



ACT Bushfire Council

# Bushfire Preparedness 2021-22

Report to the Minister for Police and  
Emergency Services

27 September 2021

## Letter of Transmittal

27 September 2021

The Hon. Mick Gentleman MLA  
Minister for Police and Emergency Services ACT Legislative Assembly  
GPO Box 1020  
CANBERRA ACT 2601

Dear Minister

In accordance with the *Emergencies Act 2004* and the terms of reference for the ACT Bushfire Council, I am pleased to submit the Council's report, *Bushfire Preparedness (2021-22)*. This report reviews the ACT's preparedness for the coming bushfire season and makes recommendations for increasing the ACT's preparedness in the short term as well as the longer term future.

This is the final report from the current Council as its four year term is drawing to a close. Council has reflected on those years and identified some areas where it has seen marked progress. In particular, there has been a sound rise in the quality of the governance of the SBMP. The SBMP is a crucial tool for bringing ACT effort together across many fronts and applying it to the short and longer term risks of severe bushfire.

The report also makes 13 recommendations for improvement. We note particularly our ongoing concerns about the need for better long term planning of the built estate of Canberra in the face of the inevitable rise in catastrophic fire weather conditions driven by climate change; and, for the same reason, the importance of adequately supporting bushfire fuel management across the ACT. When fire weather conditions are severe, ignitions not dealt with immediately, and fires become too fierce to be fought by traditional methods, these mitigation actions are the only two that will help protect Canberra from the impacts of catastrophic bushfires.

Council appreciates and would like to thank officials and staff from ESA, EPSDD and JACSD who supported Council's work and prepared and presented papers on which Council has relied in preparing this report. Council also thanks Tara Bucknell and Kerri Clarke, the two staff members in ESA who provided Secretariat services to Council through the last year.

Yours sincerely



Dr Sarah Ryan AM  
Chair  
ACT Bushfire Council

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## Table of Contents

<b>1</b>	<b>EXECUTIVE SUMMARY.....</b>	<b>4</b>
<b>2</b>	<b>SEASONAL OUTLOOK AND PREPARATION .....</b>	<b>9</b>
2.1	Seasonal Outlook.....	9
2.2	Seasonal Preparation .....	9
<b>3</b>	<b>ACHIEVEMENTS AND CHALLENGES .....</b>	<b>11</b>
3.1	Introduction.....	11
3.2	Achievements .....	11
3.3	The Climate Change Challenge.....	12
3.4	Strategic Development.....	13
3.5	An Outstanding Issue from Last Year’s Report.....	14
<b>4</b>	<b>STRATEGIC PREPAREDNESS.....</b>	<b>15</b>
4.1	Objective 1 – A Reduction in Bushfire Ignitions .....	15
4.2	Objective 2 – Planned Fire Management on all Private Rural Lands .....	15
4.3	Objective 3 – A Community that is Prepared for Bushfires.....	16
4.4	Objective 4 – Effective Firefighting Operations by Skilled and Supported Personnel .....	18
4.5	Objective 5 – The Necessary Equipment and Resources to Respond to and Extinguish Bushfires .....	19
4.6	Objective 6 – Extinguish Bushfires when they Occur.....	20
4.7	Objective 7 – Broad Area Bushfire Fuel Reduction Across the Natural and Rural Landscape of the ACT, & .....	20
4.8	Objective 8 – Access for Vehicles and Firefighters to Undertake Bushfire Fighting and Fuel Reduction .....	20
4.9	Objective 9 – Adaptive Management of Current and Future Bushfire Risks .....	25
4.10	Objective 10 – Land Use Policy and Planning that Reduces Bushfire Risk.....	27
4.11	Objective 11 – Integrated Bushfire Protection at the Urban Edge.....	28
4.12	Objective 12 – Supported Communities for Bushfire Recovery .....	29
<b>5</b>	<b>LAST YEAR’S RECOMMENDATIONS AND STATUS OF GOVERNMENT RESPONSES.....</b>	<b>30</b>
<b>6</b>	<b>GLOSSARY OF TERMS.....</b>	<b>39</b>

# 1 EXECUTIVE SUMMARY

## SEASONAL OUTLOOK AND PREPARATION

The spring bushfire outlook for the ACT is for average fire potential in grasslands and below average potential in forests, given the fuel moisture conditions from increased rainfall this year and the extent of forest areas burnt in the 2019-20 fire season. Grasses will grow vigorously and will become a significant fire hazard when dry. The start of the bushfire season has been delayed to 1 November, due to the moist conditions.

Preparation for the fire season ahead is also well advanced in ESA, ACTRFS and PCS. COVID-19 restrictions have had some impact on the capacity to carry out face-to-face training and fitness assessment, but most preparedness actions have been completed or are near to completion.

## ACHIEVEMENTS

This is the last year of the current Council's four year term and Council wishes to acknowledge some sound developments that have occurred over the past four years. Governance of the Strategic Bushfire Management Plan (SBMP) has strengthened and the Plan is becoming better recognised as the organising framework for all bushfire related preparation across the ACT Government. And the Regional Fire Management Plan (RFMP) is now based on a modelled residual risk approach rather than the earlier base of the area of land treated; this allows better targeting of mitigating actions to the areas that most reduce risk.

This year PCS was able to accomplish a large strategic prescribed burn along the Pipeline Track which had been in approved PCS Bushfire Operational Plans (BOPs) for five years before conditions became suitable. BOPs developed by other land managers have largely been planned independently in the past but ACTRFS has recently developed an interactive mapping tool that brings together all planned treatments to reduce fire risk to the ACT community so that their combined impact across the landscape can be better assessed. The coverage of rural properties in the Bushfire Abatement Zone (BAZ) that have a Farm FireWise Plan or a BOP has now reached 99%, an excellent achievement. Other developments in ESA include an increase in modelling and mapping capacity, and in risk and planning, which will support more strategic analysis as climate change impacts on bushfire risk. The production of an ACTRFS Business Plan, with input from volunteers is also commended, as is the ongoing development of cultural burning activities in PCS and the development of an Aboriginal Fire Management Zone.

## RECOMMENDATIONS

### Adaptation to climate change

Council is concerned that there has been relatively little progress in the climate related actions in Objective 9 of the SBMP. The recent Intergovernmental Panel on Climate Change (IPCC) report states *Global surface temperature will continue to increase until at least the mid-century under all emissions scenarios considered*<sup>1</sup>. The strategic need is to move beyond studying the change in

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<sup>1</sup> IPCC, 2021: Summary for Policymakers. In: Climate Change 2021: The Physical Science Basis. Contribution of Working Group I to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change [Masson-Delmotte, V., P. Zhai, A. Pirani, S. L. Connors, C. Péan, S. Berger, N. Caud, Y. Chen, L. Goldfarb, M. I. Gomis, M. Huang, K. Leitzell, E. Lonnoy, J. B. R. Matthews, T. K. Maycock, T. Waterfield, O. Yelekçi, R. Yu and B. Zhou (eds.)]. Cambridge University Press. In Press.

climate and its impact on bushfire, to exploring which options for bushfire protection will start closing down, and what needs to be set in motion, and when, to maintain adequate protection.

**Recommendation 1:** (p 13)

That the ACT Government consider using the BNHCRC 'Capability Maturity Tool' to assess capability gaps across the ACT in planning for and managing severe-to-catastrophic disasters.

### **Resourcing and rebalancing the SBMP**

The SBMP is currently resourced indirectly via contributions that Directorates make to the actions in each of the objectives of SBMP4. The contributions roughly follow Directorates' historical expenditure on those actions. Given the growing maturity in governance of the SBMP, and the gaps in achievement of some of the objectives, Council suggests that it is time to review the balance of effort across the SBMP.

**Recommendation 2:** (p 14)

That the forthcoming review of SBMP4 consider both the balance of effort across the objectives of the plan, especially the balance between mitigation and recovery actions, and the total resourcing required to maintain the same or a reduced level of harm from bushfire as climate change increases the frequency and severity of bushfires.

### **An outstanding strategic issue from last year's report**

Last year Council recommended that the management and suppression arrangements in the 2019-2020 bushfire in the ACT be reviewed by an independent, qualified expert. Government asserted that this had already been done (see Section 5) but Council cannot see the evidence in the reviews referred to. We repeat the recommendation in this report.

**Recommendation 3:** (p 14)

That the ACT Government undertake a review of the management and suppression arrangements used during the 2019-20 bushfire, for the specific purpose of identifying appropriate lessons to be used in both future training activities and bushfire management; and that AFAC be requested to identify people with the appropriate bushfire management skills to assist.

### **Evaluating the effectiveness of bushfire community engagement activities**

Council supports the diverse approach to raising awareness and actions in the ACT community in relation to bushfires. However, as recommended in almost every report to the Minister over the past 10 years, Council advocates for external evaluation of the effectiveness of bushfire community engagement activities to ensure a targeted and effective public education program for future seasons.

**Recommendation 4:** (p 18)

That ESA arrange for an external evaluation of the effectiveness of bushfire community engagement activities to ensure a targeted and effective public education program for future seasons and to measure any community behaviour change in relation to bushfire awareness and preparedness.

### **Council's role in providing advice on Bushfire Operational Plans**

Council recognises the role of the Commissioner in approving Bushfire Operational Plans (BOPs), however there is no mechanism for Council to provide advice to the Commissioner as part of the Commissioner's functions if the Commissioner does not request it in accordance with the Emergencies Act.

**Recommendation 5:** (p 20)

That the Terms of Reference for Bushfire Council include a strategic role for Council in all Bushfire Operational Plans, including providing comments on draft BOPs and monitoring their implementation.

### **Establishing a legislative basis for the Regional Fire Management Plan**

Council recognises that the concept of a Regional Fire Management Plan was developed after the introduction of the *Emergencies Act, 2004*, and that it is described as a long-term operational plan in SBMP4. However, given its strategic importance and links to both the SBMP and shorter-term BOPs, Council considers that there should be appropriate legislative provisions establishing the RFMP.

**Recommendation 6:** (p 21)

That the *Emergencies Act, 2004* be amended to require the manager of public land to prepare a Regional Fire Management Plan every 5 years, in consultation with the Bushfire Council and other stakeholders, including a period of public consultation.

### **Achieving a balanced mosaic of fuel ages across the forest landscape**

Council emphasises the importance of developing a balanced mosaic of fuel ages across the forest landscape and is concerned at factors that delay prescribed burning to the extent that effective risk reduction across the broader landscape is compromised.

**Recommendation 7:** (p 21)

That the Minister commission an independent review of the effectiveness of prescribed burning on land managed by the Parks and Conservation Service, taking account of the lessons and impacts from the Orroral bushfire, with a view to recommending a balanced future program of hazard reduction and ecological burns to limit the undesirable impacts from severe bushfires on built assets, water catchments and ecological values.

### Down turn in levels of prescribed burning achieved

Council is concerned that the area of prescribed burning achieved in the last five years (14,440 ha) was less than half of that achieved in the previous five years (30,261 ha), and less than half of the area planned (31,349 hectares). The reasons are not clear but the trend is strong and suggests systemic factors may be involved. Continuation of this situation, in the face of a warming climate, will materially increase the risk of severe bushfire damage to the ACT.

**Recommendation 8:** (p 25)

That the ACT Government reconsiders the decision to cut the Parks and Conservation Service fire management budget by 13% and conducts an independent review of the budget and other constraints that impact on the ability of the Parks and Conservation Service to achieve the level of prescribed burns and other important fire management strategies approved under Bushfire Operational Plans within a 5-year period, taking account of cost increases and the additional bushfire risks associated with both an expanding urban footprint and climate change.

### Designed adaptation to climate change

Council is concerned about the slow progress of actions in the SBMP that address adaptation to climate change. Studying climate change and its impacts is a necessary starting step but doesn't return any value until work is put into identifying options for modifying risk through adaptation. Especially for risk mitigation measures that have long life spans, such as the location and design of new suburbs and their buildings, actions must be taken now to mitigate the expected risk well past 2050.

**Recommendation 9:** (p 26)

That a pilot project on adaptation be developed collaboratively between ESA and EPSDD based on a likely climate scenario in 2050 and focussing on one of the major mitigation options of fuel management, fire suppression or estate and building design.

### The Aboriginal Fire Management Zone

Council notes and supports the ongoing development of cultural burning activities and the designation of an Aboriginal Fire Management Zone. As a new initiative, Council suggests there would be value in evaluating the ecological and cultural outcomes of the program.

**Recommendation 10:** (p 26)

That EPSDD develops and implements a monitoring and evaluation system covering the ecological and cultural outcomes for the Aboriginal Fire Management Zone.

### **Updating the 'Planning for Bushfire Risk Mitigation General Code'**

Under the Planning for Bushfire Risk Minimisation Code adopted in March 2008, a bushfire risk assessment is required at the structure planning or concept planning stage for any land development mapped as being "bushfire prone". It is now well over ten years since this Code was adopted. Council is concerned that it may not reflect current procedures and standards and that it should be reviewed and updated.

**Recommendation 11:** (p 27)

That the "Planning for Bushfire Risk Mitigation General Code 2008" be updated as a matter of urgency to reflect current procedures and standards.

### **Applying bushfire-related construction requirements in bushfire prone areas**

Currently, clause 44 of the ACT Building Regulation states that the Building Code in bushfire prone areas only applies to land that is non-urban. This should be amended to include all land that has been mapped as being bushfire prone, so that it captures land within the existing urban landscape as well as new release land developments that, once zoned urban, are currently not required to comply with AS3959.

**Recommendation 12:** (p 27)

That the Building Regulation 2008 be amended as a matter of priority to give effect to the Government's decision in December 2018 to apply bushfire-related construction requirements to all new and substantially altered residential dwellings in both new and existing urban areas. This includes identification of Bushfire Prone Areas across all urban areas with a high level of bushfire risk.

### **Bushfire risks in the Western Edge Investigation area of potential urban development**

Council is concerned about the quality of the assessment of bushfire risk carried out in the initial investigation of the suitability of land in this area for urban development. In particular, the assessment did not appear to recognise the increase in fire risk with a warming climate, nor did it draw on the expertise in ACT bushfire modelling within the Directorate.

**Recommendation 13:** (p 28)

That the technical report assessing bushfire risk in the Western Edge Investigation be reviewed by the fire group in PCS and if appropriate, their fire modelling skills be used to strengthen the technical findings and that these be taken into account in future decisions about urban development in the Western Edge.



## 2 SEASONAL OUTLOOK AND PREPARATION

### 2.1 Seasonal Outlook

The seasonal bushfire outlook for Australia for September to November 2021 was released by AFAC on 26 August<sup>2</sup>. The ACT experienced above average rainfall this winter due to the influence of a negative Indian Ocean Dipole, which is expected to continue well into spring. Daytime temperatures are expected to be close to average, with above average overnight temperatures. As a result of these conditions, the ACT is expecting normal spring fire potential for our grasslands, but below normal fire potential for forested areas given higher fuel moisture from increased rainfall and the extent of forest areas burnt in the 2019-20 fire season.

Nevertheless, Canberra remains very vulnerable to bushfire from the west and north-west, which was not burnt in the 2020 fires. Even in a generally mild summer, a sudden hot and dry period can produce dangerous bushfire conditions.

### 2.2 Seasonal Preparation

#### ESA

Due to record winter rainfall and a wet start to spring the declared 2021-22 fire season is expected to be delayed until 1 November 2021. The COVID-19 pandemic has not hindered ACT Rural Fire Service (ACTRFS) preparations for the 2021-22 fire season and guidelines and protocols are already in place if the ACT deploys people interstate or needs assistance from neighbouring jurisdictions. ACTRFS members were classified as essential workers in the current COVID-19 emergency and given priority under category 1B in the Commonwealth vaccination program.

As in previous years, ACTRFS and the wider ESA have completed annual seasonal bushfire preparedness projects with targeted deliverables considered necessary for ESA to be appropriately prepared for the predicted bushfire season ahead. ACTRFS has a comprehensive checklist to ensure seasonal preparedness, and this is ongoing over a 12-month cycle. Aviation arrangements including aircraft, rosters, training currency and arrangements with Canberra Airport for the retardant mixing plant are confirmed. Recruitment during the off season has been completed and all ACTRFS operational and support positions are now permanently filled.

ACTRFS staff have attended and contributed to several virtual seasonal briefings and training days. All ACTRFS vehicles will have been serviced, audits of all station equipment and area familiarisation tours are planned for October-November (weather permitting), and the four ACT fire towers will be staffed by ACTRFS seasonal personnel.

The ACTRFS members are completing their fitness training and maintaining currency of their qualifications. ACTRFS has hosted the ACT-NSW Interagency cross board meeting (NSW, ACTRFS, NSW Parks, PCS, F&R) and attend the regular NSW Bushfire Management Committee meeting. Incident Management team lists are being updated. Staging area and base camp arrangements are being reviewed. ACTRFS Remote Area Fire Teams (RAFT) have used the off

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<sup>2</sup> AFAC Seasonal Bushfire Outlook. Spring 2021. [https://www.afac.com.au/docs/default-source/bushfire-seasonal-outlook/seasonaloutlook\\_spring\\_2021\\_v1-0.pdf](https://www.afac.com.au/docs/default-source/bushfire-seasonal-outlook/seasonaloutlook_spring_2021_v1-0.pdf)

season to complete Operate in Remote Environment (ORE) training to further enhance their skills for working in a rugged environment. Community preparation and engagement activities are being delivered mostly via online campaigns co-ordinated by ESA media. ACTRFS members have also been heavily involved with assisting with the ACT COVID emergency response; whilst not fire-related, the experience has allowed ACTRFS to maintain skills in command, control and co-ordination.

An Incident Management Exercise (IMX) is scheduled for October but will be confirmed according to COVID-19 emergency demands. During July and August ACTRFS Brigades attended ESAHQ to participate in desk top exercises, concentrating on fires in their brigade response areas. Training of volunteers during the past 6 months has focussed on 'up-skilling' the current membership and courses in Advanced Firefighter, Village Firefighter, Crew Leader and Divisional Commander have been completed.

## **EPSDD**

The Environment, Planning and Sustainable Development Directorate (EPSDD) has also been preparing for the 2021/22 season ahead. Nine additional seasonal firefighters in the Parks and Conservation Service (PCS) within EPSDD commenced on 2 September 2021. Due to COVID-19 restrictions PCS will focus on delivering their essential core training by the end of September, with completion of the remaining courses (4wd, chainsaw, etc) scheduled as Covid restriction ease and face-to-face training can resume. COVID-19 restrictions have also impacted the ability of fire staff to have their fitness for firefighting tasks assessed. However, over half of EPSDD fire staff had been assessed prior restrictions coming into place in August. Fire staff will attend the forthcoming bushfire preparedness annual refresher days scheduled for early October and these will be held on-line.

All PCS fire vehicles and equipment checks have been completed at Stromlo Depot, and other vehicles at Depots will be specifically assessed under COVID-19 arrangements. Rosters will be in place for all firefighting staff, vehicles, Duty Officers and Level 1 Officers for the start of the fire season and operating procedures are in place for fire operations under COVID-19 Guidelines. The contracts for seasonal heavy plant (two D4 bulldozers and one grader) are in place and ongoing. The new contract arrangements for bushfire-related slashing have been completed and will be approved shortly ready for spring slashing.'

## 3 ACHIEVEMENTS AND CHALLENGES

### 3.1 Introduction

This is the last Preparedness Report of the four-year term of the current Council. Council would first like to commend several areas of operations that have shown sound improvement over those four years. This section then highlights some strategic concerns and the remainder of the report then focusses in turn on each of the Objectives in SBMP4.

### 3.2 Achievements

#### **Governance of the SBMP**

Governance of the SBMP has strengthened. Responsibilities for each action have been clarified, data collection is better organised, and compliance is improving so that the capacity to use that information to report on progress of the planned actions is also improving. Contributing Directorates have agreed that SBMP performance will be reported to the ACT Government as a combined item, beginning with the report for the 2021-22 financial year. This is a welcome development, making the total expenditure on bushfire preparedness more transparent and the achievements jointly owned across government. The appointment of an independent Chair last year should help in this regard. Council has suggested that some thought be given to how achievement of the *objectives* of SBMP4 could be assessed. Currently, achievement is assessed only against the degree of completion of actions in the Plan. We note that some work on this has begun.

#### **Regional Fire Management Plan**

The Regional Fire Management Plan 2019-2028, developed by the Parks and Conservation Service (PCS) within EPSDD and recently redrafted due to the 2020 fires, is a sound improvement on previous versions, being based on a modelled residual risk approach rather than the earlier base of the area of land treated. The modelling identifies the areas where fuel reduction will have the greatest impact on reducing risk to life, property and the environment, so increasing both efficiency and effectiveness.

#### **Long deferred planned burn along Pipeline Track completed**

Due to favourable weather conditions, PCS was able to accomplish the large strategic prescribed burn along the Pipeline Track in 2021. This burn was in approved PCS Bushfire Operational Plans (BOPs) for five years before being accomplished. The plan for the burn took advantage of flammability modelling work that PCS has been doing with ANU in a Bushfire and Natural Hazards Cooperative Research Centre (BNHCRC) research project. The modelling was used to identify areas where the burn might potentially cross the Cotter River and where lighting of the burn would be the safest and most effective while taking into account the need to protect sensitive ecosystems.

#### **Tenure-blind bushfire protection**

Due to the mix of ACT and Federal ownership of land in the ACT, as well as multiple custodians of ACT land, it has been challenging to assess how well the various bushfire protection plans together provide satisfactory protection at the landscape scale. ACTRFS is now in the final stages of developing a tenure-blind interactive map with overlays showing all Bushfire Operational Plans

(BOPs) and identifying all planned treatments to reduce fire risk to the ACT community. A forum is also held annually to bring together people responsible for the various bushfire protection plans, so that they are aware of their neighbours' activities and can plan more cooperative actions.

Another welcome achievement has been the practically full coverage of private rural properties in the Bushfire Abatement Zone (BAZ) that have a current Farm FireWise (FFW) plan. Publicly held rural leases are required to have a BOP and together 99% of rural leases in the BAZ have either a FFW plan or a BOP. (See Objective 2.)

### **ESA modelling capacity**

ESA has bolstered its modelling capacity, which is important for both practical and strategic reasons. An initial product is a tenure-blind platform for mapping and managing grass-fire risk, which will also be useful for exploring opportunities for adaptation as climate change modelling improves and its impact on local fire weather is revealed. ESA modellers are working closely with bushfire modellers in PCS. ESA has also appointed a Senior Director Planning and Preparedness in the Risk and Planning Branch whose role is to provide strategic oversight of the ESA preparedness program and to support strategic planning activities within the Agency.

### **ACTRFS Business Plan**

A business plan for the ACTRFS was recently presented to Council. It was developed with input from volunteers and has been well received by them.

### **Aboriginal involvement**

Council acknowledges the long history of Ngunnawal people in caring for lands in and around the ACT, including the use of fire, and commends the ongoing development of cultural burning activities and the development of an Aboriginal Fire Management Zone.

## **3.3 The Climate Change Challenge**

Generally, the ACT is well equipped to deal with bushfires that occur in mild to average weather. These are the sort of events that can usually be safely extinguished by direct bushfire fighting methods, and which happen relatively frequently. They lend themselves to learning from practice in a continuous improvement fashion, as there is a short turn-around to the next event in which to trial improvements. Council remains concerned about the ACT's readiness for larger and more extreme bushfires that can't be easily addressed by direct bushfire fighting, and which are likely to increase in frequency and ferocity as the planet warms.

The recent report of the Intergovernmental Panel on Climate Change (IPCC)<sup>3</sup> highlights growing confidence in the predictions about climate change in the next 20 years. *It is unequivocal that human influence has warmed the atmosphere, ocean and land. Widespread and rapid changes in the atmosphere, ocean, cryosphere and biosphere have occurred. ... Each of the last four decades has been successively warmer than any decade that preceded it since 1850. ... Global surface*

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<sup>3</sup> IPCC, 2021: Summary for Policymakers. In: Climate Change 2021: The Physical Science Basis. Contribution of Working Group I to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change [Masson-Delmotte, V., P. Zhai, A. Pirani, S. L. Connors, C. Péan, S. Berger, N. Caud, Y. Chen, L. Goldfarb, M. I. Gomis, M. Huang, K. Leitzell, E. Lonnoy, J. B. R. Matthews, T. K. Maycock, T. Waterfield, O. Yelekçi, R. Yu and B. Zhou (eds.)]. Cambridge University Press. In Press.

*temperature will continue to increase until at least the mid-century under all emissions scenarios considered. Global warming of 1.5°C and 2°C will be exceeded during the 21st century unless deep reductions in CO<sub>2</sub> and other greenhouse gas emissions occur in the coming decades. ... More CIDs [climate impact drivers] across more regions are projected to change at 2°C and above compared to 1.5°C global warming (high confidence). Region-specific changes include intensification of tropical cyclones and/or extratropical storms (medium confidence), increases in river floods (medium to high confidence), reductions in mean precipitation and increases in aridity (medium to high confidence), **and increases in fire weather** (medium to high confidence).*

In this context, Council remains concerned that there has been relatively little progress in the climate related actions in Objective 9 in the last four years (Section 4.9). This is consistent with a finding of the BNHCRC, recently published in Hazard Note 103: *Planning [for disasters or their mitigation] is being inhibited by cultural, knowledge and resource constraints dominated by reactive response-oriented approaches.*<sup>4</sup> Council notes that the phrase 'business as usual' or 'BAU' is commonly used in referring to actions in SBMP4. This is a risky cultural attitude that counters against change and longer-range thinking. The CRC also produced a Capability Maturity Tool for governments and emergency managers to use for assessing capability gaps and requirements in planning for and managing severe-to-catastrophic disasters.

**Recommendation 1:**

That the ACT Government consider using the BNHCRC 'Capability Maturity Tool' to assess capability gaps across the ACT in planning for and managing severe-to-catastrophic disasters.

The need to improve the tools available for making long-term strategic planning and investment decisions that enhance resilience against natural disasters Australia-wide was also noted in the CSIRO report *Climate and Disaster Resilience*<sup>5</sup>, and funding has been allocated to CSIRO to work on a toolbox of nationally consistent products for this purpose.

### 3.4 Strategic Development

#### Resourcing and Rebalancing the SBMP

The SBMP is currently resourced indirectly via contributions that Directorates make to the actions in each of the objectives of SBMP4. The contributions roughly follow Directorates' historical expenditure on those actions. Given the growing maturity in governance of the SBMP, and the gaps in achievement of some of the objectives, Council suggests that it is time to review the balance of effort across the SBMP. To Council's knowledge, this has not been done in the 17 years of the SBMP's existence. In particular, the review could consider the following Productivity Commission finding: *Governments overinvest in post-disaster reconstruction and underinvest in mitigation activities that would limit the impact of natural disasters*<sup>6</sup>. It is not a coincidence that the two objectives about which Council has made the most frequent recommendations are those having the greatest influence on reducing risk through mitigation: fuel management and housing development.

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<sup>4</sup> BNHCRC What can we improve now to prepare for future catastrophic and cascading disasters? Issue 103, August 2021

<sup>5</sup> CSIRO 2020. Climate and Disaster Resilience. Report to the Prime Minister.

<sup>6</sup> Productivity Commission 2014, *Natural Disaster Funding Arrangements*, Inquiry Report no. 74, Canberra

A review of the distribution of effort across the SBMP could become a prelude to the SBMP being funded as a single budget item so that responsibility for it is more equally shared across government.

At the same time, the review could consider whether the total investment in the SBMP is adequate. In light of the clear and growing impact of climate change on severe fire weather, it would seem prudent to consider whether additional investment in the SBMP is going to be needed to maintain current levels of protection.

**Recommendation 2:**

That the forthcoming review of SBMP4 consider both the balance of effort across the objectives of the plan, especially the balance between mitigation and recovery actions, and the total resourcing required to maintain the same or a reduced level of harm from bushfire as climate change increases the frequency and severity of bushfires.

### 3.5 An Outstanding Issue from Last Year's Report

Last year Council recommended *That the ACT urgently engages appropriately qualified independent expertise to document and review the suppression strategies, responses and bushfire management lessons from the major 2020 bushfires in the ACT.* The Government's response was that there had already been adequate review of the 2020 bushfires, but Council remains very concerned that the most relevant of the reviews conducted to that date (*Independent Report on the ACT Emergency Services Agency Operational Review of the Bushfire Season 2019-20*) was not produced by a bushfire management expert and it did not document or analyse suppression strategies and the lessons learned from that analysis. While ESA has informed Council that a further project with the same consultants has been commissioned, we understand it is focussed on incorporating lessons from multiple emergencies to create scenarios for training purposes. This is worthy, but has a different purpose and doesn't address Council's original concern.

The absence of a qualified independent review for a bushfire that burned nearly 40% of the area of the ACT and did substantial damage to ecological values, water quality, public infrastructure, rural properties and urban air quality is in stark contrast to the actions taken by ESA in 2018, when there was a relatively small escape from the Potters Hill prescribed burn. At that time, the ESA commissioned an independent review by the Australasian Fire and Emergency Service Authorities Council covering both the management of the Potters Hill burn and the key areas affecting bushfire management capability within the ACT.

Council is aware that the ACT Coroner will now conduct an inquiry into the ignition and first 45 minutes of the Orroral bushfire. As the Orroral bushfire burnt for one month, Council considers that this inquiry will not be able to adequately review the range of suppression strategies used during the bushfire and that this remains a serious omission.

**Recommendation 3:**

That the ACT Government undertake a review of the management and suppression arrangements used during the 2019-20 bushfire, for the specific purpose of identifying appropriate lessons to be used in both future training activities and bushfire management; and that AFAC be requested to identify people with the appropriate bushfire management skills to assist.

## 4 STRATEGIC PREPAREDNESS

This section follows the structure of the main objectives in SBMP4.

### 4.1 Objective 1 – A Reduction in Bushfire Ignitions

Unplanned ignitions include fires caused by natural events (e.g. lightning strikes) and by people. Human causes include ignitions from arson (deliberately lit fires), carelessness (such as unextinguished campfires) and accidents (such as power line and infrastructure failure or damage, or ignition by vehicles or machinery).

The ESA provided an update to Council's March 2021 meeting in relation to its progress against the objectives of SBMP4. Council acknowledges the work done by the ESA in relation to Objective 1 since Council last reported to the Minister and notes:

- several interventions with juveniles were carried out at the request of stakeholders
- the continued cooperation between the ESA and ACT Policing for the investigation of fires via the agreed memorandum of understanding
- ongoing action by the Technical Regulator in relation to secure compliance with its Vegetation Management (Bushfire & Environmental) Works Plan, including work on the development of a regulatory strategy, and
- amendments to the *Litter Act 2004* to address the problem of abandonment of vehicles on public land.

**Comment:**

Council again commends ESA's progress in mitigating against unplanned bushfire ignitions.

In its 2020 report, Council expressed its concern about the involvement of an Australian Defence Force helicopter in igniting the Orroral Valley fire and not reporting it immediately. Council notes that the ACT Coroner has recently announced an inquiry into these issues, at least covering the ignition and the subsequent 45 minutes until it was reported.

### 4.2 Objective 2 – Planned Fire Management on all Private Rural Lands

Fire protection on rural lands in the ACT is addressed by the ACTRFS Farm FireWise (FFW) program, which prioritises those properties within the BAZ. Leaseholders in the ACT have an obligation to prevent fire occurring or spreading from their properties and the FFW program equips rural landholders with the tools to plan and mitigate such risks. The program supports and assists the rural community in its prevention, preparedness, response and recovery actions and capabilities. It provides for an ACTRFS staff member and a rural landholder, in consultation, to jointly develop a tailor-made plan to suit the individual landholder, their leasing arrangements and farming practices.

There are 179 rural leases in the ACT; 79 are within the BAZ. One rural lease has been withdrawn since last year's report, having become a part of the Kenny Offset Reserve. A works schedule has been developed for implementation of the FFW program over the next four years and the program will then be reviewed in the 2025/26 financial year. There is a mechanism for self-reporting amendments to a FFW plan as landholder priorities change. Changing priorities are communicated

to ACTRFS brigades to assist with reducing risk to properties.

Currently, 90% of rural landholders in the ACT have a FFW plan, representing an apparent 6% decrease since last year but this is due to the percentage previously being calculated on the number of rural leases. Five properties in Pialligo also underwent a change of landholder, but new plans have not yet been developed. These are identified in the work plan for assessment but as Pialligo is outside the BAZ (it is considered a Built-Up-Area) these numbers don't affect the count inside the BAZ. There is now only one rural lease inside the BAZ without a FFW plan. This property has transferred ownership and a plan is in draft stage. This now means that there are 78/79 rural leases inside the BAZ with either a FFW plan or a BOP (where the Suburban Land Agency is the leaseholder), meaning 99% of rural leases in the BAZ have either a FFW plan or BOP.

A review of FFW templates and supporting legislation and policy was undertaken in conjunction with the ESA legal team to ensure continued success of the program. No changes to legislation, policy or FFW templates were considered necessary.

While the participation of rural landholders as official members of RFS brigades has not increased, engagement with rural landholders and managers has increased as brigades have become more involved in visiting properties for familiarisation, and to conduct burns and training activities. The number of landholders and property managers asking the ACTRFS to conduct burns on their properties rose from 7 to 14 in the last year. These burns have had a mix ecological, agricultural and hazard reduction purposes. The total area identified for completed or planned burns is approximately 148 ha.

The ACTRFS sent out a series of videos to landholders in January 2021. Topics included addresses by the Commissioner and Deputy Commissioner, the seasonal outlook, why the ACT experienced the 2019/20 fire season it did, a brief discussion about FFW, burning and the support the ACTRFS can provide them. Given the wet season the videos were delayed, making them more relevant as the season dried out.

With the Australian Fire Danger Rating System under review, the ACTRFS has already begun to look at potential impacts on the current template. Work has begun on how to develop the template to align it with the proposed new four fire danger ratings.

**Comment:**

Council is very satisfied with the progress of the Farm FireWise Program, with the commencement, completion and review of Farm FireWise plans and the continued improvements in collaboration between the ESA and rural landholders.

### 4.3 Objective 3 – A Community that is Prepared for Bushfires

Last year Council was concerned that there had not been a follow-up survey to the broadscale community benchmark survey first conducted in 2015 and recommended *That ESA adopts a longitudinal approach to evaluation of community education activities to ascertain their effectiveness over time – whether they cause a lasting change in community behaviour*. Council is now pleased to note that the ESA plans to undertake another benchmark survey this financial year to capture community behaviour change over the past 6-7 years. The results of the survey will assist in measuring social behaviour changes in relation to emergency preparedness.



Unlike 2019-20, when an extensive door knocking campaign was carried out to alert the community to bushfire survival tools, COVID-19 restrictions meant that such an activity could not be conducted in the last year. However, a new campaign focussing on all hazards was developed: the 2020-21 Be Ready Emergency campaign. The campaign included use of various media to ensure a wide reach into the ACT community. Community 'pop-up' events were carried out at shopping centres each weekend throughout October, November and December 2020. More than 4000 Canberra residents were provided with one-on-one education and advice on how to prepare their homes and complete a survival plan. Council supports this multi-media approach and notes the extensive reach through social media, but emphasises the need to continue to engage face-to-face with diverse groups in the community. Council notes and supports collaboration with NSW RFS to align future campaigns with consistent messaging.

ESA also plans to re-introduce a YourSay survey before the 2021-22 bushfire season. This should provide some useful information about community awareness of bushfire survival plans, preparation and preferred communication channels, and may provide useful data for comparing with the 2019-20 survey.

One of the issues that was evident during the 2020-21 bushfire season was the 'disconnect' between the app used by ACT residents to monitor fires in the ACT and the NSW Fires Near Me NSW app, particularly in relation to cross-border fires. Council therefore welcomes the commissioning of an ACT version of Fires Near Me. It is expected that this project will be delivered prior to the 2021-22 bushfire season. At that time, it is expected that the ACT Bush and Grass Fire Warnings and Information Protocol will be updated. Council recommended in its 2020 report that future bushfire maps include a scale and topographic contours, and an indication of which parts of the burnt area are actively burning. Council hopes that this recommendation will be taken up in the new app.

During the past 12 months, ESA engaged in a number of joint exercises with NSW. Council strongly encourages these initiatives as it is extremely important for the ACT and NSW to work closely together, not only to combat cross border fires but also to enable skills development for ACT ESA staff. In the past 2 years, a total of 14 deployments have been undertaken to NSW, Queensland, Victoria and Tasmania. These deployments were for Public Information Officers who assisted with sending warnings to impacted communities, delivering community engagement and assisting media.

Council supports the diverse approach to raising awareness and actions in the ACT community in relation to bushfires. However, as recommended in almost every report to the Minister over the past 10 years, Council advocates for external evaluation of the effectiveness of bushfire community engagement activities to ensure a targeted and effective public education program for future seasons. Council notes that in the recent NSW Bushfire Inquiry report it was recommended, and subsequently actioned, that the NSW RFS evaluate existing bush fire preparedness programs to determine the most effective and efficient approach given increased frequency of extreme fire seasons and develop outcomes-based measures to monitor programs' impact over time. This approach is strongly endorsed as a way forward for ESA.

**Recommendation 4:**

That ESA arrange for an external evaluation of the effectiveness of bushfire community engagement activities to ensure a targeted and effective public education program for future seasons and to measure any community behaviour change in relation to bushfire awareness and preparedness.

#### **4.4 Objective 4 – Effective Firefighting Operations by Skilled and Supported Personnel**

The strength of ACT firefighting capability is assessed against three scenarios described in the ACT Bushfire Strategic Capability Statement. Briefly, Scenario 1 is of the type and magnitude of the Christmas 2001 bushfires (Stromlo); Scenario 2 involves multiple remote fires requiring specialist RAFT teams and aerial firefighting; and Scenario 3 is multiple fires in extreme conditions, similar to the 2003 fires.

In terms of the core on-ground bushfire fighting workforce, ACT now has perhaps the largest number of trained personnel that it has ever had. Firefighting and support staff in the ACT now include approximately 500 ACTRFS volunteers, 15 ACTRFS staff in ESA, 200 EPSDD staff, 340 F&R firefighters and 850 Community Fire Unit (CFU) volunteers. Excluding CFU volunteers, this represents 108 more people than recorded in Council's report three years ago (an 11% increase), and CFU volunteers have risen from 770 to 850 (a 10% increase).

On this basis the ACT has the capacity to appropriately mount an initial attack on all of the three scenarios described. The ability to sustain these efforts would depend on subsequent conditions and the duration of effort required. With the above workforce, Council considers that ESA's ability to sustain ongoing shifts is reasonable.

In Council's view, further increasing the ACT volunteer workforce to better cope with post-initial attack may be counterproductive. The greater the workforce, the less often individual members are called on to attend fires and make a contribution. This raises the prospect of under-utilisation during prolonged years of quiet or even average fire seasons. Members who do not have an opportunity to attend fires can become dissatisfied and leave; this is a concern, particularly when those people leaving are the more experienced members.

The ACTRFS volunteer workforce has a high percentage of members with 10 years or less experience. Giving access to higher-level training will be important in the coming years. Council understands that several higher-level training courses have been cancelled due to low enrolment numbers. This is unlikely to be due to lack of interest; rather, the time commitment required may limit members' participation. The time commitment is significant, and any measures that could be taken to support volunteers in completing training courses should be considered. In particular, access to parts of the course on-line using a distance education model is strongly encouraged.

ACTRFS has also supported the establishment of the "Women's Network"; a group for its female members to meet and discuss firefighting issues specific to women. This group has been very successful, with the implementation of some recommendations and the hosting of a speakers' workshop.

The ACTRFS leadership program commenced with a dinner for senior brigade members, with two guest speakers presenting on decision-making and leading in an emergency environment. The program's goal is to impart skills to ACTRFS leaders to complement their professional firefighting skills.

In last year's report Council expressed concern at the apparent low morale of some volunteer firefighters and their poor relationship with RFSHQ. Since then, there has been a concerted, well-considered effort by RFSHQ to address these issues, which Council considers has had a positive impact.

During the year, Council was briefed on the operation of CFUs, which Council considers to be an important initiative since the 2003 bushfires. Council has two concerns about the CFU program: the locations and number of CFUs has not been reviewed since the establishment of Bushfire Prone Areas and the expansion of suburbs on the western and northern sides of Canberra; and the decision that CFUs would not be deployed on days of catastrophic fire danger, when they are most likely to be needed to protect neighbourhood houses.

Council has been concerned for some years about the number of personnel with bushfire management experience able to support Incident Management Teams (IMTs). Council believes that this capability is vital for ensuring that the commitment of resources during large scale bushfires best reflects the risk posed by those fires. Several volunteer personnel have been able to complete Level 2 or higher IMT training this year; Council strongly supports the continuation of this effort into the foreseeable future.

#### **4.5 Objective 5 – The Necessary Equipment and Resources to Respond to and Extinguish Bushfires**

The ACT's bushfire response capabilities include heavy and medium tankers, light units, earthmoving equipment, fire spotting towers, and helicopters for early detection, attack and access in the upcoming season. Details were reported last year and are little changed this year.

Two new bulk water tankers have been added to the ACTRFS fleet, thanks to a donation from the United Arab Emirates following the devastating 2019-20 fire season. Hall Brigade also welcomed a new heavy tanker to replace its aging Hall 10 vehicle.

Another change has been in the helicopter arrangements. ACTRFS no longer shares a contract with NSW RFS for access to a medium helicopter, having recently contracted this aircraft under a standalone agreement. Fire camera detection trials will continue for the 2021-22 season with promising results seen in the past 12 months

As reported last year several vehicle replacements in the ACTRFS were planned for the 1920/21 financial year, but these have not happened. Council would be concerned if such delays accumulate. Another matter of concern is the state of some of the volunteer brigade stations. Several need urgent work to comply with health and safety requirements.

## 4.6 Objective 6 – Extinguish Bushfires when they Occur

Early detection of fires and activation of resources are essential to ensure rapid suppression of bushfires. Since Council's 2020 report, ESA and EPSDD have developed and improved bushfire response capability in several areas. In particular, Council notes:

- additional training in incident management roles prescribed by the Australasian Inter-Service Incident Management System (AIIMS)
- development of the capability of the Incident Management Team (IMT) to manage two shifts
- revision and development of pre-incident operational plans for key areas of the Territory to assist response to bushfires
- enhanced response capability through increases in available resources and their more effective deployment across the Territory, and
- the capability of the Remote Area Fire Fighting Team (RAFT) has been enhanced through the provision of specialised training and equipment to qualified firefighters.

Council notes that an Australian Defence Force helicopter assisting the ESA during the 2019-20 bushfires, having accidentally ignited a bushfire in the Orroral Valley, did not then report it to the ESA for some time. As stated in Section 4.1, Council notes that the ACT Coroner has recently announced an inquiry into the bushfire, focussing specifically on the 45 minutes taken between ignition and its notification to ESA.

## 4.7 Objective 7 – Broad Area Bushfire Fuel Reduction Across the Natural and Rural Landscape of the ACT, &

## 4.8 Objective 8 – Access for Vehicles and Firefighters to Undertake Bushfire Fighting and Fuel Reduction

### Strategic issues

In the ACT, the EPSDD Bushfire Operations Plan (BOP), covers much of public land where fire management activities are conducted. Council has had an active role in advising the Commissioner on the annual EPSDD BOPs, and it receives quarterly reports on its implementation. Currently there is comparatively little review by Council of the BOPs of other land owners in the ACT, despite the Council suggesting for several years that it be involved in providing advice on all the BOPs. Such a holistic overview is important because many of the non-EPSDD BOPs are for land on the northern and western sides of Canberra's urban areas and it is very possible that gaps exist in the strategic implementation of activities needed to reduce the risk to Canberra from bushfires.

Council recognises the role of the Commissioner in approving the BOPs, however there is no mechanism for Council to provide advice to the Commissioner as part of the Commissioner's functions if the Commissioner does not request it in accordance with the Emergencies Act. Council notes that BOPs are mostly annual documents, and other mechanisms for providing advice, such as this annual preparedness report, are neither the appropriate mechanism, nor at the appropriate time to ensure matters raised can be addressed quickly as part of the BOP process.

**Recommendation 5:**

That the Terms of Reference for Bushfire Council include a strategic role for Council in all Bushfire Operational Plans, including providing comments on draft BOPs and monitoring their implementation.

Over the past year, Council has provided detailed comments on the draft 2019-28 Regional Fire Management Plan (RFMP), which establishes the basis for planned fire management activities included in BOPs over the coming five years. Council considers that two important issues need ongoing consideration: aiming to achieve a residual risk range of 30-40%, given that the estimated residual risk was about 40% when the damaging 2020 bushfire occurred; and the feasibility of establishing additional vehicle or walking tracks within Namadgi National Park to provide more options for fire control and implementation of prescribed burning.

Council recognises that the concept of a Regional Fire Management Plan was developed after the introduction of the *Emergencies Act, 2004*, and that it is described as a long-term operational plan in SBMP4. However, given its strategic importance and links to both the SBMP and shorter-term BOPs, Council considers that there should be appropriate legislative provisions establishing the RFMP.

**Recommendation 6:**

That the *Emergencies Act, 2004* be amended to require the manager of public land to prepare a Regional Fire Management Plan every 5 years, in consultation with the Bushfire Council and other stakeholders, including a period of public consultation.

Council was supportive of the approach used to develop this version of the 2019-28 RFMP and the planned program of fire management activities. Council acknowledged that, during the next five years, prescribed burning cannot be undertaken in the areas affected by the 2020 Orroral bushfire, and that these activities should therefore be focussed on the northern end of Namadgi National Park. Drawing on the lessons from the 2003 bushfires, Council. Evidence from the 2020 bushfire provided by PCS suggests that fire severity and environmental impacts were reduced in areas that had been previously subject to prescribed burning. In its submission on the draft RFMP, Council considered that broad area prescribed burning should recommence within southern areas of Namadgi from 2024-25.

Council supports the approach established following the 2003 bushfires to undertake prescribed landscape burning in locations which may have been outside notional ecological times frames. This program, which was fully supported at the time by Bushfire Council, National Parks Association and Conservation Council, was highly successful in achieving a fuel age mosaic across the landscape within a timeframe that provided for effective risk reduction across the broader landscape. To delay implementation of a prescribed burning program solely based on one set of values and risk will result in unacceptably high fuel levels in the later 2020s.

**Recommendation 7:**

That the Minister commission an independent review of the effectiveness of prescribed burning on land managed by the Parks and Conservation Service, taking account of the lessons and impacts from the Orroral bushfire, with a view to recommending a balanced future program of hazard reduction and ecological burns to limit the undesirable impacts from severe bushfires on built assets, water catchments and ecological values.

## Implementation of EPSDD Bushfire Operational Plans

In the past year, EPSDD achieved 94% of the activities planned in the 2020-21 BOP. There was a very high level of achievement in most categories of activity, other than the vegetation management component of access management and, to a lesser extent, prescribed burning (Table 1). Council notes the challenges that the PCS experienced in implementing its access management activities in the last year due to the significant program of track opening activities after the Orroral bushfire, COVID-19-related restrictions and the inability of some contractors to undertake operations in the ACT. Council commends the PCS team for implementing the large strategic prescribed burn along the Pipeline Track in 2021, after having it on approved BOPs for five years and thereby becoming the focus of a Council recommendation last year.

PCS's performance in implementing the various categories of BOP activities over the past 5 years is shown in Table 1. This comparative table shows that there generally a very high level of achievement of what is a significant and complex set of planned fire management activities across a large estate of public land. However, it also shows that for some categories of activities, such as prescribed burning and fire trail maintenance, there were lower levels of achievement in some years, due to seasonal and operational constraints.

One of the very important advances that has been made since 2015 has been the implementation of a significant, ongoing program of mechanical and herbicide treatment of vegetation along major sections of the strategic fire trail network. Under a scenario of increasingly frequent and more severe bushfires, this strategy is critical for ensuring that fire crews can safely access forest areas and for providing defendable fire control lines for indirect suppression operations. Data provided to Council by PCS indicates that the implementation of these important activities has significantly decreased in 2020-21 and the current year, representing an increased risk to future fire suppression activities.

### **Comment**

Council considers it is essential that each BOP includes a significant program of roadside vegetation management, involving mechanical and herbicide treatments, at a level that is at least equivalent to the average annual program since 2015.

Implementation of BOP activities by EPSDD is dependent on the level of funding provided and the maintenance of an appropriate number of skilled staff in the PCS Fire Management Unit. In recent years, PCS has received about \$12 million each year for BOP implementation. Council has been advised that in 2021-22 the funding has been reduced to \$10.48 million. At the same time, the total area of Inner Asset Protection Zones on public land that EPSDD manages has been increased by 623 hectares, as a result of a recent review of Fire Management Zones under SBMP4.

**TABLE 1 – Achievements under EPSDD BOPs over the past 5 years**

ACTIVITY	2016-17		2017-18		2018-19		2019-20		2020-21	
Fuel management	Area (ha)	Completion (%) <sup>†</sup>	Area (ha)	Completion (%) <sup>†</sup>	Area (ha)	Completion (%) <sup>†</sup>	Area (ha)	Completion (%) <sup>†</sup>	Area (ha)	Completion (%) <sup>†</sup>
Grazing	6041	100	6041	100	5672	100	5588	100	4505	100
Physical removal	550	99	312	75	456	67	761	80	691	84
Prescribed burning	9/24 burns	37	37/45 burns	82	25/41 burns	61	9/35 burns	26	10/13 Burns	77
	504/7379 ha	7	2004/8259 ha	24	5082/6465 ha	79	5289/7298 ha	72	1561/1958 ha	80
RFS burns	1/6 burns	17	4/7 burns	57	0/3 burns	0	Nil RFS burns in 19/20	Nil RFS burns in 19/20	Nil RFS burns in 19/2	N/A
	50/107 ha	47	45/55 ha	82	0/91 ha	0				
Slashing	4733	100	4705	100	4502	100	4473	100	4273	100
Chemical application	154	100	372	58	132	100	153/153 ha	100	347/375 ha	93
							135/217 km	62	119/119 km	100
Access management	Length (km)	Completion (%)	Length (km)	Completion (%)	Length (km)	Completion (%)	Length (km)	Completion (%)	Length (km)	Completion (%)
Routine fire trail maintenance	258/272	95	206	99	229	85	53	35	459	95
Vegetation management	179/202	89	273	100	58	50	204	94	62	54
Upgrading trails	2/2	100	35	97	0.5	1	44	92	0	0
Infrastructure	Projects	Completion (%)	Projects	Completion (%)	Projects	Completion (%)	Projects	Completion (%)	Projects	Completion (%)
Signposting, fencing etc.	19	95	15	100	14	100	11	79	11	92
Training	Courses	Completion (%)	Courses	Completion (%)	Courses	Completion (%)	Courses	Completion (%)	Courses	Completion (%)
TAMS personnel	88	88	62	90	66	97	64	91	69	97
Audit & monitoring	Activities	Completion (%)	Activities	Completion (%)	Activities	Completion (%)	Activities	Completion (%)	Activities	Completion (%)
Audit activities	25	96	23	91	22	96	21	95	20	91

**Comment**

Council expresses its significant concern about the 13% decrease in funding that is being provided in 2021-22 to the Parks and Conservation Service for fire management activities on public land, and considers this decision to be inconsistent with the increased risk of bushfires from climate change and the increased requirement to maintain fuel management standards in an expanded area of asset protection zones.

**Prescribed burning achievements**

Since the 2003 bushfires the implementation of prescribed burning, both in the forests close to urban areas and within Namadgi National Park, has been a much higher priority than previously. The effectiveness of prescribed burning programs depends on three factors: the locations of the areas burnt; the level of risk reduction to the assets being protected; and the total area treated in a rolling 5-year period. The first two factors are largely determined through the preparation of the 5-year Regional Fire Management Plans. The third factor depends on the effectiveness of the scheduling and implementation of the prescribed burning program over a 5-year period, taking account of some years when weather conditions limit the implementation of prescribed burning

Because of the differences in seasonal conditions and planned burn block sizes from one year to the next, comparative performance is best measured over periods of five years. The annual areas of public land treated by prescribed burning over the past 10 years are shown in Table 2. The largest annual area treated was 12,452 hectares in 2012-13 and the smallest annual area treated was 502 hectares in 2013-14. Over the past 10 years, a total of 44,701 hectares has been subject to prescribed burning. Therefore, on average 4,470 hectares has been burnt each year, representing about 2.6% of the PCS-managed lands being prescribed burnt each year.

**TABLE 2 - Prescribed burning achievements by EPSDD over the past 10 years**

Period 2011-12 to 2015-16		Period 2016-17 to 2020-21	
2011-12	5,316 ha	2016-17	504 ha
2012-13	12,452 ha	2017-18	2,004 ha
2013-14	502 ha	2018-19	5,082 ha
2014-15	5,328 ha	2019-20	5,289 ha
2015-16	6,663 ha	2020-21	1,561 ha
<b>5 Year Total</b>	30,261 ha	<b>5 Year Total</b>	14,440 ha
<b>Annual Average</b>	6,052 ha	<b>Annual Average</b>	2,888 ha

The data presented here suggests that, even allowing for seasonal and block size differences, there has been a very significant decrease in the prescribed burning achieved in the most recent five-year period. In the 5-year period from 2011-12 to 2015-16, PCS achieved an annual average of 6,052 hectares of prescribed burning and in the subsequent 5-year period an annual average of only



2,888 hectares. This represents a 52% reduction on the previous 5-year annual average. The reasons for this reduction in the 5-yearly program of prescribed burning are not clear to Council, but it could relate to budget pressures and/or increasing constraints on the implementation of the planned burns. Both these issues have been raised as matters of concern by the Council in previous annual preparedness reports. Council considers that this matter should be further considered, preferably with some independent analysis, given the increasing likelihood of the ACT experiencing more frequent and more severe bushfires under the predicted climate change scenarios.

**Recommendation 8:**

That the ACT Government reconsiders the decision to cut the Parks and Conservation Service fire management budget by 13% and conducts an independent review of the budget and other constraints that impact on the ability of the Parks and Conservation Service to achieve the level of prescribed burns and other important fire management strategies approved under Bushfire Operational Plans within a 5-year period, taking account of cost increases and the additional bushfire risks associated with both an expanding urban footprint and climate change.

## 4.9 Objective 9 – Adaptive Management of Current and Future Bushfire Risks

SBMP4 commits the ACT to:

*...continuous improvement of its bushfire risk management strategies through ongoing research, analysis and adoption of an adaptive management approach' (p. 56). It aims to do this by: 'review(ing), monitor(ing) and research(ing) its past, current and future strategies for fire management to identify gaps and implement changes and better practices' including reflect(ing) climate change projections and risk vulnerabilities in disaster and emergency prevention, preparedness, response and recovery (p. 57).*

Progress against the actions in this objective appears patchy. Actions 9.1 and 9.2, which involve research to better understand fire behaviour (9.1) and the interaction between fire and ecology (9.2), are well established and productive. ACT fire modellers are well connected with the wider research community, and are involved in collaborative activities with the BHNCRC, including for example, the flammability modelling project referred to in Section 3.2.

The EPSDD Conservation Research unit recently released the *Biodiversity Research and Monitoring Program Implementation Report 2017-19* which describes the assessment of the ecological impact of prescribed burning at eleven sites carried out in 2017-18 and 2018-19. The results would appear to hold important lessons for improving planned fire management activities throughout the ACT, now and into the future. Other fire monitoring sites were disrupted due to the 2020 Orroral Valley Bushfire, although Council notes that 'disruption' in a closely planned scientific study by a large event such as this, could potentially provide new data on the response of ecosystems.

Council also notes several forthcoming publications addressing the effects of burning on sub-alpine woodlands; various relationships between flora and fire (undertaken with a number of Australian universities); and the effects of large, planned fires on aquatic habitat and fauna.

Council also notes the development of a (yet to be released) report looking into the impacts of, and recovery from, the Orroral Valley Bushfire on several ecological communities, including endangered or threatened communities.

Actions 9.3 to 9.7 address climate and climate change, their predicted impact in the ACT and how bushfire measures might need to be adapted to maintain adequate protection for the ACT. Last year Council noted the *...paucity of progress in actions in this Objective in the last year, and in particular the absence of planned work on: 1) understanding the impacts of climate change in the ACT; and 2) exploring options for better meeting the increased bushfire risk* (p. 24).

Again, Council has seen little evidence of products from these actions, nor are they satisfactorily spelt out in SBMP4 database. Council acknowledges that the resources dedicated to this area have been strengthened in ESA and some preparatory work has been accomplished. We stress, however, the importance of moving to activities that evaluate current plans and practice and develop, with experienced operators, the options for adaptation. Studying climate change and its impacts is a necessary starting step but the value is in modifying risk through adaptation. Especially for risk mitigation measures that have long life spans, such as the location and design of new suburbs and their buildings, actions must be taken now to mitigate the expected risk well past 2050. This report has already noted the importance of action on climate change adaptation and made a recommendation about capability assessment (Section 3.3). Here we propose that a collaborative pilot adaptation project be designed and executed in the next two years in order to develop capabilities and identify knowledge gaps.

**Recommendation 9:**

That a pilot project on adaptation be developed collaboratively between ESA and EPSDD based on a likely climate scenario in 2050 and focussing on one of the major mitigation options of fuel management, fire suppression or estate and building design.

Council notes the development of the ACT *Climate Change Strategy 2019-2025*, which also picks up the theme of proactively planning how to deal with the risks associated with a warmer climate. The Strategy clearly acknowledges the increased risks to the ACT of severe fires and has developed a range of goals and actions from land use planning, to building design, agricultural practices and more. The Strategy also acknowledges the long history of Ngunnawal people in caring for lands in and around the ACT, including the use of fire, and supports the ongoing development of cultural burning activities and the designation of an Aboriginal Fire Management Zone.

**Recommendation 10:**

That EPSDD develops and implements a monitoring and evaluation system covering ecological and cultural outcomes for the Aboriginal Fire Management Zone.

Action 9.8 refers to the governance mechanisms for overseeing delivery of the SBMP, and comment has already been made about the satisfactory progress of this action (Section 3.2).

## 4.10 Objective 10 – Land Use Policy and Planning that Reduces Bushfire Risk

ACTRFS and F&R continue to routinely review development applications from ACTPLA and provide advice on bushfire protection measures. They also review proposed Territory Plan variations and estate development plans to ensure all development proposals take account of bushfire risk. This referral process is working well and verbal advice to Council is that all conditions requested by ESA are being included in approvals for development.

However, Council is concerned that maintenance of Asset Protection Zones (APZs), especially on private land, is not satisfactory. It is suggested that a regular inspection program be considered to ensure that Asset Protection Zones are maintained for their intended purposes.

Under the Planning for Bushfire Risk Minimisation Code adopted in March 2008, a bushfire risk assessment is required at the structure planning or concept planning stage for any land development mapped as being “bushfire prone”. It is now well over ten years since this Code was adopted. Council is concerned that a review of the Code is overdue.

**Recommendation 11:**

That the "Planning for Bushfire Risk Mitigation General Code 2008" be updated as a matter of urgency to reflect current procedures and standards.

Council has been seeking advice for the past three years in its Bushfire Preparedness Report about when the Building Regulation 2008 will be amended to give effect to the Government's decision in December 2018 to apply bushfire-related construction requirements to all new and substantially altered residential dwellings in the mapped bushfire prone areas.

Currently, clause 44 of the ACT Building Regulation states that the Building Code in bushfire prone areas only applies to land that is non-urban. This should be amended to include all land that has been mapped as being bushfire prone, so that it captures land within the existing urban landscape as well as new release land developments that, once zoned urban, are currently not required to comply with AS3959.

**Recommendation 12:**

That the Building Regulation 2008 be amended as a matter of priority to give effect to the Government's decision in December 2018 to apply bushfire-related construction requirements to all new and substantially altered residential dwellings in both new and existing urban areas. This includes identification of Bushfire Prone Areas across all urban areas with a high level of bushfire risk.

Council is aware that a review of many of the ACT's statutory planning documents is currently under way, and welcomes the opportunity to have up-to-date bushfire planning measures incorporated into these policies.

Council was advised as part of a briefing from the Suburban Land Agency that it is seeking opportunities to fund research into bushfire ember attack modelling, potentially leading to alternative suburb edge treatments in areas at high risk of ember attacks. Council strongly endorses any research opportunities that lead to better understanding of fire behaviour and its potential impact on the city of Canberra.

## 4.11 Objective 11 – Integrated Bushfire Protection at the Urban Edge

The ACT employs a range of measures to achieve integrated bushfire risk reduction on the urban edge, including development planning, physical works, community education and inspection.

Fuel is managed on urban edges by managing the fuel in designated APZs to specified levels. This is discussed in Objective 10 (above).

While it has been clearly demonstrated that large developments on the urban edge of Canberra are being master planned with regard to bushfire mitigation measures, there is still some concern from Council that, as individual stages are occupied, there are not adequate measures in place to ensure appropriate APZs are being maintained around the staged developments.

Council received a briefing from EPSDD and a consultant on the work done to assess bushfire risks on land in the Western Edge Investigation area of potential future urban development. While it is appreciated that this work is in the very early stages of planning, Council has very significant concerns about the quality of the bushfire risk assessment. It sought, but did not receive, further details on the methodology used in the bushfire risk assessment. Council does not believe that the bushfire risk assessment appropriately considers the bushfire history, topography and vegetation systems in the investigation area or the predicted climate change scenarios for Canberra. Council's specific concerns include:

- The hazard assessment assumed a downhill slope to the Murrumbidgee River, whereas the likely bushfires in the study area would burn uphill from the Murrumbidgee.
- The assessment assumes only minor increases in the number of days of elevated Forest Fire Danger Index (FFDI) in the future. FFDI is on a rising trend in southeast Australia with December 2019 being the highest ever recorded since it began in 1950<sup>7</sup>. The issue of concern is not the number of days of elevated FFDI but the rising FFDI and increased risk of catastrophic fire weather conditions.
- A bushfire recurrence risk of 25+ years was calculated based on history, but the fires of 2019-2020 and the climate predictions (see section 3.3) would strongly suggest an increase in frequency and severity of bushfires in the future.
- The land around Mt Stromlo is identified as grassland rather than woodland.
- The land around Mt Stromlo, Narrabundah Hill and Coleman Ridge was zoned as having a low bushfire risk.
- 95% of the investigation area was mapped as suitable for urban development with Bushfire Attack Levels (BAL) of low, which does not align with the existing vegetation and slope categories within the study area.

• **Recommendation 13:**

That the technical report assessing bushfire risk in the Western Edge Investigation be reviewed by the fire group in PCS and if appropriate, their fire modelling skills be used to strengthen the technical findings and that these be taken into account in future decisions about urban development in the Western Edge.

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<sup>7</sup> Abram, N.J., Henley, B.J., Sen Gupta, A. *et al.* Connections of climate change and variability to large and extreme forest fires in southeast Australia. *Commun Earth Environ* **2**, 8 (2021). <https://doi.org/10.1038/s43247-020-00065-8>

## 4.12 Objective 12 – Supported Communities for Bushfire Recovery

The issue of support to landholders following the 2020 bushfires was raised in last year's Bushfire Preparedness Report (Action 12.1). EPSDD reported that support has been provided by engaging with landowners to determine immediate relief and recovery needs as required. The Disaster Recovery Funding Arrangements have been activated. Ongoing support to property owners to access Australian and ACT Government relief and recovery provisions. Council is satisfied this matter has addressed.

In relation to Action 12.2 (activating the recovery sub-plan), ESA advised that the ACT Recovery Committee has elevated the chair position to the level of Deputy Director General, Community Services, within JACSD, and that the Committee will now include representation at the Deputy Director General from relevant directorates. The Recovery sub-plan is currently being updated to reflect this significant governance change, and directly addresses lessons learned through the 2019/20 bushfire season. Council supports the appointment of the Deputy Director General, Community Services, within JACSD, as the chair of the ACT Recovery Committee.

Council sought updated reports on Actions 12.3 (lessons learned) and 12.4 (recovery of the natural environment and cultural sites) but did not receive a response.

Council also notes the establishment of the ACTRFS Women's Network and is supportive of that group's consideration of issues relating to bushfire recovery that particularly affect women.

## 5 LAST YEAR'S RECOMMENDATIONS AND STATUS OF GOVERNMENT RESPONSES

This table sets out Council's recommendations in the last *Bushfire Preparedness Report (2020-21)*, the Minister's responses to those recommendations and the status of progress against those recommendations at the time this report was being prepared.

**Comment:**

Council is not persuaded that three of the 2020-21 recommendations reported to have been completed in the Minister's response last year were completed within the spirit of Council's recommendations.

Specifically, these were:

- Recommendation 2, in which Council recommended an independent expert review the suppression responses to the major bushfire in 2020 the ACT.
- Recommendation 3, in which Council reaffirmed its previous recommendations that there should be an independent evaluation of community education activities to ascertain their effectiveness over time.
- Recommendation 13, in which the ACT Government is yet to enact amendments to the Building Regulations 2008 to give effect to its decision of December 2018 to apply bushfire-related construction requirements to all new and substantially altered residential dwellings in the mapped bushfire prone areas.

For that reason, the same recommendations are repeated in this year's report.

BFC Recommendations 2020-21 (10 November 2020)	Minister's response (17 March 2021)	Status (August 2021)
1. That all government mechanisms that contribute to difficulty in meeting planned burning targets be reviewed and streamlined so that, once the EPSDD BOP is approved, the nominated prescribed burns can be implemented in a more timely manner (p7).	<p><b>Ongoing</b></p> <p>The ACT Government is committed to ensuring that all government mechanisms that contribute to difficulty in meeting planned burning targets are reviewed and streamlined.</p> <p>However, the primary impediment to implementing burns is predominantly appropriate weather windows over which the ACT Government has no control.</p>	Wet weather and COVID restrictions have delayed or prevented some prescribe burning. Other risk reduction activities have been carried out where possible. These

ACT Bushfire Council Annual Bushfire Preparedness Report 2021-2022

BFC Recommendations 2020-21 (10 November 2020)	Minister's response (17 March 2021)	Status (August 2021)
	<p>Most of the prescribed burning in the ACT is undertaken by the ACT Parks and Conservation Service (PCS) as part of their legal responsibility for preparedness across EPSDD and TCCS managed land. PCS has dedicated staff looking at weather and fuel and undertakes burning only when it is safe to do so and weather allows.</p> <p>The clear expert consensus following the Royal Commission into National Natural Disaster Arrangements is that while hazard reduction burns are a part of the toolkit, they have a limited impact on reducing fire risk.</p> <p>Their effectiveness is reducing even further as climate change makes seasonal conditions more extreme.</p> <p>While planned burning implementation has numerous challenges, PCS continues to look at increased efficiencies in delivering the planned burn program.</p> <p>One area for improvement is in communication and notifications. PCS has allocated resources to the roles of planning, approving, and implementing planned burns with a specific focus around communication and notifications.</p> <p>emergency services responses to the 2019-20 bushfire season; Review of the Whole of ACT Government Coordination and Response during the 2019-20 Bushfire Season; and Independent Report on the ACT Emergency Services Agency Operational Review of the Bushfire Season 2019-20.</p> <p>The independent review provided unbiased and unconstrained analysis of the practices that worked and practices that could be improved.</p> <p>The ACT Government will continue to work with the Bushfire Council, volunteers, staff, and stakeholders to learn from the season and improve our response and preparedness into the future.</p>	<p>include physical removal, spraying, grazing, and slashing.</p> <p>Despite the above mentioned limitations, the vast majority of the BOP activities have successfully been completed.</p>
<p>2. That the ACT urgently engages appropriately qualified independent expertise to document and review the suppression strategies, responses and bushfire management lessons from the major 2020 bushfires in the ACT (p10).</p>	<p><b>Completed</b></p> <p>The operational response provided to our community during the 2019-20 bushfire season meant the ACT was well protected.</p> <p>The ACT Government committed early to reviewing the season to ensure any lessons would bolster our emergency response into the future.</p> <p>The 2019-20 season was subject to several internal and external reviews. ACT Government officials, volunteers, and staff, all had the opportunity to make significant contributions to the Royal Commission into National Natural Disaster</p>	<p>Completed.</p>

ACT Bushfire Council Annual Bushfire Preparedness Report 2021-2022

BFC Recommendations 2020-21 (10 November 2020)	Minister's response (17 March 2021)	Status (August 2021)
	<p>Arrangements; NSW Bushfire Inquiry; ACT Legislative Assembly Standing Committee on Justice and Community Safety review of ACT emergency services responses to the 2019-20 bushfire season; Review of the Whole of ACT Government Coordination and Response during the 2019-20 Bushfire Season; and Independent Report on the ACT Emergency Services Agency Operational Review of the Bushfire Season 2019-20.</p> <p>The independent review provided unbiased and unconstrained analysis of the practices that worked and practices that could be improved.</p> <p>The ACT Government will continue to work with the Bushfire Council, volunteers, staff, and stakeholders to learn from the season and improve our response and preparedness into the future.</p>	
<p>3. That ESA adopts a longitudinal approach to evaluation of community education activities to ascertain their effectiveness over time – whether they cause a lasting change in community behaviour (p16).</p>	<p><b>Agreed-in-Principle</b></p> <p>While this is 'agreed-in-principle' it needs to be balanced against the additional time it would take to distribute a map with this much detail during an emergency, and whether the additional information really adds any value to a document that is used to quickly inform the community which parts of the burnt area are actively burning.</p>	<p>In meeting presentation has been provided to BFC and a copy available online.</p> <p>ESA Public Information Team have communicated with BFC member responsible for this action.</p>
<p>4. That future bushfire emergency maps in the ACT include a scale and topographic contours, and an indication of which parts of the burnt area are actively burning (p16).</p>	<p><b>Agreed-in-Principle</b></p> <p>While this is 'agreed-in-principle' it needs to be balanced against the additional time it would take to distribute a map with this much detail during an emergency, and whether the additional information really adds any value to a document that is used to quickly inform the community which parts of the burnt area are actively burning.</p>	<p>No report.</p>
<p>5. That the Capability Statement be reviewed as a component of Action 9.6 of SBMP4 to take into account a reducing capacity to rely on interstate assistance as the warming climate produces more widespread extreme bushfires (p17).</p>	<p><b>Agreed</b></p> <p>This matter will be considered when the Capability Statement is next reviewed, noting that the Capability Statement refers to frontline firefighting resources. The ACT was able to confidently draw on frontline firefighting resources from other jurisdictions during the 2019-20 bushfire season, in line with the Capability Statement.</p>	<p>RFS capability statement is completed at the declaration of the fire season. There are no capability or resourcing concerns for the ACTRFS.</p>



ACT Bushfire Council Annual Bushfire Preparedness Report 2021-2022

BFC Recommendations 2020-21 (10 November 2020)	Minister's response (17 March 2021)	Status (August 2021)
	<p>The statement that "The ESA Operational Review identified that fatigue and the need to draw on less well-trained staff was a significant issue" was not in relation to frontline firefighting resources. It was in reference to IMT resourcing.</p>	<p>IMT capability has increased during the off season with recruitment of experienced ACTRFS staff, and ESA and PCS members attending Level 2 IMT courses.</p>
<p>6. That an independent review be conducted to consider issues including, but not limited to: the role of ACT volunteer firefighters; the means by which ACT volunteer firefighters are represented and consulted; the effectiveness of communication between volunteer brigades and RFSHQ; and how best to utilise volunteer firefighter skills and experience in the ACT's unique operational environment (p17).</p>	<p><b>Completed</b></p> <p>Our dedicated ACT Rural Fire Service volunteers kept us safe during Australia's worst bushfire season and protected the territory in unprecedented conditions.</p> <p>The ACT Government is committed to working with volunteers to learn from their experiences, address any concerns and ensure they remain one of the best-resourced, best-equipped and best-trained volunteer firefighting services in Australia.</p> <p>ACTRFS members raise concerns and provide feedback through a number of existing channels including after-action reviews, debriefs and cyclical meetings. Volunteer input is carefully considered alongside all collated feedback and, where possible, feedback is acted on to inform improvements to practice or policies.</p> <p>The ESA has, and will continue, to address matters raised by volunteers during the many recent reviews and inquiries into the 2019-20 season, including the independent ACT Emergency Services Agency Operational Review of the Bushfire Season 2019-20. Progress has been made in delivering the short- and long-term improvements suggested by these reviews, and a number of changes requested by volunteers have been implemented and embedded into ESA operations.</p> <p>Under the leadership of the Chief Officer, the ACTRFS has been going through a reset, which is designed to evolve and shape the ACTRFS as a positive, collaborative, and high performing workforce. This is being done in cooperation with the senior management of each Brigade, who have been meeting personally with the Chief Officer. Improved training is one of the matters being considered as part of the ACTRFS Reset, providing members with better opportunities for career progression by teaching them to become leaders as well as firefighters.</p>	<p>Completed.</p>

ACT Bushfire Council Annual Bushfire Preparedness Report 2021-2022

BFC Recommendations 2020-21 (10 November 2020)	Minister's response (17 March 2021)	Status (August 2021)
	The ACTRFS has also recently increased its staffing numbers to better serve its volunteers and to enhance their volunteering experience as part of its commitment to continuous improvement.	
7. That a greater proportion of RFS and PCS personnel undertake IMT training so that they can effectively undertake significant fire management roles (p18).	<p><b>Agreed-in-Principle</b></p> <p>The ESA and PCS acknowledge the importance of having personnel with on-the-ground firefighting experience in specialist IMT roles, such as the Operations and Planning functions.</p> <p>Volunteers will be provided more opportunities throughout the year to undertake various forms of training for operational and non-operational activities, including IMT training.</p> <p>An IMT is made up of multi-skilled personnel who can perform efficient and effective roles (i.e. Logistics, Finance, Public Information) within an IMT without the need for on-the-ground firefighting experience.</p>	<p>ACTRFS have 9 members of staff trained to perform IMT functional roles, majority of these staff have completed AIIMS training for more than one functional role.</p> <p>RFS volunteers have also been trained and exercised in IMT roles.</p> <p>Non-operational RFS staff and volunteers assist with supporting the IMT filling admin and scribing roles.</p>
8. That the response to major bushfires should always be directed by someone with significant bushfire fighting experience (p20).	<p><b>Agreed-in-Principle</b></p> <p>See response to Recommendation 7.</p>	As above.
9. That the long-planned prescribed burn (FB092) in the Pipeline Track area be given highest priority for implementation in Autumn of 2021 and that any further non-weather related impediments to the implementation of this burn be resolved by the end of January 2021 (p22).	<p><b>Agreed</b></p> <p>PCS understands this specific burn has been scheduled to be implemented in every year for the past 4 years. Significant ecological issues which prevented the burn have now been resolved, and planning is underway to implement this burn in 2020-21. The burn plan has been prepared and an internal PCS working group has been established to refine the plan with the intention to proceed as soon as there is a suitable weather window. It is predicted that this burn will be implemented mid to late summer or autumn.</p>	Completed.

ACT Bushfire Council Annual Bushfire Preparedness Report 2021-2022

<b>BFC Recommendations 2020-21 (10 November 2020)</b>	<b>Minister's response (17 March 2021)</b>	<b>Status (August 2021)</b>
<p>10. That ESA ensures that the results of annual field audits of fuel management and road access activities completed by PCS are provided to Bushfire Council by the end of August each year, to inform Council's annual report to the Minister (p23).</p>	<p><b>Agreed-in-Principle</b></p> <p>The ACT Bushfire Council is updated on PCS BOP progress at Council Meetings by PCS Fire Management Unit (FMU) staff.</p> <p>ACTRFS will endeavour to provide this information to the ACT Bushfire Council earlier each year, noting that this will be dependent on the timing of a completed final BOP report from the FMU. This would need to be provided to ACTRFS by no later than 31 July each year, which may cause difficulties for FMU given the sufficient time required to conduct field audits of any late quarter activities.</p>	<p>2020-21 audits will be provided to ACT BFC. The audit report will be completed once the final 2020-21 BOP report has been received from PCS.</p>
<p>11. That the Minister confirms that all development at Denman Prospect will meet or exceed the ACT's Fire Management Standards and arranges for Council to be briefed on the specific details of Asset Protection Zones and Edge Roads as well as for the agreed hazard mitigation for the red stringybark forest around Blackies Hill (p23).</p>	<p><b>Agreed</b></p> <p>The ACT Government agrees with the ongoing fire requirements and zoning for the protection of the suburb of Denman Prospect. This area lies on the western side of the ACT, where our risk modelling highlights higher risk areas than other areas in the ACT.</p> <p>ESA and Parks and Conservation Service have been heavily engaged in the planning and development of Denman Prospect since 2014 and continue to be involved. Over this time the ESA has provided advice and formal review of plans and the bushfire protection measures, commensurate to the bushfire threat posed to the suburb.</p> <p>The land manager has also had extensive discussions over a number of years with the development agency and the developer of Denman Prospect. As an outcome of these discussions several aspects were changed and mitigation measures included in the requirements for the development.</p> <p>The estate development plan includes a requirement for the developer to undertake physical removal and thinning of vegetation on the native forest area to the west of the Denman Prospect development block.</p> <p>Development has been assessed against existing bushfire hazard and level of construction has been found to meet the requirements of our Strategic Bushfire Management Plan.</p> <p>The protection measures include:</p> <ul style="list-style-type: none"> <li>• extensive Asset Protection Zones</li> <li>• bushfire sensitive landscape design</li> <li>• access with the inclusion of edge roads</li> <li>• water supplies</li> </ul>	<p>EPSDD Planning have presented to ACT BFC on building standards and developments in Denman.</p> <p>The Blackie's Hill HR is part of the draft 2021-22 EPSDD BOP</p>

ACT Bushfire Council Annual Bushfire Preparedness Report 2021-2022

BFC Recommendations 2020-21 (10 November 2020)	Minister's response (17 March 2021)	Status (August 2021)
	<ul style="list-style-type: none"> <li>• building construction measures, and</li> <li>• emergency planning.</li> </ul> <p>These protection measures will help significantly reduce the bushfire risk for Denman Prospect, noting that residents should still consult our bushfire prone area map and have a survival plan in place.</p> <p>The ACT Government will continue to provide briefings to the Bushfire Council on the development of Denman Prospect.</p>	
<p>12. That ESA undertakes a comprehensive analysis of all land management BOPs within the ACT to assess the existing risks and adequacy of planned treatments and presents the results to the Bushfire Council by August 2021 (p23).</p>	<p><b>Agreed-in-Principle</b></p> <p>The ESA will endeavour to provide this analysis, however it is not possible to meet the timeframe of August 2021 while enabling the ACTRFS to provide an accurate analysis. A more achievable timeline would be the December 2021 Bushfire Council meeting.</p> <p>Directorates and utilities providers draft and submit BOPs around October-November each year. Any analysis produced by ACTRFS during August would either not include Directorate or entity BOPs still to be submitted and approved.</p> <p>The ACTRFS Assistant Director, Strategic Planning Bushfire is currently working on BOP coverage to assess grass fuel loads and possible fire runs. ACTRFS is also undertaking field inspections of grass fuel loads and curing trends on Rural Leaseholds to identify priority response areas.</p> <p>ACTRFS is also undertaking field inspections of grass fuel loads and curing trends to identify priority response areas.</p> <p>Directorate BOPs should be presented to BFC by the appropriate directorate, if required, and not ACTRFS. Directorate BOP's should only be presented to BFC after ESA Commissioners approval.</p>	<p>The annual planning forum hosted by ACTRFS is scheduled for 24th August 2021; all Territory BOP activities will be reviewed and discussed.</p> <p>ACTRFS is in the final stages of developing a tenure blind interactive map with overlays showing all BOPs and identifying all planned treatments to reduce fire risk to the ACT community.</p>
<p>13. That the ACT Government-agreed national standard for construction of buildings in bushfire prone areas be implemented urgently (p25).</p>	<p><b>Completed</b></p> <p>Relevant planning and building codes already refer to the current national standards for construction of building in bushfire prone areas.</p> <p>The relevant provisions of the ACT Territory Plan refer to Australian Standard 3959, and the convention is that the current version of the applicable Australian Standard is used, unless a provision specifically states otherwise.</p>	<p>Completed.</p>

ACT Bushfire Council Annual Bushfire Preparedness Report 2021-2022

BFC Recommendations 2020-21 (10 November 2020)	Minister's response (17 March 2021)	Status (August 2021)
	<p>In relation to non-urban areas, the Building (General) Regulation 2008 applies the bushfire provisions of the Building Code of Australia (BCA) to new residential buildings in the non-urban area. The BCA is adopted in the ACT as amended from time to time. The current version of the BCA (2019) references AS3959:2018.</p> <p>EPSDD continues to work with the ESA and Access Canberra on consolidating all bushfire building requirements for the urban and non-urban areas under the Building Act 2004, however, in the interim the latest national standards will continue to apply to construction of buildings in bushfire prone areas.</p>	
<p>14. That guidance to builders be updated to reflect the latest version of the relevant standard, AS3959:2018 (p25).</p>	<p><b>Completed</b></p> <p>All guidance to the building industry reflects the current standards, which includes that the latest version of AS3959:2018 is adopted in the ACT for new developments and building work in bushfire prone areas. It is important to note that building standards are performance based and so it is not mandatory to demonstrate compliance using AS3959. There are alternative pathways to demonstrate compliance with the bushfire standards.</p>	<p>Completed.</p>
<p>15. That funding be provided in 2020-21 for an independent assessment of bushfire risks to all urban and proposed urban areas on the western and northern sides of Canberra (p26).</p>	<p><b>Agreed</b></p> <p>The ACT Government was recently successful in gaining a 4-year Commonwealth grant (National Partnership Agreement Program) to look at fire related long-term residual risk across all EPSDD managed land in the ACT. The funding made available from the Commonwealth will enable EPSDD to also consider residual risk across all tenures to the north and west of the ACT including land in NSW managed by the NSW National Parks and Wildlife Service.</p>	<p>No report.</p>
<p>16. That all relevant agencies clarify their responsibility for post-fire recovery for rural landholders in the ACT and address any critical outstanding issues arising from the 2020 fires. It is suggested the Rural Landholders Association be involved in these discussions (p28).</p>	<p><b>Agreed</b></p> <p>The ACT Government has been proactive in offering support to fire affected rural landholders. The Rural Services Branch within EPSDD will continue to facilitate a process with the relevant ACT Government Stakeholders and the Rural Landholders Association to document the Government response to post fire recovery for rural landholders and clarify the respective responsibilities. In doing so this process will serve also as a "gaps analysis" that the government can focus on for future recovery efforts.</p>	<p>EPSDD to comment.</p> <p>ACTRFS have continued to engage with Rural Landholders via the Farm Fire wise program and will host the annual Rural Landholders forum in preparation for the coming fire season.</p>

ACT Bushfire Council Annual Bushfire Preparedness Report 2021-2022

<b>BFC Recommendations 2020-21 (10 November 2020)</b>	<b>Minister's response (17 March 2021)</b>	<b>Status (August 2021)</b>
<p>17. That priority be given to recommendation 33 of the Coordination Report which addresses the handover arrangements for short term and longer term recovery and ensures that protocols are in place for the appointment of a Recovery Coordinator for all Level 3 bushfire incidents and for Level 2 incidents when appropriate (p28).</p>	<p><b>Agreed</b></p> <p>The ACT Recovery Committee has revised its Terms of Reference to elevate the level of membership. The Chair has also been elevated to DDG Community Safety JACS with the new Terms of Reference identifying the Chair as the Recovery Coordinator position unless delegated to a more appropriate position.</p> <p>The Recovery sub-plan is currently being reviewed to reflect these governance changes. This strengthened governance was in direct response to the lessons learned from the 2019/20 summer season. SEMB is prioritising the finalisation of the Recovery sub-plan review in two phases, with the governance changes to be updated as soon as possible, and a more detailed review to follow in 2021.</p>	<p>No report.</p>
<p>18. That an Indigenous relief and recovery strategy be developed in consultation with relevant Indigenous bodies including the Aboriginal and Torres Strait Islander Elected Body and the United Ngunnawal Elders Council (p28).</p>	<p><b>Agreed</b></p> <p>The Fire Recovery Team have met with the Dhawura Ngunnawal Caring for Country Committee to seek their guidance, advice and decisions on recovery processes and to provide regular updates. As per legislative requirement under the ACT Heritage Act, Representative Aboriginal Organisations have been engaged in consultation and site visits regarding the protection and management of cultural heritage.</p> <p>EPSDD and the Fire Recovery Team will continue to engage with the Dhawura Ngunnawal Caring for Country Committee and the Representative Aboriginal Organisations on the recovery process.</p>	<p>No report.</p>

## 6 GLOSSARY OF TERMS

<b>ACTPLA</b>	ACT Planning and Land Authority
<b>ACTRFS</b>	Rural Fire Service within ESA
<b>AFAC</b>	Australasian Fire & Emergency Services Authorities Council
<b>APZ</b>	Asset Protection Zone
<b>BAL</b>	Bushfire Attack Level
<b>BAZ</b>	Bushfire Abatement Zone
<b>BNHCRC</b>	Bushfire and Natural Hazards Cooperative Research Centre
<b>BOP</b>	Bushfire Operations Plan
<b>CFU</b>	Community Fire Unit
<b>EPSDD</b>	ACT Environment, Planning and Sustainable Development Directorate
<b>ESA</b>	ACT Emergency Services Agency
<b>F&amp;R</b>	ACT Fire and Rescue Service
<b>FFDI</b>	Forest Fire Danger Index
<b>JACSD</b>	ACT Justice & Community Safety Directorate
<b>PCS</b>	ACT Parks and Conservation Service within EPSDD
<b>RAFT</b>	Remote Area Fire Team
<b>RFMP</b>	Regional Fire Management Plan
<b>RFSHQ</b>	ACTRFS Headquarters
<b>SEMB</b>	Security and Emergency Management Branch within JACSD
<b>SBMP4</b>	Strategic Bushfire Management Plan Version 4 2019-2025 made under the <i>Emergencies Act 2004</i>