



Royal Commission into National Natural Disaster Arrangements

Submission Form

Please complete this form if you would like to provide input or comments about coordination, preparedness for, response to and recovery from the 2019-20 'Black Summer' bushfires.

Personal and Background Information

1. **Full Name** **James Mumme**
2. **Email** [REDACTED]
3. **Mobile/Telephone** [REDACTED]
4. **What is your preferred method of contact if we want to follow up with you?**

[REDACTED]

5. **The Commission would like to understand the views of community groups based on their respective experiences and background.**

- a. Please select Option 1 if you are providing input and comments primarily based on your personal situation.
- b. Please select Option 2 if you are providing input and comments primarily based on your professional knowledge, qualifications or experience, or on behalf of a group or organisation

Option 1: Based on your personal situation, please complete the following.

- a. What was your personal situation in relation to the 2019-20 Bushfires? Please choose all that apply.
 - I was not living in an area affected by bushfire
 - I lived in an area affected by bushfires but was not evacuated, and didn't suffer personal or financial loss
 - I lived in an area affected by bushfires and was evacuated, but didn't suffer personal or financial loss
 - I lived in an area affected by bushfires and was evacuated, and I suffered personal or financial loss
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 - I was part of the emergency response as an aerial fire fighter

- I was part of the emergency response as health professional
- I was part of the emergency response as an Australian Defence Force member
- I was part of the emergency response as a Commonwealth or State government employee
- I assisted the emergency response as a community support volunteer
- I assisted the emergency recovery (i.e. after the fire event) as a community support volunteer
- Other

b. Where do you live? Please provide your Local Government Area, town name and post code.

Local Government Area Choose an item.

Town name

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Option 2: Based on your knowledge, qualifications or experience, or your role representing a group or organisation, what is your area of expertise? Please choose all that apply.

- Emergency/disaster response and/or management
 - Environment/land management
 - Land use, planning, building standards
 - Impacts of changes in climatic conditions
 - Wildlife conservation
 - Traditional land and fire management practices of Indigenous Australians
 - Community welfare
 - Other
-

Input / Comments

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

I am convenor of Friends of Point Peron, a community volunteer landcare group founded in 2006 with support from the WA Depts of Environment. We have been working on Cape Peron part of Rockingham Lakes Regional Park in Rockingham WA 6168. CP is a reserve managed by Department of Biodiversity Conservation and Attractions. It's approx 170ha, is 30% degraded or excised but the remainder is secondary regrowth in excellent to good condition and has two TECs including mature tuart trees that are habitat for Carnaby's cockatoos and bush that's egg laying area for Western Long Necked Turtles (both MNES).

Our activities have involved weeding both annuals and woody weeds, revegetation with local endemic native species and lobbying for better care and protection of the Reserve. We meet weekly and more often during times of planting, intensive weeding and watering.

Our experience with bushfires is limited to three events:

In January 2020 around midday during a strong seabreeze a fire was deliberately lit in a section of the reserve bounded by two roads, foredunes and bush downwind. It's believed to have started with something thrown from a vehicle. Emergency services were on the scene quickly, notified by phone from a driverby. Parks and Wildlife arrived with earth moving equipment. The fire was deal with after seriously damaging an area 40m by 100m through the use of newly constructed two firebreaks.

The burn was hot and very few of the coastal acacias and other shrubs have survived. A floral community Reference site was located in the centre of the burn. It has certainly been mostly lost. In the following four months regrowth of muelenbachia Leptospermum gladiatum and Acacia rostellifera at ground level has been quick.

What worked well - 1. Notification by the public was fast and the emergency services response was also fast .

2. Emergency services managed to put it out before it spread across a road or along the dunes through use of earth moving equipment.

The other two events were also arson. In one case the arsonist had lit several other fires that afternoon and was apprehended. Both fires were near the site of the fire mentioned above, namely along Lease Road but away from houses. Damaged was more widespread and both resulted in obliteration of patches the FPP had been weeding and revegetating.

One advantage of Cape PEron is that it is bounded on two sides by housing and is traversed by three quite busy roads so notification is quick and easy. Were our areas more isolated, for example, Paganoni Swamp ot Karnet Bush this would have been different.

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

CONTROL OF GRASSES

What is not currently working well is that many areas of this reserve are open - old clearings or previously burnt areas in which grasses have flourished. These grasses die off around January and become tinder fry until the first substantial rains which this year mean has meant at least four months or high risk.

RAINFALL DATA

Rainfall figures are not accurate to what actually falls in our reserve. There is a weather station on Garden Island only 5km from the reserve and neighbours have rain gauges so we have a rough idea how much water has fallen within the reserve. However often it is observable that showers are patchy and here travel with prevailing northwesterly winds in lines from NW to SE. On two occasions this year upwards of 20mm has fallen as predicted within the City but effectively NONE of it has fallen within the reserve. A few kilometers can make all the difference. FPP has recently purchased a raingauge which we will install and monitor in the centre of our weeding and planting patches.

LACK OF LOCAL DETAILED KNOWLEDGE

Even the Parks and Wildlife staff who look after the park have little knowledge of much that is occurring. Most of their time currently is devoted to mending fences and gates and attempting to prosecute invaders. Their knowledge of what species are fire-retardant and what encourage fire is limited as is their knowledge of how dry parts of the reserve are. In FPP's experience variation in soil and micro-climate conditions can vary within 50 metres resulting in a true mosaic of patterns in relation to fire redistribution and behaviour. Who has this knowledge ?

INDIGENOUS INSIGHTS AND UNDERSTANDINGS

A Nyoongar friend who is a T?O for this area and knows it better than anyone told me the following. The land needs spaces to breathe so FPP should not go planting masses of seedlings over every clearing. Second the present fire management policy of DBCA in this area of not burning is BURNING HIS GRANDMOTHER ALIVE. Her totem is a gecko that lives here and would be unable to escape a hot burn. He is in favour of limited controlled burning.

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

IDENTIFICATION AND NOTIFICATION OF FIRES: ENGAGING COMMUNITY

1. Quicker notification of outbreaks of bushfires from the first moments and before they have taken hold on larger areas. Cant this be done from satellites or drones ?

Enlisting the assistance of local residents, whether members of landcare groups or not, to keep watch, know how to distinguish fire smoke from dust storms would seem to make sense. Many of us are retired with time on our hands. Many lack purpose and sense of belonging and

connection with the local environment. The rise of 'expertism' in which academic study of most things has progressed to the point where experts know more and more about less and less and very little about what actually can be seen ongoingly at ground level needs to be countered. Citizen scientists are a good way to manage bush fire risk and notification.

TARGETED CLEARING NOT WHOLESACLE RISKY BURNING OFF

2. Clearing of highly inflammable vegetation along road verges, especially in the sides in the lee of prevailing winds. I'm not talking about large-scale Rescribed Burning conducted by DBCA but something far more local, on a much smaller scale and utilising local knowledge of conditions and vegetation. Ideally clearing grasses without fire but realistically what comes to mind is a partnership between managers of reserves and those locals who know the reserves well, either from living there or from working in the park. Traditional owners/elders in my experience have knowledge and insights into the bush and what it needs to support biodiversity that are different from what most mainstream landcare and fire management experts have and need to be involved. I understand from conversations with DBCA that one issue militating against burning close to residential areas is complaints about smoke and the risk that fire can get away easily and become bigger than intended.

It seems important to approach the problem at grassroots level so to speak. Since the pattern of fires in our reserve has been connected to roads and arson - either deliberate or accidental through throwing cigarette butts, it seems important to limit burning off to strips along roads and to do it only at times when local conditions are perfect. It seems important to avoid large scale operations which are much less flexible and cannot be adapted to local realities. Surely local groups like FPP could be trained up to be across issues like soil and plant moisture, species relevance to fire, weather conditions favourable to limited burning without masses of smoke. Such groups could then call on the experts to burn flexibly according to local needs and conditions.

POST-FIRE RESTABLISHMENT OF BIODIVERSITY

To my knowledge nothing is being done by the land managers in WA about this issue. What needs to happen is direct seeding of locally endemic species and targeted weed control, preferably without use of chemicals. Both of these are ideal activities for local inspired land care groups. More need to be done to enlist and motivate local groups. For instance my local Council recently produced a ten year management plan for Lake Richmond which abuts our reserve and which is managed by Rockingham Council. There was not a single mention of community groups. When I questioned this, I was told that IF MEMBERS OF THE COMMUNITY WANT TO GET INVOLVED COOUNCIL WILL SUPPORT THEM but council wil not initiate anything.

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

PREVENTION THROUGH BETTER MENTAL HEALTH EDUCATION

The link between arson and poor mental health is well known. So often children set fires as an exhilarating fun thing to do without it coming from deep unmet needs. I do not know of any Mental Health Education programs that deal with the way our needs for affection, warmth(!) relate to fire setting. Clearly a risky area but if we can tackle how it's inappropriate to meet emotional needs through sexual abuse of children, surely we can tackle this one too.

10. Do you intend to provide supporting material?

Yes

No

If you are providing any supporting material, please include it with your Submission if possible. If you need to send it separately (e.g. if you make a Submission over the phone), please ensure supporting material can be clearly identified as relating to your Submission by including your name or other identifier so that it can be considered with your Submission.

11. Do you agree to your submission being published? (Mandatory)

Yes, I agree to my submission being published in my name

Yes I agree to my submission being published anonymously

No I don't agree to my submission being published

Once you have completed this form, email it to rcnda.submissions@royalcommission.gov.au or print the form and post it to the Royal Commission at:

National Natural Disaster Royal Commission
Locked Bag 2000
Manuka ACT 2603



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Input / Comments

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

I made a submission earlier today and now realise I forgot one vital issue. Please see below at 9..

I am convenor of Friends of Point Peron, a community volunteer landcare group founded in 2006 with support from the WA Depts of Environment. We have been working on Cape Peron part of Rockingham Lakes Regional Park in Rockingham WA 6168. CP is a reserve managed by Department of Biodiversity Conservation and Attractions. It's approx 170ha, is 30% degraded or excised but the remainder is secondary regrowth in excellent to good condition and has two TECs including mature tuart trees that are habitat for Carnaby's cockatoos and bush that's egg laying area for Western Long Necked Turtles (both MNES).

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Yes, from my now twenty year observations at a gardener and landcare worker at Rockingham (32deg south) it is clear that our climate is changing. In the home garden over the past three years my grapes and figs have tried to produce an extra crop of fruit during March and April.

Daily watering of vegetable and citrus crops is not necessary well into the end of April.

Out on Cape Peron without having any categorical observations it seems clear that more of our seedlings are prone to die during hot summer months than back in 2006 when we first began planting. We are still finding it necessary to water some species with two litres once every

three weeks even in April. One weed, Euphorbia terracina, which used to begin growing in May and June and flower in August/September is currently showing signs of flowering in the last week of April.

It seems obvious that lower rainfall and hotter temperatures will have an effect on fire events.

In terms of official BOM records of which you must be aware, our part of WA has seen a drop of up to 40mm of rainfall per decade and an increase in 0.4 deg C maximum per decade. The Monthly rainfall for the Garen Island weather station shows clearly many more months from 2001 to 2020 with mean or less rainfall than mean or more. Greater irregular intensity makes up the difference, for example one fall of 108mm in January and one of 126mm in February. Both these excesses were on a level with most higher winter figures. Average annual pan evaporation in this area is between 1600 and 1800mm/year. Since my house is only 300 metres from the sea, sea surface temperatures are relevant. They show the biggest average increase of at least -.5 deg over the past 30 years and a peak in 2016 of 0.8deg (and a low of 0.3 in 2019 so there is some variability of course but the trend is clear).

In addition BOM projections for the South West of WA are stated with very high confidence to show: an increase in average temperatures for all seasons and more hot days and warm spells. By 2030 under all emission scenarios winter and spring rainfall is projected to decrease by up to 15% and later in the century with high emissions by up to 45%.

For temperatures by 2030 warming is predicted to be 0.5 to 1.2 deg C above 1986-2005 levels.

There is high confidence for decreasing winter and spring rainfall and HARSHER FIRE-WEATHER CLIMATE.

Finally the three fires with which I am most familiar on Cape Peron, ~2008, ~2012 and 2020 all occurred in summer, Certainly the last was the hottest by far judging by the observable loss of complete shrubs and the extent of areas with no remaining trees capable of re-shooting.

It is clear to me that our climate is in the throes of the most rapid change ever recorded and there are consequences for vegetation cycles and survival. Even under the most favourable emission regime the outlook is not good. Will this Royal Commission do what it can to recommend reduction in greenhouse gas emissions? Whether or not that will result in effective change, the only responsibility each of us has is to act responsibly and take whatever measures we can in whatever arena we have some power.

Finally I asked my indigenous friend who is a Traditional Owner of this area what he knows about how plants can foretell weather. He said of course. When some plants, particularly the local wattles, (cyclops and rostellifera) are loaded with seeds, the following summer will be hot and dry. It's beyond my comprehension but he and others are not surprised at this connection.

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