SUBMISSION TO THE NSW BUSH FIRE INQUIRY: 28 APRIL 2020

Marius Heymann (Professional Forester)

Table of Contents

Introduction	3
Causes and Contributing Factors	
Drought	
Land Management in NSW	
Climate Change Not to Blame	
NSW Bush-Fire Disaster 2019/2020 Observation	4
Preparation, Planning and Response to Bushfires	5
Suggested Further Readings	6
Conclusion	7
Appendices	8

Introduction

I have been in the forest industry for more than 40 years and not only in Australia but also in Africa. I have been fighting forest fires for a long time and never seen anything as bad as the 2019 NSW Bush Fires. I am also the local Fire Captain of the Markwell Bush Fire Brigade. After many years as a professional forester there are a few reasons for their severity and intensity of these forest fires. There are many other issues, but I would like to focus on two major components for the perfect fire storm. Some of the submissions I read are very scientific with a lot of data which is good and no need to replicate. I would like to focus on the practical side and overall observations made.

Causes and Contributing Factors

Drought

The last couple of years was a very dry period in NSW, but not the driest in history. The summer was extremely hot and dry with no rain for a long period prior to the event. This obviously creates the perfect conditions for extreme fire behaviour.

Land Management in NSW

Major landowners in NSW are mainly NSW National Parks (NP), NSW Forest Corporation (State Forest) and Local Council areas as they manage nearly half of the total forested area in NSW. Over the past 20 years more and more areas have been gazetted as national parks and areas of conservation significance. The rest are mainly private owned land. The private land sits like a mosaic between the state-controlled land. This system is overly complex to manage; for example:

- Permission to get any hazard reduction burns approved and done is a lengthy and complicated process.
- NP do not want landowners to do hazard reduction burns unless it suits them
- The private property owners are afraid to burn on the NP and State Forest boundaries in case something goes wrong resulting in them being blamed and at risk of legal action.
- The requirements and responsibilities imposed by RFS and the limitation on burn cycles in some
 areas gives further reason for a property owner to decide it is all too hard and the risk too great,
 so they just don't do the level of burning required. This has led to a huge build up in fuel levels
 within forests of all tenures.
- To obtain a burn approved by the NSW Rural Fire Service is also a lengthy and overly complex system.
- A further complexity is when the Environmental Protection Agency (EPA) polices Forest Corporation's operations. When they are found to be at fault, they are at risk of being fined. For example, if a hazard reduction burn performed by State Forest gets out of control and results in damaging a riparian zone, EPA will fine State Forest. Due to these circumstances, State Forest is scaling down on hazard-reduction burns.
- Under these rules and complexities no one is game to do anything and the fuel load on the forest floor then builds up to a point where it becomes a massive fire hazard. This is what happened during the summer of 2019; massive fuel loads across the landscape with very few hazard

reduction burns done prior to the event. Only a ridiculously small percentage of the land between all agencies received hazard reduction burns. Again, these percentages are mentioned in many of the submissions done by other submissions and described in more detail; for example, Institute of Foresters Australia and Timber NSW.

- I have also heard from many sources that where a NP boundary meets a small town, the local residences are not allowed to remove any firewood from the NP land, no firebreaks are maintained by NP, fire trails are overgrown and residences cannot even take their dog for a walk in the NP. All these factors result in the build-up of fuel on the forest floor causing towns to be at high risk of fire danger.
- The city bureaucrats make the decisions for the people in the country, such as Green preference deals done to the detriment of the forests.
- The bushfires in Northern NSW in late 2019 were on the back of 2 years of hotter and dryer conditions leading to a situation where the Forest Fire Danger Index was at the extreme end. On top of this, over the last 20 years we have seen a drop off in the level of landscape hazard reduction burning. NSW Forestry Corp (managing state forests) were prosecuted for allowing hazard reduction burns to cross outer exclusion zones. They also responded to pressure to produce profits by reducing their staffing levels and hence their annual cool burning programme was reduced.

Climate Change Not to Blame

The blame is then shifted to Climate Change. This is an easy way out, and not the truth. We are simply going through periods of dry and wet cycles. This event took place over a prolonged dry cycle and it will happen again. With all the above-mentioned factors combined with a dry-season, Australia will yet again be at high risk of fire danger and it has nothing to do with climate change but everything to do with land management. This is why these factors must be addressed so that future fire hazards can be reduced significantly through basic land management.

NSW Bush-Fire Disaster 2019/2020 Observation

The fires I attended during the summer of 2019/2020 confirms what I am advocating. I attended many fires in NP, State Forests and private properties during this time. In the NP's most of the fire trails were inaccessible, overgrown and had locked gates to prevent access.

Please see Appendices section for photos of various scenarios experiences.

Some of these trails were so badly eroded and impossible to drive on with an off-road vehicle. I was the first responder on the fire at Upper Myall on Hogan's trail, Gi-Doo-Ee National Park. In one section on the trail, I had to physically crawl on my hands and knees as it was so badly eroded (six to eight feet of washout) to assess the severity of the fire and direct dozer operations along the fire trail. We managed to contain this fire in one week, but it was a big effort by all and without air support we would have lost this fire. What amazes me during this fire (Hogan's trail) is that there was no night shift and had we done a night shift we could have contained this fire in half the time as during the night it was ideal to do backburning operations. We did all the backburning during the day when it was hot and windy under extreme conditions. We were told to stand down in the evening and carry on with fighting the fire the next day. My experience as a forester taught me to fight fire at night when

it is cooler and less windy, the best time to be out there. Most of the fires I attended had limited night crews and too many crews during the day shift.

I can give plenty of examples of our deployment over this period, some positive but some extremely negative. We were called out to a fire north west of Gloucester and spend the whole day sitting under a tree as the fire was up in the hills and inaccessible waiting for it to come down to the edge of the forest. Someone needs to monitor these situations I agree, but to task a whole task force and make them sit for the day is wasted time and resources. One Cat 9 would have been enough to do the job while we could have been deployed elsewhere.

NP fire trails are in a bad state. We had to get bulldozers to clear the tracks before we could get vehicles on to them. To clear the tracks took days and by then the fires were out of control. Most of these fires in NP started in inaccessible areas and were only monitored until they could be reached by firefighters in more accessible areas, but by then, they were so large that containment became impossible. Most of these areas have not been burnt in more than 20 years and is one of the major contributing factors to the NSW bush fire disaster of 2019/2020; as well as:

- Overgrown roads/fire trails;
- Locked gates causing inaccessibility;
- Badly eroded and unmaintained roads/fire trails; and
- Extreme drought and weather conditions.

I can carry on with different scenarios and problems, but it will not solve anything. I can blame everybody and not achieve anything. The agencies I worked with (NP, Forest Corporation, RFS, private contractors managing heavy plant, the media and many others) on fires were all trying their best and did a great job to stop the fires, but it was extremely difficult. We are not here to blame or shift the problem but to find a solution. Climate change is an easy way out, we need to do be better than that.

Preparation, Planning and Response to Bushfires

Please see the following suggestions:

- Tenure neutral land management practices.
- Why have a NP and a State Forest? This should be one agency with multiple tasks to manage the land together for a better outcome to all the people of NSW. This will result in conservation and timber harvesting bringing financial benefit to all and producing a positive socioeconomic outcome provides opportunities for small country towns like firewood businesses, opening of fire trails, employment opportunities, recreation, hunting, fishing, camping, hiking and many more. Timber production, conservation, and forest protection that includes hazard reduction burning.
- Just think of the money we can save to have one agency instead of two. The money can be used
 to employ more people to manage these forests, especially in our low socioeconomic areas (small
 country towns). The tenure neutral approach to land management in NSW has so many
 advantages, just to mention a few.
- Forest protection will be the avenue to liaise with private property owners and employ people to do the forest protection. Roading, fire trails, hazard reduction burns.

- The State forest estate is only about two million hectares while the National park estate is in excess of seven million hectares. State Forest are over felled as they cannot sustain the supply of timber into the future. To then say there is not enough timber and shut the native forest timber industry will be another blow to the socioeconomic outcome for the country and add more pressure on forest protection. A far better outcome will be sustainable forest management over the total landscape: same amount of timber harvesting but over a larger area as it will properly equate to less than 1% per annuum. This will have such a good outcome for the maturity of timber and selective logging practices. We can then concentrate on areas that need urgent thinning and hazard reduction burns like around small towns and villages.
- Marketing opportunities for firewood production to reduce the fuel loads around towns and villages. Because it is one tenure there can be better planning and less politics. More opportunities for employment to concentrate on the Forest protection side of the business and this is where we will have the best outcome. Hazard reduction burns, road and fire trail management, the establishment of waterpoints placed strategically across the landscape. My view is RFS maintain what they do but some of their funding go to Forest protection instead of more equipment. The more we manage and protect the forest the less fires we will have and less severe.
- Why do we lock up the land? This benefits nobody and it produces bad land management so that when fires come, it destroys everything, including: wildlife, old growth forest, areas of significance, properties and rural towns.
- This is not a once off event, it has been ongoing for years. We carry on about our koalas and lock
 up the forests for them under the banner "conservation" and then we do not manage the land
 accordingly, so that when a fire starts, it destroys them and all their habitation and then we blame
 climate change. This is wrong.
- We keep on funding the RFS for more planes, more equipment, more helicopters and we spend
 millions to fund all this annually, when all we need to do is manage our land better and stop this
 nonsense of lock up and leave.
- If we adopted well managed forest practices across the landscape and applied sustainable harvesting practices and spent our money on fire trails, hazard reduction burns, tenure neutral approach to land management and even increased our work force on the state owned land we would still have a better outcome and less money will be spent over time to manage the land instead of spending the money on more equipment and do the same thing over and over. NSW government should employ people in remote areas and small country towns to do the work of Rangers in these forests and do more hazard reduction burns during the year and even during the fire season. There are times when burns must be conducted during the fire season due to it being too-wet during the non-fire season (moist forest types for instance).
- It is time that we seriously look at how to manage the land. The Aboriginal people use to manage the land for many generations before Captain Cook landed in Australia. The land was more open then than now and Firestick Ecology was widely used.

Suggested Further Readings

- The Biggest Estate on Earth: How Aborigines made Australia Bill Gammage; and
- Firestick Ecology: Fairdinkum Science in Plain English Vic Jurskis.

Effective land management produces:

- Sustainability;
- Is a renewable resource;
- Forest products store carbon;
- Young regrowth forests stores carbon and feed our koalas and other wildlife; and
- Socioeconomic outcome

The five million ha burn forest gives nothing but:

- Heartache;
- Lost life;
- Lost homes, destroyed properties;
- Devastated forest, ecology and wildlife destroyed; and
- Millions of dollars in damages to property and millions of dollars spent to combat these fires.

It will take an awfully long time for the forest and wildlife to recover. The human aspect is just as severe as many people will never be the same after what they have lost and experienced.

Conclusion

Fires will always be with us, but it is how we manage them and the estate. What we have today are silos of power. Who are the biggest and best NP, RFS and FC? My view is they can be one.

The one thing we know is that without sound land management the fires will come back. We need hazard reduction burns and to achieve it as we are structured today will be difficult. There are too many silos and conflicting interests between agencies.

Appendices

Appendix 1: Inaccessible trail in a NP before clearing.



Appendix 2: Inaccessible trail in a NP after clearing. This trail was totally overgrown and after it was cleared by dozer it was where we could backburn from and stop the fire. We need to spend money on our estates and maintain roads and fire trails.



Appendix 3: Fire trail on private property after clearing. A backburn was done on the right-hand side of the trail and the fire was contained. Without these types of trails not possible to stop fires. One need fire trails to be opened in the forest and hazard reduction burns done regularly to prevent fuel loads to build up.



Appendix 4: Locked gates in a NP. Behind the signboard is a gate unlocked at this stage, but was locked during the fire event until NP unlocked it. The fire trail to the left of the sign was not suitable for any fire fighting vehicle and had to be cleared by dozer.



Appendix 5: Excessive undergrowth along fire trail in a NP.

