

Submission Number: NND.001.00963

Submission Of: Trevor Woolley

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? Muswellbrook (A)

Your Submission

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

The response of the emergency services including National Parks and Wildlife were well practiced and well executed.

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

In our area, resources were drastically short. This was because resources were sent to the northern fires which left the Hunter Valley short of resources. Fires that could have been extinguished when they were small became enormous.

Community response was often poor with social media emotions running high. The official information published by the RFS was general and not specific enough to locations to enable people in isolated communities to understand the exact nature of the fires around them. There is no official network for providing location specific information. I used the landcare email distribution to distribute factual, non emotional location specific information for our local area. This worked well.

For more detail on how and why the fires raged, please refer to my attached submission.

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

Community attitudes to the built environment need to be adjusted. A built environment can be rebuilt. The natural environment can't be rebuilt. Our values are wrong.

The press always talks about the destruction of the bush. The bush is not destroyed, it is renewed. The challenge is to understand and manage the renewal process so that a healthy biodiverse environment is created.

Please refer to my submission.

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

Thank you for the opportunity to comment. I hope that you are able to find solutions to the complex problems of managing our environment in the highly modified environment that we have created in the last 250 years.

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

Supporting material provided:

Submission to Royal Commission into Natural Disaster Arrangements.pdf

Submission to Royal Commission into Natural Disaster Arrangements

From
Trevor Woolley

██████████
██████████

Dear Sir

Thank you for the opportunity and privilege of providing a submission. I value the opportunity highly.

I would like to address the problem of why the fires were so widespread and so intense. The problem and the answers are complex. A lot of highly emotional material has been written on the issue and a lot of simple answers (eg more hazard reduction burning) have been suggested.

I would like to briefly itemise the complexity of the problem of why the fires were so intense. I do this as a fire fighter, bushwalker and landholder. I shall make brief statements of facts for you to consider. I can provide evidence for these facts if you wish.

The main conclusion is that human behaviour and expectations must change. Since white settlement, we have changed our bushland and our climate to the point where we can no longer control fire in our landscape during increasing periods of very hot dry weather. We must not only use cool burns to control vegetation, but also allow hot burns to occur. We must adjust our lives and expectations to make it safer. In particular, we need to rethink the value of built property as opposed to environmental values. Built property can be rebuilt. The environment cannot.

Why were the fires so widespread and so intense?

1. **There has been a long and hard drought.** The drought has resulted in several key factors:
 - i) Very low soil moisture. Soil moisture is critical for keeping and holding moisture in leaf litter and providing humidity to the fire. This is particularly important in halting the progress of the fire at night. Gullies and creek lines that should have been moist and stopped the progress of a fire were dry and burnt, even at night. Even rainforests were dry and burnt.
 - ii) Very dry vegetation.
 - iii) A large proportion of the herb and shrub layer died. This not only provided more fuel, but also uncovered soil resulting in less moisture being retained, more heat being stored and better air flow into the fire.
 - iv) Large trees shed many of their leaves and bark. This resulted in an increase in fuel load above normal.
 - v) Large trees died. This added more leaf litter and more large fuel.
 - vi) The weather was hot and dry with low humidity.

2. **Our firefighting techniques have changed.**

We have become good at putting out lightning strikes in remote areas. Teams of people (Remote Area Fire Teams, Rapid Aerial Response Teams) are trained and retained for this purpose. We have reduced the number of hot fires that run in our bush.

Before the Canberra bush fires, hot fires in remote areas were allowed to burn during summer. This allowed hot fires to run their natural course and they were controlled by allowing them to run into moist gullies and at the perimeter of cleared land. This did result in some disasters, but it meant that the bush did have hot wildfires. Despite claims to the contrary, mainly centred on aboriginal and cultural burning, for millennia, the Australian bush has had hot fires. The evidence is clear in our vegetation. It is fire resistant.

We need to allow hot fires to run in summer during milder, non-drought, weather conditions. Hot fires are far better at limiting future fire behaviour than cool fires.

3. Our bush areas have changed, not just the fire regime.

Fundamental changes have occurred to our environment from the following:

i) Loss of small mammals. Small mammals such as Bandicoots, Bettongs etc have been reduced or eliminated in our bush. These small mammals used to play an important part in keeping the forest floors clear and composted. They ate regrowth seedlings produced after a fire. They turned over the soil so that leaf litter was buried and rotted away. These processes have now been eliminated, so that we have far more leaf litter and regrowth than many years ago. It is a process that can't be easily restored and can't be replaced by cool burning.

ii) Feral Animals. The above changes have been largely caused by the introduction of feral animals and are virtually impossible to reverse on a large scale. The effects have been accelerated in the last 70 years.

iii) Hard hooved large grazing animals. The introduction of large grazing animals have changed and hardened our soils. Run off from small rainfall events has been increased and soil moisture retention has been reduced.

iv) Climate Change. Our climate is changing. Our environment is changing. Fire behaviour will change.

v) Difference between cool and hot burns. The vegetation is adapted to fire. Our vegetation can be grouped – those that re-sprout after a fire and those that germinate seed and grow after a fire. The vegetation that re-sprouts after a fire will grow after a cool fire in winter. The vegetation that germinates is adapted to grow and reproduce after a fire lit by summer thunderstorms and then followed by rain from a thunderstorm. This is common summer weather.

Continued use of cool burns and eliminating hot burns has and will change the balance of our vegetation and increase the proportion of re-sprouting vegetation to the detriment of the vegetation that germinates after fire.

"The biggest estate on earth: how Aborigines made Australia" by Bill Gammage, (2011), makes claims about the extent of aboriginal control over the landscape that have been widely criticised. The Australian bush was clearer 200 years ago than it is now. This is not just due to low intensity burning. It was due to the factors mentioned above and included large hot fires which have always been a feature of the Australian landscape.

4. Conclusions

The fires during the summer of 19/20 were caused by climatic conditions and the condition of the environment. These conditions have largely been created since white settlement.

The simple solutions offered by many people such as increased grazing in natural areas and more cool burning do not address the complexity of the situation. The solutions that you recommend need to be multifaceted and complex. We need to accept hot fires in our landscape. We need to understand the changes that have and are happening to our

environment. We need to manage what we can with complex solutions to a complex problem.

Most importantly, we as a population must change our behaviour and expectations. We have to adapt to live in what we have created. Our built environment can be rebuilt. Our environment cannot be rebuilt.

We do not live in a safe secure environment and we must understand that. Each and every one must be individually prepared for fire, flood and tempest. They do and will continue to happen.

Thank you

Trevor Woolley