

**Submission
No 8**

ASSETS, PREMISES AND FUNDING OF THE NSW RURAL FIRE SERVICE

Name: Mr John O'Donnell
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Submission Public Accounts Committee inquiry of NSW Rural Fire Service assets and premises

John O'Donnell

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Submission Public Accounts Committee inquiry of NSW Rural Fire Service assets and premises by John O'Donnell 22 April 2024

1 Introduction

The inquiry is looking at the funding, maintenance, accounting and operational management of NSW Rural Fire Service assets and premises. The inquiry will consider arrangements between the NSW Rural Fire Service and Councils. It will also consider the appropriate role of local authorities in providing emergency services and the sustainability of contributions to emergency service provision.

That the Public Accounts Committee inquire into and report on:

1. The mechanisms for:

a. funding Rural Fire Service assets and premises;

b. Maintaining Rural Fire Service assets and premises;

c. Accounting for the ownership of Rural Fire Service assets and premises;

d. Operational management, including the control of assets and premises, risks, and impacts to local government, and the ability to effect a response to emergencies;

2. Whether the following arrangements between Councils and the Rural Fire Service are fit for purpose:

a. Service agreements;

b. The division of responsibilities for bushfire management and hazard reduction;

c. Upkeep of assets;

d. The provision of insurance;

e. Provision of land and construction management for RFS premises;

f. Bushfire Management Committees

3. The appropriate role for local authorities in the provision of emergency services;

4. the sustainability of local government contributions to emergency service provision;

5. Any other related matters.

Under the Inquiry submission tab, the site notes:

The inquiry is looking at the funding, maintenance, accounting and operational management of NSW Rural Fire Service assets and premises. The inquiry will consider arrangements between the NSW Rural Fire Service and Councils. It will also consider the appropriate role of local authorities in providing emergency services and the sustainability of contributions to emergency service provision.

This submission is targeted at the overall bushfire management aspects of the inquiry, including TOR 1 d), 2 b), 2 f), 3) and 5. I note Councils will likely target the asset side of this issue. This is critical as currently bushfire management is at sub optimal levels and it is essential that all parties work together to address these issues.

The author has major concerns that most reviews and inquiries in NSW appear to target individual and small aspects of bushfire management, and very little in relation to fire mitigation, resulting in ongoing failures and megafires.

2 TOR 1. Mechanisms for a) to d)

Comments in relation to *d. Operational management, including the control of assets and premises, risks, and impacts to local government, and the ability to effect a response to emergencies.*

Failures in bushfire suppression

Three articles/ actions sum up the antipathy of many experienced foresters and land managers in regards to 2019/ 20 bushfire management and follow up inquiries:

- Roger Underwood, The Utter Failure of Yet Another Bushfire Panel, in Quadrant on 19 November, 2020.
- After the Bushfire Royal Commission, experienced land and fire managers from eight community groups across Australia jointly wrote to the Prime Minister in late 2020 urging the restoration of healthy and safe rural landscapes. The media release noted "The grass-roots organisations represent more than 6,000 members and 14 regional councils. The Royal Commission has accepted wrong advice from academics and modellers rather than information from experienced practitioners. Consequently its conclusions on Effectiveness of Fuel

Management are substantially incorrect". It appears no action was taken by government in relation to the letter to the PM or media release.

- IFA Media Release of Friday 30 October 2020 titled Underwhelming Bushfire Royal Commission report lacks vision needed to address Australia's bushfire woes. The Bushfire Royal Commission's final report is totally underwhelming and fails to address the current imbalance between fire prevention and fire response says the Institute of Foresters (IFA/AFG), the professional association representing some 1,000 forest scientists, researchers and professional forest managers in Australia.

In my opinion, very little has changed since 2019/ 20.

Large costs of bushfire suppression

NSW fire management are huge and increasing. In the 2019/20 RFS annual report, actual total expenses in 2020 was \$869,534,000; grants and contributions in 2020 was \$929,705,000 and aircraft hire in 2020 under Grants and Subsidies was \$255,510,000.

In addition, individual and bushfire insurance costs have sky rocketed and continue to do so, I believe mainly due to the increasing extent of disasters and minimal areas of prescribed burning, mechanical thinning and grazing and also poor risk management in relation to community protection.

Failures in undertaking adequate prescribed burning resulting in mega fires, long bushfire runs and suppression difficulties in suppression

In relation to the reduction of bushfire risks, effective prescribed burning programs are essential across forested landscapes.

Boer et al (2009) note the importance of regular burning less than 6 years to adequately manage fuel loads:

Prescribed burning has pronouncedly changed the spatial distribution of fuel age in the study area and has significantly reduced the incidence and extent of unplanned fires. This effect on both the incidence and extent of unplanned fires was minimal for time lags greater than 6 years between fuel treatment and response. When averaged over 6-year periods, the annual extent of prescribed burning explained 24% and 71% of the variation in the mean annual number and extent of unplanned fires, respectively. The incidence of large unplanned fires was significantly less than the long-term average for the region when the annual extent of prescribed fire was at a maximum and significantly more when the annual extent of prescribed fire was at a minimum. Since the 1960s, the length of time sites remain unburned by wildfire has approximately doubled to 9 years. We found that each unit area reduction in unplanned fire required about four units of prescription fire. These findings concur with the observations of experienced field practitioners who identify the 6-year mark as effective at reducing wildfire hazard. Our findings provide strong empirical evidence of the effectiveness of prescribed burning for mitigating wildfire hazard in SW Australian forests.

As summarised well by Jurskis (2011):

There has been a resurgence in eucalypt decline, extensive wildfires and loss of species over recent decades with expansion of unmanaged conservation reserves and reduced prescribed burning

Other important words by Jurskis (2021) sum this issue up:

We need a coalition of traditional knowledge; black, white and brindle, with fairdinkum science to restore sustainable management across the landscape. It would save heaps of money and reduce the massive emissions from megafires which aren't brought to account because it doesn't suit our Lock It Up and Let It Burn 'conservation' paradigm.

As noted by Kohler and Evans (2021) in the USA:

As suppression resources continually struggle to cope with the increased frequency and severity of wildfire, wildfire prevention awareness has been recognized as an important component of any successful strategy to reduce human and ecological loss (...). Investments in fire prevention awareness have demonstrated effectiveness at reducing preventable human-caused ignitions (...). The United States Forest Service (USFS) asserts that for every one dollar increase in preparedness funding there is a decrease of \$1.70 in suppression costs (...). 15.15

The author considers that there are many failures of approach in relation to managing prescribed burning in South Eastern Australia, including:

1. Expenditure directed to bushfire response and recovery rather than towards prevention, prescribed burning, thinning, mechanical treatment and prescribed burning.
2. Community and fire fighter safety is poorly considered in relation to the scale and locations of prescribed burning, and long bushfire runs are poorly considered in reducing bushfire risks;
3. Inadequate safety of fire-fighters, especially in relation to avoiding high fuel loads and reduce the enormous responsibility on the shoulders of incident controllers when deciding where to place their staff. Question if staff

and volunteers should be sent into highly hazardous conditions, especially where the governments, landowners and residents have not taken appropriate mitigating action beforehand.

4. Inadequate action in relation to fire safe establish a track/ trail networks to access areas for prescribed burning and bushfire fighting. Tracks/trails are to be permanent and suitable for the movement of heavy vehicles and personnel safely and quickly.
5. Inadequate consideration of firefighter anchoring points in safe zones to put out spot fires and containment.
6. It is a major concern that 90 % of parks and reserves in LMZs (Land Management Zone) receive low priority for prescribed burning, the priority is given being for APZs (Asset Protection zones) and SFAZs (Strategic Fire Advantage Zones);
7. Inadequate action to soundly address high and rising insurance costs via adequate mitigation opportunities as highlighted in this review.
8. Inadequate understanding of aircraft effectiveness and limitations in regards to cost, weather, smoke and standby arrangements. Ensure procedures are evaluated in relation to the use of fixed wing water bombers, including trigger points for activation on high-risk days.
9. There is inadequate fire mitigation in forests, often around 1 % of forested areas or less, and due to this, disastrous intense bushfires are occurring all over large areas of SE Australia forested areas. On top of this, there has been a focus on suppression at the expense of mitigation;
10. There is inadequate use of opportunities to increase low intensity burning and mechanical treatment operations across private lands, noting a level of 4,270 hectares treated across NSW in 2022/23. Using a forest area of 6,937,308 hectares on private lands, this represents 0.06 % of forest area treated per year. Another major issue is the removal of grazing from many state forest areas. There are major apparent opportunities for cooperative fuel reduction and maintenance programs between private landholders and government;
11. There is a lot of bureaucracy in requesting, prioritising and implementing prescribed burning works;
12. There are a lot of barriers in relation to prescribed burning and sound fire management;
13. There is little strategic mosaic burning across landscapes to break country up, so fuel areas aren't being broken up;
14. In relation to firefighting, this is extremely difficult where prescribed burning in NSW conservation areas, and generally across NSW, is at very low levels, and this puts fire fighter and community safety at risk. Access and regular prescribed burning of fire access locations is critical;
15. Prescribed burning along evacuation routes is inadequate; and
16. Inadequate use of opportunities to expand the use of small aircraft, helicopters and drones for low intensity burning operations, using placed grid patterns for fires to join up in the cool of the evening and unburnt patches. There are potential opportunities for a number of prescribed burning drones with individual brigades/ mitigation officers and fire regions.
17. Failure to avoid large contiguous tracts of heavy, dry forest fuel which results in severe fire behaviour, often preventing the early suppression of this fire and before it reached settlements. This emphasises the importance of adequate levels of landscape fuel hazard reduction as well as the need to manage fuels around settlements and critical infrastructure. Failure to treat and break up contiguous tracts of heavy forest fuel which results in severe fire behaviour, fire brands and difficulty in the early suppression of bushfires, at and outside communities. The importance of adequate levels of landscape fuel hazard reduction as well as the need to manage fuels around settlements and critical infrastructure. Unless landscape fuel loads are treated, major community bushfires will continue to occur.
18. Inaction in relation to regularly quantifying the extent of risk of fuel build-up around communities in order to develop risk-based mitigation programs.
19. Inadequate action in relation to reduced fuel loads along ridge lines down to mid slopes from high-very high to low- moderate.
20. Focus in most cases solely on managing fuels at the urban interface as disaster awaits.
21. Inaction in relation to reduced heavy fuels in road reserves (verges), along irrigation drains, tree lines and other linear features act as 'fuses' or 'fire wicks' frustrating suppression operations and taking fire into communities.
22. Inadequate understanding and action in relation to the fact prescribed burning can contribute significantly to early containment of multiple fires, provide safe anchor points for fire containment, and increase the effectiveness of suppression operations. Prescribed burning improves the overall effectiveness of fire management at the landscape and regional scales particularly by enabling prioritisation of suppression action during multiple ignition events (e.g. widespread lightning storms) and reducing fire severity and damage to environmental and commercial forest values. This contribution is often overlooked. Landscape prescribed burning makes fire suppression easier, safer and cheaper and reducing the losses – built and environmental. Reduced fuel levels in forests beside tracks allows personnel to work from access tracks with minimal threat to their safety.
23. Inadequate use of sensible fire return interval periods that are excessively long and allow fuel to build up to excessive levels.
24. Inaction in relation to reduced time left for hazard reduction with limited volunteer availability as a result of a significant increases in other brigade activities. The transition away from the traditional 'bush fire brigade' in

fire service organisations has often seen a shift in focus from bush firefighting and fuel management to activities associated with urban firefighting and auxiliary activities such as safe working on roofs, trail bikes, chain saws, remote area firefighting.

25. Inadequate local/ regional transparency in relation to prescribed burning planning, performance monitoring and annual mitigation and opportunity for public review of prescribed burning that had been undertaken to protect communities and schedules for upcoming periods.
26. Ineffective capture and implement past lessons, noting what is the point of holding inquiries unless the agreed recommendations and lessons are followed diligently, Inadequate review, apathy and resistance to lesson learning. There are cultural and structural deficiencies in learning lessons from previous incidents.
27. Inadequate consideration of the many missed bushfire contributory factors to large bushfires such as A review of the 2019/ 20 bushfires in regards to contributory factors of the bushfires titled "The 2019/ 20 bushfires – contributory factors: John O'Donnell" teases out the contributory factors to the bushfires.

There are many opportunities to address these failure areas.

Unfortunately, NSW averages 0.6 % of forested areas per year over the last 6 years ie 3.6 % over 6 years. This is miniscule and inadequate to address effective bushfire suppression and large bushfires. Before 2019/ 20, there were huge contiguous area of long unburnt fuel across NSW. There is little wonder that these bushfires were such large scale. Refer EPA SOE Fire report 2021. Now there is large areas of heavy old fuel and dead/ regrowth fuel as well.

Local bushfire risk management plans are generic and barely adequate.

Prescribed fire intervals for forests are generally too long, up to 60 years and many with no fire. Refer to the link:

<https://volunteerfirefighters.org.au/review-of-forest-fire-intervals-for-planned-burns-and-bushfires-in-south-eastern-australia>

The current focus is on using heavy aircraft to fight bushfires, these are very expensive to run (\$250 M plus in 2019/ 20) and dangerous to operate. The focus needs to be reversed, focussing on light aircraft, helicopters and drones for autumn and prescribed burning in forests across NSW. This would be much cheaper, safer, better on the environment etc.

Better utilising time, resources, drones, alliances, innovation and other measures to increase prescribed burning extent is important. Get over excuses for reduced prescribed burning programs, using longer fire seasons and smaller windows of opportunity for conducting safe and effective hazard reduction burns, and get on with programs.

State and local government agencies need to use the time they have for prescribed burning well, better use drone prescribed burning technology effectively, increase resources to increase prescribed burning, develop prescribed burning alliances, use innovation well, reduce major bureaucracy and rules in place that restricts prescribed burning and better work cooperatively with landholders.

Issues identified from NSW Auditor General 2023 RFS fleet Audit

Document detail is outlined in the link below:

<https://www.audit.nsw.gov.au/our-work/reports/planning-and-managing-bushfire-equipment>

What we found

The RFS has focused its fleet development activity on modernising and improving the safety of its firefighting fleet, and on the purchase of new firefighting aircraft.

There is limited evidence that the RFS has undertaken strategic fleet planning or assessment of the capability of the firefighting fleet to respond to current bushfire events or emerging fire risks.

The RFS does not have an overarching strategy to guide its planning, procurement, or distribution of the firefighting fleet.

The RFS does not have effective oversight of fleet maintenance activity across the State, and is not ensuring the accuracy of District Service Agreements with local councils, where maintenance responsibilities are described.

What we recommended

1. *Develop a fleet enhancement framework and strategy that is informed by an assessment of current fleet capability, and research into appropriate technologies to respond to emerging fire risks.*

2. *Develop performance measures to assess the performance and capabilities of the fleet in each RFS District by recording and publicly reporting on fire response times, fire response outcomes, and completions of fire hazard reduction works.*
3. *Report annually on fleet allocations to RFS Districts, and identify the ways in which fleet resources align with district-level fire risks.*
4. *Develop a strategy to ensure that local brigade volunteers are adequate in numbers and appropriately trained to operate fleet appliances in RFS Districts where they are required.*
5. *Establish a fleet maintenance framework to ensure regular update of District Service Agreements with local councils.*
6. *Review and improve processes for timely recording of fleet asset movements, locations, and maintenance status.*

I tend to agree with some of these recommendations, although they appear very bureaucratic and likely not drawn up by fire practitioner's. In addition, fire response times vary for a lot of reasons, including resource levels and distance to bushfires.

I have major concerns in relation to only auditing parts of an organisation in the Auditor General audit, as highlighted below. RFS observed this as well in their response letter.

The objective of this audit was to assess the effectiveness of the RFS and local councils in planning and managing equipment for bushfire prevention, mitigation, and suppression. From the period of 2017 to 2022 inclusive, we addressed the audit objective by examining whether the NSW RFS and local councils effectively:

- *plan for current and future bushfire fleet requirements*
- *manage and maintain the fleet required to prevent, mitigate, and suppress bushfires in NSW.*

This audit did not assess:

- *the operational effectiveness of the RFS bushfire response*
- *the effectiveness of personal protective equipment and clothing*
- *the process of vesting of rural firefighting equipment with local councils*
- *activities of any other statutory authorities responsible for managing bushfires in NSW.*

Individual assessment of State of NSW bushfire preparedness

The bushfire preparedness level in NSW each year is in my estimate at 3/ 10, based on current preparedness levels each bushfire season. Evidence for this is highlighted throughout this submission. Fleet and volunteering score at higher levels, however high fuel loads across landscapes, miniscule prescribed burning, extremely long fire return intervals and inadequate community protection and firefighter protection, result in a low score.

I suspect many of these concern issues are going to come out to roost more when the industrial manslaughter bill gets legislated, bushfire safety isn't good in light of poor fire mitigation across landscapes.

Conclusion

All these failure areas, risks, the ability to affect a response to emergencies and suppression in heavy fuel loads and strata are heavily impacted. Long bushfire runs and intense bushfire impacts to local/ state government/ communities are the outcome.

Recommendation.

It would be beneficial for the PAC to undertake a review in relation to bushfire preparedness, mitigation/ prescribed burning/ adaptive management/ grazing, bushfire suppression, community protection and firefighter safety across all NSW agencies, its well beyond time.

3 TOR 2. Whether the following arrangements between Councils and the Rural Fire Service are fit for purpose a) to f)

b. The division of responsibilities for bushfire management and hazard reduction.

f. Bushfire Management Committees

As noted in Bush Fire Bulletin Unprecedented the 2019/20 fire season:

Across the season, bush and grass fires burnt more than 5.5 million hectares and destroyed nearly 2,500 homes. Most tragically, there were 26 deaths this season, including three NSW RFS volunteers and three US aerial firefighters. Our thoughts will forever be with the families and loved ones of all those who lost their lives.

The 2019/ 20 bushfires in NSW were devastating. The solutions adopted following the bushfires in regards to fire mitigation were, I believe poor, and not effective.

Prescribed burning averages 0.6 % per year of forests over the last 6 years, an abysmally low figure compared to WA at 6-8 %. Prescribed burning needs to be around 10 % of forests per year in NSW.

It is important that we reach 8-10 % annually. This can be done with a focussed team, possibly led by a separate agency than RFS, using a fleet of small aircraft, helicopters drones for undertaking planned burns on grid patterns.

There needs to be greater ownership of prescribed burning and bushfire management at the national, state and local government levels and associated agencies and with landowners and the insurance industry:

1. More resources need to be directed to prescribed burning, much greater areas achieved and drone technology used routinely for prescribed burning.
2. Bushfire risks and failures need to be addressed in relation to the upcoming industrial manslaughter legislation.
3. Ensure accountability and transparency in all bushfire management, decisions and committees.
4. Expenditure directed to bushfire response and recovery rather than towards prevention, prescribed burning, thinning, mechanical treatment and prescribed burning.
5. Better fire working arrangements and cooperation with landholders.
6. Institute community and fire fighter safety zoning across NSW that overrides all other zoning, including forested landscapes.
7. Consider the fuel reduction approach for all Australian towns and cities which the Kurrajong Heights Brigade in NSW has developed and implemented that hazard reduces vegetation blocks using a mosaic pattern for large areas surrounding the town. This strategy keeps low fuel areas as a blocking influence for approaching wildfire. The Kurrajong Heights has a highly successful BFMP that has kept the community safe for 68 years. The Kurrajong Heights BFMP relies heavily on local knowledge and knowledge of terrain, fire behaviour and fire paths.
8. Consider the community protection approaches used for US communities for all Australian towns and cities, including Firewise, local fire safe councils, the Fire Adapted Communities Learning Network, and the Ready and Set, Go! Program.
9. Undertake a detailed review of all current Community Protection Plans (such as NSW towns, 117 communities), Community Information Guides – Bushfire (Victoria, 278 communities) and other approaches in other states for success, including against the 2019/ 20 bushfires, where large number of such communities were badly affected. This would include community risk rating, area of community covered, fuel loads, prescribed burning, state owned lands, fire brand risks, mitigation measures and community involvement.
10. Consider the full costs of bushfire disasters on communities and opportunities to reduce such costs. There are many economic reform and productivity opportunities across the spectrum of mitigation, prevention, suppression and recovery, particularly in regards to bushfire and flood issues. Some of these opportunities include implementing cost effective opportunities as identified by Deloitte Access Economics (2013) “Building Our Nation’s Resilience to Natural Disasters” for the Australian Business Roundtable for Disaster Resilience and Safer Communities and implementing key recommendations of the Menzies Centre report: including Government funding should prioritise risk reduction which will reduce the need to spend on disaster recovery.
11. Develop prescribed burning alliances.
12. Reduce major bureaucracy and rules in place that restricts prescribed burning.
13. There needs to be a PAC/ Auditor General review why there isn’t increased use of small air craft, helicopters and drones for prescribed burning, this dramatically increases the area that can be hazard reduced each year. It is much smarter to use small aircraft for these burns than very expensive larger aircraft for longer periods in the wild fire season. Development and use of drone aero burning technology is strongly supported and assists in completing large areas of ecological maintenance burning.
14. In relation Bushfire Management Committees, the obvious comment is that they are undertaking miniscule prescribed burning programs under their watch, the same applies for the RFS Coordinating Committee. Green prescriptions, inadequate will, inadequate resources and inadequate use of drone technology for prescribed burning and reduce prescribed burning to miniscule areas.
15. Management of local bushfire risk management plans results in generic documents and not really useful for large megafires and bushfire long runs. This needs to be addressed urgently.
16. Establishing a system for the voluntary registration of firefighting units, contractor and forestry industry firefighting resources. The purpose is to facilitate the safe, efficient and effective recognition, organisation, deployment, management and coordination of these resources.
17. Use innovation to maximum effect.
18. Other approaches used to address issues identified in Section 3.

I strongly believe that current hazard reduction and bushfire suppression arrangements are not fit for purpose.

Recommendations.

It would be beneficial for the PAC to undertake a review in relation to bushfire preparedness, mitigation/ prescribed burning/ adaptive management/ grazing, bushfire suppression, community protection and firefighter safety across all NSW agencies, its well beyond time.

The PAC/ Auditor General review why there isn't increased use of small air craft, helicopters and drones for prescribed burning, this dramatically increases the area that can be hazard reduced each year. It is much smarter to use small aircraft for these burns than very expensive larger aircraft for longer periods in the wild fire season. Development and use of drone aero burning technology is strongly supported and assists in completing large areas of ecological maintenance burning.

The PAC/ Auditor General review the costs and effectiveness of large air craft, helicopters and drones for bushfire suppression. In the 2019/20 RFS annual report, aircraft hire in 2020 under Grants and Subsidies was \$255,510,000. I suggest very little of this was spent on prescribed burning programs. If much greater amounts were spent on mitigation, bushfire suppression costs would greatly reduce.

4 TOR 3. The appropriate role for local authorities in the provision of emergency services

Bushfire management in NSW is failing as highlighted above and during and after the 2019/ 20 bushfires.

It is essential that local government have and maintain a major role in bushfire management, for the following reasons:

1. Management of local bushfire risk management plans, noting that they are currently generic documents and not really useful for large megafires and bushfire long runs.
2. Risk management.
3. Town and city bushfire design and mitigation.
4. Management of bushfire planning and zoning and DA approvals.
5. Management of fire permits and notices.
6. Active input into bushfire suppression and often offices and briefing areas.
7. Provision of water sources.
8. Working with brigades.
9. Assistance in addressing bushfire decline and fuel/ bushfire risk areas.
10. Undertaking prescribed burning programs.
11. Provision of local knowledge.
12. Increased accountability.
13. Major issues under RFS aren't working/ going to work.

I have noted a distinct trend for local government to become greener, attempt to phase out forestry in a number of cases, focus on climate change yet totally ignore critical issues such as bushfires and fuel loads and consequent intense bushfires and impacts on communities, firefighters and ecosystems. This staggers me and these attitudes need to be turned around.

There are large opportunities to increase low intensity burning and mechanical treatment operations across private land in NSW, noting a level of 4,270 hectares treated across NSW in 2022/23. Using a forest area of 6,937,308 hectares of private land, this represents 0.06 per cent of forest area treated per year. There are major apparent opportunities for cooperative fuel reduction and maintenance programs between private landholders and government.

There are large apparent opportunities to increase low intensity burning and mechanical treatment operations by local government in NSW, noting a level of 4,254 hectares by NSW local in 2022/23. This had increased from 2021/ 22 but in reality, is miniscule.

There are potential improvement areas where local government could be involving in making large improvements:

1. Setting up local drone fleets to undertake annual prescribed burning.
2. Working with local groups such as fire adapted communities to best protect communities
3. Working with local groups such as Prescribed Burning Associations as used widely in the US.

Recommendation

Establish systems and measures to assist local government in relation to making improvements:

1. Setting up local drone fleets to undertake annual prescribed burning.
2. Working with local groups such as fire adapted communities to best protect communities
3. Working with local groups such as Prescribed Burning Associations as used widely in the US.

5 TOR 4. The sustainability of local government contributions to emergency service provision

I am making a separate submission to this through the review currently underway. Local government involvement and contributions are essential to undertake sound mitigation programs and bushfire suppression.

6 TOR 5. Any other related matters

I raise a number of other related matters below under headings.

Failures of current bushfire management

Bushfire management in NSW is failing and continues to fail:

1. Bushfire management in NSW is failing as highlighted in the sections above and during and after the 2019/ 20 bushfires.
2. Before 2019/ 20, there were huge contiguous areas of long unburnt fuel across NSW. There is little wonder that these bushfires were such large scale. Refer EPA SOE Fire report 2021. Now there are large areas of heavy old fuel and dead/ regrowth fuel as well.
3. Many consider that RFS is like an empire and there is a lot of bureaucracy in place.
4. Fire management is suppression focussed at the expense of fire mitigation including prescribed burning, grazing and thinning.
5. Prescribed burning averages 0.6 % per year of forests over the last 6 years, an abysmally low figure compared to WA at 6-8 %. Prescribed burning needs to be around 10 % of forests per year in NSW.
6. The author considers that appropriate return fire intervals between mild fires to maintain forest fuel load/ strata/ firebrands, community and firefighter safety, forest health and biodiversity range between 3-6 years for both dry and wet sclerophyll forests.
7. There appear to be limited accountabilities for ongoing failures.

Its past time for disaster mitigation action

An article I wrote titled "Increasing cost of living, natural disasters and rising insurance costs. It's time for disaster mitigation action" outlines 9 areas of major concerns in relation to natural disasters, inadequate mitigation expenditure, cost of living and rising insurance costs. This is outlined in the link below:

<https://volunteerfirefighters.org.au/increasing-cost-of-living-natural-disasters-and-rising-insurance-costs-its-time-for-disaster-mitigation-action>

Hopefully, Governments, Treasury and finance departments and fire authorities will address these ideas about easing cost-of-living pressures without stoking inflation.

There has been irregular state government auditing of mitigation and suppression together across NSW. The equipment side of RFS has been audited, but not the broader picture.

Hazard reduction burning and mechanical reduction in NSW

Unfortunately, areas of annual hazard reduction burning and mechanical reduction in NSW are both at very low rates and vary by year. The areas of fuel reduction in NSW and estimated percentage of forested area based on 20 million hectares of forest in NSW were:

- 147,625 hectares in 2017/ 18 (estimated 0.7 per cent of NSW forested area);
- 199,248 hectares in 2018/ 19 (estimated 1 per cent of NSW forested area);
- 55,548 hectares in 2019/ 20 (estimated 0.3 per cent of NSW forested area);
- 176,499 hectares in 2020/ 21 (estimated 0.9 per cent of NSW forested area) and
- 44,642 hectares in 2021/ 22 (estimated 0.2 per cent of NSW forested area).
- 90,089 hectares in 2022/ 23 (estimated 0.5 per cent (actually 0.045 per cent) of NSW forested area)

Inadequate action to address all the contributory factors for bushfires

There are other matters relevant to state and local management of bushfires. One of these relates to contributory factors for bushfires, refer a review I wrote an article titled The 2019/ 20 bushfires – contributory factors: John O'Donnell

<https://arr.news/2023/08/04/the-2019-20-bushfires-contributory-factors-john-odonnell/>

This contributory factor assessment is an important step in order to:

- *identify factors that haven't been adequately considered or missed, that influenced the fuels, forest fire resilience, bushfire attack, safety, impact, cost, bushfire extent and intensity of the major 2019/ 20 forest bushfires across south eastern Australia.*
- *integrate the information in relation to this matter, assessing this area in detail, particularly in relation to south eastern Australia.*
- *identify important factors in relation to community, fire fighter safety, infrastructure and environmental safety. Considering the community and fire fighter safety factors alone, this concern area is of the utmost importance and hopefully this document will tease out issues that need urgent actioning.*
- *assist in reducing the impacts, costs, extent and intensity of ongoing major bushfires across south eastern Australia during the 2023/ 24 bushfire seasons and beyond.*
- *consider implementation of the identified contributory factors into fire management systems, policies, guidelines, legislation, agreements, mitigation, land management, bushfire attack, preparedness, risk management, auditing, learning systems, training and budgeting.*

Conclusions

It is readily apparent that there are a large number of contributory factors that influenced the fuels, fire resilience, bushfire attack, safety, bushfire extent and intensity of the 2019/ 20 major bushfires across south eastern Australia across the broad heading issues outlined In Annexure 1. The author has prepared this document in good faith, was focussed on assessing the key issues in detail and accepts he may not have identified all issues, noting it was a time-consuming task. It is essential for Australia that contributory factors that influenced fuels, forest fire resilience, bushfire attack, safety, impact, cost, bushfire extent and intensity of the 2019/ 2020 major bushfires across south eastern Australia are identified.

Considering all the contributing factors in Annexure 1, the author considers that the devastating 2019-20 fires were inevitable under difficult bushfire conditions at the time.

The author is not the only one who has identified risks and deficiencies in fire management. As noted in Davey and Sarre (2020):

"The Black Summer bushfires are a watershed for how Australia must manage fire risks in its landscapes and to be better prepared for such fires. The fires of 2019/20 have shown that current fire management will not, or is unlikely to, sustain the full range of ecosystem processes and biodiversity, nor reduce to an acceptable level the impact of wildfires on local and rural communities, forests and ecological communities, biodiversity and wood resources. Finding sustainable, affordable and socially acceptable approaches to managing fire requires a cohesive, considered, evidence-based approach across jurisdictions and tenure."

Considering the above, the author believes that we as a society have not adequately achieved management of fire risks in our landscapes and are not better prepared for such fires since the 2019/ 20 bushfires, especially noting the limited prescribed burning, current heavy fuel loads, dense regrowth, large areas of dead trees and noting the recent release of NSW areas of bushfire fire concern outlook for spring and summer 2023 covering the majority of the state.

There is very limited understanding and addressing of all the bushfire contributory factors since the bushfires, and SE Australia and NSW are not prepared for major bushfires. Indeed the situation is worse, with large areas of dense regrowth and dead fuels from the 2019/ 20 bushfires and increasing eucalypt decline and understorey regrowth.

Recommendation

[That an independent review be completed in relation to all the contributory factors to the 2019/ 20 bushfires by an experienced firefighter totally independent of the NSW Government.](#)

Inadequate firefighter safety

Firefighter safety is a critically important issue in SE Australia and is outlined in my article in VFFA Inadequate firefighter safety in southeastern Australian forests, its past time to turn it around. This is included in Annexure 1.

<https://arr.news/2023/11/16/inadequate-firefighter-safety-in-south-east-australian-forests-john-odonnell/>

The article identified 21 main areas of concern in relation to bushfire firefighter safety in forested areas. This matter is even more critical considering the imminent industrial manslaughter legislation that will likely apply to the bushfire sector.

Recommendation

Safe Work NSW or the AG/ PAC undertake an audit in relation to all aspects of firefighter and community safety in NSW, using experienced firefighters independent of government.

All parties, federal, state and local government need to work together to address these 21 concern areas.

Community and fire fighter safety is addressed in other areas of this submission.

7 Conclusions

This submission is targeted at the overall bushfire management aspects of the inquiry, including TOR 1 d), 2 b), 2 f), 3) and 5. I note Councils will likely target the asset side of this issue. This is critical as currently bushfire management is at sub optimal levels and it is essential that all parties work together to address these issues and make improvements.

The author has major concerns that bushfire reviews and inquiries in NSW appear to target individual aspects of bushfire management, and little in relation to fire mitigation, resulting in ongoing bushfire failures. There is a belief across NSW that there is a Disaster Inquiry Disaster cycle, with ongoing repeat disasters.

I believe that bushfire management in NSW has failed and continues to fail in the following areas:

1. Bushfire management in NSW is failing as highlighted above and during and after the 2019/ 20 bushfires.
2. Before 2019/ 20, there were huge contiguous area of long unburnt fuel across NSW. There is little wonder that these bushfires were such large scale. Refer EPA SOE Fire report 2021. Now there is large areas of heavy old fuel and dead/ regrowth fuel as well.
3. Fire management is suppression focussed at the expense of fire mitigation, including very limited prescribed burning, grazing and thinning.
4. Prescribed burning averages 0.6 % per year of forests over the last 6 years, an abysmally low figure compared to WA at 6-8 %. Prescribed burning needs to be around 10 % of forests per year in NSW. There are many opportunities to expand the use of small aircraft, helicopters and drones for low intensity burning operations, using placed grid patterns for fires to join up in the cool of the evening and unburnt patches. There are potential opportunities for a number of prescribed burning drones with individual brigades/ mitigation officers and fire regions. 100 extra mitigation officers were appointed about 2-3 years ago, why hasn't prescribed burning increased, let alone considerably?
5. The author considers that appropriate return fire intervals between mild fires to maintain forest fuel load/ strata/ firebrands, community and firefighter safety, forest health and biodiversity range between 3-6 years for both dry and wet sclerophyll forests. At 0.6 % of forested area prescribed burnt per year, sensible fire return intervals are never going to happen in NSW.
6. Bureaucratic approaches and barriers to prescribed burning are an urgent action area for NSW.
7. Inaction in regards to prescribed burning programs with freehold lands, leasehold lands and Council lands developing prescribed burning.
8. Many consider that RFS is like an empire and there is a lot of bureaucracy in place.
9. Community and firefighter safety is I believe inadequately addressed in NSW.
10. There appear to be limited state/ agencies/Local government bushfire accountabilities for ongoing failures, including in relation to scale of intense bushfires, miniscule use of prescribed burning, costs of bushfire management and inadequate community and firefighter safety requirements and actioning.

It is suggested that there needs to be a full Public Accounts Committee audit of bushfire management, including planning, prevention, mitigation, suppression, community protection and recovery across NSW for state government, local government and landholders.

It is suggested that there needs to be a full Auditor General performance audit of bushfire management, including planning, prevention, mitigation, suppression, community protection and recovery across NSW for state government, local government and landholders. This audit needs to involve experienced bushfire professions who understand prescribed burning, fuel loads, eucalypt decline. firefighter safety and community safety.

This matter is even more critical considering the imminent industrial manslaughter legislation that will likely apply to the bushfire sector.

It is suggested that there needs to be a full safety audit of bushfire management in relation to safety, including planning, prevention, mitigation, suppression and recovery across NSW for state government, local government and landholders. This audit needs to involve experienced bushfire professions who understand prescribed burning, fuel loads, eucalypt decline. firefighter safety and community safety.

It is essential that local governments have and maintain a major role in bushfire management, for the following reasons:

1. Management of local bushfire risk management plans, noting that they are currently generic documents and not really useful for large megafires and bushfire long runs.

2. Risk management.
3. Town and city bushfire design and mitigation.
4. Management of bushfire planning and zoning and DA approvals.
5. Management of fire permits and notices.
6. Active input into bushfire suppression and often offices and briefing areas.
7. Provision of water sources.
8. Working with brigades.
9. Assistance in addressing bushfire decline and fuel/ bushfire risk areas.
10. Undertaking prescribed burning programs.
11. Provision of local knowledge.
12. Increased accountability.
13. Major issues under RFS aren't working/ going to work.

There are large opportunities to increase low intensity burning and mechanical treatment operations across private land in NSW, noting a level of 4,270 hectares treated across NSW in 2022/23. Using a forest area of 6,937,308 hectares of private land, this represents 0.06 per cent of forest area treated per year. There are major apparent opportunities for cooperative fuel reduction and maintenance programs between private landholders and government. There are large apparent opportunities to increase low intensity burning and mechanical treatment operations by local government in NSW, noting a level of 4,254 hectares by NSW local in 2022/23. This had increased from 2021/ 22 but in reality, is miniscule.

There are potential improvement areas where local government could be involving in making large improvements:

1. Setting up local drone fleets to undertake annual prescribed burning.
2. Working with local groups such as fire adapted communities to best protect communities
3. Working with local groups such as Prescribed Burning Associations as used widely in the US.

John O'Donnell

22 April 2024