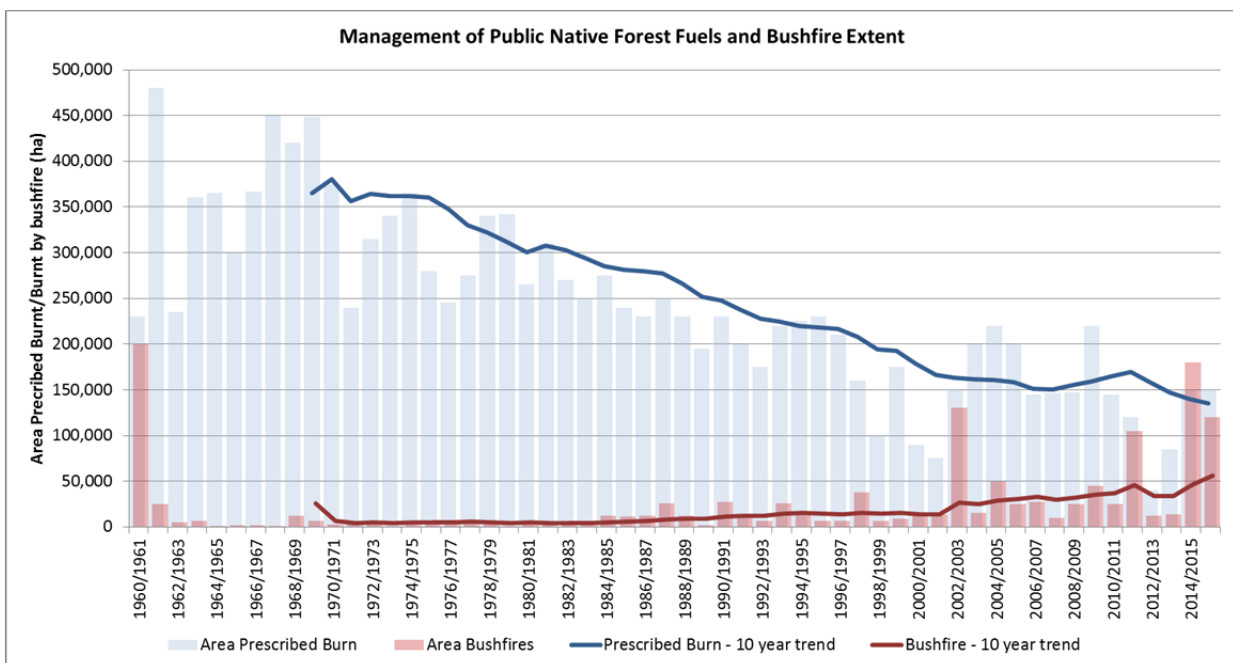


Figure 1: Prescribed burn area treated annually and area of uncontrolled bushfire annually

The intensity of a fire, and thus its ability to be confronted and fought by firefighters, is directly proportional to the quantity of fuel per hectare. Fires in long unburnt fuels are impossible to fight, and this conclusion has been drawn time and time again.

Since the area treated has dropped below 250,000 hectares per annum, the area of uncontrolled bushfires has increased inexorably.

¹ Sneeuwjagt and Higgs (1995) "Fighting Wildfires; breaking the triangle" *Landscape* 10 (4): 43-48

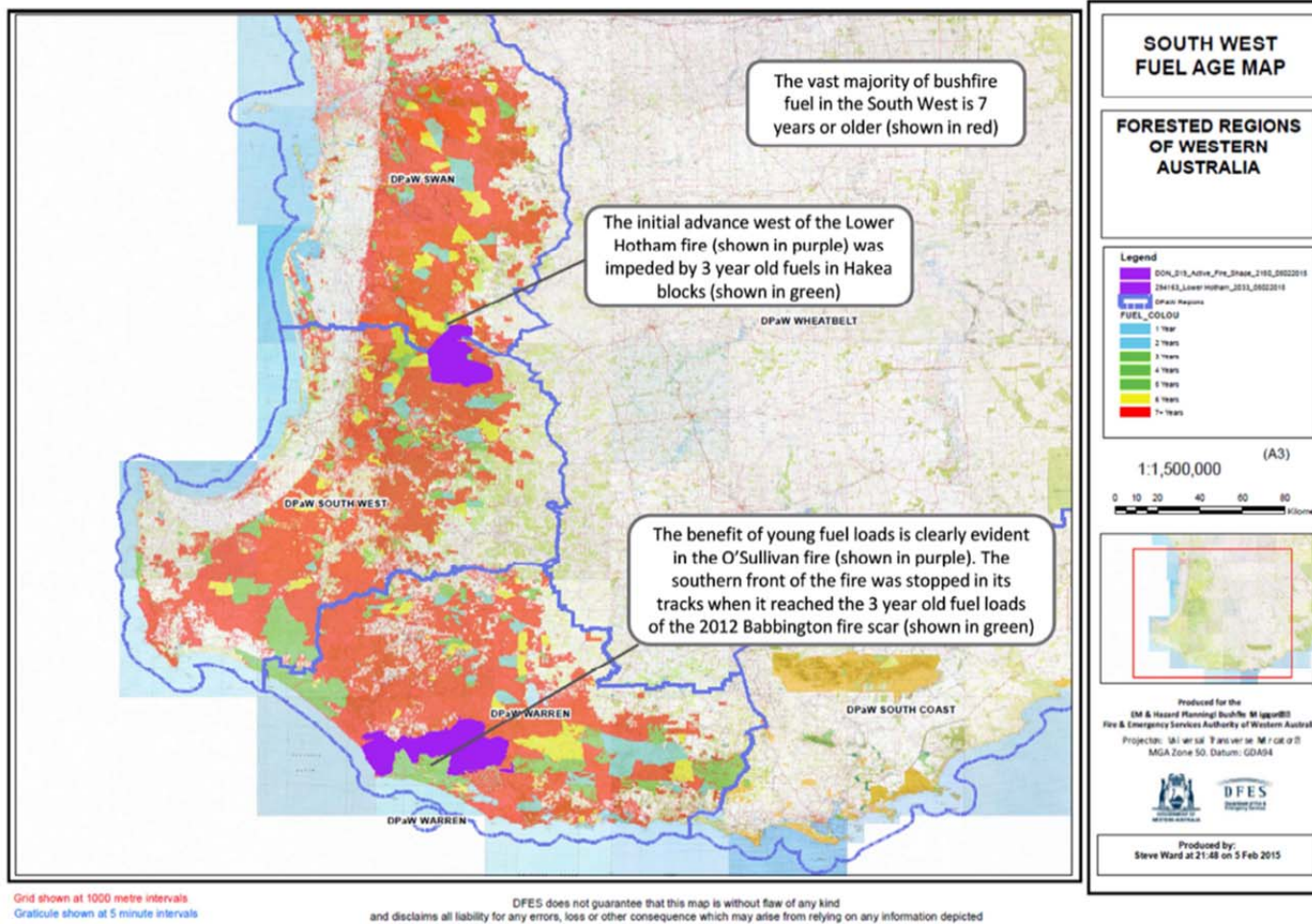
Fuel loads in the jarrah forest at the point of ignition and the areas to the west where the 'Waroona' fire ran were well above what would ordinarily be considered manageable in the event of a wildfire. Whatever the fire weather conditions may have been, the situation was undeniably exacerbated by the level of accumulated forest fuel in the fires path.

The below map, reproduced from the Major Incident Review of the Lower Hotham and O'Sullivan² fires illustrate clearly just how bad the current situation is. The red colour indicates land that has not been prescribed burned in more than 7 years.

However the situation is not unrecoverable. It has been done before, in the wake of the similarly destructive Dwellingup fires in 1961. Although the reduction in annual rainfall in the South West and other changes in climatic factors make the task more difficult, it does not diminish society's responsibility to strive, both for the sake of our assets, but also for the health of the forests and forest dependent ecosystems, to help adapt to a new climatic reality.

² "Major Incident Review of the Lower Hotham and O'Sullivan Fires" – Department of Fire and Emergency Services, 24th December 2015.

Figure 9: South West fuel age map showing Lower Hotham and O'Sullivan fire area



There must be an absolute focus on fuel reduction works by whichever agency is deemed responsible. The status, recognition, reward and career advancement of public servants engaged in fuel reduction should be such that the opportunity for involvement with the fuel reduction program is attractive to new recruits, and the skills are not lost to retirement.

Fuel reduction programs are critical. Public education is important to ensure ongoing support for fuel reduction programs irrespective of occasional errors and escapes.

Recommendation 1: The level of prescribed burning that occurs in public native forest areas must be restored to the levels of the 1980's as a minimum; specifically, maintaining an average of 250,000 treated hectares per year. There should be no discrimination against the prescribed burning of national parks.

Native State forest dedicated to timber supply, softwood and hardwood plantations are assets. The timber generated from these forests support significant local manufacturing industries and regional employment. However there is growing indignation within the industry that working forests, particularly plantations are not being valued fairly at the planning stage through Wild Fire Threat analysis. FIFWA holds strongly that plantations in particular are not being recognised or treated as the highly valued assets that they are.

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 Western Australia is already facing future timber supply shortage.

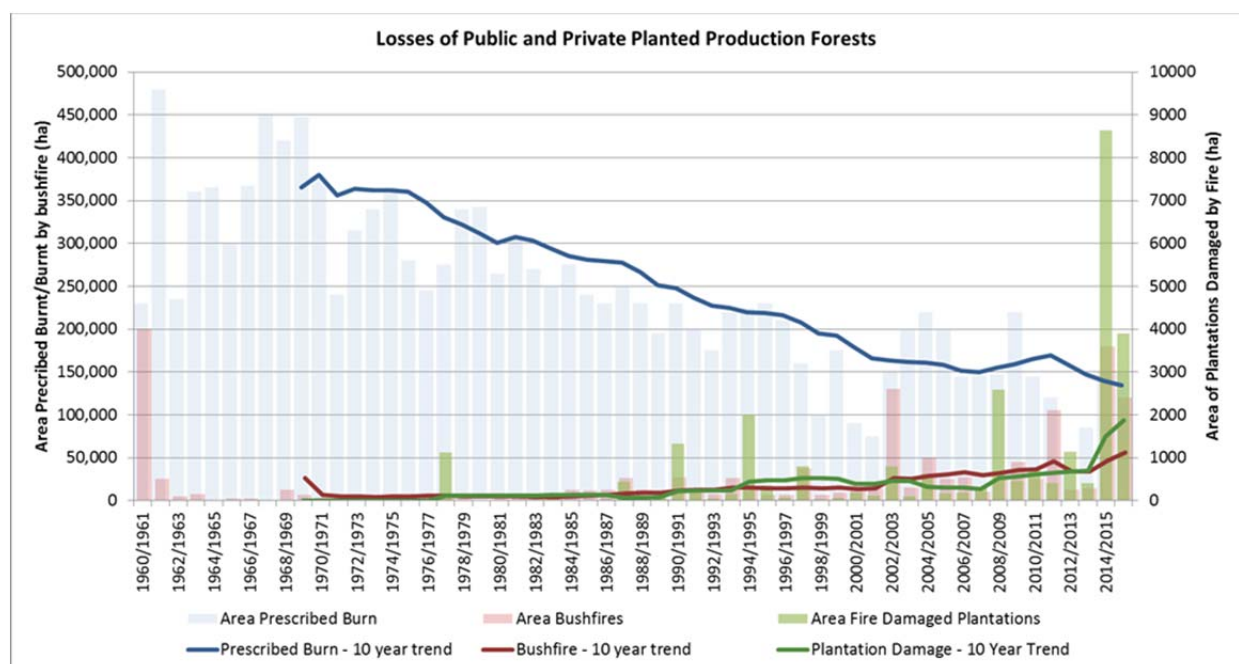


Figure 1- Fire Losses of Planted Production Forests

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 fuel loadings, putting them at extreme risk of loss through bushfires.

The limited amount of prescribed burning being carried out appears to be focussed on heavily populated areas (town site protection), power infrastructure, recreational and conservation areas. The 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.

Recommendation 2: Timber supply areas in native forests and commercial plantations must be recognised for their economic and social value to the State and given adequate consideration in fire prevention planning. This can be rectified by the Wildfire Threat Analysis process being modified to take into account the true value of plantations to the sector and state.

Recommendation 3: The role of Forest Industry Liaison Officer should be created within the senior levels of the incident management team. Our industry can provide this officer to work in within the “pre-formed” team. During active firefighting, where forest industry assets are threatened, the FILO will be incorporated at the control centre.

(b) Effectiveness of the Emergency Management Plan and Procedures.

The effectiveness of the Emergency Management Plans were compromised by the fact that forest fuel loads grossly exceeded what is generally considered standard forest fuels and fire shape modelling did not adequately consider the ferocity and fire forward progression with burning ember material which culminated in spot fires well ahead of the head fire.

(c) Effectiveness of Suppression Strategies and Tactics

In reference to the Waroona Fire, fire strategies were compromised from the onset with fire suppression resources unable to contain or suppress forward rates of fire spread. Water bombing aircraft become less efficient as the fire intensity and energy ratings increase. Intensity and energy ratings are directly connected to elements required for fire.

The overall approach to fire suppression in WA seems to have developed into a ‘wait and see’ approach rather than aggressively trying to suppress the fire.

While we understand the need to manage access to the fire ground for safety and security purposes, it has often been at the expense of preventing control point fire equipment onto the fire ground which has delayed suppression responses. A better system of suppression equipment management onto the fire ground is required. In respect to the Waroona fire and fires in general, we note the heavy reliance on water bombing activities at the fire face.

While we accept that water bombing plays an integral part in fire suppression, the current management techniques are having a significant influence on when ground forces can disembark from their vehicles or return to the fire front and begin suppression work. This approach is risk averse and only allows the fire to spread further while the ground resources are idle.

Eye witness evidence provided to FIFWA from this fire (from staff directly involved in both of the significant fire runs) and first hand FIFWA member experience in the 2015 O'Sullivan and Lower Hotham fires is that suppression strategies and tactics are unduly risk averse which ultimately leads to greater, and unnecessary losses being sustained. There is a need for calculated aggressive fire suppression in our view.

Direct involvement of FIFWA members in the O'Sullivan and Lower Hotham fires and numerous other fires of a smaller scale have highlighted our concerns. Repeatedly our industry fire crews return having said they were held at the control point for hours or were in a waiting pattern along with other crews, whilst assets were lost in very manageable conditions on the fire ground.

There is an urgent need to reconsider the risk appetite in aggressive fire suppression, a need to protect fire suppression personnel from litigation, and to engage all fire suppression resources supplying agencies in a co-ordinated effort.

Finally it appears that the decision making processes are rarely if ever made at the local level. Almost the instant a fire starts the region or state headquarters take over the decision making processes. Whilst the regions and state headquarters have a 'support role' to play the decisions are best made locally.

(d) Effectiveness of Incident Management

The State would benefit from the better coordination of both State and private resources in the response to a fire threatening private property, plantation assets and State managed land.

This was highlighted in the Waroona Fire where a forest harvesting contractor was within 5 kilometres of the ignition point of the fire and could have responded to contain the fire at its critical early stages but was not called upon. Response time to fires is a significant issue that can be addressed by the allocation of resources. Forest Industry crews should be considered in the early stages of fire suppression given the heavy equipment capability that can be made available at reasonably short notice.

The plantation industry participates in industry training and resources sharing however find it difficult to be accepted into the DFES fire suppression system.

DPaW and DFES need to be aware of plantation assets in their areas as plantation managers are capable of providing resources for fire suppression to assist in asset protection.

Industry should have the ability to respond to a fire that threatens their asset as a part of a DFES response or individually.

Recommendation 4: In relation to strategic planning, a State level advisory committee should be formed, that includes representation from the forest products industry, to provide advice on asset protection and ways in which the industry can contribute to the broader fire prevention and mitigation effort.

Recommendation 5: Using the Victorian CFA model, legislation should be amended to allow, subject to minimum levels of training and equipment standards, Forest Industry Brigades (FIB) to be formed, that have the same status, legal protection, and powers to suppress fires (on and off their own land) as Bush Fire Brigades (turn-out is at the brigades discretion). Once they have joined a fire, they are under the command of the incident controller, but should preferentially be deployed to sectors with forest assets at risk.

Recommendation 6: During a fire a decision making authority is to be devolved to the lowest level practicable.

(e) Protection of Essential Services

We have nothing to contribute against this item.

(f) Effectiveness of Public Messaging

We have nothing to contribute against this item.

(g) Effectiveness of Assistance to Management of those affected by fire

The industry offers anecdotal information against this item. In the management of evacuation, it appears that this is now DFES best practice for removing people from within perceived harm's way. While the option to stay and defend remains, it is less practiced, often at the peril of property assets that are damaged post the fire front passing. More education and a 'standard' local authority fire protection notice with strong enforcement would ensure that property assets are less exposed and more defensible.

Terms of Reference 2 - Lessons Learned From Previous Bushfire Emergencies

Prescribed Burning

Most crucially, the recommendations in the listed reports for an increase in prescribed burning does not appear to have been implemented to a point where you could consider there to be an imminent turnaround in the current fuel reduction area treated annually. Impediments still exist within DPaW staffing levels, funding and the will to implement an increased prescribed burning program.

Throughout the *2015 Major Incident Review of the Lower Hotham and O'Sullivan Fires* there are numerous references to significant changes to fire behaviour, rate of spread and eventual boundaries, related to the presence of recently prescribed burned areas. This is consistent with a preponderance of scientific studies on the subject.³

Alternatives to Prescribed Burning

- Keelty Review Margret River (2012) recommendation 4 – CALM to explore alternatives to burning.
- Keelty Perth Hills (2011) Recommendation 20 - FESA, DEC and local governments to closely monitor the R&D of alternative fuel reduction techniques to ensure that the most efficient and effective programs are adopted [the following was announced <http://www.abc.net.au/news/2015-03-27/federal-funding-for-bushfire-prevention-trial-seen/6353608> but there has been no action in WA despite the Forest Products Commissions (FPC) willingness to participate.

FIFWA is supportive of a range of methods to reduce forest fuels to complement the prescribed burning programme, including undertaking mechanical fuel reduction trials and seeking expanded residue market opportunities to make full use of this material where possible.

While reinforcing that prescribed burns should be the State's primary response, mechanical fuel reduction methods have a supporting role to play, with potential to increase their impact with scale⁴. With the right government policy it is possible that much of the excess fuel in the forest could be collected and used to make electricity (potentially co-firing opportunities), for liquid fuels or even for export.

Whilst making use of residues is efficient, it is incidental to the imperative of reducing the fire risk to plantations from unmanaged native forests.

³ Tolhurst and McCarthy (2016) "Effect of prescribed burning on wildfire severity: a landscape scale case study from the 2003 fires in Victoria", *Australian Forestry*, Volume 79, 1, March 2016.

⁴ Proctor and McCarthy (2015) "Changes in fuel hazard following thinning operations in mixed species forests in East Gippsland, Victoria", *Australian Forestry*, Vol 78, 4.

Recommendation 7: Alternative fuel reduction methods should be investigated and embraced in a complimentary fashion to the prescribed burning program. Residue markets should be sought to make full use of this residue material from the native forests.

Responsibility for Fire Management

2015 Major Incident Review of the Lower Hotham and O’Sullivan Fires suggests that DFES are not by nature the best organisation to manage native forest and plantations fires. Their expertise is more aligned to urban rural farmland fire co-ordination.

Figure 25: Differences between DFES and P&W in cultures, expertise and approach

	DFES	P&W
Organisational remit	<ul style="list-style-type: none"> Emergency response Multi-hazard 	<ul style="list-style-type: none"> Land management Single hazard - fire
Culture	<ul style="list-style-type: none"> Clear lines of command to support a rapid response, resources are coordinated centrally through COMCEN 	<ul style="list-style-type: none"> Bottom up approach to coordinating resources through district and regional offices
Areas of expertise	<ul style="list-style-type: none"> Combat and support services to respond to multiple hazards in urban and rural environments 	<ul style="list-style-type: none"> Prescribed burning program means that expertise in forest fire is embedded across P&W
Approach to IMTs	<ul style="list-style-type: none"> Centralised approach with some AIMS functions fulfilled at the state and regional level Preformed IMTs of 11 people in the metro area IMT capabilities recognised through training and endorsement 	<ul style="list-style-type: none"> Decentralised approach with AIMS functions fulfilled at the incident level Preformed IMTs of ~50 people in the regions IMT capabilities recognised through red card certification

This accords with the findings of the Ferguson Review 2010 where it was concluded that DEC (now P&W) was the most capable for managing fire on its own estate, and the FPC warned at the time that “extreme caution should be exercised before reducing DEC’s involvement in bushfire command and control in the short to medium term”.

It is manifestly evident that the regional community in general and the forest industry in particular has been very poorly served by the decision to grant DFES all incident control for all bushfires.

Recommendation 8: Outside of Gazetted Fire Districts, the department of Parks and Wildlife or alternately a dedicated Rural Fire Service should be in command of fire response and management.

Recommendation 9: There should be succession planning and opportunities for career advancement in the fire mitigation and suppression agencies, as well as adequate funding for permanent staff and the provision of equipment. New positions should be managed regionally, focusing exclusively on prescribed burning preparation, firebreak construction, prescribed burning and suppression activities. The new positions should be reinforced by a traineeship program to deliver a steady flow of operationally ready new recruits.

Terms of reference # 3 – Need for Further Reform

As discussed above the Forest Industry would like fast track whatever approvals or legislative amendments are required to allow industry to form Forest Industry Brigades (FIBs) in their own right. This will accord status, and acknowledgement of capability, integration with fire management structures and command, and bringing a wealth of experience in native vegetation and plantation fires.

Currently the FPC's charter is aligned with wood production and sales, and specifically excludes any role in fire suppression or prevention. This should be modified, to allow the FPC to form its own Forest Industry Brigades to protect forestry assets.

Recommendation 10: The FPC should have capacity to form and join industry brigades with a special focus on being despatched to protect forestry assets. This would include the ability to second, commandeer or contract heavy equipment resources as they may see fit to combat fire threatening forestry assets.

Recommendation 11: A strategic fuel reduction plan should be established that focuses on broad scale prescribed burning and complementary mechanical fuel reduction activities around valuable assets including forestry assets such as native timber reserves and plantations.

Private landholders have a role to play in managing forest fuels. There is significant 'Green Tape' that discourages private land-owners managing their fuels responsibly.

Recommendation 12: There should be another class of exemption to the WA clearing regulations, enabling clearing for fire mitigation within a specified distance of a recognised asset.

While FIFWA respects the role of the Office of Bushfire Risk Management (OBRM), it feels that this office has not fulfilled its role and may have hampered the process through regulation. FIFWA is mindful of OBRM's role to consult with stakeholders and believe that OBRM have failed to engage FIFWA in the management of risk with respect to forest assets.

Recommendation 13: OBRM to review its communication and consultation policy with stakeholders particularly in the areas of risk management associated with state managed hardwood and softwood resources and private plantation estate.

We remain at your service to provide any further explanation of the above points that you may request.

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