TIMBER NSW

Re: Royal Commission into Natural Disaster Arrangements

Thank you for the opportunity for making a submission to this inquiry.

Timber NSW is the peak representative body for NSW sawmilling and processing, private native forest managers, harvest and haul contractors and forestry professionals.

The NSW timber industry has been more heavily impacted by the 2019/20 summer fires than any other industry and more than any other state. The impacts have been incurred on multiple fronts and include:

- direct loses of processing facilities (see Annexure A for photos),
- major losses of standing timber resources.
- loss of resource security,
- heavy additional environmental restrictions on harvesting of native forests which have prevented a return to business as usual,
- TNSW members being ineligible for early recovery funding.

The issues facing the native timber industry and the government's response to date is detailed at Annexure B.

Around 60 per cent of the areas zoned for timber production in the NSW native forest estate were affected by fires this year. On private land around a third of all private native forests with an approved plan were burnt.

Four months on from the fires there has been no tangible progress in quantifying the impacts and the long-term effect on timber resources. The efforts of the Forestry Corporation of NSW have been directed to addressing the heavy demands of the NSW Environmental Protection Authority (EPA). This is political pressure at its worst. The EPA have prevented harvesting in unburnt forest and are making harvesting in burnt forest economically unviable due to extreme regulation. The "stand-off" is resulting in the slow death financially of the native forest industry.

Repetitively throughout the fire front from September 2019 to February 2020 the same story was being told – arguments between agencies as a fire front approached as to who would be in control of the fire; as fire raced towards houses and farming/plantation land – arguments between agencies on who controlled the fire and how long it would take to gain a permit to put in a firebreak – two days for a permit as the fire raced down and burnt houses – agencies were still arguing about control and threatening anyone who took immediate and decisive action to prevent the fire from gaining ground.

The real stories were never told by the media as they relied on agencies for their headlines - or by government as it might tarnish the image of the agencies as heroes behind whom they hid.

TIMBER NSW

Submission

Royal Commission into National Natural Disaster Arrangements

April 2020

NSW/QLD Border Trail Fire Mount Lindsay (photo Daniel Rex)

Timber NSW 130 Mallett St Camperdown NSW 2050 E: info@timbernsw.com.au

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1. Causes and contributing factors

A forest rich landscape

Northern and Southern NSW have amongst the greatest amount of forest per capita in the world. The State's forests are concentrated in regions where most people live. Sydney is surrounded by native forest on three sides, while in the north east region 60% of the land has forest cover[1].

More people living near forests who do not understand the relationship between forests and fire

Australia is world renowned for its bushfires, however, prior to the summer of 2019/20 few Australians had any direct experience and fewer still had an opinion on policy and practice.

Historically large bushfires in NSW have mostly occurred in remote National Parks and had limited or no impact on people's day to day lives. There has been general understanding that bushfires can impact on life and property but not until the 2019/20 fires occurred was the level of that impact really appreciated.

In the last five decades NSW's population has doubled. Most growth has occurred in metropolitan areas. However, regional population centres have also greatly expanded. To accommodate this growth hundreds of subdivisions have been approved along the coast and ranges. Most of these subdivisions adjoin or include native eucalypt forest.

Most people who live near forests do not rely upon them, their employment is elsewhere, or they may be retired. The majority do not have a deep understanding of the relationship between forests and fire. Many people like living near eucalypt forests because of their look and feel. Forest can be perceived as low maintenance (compared to a lawn or garden) so people can be inclined to buy it in large blocks and treat it as a privacy asset (rather than an asset that needs to be managed). In most cases people do not understand the forest's fuel dynamics and the nature of its fire risk.

Forested land is less expensive than either agricultural or urban land which makes it more affordable to those of lesser socio-economic advantage. Many people who lost their homes to the fire were uninsured. These people have limited means or know-how to make their homes fire-proof. In disadvantaged areas kids are likely to use forests as a place to recreate and this can increase the risk of fire ignitions.

The fire attracting nature of eucalypt forest

Society is generally unaware that eucalypt forests exist because of fire not despite it. In the absence of fire eucalypt forests would decline and eventually die out. Everything about eucalypt forests is fire adapted. The list of adaptions is long:

- thick retained bark that protects the tree's cambium
- copious production of flammable fine fuels known as litter (dried leaves, bark and twigs)
- preservatives in the litter that slow their rate of decomposition

[1] Source: DPI Forestry

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- Shedding bark that acts as ladder fuels between the ground and the forest canopy
- Stringy bark that will readily ignite and can be transported large distances in strong winds facilitating fire spotting
- sclerophyllous leaves that contain flammable oils
- thick walled fruiting capsules that protect the tree's seed when its canopy catches fire
- copious production of small seeds that are adapted to germinate on mass on freshly burnt ground
- epicormic buds that produce fresh foliage when a tree's leaves are scorched
- lignotubers (root stock) that benefit from frequent fire and have food reserves that enable rapid post fire growth

Eucalypt forests are a product of their environment (e.g. rainfall, aspect, soils). Tall moist eucalypt forests occur in higher rainfall zones on good soils and in sheltered gullies. Low dry forests are found on poorer soils, ridges and more exposed site. The size and type of eucalypt forest and how they are managed determines whether they naturally burn less or more frequently and under high or low intensity. Most people do not appreciate these subtleties.

Large tall eucalypt forests are good at staying moist for most of the time, so they tend to burn less frequently. However, the bigger and taller a eucalypt forest is, the more embodied energy it contains and the greater its capacity to burn at high intensity when it does dries out. Tall moist eucalypt forests which are common on both the north and south coast may only burn at high intensity once (or not at all) in an average person's lifetime. Most people severely underestimate the amount of embodied energy that is released when this occurs. This means that people are invariably shocked and surprised when such an event occurs.

Fire is critical for eucalypt forest regeneration and is also needed to maintain eucalypt forest health, particularly in dry and semi-moist sclerophyll forests which are adapted to more frequent lower intensity fire.

Modern Australia dismissive of the importance of Aboriginal fire management practice

Aborigines who arrived in Australia about 65,000 year ago were the world's greatest fire practitioners. Aborigines had a deep cultural connection with fire and used it successfully to maintain safe and healthy forest landscapes. Aborigines understood how to use fire to manage their environment to their advantage. They did this through frequent and widespread use.

NSW fire policies do not recognise or embrace the wisdom of Aboriginal burning practices. Until they do the same mistakes will continue to be made.

Fire starved forests accumulating flash fuels

Prior to the 2019/20 fires there were vast tracts of the State's forests that had not been subject to fire for many decades (Figure 1).

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Figure 1- Biobanking site on the NSW Central Coast where flash forests fuels have been allowed to accumulate posing a major fire risk

Many of these forests were showing clear signs of ill-health (most notable of these were the forests on the far north coast around Urbenville and Woodenbong). Indicators of declining eucalypt tree health include:

- thinning tree crowns (fewer leaves)
- dead and dying branch tips
- repeated epicormic leaf flushes
- an increase in the size and density of the shrubbery in the understory
- a prevalence of parasites including mistletoe (Loranthaceae 74 *spp*, Viscaceae,14 *spp*.) and native cherry (*Exocarpus spp*.)
- Bell miner bird colonies

Over recent decades Bell miner bird (Bellbird) colonies have become much more prolific and widespread. If one stops anywhere along the Pacific Highway (where there is native forest) they are likely to hear the distinctive 'peeping' calls of a Bellbird colony. Bellbirds place pressure on eucalypt trees by allowing the build-up of sap sucking insects (psyllids) and this gives rise to the well documented phenomenon known as Bell-miner associated dieback (BMAD).

Eucalypt forests with dense shrubby understories do not readily burn under average (coastal) climatic conditions as the soils beneath the dense shrub layer tend to stay moist. During extended dry spells, however, the ground within these forests completely dries out making them particularly susceptible to hot fires. In extreme drought, as occurred in 2019, the understorey can die. The dry dead shrub layer then acts as a fuel ladder (aka flash fuel) between the ground and the flammable eucalypt leaves in the forest canopy.

In contrast, dry and semi-moist eucalypt forests in good health will have denser canopies with shorter and lower density understories dominated by native herbs and grasses. These forests more readily support fire under normal conditions and as such will be more

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likely to burn at more frequent intervals and at lower intensity. Missing from these forests are the ladder fuels that enable fire to get into the crowns.

Severe drought / climate change

During severe droughts (like the one that occurred in the last few years) even the wettest eucalypt forests will eventually dry out and it is at this point that they become prone to high intensity fire. All that is needed is an ignition source and some wind (oxygen) and a conflagration will occur. The scale and intensity of these conflagrations can be limited by how we choose to manage our forests and how we respond when fire erupts.

A notable number of Australians and media outlets have blamed the 2019/20 fires on human-induced climate change. They may be correct as the rainfall deficits and maximum temperatures were the highest since records began. It is exceedingly difficult, however, to prove cause and effect between local events and a global issue. The life cycle of eucalypt trees that reach maturity is typically in excess of 120 years and this means that, for many, life will have begun well before official meteorological recording.

Whether the cause of the drought which led to the fires is a result of human induced or natural climate change is never likely to be resolved as both scenarios are quite plausible. It is also important to acknowledge that climate change cannot be readily changed at least not in the timeframes contemplated by this inquiry. Ultimately, the cause does not matter. What matters is the lessons that need to be learned and the actions which need to be taken.

Metropolitan planning authorities imposing policies and rules that are not fit for purpose

Developers that obtain local Council approval for residential and lifestyle subdivisions are subject to strict environmental protection laws that constrain native vegetation clearing (i.e. the Vegetation in Non-Rural Areas SEPP).

SEPPs are developed by urban planning officials who typically see their role as protectors of the environment. In simple terms, their environmental planning policies seek to limit the number of trees that can be removed when development is proposed. These policies take little account of the fire risk associated with retaining native vegetation corridors.

The rural and residential subdivisions inland from Lilli Pilli and Malua Bay (where the NSW Minister for Transport resides) are good examples of how officially sanctioned development has been allowed to intermingle with native vegetation in a configuration that puts life and property at risk of fire (Figure 2).

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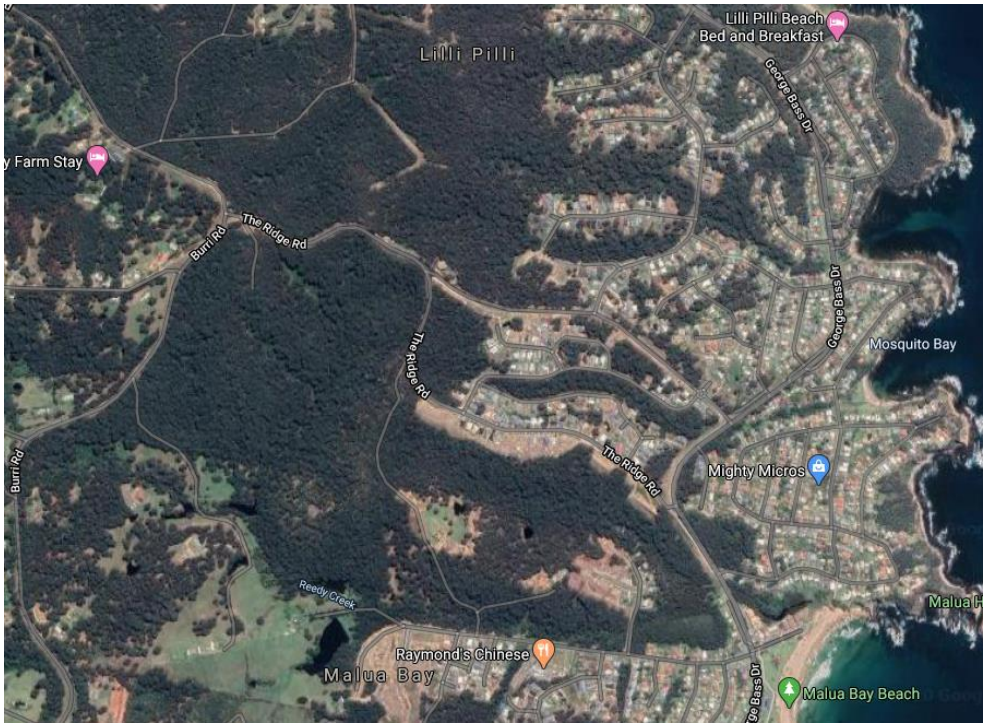

Figure 2 – Aerial image showing rural and residential subdivision adjoining a large block of native vegetation to the west and connecting corridors of native vegetation running to the east (source: Google Maps)

At the other extreme there are authorities who have simply turned a blind eye to development within eucalypt forest. The poorly controlled residential development at Wytaliba, 40kms east of Glenn Innes, is one such example. A wildfire burnt through the town in November 2019 taking the lives of two people, destroying 25 homes and causing extensive damage to the public school. The image below shows why the losses at Wytaliba were so great (Figure 3).

Figure 3 – Aerial image of Wytaliba showing dozens of dwellings built within the forest

The NSW Rural Fire Service is responsible for managing the fire risk around urban development. For new dwellings built within fire prone areas there is a legal requirement

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to have a fuel reduced area surrounding built assets and structures (known as an Asset Protection Zone (APZ)). The limited extent of APZs (Figure 4), however, means that they do not work unless there has been far more extensive fuel reduction in the surrounding forest.

Slope	Distance
Hazard upslope	20 metres
Hazard downslope <10°	20 metres
Hazard downslope 10°-15°	30 metres
Hazard downslope >15°	40 metres

Figure 4 - Maximum APZ widths for residential and special fire protection buildings (source: Bush Fire Environmental Assessment Code for New South Wales.)

In the case of existing approved development, which accounts for most of the development adjoining forest, the requirement for an APZ is not a legal necessity.

Forests that adjoin APZs can be classified by the Rural Fire Service as Strategic Fire Advantage Zones (SFAZ). The intent of SFAZs is *to provide strategic areas of fire protection advantage which will reduce the speed and intensity of bush fires and reduce the potential for spot fire development; and to aid containment of wildfires to existing management boundaries (RFS).*

The level of fuel reduction that occurred in SFAZs prior to the 2019/20 fires was shown to be grossly inadequate. Regulatory restrictions on fire use was one reason why not enough was done.

Stubborn adherence to minimalist and reactive fire management

The use of prescribed fire has long been contested. Aboriginals, foresters and farmers alike have all been calling for a more proactive approach for many decades. Their views, however, have carried little weight in the political arena, particularly when pitted against advocates of minimalist intervention.

Where bushfires have impacted on life and property there has been official inquiries and inquests. In total Australia has had over 50. The inquiries however have not led to any tangible shift in the minimalist and reactive approach to fire management.

Examples of where much was said, but nothing changed, include the 2003 Canberra fires which started in the Brindabella National Park and the 2013 fires which began in the Blue Mountains and Warrumbungle National Parks. Both inquiries and inquests revealed the shortcomings of passive fire management practices but did not result in any major change in practice.

The NSW Government's response to the Coronial Inquest and Parliamentary Inquiry into the 2013 Wambelong fire was made public in 2016. There were 23 recommendations arising from the Inquest with 13 'supported' and 10 'supported in part'. The Parliamentary Inquiry made 29 recommendations, with only 8 'supported', 12 'supported in part', 6 'not supported', 2 'completed' and one 'noted'. If one were to summarise the Government's responses to the recommendations, 'minimalist' and 'non-committal' would be appropriate words to use.

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It is usual that the NSW Government's response to bushfire inquiries are drafted by government policy officers that sit within the Rural Fire Service (RFS) and the Environment, Energy and Science (EES) arm of the Department of Planning, Industry and Environment (DPIE). These officials have had the ear of Government for several decades and are by all accounts experts in political influence.

The EES and RFS have quite different cultures. EES have a wilderness belief and subscribe to minimalist prescribed fire on their boundary to protect neighbours from fires escaping from their estate, not protecting the values within the National Park. On the other hand, RFS managment has a passion for emergency response and asset protection. The agendas of the two agencies have been politically complementary resulting in a long-standing successful partnership, that may be described as a 'marriage of convenience'.

Fire policies developed by EES have long promoted passive management of forests. Provided that wildfires do not cause too much damage[2] a passive management policy has many political advantages. If you do not burn the forest the (incorrect) perception is that:

- Ecosystems are protected. This is because;
    - Course woody debris accumulates and provides valuable ground habitat,
    - Hollow trees where animals live can remain undisturbed,
    - Botanically interesting understorey associations develop,
    - Records of species listed as Threatened can be left undisturbed.
- Public forest management costs can be kept low. This is because;
    - Fire trails can be blocked off eliminating the need for trail maintenance,
    - Costs of planning hazard reduction burns are avoided (with hundreds of environmental protection rules HR has become a lot more expensive than it used to be).
- People are less likely to be adversely affected. This is because;
    - There will be fewer complaints about smoke and air pollution;
    - Risks of fire escaping planned boundaries is not an issue.

Similarly, when wildfires arise there are many political advantages to having a high-profile emergency response agency:

- The RFS can be heroes coming to the rescue of those in need (particularly important if you are striving to achieve political popularity),
    - The reliance on dedicated volunteers means there will never be any adverse public criticism (i.e. mistakes are well tolerated);
- The media and public can enjoy the spectacle and drama of flames, flashing lights and water bombing aircraft;
- The whole thing costs Government very little. This is because:
    - The RFS has been able to secure a large portion of its funds from insurance levies that are paid by private individuals.

[2] to lives or property

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Up until the 2019/20 summer fires, the EES/RFS fire management strategy was a political success. Not until the 2019/20 summer fires have the fundamental weaknesses of their approach been comprehensively exposed.

The 2019/20 fires have affected almost everyone in some shape or form and left a scar on the national psyche that will be difficult to erase. Society is now much better informed about the nature of eucalypt fires and their destructive capacity and will be far less likely to tolerate a continuation of the status quo. It is hoped that this time the NSW Government will heed the advice of the inquiry.

A lack of prescribed burning

What has long been accepted in the bush but struggles to gain traction in the city is the value of prescribed burning. Determining the value and effectiveness of prescribed burning is hopefully a key objective of the inquiries. What cannot be disputed is that in a landscape context, extraordinarily little of it is occurring and this has been the case for many decades (refer Figure 5 and Figure 7).

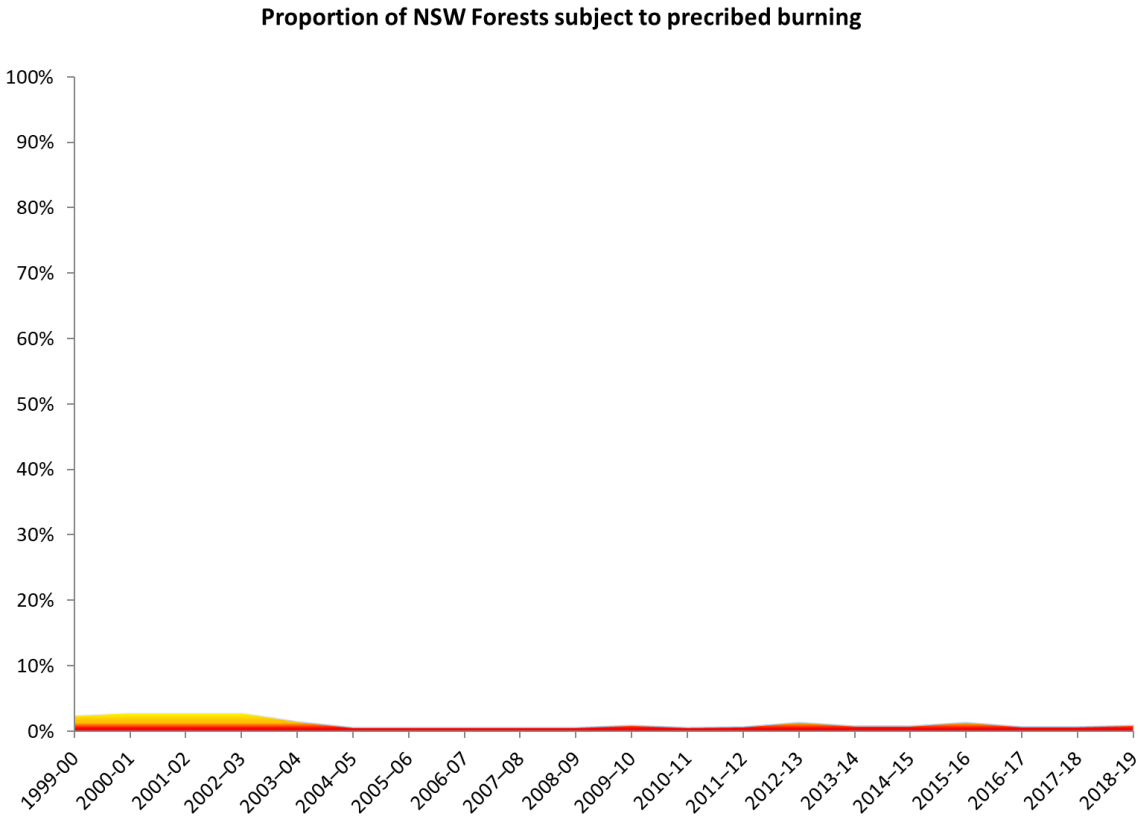

Figure 5 – Proportion of NSW forest subject to prescribed burning (FY2000 to FY2019) (Source: RFS annual reports for areas burnt and ABARES State of the Forests Report 2018 for forest extent)

In 2016, the NSW Government proudly announced that it had exceeded its fuel hazard reduction target with 275,000 hectares of public land treated. What it did not report was that 2016 was an exceptional year or that the proportion of the forest that had been treated amounted to less than 3% of its estate.

Over the last 15 years the average area of NSW forest (public and private) that has been fuel hazard reduced is only 167,000 hectares per year. As a percentage of the NSW forest estate this equates to less than 1%. Most of this burning has occurred in narrow strips

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around the perimeter of the estate (called asset protection zones). What this means is that most of our native forests go for decades without fire and then inevitably become subject to wildfire.

Figure 6 – Myall National Park near Bulahdelah showing heavy accumulation of flash fuels in the absence of prescribed burning and locked gates preventing access to poorly maintained fire trails

The first recommendation of the Parliamentary Inquiry into the 2013 Wambelong fire (and of the other 50-odd inquiries around Australia for similar events since 1967) was that the government commit to a long-term program of prescribed burning. In 2016 the Government's response was that it supports the principles of increased hazard reduction but was unwilling to commit to the recommended five-year annual rolling target of 5% for public land. Since 2016 there has been no appreciable change in the amount of hazard reduction undertaken on public land with the average for the last three years being less than 1.6%.

The political debate about prescribed burning has been polarised into an overly simplistic debate about the merits of hazard reduction burning and its effectiveness on moderating wildfire. There has been little debate about the importance of prescribed burning for ecosystem health.

An obsession with emergency response

Resources and funds made available for hazard reduction have been tightly constrained and when compared to funds made available for emergency response, they pale into insignificance.

In NSW the main recipient of bushfire funding is the Rural Fire Service (RFS). The RFS has recently publicly acknowledged that it is better resourced now than it has ever been. In FY2019 its expenses exceeded $550 million[3]. Emergency expenditure in FY2020 may

[3] https://www.rfs.nsw.gov.au/__data/assets/pdf_file/0004/129892/NSW-RFS-Annual-Report-2018-19-web.pdf (p64)

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double this. Despite having an enormous budget, nearly 1,000 FTEs and over 70,000 volunteers, the RFS has averaged less than 25,000 hectares of fuel hazard reduction per year over the past 15 years.

The RFS' focus is on saving life and property along the peri-urban interface. In effect this means that it mostly acts as a 'last line' of defence after an emergency has been declared. The organisation is heavily dependent on its volunteers who have a mix of experience and expertise. During the 2019/20 fires the people of NSW became entirely reliant upon these volunteers to undertake what was an impossible task.

In the washup of the 2019/20 fires the RFS admitted that it was never going to be able to provide protection for everyone (i.e. when your house is burning down do not expect that a fire truck will come). What it did not admit was that, for the last 20 years it has been at the helm of how public money was being spent on bushfire mitigation.

To understand how the NSW Government allowed its citizens to become so reliant on the RFS and to end up in such a vulnerable position it is necessary to touch on the organisation's history and how it emerged from more humble decentralised beginnings.

Those who founded the modern day RFS were not qualified professionals but were a group of volunteers (Group Captains and the like) who had a thirst for greater influence and a love of command and control systems. Since 1997 (when the *Rural Fires Act* came into force) the RFS has grown exponentially in size and power.

The rapid growth of the RFS may be attributed to the organisation's early realisation of the value of positive media. Positive media was readily achieved by the seasonal promotion of disaster with RFS coming to the rescue with flashing lights and water bombers. With popularity came more funding and with more funding came power and influence. The RFS' growth came at the expense of the professional forest-based fire management agencies. Why these agencies allowed the RFS to shift the focus from preventative to emergency response measures will be explained later.

The RFS have always staunchly defended their emergency response model arguing that state of the art emergency management systems and centralised control are essential for a State that has so much fire prone forests. These views are deeply embedded within the culture of the RFS' senior management. We expect that the saturation media which portrayed the RFS as the hero of the 2019/20 fire season has only strengthened their resolve.

The RFS adopts a highly conservative command and control approach which ensures that wherever possible its volunteers are kept out of harm's way. In short, safety in the RFS is paramount. In the 2019/20 NSW fires this approach saw 25 lives lost comprising 19 civilians, three volunteer RFS firefighters and three US firefighters. This loss of life is the worst that NSW has experienced; but not as bad as what has historically occurred in Victoria (2009 - 173 deaths, 1983 - 75 deaths, 1967 – 61 deaths) or Tasmania (1967- 62 deaths).

The RFS management strictly controls the actions of its volunteers from remote incident control centres (ICC) in accordance with delegation principles outlined in what is called the Australasian Inter-service Incident Management System (AIIMS). The officials appointed to key positions in these centres usually have limited knowledge about the local environment or the capability of the volunteers who will implement their orders.

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With limited knowledge the decision making in ICCs is naturally conservative and slow to react. In a wildfire emergency the ability to make timely decisions is critical and will often determine whether civilian life and property is saved or not.

In the 2019/20 fires there were countless examples where the on-ground crews knew what needed to be done to save life and property but were instructed to wait for further instructions or to stay put on the sideline. One notable example occurred on the day that the Currowan fire engulfed Batemans Bay. In this case members of the Nelligan Brigade with many decades of experience resigned from the RFS in disgust simply because they were unable to obtain the authority to act. As dozens of RFS crews waited on the sideline in Batemans Bay private individuals with home-made fire-fighting units went about saving dozens of properties, pets and most importantly some human lives. The message arising from this is that in the event of a wildfire emergency you cannot rely upon public authorities.

Giving more decision-making authority to local volunteers operating at the fire front was a recommendation (no.18) of the Parliamentary Inquiry into the Wambelong Fire and a recurring theme in the 2019/20 fires (Figure 7). Unfortunately, this recommendation was not supported by the NSW Government. It is hoped that this decision can be revisited.

Timber NSW is not levelling criticism at the RFS volunteers at the local level.

Sophie Hurford - Facebook post November 16, 2019

Well, everyone's talking about backburning and who's preventing what and which political party's trying to set the country on fire. Do you want to know who actually approves or disallows backburning? The RFS. It is their rules and regulations we must follow when planning a burn. I am glad those regulations are there.

What is not acceptable is that permission to burn can take hours to come through. After hours have passed, the only certain thing about the conditions is that they will be completely different from when you asked permission. At that point, it doesn't matter if it's a yes or a no - it's too late, opportunity lost.

"We need to assess the situation for ourselves" is often the initial response from RFS HQ. I get that that sounds really sensible. But when it's someone in Casino (say, 1hr away from us by road?) saying that, it's actually pretty ridiculous.

If the RFS wants to maintain that control over burning, there needs to be an accessible program that foresters, plantation owners, farmers and property owners in at-risk areas can access. Following this, accreditation to burn, with full communication, up to say a certain fire hazard level. I'm not talking about everyone being allowed to backburn during a total fire ban. I'm talking about Foresters with 40 years burning and fire management experience being able to use their best judgement and skills to deal with the conditions they are experiencing firsthand.
This not even close to a criticism of the RFS volunteers and professionals on the ground. They are rightly called heroes and I am grateful for everything they contribute to the solution. The organisation is just too big to have the agility needed to respond to all of the fire fronts.

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The size of the RFS has massive bonuses - water bombers, mapping, communication. But expecting them to micromanage the conditions everywhere and take on the liability of giving permission is unrealistic.
This situation can be improved, but change is needed.

Figure 7 - Facebook post calling for more local decision-making authority

A hands-off approach to fire management in National Parks

In NSW the biggest wildfires in the summer of 2019/20 all started on public land (e.g. Wallangarra, Bee's Nest, Long Gully, Carrai Creek, Gospers Mountain, Currowan, Dunns Creek). In total the wildfires burnt 5.3 million hectares of land, 4.5 million hectares of which was forest[4]. Virtually all the major wildfires that contributed to the total began in forests that had not been the subject of prescribed burning. Responsibility for suppression mostly began with the National Parks and Wildlife Service and it was how this agency responded that had a major bearing on the outcome.

Despite the rhetoric (which is contrary to NPWS practice, refer Figure 8), wildfires in National Parks are treated by the NPWS as 'natural events'. Provided they are located well within the Park's boundary they are routinely allowed to run their course.

NPWS statement about their wildfire suppression record (2018)

"The average size of wildfires annually has decreased from 540 ha in the past 40 years to 350 ha in the last five years. The downward trend in average annual wildfire size on national parks and reserves over this time indirectly reflects improvements in NPWS firefighting response and may be atributed to: rapid deployment of RART and RAFT and success in rapid response to ignitions, enhanced capacbility and better technologies, and strategic hazard reduced programs and improvements in planning." (NPWS Fire Facts 2017-2018).

Figure 8 – Extract from NSW NPWS Fire Facts 2017-2018

NPWS fire policies are based on a premise that controlled burning was not widely practiced by Aboriginal people and that the impact on native vegetation was minimal. Under the *National Parks & Wildlife Act 1974* and the *Wilderness Act 1987* there is no mention of the firestick role that humans hold. A 'terra nullius' view of forests dedicated as National Park means that wildfires rather than prescribed burning are viewed as the norm.

What NPWS do not publicly acknowledge or declare is the relationship between prescribed fire and wildfire and the differing environmental impacts that they have:

- Figure 9 highlights how little prescribed burning NPWS do,
- Figure 10 reveals that doing minimal prescribed burning results in infrequent but very large wildfires,
- Figure 11 and Figure 12 show what the different fires look like
- Figure 13 shows the aftermath of wildfire

[4] This equates to 20% of all forested land in NSW or 40% of coastal and tableland forests

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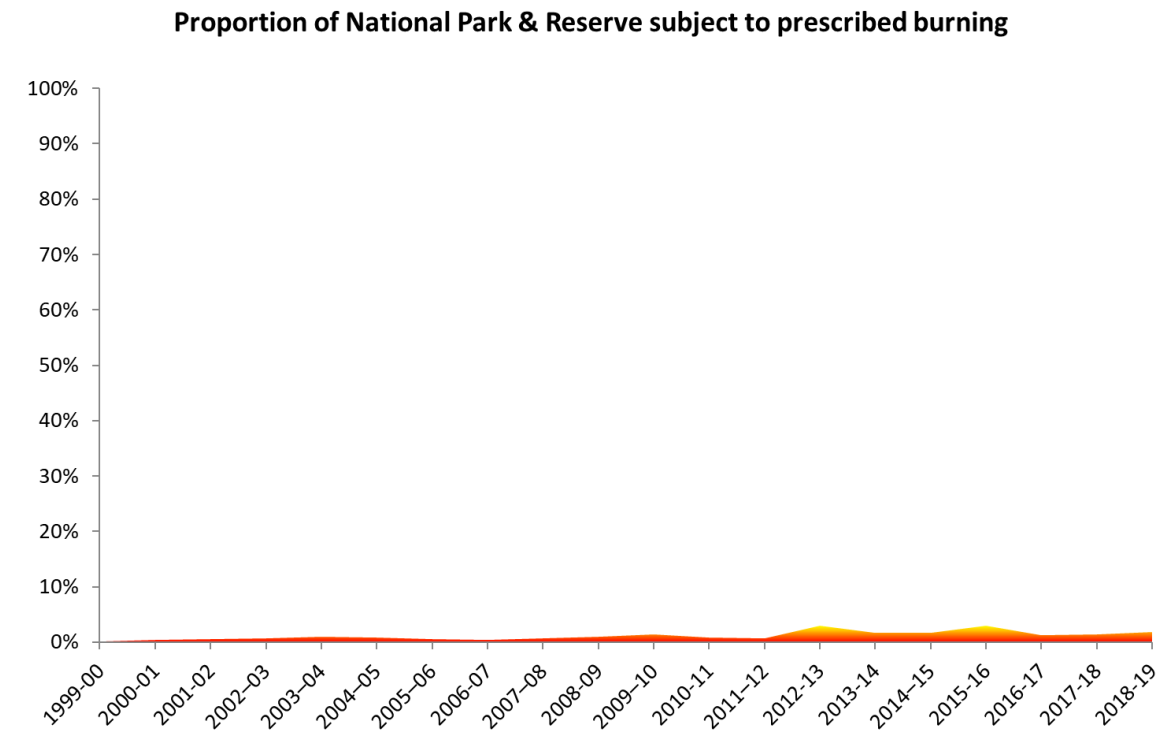

Figure 9 – NSW NPWS prescribed burning record over the last 20 years

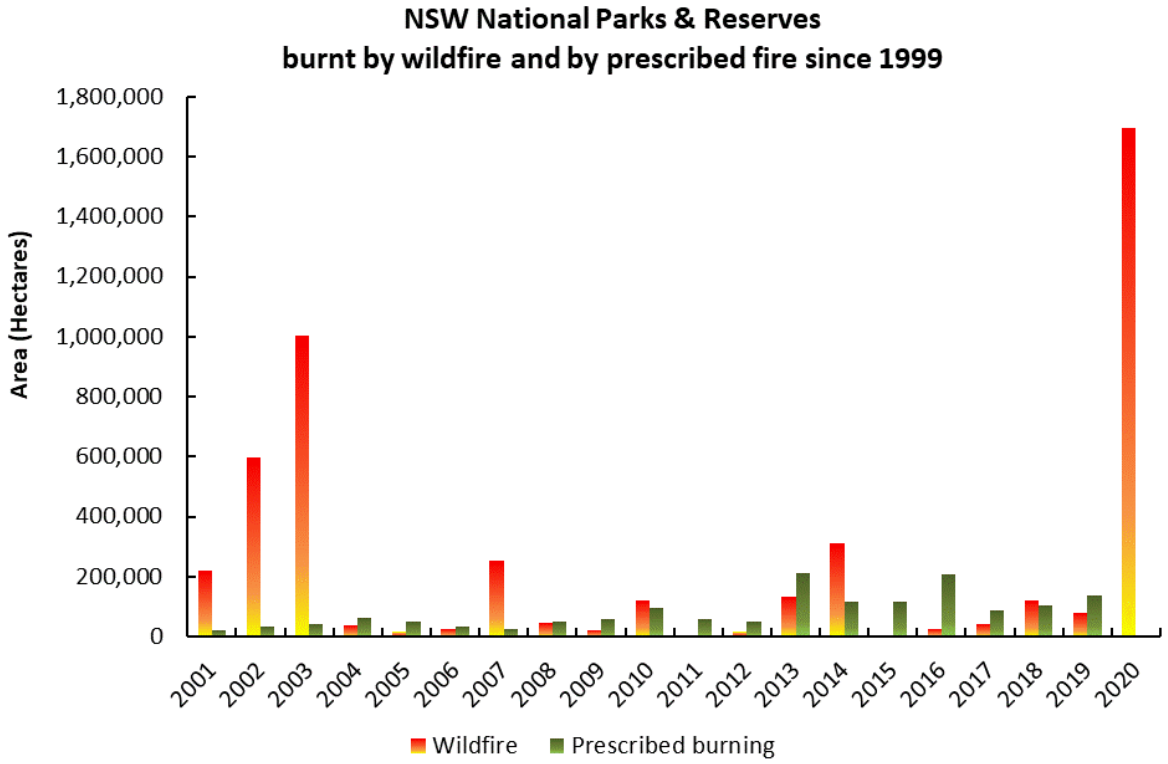

Figure 10 – Area of forest burnt by wildfires and by prescribed fire on National Parks & Reserves

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Figure 11 – What mild controlled burning looks like

Figure 12 – What uncontrolled wildfire looks like

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Figure 13 – What uncontrolled wildfire does

There are over two million hectares of declared wilderness in New South Wales, representing about 2.6% of the state and 30% of all reserves (OEH Annual Report 2018-19).

The misleading theory behind wilderness is that the forests are in an essentially unmodified state as a result of limited human intervention. Unfortunately, the *Wilderness Act* does not acknowledge or consider the implications of thousands of years of Aboriginal cultural burning.

Under section 9 of the Wilderness Act 1987, wilderness areas are managed according to the following management principles:

- *to restore (if applicable) and to protect the unmodified state of the area and its plant and animal communities;*
- *to preserve the capacity of the area to evolve in the absence of significant human interference; and*
- *to provide opportunities for solitude and appropriate self-reliant recreation.*

The Gospers Mountain fire started in the Wollomi National Park which is a declared Wilderness area. Most of this Park is not subject to controlled burning and when the fire started it burnt for days before a serious attempt at suppression was mounted. By the time this occurred it was too late…the fire rapidly developed and went on to become the largest megafire (512,000ha) in the State's recorded history. The detrimental impact of

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this 'preventable' megafire on wildlife and biodiversity is a national disgrace. It is also an indictment on the NPWS whose primary role is to protect wildlife.

Where the Gospers Mountain fire started is less than 70km from Richmond RAAF base. This is where the RFS' water bombers are stationed. Had an aerial water bomber being promptly dispatched from Richmond, Gospers Mountain fire could have been extinguished before it really began. The way the law works, however, meant that the RFS could not act without the consent of the NPWS. We presume that this consent was not forthcoming, and it was not until the fire was officially declared an emergency (a week or more later) that the RFS became seriously involved.

Not far to the north in the Hunter Valley is another declared wilderness area known as the Barringtons. This area covers 58,000 hectares of the Mount Royal and Barrington Tops National Parks. It includes large tracts of tall eucalypt forest in rugged terrain. Like the Wollemi National Park, these forests have not been subject to any NPWS burning and in the absence of wildfire had accumulated very heavy fuel loads. Another consequence of no active management was that most of the area's roads and trails were washed out and non-trafficable to fire fighters. Like the track erosion, feral animals and weeds have been allowed to run unchecked within this wilderness area. In December 2019 two wildfires arose on the western side of the declared wilderness. NPWS allowed the fires to burn for several weeks before any concerted suppression effort was attempted. As the weeks slipped by the fires grew and eventually joined and ran up onto the Barrington Tops. Once on top, the blaze was primed to burn out the entire Barrington Tops National Park. At this point there was an incredible stroke of luck, 6 inches of rain extinguished the blaze. Had this not occurred the impact on the World Heritage listed Gondwana Rainforests could have been catastrophic.

Another example of waiting rather than actively suppressing wildfire occurred in the Deua National Park on the NSW south coast. Figure 14 is an account of a local resident that was impacted by this fire.

Deua National Park Fire - R Richmond personal account –

30 January 2020
Mogendoura on the south coast with fire burning on three sides. This is a narrow area running down to Moruya but close to Tuross, Bodalla and Narooma. They have been on edge with the Deua Fire still burning since Christmas. The locals have been out constantly with some help from Forestry Corp and it has come very close a few times.

Now the fires have blown up again 3 kms away and they can see water bombers flying to the west but nothing for them. The stress and sheer exhaustion is showing and we have the onset of some very hot dangerous days. This was an hour ago and while smaller now the ingredients are there for yet another big fire.

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Fires last night at Mogendoura near Moruya. Properties lost, more forest burned and that Deua Fire was left burning for 24 days waiting for a day like yesterday!

Figure 14 – Personal account of the Deua fire on the NSW south coast in January 2020

An example of the difference in the approach to wildfires between NPWS and the private sector is provided below (Figure 15).

Todd Gelletley - Facebook post January 2020

A critical presence in the forest on a daily basis. This was brought to bear when on the 16th of January 2020 at approximatley 4pm a lightning strike from a storm was able to ignite a bushfire.

Our crew members swung into action straight away putting in fire breaks around the fire to contain it in the first instance while awaiting FCNSW to atttend and take over control. The fire was 1-2 hectares in size once properly contained. Our crew also have qualifications in fire fighting and our efforts in conjuntion with FCNSW and the local RFS brigades kept the size of the fire to just 1-2 hectares.

The fire was contained within 4 -5 hours of it being reported and was blacked out the following day with minimal cost to the taxpayer. Only two large habitat trees and one recruit habitat tree were lost in this fire.

Had this been a National Park the fire would likely have not been reported until the next day, grown to in excess of 50 to 100 hectares. This would have then taken over a week maybe even a fortnight to contain and black out. The cost of this to the taxpayer would have been in excess of $100,000. The loss of important habitat and recruit habitat trees would have been in excess of 400.

Figure 15 – A private sector view of NPWS's approach and private sector approach to wildfire suppression

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Profits before protection on State forest

State Forests (now called Forestry Corporation) in the past had an exceptionally good fire management record. This was no accident. Up until the early 1990s the agency employed large gangs of forestry field workers and highly experienced field supervisors to oversee them. The gangs were engaged to undertake controlled burning, suppress wildfires and to maintain an extensive road and fire trail network. Gangs of twenty or more workers could be found in every district[5] and they knew their business.

The 1990s saw the transfer of more than half of all State forests to National Parks. This caused timber production to dwindle along with the money needed to employ field workers and access to heavy equipment. Districts closed and management consolidated into regional centres. For several decades, the organisation was able to maintain its good fire record, benefitting from the infrastructure and investment that had been made in the past.

When the agency corporatized in 2013 its capacity and willingness to undertake active fire management further declined. Over the course of the last eight years a key goal of the agency has been to make its native hardwood division cost neutral or better. This has seen a wind back of its operating expenditure. The principal target of the cost cutting has been forestry field workers. Since 2012 the area of State forest per employment has gone from round 2,800 hectares per employee to over 4,000 hectares per employee (Figure 16). The greater coverage means that field employees are now located further from the forests and spend far more time travelling than they used to. This naturally translates to less time for prescribed burning.

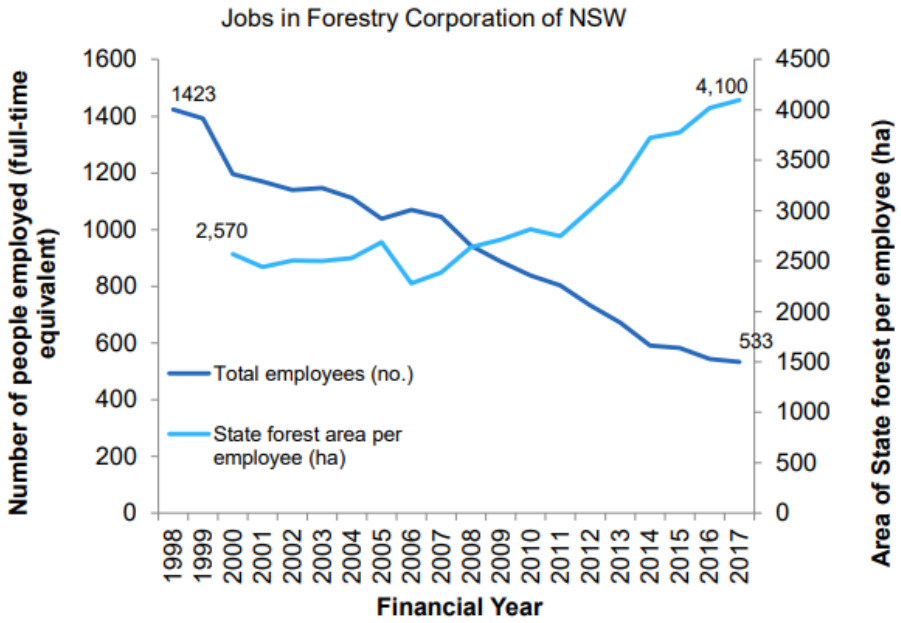

Figure 16- Changes in the number of State forest employees and area of State forest per employee (1998-2017). (Source: DPI (2018) Assessment of matters pertaining to renewal of NSW Regional Forest Agreements)

[5] 30 years ago there were several thousand employees spread across 26 forestry districts.

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Expenditure on the maintenance of roads and trails and controlled burning has also been systematically reduced. The length of trafficable fire trails on State forest is now far less than what it was, and the amount of prescribed burning is the lowest it has ever been in the organisation's 100+ year history (Figure 17).

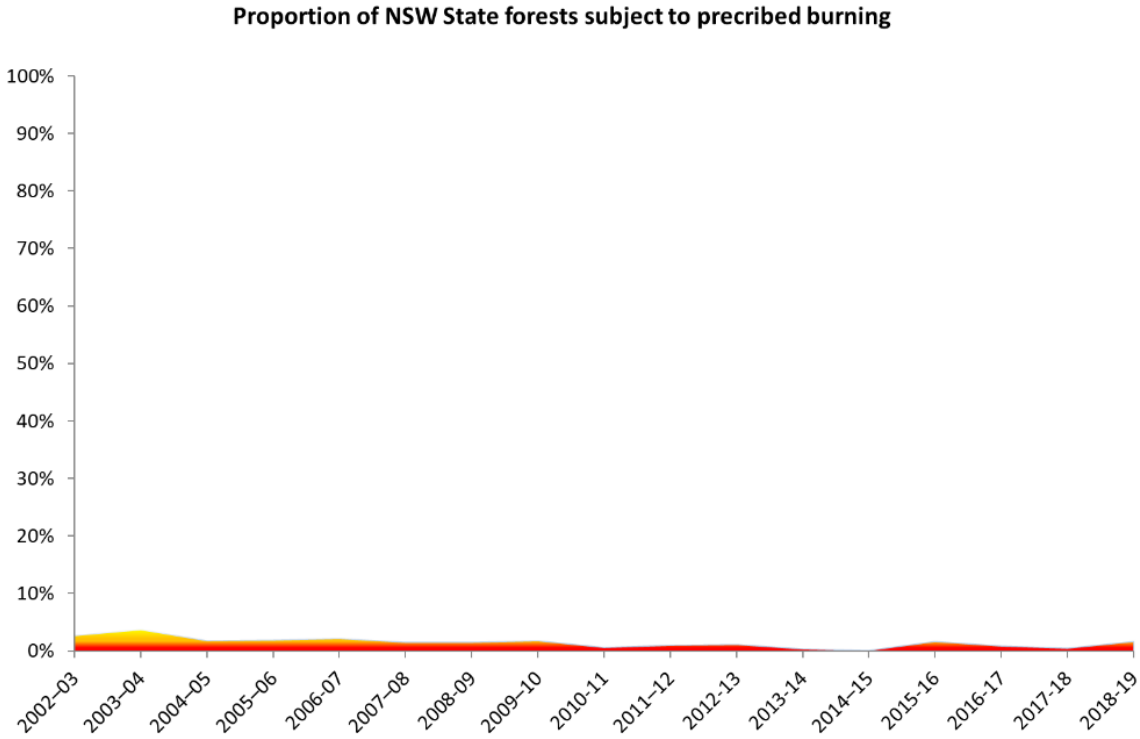

Figure 17 – Annual proportion of NSW State forest subject to burning

Amongst the current senior management team there is extraordinarily little on ground practical fire management experience. Up until the 2019/20 fires it was just not seen as a priority. The perceived need for foresters has also waned with senior management removing the requirement to have a professional forestry qualification (which includes training in fire science) in most of its key management positions.

2. Preparation and planning

Laws and policies that stymie preventive measures

Tragically, the impacts of the 2019/20 wildfires were both foreseeable and, although not preventable, far more extensive and damaging than they should have been. Apart from the loss of life and property, millions of hectares of native vegetation were severely damaged, billions of animals lost their lives, tens of thousands of kilometres of waterways were polluted and an estimated 400 million tons of carbon dioxide[6] was released into the atmosphere. An untold number of hollow-bearing trees were also burnt to the ground

[6] Guido van der Werf Global Fire Emissions Database https://www.globalfiredata.org/

which will each take in excess of 100 years to replace. The hollows in old trees provide a conduit for fire to take hold and make them far more susceptible to being burnt to the ground than younger (sound) trees (Figure 18).

Figure 18 - hollow-bearing trees which are an important source of habitat for many native animals were often the first casualties of the wildfire.

To understand why so little effort or attention has been paid to preparation and planning it is necessary to understand how the State's environmental law and policies work.

When it comes to the use of prescribed fire the environmental protection laws are extraordinarily onerous and complex. So much so that the expense, time and effort required to comply with them discourages all but the most avid and committed fire managers. In contrast, when it comes to the protection of whole ecosystems from damaging wildfires the law is extraordinarily weak. When a wildfire emergency occurs all of regulations that apply to prescribed burning may be ignored. Under current law there is also no means to legally account for natural resource losses and their related impacts (Figure 19).

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Limited liability of NSW public forest management agencies

In NSW the National Parks & Wildlife Service (NPWS) and the Forestry Corporation of NSW (FCNSW) are the two main public forest management agencies.

- NPWS is responsible for managing around 7.3 million hectares of National Parks and Reserves. Under the *National Parks & Wildlife Act 1974* the NPWS is required to use reasonable care to prevent the spread of the fire. However, if this duty of care is breached the agency is not legally liable for fire escaping from its land, provided it can demonstrate that it has acted in 'good faith'. The 'good faith' defence is simply satisfied by evidence of a 'real attempt' to execute its functions. In short this means that NPWS remains unaccountable for allowing millions of hectares of fire to escape and burn out of control.

- FCNSW manages over 2 million hectares of State forests and enjoys similar legal immunity. Under the *Forestry Act 2012* one of the agency's key functions is to carry out measures on Crown-timber land for the protection from fire of timber and forest products on that land. It may be reasonably argued that FCNSW failed in its duty to provide that protection; however, it has avoided any legal liability by declaring the fires a "Force Majeure" event.

  By making a "Force Majeure" declaration FCNSW has released itself from all its wood supply agreement supply obligations and any associated liability. The economic cost of this failure is borne directly by the private sector.

  "Force Majeure" means an event (other than the payment of money) arising from an act of God, industrial dispute, act or omission of government or government department or instrumentality, war, sabotage, riot, civil disobedience, epidemic, disease, fire, explosion, failure of power supply, accident, natural disaster, calamity or unlawful act by other person, or any similar cause which prevents a party from performing its obligations (in whole or in part) under this Agreement.

Figure 19 –Limited liability of public forest management agencies

The length to which NSW law tries protect to individual things from prescribed fire (within eucalypt forests that have evolved with fire and been subject to Aboriginal burning for thousands of years) is simply ludicrous. Some examples of the legal absurdities include:

- the *Protection of the Environment Operations Act 1997* which makes it an offence to allow any ash, charcoal or sediment to enter a waterway. The NSW EPA can also issue an order to stop a control burn if they are of the view that it will contribute or be likely to contribute to air pollution.
- the *Rural Fires Act 1997 Bush Fire Environmental Assessment Code for New South Wales* which makes it illegal to undertake any prescribed burning within riparian buffer zones.

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- the *Biodiversity Conservation Act 2016* which has classified literally thousands of animals, plants and ecological communities as threatened[7] and makes it offence to undertake prescribed burning where they are recorded (unless detailed assessment is undertaken which in many cases results in requirement to exclude prescribed fire)[8].

Under NSW law persons found guilty of a prescribed burning offence are subject to heavy fines[9]. In 2013 the Forestry Corporation of NSW was found guilty in the NSW Land & Environment Court of polluting waters and contravening a threatened species licence condition for undertaking a cool burn in a eucalypt forest that was meant to be 'protected' from fire (Figure 20). The organisation incurred a $35,000 fine and one its longest serving field supervisors had his employment terminated. Three months ago, the same 'protected' forest was burnt by wildfire!

Environment Protection Authority v Forestry Commission of New South Wales [2013] NSWLEC 101
https://www.caselaw.nsw.gov.au/decision/54a63a763004de94513dad3c

Judgement (key extracts)

- As a result of the Hazard Reduction Burn, an unknown quantity of ash, charcoal and sediment, which are prescribed matters pursuant to Sch 5 cl (c) of the Protection of the Environment Operations (General) Regulation 2009, entered the Waters between 25 May 2011 and 13 July 2011. Those prescribed matters were therefore placed in a position where they were likely to fall, descend and/or wash into the Waters, and continued to enter the Waters until Forestry NSW installed erosion control measures. It is these events that comprised the water pollution offence.
- The licence breach offence involved the contravention of condition 5.7(a) of Forestry NSW's licence under Pt 6 of the Threatened Species Conservation Act 1995 ("the TSCA"). Specified forestry activities are prohibited in a "protection zone (hard)", including bush fire hazard reduction work. For these Waters, a "protection zone (hard)" is the area 5m from the top of the bank of any incised channel or, where there is no defined bank, the edge of the channel.
- The Hazard Reduction Burn was ignited at certain locations within the "protection zones (hard)" of the Waters and resulted in the burning of a significant proportion of the existing vegetation within those zones and extending over approximately 5km of shoreline adjacent to the Waters.

Figure 20 – Judgment in the NSW Land & Environment Court

The incident at Batemans Bay is but one example (of thousands) where successive governments have been so focused on regulating inconsequential risks (and penalising those who do not comply) that it has lost sight of what it is actually trying to achieve.

[7] Many species have been listed where there is very limited data to determine their true conservation status
[8] Under ESFM this is a mis-use of the precautionary principle
[9] Major increases in the penalties occurred in 2016 with the introduction of the Biodiversity Conservation Act

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In NSW prescribed burning activity is regulated by the *Rural Fires Act 1997* and the *Environmental Planning and Assessment Act 1979.* To avoid committing an offence under these Acts, a burn must be undertaken for the purpose of bush fire hazard reduction.

The single greatest deficiency in NSW environmental law is that there is no explicit recognition of the environmental benefits of prescribed fire for ecosystem health. As such, there are no legal provisions to support it, only laws which make it difficult and expensive.

As eluded to above there are many environmental regulations which restrict prescribed burning. One of the most restrictive regulations relates to the frequency that prescribed burning may occur (fire intervals). Under the *Bush Fire Environmental Assessment Code for New South Wales* the use of prescribed fire intervals are far in excess of what they need to be (Figure 21).

Vegetation Formation (and Chapter in Keith 2004)	Minimum fire interval for SFAZ (years)	Minimum fire interval for LMZ (years)
Rainforests (1)	No burning permitted	No burning permitted
Wet sclerophyll forests (shrubby subformation) (2)	25	30 Low intensity fire only
Wet sclerophyll forests (grassy subformation) (2)	10	15 Low intensity fire only
Grassy woodlands (3)	5	8
Grasslands (4)	2	3
Dry sclerophyll forests (shrub/grass subformation) (5)	5	8
Dry sclerophyll forests (shrubby subformation) (5)	7	10
Heathlands (6)	7	10
Alpine complex (7)	No burning permitted	No burning permitted
Freshwater wetlands (8) excluding classes excluded under 2.4	7	10
Forested wetlands (9)	7	10
Saline wetlands (10)	No burning permitted	No burning permitted
Semi-arid woodlands (grassy subformation) (11)	6	9
Semi-arid woodlands (shrubby subformation) (11)	10	15
Arid shrublands (chenopod subformation) (12)	No burning permitted	No burning permitted
Arid shrublands (acacia subformation) (12)	10	15

Figure 21 - Fire Interval Table for SFAZs and LMZs (source: Bush Fire Environmental Assessment Code for New South Wales)

The underlying assumption of the fire interval table is that all ground is burnt by prescribed fire. In practice, if prescribed burning is undertaken frequently and at low intensity it will naturally result in a mosaic patchwork of burnt and unburnt ground.

The intervals specified in the Code come from *Guidelines for Ecologically Sustainable Fire Management (2004)*. The intervals are underpinned by a suit of misguided assumptions which are simply not achievable in practice if you comply with them, these include:

- *fire regimes will be spatially variable in most landscapes*
- *the varying nature of fire regimes across most landscapes constitutes an "invisible mosaic" (Gill and Bradstock 2003, Gill et al. 2003).*

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- *the proportions of favourable and unfavourable intervals that are experienced in any landscape will be critical to the persistence of resident species that are 'fire interval' sensitive*
- *the chief concern is the amount of the landscape that is subject to adverse fire regimes (i.e. outside the acceptable fire interval domain).*
- *Fires at shorter intervals than the minimum specified interval (especially when sustained without respite) are therefore predicted to result in the depletion of populations and local losses of species over the affected area, particularly when sustained without interruption (e.g. more than two successive intervals less than specified minimum).*

The Guidelines fail to consider the ramifications of not burning for long intervals and the nature and hugely damaging effect of the alternative (high intensity wildfires). Nowhere in the Guidelines is the likelihood, frequency or consequence of widespread wildfire (megafires) on native flora and fauna contemplated or considered.

The 2019/20 fires have clearly demonstrated that the Guidelines underlying premise *that wildfires are spatially and temporally variable* is now debunked. If the government wants to avoid a repeat of the 2019/20 fires, then it must also accept that the current fire interval Guidelines are not adequate for preventing megafires. We would also suggest that in future less reliance should be placed on the advice of Professor Ross Bradstock (the Guidelines' principal author).

Disengaged private native forest landholders

On private land there is little incentive to undertake prescribed burning in native forests. The *RFS Act* has lots of rules and heavy fines if you do not comply. Unless these rules are pared back and there is greater encouragement and assistance to undertake prescribed burning (for both ecological and hazard reduction reasons) the level of disengagement is unlikely to change.

RFS control over when you can and cannot burn is centralised and with this comes a 'one size fits all' approach to decision making. For example, decisions made by the RFS to cease issuing permits are commonly applied over broad areas (i.e. multiple LGAs). This can be particularly frustrating when conditions are ideal for burning at the local level. Under the current system there is no authority for local RFS brigades to review a decision and assess an individual proposal on its merits.

Agricultural burning is more straight forward but is still subject to many onerous rules.

Fire research now the domain of a few green academics

There has been considerable investment in fire research over many decades and much is now known about the relationship between fire behaviour, fuels, terrain and weather. Much of the research was undertaken by the CSIRO and this legacy is being continued through the Bushfire and Natural Hazards CRC. Through this research, the capacity to moderate forest fire behaviour through the management of forest fuels became an established scientific fact.

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Unfortunately, during the 2019/20 fires this scientific knowledge was dismissed by people purporting to know better. The most concerning message was that nothing could have been done to avoid the catastrophe because climate change was the sole cause.

Wollongong University is the only university in NSW that undertakes fire research and actively promotes its work. During the 2019/20 fires it was heavily relied upon by the media to provide an authoritative view. The principle, Professor Ross Bradstock, actively downplayed much of CSIRO's foundational research which demonstrated the benefits of prescribed fire. Bradstock relies upon fire modelling research (which is not transparent) to tell their story which is mostly about the need to adapt to climate change. Unfortunately, although highly controversial, much of his messaging went unchallenged.

3. Response to bushfires

Mechanical Thinning

Prescribed burning is effective at reducing fuel hazard however it only reduces fuel on the ground and in the understory. Most of the stored energy in a forest is located within the trees themselves.

Where the primary objective is to protect life and property (i.e. around the peri-urban interface) then prescribed burning will generally be insufficient to reduce the hazard on its own. Mechanical thinning is a practical solution that results in a quantum reduction in the amount of combustible forest fuel while still maintaining the integrity of the forest.

To be effective, most of the biomass that constitutes the thinnings need to be removed from the forest. This can occur through infield chippers and through removal of roundwood timber products.

Little mechanical thinning is currently occurring in NSW. To achieve effective low-cost mechanical thinning outcomes the NSW Government will need to work closely with the NSW timber industry.

4. Any other matters

Coordination and collaboration by the NSW Government with the Australian Government, other state and territory governments and local governments.

The NSW timber industry sees this inquiry as a unique opportunity to trigger a fresh approach to rural fire management. It is hoped that the Commonwealth and State Governments will realise that there is compelling case to change the status quo.

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Tackling the entrenched positions of the NSW Rural Fire Service and the Environment, Energy and Science within the NSW Department of Planning, Industry and Environment will be central to this task.

There is an obvious new role for the Commonwealth in overseeing the future performance of the States' whose fire management performance needs major improvement. This could occur by introducing national performance standards and benchmarks.

Annexure A

Photos of impacted NSW wood processing facilities

Figure 22 – Burnt Eden Chip showing woodchip pile still burning (photo: Scott Blanch – facebook)

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Figure 23 – Burnout maintenance shed at Eden Chipmill (photo Adrian Reardon ABC)

Figure 24 – Burning firewood at Machin's sawmill Wingham (source Manning River Times)

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Figure 25 – Rappville sawmill destroyed by fire (source ABC)

Figure 26 – Casino sawmill damaged by fire – Nov 2019

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Figure 27 – Keeping fire away from Ironwood sawmill Taree

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TIMBER NSW

Report sent to state and federal governments 17 January 2020
(Updated progress in red comments)

2019/2020 BUSHFIRES AND RECOVERY
OVERVIEW

Recent major bushfires have burnt both the native and plantation forests which supply the State's domestic timber. Major disruption to the supply of timber has occurred – in some regions all activity has ceased. Timber NSW represents the forest growers, native forest landowners, wood processors and harvest and haulage contractors that produce this timber and who underpin the 22,000 jobs that exist along the industry supply chain.

The effect of the fires means that business as usual timber production is no longer an option. Timber NSW calls upon the NSW government who is responsible for managing the State's working forests to urgently intervene. Only through intervention will a major social and economic crisis be averted. Special provisions are urgently needed to restore the flow of timber. Special attention also needs to be given to assess the medium and longer-term impacts on sustainable timber supply.

The business of forest growers, contractors and processors, of all types, public and private, large and small, is hit hard. These fires were out of their control. There is anxiety and distress because they are in an unprecedented state of operational and financial uncertainly. Ramifications are severe across the industry.

The impacts have been most immediately felt by those who have had forests or plant and equipment destroyed, followed by contractors and processors - whose livelihoods (and those of their employees) depend upon access to resources no longer available. The government's response to this must be immediate.

Further downstream, major flow-on effects triggered when the fires prevented access to the forest. Harvesting and haulage contractors, sawmills and value adding plants and timber traders have been impacted. These firms provide thousands of regional jobs.

In the supply chain there are thousands of more jobs in manufacturing, transport, wholesale retail and construction which all depend on ongoing forestry supply.

Salvage for Infrastructure Replacement and Utilisation: access to material suitable for the replacement of poles, fencing and bridge girders is paramount so salvage operations need to be fast tracked. Additionally, the government needs to direct that government agencies responsible for roadside clean up etc should send material that can be salvaged to industry not just push up and chip.

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Finance and Cash Flow: many businesses have significant financial obligations to service. The interruption to supply will affect cash-flow and quickly tip many small, medium and larger businesses into financial difficulty, and ultimately rapid shut-down. With business revenue hit, many will have no choice but to cut costs hard to maintain viability or simply to survive.

Redundancies and Lay-offs: Businesses are reviewing staff levels and redundancies are already underway. This will mean increased regional unemployment and loss of skills and expertise.

Business Insurance: A further complication arising is the prospect of insurance coverage being removed. Already a number of large insurance companies have indicated they will no longer provide insurance coverage to timber processors and contractors. This jeopardises finance, operation and staffing in this sector.

Without immediate intervention the bushfire disaster will cause a major economic contraction in the many regions where the timber industry has a major socio-economic impact.

A concerted and pragmatic emergency and recovery approach is required urgently. The NSW government should appoint a Recovery Commissioner.

IMMEDIATE RESPONSE MEASURES REQUIRED

STATE OWNED RESOURCES AND SUPPLY

The NSW Cabinet must direct the EPA to allow salvage harvest of fire impacted areas immediately. IFOA conditions must be set-aside for salvage operations urgently. Forest contractors are highly skilled and experienced – able to work with FCNSW to protect environmental values on specific sites as needed and to preserve drainage/erosion works. Currently additional onerous conditions are being placed on FCNSW for salvage harvesting on forests burnt after August 2019.

1. Urgent audit of the post-fires resource status in each sub-region of the public estate FCNSW responsible for on the ground assessments. - **Not Done** (Note that private estate figures most likely to be provided by Local Land Services (LLS) or in some cases on a voluntary basis).

2. Provide additional resources to FCNSW to assess forest areas for protection/rehabilitation/salvage or routine harvest. With additional funding, utilise retired foresters to assist with the required rapid assessment and ground truthing. **Not Done**

3. Fast transparent sharing of information is necessary as entire industry severely affected. **Not Done**

4. On the public estate calculate in each sub-region the hectare area to be salvaged, area to be regenerated and the species mix. **Not Yet Done** Alongside this is the assessment of the forest infrastructure damage (roads, bridges etc).

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5. These pieces of information are needed to feed into the Industry regeneration timeline, which needs to be pragmatic not academic or bureaucratic.

6. **A positive Government communication campaign will be critical to enable the salvage of dead and dying trees and avert the risk of a major environmental backlash Not Done**

7. Assessments should feed into a practical Industry task force which can digest the assessments. It is important to have the right skill mix, including processors, foresters and wood quality expertise and practical input from contractors), plus government. **Not Done**

8. Immediately extend Wood Supply Agreements on the North Coast to 2028 to fix the inequity and ensure continued investment in businesses. Currently industry has no security past 2023. This breaches the undertaking our industry was given and with no extended WSA there is no prospect of reinvestment and continued employment in rural regional areas where the timber industry is the key employer. Financiers will not extend arrangements to a business with no source of raw material. **Not Done**

9. Any logs delivered under the WSA allocation which are burnt and/or are delivered with bark to customers must be compensated for disposal of waste (bark), and for production and equipment down time and losses attributed to these non-defined issues. **Not Done and very little has been salvaged.**

10. Salvage operations are urgent both for environmental and commercial reasons. Set a firm timeline of twelve months for salvage It is noted that salvage operations can potentially do environmental repair, such as erosion control works requiring heavy equipment. **Not Done due to intransigence of the NSW EPA**

11. Salvage - FCNSW to administer harvesting of salvage timber and deliver to mills at greatly reduced or zero charge – **additional EPA conditions preventing salvage**
.

12. The government could direct that salvage timber (felled burnt, dead trees on all tenures) be prioritised towards producing timber materials for recovery building with payment made by the state's recovery programme. **Not considered**

13. Recovery operations of the burnt pine should be a priority. Markets need to be identified. Large scale harvesting operations need to be put in place. The rate of supply will provide a small window of opportunity to recover the burnt pine – this is also dependant on the severity of the damage to the burnt pine. If the fires were very hot the pine forests will be dead, and the recovery window will need to be under twelve months. **Underway**

14. New market development for the lower grade salvaged timber may be required. This is new territory for us all on such a vast scale. Possibilities that may arise are: - export the burnt sawlogs to China/India for processing via bulk shipping; manufacture of biomass and bulk ship to China/India. **Overseas ports closed**

15. Forest regeneration – there will need to be a mass scale silviculture operation to re-establish plantations after clearing – full funding support will be needed to do this quickly. Northern Softwood Plantation Estate - those stranded pine plantations now without a mill to process the timber (Tarmac) should be replanted with high quality hardwood with input from the hardwood timber industry. The softwood has had problems with drought survival and fires prior to 2019 and now with the major processor destroyed by fire, perhaps there is an opportunity to review this. Hardwood would be more drought and fire

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resilient as well as providing more benefits to native fauna. FCNSW could even plant some koala corridors within the estate, a great environmental concession, which might take some pressure off the current demands for a GKNP. **NSW Government announced investment for replanting plantations and nurseries**

16. PRIVATELY OWNED RESOURCES (PRIVATE FOREST and PNF)

a. Assistance to expertly assess the status of their timber stands quickly. **Not Done**

b. Assistance to salvage and remove the burnt timber – assistance for the harvesting, due to the impacts on private landholders from fire coming out from SF and NP onto their land. Any salvaged product should have haulage subsidy. **Not Done as EPA restrictions increased**

c. Assistance to regenerate trees – covering tree establishment costs. **Not considered**

d. The impact on private property owners with State owned entities (Parks, State Forests and Crown Lands) as neighbours is doubled as the State does not recognise its responsibility as a neighbour to clear boundary fire breaks and pay half of all fencing costs. Seeking government to assist due to the impacts on private landholders from fire originating or coming out from SF and NP onto their land. **Mid-April fencing grant announced**

e. Due to the supply crisis Local Land Services should be resourced to process the back log of Private Native Forest Plan applications as this timber will be important to keep some supply coming forward to some mills. **Occurring but EPA restrictions are onerous**

f. Fast track PNF extension services via LLS to cover training for contractors and landholders; and include hazard reduction burning and post-harvest burning as part of this training/extension. **Not Done**

g. Fencing, sheds, yards, bridges. Many private properties and shire councils have lost infrastructure which has taken generations to build and install. This loss will severely impact their ability to manage their properties and will impact upon logistics of regional forestry operations (e.g. no bridge may mean some forest areas are totally inaccessible until the destroyed bridge is replaced. **Some grants apply but many do not**

h. The NSW Cabinet must direct the EPA to allow salvage harvest of fire impacted areas immediately with the Private Native Forestry code reflecting the reasonable endeavours of the owners/harvest contractors. **Not Done**

17. HARVEST CONTRACTORS

a. In concert with the Australian Forest Contractors' Association, undertake a confidential audit (by phone) of the post-fire status of each harvest and haulage contractor. Assess equipment damaged/not damaged; what their 2020 business outlook was and what it is now; which fire affected forests they were to work in; their capacity and willingness to do salvage work. Need to cover the full public estates (native and pine). **Partially done by NSW DPI**

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b. Audit their team workforce – existing workforce pre-fires and what can be sustained post fires. Support workers they cannot retain to transition into other forestry associated activities. **Not Done**

c. Forest contractors need to be given work as soon as possible in post fire salvage and clean-up of fire damaged forests, also additional work should be undertaken cleaning and widening fire breaks funded by government. This should happen as a high priority and will make good use of their expertise and capital equipment. **Some work provided but not much**

d. Harvest crews be put to work on an hourly rate per machine to aid in this extensive clean-up the state faces. This could include i) harvesting / removing dangerous and badly burnt standing trees in both S/Forest and N/Park; (ii) Re –opening the roading network within SF and NP to ensure safe access to existing and additional fires particularly as the fire season has months to run. **Some work completed under "make Safe" program**

e. Assistance for contractors who have lost or damaged plant and equipment due to the fires. Provide incentives for investment in harvest equipment and businesses in timber harvesting for the longer term especially if different machines will be needed for, for example, handling younger age trees or burnt trees. **Most grants did not cover the forest industries**

f. Haulage companies will require urgent financial assistance to cover repayments as log trailers are designed only for carting logs. The truck/prime mover could theoretically be sub-contracted out, but trucking business is tough and log trucks are not suited to line haul/interstate work and would have to be refitted due to lack of sleeper cab. **Nothing has occurred**

g. Business skills training support will be needed, and we understand some of this is currently available through AFCA and Forestworks **A project is in train.**

18. WOOD PROCESSORS

a. Significant assessment is required, as each mill is different to the next. Mills - once any existing stock in hand is sold, face large reductions in harvested log supply in the shorter term and dramatic reduction in the longer term. There is the risk of a looming shortage of harvest and haulage contractors in some regions due to the large focus on salvage /recovery. This would further upset normal logistics that deliver volume of raw timber stock into their yard**. Little wood flow burnt or unburnt to sawmills**

b. **Priority is for North Coast Wood Supply Agreements - even with this known drop in supply - because WSAs are the base that underpins everything commercially. There will be <u>some</u> guaranteed resource in the next five years and business must be enabled to plan for that. It is imperative that that WSA include marketable species suited to structural products (not species to fulfil volume) to all holders.** **Not Done**

c. Fire affected timber will create as yet unknown technical challenges for the milling process. Wood quality assessments across geographies are needed - so that people can prepare for it. An inferior product is a reasonable expectation. That will meet discounts from mill customers or even refusal by buyers, depending on their capacity to adapt. This income gap will be able to be quantified and the direct loss of income must be supported until the industry is back on its feet. **Not occurred – EPA heavy restrictions preventing most salvage harvesting so no product to test.**

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d. Assistance is sought for processors to cover the additional cost of hauling resources from further afield (both logs and boards) if required, to keep plants operating. The extra costs will be quantifiable**. Not occurred.**

e. Assistance for processors who lost or have damaged plant and equipment due to the fires. The losses will be quantifiable. **Not occurred**

f. **The sole residue/wood chip facility at Eden has been burnt along with the conveyor belts and parts of the wharf. Urgent financial assistance is required to assist with rapid reconstruction of this facility to process residues and chip. Additionally, projects that have received grant funds to be undertaken by the owners of the Eden chip mill to construct a small log processing facility/briquette/bio-soil plant should be fast tracked and finance expedited. Some work underway**

g. Assistance would also be needed if there's a requirement for new or modified equipment in order to harvest, transport and process the fire burnt/salvaged timber. Some processing plants may need additional equipment or retooling yet they have reduced cashflow. **Not occurred or considered**

h. Provision of skilled business advice services in general could be helpful as businesses navigate their way through many complex matters, including the negotiation of contracts to their own customers who they now can't supply as expected. A member said, *"Mills and contractors can live very much hand to mouth. We need to move quickly in order to ensure these companies don't fall too far behind and head for bankruptcy. One of our harvesters has equipment repayments of $20,000 per month as well as their homes, cars etc. and money for their family to function, kids to go to school etc."* **Not considered**

i. Assistance for key staff retention, repayments on any existing loans, income for mill owners to ensure their families are functioning normally and money to cover outgoings such as rates, electricity etc. **In April JobKeeper may assist but many staff stood down or retrenched.**

j. Financial assistance for forestry or milling equipment that has been damaged in fire ravaged areas where members have inadequate insurance. **Not Done**

k. Financial assistance to meet any increased insurance premiums to allow business to remain in the industry. Insurance is already an issue with some companies refusing to reinsure owing to the fires. Financial assistance with this and government support to encourage insurance companies to engage with the sector is needed. One member said, *"Our company has been quoted insurance premiums more than double last year as a direct result of the fires, even though we have made no claims relating to these fires and in fact have made no claims under our policy for more than 40 years, with the exception of hail damage to a roof, now more than 10 years ago."* This huge premium rise is made all the worse by the adding of NSW government levies and taxes on top. Relief from the government fees and taxes would assist. **Not Done and some insurance firms are refusing to insure.**

l. Many SME companies do not have Business Interruption Insurance as they simply can't afford it. An industry association colleague stated, *" I've had countless conversations today with business owners about access to a government assistance package covering monthly lease payments on items like machinery that has been fire destroyed or cannot be used at present and*

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vehicles/trucks. In some case, these payments for a company of 50 employees can be 300K a month and presently no income is coming in." **Not Done**

m. Funding to conduct a comprehensive audit of the post-fires status of each mill (damaged/not damaged) and what the production capacity is. **DPI has completed broad survey**

n. Staff who are not required by sawmills could be offered immediate alternate recovery work with FCNSW and NPWS and even local councils. **Not Done**

o. Financial assistance to meet any increased fuel and employee costs to transport timber from areas greater in distance from the usual point of resource access. **Not Done**

19. WORKERS

a. Using information gained above from processors and contractors – by region estimate the core staff numbers likely to be needed/retained in the commercial operations for the next 24 months which will cover both processing of salvage or timber able to be sourced elsewhere (imported, interstate, from unburnt private forests; and calculate numbers of "surplus" staff by region and the workforce skills available for redeployment in the industry regeneration. **Not Done**

b. Funding support to assist staff whose positions have been made redundant due to the fires. With retraining alternative positions could be offered in areas such as salvaging fire damaged timber, replanting forests, nurseries to produce new seedlings, new and additional levels of hazard reduction work (both mechanical and burning). The industry and government need to offer some security and hope. **Only Job Keeper and unemployment support**

c. Assistance for forest growers and farmers towards the cost of planting and replanting plantations and trees on farms to establish resources for the future. This will have many benefits (i) employing people in regions which would otherwise struggle economically in the aftermath of the fires; (ii) replacing and growing the resource available into the future; (iii) sequestering carbon in the growing forests, as well as the future products produced from them, as an active response to climate change. **Only funding for FCNSW**

d. A NSW timber industry workforce redeployment team in each region is required to work in different roles to fast track the regeneration of the industry – what types of skills would be needed? Who would pay? How could they maintain a link to their current employer, so they aren't "lost"? When workers leave a community their family leaves too and population declines, and communities suffer. This must be avoided where possible. **Not Done**

e. Industry workers could be paid to perform part time work to support local groups helping rescue, rehabilitation of and provision of water/food to native animals due to the fires. **Not Done**

f. Industry workers could join paid government supported work teams to rebuild infrastructure and conduct forestry regeneration activities. Put displaced timber and sawmill workers onto forest road and fire trail maintenance, implement fire and fuel management across the landscape as required,

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control weeds, disease and feral animals across the landscape. Staff who are not required by sawmills or contractors could be offered immediate work with FCNSW and NPWS and even local councils to assist in recovery. Those agencies would need assistance to absorb new people. **Small number of contractors used for "Make Safe"**

g. A mill manager said, "*Some form of funding to allow employees no longer able to be employed fulltime to do work on their stand-down days that related to the regeneration of the forest industry would alleviate the loss of employees to other employment fields. The money could also be spent on upskilling in relevant training when the industry is in recovery mode.* "**Not Done**

h. An industry association colleague said, "*Already this month I've had numerous conversations with business owners regarding implementing shorter working weeks due to lack of resource/production. In addition, many have already begun redundancies and have sought advice from me on the process and appropriate entitlements."* This situation will become more critical and job losses will likely accelerate until a supply of logs starts to flow to harvesting contractors and millers, albeit in a reduced capacity. *"One sawmill in an affected area told me he has a 30-day supply of logs in his yard and after that there is nothing left to employ staff."* **Sawmill closures and shorter working weeks occurred**

i. The salvage of charred timber will involve implementing appropriate workplace health and safety systems and protective equipment to ensure dust from ash does not result in breathing and health problems for workers. Funding could be given to relevant industry associations for training as well as PPE equipment and any relevant workplace modifications required. **Not Done as salvage operations have been almost impossible with new EPA restrictions**

CONCLUSION

Timber NSW calls for and supports a Royal Commission into the Bushfires of 2019/2020.

Our industry believes it is time for a mature, non-political and bi-partisan examination of these major fires across Australia. A Royal Commission of this nature may well reveal the fire experience of 2019/2020 had systemic management and land management issues that otherwise would not surface or worse be hidden behind politics and face saving. An outcome of this type would be a good thing for all Australians and hopefully future public policy. It would be an outcome of strong leadership.

This is not the time for political posturing from either side, state or federal but is the time to lay bare the land management, planning, environmental protection and disaster response systems that have resulted in the catastrophic fires since September 2019.

Fuel load management and hazard reduction

For the longer term, there must be a solid government commitment to serious fuel load management. Currently neither NPWS nor FCNSW has an enviable record in this matter. Despite public claims of "meeting their reduction targets" – the real truth is that their targets are way below the recommended fuel reduction calculations made in the Royal Commission after the Black Saturday Bushfires in Victoria.

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Biomass Plants
The timber biomass from thinning/mechanical fuel reduction is a valuable material. It can be utilised through investment in biomass plants which will also utilise residues from saw log production and provide valuable heat and energy.

Timber NSW looks forward to working in a frank and fearless manner with government and request your consideration of these proposed disaster assistance measures. There will be a requirement for on-going dialogue in good faith to assess the longer term impacts of these fires.

Aboriginal Cultural/Cool Burning
Encourage indigenous cool burning practises and management to be introduced on a broad scale on crown lands.
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CONTACT
Maree McCaskill
General Manager - Timber NSW
P: 0418 657 453
E: maree.mccaskill@timbernsw.com.au
W: www.timbernsw.com.au