

The Wilderness Society submission into the Royal  
Commission into National Natural Disaster Arrangements



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## Executive Summary

Australia is a mega-biodiverse nation with enormous endemism. What we can't protect and manage here is lost for the planet for all time.

Climate change is an environmental risk-multiplier. Australia is already dealing with an extinction debt from previous land-use decisions and invasive species. We have ongoing additional pressures from industry, most notably forestry, agriculture, fossil fuel exploration and extraction. Climate impacts worsen existing risks and provide new ones.

Conservation reserves and biodiverse, flourishing ecosystems are more resilient to climate impacts but as the climate worsens—in particular becoming hotter and drier for longer—the resilience reduces.

The current, wider environmental policy and protection framework is failing but if implemented, managed, resourced and maintained better, the resilience to major events such as the 2019-2020 bushfires and future disaster events would be higher.

We've crossed a threshold where even in the best protected areas we face species loss and ecological collapse. It doesn't have to be this way.

Fire suppression is now a core conservation tool and should be incorporated into the national environmental policy framework. Likewise, environmental ministers should have more say in Whole-of-Government fire-fighting decision-making.

There needs to be greater recognition of Traditional Custodian rights and interests in land and water management, and support for traditional knowledge and management, including cultural burning practices.

Given the scale of these fires, Australia mobilised substantial resources towards mitigating the impacts on lives and property, and the efforts of firefighters and others significantly reduced the toll. But in regards to the environment, scant resources were mobilised and there was extremely limited equivalent success in mitigating the impact on the natural environment.

One reason the impacts of the 2019-2020 bushfires have been so destructive is Australia's wildlife was already pushed to breaking point by twenty years of failed environmental regulation and protection. Australia is a world-leader in extinction and habitat loss, and this will get worse with climate impacts.

Fire is but one of the future climate risks. Australia has little to no adaptive legal and regulatory framework to adequately respond to the environmental impact of other climate-exacerbated "natural disasters" such as drought or other climate-change induced disasters that sit outside of the current Natural Disaster Arrangements such as tree and mangrove dieback, infrequent watering of wetlands, or the widespread collapse of kelp forests.

To maintain Australia's biodiversity in the face of climate change, the following is required:

- A. A global reduction in emissions
- B. Vastly improved fire suppression abilities
- C. Stronger and better resourced protections for critical habitat and key ecosystems to



mitigate loss

- D. A reduction in the impact of traditional industries such as logging, mining and agriculture
- E. Track the impacts, costs and benefits of prescribed burns on ecological resilience and fire risk
- F. Considerable investment in resilience building activities such as expansion of the reserve system, ecological restoration, invasive species management, community capacity
- G. A dedicated environmental climate disaster impact recovery fund
- H. An adaptive and integrated national governance framework for coordination and accountability to deliver A-G.

Items B-G are the necessary adaptation and resilience bridging activities. Ultimately, without Item A (climate mitigation) the conservation success from Items B-G will be largely lost. Items B-G, however, are essential to reduce the impacts in the meantime.

Climate change is a risk to nature but nature is also a solution to climate change. The policy responses should be able to be developed and implemented in an integrative approach where resilience-building, biodiversity conservation and climate mitigation (emissions reduction) activities are woven together.

Australia should consider the impacts of climate impacts (such as the impact of bushfires on communities and nature) as it has historically considered other existential threats to our national security. The risks and policy responses should be benchmarked against traditional national security responses such as defence expenditure. In such consideration, Australia's natural environment should be explicitly considered as part of what is our "national interest".

Australia has excellent climate forecasting and adaptation capacity but the information either never reaches the political decision-makers, or the information reaches the political decision-maker and they refuse to act upon it. Australia has had a blind-spot to climate risk and may not learn after this disaster without strong recommendations from this and other inquiries. Political decision makers are failing to engage with the science (of downscaled climate projections, or of how these climate projections apply to river flows or fire risk or biodiversity decline) as it emerges. It is critical that Australian politicians are required to understand climate risk, not as a generic risk, but as specific risks that differ from region to region and context to context.



## About The Wilderness Society

The Wilderness Society is an independent environmental advocacy organisation whose purpose is protecting, promoting and restoring wilderness and natural processes across Australia for the survival and ongoing evolution of life on Earth. We are a federated national organisation with centres in every Australian state<sup>1</sup>, supported by over 100,000 active supporters, including around 30,000 members and 40 local Wilderness Society community groups.

The Wilderness Society brings with it more than 40 years of experience in the protection of wild places. We were established through the campaign to protect the Franklin River, which led to a Federal election and High Court case that forever cemented a role for the Commonwealth in environmental protection.

Since that time we've actively engaged not just in site-based campaigns, but also in policy reforms across areas of natural area conservation and management, native vegetation protection, endangered species policy and climate mitigation. We are one of the few environmental groups in Australia to have centres in every Australian state and to routinely engage with all levels of Government. We have developed sophisticated integrated policy responses such as applying landscape-ecological principles to regional conservation via the WildCountry Project that have been highly influential.<sup>2</sup> We especially have had a strong focus in forest policy and have strong links to community-led regional initiatives such as East Gippsland's Emerald Link. We participated in the 2009 Victorian Black Saturday Royal Commission<sup>3</sup> and likewise with the 2016 Senate Inquiry into the Tasmanian Wilderness World Heritage Bushfires.<sup>4</sup>

We bring expertise in the operations of relevant Commonwealth Acts such as the Regional Forest Agreement Act, the National Heritage Trust and the Environment Protection and Biodiversity Conservation Act. We are deeply familiar with the cooperation or lack thereof between the states and the Commonwealth, whether in practice or as laid out in the Intergovernmental Agreement on the Environment. Likewise we are deeply familiar with the rapidly declining state of Australia's environment whether from traditional human pressures such as agriculture, mining or native forest logging or from human-induced climate change (as well as how these pressures interact and amplify each other).

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<sup>1</sup> There are no Wilderness Society offices in the Australian Territories, including the NT and ACT.

<sup>2</sup> Mackey, B. G., Soule, M. E., Nix, H. A., Recher, H. F., Lesslie, R. G., Williams, J. E., Woinarski, J. C. Z., Hobbs, R. J. and Possingham, H. P. (2007). *Applying landscape-ecological principles to regional conservation: the WildCountry Project in Australia*. Key topics in landscape ecology. Edited by Wu, Jianguo and Hobbs, Richard J.. Cambridge, United Kingdom: Cambridge University Press. 192-213. <https://doi.org/10.1017/CBO9780511618581.012>

<sup>3</sup> Wilderness Society Submission to 2009 Victorian Royal Commission.

<https://cdn.wilderness.org.au/archive/files/preliminary-report-impact-2009-vic-bushfires-on-nature-and-wildlife.pdf>

<sup>4</sup> Wilderness Society submission into Senate Inquiry into Tasmania

<https://www.aph.gov.au/DocumentStore.ashx?id=2e7f7237-9ba0-42b8-8c3d-f6713e7a4e59&subId=412999>



## Our approach to this submission

The Wilderness Society has put nature at the heart of this submission. While we are highly cognisant of the need for health, safety and economic considerations to be prominent in this Royal Commission, it is not the role of our organisation to duplicate the substantive submissions we expect will be received from bushfire-affected communities, fire agencies and others on these themes.

Recalling the words of Senior Counsel Ms Dominique Hogan-Doran SC from the Ceremonial Hearing, *“As Counsel Assisting, we stand in the shoes of the Attorney-General and represent the public interest in the conduct of this Royal Commission”*, The Wilderness Society seeks to stand in the shoes of Australia’s forest fauna and ecosystems in this submission and to advocate for Australia’s natural heritage to be strongly considered as a cornerstone of the public interest.

While there have been well over one hundred Commonwealth Royal Commissions since Federation, very few of these have touched on the Commonwealth role in protecting and managing the natural environment. One rare example was the 1970-75 Royal Commissions into exploratory and production drilling for petroleum in the area of the Great Barrier Reef which provided a basis for a generation of conservation actions on the reef. The 1974 Aboriginal Land Rights Commission helped pave the way for handover of lands to Indigenous communities, an outcome which provided enduring nature conservation benefits. While not a Royal Commission in the full sense, the 1974 Committee of Inquiry into the National Estate also provided a long-term framework for conservation nationwide.

This Royal Commission is the 33rd to occur since those aforementioned Inquiries, and of those, is the only one to have a focus that includes the natural environment.

Given the trajectory of environmental decline in Australia, we may well have benefited from a standalone Royal Commission into the Commonwealth role in environmental protection at any time in this period.

And given that the warnings of the impacts of The Greenhouse Effect, Global Warming and Climate Change have been on the radar of our political leaders since the mid-1980s<sup>5</sup> but Government responses have not matched the warnings for most of this period, a Royal Commission into climate change mitigation and adaptation would also have been beneficial.

It is in this context, that we consider that this Royal Commission sits. This is the first Commonwealth Royal Commission in more than 45 years to examine Australia’s management of our natural environment and the only Commonwealth Royal Commission to ever examine any aspect of climate change. We understand that the terms of reference of this Inquiry is broader than these elements, we understand the timeline is tight. However, in the times of a species extinction crisis that has exacerbated and fuelled by a climate crisis, experienced by millions of Australians as a bushfire crisis, the sort of extra-parliamentary accountability that can be provided by this Royal Commission is a kairotic<sup>6</sup> moment.

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<sup>5</sup> Australia and Greenhouse Policy- A Chronology. Background Paper 4 1997-98  
[https://www.aph.gov.au/About\\_Parliament/Parliamentary\\_Departments/Parliamentary\\_Library/Publications\\_Archive/Background\\_Papers/bp9798/98bp04](https://www.aph.gov.au/About_Parliament/Parliamentary_Departments/Parliamentary_Library/Publications_Archive/Background_Papers/bp9798/98bp04)

<sup>6</sup> Kairotic from kairos (Ancient Greek) meaning the right, critical, or opportune moment.



In recent Australian history, Royal Commissions have brought with them a quality that is more than just their unique investigative, inquisitorial or advisory powers alone. In the current era, many Royal Commissions have succeeded in cutting through hollow partisan rhetoric, accurately diagnosing the scale of problems and soberly weighing up the pros and cons of responses. As Banking Royal Commissioner Kenneth Hayne remarked in a speech about the seeming need or call for Royal Commissions across a range of policy areas: *“Reasoned debates about issues of policy are now rare. (Three or four word slogans have taken their place.)... Trust in all sorts of institutions, governmental and private, has been damaged or destroyed... Policy ideas seem often to be framed only for partisan or sectional advantage with little articulation of how or why their implementation would contribute to the greater good.”*<sup>7</sup> If you were looking for policy areas where there is greatest need for, as Hayne described the work of Royal Commissions, *“Independent; Neutral; Public; and Yielding a reasoned report”* it would be nature conservation policy and all aspects of climate change policy (including mitigation, adaptation and resilience).

In our submission we will be using the framework outlined by Commissioner, Air Chief Marshal Mark Binskin AC (Retd), in his opening remarks, *“what... worked well? What didn't work well? What needs to change...?”* in respect to preparedness for and response to “natural disasters”, and to improving resilience and adapting to changing climatic conditions. In addressing these areas in relation with specific reference to *“The responsibilities of, and coordination between, the Commonwealth and State, Territory and local Governments”, “accountability and reporting framework and national standards”, “Australia's legal framework”, “the findings and recommendations (including any assessment of the adequacy and extent of their implementation) of other reports and inquiries”* we will be addressing the relevant terms of reference in a logical process. This framework covers off on the terms of reference a-d together. We have provided additional comments specifically associated with terms of reference e-g in standalone sections.

As mentioned earlier, we are putting nature at the heart of our submission. Our focus is, as described in the terms of reference, on the elements of “wildlife management and species conservation, including biodiversity, habitat protection and restoration”. But nature doesn't live in total isolation where it is only impacted by policies that come from the nature conservation policy drawer. It is impacted by a broad-range of human pressures and the policy levers for environmental outcomes sit right across wide areas of government decision-making. Our submission seeks to take a helicopter policy view of nature conservation and bushfire management in the context of increasing climate impacts. We fully expect that there will be submissions from many scientists and conservation organisations outlining the impact that the “Black Summer bushfires” had on wildlife and the natural environment. We do not intend to provide you with a full catalogue of the ecological impact of the fires. Likewise, we do not intend to speak with an authority that we do not have when it comes to firefighting. But we will raise questions in this area that we think should be addressed.

References are provided where possible. However, there are many occasions where the point we are making relates to an absence of government response, which intrinsically tends not to be recorded in a way that can be provided as a reference.

What our submission intends to do is zoom out and highlight the high-level policy interactions

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<sup>7</sup> ON ROYAL COMMISSIONS CCCS Conference – Melbourne Law School – 26 July 2019 K M Hayne  
[http://alumni.online.unimelb.edu.au/s/1182/images/editor\\_documents/MLS/cccs/on\\_royal\\_commissions\\_-\\_the\\_hon\\_k\\_m\\_hayne.pdf?sessionid=8f86fc17-c9fb-4775-af9c-2e83f37c22cb&cc=1](http://alumni.online.unimelb.edu.au/s/1182/images/editor_documents/MLS/cccs/on_royal_commissions_-_the_hon_k_m_hayne.pdf?sessionid=8f86fc17-c9fb-4775-af9c-2e83f37c22cb&cc=1)



that have led us to this point and offer recommendations for how the system can be improved so that Australia's capacity to protect nature in the face of climate change is strengthened.



## Preliminary comments

### ***We pay tribute to the efforts of all involved in the bushfire response***

The efforts of everyone involved in the 2019-20 bushfire response, whether volunteer or paid professional, whether on the end of a hose or on the end of a radio, whether in a plane or a truck or an office, have been a remarkable and historic feat of human endeavour deserving of our praise and our thanks. The endurance and perseverance of so many, in the face of such danger, is simply incredible. It is even more incredible to contemplate that on many occasions, people risked their lives in operations that were entirely focussed on, not on protecting townships, but on protecting natural assets, like the Wollemi Pine.

As this Inquiry looks at “what... worked well? What didn’t work well? What needs to change...?” there will be times in this submission where it could be perceived as being a criticism of actions undertaken by those personally involved in the bushfire response. This is absolutely not the case. Our focus is on seeking systemic improvements to better protect nature in the future.

### ***We have concerns with the use of the phrase “natural disaster” in this Inquiry***

The use of the phrase “natural disaster” is problematic in that the increased incidence, extent or intensity of many events traditionally called “natural disasters” is profoundly affected by human-induced climate change. In addition the problem we are dealing with is not simply a regular occurrence of significant events, it specifically relates to changing qualities and quantities of these events and our diminishing ability to deal with them. We prefer the use of phrases such as “climate change-induced disaster” or “climate change- exacerbated disaster” to describe such events.

### ***We have concerns with the use of the phrase “Black Summer” to describe the 2019-20 bushfire events, especially in association with this Inquiry***

The 2019-20 bushfires have been described as starting in either August or September 2019 and lasted until the majority of fires were declared contained by the end of February 2020. “Black Spring and Summer” would be a more accurate descriptor that doesn’t diminish the extensive period of time these fires burnt. The name “Black Summer” seemingly excludes from consideration the enormity of the fire impacts that occurred throughout the whole of Spring, 2019, and therefore diminishes the unusualness of having such widespread early Spring fire events in the first place.

### ***Climate mitigation can and should be a part of this otherwise climate adaptation-focussed Inquiry***

Some of the debate that has occurred around the 2019-2020 bushfire events and also around this Inquiry has centred on the notion that it is accepted that Australia will have a hotter, drier and more fire prone future and we simply need to take that assumption on board, make some changes to our fire-fighting or land management policies, and then all will be ok. For instance, the Terms of Reference for this Inquiry acknowledge a changing climate, and look for practical measures to help Australia adapt to that new climate. What this debate does not do, however, is discuss that Australia faces a wide range of potential future climate scenarios that differ depending on how far into the future we are considering, as well as the level of global emissions and factors of climate



sensitivity. The sort of actions that might be useful to adapt to say, a one degree rise in average temperatures, may become completely ineffective in a 1.5C average rise in temperatures. This is especially the case for natural systems such as forests, coral reefs and wetlands. And once we get to higher levels of temperature rise, our ability to build resilience to or adapt to increasing climate change-induced disasters may be lost.

Ultimately, climate mitigation considerations will always be a part of climate adaptation considerations because the how-to-adapt questions can only be answered with an understanding of the how-hot-will-it-be-questions. Ultimately, without climate mitigation efforts, efforts to adapt to climate change will fail and the next Royal Commission of this type will be one not focussed on resilience, adaptation and recovery, but one focussed on simply triaging the loss and damage that a hotter world will bring. Perhaps we are at that point already.

Given this, we believe that there is scope and need for the Commissioners to address questions of climate mitigation. We hope that this Inquiry will find some space to provide an honest assessment for the Australian people of the limits to climate adaptation unless global emissions are urgently reduced, and outline what responsible contribution Australia should make to achieve this.

### ***The species extinction crisis and the climate crisis are the backdrop of this Inquiry***

Prior to the 2019-20 bushfires, it was already widely accepted that Australia was going through a species extinction crisis. It has been evident in the series of Australian State of Environment Reports and numerous systematic studies<sup>8</sup>. Evidence includes time-series data for changes in the extent and population size across hundreds of species, repeated negative changes to the formal conservation status of species under state and Commonwealth Acts (plus the IUCN Red List), and various Threatened Species Indices.

Likewise, the climate crisis impacting on Australia is evident well beyond the 2019-2020 bushfires. Significant events associated with the climate crisis in Australia include mass coral bleaching, the widespread collapse of kelp forests, the 2016-19 Australian drought, the Black Saturday bushfires (and associated heatwaves).

In this context, the 2019-2020 fires are yet another example of the ongoing and worsening impact of human-induced climate change, and an example of how this human-induced climate change can exacerbate the ongoing species extinction crisis.

### ***We are facing a multitude of climate change-induced disasters that go beyond the existing typology of disasters***

The Wilderness Society has focussed predominantly on bushfires as a “natural disaster” in the context of this submission. However, non-bushfire “natural disasters” can also impact biodiversity. For instance, climate change-induced higher sea-levels and storm surges led to the extinction of

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<sup>8</sup> Lemckert, Frank, and Michael Mahony. "The status of decline and conservation of frogs in temperate coastal south-eastern Australia." *Status of Conservation and Decline of Amphibians: Australia, New Zealand, and Pacific Islands* (2018): 59. Geyle, Hayley M., et al. "Quantifying extinction risk and forecasting the number of impending Australian bird and mammal extinctions." *Pacific Conservation Biology* 24.2 (2018): 157-167. Woinarski, J. C., Burbidge, A. A., & Harrison, P. L. (2015). Ongoing unraveling of a continental fauna: decline and extinction of Australian mammals since European settlement. *Proceedings of the National Academy of Sciences*, 112(15), 4531-4540.



the Bramble Cay melomys<sup>9</sup>.

The Commission has specifically-focussed on the sudden-onset and immediately dangerous to humans typology of “natural disasters” such as floods, cyclones and bushfires. But there are a range of other climate-related impacts that are devastating to nature (such as mass tree dieback, mass coral bleaching, ecosystem collapse - e.g. kelp forests, Mountain Ash forest ecosystem) that are not currently captured by either this Inquiry or by the Natural Disaster Arrangements. We would strongly argue that this narrows Australia’s ability to respond to the full array of climate-impacts and that these other forms of climate-induced disaster should be explicitly incorporated in Australia’s Natural Disaster Arrangements.

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<sup>9</sup> <https://www.nature.com/articles/535493e>



## Australia's preparedness for "natural disasters" (especially bushfires)

In this section we are defining Australia's preparedness and the effectiveness of the steps taken to be ready for potential climate-induced worsening of disaster events. It more relates to the sort of seasonal preparation work required to be able to defend against or suppress a fire, as opposed to the resilience-building work required to make a natural area better able to recover if a fire was to occur. There is some overlap between the preparedness and resilience sections. There are also a series of Recommendations made in other sections of this submission, for example around the effectiveness of laws, the role of Traditional Ecological Knowledge, the exacerbating impacts of native forest logging for fire risk, and the necessity of risk-based approaches, that if considered and implemented would substantially improve Australia's preparedness for "natural disasters", especially bushfires.

### **What has worked well**

#### Climate science/Meteorological information availability

There was good information that was publicly available in the lead up to the fire season of the significantly increased fire risk associated with higher temperatures and drought.

### **What didn't work well**

#### Commonwealth Government was slow to escalate involvement despite apparent risks

Despite an ongoing national drought that was met with a suite of major Commonwealth Government policy interventions into addressing the social, agricultural and economic aspects of that 2016-19 drought, the Commonwealth had not provided any policy response to the drought's environmental impacts.

By the start of the 2019-2020 fire season, the Commonwealth Environmental Department had not given any substantial consideration towards increased risks to Matters of National Environmental Significance (MNES) associated with either the drought or with the fire risk associated with that drought, or the combination of the two.

It was clear that the impact of drought, together with impending fire risk, had heightened extinction risk for a range of species and increased risk to important natural areas.

The Commonwealth Environment Department had not assessed risks to endangered species, or national or World Heritage sites associated with the then climatic conditions and forecast.

More broadly in the Commonwealth Government, there was awareness of underlying climatic/meteorological information about increased fire risk associated with drought and higher temperatures, yet there was no sign of any explicit analysis of the potential scale of fires in the upcoming fire season and the capacity of these fires to overwhelm a firefighting response, particularly when fires could occur across multiple firegrounds across multiple states. However, it appears from the subsequent media debate that concerns were held by senior professionals, and that these concerns were aired to relevant Ministers, but that these concerns were not acted upon by the relevant Ministers<sup>101</sup>. The lack of transparency of process here is of concern, as is the

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<sup>10</sup>



alleged lack of response.

More specifically, we believe that nowhere in the Whole-of-Government consideration about the resources required to respond to such large-scale fires did the Commonwealth Environment Department or Commonwealth Environment Minister provide input about risks to MNES in advance of the 2019-2020 bushfire season. So we believe that the decision around funding levels for aerial assets did not take into consideration the needs of key environmental matters related to the Commonwealth such as World Heritage Areas, critical ecosystems, or endangered species.

There has been a lack of positive engagement by Australian Governments in international fora since the Copenhagen Climate Talks and there have been a number of domestic policy rollbacks with climate mitigation policy including with the repeal of the carbon price. We believe that many Australian conservative politicians have adopted an anti-climate policy stance in whatever way climate change manifests in Australian debate. What this has done is limit the understanding of a section of the Australian political elite when it comes to the full suite of climate policy ramifications, not just with emissions reduction. This means that there is, at best, a lack of engagement with what steps are needed to adapt to climate change, or worse still, a downplaying of any risks associated with climate impacts, or at the furthest extreme, an unwillingness to carry out climate adaptation policy full stop, simply because that would mean providing some tacit acceptance that addressing climate change is a valid policy area.

This lack of incorporation of climate change considerations has undoubtedly played out in relation to the interaction of biodiversity conservation policy, climate change and fire risk/management. The 2009 Black Saturday Royal Commission did not consider climate change in its Terms of Reference and neither has a number of more recent federal House of Representatives Inquiries. The level of public understanding about the limits to fuel management operations and the residual risks associated with them arise in part because of the lack of clear communications from political leaders about the role and effectiveness of these practices. When fire professionals have been able to discuss this publicly, they have been undermined by political leaders who have downplayed a climate change role and emphasised a model of prescribed burning that is not grounded in theory or practice.

If this Royal Commission could reflect upon how human-induced climate change considerations can be less able to be sidelined as a causative factor or risk factor in future fire planning and response evaluation, that would be of great value.

### **What should change (recommendations)**

#### **RECOMMENDATION 1**

The Commonwealth Environment Minister be formally required to contribute to Whole-of-Government deliberations in regards to preparedness for upcoming fire seasons, well ahead of those fire seasons (which could mean on an ongoing basis). The Commonwealth Environment Minister additionally formally contributes Whole-of-Government preparations for fire and other hazards including the contracting of aerial assets.

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<https://www.smh.com.au/politics/federal/pleas-made-two-years-ago-for-more-federal-funding-for-water-bombers-20201005-p53ozq.html>

<sup>11</sup> <https://www.abc.net.au/news/2019-11-14/former-fire-chief-calls-out-pm-over-refusal-of-meeting/11705330>



## **RECOMMENDATION 2**

A national (cross-jurisdictional) environmental risk alert system for climate risks that focuses on Matters of National Environmental Significance should be established where coordination and response moves to a heightened footing as risks rise. This would include where multiplying risks exist (such as drought and fire).

## **RECOMMENDATION 3**

There is a clear need for an independent climate change risk advisory body that provides a degree of accountability where political leaders undermine effective decision-making and public messaging. The Climate Commission, which was established in 2011 and abolished in 2013 could have played this role. Other models for this role could be a National Environmental Commission<sup>12</sup>, a Parliamentary Environment Office (paired with the Parliamentary Budget Office) or as outlined by Professor John Blaxland, a national institute of net assessment, where broader risks to Australia including these are considered.<sup>13</sup>

## **RECOMMENDATION 4**

There should be clearer and more accurate public communication on the limited effectiveness of fuel management operations and residual risk, particularly with climate change.

## **RECOMMENDATION 5**

Given effectiveness of fuel management and appropriate conditions for planned burns is expected to be further limited under climate change, there is a need to apply a risk-based lens to these activities, targeting operations to the most areas where this approach would provide the most benefit (e.g. close to houses).

## **RECOMMENDATION 6**

The Commonwealth Government should prioritise protection of Australia's existing terrestrial carbon stores, stocks and flows and ecosystems; ensure a credible land carbon policy<sup>14</sup> is implemented as part of strong overall emissions reductions in line with science; and prioritise afforestation and regeneration of degraded landscapes and ecosystem corridors such that Australia becomes a resilient, biodiverse carbon sink, in line with national biodiversity conservation priorities.

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<sup>12</sup> As outlined in our submission to the 2020 statutory review of the EPBC Act

<sup>13</sup> A geostrategic SWOT analysis for Australia - Professor John Blaxland  
<https://www.defenceconnect.com.au/key-enablers/4651-a-geostrategic-swot-analysis-for-australia>

<sup>14</sup> This policy must ensure no direct offsetting of fossil fuel emissions with land carbon credits either domestically or internationally



## Australia's response to "natural disasters" (especially bushfires)

### *What worked well*

#### The substantive and prolonged firefighting mobilisation

When considering the scale and intensity of the 2019-20 bushfires with previous bushfire events, the entirety of the emergency response system (warning, evacuations, firefighting etc.) together with the extraordinary volunteerism demonstrated in responding to the fires shows the deep commitment and willingness to work together from all those involved. Clearly however, more needs to be done to protect life, property and the environment.

We have also received anecdotal reports that, when applied, the relative effectiveness of aerial firefighting in reducing fire spread has increased over previous fire seasons. And that this has led to an emerging consideration of how water bombers might play a more substantive role in future events, particularly in relation to putting out remote spot fires.

#### There were some dedicated firefighting efforts to protect environmental assets

The efforts of the NSW National Parks and Wildlife Service to protect the Wollemi Pine from fire is one example of a dedicated effort to protect environmental assets which provides an example of how efforts to protect nature can co-occur alongside efforts to protect human life. There were other local examples of this but there is currently no way of assessing what proportion of the fire response was dedicated to protecting natural assets.

It was clear that environmental considerations were part of the risk assessment process at an operational level when determining the allocation of firefighting assets, but we have no way of reviewing the appropriateness or effectiveness of this process. We are aware that personnel with fire and biodiversity expertise participated in senior decision making roles during fire agency response in some jurisdictions. But again, it is hard for us to determine whether this is sufficient.

#### The active wildlife rescue and care efforts

There was an incredible wildlife rescue and caring effort undertaken by community organisations, individuals, zoos and veterinary centres.

#### Science and data

The live-sharing of fire data through state emergency services was useful and allowed the broader environmental community to undertake desktop tracking of ecological impacts.

#### The role of the Australian Defence Force

The Australian Defence Force were involved in a range of environmental activities ranging from the establishment of emergency firebreaks, to fire surveillance, to active wildlife rescue. We have heard directly from affected communities that although some of these activities seemed ad hoc, the presence of the ADF was heavily reassuring to residents. It is hard for us to comment more broadly on the effectiveness of the environmental aspects of the ADF's work without more information about the tasks they carried out.



## What didn't work well

### Catastrophic damage to natural areas and loss of species

The 2019-2020 bushfires have had a significant impact on many of Australia's most important and biodiverse landscapes. More than 11 million hectares of land burned across the country over a period of about six months.

There have been significant impacts on matters for which the Commonwealth is responsible (Matter of National Environmental Significance):

- 114 animals have more than 50% of their modelled likely or known habitat within the burnt areas<sup>15</sup>;
- 21 nationally-listed endangered or critically endangered species have more than 80% of their modelled likely or known habitat within the burnt areas<sup>16</sup>;
- Approximately 54% of the Gondwana World Heritage Rainforests of Australia, 81% of the Greater Blue Mountains Area and 99% of the Old Great North Road has been affected by fires;
- Other World Heritage Areas (Budj Bim Cultural Landscape (Vic), Fraser Island (K'gari) (Qld), Wet Tropics (Qld) and Tasmanian Wilderness) have also been affected<sup>17</sup>;
- An initial assessment of the 84 listed threatened ecological communities indicates that 20 have more than 10% of their estimated distribution within the fire extent, and another 17 have been directly impacted<sup>18</sup>;
- Ramsar listed wetlands, migratory species and many nationally-listed invertebrates are yet to be assessed.

While fire is a regular feature of many Australian ecosystems, there are number of aspects of the 2019-20 fire event that are significant when evaluating the environmental impact:

- The total extent of the fires;
- The large proportion of habitat burnt at a regional or landscape level;
- The large loss of rainforest and other previously long unburnt areas;
- The intensity of the fires and the large extent of areas with total canopy loss.

All of the above factors dramatically have dramatically increased the impact to wildlife when compared to previous fire events.

### The Commonwealth did not fulfil its obligations in relation to protecting Matters of National Environmental Significance

The Commonwealth has a series of responsibilities and obligations in relation to the protection of Matters of National Environmental Significance. Some of these obligations stem from international agreements such as the World Heritage Convention and Convention on Biological

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<sup>15</sup> Provisional list of animals requiring urgent management intervention (20th January 2020)  
<http://www.environment.gov.au/biodiversity/bushfire-recovery/research-and-resources>

<sup>16</sup> Provisional list of animals requiring urgent management intervention (20th January 2020)  
<http://www.environment.gov.au/biodiversity/bushfire-recovery/research-and-resources>

<sup>17</sup> Provisional list of impact of fires on world heritage areas (13th February 2020)  
<http://www.environment.gov.au/biodiversity/bushfire-recovery/research-and-resources>

<sup>18</sup> Impact of fires on Threatened Ecological Communities (19th February)  
<http://www.environment.gov.au/biodiversity/bushfire-recovery/research-and-resources>



Diversity. These obligations are given expression in the Commonwealth Environment Protection and Biodiversity Conservation Act. The delineation of roles between the states and the Commonwealth are outlined in the 1992 Intergovernmental Agreement on the Environment.

There is extensive scope within this framework (including through legislative powers in the EPBC Act) to have played a stronger role in protecting MNES from these fires. A role exists, but was not used.

There is a barrier to the Commonwealth meeting some of its responsibilities and obligations for forest-based MNES: the Regional Forest Agreements (RFAs). Given the impacts of the 2019-20 bushfires on forest fauna, flora and ecosystems, the RFAs require careful scrutiny and re-consideration. These bi-lateral agreements, and the opportunities for reducing fire risk by abandoning them, are discussed further in the submission.

### There is an implicit Commonwealth bias against funding the early protection of Matters of National Environmental Significance

Given that the Commonwealth has a series of obligations in regards to protecting MNES, we are concerned that the Commonwealth funding support for aerial firefighting efforts does not extend to firefighting in natural areas unless *“In the context of aerial firefighting, eligible activities are those undertaken to protect residential properties within the immediate proximity of a residential area where fire impact is imminent (e.g. ‘Emergency Warnings’ are being issued to the community because the fire could impact a residential area within six (6) hours).”*<sup>19</sup>

We understand that a state government may apply to the Commonwealth for a share of funding relating to remote area firefighting activities after the fact but there is no guaranteed share of funding at the time. Tasmania is still waiting for a response from the Commonwealth about their response to the fires in the Tasmanian World Heritage Areas from a number of years ago.<sup>20</sup>

This issue was canvassed in an article in the Sydney Morning Herald on the 28th of February.<sup>21</sup> The article also quotes a number of experts on how this funding rule might impact on firefighting effectiveness and suggesting that more could be done to put out remote spot fires earlier.

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<sup>19</sup>

<https://www.disasterassist.gov.au/Documents/Natural-Disaster-Relief-and-Recovery-Arrangements/Guideline-2-Counter-Disaster-Operations-2017.pdf>

<sup>20</sup> <https://www.abc.net.au/news/2019-02-09/plea-for-federal-help-fund-wilderness-fires-clean-up/10796466>  
<https://www.abc.net.au/news/2019-04-14/no-sign-of-wilderness-fire-damage-funding/11001418>  
<https://www.examiner.com.au/story/6490445/wait-on-for-wilderness-bushfire-funding-support>

<sup>21</sup>

<https://www.smh.com.au/politics/federal/ex-fire-chiefs-say-ridiculous-bushfire-funding-stymies-waterbombing-20200228-p545dz.html>



### **Ex-fire chiefs say 'ridiculous' bushfire funding stymies waterbombing**

By Mike Foley and Alexandra Smith

February 28, 2020 – 6.30pm

Former fire chiefs say a "ridiculous" bushfire funding rule is preventing emergency services from waterbombing small fires before they turn into mega blazes that destroy homes and kill people.

Federal funding can flow to state governments under the Disaster Recovery Funding Arrangements with up to 75 per cent of costs covered - but only in "extraordinary" circumstances when firefighting was targeted at "imminent" risks to lives and property.

That means states may have to carry the cost of early prevention waterbombing on fires in remote areas, well away from lives and property. This summer a number of small fires in remote areas became major blazes that destroyed homes in NSW and Victoria.

NSW has confirmed it would seek "partial reimbursement" from the federal government for its firefighting efforts, including waterbombing, since July last year.

Victoria's former Emergency Management Commissioner Craig Lapsley said funding arrangements had stopped fire managers sending planes to waterbomb small fires in wilderness.

"Without doubt there are definitely examples from this summer where fires got too big for ground suppression to be effective, but if more aircraft were deployed earlier there would have been a better chance to keep fires small," Mr Lapsley said.

Mr Lapsley said "operational people have not stuffed up" with their deployment of resources, but had done "the best they could" under the current arrangements.

"There have been examples where questions about the utilisation of large aerial tankers in remote areas has been questioned over the deployment of them - which is not the right way to consider any deployment of those aircraft," he said.

A NSW government spokesman said it estimated an "additional" \$315 million went to the Rural Fire Service for increased costs this summer, and the state would request funding from the federal government.

The Tasmanian government has lodged a special request for funding to help cover the cost of fires that began in late 2018 and burned in World Heritage wilderness. Spokespeople for the Tasmanian and federal governments said negotiations over funding are ongoing.

This year lightning strikes lead to huge blazes in remote bushland in the Snowy Mountains and a series of fires that burned across East Gippsland in Victoria. The Gospers Mountain fire began in the Wollemi National Park in the Blue Mountains World Heritage Area and burnt for months over a total area of 444,000 hectares.

Former NSW Fire and Rescue commissioner Greg Mullins said the national disaster funding is a "ridiculous rule".

"Look at the size of the fires - more than five million hectares in NSW. The majority of the area burnt was nowhere near homes and people, but we lost more than 10 times more property than any time in NSW's history," Mr Mullins said.

Former Victorian Country Fire Authority chief Neil Bibby said many of this summer's fires could have been tackled before they burned towards towns and property with greater aerial resources.

"It's a fundamental theory: put the fire out when it's small and then you don't have as big of a problem," he said.

Wilderness Society policy director Tim Beshara said beefing up aerial firefighting would improve public



safety, benefit nature, and help meet Australia's international environment obligations.

"It makes no sense on any level that the Commonwealth automatically stumps up for firefighting costs when a fire is near a home or a farm but not for putting out a fire in the middle of a World Heritage Area," he said.

The National Aerial Firefighting Centre owns a fleet of 150 aircraft and is funded by state, territory and the federal governments. The federal government contributes \$15 million a year, with Prime Minister Scott Morrison announcing in early January he would commit an extra \$11 million each year toward the agency each year.

The current fire season is ongoing and NAFC has not calculated its costs. Last year its costs exceeded \$130 million over a less intense fire season and a spokesperson said the costs for this year's fire season are expected to be "significantly higher".

State governments have two years to lodge funding applications under Disaster Recovery Funding and none have done so for this summer's fires.

### The overall Commonwealth investment in fire suppression is no longer matched to the level of risk (especially in regards to natural assets)

The 2019-2020 firefighting effort mobilised significant resources in the response towards protection of life and property, and additional resources and reform are clearly needed in this area. However, the effort towards protection of natural assets is disappointingly low. The allocation of fire fighting resources, particularly towards spot fires in remote areas has not been sufficient to mark a marked reduction in the extent and environmental impact.

We have concerns that the annual assessment and funding allocation regarding aerial assets is guided too much by the principle of optimisation. This optimisation is a false economy that has led to Australia being vastly under-resourced to deal with the 2019-2020 fires. The ambition should be to have at all times, significantly more than adequate capacity in periods to apply "overwhelming force" to firegrounds so that the majority of spot fires can be sufficiently responded to. If this means that aerial firefighting planes sit unused on runways unused in the majority of fire seasons, then that is ok, as long as they are available en masse for the one year when the need is greatest.

### What should change (recommendations)

#### **RECOMMENDATION 7**

National objectives should be set for reducing the impact of fires on MNES.

#### **RECOMMENDATION 8**

Funding towards aerial assets should err on the side of over-allocation rather than optimum allocation, or, under-allocation which is the present situation. The process for assessing this risk should be made public and an annual assessment of risk, together with an assessment of firefighting response capability should be incorporated. A large standing fleet should be established.

#### **RECOMMENDATION 9**

The Commonwealth should clarify its role in the active firefighting protection of MNES. A centralised capacity should be established (either within AFAC or elsewhere) to provide surge capacity to deal with remote fires that goes beyond aerial firefighting.



**RECOMMENDATION 10**

The federal funding formula for the firefighting response needs to be adjusted to actively incorporate MNES as a funding criteria. The formula should be adjusted to incentivise the rapid response to fires when they start, including aerial fleets and water bombing.

**RECOMMENDATION 11**

The doctrine for assessing and responding to remote spot fires should be adjusted. The practice of allowing remote fires to “burn out” even when resources are available to respond should be reconsidered. Any reconsideration of doctrine should account for the improved effectiveness of aerial firefighting.

**RECOMMENDATION 12**

Fire data should be made seamless between states.

**RECOMMENDATION 12**

The Role of Defence in emergency response should be clarified. We do not believe that the ADF should play a leadership role in the emergency response to bushfires as has been canvassed in some quarters. The ADF lacks an institutional understanding of bushfire and of nature. However it should improve interoperability for its assets, provide technical and doctrinal advice for the fire response and apply technological expertise to fire surveillance improvements.

**RECOMMENDATION 13**

The overall investment in fire suppression needs to be increased to a point where it can substantially impact on reducing the impact of fires on MNES. There should be a standing aerial fleet of a capacity to respond to all spot fires in the worst foreseeable fire season. Overall funding should be benchmarked against other areas of government spending associated with similar existential risks (i.e. national security and defence).



## Improving resilience and adapting to changing climatic conditions

### **What worked well**

#### Australia's protected area network provides increased resilience

Australia's network of protected areas (national parks, nature reserves etc.) provides increased resilience to catastrophic climate events when compared to other areas subjected to additional pressures (such as logging or grazing).

#### Community and environment engagement programs

Programs such as the NSW Hotspots program<sup>22</sup> have increased regional and rural community skills, awareness and engagement in relation to fire management and biodiversity. Other socio-ecological programs like landcare (bushcare and coastcare) provide a broader platform for similar forms of engagement.

#### Underpinning science

Australia has world-leading climatological, ecological and bushfire science researchers and have developed a large body of research. As noted later in this submission, this research effort is not sufficiently funded, coordinated or the research outputs integrated into policy.

### **What didn't work well**

#### Australia's overarching climate mitigation efforts

Australia does not have an overarching policy framework to reach or better our Paris Agreement targets.<sup>23</sup>

#### Failures in Australia's overarching environmental administration have failed to stem environmental decline resulting in further reduced resilience

As previously mentioned, Australia is in the midst of a species extinction crisis. The failure of the wider environmental framework (the EPBC Act, state laws, coordination) meant the overall risk to wildlife and ecosystems from the 2019-2020 bushfires was higher than it should have been. This failing is system-wide and relates to inadequacies in the wider policy architecture as well as failures of implementation. These failures lay unaddressed because of the unwillingness of political decision-makers to engage in the scientific reality that is climate change.

In the context of the operation of the EPBC Act, Australia's ability to protect and restore biodiversity values in the context of growing climate impacts is severely limited by many of the systemic inadequacies including:

- Inadequate recovery planning and implementation, including not requiring assessment of existing climate and likely future impact;
- Permitting degrading activities within critical habitats already under pressure from climate change impacts;

<sup>22</sup> <https://www.rfs.nsw.gov.au/plan-and-prepare/prepare-your-property/hotspots>

<sup>23</sup> <https://climateactiontracker.org/countries/australia/>



- A lack of adaptive regulation and triggers for reassessment and iteration of planning;
- Inadequate independent data; and
- Inadequate cumulative impact assessments.

The adaptiveness required to protect biodiversity values under a changing climate is also poorly served by exemptions (in the case of Regional Forest Agreements (RFAs)) and class of action approvals (in the case of offshore petroleum developments) which operate over decade long time periods.

Within the framework of the EPBC Act alone exist the following failings that directly involve Commonwealth obligations:

- A failure to write, review, fund and implement endangered species recovery plans (including reviewing for climate risks);
- A failure to review and update management plans for national and world heritage sites or to fund actions to build resilience associated with these plans;
- A failure to complete the “key threatening process” (KTP) assessment for “Contemporary fire regimes resulting in the loss of vegetation heterogeneity and biodiversity throughout Australia” (later renamed “Fire regimes that cause biodiversity decline”) despite being prioritised for assessment since 2008. This failure has prevented the establishment of a “threat abatement plan” that could have provided an overarching framework for the Commonwealth in preparing for and responding to the 2019-20 fires.<sup>24</sup>

Currently the EPBC Act makes no provision for dealing with major natural events, such as major fire events, beyond allowing for listing changed fire regimes as a key threatening process.

In addition to the Commonwealth Government’s substantive obligation to protect MNES, as a party to the Convention on Biological Diversity (CBD) the Commonwealth is required to: “*promote national arrangements for emergency responses to activities or events, whether caused naturally or otherwise, which present a grave and imminent danger to biological diversity*” [Article 14.1(e)].<sup>25</sup>

It is imperative that Australia has an adaptive legal and regulatory system that can cope with the inevitable major events yet to come, particularly in a climate change context. An effective national environment act would include:

- Proactive responsibilities to ensure bushfire risk mapping and modelling as an essential component of nationally significant values planning and assessment, including identifying priority actions to mitigate bushfire risk as a result;
- Provisions to ensure decision-makers in fire planning and response across state borders have appropriate access to information (including mapping) of fire sensitive MNES and areas, sites and values on the proposed ‘key cultural and natural assets’ register;
- Major event provisions that trigger full ecological audit/s of major event impacts on MNES and areas, sites and values on the proposed ‘key cultural and natural assets’ register, including the identification of habitat and systems required for environmental restoration; and
- Provisions to suspend existing activities and approvals that might affect bushfire-impacted MNES, and areas, sites and values on the proposed ‘key cultural and

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<sup>24</sup> FOI document outlining discussion of progressing KTP <https://www.environment.gov.au/system/files/181015.pdf>

<sup>25</sup> <https://www.cbd.int/convention/articles/?a=cbd-14>



natural assets' register, such as logging (including RFA logging) or clearing applications, in case of a major event pending an impact assessment for those MNES or assets.

We further note that the environment was removed from the COAG agenda in 2013. This has likely reduced federal-state cooperation on these matters.

### Lack of national-level fire risk assessment for MNES

The failure to complete the KTP for bushfire impacts has meant there has been no national assessment of the likely risks associated with climate-induced bushfires for all MNES. Associated with this is a national understanding, not just the general risk from fires, but what specific assets are currently (or in the future could be) defensible with firefighting.

### Lack of investment into protected areas, invasive species management, ecological resilience building activities

We have long been concerned about inadequate levels of funding for fire management, invasive species control and ecological restoration activities within state agencies responsible for managing protected areas. However, state budgeting processes have obscured the overall level of funding for these sorts of activities as agencies like the NPWS have been absorbed into larger departments. Without basic information about the amount of funding allocated to certain areas and activities, there is little opportunity for a basic assessment of the adequacy of management by these agencies. This creates major problems when trying to apply accountability to the system.

### Logging increases fire frequency, intensity and severity

Logging in native forests reduces the resilience of forest ecosystems at a site and a landscape level through increasing the availability of dry fuel, changing the vegetation structure to increase likelihood of crown fire and drying out the landscape<sup>26</sup>. Of particular concern is the way that harvesting of forests increases the risk (chance of and severity of) fire within rainforest and wet sclerophyll communities. Additionally, we have observed first hand in East Gippsland where intact forests have buffered the impact of bushfire on rainforest communities, but where the adjoining forest was logged, the rainforest suffered greater fire impacts.

### Insufficient monitoring and species/ecosystem specific science

There is a lack of resources directed towards systematic and longitudinal monitoring of sites, ecosystems and species populations.

### Lack of framework to assess performance

There is no framework to assess the performance of the Commonwealth and states against their relative roles in relation to the environment and managing climate impacts. There is no collecting of information about the activities each government acquitted against their role and this includes simple information about expenditure.

### Lack of integration of climate mitigation, resilience-building and biodiversity

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<sup>26</sup>Lindenmayer, David B., et al. "Newly discovered landscape traps produce regime shifts in wet forests." *Proceedings of the National Academy of Sciences* 108.38 (2011): 15887-15891. Lindenmayer, David. "Interactions between forest resource management and landscape structure." *Current Landscape Ecology Reports* 1.1 (2016): 10-18.



## conservation/restoration objectives

Climate change is widely acknowledged as one of the largest systemic threats to biodiversity in Australia. Research predicts dramatic environmental change due to climate change, with the predicted disappearance of many ecosystems currently occupied by Australian biodiversity so significant that the magnitude of these changes will overcome species's ability to adapt by 2070.<sup>27</sup>

It is well acknowledged that effective land management can help minimise the scale of climate change by sequestering carbon in the landscape and also help landscapes adapt to the changing climate.<sup>28</sup>

Protecting and restoring Australia's ecosystems will make an important contribution to limiting global warming to below 1.5 degrees, and will deliver biodiversity and other benefits for people and nature. Legislation that ends broad-scale land-clearing, deforestation and degradation of native forests is an essential part of protecting Australia's land carbon stores and mitigating climate change—as well as reducing frequency, intensity and severity of bushfires. Policies that incentivise further sequestration in the land sector must be additional to these legislative protections.

## What should change (recommendations)

### RECOMMENDATION 14

The EPBC Act should be reformed or replaced in line with our recommendations into the current statutory review of the EPBC Act (see below)<sup>29</sup>:

1. The EPBC Act should be reformed or replaced so that it:
  - a. has a clear and unambiguous objective to ensure that Australia's environment is healthy and remains so into the future;
  - b. prescribes clear and enforceable duties to protect and recover environmental values, and sets minimum standards of protection across jurisdictions;
  - c. contains clear and enforceable preventative measures against harmful activities and projects;
  - d. deals consistently with all types of environmental impact, regardless of the sector and land use causing those impacts; and
2. Enshrine community rights and informed participation in decision-making in all Commonwealth environmental legislation and regulation; and
3. Reform the EPBC Act (or create a National Environment Act) to provide key enabling infrastructure to ensure that the Act is implemented in line with its objects and principles, including:
  - a. Establishing independent and trusted institutions (a National Environment Protection Authority and National Environment Commission) to ensure transparent and consistent enforcement of the Act and provide oversight of and accountability around regulatory processes and decision-making;
  - b. Ensuring full, timely and comprehensive data and monitoring is publically available to support effective policy development and effective community participation in decision-making; and
  - c. Ensuring sufficient resources are invested to make certain that environmental values are maintained or enhanced.

### RECOMMENDATION 15

<sup>27</sup> Dunlop et al (2012) *The Implications of Climate Change for Biodiversity, Conservation and the National Reserve System: Final Synthesis* CSIRO Climate Adaptation Flagship, Canberra

<sup>28</sup> For example, see

<https://www.csiro.au/en/Research/LWF/Areas/Landscapes/Forests/Sequestering-carbon-in-soil-and-vegetation>

<sup>29</sup> Please contact the Wilderness Society for a full copy of this submission.



The protected area network should be expanded to build further resilience into the landscape. The focus should be first on adding habitat from species, ecological communities and ecosystems at highest risk. When additional area is added to the protected area, additional resources should be provided to the agency responsible for its management.

#### **RECOMMENDATION 16**

Agency funding towards managing the protected area network should increase. Funding should be made transparent and be tracked as part of a national accountability framework.

#### **RECOMMENDATION 17**

The Commonwealth and states should work towards urgently accelerating the phasing out native forest logging to reduce fire risk and increase landscape resilience.

#### **RECOMMENDATION 18**

Better funding should be provided to protected area agencies and other organisations/individuals involved in site, species and ecosystem monitoring (including university researchers, conservation groups).

#### **RECOMMENDATION 19**

The Commonwealth should complete the KTP for bushfires and institute a threat abatement plan. This plan should establish a 'key natural assets' register to support coordination and prioritisation of fire planning and defence with other jurisdictions. This register should comprise high value MNES for which regularly updated bushfire risk modelling shows a significant sensitivity to fire events, such as World Heritage Areas, rare and isolated plant communities (e.g. Wollemi Pines), Wilderness and Reference Areas or severely range-limited critically endangered species like the Kangaroo Island Dunnart. Investment may be required to better understand fire risk and mitigation requirements for nationally significant species and key natural assets. [We also anticipate it may be appropriate for a similar or combined register to be established for Indigenous cultural heritage—but this would clearly be subject to Traditional Custodian approval.]

#### **RECOMMENDATION 20**

All species recovery plans and site-based plans for world and national heritage sites should be reviewed in light of potential climate-impacts. These plans should be funded and implemented.

#### **RECOMMENDATION 21**

A COAG environment committee should be re-established.

#### **RECOMMENDATION 22**

A national bushfire and ecological science agency should be established. It should be an independent agency with long-funding horizons (not a CRC model). It should coordinate science activities and have as one of its focusses, the protection of MNES.

#### **RECOMMENDATION 23**

There should be an increased focus on reducing deforestation and degradation and increasing stocks, stores and flows of land-based carbon. Development of appropriate and



much-needed methodologies should be a priority action. Regulatory mechanisms and incentives should be improved. These approaches should become more integrated into wider climate and biodiversity policy frameworks.



## Recovery from “natural disasters” (especially bushfires)

### **What worked well**

#### The Commonwealth’s establishment of the Threatened Species advisory group and the Ministerial roundtables

The most positive aspect of the Commonwealth role was the establishment of the Threatened Species advisory group. This allowed for an authoritative initial assessment of the impact of the fires that guided further responses and provided independent information to the public. The roundtables held by the Commonwealth Environment Minister allowed for excellent sharing of information cross-jurisdictions. In association with this has been rapid desktop assessment of impacts across species and ecosystems.

#### The efforts of agency staff and other ecologists in carrying out novel wildlife protection and recovery activities

There was a serious and substantive effort across agencies and the wider ecological network in carrying out an emergency wildlife response, despite no framework existing for such a response to occur. It was pleasing to see what could be achieved in such difficult and unprecedented conditions. The activities we are referring to here include the feeding of rock-wallabies, the pre-emptive capture of multiple species (bristlebirds, mountain pygmy possums etc) and the provision of emergency water sources and shelter.

#### That some forestry activity was curtailed in response the fires

The protection of unburnt habitats within and adjoining to burnt areas is the single most important endangered species recovery response that is required. Some native forest logging activity has been paused or curtailed through the declaration of *force majeure* provisions in logging contracts. Where this has happened, there will be increased likelihood of recovery of species and an overall lower extinction risk.

### **What didn’t work well**

#### Funding directed to environmental funding activities has been slow and insufficient

The Commonwealth has allocated \$50million towards ecological recovery activities. The states have allocated much smaller amounts. It has been anticipated that additional funding would have been forthcoming by now but this funding is not evident.

While it is possible to forecast the increased risks associated from major climate events in general terms, it is not possible to envisage what event will occur when. And as such, we end up having to undertake recovery actions seemingly anew with each event.

We manage our economies through periods of external shock through various monetary and fiscal policy levers.

Reserve Banks can reduce interest rates or increase money supply and governments can provide fiscal stimulus. We have automatic stabilisers in place to cushion the blow—the currency will



deflate driving export growth, increased welfare payments will flow further maintaining retail spending.

However, when nature is impacted by an external shock, the automatic stabilisers are the inherent resilience of the natural system itself.

These include the capacity of the vegetation to recover and resprout, of wildlife to recolonise an area, of the seedbank in the soil to regenerate. But with increasing climate impacts, on top of historic and continuing human pressures on the environment, the capacity for the natural system to recover is hugely diminished—particularly in forests where so-called salvage logging compounds the climate impacts.

There is an increasing need for human intervention in post-climate disaster impact scenarios to help natural systems recover.

These include wildlife recovery, invasive species management, water management, assisted regeneration, restoration and revegetation works. There are no automatic stabilisers for nature that come from Australia's national policy framework that trigger such interventions.

Currently there is no such funding stream or government policy posture that facilitates an automatic government response to boost recovery and restoration efforts after such an event. There is also no such monitoring or alert process where such an event would even come to the Commonwealth Government's attention. This means that some events receive no Government response (e.g. Gulf of Carpentaria mangrove dieback, Southern Australia kelp forest collapse, South-Eastern Australia eucalypt dieback<sup>30</sup>), others a belated government response (2019 bushfires in the Gondwana Rainforests of Australia), or simply no environmental specific response despite extensive social and economic policy response (2016 to 2019 Australia-wide drought).

Having no emergency funding pool to draw from means that groups such as NRM regional bodies are forced to choose between shifting existing long-term funding from resilience-building activities to an emergency response, or to not carry out an emergency response at all.

There have been significant policy developments in dealing with the social and economic aspects of climate disasters including the Future Drought Fund and the Emergency Response Fund. While these funds articulate constitutional heads of powers that would allow them to address Matters of National Environmental Significance, this is not an area that they are currently allocating funding towards. There is an urgent need for an environmental version of these funds that is managed as part of the Commonwealth Environment portfolio.

### Post-fire surveying has been limited and non-systematic

Much of the assessment of impacts has been based on desktop analysis so far. Onground monitoring has been largely limited to situations where scientists or agencies have specific and ongoing projects occurring. Much of this is focussed on a few key species. There does not appear to be any systematic surveying being undertaken. We are not aware of any specific on-ground assessment of impact to and recovery in relation to world heritage values.

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<sup>30</sup>

<https://theconversation.com/death-of-a-landscape-why-have-thousands-of-trees-dropped-dead-in-new-south-wales-48657>



## There has been no substantive post-fire environmental policy change

The 2019-2020 fires have substantially increased extinction risk for a range of species. The threat of future fires of this nature further increases extinction risk. Yet there has been no substantive policy or legislative reform that counters this increased risk by more strongly regulating environmentally damaging activities.

While there is a statutory review underway into the EPBC Act, the Commonwealth Government has yet to signal that they intend to strengthen environmental protections.

It is also not clear whether development approvals are incorporating the 2019-20 fires into the decision-making process.

The revised Victorian RFAs now allow for a Major Event Review (MER) to reconsider policy settings within the RFA in light of an event that might impact on the sustainability of the forestry operations. However, the Commonwealth has yet to trigger a MER in the wake of the 2019-2020 bushfires. No other nation's RFAs have a MER clause and this must be rectified.

## What should change (recommendations)

### **RECOMMENDATION 24**

The Commonwealth bushfire threatened species advisory group continues its work and is supported to harvest the lessons learned from agency staff/ecologists who carried out the emergency wildlife response.

### **RECOMMENDATION 25**

A Major Event Review must be triggered in all Victorian RFAs. A Major Event Review clause must be inserted in all other RFAs and these clauses triggered.

### **RECOMMENDATION 26**

The Commonwealth establishes a standing climate disaster recovery fund that can make rapid-post disaster funding allocations as required.

### **RECOMMENDATION 27**

That funding is urgently allocated towards implementing an integrated post-fire monitoring program.

### **RECOMMENDATION 28**

That Australia's national environment act be reformed to:

- a. ensure the requirement maintain or enhance the environmental values and ecological character of protected matters under the Act includes bushfire mitigation and response, and other major events;
- b. require regularly updated bushfire risk mapping and modelling for recovery plans, including identifying priority actions to mitigate bushfire risk as a result;
- c. major event provisions that:
  - i. trigger full ecological audit of major event impacts on all MNES and related plans; and
  - ii. suspend existing activities and approvals that might affect bushfire-impacted MNES until assessment is complete.
- d. Section 158 of the EPBC Act (or commensurate section in a new national environment act) should have strict limits on application including clear definition of what constitutes a major event / disaster, strict start and end times for exemptions from enforcement, and provisions to ensure appropriate interim



protections for MNES.

**RECOMMENDATION 29**

That all levels of Government actively consider the heightened post-fire species extinction risk when considering development approvals.



## Additional comments related to specific Terms of Reference (e - g)

**e) the findings and recommendations (including any assessment of the adequacy and extent of their implementation) of other reports and inquiries that you consider relevant, including any available State or Territory inquiries relating to the 2019-2020 bushfire season, to avoid duplication wherever possible;**

### Climate change projections and increased “natural disasters”

There have been numerous reports and inquiries highlighting the risk of increased “natural disasters” under climate change scenarios, and the need for urgent mitigation and adaptation measures, for example the IPCC 5th report.<sup>31</sup>

The last bushfire season clearly demonstrated the risks of continuing to ignore climate projections and the need for urgent mitigation measures.

### Australians want government action on nature and climate

The ANU Australian Electoral Study shows that 53% of voters in the 2019 federal election ranked the environment and global warming as “extremely important when voting”<sup>32</sup> with around 20% of voters identifying the environment as their top concern when voting<sup>33</sup> (higher than any election since 1990).

Social research undertaken by the Places You Love Alliance in March 2020 shows the majority of Australians are concerned about the state of Australia’s nature, especially after the catastrophic 2019-2020 summer bushfires, with eighty-five per cent believing that the fires have resulted in unprecedented damage to Australia’s natural landscapes. The same polling shows that Australians agree that more Commonwealth Government action is required to protect both Australia’s wildlife (89%) and forests, bushlands and natural landscapes (88%).<sup>34</sup>

## Recommendations

### RECOMMENDATION 30

That the Commonwealth and state governments can no longer ignore the increasing risk of natural disasters under climate change scenarios, and need to take urgent action to set strong targets that would limit warming to 1.5 degrees (in line with the Paris Agreement) and play a constructive role internationally on meeting this goal.

### RECOMMENDATION 31

That governments and emergency management policy recognise the high level of community support for strong action on climate mitigation measures, and actions to

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<sup>31</sup> Intergovernmental Panel on Climate Change (2013-14) Fifth Assessment Report. See <https://www.ipcc.ch> Accessed 27 April 2020

<sup>32</sup> Cameron S & McAllister I (2019) Trends in Australian Political Opinion: Results from the Australian Election Study 1987-2019, p46

<https://australianelectionstudy.org/wp-content/uploads/Trends-in-Australian-Political-Opinion-1987-2019.pdf>

<sup>33</sup> The Longitudinal Australian Electoral Study 2019 Report,

<https://australianelectionstudy.org/wp-content/uploads/The-2019-Australian-Federal-Election-Results-from-the-Australian-Election-Study.pdf>

<sup>34</sup> [https://www.acf.org.au/nine\\_in\\_10\\_australians\\_worried\\_about\\_post\\_bushfire\\_extinctions](https://www.acf.org.au/nine_in_10_australians_worried_about_post_bushfire_extinctions)



support resilient ecosystems in disaster management. Implicit in this recognition is community appreciation that the security, wellbeing and resilience of communities is fundamentally embedded and reliant upon the health and resilience of ecosystems and the global climate system.



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

### Fire management overview and context

The Wilderness Society supports fire management for the protection of life, property, the environment and heritage.

We support land and fuel management approaches within a risk reduction framework that is integrated across a range of actions including early fire detection, rapid response when fires start, land and fuel management, clear emergency warnings, community preparedness, planning and building regulation, community shelters.

In the context of climate change, with most of southern Australia already experiencing hotter and drier conditions and climate projections expected to result in further increases to bushfire risk - it is critical that meaningful dialog continues with communities over risk management actions and their limitations.

In 2014, the fifth IPCC report projected an increase in days of very high and extreme fire danger would be apparent by 2020, with further increases by 2050 (Lucas et al 2007)<sup>35</sup>. Implications expected by the IPCC included:

- Fire season length to be extended in many high risk areas and reduced opportunities for planned burning;
- Increased risk in southern Australia to life, property, infrastructure and ecosystems
- Some respiratory conditions such as asthma to be exacerbated;
- Reductions in water yields and increased erosion risk to waterways with implications for water quality.

It is clear current approaches to fire management are reaching their limits, and greater community understanding of those limits, changes to bushfire management—and action to address climate change is required.

### Fire management zones

Wilderness Society supports the use of fire management zones as an effective tool for integrating

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<sup>35</sup> Lucas C, Hennessy K and Bathols J (2007) Bushfire Weather in Southeast Australia: Recent Trends and Projected Climate Change Impacts. Consultancy Report prepared for The Climate Institute of Australia by the Bushfire Cooperative Research Centre. Quoted in Reisinger A, Kitching R, Chiew F, Hughes L, Newton P, Schuster S, Tait A and Whetton P (2014) Australasia. In: Climate Change 2014: Impacts, Adaptation, and Vulnerability. Part B: Regional Aspects. Contribution of Working Group II to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change pp. 1371-1438. See [https://www.ipcc.ch/site/assets/uploads/2018/02/WGIIAR5-Chap25\\_FINAL.pdf](https://www.ipcc.ch/site/assets/uploads/2018/02/WGIIAR5-Chap25_FINAL.pdf) Accessed 14 April 2020



fire management for the protection of life, property, environment and heritage, where:

- Adjacent to houses and infrastructure, fire management prioritises protection of life and property, whilst remaining sensitive to the needs of the environment and cultural values;
- In restricted, highly strategic areas of broader landscape, we recognise planned burning may have benefits in reducing fuel load and ember hazard but should be conducted in a manner that does not significantly impact natural or cultural values;
- In national parks and remote areas, fire management should prioritise the protection of natural and cultural values. In this zone, fire operations such as prescribed burns should be specifically for Indigenous cultural or ecological purposes and may have incidental fuel reduction benefits.

### Planned burn targets

The Wilderness Society supports the use of risk reduction targets, rather than hectare targets as the primary incentive and performance measure in planned burn programs for the protection of human life and property.

In recent years, Victoria has transitioned from a hectares based target to a risk reduction target. Expert commentary during the process indicates:

- Risk based planning, with support of a risk based target is the most effective means of directing investment in planned burning to reduce risk to life and property;
- The risk reduction target assists consideration of the full range of options to manage bushfire risk across land tenures;
- Risk based planning provides a basis for considering the full range of alternative or complementary risk reduction measures such as early detection and rapid response, planning and building regulation, community education, warnings and shelters;
- Community involvement in risk identification and mitigation is vital, and will assist community understanding of risk, how various actions reduce but do not eliminate risk, and the need for individual responsibility as well as governments, agencies and organizational responsibility;
- Risk based planning provided a clearer framework for assessing the contribution of planned burns and vegetation management to risk reduction for life and property, their limitations and tradeoffs involved with those operations for other values.

It is worth highlighting the Victorian experience, given the state has recently transitioned from a hectares based target to a risk reduction target.

Following the tragic Black Saturday bushfires, the Victorian Bushfires Royal Commission made a number of recommendations relating to land and fuel management including prescribed burning be based on a target of five percent of public land, increased public reporting of planned burn outcomes, greater monitoring of impacts on biodiversity and clarification of objectives including an explicit risk-analysis model (VBRC 2010).<sup>36</sup>

Despite a significant increase in resources, the 5% annual target for public land (which equated to

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<sup>36</sup> 2009 Victorian Bushfires Royal Commission (2010) Final Report volume II – Fire Preparation, Response and Recovery. See <http://royalcommission.vic.gov.au/Commission-Reports/Final-Report.html> Accessed 14 April 2020



around 385,000 hectares) was never able to be achieved.

In the period 2011-14, the independent Bushfires Royal Commission Implementation Monitor (BRCIM) monitored implementation of the planned burn program. The BRCIM noted failure to reach hectare targets in 2011-12 and 2013-14 with unfavorable weather restricting opportunities to burn safely and effectively, and ultimately stated:

*The BRCIM's 2012 Final Report advocated that the State reconsider the planned burning rolling target of five per cent and replace it with a risk based approach focused on the protection of life and property. In 2013, the BRCIM went further stating concerns that the 390,000 ha target may not be achievable, affordable or sustainable. The BRCIM's view in relation to this target is unchanged. Area based hectare targets alone will not necessarily reduce the bushfire risk to life and property in Victoria and may have adverse environmental outcomes. (BRCIM 2014).<sup>37</sup>*

The move to a risk based approach and target in Victoria is shifting the focus of planned burns for protection of life and property away from very remote locations where large areas can be burnt more easily and cheaply, to areas near housing and infrastructure that are more effective.

*The new risk-based approach focuses on strategic areas near housing and infrastructure where there is a high chance of fire impacting on people and property. This shift is also in-line with research that demonstrates that fuel treatments close to property will more effectively mitigate impacts from bushfires in peri-urban communities than standard (hectare-based approaches).<sup>38</sup>*

While the Wilderness Society supports risk based planning and targets, this does not mean current approaches in Victoria or other states do not have issues or require improvement. The requirements for further development in regards to life and property risk is broadly recognised and will not be commented on further here. Issues relating to ecological values in Victoria are discussed below, and relating more broadly across southern Australia separately in other sections.

Currently, Victorian bushfire risk assessment and prediction of residual risk does not consider environmental and heritage values (within the risk prediction model PHOENIX RapidFire). A separate ecosystem resilience monitoring program is being developed, that includes both flora and fauna considerations. Public reporting is intended to involve three measures: tolerable fire interval, geometric mean abundance and vegetation growth stage structure (IGEM 2014, p43). However, only the tolerable fire interval and growth stage indicators are being publicly reported at this stage, and these are aggregated to statewide or regional level, with no mapping publicly available. We understand risk modelling is also being undertaken for biodiversity using the FAME model, to estimate the effects of past fires and the effects of future bushfires and planned burning on animals and ecosystem resilience. While the monitoring and risk management systems for biodiversity have only partially been implemented and publicly available information is fairly opaque, Wilderness Society believes the general direction being taken has merit.

In the meantime, there are a number of important bushfire management and planned burn issues relating to ecosystem resilience and heritage protection requiring urgent attention, which are also

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<sup>37</sup> Bushfires Royal Commission Implementation Monitor (2014) Annual Report, July 2014. See <https://www.igem.vic.gov.au/reports-and-publications/igem-reports/annual-report-july-2014> Accessed 14 April 2020

<sup>38</sup> Commissioner for Environmental Sustainability (2018) Victorian State of the Environment 2018 Report Scientific Assessments. See <https://www.ces.vic.gov.au/sites/default/files/SoE-2018-scientific-assessments.pdf> Accessed 27 April 2020



apparent outside the State (particularly across southern Australia). A number of these issues are raised in separate sections below.

### Improvement of fire management for natural and heritage values

Appropriate fire management to maintain flora and fauna populations benefits ecosystem resilience which positively contributes to community resilience.

Managing fire for flora and fauna populations is recognised to require monitoring and understanding of appropriate fire intervals for plants (which is well underway in many states) as well as monitoring and understanding of burn patch mosaics for fauna survival. Understanding of fauna requirements is far less developed, and work in this area is a priority.

Loss of old growth forests and hollow bearing trees in bushfires and planned burns continues to be a major conservation issue. The loss of old trees has long term consequences, taking centuries to be replaced as extremely important habitat features for a range of species including birds, possums and gliders.

Patches of unburnt vegetation within burnt landscapes are vital refuges for recovery of plants and wildlife. Too frequently, fire crews target these areas for burning out following bushfires, and planned burn requirements are unclear.

### Native forest logging operations

Biodiverse native forests are inherently resilient, providing ecosystem services to the community such as clean water, storing carbon, soil stabilisation and contributing to the resilience of regional communities.

Logging operations are known to have highly destructive impacts at logging sites including direct removal of habitat for hollow dependent species such as possums, glider and owls, machinery destroying understory plants such as tree ferns and long term impacts on water supply. At a landscape scale, the cumulative impact of logging site after logging site fragments habitat across the landscape and severely reduces ecosystem resilience to major events such as bushfires.

The 2019-20 bushfires are believed to have resulted in the deaths of over 1 billion animals across Australia, and 119 animal species are closer to extinction following the bushfires, including many forest-dependent species. In that context, a number of urgent recommendations follow.

### Salvage logging

So-called salvage logging is the practice logging recently burnt forests to extract fire affected trees. It is a highly damaging form of logging. This is because fire affected forests need time and care to recover, not a second round of damage through intensive logging operations.

After a fire, many trees that have been burnt may look dead, but will resprout in the following months, and must not be logged as they are vital to the recovery of habitat for species such as Greater Gliders. Introducing heavy logging machinery to burnt areas kills many plants regrowing on the forest floor, tree fern populations are known to crash, while fungi and nutrients may take a century or longer to recover and there is increased risk of soil erosion and water quality impacts.



The ecological impacts of salvage logging are well recognised:

*A major body of scientific research spanning hundreds of studies from Australia and around the world over the past 20 years shows that so-called post-fire "salvage logging" is the most damaging form of logging in native forests.*

*Its impacts can last for decades or centuries and seriously impair the recovery of animal, bird and insect populations. With so little intact forest left, this will spell disaster for native wildlife (Professor David Lindenmayer, ANU).<sup>39</sup>*

Salvage logging also leads to increased future fire risk, with research indicating young trees regrowing after salvage logging are at increased risk of high-severity crown fires for around 40 years.

Salvage logging operations clearly reduce the resilience of ecosystems, impair ecosystem services such as provision of clean water and retention of carbon stocks and are not operations in the public interest.

## Recommendations

### RECOMMENDATION 32

That governments continue to support and further develop dialogue with communities over bushfire risk and planning in respect to life, property, environment and heritage and the various risk reduction actions and their limitations. That such dialogue involves at a minimum government and fire agencies, technical experts and scientists, land managers, communities and Traditional Custodians. Such dialogue is necessary to develop shared understanding of the suite of possible risk reduction actions, their limitations and interdependency.

### RECOMMENDATION 33

Governments adopt risk-reduction targets for planned burn programs, instead of hectare based targets. In Victoria, there is a need for continued development of risk-based planning and targets, while other states should either refine or adopt risk based management together with risk based targets, rather than hectare targets.

### RECOMMENDATION 34

That risk reduction targets and planning operate across the public/private land boundary, and involve a collaborative approach between state agencies, landholders and communities. This should include programs to assist landholders and land managers with the skills and knowledge required to participate in fire management planning, such as the Hotspots Program in NSW.

### RECOMMENDATION 35

That the Commonwealth and states increase investment in research and monitoring of appropriate fire regimes for flora and fauna. Fauna requirements are relatively poorly understood, including patch mosaic requirements and are a priority.

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<sup>39</sup> Lindenmayer D (2020) Post-bushfire logging makes a bad situation even worse, but the industry is ignoring the science. ABC News. See <https://www.abc.net.au/news/2020-01-29/logging-bushfire-affected-areas-australia-increases-fire-risk/11903662> Accessed 27 April 2020



#### **RECOMMENDATION 36**

Further work is urgently required to identify and manage for old and hollow bearing trees, including mapping and assessment in order to minimise loss in bushfire and planned burn management (such as that undertaken for the Victorian Mallee region).

#### **RECOMMENDATION 37**

Unburnt areas of vegetation following fire are vital refuges for the recovery of plants and animals, and there should be a halt to the deliberate burning out of these areas by fire crews following bushfires. Prescribed burns also need to promote unburnt refuges to aid ecological recovery and resilience.

#### **RECOMMENDATION 38**

The Wilderness Society encourages the Royal Commission to engage directly with Traditional Custodians and their representatives in regards to cultural and natural heritage impacts.

#### **RECOMMENDATION 39**

Halt deforestation and logging in remaining intact, green, unburnt habitat refuges for threatened species affected by the bushfires.

#### **RECOMMENDATION 40**

To remove pressure from bushfire affected forests and species, speed transition to plantation based wood and fibre industry. In Victoria, this involves bringing forward the 2030 transition out of native forest logging.

#### **RECOMMENDATION 41**

Governments abandon the nations ten Regional Forest Agreements (RFAs) or at least given the wood supply and conservation assumptions underpinning the RFAs are now invalid due to bushfire impacts, and force majeure clauses in wood supply contracts implemented.

At a minimum, logging operations in RFA regions should be halted until full scientific assessments are completed of bushfire impacts on threatened species populations and recovery requirements.

Should RFAs be retained, a halt in logging operations and review of bushfire impacts could be conducted through Major Event Reviews (MER). In other states, a MER clause should be added to RFAs, if they are to be retained, and triggered for bushfire affected forests and wildlife.

Regardless of the process undertaken, following scientific assessment any logging recommencements must be under dramatically reduced wood supply allocations to post-fire sustainable levels.

#### **RECOMMENDATION 42**

That salvage logging operations be prohibited in Australia's bushfire affected forests.



***g) any ways in which the traditional land and fire management practices of Indigenous Australians could improve Australia's resilience to natural disasters.***

**Traditional management, cultural burning and Traditional Custodian Rights and Interests**

Indigenous people have undertaken traditional cultural practices, including activities such as fire management, for thousands of years. These management practices have interacted and influenced the ecology and natural values of much of Australia. Consequently, the health of Australia's ecosystems and landscapes is inextricably linked to the continuation of Indigenous cultural and land management practices. Traditional forms of management can enhance the resilience of ecosystems and protect biodiversity, while resilient ecosystems can in turn assist the ongoing ability of Indigenous peoples to practice their culture.

Traditional Custodians never ceded sovereignty over their homelands and the enforced separation of Traditional Custodians from their country has been one of the root causes of injustice, suffering and deprivation of Aboriginal people.

While traditional management is the primary template for land and natural resource management in Australia, the arrival of Europeans over 200 years ago brought dispossession, degradation of country, introduced pest species and native species declines—particularly in southern Australia.

These impacts have undoubtedly affected the ability of Traditional Custodians to implement traditional management and pass on knowledge—however strong knowledge of burning practices still exists, and is being implemented and revived, including through the Firesticks Alliance.<sup>40</sup>

Cultural fire usually involves smaller, cooler burn patches conducted at particular times for a variety of cultural and land management objectives, compared to the typical hazard reduction burns conducted by state agencies primarily for fuel reduction purposes.

The Wilderness Society is supportive of traditional fire management and cultural burns, which can benefit biodiversity and aid ecosystem resilience (in contrast to agency fuel reduction burns for protection of life and property, that can and do compromise ecosystem resilience).

In northern Australia, where Indigenous ownership and management of land is extensive, traditional management and cultural burning is widespread, with significant funding through carbon credits. In southern Australia, most cultural burns are conducted on Aboriginal freehold properties, on a limited number of local government managed properties and some small areas of public land (generally in partnership with state agencies).

The Wilderness Society is supportive of cultural burns and traditional fire management practices, as well as continued and expanded financial support from governments, and the continued removal of legislative, institutional and policy barriers to these practices.

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<sup>40</sup> Firesticks Alliance. See <https://www.firesticks.org.au/> Accessed 27 April 2020



Cultural burning also has an important role to play in contemporary fire management more broadly, and we are supportive of partnerships being developed with land and fire management agencies. Such partnerships must involve appropriate engagement with Traditional Custodians, in a manner defined by Traditional Custodians, and consent over the incorporation and application of traditional knowledge. This includes consent over any public representation of operations that may incorporate cultural elements, particularly where burn operations retain elements of concern to Traditional Custodians.

In relation to traditional management in protected areas, the Wilderness Society encourages legislation, formal and informal protections, management plans and partnership agreements that:

- Provide for the permanent preservation of the area's natural condition and the protection of cultural resources and values, to the greatest possible extent;
- Provide for the management of the area or value, as far as practicable, in a way that is consistent with any Aboriginal and/or Torres Strait Islander tradition or custom applicable to the area, including any tradition or custom relating to activities;
- Where applicable, provide for the appropriate presentation of the area's cultural and natural resources and their values; and
- Ensure that any use of the area or value is ecologically sustainable and in accord with the previous priorities, recognising that as a result of the present state of the environment, and the climate change crisis, protections are required to meet urgent biodiversity objectives. In a context of new problems and new challenges (including vegetation clearance, habitat fragmentation, invasive pests and native species decline) management of protected areas and values should, as appropriate, include both traditional management and contemporary management methods, where the rights of Traditional Custodians are recognised in respect to traditional knowledge and management practices.

Wilderness Society acknowledges the rights and interests of Traditional Custodians in all aspects of land management and decision making in relation to their traditional lands, regardless of current land tenure. Accordingly, we support Aboriginal involvement in decision making, including where Native Title has been extinguished, as Traditional Owners have ongoing rights, interests and special knowledge of land and management practices across the landscape.

## Recommendations

### **RECOMMENDATION 43**

That a fundamental step in increasing traditional land and fire management—which can benefit ecosystem and community resilience—is for governments to recognise the rights and interests of Traditional Custodians in all aspects of land management and decision making in relation to their traditional lands, regardless of current land tenure. This may involve a range of mechanisms, including recognition of title and handback of lands, joint and co-management arrangements, state land rights legislation, treaties and regional agreements, Indigenous Land Use Agreements (ILUA's), affirmative action employment and education policies, 'Pay the rent' schemes, Indigenous Protected Areas and Heritage Agreements.

### **RECOMMENDATION 44**



That Commonwealth and state governments ensure legislation, institutional arrangements, policies and arrangements are in place to appropriately engage Traditional Custodians in the preparation, response and recovery phases of “natural disaster” management, and Traditional Custodians are properly resourced to do so.

**RECOMMENDATION 45**

That governments increase resourcing for existing and expanded traditional management and cultural burning, particularly the development of longer term, secure program funding for stable employment.

**RECOMMENDATION 46**

The Commonwealth, states and agencies must recognise Traditional Custodian authority over cultural knowledge and its application in cultural and ecological management, including management of cultural intellectual property according to traditional law, and to control any earnings derived from it.