

Jamie Benaud



NSW 2777

27thFebruary, 2020

NSW Independent Bushfire Inquiry,
GPO Box 5341,
Sydney NSW 2001

Dear Sir/Madam,

Please accept this submission to the *2019/20 NSW Independent Bushfire Inquiry*

Background

Although I make this submission in a personal capacity, I am currently a Leading Firefighter with Fire and Rescue NSW (FRNSW). I have been a full time firefighter for 27 years, generally having been stationed in the Western Sydney area and currently in the Blue Mountains. I have attended approximately 7,000 emergency incidents over that period, including major bushfires in 1994, 2001, 2013 and 2019/20.

I was also an active member/volunteer firefighter with the Rural Fire Service (RFS) at Winmalee between 1989 and 1995, and still socialise with many current and former members of that Brigade.

I am a member of the Fire Brigades Employees Union, although I have never been a candidate for, nor held any position within the union. To my knowledge, I am not and have never been a member of the Rural Fire Service Association.

1.1. Causes and contributing factors

Climate Change

Although I believe factors associated with drought and climate change played a significant role in this bushfire season, I do not possess qualifications on that topic, and recommend that this inquiry seek out submissions from people so qualified.

Fuel loads

During this bushfire season, I attended numerous bushfires, both as part of my regular shifts and as part of strike team responses. My firefighting work was predominantly on the Gospers Mountain/Grose River fire, and included direct firefighting, property protection and backburning under various weather conditions.

I observed that, under a Fire Danger Rating (FDR) of 'Severe' or greater, fuel loads had little impact on fire behaviour. As a case in point, I observed a backburn in the Clarence/Lithgow area quickly become uncontrollable under 'Severe' conditions, despite extreme caution during lighting, and an extraordinary number of resources in attendance. The area had been subject to wildfire in 2013.

Based on my experience, I believe that fuel reduction is a useful mitigation strategy, however under Severe or greater FDR, its effectiveness is limited to a relatively short period of 2-3 years. Various research papers from Australia and overseas note similar limitations.^{1,2}

As such, I believe fuel reduction strategies (by burning or otherwise) should focus on creating Asset Protection Zones (APZs) around properties, rather than burning deep into forested areas. Measurement data should concentrate on the number of properties protected, rather than the number of hectares burnt. Focussing on APZs is supported by scientific research³. The alternative, to conduct “sufficient” widespread fuel reduction in all forest areas, is completely impractical. Such a scheme would require the treatment of some 5 million hectares of forest per annum in NSW alone.

1.2. Agency preparation and planning

Funding and Resources

The three firefighting agencies in NSW – Fire and Rescue NSW (FRNSW); Rural Fire Service (RFS) and National Parks and Wildlife Service (NPWS), have all been subjected to the NSW Government’s labour expenses cap, limiting their resources and greatly reducing their capacity to meet the needs of escalating risk and growing population. This must change.

Staffing and Stations

At the time of the 2019/20 bushfire emergency, FRNSW had a firefighting staff some 111 lower than 2010/11 levels⁴. Despite the population of NSW increasing by approximately 0.8 million over that period, with a corresponding increase in the residential development footprint, the number of FRNSW fire stations remained static. A complete absence of expansion in the face of such growth defies the expectations of the community.

The ‘urban sprawl’ of Sydney and other populated areas invariably occurs within the Bushland Urban Interface (BUI). NSW Governments, past and present, have been slow to construct Fire and Rescue stations in these developments, leaving them with unsuitable fire and emergency coverage and far longer emergency response times than in established areas of similar population density.

It is imperative that the provision of FRNSW services be incorporated into new developments during the early stages of their construction, rather than waiting up to 10 years as is currently the case. Not only does this improve the day-to-day safety in those communities, but it increases the available weight of attack during major emergencies such as the 2019-20 season.

Vehicles – Bulk Water and 4x4 Tankers

FRNSW have recently added four Bulk water Tankers (BTs) to their fleet. Two are staffed permanently on a 24/7 basis, two are staffed by retained (on call) firefighters. These appliances all saw extensive use during the season, and proved to be extremely versatile and effective vehicles, particularly in areas without a reliable reticulated water supply.

I strongly recommend that the number of these appliances in the fleet be substantially increased, and that consideration be given to a permanent staffing enhancement for an additional two of these appliances (taking the permanently-staffed number to four). This will provide a faster and more certain response of these appliances over a larger geographical area in the case of future bushfire emergencies.

The regular FRNSW 4x4 water tanker (AKA Class 1) fleet also saw extensive use during this season, with several of the tankers operating 24/7 for over a month. I recommend that the size of the tanker fleet be increased through placement of additional 4x4 tankers at permanent and retained stations on the BUI, in addition to their existing pumper(s).

Vehicles – Strike Team Fleet size

FRNSW firefighting vehicles are typically disposed of after 15-20 years, after ‘cascading’ down from 1st response appliances through to Service Exchange Vehicles (SEVs), which often sees them dual-badged as “Strike Team Pumpers” (STPs) or “Strike Team Tankers” (STTs). Due to their specialised nature, fire appliances usually fetch very low prices when sold at end of life, despite their low kilometres and generally good mechanical condition.

I would recommend that FRNSW hold a larger fleet of STPs and STTs, ‘mothballed’ on a minimal maintenance basis, which could be rapidly deployed during major disasters such as the 2019/20 season. Obviously this would come at a cost due to storage and maintenance, however I believe it would represent excellent value for money.

Vehicles – 4x4 Tanker safety upgrades

Many of the older 4x4 water tankers are not equipped with Cabin Protection Systems (CPS). This is true for both FRNSW and RFS fleets. This important safety system should be retro-fitted to all 4x4 water tankers, or those appliances be retired and replaced with new tankers featuring those systems.

1.3. Response

FRNSW/RFS cross crewing

I observed that FRNSW and RFS often had opposing problems. FRNSW had more personnel willing and able than they had spare/excess vehicles available. While the RFS often had more vehicles available, but insufficient available personnel to crew them, particularly mid-week and as the season dragged on. In 2013 a solution was implemented, being FRNSW firefighters supplementing crews on RFS appliances, usually in a 2/2 arrangement.

For reasons unknown to me, this solution was not repeated during the 2019/20 bushfire emergency. I have no doubt that, had it been implemented, the number of firefighting vehicles available would have been increased substantially. This in turn would have likely reduced the scale of property losses.

Automatic Vehicle Location

I observed that the lack of Automatic Vehicle Location (AVL) systems on RFS vehicles, and the inability of FRNSW/RFS Incident Management Teams (IMT) to see the location of all resources in real time was a major impediment to incident management. On many occasions, FRNSW strike teams were sitting around doing nothing as property protection emergencies raged nearby, because the IMT was unaware that they were available and located so close to where they could be utilised. While the IMT were no-doubt aware they were at the incident somewhere, they had no visual

indication of their location, and depended on a complex web of liaison at several levels to confer that information.

AVLs must be implemented fleet-wide on RFS vehicles as soon as practicable, and it is vital that IMTs have real-time visual access to the AVL data of all vehicles (from both services) engaged at any major incident they are attending. Such a change would make an enormous improvement to the management of major bushfires.

FRNSW Fleet management

I observed that the operation of the internal fleet management/workshops of FRNSW provided invaluable assistance in maintaining and servicing vehicles for the ongoing commitment, with very little downtime. Their efforts and management were extraordinary, and deserve commendation.

1.4. Other matters

Misleading RFS Membership / Firefighter data

There is no doubt that the RFS is the backbone of major bushfire fighting operations in NSW. However, due to the ongoing use of misleading figures, the public have a strong misconception of the level of resources available during a bushfire emergency.

The RFS website states *“The NSW Rural Fire Service (NSW RFS) is the world's largest volunteer fire service. Our 72,000 members provide fire and emergency services to approximately 95 percent of NSW.”*⁵

This statement is highly misleading, as the “72,000” figure includes long-inactive (and even deceased)⁶ members, in addition to non-operational members. The Volunteer Fire Fighters' Association (VFFA) estimates that there are only around 18,500 active RFS firefighters⁶. A public statement from the RFS in November 2019 provided numbers of 46,000 including support staff.⁶ Clearly, there is much debate about actual resource levels, even within the RFS itself and its volunteer representative associations.

It beggars belief that the RFS do not currently provide any detail whatsoever surrounding the status, qualifications or roles of their membership in current annual reports. It should be noted that the 2008/09 annual report did provide some insight, revealing that slightly less than half of the membership had at least a basic firefighting qualification.⁷

The misleading RFS membership data has several implications for effective firefighting during major emergencies:

- Inflated numbers may impede volunteer recruitment, due to a public perception that there are sufficient resources available;
- Inaccuracy in the figures may affect RFS planning and funding levels;
- The inflated figures create a perception within the RFS management that crewing levels are adequate, possibly causing resistance to cross-crewing and placing excessive demands on overworked crews and brigades.

The RFS should be compelled to provide comprehensive data disclosing the qualification and active/inactive status of their membership, in the same way that FRNSW provide this information on their firefighting staff.

Yours Sincerely,



Jamie Benaud

References

1: *Simulating the effectiveness of prescribed burning at altering wildfire behaviour in Tasmania, Australia*

DOI: 10.1071/WF17061

2: *A review of prescribed burning effectiveness in fire hazard reduction*

DOI: 10.1071/WF02042

3. *Reducing wildfire risk to urban developments: Simulation of cost-effective fuel treatment solutions in south eastern Australia*

DOI: 10.1071/WF18130

4. *FRNSW annual reports 2010/11, 2018/19*

5: <https://www.rfs.nsw.gov.au/about-us/fast-facts>

6: <https://www.smh.com.au/national/nsw/safety-in-numbers-as-a-horror-fire-season-looms-firefighters-are-struggling-to-attract-new-volunteers-20191115-p53avi.html>

7: *RFS Annual report 2008/09 Page 2*