



Submission to Royal Commission into Natural Disaster Arrangements

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1. Introduction

- 1.1. The Australian Institute for Progress is an Australian think tank based in Brisbane. We advocate for policies in a wide range of areas, including the environment.
- 1.2. Bushfires are a recurring, and mostly beneficial, feature of Australia's ecology, with many plants and species evolved to depend on regular fires. However severe bushfires represent a threat to human life and property, a threat which is increased by population growth and greater human habitation in more remote areas on the outskirts of cities, and in rural and regional areas. This requires good stewardship of the resources to reconcile the balance between human and environmental needs.
- 1.3. While there are many policies that could make a difference, we have chosen three areas where the Commonwealth Government can have greatest impact, accepting that the primary responsibility for actual bushfire management will, and should, remain with the state governments.
- 1.4. The general issues we wish to address: -
 - Need for a strong leadership, assessment, monitoring, training, performance focused federal body, supported by matching state agencies
 - Urgent need for national monitoring, assessment, reporting and modelling of calibrated fuel load models, driven by realistic meteorological models
 - Resilience built into systems that prevents extreme impacts and can undertake resilience testing scenarios for a range of individual and combined disaster combinations
 - Consideration of international models, such as FEMA and others that have experience of a wide range of natural disasters eg extreme weather, tornadoes, hurricanes, floods, bushfires, etc
- 1.5. On the specifics of the terms of references identified in the "Letters of Formation" we would respectfully put forward the following comments/recommendations for your consideration on matters b), c) and f):
 1. ***The Federal Government undertake a review of the latest monitoring, reporting, analysis of key factors such as fuel loads (in the case of bushfires) and enforce a performance reporting system that provide foresight for impending buildups of natural disasters, much as we do with cyclones/floods etc.***
 2. ***The Federal Government, using the USA's Federal Emergency Management Agency as a potential model, clearly define the framework and resources needed to ensure that the managers of future natural disasters have rapid/immediate access to information networks that can inform them of situations, emerging incidents and direct access to physical resources to ameliorate the disaster(s), and that the State agencies and political entities are intimately involved and endorse this process/framework.***
 3. ***The Federal Government oversees our national highways to ensure that they are protected from the potential natural disasters such as bushfires, floods etc, and institutes whatever legal requirements are necessary to ensure hazard reduction, flood and land management are consistent with this goal.***

2. Terms of reference b.

2.1. "b. Australia's arrangements for improving resilience and adapting to changing climatic conditions, what actions should be taken to mitigate the impacts of natural disasters, and whether accountability for natural disaster risk management, preparedness, resilience and recovery should be enhanced, including through a nationally consistent accountability and reporting framework and national standards;"

2.2. Our submission on this matter is as follows:-

2.2.1. The Federal Government should, as with most nations, provide the overarching framework for natural resources and their management. From the recent bushfire crisis of 2019-20, no such framework seems either transparent or apparent to the Australian public. There is no consistency in the following: -

- Monitoring of fuel load across the states that is reported, evaluated, modelled and managed at a strategic level, which leaves volunteer groups alone in trying to manage the plethora of regulations/approvals needed to manage their local environments/regions, while facing unprecedented fuel loads due to accumulation year after year.
- Resilience cannot be achieved without data that is accurate and spatially relevant. Modern technology is available to achieve this, but as yet does not appear to have been embraced, let alone deployed by State agencies. For example, recent developments in Lidar, SAR, Hi-resolution multispectral remote sensing, AI and digital data communications are ideally suited to providing spatially extensive indications of fuel loads that MacArthur could not have dreamed of at the time of his fundamentally incisive empirically derived 1967 methods.
- Preparedness needs resources, which are volunteers in the field and strategic resources such as helicopters and planes. However, state agencies also need resources to research, develop and analyse data that will allow them to prepare scenarios to 'test' strategies and tactics that will prepare them for a range of natural disasters.

2.3. Recommendation 1, is that :

The Federal Government undertake a review of the latest monitoring, reporting, analysis of key factors such as fuel loads (in the case of bushfires) and enforce a performance reporting system that provide foresight for impending buildups of natural disasters, much as we do with cyclones/floods etc.

3. Terms of reference c.

3.1. "c. whether changes are needed to Australia's legal framework for the involvement of the Commonwealth in responding to national emergencies, including in relation to the following:

- i. thresholds for, and any obstacles to, State or Territory requests for Commonwealth assistance;
- ii. whether the Commonwealth Government should have the power to declare a state of national emergency;
- iii. how any such national declaration would interact with State and Territory emergency management frameworks;
- iv. whether, in the circumstances of such a national declaration, the Commonwealth Government should have clearer authority to take action (including, but without limitation, through the deployment of the Australian Defense Force) in the national interest;"

3.2. Our submission on this matter is as follows:-

3.2.1.The Federal Government should, as with most nations, provide the overarching framework for natural resources and their management. In the USA, the Federal Emergency Management Agency (FEMA) has this overarching responsibility and is able to pool together the national, State, Defense Forces and Emergency Services. Just as with this Covid-19 virus/economic crisis, natural disasters need a centrally aware authority (by that aware means real time data, asset status, resource preparedness and regular performance reporting).

3.3. Recommendation 2, is that :

The Federal Government, using the USA's Federal Emergency Management Agency as a potential model, clearly define the framework and resources needed to ensure that the managers of future natural disasters have rapid/immediate access to information networks that can inform them of situations, emerging incidents and direct access to physical resources to ameliorate the disaster(s), and that the State agencies and political entities are intimately involved and endorse this process/framework.

4. Terms of reference f.

4.1. “f. ways in which Australia could achieve greater national coordination and accountability — through common national standards, rule-making, reporting and data-sharing — with respect to key preparedness and resilience responsibilities, including for the following:

- i. land management, including hazard reduction measures;*
- ii. wildlife management and species conservation, including biodiversity, habitat protection and restoration;*
- iii. land-use planning, zoning and development approval (including building standards), urban safety, construction of public infrastructure, and the incorporation of natural disaster considerations;”*

4.2. Our submission on this matter is as follows:-

4.2.1.There are many ways in which this matter can be addressed. We feel that instead of discussing the general principles, it is best to highlight an example of how all these issues compound to cause irreconcilable solutions.

4.2.2.The Federal Government has provided significant funding to build and upgrade the national highways. Bushfires threaten these and can cause significant national interruptions. For example, in NSW the RMS has control of these, yet, it encourages native vegetation growth in close proximity to these national highways and encourages vegetation in the median strips. When NSW RFS wants to undertake hazard reduction burns, they not only must get meteorological and environmental approval, they must deal with the “Roads Commanders”’ desires to keep smoke away from the freeways, due to fear of accidents caused by smoke. People using these highways comply with the “work-zone” speed restrictions, so why not hazard reduction zone speed restrictions? The M1 from Hornsby (Sydney) north to Newcastle and beyond is a classic example of high-risk closure in the case of a massive fire such as in 2019.

4.2.3.In 2002/3, the Hornsby to Gosford sections of the M1 and old Pacific Highway were closed, leaving residents of the Lower Hawkesbury isolated and surrounded by bushfires for several days. The Federal Government should enforce regulations that reduce the threat caused by the RMS approach and such highways should be managed as vital national fire breaks, rather than being potential risks as is currently the situation. Any environmental issues should be addressed as secondary and dealt with as such.

4.3. Recommendation 3, is that :

The Federal Government oversees our national highways to ensure that they are protected from the potential natural disasters such as bushfires, floods etc, and institutes whatever legal requirements are necessary to ensure hazard reduction, flood and land management are consistent with this goal.

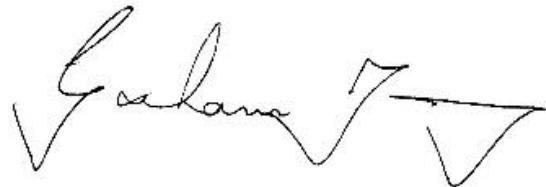
5. Conclusion

We welcome the opportunity to make this submission and would welcome the opportunity to appear in person before the Commission.

Charles Essery, the primary author has qualifications in [insert career qualifications and some biography here] and is also the principal of Sustainable Water Solutions Pty Ltd.

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Yours sincerely,

A handwritten signature in black ink, appearing to read "Charles I Essery".

CHARLES I ESSERY
FELLOW

GRAHAM YOUNG
EXECUTIVE DIRECTOR