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**Submission Number: NND.001.00955**

**Submission Of: Lyn Orrego**

### Your Details

Email address:

Phone:

Preferred means of contact: Email

What is your submission based on? I am making this submission based on my personal situation

What was your personal situation in relation to the 2019-20 Bushfires?

Where do you live? Nambucca (A)

### Your Submission

In your experience, what areas of the bushfire emergency response worked well?

See attached

In your experience, what areas of the bushfire emergency response didn't work well?

See attached

In your experience, what needs to change to improve arrangements for preparation, mitigation, response and recovery coordination for national natural disaster arrangements in Australia?

See attached

Is there anything else you would like to tell the Royal Commission?

See attached

Do you agree to your submission being published? Yes I agree to my submission being published in my name

Supporting material provided:

Royal Commission into 2019-2020 Bushfires Lyn Orrego 270420.pdf

## Submission from Lyn Orrego April 28<sup>th</sup> 2020 to

### Royal Commission into Bushfires of 2019-20 Bushfire Season

Dear Sirs/Mdmes,

Addressing key issues in the terms of reference for the above Inquiry I make the following comments and thank you in advance for your time and attention in considering them:

Key issues in the Terms of Reference: a) coordination b) climate change c) enhancements (ie improvements) d) any other reforms f) National coordination role f i) hazard reduction f ii) wildlife and habitat protection and restoration f iii) Planning and g) Indigenous fire management practices

**The Practice of Backburning can and is often the cause of new and damaging wildfires.**

**Backburning in underlying dry conditions, is no longer a safe, appropriate or reliable method to fight fires.**

**Water (via tankers and helicopters) extinguishing fires in the initial stages must be the new norm.**

At any point in time and space the lighting of a fire by anyone or any agency (no matter the stated intent ie back burning or hazard reduction) must only be permitted if that fire can be guaranteed to be controlled which does not include letting it burn across country to some perceived "containment line" kilometres away. Always the intent, and the reasonable expectation that it will be achieved, must be to minimise the amount of land that is burnt preferably to zero.

More resources must be at the ready to put out fires in their initial and small stages. If more fire tanker aircraft and helicopters (all with planned water refilling locations) had been planned for, on hand and deployed earlier in the 2019/20 fire season across the country then far less of it would have burnt, less houses lost, less people died and less wildlife incinerated.

The loss of a billion or more wildlife is a loss that, in future planning for fire seasons, must be avoided by putting the protection of natural assets into the equation and including them in fire management plans. Yes, protect lives primarily and houses and infrastructure where possible after that but also bring into fire plans maps of natural assets and protect them wherever possible. For example - the location of key populations of threatened species, nest and roost sites, steep lands that become soil erosion hazards after fire, rainforest, rare forests, old growth forest, threatened ecological communities etc). The State government (Environment Protection Authority and Office of Environment and Heritage) already has maps of many of these natural assets. This data and maps must be brought into play and be available alongside maps of houses and infrastructure so that these natural values cannot unknowingly be sacrificed in a back burn or hazard reduction fire that could have avoided them. This natural values asset layer would form the third tier of assets in need of protection from fire and actions on the ground reflect that.

The legislation to bring these natural assets into consideration and protection must be science -based and objective driven and specific to the natural values. It should be the arbiter of the diverse community ideologies. It must enforce protection of as many natural assets as possible especially the rare ones that the ecologists tell us are in trouble already, the threatened species of fauna, flora, rainforest, rare forest and under protected forest ecosystems etc. Scientists must advise on the list.

## **We need Fire Plans drawn up with input from ecologists and the local community well before the beginning of the fire season**

The third priority for asset protection discussed above, the natural assets layer of information may already exist to some degree in fire management plans at various levels. In a Nambucca Fire Plan many years ago an Osprey nest was known and protected in fire plans.

However, this concept and the required mapping (as stated, often already in existence in federal, state and local environment departments data bases) must be brought into legislation and a formal process for developing the natural asset layer for protection be put in place. In this process there must be input and consultation with the public, before being put in place by law. What natural values must be mapped and what priority these have for natural asset protection must be required inclusions of fire management plans at every level of government and be part of every fire plan.

If these things are thrashed out and agreed upon in the calm of a non- fire time of the year then there will be less angst as locals, who know of unique natural assets in their environs, see them bulldozed or burnt without awareness or care (and in some cases the reverse: ie glee that old forest and its inhabitants are being destroyed). I state the previous as it is the elephant in the room but something that many people on all sides of the fire debate do know: that many people, even those within the bureaucracy and fire fighting bodies never accepted the compromise that some areas needed to be set aside for national parks and are pleased to see them burn hard, their values destroyed – all under the guise of the claim “well burning them makes them safe” which isn’t true. I’m sure the Inquiry will receive many examples of totally unnecessary chopping down and bulldozing of old growth trees and back burns lit kilometres away from an initial fire just so more country (National Park) will burn. 59% of the National Parks on the north coast NSW (north of the Hunter) burnt in the 2019-2020 fires season. About half the State Forests burned, 43% of plantations and 35% of rainforest. Many of these areas burnt so intensely that 6 months later many trees are not recovered and not even showing signs of coppicing. With a billion wildlife estimated to have died Australia wide this was a fire season we do not want to see repeated. Good planning, including planning to protect our natural assets, can minimise these losses in future.

Local governments should also play a part in drawing up fire management plans that locate assets after input from the public and ecologists. As discussed above there needs to be 3 layers of assets that need mapping and protection: Lives and Houses, Property assets and Natural assets

## **The importance of local knowledge of landowners of a vicinity must be recognised and incorporated into decision making both in the early stages of the preparation of fire management plans and when backburns are planned**

There is no doubt that many examples exist of back burns going wrong and causing more damage, more loss of houses and lives, than if they had not been lit and in fact proving to be totally unnecessary in the first place. I would like to make the point that this situation can be avoided if local knowledge of landowners living in the vicinity is sought and taken into account when backburns are being considered.

Examples exist of backburns being lit in areas to stop a fire thought to be approaching when the fire never reached the back burn but actually self-extinguished beforehand (often by hitting some relatively more moist southern slope vegetation). Yet the unnecessary backburn went on to cause major losses. If local knowledge had been sought on such occasions and taken note of by decision makers they would have learned from local knowledge that on other occasions over past years similar fires in similar locations had also self extinguished and they would not have lit the back burn and so caused avoidable damage and loss.

**Hazard reduction is only acceptable close to houses and infrastructure. There is no place for broad area “hazard” reduction at all.**

**Broad area “Hazard reduction” dries out forests making them more fire prone and eliminates the moist species and conditions which can act as fire retardants.**

**Any thoughts of governments requiring broad scale “hazard reduction” should be quashed given the huge liability implications for governments and the taxpayer.**

The more the land burns the more fire-prone it becomes – a drier place where fires are more frequent. Fire frequencies are a key determinant of species and habitat. A natural fire frequency may be 80 years when our current practices urge (and even require) burning every couple of years. This reduces species diversity leaving only the dry species that can survive fires. Any species that takes longer to set seed than the fire interval will be eliminated from the area and the whole forest ecosystem will be changed.

The environment movement generally has no complaint about people burning their own land around their houses, sheds and other infrastructure in order to protect it – provided it is lit after receiving a permit, with notification to neighbours and kept totally under control to those areas. Doing this at the right time of year and in the calm and cool weather conditions will add to the safety of this practice. Laws requiring these responsible actions are appropriate.

What the environment movement opposes and argues vehemently, with the support of the science, is that broad area burning to so-called “reduce fuel loads” is totally unacceptable and the premise that this will “make the bush safe” as claimed is also disputed.

Steady state composting of leaves on the forest floor in a moist forest environment reduces more fuel than any burn could.

There are hundreds of Forest Ecosystem types in northern NSW alone (mapped during the Comprehensive Regional Assessment in the late 1990s) This means that there are hundreds of different types of natural fire regimes created by the interplay of aspect, climate, rainfall, soils and evolutionary processes. These eco-niches that produce similar forest ecosystems must be respected and let continue to function naturally rather than attempt to be treated similarly (by burning) thus reducing them to more simplified mixes of dry species. It is within these varied forest ecosystem types that the unique flora and fauna of each has also evolved and will only thrive if conditions remain suitable. The threatened Long nosed potoroo for example feeds mainly on fungus and needs moist forests to survive. Many of these Forest Ecosystem types and their inhabitants are threatened. The percentage of each remaining (compared to 1750) has also been calculated (pre the 2019-20 fires) so where the under target (around 15% at least) forest ecosystems are surviving they must receive a high priority for protection from the extra, human applied, “hazard reduction” fires. Rare forest ecosystem types must be added to the Natural Asset protection list and be protected.

Regarding any proposed legislation to “require landholders to reduce the fire risk on their properties”, IF that means requiring burning of any kind then, apart from opposing any such thing, I ask all governments to think very carefully about this. The liability that would come with such a requirement would be enormous and put at risk government coffers which are the taxpayers money. If any property or even life was lost due to such a requirement (ie to burn) the payouts, if such a burn caused harm, would be enormous.

### **Fire permits must be required all year long**

A fire permit should be required all year round. This is necessary to ensure that all fires are responsible ones and any that get away can be tracked and if irresponsibly lit then repercussions should follow such as being liable for damages to others property. In our area (mid north coast NSW) the coming of the Fire Permit season in spring is preceded (a few weeks before permits are required) by many, many landowners lighting up to avoid having to apply for a permit. In fact as soon as one plume of smoke goes up at this time of year suddenly everyone is lighting up. It is many of these pre-season fires that get away (especially in dry years like last year) and actually kick off the bushfire season early. If permits were required all year round, at the very least, this free for all can be avoided. The environment movement has been begging for this to be

**National Parks and Wildlife Service NSW and NSW Office of Environment and Heritage must have control of the fire mitigation activities, the fire fighting decisions and the on ground operations for fires on National Park tenures.**

**Training of local RFS brigades is essential with a paid captain of the team who has most training and knowledge of the fire management plans and has responsibility for interface with the state level of RFS**

**Adequate and adequately maintained fire fighting equipment through adequate funding must be ensured.**

### **Indigenous fire practices limitations**

Any call for the reinstatement of indigenous fire practices must bear in mind that they were absolutely tuned to the myriad different ecosystems they inhabited so it could not be a one size fits all practice. They were mostly practiced in woodland environments (rather than tall moist forested environments which provided food naturally) and with a view to promoting grassland between trees for the purpose of encouraging wallabies and kangaroos onto the grasslands so they could be hunted for food. They also knew the natural assets of each area such as the flowering time of plants on which they depended for food so would avoid fire at certain times. Finally much of this specific to location knowledge has been lost. Consultation with indigenous people of each area is warranted in case some parts of the knowledge for that area has been retained and can be evaluated for relevance to current agreed objectives.

### **Climate change**

Future planning for bushfire risk management in NSW must recognise that climate change is now a major driver of increased bushfire danger and that further increases in global temperature are likely to increase the length and severity of fire seasons, restrict the window of opportunity for landowner lit hazard reduction burning to protect their infrastructure and increase the costs and the risk to the community from bushfire events across NSW.

All actions that minimise the trajectory of climate change and lower emissions must be considered to be fire mitigation and be endorsed and incentivised for that purpose. We mustn't forget that a four year drought preceded these 2019-2020 fires and set the country up to burn intensively and widely. There is a massive amount of science now about climate change and ways individuals, state and countries can become carbon neutral. This should be our aim.

## **Grazing and logging**

There is no scientific evidence to show that grazing or logging will reduce fire risk and both can be devastating to threatened species such as koalas and damage natural processes. Grazing and logging dries out native forests making them more fire prone. Moist forests and rainforests are known to deter fires even put them out.

Governments must ensure that neither grazing or logging is reintroduced into conservation areas. They also must go further and declare more reserves such as ones that have a strong scientific evidence base like the proposed Great Koala National Park in the Coffs Harbour region of northern NSW. With 59% of National Parks of the north coast region burnt in the 2019-2020 fires it is more important than ever that public native forests be protected from the degradation that logging brings (and drying out of the area) by being moved into the reserve system with adequate funding for their management and a transition package for any effected timber workers. Jobs in plantation establishment and replanting could replace jobs logging public native forests. At the very least, unburnt areas of public native forests (which are now acting as wildlife refuges) must immediately be placed under a moratorium and not be logged while assessment/inventory is undertaken regarding damage and losses of all natural values and it is established scientifically which are needed to be reserved. NSW still does not have an adequate, representative or comprehensive reserve system despite all the parameters for such being clearly laid out since the late 1990s.

## **Recovery Actions need planning too**

Following major bushfire events, post-fire environmental recovery actions are needed including targeted recovery for threatened species and forest ecosystems which are listed as vulnerable, endangered or critically endangered. Recovery actions must consider pest species, weeds, minimising erosion and sedimentation and maintaining water quality to avoid post fire fishkills after rain.

## **The role of the Federal government and whether it should be increased**

I believe the Commonwealth government's role and legal obligation must first be to support the State's with resources, help, data and additional fire fighters on the ground when and as needed. The reason it should not take control is that the State's have a long history of knowing their own regions, how fire behaves and what works where. While their systems need improvement and better resourcing their existing structures shouldn't be overridden with the Commonwealth coming in and taking over. The chain of command in any emergency must be very clear and if its deemed the Commonwealth should have more legal responsibility or even take it by declaring a national emergency then they should still work with the State's in a power sharing (and knowledge sharing) explicit arrangement. As decision making becomes further from knowledge of the conditions on the ground there is much more scope for disaster. A LOT of these issues can be solved by good planning where local and regional knowledge is inserted into fire management plans as recommended above.

Finally, addressing the problem in a new way including the suggestions above will lessen economic impacts and community suffering that fires bring.

Thank you for your attention to my submission. I would be interested in appearing at a Hearing to expand on the points in my submission.

Sincerely

*Lyn Orrego*

Lyn Orrego

April 28 2020