

Submission Number: NND.001.00861

Submission Of:

Your Details

Email address:

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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? We were packed in the car, ready to leave, twice. Thanks to the heroic efforts of the local RFS, the need to leave did not come to pass.

Where do you live? Port Macquarie-Hastings (A)

Your Submission

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

The Firies were amazing. The aircraft were amazing. We live in a gated retirement community... at one point we had been given the message to pack up and get ready to leave. We and our neighbours were gathered in a little group, discussing where we would go if we were told to evacuate. It was about 9pm, and the fires were roaring and crackling on the other side of the fence. It had been a long day for all concerned.

Then an RFS volunteer drove by in a ute. He stopped and filled us in a bit, explained how our biggest risk was from embers and the best thing we could do was to stand and watch for them. That he needed us to do that. He explained that reinforcements were due to arrive from interstate in half an hour or so. We felt so much better after this short conversation.

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

At one point, a huge number of people received an SMS to evacuate to the Laurieton Services Club. It was the day they evacuated Dunbogan. The message was sent to a very large geographical area, and to many people to whom it did not apply. We discussed with the neighbours that it was safer to remain where we were, and so we did. Most people used their common-sense. There were 1300 refugees at the club that night, they didn't need more.

After the crisis was over, we visited a local RFS to make a donation. We were horrified to discover that they have to pay for everything themselves through fundraising, or out of their own pockets. Equipment is held together with gaffer tape and wire. They are supplied with minimal PPE - they are supposed to walk into firestorms with little flimsy dust masks that look like they came from Bunnings. They were provided with proper smoke masks, oxygen kits etc by donations from local businesses. Also, two out of three of our local brigades were not on the RFS website to be able to donate to... this needs to be addressed immediately, if it hasn't already. We sent cheques to them, but I am sure they are missing out on support.

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

Well the fire seasons are going to get longer and angrier. The model of the RFS as local volunteers who run cake stalls to fund themselves obviously isn't workable any more. They need to be properly funded and outfitted. Something needs to happen with their employment.

Unless the world gets on top of climate change, we will have to get used to this. Horrendous, dystopian... So sad.

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

I have provided my submission in a PDF.

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

Supporting material provided:

Submission to Bushfire Royal Commission.pdf

Chief Marshal Mark Donald Binskin AC (Retd)
Chairman of the Royal Commission into National Natural Disaster Arrangements

Dear Sir,

I would like to make a submission to the Royal Commission into Natural Disaster Arrangements. I wish to address a number of the topics expressed in the terms of reference, and concerning:

- Land management, including hazard reduction measures
- Habitat protection and restoration

Drought is exacerbated by climate change

My personal experience tells me that we have been in a condition of more or less ongoing drought since the 1990's. It tells me it is getting hotter with every year and that autumns and springs have all but disappeared. It tells me that the fire seasons have been getting longer and more intense over the last ten years or so. And it all culminated in the horrific droughts and fire season of 2019-2020. No reasonable person could witness the droughts and fire season of this last summer, and remain unawakened.

The world's scientific community underscores my personal observations. Notwithstanding the complete consensus of scientific evidence, there is considerable reluctance in political circles to acknowledge that these catastrophic droughts we have been experiencing are related to climate change. This is not merely perverse, it is terrifying.

Droughts, floods and fire are part of the normal climate cycle of our dry continent. But climate change exacerbates the frequency and severity of droughts. "The facts are that scientists cannot say definitively that a specific drought is caused by climate change, but they can say definitively that climate change makes the effects of droughts stronger and more damaging." (Hannam, 2019)

"Climate change has contributed to a southward shift in weather systems that typically bring cool season rainfall to southern Australia. Since the 1970s late autumn and early winter rainfall has decreased by 15 percent in southeast Australia, and Western Australia's southwest region has experienced a 15 percent decline in cool season rainfall.

"Climate change is also driving an increase in the intensity and frequency of hot days and heatwaves in Australia, exacerbating drought conditions." (Climate Council of Australia Ltd, 2018)

Droughts are going to get much worse unless we take urgent action on climate change

"We felt we had a duty to tell people how climate change is super-charging our natural disaster risks. I wish we were wrong, but we're not." Greg Mullins, Climate Councillor and former Commissioner of Fire and Rescue NSW.

Catastrophic droughts are not going to go away. Unless we cut greenhouse gas emissions deeply and rapidly, things are going to get much worse, very quickly. While we need to deploy a full gamut of prevention measures, unless we address the underlying factor that is supercharging our natural disaster risks, any action we take will always be too little, too late.

"There are no reliable predictions yet as to the direction of change in rainfall in summer and autumn (CSIRO and BoM 2015). By 2030, winter and spring rainfall is projected to decrease by up to about 15 percent. Late in the century, rainfall is projected to decline by between 20-30 percent, depending on the greenhouse pollution scenario, with some important regional exceptions. Future drying trends in Australia are projected to be most pronounced over southwest Western Australia, with total reductions in autumn and winter precipitation potentially as high as 50 percent by the late 21st century (Delworth and Zeng 2014; CSIRO and BoM 2015).

"The combined effect of increasing temperatures and declining rainfall across southern Australia mean that there is high confidence that time spent in drought will increase over the course of the century in southern Australia in the future if greenhouse gas emissions are not cut deeply and rapidly (CSIRO and BoM 2015)." (Climate Council of Australia Ltd, 2018)

Dryness is not just about lower rainfall

Climate change has brought about a raise in the ambient temperature of air, ocean and soil. This badly exacerbates evaporation and transpiration (water loss through plant life).

Local lakes on the Mid North Coast went from flooded to totally empty in about 18 months. It was shocking, unbelievable. Water that would have remained in the waterways and dams in the past, rapidly evaporates into the atmosphere, whereupon the water vapour becomes a major greenhouse gas. It's a vicious cycle.

In the Murray-Darling basin, three years of no winter rain, combined with appalling water management policies, has caused a horrendous collapse of the river system. Heartbreaking fish kills, including giant cod over 100 years old, were widespread. There were small rain events, but the water was locked in the upper parts of the system and the downstream regions parched. A man-made hydrological drought.

It hasn't rained properly for years. The air, soil and water are hot. The winds are hot, gusty and strong. Everything is parched, desiccated, drier than tinder. The vegetation is just hanging onto life, and in its stress has dropped its leaves, increasing the amount of fuel on the ground. The wetlands and rainforests have dried out, the very soil is parched, everything is dead or dying. Storms come, but they are dry, no rain falls, but there is lightning. It's a match in a fireworks factory. Under these conditions, fires are inevitable. Add a hot, unpredictable, fast wind and these are catastrophic conditions. Under these conditions, studies have proven that even preventative burning has no effect.

This is where drought joins with fire. I have heard one federal MP say that he believes there is no link between the droughts and the fires. Personally, I cannot understand how he can take this evidence and arrive at that conclusion. It's that perverse, frightening ideology thing again. Fires are inevitable in the conditions described above. Climate change is exacerbating the drought and making the soil, air and water hot, so everything is drying out even more. The droughty storms have lightning but no rain... you have fuel, spark and hot air. Boom.

"Hot and dry. These are the watchwords for large fires. While every fire needs a spark to ignite and fuel to burn, the hot and dry conditions in the atmosphere determine the likelihood of a fire starting, its intensity and the speed at which it spreads. Over the past several decades, as the world has increasingly warmed, so has its potential to burn." (Ellen Gray, 2019)

Peat fires

Under the influence of drought and increased heat and evaporation, the water table drops. Wetlands and peatlands parch, heralding imminent damage to or loss of crucial ecological communities. The dried-out peat soil becomes a highly combustible mix of decomposed organic material and flammable gases. One lightning strike – or a carelessly tossed cigarette - and the wick is lit. It burns deep into the ground – the fire can travel hundreds of metres below the surface. Peat fires can burn for months and years and be almost impossible to put out. They produce a noxious, toxic, sticky smoke that hangs low around the ground and contains fine particles, sulphur compounds, water vapour and gases including carbon monoxide, carbon dioxide and nitrogen oxides.

We had a peat fire at [REDACTED] in Port Macquarie which started on 18 July 2019, and which burned until March 2020, notwithstanding enormous efforts on the part of Council to rewet it with recycled water. Following the bushfires of November 2019 we had a peat fire right at the back of our home in [REDACTED]. It was foul, you couldn't leave the house. It was only the 20 inches of rain in February-March that put them out. If we hadn't had the rain, they would still be burning now. A terrifying thought.

But peat fires aren't just horrible things to live near. They are very bad news for the climate and the environment. The vast amounts of carbon dioxide they sequester is released straight into the atmosphere, lost forever. The greenhouse gases they produce are excessively damaging.

"Smouldering peat fires, the largest fires on Earth in terms of fuel consumption, are reported in six continents and are responsible for regional haze episodes. Haze is the large-scale accumulation of smoke at low altitudes in the atmosphere. It decreases air quality, disrupts transportation and causes health emergencies." (International Journal of Wildland Fire, 2017)

"Peatlands are a type of wetlands which are among the most valuable ecosystems on Earth: they are critical for preserving global biodiversity, provide safe drinking water, minimise flood risk and help address climate change.

Peatlands are the largest natural terrestrial carbon store; the area covered by near natural peatland worldwide (>3 million km²) sequesters 0.37 gigatonnes of carbon dioxide (CO₂) a year – storing more carbon than all other vegetation types in the world combined.

“Damaged peatlands are a major source of greenhouse gas emissions, annually releasing almost 6% of global anthropogenic CO₂ emissions. Peatland restoration can therefore bring significant emissions reductions. Countries are encouraged to include peatland restoration in their commitments to global international agreements, including the Paris Agreement on climate change. (The International Union for Conservation of Nature (IUCN), 2017)

The importance of carbon sinks

Plants and healthy ecosystems have an unparalleled capacity to absorb carbon through photosynthesis and store it in living biomass. The main natural carbon sinks are plants, oceans and soil. Forests, peatlands, grasslands, seagrass meadows... they are all crucial to the health of the atmosphere. Land-based sinks return roughly 26% of atmospheric carbon dioxide to earth - literally. But the majority of heat-trapping emissions remain in the atmosphere. It is crucial to uplift and support our land sinks in the effort to remove as much carbon dioxide as possible from the atmosphere.

"How can we help sequester more carbon in biomass and soil? What can we do to support and enhance natural processes, including the capacity of land to renew?"

"These questions matter not only for emissions but for a diversity of human needs—and for maintaining a healthy diversity of flora and fauna. Because soil with more carbon content can also be more productive and resilient, these questions are critical for building a thriving food system, too.

"Climate solutions that enhance land-based sinks cluster around waste and diets, ecosystem protection and restoration, improved agriculture practices, and prudent use of degraded land." (Drawdown Review, 2020)

“There is significant overlap in the solutions that stop land-based sources of greenhouse emissions and those that support land-based carbon sinks. Their unique power is doing both at the same time. All of them are critical to coming back into balance with the planet’s living systems.” (Drawdown Review, 2020)

It is vital to save both temperate and tropical forests, and assist them in restoration to their natural biodiversity and health. Almost all forests have been altered – timbered, fragmented, degraded, depleted in biodiversity, converted to agriculture, disrupted by development. We need to restore them to assist them to sequester carbon in biomass and soil.

Logging is driving us deeper into the nightmare

Considering the above, and for many other reasons, we need to put an end to logging in native forests. Wood needed for the economy must come from managed plantations. On a daily basis, right now, today, the logging industry is doing horrific damage to forests, habitat and atmosphere. Following the bushfires, the loggers went in harder on surviving remnants of native forest. It is rapacious, unconscionable, and it should not be happening. This is the exact opposite of what should be happening if we intend to combat climate change and prevent the continual worsening of droughts and fires.

The argument that like for like trees would be planted does not stand up under closer examination... Even if every plant were replaced, it would take 20 to 100 years for a tree to grow to the size to replace the one that was felled... and we do not have that amount of time. And it is unlikely to be possible to ever restore full biodiversity to forests. The soil has been disturbed, the layers of forest destroyed, the inhabitant wildlife has been killed or fled. By the time it regrows, the wildlife has moved away, died or gone extinct. It is a vicious cycle.

50% of felled timber is immediately separated as waste or pulp logs. Of the remaining 50% which are deemed fit to be sawlogs, only about 4% is turned into sawn timber. The rest is wasted. So 98% of felled trees will end up as “waste”. Source: NPANSW: npansw.org/wp-content/uploads/2016/10/where-does-the-wood-go.pdf This is patently incompatible with the necessary action on climate change or biodiversity. Wood required for our economy must come from managed plantations.

To restore our planet’s health, we need to nurture our native forests and allow them to return to their mature state, not cut them down. This is called Pro-forestation, and it has to happen now. We need to preserve and restore biodiversity and habitat, not destroy it. It is not an idle wish or a greenie dream... it has to happen if we

wish to inhabit a planet with viable natural systems. It has to happen if we want a future that is not dominated by infinitely worsening cycles of drought and fire.

The logging industry runs at a loss of some \$11 million a year. Why are we subsidising such an environmentally insane practice? Surely logging as a concept should be reconsidered and reframed in the wake of the catastrophic bushfires of 2019-2020. There are only about 600 people directly employed in the logging industry. To ensure continuity of employment, they could easily be re-trained as forestry restoration workers. I am sure that \$11 million per year would go a long way to achieving this turnaround. A win-win – for the climate, for the environment, and for the workers.

Habitat loss

There has been much degradation of habitat and loss of biodiversity on the NSW Mid North Coast – even before the catastrophic fire season of 2019-2020. Following is a list of the threatened species found in the NSW North Coast IBRA.

<https://www.environment.nsw.gov.au/threatenedspeciesapp/cmaSearchResults.aspx?CmaName=NSW%20North%20Coast&SubCmaId=0>

Preserving a healthy species means having sufficient genetic diversity within that species, that the population can continue to breed and remain strong and healthy. When genetic diversity is reduced, a species will become weak and die. Flora species, which also require healthy genetic diversity, are also becoming fragmented, weakened.

Species need room to forage, breed, migrate, carry on their natural lives free from interference.

Habitat is being lost to land clearing, development, logging, urban encroachment, drought, fire, flood... habitats which were already weakened by fragmentation and drought, were incinerated in the 2019-2020 fire season. 5.5 million hectares of NSW were burned, and billions of creatures perished in conditions of unimaginable pain and horror. It's horrific, unprecedented. It looks like we have lost upward of 70% of the koala population on the North Coast.

<https://www.abc.net.au/news/2020-03-07/koalas-losses-post-bushfires-bigger-than-modelled/12033834>

A panoply of euphemisms and spin

There are a whole range of hideous euphemisms by which the logging industry disguises its intent to take whatever it wants, whenever it wants, from wherever it wants. Examples include MFLR (Mechanical fuel load reduction) which is simply logging under the guise of fire protection. They say that “thinning” helps forests by allowing the vegetation and soil to dry out. This makes it more flammable, and easier to burn. Of course, if it is dry, it will need to be burned – at the will of the loggers. It will also open the door to this destructive, biodiversity-reducing practice in all forested lands, including national parks, crown lands and private land. This manipulative, specious logic must surely be investigated by the Royal Commission.

Another bad idea that harms the environment is the practice of logging burnt ecosystems. Dead trees provide essential nesting places for all manner of birds and animals. Left behind is a delicate biological legacy of dead and living trees, seeds, eggs, leaf litter and organic debris which can enable species to stay alive and recolonise, and promote the restoration of previously degraded ecosystems. Leaving it in situ enables the preservation of nutrient cycling processes and successional habitats. Trees that appear dead can revive from buds lying dormant under the bark. When disturbed, pathogens and invasive species are easily introduced, and root systems and living vegetation destroyed. It is much better to leave a fire-ravaged landscape alone to allow its fragile biological systems to restore themselves. Heavy logging machinery disturbs the soil, destroys what remains and reduces biodiversity.

There is concern that the logging lobbies will use the catastrophic bushfires as an opportunity to advance their own rapacious, heartless agenda. I am appalled that this could happen in 2020, but evidence suggests that it is not just likely, but fairly predictable. These groups do not have the welfare of Australian forests and biodiversity at heart. They do not even seem to understand what it means. They are adept at greenwashing their plans and applying marketing to make the public think they are responsible... caring even. But no number of cute fibreglass koalas will bring back the rare koala habitat that they are destroying on a daily basis. I ask the Commission to beware their solicitous language and protestations of environmental goodwill and to examine, *really* examine the implications of any proposals made, or involving the timber lobbies. Ask yourself... does this proposal address climate change and allow biodiversity to recover? In almost every case, you will find that climate change and biodiversity will be better served by LEAVING IT ALONE!!!

Traditional land management techniques

During the bushfires, I noticed that a number of simplistic solutions circulated regularly both on social media and in the press. One example is the “All we need to do is follow the indigenous burn-off practices and everything will be fine” argument. I appreciate that the traditional owners of this land had 60,000 years to perfect their techniques. However these practices were developed over millennia when the landscape was very different. It was much better forested, and cooler. I imagine that they knew the land so well that they knew exact areas and times of year which needed to be burned. Certain spots that were prone to storms, lightning, parching etc.

Indigenous knowledge of land is incredibly valuable and will be an important part of the solution. But we should understand that traditional land care techniques alone cannot address the unprecedented nature of the climate event we are entering. We will need to deploy a broad range of fire prevention techniques, which will include indigenous land management and fuel reduction.

The only thing that will prevent a continually escalating spiral of disasters is to address the underlying problem that is supercharging our natural disaster risks. We need to reduce the carbon dioxide in the atmosphere.

[REDACTED]

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