

The Senate

Finance and Public
Administration References
Committee

Lessons to be learned in relation to the
Australian bushfire season 2019-20

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ALP, QLD

Participating Members

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AG, VIC

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Lisa Butson, Assistant Programming Officer

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Nicola Knackstredt, Senior Research Officer

Angie Lilley, Senior Research Officer

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Kate Morris, Research Officer

Jo-Anne Holmes, Administrative Officer

Michaela Le Cheile, Administrative Officer

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Abbreviations

AAHMS	Australian Academy of Health and Medical Sciences
ACCC	Australian Competition and Consumer Commission
ACT	Australian Capital Territory
ADF	Australian Defence Force
ADPF	Australian Disaster Preparedness Framework
AFAC	Australasian Fire and Emergency Service Authorities Council
AGCC	Australian Government Crisis Committee
AGDRP	Australian Government Disaster Recovery Payment
AIA	Australian Institute of Architects
AMA	Australian Medical Association
ANU	Australian National University
APRA	Australian Prudential Regulation Authority
ASIC	Australian Securities and Investment Commission
BAI Communications	BAI Communications Australia
BNHCRC	Bushfire and Natural Hazards Cooperative Research Centre
BOM	Bureau of Meteorology
CBAA	Community Broadcasting Association of Australia
CCC	Crisis Coordination Centre
CCOSC	Commissioners and Chief Officers Strategic Committee
Climate Council	Climate Council of Australia
CMF	Australian Government Crisis Management Framework
COAG	Council of Australian Governments
COMDISPLAN	Australian Government Disaster Response Plan
Committee	Senate Finance and Public Administration References Committee
CRA	Commercial Radio Australia
CSIRO	Commonwealth Scientific and Industrial Research Organisation
Defence	Department of Defence
DISER	Department of Industry, Science, Energy and Resources
DPMC	Department of the Prime Minister and Cabinet
DRA	Disaster Recovery Allowance
DRFA	Disaster Recovery Funding Arrangement
ELCA	Emergency Leaders for Climate Action
EMA	Emergency Management Australia
EPBC Act	<i>Environment Protection and Biodiversity Act 1999</i>
ERF	Emergency Response Fund
ESL	emergency services levy

Expert Panel	Wildlife and Threatened Species Bushfire Recovery Expert Panel
FFDI	Forest Fire Danger Index
GST	goods and services tax
Home Affairs	Department of Home Affairs
IAG	Insurance Australia Group
ICA	Insurance Council of Australia
LAT	Large Air-Tanker
LGA	Local Government Areas
NACCHO	National Aboriginal Community Controlled Health Organisation
NAFC	National Aerial Firefighting Centre
NBIC	National Bushfire Intelligence Capability
NBRA	National Bushfire Recovery Agency
NBRF	National Bushfire Recovery Fund
NCC	National Crisis Committee
NDRRF	National Disaster Risk Reduction Framework
NERCW	National Enterprise for Rural Community Wellbeing
NIBA	National Insurance Brokers Association
NPA	National Partnership Agreement
NSC	National Security Committee
NSDR	National Strategy for Disaster Resilience
NSW	New South Wales
NWA	National Women's Alliance
OECD	Organisation for Economic Co-operation and Development
PPG	prudential practice guide
Royal Commission	Royal Commission into National Natural Disaster Arrangements
RFS	Rural Fire Service
seasonal outlook	Australian Seasonal Bushfire Outlook
SEM	State Emergency Management
UNEP	United Nations Environment Program
UNSW	University of New South Wales
VLAT	Very Large Air-Tanker
WA	Western Australia

Terms of Reference

On 5 February 2020, the Senate referred the following matter to the Finance and Public Administration References Committee for inquiry and report:

Lessons to be learned in relation to the preparation and planning for, response to and recovery efforts following the 2019-20 Australian bushfire season, with particular reference to:

(a) advice provided to the Federal Government, prior to the bushfires, about the level of bushfire risk this fire season, how and why those risks differed from historical norms, and measures that should be taken to reduce that risk in the future;

(b) the respective roles and responsibilities of different levels of government, and agencies within government, in relation to bushfire planning, mitigation, response, and recovery;

(c) the Federal Government's response to recommendations from previous bushfire Royal Commissions and inquiries;

(d) the adequacy of the Federal Government's existing measures and policies to reduce future bushfire risk, including in relation to assessing, mitigating and adapting to expected climate change impacts, land use planning and management, hazard reduction, Indigenous fire practices, support for firefighters and other disaster mitigation measures;

(e) best practice funding models and policy measures to reduce future bushfire risk, both within Australia and internationally;

(f) existing structures, measures and policies implemented by the Federal Government, charities and others to assist communities to recover from the 2019-20 bushfires, including the performance of the National Bushfire Recovery Agency;

(g) the role and process of advising Government and the federal Parliament of scientific advice;

(h) an examination of the physical and mental health impacts of bushfires on the population, and the Federal Government's response to those impacts; and

(i) any related matters.

List of Recommendations

Recommendation 1

2.129 The committee recommends that the National Bushfire Recovery Agency introduce monthly reporting requirements for state, territory and local governments and other external agencies that receive funding through the National Bushfire Recovery Fund.

Recommendation 2

2.133 The committee recommends that the current review into the Disaster Recovery Funding Arrangements (DRFA) consider the following matters:

- the need to streamline application processes for DRFA assistance and provide additional case management assistance for individuals, local, and state and territory governments during and following natural disasters;**
- the need to harmonise eligibility criteria across jurisdictions to ensure equitable access to support; and**
- the need to remove impediments to applying for betterment and mitigation initiatives.**

Recommendation 3

2.137 The committee recommends that, as a matter of priority, the Commonwealth Government release funding for mitigation projects through the Emergency Response Fund.

Recommendation 4

2.141 The committee recommends that the Commonwealth Government review, with a view to increase, the rate of the Australian Government Disaster Recovery Payment and the Disaster Recovery Allowance as a matter of priority.

Recommendation 5

3.79 The committee recommends that the Commonwealth Government allocate funding from the Emergency Response Fund to each state and territory for the establishment of a dedicated hazard reduction workforce. Funding should be sufficient to ensure both hazard reduction and ongoing research activities can be conducted on an annual basis.

Recommendation 6

4.86 The committee recommends that the Commonwealth Government provide the Department of Health with increased and ongoing funding for research

into the health impacts of unhealthy and hazardous levels of bushfire smoke on the population, with specific funding allocated for research into the health impacts of bushfire smoke on pregnant women, unborn children, and infants.

Recommendation 7

- 4.95 The committee recommends that the Commonwealth Government make the Better Access Bushfire Recovery initiative and the Better Access Bushfire Recovery Telehealth initiative permanent mental health support services, with both initiatives properly funded over the forward estimates.

Recommendation 8

- 6.59 The committee recommends that the Commonwealth Government develop a business case to progress the establishment of a permanent, sovereign aerial firefighting fleet, which includes Large Air-Tankers and Very Large Air-Tankers, and small and medium-sized aircraft as appropriate.

Recommendation 9

- 7.117 The committee recommends that under Part VIIA, Division 5 of the *Competition and Consumer Act 2010*, the Treasurer direct the Australian Competition and Consumer Commission to undertake monitoring of the prices, costs and profits relating to insurance premiums, with particular attention paid to the impact of climate change-driven severe weather on the natural perils component of general insurance premiums.

Recommendation 10

- 7.131 The committee recommends that the Australian Prudential Regulation Authority immediately recommence its work on the climate change-related prudential practice and governance guide as it relates to the general insurance industry.

Recommendation 11

- 7.132 The committee recommends that the Australian Prudential Regulation Authority should, if it has not already done so, undertake financial vulnerability stress testing of the insurance sector, including consideration of capital adequacy in anticipation of worst case scenario severe weather events causing catastrophic insurance losses, either singly or in combination.

Recommendation 12

- 8.93 The committee recommends that the Commonwealth Government reverse its funding cuts to the Australian Broadcasting Corporation (ABC), and in

addition, provide the ABC with annual discrete funding for its emergency broadcast services.

Recommendation 13

8.106 The committee recommends that Emergency Management Australia, the Commissioners and Chief Officers Strategic Committee and the Australasian Fire and Emergency Service Authorities Council complete the development of the Australian Warning System and the Australian Fire Danger Rating System as a matter of priority.

Chapter 1

Introduction and overview of the 2019-20 bushfire season

Referral

1.1 On 5 February 2020, the Senate referred the following matters to the Senate Finance and Public Administration References Committee (the committee) for inquiry and report by the last sitting day in 2021:

Lessons to be learned in relation to the preparation and planning for, response to and recovery efforts following the 2019–20 Australian bushfire season, with particular reference to:

- (a) advice provided to the Federal Government, prior to the bushfires, about the level of bushfire risk this fire season, how and why those risks differed from historical norms, and measures that should be taken to reduce that risk in the future;
- (b) the respective roles and responsibilities of different levels of government, and agencies within government, in relation to bushfire planning, mitigation, response, and recovery;
- (c) the Federal Government's response to recommendations from previous bushfire Royal Commissions and inquiries;
- (d) the adequacy of the Federal Government's existing measures and policies to reduce future bushfire risk, including in relation to assessing, mitigating and adapting to expected climate change impacts, land use planning and management, hazard reduction, Indigenous fire practices, support for firefighters and other disaster mitigation measures;
- (e) best practice funding models and policy measures to reduce future bushfire risk, both within Australia and internationally;
- (f) existing structures, measures and policies implemented by the Federal Government, charities and others to assist communities to recover from the 2019–20 bushfires, including the performance of the National Bushfire Recovery Agency;
- (g) the role and process of advising Government and the federal Parliament of scientific advice;
- (h) an examination of the physical and mental health impacts of bushfires on the population, and the Federal Government's response to those impacts; and
- (i) any related matters.¹

¹ *Journals of the Senate*, No. 37, 5 February 2020, pp. 1223–1225.

Conduct of the inquiry

- 1.2 Details of the inquiry were placed on the committee's website at: www.aph.gov.au/senate_fpa. The committee also contacted a number of relevant individuals and organisations to notify them of the inquiry and invite submissions.
- 1.3 On 19 March 2020, the committee agreed to extend the closing date for submissions from 9 April 2020 to 22 May 2020. At the time of this interim report, the committee had received 145 submissions, which are listed at Appendix 1.
- 1.4 The committee has thus far held five public hearings, based out of Canberra, on the following dates:
 - 27 May 2020
 - 10 July 2020
 - 29 July 2020
 - 30 July 2020
 - 12 August 2020.
- 1.5 A list of witnesses who gave evidence at the hearings is available Appendix 2.
- 1.6 Submissions and the Hansard transcripts of hearings may be accessed on the committee website. References to the Hansard in this report may be to the proof transcript. Page numbers may vary between proof and official transcripts.

Update on the committee's work

- 1.7 Throughout 2020, the committee had hoped to travel to regions which were significantly impacted by the 2019–20 bushfire season. The committee wishes to meet with locals in their communities, to better understand the impact of the bushfires on their lives, and the environment around them.
- 1.8 Unfortunately, due to the impact of the COVID-19 pandemic, the committee has thus far been unable to travel. The committee certainly intends to visit affected communities, and it will progress with these activities as a matter of priority when it is considered safe to do so.

Acknowledgements

- 1.9 The committee thanks the individuals and organisations who participated in its public hearings, as well as those that made written submissions and engaged with the committee.
- 1.10 The committee recognises and greatly appreciates the tireless efforts of firefighters, emergency services personnel, state and local governments and community volunteers to protect the community and limit the devastation of the fires as much as possible.

- 1.11 The committee also offers its deepest sympathies to all of those who lost loved ones during the fires, and to those who lost their family homes and properties.

The 2019–20 bushfire season

- 1.12 The 2019–20 Australian bushfires, also known as the Black Summer bushfires, had a devastating impact on the country. The bushfires have been described as 'unprecedented, devastating local communities and driving unparalleled responses from all levels of government'.² It has also been noted that the fires were catastrophic from both an environmental and public health perspective,³ and the worst in history for some jurisdictions, such as New South Wales (NSW), due to:

... unprecedented extreme weather and cascading events including drought, heatwaves, dry thunderstorms, multiple days of Severe, Extreme and Catastrophic fire danger, and pyroconvective fires.⁴

- 1.13 The bushfires began in August 2019, and by late February 2020 most fires had been extinguished.⁵ Tragically, as a result of the fires, 33 people lost their lives, including 25 people in NSW, five in Victoria and three in South Australia.⁶ More than 3000 homes were destroyed.⁷
- 1.14 The fires burnt an estimated 24 to 40 million hectares across multiple states and territories⁸—'greater than the combined area burned in the Black Saturday 2009 and Ash Wednesday 1983 bushfires'⁹ and 'nearly double the area of any previous major bushfire in a fire season'.¹⁰ NSW recorded the highest burnt

² Department of the Prime Minister and Cabinet, *Submission 70*, [p. 1].

³ Australian Medical Association, *Submission 39*, p. 1.

⁴ Climate Council of Australia, *Submission 40*, p. 4.

⁵ S. M. Davey and A. Sarre, 'Editorial: the 2019/20 Black Summer bushfires', *Australian Forestry Journal*, vol. 83, no. 2, 4 June 2020, p. 1.

⁶ Australian Medical Association, *Submission 39*, p. 3.

⁷ Department of Home Affairs, *Submission 68*, p. 2.

⁸ Royal Commission into National Natural Disaster Arrangements, *Interim observations*, 31 August 2020, p. 3. This issue is explored further in World Wide Fund for Nature, *Australia's 2019–2020 Bushfires: The Wildlife Toll (Interim Report)*, 24 July 2020, p. 2.

⁹ Commonwealth Scientific and Industrial Research Organisation, *The 2019-20 bushfires: a CSIRO explainer*, 18 February 2020, www.csiro.au/en/Research/Environment/Extreme-Events/Bushfire/preparing-for-climate-change/2019-20-bushfires-explainer (accessed 7 August 2020).

¹⁰ S. M. Davey and A. Sarre, 'Editorial: the 2019/20 Black Summer bushfires', *Australian Forestry Journal*, vol. 83, issue 2, 4 June 2020, p. 1.

area, at 5.68 million hectares, followed by Western Australia (2.04 million ha) and Victoria (1.58 million ha).¹¹

- 1.15 The devastation of the bushfires also had a direct impact on Aboriginal and Torres Strait Islander peoples. The National Aboriginal Community Controlled Health Organisation (NACCHO) made clear that:

The impact of the fires on Aboriginal communities is multilayered, with sacred sites, the habitats of culturally significant animals, and Country being decimated.¹²

Preconditions of the 2019–20 bushfires

- 1.16 The 2019–20 bushfire season occurred during a period of record-breaking temperatures and extremely low rainfall. The Bureau of Meteorology (BOM) described 2019 as Australia's warmest and driest year on record, with the annual mean temperature being 1.52° Celsius above average.¹³
- 1.17 The second half of the year was particularly dry across most of southern Australia, and followed several years of below average rainfall.¹⁴ The impact of low rainfall since early 2017 was exacerbated by record high temperatures, which in turn drove higher rates of evaporation where water was available. Low rainfall also led to very low soil moisture across large areas of Australia during 2019.¹⁵
- 1.18 More challenging fire seasons have been forecast for many years, including by the Garnaut Climate Change Review in 2008, commissioned by the Commonwealth, State and Territory governments, which projected that:
- ... fire seasons will start earlier, end slightly later, and generally be more intense. This effect increases over time, but should be directly observable by 2020.¹⁶
- 1.19 This sentiment was supported by Dr Pep Canandell, Senior Principal Research Scientist in the Commonwealth Scientific and Industrial Research Organisation (CSIRO) Climate Science Centre and Executive Director of the Global Carbon Project, who stated that:

¹¹ S. M. Davey and A. Sarre, 'Editorial: the 2019/20 Black Summer bushfires', *Australian Forestry Journal*, vol. 83, issue 2, 4 June 2020, p. 1.

¹² National Aboriginal Community Controlled Health Organisation, *Submission 11*, [p. 4].

¹³ Bureau of Meteorology, *Annual Climate Statement 2019*, 9 January 2020, www.bom.gov.au/climate/current/annual/aus/ (accessed 16 September 2020).

¹⁴ Bureau of Meteorology, *Annual Climate Statement 2019*, 9 January 2020.

¹⁵ Bureau of Meteorology, *Submission 114*, p. 4.

¹⁶ Professor Ross Garnaut, *The Garnaut Climate Change Review: Final Report*, 16 October 2008, p. 118.

This year's intense fire activity was to be expected indeed. Fire weather, and specifically Australia's forest fire danger index, have all been growing for the past 30 years, and all showed that we were trending very high this year, too.¹⁷

Environmental factors

1.20 This section considers the environmental factors that contributed to extreme fire conditions which led to the 2019–20 bushfires—including weather conditions and climate change.

1.21 In its submission to the committee, the BOM summarised that:

The combination of the severe drought, record high temperatures, dry windy conditions, and dry forest fuels resulted in fire weather conditions considerably more dangerous than in a normal season and clearly the most severe in our records.¹⁸

1.22 The Bushfire and Natural Hazards Cooperative Research Centre (BNHCRC) made similar points in its submission and concluded that 'the ongoing drought coupled with increasing periods of extreme heat, both aggravated by climate change, set the scene for the catastrophic fires in the summer of 2019–20'.¹⁹

1.23 These conditions inevitably impacted the degree of fire danger in Australian forests. Figure 1.1 illustrates the Forest Fire Danger Index (FFDI)²⁰ deciles during spring 2019, which were either very much above average or the highest on record for more than 95 per cent of Australia.²¹

Figure 1.1 Accumulated-FFDI deciles for spring 2019 (based on all years since 1950)

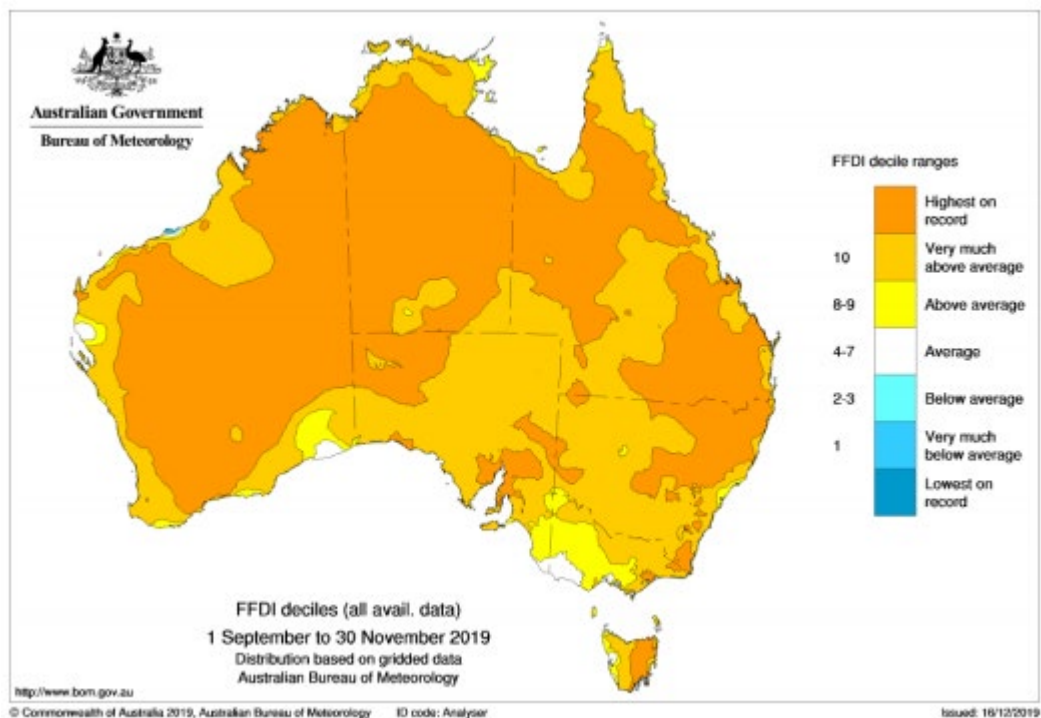
¹⁷ Dr Pep Canadell, *A rapidly-evolving new normal: Pep Canadell comments on Australia's Fires*, 14 January 2020, <https://futureearth.org/2020/01/14/a-rapidly-evolving-new-normal/>, (accessed 16 September 2020).

¹⁸ Bureau of Meteorology, *Submission 114*, p. 5. See also: Australian National University, *Submission 97*, p. 13; Bushfire and Natural Hazards Cooperative Research Centre (BNHCRC), *Submission 32*, p. 4.

¹⁹ Emergency Leaders for Climate Action, *Submission 36*, p. 25.

²⁰ The Forest Fire Danger Index combines a record of dryness, based on rainfall and evaporation with meteorological variables for wind speed, temperature and humidity.

²¹ Bureau of Meteorology, *Special Climate Statement 72—dangerous bushfire weather in spring 2019*, 18 December 2020, pp. 4, 11.



Source: Bureau of Meteorology, *Special Climate Statement 72—dangerous bushfire weather in spring 2019*, 18 December 2019, p. 11.

- 1.24 Given these unprecedented conditions, the BNHCRC highlighted that 'the tendency for fire seasons to become more intense and fire danger to occur earlier in the season is a clear trend in Australia's climate'.²² The interim observations of the Royal Commission into National Natural Disaster Arrangements (Royal Commission), published in August 2020, echoed these views, and concluded that such trends would:

... require all jurisdictions to work together to coordinate strategic decision making and share resources across the jurisdictions and the Australian Government.²³

- 1.25 The *State of the Climate 2018* report, which was released in December 2018 by the BOM and the CSIRO, also observed that 'there has been a long-term increase in extreme fire weather, and in the length of the fire season, across large parts of Australia since the 1950s'.²⁴
- 1.26 At the committee's public hearing on 29 July 2020, Dr Sophie Lewis discussed the record-breaking heatwaves experienced during the 2019–20 bushfire season, which she observed were 'increasing in frequency, severity and

²² BNHCRC, *Submission 32*, [p. 18]. See also: BNHCRC, *Hazard Note: Australian Seasonal Bushfire Outlook: December 2019*, 16 December 2019, p. 2, www.bnhcrc.com.au/hazardnotes/68 (accessed 16 September 2020).

²³ Royal Commission into National Natural Disaster Arrangements, *Interim Observations*, 31 August 2020, p. 7.

²⁴ Bureau of Meteorology and Commonwealth Scientific and Industrial Research Organisation, *State of the Climate 2018*, p. 5 (accessed 18 September 2020).

duration' and were noteworthy for their 'impacts on physical and human systems'.²⁵ Professor Mark Howden, Director of the Climate Change Institute at the Australian National University, who appeared in a private capacity, added that 'those heat extremes are incredibly stressful on people's bodies', particularly for firefighters when they are in operations, and, consequently, 'the ability to fight those fires will be diminished ...'.²⁶

The impact of climate change

1.27 Many submitters highlighted the effects of climate change on Australia's increasingly dry climate. For example, Dr Lewis told the committee that:

... [recent] studies have determined that there was a significant contribution of climate change to the extremes that we experienced in the recent summer. This aligns with the trend that has been observed ... towards an increase in fire weather, danger and extension of our fire season, and the compounding effect of that with increases in heat extremes and rainfall extremes.²⁷

1.28 Dr Andrew Johnson, Chief Executive Officer and Director of Meteorology at the BOM, made similar comments about the relationship between climate change and extreme weather events:

There's no doubt that the planet is warming and there's no doubt that the causes of that warming have got a significant human footprint on them. I think that's very well established and beyond doubt. The scientific evidence for that is unequivocal ...

... We do know that with that long-term warming and drying trend that we're seeing—and that warming and drying trend is occurring in parts of the country that are especially vulnerable to bushfires—that link to climate change is very strong. We see that in the trends in the Forest Fire Danger Index since the fifties, which very strongly point to this increased risk.²⁸

1.29 Emergency Leaders for Climate Action (ELCA), a group of 33 former fire and emergency services chiefs led by former NSW Fire and Rescue Commissioner, Mr Gregory Mullins AO AFSM, was emphatic about the role of climate change in driving more extreme fires. ELCA argued that irrefutable scientific evidence, supported by the lived experiences and observations of veteran firefighters and people on the land, confirmed that:

... a warming climate, proven to be caused by the burning of coal, oil and gas, is resulting in worsening and more frequent extreme weather events such as those that spawned the 2019–20 bushfires in NSW, Qld, SA, Victoria, WA and Tasmania. It is not possible to "adapt" to such

²⁵ Dr Sophie Lewis, private capacity, *Proof Committee Hansard*, 29 July 2020, p. 5.

²⁶ Professor Mark Howden, private capacity, *Proof Committee Hansard*, 29 July 2020, pp. 5–6.

²⁷ Dr Sophie Lewis, private capacity, *Proof Committee Hansard*, 29 July 2020, p. 3.

²⁸ Dr Andrew Johnson, Chief Executive Officer and Director of Meteorology, Bureau of Meteorology, *Proof Committee Hansard*, 29 July 2020, p. 27.

catastrophic and escalating conditions, and they can only be partially mitigated.²⁹

- 1.30 Similar concerns were raised by Professor Howden, who told the committee that:

... [t]he best and most recent scientific analysis shows that human induced climate change is very likely to be making disasters, such as the recent bushfires, more frequent and more intense. Fire-prone conditions are increasing. They're up by 30 per cent since 1990 in south-east Australia. More change is likely, with current risk increasing up to four-fold if temperatures rise globally to two degrees above pre-industrial levels, noting that two degrees is the goal of the Paris agreement.³⁰

- 1.31 The committee heard that these trends are expected to continue to deteriorate over time. For example, Professor Jason Sharples, Professor of Bushfire Dynamics at the University of New South Wales told the committee that '... under anthropogenic global warming, the conditions conducive to extreme bushfire development are going to become more prevalent'.³¹

- 1.32 The BOM supported this view, and pointed to 'recent research indicating a long-term trend towards increased risk factors associated with pyroconvection in southeast Australia'.³²

- 1.33 Similarly, in its submission, ELCA explained that bushfires could transition to more extreme events, such as:

... pyroconvective interactions (when fires burn in close proximity and influence each other, spreading faster and in unpredictable ways) and pyrocumulonimbus events (fire-generated storms). Extreme bushfires have a high level of energy, and exhibit chaotic and unpredictable behaviour, which are often harder or impossible to control and more dangerous to both firefighters and communities.³³

- 1.34 One consequence of the weather conditions exacerbated by climate change is the increased risk of fires ignited by dry-lightning. For example, the BOM noted that there is 'some indication that climate change could influence the risk of ignitions from dry-lightning'.³⁴ Indeed, dry-lightning started numerous fires during the 2019–20 season. The Climate Council of Australia recounted that:

²⁹ Emergency Leaders for Climate Action, *Submission 36*, p. 2.

³⁰ Professor Mark Howden, private capacity, *Proof Committee Hansard*, 29 July 2020, p. 2.

³¹ Professor Jason Sharples, Professor of Bushfire Dynamics, University of New South Wales, *Proof Committee Hansard*, 29 July 2020, p. 10.

³² Bureau of Meteorology, *Bushfire weather*, <http://www.bom.gov.au/weather-services/fire-weather-centre/bushfire-weather/index.shtml> (accessed 16 September 2020).

³³ Emergency Leaders for Climate Action, *Submission 36*, p. 31. See also: Professor Jason Sharples, *Submission 24*, [p. 2].

³⁴ Bureau of Meteorology, *Bushfire weather*, <http://www.bom.gov.au/weather-services/fire-weather-centre/bushfire-weather/index.shtml> (accessed 16 September 2020).

On October 26 [2019], the Gospers Mountain fire was ignited by lightning in the Wollemi National Park. The fire burned through more than 512,000 hectares throughout November, December and January, making it the largest forest fire ever recorded in Australia. It was eventually extinguished by heavy rains in February 2020.³⁵

The extreme nature of the fires

1.35 The 2019–20 bushfires had an unprecedented intensity, resulting in significant destruction of lives, property, flora and fauna.

1.36 For example, during the 2019–20 bushfire season, Australia experienced a number of fires described as 'mega fires'. A study published on 1 July 2020, which presented a preliminary analysis of the bushfire season, described these mega fires and their impact on several jurisdictions:

Two mega-blazes were recorded in New South Wales. The Gospers Mountain fire started on 26 October 2019 and burned approximately 512,626 hectares, becoming one of the biggest forest fires in Australian history. By 11 January 2020, three fires on the border of New South Wales and Victoria, the Dunns Road fire, the East Ournie Creek, and the Riverina's Green Valley merged and created a second mega-fire which burned through 895,744 hectares. Fires in New South Wales burned more area than any single fire season during the last 20 years.³⁶

1.37 The fire season's most destructive impacts resulted in particular from 'episodic development of extreme bushfires'.³⁷ By way of example, Professor Sharples drew attention to the Green Valley fire in NSW, which, on 30 December 2019, rapidly escalated into an extreme bushfire.³⁸ The winds generated by the fire (reported as a large fire whirl or fire tornado) were strong enough to flip a firefighting truck, which tragically resulted in one firefighter fatality, one case of severe burns and one case of minor burns.³⁹

1.38 In addition, the Royal Commission assessed that somewhere between 24 and 40 million hectares was burned, which 'set a new benchmark for an extreme fire season in Australia's temperate forests'.⁴⁰

³⁵ Climate Council of Australia, *Submission 40*, p. 12.

³⁶ Alexander I. Filkov, Tuan Ngo, Stuart Matthews, Simeon Telfer, Trent D. Penman, '[Impact of Australia's catastrophic 2019/20 bushfire season on communities and environment. Retrospective analysis and current trends](#)', *Journal of Safety Science and Resilience*, vol. 1, no. 1, 1 July 2020 (accessed 25 August 2020).

³⁷ Professor Jason Sharples, *Submission 24*, p. 2.

³⁸ Professor Jason Sharples, *Submission 24*, pp. 5–6.

³⁹ Professor Jason Sharples, *Submission 24*, p. 6.

⁴⁰ Royal Commission into National Natural Disaster Arrangements, *Interim observations*, 31 August 2020, p. 5.

- 1.39 An interim report released in late July 2020 of a study commissioned by the World Wide Fund for Nature found that nearly three billion animals—mammals, birds and reptiles—were killed or displaced by the fires, being almost three times the original estimate in January 2020 of 1.25 billion animals.⁴¹ The report states that 'this ranks as one of the worst wildlife disasters in modern history'.⁴²

Bushfire smoke

- 1.40 The duration and scale of population exposure to bushfire air pollution was unprecedented.⁴³ In its Bushfire Smoke Impact Survey 2019–20, Asthma Australia observed that the bushfire smoke caused a 'public health emergency, with the smoke containing high concentrations of fine particulate matter, which is harmful to human health'.⁴⁴ Asthma Australia made the important point that the effects of smoke are unevenly distributed across the population:

... with people with asthma or other chronic conditions, very young children, pregnant women and the elderly particularly vulnerable to the impacts.⁴⁵

- 1.41 Canberra in particular was significantly impacted by the smoke. Canberra experienced 56 days of smoke pollution above healthy levels, 12 days of hazardous level exposure, and pollution on the worst day reaching 23 times the hazardous rating.⁴⁶
- 1.42 Asthma Australia explained that the smoke on 1 January 2020 in Canberra resulted in the Air Quality Index reaching more than 25 times the hazardous level in that city. Further, between November 2019 and January 2020:

... the Air Quality Index reached greater than 10 times the hazardous rating on multiple occasions in certain areas of Sydney. It is estimated the bushfire smoke was responsible for more than 400 deaths, 2,000 respiratory hospitalisations and 1,300 presentations to the Emergency Department for asthma.⁴⁷

Longer bushfire seasons

⁴¹ World Wide Fund for Nature, *Australia's 2019-2020 Bushfires: The Wildlife Toll (Interim Report)*, 24 July 2020, p. 3.

⁴² World Wide Fund for Nature, *Australia's 2019-2020 Bushfires: The Wildlife Toll (Interim Report)*, 24 July 2020, p. 1.

⁴³ The impact of the bushfires on human health is discussed further in Chapter 4.

⁴⁴ Asthma Australia, *Submission 86, Attachment 1*, p. 4.

⁴⁵ Asthma Australia, *Submission 86, Attachment 1*, p. 4.

⁴⁶ See, for example: Mr David Templeman, President, Public Health Association of Australia, *Proof Committee Hansard*, 29 July 2019, p. 55; Dr Antony Bartone, Federal President, Australian Medical Association, *Proof Committee Hansard*, 29 July 2020, p. 52.

⁴⁷ Asthma Australia, *Bushfire Smoke Impact Survey 2019–2020, Submission 86, Attachment 1*, p. 4.

- 1.43 Evidence received by the committee pointed to the fact that over recent years, bushfire seasons are becoming longer and more intense, with the changing and warming environment. There are serious implications to these lengthening seasons, both locally and globally, particularly in relation to the allocation of firefighting resources to the areas of most need.
- 1.44 The Tasmanian Government observed that the frequency and intensity of natural disasters are increasing in Australia, driven by a changing climate and changing land use. The Tasmanian Government made the key point that:
- Australian states and territories are expected to experience longer fire seasons with more frequent and intense bushfire events. This is likely to pose a major challenge to fire management, increase disruptions to the economy, and impact globally significant natural and cultural values.⁴⁸
- 1.45 The Department of Home Affairs (Home Affairs) made a similar point, noting that the frequency and intensity of natural hazards were forecast to increase both in Australia and globally. Home Affairs declared that:
- Future bushfire seasons will commence earlier, be longer, and have severe impacts on Australian communities.⁴⁹
- 1.46 Dr Richard Thornton, Chief Executive Officer of the BNHCRC also commented on the fact that globally, fire seasons are becoming longer, by both starting earlier and finishing later. In addition, Dr Thornton drew attention the finding of the BOM, which noted that:
- ... the cumulative fire danger during the fire seasons is increasing as well. This may, in the long run, have some implications for resourcing of fire services. It also reduces the amount of time available to undertake preventive actions, particularly hazard reduction burning. As the climate changes to a warmer, drier one, weather conditions like those seen on Black Saturday, on Ash Wednesday and of course in 2019–20 are likely to become more frequent. This will be combined with more vulnerable people living in at-risk areas, owing to a growing and ageing population.⁵⁰
- 1.47 Insurance Australia Group (IAG) observed in a recent update to a report they provided to the committee that:
- ... the current generation of climate models under-predicts events of this severity. Opportunities for fuel management activities are also likely to be reduced due to the earlier onset of the bushfire season. Fire-prone regions throughout the world have historically shared resources. Longer fire

⁴⁸ Tasmanian Government, *Submission 124*, p. 1.

⁴⁹ Department of Home Affairs, *Submission 68*, p. 2.

⁵⁰ Dr Richard Thornton, Chief Executive Officer, Bushfire and Natural Hazards Cooperative Research Centre, *Committee Hansard*, 27 May 2020, p. 9.

seasons will result in coincidences of bushfires between hemispheres, increasing the strain on limited global resources.⁵¹

- 1.48 Extended and more intense fire seasons do appear to be occurring across the globe. For example, in July 2019, the World Meteorological Organisation (WMO) reported that '[u]nusually hot and dry conditions in parts of the northern hemisphere have been conducive to fires raging from the Mediterranean to—in particular—the Arctic'. The WMO continued that:

Since the start of June [2019], the Copernicus Atmosphere Monitoring Service (CAMS) has tracked over 100 intense and long-lived wildfires in the Arctic Circle ... Although wildfires are common in the northern hemisphere between May and October, the latitude and intensity of these fires, as well as the length of time that they have been burning for, has been particularly unusual...⁵²

California fires

- 1.49 The issue of lengthening fire seasons has been exemplified by the current bushfires experienced in California in the United States of America (US). Fires started in California on 15 August 2020 due to lightning strikes. As of 6 September 2020, and in the midst of a heatwave, there were nearly 15 000 firefighters battling 23 fires across the state, with more than 647 000 hectares burnt.⁵³
- 1.50 In late August, it was reported that the Governor of California had requested assistance from Australia to fight 560 fires across the state, including the provision of 55 specialised firefighters with supervisory experience and a small group of specialised aircraft managers.⁵⁴
- 1.51 However, despite the urgency of the request and a desire to help, a number of Australian jurisdictions were unable to offer assistance, due to the proximity of the Australian fire season. Queensland was unable to send assistance, and, at the time of reporting, NSW, the Australian Capital Territory (ACT) and Western Australia (WA) were considering their options.⁵⁵

⁵¹ Insurance Australia Group and the National Center for Atmospheric Research (USA), *Severe Weather in a Changing Climate*, 2nd ed., September 2020, p. 3.

⁵² World Meteorological Organisation, '[Unprecedented wildfires in the Arctic](#)', 12 July 2019 (accessed 15 July 2020).

⁵³ 'Hundreds airlifted from California wildfires during record-breaking heatwave', *ABC News*, 7 September 2020, www.abc.net.au/news/2020-09-07/california-wildfires-bushfires-airlifted/12635578 (accessed 9 September 2020).

⁵⁴ Stephanie Borys, 'Some of Australia's top firefighters are heading to California to face wildfires – and COVID-19', *ABC News*, 27 August 2020, www.abc.net.au/news/2020-08-27/california-asks-for-australian-help-to-battle-hundreds-of-fires/12599796 (accessed 9 September 2020).

⁵⁵ Stephanie Borys, 'Some of Australia's top firefighters are heading to California to face wildfires – and COVID-19', *ABC News*, 27 August 2020. The request for assistance was later withdrawn due to

- 1.52 It is concerning to note that the Californian bushfires commenced in August, the same time of year that the 2019–20 bushfire season started in Australia. It seems apparent that as bushfire seasons around the world extend in length, they will overlap and put significant strain on limited resources. This will restrict the ability to both prepare for and extinguish extreme fire events, and for local and global co-operative support.

Key issues and complexities in addressing bushfire threats

- 1.53 As will be detailed throughout this report, there are significant and ongoing complexities in addressing bushfire threats, both as the fires occur, and in preparedness for bushfire seasons.
- 1.54 The Department of the Prime Minister and Cabinet (DPMC) noted that while disasters of any scale impacted on the delivery of, and the need for, Commonwealth services, the 'scale of the 2019–20 bushfires took this to the extreme'. The DPMC also suggested that the 2019–20 summer tested the capacities of local and state governments as well as recovery frameworks.⁵⁶
- 1.55 Similarly, Home Affairs noted that a key lesson of the Black Summer fires was a need to strengthen emergency management arrangements. Home Affairs contended that the fires:
- ... presented never-before-seen scale and reach, concurrently impacting communities in multiple jurisdictions, with significant costs to life and property, and substantial, long-term disruption to local and regional economies. While current arrangements are effective, there is an opportunity to do more to further strengthen Commonwealth, and by extension national, emergency management governance, capability and capacity. This is a key lesson from Black Summer bushfires.⁵⁷
- 1.56 The varying roles of the local, state and federal governments add to emergency management complexity, and can make the lines of reporting and communication unclear in the midst of a crisis. These issues are considered further throughout this interim report.

Scope of interim report

- 1.57 This interim report aims to present preliminary findings regarding the 2019–20 bushfire season and recommendations that can be implemented within relatively short timeframes. The committee has also considered how the Australian Government can better facilitate national coordination in disaster risk reduction, preparedness and response.

a forecast easing of the severe conditions; see 'Hundreds airlifted from California wildfires during record-breaking heatwave', *ABC News*, 7 September 2020.

⁵⁶ Department of Prime Minister and Cabinet, *Submission 70*, [p. 6].

⁵⁷ Department of Home Affairs, *Submission 68*, p. 2.

- 1.58 While short-term action is required, the committee notes that being prepared means not only preparing for the next fire season, but also undertaking more systemic, long-term changes that are needed to adapt to a changing climate and to limit the impact of bushfires and other extreme events across the country. The committee's ongoing work and future reporting will look to these more long-term aims (and are discussed further in this report's final chapter).

Other inquiries into the bushfires

- 1.59 The committee notes that a number of other inquiries have recently been completed, or are in progress, examining the 2019–20 bushfires and making numerous and wide-ranging recommendations. The committee is grateful to have had these resources available to it, and supports a number of the key findings of these inquiries.
- 1.60 In particular, the committee has had the opportunity to review the findings of the following inquiries and reports:
- Australian Bushfire and Climate Plan—the final report of the National Bushfire and Climate Summit 2020;⁵⁸
 - Royal Commission into National Natural Disaster Arrangements: Interim observations, published on 31 August 2020;⁵⁹ and the
 - NSW Government, Final Report of the NSW Bushfire Inquiry, published on 31 July 2020.⁶⁰

Interim report structure

- 1.61 This interim report is comprised of nine chapters, as follows:
- Chapter 1 outlines the referral and conduct of the inquiry and the scope of the interim report, and also examines the devastating outcomes, key events and causes of the 2019–20 bushfire season;
 - Chapter 2 discusses Australia's existing national natural disaster management arrangements, in particular the interaction between the Commonwealth and the states, and looks to future requirements;
 - Chapter 3 considers the actions of the government in the lead-up to the 2019–20 bushfires, and presents some of the evidence received regarding the role of hazard reduction;
 - Chapter 4 examines both the physical and mental health impacts of the bushfires, and the implementation of various health measures to address the impact of the 2019–20 bushfire season;

⁵⁸ Emergency Leaders for Climate Action and the Climate Council, [Australian Bushfire and Climate Plan: Final report of the National Bushfire and Climate Summit 2020](#).

⁵⁹ Royal Commission into National Natural Disaster Arrangements, *Interim observations*, 31 August 2020.

⁶⁰ New South Wales Government, [Final Report of the NSW Bushfire Inquiry](#), 31 July 2020.

- Chapter 5 comments on the impact of the bushfires on Australia's wildlife, and the need for effective wildlife and environmental rehabilitation programs;
- Chapter 6 examines Australia's aerial firefighting capacity and funding arrangements, including capacity in the lead-up to the 2019–20 bushfire season, and considers whether there should be a permanent, sovereign aerial firefighting fleet;
- Chapter 7 describes the role of the insurance industry in mitigating the risks of natural disasters, and the actions that have been or will be taken by the industry for both policy-holders, and in relation to emissions reduction and mitigation;
- Chapter 8 considers the role of clear communication during an emergency, including via community and commercial radio, and identifies areas for improvement in emergency communication systems and frameworks; and
- Chapter 9 discusses the forecasts for the upcoming 2020–21 bushfire season, the key role of ongoing mitigation, and highlights the key areas which the committee will continue to examine as it progresses its inquiry.

Chapter 2

Disaster management frameworks

- 2.1 There are many components to preparing for and addressing natural disasters. The primary responsibility for managing natural disasters rests with the states and territories; however, jurisdictions can request assistance from the Commonwealth Government, and the Commonwealth Government can play a key role in the coordination of an emergency response.
- 2.2 This chapter will examine issues relating to the existing arrangements for disaster response, between the Commonwealth, states and territories. The areas discussed include:
- the work of the Royal Commission into National Natural Disaster Arrangements;
 - existing disaster management frameworks;
 - the role of Emergency Management Australia (EMA);
 - the effectiveness of the disaster management frameworks during the 2019–20 bushfire season, including Australian Defence Force (ADF) support;
 - the work of the National Bushfire Recovery Agency (NBRA), including the expenditure of the National Bushfire Recovery Fund; and
 - existing disaster recovery funding, including the Disaster Recovery Funding Arrangements (DRFA), Commonwealth recovery payments to individuals, and the Emergency Response Fund (ERF).

Royal Commission into National Natural Disaster Arrangements

- 2.3 The Royal Commission into National Natural Disaster Arrangements (Royal Commission) was established on 20 February 2020 in response to the 'extreme bushfire season of 2019–20 which resulted in devastating loss of life, property and wildlife, and environmental destruction across the nation'.¹
- 2.4 The terms of reference for the Royal Commission focus on three core areas:
- the responsibilities of, and coordination between, the Commonwealth and state, territory and local governments relating to preparedness for, response to, resilience to, and recovery from, natural disasters;
 - Australia's arrangements for improving resilience and adapting to changing climatic conditions; and

¹ Royal Commission into National Natural Disaster Arrangements, [Interim observations](#), 31 August 2020, p. 2.

- whether changes are needed to Australia's legal framework for the involvement of the Commonwealth in responding to national emergencies.²
- 2.5 The Royal Commission received a large volume of evidence, comprising over 1700 submissions and 290 witness appearances. On 31 August 2020, the Royal Commission released its interim observations which set out 'preliminary views' ahead of its final report and recommendations, due on 28 October 2020.³
- 2.6 The Royal Commission also released draft propositions, prepared by Counsel Assisting.⁴ The work and observations of the Royal Commission are referred to throughout this report.

Existing disaster management frameworks

- 2.7 This section will provide a broad overview of the existing disaster management frameworks in Australia, including:
- the role of state, territory and local governments;
 - the role of the Commonwealth Government; and
 - the role of EMA.
- 2.8 Natural disaster arrangements vary across Australia, and each jurisdiction has a different level of responsibility in regard to disaster management and response. However, disaster arrangements are viewed as a 'shared responsibility' across all levels of governments and individual communities affected by disasters.⁵
- 2.9 A background paper prepared by the Royal Commission described natural disaster arrangements in Australia as:
- [A] layered and matrixed system of governments, organisations and communities, where roles and responsibilities are shared between public and private entities. While states and territories have primary responsibility for emergency management in their jurisdiction, every level of government has some role in preparing for, responding to, and recovering from natural disasters.⁶

² Royal Commission into National Natural Disaster Arrangements, *Commonwealth Letters Patent – 20 February, 2020*, <https://naturaldisaster.royalcommission.gov.au/publications/commonwealth-letters-patent-20-february-2020> (accessed 16 September 2020).

³ Royal Commission into National Natural Disaster Arrangements, *Interim observations*, 31 August 2020, p. 4.

⁴ Royal Commission into National Natural Disaster Arrangements, *Draft Propositions: Counsel Assisting*, 31 August 2020.

⁵ Department of Home Affairs, *Australian Disaster Resilience Handbook Collection: Australian Emergency Management Arrangements*, 2019, pp. 7–10; Royal Commission into National Natural Disaster Arrangements, *Background Paper: National Natural Disaster Arrangements*, 6 May 2020, p. 5.

⁶ Royal Commission into National Natural Disaster Arrangements, *Background Paper: National Disaster Arrangements*, 6 May 2020, p. 5.

Local governments

- 2.10 All states and territories have delegated significant responsibilities for aspects of managing natural disasters to the local governments within their jurisdictions.⁷
- 2.11 According to the Australian Local Government Association (ALGA), local governments make a 'substantial contribution' to disaster relief, recovery and management, including through direct financial support and in-kind support and assistance.⁸
- 2.12 There are 537 local governments within Australia and each has differing roles and responsibilities in regard to preparing for, responding to, and recovering from natural disasters.⁹ These differences are due to factors including jurisdiction, geography, demographics, council capacity, and the natural disaster risks particular to their communities.¹⁰
- 2.13 The kinds of responsibilities local governments may hold include:
- elements of the emergency planning processes (for example, risk mitigation, land-use planning and land management);
 - the delivery of community services (for example, evacuation and relief centres) during and after a natural disaster; and
 - the restoration of community infrastructure after a disaster.
- 2.14 The Queensland Local Government Association (QLGA) advised that the Queensland system allows for an escalation of requests from the local government to the state government.¹¹ It noted that the Queensland Disaster Management Arrangements are 'uniquely different' from other states in the positioning of local government as holding a primary responsibility for disaster events in their local government area. QLGA advised that this model had proven successful over the past decade through multiple, large-scale disasters.¹²

⁷ Royal Commission into National Natural Disaster Arrangements, *Interim observations*, 31 August 2020, p. 6.

⁸ Australian Local Government Association, Submission to the Royal Commission into National Natural Disaster Arrangements, 28 April 2020, <https://alga.asn.au/submission-to-the-royal-commission-into-national-natural-disaster-arrangements/> (accessed 16 September 2020).

⁹ Royal Commission into National Natural Disaster Arrangements, *Issues Paper: Local governments and national disasters*, 5 June 2020, p. 3.

¹⁰ Australian Local Government Association, Submission to the Royal Commission into National Natural Disaster Arrangements, 28 April 2020, <https://alga.asn.au/submission-to-the-royal-commission-into-national-natural-disaster-arrangements/> (accessed 16 September 2020).

¹¹ Local Government Association of Queensland, *Submission 66*, p. 3.

¹² Local Government Association of Queensland, *Submission 66*, p. 4.

2.15 The Royal Commission highlighted that the capability and capacity of local governments to manage natural disasters is dependent on their relative size and resources. It noted that although states and territories may delegate to their local governments, it would expect that they retain 'oversight and understanding' of the capabilities and provide additional support as necessary.¹³

2.16 The Royal Commission also noted:

Coordination and resource sharing between local governments often rely on regional arrangements, and in some cases, informal understandings. Current processes to facilitate sharing resources between local governments during natural disasters appear beneficial, and warrant greater support.¹⁴

State and territory governments

2.17 During a natural disaster, state and territory governments carry the primary responsibility for the protection of life, property and environment within the bounds of their jurisdiction.¹⁵ Additionally, only state and territory premiers or chief ministers have the power to declare a state of emergency or disaster in their jurisdiction.¹⁶

2.18 As the interim observations of the Royal Commission explained:

State and territory governments have primary responsibility for managing natural disasters – that is, for preparation, mitigation, response and recovery – for their respective jurisdictions. 'Combat agencies', such as rural fire services and state emergency services, lead the response to natural disasters.¹⁷

2.19 The interim observations also outlined that state and territory governments can request Australian Government assistance for support of these primary responsibilities. In addition:

State and territory governments also have a number of other responsibilities, including managing most public lands within their jurisdictions, such as national parks and state forests.¹⁸

¹³ Royal Commission into National Natural Disaster Arrangements, *Interim observations*, 31 August 2020, pp. 6–7.

¹⁴ Royal Commission into National Natural Disaster Arrangements, *Interim observations*, 31 August 2020, p. 7.

¹⁵ Department of the Prime Minister and Cabinet, *Submission 70*, p. 1.

¹⁶ Royal Commission into National Natural Disaster Arrangements, [*Issues Paper: Constitutional Framework for the Declaration of a State of National Emergency*](#), 8 May 2020, p. 18.

¹⁷ Royal Commission into National Natural Disaster Arrangements, *Interim observations*, 31 August 2020, p. 6.

¹⁸ Royal Commission into National Natural Disaster Arrangements, *Interim observations*, 31 August 2020, p. 6.

Commonwealth Government

2.20 In its submission, the Department of the Prime Minister and Cabinet (DPMC) emphasised that states and territories have primary responsibility for the protection of life, property and the environment within the bounds of their jurisdiction. It further stated:

The Australian Government provides assistance only if requested or if states do not have the capacity to respond.

The Australian Government supports state and territory governments by coordinating national efforts during a state-led response to a crisis and by building resilience through disaster research, information management, and mitigation policy and practice.¹⁹

2.21 Apart from some specific legislative provisions (for example, activating disaster recovery payments under the *Social Security Act 1991*), the Commonwealth Government's involvement in natural disasters is largely reliant on its relationships and engagement with states and territories.²⁰

2.22 The Department of Home Affairs (Home Affairs) advised that there is no specific, consolidated legislation for emergency management at the Commonwealth level, and noted:

This has historically meant that while the Commonwealth has had a role in shaping emergency management policy, its response to unfolding disasters has been 'waiting to be asked'.²¹

2.23 The Royal Commission found that the Commonwealth Government had an 'important role' to play in natural disaster management. It noted that while state and territory governments can cooperate among themselves, there is scope for the Commonwealth Government to play an important 'national coordination role'.²²

2.24 Additionally, the Royal Commission observed that conducting its inquiry during the COVID-19 pandemic had highlighted the importance and feasibility of, and public expectation for, national coordination in response to a national crisis.²³

2.25 Home Affairs also observed that the Australian public expects 'national leadership and a unified response' in addressing national disasters.²⁴

¹⁹ Department of the Prime Minister and Cabinet, *Submission 70*, p. 1.

²⁰ Department of Home Affairs, *Submission 68*, p. 12.

²¹ Department of Home Affairs, *Submission 68*, p. 12.

²² Royal Commission into National Natural Disaster Arrangements, *Interim observations*, 31 August 2020, p. 7.

²³ Royal Commission into National Natural Disaster Arrangements, *Interim observations*, 31 August 2020, p. 7.

²⁴ Department of Home Affairs, *Submission 68*, p. 12.

- 2.26 The Royal Commission noted that the Commonwealth Government has 'capability and capacity' not available to states and territories, and can also 'encourage and facilitate' consistency across jurisdictions.²⁵

Emergency Management Australia

- 2.27 As set out earlier in this chapter, state and territory governments carry the primary responsibility for dealing with disasters within their jurisdictions. However, the Commonwealth Government is able to assist, coordinate and collaborate with state and territories through EMA.²⁶
- 2.28 EMA is a division within Home Affairs. It is the Commonwealth's disaster management organisation with approximately 100 staff, and the Crisis Coordination Centre (CCC) is a key business unit within the division.²⁷
- 2.29 The responsibilities of EMA span:
- disaster risk reduction;
 - critical incident planning;
 - disaster preparedness;
 - crisis and security management; and
 - disaster recovery.²⁸
- 2.30 EMA administers, activates and operationalises the Australian Government Disaster Response Plan (COMDISPLAN). The authority for COMDISPLAN is drawn from the Australian Government Crisis Management Framework (AGCMF), which is the authorising policy for national crisis management.²⁹
- 2.31 The AGCMF is designed to enable a 'flexible, whole of government approach' to all crises. It outlines the arrangements for 'all hazard' crisis management 'across the continuum of prevention, preparedness, response and recovery'.³⁰
- 2.32 Through COMDISPLAN, EMA coordinates requests for Commonwealth Government non-financial assistance, including requests for ADF support.³¹ Matters relating to ADF support during the 2019–20 bushfire season are addressed in a subsequent section in this chapter.

²⁵ Royal Commission into National Natural Disaster Arrangements, *Interim observations*, 31 August 2020, p. 7.

²⁶ Department of Home Affairs, *Submission 68*, p. 4.

²⁷ Department of Home Affairs, *Submission 68*, pp. 4–5.

²⁸ Department of Home Affairs, *Submission 68*, p. 4.

²⁹ Department of Home Affairs, *Submission 68*, p. 13.

³⁰ Department of Prime Minister and Cabinet, *Submission 70*, p. 1.

³¹ Department of Home Affairs, *Submission 68*, p. 13.

Disaster management arrangements during the 2019–20 bushfire season

2.33 This section examines the effectiveness of the various elements of disaster management arrangements during the 2019–20 bushfire season in regard to:

- the work of EMA; and
- the processes surrounding ADF support.

Work of EMA

2.34 Home Affairs advised that between 1 July 2019 and 16 March 2020, the CCC within EMA undertook the following work:

- coordinated 76 requests for assistance from states and territories;
- issued more than 1,100 incident notifications and updates, and 115 detailed Incident Briefs to provide situational awareness to key stakeholders;
- deployed 25 individuals, for a total of 149 days, to State Emergency Operations Centres in New South Wales, Queensland, Victoria, Western Australia and South Australia;
- activated and maintained a Crisis Coordination Team for 82 days, including liaison officers and surge staff from across the Commonwealth;
- activated the Australian Government Disaster Response Plan (COMDISPLAN) for six states and coordinated international offers of assistance;
- facilitated 29 senior level meetings of national coordinators through the Australian Government Crisis Committee (AGCC), National Crisis Committee (NCC), and the Commissioners and Chief Officers Strategic Committee (CCOSC) of the Australasian Fire and Emergency Service Authorities Council (AFAC);
- worked with state and territories and supported the NRSC to ensure that emergency service capabilities could be shared across the country based on need; and
- coordinated 155 offers international offers of assistance from 70 countries.³²

Legislative frameworks

2.35 Home Affairs asserted that the 'core elements' of the architecture in the AGCMF 'worked effectively' during the 2019–20 bushfire emergencies, and that communication and coordination between the states, territories and the Commonwealth 'generally operated well'.³³

2.36 However, it identified that there may be a need for legislative reform to amend the current approach (i.e. the Commonwealth must 'wait to be asked' to assist

³² Department of Home Affairs, *Submission 68*, pp. 4–5.

³³ Department of Home Affairs, *Submission 68*, pp. 4–5.

with emergency management). It broadly outlined a proposal for a proactive 'legislative footing':

Before the Black Summer bushfires, the Department [of Home Affairs] was considering the need to reform this long-standing approach [of the Commonwealth 'waiting to be asked'], including considering proposing a legislative footing to entrench specific Commonwealth emergency management functions. The Department considers that 2019-20 bushfires graphically demonstrated the benefit of the Commonwealth being proactively involved, integrating both coordinated Commonwealth and national response and recovery measures.³⁴

2.37 Home Affairs provided further rationale for the need for a legislative footing as follows:

The Department [of Home Affairs] considers that to avoid the potential for competing or confusing points of control, and to ensure rapidity in delivering response and recovery measures to impacted communities, resource and capability coordination should be formally – preferably with a clear legislative footing – centred within government, with the attendant accountability that entails.³⁵

2.38 Emergency Leaders for Climate Action (ELCA) asserted that in the absence of agreed national emergency management legislation to outline accountability and establish key appointments with specific responsibility, it 'remains unclear' who currently leads any Commonwealth response. ELCA stated that this absence made it difficult to meet community needs as part of any response and recovery situation.³⁶

2.39 ELCA argued that EMA is 'arguably buried and subsumed' within Home Affairs and 'has no mandate, legislation or Cabinet endorsement' with which to coordinate. It emphasised that the delivery of EMA functions is 'for the most part' the result of goodwill on behalf of other agencies, state and territories, an arrangement which it considered 'clearly unsatisfactory'.³⁷

2.40 ELCA further argued that during an emergency it is 'crucial' that in addition to strong political leadership there is 'open, clear, no-nonsense' operational leadership and communication which is not 'hobbled by political considerations'.³⁸

2.41 As a solution, ELCA asserted:

EMA should be a statutory authority with legislated capability to provide nationwide assurance to Cabinet that Commonwealth mitigation efforts

³⁴ Department of Home Affairs, *Submission 68*, p. 12.

³⁵ Department of Home Affairs, *Submission 68*, p. 13.

³⁶ Emergency Leaders for Climate Action, *Submission 36*, p. 69.

³⁷ Emergency Leaders for Climate Action, *Submission 36*, p. 69.

³⁸ Emergency Leaders for Climate Action, *Submission 36*, p. 70.

along with policy, planning, response and recovery resources have been applied as efficiently, expeditiously and effectively as possible.³⁹

- 2.42 ELCA further stated that EMA needed 'more than the current case-by case acceptance of its role by other Commonwealth and state agencies'.⁴⁰ ELCA suggested that EMA needs a mandate from Cabinet in order to:

... lead the Commonwealth's response to significant crises. It requires the power and authority to ensure that all Commonwealth agencies are properly coordinating planning for disaster mitigation and the monitoring, testing and exercising of their emergency response plans as part of the government's broader crisis-management responsibilities, coordinated with state and territory emergency management agencies. This will also minimise duplication of effort.⁴¹

COMDISPLAN

- 2.43 The interim observations of the Royal Commission noted that although existing disaster plans such as COMDISPLAN recognise that the Commonwealth Government can assist when a state or territory government becomes significantly incapacitated or its resources are exhausted, there is 'clearly an opportunity to refresh and strengthen national disaster planning'.⁴²

- 2.44 To this end, the Royal Commission's draft propositions argued for the COMDISPLAN to be 'reviewed and updated as a matter of urgency', in order to:

... clarify its operation in the event of a natural disaster and to ensure that there is consistency between its terms and current practice.⁴³

Australian Defence Force support

- 2.45 Under Operation BUSHFIRE ASSIST 2019-20, established on 31 December 2019, the ADF established three state/territory joint task forces to support state and territory management authorities.⁴⁴ Additionally, on 4 January 2020, the Governor General initiated a compulsory call out of ADF Reserves to enhance the deployed joint task forces as part of a wider activation of the ADF.⁴⁵

³⁹ Emergency Leaders for Climate Action, *Submission 36*, p. 70.

⁴⁰ Emergency Leaders for Climate Action, *Submission 36*, p. 70.

⁴¹ Emergency Leaders for Climate Action, *Submission 36*, p. 70.

⁴² Royal Commission into National Natural Disaster Arrangements, *Interim observations*, 31 August 2020, p. 7.

⁴³ Royal Commission into National Natural Disaster Arrangements, *Draft Propositions: Counsel Assisting*, 31 August 2020, p. 7.

⁴⁴ Department of Defence, *Submission 42*, [p. 2].

⁴⁵ Department of Defence, *Submission 42*, [p. 2].

- 2.46 Between September 2019 and March 2020, approximately 8000 ADF personnel assisted with the bushfires, including more than 2500 ADF reservists.⁴⁶
- 2.47 The Royal Commission observed that the ADF contribution to response and recovery efforts during the 2019-20 bushfires was 'without parallel in peacetime'.⁴⁷
- 2.48 The New South Wales (NSW) Bushfire Inquiry found that ADF assistance 'complemented' NSW's emergency response capability and that ADF personnel and reservists worked 'exceptionally well' with NSW combat agencies on the ground.⁴⁸
- 2.49 In its final report the Inquiry outlined the process that NSW took to call upon ADF assistance:

Requests from NSW to the ADF are made under the Defence Assistance to the Civil Community (DACC) arrangements. The ADF, via SEOCON [State Emergency Operations Controller] as the NSW jurisdictional authorised officer, receives requests for assistance where the natural disaster exceeds or exhausts the State's capabilities or where the resources cannot be mobilised in sufficient time. These requests are through Emergency Management Australia (EMA) within the Department of Home Affairs, which is responsible for planning and coordination through the COMDISPLAN. There are two types of DAAC requests: local emergency assistance requests (category 1) and significant emergency assistance requests (category 2).⁴⁹

Challenges with ADF engagement

- 2.50 Evidence before the committee indicated that there was scope for improvement in several elements of ADF involvement, including the process for requesting ADF assistance.
- 2.51 For example, the Tasmanian Government informed the committee that there was scope for the ADF roll-out process to be improved in order to provide state governments with greater clarity in relation to what resources and capabilities the ADF can provide, and the estimated costs associated with deployment.⁵⁰
- 2.52 The Tasmanian Government advised that some elements of ADF deployment costs may need to be covered by the requesting jurisdiction, and noted that:

⁴⁶ Royal Commission into National Natural Disaster Arrangements, *Interim observations*, 31 August 2020, p. 11.

⁴⁷ Royal Commission into National Natural Disaster Arrangements, *Interim observations*, 31 August 2020, p. 11.

⁴⁸ New South Wales Government, [Final Report of the NSW Bushfire Inquiry](#), 31 July 2020, p. 349.

⁴⁹ New South Wales Government, *Final Report of the NSW Bushfire Inquiry*, 31 July 2020, p. 349.

⁵⁰ Tasmanian Government, Submission 124, [p. 2].

These costs are not always made available at the time of the request and the scale of expense is not always anticipated. Work to provide guidance on scenarios where costs will be waived or incurred by the jurisdictions before ADF resources are committed would be of value.⁵¹

2.53 In making this suggestion, the Tasmanian Government advised that the potential costs for ADF support in response to the COVID-19 pandemic were clearly articulated as part of the Memorandum of Understanding signed as part of each request for assistance.⁵²

2.54 The NSW Bushfire Inquiry took the view that the process for requesting ADF assistance could be improved. The concerns raised in the evidence it received are broadly summarised as follows:

The established arrangements to facilitate the NSW Government requesting Defence Assistance to the Civil Community (DACC) can be cumbersome and slow to implement, and there are opportunities for improvement. These include streamlining approvals, providing better visibility to the State on available ADF resources/capabilities, and reviewing the need for the State to exhaust its capabilities before requesting ADF assistance.⁵³

2.55 In its interim observations, the Royal Commission flagged several challenges relating to ADF involvement that it may seek to address in its final report. These issues included:

- uncertainty around the application of the 'thresholds' (set out in the national disaster plans and the Defence Assistance to the Civil Community [DACC] Manual) that must be met before seeking ADF assistance;
- confusion in state government agencies and local governments as to what tasks the ADF could perform, how to seek ADF assistance, and how best to interact with the ADF once it was deployed;
- questions as to the limits of the existing legal authority to support DACC tasking;
- matters relating to the privileges and immunities that ADF personnel lack, compared to those afforded to state and territory emergency responders; and
- the flexibility of the legislative provisions for the call-out of ADF Reserves.⁵⁴

2.56 The draft propositions for the Royal Commission commented that the Australian Government should provide all jurisdictions with more comprehensive information and guidance about Commonwealth resources

⁵¹ Tasmanian Government, Submission 124, [p. 2].

⁵² Tasmanian Government, Submission 124, [p. 2].

⁵³ New South Wales Government, *Final Report of the NSW Bushfire Inquiry*, 31 July 2020, p. 349.

⁵⁴ Royal Commission into National Natural Disaster Arrangements, *Interim observations*, 31 August 2020, pp. 11–12.

and assistance, 'including for ADF assistance'. In addition, the threshold for jurisdictions requesting assistance from the ADF should be less than the current threshold.⁵⁵

2.57 Similarly, the NSW Bushfire Inquiry final report recommended:

That, in order to ensure the guiding principles and approval processes are contemporary, streamlined and more flexible, the NSW and Commonwealth Governments review the circumstances in which the State can request Commonwealth assistance, and the level of information provided by the ADF to the State on available resources and capabilities.⁵⁶

2.58 ELCA advised the committee that DACC arrangements needed to be 'reviewed and simplified'. ELCA recommended that the Commonwealth Government conduct a fundamental review of the DACC arrangements, arguing that the current arrangements were 'slow and cumbersome' and needed to be simplified. It argued that the lack of an overall plan for the ADF to support civilian operations and civilian emergency services in response and recovery 'ultimately proved to be an impediment to the eventual ADF deployment'.⁵⁷

2.59 In regard to the priorities for any review of DACC arrangements, ELCA suggested:

The focus should initially be on simplifying processes for requesting, approving and sustaining support, and simplifying DACC2 [Defence Assistance to the Civil Community Level 2], which essentially always emerges as an ad hoc (unplanned) arrangement. It is time to modernise the processes and increase interaction with state and territory emergency services as a routine role for the ADF.⁵⁸

National Bushfire Recovery Agency

2.60 The committee received evidence on the operations of the NBRA. The NBRA was established on 6 January 2020 and coordinates Commonwealth support for bushfire impacted communities, businesses and individuals.⁵⁹

2.61 Core activities of the NBRA include:

- administering the National Bushfire Recovery Fund (NBRF); and
- providing direct, 'on the ground' assistance to impacted communities.

⁵⁵ Royal Commission into National Natural Disaster Arrangements, *Draft Propositions: Counsel Assisting*, 31 August 2020, pp. 6-7.

⁵⁶ New South Wales Government, *Final Report of the NSW Bushfire Inquiry*, 31 July 2020, p. 353.

⁵⁷ Emergency Leaders for Climate Action, *Submission 36*, pp. 75-76.

⁵⁸ Emergency Leaders for Climate Action, *Submission 36*, p. 75.

⁵⁹ Mr Phil Gaetjens, Secretary, Department of the Prime Minister and Cabinet, *Committee Hansard*, 27 May 2020, p. 23.

2.62 Mr Andrew Colvin, National Coordinator of the NBRA, provided the committee with a detailed overview of the role and function of the NBRA:

It's to, firstly, provide strategic leadership and coordination for Commonwealth-supported recovery and rebuild activities in communities affected by bushfire. We're particularly talking about the 2019-20 bushfire season... We are to build on the effective working relationships with state, territory and local governments, including their recovery and reconstruction bodies. We are to work with stakeholders in bushfire affected communities and relevant Commonwealth agencies to inform and integrate recovery and rebuild activities. We are to consult directly with communities, to understand their needs and aspirations and to communicate this back to government. We are to ensure affected communities have ready access to meaningful support and are aware of all available support services, including by providing clear, effective and visible communication on the Commonwealth support available. We are to provide advice to the Prime Minister, the Minister for Water Resources, Drought, Rural Finance, Natural Disaster and Emergency Management and other relevant ministers on the administration of the National Bushfire Recovery Fund on how existing and new Commonwealth policies and programs can best contribute to the recovery and rebuilding efforts in bushfire affected areas and on the economic and social impacts of bushfire on affected communities in consultation with relevant agencies across all levels of government. We are to design, develop, consult on and coordinate the delivery of a long-term plan for the recovery, rebuild and resilience of bushfire affected communities. We are to monitor the progress of recovery and rebuild efforts nationally and report regularly on progress, obstacles and solutions to ensure the rebuild progress is effective. And our final function is to undertake other tasks as directed by the Prime Minister.⁶⁰

National Bushfire Recovery Fund

2.63 The Commonwealth Government has committed 'more than \$2 billion' to the NBRF and allocated the funding to numerous bushfire recovery programs.⁶¹

2.64 The NBRA advised that in order to 'help get this money to people fast', it had 'in many instances' asked state and territory governments to use the systems and processes they already had in place to implement the programs on behalf of the Commonwealth.⁶²

⁶⁰ Mr Andrew Colvin, Deputy Secretary, National Bushfire Recovery Agency, Department of the Prime Minister and Cabinet, *Committee Hansard*, 27 May 2020, p. 29.

⁶¹ National Bushfire Recovery Agency, *Commonwealth Bushfire Relief and Recovery Funding Factsheet*, <https://www.bushfirerecovery.gov.au/progress-to-date/funding> (accessed 18 September 2020).

⁶² National Bushfire Recovery Agency, *Commonwealth Bushfire Relief and Recovery Funding Factsheet*.

- 2.65 The following table summarises the funding status of each bushfire recovery program, using data available on the NBRA website as at 18 September 2020.⁶³
- 2.66 The NBRA website stated that the figures are based on reporting provided to the NBRA as at 31 August 2020, and that the figures do not reflect final end of financial year reconciliation for 2019–20.⁶⁴

Table 2.1 Summary of funding status of bushfire recovery programs, as at 31 August 2020

Program	Funding allocated	Funding spent as at 31 August 2020	States/territories responsible for delivering support	Notes
SOCIAL AND COMMUNITY				
Disaster Recovery Funding Arrangements (including debris clean up)	\$445.9 million initially (demand driven)	Invoices for work completed will keep flowing through from states and territories	Yes	
Immediate bushfire assistance to Local Governments	\$62 million	\$62 million	Yes	Funding for this program finished in 2019–20.
Support for the mental health of Australians affected by bushfires	\$53.4 million	\$20.6 million (39 per cent of total)	–	Funds will continue to be spent in 2020–21 and 2021–22.
Extra emergency relief delivered by charities, plus financial	\$50 million	\$50 million (provided to charities and providers)	–	Funding for this program finished in 2019–20.

⁶³ The NBRF website noted that the figures are based on reports provided by responsible agencies. It noted that funding reported 'may be different from other published amounts' due to rounding, updated costings, or the disaggregation of funding across portfolios and programs. The website advised that final expenditure will be reported in the Final Budget Outcome for 2019–20.

⁶⁴ National Bushfire Recovery Agency, *Commonwealth Bushfire Relief and Recovery Funding Factsheet*.

counselling				
Back-to-school support	\$34 million initially (demand driven)	\$35.3 million	–	Funding for this program finished in 2019–20.
Assistance for families in bushfire-affected areas (through cancelling the Child Care Subsidy [CCS] activity test debt in the 2019–20 financial year)	Up to \$25.9 million	CCS activity test is worked out at the end of each financial year	–	
Mental health support for emergency services workers	\$15.9 million	\$11.6 million (73 per cent of total)	–	Funds will continue to be spent in 2020–21.
Compensation for volunteer firefighters	\$15 million initially (demand driven)	\$12.0 million	Yes	Funding for this program finished in 2019–20. Allocation has been adjusted to reflect demand to 30 June 2020. Unspent funds have been reallocated to support the Emergency Bushfire Response in Primary Industries Grants Program.

More community wellbeing support	\$13.5 million	\$5.1 million (38 per cent of total)	–	Funds will continue to be spent in 2020–21.
Legal assistance services to support bushfire relief and recovery	\$8.7 million	\$8.7 million	Yes	
Mental health support for early learning and school communities	\$8 million	\$6 million (75 per cent of total)	–	Funds will continue to be spent in 2020–21.
Wellbeing support for school communities	\$2 million	\$2 million	Yes	Funding for this program finished in 2019–20.

ECONOMIC

Local Economic Recovery and Complementary Projects Fund	\$448.5 million	\$9.9 million (2 per cent of total)	Yes	
\$10 000 grants for small business	\$234 million initially (demand driven)	\$209.9 million	Yes	The amount spent so far is the total amount of funding spent from the NBRF. If state/territory contributions are included, the total amount of funding released through this program is \$226.5 million.
Emergency Bushfire Response	\$141 million	\$118.3 million **	Yes	*This allocation has

in Primary Industries Grants Program	initially (demand driven) *			<p>been increased to take into account an updated estimate of demand.</p> <p>** This is the total amount of funding spent from the NBRF. If state/territory contributions are included, the total amount of funding released via this program is \$156.8 million.</p>
Bushfire recovery in the tourism sector	\$76 million	\$18.1 million (24 per cent of total)	–	<p>Spending has been interrupted due to COVID-19, but funds will continue to be spent in 2020–21.</p>
\$50 000 small business grants and concessional loans up to \$500 000	<p>Grants: \$68.4 million initially (demand driven)</p> <p>Loans: no allocation as the money will be repaid</p>	<p>Grants: \$39.2 million*, 'plus more invoices from the states coming soon'</p> <p>Loans: \$32.8 million**</p>	Yes	<p>*This is the total amount of funding spent from the NBRF. If state/territory contributions are included, the total amount of funding released via</p>

				this program is \$55.8 million. **This is total loans approved, not direct and immediate payments from the NBRF.
Forestry Recovery Development Fund	\$41 million	–	–	Funding started on 1 July 2020.
Bushfire-affected apple growers	\$31 million	–	Yes	Funding started on 1 July 2020.
Rural Financial Counselling Service	\$15 million	\$11.3 million (75 per cent of total)	–	Funds will continue to be spent in 2021–22.
Forestry industries	\$15 million	–	Yes	Funding started on 1 July 2020.
Expert business facilitators	\$12.8 million	\$0.5 million (4 per cent of total)	–	
Wine grape producers	\$5.7 million	–	Yes	Funding started on 1 July 2020.
Financial counselling for small businesses in bushfire-affected communities	\$3.5 million	\$1.0 million (29 per cent of total)	–	Funds will continue to be spent in 2021–22.
INFRASTRUCTURE				
Strengthening telecommunications against natural	\$27.1 million	–	–	Funding started on 1 July 2020.

disaster				
Additional fire-fighting aircraft	\$20 million	\$20 million	–	Funding for this program finished in 2019–20.
ENVIRONMENT				
Bushfire recovery for native wildlife and habitats	\$149.7 million	–	–	Funding started on 1 July 2020.
Immediate wildlife rescue and recovery	\$53.4 million	\$41.8 million (78 per cent of total)	Yes	
LESSONS AND INSIGHTS				
Evaluation and lessons learnt	\$1.3 million	–	–	Funding started on 1 July 2020.

Source: National Bushfire Recovery Agency, *Commonwealth Bushfire Relief and Recovery Funding Factsheet*, <https://www.bushfirerecovery.gov.au/progress-to-date/funding> (accessed 18 September 2020).

- 2.67 The committee raised concerns during Mr Colvin's testimony that NBRF funds provided to local and state governments, and other external organisations (such as charities) were not adequately monitored to ensure that the funds were reaching bushfire victims 'on the ground'.
- 2.68 The committee sought clarification from the NBRA about its visibility over NBRF funds once the money was delivered to external agencies. Mr Colvin responded that:

We have visibility of some of that. For instance, the charities report to us quite regularly on the money that we have provided to them. Close to \$40 million has been provided to them. On money that has been provided to, for instance, a wildlife organisation or to a primary healthcare network that has then found its way to a community group for the services of mental health, no, I wouldn't have visibility on whether that particular organisation on the ground has spent all of the money that's been provided to it.⁶⁵

Charitable donations

- 2.69 The NBRA noted that it had asked charities to distribute some of the funds to communities as emergency relief.⁶⁶ Mr Colvin noted that \$40 million had been

⁶⁵ Mr Andrew Colvin, Deputy Secretary, National Bushfire Recovery Agency, Department of the Prime Minister and Cabinet, *Committee Hansard*, 27 May 2020, p. 25.

⁶⁶ National Bushfire Recovery Agency, *Commonwealth Bushfire Relief and Recovery Funding Factsheet*.

provided 'in immediate relief to charitable organisations, and they are disbursing that money on our behalf'.⁶⁷

- 2.70 In addition to the \$2 billion committed to the NBRF by the government, there was an unprecedented amount of money donated from both domestic and international donors in response to the 2019–20 bushfires. Donations exceeded \$500 million, with over \$51 million raised by comedian Celeste Barber for the NSW Rural Fire Service—this being the second largest single source of donation.⁶⁸ Given the magnitude of the donations, there was some public discussion about how the money was being distributed and spent.
- 2.71 The Red Cross did not discuss the progress of the distribution of donated funds in its submission, but noted that it raised \$216 million in donations in the period 1 July 2019 to 30 April 2020, which it continues 'to expend and distribute'.⁶⁹
- 2.72 In its submission, the St Vincent de Paul Society National Council of Australia Inc. (St Vincent de Paul) called for a review of the fundraising laws in each state and territory 'with a view to streamlining compliance processes for national charities', observing that the existing laws were 'no longer fit-for-purpose', on the basis that these laws:
- ...were enacted at a time when appeals were conducted jurisdiction by jurisdiction, often door to door, or through charity shops or local events. They do not accommodate national, cross-jurisdictional online appeals that are now common.⁷⁰
- 2.73 In July 2020, the Australian Charities and Not-for-profits Commission (ACNC) informed the committee that as part of its regulatory work it would be undertaking a review of 'three major charities' involved in the bushfires, and this work would be 'starting very soon'.⁷¹
- 2.74 The ACNC Commissioner, the Hon Dr Gary Johns, advised that the review would focus on the following three core questions, based around the legislation the ACNC administered:

⁶⁷ Mr Andrew Colvin, Deputy Secretary, National Bushfire Recovery Agency, Department of the Prime Minister and Cabinet, *Committee Hansard*, 27 May 2020, p. 24.

⁶⁸ Debbie Cuthbertson and Jessica Irvine, 'Bushfire donations near \$500 million as watchdogs put charities on notice', *The Sydney Morning Herald*, 19 January 2020, www.smh.com.au/national/bushfire-donations-near-500-million-as-watchdogs-put-charities-on-notice-20200117-p53sg5.html (accessed 16 July 2020). The largest donation of \$70 million came from Andrew and Nicola Forrest.

⁶⁹ Australian Red Cross, *Submission 55*, p. 1.

⁷⁰ The St Vincent de Paul Society National Council of Australia Inc., *Submission 47*, p. 10.

⁷¹ The Hon Dr Gary Johns, Commissioner, Australian Charities and Not-for-profits Commission, *Committee Hansard*, 30 July 2020, p. 41.

- Is the charity spending bushfire donations on bushfire response activities?
- Is the charity taking a 'strategic and reasonable approach' to the disbursement of funds?
- Is the charity taking adequate steps to protect the funds against fraud?⁷²

Disaster recovery funding

2.75 This section provides an overview of current disaster recovery funding, including:

- the DRFA;
- the ERF; and
- Commonwealth recovery payments to individuals.

Disaster Recovery Funding Arrangements

2.76 The Commonwealth Government established the DRFA in 2018 in recognition of the significant cost of natural disasters. The DRFA is administered by Home Affairs and operates as a joint Commonwealth-state cost sharing arrangement to alleviate the financial burden on states and facilitate the early provision of disaster relief to affected communities.⁷³ Through the DRFA, the Commonwealth reimburses state governments for a proportion of their eligible expenditure on relief and recovery, including expenditure by their local governments. The DRFA is intended to act as a 'safety net against large, unexpected fiscal impacts' from natural disasters.⁷⁴

2.77 The DRFA allows state and territory governments to activate relief and recovery assistance immediately following a disaster without the need to seek approval from the Commonwealth Government. States and territories are also able to determine the type and level of assistance to make available.⁷⁵

2.78 Home Affairs commented:

This [arrangement] recognises that states are best placed to identify the type and level of assistance to make available, in accordance with their responsibility for disaster management. This also means that arrangements can be inconsistent across the states and territories, and for national scale disasters, communities in different jurisdictions are afforded different types and levels of assistance.⁷⁶

⁷² The Hon Dr Gary Johns, Commissioner, Australian Charities and Not-for-profits Commission, *Committee Hansard*, 30 July 2020, p. 41.

⁷³ Department of Home Affairs, *Submission 68*, pp. 7–8.

⁷⁴ Department of Home Affairs, *Submission 68*, p. 8.

⁷⁵ Department of Home Affairs, *Submission 68*, p. 8.

⁷⁶ Department of Home Affairs, *Submission 68*, p. 8.

2.79 There are four categories of assistance measures under the DFRA, as set out below:

Category	Overview
Category A	Assistance to individuals to alleviate personal hardship or distress arising as a direct result of a disaster
Category B	Assistance to the state, and/or local governments for the restoration of essential public assets and certain counter-disaster operations
Category C	<p>Assistance for severely affected communities, regions or sectors, and includes clean-up and recovery grants for small businesses and primary producers and/or the establishment of a Community Recovery Fund.</p> <p>Only made available when the impact of a disaster is severe and is intended to be in addition to assistance under Categories A and B.</p> <p>Requires agreement from the Prime Minister.</p>
Category D	<p>Assistance for exceptional circumstances beyond Categories A, B and C.</p> <p>Generally made available once the impact of the disaster has been assessed and specific recovery gaps identified.</p> <p>Requires agreement from the Prime Minister</p>

Source: Department of Home Affairs, Submission 68, p. 8.

2.80 The committee considered evidence that raised concerns regarding the operation of the DRFA in the aftermath of the 2019–20 bushfire season.

2.81 The Red Cross observed that the DRFA is implemented in different ways across state and territory borders, a problem particularly pressing for those communities that straddle borders. It explained:

During the recent bushfires there were numerous cross border communities impacted. We had anecdotal reports some struggled to access recovery supports, as their normal geographic service centre is across the border from where they reside. We also heard of instances where people weren't able to access financial assistance being provided from their nearest recovery hub as they were not residents of that state. This caused undue stress, potential for conflict within communities and meant that some had to travel longer distances to access support. Similarly, government assistance measures available vary significantly between states. Solutions promoting equity are needed.⁷⁷

⁷⁷ Australian Red Cross, *Submission 55*, [p. 5].

2.82 During a public hearing of the Royal Commission, Mr Colvin, in his role as National Coordinator of the NBRA, observed that there were inconsistencies between the DRFA programs and offerings based on jurisdiction. He explained:

...the reality is that there are differences across jurisdictional boundaries, and the experience of an Australian recovering from this event can vary depending on which side of an artificial line that you sit. And I'm not just talking about State lines, it can also vary at times from local government boundaries as well. And everyone is working very hard with good endeavour to address that.⁷⁸

2.83 In light of these views, the Red Cross recommended that the DRFA be 'reviewed or adjusted' to be more flexible for people who live in 'cross border' communities.⁷⁹

2.84 Evidence received by the Royal Commission also flagged several other limitations of the DRFA encountered in the aftermath of the 2019–20 bushfires. These included:

- the inadequate scope of the DRFA to fund betterment initiatives;
- confusion over the different types and levels of DRFA assistance, meaning bushfire victims were forced to retell their story multiple times; and
- inconsistency in relation to the declaration of disaster areas by states and territories.

2.85 Each of these matters will be briefly discussed below, drawing on the evidence received by the Royal Commission.

Scope for betterment initiatives

2.86 In his witness statement to the Royal Commission, Mr Colvin observed that the DRFA is 'limited in its focus on reinstatement with betterment'.⁸⁰

2.87 When asked during a public hearing of the Royal Commission to expand on this statement, Mr Colvin elaborated:

So the DRFA, while it does contemplate rebuilding infrastructure in a way that improves on where it was, I don't think that the principle of betterment is as strong a philosophy in our recovery frameworks as I believe it should be. So if a structure burns down, a bridge, a public toilet facility at a park, of course we want to rebuild that facility, but we want to rebuild it to create the intent, not necessarily the bricks and mortar. And betterment should be factored into all of our recovery so that we're learning the lessons of the recovery, we're learning the lessons of the

⁷⁸ Royal Commission into National Natural Disaster Arrangements, [Hearing Block 1, Day 6 Transcript](#), 4 June 2020, [p. 38].

⁷⁹ Australian Red Cross, *Submission 55*, [p. 5].

⁸⁰ Royal Commission into National Natural Disaster Arrangements, [Exhibit 6-002.001 – PMC.8001.0001.0297 – Witness Statement – Andrew Colvin APM OAM](#), 4 June 2020, p. 11.

disaster. And, to the extent that we can, we are building back in a way that hopefully mitigates the potential for it to happen again. The DRFA, I wouldn't say it doesn't contemplate betterment but there is a stronger emphasis on reinstatement, not necessarily improvement.⁸¹

Confusion over types of assistance

2.88 Evidence received by the Royal Commission indicated that one of the biggest issues for individuals and businesses impacted by the 2019–20 bushfires was confusion over the DRFA payments and mechanisms, which negatively impacted those seeking assistance.

2.89 In her witness statement to the Royal Commission, Ms Michelle Lees, Deputy Chief Executive Officer of Services Australia noted:

Multiple avenues for individual financial assistance require separate applications to multiple agencies. The application process requires Australians impacted by a disaster to repeatedly tell their story in order to meet similar eligibility requirements. This can be cumbersome, confusing and stressful to those who are vulnerable in an already challenging time.⁸²

2.90 At a Royal Commission public hearing, Ms Lees further advised that there may be a benefit to eliminating the need for individuals to apply to a Commonwealth, as well as state or territory body to access payments:

...there are different provisions under the Disaster Recovery Funding Arrangements that mean that there are some payments that are made by State and Territory governments for, what I would consider to be, similar reasons to the Commonwealth payments that are made. And at the moment there are there's a requirement for individuals to apply to the different jurisdictions for those different payments. It does get confusing for people because there are different amounts, and obviously the need to complete different application forms, there's different waiting periods, etcetera. So, in my opinion, there may be some benefit to looking at whether those arrangements are consolidated in some way or reviewed in some way to consider whether it might be beneficial for individuals and more efficient to have one entity administer the payments; for example, could a similar payments be administered by, you know, either State or Territories or Commonwealth on behalf of the other entity? ⁸³

2.91 Mr Colvin also informed the Royal Commission that it would be beneficial for a 'no wrong door' or 'one stop shop' principle to be adopted when designing a recovery response in order to avoid re-traumatising individuals through requiring them to recount their stories repeatedly. He commented:

⁸¹ Royal Commission into National Natural Disaster Arrangements, [Hearing Block 1, Day 6 Transcript](#), 4 June 2020, [p. 36].

⁸² Royal Commission into National Natural Disaster Arrangements, [Exhibit 6-001.001 – SER500.001.0002 – Witness Statement – Michelle Lees](#), 4 June 2020, p. 5.

⁸³ Royal Commission into National Natural Disaster Arrangements, [Hearing Block 1, Day 6 Transcript](#), 4 June 2020, [p. 14].

The NBRA has observed the frustration, confusion and trauma caused by having to navigate multiple service providers and provide the same information repeatedly. Greater coordination and information sharing to support the individual's experience when engaging with the recovery mechanism would be beneficial.⁸⁴

Declaration of disaster areas for the purposes of the DRFA

2.92 The Royal Commission heard that not all bushfire affected Local Government Areas (LGA) had been declared for the purposes of the DRFA, a situation which was frustrating for some Royal Commission submitters.⁸⁵

2.93 Mr Colvin explained the declaration process for the Royal Commission, emphasising that it is the state that triggers the declaration on behalf of the LGA:

Effectively, the State writes to the Commonwealth particularly for categories C and D, and triggers the local government area for support under the DRFA. So the Commonwealth doesn't trigger them. The State has to trigger them, and that will be on behalf of the local government area; and that's appropriate given that they are in a much closer situation to assess the damage and assess the need.⁸⁶

Review of the DRFA

2.94 In June 2020, Commonwealth, state and territory emergency management ministers agreed to undertake a review of the DRFA. The Commonwealth Minister for Emergency Management noted that the review would seek to ensure that 'assistance under the [DRFA] program is fair and equitable for Australians living in different states'.⁸⁷

Emergency Response Fund

2.95 The ERF was established on the commencement of the *Emergency Response Fund Act 2019* on 12 December 2019.⁸⁸

2.96 Home Affairs advised that the ERF is a dedicated Commonwealth Government investment fund credited with approximately \$4 billion on establishment providing:

⁸⁴ Royal Commission into National Natural Disaster Arrangements, [Exhibit 6-002.001 – PMC.8001.0001.0297 – Witness Statement – Andrew Colvin APM OAM](#), 4 June 2020, p. 39.

⁸⁵ Royal Commission into National Natural Disaster Arrangements, [Hearing Block 1, Day 6 Transcript](#), 4 June 2020, [p. 39].

⁸⁶ Royal Commission into National Natural Disaster Arrangements, [Hearing Block 1, Day 6 Transcript](#), 4 June 2020, [p. 39].

⁸⁷ The Hon David Littleproud MP, Minister for Agriculture, Drought and Emergency Management, 'Emergency management ministers agree to review the national disaster recovery funding arrangements', *Media Release*, 3 June 2020.

⁸⁸ Department of Home Affairs, *Submission 68*, p. 9.

- \$150 million each financial year to fund emergency response and recovery following natural disasters in Australia that have a significant or catastrophic impact, when the Commonwealth Government determines that existing recovery programs are insufficient to meet the scale of the response required; and
- up to \$50 million each financial year to build resilience to, and prepare for or reduce the risk of future natural disasters, when the Commonwealth Government determines that funding over and above its existing suite of arrangements is required.⁸⁹

2.97 The ERF may also include additional recovery grants, economic aid, and support for affected communities and industry to help build resilience to future disasters, as well as pre-disaster preparedness initiatives.⁹⁰

2.98 Home Affairs informed the committee in May 2020 that 'given the scale of dedicated recovery funding through the NBRA', the Director General of EMA had recommended that the ERF not be accessed.⁹¹

2.99 At a public hearing on 27 May 2020, the committee queried the reason behind why the ERF had not been accessed at that point in time. Mr Robert Cameron, Director General of EMA responded:

The reason is that the funding mechanisms put in place to deal principally with the series of bushfires and the Bushfire Recovery Fund that I've already mentioned have been put in place. So, through the disaster recovery funding arrangements and through the Bushfire Recovery Fund, that's [the ERF], at the moment, in my judgement, not warranted to be accessed. That may change, but, at the moment, that's the case.⁹²

2.100 On 30 June 2020, it was reported that EMA had confirmed that 'no engagement on expenditure' had occurred, and that the unspent money remained in the ERF's investment account.⁹³

2.101 At a public hearing on 13 August 2020, the committee again queried whether the ERF had been accessed. Mr Cameron confirmed that no funding had been released at that point in time.⁹⁴

⁸⁹ Department of Home Affairs, *Submission 68*, p. 9.

⁹⁰ Department of Home Affairs, *Submission 68*, p. 9.

⁹¹ Department of Home Affairs, *Submission 68*, p. 9.

⁹² Mr Robert Cameron, Director General, Emergency Management Australia, Department of Home Affairs, *Committee Hansard*, 27 May 2020, p. 33.

⁹³ Anna Henderson, 'Government's \$50 m fund to mitigate bushfires, natural disasters, untouched at end of financial year', ABC News, 30 June 2020, www.abc.net.au/news/2020-06-30/natural-disaster-bushfire-mitigation-fund-untouched/12402960 (accessed 30 September 2020).

⁹⁴ Mr Robert Cameron, Director General, Emergency Management Australia, Department of Home Affairs, *Committee Hansard*, 12 August 2020, p. 31.

2.102 At the August hearing, the committee sought evidence on whether steps had been taken to determine potential mitigation projects or measures that could be funded through the ERF. Mr Cameron advised that EMA was 'working on that' and that advice would be provided to the Commonwealth Government 'in the not too distant future'.⁹⁵

Commonwealth recovery payments to individuals

2.103 The Commonwealth Government provides financial assistance directly to individuals affected by major disasters. This is done through the Australian Government Disaster Recovery Payment (AGDRP) and the Disaster Recovery Allowance (DRA). Both payments have a legislative basis in the *Social Security Act 1991* and are administered by Services Australia.⁹⁶

Australian Government Disaster Recovery Payment

2.104 The AGDRP is provided to individuals who have been severely affected by a major disaster, including where:

- the individual is seriously injured;
- the individual is an immediate family member of an Australian who is killed; or
- the individual's principal place of residence has been destroyed or has sustained major damage.⁹⁷

2.105 Home Affairs advised that in recognition of the 'significant impacts' the 2019–20 bushfires had on affected communities, the Commonwealth Government broadened the eligibility for the AGDRP to cover major asset loss at a person's principal place of residence (greater than \$20 000 in value). As a result, assets such as sheds, machinery, fencing and motor vehicles were covered. Additionally, AGDRP recipients received an additional one-off payment of \$400 per child to further help with recovery needs.⁹⁸

2.106 Home Affairs informed the committee that AGDRP payments had been made to individuals in NSW, Victoria, Queensland, South Australia and Tasmania in response to the 2019–20 bushfires.⁹⁹ Services Australia stated that these individuals were in 59 LGA.¹⁰⁰

⁹⁵ Mr Robert Cameron, Director General, Emergency Management Australia, Department of Home Affairs, *Committee Hansard*, 12 August 2020, p. 31.

⁹⁶ Department of Home Affairs, *Submission 68*, p. 6.

⁹⁷ Department of Home Affairs, *Submission 68*, pp. 6–7.

⁹⁸ Department of Home Affairs, *Submission 68*, p. 7.

⁹⁹ Department of Home Affairs, *Submission 68*, p. 7.

¹⁰⁰ Services Australia, *Submission 120*, p. 3.

2.107 The Australian Council of Social Service (ACOSS) asserted that the AGDRP for adults remains 'seriously inadequate', particularly for people with low incomes and few resources from which to draw. ACOSS recommended an urgent increase to the AGRDP, observing that the rate has remained unchanged since 2006. It recommended that the payment be indexed annually in line with wage growth.¹⁰¹

Disaster Recovery Allowance

2.108 The DRA came into effect on 1 October 2013, replacing the former *ex gratia* Disaster Income Recovery Subsidy. The DRA provides short-term income support for up to 13 weeks to people with a demonstrated loss of income as a direct result of a major disaster. It is taxable and subject to beneficiary tax offsets, consistent with other social security payments.¹⁰²

2.109 The Commonwealth minister responsible for emergency management can activate the DRA for events of national significance where assistance in the form of income support is required, taking into account the extent to which the nature and scope of the event is unusual, and the extent of workforce disruption.¹⁰³

2.110 An individual may be eligible to receive the DRA if they:

- are over 16 years of age;
- are not receiving another income support payment; and
- have suffered a loss of income as a direct result of the disaster.¹⁰⁴

2.111 Home Affairs advised that in response to the 2019–20 bushfires, the Commonwealth Government 'enhanced the DRA's administration', by:

- increasing the income cut-off threshold to enable more individuals to qualify;
- simplifying the way the DRA is calculated;
- streamlining the application process to enable quicker process; and
- making DRA non-assessable, non-exempt income (i.e. tax free).¹⁰⁵

2.112 Home Affairs informed the committee that DRA payments had been made to individuals in NSW, Victoria, Queensland, South Australia, Tasmania and the

¹⁰¹ Australian Council of Social Service (ACOSS), *Submission 108*, p. 9.

¹⁰² Department of Home Affairs, *Submission 68*, p. 7.

¹⁰³ Department of Home Affairs, *Submission 68*, p. 7.

¹⁰⁴ Department of Home Affairs, *Submission 68*, p. 7.

¹⁰⁵ Department of Home Affairs, *Submission 68*, p. 7.

Australian Capital Territory in response to the 2019–20 bushfires.¹⁰⁶ Services Australia stated that these individuals were in 108 LGA.¹⁰⁷

- 2.113 ACOSS noted that it welcomed the Commonwealth Government's announcement in January 2020 that the DRA would not be taxable. However, it argued that the DRA was still inadequate to cover basic living costs and needed to be increased.¹⁰⁸ ACOSS emphasised:

We call for an increase to these allowances to help people recover from natural disasters, also recognising that many people who have lost their paid work will need more than 13 weeks of assistance.¹⁰⁹

Committee views

- 2.114 The committee understands that bushfires and other natural disasters do not respect state and territory borders, or local government boundaries and is cognisant of the evidence presented to it that points to the need for consideration to be given to strengthening the national framework for natural disaster planning and response.
- 2.115 The committee notes the observation from the Royal Commission that there is an opportunity to refresh and strengthen national disaster planning. The committee is respectful of the work of the Royal Commission and does not wish to pre-empt the final analysis and recommendations that will be contained in the final report, although some indication of the Commission's approach has been put forward in its draft propositions.
- 2.116 Given that the Royal Commission is considering the legal framework for Commonwealth involvement in responding to national emergencies, the committee considers it prudent to wait for the final report before making any recommendations in order not to pre-empt or duplicate findings.
- 2.117 The committee acknowledges Home Affairs' proposal to enable proactive Commonwealth involvement in natural disaster response and recovery via a clear legislative footing which would entrench specific Commonwealth emergency management functions. The committee considers that such a major reform would require extensive exploration and comprehensive consultation with all stakeholders before being progressed in order to ascertain that the approach would deliver benefits.
- 2.118 The committee recognises the evidence and suggestions from ELCA in regard to the role and operation of EMA and the need to revitalise its authority and,

¹⁰⁶ Department of Home Affairs, *Submission 68*, p. 7.

¹⁰⁷ Services Australia, *Submission 120*, p. 3.

¹⁰⁸ ACOSS, *Submission 108*, p. 9.

¹⁰⁹ ACOSS, *Submission 108*, p. 9.

by extension, effectiveness. The committee is open to considering this matter further in its final report.

ADF support

- 2.119 The committee considers that the ADF assistance during the Black Summer bushfires was incredibly valuable, and recognises that Operation BUSHFIRE ASSIST was unprecedented in its scope, scale and duration.
- 2.120 The committee is cognisant of the findings of the NSW Bushfire Inquiry and the views expressed in the Royal Commission interim observations in regard to the involvement of the ADF.
- 2.121 The committee notes that a bill currently before the House of Representatives – the Defence Legislation Amendment (Enhancement of Defence Force Response to Emergencies) Bill 2020 – does address streamlining the process for calling out ADF Reserves, including for the purposes of responding to natural disasters or emergencies.
- 2.122 Noting that future bushfire seasons may require similar ADF involvement as was required in 2019–20, the committee considers that there is merit in the Commonwealth engaging with the stakeholder feedback provided after the 2019-20 season, including that provided by state governments and ELCA.
- 2.123 The committee notes that it is open for it to explore this matter further in its final report.

National Bushfire Recovery Agency

- 2.124 The committee recognises the work being done by the NBRA is essential to helping Australians recover from the Black Summer bushfires. As such, it considers it is important to understand and assess the operations of the NBRA.
- 2.125 In particular, the committee has a specific interest in the administration of the NBRF, and how the \$2 billion in funding is allocated and dispersed. In this regard, the committee is primarily concerned with whether the NBRF funding committed by the Commonwealth Government is adequate and reaching communities 'on the ground' in a timely manner.
- 2.126 The committee is extremely interested in understanding whether NBRF funds are being spent efficiently and effectively. It is keen to find out whether the funds and programs are providing tangible relief and recovery to those individuals, organisations and communities impacted by the Black Summer bushfires. In this regard, the committee also has an interest in the forthcoming work of the ACNC as it undertakes reviews into charities involved in the bushfires.
- 2.127 To ensure that the recovery funding administered by the NBRA is reaching communities on the ground, the committee considers that the NBRA should introduce monthly reporting requirements for state, territory and local

governments and other organisations (such as charities) who receive NBRF funding.

- 2.128 The committee considers the administration of the NBRF to be a significant issue that warrants further exploration. It intends to continue to monitor and seek further information on the progress of the NBRF funding roll-out, and may address the matter further in a future report.

Recommendation 1

- 2.129 The committee recommends that the National Bushfire Recovery Agency introduce monthly reporting requirements for state, territory and local governments and other external agencies that receive funding through the National Bushfire Recovery Fund.**

Disaster Recovery Funding Arrangements

- 2.130 The committee notes that a review of the DRFA commenced in June 2020 and is currently underway. The committee encourages the review to consider a number of measures relating to concerns it received in evidence about DRFA.
- 2.131 Given the concerns raised in evidence to both this inquiry and the Royal Commission regarding limitations with the DRFA, the committee anticipates the final analysis and recommendations of the Royal Commission with interest.
- 2.132 The committee notes that the interim observations of the Royal Commission made specific reference to a number of issues regarding the DRFA, including the scope of 'betterment' initiatives, the eligibility of certain public assets, and administrative requirements (such as preparation of a business case for new recovery programs).¹¹⁰ The committee therefore recommends that the current review into the DRFA take these matters into consideration as part of its work.

Recommendation 2

- 2.133 The committee recommends that the current review into the Disaster Recovery Funding Arrangements (DRFA) consider the following matters:**
- **the need to streamline application processes for DRFA assistance and provide additional case management assistance for individuals, local, and state and territory governments during and following natural disasters;**
 - **the need to harmonise eligibility criteria across jurisdictions to ensure equitable access to support; and**
 - **the need to remove impediments to applying for betterment and mitigation initiatives.**

¹¹⁰ Royal Commission into National Natural Disaster Arrangements, *Interim observations*, 31 August 2020, p. 23.

Emergency Response Fund

- 2.134 The committee was surprised to learn that as at August 2020, the Commonwealth Government had not allocated or spent any of funds from the ERF. The committee considers this outcome to be disappointing, particularly given that each financial year there is up to \$50 million available for mitigation projects.
- 2.135 It does not seem acceptable to the committee that a fund to which \$4 billion has been allocated, and was established nearly a year ago, has had no allocations made from it—despite the significant impact of the 2019–20 summer bushfires.
- 2.136 The committee is of the opinion that ERF funds should be allocated and dispersed as a matter of priority in order to fund mitigation projects that will build resilience to, prepare for, and reduce the risk of future natural disasters.

Recommendation 3

- 2.137 The committee recommends that, as a matter of priority, the Commonwealth Government release funding for mitigation projects through the Emergency Response Fund.**

Commonwealth recovery payments

- 2.138 The committee considers that Commonwealth recovery payments play a vital role in helping individuals severely impacted by disasters.
- 2.139 The death of an immediate family member, serious injury, and the loss of property or livelihood through a major disaster are all extremely traumatic events. Commonwealth financial assistance can be imperative to helping individuals cope with the aftermath of a major disaster, such as the 2019–20 bushfires, and rebuild their lives.
- 2.140 The committee agrees with the recommendation from ACOSS that going forward the AGDRP and the DRA need to be increased in order to provide adequate support to those that need it. Therefore, the committee considers that the government should immediately review both payments, with a look to increase them as soon as possible.

Recommendation 4

- 2.141 The committee recommends that the Commonwealth Government review, with a view to increase, the rate of the Australian Government Disaster Recovery Payment and the Disaster Recovery Allowance as a matter of priority.**

Chapter 3

Government action and hazard reduction

- 3.1 The severity of the 2019–20 bushfire season was unprecedented. However, evidence before the committee suggests that there were warnings provided to the Commonwealth Government which noted that the 2019–20 season was likely to be extreme, off the back of record high temperatures, drought, and a warming climate.
- 3.2 This chapter will consider the warnings issued to the Commonwealth Government in the lead up to the season, and the response of the Government to this advice. Also discussed is the role of hazard reduction in changing the impact of fires, and the effect of significant, unforeseen circumstances (such as a pandemic) on planned hazard reduction activity.

Warnings of elevated bushfire risk

- 3.3 The committee heard that multiple warnings were provided to the Commonwealth Government about the increased risk of the 2019–20 bushfire season and the need to ensure adequate resources for fire and emergency services agencies.

Forecasts for the 2019–20 bushfire season

- 3.4 The 2019–20 bushfire season had long been forecast as one which would take place under unusually severe conditions. For example, the *State of the Climate 2018* report, produced biennially by the Bureau of Meteorology (the BOM) and the Commonwealth Scientific and Industrial Research Organisation (CSIRO), recognised the '... long-term increase in extreme fire weather, and in the length of the fire season, across large parts of Australia since the 1950s'.¹
- 3.5 Mr David Lewis further explained that:
- ... what occurred last summer was entirely in line with what many in the scientific community had been forewarning us about for decades. And ... there is ample evidence to suggest that it will not only be regularly repeated, but also that we can expect fire conditions to become even worse in future.²
- 3.6 At an estimates hearing of the Senate Environment and Communications Legislation Committee on 18 February 2019, Dr Andrew Johnson, Chief Executive Officer and Director of Meteorology at the BOM told the Senate that as a routine part of its role, the BOM regularly advises the federal, state and

¹ Bureau of Meteorology and Commonwealth Scientific Industrial Research Organisation, [*State of the Climate 2018*](#), p. 5 (accessed 18 September 2020).

² Mr David Lewis, *Submission 10*, [p. 1].

local governments on the climate and its impacts on communities.³ In particular, the BOM had briefed the Minister for the Environment and the Minister for Industry, Science and Technology on 6 December 2018 about the *State of the Climate 2018* report.⁴

- 3.7 Recognising the elevated bushfire risk for the 2019–20 bushfire season, between 1 April 2019 and 30 November 2019, the BOM delivered more than 100 briefings to the Commonwealth Government, and state and territory governments.⁵ Dr Johnson told the committee at a July 2020 hearing that '[m]any of those briefings were verbal as well as formal' and noted it had regular dialogue with stakeholders (including climatologists and meteorologists), such as daily briefings to the Australian Crisis Coordination Centre.⁶
- 3.8 In addition to the work conducted by the BOM, another 'central piece'⁷ of the warnings and preparedness for bushfire seasons is the outlook provided by the Bushfire and National Hazards Cooperative Research Centre (BNHCRC), which is prepared in association with subject matter experts from each state and territory across Australia.⁸
- 3.9 In August 2019, the BNHCRC issued its Australian Seasonal Bushfire Outlook (seasonal outlook) which forecast that:

The 2019/20 fire season has the potential to be an active season across Australia, following on from a very warm and dry start to the year. Due to these conditions, the east coast of Queensland, New South Wales, Victoria and Tasmania, as well as parts of southern Western Australia and South Australia, face above normal fire potential.⁹

³ Dr Andrew Johnson, Chief Executive Officer and Director of Meteorology, Bureau of Meteorology, *Senate Environment and Communications Legislation Committee Hansard*, 18 February 2019, p. 47.

⁴ Bureau of Meteorology, answer to question on notice 238, Senate Environment and Communications Legislation Committee, Additional Estimates 2018–19, 18 February 2019 (received 8 March 2019).

⁵ Bureau of Meteorology, *Submission 114*, p. 1.

⁶ Dr Andrew Johnson, Chief Executive Officer and Director of Meteorology, Bureau of Meteorology, *Committee Hansard*, 29 July 2020, p. 26.

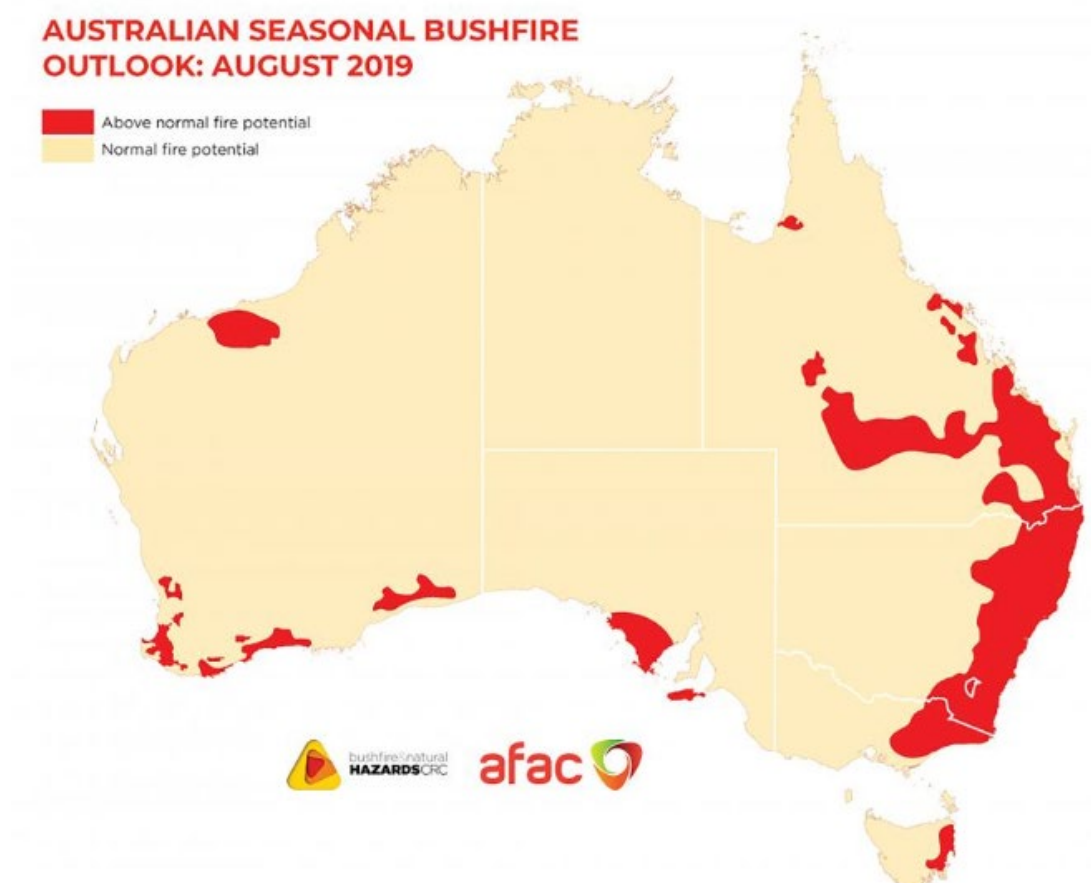
⁷ Mr Robert Cameron, Director General, Emergency Management Australia (EMA), Department of Home Affairs, *Committee Hansard*, 27 May 2020, p. 28.

⁸ The Bushfire and National Hazards Cooperative Research Centre (BNHCRC) is funded through the Department of Industry, Science, Energy and Resources' Cooperative Research Centre Program. See: BNHCRC, *Submission 32*, [p. 3]; Department of Industry, Science, Energy and Resources, *Submission 52*, p. 4.

⁹ BNHCRC, *Australian Seasonal Bushfire Outlook: August 2019*, 28 August 2019, www.bnhcrc.com.au/hazardnotes/63 (accessed 18 September 2020).

- 3.10 New South Wales (NSW) and Queensland also noted that the availability of water for firefighting would be challenged by the dry conditions exacerbated by long-term drought.¹⁰
- 3.11 The seasonal outlook released in August 2019 predicted 'above normal fire potential' for vast areas of Australia and, in particular, the east coast (as depicted in Figure 3.1 below).¹¹

Figure 3.1 Australian Seasonal Bushfire Outlook: August 2019



Source: BNHCRC, *Australian Seasonal Bushfire Outlook: August 2019*, 28 August 2019, www.bnhcrc.com.au/hazardnotes/63 (accessed 22 September 2020).

- 3.12 The seasonal outlook was updated again in December 2019.¹² This outlook noted that the period covering January 2019 to November 2019 was the second-driest on record¹³ and 'the driest since the peak of the Federation

¹⁰ See, for example: BNHCRC, *Submission 32*, [p. 4].

¹¹ BNHCRC, *Australian Seasonal Bushfire Outlook: August 2019*, 28 August 2019, www.bnhcrc.com.au/hazardnotes/63 (accessed 18 September 2020). See also: BNHCRC, *Submission 32*, [p. 3].

¹² See also: Department of Industry, Science, Energy and Resources, *Submission 52*, p. 4.

¹³ Rainfall records began in 1900. See: BNHCRC, *Australian Seasonal Bushfire Outlook: December 2019*, 16 December 2019, www.bnhcrc.com.au/hazardnotes/68 (accessed 22 September 2020).

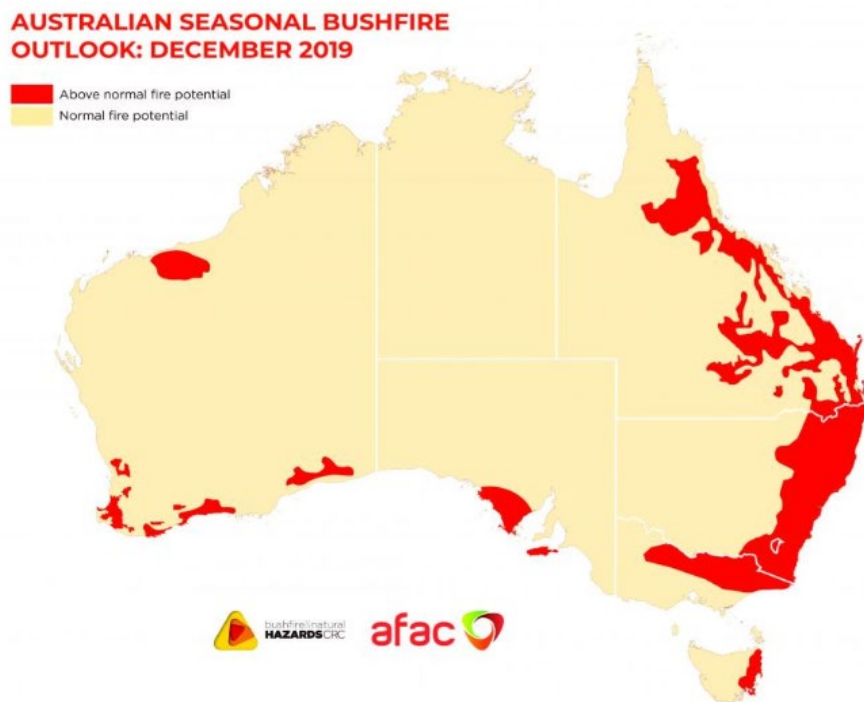
Drought in 1902'.¹⁴ Dry conditions laid the foundations for warm temperatures, with the January 2019 to November 2019 period being the second warmest on record (1.37° Celsius above the 1961–1900 average), with daytime temperatures being the warmest on record (1.9° Celsius above the 1961–1900 average).¹⁵

3.13 Given these conditions, the seasonal outlook in December 2019 stated that:

With the combined hot and dry conditions in place it is not surprising that the southern fire season started early and has been severe to date. Large areas have seen record fire danger overall, as well as a very early start to the high fire danger period. In area average terms, the fire weather as measured by the Forest Fire Danger Index ... for spring was record high for Australia, as well as all states and territories apart from South Australia (second) and Victoria.¹⁶

3.14 The updated seasonal outlook predicted 'above normal fire potential' for more parts of Australia, compared to the seasonal outlook issued in August 2019 (see Figure 3.2 below).¹⁷

Figure 3.2 Australian Seasonal Bushfire Outlook: December 2019



Source: BNHCRC, *Australian Seasonal Bushfire Outlook: December 2019*, 16 December 2019, www.bnhcrc.com.au/hazardnotes/68 (accessed 22 September 2020).

¹⁴ BNHCRC, *Australian Seasonal Bushfire Outlook: December 2019*, 16 December 2019, p. 1.

¹⁵ BNHCRC, *Australian Seasonal Bushfire Outlook: December 2019*, 16 December 2019, pp. 1–2.

¹⁶ BNHCRC, *Australian Seasonal Bushfire Outlook: December 2019*, 16 December 2019, p. 2.

¹⁷ BNHCRC, *Australian Seasonal Bushfire Outlook: December 2019*, 16 December 2019. See also: BNHCRC, *Submission 32*, [p. 4].

- 3.15 In its submission, the BNHCRC noted that it works closely with fire agencies from each state and territory, the BOM and Emergency Management Australia (EMA) to provide briefings to the Minister for Agriculture, Drought and Emergency Management, the Hon David Littleproud MP.¹⁸

Briefings provided to the Executive

Briefings to the Prime Minister

- 3.16 During December 2019, the Prime Minister took a period of leave. The Prime Minister advised the Department of the Prime Minister and Cabinet (DPMC) on 9 December 2019 that he would be taking leave for the period of 15 December 2019 to 23 December 2019. During this time the fires intensified across Victoria and South Australia, resulting in the Prime Minister returning from leave early on 21 December 2019.¹⁹
- 3.17 Mr Philip Gaetjens, Secretary of DPMC, advised that the Prime Minister did not consult with him prior to taking the December leave, and that he was not in contact with him directly while the Prime Minister was on leave.²⁰
- 3.18 Mr Gaetjens confirmed that there was no written briefing provided to the Prime Minister while he was in Hawaii and that DPMC also provided no verbal briefings to the Prime Minister. The only contact at the time was between DPMC and the Prime Minister's office.²¹
- 3.19 Mr Gaetjens indicated that during this time, some advice was provided from DPMC to the Acting Prime Minister at the time, the Hon Michael McCormack MP.²²
- 3.20 At the time of this report, DPMC had yet to respond to a number of questions on notice regarding the period of the Prime Minister's leave, for what period Minister McCormack was Acting Prime Minister, and whether the Prime Minister was making decisions on behalf of government while in Hawaii.²³
- 3.21 The committee heard that prior to the Prime Minister's period of leave, the DPMC, EMA, and the BOM delivered a number of oral and written briefings

¹⁸ BNHCRC, *Submission 32*, [p. 5].

¹⁹ Mr Philip Gaetjens, Secretary, Department of Prime Minister and Cabinet (DPMC), *Committee Hansard*, 27 May 2020, p. 32.

²⁰ Mr Philip Gaetjens, Secretary, DPMC, *Committee Hansard*, 27 May 2020, p. 32.

²¹ Mr Philip Gaetjens, Secretary, DPMC, *Committee Hansard*, 27 May 2020, p. 32.

²² Mr Philip Gaetjens, Secretary, DPMC, *Committee Hansard*, 27 May 2020, p. 32.

²³ For the questions taken on notice, see: Mr Philip Gaetjens, Secretary, DPMC, *Committee Hansard*, 27 May 2020, pp. 31-32.

updating the Prime Minister on the 'status of the crisis'.²⁴ Ms Caroline Millar, Deputy Secretary, National Security Division at the DPMC, further explained the extent of these briefings and the agencies involved:

It's also the case that in a lot of these crises [EMA] will reach straight into the Prime Minister's office and he will reach straight into them. That's a completely normal process. They keep us completely informed and it works pretty well. There were also, during the period that we've just been discussing in November, a series of teleconferences with the Prime Minister and other ministers that Mr Cameron and others were involved in, and my staff were also in attendance for those briefings. As you know, these issues were discussed at cabinet and NSC [National Security Committee] on various occasions, and the Prime Minister often spoke after those meetings to brief the public. I feel fairly confident in saying that the Prime Minister was kept very well informed throughout the entire period.²⁵

Requests by Emergency Leaders for Climate Action to brief the Prime Minister

3.22 Emergency Leaders for Climate Action (ELCA) wrote to the Prime Minister in April and May 2019 to request a meeting to discuss 'the alarming potential of the looming bushfire season' and to provide recommendations of measures to 'aid state and territory firefighting efforts' including:

... approval of additional funding previously requested by fire chiefs for additional large firefighting aircraft, and mobilisation of elements of the Australian Defence Force to logistically support emergency services ...²⁶

3.23 Mr Gregory Mullins AO, AFSM, member and founder of ELCA explained that it was the view of ELCA that there was an urgent need to brief the Prime Minister ahead of the 2019–20 bushfire season, as 'we were apprehensive about what was going to happen'. Mr Mullins elaborated that:

The year 2018 was almost a bushfire disaster, and people in Tasmania had a very difficult year, but New South Wales, thankfully, received rains in October–November and was able to supply the rest of Australia with firefighters and equipment to assist. But Queensland had a serious year, followed by floods in Townsville. In the Bureau of Meteorology projections for 2019, we saw no sign of the sort of summer rain that New South Wales had received in 2018, meaning there was going to be a catastrophe. Somebody needed to speak up.²⁷

²⁴ Mr Philip Gaetjens, Secretary, DPMC, answers to questions on notice, 27 May 2020 (received 28 July 2020). See also: Mr Robert Cameron, Director General, EMA, Department of Home Affairs, *Committee Hansard*, 27 May 2020, p. 29; Mr Philip Gaetjens, Secretary, DPMC, *Committee Hansard*, 27 May 2020, p. 35.

²⁵ Ms Caroline Millar, Deputy Secretary, National Security Division, DPMC, *Committee Hansard*, 27 May 2020, p. 36. See also: Mr Robert Cameron, Director General, EMA, Department of Home Affairs, *Committee Hansard*, 27 May 2020, p. 33.

²⁶ ELCA, *Submission 36*, p. 2.

²⁷ Mr Gregory Mullins, AO, AFSM, Member/Founder, ELCA, *Committee Hansard*, 27 May 2020, p. 1.

3.24 Mr Mullins observed that persistent efforts were required in requesting meetings with the Prime Minister because previous calls for assistance had gone unheeded. For example:

... there had been requests from the fire services and the existing chiefs for additional funds for firefighting aircraft. There'd been a detailed business case in 2018, to which they could not get a reply. There was a need to simplify access to Australian Defence Force assets that could assist the fire and emergency services in a disaster, and there were a lot of other simple measures that could have been taken, and longer term measures such as building standards, that I would have thought the Prime Minister would be very interested in and it appeared he had not been briefed on at that stage. So we were apprehensive about what was going to happen.²⁸

3.25 On 2 March 2020, during the Additional Budget Estimates 2019–20 hearings of the Senate Finance and Public Administration Legislation Committee, the DPMC revealed that it had received the May 2019 letter from ELCA requesting assistance for the upcoming bushfire season. However, similar letters authored in April and September were 'received by the Prime Minister's office, and they were not passed on'.²⁹ The outcome of ELCA's attempts to warn the Commonwealth Government was summarised by the organisation as follows:

Ultimately after significant efforts to establish dialogue, a short meeting was held with Ministers Littleproud and Taylor on 4 December [2019]. By then hundreds of homes and a number of lives had already been lost in NSW and Queensland. No tangible changes or actions resulted from the December meeting, and further lives, together with hundreds of homes, were subsequently lost to the flames in NSW, Victoria and South Australia.³⁰

3.26 Prior to the meeting with Ministers Littleproud and Taylor on 4 December 2019, ELCA wrote to Minister Littleproud, in his capacity as Minister for Agriculture, Drought and Emergency Management, in a letter dated 28 November 2019. The letter detailed courses of action for the Commonwealth Government which would assist its response to the unfolding bushfire crisis. The letter suggested actions including:

- taking immediate measures to assist firefighting and community protection efforts by the states and territories;
- developing effective strategic long-term interventions to improve community resilience and support fire and emergency services in coping with the increasingly dangerous environment; and

²⁸ Mr Gregory Mullins, AO, AFSM, Member/Founder, ELCA, *Committee Hansard*, 27 May 2020, p. 1.

²⁹ Ms Helen Wilson, First Assistant Secretary, Industry, Infrastructure and Environment Division, DPMC, *Committee Hansard*, 2 March 2020, p. 96.

³⁰ ELCA, *Submission 24*, pp. 2–3.

- taking action on climate change, as the key driver of extreme weather events.³¹

3.27 In a press conference following the meeting on 4 December 2019, Minister Littleproud told the media:

What I said to Mr Mullins and the other former fire chiefs ... [was] that they can take great comfort and great pride in the new breed of fire commissioners. They have planned meticulously for this fire season. I've only been emergency services minister since June and the first advice I got is we would expect to see the fire season start in August and be severe ... It has always been the responsibility of states to look after emergency management but we support them ...³²

3.28 Two arguments arose from the Minister's comments in defence of the Commonwealth Government's position: first, that the Commonwealth Government was working with and acting on the advice of current fire and emergency chiefs,³³ and second, that states and territories had primary responsibility for emergency management.³⁴

3.29 In relation to the first argument, Mr Mullins was asked during a committee hearing what insights or information that ELCA could have offered the Commonwealth Government that could not have been accessed from the current fire chiefs, to which he replied:

Not a great deal. Although we gave a great deal of information on climate change that probably wouldn't have come from the agencies, it appeared the fire chiefs did not have the access that we had until the fires were well and truly away.³⁵

3.30 Mr Mullins went on to describe the frustration and challenges which followed the Prime Minister's announcement on 4 January 2020 that the Australian Defence Force (ADF) Reserves would be called out to support state and territory emergency services:

It was interesting to hear how difficult that was and how it raised a lot of issues. That's what we were trying to tell the Prime Minister back in April.

³¹ Mr Gregory Mullins, AO, AFSM, Member/Founder, ELCA, answer to question on notice, 27 May 2020 (received 27 May 2020). The letter has been published on the committee's webpage, and can be found [here](#).

³² Mr Christopher Knaus, 'Former fire chiefs meet with ministers but not PM, on climate concerns – as it happened', *The Guardian*, 3 December 2019 www.theguardian.com/australia-news/live/2019/dec/03/liberal-labor-party-medevac-repeal-bill-jacqui-lambie-ken-wyatt-politics-live (accessed 18 September 2020).

³³ Senator the Hon Matthias Cormann, Minister for Finance, *Senate Finance and Public Administration Legislation Committee Hansard*, 2 March 2020, p. 95.

³⁴ Senator the Hon Matthias Cormann, Minister for Finance, *Senate Finance and Public Administration Legislation Committee Hansard*, 2 March 2020, p. 95.

³⁵ Mr Gregory Mullins, AO, AFSM, Member/Founder, ELCA, *Committee Hansard*, 27 May 2020, p. 4.

All of us had lived through that. They're convoluted procedures. They're made more difficult now because [EMA] is ... buried in Home Affairs, so it does not have the same direct access that it used to have to the secretary of the [DPMC] or to the Prime Minister, which makes it more difficult than it used to be for the states and territories to seek Defence assistance to the civil community, level 2.³⁶

Environmental concerns

3.31 Mr Mullins discussed the recent trend for extended lengths of bushfire seasons, noting that the 'fire seasons are now overlapping' and continued that:

... with a few degrees of extra temperature the fires take off in August every year, and we can't control them. When you have underlying drought, that just exacerbates the position.³⁷

3.32 Mr Mullins also highlighted the unprecedented number of days with Severe, Extreme and Catastrophic fire danger during the 2019–20 bushfire season.³⁸ This led to 59 total fire bans, 11 state-wide total fire bans and 44 declarations of bushfire emergency throughout the season, under the NSW *Rural Fires Act 1997*.³⁹

3.33 Similar concerns were shared by Dr Richard Thornton, Chief Executive Officer at the BNHCRC, who explained that 'all the normal climate variability or weather variability we see is now sitting on a temperature that is one degree warmer than it was before', which has a significant 'flow-on effect on the extreme end of the scale' for events such as the 2019–20 bushfires.⁴⁰

Hazard reduction and bushfire mitigation

3.34 The committee heard a range of evidence from submitters and witnesses regarding the effectiveness of hazard reduction techniques to mitigate the intensity of bushfires.

3.35 ELCA explained the process of hazard reduction, and that it:

... involves controlled application of fire or other means, such as mechanical clearing or thinning, for the reduction or modification of available fuels within a predetermined area in order to mitigate against the future spread of an uncontrolled bushfire. The most common approach is prescribed burning, or the application of fire under controlled conditions.⁴¹

³⁶ Mr Gregory Mullins, AO, AFSM, Member/Founder, ELCA, *Committee Hansard*, 27 May 2020, p. 2.

³⁷ Mr Gregory Mullins, AO, AFSM, Member/Founder, ELCA, *Committee Hansard*, 27 May 2020,, p. 2.

³⁸ Mr Gregory Mullins, AO, AFSM, Member/Founder, ELCA, *Committee Hansard*, 27 May 2020, p. 3.

³⁹ Mr Gregory Mullins, AO, AFSM, Member/Founder, ELCA, *Committee Hansard*, 27 May 2020,p. 3.

⁴⁰ Dr Richard Thornton, Chief Executive Officer, BNHCRC, *Committee Hansard*, 27 May 2020, p. 13.

⁴¹ ELCA, *Submission 36*, p. 43.

3.36 The Australasian Fire and Emergency Service Authorities Council (AFAC) observed that a 'whole-of-community effort' for hazard reduction was necessary:

... to identify risk, undertake strategic risk assessments, to provide advice, education and information regarding the risk, and to undertake activities to mitigate those risks. All sectors of society from individuals, communities, businesses, industry, infrastructure managers and government need to be aware, engaged and prepared.⁴²

3.37 The AFAC, with the assistance of the Forest Fire Management Group, established the National Burning Project in 2011 to document 'the multiple facets of prescribed burning into nationally agreed principles, guidelines and frameworks'.⁴³ While these resources are widely utilised by AFAC member organisations, there is no nationally coordinated approach to hazard reduction as each state and territory is responsible for reducing bushfire risk.⁴⁴

3.38 It appears to the committee that various myths about hazard reduction spread during the 2019–20 bushfire season. In response, the Climate Council of Australia developed a factsheet to circumvent common misunderstandings about hazard reduction and the role of climate change, which is published on its website.⁴⁵ The factsheet explained that hazard reduction activities can:

... range from burning operations through to intentionally not burning some areas (fire exclusion), provided that this regime reduces or maintains the vegetation in a state of reduced flammability. It can also involve other methods such as mechanical clearing of fire breaks or thinning of vegetation, which is labour intensive and cannot be practically carried out over wide areas.⁴⁶

The goal of hazard reduction is not to produce areas that will not burn, but areas that will burn at a lower intensity that can be controlled more often by firefighters.⁴⁷

3.39 The 2019–20 bushfires burnt over large areas of 'heavy fuel, light fuel, grazing land, pasture, crops and people's front lawns ... many metres from the

⁴² Australasian Fire and Emergency Service Authorities Council (AFAC), *Submission 50*, p. 24.

⁴³ AFAC, *Submission 50*, p. 24.

⁴⁴ DPMC, *Submission 70*, [p. 11]. The Director of National Parks manages the six national parks belonging to the Commonwealth. Parks prone to bushfires (such as Booderee, Kakadu and Uluru-Kata Tjuta) develop annual fire management plans. See: DPMC, *Submission 70*, [p. 11].

⁴⁵ Climate Council of Australia, [Setting the Record Straight on Hazard Reduction Factsheet](#), (accessed 18 September 2020). See also: Australian Academy of Science, *Submission 122*, [p. 3]; ELCA, *Submission 36*, pp. 43–44.

⁴⁶ Climate Council of Australia, [Setting the Record Straight on Hazard Reduction Factsheet](#).

⁴⁷ Climate Council of Australia, [Setting the Record Straight on Hazard Reduction Factsheet](#). See also: ELCA, *Submission 36*, pp. 43–44; Mr Benjamin Cronshaw, *Submission 38*, pp. 4–5).

bushland ember attack'.⁴⁸ The committee heard that during severe bushfires, low fuel loads can lead to a fire gaining more traction as it moves more quickly through light fuel areas before heavy fuel areas.⁴⁹ Given this, Mr Mullins contended that:

Fuel reduction is basically the only tool we have, long term, to try and take the intensity out of fires. I believe that ... we will have to prioritise, if it's closer to population centres and assets, to try and have fuel reduced zones so that the intensity of fires reduces as they reach built-up areas.⁵⁰

- 3.40 Dr Thornton concluded that hazard reduction burning would not 'reduce the risk to zero', but highlighted the importance of reducing the risk of fuels in the landscape in a way that accounts for a particular community's needs.⁵¹ For example, Dr Thornton pointed out that some people chose to live where they did:

... because of the trees. They don't want those trees cleared, because that's why they live there. So that community may be more prepared to live with a high level of risk. In other areas, people were clearly saying that they have been trying to clear properties and reduce the fuel. So I think local input as to what risk level a community is willing to accept is a critical part of how we go forwards in looking at what the fuel levels are across the country.⁵²

- 3.41 The committee also heard evidence about the environmental benefits of hazard reduction activities beyond bushfire mitigation. For example, Dr Thornton submitted that prescribed burning can also be used to assist the 'preservation of ecosystem values such as biodiversity, water yield, quality, soil preservation and other objectives'.⁵³

- 3.42 However, ELCA pointed out that grazing of national parks as a means to reduce bushfire fuel levels was not practicable as it:

... leads to serious environmental and ecological damage, particularly in fragile alpine environments, with no reduction in bushfire risk or fire intensity where it is applied.⁵⁴

- 3.43 Moreover, ELCA noted that while mechanical thinning of forest space assists in lowering fire intensity and reducing crowning and spotting, it was generally 'a difficult, expensive and sometimes impractical approach' as '[i]t is not

⁴⁸ Mr Gregory Mullins, AO, AFSM, Member/Founder, ELCA, *Committee Hansard*, 27 May 2020, p. 3.

⁴⁹ Mr Gregory Mullins, AO, AFSM, Member/Founder, ELCA, *Committee Hansard*, 27 May 2020, p. 3.

⁵⁰ Mr Gregory Mullins, AO, AFSM, Member/Founder, ELCA, *Committee Hansard*, 27 May 2020, p. 3.

⁵¹ Dr Richard Thornton, Chief Executive Officer, BNHCRC, *Committee Hansard*, 27 May 2020, p. 15.

⁵² Dr Richard Thornton, Chief Executive Officer, BNHCRC, *Committee Hansard*, 27 May 2020, p. 13.

⁵³ Dr Richard Thornton, Chief Executive Officer, BNHCRC, *Committee Hansard*, 27 May 2020, p. 10.

⁵⁴ ELCA, *Submission 36*, p 47.

possible to mechanically clear large areas, particularly in rugged terrain where the worst fires often occur'.⁵⁵

Challenges with hazard reduction activities

3.44 The committee heard that the effectiveness and success of hazard reduction activities face three key challenges:

- windows for hazard reduction burning are becoming increasingly smaller due to the warming climate;
- current hazard reduction policies are not equipped to respond to more severe weather conditions created by climate change; and
- a lack of research limits understanding of when and how hazard reduction should be applied in different contexts.

3.45 Mr Mullins described the challenges inhibiting necessary hazard reduction activities in the lead up to recent fire seasons and explained that 'the windows for conducting hazard reduction are becoming smaller and smaller' due to Australia's increasingly dry climate.⁵⁶ Mr Mullins elaborated that:

We've actually had a lot of situations where prescribed burn fires have got out of control and spread beyond where they should have been. That's happening increasingly. If you reduce the window where you can carry out this burning—you are also constrained by the availability of volunteer firefighters, who are only available in numbers on weekends. A lot of burning in New South Wales, but not so much in Victoria, is conducted by volunteer firefighters. So you have to pick a weekend in a month where it is not too hot, not too windy and not too dry, and then, if you get any rain that puts off any burning that you can do.⁵⁷

3.46 Dr Thornton echoed these concerns, stating that:

Our colleagues at the Bureau of Meteorology also note ... that the cumulative fire danger during the fire seasons is increasing as well. This may, in the long run, have some implications for resourcing of fire services. It also reduces the amount of time available to undertake preventive actions, particularly hazard reduction burning. As the climate changes to a warmer, drier one, weather conditions ... are likely to become

⁵⁵ ELCA, *Submission 36*, p. 46.

⁵⁶ Mr Gregory Mullins, AO, AFSM, Member/Founder, ELCA, *Committee Hansard*, 27 May 2020, p. 3.

⁵⁷ Mr Gregory Mullins, AO, AFSM, Member/Founder, ELCA, *Committee Hansard*, 27 May 2020, p. 3. See also: Climate Justice Programme, *Submission 69*, p. 15; Ecological Society of Australia, *Submission 73*, p. 6; Gecko Environment Council, *Submission 88*, p. 5; Mr Brian Barlin, *Submission 6*, [p. 1]; Elise Kinsella and Will Jackson, 'What are hazard reduction burns, are we doing enough of them, and could they have stopped Australia's catastrophic bushfires?' *ABC News*, 10 January 2020, <https://www.abc.net.au/news/2020-01-10/hazard-reduction-burns-bushfire-prevention-explainer/11853366> (accessed 22 September 2020); Science and Technology Australia, *Submission 103*, pp. 6–7.

more frequent. This will be combined with more vulnerable people living in at-risk areas, owing to a growing and ageing population.⁵⁸

- 3.47 With these concerns in mind, the final report of the National Bushfire and Climate Summit 2020, the *Australian Bushfire and Climate Plan*, published by ELCA in conjunction with the Climate Council of Australia, recommended that more work be undertaken to:

... increase and enhance hazard reduction through a long-term, year-round and cross-tenure approach at landscape scale that supports existing efforts, Indigenous leadership, empowers communities and is backed by a strong research capability.⁵⁹

- 3.48 Dr Peter Mayfield, Executive Director, Environment, Energy and Resources, at the CSIRO noted the challenges with assessing the merits of hazard reduction burning and explained that is 'extremely difficult' to communicate the findings of the CSIRO's research in relation to hazard reduction activities, as the success of these activities is highly contingent on a range of environmental variables.⁶⁰

- 3.49 Dr Daniel Metcalfe, Deputy Director of Land and Water at the CSIRO elaborated that:

... it's contextual as to whether it has a major impact on reducing fire intensity, delaying fuel ignition and suppressing the likelihood of spot fires or potentially has no impact at all. All of that is dependent on the nature of the terrain, the nature of the weather and the nature of the vegetation community within which that fire is running ...

It's contextual not only in different parts of the country but also in different parts of the landscape. If you were looking at hazard reduction burns in old-growth native forest, as you suggested, and compared that with perhaps a plantation context that was adjacent in a state forest, then the nature of the fires running through those different contexts would differ, and, consequently, the significance of the fuel management would also differ.⁶¹

The impact of climate change

- 3.50 Despite speculation that hazard reduction burning was liable for some part of the 2019–20 bushfire season, Mr Benjamin Cronshaw submitted that such

⁵⁸ Dr Richard Thornton, Chief Executive Officer, BNHCRC, *Committee Hansard*, 27 May 2020, p. 9.

⁵⁹ Emergency Leaders for Climate Action & Climate Council of Australia, *Australian Bushfire and Climate Plan: Final report of the National Bushfire and Climate Summit 2020*, <https://emergencyleadersforclimateaction.org.au/wp-content/uploads/2020/07/australian-bushfire-climate-plan-1.pdf> (accessed 18 September 2020) p. 13.

⁶⁰ Dr Peter Mayfield, Executive Director, Environment, Energy and Resources, Commonwealth Scientific and Industrial Research Organisations, *Committee Hansard*, 27 May 2020, p. 17.

⁶¹ Dr Daniel Metcalfe, Deputy Director, Land and Water, CSIRO, *Committee Hansard*, 27 May 2020, p. 17. See also: Dr Thomas Duff, *Submission 58*, [p. 4].

'policies were not responsible for the near unprecedented extreme weather conditions', which were instead 'attributable to climate change'.⁶²

3.51 Further, ELCA submitted that climate change was impacting adversely on the effectiveness of existing hazard reduction approaches, especially for bushfires susceptible to 'long distance spotting, intense and sustained ember attack, and pyroconvective fires'.⁶³

3.52 A similar view was shared by the Nature Conservation Society of South Australia, which submitted that:

There is ... increasing evidence that [hazard reduction burning] programs do little to prevent the risk of bushfires spreading under extreme conditions such as that experienced during the 2019/20 Bushfire Season. We understand that all the prescribed burns conducted on Kangaroo Island in 2019 burnt again in the bushfires that devastated the western end of the island.⁶⁴

3.53 The final report of the National Bushfire and Climate Summit 2020 recommended that more research be conducted to improve understanding of:

... various landscape needs (including vegetation types, geography, weather and fire regimes), and a range of integrated ... risk reduction options that recognise the worsening threat environment created by climate change.⁶⁵

3.54 The report also recommended the 'establishment of a natural disaster resilience agency' to monitor national hazard reduction metrics, as well as 'climate change adaption, and other mitigation, prevention and preparedness measures' and assist with recovery efforts.⁶⁶

⁶² Mr Benjamin Cronshaw, *Submission 38*, p. 6.

⁶³ ELCA, *Submission 36*, p 11. See also: Bega Valley Greens, *Submission 129*, [p. 4]; Dr Kelly Boom, *Submission 140*, p. 8.

⁶⁴ Nature Conservation Society of South Australia, *Submission 65*, [p. 7]. See also: Ecological Society of Australia, *Submission 73*, p. 2; Ginninderra Falls Association, *Submission 67*, [p. 2]; Mr Richard Miller, *Submission 3*, p. 2.

⁶⁵ Emergency Leaders for Climate Action & Climate Council of Australia, *Australian Bushfire and Climate Plan: Final report of the National Bushfire and Climate Summit 2020*, <https://emergencyleadersforclimateaction.org.au/wp-content/uploads/2020/07/australian-bushfire-climate-plan-1.pdf> (accessed 18 September 2020) p. 16.

⁶⁶ Emergency Leaders for Climate Action & Climate Council of Australia, *Australian Bushfire and Climate Plan: Final report of the National Bushfire and Climate Summit 2020*, <https://emergencyleadersforclimateaction.org.au/wp-content/uploads/2020/07/australian-bushfire-climate-plan-1.pdf> (accessed 18 September 2020) p. 16.

Indigenous land management practices

3.55 Several submitters recommended that the Commonwealth Government learn from the fire prevention and hazard reduction techniques practiced by traditional land owners.⁶⁷

3.56 For example, the Edmund Rice Centre, Sydney, submitted that Aboriginal burning techniques, such as those using precisely timed, low intensity fires, should be used in conjunction with other hazard reduction activities generally practiced by state fire services.⁶⁸

3.57 Further, the Maloneys Beach Residents Association called for more research into the practical application of Indigenous custodial burning methods and emphasised areas vulnerable to bushfires should be managed in accordance with 'best practice based on current scientific study and indigenous practices'.⁶⁹

3.58 ELCA also submitted that:

In reviewing hazard reduction treatments, an excellent opportunity exists to better engage and support regional Aboriginal organisations and businesses in fire management and reforestation projects to achieve both social justice, regional economic impacts and climate change mitigation and adaptation outcomes. There are already some good examples of Aboriginal organisations (eg Muru Mittigar in Western Sydney) which could benefit from greater Government support through the adoption of preferential procurement policies for bushfire risk reduction on government tenures.⁷⁰

3.59 Working with Indigenous communities to improve bushfire mitigation has a range of benefits. For example, the Northern Territory Government highlighted the value in funding 'land owners, particularly traditional landowners, to improve fire regimes across the northern savanna through emissions avoidance activities such as savanna burning'.⁷¹ These efforts assist in 'reducing bushfire risk to remote communities, tourist facilities and government infrastructure'.⁷²

⁶⁷ See, for example: AFAC, *Submission 50*, p. 24; Bega Valley Greens, *Submission 129*, [pp. 3–4]; Community Legal Centres NSW, *Submission 130*, p. 3; Doctors for the Environment Australia, *Submission 72*, p. 5; Ecological Society of Australia, *Submission 73*, p. 2; Edmund Rice Centre, Sydney, *Submission 22*, [p. 2]; Eurobodalla Shire Council, *Submission 23*, p. 21; Foundation for Rural and Regional Renewal, *Submission 92*, p. 2; Science and Technology Australia, *Submission 103*, p. 6.

⁶⁸ Edmund Rice Centre, Sydney, *Submission 22*, [p. 2].

⁶⁹ Maloneys Beach Residents Association, *Submission 51*, [p. 3].

⁷⁰ ELCA, *Submission 36*, p. 45. See also: AFAC, *Submission 50*, p. 24.

⁷¹ Northern Territory Government, *Submission 12*, [p. 2].

⁷² Northern Territory Government, *Submission 12*, [p. 2]. See also: AFAC, *Submission 50*, p. 24.

- 3.60 The Northern Territory Government also informed the committee about the Indigenous Protected Areas and Indigenous Ranger Programs,⁷³ which assist in reducing 'fire frequency, intensity and extent' as well as create employment opportunities for Aboriginal rangers.⁷⁴

Funding and research

- 3.61 Several submitters commented on the need for more funding and research to improve Australia's preventative hazard reduction activities.⁷⁵
- 3.62 A strong sentiment raised by submitters was the need for greater collaboration between all levels of government and all aspects of the community to create effective bushfire mitigation strategies.
- 3.63 For example, ELCA recommended that land management standards should be developed to ensure that land management agencies, as well as urban and rural fire services, receive the necessary resourcing 'to participate in prescribed burning operations on a regular, planned basis'.⁷⁶
- 3.64 Ms Nicole Carter submitted that ongoing funding from the Australian Government would be necessary to 'adequately resource hazard reduction burns' and recommended a 'co-ordinated effort' to reduce fuel loads across areas vulnerable to bushfires. To support these efforts, Ms Carter suggested '[l]ocal and interstate partnerships between Fire-Stick Alliance, National Parks Rangers and Rural/Country Fire Brigades' and proposed '[c]reating a system where hazard reduction is subcontracted out to local businesses' as a means to improve cost effectiveness.⁷⁷
- 3.65 Dr Thomas Duff highlighted the need for greater '[i]nvestment in the development of national structures and practices for the collection and collation of data in matters related to hazard reduction burning, and advocated for more field research to assess outcomes and safety'.⁷⁸
- 3.66 Doctors for the Environment Australia recommended that community consultation should become a key component in hazard reduction planning, especially to assist in determining health problems which may be created in relation to bushfire smoke.⁷⁹

⁷³ See also: Science and Technology Australia, *Submission 103*, p. 6.

⁷⁴ Northern Territory Government, *Submission 12*, [p. 2].

⁷⁵ See, for example: Dr Thomas Duff, *Submission 58*, pp. 4–5; Ecological Society of Australia, *Submission 73*, pp. 9–10; ELCA, *Submission 36*, p. 49; Ms Nicole Carter, *Submission 34*, [p. 3]; Nature Conservation Society of South Australia, *Submission 65*, [p. 8].

⁷⁶ ELCA, *Submission 36*, p. 49. See also: Mr Michael Gorman, *Submission 142*, p. 10.

⁷⁷ Ms Nicole Carter, *Submission 34*, [p. 3].

⁷⁸ Dr Thomas Duff, *Submission 58*, [p. 5].

⁷⁹ Doctors for the Environment Australia *Submission 72*, p. 5.

Committee views

- 3.67 There were numerous signs that the 2019–20 bushfire season had the potential to be catastrophic. Large parts of Australia were exceptionally dry and hot, and all the analysis by the experts indicated that the fire season would be particularly severe.
- 3.68 The committee is therefore disturbed by the fact that ELCA sought numerous briefings with the Prime Minister, which were not considered in any way. The collective knowledge of 33 former fire and emergency service leaders should not have been ignored, when the warning signs for the next fire season were already there. The committee in no way discredits the work of the current fire and emergency services officials, but stresses that those experts with on-the-ground experience should be listened to.
- 3.69 The government showed a clear lack of preparedness for the 2019-20 Black Summer, despite the numerous warnings. The combination of drought and heat should have seen the government be more proactive in consulting with emergency authorities and fire management experts, in order to be better prepared for a cohesive, whole-of government response to the fires, in liaison with state and territory counterparts.
- 3.70 As was noted in Chapter 2, the evidence received by the committee thus far has indicated the need for more centralised decision-making to more effectively respond to natural disasters—this should include clear mechanisms for the executive to hear the concerns of subject matter experts in a timely manner.
- 3.71 In addition, there remains a lack of clarity around what the Prime Minister knew and when, and what actions he took upon receiving advice about the unfolding bushfire disaster. The committee will continue to pursue this matter with interest as the inquiry continues.

Hazard reduction activity

- 3.72 The evidence received around hazard reduction shows that while this activity can help to reduce fuel loads, it is not the only way to approach and reduce bushfire risk. It is but one element of addressing the intensity of fires, and should operate in conjunction with other measures, such as emissions reduction and land use planning.
- 3.73 The committee has an interest in further considering the points of contention around hazard reduction activity. The committee notes that public discussion around this issue continues, with polarised views on the efficacy of hazard reduction activity. The committee will examine this issue further as it progresses its inquiry, with a particular focus on the application Indigenous land management practices.

- 3.74 The committee notes that there are significant gaps in knowledge about how best to employ hazard reduction techniques to reduce the intensity of bushfires. There is a clear need for increased research on hazard reduction activity, especially given the variables that can impact on this process in a rapidly changing climate—including hotter, drier weather, shrinking windows where conditions are favourable to hazard reduction, changes in vegetation and the variations in the environment across Australia.
- 3.75 In addition, the committee was particularly struck by the evidence which pointed to the fact that the execution of hazard reduction activities was dependent on the availability of volunteer firefighters. As was pointed out by Mr Mullins, this constrains hazard reduction burning to weekends, when the weather conditions were right and there has been no rain.
- 3.76 The Emergency Response Fund (ERF)⁸⁰ established in 2019 allocates funding in order to build resilience to, and prepare for or reduce the risk of future natural disasters. The evidence received indicates that no allocations have yet been made out of the ERF.
- 3.77 Hazard reduction activities would meet the requirements of ERF allocations, and fall within the remit of pre-disaster preparedness initiatives. In line with the committee's previous recommendation, funding for mitigation activities from the ERF should be made available as a matter of priority.
- 3.78 The committee sees benefit in the development of a dedicated, stand-alone workforce in each jurisdiction, with research capacity, knowledge of the land and appropriate hazard reduction experience. This approach would go some way to addressing the numerous factors which impact on these activities, such as lack of resources and weather conditions not conducive to reduction activities.

Recommendation 5

- 3.79 The committee recommends that the Commonwealth Government allocate funding from the Emergency Response Fund to each state and territory for the establishment of a dedicated hazard reduction workforce. Funding should be sufficient to ensure both hazard reduction and ongoing research activities can be conducted on an annual basis.**

⁸⁰ The ERF is discussed in Chapter 2.

Chapter 4

Human health impacts of the fires

- 4.1 Bushfires have a significant impact on both the physical and mental health of communities. In addition to immediate and short-term stressors, psychological trauma from losses suffered during bushfires can have long-lasting effects. The severity of the 2019–20 bushfire season exacerbated these impacts.
- 4.2 Submitters highlighted that the scale, longevity and severity of the 2019–20 bushfire season, including the unprecedented scale of bushfire smoke, demonstrated an urgent need to better understand the health risks posed by bushfires in extreme weather conditions, and to better prepare and equip the community and the health sector to respond to the health impacts of future bushfires.
- 4.3 Submitters also emphasised the importance of needing to better understand the mental and physical impacts on first responders, such as firefighters and frontline volunteers, especially given the prolonged and intense response required by these groups during the 2019–20 bushfire season. Health impacts on these groups include issues related to respiratory health, mental health, exposure to contaminants, burns and other injuries.
- 4.4 This chapter examines the physical and mental health impacts of the bushfires, and the various government actions taken to address health concerns—including the provision of telehealth services.

Physical health impacts

- 4.5 The impacts of the fires on human health should not be underestimated. The Public Health Association of Australia (PHAA) recognised that in addition to the tragic 33 fatalities, there were also hundreds of deaths attributed to bushfire smoke exposure, while 'hundreds of people were treated for injuries' and 'thousands were evacuated or displaced'.¹
- 4.6 The PHAA pointed out that 'of all people involved in fire emergencies, those at greatest risk of harm and mortality are fire-fighting personnel'.² This includes professional workers, trained volunteers, and 'individuals caught up in emergencies'.³
- 4.7 The PHAA made the important point that with the fires increasing in scale, severity and length in future, there will be increasing demand for more

¹ Public Health Association of Australia, *Submission 115*, p. 4.

² Public Health Association of Australia, *Submission 115*, p. 7.

³ Public Health Association of Australia, *Submission 115*, p. 7.

firefighting personnel, who will be 'active over longer periods of time, in more inherently dangerous conditions'. The PHAA viewed this as a 'specific public health challenge'.⁴

4.8 The PHAA concluded that:

It is not ethical for Australians to expect extraordinary service from firefighters without minimising the hazards to which they are exposed and adequately resourcing their work. Every possible means of minimising the risks facing those on active service protecting their communities should be taken.⁵

Bushfire smoke

4.9 The Australian Medical Association (AMA) submitted that 'perhaps the most significant health effect of the 2019–20 bushfires was the exposure of large swathes of the Australian population to harmful levels of bushfire smoke'.⁶ It has been estimated that approximately 11 million Australians had some exposure to smoke from the 2019–20 bushfires.⁷

4.10 Throughout the bushfire season, there were prolonged periods of smoke exposure in many cities and regional areas. Many rural towns, multiple regional centres, as well as the capital cities of Sydney, Canberra, and Melbourne, all saw smoke pollution exceed hazardous levels during the bushfire season.⁸

4.11 Ms Kathryn Michie detailed to the committee the impacts of the bushfires on her family's health, despite being indirectly affected by the fires:

I live with my young family just a few kilometres from the centre of Sydney. Our lives, home and livelihoods were safe from the immediate impacts of the bushfires, yet my and my family's health and well-being were affected for weeks.

Myself and my immediate family are all healthy, with no pre-existing conditions. The constant sore throats and stinging eyes was bad for us. I am scared of possible long-term damage to my children's' growing lungs. How bad was it for people with asthma?

I have no history of anxiety or mental health issues, but I awoke each day with a feeling of fear and unease.⁹

4.12 As noted in the submission from the Grattan Institute, there is no safe level of particulate matter from bushfire smoke. Bushfire smoke is a 'complex mix of

⁴ Public Health Association of Australia, *Submission 115*, p. 7.

⁵ Public Health Association of Australia, *Submission 115*, p. 7.

⁶ Australian Medical Association, *Submission 39*, p. 3.

⁷ Grattan Institute, *Submission 102*, p. 5.

⁸ Australian Medical Association, *Submission 39*, p. 3.

⁹ Ms Kathryn Michie, *Submission 100*, pp. 2–3.

particles and gases', including particulate matter less than 2.5 micrometres in diameter—known as PM2.5. The micrograms of PM2.5 per cubic metre of air are the key measurement to monitor air quality related to bushfires. The Grattan Institute observed that the World Health Organisation and the Australian National Air Quality Standards set a 'safe' threshold of 25 PM2.5 micrograms per cubic metre of air, on average, over 24 hours. New South Wales (NSW) categorises 50 PM2.5 micrograms per cubic metre as a 'hazardous' level.¹⁰

- 4.13 As a result of the bushfires, the Australian Capital Territory (ACT) recorded the worst air quality in the world in January 2020, and experienced 56 days of smoke pollution above healthy levels. Victoria experienced days where PM2.5 levels were recorded at over 300 and 500, well in excess of safe levels, while in NSW, there were several days of poor air quality, with some measurements recorded as being 10 to 14 times the hazardous level.¹¹
- 4.14 It was reported that smoke and particles from the Australian bushfires had travelled to New Zealand, Antarctica and several countries in South America.¹²
- 4.15 Asthma Australia commented on the fact that the given the minute size of particulate matter, it is able to be inhaled into the lungs, causing inflammation, and can also enter the blood stream, which effects other bodily systems.¹³
- 4.16 Further, several submitters commented on the increased risks of those with pre-existing medical conditions and how exposure to bushfire smoke could exacerbate such conditions.¹⁴ Bushfire smoke also has a disproportionate impact on various population groups within the community, including:
 - people with asthma of all severities;
 - very young children;
 - pregnant women and unborn children;
 - the elderly; and
 - people with pre-existing respiratory or heart conditions.¹⁵
- 4.17 Asthma Australia pointed to research indicating an increase in mortality, hospital admissions, emergency department presentations, ambulance callouts

¹⁰ Grattan Institute, *Submission 102*, pp. 5–6.

¹¹ Grattan Institute, *Submission 102*, p. 6; Australian Medical Association, *Submission 39*, p. 3.

¹² World Meteorological Organization, *Australia suffers devastating fires after hottest, driest year on record*, 7 January 2020, <https://public.wmo.int/en/media/news/australia-suffers-devastating-fires-after-hottest-driest-year-record> (accessed 16 September 2020).

¹³ Asthma Australia, *Submission 86, Attachment 1*, p. 8.

¹⁴ See for example: Public Health Association Australia, *Submission 115*; Australian Academy of Health and Medical Sciences, *Submission 13*; Asthma Australia, *Submission 86*.

¹⁵ Asthma Australia, *Submission 86, Attachment 1*, p. 8. See also: Public Health Association Australia, *Submission 115*, p. 4; Australian Academy of Health and Medical Sciences, *Submission 13*, p. 3.

and general practitioner consultations during the period of bushfire smoke exposure.¹⁶ The AMA cited recent research which quantified these numbers and estimated that 'in total, 417 excess deaths could be attributed to bushfire smoke exposure from 1 October 2019 and 10 February 2020', while:

... 1124 hospitalisations for cardiovascular problems, 2027 hospitalisations for respiratory problems, and 1305 emergency department presentations for asthma were attributable to bushfire smoke exposure during the same period.¹⁷

4.18 In their submission, Doctors for the Environment drew attention to evidence detailing the many other negative health impacts that can occur as a result of bushfire smoke, including:

- an increase in all-cause mortality rates during bushfires;
- a direct association between bushfire smoke exposure and exacerbations of asthma and chronic obstructive pulmonary disease (COPD);
- an increase in emergency department presentations and hospital admission rates;
- an increase in out of hospital cardiac arrests;
- an increase in ambulance callouts; and
- an increase in adverse birth outcomes.¹⁸

4.19 A survey conducted by Asthma Australia found that 94 per cent of respondents with asthma reported symptoms due to the bushfire smoke. Further, the smoke had a significant impact on their daily lives, as shown in the following survey findings:

- 66 per cent had reduced capacity in their daily activities;
- 33 per cent were sick for more than one week;
- 35 per cent had to cancel an important sport or social engagement;
- 29 per cent were absent from work or school;
- 25 per cent experienced financial stress; and
- 10 per cent lost salary.¹⁹

4.20 A core concern arising from submissions was the gap in medical knowledge about prolonged exposure to bushfire smoke and the long term health impacts of such exposure.²⁰ For example, Asthma Australia stated that:

... there is limited research into the health impacts of prolonged exposure to poor and hazardous air quality resulting from bushfires. Research has

¹⁶ Asthma Australia, *Submission 86, Attachment 1*, p. 8.

¹⁷ Australian Medical Association, *Submission 39*, pp. 3–4.

¹⁸ Doctors for the Environment Australia, *Submission 72*, pp. 8–9.

¹⁹ Asthma Australia, *Submission 86*, p. 8.

²⁰ See for example: Australian Academy of Health and Medical Sciences, *Submission 13*; Asthma Australia, *Submission 86*; Australian Medical Association, *Submission 39*.

focused on short term exposure because bushfire events have typically been brief in the past.²¹

- 4.21 The Australian Academy of Health and Medical Sciences (AAHMS) explained that there remain many unknowns about the impact of the bushfire smoke on respiratory health in the short, medium and long term. The AAHMS identified some of the concerns about this, noting it had:

... made it difficult to provide accurate health advice and has caused anxiety among affected communities and the wider public. Gaps in our knowledge relate not only to the health outcomes, but also to the underlying biological mechanisms and our ability to monitor and assess the risks – and then to provide sound advice on management ...²²

- 4.22 In response to this gap in knowledge, several submitters commented on the need to fund research and extensive studies into the long-term effects of exposure to hazardous levels of bushfire smoke, particularly for those with pre-existing medical conditions and those vulnerable populations.²³
- 4.23 Submitters, including the Grattan Institute and Doctors for the Environment, were of the view that people with pre-existing health conditions and those within vulnerable populations may need targeted or specialised interventions in response to exposure to bushfire smoke.²⁴

Response to bushfire smoke

- 4.24 On 7 and 10 January 2020, the Commonwealth Government announced it would supply P2 face masks to the ACT, Victoria, South Australia and Tasmania, the Australian Defence Force, Australian Federal Police and Australia Post personnel, bringing the total number of P2 masks provided and reserved to almost 3.5 million. Acting Chief Medical Officer, Professor Paul Kelly, said available supplies of P2 masks should be allocated as a priority to those most at risk of significant health effects from smoke.²⁵
- 4.25 While the provision of face masks was welcomed by submitters, several issues were raised regarding their use, including around incorrect use. For example, the AAHMS stated that:

Incorrect use of facemasks can lead to a false sense of security, when the user may unknowingly still be exposed to unhealthy levels of air pollution. The correct fit of a P2/N95 mask, which is easily compromised by factors

²¹ Asthma Australia, *Submission 86*, p. 8.

²² Australian Academy of Health and Medical Sciences, *Submission 13*, p. 3.

²³ See for example: Australian Academy of Health and Medical Sciences, *Submission 13*; Asthma Australia, *Submission 86*; Australian Medical Association, *Submission 39*.

²⁴ Grattan Institute, *Submission 102*; Doctors for the Environment, *Submission 72*, p. 6.

²⁵ The Hon Greg Hunt MP, Minister for Health, 'Number of P2 masks provided for bushfires almost 3.5 million', *Media Release*, 10 January 2020; Department of Health, *Submission 126*.

such as facial hair, is key to sufficiently protecting its user. We need more guidance on the effective use of face masks.²⁶

- 4.26 Similarly, Doctors for the Environment observed that paper and simple cloth facemasks were 'ineffective at filtering very small smoke particles or toxic gases'. The organisation submitted that:

P2/N95 facemasks, usually used in occupational exposures may filter out small particulate matter but do not offer protection from toxic gases. They are often uncomfortable or inefficient (e.g. facial hair), need to be properly fitted and are impractical for children's use.

More research is needed into evaluating the effectiveness and drawbacks of commercially available face masks, particularly for their use in children.²⁷

- 4.27 The AAHMS commented on the need to provide targeted advice on the use of facemasks, submitting that '[w]e need targeted health/health protection advice for families with children, especially considering that children sized facemasks are not readily available. Evidence-based advice to parents is urgently needed.'²⁸

- 4.28 The Royal Australian College of General Practitioners also noted that there was limited health information available both to and about vulnerable groups, including:

... pregnant women, people with heart disease, young children and older people during the bushfire events. It is recommended that tailored information is developed to ensure these more vulnerable groups are receiving specific health information and advice pertinent to their personal situations, and to alleviate any anxiety that may be experienced.²⁹

- 4.29 This sentiment was echoed by other submitters such as Asthma Australia, which recommended tailored guidance for asthma sufferers with regard to bushfire smoke.³⁰

- 4.30 Evidence was received about the communication to the public of hazardous air pollution levels. For example, it was discussed how reporting of air quality was not standardised across state and government departments, with some jurisdictions using the Air Quality Index (which is a composite measurement based on multiple pollutants), and others using PM2.5 levels, which is confusing for the public.³¹

²⁶ Australian Academy of Health and Medical Sciences, *Submission 13*, p. 4.

²⁷ Doctors for the Environment, *Submission 72*, p. 9.

²⁸ Australian Academy of Health and Medical Sciences, *Submission 13*, p. 5.

²⁹ Royal Australian College of General Practitioners, *Submission 61*, p. 5.

³⁰ Asthma Australia, *Submission 86*, pp. 3.

³¹ Doctors for the Environment, *Submission 72*, p. 9

- 4.31 It was therefore recommended that consistency of air quality information and related public health advice be developed across jurisdictions,³² and that the government should develop health alert systems for both bushfire smoke and heatwaves.³³

Mental health impacts

- 4.32 In addition to the physical impacts, a number of submitters highlighted the mental health impacts of the bushfires. Immediate stressors and traumas such as loss of life and property, evacuating from the family home, uncertainty and prolonged fear during a bushfire (among other factors) can affect the mental health and wellbeing of those directly and indirectly exposed to such events. These immediate stressors and experiences of trauma can have long-lasting mental health consequences.
- 4.33 Mental Health Australia highlighted that heightened distress is very likely and is to be expected during all stages of disaster and that for most disaster survivors they will 'recover without professional intervention within a number of months'.³⁴ However, they also noted that psychological trauma experienced during bushfires can be long lasting and or emerge or re-emerge 'throughout any time in an affected individual's life'.³⁵
- 4.34 Similar to the long-term impacts of physical health conditions, the mental health impacts of bushfires can have long-term ramifications. Mr Noel Clement, Director of Australian Programs for the Australian Red Cross pointed out that while mental and physical health impacts are well understood, 'what actually occurs is often more complex and nuanced than is generally understood'.³⁶ Mr Clement continued that:

Ongoing research to develop a greater understanding of individual and community impacts is invaluable to designing effective recovery programs. Evidence shows us that, three years after Black Saturday, 25 per cent of people involved still experience significant mental health issues, and at the five-year mark this had dropped to only 20 per cent.³⁷

³² Australian National University, *Submission 97*, p. 6; Doctors for the Environment, *Submission 72*, p. 8.

³³ Grattan Institute, *Submission 102*, p. 12; Doctors for the Environment, *Submission 72*, p. 6–7.

³⁴ Mental Health Australia, *Submission 91*, p. 4.

³⁵ Mental Health Australia, *Submission 91*, p. 4.

³⁶ Mr Noel Clement, Director, Australian Programs, Australian Red Cross, *Proof Committee Hansard*, 30 July 2020, p. 33.

³⁷ Mr Noel Clement, Director, Australian Programs, Australian Red Cross, *Proof Committee Hansard*, 30 July 2020, p. 33.

- 4.35 The sentiments expressed by Mr Clement were echoed by the AMA, which noted that while the full mental health impacts of the 2019–20 bushfire season would not be understood for some time, it was clear that:

... affected communities have already suffered mental ill-health as a result of the fires and will likely see these impacts continuing into the long-term. The intense, prolonged fear experienced during a bushfire event and its anticipation, as well as grief and anger in the immediate aftermath, can contribute to severe trauma and/or exacerbate existing mental health conditions.³⁸

Personal experiences

- 4.36 The committee received numerous accounts from individuals and local communities about the fear and anxiety experienced during the 2019–20 bushfires. For example, Dr Keely Boom, a resident of the NSW South Coast described her experiences during the bushfires:

After the New Year's Eve fire, thousands of people fled the South Coast driving along roads surrounded by fires. The roads were full and local supplies for fuel and other essentials were low. I worried for my Mum who was still at her farm near bushland but planning to evacuate once the fires got closer. I worried for my Dad and my brothers who were planning to defend the family farm. I went to the RFS headquarters in Moruya to speak with our local brigade captain. I wanted to check if the rumours were true that the RFS would only be defending town. He wasn't there, but his wife was. She said to me that the RFS [Rural Fire Service] wouldn't be able to defend anywhere outside of town, the fires were just too big. She said to tell my family to get out, it was just too much. We both cried and held each other, fearing for our loved ones. I tried to convince my family members to change their plans, but had no success.³⁹

- 4.37 Further, the Maloneys Beach Residents Association stated that:

The efforts of the fire services, and fortunate changes of wind direction, saved our small community from being burnt but we were evacuated more than once, without power and communication for days on numerous occasions, smoke affected for weeks, in fear of ember attack, and under real threat from fire on three separate occasions.⁴⁰

- 4.38 The Climate Justice Programme also included personal stories of the mental ill health experienced by those in fire-ravaged communities:

There are still people living here in tents, there are still people with inadequate water, there are still people with no sanitation.

³⁸ Australian Medical Association, *Submission 39*, p. 4.

³⁹ Dr Keely Boom, *Submission 140*, p. 2.

⁴⁰ Maloneys Beach Residents Association, *Submission 51*, p.1.

My mental health is not good – probably similar to most of the people around here – I have good days and I have bad days.⁴¹

- 4.39 The PHAA also noted that the experiences of bushfires and climate change are leading to a new form of anxiety:

The psychological trauma caused by directly experiencing uncontrolled bushfires, and the destruction or loss of life they cause, can be profound and long lasting. Indirect mental health impacts can include feelings of fear, dread, powerlessness, and worry about the future that can result from either experiencing, or the expectation of, gradual changes in the climate and environment that occur over the long-term and impact people's lives. These climate change related emotions have been referred to as *ecoanxiety*.⁴²

- 4.40 Moreover, the mental health impacts of bushfires can vary between different groups within the population. One example is the effects of the loss of Country and cultural connection for First Nations people as described by the National Aboriginal Community Controlled Health Organisation (NACCHO):

The impact of the 2019-20 bushfire crisis on the land is particularly devastating for Aboriginal and Torres Strait Islander peoples ... The devastation of the land and evacuation from and loss of homes will have an enduring impact on the social and emotional wellbeing of Aboriginal and Torres Strait Islander communities. These effects will also be significantly amplified for those people who are already vulnerable due to the social determinants of health.⁴³

Mental health and first responders

- 4.41 Mental health is a significant issue for firefighters and other first responders. Beyond the immediate mental health impacts for first responders and emergency workers in responding to bushfire events, they may also be personally impacted by losses incurred during bushfires.
- 4.42 The AAHMS highlighted in its submission the importance of adequately preparing for the health impacts on first responders, such as firefighters and frontline volunteers, especially given the prolonged and intense response required by these groups during the 2019–20 bushfire season.⁴⁴
- 4.43 As noted by Doctors for the Environment, many firefighters lost homes, stock and property. It was important that the mental health and well-being of firefighters:

⁴¹ Climate Justice Programme, *Submission 69*, pp. 9–10, citing Ms Lindy Marshall of Cobargo, in Joanna Woodburn and Claire Wheaton, 'How do bushfire victims follow COVID-19 social distancing measures after losing their homes?', *ABC News*, 5 April 2020.

⁴² Public Health Association of Australia, *Submission 115*, p. 10. Emphasis in original.

⁴³ National Aboriginal Community Controlled Health Organisation, *Submission 11*, p. 4.

⁴⁴ AAHMS, *Submission 13*, p. 2.

... be a high priority in any review of this disaster. There is heavy reliance on volunteer firefighters who work for some months, losing time at work and time with their families, and at least one study has highlighted significant mental health impacts. With longer and more intense fire seasons expected that situation may not be tenable in the future.⁴⁵

4.44 The committee received further evidence regarding the mental health of firefighters and first responders. The United Firefighters Union of Australia submitted research, from 2013 and 2017, regarding the mental health of firefighters, which found that:

- 68 per cent of Victorian (Country Fire Authority and Metropolitan Fire Brigade) career firefighters had indicated a moderate level of post-traumatic stress symptoms (a number which was likely to increase given the nature of the work
 - The most stressful incidents were the death or serious injury of a co-worker, a fire with multiple deaths, sudden infant death, a seriously injured child, death of a patient after a lengthy attempted resuscitation, assisting a seriously injured friend or relative and multi-casualty events
- Approximately 50 per cent of South Australian Metropolitan Fire Service (SAMFS) career firefighters met the criteria of a mental health disorder in their lifetime, with the most common 12-month disorders being post-traumatic stress injury (PTSI), panic attacks and depressive episodes
 - The risk of PTSI was significantly elevated among SAMFS who reported experiencing traumas they would commonly be exposed to during the course of their duty, including dealing with a deceased person and mass casualties.⁴⁶

4.45 An inquiry of the Senate Education and Employment References Committee (E&E Committee) specifically examined the mental health of first responders. The E&E Committee reported in 2019 and found that there were significant levels of a range mental health issues present amongst firefighters. These issues included anxiety, alcohol disorders, post-traumatic stress disorder and forms of psychological distress.⁴⁷

4.46 The E&E Committee noted that mental health issues can be the result of a singular incident that impacts the first responder, or as the result of 'the cumulative effect of repeat exposure to confronting situations'.⁴⁸ The

⁴⁵ Doctors for the Environment, *Submission 72*, p. 10.

⁴⁶ United Firefighters Union of Australia, *Submission 104*, pp. 15–17.

⁴⁷ Senate Education and Employment References Committee, *The people behind 000: mental health of our first responders*, February 2019.

⁴⁸ Senate Education and Employment References Committee, *The people behind 000: mental health of our first responders*, February 2019. p. 7.

committee made 14 recommendations about the mental health of first responders, the majority of which were supported by the government.⁴⁹

4.47 Further, the NSW inquiry into the 2019–20 bushfire season examined the mental health of firefighters and first responders. The inquiry considered 'mental health support to be an essential component of ensuring first responder safety'.⁵⁰ The NSW inquiry made a number of recommendations, including that:

- the NSW Rural Fire Service (RFS) expand in-house mental health support for members, to ensure members can access the support they need (Recommendation 41); and
- the NSW Government work with the Commonwealth Government to provide a free mental health screen to firefighters post-fire event, and waive any gap payments if additional treatment is required, while creating a new Medicare Benefits Scheme item number in order to track demand for mental health services from firefighters over time (Recommendation 42).⁵¹

Vulnerable groups

4.48 As noted by Doctors for the Environment and other submitters, the mental health impacts of bushfires are not distributed equally amongst groups within Australian society, and vulnerable groups are disproportionately affected by mental health impacts.⁵²

4.49 Vulnerable groups include:

- women—particularly from marginalised and disadvantage groups;⁵³
- children and youths;⁵⁴
- Aboriginal and Torres Strait Islander peoples;⁵⁵ and
- communities in rural, regional and remote areas.⁵⁶

⁴⁹ Senate Education and Employment References Committee, *The people behind 000: mental health of our first responders*, February 2019, pp. vii–viii; Senate Education and Employment References Committee, *The people behind 000: mental health of our first responders*, February 2019—Government response, February 2020.

⁵⁰ New South Wales Government, [Final Report of the NSW Bushfire Inquiry](#), 31 July 2020, p. 270.

⁵¹ New South Wales Government, [Final Report of the NSW Bushfire Inquiry](#), 31 July 2020, p. 270.

⁵² Doctors for the Environment, *Submission 72*, p. 10.

⁵³ National Women's Alliances, *Submission 26*.

⁵⁴ Doctors for the Environment, *Submission 72*, p. 10; Save the Children Australia, *Submission 30*, p. 8; Australian Child and Adolescent Trauma, Loss and Grief Network and Emerging Minds, *Submission 37*, p. 3; ReachOut, *Submission 53*.

⁵⁵ National Aboriginal Community Controlled Health Organisation, *Submission 11*.

⁵⁶ National Rural Health Alliance, *Submission 45*, p. 1.

- 4.50 The PHAA advised that those aged between 40 and 60 could also be more at risk of mental health issues, due to the competing demands of employment, parenting, and caring for elderly family members. In addition, the PHAA indicated that:

Those most at risk of persistent or delayed mental health problems are those who are exposed to the more severe trauma exposure during the disaster, as well as those who suffer adverse life events in the aftermath of the event.⁵⁷

- 4.51 The National Women's Alliances (NWA) submitted that 'the impacts of disaster are cleared gendered' and 'all disaster preparation, management, response and recovery efforts need to include a gender analysis at all levels, within government and non-government organisations'.⁵⁸ The NWA recommended that as a first step, the Commonwealth Government support:

... nation-wide implementation of the Gender and Emergency Management (GEM) Guidelines developed in Victoria, which outlines a strategy for gender-responsive disaster management.⁵⁹

- 4.52 Evidence was received by the committee about the support offered by governments and others for those suffering mental health impacts in vulnerably parts of the community. For example, ReachOut expressed concern that the Commonwealth Government's \$76 million mental health package to support bushfire-affected communities (discussed later in this chapter) did not:

... specifically take into account the service needs and preferences of young people; specifically, the important fact that even when young people know they need help, many are unwilling or unable to do so.⁶⁰

- 4.53 The National Enterprise for Rural Community Wellbeing (NERCW) submitted that the 2019–20 bushfires have 'disproportionately affected' Australian rural communities, '[a]nd yet, Australian policies of recovery in relation to physical and mental health have consistently been crisis-driven'.⁶¹

- 4.54 A similar sentiment regarding the need for targeted mental health approaches was received from the NACCHO, which commented on the need to provide mental health support services in a culturally sensitive manner.⁶² The NACCHO indicated that it had received anecdotal evidence, suggesting a lack of support being provided to Aboriginal and Torres Strait Islander people, both during and after the 2019–20 bushfires. The NACCHO had heard

⁵⁷ Public Health Association of Australia, *Submission 115*, p. 10.

⁵⁸ National Women's Alliances, *Submission 26*, pp. 1–2.

⁵⁹ National Women's Alliances, *Submission 26*, pp. 1–2.

⁶⁰ ReachOut, *Submission 53*, p. 4.

⁶¹ National Enterprise for Rural Community Wellbeing, *Submission 9*, p. 3.

⁶² National Aboriginal Community Controlled Health Organisation, *Submission 11*, p. 4.

evidence of 'experiences of racism and discrimination when evacuating and accessing emergency support and supplies (including at evacuation centres)'. The NACCHO noted the limitations of some of the support services available:

In some cases, these national organisations do not have the community access and trust required to provide services to Aboriginal and Torres Strait Islander peoples, which means they are unlikely to reach out to these charities for support or accept support when it is offered ...

In some cases, there may be a cultural stigma attached to reaching outside the Aboriginal and Torres Strait Islander network for help. This stigma may have discouraged some Aboriginal and Torres Strait Islander peoples from requesting evacuation and recovery support from any organisation apart from their local community controlled services. This places an additional, and unexpected, burden on these community controlled services as they provide emergency and recovery support they are not funded or resourced to do.⁶³

- 4.55 The Local Government Association of Queensland (LGAQ) summarised the sentiments expressed by a number of submitters, in noting that mental health, while difficult to measure, was 'one of the most prevalent and impacting consequences, nationally and internationally, from the impact of disaster events'. The LGAQ recommended that:

... response agencies, including local governments, are appropriately funded, at least in part by the Commonwealth, to undertake psychological first aid training and have the necessary local capacity to undertake preliminary assessment and care [as the] cornerstone of effective and holistic disaster relief and recovery.⁶⁴

- 4.56 Submitters also emphasised that the effects of the bushfires need to be viewed in conjunction with the mental health impacts of COVID-19 pandemic. Mental Health Australia put forward that:

Measures required to suppress the spread of COVID-19 will have a compounding impact on the mental health of people in bushfire-affected communities. Local economic downturn from lost tourism revenue during the fires has been compounded by national (and global) economic downturn related to the COVID-19 pandemic.⁶⁵

Government responses to health impacts

- 4.57 In response to the immense physical and mental health toll experienced during the 2019-20 bushfires, the Commonwealth Government introduced a range of initiatives to help those affected by the bushfires. These initiatives included immediate responses, such as the provision of face masks to combat the effects

⁶³ National Aboriginal Community Controlled Health Organisation, *Submission 11*, pp. 4–5.

⁶⁴ Local Government Association of Queensland, *Submission 66*, p. 11

⁶⁵ Mental Health Australia, *Submission 91*, p. 10.

of bushfire smoke, and longer term programs such as additional funding for mental health services.

- 4.58 On 12 January 2020, the Commonwealth Government announced \$76 million over two years would be allocated from the bushfire recovery fund to provide distress counselling and mental health support services to firefighters, emergency personnel, individuals and communities impacted by the bushfires.⁶⁶
- 4.59 On 15 January 2020, the Minister for Health announced \$3 million for research into the physiological impacts of prolonged bushfire smoke exposure.⁶⁷
- 4.60 The Commonwealth Government's health response to the 2019–20 bushfires was outlined in the submission from the Department of Health. The response is summarised as follows:
- the provision of almost 3.5 million P2 face masks from the National Medical Stockpile for frontline workers and high-risk members of the public in smoke affected communities;
 - the announcement, on 12 January 2020, of a \$76 million mental health package, followed by further funding commitments including an additional \$13.4 million for Primary Health Networks to provide localised emotional and mental health support for bushfire-affected individuals, and an additional \$2 million for Lifeline Australia and Kids Helpline to increase their capacity to service those affected by bushfires; and
 - the allocation of \$64.1 million to build youth resilience, and support those who have attempted or lost someone to suicide; \$74 million to support mental health and wellbeing during the COVID-19 pandemic; \$48.1 million to support the Mental Health and Wellbeing Pandemic Response Plan; and a further \$20 million for research to improve mental health care and reduce suicide rates in Australia.⁶⁸
- 4.61 The response also included the investment of \$5 million, via the Medical Research Future Fund's (MRFF) 2020 Bushfire Impact Research grants, to fund nine research projects to investigate the medium-term health impacts of exposure to ash and smoke haze, reduced air quality and ongoing mental health effects of the fires.⁶⁹
- 4.62 The nine projects receiving funding under the MRFF funding includes the following projects assessing the physiological impacts of bushfire smoke:

⁶⁶ The Hon Scott Morrison MP, Prime Minister of Australia, 'Immediate mental health services deployed into fire affected communities', *Media Release*, 12 January 2020.

⁶⁷ The Hon Greg Hunt MP, Minister for Health, '\$5 million for bushfire related health research', *Media Release*, 15 January 2020.

⁶⁸ Department of Health, *Submission 126*, pp. 2-4.

⁶⁹ Department of Health, *Submission 126*, p. 4.

- a Newcastle University study into the bushfire impact on vulnerable groups, the respiratory burden and effective community solutions;
 - a University of Technology Sydney study into defining and treating the physiological effects of bushfire smoke exposure;
 - a University of NSW randomised controlled trial of mask use in control of respiratory outcomes during bushfire season; and
 - a Monash University study into the Physiological impacts of prolonged bushfire smoke exposure on first responders and outdoor workers.⁷⁰
- 4.63 In addition, the Australian National University (ANU), in partnership with the Universities of Wollongong and Canberra, the Canberra Health Service and NSW Health, announced in August 2020 that they would examine the effects of the 2019–20 bushfires on pregnant women and their babies from the ACT and south-eastern NSW. The study will examine the direct and indirect impact of the bushfires on the health and wellbeing 'of new mothers and their babies, whether through their living conditions or their mental and physical health'.⁷¹
- 4.64 The study will also examine vulnerable groups within the research cohort, with the ANU stating that:
- The effects of the bushfire on Aboriginal and Torres Strait Islander women and their babies will be given particular focus as this group has been severely affected within this region.
- It is hoped that better understanding of the impact of these two crises on the health of mothers and babies will inform the design of interventions to improve the outcomes of those most affected, now and in future years.⁷²
- 4.65 Submitters welcomed the Commonwealth Government's funding announcements to assist in recovery, however some outlined how the 2019–20 bushfire season had demonstrated the need for governments to increase targeted support and assistance to vulnerable groups within the community post-disaster, including children and young people, women, and Aboriginal and Torres Strait Islander peoples.⁷³
- 4.66 The AMA made reference to its previous emphasis on the risk of deaths and injury resulting from predicted increases in bushfire frequency and intensity,

⁷⁰ Department of Health, '\$5 million for research into health impacts of bushfires on Australian communities', 21 May 2020, <https://www.health.gov.au/news/5-million-for-research-into-health-impacts-of-bushfires-on-australian-communities> (accessed 30 September 2020).

⁷¹ University of Wollongong, *Study tracks impact of COVID-19 and bushfires on new mums and babies*, 27 August 2020, <https://www.uow.edu.au/media/2020/study-tracks-impact-of-covid-19-and-bushfires-on-new-mums-and-babies.php> (accessed 30 September 2020).

⁷² Australian National University, ANU College of Health and Medicine: Projects – Mother and Child 2020, *Learn more*, <https://medicalschoool.anu.edu.au/research/projects/mother-and-child-2020-mc2020/learn-more> (accessed 30 September 2020).

⁷³ See for example: ReachOut, *Submission 53*; National Aboriginal Community Controlled Health Organisation, *Submission 11*.

and recommended a number of actions to the Commonwealth Government to reduce health risks arising from bushfires. For example, the AMA recommended that the Commonwealth Government:

- commission quantitative modelling of the health impacts and costs associated with extreme weather events, including identification of highly vulnerable groups and regions;
- develop and implement a National Strategy for Health and Climate Change which would 'include a comprehensive and broad reaching adaptation plan to ensure the health sector is adequately resourced to meet the significant demands of bushfires and their associated health effects';
- establish a National Centre for Disease Control to provide a trusted and nationally consistent source of advice about health threats and how to protect against them; and
- pursue emissions reduction more ambitiously to reduce future fire risks, and related health effects.⁷⁴

4.67 The AAHMS also argued that health risks needed to be addressed in preparedness strategies and action plans for communities in advance of future bushfires. Further issues raised by submitters around health preparedness for future bushfire seasons included:

- the gaps in knowledge about how bushfire smoke impact on respiratory health in the short-, medium- and long- term;
- the gaps in knowledge about the mental health impacts on individuals and communities directly affected by bushfires;
- the gaps in knowledge about the health impacts on first responders, such as firefighters and frontline volunteers;
- the need to fund targeted research to fill the identified knowledge gaps; and
- the need for targeted health advice and intervention to protect vulnerable groups.⁷⁵

Supporting vulnerable community groups

4.68 In reference to the mental health package announced by the Commonwealth Government, the NERCW asserted that:

... this policy is adopts [sic] a highly medicalised and economic approach to recovery that does not adequately consider the timeframe of the recovery process, the diversity of the recovery process, the limited mental health resources available in rural communities, the non-financial barriers to accessing support, the expertise of rural communities in understanding their unique needs, nor the broader societal factors involved in wellbeing. The very viability of rural and regional communities is at stake if policies

⁷⁴ Australian Medical Association, *Submission 39*, p. 2.

⁷⁵ Australian Academy of Health and Medical Sciences, *Submission 13*, pp. 1–2.

do not focus on long-term, socially-oriented, community resilience over short-term, reactive, individualised aid.⁷⁶

- 4.69 Similarly, the National Rural Health Alliance submitted that 'the biggest question mark around the response to the 2019–20 bushfires is whether or not rural communities are being looked after in the long term'.⁷⁷ Professor Alan Rosen's submission echoed this view:

The Commonwealth effort, including the National Bushfire Mental Health Package should provide financial incentives for states and territories to rebuild and sustain these facilities to provide a stable presence and ongoing continuity of care as required. This would be far preferable than just importing well-meaning but transient clinicians &/or support workers, some undertrained for this purpose, funded only to provide services for the short-term.⁷⁸

Better Access Bushfire Recovery Telehealth initiative

- 4.70 The \$76 million mental health package announced on 12 January 2020 included funding for the Better Access Bushfire Recovery initiative, providing face-to-face mental health support, as well as the Better Access Bushfire Recovery Telehealth initiative. As explained by the Department of Health, the Telehealth initiative was established so that:

Individuals, families and emergency response personnel who cannot easily access mental health professionals in person, will be able to obtain counselling and support through video telehealth services, with Medicare rebates.⁷⁹

- 4.71 The initiatives are available to individuals or their families who have been impacted by the 2019–20 bushfires, and to first responders or emergency management employees or volunteers who worked during the 2019–20 bushfires. The services provided by both the face-to-face and telehealth bushfire recovery initiatives are available until 31 December 2021.⁸⁰
- 4.72 A core element of the provision of telehealth services is the inclusion of telehealth services in the Medicare Benefit Scheme (MBS). The Commonwealth Government introduced 12 new MBS items to enable those affected by bushfires to access telehealth services. The creating of the new MBS items enabled practitioners to provide Medicare rebates for telehealth services.

⁷⁶ National Enterprise for Rural Community Wellbeing, *Submission 9*, p. 3.

⁷⁷ National Rural Health Alliance, *Submission 45*, p. 1.

⁷⁸ Professor Alan Rosen AO, *Submission 4*, p. 4.

⁷⁹ Department of Health, [*Mental Health Support for Australians Affected by the 2019-20 Bushfires: Frequently Asked Questions*](#) (accessed 18 September 2020).

⁸⁰ Services Australia, 'How to get mental health support', 3 March 2020, <https://www.servicesaustralia.gov.au/individuals/subjects/how-get-mental-health-support#a2> (accessed 21 September 2020).

Telehealth services are now included in the rebate which allows 10 individual mental health services in a calendar year.⁸¹

4.73 While there was broad support for telehealth initiatives,⁸² several issues were identified in the submissions in regards to the rollout and accessibility of telehealth services.

4.74 The Rural Doctors Association of Australia highlighted the difficulties people living in rural communities faced in accessing telehealth services, due to inadequate communications infrastructure way of example, it observed that:

... in some bushfire affected areas the repair of telecommunication infrastructure for both landline and mobile devices is still underway four months later. While initiatives to increase access to mental health telehealth consultations were introduced in response to the bushfires, the provision and uptake of these services is more difficult in these areas because of patchy access to mobile services and damaged landline and NBN infrastructure.⁸³

4.75 The committee also received evidence that a more integrated health approach between telehealth and in-person consultations is required. For example, Professor Rosen submitted that:

Psychiatrists and other clinicians offering telehealth consultations and advice are best provided in combination and balance with intermittent in-person psychiatric consultations and reviews, optimally by the same psychiatrist or by the same rostered and collegiate group of psychiatrists, providing local team and GP consultation, and clinically hand over to each other. Such a combination should provide better engagement, greater accuracy of assessment and review, better appraisal of physical health needs, better communication and clinical supervision with local gp's and community mental health teams, and better peer review.⁸⁴

4.76 The Rural Doctors Association of Australia shared this sentiment and submitted that '[t]elehealth must be part of the continuous primary care that includes face-to-face consultations'.⁸⁵ It also advocated for videoconferencing, and noted that:

⁸¹ Department of Health, [Mental Health Services for Bushfire Response](#), 16 January 2020 (accessed 18 September 2020). In light of the COVID-19 pandemic, temporary MBS telehealth services have also been made available to help reduce the risk of community transmission; see Department of Health, [MBS changes factsheet](#), 20 July 2020 (accessed 21 September 2020).

⁸² See for example: Asthma Australia, *Submission 86*; Australian Psychological Society, *Submission 89*; Public Health Association of Australia, *Submission 115*; ReachOut, *Submission 53*.

⁸³ Rural Doctors Association of Australia, *Submission 76*, pp. 3-4.

⁸⁴ Professor Alan Rosen AO, *Submission 4*, p. 9.

⁸⁵ Rural Doctors Association of Australia, *Submission 76*, p. 3.

Video conferencing should be the preferred method for telehealth consultations with telephone consultations undertaken when the patient does not have access to video conferencing or the connection has failed.⁸⁶

- 4.77 Submissions received by the committee in regards to the provision of telehealth services overwhelmingly recommended that funding be maintained for these services.⁸⁷

Committee views

- 4.78 The committee acknowledges the immense pain and suffering, both physical and mental, experienced by first responders and communities as a result of the Black Summer bushfires. These effects of the 2019–20 bushfire season are still being felt today, and will continue to for a long time.
- 4.79 Clearer communication is needed to ensure the most effective and proven health advice is provided to communities at risk of bushfire smoke, particularly with regard to the efficacy and safe use of face masks. There is also a need for consistency between jurisdictions about advice on air quality and bushfire smoke.⁸⁸

Research funding

- 4.80 There remain many unknowns about the impact of bushfire smoke and ash on human health. The bushfire smoke reached unhealthy and hazardous levels for nearly two months in Canberra alone, highlighting the need to understand the impact of this exposure. As was noted in evidence to the inquiry, there is no safe level of particulate matter from bushfire smoke.
- 4.81 The evidence to the committee suggests that there is a gap in the medical knowledge about prolonged exposure to bushfire smoke and the long-term health impacts. The committee accepts the evidence of submitters that long-term funding and research is needed to more definitively determine the impact of hazardous smoke exposure and inhalation on individuals and the community.
- 4.82 The committee notes with concern that there is limited information currently available about both the medium and long-term impacts of exposure to toxic levels of smoke and ash, and particularly the impact of the smoke on vulnerable groups. The more vulnerable groups within our communities need more tailored support and health advice in order to address their unique circumstances.

⁸⁶ Rural Doctors Association of Australia, *Submission 76*, p. 3.

⁸⁷ See for example: Rural Doctors Association of Australia, *Submission 76*; Asthma Australia, *Submission 86*.

⁸⁸ Communication issues are considered further in Chapter 8 of this report.

- 4.83 The committee considers the research which has commenced into examining the physiological impact of bushfire smoke on the population, and in particular on pregnant women, unborn children and infants as with the ANU study, will play a key role in reducing health risks and improving health outcomes in future bushfire events.
- 4.84 While the committee welcomes the \$5 million funding provided through the MRFF's 2020 Bushfire Impact Research grants, this funding will be allocated over nine projects, and the committee is of the view that increased funding over the long-term is needed to better understand this issue.
- 4.85 The committee therefore recommends that funding is allocated for ongoing research into the health impacts of unhealthy and hazardous levels of bushfire smoke on the population. The committee further considers that research funding be allocated to those projects underway examining the impacts of the smoke on pregnant women, unborn children and infants.

Recommendation 6

- 4.86 The committee recommends that the Commonwealth Government provide the Department of Health with increased and ongoing funding for research into the health impacts of unhealthy and hazardous levels of bushfire smoke on the population, with specific funding allocated for research into the health impacts of bushfire smoke on pregnant women, unborn children, and infants.**

Mental health support

- 4.87 The key messages from submitters for enhancing future preparedness for the mental health impacts of bushfires include:
- the need to recognise that the fire emergency brought indirect mental health effects at a broader population level, including vicarious trauma, worry and anxiety about the future potential impact of a bushfire and climate change more broadly;⁸⁹
 - ensuring government policy and funding responses recognise the long-lasting mental health impacts of the bushfires, by providing access to psychological support over the long-term;⁹⁰
 - considering the role of the community context and social determinants of health in framing all policy responses to the bushfires;⁹¹ and

⁸⁹ Public Health Association of Australia, *Submission 115*, p. 10.

⁹⁰ Mental Health Australia, *Submission 91*, p. 10; National Rural Health Alliance, *Submission 45*, p. 2; Professor Alan Rosen AO, *Submission 4*, p. 5; George Institute for Global Health, *Submission 77*, p. 8.

⁹¹ Mental Health Australia, *Submission 91*, p. 1.

- governments adequately resourcing ongoing, regular, in-community mental health services in rural and regional communities.⁹²
- 4.88 The committee congratulates the government for its prompt provision of funding to mental health support services, particularly for firefighters and emergency personnel. As noted in Chapter 2, funding has been spent on various mental health initiatives, and this will continue into 2020–21.
- 4.89 The committee encourages the government to maintain funding levels to a sufficient level to ensure that ongoing mental health support is provided to all those who need it. Additional appropriations should be made as a matter of urgency, if gaps in support are identified. This is particularly important given the substantial amount of evidence indicating that the mental health impacts of both the 2019–20 bushfires and other major natural disaster events will be long-term.

Better Access Bushfire Recovery initiatives

- 4.90 The committee supports the implementation of the Better Access Bushfire Recovery initiative, and the Better Access Bushfire Recovery Telehealth initiative. These initiatives, which provide up to 10 mental health treatment services for those affected by the bushfires, are important resources available to the community.
- 4.91 Telehealth, despite its noted limitations linked to inadequate communications infrastructure, has been shown to have broad support, particularly if telehealth services are provided in conjunction with face-to-face primary care (where possible). The inclusion of telehealth services in the MBS is of benefit and will help more people access the support they need. The committee notes that these services are also of considerable benefit to regional, rural and remote areas, where mental health services may not be readily available.
- 4.92 However, the committee is concerned that these initiatives will cease as of 31 December 2021—right in the middle of another bushfire season. As has been shown through evidence received by this and other inquiries, the impact of the bushfires will be felt for a long time to come, and with other bushfire seasons to contend with in the meantime.
- 4.93 The committee therefore recommends that the Better Access Bushfire Recovery initiative and the Better Access Bushfire Recovery Telehealth initiative be made permanent, and continue to be included on the MBS.
- 4.94 This will provide first responders, emergency management employees, volunteers as well as affected individuals and families with access to timely and appropriate mental health support, and some peace of mind that this

⁹² Public Health Association of Australia, *Submission 115*, p. 11; Australian Academy of Health and Medical Sciences, *Submission 13*, p. 1; Mental Health Australia, *Submission 91*, p. 6–7; Professor Alan Rosen AO, *Submission 4*, p. 5.

support will be there for the long-term. The initiatives should receive adequate and long-term funding over the next forward estimates.

Recommendation 7

- 4.95 The committee recommends that the Commonwealth Government make the Better Access Bushfire Recovery initiative and the Better Access Bushfire Recovery Telehealth initiative permanent mental health support services, with both initiatives properly funded over the forward estimates.**

Chapter 5

Wildlife impacts of the fires

- 5.1 The 2019–20 bushfires caused widespread environmental damage and wildlife death. In its interim report, the Royal Commission into National Natural Disaster Arrangements (Royal Commission) noted that the impacts of the bushfire season have been described as an ecological disaster.¹
- 5.2 As noted earlier in this report, between 24 and 40 million hectares of land burned across the country. According to estimates provided to the Royal Commission, over three billion animals died or were displaced as a result of the fires, with many ecosystems suffering extensive damage.²
- 5.3 A significant proportion of the land and ecosystems affected by the 2019–20 bushfires had not previously been impacted by fire.³ Further, the bushfires burned several of Australia's World Heritage areas.⁴ For example:
- in New South Wales (NSW), 81 per cent of the Greater Blue Mountains World Heritage Area and 54 per cent of the NSW sections of the Gondwana Rainforests of Australia were impacted by the bushfires;
 - in Queensland, 53 per cent of the ancient Gondwana rainforests burnt; and
 - in Tasmania, approximately 20 000 hectares of wilderness classified as World Heritage area was burned.⁵
- 5.4 This chapter examines the impact of the fires on the environment, and in particular the impact on wildlife and other animals.

Loss of biodiversity, wildlife and livestock

- 5.5 In January 2020, figures were released which estimated that approximately 1.25 billion animals were killed as a result of the bushfires.⁶ The animals

¹ Royal Commission into National Natural Disaster Arrangements, [Interim Observations](#), 31 August 2020, p. 24.

² Royal Commission into National Natural Disaster Arrangements, *Interim Observations*, 31 August 2020, p. 5; Science and Technology Australia, *Submission 103*, p. 4;

³ Australian Academy of Science, *Submission 122*, p. 3

⁴ Australian Academy of Science, *Submission 122*, p. 3; Emergency Leaders for Climate Action, *Submission 36*, p. 49.

⁵ New South Wales Department of Planning, Industry and Environment, [NSW Fire and the Environment 2019-20 Summary: Biodiversity and landscape data and analyses to understand the effects of the fire events](#), 2020; Extinction Rebellion Grey Power Victoria, *Submission 87*, p. 3; Climate Justice Programme, *Submission 69*, p. 5.

⁶ Climate Justice Programme, *Submission 69*, p. 5; Ms Lesley Hodges, *Submission 25*, p. 1; Climate Council of Australia, *Submission 40*, p. 6; Gecko Environment Council, *Submission 88*, p. 1; Animals Australia, *Submission 90*, p. 1.

affected by the bushfires included wildlife, domesticated animals and livestock.⁷ By late July 2020, this figure had been revised to approximately three billion native vertebrates.⁸

- 5.6 This estimate accounts for 143 million mammals, 2.46 billion reptiles, 180 million birds and 51 million frogs.⁹
- 5.7 The rates of biodiversity loss and wildlife killed during the fires vary between the states and territories. For example, in Victoria, '170 species were affected, including 19 mammal species, 13 frog species, ten reptile species, nine bird species, 29 aquatic species and 38 plant species'.¹⁰
- 5.8 Kangaroo Island in South Australia experienced a severe loss of biodiversity and wildlife. Ninety-six per cent of the Flinders Chase National Park area was burnt. Several species including the endangered Kangaroo Island dunnart and the glossy black cockatoo experienced significant decline in their populations. Further, prior to the bushfires, the koala population on the island was approximately 50 000. The bushfires affected 85 per cent of koala habitat and estimates now indicate that the population has been reduced to approximately 5000 to 10 000.¹¹
- 5.9 In NSW, it is estimated that over 800 million animals were killed, and that the habitats of at least 293 threatened animals were affected by the bushfires.¹²
- 5.10 Another issue identified by submitters was the impact of the fires on the ability for native animals to seek refuge. For example, in its submission, the Emergency Leaders for Climate Action (ELCA) observed that:

Because of the number of days of Very High fire danger and above leading to extreme fire behaviour on multiple days, there are few unburned patches left in many areas to provide refuge for wildlife. Many of the few

⁷ Ms Ashleigh Best, Professor Christine Parker and Professor Lee Godden, Melbourne Law School, *Submission 105*, pp. 1–2.

⁸ World Wildlife Fund, *Interim report—Australia's 2019-2020 Bushfires: The Wildlife Toll*, July 2020, www.wwf.org.au/news/news/2020/3-billion-animals-impacted-by-australia-bushfire-crisis#:~:text=Nearly%20three%20billion%20animals%20%E2%80%93%20mammals,birds%2C%20and%2051%20million%20frogs, p. 2 (accessed 16 September 2020).

⁹ World Wildlife Fund, *Interim report - Australia's 2019-2020 Bushfires: The Wildlife Toll*, July 2020, p. 2.

¹⁰ Emergency Leaders for Climate Action, *Submission 36*, p. 32.

¹¹ Government of South Australia, Department for Environment and Water, *Kangaroo Island Bushfire 2019-20*, <https://www.arcgis.com/apps/Cascade/index.html?appid=ef29c850d8e34e98a8307dbdfe0aaaab> (accessed 16 September 2020).

¹² New South Wales Government, *Final Report of the NSW Bushfire Inquiry*, 31 July 2020, pp. 242–243.

animals that survived the most severe fires have likely since succumbed to starvation, injuries and predation by feral animals.¹³

- 5.11 In their submission, Ms Ashleigh Best, Professor Christine Parker and Professor Lee Godden from Melbourne Law School commented that '[w]here habitat and migration corridors are diminished to the point where wildlife populations are encircled in small areas, their capacity to escape extreme weather events becomes severely compromised'.¹⁴
- 5.12 Ms Best, Professor Parker and Professor Godden went on to note that '... wild animals face particularly acute threats during fast-onset disasters such as bushfires. Unlike their domesticated counterparts, most [of] these animals are not amenable to system evacuation'.¹⁵
- 5.13 Several submitters noted that there was limited ability to locate and provide care for injured animals.¹⁶ For example, Animals Australia commented on the lack of trained personnel to search for and rescue animals during the fire period.¹⁷
- 5.14 In highlighting the importance of mitigating climate change in protecting wildlife, the Veterinary Oncology Consultants submitted that:
- ... from a veterinary perspective, mitigation is much more important because adaptation mainly centres around the needs of humans and to a certain extent domestic animals, but does little to reduce risks for wildlife.¹⁸

Livestock

- 5.15 Submitters such as the Eurobodalla Shire Council also commented on the makeshift nature of animal evacuation sites and noted in particular the difficulty in evacuating livestock from rural properties.¹⁹
- 5.16 It is difficult to accurately estimate the number of domesticated animals and livestock that were killed during the bushfires. However, the Royal Commission heard that over 80 000 head of livestock were killed²⁰ and for

¹³ Emergency Leaders for Climate Action, *Submission 36*, p. 32.

¹⁴ Ms Ashleigh Best, Professor Christine Parker and Professor Lee Godden, Melbourne Law School, *Submission 105*, p. 9.

¹⁵ Ms Ashleigh Best, Professor Christine Parker and Professor Lee Godden, Melbourne Law School, *Submission 105*, p. 9.

¹⁶ See for example: Animals Australia, *Submission 90*; Ms Ashleigh Best, Professor Christine Parker and Professor Lee Godden, Melbourne Law School, *Submission 105*.

¹⁷ Animals Australia, *Submission 90*, pp. 3–4.

¹⁸ Veterinary Oncology Consultants, *Submission 21*, p. 3.

¹⁹ Eurobodalla Shire Council, *Submission 23*, p. 13.

²⁰ Royal Commission into National Natural Disaster Arrangements, Transcript of Proceedings, 16 April 2020, p. 11.

example, on Kangaroo Island, 'more than more than 50 000 sheep were reported to have died—either directly by the fires or by euthanasia after sustaining injuries'.²¹

- 5.17 The United Firefighters Union of Australia explained that '[w]hilst there is no comprehensive database of the livestock losses incurred in disasters, available data suggests that the direct costs of livestock losses are considerable.'²² Mr Luke Gallagher, Executive General Manager, Short Tail Claims for the Insurance Australia Group (IAG) informed the committee in May 2020 that IAG were currently processing 1324 farm insurance claims.²³

Availability and accessibility of biodiversity and wildlife data

- 5.18 While there are several estimates regarding the loss of biodiversity and wildlife during the recent bushfires, it is difficult to estimate the full extent of this loss and other environmental impacts. There are several reasons for this difficulty, including:

- a lack of monitoring of original or baseline data;
- the fact that the areas impacted by the 2019–20 bushfires had previously never been affected by bushfire;
- the lengthy time for flow-on effects to be fully realised; and
- that the nature of monitoring some species can be particularly difficult.²⁴

- 5.19 As noted in the Royal Commission's interim report, '[k]nowledge of Australia's wildlife and its distribution in Australia was, and remains for many species, disparate, fragmented, incomplete and inaccessible'.²⁵

- 5.20 In its submission, the Ecological Society of Australia stated that 'there is no comprehensive database of Australian environment responses to fire'²⁶ and that 'the best way to quantify environmental response to repeated natural disasters is through long-term monitoring'.²⁷

- 5.21 This sentiment was echoed by other submitters, such as the Nature Conservation Society of South Australia, which stated that long term

²¹ Ms Ashleigh Best, Professor Christine Parker and Professor Lee Godden, Melbourne Law School, *Submission 105*, pp. 1-2.

²² United Firefighters Union of Australia, *Submission 104 Attachment 2*, p. 6.

²³ Mr Luke Gallagher, Executive General Manager, Short Tail Claims, Insurance Australia Group, *Proof Committee Hansard*, 10 July 2020, p. 2.

²⁴ See, for example: Ecological Society of Australia, *Submission 73*, p. 3; Nature Conservation Society of South Australia, *Submission 65*, p. 4.

²⁵ Royal Commission into National Natural Disaster Arrangements, *Interim Observations*, 31 August 2020, p. 24.

²⁶ Ecological Society of Australia, *Submission 73*, p. 8.

²⁷ Ecological Society of Australia, *Submission 73*, p. 5.

ecological monitoring was 'key to improving our understanding of the impact of fire on the natural environment'.²⁸

- 5.22 Further, a recent report by the Organisation for Economic Co-operation and Development (OECD) found that the monitoring of status and trends of ecosystems and species in Australia was 'patchy, time-limited and generally inadequate'. The OECD also drew attention to the fact that a number of strategies and monitoring efforts in Australia had ceased, and called for national approach to biodiversity monitoring. For example:

A commitment in the 2010 Commonwealth-State National Biodiversity Conservation Strategy, to develop a national biodiversity monitoring and reporting system has largely been abandoned. Previous monitoring efforts such as the River Health Program and the Wetlands Inventory have also been discontinued... Significant additional effort, including funding, is needed to progress towards a national, comprehensive biodiversity monitoring and reporting system that can inform Commonwealth, state and territorial policy decisions and priority setting.²⁹

- 5.23 The extent of the 2019–20 bushfires created many challenges, particularly in assessing and evaluating environmental impacts. As the fires burned areas previously unaffected by fire, it became difficult to estimate the environmental impacts due to a lack of baseline data.
- 5.24 For example, the Ecological Society of Australia stated that '[m]any post-fire assessments of the likely impact of these mega-fires on biodiversity were based on 'best guesses' rather than empirical evidence ... as most impacted species had never been monitored in relation to fire impacts'.³⁰
- 5.25 Additionally, there are limitations on the ability to monitor ecosystems and individual species effectively before, during and post-bushfire. Some of these limitations include the remote locations of native species and the human risk factor involved in animal monitoring activities.
- 5.26 Furthermore, at a public hearing of the Senate Environment and Communications References Committee, Professor David Keith, Professor of Botany at the Centre for Ecosystem Science, University of New South Wales, advised that:

... for many of the individual species it's about estimating the population size and understanding what direction the trends are heading in. In many cases we need to be able to measure rates of reproduction and also rates of survival. That can be very challenging. In some species it's done reasonably practically. It can be expensive, although technology is helping to reduce those costs. But, fundamentally, we need to know how many

²⁸ Nature Conservation Society of South Australia, *Submission 65*, p. 4.

²⁹ Organisation for Economic Co-operation and Development, [OECD Environmental Performance Reviews: Australia 2019](#), p. 44.

³⁰ Ecological Society of Australia, *Submission 73*, p. 3.

individuals there are, where they are, and what the trends are, both before these events and the time after them, so that we can monitor recovery. As well as passively understanding what the trends are, we also need to understand the impact of the management actions that are being implemented and how effective they are so that we can adjust those as need be.³¹

Environment and wildlife recovery

5.27 While bushfires are a natural part of the Australian landscape to which many ecosystems and individual species have adapted, the intensity and severity of fires in recent years is reducing the capacity for ecosystems and species to respond and recover from bushfire.³²

5.28 Many submitters observed that the devastation that occurred to the environment and different species during the 2019–20 bushfires will take years and up to decades for the environment to recover from,³³ and others stated that some ecosystems will have likely changed forever.³⁴

5.29 A similar theme emerged during a public hearing of the Senate Environment and Communications References Committee, where Mr Evan Quarterman, Head of Programs at the Humane Society International stated that:

... it's clear that fires are becoming more severe with climate change and previously resilient ecosystems, like those on Kangaroo Island, are being pushed beyond their limits by the frequency with which fires are now hitting.³⁵

5.30 At this same public hearing, Associate Professor Mark Lintermans, Principal Research Fellow, Centre for Applied Water Science at the University of Canberra identified another key issue being that the environment is getting less chance to recover between fires, due to their increasing frequency. Associate Professor Lintermans continued that:

... If you have animal populations that are decimated by fire impacts, it may take them a decade or two to come back to some sort of normality. They won't return to their pristine state... The fires in the upper Cotter, which I'm dealing with now, burnt in 2003, and they burnt again this year.

³¹ Professor David Keith, Professor of Botany, Centre for Ecosystem Science, University of New South Wales, *Senate Environment and Communications References Committee Hansard*, 28 August 2020, p. 17.

³² HVP Plantations, *Submission 82*, p. 15; Science and Technology Australia, *Submission 103*, p. 7; Australian Institute of Architects, *Submission 131*, p. 16; Mr Benjamin Cronshaw, *Submission 38*, p. 1; Nature Conservation Society of South Australia, *Submission 65*, p. 1.

³³ See for example Nature Conservation Society of South Australia, *Submission 65*; Gippsland Apiarist Association, *Submission 96*.

³⁴ Science and Technology Australia, *Submission 103*, p. 4.

³⁵ Mr Evan Quarterman, Head, Programs, Humane Society International, *Senate Environment and Communications References Committee Hansard*, 28 August 2020, p. 23.

The impacts from those fires are much more severe this year. I'm not sure whether that's because the fire was a lot worse or the environment was a lot more fragile because of the previous fire. They are the sorts of questions that we have to tease out.³⁶

Recovery and rehabilitation

5.31 Many submitters, such as the Nature Conservation Society, the Foundation for Rural and Regional Renewal and the Australian Academy of Science, advocated for environment and wildlife recovery and rehabilitation to be a central part of the recovery process for the 2019–20 bushfires, as well as for preparation for future bushfire seasons.³⁷

5.32 However, a number of submitters to the inquiry took the view that there is an inadequate level of resourcing for wildlife rescue and care, with a heavy reliance on a volunteer network.

5.33 For example, Animals Australia noted that there was a lack of resourcing available to address the needs of animals during a natural disaster. Animals Australia went on to highlight the key role of volunteers, saying that:

The volunteer wildlife care community in Australia is one of the most dedicated and under-acknowledged areas of community service. Their role in caring for and rehabilitating wildlife is an invaluable one. However, numbers of animals coming into their care post the Bushfires were minimal due to the lack of search and rescue operations in the days, weeks and months post the fires.³⁸

5.34 Gecko Environment Council echoed these concerns in their submission, observing that there is:

... limited ability to locate and provide care and rehabilitation for injured wildlife. There was little to no support for wildlife carers to locate and rescue injured animals to deal with their treatment and rehabilitation ... At present all of these measures are left to wildlife care volunteers and some research institutions who mainly pay the costs of such care out of their own pockets or rely on donations and the generosity of veterinary staff willing to give their expertise free of charge.³⁹

5.35 This sentiment was also expressed in a hearing of the Senate Environment and Communications References Committee. In responding to questions from the committee regarding the impact of bushfires on wildlife care and

³⁶ Associate Professor Mark Lintermans, Principal Research Fellow, Centre for Applied Water Science, University of Canberra, *Senate Environment and Communications References Committee Hansard*, 28 August 2020, p. 7.

³⁷ See, for example: Nature Conservation Society of South Australia, *Submission 65*; Foundation for Rural and Regional Renewal, *Submission 92*, p. 5; Australian Academy of Science, *Submission 122*.

³⁸ Animals Australia, *Submission 90*, pp. 3, 4.

³⁹ Gecko Environment Council, *Submission 88*, p. 5.

rehabilitation, Mr Quarterman from the Humane Society International stated that:

... sectors such as wildlife rehabilitation, which are largely volunteer based and have been running on the smell of an oily rag for decades, are being pushed to their absolute limit in the need to respond to the suffering that these natural disasters cause to our fauna.⁴⁰

- 5.36 From the evidence received by the committee, it is clear that there is a dominant role of charities and volunteer work involved in the care and rehabilitation of animals during and post bushfire.

The impact of logging on post-fire recovery

- 5.37 Another significant impediment to effective wildlife and environmental recovery is the role of post-fire logging.

- 5.38 The Australian Academy of Science (AAS) submitted that 'many decisions soon after major disasters are made in a crisis management mode', and therefore may not be 'good, evidence-based decisions'. The AAS pointed to post-fire logging as an example of this, saying that 'the rapid decision to conduct post-fire (salvage) logging in protected areas' could:

... have long-lasting negative impacts on ecosystem integrity and on biodiversity, including on species listed under the EPBC [Environment Protection and Biodiversity Conservation] Act. A better model is for governments to plan for environmental decisions after natural disasters well before events take place. This is critical in the context of the EPBC Act, as some species and ecosystems can shift from low risk to high risk very quickly following large-scale natural disasters.⁴¹

- 5.39 It was recently reported that '[g]overnment logging has resumed in fire-damaged forests in NSW' and in East Gippsland.⁴² In her submission, Ms Lesley Hodges discussed the impact of post-fire logging by state governments on wildlife, stating that:

... [m]ultiple independent, peer reviewed studies show logging forests after bushfires increases future fire risk and can render the forest uninhabitable for wildlife for decades or even centuries.⁴³

- 5.40 This issue has been reported several times in the media following the 2019–20 bushfires, in particular citing the research of landscape ecologist and conservation biologist Professor David Lindenmayer that:

⁴⁰ Mr Evan Quarterman, Head, Programs, Humane Society International, *Senate Environment and Communications References Committee Hansard*, 28 August 2020, p. 23.

⁴¹ Australian Academy of Science, *Submission 122, Attachment 1*, [p. 2].

⁴² Miki Perkins and Mike Foley, 'Logging returns to NSW native forests hit by bushfires', *Sydney Morning Herald*, 1 May 2020, www.smh.com.au/national/logging-returns-to-native-forests-hit-by-bushfires-20200501-p54ots.html (accessed 5 May 2020).

⁴³ Ms Lesley Hodges, *Submission 25*, p. 1.

... the science on the impacts of post-fire logging is clear: it can significantly impair the recovery of burned ecosystems, badly affect wildlife and, for some animal species, prevent recovery.⁴⁴

Wildlife and Threatened Species Bushfire Recovery Expert Panel

- 5.41 In response to the devastation on the environment during the 2019–20 bushfires, the Threatened Species Commissioner, Dr Sally Box, was tasked by the Minister for the Environment, the Hon Sussan Ley MP, with chairing the Wildlife and Threatened Species Bushfire Recovery Expert Panel (Expert Panel). The Expert panel was to advise the Minister of the immediate and longer-term actions required for species protection.⁴⁵
- 5.42 A provisional list, released by the Department of Agriculture, Water and the Environment on 24 March 2020, identified 119 animal species as the highest priorities for urgent management intervention.⁴⁶
- 5.43 The Expert Panel recognised that 'recovery will require not only immediate emergency needs but also long-term commitment and planning', and recommended a series of medium and long term responses, which are outlined in its March 2020 communiqué.⁴⁷
- 5.44 On 23 April 2020, the Expert Panel released a list of 471 plant species and 191 invertebrate species identified as the highest priorities for urgent management intervention to support recovery from the 2019–20 bushfires.⁴⁸

NSW Bushfire inquiry

- 5.45 The committee acknowledges that there are several inquiries ongoing into the 2019–20 bushfires. One such inquiry was established by the NSW Government. The inquiry commenced in January 2020 and reported on 31 July 2020, making 76 recommendations to the NSW Government.

⁴⁴ Professor David Lindenmayer and Dr Doug Robinson, 'Logging is due to start in fire-ravaged forests this week. It's the last thing our wildlife needs', *The Conversation*, 2 March 2020 <https://theconversation.com/logging-is-due-to-start-in-fire-ravaged-forests-this-week-its-the-last-thing-our-wildlife-needs-132347> (accessed 5 May 2020).

⁴⁵ Mr Andrew Metcalfe, Secretary, Department of Agriculture, Water and the Environment, *Senate Environment and Communications Legislation Committee Hansard*, 2 March 2020, p. 5.

⁴⁶ Department of Agriculture, Water and the Environment, *Revised provisional list of animals requiring urgent management intervention*, www.environment.gov.au/biodiversity/bushfire-recovery/priority-animals (accessed 4 May 2020).

⁴⁷ Wildlife and Threatened Species Bushfire Recovery Expert Panel, Meeting Communiqué, 11 March 2020.

⁴⁸ Department of Agriculture, Water and the Environment, *Provisional list of plants requiring urgent management intervention*, www.environment.gov.au/biodiversity/bushfire-recovery/priority-plants (accessed 4 May 2020).

5.46 The inquiry made two core recommendations in relation to wildlife and animal care during bushfires, as follows:

Recommendation 53

That Government develop and implement a policy on injured wildlife response, rescue and rehabilitation including:

- a) a framework for the co-ordination and interaction with emergency management structures
- b) guidelines for Incident Management Plans to include wildlife rescue and rehabilitation as a consideration
- c) a requirement for all vets and wildlife rescue volunteers to obtain the Bush Fire Awareness accreditation
- d) guidance for firefighters on handling injured wildlife

Recommendation 75

That, in order to improve support for people evacuating with animals, the Department of Primary Industries:

- a) work with Resilience NSW to develop evacuation protocols and procedures to ensure appropriate supports are provided for both people and animals (informed by the findings from Project Ohana⁴⁹), including a process for animal registration at evacuation centres and mutually agreed naming conventions, and provide this information to Local Emergency Management Committees (LEMCs)
- b) work with LEMCs to identify overflow sites that can be used for evacuated animals when preferred sites are full
- c) further develop the domestic pets evacuation protocol.⁵⁰

Funding for the environment and wildlife recovery

5.47 As discussed in earlier chapters, the Commonwealth Government plays a supporting role to the states and territories in bushfire recovery, which extends to the field of environment and wildlife recovery.

5.48 In January 2020, the Commonwealth Government announced the establishment of the National Bushfire Recovery Fund (NBRF). The fund has several priorities including support for the environment and native wildlife.⁵¹

⁴⁹ As part of funding for the NSW Community Resilience Innovation Program 2017-18, the Ohana Project looked to develop, pilot and evaluate a range of interventions that focus on engaging pet owners in the Illawarra and Shoalhaven region to plan and prepare for natural disasters. See www.emergency.nsw.gov.au/Pages/emergency-management/funding-programs/community-resilience/CRIP-program-2017-18.aspx (accessed 21 September 2020).

⁵⁰ New South Wales Government, *Final Report of the NSW Bushfire Inquiry*, 31 July 2020, pp. xvii, xx.

⁵¹ National Bushfire Recovery Agency, *Commonwealth Bushfire Relief and Recovery Funding Factsheet*, www.bushfirerecovery.gov.au/progress-to-date/funding (accessed 21 September 2020).

- 5.49 The Department of the Prime Minister and Cabinet highlighted two core programs that receive funding under the NBRF: the Bushfire Immediate Wildlife Rescue and Recovery Program, and new funding for Bushfire Recovery for Native Wildlife and Habitations.⁵² For the 2020–21 financial year, the Commonwealth Government has committed \$25.1 million and \$76.5 million for these programs respectively.
- 5.50 Further, on 13 January 2020, the Treasurer announced an initial \$50 million package for wildlife and habitat recovery. It was confirmed at Senate Estimates in March 2020 that the package was appropriated from the NBRF, with \$30 million of that funding allocated to the Environment Restoration Fund, \$7 million to the National Heritage Trust,⁵³ and the remaining \$13 million through the Treasury for payments to state governments.⁵⁴

Environment Protection and Biodiversity Conservation Act 1999

- 5.51 The Commonwealth Government's core statutory obligations regarding the environment and wildlife can be found in the *Environment Protection and Biodiversity Act 1999* (EPBC Act). The objectives of the EPBC Act are to:
- provide for the protection of the environment, especially matters of national environmental significance;
 - conserve Australian biodiversity;
 - provide a streamlined national environmental assessment and approvals process;
 - enhance the protection and management of important natural and cultural places;
 - control the international movement of plants and animals (wildlife), wildlife specimens and products made or derived from wildlife;
 - promote ecologically sustainable development through the conservation and ecologically sustainable use of natural resources;
 - recognise the role of Indigenous people in the conservation and ecologically sustainable use of Australia's biodiversity; and
 - promote the use of Indigenous peoples' knowledge of biodiversity with the involvement of, and in cooperation with, the owners of the knowledge.⁵⁵

⁵² Department of the Prime Minister and Cabinet, *Submission 70*, p. 14.

⁵³ Ms Emma Campbell, Acting First Assistant Secretary, Biodiversity Conservation Division, Department of Agriculture, Water and the Environment, *Senate Environment and Communications Legislation Committee Hansard*, 2 March 2020, p. 76.

⁵⁴ Mr Steve Costello, Assistant Secretary, Program Deliver Branch, Department of Agriculture, Water and the Environment, *Senate Environment and Communications Legislation Committee Hansard*, 2 March 2020, p. 76.

⁵⁵ Department of Agriculture, Water and the Environment, *About the EPBC Act*, no date, www.environment.gov.au/epbc/about#:~:text=The%20objectives%20of%20the%20EPBC,conserve

5.52 The government presented the Environment Protection and Biodiversity Conservation Amendment (Streamlining Environmental Approvals) Bill 2020 (the Streamlining Bill) to the House of Representatives on 27 August 2020, and the Bill passed the House on 3 September 2020 without debate.⁵⁶

5.53 Several submitters to this inquiry commented on the need to enhance environmental and wildlife protection under the provisions of the EPBC Act, as well as enabling the EPBC Act to better incorporate and plan for bushfires and other disaster risks.⁵⁷

5.54 For example, in its submission, the Gecko Environment Council recommended that:

The Department of the Environment ... through the EPBC Act, could play a stronger role in declaring land clearing as a key threatening process to biological diversity viability. All sectors, government and non-government, involved in preparing for and responding to bushfires need to be fully briefed on the importance of biodiversity on our nation's physical, social and economic viability.⁵⁸

5.55 Other submitters noted the need for the EPBC Act to:

- enable rapid responses to environmental impacts caused by bushfires;
- list emergency triggers and include a natural disaster environmental response strategy within the EPBC Act;
- review the listing of fire regimes as a potential threatening process; and
- consider the impacts of the recent bushfires on 'matters of national environmental significance'.⁵⁹

5.56 Further, HVP Plantations discussed the difficulty interpreting the various requirements of the legislation across all levels of government, noting that the EPBC Act and:

[s]tate government legislation often cause confusion by referring to the same vegetation communities by different names and it is even possible for different penalties to be imposed for the same infringement under each

<https://www.environment.gov.au/biodiversity/conservation/amendment/bill/2020/streamlining-environmental-approvals> (accessed 21 September 2020).

⁵⁶ Parliament of Australia, Environment Protection and Biodiversity Conservation Amendment (Streamlining Environmental Approvals) Bill 2020, <https://parlinfo.aph.gov.au/parlInfo/search/display/display.w3p;query%3DId%3A%22legislation%2Fbillhome%2F6582%22> (accessed 21 September 2020).

⁵⁷ See for example: Gecko Environment Council, *Submission 88*, p. 5; Ms Ashleigh Best, Professor Christine Parker and Professor Lee Godden, Melbourne Law School, *Submission 105*, p. 11; Australian Academy of Science, *Submission 122*, p. 2.

⁵⁸ Gecko Environment Council, *Submission 88*, p. 5

⁵⁹ See for example: Gecko Environment Council, *Submission 88*, p. 5; Ms Ashleigh Best, Professor Christine Parker and Professor Lee Godden, Melbourne Law School, *Submission 105*, p. 11; Australian Academy of Science, *Submission 122*, p. 2; Dr Tony Bartlett, *Submission 139*.

State and Commonwealth Act. Governments need to develop a clear framework for implementation and hierarchy of legislation to guide fuel management and firefighting activities.⁶⁰

Independent statutory review

5.57 A statutory independent review of the EPBC Act by Professor Graeme Samuel AC commenced in October 2019 and is due to present its final report in October 2020.

5.58 An interim report was released in June 2020 and provided core findings in relation to the 2019–20 bushfires and environmental and wildlife protection. The interim report highlighted several gaps in bushfire response and recovery, similar to those identified in submissions.

5.59 The interim report of the review into the EPBC Act discussed the issue of environmental data and noted that a number of government-funded initiatives had sought to deliver 'greater coordination and standardisation of environmental data'. However, despite these efforts:

... governments often must resort to negotiating case-by-case data licensing and sharing, rather than having data-sharing agreements and systems that can talk with each other. The collation of information on the impacts of the 2019/20 bushfires on the environment is an example of this.⁶¹

5.60 Further, the interim report noted the current strategic gaps in the implementation of the EPBC Act and issues in regards to funding efforts for environment and wildlife protection and conservation:

The Act is limited in its ability to strategically conserve biodiversity, manage key threats or quickly respond to emerging threats such as bushfires, biosecurity incursions or other natural disasters.

... funding is often scattergun, unreliable and short-term and funding cycles do not support an enduring, focused or prioritised approach. The EPBC Act does not refer to climate change or explicitly require consideration of future pressures. There is no avenue for an emergency listing of newly threatened species in response to natural disasters such as the 2019/20 bushfires.⁶²

Committee views

5.61 The devastating impact of the fires on the environment and on wildlife is difficult to fathom. The loss of three billion animals due to the 2019–20 bushfire season is overwhelming and distressing.

⁶⁰ HVP Plantations, *Submission 82*, p. 9.

⁶¹ Independent review of the EPBC Act, [Interim Report](#), June 2020, p. 73.

⁶² Independent review of the EPBC Act, *Interim Report*, June 2020, pp. 21–22.

- 5.62 The evidence provided to the committee thus far has shown that there are ways for the government to better support and care for animals and wildlife in need, and to better protect the environment from natural disaster risk. There is a clear need for better data collection across the board, highlighted by the fact there was no baseline data going into the 2019–20 bushfire season, and that it is still hard to quantify the total impact of the Black Summer fires on both flora and fauna. Data collection is a matter that the committee will consider as it continues its inquiry.
- 5.63 In addition, and in light of the findings of the interim report and the evidence gathered by the committee, it is clear that there are significant gaps in the current environmental and wildlife protection legislation, and disparities between jurisdictions.
- 5.64 However, the committee is greatly concerned that the Streamlining Bill was presented to the House of Representatives for its consideration, while the independent review of the EPBC Act remains ongoing. Further, the fact that both debate and amendments to the Bill were prevented from occurring in the chamber raises considerable alarm.
- 5.65 The final independent report of the EPBC Act will help to establish how the Commonwealth can be better protect Australia's natural environment and wildlife from bushfires, and to recover from natural disasters. Given the utter devastation experienced over the 2019–20 summer, the committee is of the strong view that the independent review should be completed before any amendments are made to existing legislation.
- 5.66 In addition, the committee strongly suggests that the government allow for full parliamentary consideration and debate on any proposed amendments to the EPBC Act, both already before the parliament and those arising from the review.

Chapter 6

National aerial firefighting capacity

- 6.1 Aerial firefighting is one of the most significant tools available to help contain and control bushfires. As was noted by the Royal Commission into National Natural Disaster Arrangements (Royal Commission), aerial firefighting can help to 'gather information, to apply retardant to reduce the progression and intensity of the bushfires, and to move emergency responders to strategic locations'.¹
- 6.2 This chapter considers the evidence received regarding the role of aerial firefighting in the 2019–20 bushfire season, and the arrangements for the provision of aerial firefighting resources in Australia.
- 6.3 It also details the funding arrangements for Australia's aerial firefighting fleet, and the arguments put forward in support of an expanded and permanent aerial sovereign firefighting capacity.

Australia's aerial firefighting fleet

- 6.4 The National Aerial Firefighting Centre (NAFC) is a business unit of the Australasian Fire and Emergency Service Authorities Council (AFAC), formed in 2003 to 'provide a cooperative national arrangement for the provision of aerial firefighting resources for combatting bushfires'.²
- 6.5 There are more than 140 aircraft available to the NAFC, to be directed to where needed and contracted on behalf of state and territory governments. The NAFC aircraft are in addition to those owned by the states, and other aircraft hired to meet peak demand across Australia. In total, more than 500 aerial firefighting aircraft are available, provided by over 150 operators across Australia.³
- 6.6 The AFAC explained that the NAFC was responsible for coordinating the leasing of a national fleet of specialised firefighting aircraft on behalf of state and territory emergency services, and that the NAFC:

... facilitates the sharing of these aircraft between states and territories during the fire season, by maintaining a resource sharing agreement. The collaborative arrangements for the national aerial firefighting fleet have

¹ Royal Commission into National Natural Disaster Arrangements, *Interim observations*, 31 August 2020, p. 20.

² Australasian Fire and Emergency Service Authorities Council, *Submission 50*, p. 10.

³ The Hon David Littleproud MP and the Hon Scott Morrison MP, 'Australia's aerial firefighting capability', *Media Release*, 12 December 2019, <https://minister.homeaffairs.gov.au/davidlittleproud/Pages/australia-aerial-firefighting-capability.aspx> (accessed 17 September 2020).

been instrumental in protecting communities and saving lives and property over past bushfire seasons.⁴

- 6.7 In order to procure aircraft, the NAFC uses an approved public tender process with a standard contract term of three years, with options for limited extension. The contract guarantees that the service will be in place for three years, with the NAFC procuring 'all aircraft on behalf of member agencies, who determine the type of aircraft and timeframe each aircraft is required'.⁵
- 6.8 Under a funding agreement, the Commonwealth Government contributes through the NAFC in the order of \$15 million annually towards the fixed costs of making the contracted national fleet available. State and territory government agencies then utilise the contracted aircraft for bushfire suppression, meeting all of the operational costs.⁶

Aerial firefighting resources

- 6.9 The Royal Commission's interim observations noted that there was a variety of aircraft utilised in aerial firefighting. This included:
- large and very large air-tankers (LATs and VLATs), which have a large load capacity and can travel relatively long distances at speed, across Australia; and
 - smaller aerial assets including helicopters and small fixed-wing aircraft—which have a smaller load capacity but can operate 'at higher rates of effort in local responses and from regional locations'.⁷
- 6.10 The Department of Home Affairs (Home Affairs) advised that of the 152 aircraft contracted for 2020–21, 90 per cent normally reside in Australia. However, the remaining 10 per cent which will be sourced from overseas tend to be LATs and heavy helicopters.⁸
- 6.11 The Royal Commission drew attention to the fact that there are only a small number of LATs and VLATs in operation globally, and that most of these were based in North America; New South Wales (NSW) currently has the only LAT permanently located in Australia.⁹

⁴ Australasian Fire and Emergency Service Authorities Council, *Submission 50*, p. 10.

⁵ Department of Home Affairs, answers to questions taken on notice, 27 May 2020 (answers received 19 June 2020).

⁶ Australasian Fire and Emergency Service Authorities Council, *Submission 50*, p. 10.

⁷ Royal Commission into National Natural Disaster Arrangements, *Interim observations*, 31 August 2020, p. 21.

⁸ Department of Home Affairs, answers to questions taken on notice, 12 August 2020 (answers received 31 August 2020).

⁹ Royal Commission into National Natural Disaster Arrangements, *Interim observations*, 31 August 2020, p. 21.

- 6.12 The AFAC advised of the number of aircraft that were available during the 2019–20 bushfire season, stating that:

For the 2019–20 bushfire season the regular aerial firefighting fleet leased through NAFC initially comprised 147 aircraft services across the country – a mixture of fixed wing aircraft and helicopters. At the request of states and territories, additional contracted aircraft services were added over the course of the season to a total of 166.¹⁰

- 6.13 In relation to the LATs used during the 2019-20 bushfire season, the AFAC advised that:

... NAFC initially contracted a total of four LATs on behalf of states and territories. Subsequently, a further two LATs were engaged at the request of NSW. During January 2020, additional funding of \$20 million was provided by the Australian government and a further four LATs were engaged across the country, bringing the total LATs in the country to eleven (ten contracted, plus one owned by NSW).¹¹

- 6.14 Emergency Leaders for Climate Action (ELCA) drew attention to a limitation in Australia's aerial firefighting response, observing that 'Australian fire services at present use small and large fixed wing water bombers, but not medium sized, a clear gap in capabilities'.¹² ELCA recommended that:

... as a condition of receiving a portion of Australian Government annual funding support, the National Aerial Firefighting Centre be required to conduct a trial, in consultation with the Royal Australian Air Force and Australasian Council of Fire and Emergency Service Authorities Council, of CL415 amphibious water-scooping aircraft in a first attack / direct attack firefighting role ... [which are] used extensively and successfully in most other fire-prone countries.¹³

- 6.15 Another gap in capabilities was identified by Mr Robert Cameron, Director-General of Emergency Management Australia (EMA), who voiced concerns about the fact that Australia sources firefighting retardant from the United States. Mr Cameron suggested that in the event of 'tremendous demand for aerial firefighting', both the single-source nature of the supply, and the length of the geographic supply chain could leave Australia vulnerable. Mr Cameron was of the view that:

... were there to be onshore manufacturing to complement the existing supply arrangements, the issue of vulnerability of the supply chain would be somewhat resolved.¹⁴

¹⁰ Australasian Fire and Emergency Service Authorities Council, *Submission 50*, p. 18.

¹¹ Australasian Fire and Emergency Service Authorities Council, *Submission 50*, p. 18.

¹² Emergency Leaders for Climate Action, *Submission 36*, p. 12.

¹³ Emergency Leaders for Climate Action, *Submission 36*, p. 12.

¹⁴ Mr Robert Cameron, Director-General, Emergency Management Australia, *Proof Committee Hansard*, 12 August 2020, p. 31.

Funding of the aerial firefighting fleet

6.16 Since 2015–16, the Commonwealth Government's annual contribution to the NAFC has been as follows:

- 2015-16 - \$14.804 million and an additional one off payment \$500 000
- 2016-17 - \$14.804 million
- 2017-18 - \$14.804 million
- 2018-19 - \$14.813 million and an additional one off payment \$11 million which was provided in December 2018.¹⁵

Funding during the 2019–20 bushfire season

6.17 On 12 December 2019, the Hon Scott Morrison MP, Prime Minister, announced an additional one-off payment of \$11 million to the NAFC.¹⁶ It was noted that at the time of this payment, the fire season had already begun, and there were 'challenges and time lags sourcing appropriate air tankers from the northern hemisphere'.¹⁷

6.18 Home Affairs, in a response to a question on notice, advised that the additional \$11 million funding provided to the NAFC in 2019-20 was to 'solely contribute to the fixed costs of leasing aerial firefighting aircraft'.¹⁸

6.19 On 4 January 2020, the Prime Minister announced that, following a request from the AFAC, \$20 million would be allocated for the leasing of four water-bombing aircraft. These aircraft would include:

... two long-range fixed wing DC-10s with 36,000 litres capacity and two medium-range fixed-wing Large Air Tankers with 11,000 litre capacity. The Commonwealth will fully fund the leasing costs with operational costs to be shared with states and territories as usual.¹⁹

¹⁵ Department of Home Affairs, answers to questions taken on notice, Senate Legal and Constitutional Affairs Committee Supplementary Budget Estimates, 21 October 2019 (received 6 December 2019).

¹⁶ The Hon Scott Morrison MP, Prime Minister of Australia, the Hon David Littleproud MP, Minister for Water Resources, Drought, Rural Finance, Natural Disaster and Emergency Management, 'Boost for Australia's Aerial Firefighting Capability', *Media Release*, 12 December 2019.

¹⁷ Anna Henderson, 'Federal Government rejected aerial fire fighting requests ahead of bushfires 'due to other priorities'', *ABC News*, 15 August 2020, www.abc.net.au/news/2020-08-15/government-extra-air-support-ahead-of-bushfires/12554300 (accessed 21 September 2020).

¹⁸ Department of Home Affairs, answers to questions on notice, 12 August 2020 (received 31 August 2020).

¹⁹ The Hon Scott Morrison MP, Prime Minister of Australia, 'Bushfire relief and recovery', 4 January 2020, *Media Release*, <https://www.pm.gov.au/media/bushfire-relief-and-recovery> (accessed 20 September 2020).

- 6.20 Mr Richard Alder, General Manager of the NAFC, was reported conceding that leasing the aircraft in this way and at short notice meant they were more expensive than they would have been otherwise.²⁰

Ongoing funding arrangements

- 6.21 Aerial firefighting funding and capacity was identified by some submitters as an issue in terms of preparedness for the 2019–20 bushfire season. Submitters called for the Commonwealth Government to support aerial firefighting capabilities, through effective funding to significantly increase the capacity for the deployment of aerial firefighting resources, especially in remote areas.²¹
- 6.22 The question of funding was first raised in a 2016 Senate inquiry into the Tasmanian wilderness fires, when the NAFC noted in its submission that Australian Government funding was:

... forecast to diminish in real terms, whereas the cost of providing aerial resources will rise. This may lead to a reduction in access to aerial resources in the future.

Firefighters are likely to face extended, hotter fire seasons in the future, with more days of extreme fire danger. Along with changing demographics and land use pattern, this is likely to increase demand for aerial firefighting resources....²²

The AFAC Business Case

- 6.23 A February 2018 business case from the AFAC, which was presented to EMA in May 2018, called for an increase in the annual funding of the NAFC from \$14.8 million to \$25.57 million. Specifically, the business case requested nearly \$11 million in additional annual funding (in addition to the annual funding base of \$15 million), comprising of:

- \$1.125 million to acknowledge the loss in values of the Commonwealth contribution due to inflation;
- \$2.162 million due to unfavourable movement in foreign exchange;
- an acknowledgement of the key role of LATs and VLATs which required a Commonwealth contribution to ensure continuity of service;

²⁰ Will Jackson and Andrew Greene, 'Big water-bombing aircraft en route to Australia to fight fires delayed by international disasters', *ABC News*, 15 January 2020, www.abc.net.au/news/2020-01-15/firefighting-aircraft-delayed-by-international-disasters/11869676 (accessed 20 September 2020).

²¹ Nature Conservation Society of South Australia, *Submission 65*, p. 3. See also, Extinction Rebellion Grey Power Victoria, *Submission 87*, p. 4; Dr Sarah Waddell, *Submission 75*, p. 4; Durras Community Association NSW, *Submission 29*, p. 4. See also: Senate Environment and Communications References Committee, *Responses to, and lessons learnt from, the January and February 2016 bushfires in remote Tasmanian wilderness*, December 2016, p. vii.

²² National Aerial Firefighting Centre, *Submission 18: Inquiry into Responses to, and lessons learnt from, the January and February 2016 bushfires in remote Tasmanian wilderness*, Senate Environment and Communications References Committee, p. 4.

- \$7.487 million to fund a national LAT and VLAT capability in the next funding agreement, commencing 1 July 2018; and
 - agreement that the future funding agreement not specify individual aircraft, allowing the NAFC greater flexibility in adjusting its fleet.²³
- 6.24 On 6 December 2019, Home Affairs, in answer to a question on notice, indicated that the Commonwealth Government was still considering the NAFC's request made in 2018 for a permanent increase in funding.²⁴
- 6.25 It was later reported that the Commonwealth Government had rejected the 2018 business case from the NAFC and its call for an ongoing increase in funding, rather than one-off funding allocations. The business case was rejected due to 'other priorities within government'.²⁵
- 6.26 Mr Cameron of EMA confirmed to the committee that the decision of government at the time was to decline the request for additional annual funding, and that one-off payments were instead made in the two previous financial years.²⁶
- 6.27 The AFAC noted that while the business case had resulted in the one-off payment of \$11 million in 2018-19, it did not address:
- ... the systemic funding shortfalls that have developed since the inception of the 'dollar for dollar' funding arrangement in 2003 between NAFC and the Commonwealth.
- In particular, supporting the funding of Large Air Tankers (LATs) establishes a national capability for heavy lift aerial firefighting, deployable across Australia at short notice.²⁷
- 6.28 On 4 January 2020, the Prime Minister announced a permanent increase of \$11.4 million to the annual funding of the NAFC from 2021, on an ongoing basis.²⁸

²³ Department of Home Affairs, answers to questions on notice, 27 May 2020 (answers received 19 June 2020).

²⁴ Department of Home Affairs, answers to questions taken on notice, Senate Legal and Constitutional Affairs Committee Supplementary Budget Estimates, 21 October 2019 (received 6 December 2019).

²⁵ Anna Henderson, 'Federal Government rejected aerial fire fighting requests ahead of bushfires 'due to other priorities'', *ABC News*, 15 August 2020, <https://www.abc.net.au/news/2020-08-15/government-extra-air-support-ahead-of-bushfires/12554300> (accessed 17 September 2020).

²⁶ Mr Robert Cameron, Director-General, Emergency Management Australia, *Committee Hansard*, 27 May 2020, p. 31.

²⁷ Australasian Fire and Emergency Service Authorities Council, *Briefing: Hon David Littleproud MP, Minister for Water Resources, Drought, Rural Finance, Natural Disasters and Emergency Management*, 6 August 2019, p. 1, available at: www.homeaffairs.gov.au/foi/files/2020/fa-200100565-documents-released-part-2.pdf (accessed 20 September 2020).

- 6.29 On 13 May 2020, the Minister for Emergency Management, the Hon David Littleproud MP, advised that the \$11 million announced was in addition to the \$15 million provided each year for aerial firefighting, and noted that:

The additional funding to the National Aerial Firefighting Centre will increase the length of existing lease arrangements and/or the number of contract opportunities available to aircraft owners/operators.

These aircraft, contracted on behalf of state and territory governments, are supplemented by additional state owned, and state contracted aircraft and other aircraft hired to meet peak demand across Australia.²⁹

- 6.30 The National Bushfire and Climate Summit recommended, in its Australian Bushfire and Climate Plan, that the Commonwealth Government should 'increase the funding available for more aircraft to enable rapid detection and rapid attack strategies'.³⁰

Leasing of the aerial firefighting fleet

- 6.31 In addition to the issue of funding, evidence to the inquiry also suggested that the leasing of aerial firefighting aircraft each bushfire season was adversely impacting on resourcing levels and increasing costs.

- 6.32 The NAFC observed that none of its contracted aircraft are leased directly from overseas companies. Rather, the NAFC contract with Australian companies, and 'overseas sourced aircraft are leased from either ... American or Canadian companies by an Australian company which then leases them to the NAFC'.³¹

- 6.33 Home Affairs put it to the committee that leasing of aircraft between the northern and southern hemispheres had 'proven to be cost-effective', while allowing for flexibility and the 'scaling and timing of resource availability to suit risk'. In relation to leasing costs, Home Affairs advised that there could be wide variations depending on, for example:

... the type of aircraft, length of contract, and crewing arrangements. For an aircraft normally contracted for a typical 90 day engagement each year to be retained in Australia and be available for 300 days (allowing for periods of heavy maintenance), the total annual standing cost would be

²⁸ Ms Cath Patterson, Acting Deputy Secretary, Department of the Prime Minister and Cabinet, *Senate Finance and Public Administration Legislation Committee Hansard*, 2 March 2020, pp. 67–68.

²⁹ The Hon David Littleproud MP, Minister Agriculture, Drought and Emergency Management, 'Increased aerial support for Australia during bushfire season', *Media Release*, 13 May 2020, <https://minister.homeaffairs.gov.au/davidlittleproud/Pages/increased-aerial-support-bushfire-season.aspx> (accessed 18 September 2020).

³⁰ Emergency Leaders for Climate Action and the Climate Council, *Australian Bushfire and Climate Plan: Final Report of the National Bushfire and Climate Summit 2020*, p. 22.

³¹ Department of Home Affairs, answers to questions taken on notice, 12 August 2020 (answers received 31 August 2020).

around \$5 million for 300 days in comparison to \$2.5 million for 90 days. These figures exclude operating costs.³²

6.34 The Royal Commission's interim observations drew attention to the overseas leasing model, and noted the limitations of this approach:

As fire seasons in both hemispheres increase in length and intensity, and other global issues arise, there is a risk that it will become increasingly difficult to secure overseas aircraft to provide contracted services during the Australian bushfire season.³³

6.35 During the 2019–20 bushfire season the limitations of leasing aircraft was observed. A number of events meant that Australia could not rely on aircraft from overseas to assist with the firefighting efforts. For example:

- a fleet of water-scooping planes from Canada were not requested by Australia until December 2019, by which time they were grounded in Canada due to icy conditions;³⁴ and
- following the announcement on 4 January 2020 of \$20 million to lease four air tankers from the US, the arrival of two of the four tankers from the United States was delayed due to tornadoes in Alabama and an erupting volcano in the Philippines.³⁵

6.36 The AFAC pointed out that 'NAFC believes that there is merit in considering alternative leasing and ownership provisions of LAT, to ensure more secure availability over an extended fire season.'³⁶ ELCA, on the other hand, put forward their view that:

Australia has insufficient aerial firefighting resources, there has been insufficient research into the effectiveness and efficiency of various aerial platforms, that there is a concerning growth in reliance on large and very large aircraft, and that there is an identified gap in the current mix of aerial firefighting resources.³⁷

³² Department of Home Affairs, answers to questions taken on notice, 12 August 2020 (answers received 31 August 2020).

³³ Royal Commission into National Natural Disaster Arrangements, *Interim observations*, 31 August 2020, p. 21.

³⁴ Ashlynn McGhee and James Elton, 'Firefighting planes from Canada iced in and unable to get to Australia', *ABC News*, 16 January 2020, www.abc.net.au/news/2020-01-16/bushfire-fighting-planes-unable-to-get-to-australia-from-canada/11871384 (accessed 20 September 2020).

³⁵ Will Jackson and Andrew Greene, 'Big water-bombing aircraft en route to Australia to fight fires delayed by international disasters', *ABC News*, 15 January 2020, www.abc.net.au/news/2020-01-15/firefighting-aircraft-delayed-by-international-disasters/11869676 (accessed 20 September 2020).

³⁶ Australasian Fire and Emergency Service Authorities Council, *Submission 50*, p. 18.

³⁷ Emergency Leaders for Climate Action, *Submission 36*, p. 54.

The need for a sovereign fleet

6.37 There was support expressed during the inquiry for the establishment of a permanent, Australian-based aerial firefighting fleet, in order to address the concerns around a lack of appropriate resourcing during bushfire seasons, and the high cost of leasing arrangements. It was also noted that the lengthening fire seasons across the globe were utilising limited aerial resources. Therefore, augmenting national aerial firefighting capacity was seen as a critical need by several submitters in light of the 2019–20 bushfire season.³⁸

6.38 Of interest to the committee were the Prime Minister's observations, made after the announcement on 4 January 2020 of an additional \$20 million funding to lease four LATs from overseas. In responding to concerns about the length of time it would take for the aircraft to arrive in Australia, the Prime Minister reportedly observed that:

What we need are waterbombers that meet the technical and specific requirements of the deployment in Australia... It's not a matter of just trying to hustle up some planes from somewhere around the world. What you need is the precise asset to deal with the situation in Australia...³⁹

6.39 The interim observations of the Royal Commission suggested the need for a reassessment of existing aerial firefighting capacities and capabilities. The Royal Commission indicated that this reassessment would need to be 'supported by research and evaluation to inform specific future capability needs'. This would include the:

... desirability for a modest, Australian-based sovereign VLAT/LAT capability. There may also be a need to explore contracting models that encourage Australian industry involvement in the development of future aerial firefighting capability.⁴⁰

6.40 The sentiments expressed by the Royal Commission were echoed by the National Bushfire and Climate Summit (the Summit), which concluded that there was a need to 'develop a self-sufficient aerial firefighting capability in Australia'. The Summit made the important point that this was particularly necessary given the lengthening of fire seasons globally which was 'restricting access to medium, large, and very large water bombing aircraft'.⁴¹

³⁸ Emergency Leaders for Climate Action, *Submission 36*, p. 29; Government of Western Australia, *Submission 135*, pp. 6–7; Mr Ange Kenos, *Submission 48*, p. 2; Extinction Rebellion Grey Power Victoria, *Submission 87*, p. 5.

³⁹ 'Bushfire response to be boosted by deployment of 3,000 ADF reservists, Prime Minister announces', *ABC News*, 4 January 2020, www.abc.net.au/news/2020-01-04/australia-defence-reservists-to-help-in-bushfire-recovery/11840764 (accessed 20 September 2020).

⁴⁰ Royal Commission into National Natural Disaster Arrangements, *Interim observations*, 31 August 2020, p. 21.

⁴¹ Emergency Leaders for Climate Action and the Climate Council, *Australian Bushfire and Climate Plan: Final Report of the National Bushfire and Climate Summit 2020*, p. 22.

- 6.41 The Summit further recommended that funding be increased for the training of local pilots, remarking that doing so would:

... reduce reliance on assets and personnel from the northern hemisphere which may be increasingly unavailable.⁴²

- 6.42 The sentiments expressed by the Summit were echoed by the Australian Federation of Air Pilots (AFAP), which called for Australian pilots to be trained to work on aerial firefighting missions to 'boost the country's capacity to tackle bushfires and reduce the need to bring in overseas pilots'. Further, the AFAP also supported the owning and operating of an Australian-based fleet of aerial firefighting aircraft.⁴³

- 6.43 The AFAC stated in its submission that the NAFC was working with states and territories to adopt an agreed national aerial firefighting strategy, which would aim to:

... consolidate a co-ordinated, collaborative approach to all elements of ensuring access to the capabilities that will be required in the future, including aircraft, people and supporting infrastructure and systems. A national fleet strategy and technology roadmap will be included in the strategy.⁴⁴

- 6.44 During a previous inquiry into the 2016 Tasmanian fires, the NAFC pointed to the benefit of deploying large fixed-wing air tankers to effectively assist in fire suppression operations, as they were 'extremely mobile and able to quickly deploy across the country or operate effectively in multiple jurisdictions in the one day'. The NAFC continued that:

Large fixed-wing airtankers are likely to be an important component of enhanced bushfire suppression capability in Australia. A shared, national large fixed-wing airtanker capability is logical and is an attractive strategy.⁴⁵

- 6.45 Dr Sarah Waddell offered her support for a national aerial firefighting fleet, and submitted that:

Rather than each State and Territory sourcing its own aerial firefighting force, it is likely to be more efficient to build a national force – one that is capable of moving between fire outbreaks in each State and Territory over a bushfire season. Medium-sized air tankers capable of scooping from

⁴² Emergency Leaders for Climate Action and the Climate Council, *Australian Bushfire and Climate Plan: Final Report of the National Bushfire and Climate Summit 2020*, p. 22.

⁴³ Jasper Lindell, 'Australians should be retrained for aerial bushfire missions, pilots' federation says', *Canberra Times*, 6 September 2020, www.canberratimes.com.au/story/6909761/australians-should-be-retrained-for-aerial-bushfire-missions-pilots-federation-says/ (accessed 20 September 2020).

⁴⁴ Australasian Fire and Emergency Service Authorities Council, *Submission 50*, p. 18.

⁴⁵ National Aerial Firefighting Centre, *Submission 18: Inquiry into Responses to, and lessons learnt from, the January and February 2016 bushfires in remote Tasmanian wilderness*, Senate Environment and Communications References Committee, p. 4.

water sources and landing at local air strips for manual filling can establish rapid turnaround and constant direct aerial attack.⁴⁶

- 6.46 Home Affairs detailed the cost of purchasing an LAT outright, rather than leasing:

Typical capital costs for purchasing a LAT would be between \$20 million and \$50 million, depending on nature and condition. Once purchased, the operational costs of making an aircraft available for firefighting need to be factored in (crewing, maintenance, insurance etc.). Hourly operating costs are more than likely to be somewhat less than for contract-leased aircraft, as there would be no need to factor in recovery of capital or a profit margin.⁴⁷

Committee views and recommendations

- 6.47 Across the country, the aerial firefighting fleet plays a vital and necessary role in attacking, controlling and extinguishing bushfires. The efficacy of aerial assistance in extinguishing fires has been proven over many years, and it is important that Australia ensures its capabilities will be sufficient in the future, especially in the context of a warming and changing climate.
- 6.48 The committee notes that in its submission, ELCA recommends that new, fast attack strategies for new fire outbreaks, particularly remote fires, should be introduced with clear containment objectives. Such fast attack strategies should involve rapid dispatch of suitable water bombing aircraft to achieve rapid containment of remote fires before they grow into the uncontrollable fires experienced in the 2019-20 fire season, which moved from remote areas to threaten populated urban areas.⁴⁸ The committee will further examine this possible attack strategy during the remainder of this inquiry.

Lack of adequate funding

- 6.49 The committee holds grave concerns over the apparent reluctance of the Commonwealth Government to properly and promptly fund Australia's aerial firefighting capacity. The committee is of the view that it should not have taken years for the government to take action in providing additional and more permanent funding to the NAFC.
- 6.50 The committee suggests that both a lack of funding, and funding provided too late, to such an important firefighting resource increases the risks faced by the Australian community.
- 6.51 The Commonwealth Government should be listening to the experts on these matters, and the experts made it clear that the funding needed to be increased,

⁴⁶ Dr Sarah Waddell, *Submission 75*, pp. 3–4.

⁴⁷ Department of Home Affairs, answers to questions taken on notice, 12 August 2020 (answers received 31 August 2020).

⁴⁸ Emergency Leaders for Climate Action, *Submission 36*, p. 53.

well ahead of the 2019–20 bushfire season. As was noted by Mr Greg Mullins, founder and member of ELCA, the 'funding for aircraft could have arrived sooner and actually have been put to good use'.⁴⁹

- 6.52 As the committee continues its work, it will take a keen interest in the funding arrangements for the NAFC, especially that the funding is commensurate with the increasing risks facing Australia from bushfires and natural disasters.

A sovereign Australian aerial firefighting fleet

- 6.53 The committee shares the views of various submitters—including government departments—that the lengthening of bushfire seasons, both here and around the world will have a direct, adverse impact on the availability of firefighting resources.⁵⁰
- 6.54 There are a number of clear limitations to the leasing arrangements currently in place, which will be exacerbated as fire seasons get longer and there are competing priorities for limited resources. Aircraft will not be able to get to Australia in time to assist, and, as the Prime Minister himself observed, 'precise assets' are needed to address the unique nature of bushfires in the Australian context.
- 6.55 Australia seemed particularly unprepared during the 2019–20 bushfire season with regard to the adequacy of its aerial fleet—which was also a direct result of the inadequate funding arrangements. The time is right for the Commonwealth Government to permanently increase aerial firefighting capabilities during bushfire seasons.
- 6.56 It also seems imperative that Australia develop an onshore manufacturing capability around firefighting retardant, rather than rely on a single, overseas source of product. The impact of COVID-19 on various supply chains highlights the necessity for Australia to ensure it can address natural disaster risk using its own resources. This would also allow for a more timely response to immediate dangers and threats, such as the upcoming bushfire season.
- 6.57 The committee therefore echoes the calls of those submitters who are calling for the establishment of a permanent, Australia-based aerial firefighting fleet that is resourced to the point where the reliance on overseas leasing arrangements is greatly reduced. There may also be long-term economic benefits to this approach.
- 6.58 Research and analysis should be conducted regarding the needs for a sovereign fleet, including the right mix between small and medium aircraft, and the need for a LAT and VLAT fleet to be maintained onshore.

⁴⁹ Mr Gregory Mullins, AO, AFSM, Member/Founder, Emergency Leaders for Climate Action, *Committee Hansard*, 27 May 2020, p. 2.

⁵⁰ As discussed in Chapter 1 of this report.

Recommendation 8

- 6.59** The committee recommends that the Commonwealth Government develop a business case to progress the establishment of a permanent, sovereign aerial firefighting fleet, which includes Large Air-Tankers and Very Large Air-Tankers, and small and medium-sized aircraft as appropriate.

Chapter 7

Insurance impacts of fires

- 7.1 This chapter considers the response of the insurance industry to the 2019-20 bushfires, the insurance losses associated with the fires and natural perils generally, and discusses the impact that the unaffordability of insurance can have on disaster preparedness, and ways that insurance affordability may be improved.
- 7.2 The chapter presents the views of various insurers on climate change mitigation and emissions reduction. Consideration is given to calls from the industry for greater Commonwealth government support for investment in mitigation infrastructure and for removal by the states and territories of duties and emergency service levies.
- 7.3 The chapter also considers the impact of severe and catastrophic weather events on the financial stability of the insurance industry, which is necessary for the industry to continue to contribute to the economic and social well-being of the country as climate change drives more frequent and more damaging severe weather events.

The cost of natural disasters

- 7.4 The rising economic cost of natural disasters, including bushfires, has been acknowledged by insurers, the broader financial sector and the Commonwealth Government.¹
- 7.5 In a recent Menzies Research Centre policy paper (Menzies policy paper) commissioned by the Insurance Australia Group (IAG), it was noted that the economic costs of disasters was increasing. The policy paper noted that, particularly since 2000, there had been an upwards trend in natural disaster costs. For example:

In 2013, the total economic costs of natural disasters in Australia was estimated to average around \$6.3 billion per year. By 2015, that the cost had risen to \$9.6 billion with the inclusion of social impacts of disasters. By 2017, the cost of natural disasters had risen to \$18.2 billion per year, equivalent to 1.2% of GDP, and was forecast to grow by 3.4 per cent per rising to \$39 billion by 2050 per year in real terms, even without considering the future impact of climate change. These rising costs reflect increased population growth, the increasing density of infrastructure and continuing migration to more vulnerable parts of the country.²

¹ Department of Home Affairs, *National Disaster Risk Reduction Framework* (NDRRF), p. 6.

² Insurance Australia Group, *Submission 110, Attachment 1* (Menzies Research Centre, *Strengthening resilience: Managing national disasters after the 2019–20 bushfire season*, April 2020), p. 8.

Economic performance of general insurers

- 7.6 In the March quarter of 2020, the Australian general insurance industry suffered its largest combined net loss after tax in recent memory. In addition, the financial performance of Australia's general insurers has become very volatile from year to year.³
- 7.7 Each quarter, the Australian Prudential Regulatory Authority (APRA) requires all general insurers to report their financial performance and APRA publishes the detailed financial performance data on its website.⁴
- 7.8 Financial performance data for the March 2020 quarter reveals that the general insurance industry suffered combined net after tax losses of \$1.011 billion. These losses were largely the result of combined and concurrent severe weather events in eastern Australia—the summer bushfires, hailstorms in January and an east coast storm event in February. Among other submitters and witnesses, IAG put compelling evidence before the committee that these severe weather events were driven by climate change.⁵
- 7.9 By comparison, in the March 2019 quarter, which included an Insurance Council of Australia declared insurance catastrophe associated with devastating floods in North Queensland, all APRA-mandated reporting general insurers reported combined net profits after tax of \$601 million.⁶
- 7.10 The four general insurers who appeared at the public hearing on 10 July 2020—IAG, Suncorp Group Limited, QBE Australia and Allianz Australia Limited—are an oligopoly controlling around 75 per cent of Australia's general insurance market.⁷ Between them, they suffered combined net after tax losses on their general insurance lines of \$721 million in the March 2020 quarter. IAG alone lost \$400 million. By comparison, in the March 2019 quarter the four companies reported combined net profits after tax on their general insurance lines of \$207 million.⁸
- 7.11 The most recent quarter during which there were no insurance catastrophes declared by the Insurance Council of Australia, and which was unaffected by

³ Mr Nicholas Scofield, Allianz Australia, *Committee Hansard*, 10 July 2020, p. 13.

⁴ Australian Prudential Regulation Authority, Quarterly General Insurance Statistics, <https://www.apra.gov.au/quarterly-general-insurance-statistics> (accessed 29 September 2020).

⁵ Insurance Australia Group and the National Center for Atmospheric Research (USA), *Severe Weather in a Changing Climate*, 1st ed., November 2019.

⁶ Australian Prudential Regulation Authority, Quarterly General Insurance Statistics.

⁷ Australian Prudential Regulation Authority, answers to questions on notice, *Senate Economics References Committee inquiry into the general insurance industry*, 10 August 2017.

⁸ Australian Prudential Regulation Authority, Quarterly General Insurance Statistics.

the COVID-19 pandemic, was the June quarter of 2019. In that quarter, the four major general insurers reported combined net after tax profits of \$822 million.⁹

- 7.12 The difference in the financial performance of the four major general insurers between a good quarter and a bad quarter can be nearly \$2 billion. The recent financial performance of Australia's major general insurers puts in stark relief the impact of climate change-driven severe weather on their profitability and financial stability.

Insurance claims made following the 2019–20 bushfires

- 7.13 Tens of thousands of insurance claims have been made as a result of the 2019–20 bushfire season. A number of insurance companies provided statistics to the committee, highlighting the significant volume of lodged claims.
- 7.14 The Insurance Council of Australia (ICA) advised that, as of 23 August 2020, there were 38 416 claims lodged, of which 68 per cent were domestic, and 32 per cent commercial. The estimated value of these claims was \$2.328 billion (with 62 per cent of this value being domestic, and 38 per cent commercial).¹⁰
- 7.15 On 27 August, the ICA issued a news release, with updated information on claims relating to the 2019–20 bushfires. The ICA advised that the following claims had been closed:
- 83.5 per cent of 9389 home building claims;
 - 93.7 per cent of 14 237 contents claims;
 - 88.5 per cent of 1613 domestic motor vehicle claims and 90.5 per cent of 1332 commercial vehicle claims; and
 - 81 per cent of 8737 commercial property claims and 81 per cent of 1285 business interruption claims.¹¹

The role of insurance in natural disasters

- 7.16 The insurance industry has a critical role to play in bushfire preparedness and response, climate change risk management and building community resilience.
- 7.17 Whether a policy holder is adequately insured can be a matter of life and death. In a 2010 report, the Senate Select Committee on Agricultural and Related Industries noted that a property owner's level of confidence in their insurance status could impact their decision-making during a bushfire event, and have significant impact on the risk to their lives. The report observed that:

⁹ Australian Prudential Regulation Authority, Quarterly General Insurance Statistics.

¹⁰ Insurance Council of Australia, answers to questions taken on notice, 10 July 2020 (received 14 September 2020).

¹¹ Insurance Council of Australia, [*News Release: \\$3.85 billion already paid in natural disaster claims as insurers overcome pandemic upheaval*](#), 27 August 2020 p. 2. The News Release noted that between the 2019–20 bushfires, the November 2019 and January 2020 hailstorms, and February 2020 floods, \$3.85 billion had been paid to customers.

Insurance is an integral part of bushfire risk management, not because it protects assets from being destroyed by fire, but because it has an important effect on the risks people are prepared to take to defend their properties. By providing property owners with the knowledge that their assets will be replaced in the event they are destroyed in a bushfire, adequate insurance cover encourages people to take sensible choices about self-protection in the critical moments of a bushfire disaster.¹²

7.18 Other benefits of adequate insurance have also been considered. For example, during a January 2020 conference, the Organisation for Economic Co-operation and Development (OECD) considered adaptation to a changing climate in the management of wildfires. The key role of insurance in addressing wildfire risk was discussed, and it was concluded that:

Insurance and other risk transfer mechanisms can both limit the financial exposure to wildfire risks and encourage preventative action. Governments and insurance regulators and supervisors will need to ensure that insurers continue to be able to play this role in the context of increasing wildfire risk.¹³

7.19 The Menzies policy paper outlined the benefits of insurance for individuals, the community, government and the economy, including:

- managing risk efficiently by allowing it to be shared or transferred;
- encouraging those who are insured to reduce the threat of loss through risk-weighted premiums;
- enhancing peace of mind;
- reducing the demand on governments to meet the cost of rebuilding after disaster strikes;
- promoting financial stability by pooling the cost of risk and spreading it over time;
- mobilising domestic savings;
- facilitating trade and commerce through risk mitigation; and
- supporting economic growth through the efficient allocation of capital and the development of financial services.¹⁴

Non-insurance and underinsurance

7.20 The issue of lack of insurance and underinsurance is longstanding, and has a direct impact on the ability of the community to respond to and prepare for future natural disasters.

¹² Senate Select Committee on Agricultural and Related Industries, *The incidence and severity of bushfires across Australia*, August 2010, pp. 101, 106.

¹³ Organisation for Economic Co-operation and Development (OECD), [*Meeting highlights: OECD/PLACARD Conference, January 16-17 2020, Paris*](#), January 2020, p. 3.

¹⁴ Insurance Australia Group, *Submission 110*, Attachment 1 (Menzies Research Centre, *Strengthening resilience: Managing national disasters after the 2019–20 bushfire season*, April 2020), p. 6; Business NSW, *Submission 112*, p. 2.

- 7.21 The National Insurance Brokers Association (NIBA) defined underinsurance as occurring when the sum insured 'is insufficient to enable full replacement of the damaged or destroyed property', or a commercial business. The NIBA also noted that underinsurance often only comes to light following a large-scale insurable event, such as the 2019–20 bushfires, and the rate of underinsurance was very difficult to estimate nation-wide.¹⁵
- 7.22 Representatives of the ICA informed the committee that, particularly in New South Wales (NSW), there were concerns about a high level of underinsurance. Early investigations by the ICA suggested that 'perhaps 10 or 11 per cent of properties that were a total loss may not have been insured'.¹⁶ The ICA later informed the committee of the difficulties in determining the rate of non-insurance, stating that:
- In order to accurately calculate the number of properties lost who did not have insurance, it is first necessary to have an accurate list of all properties lost (insured and non-insured) ... However, in the absence of an accurate list of all properties destroyed from state governments, it is not possible to identify those that were not covered [at] the time of the loss.¹⁷
- 7.23 The July 2018 findings of the Australian Capital Territory (ACT) Longitudinal Survey on Climate Change revealed 'low rates of insurance for extreme weather events'.¹⁸ Regarding the 2019-20 bushfire seasons, the Eurobodalla Shire Council observed the lack of sufficient insurance in their area:
- It reported that up to one third of people are not insured ... The lack of insurance places increased pressure on governments, not for profit groups and the broader community to provide financial support to those impacted by natural disasters.¹⁹

Approaches of insurance companies to climate change and climate-related disaster mitigation

- 7.24 A research report released in March 2020 by the Climate Change Authority stated that climate change risks for properties and infrastructure was increasingly a consideration for banks and insurance companies.²⁰ The report went on to state that:

¹⁵ National Insurance Brokers Association, *Submission 79*, p. 7.

¹⁶ Mr Karl Sullivan, Head of Risk and Operations, Insurance Council of Australia; Mr Robert Whelan, Executive Director and Chief Executive Officer, Insurance Council of Australia, *Proof Committee Hansard*, 10 July 2020, p. 24.

¹⁷ Insurance Council of Australia, answers to questions taken on notice, 10 July 2020 (received 14 September 2020).

¹⁸ ACT Council of Social Service, *Submission 78*, p. 6.

¹⁹ Eurobodalla Shire Council, *Submission 23*, p. 22.

²⁰ Climate Change Authority, [*Prospering in a low-emissions world: An Updated Climate Policy Toolkit for Australia*](#), March 2020, p. 25.

... markets tend not to adequately recognise and price climate-related risk because of a lack of information and short-termism in investment decision making. However, this is changing quickly as relevant tools become available and financial regulators divert more attention to the issue.²¹

- 7.25 A number of insurance companies have taken some action to respond to the risks of climate change through their underwriting and investment policies. For example, in July 2019, Suncorp announced that it would phase out its investments and insurance exposure to thermal coal by 2025, following announcements of similar commitments by QBE Australia (QBE) and Allianz Australia (Allianz). This meant that 'all of the Australian based insurance companies have now effectively committed to removing coal from their investment portfolios'.²²
- 7.26 In addition, both IAG and Suncorp welcomed the passing of legislation in October 2019 to establish the Emergency Response Fund, which provides for an additional \$50 million per year in Commonwealth mitigation funding, bringing 'total federal mitigation funding to \$76.1 million per annum'.²³

Suncorp

- 7.27 In their submission to the committee, Suncorp indicated that it had 'long held grave fears over Australia's lack of resilience and lack of preparedness for natural disasters', and called for action to urgently address the resulting risks. In that light, Suncorp argued strongly for climate change mitigation:

With climate change increasing the risk of extreme physical and economic impacts of natural disasters, including the costs of recovery for governments and communities, bringing forward investment into mitigation of climate change and prevention of damage from future disasters is now urgent.²⁴

- 7.28 Further to its appearance before the committee, Suncorp pointed out that it accepted the international scientific consensus on climate change, and was:

... committed to playing [its] part in reducing emissions and preparing for the physical and economic impacts of climate change on our business, community, and across our value chain.²⁵

²¹ Climate Change Authority, *Prospering in a low-emissions world: An Updated Climate Policy Toolkit for Australia*, March 2020, p. 150.

²² Michael Mazengarb, *Renew Economy*, '[Australian insurance companies abandon thermal coal industry](#)', 26 July 2019 (accessed 3 July 2020).

²³ Australian Competition and Consumer Commission (ACCC), [Northern Australia Insurance Inquiry- Second interim report](#), November 2019, p. 67. Evidence in relation to actual Emergency Response Fund expenditure is considered further in Chapter 2.

²⁴ Suncorp, *Submission 125*, p, 1: *Attachment 1*, p. 11.

²⁵ Suncorp, answers to questions taken on notice, 10 July 2020 (received 7 August 2020).

- 7.29 Suncorp would progress these aims through reducing its own emissions, supporting 'an orderly transition to a net-zero emissions economy', and through 'supporting growth through new and emerging opportunities' with positive environmental impacts.²⁶
- 7.30 Suncorp's representative, Mr Michael Miller, Executive General Manager, Motor, Property and Specialty Claims, noted that regarding climate change, '...what you're finding now is that it is starting to bite and it is starting to become very real' and that the organisation would consider whether the insurance 'should start to have a harder voice ... in this area'.²⁷

QBE Australia

- 7.31 At the 10 July public hearing, Mr Phuong Ly, Chief Underwriting Officer at QBE, informed the committee that QBE was reducing its exposure to carbon intensive industries, and was taking steps to address climate change concerns. Mr Ly advised that QBE:
- ... accept the science behind climate change and we support the Paris Agreement, as well as adopting all the recommendations from the climate change task force around financial disclosure. As a company, we have taken action to be carbon neutral, which we are now, and we have aspirations to be utilising fully renewable resources and energy for our energy requirements by 2025. We've also made decisions around underwriting and investment so that, hopefully, by 2030, we will reduce our involvement in heavy carbon industries.²⁸
- 7.32 Mr Ly went on to explain that insurance premiums were likely to go up 'in certain regions where we've had natural catastrophes'.²⁹
- 7.33 QBE offered its support for 'increased investment in measures to build community resilience', in particular for increased government funding of mitigation activities, as well as removal of government taxes which contribute to underinsurance.³⁰

Insurance Australia Group

- 7.34 IAG underwrites almost \$12 billion of premiums per annum for more than 8.5 million customers, under brands including NRMA Insurance, CGU and SGIO, among others.³¹

²⁶ Suncorp, answers to questions taken on notice, 10 July 2020 (received 7 August 2020).

²⁷ Mr Michael Miller, Executive General Manager, Motor, Property and Specialty Claims, Suncorp Group Limited, *Committee Hansard*, 10 July 2020, p. 18.

²⁸ Mr Phuong Ly, Chief Underwriting Officer, QBE Australia, *Committee Hansard*, 10 July 2020, p. 18.

²⁹ Mr Phuong Ly, Chief Underwriting Officer, QBE Australia, *Committee Hansard*, 10 July 2020, p. 7.

³⁰ QBE Australia, Opening statement from 10 July 2020 public hearing (received 9 July 2020).

³¹ Insurance Australia Group, *Submission 110*, p. 1.

7.35 IAG commissioned the Menzies Policy Paper, delivered in April 2020.³² IAG had previously commissioned the *Severe Weather in a Changing Climate* report, the first edition of which was released in November 2019.³³ The report explains 'how climate change is impacting the severity and frequency of extreme weather events...and what is likely to happen in the future'.³⁴

7.36 The report reflects on the actions necessary to protect Australian communities from natural disasters, stating that, along with reducing global greenhouse gas emissions:

Protecting communities also requires greater investment in resilience, adaptation, and mitigation planning – from governments, businesses, community organisations and individuals – to reduce the physical, economic and social recovery costs that follow a disaster.³⁵

7.37 In response to questions on notice, IAG advised that it felt it was 'in a strong position to stress test our understanding and management' of climate change risks. The mechanisms to address these risks included:

- the Board Charter including oversight of climate change and sustainability;
- a Climate Action Plan;
- scenario planning, to 'understand the most significant likely impacts of climate change and related physical, transition and liability risks and opportunities'; and
- research on both physical and transition risks.³⁶

7.38 IAG submitted to the committee that the government had a key role to play in emissions reduction policies, stating that:

To reduce the impacts of climate change, Governments need to ensure we have clear, considered and coordinated policies in place to reduce Australia's carbon emissions in line with our Paris Agreement targets. Additionally, Governments need to ensure a changing climate is accounted for when creating a strategy to mitigate, adapt and improve community resilience to natural perils.³⁷

7.39 At the committee's public hearing of 10 July 2020, IAG's representative, Mr Mark Leplastrier, Executive Manager, Natural Perils, noted that IAG was

³² Insurance Australia Group, *Submission 110*, Attachment 1 (Menzies Research Centre, *Strengthening resilience: Managing national disasters after the 2019–20 bushfire season*, April 2020).

³³ Insurance Australia Group and the National Center for Atmospheric Research (USA), [*Severe Weather in a Changing Climate*](#), 1st ed., November 2019.

³⁴ Insurance Australia Group and the National Center for Atmospheric Research (USA), *Severe Weather in a Changing Climate*, 1st ed., November 2019, [p. i].

³⁵ Insurance Australia Group and the National Center for Atmospheric Research (USA), *Severe Weather in a Changing Climate*, 1st ed., November 2019, [p. i].

³⁶ Insurance Australia Group, answers to questions on notice, 10 July 2020 (received 7 August 2020).

³⁷ Insurance Australia Group, *Submission 110*, p. 6.

'look[ing] at our targets around reducing emissions both in our own footprint and across our investment portfolios'.³⁸

Insurance Council of Australia

7.40 In June 2019, the ICA issued a public statement accepting the international scientific consensus on climate change presented by the International Panel on Climate Change and identifying the pressures it presents for the insurance sector and the wider Australian community. These pressures included:

- changing physical risk, extreme weather patterns, and the need for new tools, modelling and investment to inform decision making, climate adaptation and mitigation;
- the continued need for suitable and affordable insurance products to protect the community and businesses against perils;
- a changing economy and the transition to a low carbon emissions economy, and
- the need to ensure the solvency and stability of prudentially regulated entities.³⁹

7.41 The ICA has established a Climate Change Action Committee with the following mandates:

- support the insurance industry to embed climate change issues and insights into decision making;
- work with stakeholders to raise awareness of climate change and the impacts of climate change, manage risk and develop solutions including awareness of disaster preparedness in communities, and improve disaster response and recovery;
- work with governments, regulators and other key stakeholders to promote action on climate change and other environmental issues; and
- support industry disclosure of climate risks and opportunities.⁴⁰

Allianz Australia

7.42 It appeared to the committee that Allianz took a somewhat different approach to this issue than other insurance companies.

7.43 The Allianz submission to the inquiry recommended that the Commonwealth invest further in disaster mitigation and resilience.⁴¹ The submission went on to argue that the industry had 'long called for comprehensive measures to mitigate against the risk of extreme weather events', and that:

³⁸ Mr Mark Leplastrier, Executive Manager, Natural Perils, Insurance Australia Group, *Committee Hansard*, 10 July 2020, p. 18.

³⁹ Insurance Council of Australia, [*Insurance Council of Australia Public Statement on Climate Change*](#), June 2019 (accessed 26 June 2020).

⁴⁰ Insurance Council of Australia, *Insurance Council of Australia Public Statement on Climate Change*, June 2019 (accessed 26 June 2020).

⁴¹ Allianz Australia Insurance Ltd, *Submission 134*, p. 2.

Mitigation and adaptation can help to protect the property against damage in the first place and make the property more resilient to damage. Allianz is supportive of a rebalancing of government funding that has a stronger focus on pre-disaster mitigation. At present, only 3 percent of natural disaster funding is spent on mitigation, whilst 97 percent is spent on post-disaster recovery.⁴²

- 7.44 However, the company did not make any reference in its submission to climate change impacts on severe weather events, such as the summer bushfires, or to strong climate change mitigation through emissions reductions.
- 7.45 At the committee's public hearing on 10 July 2020, Allianz's Chief Corporate Affairs Officer, Mr Nicholas Scofield, noted that the organisation was unwilling to engage in what it characterised as a 'very polarised debate in Australia' around emissions reductions. Mr Scofield indicated that the increases to customer premiums could instead operate to offset the financial implications of extreme weather events.
- 7.46 The following exchange illustrates the position taken by Allianz:

Mr Scofield: I think it just comes down to the fact that emissions reduction is a very polarised debate in Australia. As insurers, we have taken the view that we don't want to put ourselves in the middle of a highly charged political debate. We'd rather just focus on what we see as the issues, the impact on us as insurers and our customers, and the things that we can advocate for that will directly deal with some of the issues that are arising. Essentially, it's around the impact of affordability driven by the increasing frequency and severity of natural weather events.

CHAIR: Taxation is a highly charged debate. What are your shareholders saying about this issue? It's an existential threat for the industry in some parts of Australia. You're losing very significant amounts of money, and it is difficult to price in over the medium-to-long term the sorts of premium increases that you're foreshadowing. That must be raising questions amongst your shareholders.

Mr Scofield: I don't think it's an issue in that sense, simply because we get to reprice every customer every year. We get to look at the premiums we need to charge and the amount of reinsurance we need to purchase to make sure our balance sheet and our shareholders are protected. There is a whole level of prudential regulation that ensures that as well. **Ultimately, though, whether it's taxes, reinsurance price rises or our own premium adjustments relating to claims experience from weather events, only the customers can pay that.**⁴³

Investing in disaster mitigation

- 7.47 Mitigation activities may be public, and carried out by governments (such as the introduction of revised building standards, land-use planning, hazard

⁴² Allianz Australia Insurance Ltd, *Submission 134*, p. 3.

⁴³ Mr Nicholas Scofield, Chief Corporate Affairs Officer, Allianz Australia Limited, *Committee Hansard*, 10 July 2020, p. 14. Emphasis added.

reduction burning and public warning systems), or may be private, and carried out by property owners (for example, installing home sprinklers, clearing land of vegetation and improved window and door seals).⁴⁴

- 7.48 The Australian Competition and Consumer Commission (ACCC) noted in a 2019 report that between 2009–10 and 2018–19, Australian government spending on mitigation through the National Partnership Agreements on Natural Disaster Resilience was 'approximately 2.1 per cent of total natural disaster relief funding'. The ACCC noted that this was 'considerably lower' than the US, where:

... the Hazard Mitigation Grant Program alone consists of 15 per cent of post disaster assistance funding, in addition to multiple pre-disaster mitigation funding programs.⁴⁵

- 7.49 A 2014 Productivity Commission inquiry found that Commonwealth Government mitigation spending was only three per cent of what it had spent post-disaster in recent years.⁴⁶ The Australian National University (ANU) characterised this shortcoming as 'a long-standing situation that has been raised in a number of previous disaster management reviews and commissions of inquiry'.⁴⁷
- 7.50 A number of submitters also voiced their concerns about the inadequacy of Commonwealth Government funding for disaster mitigation, in the context of the increasing frequency and severity of extreme weather events. Submitters drew attention to the 2014 Productivity Commission inquiry, which found that 'governments overinvest in post-disaster reconstruction and underinvest in mitigation that would limit the impact of natural disasters in the first place'.⁴⁸
- 7.51 To this end, the NIBA was of the view that as the Disaster Recovery Funding Arrangements were disproportionately weighted to disaster recovery, there was 'little economic incentive for state, territory and local governments to invest in disaster mitigation'.⁴⁹

⁴⁴ NIBA, *Submission 79*, p. 10–13; ACCC, [Northern Australia Insurance Inquiry-Second interim report](#), November 2019, p. 59.

⁴⁵ ACCC, [Northern Australia Insurance Inquiry-Second interim report](#), November 2019, p. 60.

⁴⁶ Productivity Commission, [Inquiry into Natural Disaster Funding Arrangements \(Volume 1\)](#), 17 December 2014, p. 9.

⁴⁷ Australian National University, *Submission 97*, p. 16.

⁴⁸ Productivity Commission, *Inquiry into Natural Disaster Funding Arrangements (Volume 1)*, 17 December 2014, p. 2; Australian National University, *Submission 97*, p. 16; Tasmanian Government, *Submission 124*, p. 3; Local Government Association of Queensland, *Submission 66*, p. 9; National Insurance Brokers Association, *Submission 79*, p. 13.

⁴⁹ National Insurance Brokers Association, *Submission 79*, p. 10.

- 7.52 The 2014 Productivity Commission inquiry accordingly recommended that the Australian Government should gradually increase the amount of annual mitigation funding it provides to state and territory governments to \$200 million annually.⁵⁰
- 7.53 As can be seen in the evidence above, throughout the committee's inquiry various insurance companies have urged the government to take action to enhance resilience to natural disasters and provide greater investment in disaster mitigation.
- 7.54 For example, IAG argued that in the absence of insurance:
- ... Governments would have a moral and economic responsibility to rebuild and restore communities should misfortune or disaster occur.
- ... we need all levels of government to take the lead and shift their focus from disaster recovery to mitigation. This cannot be a simple transfer of funds, but a coordinated strategy incorporating mitigation, adaptation, data, infrastructure and community resilience.⁵¹
- 7.55 This call for government action and financial and other support was made consistently by the insurance industry in submissions and at the public hearing at which the four major insurers, the ICA and NIBA appeared.

ACCC Northern Australia Insurance Inquiry

- 7.56 The ACCC has been tasked with examining concerns about building, contents and strata insurance availability and affordability in northern Australia. The ACCC commenced the inquiry in 2017, after receiving instructions from the Treasurer to do so pursuant to subsection 95H(1) of the *Competition and Consumer Act 2010*.⁵²
- 7.57 In the inquiry's second interim report published in November 2019, the ACCC found that mitigation works could assist in insurance affordability for both individuals and communities. The ACCC observed that:

Mitigation works can increase the resilience of properties and reduce the risk of damage from a natural disaster event, which can lower the technical premium of the insured. In a competitive market, this will result in lower premiums in both the short and long term. Further, the premium reduction should be sustainable in the long run as the majority of mitigation works have a long lifespan... both private (household level) and public (community level) mitigation programs have been successful in reducing claims costs internationally.⁵³

⁵⁰ Productivity Commission, *Inquiry into Natural Disaster Funding Arrangements (Volume 1)*, 17 December 2014, p. 39.

⁵¹ Insurance Australia Group, *Submission 110*, p. 2.

⁵² ACCC, [Northern Australia insurance inquiry – terms of reference](#), 25 May 2017.

⁵³ ACCC, [Northern Australia Insurance Inquiry–Second interim report](#), November 2019, p. 62.

7.58 The ACCC did point out, however, that 'it is important to note that even extensive mitigation works will not remove catastrophe risk entirely'.⁵⁴ The ACCC further suggested that some insurers did not have automated systems in place to recognise mitigation activity by policy-holders, and that insurers may not pass the 'full benefit of the reduced risk on to consumers through lower premiums'.⁵⁵

7.59 The ACCC also made clear that insurance premiums, despite mitigation efforts, are unlikely to return to historic levels:

Mitigation will enable sustainable reductions in premiums for properties in high risk areas, but previous examples show that the reduction will not be enough to return premiums to historic lower levels.

...

Further, those most likely to be suffering from affordability pressures are least likely to be able to afford to undertake mitigation work which would decrease premiums.⁵⁶

7.60 The ACCC concluded that mitigation can improve insurance affordability and was of the view that government subsidies had the greatest potential to enable targeted affordability assistance. It further concluded that government-funded mitigation programs can help reduce the underlying risks facing residents in northern Australia. The ACCC also reaffirmed the general role of mitigation efforts:

Regardless of the extent of funding governments wish to provide to mitigation programs, the impact the program will have on the affordability of insurance will be enhanced if the mitigation works they fund are determined with reference to a robust assessment of costs and benefits.⁵⁷

Private mitigation works

7.61 It has also been proposed that some homes may need to undertake private mitigation works in order to increase their bushfire preparedness. The Australian Institute of Architects (AIA) stated in its submission that many of the homes destroyed in the 2019–20 bushfires were older homes built prior to current building regulations.⁵⁸ The AIA pointed to research by SGS Economics and Planning which suggested that:

Australia-wide, some 2.2 million people live in high or extreme bushfire risk areas. This suggests a fundamental legacy issue of up to one million

⁵⁴ ACCC, *Northern Australia Insurance Inquiry—Second interim report*, November 2019, p. 64.

⁵⁵ ACCC, *Northern Australia Insurance Inquiry—Second interim report*, November 2019, p. 65.

⁵⁶ ACCC, *Northern Australia Insurance Inquiry—Second interim report*, November 2019, p. 64.

⁵⁷ ACCC, *Northern Australia Insurance Inquiry—Second interim report*, November 2019, p. 67.

⁵⁸ Australian Institute of Architects, *Submission 131*, p. 19.

existing houses in bushfire prone areas currently with little or no bushfire protection.⁵⁹

- 7.62 The ICA advised that no Australian standards exist for retrofitting an older property, and as of September 2020 the ICA was engaged in discussions to establish guidance on 'retrofitting for bushfire risk to older property'. The ICA noted the variability in cost estimations for retrofitting, saying that:

Sum-insured estimation calculators, used to estimate the cost of a total rebuild, show that the additional costs involved for rebuilding in a high risk zone vary from \$25K to \$100K depending on the level of risk in the location and the age of the original property.⁶⁰

- 7.63 Given that the industry has indicated that mitigation infrastructure—including the retrofitting of homes for bushfire risk—may require government financial assistance, the committee will continue to pay close attention to this issue and will continue to engage with the industry in relation to the development of standards and costs.

- 7.64 It was argued that retrofitting and similar improvements need not necessarily be the sole responsibility of the homeowner. For example, the NIBA submitted that state and territory governments ought to provide funding in this area, to address the fact that existing buildings were falling further behind in their ability to withstand natural disasters. It was recommended by the NIBA that:

In order to bridge the gap between new and existing infrastructure ... that state and territory governments provide grants to owners of non-compliant infrastructure in bushfire-prone regions to undertake private mitigation works.⁶¹

- 7.65 Similarly, the AIA submitted that alterations or additions to existing homes have become 'especially problematic in terms of meeting bushfire regulations' and recommended that government incentives and regulatory assistance be provided to support homeowners to upgrade their properties to enhanced safety levels.⁶²

- 7.66 IAG has argued for creating more incentives for property owners to conduct private mitigation works, given a general reluctance for home owners to invest in such works when they are required to bear the cost. IAG was of that view that:

... governments, insurers and business should work together to incentivise property owners to undertake mitigation works. Government could directly subsidise mitigation works; insurers then provide premium

⁵⁹ Australian Institute of Architects, *Submission 131*, p. 21.

⁶⁰ Insurance Council of Australia, answers to questions taken on notice, 10 July 2020 (received 14 September 2020).

⁶¹ National Insurance Brokers Association, *Submission 79*, pp. 12–13.

⁶² Australian Institute of Architects, *Submission 131*, pp. 21–22.

discounts according to the level of mitigation works and the building industry provides an expand range of cost-effective and acceptable retrofit options. The Queensland government's \$20 million Household resilience program is an example of this in action. The program has seen premiums for those in the program reduce.⁶³

7.67 The NIBA submitted that in the past, both public and private mitigation programs have been effective in reducing risks and consequently lowering insurance premiums.⁶⁴

7.68 Regardless of whether the mitigations programs were public or private, the importance of mitigation efforts was highlighted by Mr Rob Whelan, Executive Director and Chief Executive Officer of the ICA. Mr Whelan explained that:

...if appropriate mitigation and prevention is not done, some parts of Australia may become uninsurable in the future.

Australian Prudential Regulation Authority's supervision of the insurance industry

7.69 The Australian Prudential Regulation Authority (APRA) supervises prudential regulation of financial institutions across banking, insurance and superannuation. Under its legislation, APRA is tasked with protecting the interests of depositors, policyholders and superannuation fund members. APRA's legislated mandate is to:

... protect the Australian Community by establishing and enforcing prudential standards and practices designed to ensure that, under all reasonable circumstances, financial promises made by institutions [APRA] supervises are met within a stable, efficient and competitive financial system.⁶⁵

7.70 Over recent years APRA has sought to ensure that regulated entities are actively seeking to understand and manage the financial risks of a changing climate. APRA observed that the 'effects of changing climate extend to all sectors of the economy', and that these effects 'pose financial risks, as well as provide new business opportunities, to all APRA-regulated entities'.⁶⁶

7.71 In a February 2020 letter to regulated entities, including general insurers, APRA emphasised that, given the diversity of business models, it 'has not been prescriptive as to how [managing the financial risks of climate change] should be done, nor imposed any particular constraints on specific sorts of business

⁶³ Insurance Australia Group, *Submission 110*, Attachment 1 (Menzies Research Centre, *Strengthening resilience: Managing national disasters after the 2019–20 bushfire season*, April 2020), p. 19.

⁶⁴ National Insurance Brokers Association, *Submission 79*, p. 13.

⁶⁵ Australian Prudential Regulation Authority, *About APRA*, <https://www.apra.gov.au/about-apra> (accessed 29 September 2020).

⁶⁶ Australian Prudential Regulation Authority (APRA), [*Understanding and managing the financial risks of climate change*](#), 24 February 2020, p. 1.

activity', instead opting to 'make sure that the effects on businesses from a changing climate—both direct and indirect—have been actively considered within entities' decision making'. APRA's stated goal was 'increasing industry resilience'.⁶⁷

- 7.72 In the same letter, APRA noted that the current situation required insurers to act now regarding the climate data deficit. APRA drew attention to its 2018 climate change survey, which highlighted that 'many large entities understand the financial risks and opportunities from a changing climate'. APRA went on to note, however, that:

... this work also highlighted the need to address the climate data deficit, to quantify the likely impact of the physical, transitional and liability risks of climate change and accurately assess and appropriately price these risks. ... Effective action now on these fronts will promote strong understanding and management of the potential financial impacts of a changing climate on current and future business prospects, allowing well-managed entities to minimise costs and optimise benefits.⁶⁸

- 7.73 APRA observed that industry participants had requested further information on 'better industry practice in relation to climate-related financial risks', and on regulatory expectations. In response, APRA advised of its intent to develop and consult on a climate change financial risk prudential practice guide (PPG). APRA stated that the PPG would:

... cover areas relevant to the prudent management of climate change financial risks, aligned with the recommendations of the TCFD, including aspects of governance, strategy, risk management, metrics and disclosure.⁶⁹

- 7.74 APRA also committed to developing a climate change financial risk vulnerability assessment. APRA noted that the vulnerability assessments would take into account the threat posed by climate change, and would require entities to estimate:

... the potential physical impacts of a changing climate, including extreme weather events, on their balance sheet, as well as the risks that may arise from the global transition to a low-carbon economy.⁷⁰

- 7.75 APRA advised in the February 2020 letter that it would coordinate this work with the Australian Securities and Investment Commission (ASIC), the Reserve Bank of Australia, via the Council of Financial Regulators, as well as seek input from the Commonwealth Scientific and Industrial Research

⁶⁷ APRA, *Understanding and managing the financial risks of climate change*, 24 February 2020, p. 1.

⁶⁸ APRA, *Understanding and managing the financial risks of climate change*, 24 February 2020, p. 1.

⁶⁹ APRA, *Understanding and managing the financial risks of climate change*, 24 February 2020, p. 2.

⁷⁰ APRA, *Understanding and managing the financial risks of climate change*, 24 February 2020, p. 2.

Organisation (CSIRO), the Bureau of Meteorology, and international regulatory authorities.⁷¹

- 7.76 APRA concluded its letter by noting that it would continue to engage with entities and support industry-led initiatives, to encourage coordination between industry and regulators. However, APRA warned that entities should take action, prior to any further advice from APRA. APRA was of the view that:

... entities should be proactive in taking steps to assess and mitigate climate change financial risks now, and not delay action until further guidance or scenario analysis from APRA is released.⁷²

Progress of the climate change prudential practice guide

- 7.77 APRA's February 2020 letter noted that it would consult on the draft PPG in mid-2020, with a view to publish final guidance before the end of the year.⁷³

- 7.78 The committee sought an update from insurance entities as to the progress of the PPG. Suncorp explained that on 23 March 2020, APRA had advised that it had suspended work on various issues, including the PPG. Suncorp advised that APRA had:

... suspended the majority of its planned policy and supervision initiatives in response to COVID-19 – including the climate change financial risk vulnerability assessment. Suncorp is currently awaiting further advice from APRA on the revised timing of this assessment.⁷⁴

- 7.79 In August 2020, IAG further advised the committee that the vulnerability assessment 'hasn't been designed yet and APRA's initial focus is on authorised deposit-taking institutions (ADI) with no set timing for general insurance'.⁷⁵

- 7.80 Similar points were made by Allianz, which noted that APRA's initial focus was on ADI vulnerability assessments, which would be executed in 2021, 'with other industries including the general insurance industry to follow'.⁷⁶

The affordability of insurance

- 7.81 A number of submissions made to the inquiry called for improved affordability of and an increase in the uptake of insurance.

- 7.82 In its 2014 report into natural disaster funding arrangements, the Productivity Commission found that:

⁷¹ APRA, *Understanding and managing the financial risks of climate change*, 24 February 2020, p. 2.

⁷² APRA, *Understanding and managing the financial risks of climate change*, 24 February 2020, p. 3.

⁷³ APRA, *Understanding and managing the financial risks of climate change*, 24 February 2020, p. 2.

⁷⁴ Suncorp, answers to questions taken on notice, 10 July 2020 (received 7 August 2020).

⁷⁵ Insurance Australia Group, answers to questions on notice, 10 July 2020 (received 7 August 2020).

⁷⁶ Allianz Australia, answers to questions taken on notice, 10 July 2020 (received 7 August 2020).

Australian insurance markets for natural disaster risk are generally working well, and pricing is increasingly risk reflective. However, this has resulted in increases in premiums and potentially underinsurance and non-insurance in high-risk areas.⁷⁷

- 7.83 The Practical Justice Initiative University of New South Wales (PJI) drew attention to research suggesting that under current insurance models, one in 20 homes would be uninsurable by the end of the century due to an increase in climate change induced weather extremes, which were boosting risk-based insurance premiums to unaffordable levels.⁷⁸
- 7.84 The PJI further observed that 'the insurance industry has—for more than a decade—been asking the Federal Government to increase spending on disaster-mitigation' and that '[t]he government's continued failure to mitigate is directly linked to the uptick in the inability of some Australians to insure their homes'.⁷⁹
- 7.85 Submitters made the point that Australians were significantly uninsured and underinsured, and encouraged governments to implement measures that would improve the affordability and accessibility of insurance, including disaster mitigation and the removal of taxes and duties from property insurance policies.⁸⁰
- 7.86 Following the 2019–20 bushfire season, Emergency Leaders for Climate Action (ELCA) and the Climate Council issued its *Final report of the National Bushfire and Climate Summit 2020*. This report made a series of recommendations that were designed to 'increase the affordability and uptake of insurance for properties in disaster prone areas'.⁸¹
- 7.87 A number of the recommendations of the report related to insurance and considered pricing, affordability and underinsurance. The recommendations included:
- establishing an independent expert panel to review insurance affordability in Australia, 'having regard to the rising levels of financial difficulty and the worsening impacts of climate change';

⁷⁷ Productivity Commission, *Inquiry into Natural Disaster Funding Arrangements (Vol.1)*, 2014, p. 181.

⁷⁸ Practical Justice Initiative University of New South Wales (UNSW), *Submission 56*, p. 1.

⁷⁹ UNSW Practical Justice Initiative, *Submission 56*, p. 10.

⁸⁰ See for example, Insurance Australia Group, *Submission 110*, Attachment 1 (Menzies Research Centre, *Strengthening resilience: Managing national disasters after the 2019–20 bushfire season*, April 2020), p. 22; Suncorp, *Submission 125*, Attachment 1 (Submission to the Royal Commission into National Natural Disaster Arrangements, April 2020), p. 5; NIBA, *Submission 79*, p. 10.

⁸¹ Emergency Leaders for Climate Action and Climate Council, [*Australian Bushfire and Climate Plan: Final report of the National Bushfire and Climate Summit*](#), 30 July 2020, p. 7.

- the panel should work with the insurance industry, other jurisdictions and consumer groups to complete a comprehensive review of the impact of climate change on the provision of insurance;
- exploring barriers to total replacement building insurance policies, and addressing these to make this type of insurance more attractive and widely available;
- development of a standard for sum insured calculators, including modelling of climate risk and costs such as debris removal, demolition and other services—noting that transparency was particularly important to assist people living in areas of high climate risk;
- supporting the recovery of some or all of the value that public infrastructure generates for private landowners;
- requiring mortgage lenders, as part of the serviceability test, to include an insurance cost projection for the life of the mortgage, with climate change risk included; and
- ensuring that insurance pricing is a fair and transparent reflection of the resilience of the property, so that people who build or invest in resilience measures are rewarded with lower insurance premiums.⁸²

7.88 The committee is generally supportive of the intent of the reforms suggested by ELCA and will continue to engage with ELCA, the industry and other stakeholders, including receiving further submissions and holding public hearings on the subject of insurance affordability in bushfire and other natural disaster-prone regions.

Emergency services funding

7.89 Currently, the majority of state and territory governments fund their emergency services through a property-based levy. The exceptions to imposing a property-based levy are in the following jurisdictions:

- NSW, which funds emergency services through insurance-based levies;
- the Northern Territory, which funds services through consolidated revenue; and
- Tasmania which funds emergency services through a combination of property and insurance-based levies.⁸³

7.90 Drawing on reporting by the ICA, QBE informed the committee that from 2007–08 to 2018–19, insurance taxation revenue collected by state and territory governments totalled \$54.7 billion (the majority of which was in NSW, with \$18.2 billion collected). It was forecast that an increase in the NSW emergency

⁸² Emergency Leaders for Climate Action and Climate Council, *Australian Bushfire and Climate Plan: Final report of the National Bushfire and Climate Summit*, 30 July 2020, p. 29

⁸³ National Insurance Brokers Association, *Submission 79*, p. 3.

services levy would generate an additional \$230 million in revenue between 2018–19 and 2021–22.⁸⁴

- 7.91 Further, Allianz estimated that for the 2019-20 financial year, the amount of revenue collected through state and Northern Territory duties and levies would be \$5.833 billion.⁸⁵
- 7.92 During the inquiry, a number of insurance industry groups voiced concerns over the way emergency services were funded in those jurisdictions imposing an emergency services insurance-based levy. The industry argued for lower levies, taxes and duties on insurance in order to increase its affordability.

Issues with insurance-based levies and taxes

- 7.93 The NIBA was of the view that insurance-based levies were 'inequitable', as they forced 'responsible property owners'—being those who have adequately insured their properties against loss—to shoulder the costs of funding the emergency services, rather than a fairer system based on property levies, which collectively fund state emergency services.⁸⁶
- 7.94 The NIBA went on to argue that the current insurance-based arrangements require the levying of emergency services levy, goods and services tax (GST), and stamp duty on top of the base premium, in that order. The NIBA suggested that the compounding of taxes caused a significant increase in premiums, which could have serious consequences for policyholders who may already struggle with insurance affordability. The NIBA concluded that:

Policy holders may be forced to reduce the sum insured value of their property or forego insurance entirely, leaving them open to significant financial liability if a disaster were to occur.⁸⁷

- 7.95 Similar views were put forward by Mr Robert Whelan, Chief Executive Officer and Executive Director of the ICA, who informed the committee that the NSW insurance-based levies for emergency services 'funds something in the order of 73 to 74 per cent of the total budget for that service by government'—totalling over \$1.1 billion for the most recent financial year. Mr Whelan noted that when the levy was combined with premiums, GST and stamp duty, the effect was:

... quite substantial on individual policies, to the extent that close to 50 per cent of a premium charged in total to an insured person in New South Wales is taxation, and that can go up to as high as 70 per cent for businesses in certain areas as well.⁸⁸

⁸⁴ QBE Australia, answers to questions on notice, 10 July 2020 (received 7 August 2020).

⁸⁵ Allianz Australia, answers to questions on notice, 10 July 2020 (received 7 August 2020).

⁸⁶ National Insurance Brokers Association, *Submission 79*, p. 6.

⁸⁷ National Insurance Brokers Association, *Submission 79*, p. 6.

⁸⁸ Mr Robert Whelan, Chief Executive Officer and Executive Director, Insurance Council of Australia, *Proof Committee Hansard*, 10 July 2020, p. 24.

- 7.96 Mr Whelan suggested that this could be the reason as to why underinsurance was a more prominent issue in NSW, compared with Victoria.⁸⁹
- 7.97 The Productivity Commission found in 2014 that 'taxes and levies significantly raise the cost of insurance and contribute to non-insurance and underinsurance'⁹⁰ and recommended that 'state and territory taxes and levies on general insurance should be phased out and replaced with less distortionary taxes'.⁹¹
- 7.98 This solution has been consistently argued for by the insurance sector. For example, in November 2019, the ICA submitted its comments to the NSW Review of Federal Financial Relations Discussion Paper, which repeated its argument that 'insurance-based taxes distort decision making and drive up the cost of insurance for consumers'.⁹² It also argued that the 2019–20 bushfire season provided an even stronger impetus for tax reform, and suggested that:
- As the Federal and NSW Governments necessarily consider lessons in light of the current catastrophic bushfire season and the impact that climate change will have in making bushfire seasons longer and more severe, tax reform is a vital consideration for community resilience, risk management and ensuring that citizens can recover from a disaster.⁹³
- 7.99 The Menzies Policy Paper included the observation that the status quo in this area was discouraging individuals from insuring themselves, including at the federal level:
- At present the Federal Government discourages people from insuring themselves by imposing the GST on insurance premiums. Some state governments also penalise self-reliance by imposing levies on insurance companies to fund fire brigades, a cost which is passed on through increased premiums.⁹⁴
- 7.100 The NIBA argued that improving affordability removed barriers to insurance and enabled more homeowners to appropriately manage their risks.⁹⁵

⁸⁹ Mr Robert Whelan, Chief Executive Officer and Executive Director, Insurance Council of Australia, *Proof Committee Hansard*, 10 July 2020, p. 24.

⁹⁰ Productivity Commission, *Inquiry into Natural Disaster Funding Arrangements (Vol.1)*, 2014, p. 32. See also: Productivity Commission, *Inquiry into Barriers to Effective Climate Change Adaptation*, 19 September 2012, p. 307.

⁹¹ Productivity Commission, *Inquiry into Natural Disaster Funding Arrangements (Vol.1)*, 2014, p. 45.

⁹² Insurance Council of Australia, [Submission to the NSW Review of Federal Financial Relations Discussion Paper](#), 22 November 2019, p. 2.

⁹³ Insurance Council of Australia, *Submission to the NSW Review of Federal Financial Relations Discussion Paper*, 22 November 2019, p. 2.

⁹⁴ Insurance Australia Group, *Submission 110*, Attachment 1 (Menzies Research Centre, *Strengthening resilience: Managing national disasters after the 2019–20 bushfire season*, April 2020), p. 22.

⁹⁵ National Insurance Brokers Association, *Submission 79*, p. 14.

Similarly, the Salvation Army was of the view that the shock to household budgets of insurance costs could be alleviated by abolishing insurance stamp duty in the states where it was still charged.⁹⁶

7.101 Insurers argued in their submissions for governments to remove taxes and levies on insurance premiums, arguing that they 'result in the perverse scenario that sees vulnerable Australians paying more in tax if they face greater risk'⁹⁷ while also creating a greater fiscal burden for governments.⁹⁸ The proposed reforms suggested by the industry included:

- removing all taxes (including GST) and levies from disaster insurance, and making premiums fully tax-deductible;⁹⁹
- removing the Emergency Services Levy from insurance in NSW, and ideally, abolishing it (and if not, the levy should be attached to local government rates as in Victoria);¹⁰⁰ and
- removing the Insurance Fire Levy from commercial insurance in Tasmania.¹⁰¹

Committee views and recommendations

7.102 Evidence provided to the committee showed a very substantial volume of claims made as a result of the bushfires, for both residential and commercial properties and vehicles, and that the majority of these claims have been settled. The committee commends the industry for settling claims with speed, efficiency and compassion. There has been no evidence put before the committee at this stage of the inquiry to suggest that the claims handling processes of the insurers, their overall conduct and the associated support they have provided to bushfire-affected communities has been anything other than exemplary.

⁹⁶ The Salvation Army, *Submission 60*, p. 4.

⁹⁷ Suncorp, *Submission 125*, Attachment 1 (Submission to the Royal Commission into National Natural Disaster Arrangements, April 2020), p. 5.

⁹⁸ Insurance Australia Group, *Submission 110*, Attachment 1 (Menzies Research Centre, *Strengthening resilience: Managing national disasters after the 2019–20 bushfire season*, April 2020), p. 13.

⁹⁹ Insurance Australia Group, *Submission 110*, Attachment 1 (Menzies Research Centre, *Strengthening resilience: Managing national disasters after the 2019–20 bushfire season*, April 2020), p. 22.

¹⁰⁰ Insurance Australia Group, *Submission 110*, Attachment 1 (Menzies Research Centre, *Strengthening resilience: Managing national disasters after the 2019–20 bushfire season*, April 2020), p. 22; NIBA, *Submission 79*, p. 9; Suncorp, *Submission 125*, Attachment 1 (Submission to the Royal Commission into National Natural Disaster Arrangements, April 2020), p. 5.

¹⁰¹ Suncorp, *Submission 125*, Attachment 1 (Submission to the Royal Commission into National Natural Disaster Arrangements, April 2020), p. 5.

Climate change mitigation

- 7.103 The committee is of the view that the insurance industry has a vital role to play in responding to increasing climate risk and disaster mitigation.
- 7.104 The evidence presented to the committee indicates that insurers agree that the climate is changing and that mitigation is needed, and that there needs to be urgent action taken to address climate change risks. This is uncontroversial. Where the controversy seems to arise is the strength of the mitigation required and who should bear the cost.
- 7.105 There is disparity across the industry on this issue. For example, IAG appears to have most clearly acknowledged the impact of climate change on the insurance industry, and the need for urgent mitigation action. As IAG's *Severe Weather in Changing Climate* report points out, limiting global temperature increases to the Paris Agreement target will only be achieved under ideal conditions with, among other actions, 'rapid and large scale political commitments to decarbonisation'.¹⁰²
- 7.106 On the other hand, Allianz seemed to suggest that its position is that it is not willing to engage with the public discussion around emissions reduction and the burden of a lack of domestic and international political will to take urgent action on emissions reductions will fall on policy holders through increased premiums.
- 7.107 Insurance industry advocacy in the political arena for government expenditure on mitigation infrastructure is not new. It can be traced back to at least the Canadian industry's advocacy in the 1990s for a 'national mitigation strategy', intended to stimulate public and private infrastructure spending which was designed to adapt buildings and construct infrastructure (such as flood levees) to make communities more resilient to severe weather damage.¹⁰³ The proposition is that in circumstances or locations where there is no mitigation infrastructure and the risk of severe weather hazard is high enough, insurance will become unavailable, either as a result of unaffordable premiums or insurers simply withdrawing cover. To the extent that government funded mitigation infrastructure either reduces premiums or causes insurers to offer cover, the expenditure performs a risk pooling function by offering tangible *ex ante* protection in the form of a floodway or some other form of physical mitigation. The alternative is that in the absence of insurance, government carries all the risk by having to provide after-the-fact compensation in the event of damage caused by severe weather.

¹⁰² Insurance Australia Group and the National Center for Atmospheric Research (USA), [*Severe Weather in a Changing Climate*](#), 2nd ed., September 2020, p. 11.

¹⁰³ Brieger, T., Fleck, T. and MacDonald, D., '[Political Action by the Canadian Insurance Industry on Climate Change](#)', *Environmental Politics*, Volume 10, No. 3, Autumn 2001, pp. 111-126.

- 7.108 There is no doubt that governments should invest in mitigation infrastructure that reduces the risk of catastrophic damage caused by climate change-driven severe weather events. However, these investments should not be seen as an either/or proposition relative to strong climate change mitigation offered by rapid emissions reductions and decarbonisation. The two should operate concurrently.
- 7.109 The committee agrees that government expenditure on mitigation infrastructure is both necessary and unavoidable given the growing risk posed by climate change driven severe weather. However, any proposed infrastructure expenditure would have to be subject to clear, transparent criteria and selection processes based around sound business cases, sound environmental cases, proven capacity to mitigate risk and consequently, increase the likelihood of reducing insurance premiums.
- 7.110 The committee will continue to engage with the insurance industry and other stakeholders throughout the remainder of this inquiry to explore funding models, assessment processes and the types of infrastructure that would make real contributions to Australia's stock of necessary mitigation infrastructure.

Affordability – taxes and levies on insurance policies

- 7.111 It is clear to the committee that it is critical that Australians, and particularly those located in bushfire-prone areas, have adequate and affordable insurance to ensure that they are not left destitute following events like the 2019-20 bushfire season.
- 7.112 The committee is concerned at the level of taxation and levies imposed on insurance policies and can see some justification in imposing property-based taxes and levies as an alternative. The committee acknowledges concerns raised about the rising cost of insurance premiums to which taxes and levies add a substantial portion.
- 7.113 However, the taxes and levies on insurance premiums are in the form of stamp duties and emergency services levies, which are imposed by the states and territories. The revenue that would be forgone and would need to be replaced is considerable, amounting to approximately \$5.58 billion per annum. As demonstrated in the Australian Capital Territory (ACT), the move away from stamp duties towards broad-based property taxes is not a politically easy process. Implementation of taxation reform in the ACT faced sustained political opposition and criticism over a long period of time. It is not for this committee to recommend or advise the state and territory governments on the courses of action they might take in this regard. We would however encourage stakeholders including the insurance industry to continue to engage constructively with state and territory governments so that bipartisan proposals for reform can be reached.

7.114 The committee is concerned at the premium increases foreshadowed by insurers which gave evidence in the course of the inquiry thus far. The committee is particularly concerned at the evidence given by Allianz that it will expect policy-holders to shoulder the burden of increased severe and catastrophic weather risk through increased premiums.

7.115 The committee is not labouring under any illusions that the natural peril component of insurance premiums will increase over time under climate change, but we do not accept the proposition that policy-holders should carry the entire burden. This is particularly the case in circumstances where the industry is calling on taxpayers to make significant mitigation expenditures and forgo significant tax revenues, while the industry itself is not prepared to publicly engage with the strongest possible mitigation measure available—rapid emissions reductions and decarbonisation.

7.116 The committee is of the view that there is sufficient concern over the likelihood of significant premium increases in coming years, particularly given the absence of any certainty around what the contribution of climate change to the natural perils component of premiums will be in the short and medium term. Therefore, the committee considers that ACCC intervention in the form of price monitoring is warranted.

Recommendation 9

7.117 The committee recommends that under Part VIIA, Division 5 of the *Competition and Consumer Act 2010*, the Treasurer direct the Australian Competition and Consumer Commission to undertake monitoring of the prices, costs and profits relating to insurance premiums, with particular attention paid to the impact of climate change-driven severe weather on the natural perils component of general insurance premiums.

Insurance industry financial volatility caused by severe weather

7.118 In September 2020, IAG released the second edition of its report, *Severe Weather in a Changing Climate*.¹⁰⁴ In an important update to the November 2019 report, the second edition draws on the latest data connecting different extreme weather events and how multiple, connected events in close succession and even concurrent events may lead to more devastating consequences for communities than they have ever experienced.

7.119 The report finds that:

- since the pre-industrial period (1850-1900), the average global mean temperature has already risen by more than 1 degree Celsius;

¹⁰⁴ Insurance Australia Group and the National Center for Atmospheric Research (USA), [Severe Weather in a Changing Climate](#), 2nd ed., September 2020.

- it is highly likely that this warming could reach 1.5 degrees Celsius this decade and 2 degrees Celsius by 2036;
- accelerating change in average global mean temperature will substantially increase the frequency of many weather and climate extremes;
- bushfire weather risk, including the most catastrophic types of fire weather conditions is expected to increase across most parts of Australia;
- fire seasons will get longer and closer together thus reducing opportunities for fuel management and hazard reduction;
- even the highest Bushfire Attack Level (BAL) construction specifications are not designed for catastrophic fire conditions and were not adequate for the 2019-20 fire season;
- hail risk is already increasing;
- the risk of giant hail events is expected to shift further south down the east coast and risk is expected to increase in Sydney, Canberra, Melbourne and to a lesser extent, Adelaide and Perth;
- the entire region from the Hunter Valley to eastern Victoria will also likely experience increased hail risk;
- there will be higher proportion of the most intense tropical cyclones and they will extend further south with risks increasing more rapidly in south-east Queensland and north-east New South Wales;
- increased temperatures will generate tropical cyclones with more energy and greater capacity to generate more rain over larger land areas, leading to increased risk of flooding and wind-driven rain damage; and
- while there may be fewer east coast lows in winter and spring, there will be an increase in the number and intensity of the more damaging east coast lows that occur in summer and autumn (an example is the destructive east coast low storm event in February 2020 across Queensland and NSW which generated \$958 million in insurance losses).¹⁰⁵

7.120 Most worryingly, the report found that extreme weather events that are connected in time and space exacerbate the impacts that would have occurred from separate events. The report concluded that:

Connected extremes can, therefore, lead to multiple extreme impacts upon Australian communities... Emerging research is showing the damage from connected extreme weather events is exacerbated by climate change.¹⁰⁶

7.121 While incremental increases in average temperatures or rainfall are cause for grave concern, it is changes in the severity and frequency of climate extremes that ought to keep insurance company executives awake at night. Research shows that extreme temperatures, catastrophic bushfires and extreme rainfall

¹⁰⁵ Insurance Australia Group and the National Center for Atmospheric Research (USA), [*Severe Weather in a Changing Climate*](#), 2nd ed., September 2020, pp. 2-4.

¹⁰⁶ Insurance Australia Group and the National Center for Atmospheric Research (USA), [*Severe Weather in a Changing Climate*](#), 2nd ed., September 2020, p. 4.

events behave differently from the way that average conditions will respond to climate change.¹⁰⁷ This was evidenced by bushfires regularly creating their own weather during the last bushfire season and has serious consequences for the financial stability of the insurance industry.

7.122 Changes in the severity and frequency of extreme weather events affect the financial stability of insurers in three main ways. Changed weather patterns interfere with insurers' ability to predict future insured losses. It shortens return periods between extreme weather events, which shortens the time between insurers receiving premiums and paying out on policies, and it increases the amounts paid out under policies.¹⁰⁸

7.123 As long ago as 1997, under the auspices of the United Nations Environment Program (UNEP), insurance companies launched the UNEP Insurance Industry Initiative for the Environment which in 1999 published a paper discussing the implications of climate change for the insurance industry, which made the following observation:

Underwriting of property risk from natural hazards such as windstorm, flood and subsidence is based on the concept of 'return periods'. Return periods are generally calculated on observed events and historic claims costs. Rapidly changing climatic conditions will lead to difficulties in calculating return periods and to lagging premium adjustments.¹⁰⁹

7.124 According to Andrew Dlugolecki, who for 27 years held senior technical and operational posts with the UK insurance giant Aviva and has contributed to IPCC work on financial services, there are five important implications for insurers when return periods shrink:

- (1) Historical models of costs are inapplicable because the scale and frequency of severe weather events move beyond historical experience;
- (2) Risks are incorrectly rated because the probability of an extreme loss is assessed as too low;
- (3) Exposures are too high because the maximum probable loss is too low and a consequence is faulty reinsurance planning;
- (4) Claims handling capacity is too low because the scale of destruction in new extremes is beyond experience. Multiple, connected events may overwhelm recovery capacity; and

¹⁰⁷ Dlugolecki, Andrew, '[Climate Change and the Insurance Industry](#)', *Geneva Papers on Risk & Insurance*; London, Vol. 33, Issue 1, 2008, pp. 71 – 90; 73.

¹⁰⁸ Brieger, T., Fleck, T. and MacDonald, D., 'Political Action by the Canadian Insurance Industry on Climate Change', *Environmental Politics*, Vol 10, No. 3, Autumn 2001, pp. 111-126; 116.

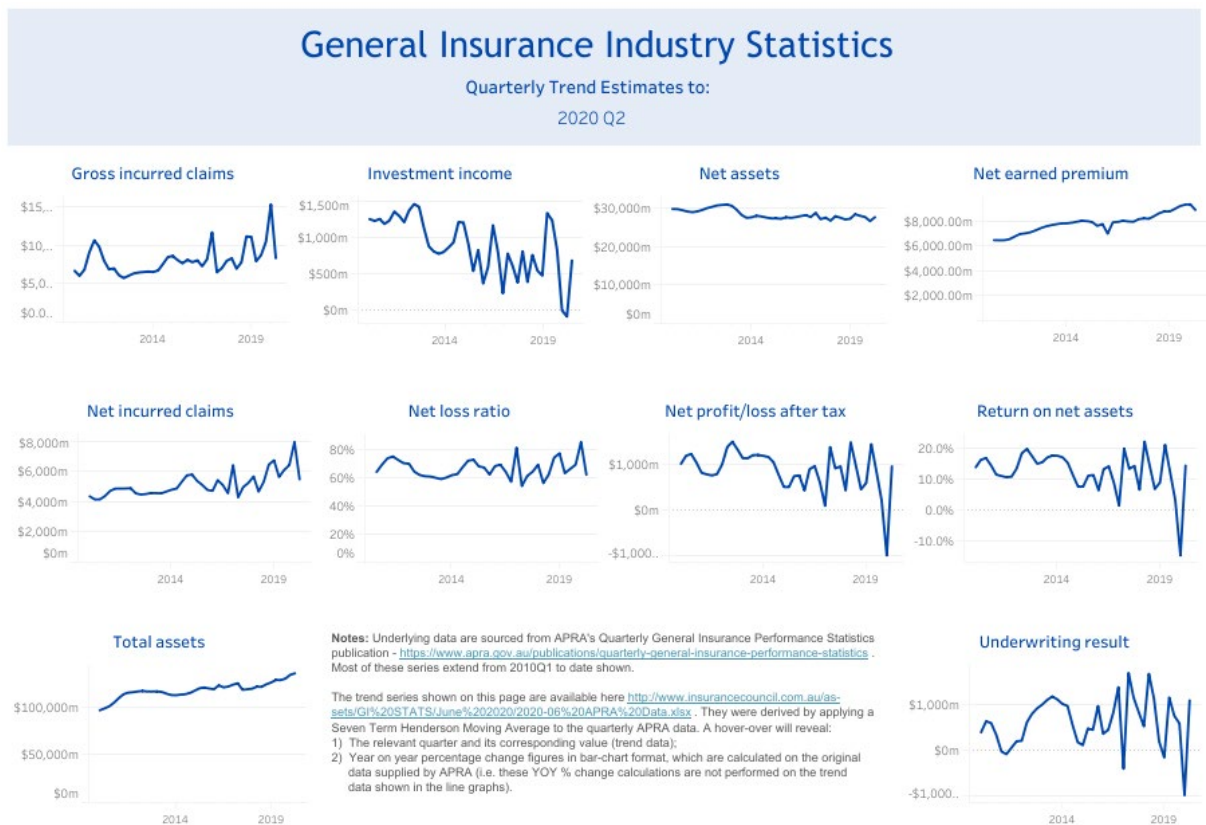
¹⁰⁹ UNEP Insurance Industry Initiative for the Environment, *The Kyoto Protocol and Beyond: Potential Implications for the Insurance Industry*, June 1999.

- (5) Credit ratings held by insurance firms are too generous because the probability of a serious, sustained depletion of capital is underestimated, thus exposing insurers to the risk of unrecoverable reinsurance.¹¹⁰

7.125 The effects of shrinking return periods on Australian general insurers is evident in Figure 7.1 below, produced by the ICA, which charts various financial metrics using data reported to APRA by the general insurance industry between the first quarter of 2010 and the second quarter of 2020. The industry has experienced significant financial volatility since 2014, a period which has coincided with historically high numbers of ICA-declared insurance catastrophes related to severe weather events.

7.126 Particularly volatile key metrics are net profit/loss after tax, underwriting result, investment income, return on net assets and net loss ratio.

Figure 7.1 General Insurance Industry Statistics



[Source: Insurance Council of Australia, Key general insurance statistics – Trend series Q1 2010 to Q2 2020, <https://www.insurancecouncil.com.au/gi-insurance-industry-stats/>]

¹¹⁰ Dlugolecki, Andrew. Climate Change and the Insurance Industry, *Geneva Papers on Risk & Insurance*; London Vol. 33, Issue 1, 2008, pp. 71-90; 77.

- 7.127 The committee holds serious concerns over the impact severe and catastrophic weather events, driven by climate change, can have on the financial stability and viability of the general insurance industry.
- 7.128 The committee understands the reason for APRA suspending its work with the industry, on ensuring the industry is sufficiently cognisant and prepared for the financial risks posed by climate change, due to the demands imposed by the COVID-19 pandemic.
- 7.129 However, there is a high probability that the recent financial volatility of the industry due to severe weather events will continue. The industry's preference for relatively weak mitigation action in the form of government expenditure on mitigation infrastructure and states and territories foregoing revenue as an affordability measure are only part of the solution to the threat posed to the industry by climate change. In the absence of the strong political will the industry acknowledges is necessary for rapid emissions reductions and decarbonisation, the committee is not persuaded that adequate steps are being taken to protect policy-holders from excessive premium increases and the industry from ongoing financial volatility and vulnerability. The availability and affordability of insurance are essential for economic development, the financial cohesion of society and peace of mind in a world that is experiencing rapidly increasing risks of natural peril.
- 7.130 The committee therefore believes that APRA should recommence the financial resilience measures it outlined to the industry in February 2020. In addition, APRA should undertake financial vulnerability stress testing of the insurance sector, in anticipation of worst-case scenario severe weather events.

Recommendation 10

- 7.131 The committee recommends that the Australian Prudential Regulation Authority immediately recommence its work on the climate change-related prudential practice and governance guide as it relates to the general insurance industry.**

Recommendation 11

- 7.132 The committee recommends that the Australian Prudential Regulation Authority should, if it has not already done so, undertake financial vulnerability stress testing of the insurance sector, including consideration of capital adequacy in anticipation of worst case scenario severe weather events causing catastrophic insurance losses, either singly or in combination.**

Chapter 8

Communications

- 8.1 Timely and clear communication plays a key role in the protection of life and property during a natural disaster. Communication between emergency services and broadcasters, and emergency broadcasts made during the 2019–20 bushfire season, played a significant part in ensuring that communities could take prompt action to evacuate as the fires approached.
- 8.2 This chapter examines the role of communication processes and systems during bushfire emergencies and in particular the role of communication during the 2019–20 bushfires. It discusses:
- the importance of clear, coordinated emergency information for communities;
 - the role of radio broadcasts during bushfire emergencies;
 - the challenges faced by radio stations when broadcasting during bushfire emergencies, and suggestions to overcome these;
 - the adequacy of existing emergency information and warning systems; and
 - the resilience of communication facilities and network infrastructure.

Effective and coordinated emergency communication

- 8.3 The committee received evidence that demonstrated the importance of having an effective emergency communication process. Submitters highlighted that efficient and coordinated communication with the public was an essential component of emergency management.
- 8.4 The Australasian Fire and Emergency Service Authorities Council (AFAC) emphasised that the effective communication of information and warnings is a critical element of emergency management with the power to save lives. It noted that public information and warnings play a critical role in community safety by empowering people to make informed and timely decisions and take appropriate protective action.¹
- 8.5 Mr David Anderson, Managing Director of the Australian Broadcasting Corporation (ABC) noted the importance of providing information to the community via emergency broadcasting:

Emergency broadcasting is a responsibility that the ABC is deeply committed to. Our audiences expect the highest levels of broadcast and digital service, and the information we provide during times of crisis has a

¹ Australasian Fire and Emergency Service Authorities Council (AFAC), *Submission 50*, p. 25.

critical and immediate impact on those whose lives and property are at risk.²

- 8.6 The New South Wales (NSW) Bushfire Inquiry also identified that public information and warnings play an important role in community safety.³

The role of radio broadcasts during bushfire emergencies

- 8.7 There are three categories of radio broadcasts: public (i.e. the ABC), commercial, and community. While each sector has differing budgets, processes, audience demographics and reach, collectively they provide a broad spectrum of communities with timely and accurate emergency information.
- 8.8 Submitters highlighted how radio broadcasts during emergency events facilitated the timely provision of information to communities, with particular mention given to the role of the ABC.
- 8.9 BAI Communications Australia (BAI Communications) observed that radio broadcasts, particularly ABC local radio, play a 'fundamental role' in providing affected communities with real-time information.⁴ It identified that this fundamentality was due to the ubiquity and portability of radio receivers in cars and homes, the extremely wide area of geographic coverage, and the 'inherent resilience' of the function due to overlapping coverage from different broadcast sites.⁵

Australian Broadcasting Corporation

- 8.10 The ABC advised that the number of emergency events it covered had almost tripled in the last two years. It stated that in 2019-20, the ABC provided coverage for 953 emergency broadcasting events, compared to 371 for the previous financial year.⁶
- 8.11 Mr Anderson provided further detail on what this increase entailed for the ABC's resources throughout the 2019-20 bushfire season:

The ABC responded to this unprecedented increase in emergency bushfires by redirecting resources from around the country to provide support when and where it was needed. This meant calling staff back from leave, extended overtime, and moving staff from location to location across the summer period. During the peak of the coverage, there were up to 140 journalists and other staff on the front line. This increase in emergency broadcasting did come at a financial cost. We estimate that the ABC has

² Mr David Anderson, Managing Director, Australian Broadcasting Corporation (ABC), *Proof Committee Hansard*, 12 August 2020, p. 1.

³ New South Wales Government, [Final Report of the NSW Bushfire Inquiry](#), 31 July 2020, p. 349.

⁴ Mr Peter Lambourne, Chief Executive Officer, BAI Communications Australia, *Proof Committee Hansard*, 12 August 2020, p. 13.

⁵ BAI Communications Australia, *Submission 143*, p. 2.

⁶ Mr David Anderson, Managing Director, ABC, *Proof Committee Hansard*, 12 August 2020, p. 1.

spent an additional \$3.1 million to meet the additional emergency broadcasting activity that was undertaken in the last financial year.⁷

8.12 The ABC later confirmed that this \$3.1 million constituted salaries (\$2.6 million); travel (\$337 000); equipment (\$78 000) and related expenses (\$36 000). The salary costs included 'unbudgeted overtime, penalties, casual staff, and the cost of backfilling annual leave'.⁸

8.13 With regard to staffing levels, the ABC advised that at the peak of the bushfire coverage, the ABC had an average of 857 full time equivalent news staff engaged in coverage across the country, and a further 139 full time equivalent staff providing radio coverage.⁹

8.14 Mr Anderson advised the committee that the ABC has no discrete line of funding for emergency broadcasting:

The ABC receives no additional funding for emergency broadcasting, and these costs have had to be absorbed within the broader corporate budget, which has been falling in real terms.¹⁰

8.15 Mr Anderson further explained that although the ABC's funding was being reduced in real terms, the organisation remained committed to fulfilling its role in emergency broadcasting, saying that:

...when it comes to our funding we have never put in doubt what we would spend and invest in emergency broadcasting. Despite our funding reducing in real terms, emergency broadcasting is something we're absolutely committed to, no matter what. It's not something you threaten to remove.¹¹

8.16 The interim observations of the Royal Commission into National Natural Disaster Arrangements (Royal Commission) made particular comment on the role of the ABC during emergency situations:

The Australian Broadcasting Corporation, alongside community radio, is acknowledged as a trusted broadcaster of emergency messages and warnings. It is a role that the ABC has fulfilled over many years and in which it has an established reputation.¹²

⁷ Mr David Anderson, Managing Director, ABC, *Proof Committee Hansard*, 12 August 2020, p. 1.

⁸ ABC, answers to questions on notice, 12 August 2020 (received 29 September 2020).

⁹ ABC, answers to questions on notice, 12 August 2020 (received 29 September 2020).

¹⁰ Mr David Anderson, Managing Director, ABC, *Proof Committee Hansard*, 12 August 2020, p. 1.

¹¹ Mr David Anderson, Managing Director, ABC, *Proof Committee Hansard*, 12 August 2020, p. 10.

¹² Royal Commission into National Natural Disaster Arrangements, [*Interim observations*](#), 31 August 2020, p. 13.

- 8.17 In a similar vein, the NSW Bushfire Inquiry acknowledged that ABC Radio played a critical role in delivering emergency broadcasts and was often a 'last resort option' when other forms of communication were lost.¹³

Commercial and community radio

- 8.18 Commercial Radio Australia (CRA) asserted that regional commercial radio stations play a 'crucial role' during times of emergency.¹⁴ It explained:

Broadcast media is the most effective means by which emergency service organisations communicate with the public when critical events occur. Regional commercial radio plays a particularly important role, as both metropolitan and regional surveys show that around 80% of Australians listen to commercial radio. Regional commercial radio has 220 regional stations, compared to the ABC's 45 stations/hubs.¹⁵

- 8.19 The Community Broadcasting Association of Australia (CBAA) argued that community broadcasting also played an essential role during emergencies by complementing the coverage of the ABC and commercial stations with 'nuanced, hyperlocal expertise and information'.¹⁶

- 8.20 Mr Jon Bisset, CBAA Chief Executive Officer explained that during the 2019-20 bushfire season, there were 80 community radio stations broadcasting in, or to, fire-affected areas. Mr Bisset observed that:

All of those stations are really closely linked to the communities, drawing their volunteers and staff out of those communities and serving the towns that they directly broadcast from.¹⁷

- 8.21 Mr Bisset further elaborated on the role that community broadcasts played during the Black Summer bushfires, particularly when power was lost and communication was made more problematic:

...we've heard that many stations served their communities during and in the aftermath of the fires, whether that's conducting formal emergency broadcasting, sharing emergency and community information on air and online, connecting people to vital evacuation and relief services or working with community groups to organise local fundraising events. A lot of these services were made more critical when power, internet and mobile reception went down. Community radio in some areas like Tumut [NSW]

¹³ New South Wales Government, *Final Report of the NSW Bushfire Inquiry*, 31 July 2020, p. 349.

¹⁴ Commercial Radio Australia, answers to questions on notice, 12 August 2020 (received 31 August 2020).

¹⁵ Commercial Radio Australia, answers to questions on notice, 12 August 2020 (received 31 August 2020).

¹⁶ Community Broadcasting Association of Australia, *Submission 46*, p. 2.

¹⁷ Mr Jon Bisset, Chief Executive Officer, Community Broadcasting Association of Australia, *Proof Committee Hansard*, 12 August 2020, p. 26.

remained on of the only sources of local information when ABC and commercial radio went off air.¹⁸

Challenges of broadcasting during emergencies and natural disasters

8.22 Submitters to the inquiry from all broadcast sectors outlined a number of common challenges faced by radio stations broadcasting during bushfire emergencies. These challenges related to communication channels between broadcasters and emergency services.

8.23 Witnesses took care to emphasise that emergency services were cooperative and did their best they could, and reiterated that overall the system worked well in communicating information to the public.¹⁹

8.24 However, evidence received by the committee also identified several areas for improvement. These areas included:

- the consistency of information provided by emergency services;
- the timeliness of information provided by emergency services; and
- the need for a central and accessible point of contact within emergency services.

8.25 The challenges and suggested improvements for each of these areas will be discussed below.

Consistency of information

8.26 CRA noted there could be 'problematic inconsistencies' between 'official messaging' and information given directly via Facebook live feeds by local emergency services. It provided an example of such a case where a local fire brigade captain warned on Facebook of an ember attack that would hit a town in the early hours of the morning, but there was no official messaging issued to the local commercial radio station. CRA noted that this led to worrying speculation and that the station was unable to repeat the comments on air as it was 'at odds' with official advice.²⁰

8.27 CRA also noted that there were at times inconsistencies between local council and emergency service updates. It suggested that council communication officers could be embedded in emergency services teams to ensure consistent information is given.²¹

¹⁸ Mr Jon Bisset, Chief Executive Officer, Community Broadcasting Association of Australia, *Proof Committee Hansard*, 12 August 2020, p. 26.

¹⁹ Ms Joan Warner, Chief Executive Officer, Commercial Radio Australia, *Proof Committee Hansard*, 12 August 2020, p. 20.

²⁰ Commercial Radio Australia, answers to questions on notice, 12 August 2020 (received 31 August 2020).

²¹ Commercial Radio Australia, answers to questions on notice, 12 August 2020 (received 31 August 2020).

- 8.28 CRA pushed for better coordination of messages between all agencies involved. Ms Joan Warner, Chief Executive Officer of CRA, expanded on this point, saying consistency would mean:

... you don't have the council giving different advice to the emergency services lead agency, or Fire and Rescue New South Wales giving different advice to the RFS [Rural Fire Service].²²

Timeliness of information

- 8.29 The committee heard that receiving timely information from emergency services was of utmost importance to radio stations, in order to avoid the speculation that often occurs when there is a vacuum of official messaging.
- 8.30 CRA highlighted that slow messaging could lead to confusion or speculation in the community (particularly on social media platforms like Facebook), which in turn could lead to poor advice and assumptions that could have adverse safety consequences²³
- 8.31 Additionally, CRA observed that updated warning messages were sometimes not provided on the expiry of the previous message. It outlined the consequences of this for emergency broadcasts:

Stations cannot continue to broadcast an 'expired' warning but frequently [stations] had nothing with which to replace the expired message. This meant that there could no ongoing official warning about a situation, even though it continued to be serious. On occasions in Victoria and NSW this gap could last for over an hour, during which time the station was unable to broadcast any warnings.²⁴

Central point of contact

- 8.32 Both community and commercial radio submitters identified some difficulty in contacting emergency services, and suggested it would be helpful for a centralised communication method.
- 8.33 Mr Gordon Waters is the station manager of Braidwood FM, a community radio station in the NSW town of Braidwood which faced serious bushfires during the 2019-20 season. Mr Waters informed the committee of the large amount of effort that the community station had to put in in order to get relevant information from the local fire control centres. He stated:

We had challenges in our area because we border two local government fire zones. We had to talk to two different local fire control centres for

²² Ms Joan Warner, Chief Executive Officer, Commercial Radio Australia, *Proof Committee Hansard*, 12 August 2020, p. 22.

²³ Ms Joan Warner, Chief Executive Officer, Commercial Radio Australia, *Proof Committee Hansard*, 12 August 2020, p. 20.

²⁴ Commercial Radio Australia, answers to questions on notice, 12 August 2020 (received 31 August 2020).

information about fires that were impacting our region... At times, we found it difficult to actually contact the emergency management authorities to get accurate information or any information at all. For us, it was certainly a very big challenge to obtain accurate information.²⁵

- 8.34 CRA also advised that some commercial stations had trouble reaching emergency services. Ms Warner of CRA suggested that stations needed access to a dedicated point of contact in order to overcome this challenge, saying that:

Communication with local commercial radio stations has to be prioritised so that stations can broadcast timely, and most importantly, accurate messages. Stations should have direct access to an emergency services communications officer to communicate information faster and more reliably.²⁶

- 8.35 When asked for further detail on how CRA envisaged such a central contact working, Ms Warner advised that it would depend on the structure of the relevant emergency service in each state and territory. She explained that CRA had discussed with Queensland emergency services the possibility of creating 'some sort of password protected webpage' run by the lead emergency service agency that all broadcasters could access for the latest information and audio grabs.²⁷

- 8.36 The ABC advised that it also sourced information from its emergency broadcasts from the emergency services.²⁸ Mr Anderson explained that there had been 'lessons learnt' from the 2019–20 bushfire season in regard to increasing engagement with emergency services in some locations and looking at embedding ABC staff in emergency services centres.²⁹

- 8.37 The interim observations of the Royal Commission also made an observation in regard to interactions between ABC staff and emergency services, and noted that while ABC managers were embedded in some emergency centres, they were not in all emergency centres. The Royal Commission therefore suggested that:

To assist with the timely delivery of critical information to the public, we see a need for all state and territory emergency response organisations to

²⁵ Mr Gordon Waters, Station Manager, Braidwood FM, *Proof Committee Hansard*, 12 August 2020, p. 26.

²⁶ Ms Joan Warner, Chief Executive Officer, Commercial Radio Australia, *Proof Committee Hansard*, 12 August 2020, p. 20.

²⁷ Ms Joan Warner, Chief Executive Officer, Commercial Radio Australia, *Proof Committee Hansard*, 12 August 2020, p. 24.

²⁸ Mr David Anderson, Managing Director, ABC, *Proof Committee Hansard*, 12 August 2020, p. 8.

²⁹ Mr David Anderson, Managing Director, ABC, *Proof Committee Hansard*, 12 August 2020, p. 8.

consistently embed ABC managers within state and territory emergency management centres.³⁰

- 8.38 The final report of the NSW Bushfire Inquiry included evidence detailing the essential nature of ABC emergency broadcasts during the 2019–20 bushfire season.³¹ The report recommended that in order to improve information flows and increase public awareness of emergency broadcasts, the NSW Government should include an ABC manager in the Public Information Functional Area Coordinator team within the State Operations Centre, as well as strategically place roadside signage with the local/regional ABC station frequency band throughout the state.³²

Other suggestions for improvement

- 8.39 In addition to the three core areas for improvement outlined above, the committee also received suggestions on other issues related to emergency broadcasting.
- 8.40 For example, CRA asserted that there is a 'continuing issue' of emergency services advising listeners to tune into ABC radio for updates, without mentioning the local commercial radio stations. CRA posited that this stance was problematic as around 80 per cent of Australian radio listeners habitually listen to their local commercial radio station.³³ CRA emphasised that their position was not that it was a choice between either commercial stations or the ABC, but rather that for the safety of listeners and to ensure the broadest possible reach, community attention should be drawn to both options.³⁴
- 8.41 Additionally, CBAA suggested there was a need for increased funding order to ensure community radio stations, particularly those in regional and rural areas, were resourced and trained to undertake emergency broadcasting.³⁵
- 8.42 Mr Bisset of CBAA outlined support for the 'Victorian model', which would help to provide for training and upskilling at stations. Mr Bisset explained that the 'Victorian model':

... ensures that the station makes a conscious decision, in partnership with emergency services in Victoria, to be an emergency broadcaster and make

³⁰ Royal Commission into National Natural Disaster Arrangements, *Interim observations*, 31 August 2020, p. 14.

³¹ New South Wales Government, *Final Report of the NSW Bushfire Inquiry*, 31 July 2020, pp. 361–362.

³² New South Wales Government, *Final Report of the NSW Bushfire Inquiry*, 31 July 2020, p. 362.

³³ Commercial Radio Australia, answers to questions on notice, 12 August 2020 (received 31 August 2020).

³⁴ Commercial Radio Australia, answers to questions on notice, 12 August 2020 (received 31 August 2020).

³⁵ Mr Jon Bisset, Chief Executive Officer, Community Broadcasting Association of Australia, *Proof Committee Hansard*, 12 August 2020, p. 26.

sure that they have the systems, processes and infrastructure in place before an emergency happens.³⁶

8.43 Mr Bisset continued that under this model:

The appropriate emergency services in whatever state or location would know the station exists, has a relationship with them and can ensure that they work together.³⁷

Adequacy of existing emergency information systems

8.44 There are multiple systems for communicating emergency bushfire information in Australia.

8.45 The Bushfire Warnings System was established in 2009 as a national, three level bushfire alert system. The three warning levels are consistent nationally – 'Advice', 'Watch and Act', and 'Emergency Warning'; however, the symbols and colours used, as well as the corresponding action required under each level, varies across state and territories, as shown in Figure 8.1 below.³⁸

Figure 8.1 Current Bushfire Warnings System



[Source: Royal Commission into National Natural Disaster Arrangements, *Interim observations*, 31 August 2020, p. 18.]

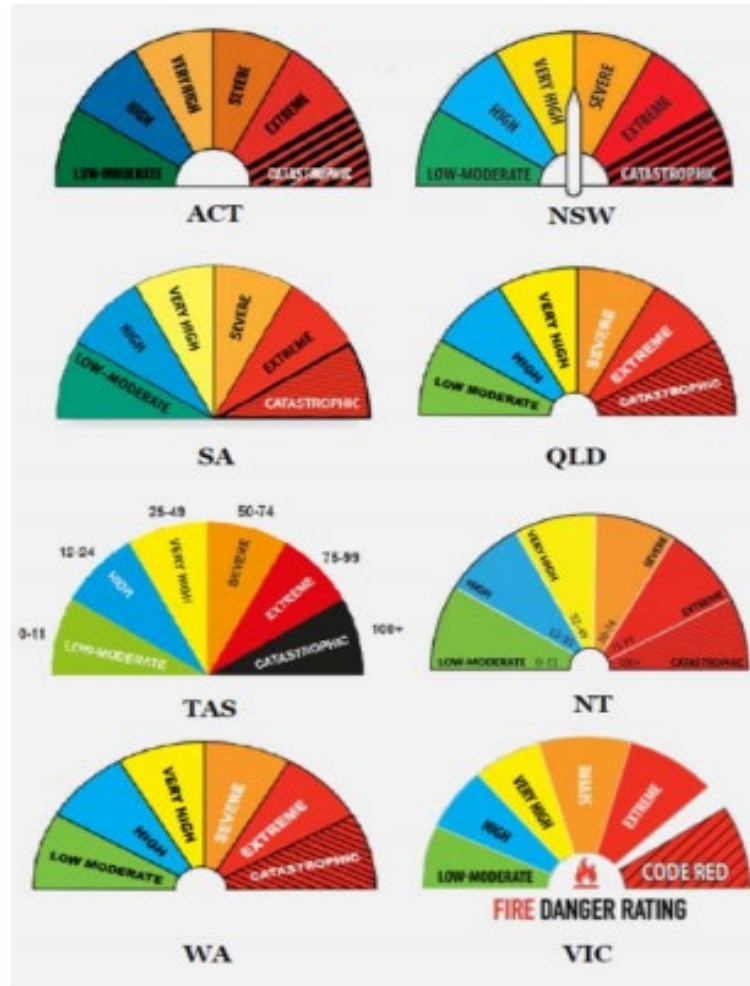
³⁶ Mr Jon Bisset, Chief Executive Officer, Community Broadcasting Association of Australia, *Proof Committee Hansard*, 12 August 2020, p. 27.

³⁷ Mr Jon Bisset, Chief Executive Officer, Community Broadcasting Association of Australia, *Proof Committee Hansard*, 12 August 2020, p. 26.

³⁸ Royal Commission into National Natural Disaster Arrangements, *Interim observations*, 31 August 2020, p. 18.

- 8.46 In addition to the Bushfire Warnings System, each state and territory has a separate fire danger rating system. The levels and guidance on how to react varies across each jurisdiction, as depicted in the following figure:

Figure 8.2 Current Fire Danger Rating System in each jurisdiction



[Source: Royal Commission into National Natural Disaster Arrangements, *Interim observations*, 31 August 2020, p. 19.]

Shortcomings in warning systems

- 8.47 A number of submitters identified shortcomings in the effectiveness of the existing information systems, in particular the inconsistencies between jurisdictions.
- 8.48 The AFAC emphasised that the inconsistent approach to warnings across states and territories led to community confusion. It also noted that the overarching community expectation was that warnings should be the same across jurisdictional boundaries.³⁹

³⁹ AFAC, *Submission 50*, p. 25.

8.49 The NSW Bushfire Inquiry also observed the challenges that border communities faced with the current systems, explaining that:

Differences in terminology can cause confusion for community members, particularly those living close to the border of NSW and Victoria—NSW uses the national danger rating of 'catastrophic' for the most extreme conditions, whereas Victoria uses its own danger rating of 'code red'.⁴⁰

8.50 The Royal Commission also drew attention to evidence it had received, regarding the middle-level warning of 'Watch and Act'. It was pointed out that this warning was causing confusion, as it could be interpreted to mean 'wait and see', or, 'act now'. In addition, the 'steps to be taken in response to the warning also vary across the nation'.⁴¹

8.51 The Royal Commission made comment on the map-based applications (apps) such as the NSW Rural Fire Service (RFS) App 'Fires Near Me' and 'VicEmergency' used in the 2019–20 bushfire season. It noted that the various apps used different terminology, symbols, and explanations for the same emergency and did not consistently include the same types of information, or all of the necessary information, for the public to make informed decisions.⁴²

8.52 Further, the Royal Commission noted that while the apps were general well-liked by the community:

... the inconsistencies and differences in information provided in apps caused some issues during the 2019-2020 bushfire season, especially for border communities and tourists who had to use multiple apps.⁴³

Suggestions for improvement

8.53 Submitters recommended that governments develop and implement nationally consistent messaging to help the community translate fire danger levels and bushfire warning levels into action.⁴⁴

8.54 For example, Emergency Leaders for Climate Action (ELCA) pointed to ways in which the confusion could be reduced between jurisdictions, arguing that:

...state and territory governments [should] agree on and then align how they promulgate emergency warning information in order to avoid confusion as people cross borders. As a minimum, there needs to be

⁴⁰ New South Wales Government, *Final Report of the NSW Bushfire Inquiry*, 31 July 2020, p. 135.

⁴¹ Royal Commission into National Natural Disaster Arrangements, *Interim observations*, 31 August 2020, p. 18.

⁴² Royal Commission into National Natural Disaster Arrangements, *Interim observations*, 31 August 2020, p. 19.

⁴³ Royal Commission into National Natural Disaster Arrangements, *Interim observations*, 31 August 2020, p. 20.

⁴⁴ See for example: The Salvation Army, *Submission 60*, p. 9; Nature Conservation Society of South Australia, *Submission 65*, p. 5.

alignment of colours used in threat maps, and the level of information provided by agencies to the public in emergency warnings.⁴⁵

- 8.55 The AFAC advised of work already underway to implement a consistent approach to warning systems. Following a national research program during 2018–19, it was found that:

... there is good community support and compelling case for a nationally consistent three-level warning framework for multiple hazards. It is proposed that the warning system uses a 'nested model' that includes both the warning level and associated calls to action. There would also be a consistent application of colours, iconography and warning names⁴⁶

- 8.56 However, the interim observations of the Royal Commission noted that while an AFAC working group had been tasked with developing a national all-hazard warning system, known as the Australian Warning System, this work had been in progress for approximately six years.⁴⁷ It considered that progress was too slow:

We recognise AFAC's efforts to pursue consistency in a collegial manner through CCOSC [Commissioners and Chief Officers Strategic Committee]. Nonetheless, for such a critical issue, this work has taken too long and is an example of the need for a clear decision-making process and to elevate matters to national leaders were required. The work on the Australian Warning System' should be finished as a priority.⁴⁸

- 8.57 The final report of the NSW Bushfire Inquiry also expressed the view that the finalisation of the Australian Warning System 'should be prioritised to provide greater consistency in public information and warnings, especially in border areas'.⁴⁹

- 8.58 In addition to the development of the Australian Warning System, the AFAC advised that there was also ongoing work into the development of a new Australian Fire Danger Rating System. A new system would combine the 'latest science, experience and data' in order to deliver 'more accurate information to emergency services, land managers and the community'. However, the AFAC noted it would be some time until the new system would be available:

⁴⁵ Emergency Leaders for Climate Action, *Submission 36*, p. 79.

⁴⁶ AFAC, *Submission 50*, p. 25.

⁴⁷ Royal Commission into National Natural Disaster Arrangements, *Interim observations*, 31 August 2020, p. 18.

⁴⁸ Royal Commission into National Natural Disaster Arrangements, *Interim observations*, 31 August 2020, p. 18.

⁴⁹ New South Wales Government, *Final Report of the NSW Bushfire Inquiry*, 31 July 2020, p. 135.

The new AFDRS is scheduled to be rolled out in 2022 and because of the complexity of the technology build and implementation requirements, implementation cannot be brought forward.⁵⁰

- 8.59 The Royal Commission acknowledged that since 2016, the AFAC has been leading the development and implementation of the new System. However, as with the Australian Warning System, it considered that progress on this matter was too slow and stated that:

While we appreciate the complexity involved, we are of the view that this needs to be finalised as a matter of priority.⁵¹

- 8.60 The Royal Commission also made clear that a national community education campaign should be prioritised following the finalisation of the Australian Warning System and the Australian Fire Danger Rating System.⁵²

- 8.61 In regard to the use of apps as a way to disseminate information and remain consistent across jurisdictions, the Royal Commission stated:

We are considering the value of a national approach to apps that can standardise the process of attributing a warning to an emergency, clarify time lags in publishing warnings, and provide all relevant information an individual may need to make an informed decision in relation to all hazards. We are considering the need for a new 'national app' with information about all natural disasters, not just bushfires.⁵³

Resilience of communication facilities and network infrastructure

- 8.62 The committee received evidence on a number of key issues relating to the resilience of communication facilities and network infrastructure. In particular, discussions centred around:

- the need to further harden the broadcast sites used for ABC services across Australia; and
- the need for improved infrastructure repair and protection processes.

- 8.63 These two issues will be examined below.

Further hardening of broadcast sites

- 8.64 BAI Communications owns and operates 700 transmission sites around the country that form a broadcast transmission network covering 99 per cent of the

⁵⁰ AFAC, *Submission 50*, p. 26.

⁵¹ Royal Commission into National Natural Disaster Arrangements, *Interim observations*, 31 August 2020, p. 19.

⁵² Royal Commission into National Natural Disaster Arrangements, *Interim observations*, 31 August 2020, p. 19.

⁵³ Royal Commission into National Natural Disaster Arrangements, *Interim observations*, 31 August 2020, p. 20.

Australian population. It is the TV and radio transmission partner for the ABC, SBS and Southern Cross Austereo.⁵⁴

- 8.65 BAI Communications advised that while many of its transmission sites that broadcast ABC radio and television were already heavily hardened to ensure broadcasts continue during natural disasters, a substantial number of smaller transmission sites are not hardened to withstand natural disasters to the same degree. It noted that these smaller transmission sites were typically those that serve smaller regional communities around Australia.⁵⁵
- 8.66 BAI Communications recommended the 'further hardening' of broadcast sites used for ABC services across Australia, stating there was a 'compelling rationale' for such a course of action.⁵⁶ It advised the committee that while 'about half' of their approximately 700 transmission sites already have stand-by power, a further 290 transmission sites do not have permanent stand-by power.⁵⁷
- 8.67 As part of its proposal for the hardening of the sites, BAI Communications detailed four 'near term areas' for government investment which would improve the availability of critical broadcast services to local communities during natural disasters.⁵⁸
- 8.68 The four areas of investment are listed below, and detailed further in Figure 8.3:
- site resilience enhancement;
 - standby power enhancement;
 - service recovery enhancement; and
 - service continuity enhancement.⁵⁹

⁵⁴ Mr Peter Lambourne, Chief Executive Officer, BAI Communications Australia, *Proof Committee Hansard*, 12 August 2020, p. 13.

⁵⁵ BAI Communications Australia, *Submission 143*, p. 20.

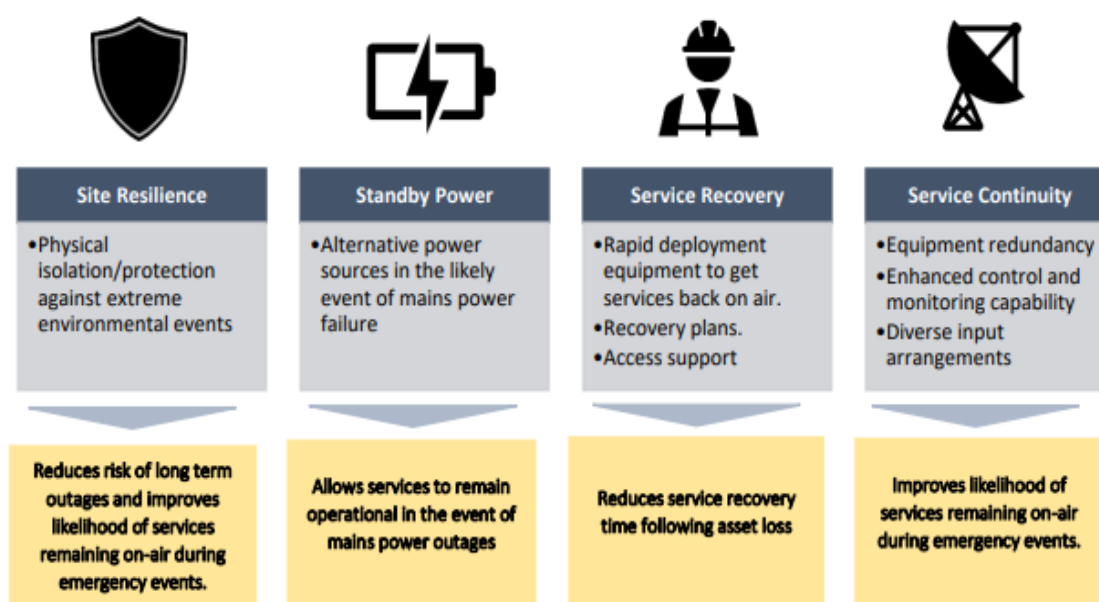
⁵⁶ BAI Communications Australia, *Submission 143*, p. 20.

⁵⁷ Mr Peter Lambourne, Chief Executive Officer, BAI Communications Australia, *Proof Committee Hansard*, 12 August 2020, p. 13.

⁵⁸ BAI Communications Australia, *Submission 143*, p. 3.

⁵⁹ BAI Communications Australia, *Submission 143*, p. 22.

Figure 8.3 Near term areas of investment to improve the availability of critical broadcast services to local communities during national disasters



[Source: BAI Communications Australia, Submission 143, p. 22]

- 8.69 According to BAI Communications, site resilience enhancements improve the physical isolation between the natural event and the facility, which in turn significantly reduces the risk of asset damage and service outage. In the bushfire context, site resilience relates to the implementation of asset protection zones around sites through the clearance of bushland.⁶⁰
- 8.70 BAI Communications continued that standby power enhancement initiatives include providing standby power equipment to sites which would allow services to continue in the event of power outages. Proposed solutions typically comprise either a fixed diesel generator or a battery and solar array solution.⁶¹
- 8.71 Service recovery enhancements refer to the procurement and strategic distribution of rapidly deployable assets across the Australia, such as the roll out of trailer-based broadcast sites, mobile generators, portable transmission equipment and portable satellite equipment. BAI Communications advised that investment in this area would allow 'faster recovery of service in the event of asset loss'.⁶²
- 8.72 Finally, service continuity enhancement initiatives require redundancy upgrades to on-site equipment to prevent failure during the times that facility

⁶⁰ BAI Communications Australia, Submission 143, p. 22.

⁶¹ BAI Communications Australia, Submission 143, p. 23.

⁶² BAI Communications Australia, Submission 143, p. 24.





access is not possible. This would include satellite backup systems and automated backup equipment. BAI Communications advised that investment in this area would help keep services on air in the event of equipment failure.⁶³

8.73 The BAI Communications submission set out two options for the estimated funding support required for the recommended resilience initiatives:

- **Option 1:** Resilience measures extended to all sites that broadcast ABC Local Radio nationally and sites that are controlled by BAI Communications which support a government emergency service network anywhere in Australia.
- **Option 2:** Resilience measures extended to sites that broadcast ABC and SBS television nationally.⁶⁴

8.74 Further detail on the options, including the number of sites upgraded, is set out in the following figure, which also details the associated costs of each investment area against Options 1 and 2 as detailed above.

Figure 8.4 Estimated funding support required

Investment Area <i>(all cost estimates 15yr total A\$m)</i>	Option 1 <i>ABC Local Radio sites + BAI sites with emergency services</i>	Option 2 <i>Extension to cover ABC & SBS TV sites</i>	Option 1 + Option 2
Site Resilience 	\$18m ~2380 Services hardened ² 95 Sites	\$14m ~1500 Services hardened ² 89 Sites	\$32m ~3880 Services hardened ² 184 Sites
Standby Power 	\$35m ~1580 Services Supported ² 122 Sites	\$47m ~2060 Services Supported ² 169 Sites	\$82m ~3640 Services Supported ² 291 Sites
Service Recovery 	\$1m Geographic coverage for FM services	\$1m Geographic coverage for FM + TV services	\$2m Geographic coverage for FM + TV services
Service Continuity 	\$25m 239 Services Enhanced	N/A ³	\$25m 239 Services Enhanced 239 Sites
Total	~\$79m	Additional ~\$62m	~\$141m

[Source: BAI Communications Australia, Submission 143, p. 25]

⁶³ BAI Communications Australia, Submission 143, p. 24.

⁶⁴ BAI Communications Australia, Submission 143, p. 25.

- 8.75 In total, to invest in all four areas, a combination of Option 1 and 2 would cost approximately \$141 million. BAI Communications noted that all cost estimates had been represented as total cost figures over 15 years of operation, with ongoing operating costs indexed to increase by 2 per cent per annum. It also stated that all costs had been estimated on a cost recovery basis, with no margin included within the above figures.⁶⁵ BAI Communications stated that it had been engaging with the Commonwealth Government in regard to the resilience initiatives, but had yet to finalise or progress discussions to a funding stage.⁶⁶
- 8.76 The Department of Infrastructure, Transport, Regional Development and Communications (the department) confirmed for the committee that it did not have 'any direct funding relationship' for any resilience programs with BAI Communications.⁶⁷
- 8.77 When queried by the committee on which agency has responsibility for ensuring that Australian broadcasting transmission infrastructure is sufficiently resilient, the department advised that 'the responsibility and ability to provide services is best placed and looked after in the hands of the actual market participants'.⁶⁸
- 8.78 Mr Richard Windeyer, Deputy Secretary for Communications and Media for the department, explained that the department does not:
- ... have a role with respect to the private assets of the individual businesses. They make their own investment decisions and risk judgements about how best to continue to be able to provide their services.⁶⁹
- 8.79 When asked by the committee whether there was a role for government in monitoring or conducting risk assessments around broadcasting infrastructure resilience, the department responded that there was a 'very significant incentive' on the individual businesses that operate the infrastructure to ensure that their services were able to be protected and maintained.⁷⁰

⁶⁵ BAI Communications Australia, *Submission 143*, p. 25.

⁶⁶ Mr Peter Lambourne, Chief Executive Officer, BAI Communications Australia, *Proof Committee Hansard*, 12 August 2020, p. 15.

⁶⁷ Mr Richard Windeyer, Department of Infrastructure, Transport, Regional Development and Communications, *Proof Committee Hansard*, 12 August 2020, p. 47.

⁶⁸ Mr Richard Windeyer, Department of Infrastructure, Transport, Regional Development and Communications, *Proof Committee Hansard*, 12 August 2020, p. 41.

⁶⁹ Mr Richard Windeyer, Department of Infrastructure, Transport, Regional Development and Communications, *Proof Committee Hansard*, 12 August 2020, p. 41.

⁷⁰ Mr Richard Windeyer, Department of Infrastructure, Transport, Regional Development and Communications, *Proof Committee Hansard*, 12 August 2020, p. 42.

8.80 When pressed on whether this industry 'self-regulation' was adequate given that private players in the market have a primary responsibility to their shareholders, rather than the Australian public, Mr Windeyer responded and made the point that:

... there is an interest, which maybe even the shareholders would share, associated with continuity of service and maintaining their infrastructure assets. I don't think we see additional value in the system of necessarily having government officials involved in risk assessments around the assets operated by the market.⁷¹

8.81 Mr Windeyer further noted that there are instances where the department does monitor 'how the market is operating and how things are unfolding'. He indicated that as a consequence of this, the department does 'get involved where we sense there is public interest in trying to strengthen or harden facilities and where we think there's an opportunity to do so'.⁷²

8.82 Mr Windeyer advised that committee that the department accepted BAI Communication's advice that there are currently sites that could be hardened. He outlined that the department would:

... obviously want to look closely at the question of prioritisation or where the first best effort is in terms of applying any increase in hardening.⁷³

8.83 Additionally, Mr Windeyer emphasised that the department's remit was to provide policy advice to government around issues associated with resilience of communications infrastructure, rather than to intervene and actively look to harden sites. He reiterated that that responsibility lay primarily with the owners and operators of the infrastructure:

Ultimately government can make decisions to support additional resilience... But in the first instance it is in the interest of the broadcasters and providers of infrastructure to broadcasters, people like BAI, and in the interest of the telecommunications carriers to look after, invest in and maintain their infrastructure. There will be instances where they may be a role for government to intervene to augment those efforts, but in the first instance the responsibility for ensuring that those assets can operate and provide the services they're expected to provide rests with the owners and operators of the facilities.⁷⁴

⁷¹ Mr Richard Windeyer, Department of Infrastructure, Transport, Regional Development and Communications, *Proof Committee Hansard*, 12 August 2020, p. 42.

⁷² Mr Richard Windeyer, Department of Infrastructure, Transport, Regional Development and Communications, *Proof Committee Hansard*, 12 August 2020, p. 42.

⁷³ Mr Richard Windeyer, Department of Infrastructure, Transport, Regional Development and Communications, *Proof Committee Hansard*, 12 August 2020, p. 43.

⁷⁴ Mr Richard Windeyer, Department of Infrastructure, Transport, Regional Development and Communications, *Proof Committee Hansard*, 12 August 2020, p. 47.

Improved infrastructure repair and protection processes

8.84 Evidence to the committee suggested that physically accessing transmission sites in a timely manner to carry out repairs could be challenging.⁷⁵

8.85 For example, Ms Warner from CRA provided an example from the recent bushfire season:

It's vital that broadcast infrastructure is protected and repaired as efficiently as possible during an emergency, and we've got some direct examples from one of our member networks, Southern Cross Austereo [SCA], who tells us that in conjunction with Broadcast Australia [BAI Communications] they manage their broadcast infrastructure in regions. Only a small number of SCA services were impacted by not being able to have their equipment repaired. But, in some cases, SCA has been told that BAI was hindered in obtaining access to bushfire areas and therefore was delayed in getting to sites to restore emergency broadcast services.⁷⁶

8.86 BAI Communications flagged that priority access to transmission sites during emergency situations would be helpful in carrying out rapid repair and restoration work to ensure site resilience. It explained:

For diesel standby power generators to remain effective during natural disaster events involving extended power outages, it is critical site operators such as BAI have access to site to refuel the generator. Broadcast sites, particularly those broadcasting ABC Local Radio (i.e. providing the public with critical information), should be given equivalent priority access and escort to site for refuelling and service restoration purposes as the emergency service communication networks. Broadcast sites should be placed on the critical refuelling list.⁷⁷

8.87 CRA recommended that a formal policy to facilitate access for broadcast repairs should be implemented by emergency services.⁷⁸

Committee views and recommendations

8.88 The committee understands that prompt and accurate emergency and warning information saves lives, and acknowledges the important role that the ABC, commercial radio, and community radio play during bushfire emergencies. The committee applauds the vital work that all three sectors do in informing communities at risk each year.

⁷⁵ See for example: Commercial Radio Australia, answers to questions on notice, 12 August 2020 (received 31 August 2020).

⁷⁶ Ms Joan Warner, Chief Executive Officer, Commercial Radio Australia, *Proof Committee Hansard*, 12 August 2020, p. 21.

⁷⁷ BAI Communications Australia, *Submission 143*, p. 26.

⁷⁸ Commercial Radio Australia, answers to questions on notice, 12 August 2020 (received 31 August 2020).

The role of broadcasters

- 8.89 In particular, the committee acknowledges the integral role of the ABC in emergency broadcasting in Australia. The committee agrees with the interim observations of the Royal Commission that the ABC is a trusted broadcaster of emergency information with an established reputation built over many years.
- 8.90 The committee regards the ABC's emergency broadcasting activities as incredibly important for regional and rural areas, particularly in light of the retreat of other media players out of these communities. As such, the committee considers it imperative that the ABC is adequately funded to continue this work each year into the future.
- 8.91 The committee was concerned by the evidence that the ABC had needed to triple its coverage of emergency events in just two years. The cost of covering emergency broadcasts over the 2019–20 summer came to \$3.1 million, despite the ABC having no discrete line of funding for such broadcasts. Mr Anderson made clear to the committee the ABC's commitment to emergency broadcasting moving forward, despite ABC funding being reduced in real terms.
- 8.92 Given the established trust of the ABC in the community, and in light of the vital work of the ABC during natural disaster events, the committee is of the view that the Government should both reverse its funding cuts to the ABC, and provide the ABC with additional, annual discrete funding for its emergency broadcasting activities.

Recommendation 12

- 8.93 **The committee recommends that the Commonwealth Government reverse its funding cuts to the Australian Broadcasting Corporation (ABC), and in addition, provide the ABC with annual discrete funding for its emergency broadcast services.**
- 8.94 The committee also appreciates that emergency services and both public and private broadcasters work cooperatively together. The committee would like to acknowledge the excellent work that was evident on all sides during the 2019–20 bushfire season.
- 8.95 The committee is persuaded by the evidence suggesting that work needs to be done on streamlining communication channels between radio stations and emergency services. The committee encourages all parties to work collaboratively to improve and centralise processes in order to ensure a timely and consistent flow of information.
- 8.96 The committee sees merit in the suggestion put forward in the Royal Commission interim observations that all state and territory emergency

response organisations consistently embed ABC managers within state and territory emergency management centres.

- 8.97 In regard to emergency broadcasting by community radio stations, the committee also sees merit in the Victorian emergency broadcasting model outlined by CBAA. It considers that an exploration of how this model could be expanded to other states is warranted.

Communication infrastructure

- 8.98 The committee understands how vital it is that communication facilities and network infrastructure be protected and repaired as efficiently as possible during bushfire emergencies.
- 8.99 The committee is persuaded that there is a critical need to further harden the broadcast sites used for ABC services across Australia. It strongly urges the Commonwealth Government to seriously consider the four areas for investment identified by BAI Communications.
- 8.100 The committee considers there is a compelling public interest case for the Government to invest in these initiatives, given that enhanced resilience would improve the availability of broadcast services to local communities during emergency events.

Emergency information warning systems

- 8.101 The committee recognises the critical importance of consistent public information and warning systems in regard to bushfire emergencies. However, evidence to the inquiry made clear that the inconsistent approaches between jurisdictions, systems and apps increased confusion and therefore placed people and property at increased risk during a bushfire event.
- 8.102 The committee shares the concerns of both the Royal Commission and the NSW Bushfire Inquiry regarding the significant amount of time it is taking to finalise the development and roll-out of the Australian Warning System, and the updated Australian Fire Danger Rating System.
- 8.103 As such, the committee echoes the observations of the Royal Commission, and considers that the finalisation of these systems has the potential to save lives and agrees that the work must be prioritised immediately. There are numerous national bodies that could work together in progressing this work.
- 8.104 Further, the committee also supports the suggestion from the Royal Commission that a national community education campaign be prioritised following the finalisation of the updated systems.
- 8.105 In light of the above, the committee recommends that Emergency Management Australia, the Commissioners and Chief Officers Strategic Committee and the AFAC work together to complete the work on the Australian Warning System and the Australian Fire Danger Rating System as a matter of priority.

Recommendation 13

8.106 The committee recommends that Emergency Management Australia, the Commissioners and Chief Officers Strategic Committee and the Australasian Fire and Emergency Service Authorities Council complete the development of the Australian Warning System and the Australian Fire Danger Rating System as a matter of priority.

Chapter 9

The 2020-21 bushfire season and future analysis

- 9.1 The committee is of the view that there needs to be a rethink and restructure to bushfire management nationally, in light of the unprecedented nature of the 2019–20 bushfire season. There needs to be an acknowledgement that, among other things:
- climate change is escalating the severity and scale of Australian bushfires;
 - Australia was underprepared for the 2019–20 bushfire season, despite the repeated warnings from emergency response leaders and climate scientists of an increase in climate-related disasters, including longer and more dangerous bushfire seasons; and
 - knowledge, resources and capability must be significantly increased and targeted to measures that ensure better preparedness and an all-of-society approach to disaster risk management based on the best available evidence.
- 9.2 There is a clear need for Australia to increase its resilience and preparedness for natural disasters similar to the magnitude and intensity of the 2019–20 bushfire season. A changing climate makes these actions more urgent.
- 9.3 This report has shown that issues such as improved, coordinated and consistent communication, better support for access to health services—including telehealth—and mental health support for first responders, and action from the insurance industry to support emissions reduction, are just some of the ways in which things could be improved before Australia experiences its next 'Black Summer'.

The 2020-21 bushfire season

- 9.4 On 31 August 2020, the Bushfire and Natural Hazards Cooperative Research Centre (BNHCRC) released its Australian Seasonal Bushfire Outlook for September to November 2020.
- 9.5 While the 2019–20 bushfire season was driven by Australia's warmest and driest year on record, the Outlook explained that 2020 had thus far seen a shift away from drier conditions to 'closer to average rainfall patterns for large parts of the country'. Conversely, central and south east Queensland and large parts of Western Australia had seen drier than average conditions.¹
- 9.6 The BNHCRC's Outlook noted that the upcoming 2020–21 fire season would be 'driven by vastly different climate drivers than the previous two fire

¹ Bushfire and Natural Hazards Cooperative Research Centre, *Hazard Note—Australian Seasonal Bushfire Outlook: September – November 2020*, 31 August 2020, p. 2, www.bnhcrc.com.au/hazardnotes/77 (accessed 18 September 2020).

seasons'. The BNHCRC observed that large areas of eastern and northern Australia were expecting wetter than average conditions through spring due to La Nina, but that parts of Queensland faced 'above normal fire potential in the south east and central coast, extending to the north'. The BNHCRC found that:

While these wetter conditions in eastern Australia will help in the short-term, they may lead to an increase in the risk of fast running fires in grasslands and cropping areas over summer. These conditions will be monitored closely over the coming months. In contrast to the wetter conditions for the east, dry conditions persist in Western Australia, with above normal fire potential continuing to be expected in parts of the north.²

- 9.7 The Outlook went on to note that the autumn and winter of 2020 had presented opportunities to 'conduct prescribed burning where appropriate weather conditions allowed', and this would continue through spring in some jurisdictions, when possible.³

Recovery efforts

- 9.8 The recovery, rehabilitation and reconstruction phase is a critical opportunity to rebuild in a way that improves infrastructure, including through integrating disaster risk reduction into development measures.⁴ There are a number of efforts underway to progress recovery to the fires, and to improve future natural disaster resilience.
- 9.9 For example, the Department of Industry, Science, Energy and Resources (DISER) advised that it was contributing to the government's recovery efforts, by 'helping build national resilience and strengthening response capabilities'.⁵
- 9.10 Dr Peter Mayfield, Executive Director of Environment, Energy and Resources at the Commonwealth Scientific and Industrial Research Organisation (CSIRO), informed the committee that CSIRO scientists were working on a number of projects around bushfire research, including the development of:

... reliable tools to predict bushfire behaviour, advance fire-spread prediction and, in addition, bushfire suppression systems. We undertake training of all of the state fire agencies in fire behaviour and prediction,

² Bushfire and Natural Hazards Cooperative Research Centre, *Hazard Note—Australian Seasonal Bushfire Outlook: September – November 2020*, 31 August 2020, p. 1.

³ Bushfire and Natural Hazards Cooperative Research Centre, *Hazard Note—Australian Seasonal Bushfire Outlook: September – November 2020*, 31 August 2020, p. 1.

⁴ United Nations Office for Disaster Risk Reduction, ['What is the Sendai Framework for Disaster Risk Reduction?'](#) (accessed 2 July 2020).

⁵ Department of Industry, Science, Energy and Resources, *Submission 52*, p. 7.

and we use world-class facilities and models to better understand and manage fires under future climate conditions.⁶

Ongoing mitigation efforts

9.11 Significant and ongoing mitigation efforts are required to address emissions reduction, and the risks presented by a changing climate and the increased severity and frequency of natural disaster events like bushfires.

9.12 As was noted by Dr Richard Thornton, Chief Executive Officer of the BNHCRC, mitigation includes both short-term seasonal preparedness, and longer-term planning. Dr Thornton went on to describe some mitigation activities, including 'land use planning, better building, building codes for new construction and incentives for retrofitting existing assets'. However, Dr Thornton observed that there were some impediments to implementing mitigation efforts, because:

These are all intensely politically charged topics. In fact, there is political capital to be gained by providing disaster relief, but it is lost when politicians ask communities to undertake their own risk reduction activities. All these points lead us to the importance of better disaster resilience in our communities and in our natural landscape, a better and more-informed approach to mitigation, better building and rebuilding, better management of fire resources and a recognition that some places where we choose to live may not be appropriate in the near future.⁷

9.13 To this end, DISER explained that it was playing a key role in ensuring that Australia would meet its international emissions reductions commitments, and that it was helping to:

... mitigate the risk of future bushfire events as part of a global response to climate change. We also help develop the required evidence base to support mitigation activities by Australian governments and emergency agencies, through supporting the research and activities of organisations such as CSIRO and the BNHCRC.⁸

9.14 Mr Greg Mullins of Emergency Leaders for Climate Action (ELCA) also spoke to the need to address the fact that climate change was driving extreme weather, in turn driving natural disaster risks. Mr Mullins declared that:

We have to change what we're doing. But, also, we need to take action on the main causal factor, which is emissions—carbon dioxide emissions and

⁶ Dr Peter Mayfield, Commonwealth Scientific and Industrial Research Organisation, *Committee Hansard*, 27 May 2020, p. 16.

⁷ Dr Richard Thornton, Bushfire and Natural Hazards Cooperative Research Centre, *Committee Hansard*, 27 May 2020, p. 10.

⁸ Department of Industry, Science, Energy and Resources, *Submission 52*, p. 7.

methane emissions—and bring the temperature down eventually. I think we have a duty to future generations.⁹

Reconstruction and rebuilding

9.15 Submitters stressed that the 2019–20 bushfire season had reinforced the imperative that rebuilding process must 'build back better' and adapt to a changing climate.¹⁰ On this matter, the Australian Institute of Architects made a number of recommendations in its submission, including:

- that properties are 'built back better' when rebuilding after disasters to be 'more fire resistant, more resilient, sustainable and climate responsive';
- appropriate rebuilding and building design in bushfire-affected areas;
- that some remote locations should be considered unsuitable for reconstruction and should be seen as 'inherently vulnerable'; and
- effective community and stakeholder engagement to develop disaster resilient communities, and to ensure that 'investment and reconstruction benefits the broader community'.¹¹

9.16 Communities and individuals must be informed about the level of risk associated with their location in order to effectively make decisions regarding their properties.

9.17 The committee will examine the role of appropriate building standards, regulations and land use planning as its inquiry continues, including the suitability of the Commonwealth Government constructing a nationally available database that collates bushfire risk ratings from around the country, to help guide building and reconstruction locations.

Data availability and accessibility

9.18 The availability of accurate and timely data will be vital in increasing the understanding and mitigation of disaster risk. It became evident after the 2019–20 bushfires that there were significant gaps in data collection for a number of areas, to the point where even the Royal Commission on National Natural Disaster Arrangements (Royal Commission) has been unable to definitively state the impact of the fires by area burnt.

9.19 Priority 1 of the *National Disaster Risk Reduction Framework* (NDRRF) is 'Understanding disaster risk'. The Framework notes that '[a]cross all sectors,

⁹ Mr Gregory Mullins, AO, AFSM, Emergency Leaders for Climate Action, *Committee Hansard*, 27 May 2020, p. 2.

¹⁰ See, for example, Australian Institute of Architects, *Submission 131*; National Insurance Brokers Association, *Submission 79*; Foundation for Rural and Regional Renewal, *Submission 92*; Insurance Australia Group, *Submission 110*, Attachment 1 (Menzies Research Centre, *Strengthening resilience: Managing national disasters after the 2019–20 bushfire season*, April 2020), p. 15.

¹¹ Australian Institute of Architects, *Submission 131*, p. 17.

there is an urgent and growing demand for trusted and authoritative disaster risk information and services to inform operational and strategic decisions'.¹²

- 9.20 However, the NDRRF acknowledges that there are current gaps in disaster risk data and information, as well as barriers to the sharing and availability of data and information. The NDRRF states that existing data is based on hazard patterns, which has limited application in predicting future risk. The NDRRF continues that:

More needs to be done to properly connect and leverage existing data, information and services that are not accessible or affordable. Also, we need to better understand and address key data and information gaps and overcome barriers to sharing it.¹³

- 9.21 The Department of Home Affairs acknowledged in its submission that accessing and integrating bushfire hazard data and risk information was challenging. Bushfire extent data was produced by each state and territory using different data structures and was presented in real time through different jurisdictional systems using a variety of formats and symbolisation, creating integration challenges.¹⁴
- 9.22 Geoscience Australia expanded on this issue in its submission, calling for a national dataset:

The national extent of the bushfires during the 2019–20 summer quickly demonstrated the need for a national dataset showing the extents where fire had burnt. Although individual states publish data showing where fires have burnt in the current fire season, no national dataset showing where the fires had burnt had been published until this year, meaning our knowledge of fire extent is fragmented and inconsistent across jurisdictions. A national dataset is essential for a nationally coordinated and coherent understanding of which areas, populations, infrastructure, flora and fauna, and other assets have been impacted by the bushfires.¹⁵

- 9.23 As there was no common, nation-wide operating picture during the 2019–20 bushfire season, there was limited ability for people to quickly assess information and understand where fires were threatening populations, significant places, or infrastructure. According to Geoscience Australia, this can be remedied by the:
- adoption, by trusted data providers, of nationally-agreed standards for symbology and classification for fire-related data; and

¹² Department of Home Affairs, *National Disaster Risk Reduction Framework*, p. 12.

¹³ Department of Home Affairs, *National Disaster Risk Reduction Framework*, p. 12.

¹⁴ Department of Home Affairs, *Submission 68*, p. 14.

¹⁵ Geoscience Australia, *Submission 93*, p. 2. See also, Science and Technology Australia, *Submission 103*, p. 6.

- aggregation and publication of those datasets in an easy to use platform as a national-scale common operating picture, from authorised sources, covering Australia's sovereign extents.¹⁶

9.24 The committee sees considerable merit in examining the issue of data collection and dissemination and its role in promoting both resilience and recovery. It is also clear that the lack of a nationally-consistent approach to data collection and presentation leads to confusion and can significantly increase risk. As detailed below, the committee will continue to examine this, and many other matters, as it continues its inquiry.

Future reports

9.25 This interim report is by no means exhaustive, and the committee intends to continue its work to investigate all aspects of the 2019–20 bushfire season throughout 2021. The committee will examine a number of other areas of interest, including (but not limited to):

- the 2020–21 Budget allocations made to support the recovery and mitigation process;
- the adequacy of financial support provided to people impacted by the fires;
- the role of charitable organisations in providing financial and other support during natural disasters, and the suitability of existing frameworks for distributing donations;
- the role of land use planning, and building regulations and standards in bushfire-prone areas, to improve preparedness against natural disasters;
- a detailed examination of the role of data collection and information in addressing disaster risk and mitigation;
- the important role of Indigenous fire management practices;
- the ongoing impact of the fires on people's mental and physical health, and the adequacy of the government's health support funding;
- the impact of the bushfires on Australia's international reputation and on industries such as tourism and education, and the compounding impact of the COVID-19 pandemic; and
- the findings of the other ongoing inquiries into the 2019–20 bushfire season, including the Royal Commission which is due to table its final report at the end of October 2020.

Findings of other inquiries

9.26 During the inquiry to date, the committee has been pleased to observe that the various inquiries and investigations into the 2019–20 bushfire season, at both a state and federal level, have reached similar conclusions and made similar observations and recommendations—for example, with regard to addressing a

¹⁶ Geoscience Australia, *Submission 93*, p. 4.

changing climate; building bushfire and natural disaster resilience; improving risk mitigation efforts, and better cohesion between jurisdictions.

- 9.27 The committee is optimistic that because of this, effective governance arrangements, climate change mitigation efforts and fire management practices and hazard reductions can be progressed in a timely manner and implemented before such a devastating fire season can strike Australia again.

Senator Tim Ayres
Chair

Coalition Senators Dissenting Report

- 1.1 The victims of Australia's worst fire season in recent memory deserve answers for what went wrong and solutions to ensure future fire seasons are managed more effectively to limit loss of life, property, wildlife and habitat.
- 1.2 The best way to deliver that is a thorough, considered, evidence-based inquiry that carefully examines the information presented to it and makes recommendations in that spirit.
- 1.3 We note that this committee's inquiry is occurring alongside the context of multiple State and Territory reviews and inquiries, including a Royal Commission into Australia's Natural Disaster Arrangements. A constructive Senate inquiry has the potential to add to this body of knowledge.
- 1.4 However, gratuitous partisanship and point scoring will do nothing to recover the lives and livelihoods lost and will not contribute anything useful for combating this ongoing threat.
- 1.5 There are many good recommendations and much thoughtful discussion of the issues a fire-prone continent faces in the interim majority report. But it is let down by the needless partisanship and unnecessary asides. Sadly, the useful content in the report may be overshadowed by the political score-settling also contained within it. The report also does not adequately represent the current state of Australia's fire preparation, response and recovery arrangements.
- 1.6 Coalition Senators hope the final report reflects a more bipartisan approach.
- 1.7 Coalition Senators recognise that, within the federation, States and Territories are primarily responsible in responding to, mitigating, and preparing for the impacts of natural disasters. Any support from the Commonwealth government is designed to complement these arrangements and support our State and Territory governments in fulfilling these responsibilities. The Royal Commission into Natural Disaster Arrangements is currently examining these arrangements and is due to hand down its recommendations at the end of October 2020. Any findings of this committee will need to be considered in context of these recommendations.
- 1.8 In preparing for the 2019–20 season, Coalition Senators note that the Commonwealth government through Emergency Management Australia worked with our State and Territory counterparts to assist them in their bushfire preparation and readiness. This included briefings with every State and Territory government regarding seasonal risk and disaster risk; briefings with sector and industry groups; the readiness of government mechanisms including the Crisis Coordination Centre; along with engagement with Defence.

- 1.9 Further, Coalition Senators note that the Commonwealth government approved every request for support from State and Territory governments throughout the Black Summer. This included the mobilisation of ADF personnel and assets, along with activations of disaster recovery funding arrangements. Recognising the unprecedented impact of the fires, the Commonwealth established the National Bushfire Recovery Agency to enable over \$2 billion in funding to aide Australians in their recovery.
- 1.10 The committee has received a large range of evidence from several government entities and community stakeholder groups, and has paid particular attention to bushfire risk reduction, mitigation and preparedness. Coalition Senators note that mitigation, prevention and preparedness efforts can take a number of forms, including:
- research;
 - land and vegetation management, including land use planning; and
 - hazard reduction including the reduction of fuel loads via burning or mechanical clearing.
- 1.11 To this end, Coalition Senators note the following:
- That the Commonwealth has announced \$88 million in funding to transition the current Bushfire and Natural Hazards CRC into a new, world leading natural hazards research centre. Emergency Management Australia is currently engaging with the sector and the current Bushfire and Natural Hazards CRC to ensure this new centre meets industry and government needs.
 - That, in order to obtain data on hazard reduction efforts, the Commonwealth wrote to States and Territories requesting their fuel load reduction targets, and what was actually achieved.
 - That only the NSW government replied to this request so far.
- 1.12 A large volume of evidence was provided to the committee by Greg Mullins, Chair of Emergency Leaders for Climate Action. Coalition Senators wish to recognise the expertise, lived experience and service of all of our former emergency service leaders.
- 1.13 However, Coalition Senators wish to note that Mr Mullins was never refused a meeting with members of the Government. The request to meet the Prime Minister was referred to the Ministers responsible, being the Minister for Emergency Management, David Littleproud MP, and the Minister for Emissions Reduction, Angus Taylor MP. An invitation to meet with Minister Littleproud and Minister Taylor was initially accepted by Mr Mullins. Mr Mullins subsequently rejected the invitation, and then accepted again. Eventually, a meeting was held on 3 December 2019. Assertions that the Commonwealth refused to meet with Emergency Leaders for Climate Action are untrue.

- 1.14 Emergency Leaders for Climate Action has also provided evidence that EMA does not have direct access to the secretary of the Department of the Prime Minister and Cabinet, or the Prime Minister. Again, this is untrue. Throughout the lead-up to the 2019–20 black summer, and during these events, EMA was in direct contact with both the Department of the Prime Minister and Cabinet, the office of the Prime Minister, and the Prime Minister himself. This involved briefings by the Director General of Emergency Management Australia directly to the Prime Minister, and direct briefings to the Home Affairs Deputy Secretary and Department of Prime Minister and Cabinet Deputy Secretary, who co-chair the Australian Government Crisis Committee and the National Crisis Committee.
- 1.15 Emergency Leaders for Climate Action also provided evidence that Australia's National Firefighting Capability is insufficient. Coalition Senators note that Mr Mullins, Chair of the Emergency Leaders for Climate Action, is not currently a member of AFAC or NAFC. Further, Coalition Senators note that Minister Littleproud wrote to AFAC on 17 November, asking for confirmation whether or not AFAC had sufficient resources for the season. Coalition Senators note that Mr Stuart Ellis, CEO of AFAC confirmed sufficient resources were in hand, and that if further resources were required a request would be made. In early January 2020, a request was made for funding for further Large Air Tanker support. NAFC was provided immediate funding for four large air tankers.
- 1.16 The interim report has made recommendations regarding the operational make up of Australia's aerial firefighting fleet. Coalition Senators wish to note that this is not a decision for Government. Those operational decisions are made by NAFC which is under the authority of the fire chiefs from each State and Territory. These operational experts are best placed to make operational decisions regarding our aerial arrangements, not politicians.
- 1.17 The committee has also heard evidence from the insurance industry, with a particular focus on government actions to support mitigation measures. To this end, Coalition Senators note that the Commonwealth has led States and Territories to agree on a national action plan to implement the National Risk Reduction Framework, which enables \$260 million in joint funding to be provided for risk reduction and mitigation activities across Australia.
- 1.18 Coalition Senators recognise the importance of supporting victims' recovery from natural disasters financially, but that this must be balanced with personal responsibility and any potential insurance disincentives. To that end, Coalition Senators note that the 2014 Productivity Report into Natural Disaster Funding Arrangements recommended that the rates of the Australian Government Disaster Recovery Payment and the Disaster Recovery Allowance be lowered as they can inadvertently create a disincentive for insurance. Coalition Senators note the Government has not lowered these payment rates but

increased the disaster recovery funding payment for children to assist in education costs as a result of the Black Summer.

- 1.19 Coalition Senators note the extensive evidence presented that supports the conclusion that funding of emergency services via insurance levies creates an inequity; that only those responsible property owners that properly insure contribute towards the cost of providing the entire community with these essential services. A more equitable approach amortising the cost of emergency services through alternative funding means provides a range of benefits, including by providing lower premiums, increased funding and certainty of funding streams for emergency services. Coalition Senators consider it prudent to remove emergency services levies on insurance.
- 1.20 Australia's funding for recovery from natural disasters is governed by the Disaster Recovery Funding Arrangements. Coalition Senators acknowledge unintended inequities in how disaster assistance is delivered, with it varying between each State and Territory. Coalition Senators therefore note that Minister Littleproud has commissioned a review into the Disaster Recovery Funding Arrangements with the states and territories.
- 1.21 Coalition Senators acknowledge the importance of communications in both preparation and response to natural disasters, including bushfires. The Committee received a large volume of evidence regarding emergency messaging, warning systems and emergency service communications. Coalition Senators note the government has already committed \$261 million in joint State and Commonwealth funding over five years for risk reduction activities through the National Disaster Risk Reduction Framework. Separate to this, the Commonwealth is investing:
 - \$88.1 million for a new world class, disaster resilience research centre;
 - over \$6.2 million on the next generation of Australia's Fire Danger Rating system in order to deliver more accurate and local risk messaging;
 - \$2 million to ensure that the Commonwealth's component of the national telephone-based warning system, Emergency Alert, is available; and
 - \$8 million towards the development of a Public Safety Mobile Broadband Capability. State Governments are providing a total of \$2.5 million.
- 1.22 Coalition Senators commend the ABC, and indeed all Australian media organisations, for the hard work that they do covering natural disasters and keeping local communities informed during events such as the 2019–20 bushfires.
- 1.23 Coalition Senators reject the assertion in the majority report that funding has been cut to the ABC.
- 1.24 The ABC's primary source of revenue is funding from government, which is allocated in three-year periods. The current triennium runs from 1 July 2019 –

30 June 2022. Revenue from other independent sources is derived primarily from commercial activities.

- 1.25 Table 2.1.1: *Budgeted Expenses for Outcome 1* in the ABC's 2020-21 Portfolio Budget statement outlines the ABC's funding over the current triennium:

	2019-20 Estimated actual \$'000	2020-21 Budget \$'000	2021-22 Forward estimate \$'000	2022-23 Forward estimate \$'000	2023-24 Forward estimate \$'000
Table 2.1.1: Budgeted expenses for Outcome 1					
Program 1.1: ABC General Operational Activities					
Revenue from Government Ordinary annual services (Appropriation Bill No. 1)	878,566	878,759	880,561	866,543	873,403
Expenses not requiring appropriation in the budget year	6,236	306	-	324	157
Revenues from other independent sources	64,897	50,460	55,324	57,357	57,498
Total expenses for Program 1.1	949,699	929,525	935,885	924,224	931,058
Program 1.2: ABC Transmission and Distribution Services					
Revenue from Government Ordinary annual services (Appropriation Bill No. 1)	183,699	186,595	189,536	190,470	192,159
Expenses not requiring appropriation in the budget year	2,231	3,143	2,441	1,730	1,024
Revenues from other independent sources	19	-	-	-	-
Total expenses for Program 1.2	185,949	189,738	191,977	192,200	193,183
Outcome 1 totals by resource type					
Revenue from Government Ordinary annual services (Appropriation Bill No. 1)	1,062,265	1,065,354	1,070,097	1,057,013	1,065,562
Expenses not requiring appropriation in the budget year	8,467	3,449	2,441	2,054	1,181
Revenues from other independent sources	64,916	50,460	55,324	57,357	57,498
Total expenses for Outcome 1	1,135,648	1,119,263	1,127,862	1,116,424	1,124,241

- 1.26 As can be seen in the table above, revenue from government for General Operational Activities and Transmission and Distribution Services and total funding rises each and every year of the current triennium.
- 1.27 Coalition Senators note that the Commonwealth Government has not considered ABC funding for the next triennium. As such, numbers in the budget papers for the next funding triennium do not in any way reflect how much money the ABC will receive in those years.

Recommendation 1:

- 1.28 Coalition Senators agree with recommendation 1 in principle, noting that the NBRA already works closely with all stakeholders to understand and report on use of funding and that it does not have the legislative remit to compel.

Recommendation 2:

- 1.29 Coalition Senators note that the review led by Minister Littleproud is currently considering this issue.

Recommendation 3

- 1.30 Coalition Senators agree with recommendation 3 in principle, pending advice from Emergency Management Australia, which is required to access the fund. The fund complements the Government's existing suite of arrangements helping Australia prepare for disasters, including strategic work being undertaken to reduce disaster risk, in line with the National Disaster Risk Reduction Framework. Coalition Senators highlight the Commonwealth funding referred to in paragraph 1.21.

Recommendation 4:

- 1.31 Coalition Senators disagree with recommendation 4, noting that the Productivity Commission Report into Natural Disaster Funding Arrangements recommended lowering rates of Disaster Recovery Payments and the Disaster Recovery allowance. There is a fine line between supporting Australians in crisis and inadvertently providing a disincentive for insurance and personal responsibility.

Recommendation 5:

- 1.32 Coalition Senators disagree with recommendation 5. The function of hazard reduction is a state responsibility shared with land holders. The Government has already announced over \$88m for ongoing research.

Recommendation 6:

- 1.33 While Coalition Senators strongly support research into the health impacts of bushfires, we note the government is already providing record levels of funding for medical research through the Medical Research Future Fund, and that funding for academic researchers is also available through the Australian Research Council.

Recommendation 7:

- 1.34 Coalition Senators note the unprecedented advances made in the delivery of Telehealth services during the COVID-19 pandemic and record investment in Telehealth of \$2.4 billion in the 2020-21 budget.

Recommendation 8:

- 1.35 Coalition Senators disagree with the proposal in recommendation 8. It is not the role of the Commonwealth government to determine the make-up of Australia's aerial firefighting fleet. Those operational decisions are made by NAFC which is under the authority of the fire chiefs from each State and Territory. These operational experts are best placed to make operational decisions regarding our aerial arrangements. It is noted that the Commonwealth has actioned each funding request made by NAFC, either directly or providing equivalent funding.

Recommendation 9:

- 1.36 Instead of another review, Coalition Senators recommend the State and Territory governments that currently rely on funding for part or all of their emergency service costs via levies imposed on insurance premiums should, as a matter of priority, follow Victoria's lead by removing these levies when it was recommended to do so by the Black Saturday Royal Commission, and investigate alternative funding sources.

Recommendation 10:

- 1.37 Coalition Senators believe it is entirely appropriate that APRA has suspended its consideration of all non-urgent matters in response to the COVID-19 pandemic. Regulators should be focused on assisting businesses to get through the worst economic crisis since the Great Depression, and creating jobs as we emerge from it. Any work which does not contribute to that objective should not be prioritised.

Recommendation 11:

- 1.38 Coalition Senators agree with recommendation 11 in principle.

Recommendation 12:

- 1.39 Coalition Senators reject recommendation 12 that the government provide the ABC with discrete funding for its ABC emergency broadcast services. The ABC is provided with over \$1 billion per annum, and because its funding is guaranteed in three-year blocks, it enjoys more financial certainty than any other media organisation in the nation. The ABC is adequately funded to provide the news coverage of emergencies that Australians expect.
- 1.40 Should it feel that its news coverage of emergencies is lacking, Coalition Senators encourage the ABC to repurpose funds from other parts of the organisation to ensure that it provides a level of news coverage during emergencies that Australians expect.

Recommendation 13:

- 1.41 Coalition Senators agree with recommendation 13 in principle.

Senator James Paterson
Deputy Chair

Senator Paul Scarr
Member

Additional Comments - Australian Greens

Evidence to the committee on emissions and bushfires

- 1.1 As outlined in the main report, the committee has received very clear evidence from a range of witnesses, on the impact of the climate emergency on bushfire risk. As the Climate Council of Australia wrote:

Climate change was the driver of the record-breaking extreme weather conditions that led to the catastrophic bushfires. Any remaining doubt on the clear causal linkages between climate change and worsening bushfire seasons driven by extreme weather needs to be comprehensively refuted in the Inquiry Report.

...

Climate change is driving worsening bushfires in Australia. Bushfire conditions are now more dangerous than in the past, and the risk to life, property and the environment has increased... Longer fire seasons now overlap with those in the Northern Hemisphere, reducing the ability of fire and emergency services to share resources nationally and internationally during major emergencies.

Extremely hot, dry conditions, underpinned by years of reduced rainfall and a severe drought, set the scene for the unprecedented fires and losses during the 2019-20 summer.¹

- 1.2 Similarly, Emergency Leaders for Climate Action noted that:

... a warming climate, proven to be caused by the burning of coal, oil and gas, is resulting in worsening and more frequent extreme weather events such as those that spawned the 2019-20 bushfires in NSW, Qld, SA, Victoria, WA and Tasmania.²

- 1.3 Global warming has also made it harder to undertake hazard reduction burning, as the Climate Council noted:

Fire seasons have lengthened across Australia, and the number of days of Very High Fire Danger and above have increased, reducing windows of opportunity for land managers and fire services to conduct hazard reduction burns.³

- 1.4 As the Bushfire and Natural Hazards Cooperative Research Centre noted:

Arbitrary area-based targets can drive unintended behaviours in order to meet them. Therefore, it is important that whatever targets are put in place that these are based on the best available evidence and scientific research.

¹ Climate Council of Australia, *Submission 40*, pp. 4, 6.

² Emergency Leaders for Climate Action, *Submission 36*, p. 2.

³ Climate Council of Australia, *Submission 40*, p. 6.

They should be measurable, achievable and articulated in such a way that the community understand their residual risk.⁴

- 1.5 The committee also received clear evidence that emissions from burning fossil fuels contribute to the climate emergency. From the Climate Council of Australia:

Greenhouse gas emissions from within Australia and emissions arising from the burning of coal, oil and gas exported from Australia but burnt elsewhere both contributed to the climatic changes that drove the bushfire crisis...⁵

- 1.6 Similarly, ELCA note that a warming climate is 'proven to be caused by the burning of coal, oil and gas', and there is 'unequivocal scientific evidence that climate change, driven mainly by the burning of coal, oil and gas, is worsening these extreme weather events'.⁶

- 1.7 The Australia Institute estimates that Australia is the 'fifth biggest miner of fossil fuel carbon, behind China, the USA, Russia and Saudi Arabia'. In addition:

Australia mines more fossil fuel carbon than Indonesia, India, Canada, Iran and Iraq. Australia makes up 4% of global fossil fuel mining by CO₂ potential. For every Australian, the country mines 57 tonnes of fossil fuel CO₂ per year. That is ten times greater than the world average.⁷

The Parliament should declare a climate emergency

- 1.8 The science is clear: the mining and burning of coal, oil and gas increase the climate crisis and are making bushfires worse. The climate crisis is making our bushfire season longer and more extreme. Climate induced droughts and heatwaves increase the likelihood and severity of fires.
- 1.9 The 2019–20 bushfires may have ended, but as Australia approaches another summer impacted by the climate crisis, the urgency of the issue has only increased. The only reasonable response for the Parliament to the inaction of the Liberal Party is to commit to meaningful, immediate action on emissions reductions, and declare a climate emergency.
- 1.10 To meet its contributions to the Paris Agreement goal of keeping global warming as close to 1.5 degrees as possible, Australia must reduce emissions by 75 per cent on 2005 levels by 2030, and to net zero by 2035.

⁴ Bushfire and Natural Hazards Cooperative Research Centre, *Submission 32*, [pp. 7-8].

⁵ Climate Council of Australia, *Submission 40*, p. 4.

⁶ Emergency Leaders for Climate Action, *Submission 36*, p. 2.

⁷ Tom Swann, The Australia Institute, [*High Carbon from a Land Down Under: Quantifying CO₂ from Australia's fossil fuel mining and exports*](#), July 2019, p. 1.

Recommendation 1

1.11 That the Australian Government fulfils its commitment under the Paris Agreement, and achieve net zero emissions by 2035.

1.12 Acting to address the climate emergency will require large-scale government investment and action. The Australian Greens have introduced the Climate Emergency Declaration Bill 2020, which would:

- declare a climate emergency;
- establish a climate emergency war cabinet to guide the country through the rapid society-wide and economy-wide response to the climate crisis; and
- require all public service agencies to act in accordance with the declaration when developing, implementing, providing and evaluating policies, and report on compliance to the Parliament.⁸

1.13 Passing this legislation could commit Australia to meaningful action to address the climate emergency, and to secure a prosperous, jobs-rich future for subsequent generations.

Recommendation 2

1.14 That the Parliament pass the Climate Emergency Declaration Bill 2020.

Senator Janet Rice
Greens Senator for Victoria

⁸ Climate Emergency Declaration Bill 2020, [Explanatory Memorandum](#), [p. 2].

Additional Comments - Senator Malcolm Roberts

- 1.1 Having read the recommendations of the draft committee report and after discussing with Senator Scarr the Coalition Senators Dissenting Report I note that this confirms this topic as complex. It deserves to be handled with care and respect.
- 1.2 While the recent fire season is far from the worst in many metrics that is not relevant to the victims of the fires. Instead victims deserve to know the facts as to the causes of the fires and the effectiveness of the emergency response to the fire. We have a responsibility to develop more effective responses to future fires to limit the impact of fires on human lives, livelihoods, assets and communities and to understand and where necessary to manage the impact of fires on the natural habitat.
- 1.3 The first step in caring for people and the natural environment is to carefully gather data accurately, thoroughly and comprehensively and to make decisions and plans based on such data.
- 1.4 This inquiry sadly reflects the politicisation of bushfires and that detracts from the inquiry, taints its recommendations and disrespects the Senate. It hurts, and lays vulnerable, people living in areas prone to bushfires and it detrimentally affects all Australians depending on federal parliament's governance.
- 1.5 Within this context and possibly because of it I highlight the paucity of accurate data that drives damaging policies as a result of parliament's politicisation causing an abandonment of scientific integrity. For example, when Greg Mullins was asked during his appearance at the inquiry for evidence of his implicit claims that human activity is changing the climate due to our use of hydrocarbon fuels he asked the Chair whether he was required to answer my question because he lacked respect for my position on climate - notwithstanding that my position is in fact based on empirical scientific evidence. While I was comfortable with his avoidance of providing empirical evidence because his action highlights his lack of empirical evidence that carbon dioxide from human activity affects climate and needs to be cut, it is disappointing that the Chair at the time did not direct Mr Mullins as witness to answer the question.
- 1.6 This highlights the vacuous way in which parliament has avoided its responsibilities to scrutinise science and especially policies claimed to be based on science. When advocates such as Mr Mullins, regardless of his expertise in firefighting and despite the apparent sincerity of his intentions are able to

disrespect scientific principles and to avoid accountability it demonstrates that the Senate cannot be relied upon.

- 1.7 It raises many serious questions about the way in which the Senate conducts itself and the subsequent policies that have emerged from parliament.
- 1.8 The people who pay the price for this abandonment of scientific process and scientific integrity are the people of Australia. Australians deserve better.

Senator Malcolm Roberts
Member

Appendix 1

Submissions and additional information received by the committee

Submissions

- 1 Dr Sophie Lewis
- 2 Mr Leslie Jackson
- 3 Mr Richard Miller
- 4 Professor Alan Rosen AO
 - 4.1 Supplementary to submission 4
- 5 Mr Robert Tryhorn
- 6 Mr Brian Barlin
- 7 Mr Rohan Byrnes
- 8 Gippsland Emergency Relief Fund
- 9 National Enterprise for Rural Community Wellbeing
- 10 Mr David Lewis
- 11 National Aboriginal Community Controlled Health Organisation
- 12 Northern Territory Government
- 13 Australian Academy of Health and Medical Sciences
- 14 GIVIT
- 15 Mr Philip Southwell
- 16 Mr Ric Hurst
- 17 Telstra
- 18 Mr Michael Boyden
- 19 Mr Aldo Giucci
- 20 Mr Alan Pickering
- 21 Veterinary Oncology Consultants
- 22 Edmund Rice Centre, Sydney
- 23 Eurobodalla Shire Council
- 24 Professor Jason Sharples
- 25 Ms Lesley Hodges
- 26 National Women's Alliances
- 27 Mr John O'Donnell
- 28 Tourism Australia
- 29 Durras Community Association NSW
- 30 Save the Children
- 31 Australian Charities and Not-for-profits Commission
- 32 Bushfire and Natural Hazards CRC
- 33 Export Finance Australia
- 34 Ms Nicole Carter

- 35 Mr Mark Beadle
- 36 Emergency Leaders for Climate Action
- 37 Australian Child & Adolescent Trauma, Loss & Grief Network and Emerging Minds
- 38 Mr Benjamin Cronshaw
- 39 Australian Medical Association
- 40 Climate Council of Australia
- 41 Professor Stuart Khan
- 42 Department of Defence
- 43 Consumer Action Law Centre
- 44 Russell Island Development Association Inc.
- 45 National Rural Health Alliance
- 46 Community Broadcasting Association of Australia
- 47 St Vincent de Paul Society
- 48 Mr Ange Kenos
- 49 Community Industry Group
- 50 Australasian Fire and Emergency Service Authorities Council
- 51 Maloneys Beach Residents Association
- 52 Department of Industry, Science, Energy and Resources
- 53 ReachOut
- 54 Foodbank Australia Ltd
- 55 Australian Red Cross
- 56 Practical Justice Initiative UNSW
- 57 Institute of Foresters of Australia & Australian Forest Growers
- 58 Dr Thomas Duff
- 59 Department of Foreign Affairs and Trade
- 60 The Salvation Army
 - 60.1 Supplementary to submission 60
- 61 Royal Australian College of General Practitioners
- 62 Associate Professor Heather Cleland and WGCDR Michael Rudd OAM
- 63 RMIT University Centre for Urban Research
- 64 Alumnae of Homeward Bound
- 65 Nature Conservation Society of South Australia
- 66 Local Government Association of Queensland
- 67 Ginninderra Falls Association
- 68 Department of Home Affairs
- 69 Climate Justice Programme
- 70 Department of Prime Minister and Cabinet
- 71 Volunteering Australia
- 72 Doctors for the Environment Australia
- 73 Ecological Society of Australia
- 74 Joint Business Group
- 75 Dr Sarah Waddell

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- 76 Rural Doctors Association of Australia
 - 77 The George Institute for Global Health
 - 78 ACT Council of Social Service
 - 79 National Insurance Brokers Association
 - 80 AIOH
 - 81 The Law Society of NSW
 - 82 HVP Plantations
 - 83 Griffith University
 - 84 Australian Communications Consumer Action Network
 - 85 Australian Meteorological and Oceanographic Society (AMOS)
 - 86 Asthma Australia
 - 87 Extinction Rebellion (XR) Grey Power Vic
 - 88 Gecko Environment Council
 - 89 Australian Psychological Society
 - 90 *Confidential*
 - 91 Mental Health Australia
 - 92 Foundation for Rural & Regional Renewal
 - 93 Geoscience Australia
 - 94 New South Wales Bar Association
 - 95 *Name Withheld*
 - 96 Gippsland Apiarist Association
 - 97 Australian National University
 - 98 Dr Tamsin Clarke and Mr Phillip Clarke
 - 99 Business Council of Co-operatives and Mutuals
 - 100 Ms Kathryn Michie
 - 101 *Name Withheld*
 - 102 Grattan Institute
 - 103 Science & Technology Australia
 - 104 United Firefighters Union
 - 105 Ashleigh Best, Professor Christine Parker, Professor Lee Godden, Melbourne Law School
 - 106 Mr Russ Temple
 - 107 ANSTO
 - 108 Australian Council of Social Service
 - 109 Australian Banking Association
 - 110 Insurance Australia Group (IAG)
 - 111 Australian Academy of the Humanities
 - 112 Business NSW
 - 113 Ms Angela Turner
 - 114 Bureau of Meteorology
 - 115 Public Health Association of Australia
 - 116 Optus
 - 117 Mr Neil Barraclough

- 118 Mr Hercole Genovese
- 119 National Legal Aid
- 120 Services Australia
- 121 Mr Andrew Gray
- 122 Australian Academy of Science
- 123 ABC Friends National
- 124 Tasmanian Government
- 125 Suncorp
- 126 Department of Health
- 127 Austrade
- 128 *Confidential*
- 129 Bega Valley Greens
- 130 Community Legal Centres NSW
- 131 Australian Institute of Architects
- 132 Professor Brendon Coventry BMBS PhD FRACS FACS FRSM
- 133 Insurance Council of Australia
- 134 Allianz Australia Insurance Ltd
- 135 Government of Western Australia
- 136 Latrobe City Council
- 137 Australian Paramedics Association (NSW)
- 138 NXT TEC. Ltd
- 139 Dr Tony Bartlett
- 140 Dr Keely Boom
- 141 Mr Rob England
- 142 Mr Michael Gorman
- 143 BAI Communications
- 144 Kangaroo Valley Community Bushfire Committee
- 145 *Confidential*

Additional Information

- 1 Community Broadcasting Association of Australia – Opening statement delivered at public hearing Canberra, 12 August 2020.
- 2 Save the Children – Information regarding child participation arrangements in bushfire-affected communities, received 21 August 2020.

Answer to Question on Notice

- 1 Answer to questions taken on notice on 27 May 2020 by Emergency Leaders for Climate Action. Answer received 27 May 2020.
- 2 Answers to questions taken on notice on 27 May 2020 by Commonwealth Scientific and Industrial Research Organisation. Answers received on 19 June 2020.
- 3 Answer to question taken on notice on 27 May 2020 by the Department of the Prime Minister and Cabinet. Answer received from the Department of Agriculture, Water and the Environment on 19 June 2020.

- 4 Answers to questions taken on notice on 27 May 2020 by Emergency Management Australia (Department of Home Affairs). Answers received on 19 June 2020.
- 5 Answers to questions taken on notice on 27 May 2020 by the Department of the Prime Minister and Cabinet. Answers received on 28 July 2020.
- 6 Answers to questions taken on notice on 10 July 2020 by Allianz Australia Limited. Answers received on 07 August 2020.
- 7 Answers to questions taken on notice on 10 July 2020 by Insurance Australia Group. Answers received on 07 August 2020.
- 8 Answer to question taken on notice on 10 July 2020 by National Insurance Brokers Association. Answer received on 07 August 2020.
- 9 Answers to questions taken on notice on 10 July 2020 by QBE Insurance. Answers received on 07 August 2020.
- 10 Answers to questions taken on notice on 10 July 2020 by Suncorp. Answers received on 07 August 2020.
- 11 Answer to question taken on notice on 29 July 2020 by the Australian Academy of Science. Answer received on 17 August 2020.
- 12 Answer to question taken on notice on 30 July 2020 by the Australian Child & Adolescent Trauma, Loss & Grief Network. Answer received 21 August 2020.
- 13 Answer to question taken on notice on 30 July 2020, by Emerging Minds. Answer received 21 August 2020
- 14 Answer to a question taken on notice on 30 July 2020 by Foodbank Australia Ltd. Answer received on 21 August 2020.
- 15 Answers to questions taken on notice on 12 August 2020, by BAI Communications. Answers received 24 August 2020
- 16 Answers to questions taken on notice on 29 July 2020 by the Bureau of Meteorology. Answers received 27 August 2020
- 17 Answers to questions taken on notice on 12 August 2020 by the Department of Home Affairs. Answers received 31 August 2020
- 18 Answer to question taken on notice on 12 August 2020 by Community Broadcasting Association of Australia. Answer received 1 September 2020.
- 19 Answers to questions taken on notice on 12 August 2020 by Commercial Radio Australia. Answers received 31 August 2020.
- 20 Answers to questions taken on notice on 12 August 2020 by the Australian Broadcasting Corporation. Answers received from the Department of Infrastructure, Transport, Regional Development and Communications on 11 September 2020.
- 21 Answers to questions taken on notice on 10 July 2020 by the Insurance Council of Australia. Answers received 14 September 2020.
- 22 Answers to questions taken on notice on 12 August 2020 by the Australian Broadcasting Corporation. Answers received from the Department of Infrastructure, Transport, Regional Development and Communications on 29 September 2020

- 23 Answers to written questions on notice from Senator Rice on 14 September 2020, by the Bureau of Meteorology. Answers received 2 October 2020.

Tabled Documents

- 1 Bushfire and Natural Hazards CRC – ‘National research priorities for natural hazards emergency management: Issues, Priorities, Directions, May 2019’, tabled at public hearing Canberra, 27 May 2020
- 2 Bushfire and Natural Hazards CRC – ‘A summary of workshop outputs supporting the statement on national research priorities for natural hazards emergency management: Issues, Priorities, Directions, May 2019’, tabled at public hearing Canberra, 27 May 2020.
- 3 Bushfire and Natural Hazards CRC – ‘Opening statement’, tabled at public hearing Canberra, 27 May 2020.
- 4 Department of Prime Minister and Cabinet - ‘Opening statement’, tabled at public hearing Canberra, 27 May 2020.
- 5 Insurance Australia Group - ‘Opening statement’, tabled at public hearing Canberra, 10 July 2020.
- 6 Senator Tim Ayres, Chair – Victorian Building Authority ‘A guide to retrofit your home for better protection from a bushfire’, tabled at public hearing Canberra, 10 July 2020
- 7 National Insurance Brokers Association of Australia - ‘Opening statement’, tabled at public hearing Canberra, 10 July 2020.
- 8 QBE Australia Pacific - ‘Opening statement’, tabled at public hearing Canberra, 10 July 2020.
- 9 Allianz Australia Insurance Limited - ‘Opening statement’, tabled at public hearing Canberra, 10 July 2020.
- 10 Suncorp Australia Insurance Limited - ‘Opening statement’, tabled at public hearing Canberra, 10 July 2020.
- 11 Australian Academy of Health and Medical Sciences - ‘Opening statement’, tabled at public hearing Canberra, 29 July 2020.
- 12 Royal Australian College of General Practitioners - ‘Opening statement’, tabled at public hearing Canberra, 29 July 2020.
- 13 Professor Mark Howden - ‘Opening statement’, tabled at public hearing Canberra, 29 July 2020.
- 14 Professor Jason Sharples - ‘Opening statement’, tabled at public hearing Canberra, 29 July 2020.
- 15 ReachOut - ‘Opening statement’, tabled at public hearing Canberra, 29 July 2020.
- 16 Geoscience Australia - ‘Opening statement’, tabled at public hearing Canberra, 29 July 2020.
- 17 Australian Council of Social Service - ‘Opening statement’, tabled at public hearing Canberra, 30 July 2020.

- 18 Emerging Minds - 'Opening statement', tabled at public hearing Canberra, 30 July 2020.
- 19 Foodbank Australia Limited - 'Opening statement', tabled at public hearing Canberra, 30 July 2020.
- 20 Australian Child & Adolescent Trauma, Loss & Grief Network and Emerging Minds - 'Opening statement', tabled at public hearing Canberra, 30 July 2020.
- 21 Save the Children - 'Opening statement', tabled at public hearing Canberra, 30 July 2020.
- 22 St Vincent de Paul Society - 'Opening statement', tabled at public hearing Canberra, 30 July 2020.
- 23 Australian Red Cross - 'Opening statement', tabled at public hearing Canberra, 30 July 2020.

Appendix 2

Public hearings

Wednesday, 27 May 2020
Committee Room 2S1
Parliament House
Canberra

Emergency Leaders for Climate Action

- Mr Greg Mullins AO, AFSM, Convenor – via teleconference

Bushfire and Natural Hazards CRC

- Dr Richard Thornton, CEO – via teleconference

Commonwealth Scientific and Industrial Research Organisation

- Dr Peter Mayfield, Executive Director, Environment, Energy and Resources – via teleconference
- Dr Dan Metcalfe, Deputy Director, Land and Water – via teleconference

Department of Home Affairs

- Mr Robert Cameron, Director General, Emergency Management Australia
- Mr Joe Buffone, Assistant Secretary, Crisis and Security Management Branch, Emergency Management Australia

Department of Prime Minister and Cabinet

- Mr Phil Gaetjens, Secretary
- Ms Stephanie Foster PSM, Associate Secretary, Governance Group
- Mr Andrew Colvin APM, OAM, Deputy Secretary, National Bushfire Recovery Agency
- Ms Caroline Millar, Deputy Secretary, National Security Division
- Mr Simon Duggan, Deputy Secretary, Economy, Industry and G20 Sherpa
- Ms Helen Wilson, First Assistant Secretary, Industry, Infrastructure, and Environment Division
- Mr Trevor Jones, Assistant Secretary, Disaster Preparedness and Response Branch
- Mr Matthew Roper, Acting First Assistant Secretary, COVID-19 Social Policy and Implementation
- Ms Rina Bruinsma, First Assistant Secretary, National Bushfire Recovery Agency
- Major General Andrew Hocking, First Assistant Secretary, National Bushfire Recovery Agency

Friday, 10 July 2020

Committee Room 2S3

Parliament House

Canberra

Insurance Australia Group (IAG)

- Mr Luke Gallagher, Executive General Manager, Short Tail Claims – via teleconference
- Mr Mark Leplastrier, Executive Manager, Natural Perils – via teleconference

Suncorp

- Mr Michael Miller, Executive General Manager, Motor, Property and Specialty Claims – via teleconference

Allianz Insurance (No submission)

- Mr Nicholas Scofield, Chief Corporate Affairs Officer – via teleconference
- Mr Brendan Dunne, Chief Customer Services Officer – via teleconference

QBE Insurance (No submission)

- Mr Jon Fox, Chief Claims Officer – via teleconference
- Mr Phuong Ly, Chief Underwriting Officer – via teleconference

Insurance Council of Australia (No submission)

- Mr Rob Whelan, Executive Director and Chief Executive Officer – via teleconference
- Mr Karl Sullivan, Head of Risk and Operations – via teleconference

Australian Banking Association

- Ms Anna Bligh AC, Chief Executive Officer – via teleconference

National Insurance Brokers Association

- Mr Eric Harris, President – via teleconference
- Mr Dallas Booth, Chief Executive Officer – via teleconference
- Ms Rebecca Wilson, Director – via teleconference

Wednesday, 29 July 2020

Committee Room 2S1

Parliament House

Canberra

Dr Sophie Lewis, Private capacity – via teleconference

Professor Jason Sharples, Private capacity

Professor Mark Howden, Private capacity

Professor Brendan Mackey, Private capacity - via teleconference

Australian Academy of Science

- Professor Christopher Dickman, University of Sydney, Fellow - via teleconference
- Professor David Lindenmayer, Australian National University

Ecological Society of Australia

- Dr Ayesha Tulloch, Vice President (Policy and Outreach) and University of Sydney Research Fellow - via teleconference
- Associate Professor John Morgan, La Trobe University- via teleconference

Bureau of Meteorology - via videoconference

- Dr Andrew Johnson, Chief Executive Officer and Director of Meteorology – via teleconference
- Dr Karl Braganza, Head of Climate Monitoring – via teleconference

Geoscience Australia

- Mr Simon Costello, Branch Head, National Location Information
- Mr Mark Edwards, Director, Vulnerability and Resilience

Australian Space Agency - Department of Industry, Science, Energy and Resources

- Mr Anthony Murfett, Deputy Head

ReachOut

- Mr Ashley de Silva, Chief Executive Officer- via teleconference

Professor Alan Rosen AO - Private capacity- via teleconference

Mental Health Australia

- Dr Leanne Beagley, Chief Executive Officer

National Aboriginal Community Controlled Health Organisation

- Ms Dawn Casey, Deputy Chief Executive Officer

Australian Medical Association

- Dr Tony Bartone, President - via teleconference

Australian Academy of Health and Medical Sciences

- Professor Stephen Duckett, Director of the Health Program at the Grattan Institute - via teleconference

Royal Australian College of General Practitioners

- Dr Penny Burns – via teleconference
- Dr Glynn Kelly – via teleconference

Public Health Association of Australia

- Mr David Templeman, President
- Dr Ben Ewald - via teleconference

Thursday, 30 July 2020

Committee Room 1R3

Parliament House

Canberra

Gippsland Emergency Relief Fund

- Mr John Mitchell, President – via teleconference

Australian Council of Social Service

- Dr Cassandra Goldie, Chief Executive Officer – via teleconference
- Dr John Mikelsons, Senior Adviser – via teleconference
- Ms Kellie Caught, Senior Advisor – via teleconference

*Panel**Save the Children*

- Mr Howard Choo, Australian Social Policy and Advocacy Adviser – via teleconference

Australian Child & Adolescent Trauma, Loss & Grief Network and Emerging Minds

- Ms Nicola Palfrey, Director – via teleconference
- Mr Brad Morgan, Director, Emerging Minds – via teleconference

Foodbank Australia Ltd

- Ms Brianna Casey, Chief Executive Officer – via teleconference
- Ms Sarah Pennell, General Manager and Company Secretary – via teleconference

*Panel**Australian Red Cross*

- Mr Andrew Coghlan, Head of Emergency Services

St Vincent de Paul Society

- Mr Toby O'Connor, Chief Executive Officer
- Mr John Feint, President, Canberra Goulburn Territory Council

The Salvation Army

- Captain Stuart Glover, Head of Community Engagement – via teleconference

Australian Charities and Not-for-profits Commission

- The Hon Dr Gary Johns, Commissioner – via teleconference

Wednesday, 12 August 2020

Committee Room 2S3

Parliament House

Canberra

Australian Broadcasting Corporation (ABC)

- Mr David Anderson, Managing Director – via teleconference

BAI Communications Australia

- Mr Peter Lambourne, Chief Executive Officer – via teleconference

Commercial Radio Australia Ltd

- Ms Joan Warner, Chief Executive Officer – via teleconference
- Ms Sarah Kruger, Head of Legal and Regulatory Affairs – via teleconference

Community Broadcasting Association of Australia

- Mr Jon Bisset, Chief Executive Officer – via teleconference
- Ms Holly Friedlander Liddicoat, Project Coordinator, Government Relations – via teleconference
- Mr Gordon Waters, Station Manager, Braidwood FM – via teleconference

Department of Home Affairs

- Mr Robert Cameron, Director General, Emergency Management Australia – via teleconference

Department of Infrastructure, Transport, Regional Development and Communications

- Mr Richard Windeyer, Deputy Secretary
- Mr Andrew Madsen, Acting First Assistant Secretary
- Mr Tristan Kathage, Assistant Secretary, Telecommunications Market Policy
- Ms Rachel Blackwood, Acting Assistant Secretary, Spectrum & Telecommunications Deployment Policy Branch