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**Submission Number: NND.001.01280**

**Submission Of: SUSAN QUARTERMAINE**

### 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? Perth, WA

### Your Submission

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

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

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

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

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

Supporting material provided:

Royal Commission into Natural Disasters.pdf

## Royal Commission into Natural Disasters – Bushfires

### Recommendations to the Royal Commission:

#### 1. *Change in emphasis from targeted prescribed burning across the landscape to prioritizing conservation, biodiversity and Natural Heritage.*

In Western Australia, the emphasis is on a targeted Prescribed Burning policy of 200,000 ha per annum. The basis, or justification for prescribed burning regimes is a long-held **belief** that this practice is good for the bush, and that fire can be applied with impunity. The assumption of “a relationship between fuel load, rate of spread and fire intensity was used as a powerful argument to support Fire Reduction Burning in eucalypt forest for more than 50 years” McCaw (2019). Even with modelling showing that such a relationship did not exist, Burrows (1999), the Fuel Reduction Burn (FRB) policy continues to be tenaciously defended and implemented by the government agency charged with Bushfire Risk Management in WA.

Research in the last 20 years has continued to throw doubt on the efficacy of prescribed burning as a risk management tool. Zylstra (2019) has found his research “contradicts one of the central assumptions in Australian fire management - that forest simply accumulates fuel over time, and becomes increasingly flammable”. In fact, in the regrowth phase, forest is more flammable, and old growth forest may provide valuable refuge in areas at risk of severe fire.

Frequent hazard reduction burns may have minimal effect on subsequent unplanned fire, and broad-scale hazard-reduction burns are unlikely to reduce the threat to infrastructure assets, but may significantly negatively impact biodiversity. Bradshaw, SD et al, (2018) in reviewing a study following the Black Saturday fires in Victoria in 2009, conclude that “a shift in emphasis away from broad-scale fuel reduction to intensive fuel treatments close to property will more effectively mitigate impacts from wildfires on infrastructure”. Furthermore, prescribed burning at the current scale will challenge species resilience, so a more strategic approach would also reduce the long-term impact on biodiversity, especially in a warming and drying climate.

#### 2. *Early detection and suppression of fires*

Funding for early detection and suppression of fires, using new technologies, but also conventional methods, eg, the fire-watch tower on Mt Franklin in south-west WA, where the watchman surveyed forest as far as the eye could see in every direction. He said if a fire could be reached within 20 mins, there was every chance of stopping it from getting away.

#### 3. *Appoint an Independent Fire Authority for Fire Risk Management*

In WA we have 3 fire agencies: DFES, DBCA and local government. Given the reluctance of government agencies in WA over many years to reconsider the Bushfire Risk Management framework in the light of research that throws doubt on current policy, the responsibilities for Bushfire Risk Management should be vested in an independent body, which would be responsible for risk research, modelling and policy development. Bradstock (2019): “cost, optimisation and integration into total risk management provides the immediate challenge for policy and research”.

The Independent Fire Authority would bring greater co-ordination and accountability to Fire risk Management

#### 4. *Science Funding*

Climate change will increase risks for the environment, and threaten the ability to prevent, mitigate and respond to bushfires. Decisions on risk management and policy development will need to be informed by well-targeted scientific research. Bradstock (2019) points out the “..ongoing challenges to inject new science on fire behaviour and suppression into risk research (modelling) and policy development”.

And Bradstock has the last say: “Global climate change is the Sword of Damocles that overhangs research policy and the way we choose to coexist with fire”

#### References:

Bradshaw SD, KW Dixon, H Lambers, AT Cross, J Bailey and SD Hopper (2018). Understanding the long-term impact of prescribed burning in mediterranean-climate biodiversity hotspots, with a focus on south-western Australia. *International Journal of Wildland Fire* 27 (10):643-657

Bradstock R (2019) Mitigation of bushfire risk to people and property via prescribed burns: strengths, constraints and future challenges. PB Conference, UWA

Burrows N, (1999) CALM Science

Zylstra P (2019) The brave new world beyond the questions that we never asked. PB Conference, UWA.