BUSHFIRES ROYAL COMMISSION
IMPLEMENTATION MONITOR

Final Report

July 2012

BUSHFIRES ROYAL COMMISSION
IMPLEMENTATION MONITOR

Final Report

July 2012

Preface

It is now two years since the Victorian Bushfires Royal Commission (VBRC) handed down its Final Report in July 2010 and a year since I tabled my *Progress Report* in Parliament in July 2011. In the intervening period, the State has continued to employ substantial resources to implement its commitments from the Implementation Plan, *Implementing the Government's Response to the 2009 Victorian Bushfires Royal Commission – May 2011*, to the VBRC's recommendations. There have been numerous initiatives, reforms and activities undertaken as part of the State's implementation of the VBRC's recommendations that are improving Victoria's preparation, planning, response and recovery to bushfires.

While there has been a strong commitment to improving the State's emergency response capability and capacity, it must be acknowledged that such work has continued in the context of other major issues that have prevailed in the State and emergency management sector. This includes the floods of 2010-11 and 2012 and the emergency management Green Paper released by the government in September 2011. The imperative for reform in emergency management is to ensure that all Victorians are as safe as possible and that they can have confidence in the emergency services to respond effectively to any incident, disaster or tragedy. History shows that Victorians are resilient but there is a pressing need to build communities that are more resilient as a major defensive strategy against natural disasters.

A substantial number of the VBRC's recommendations have now been implemented. However, there are a number of actions that the State has committed to implement that are ongoing and will be delivered over a longer term. Accordingly, the State has extended my role to monitor, review and report the State's implementation actions for another two years. I will provide Annual Reports to Parliament in 2013 and 2014 in accordance with these arrangements.

Neil Comrie AO, APM

July 2012

Table of contents

Abbreviations

ABCB	Australian Building Codes Board
ACARA	Australian Curriculum, Assessment and Reporting Authority
ACR	Automatic Circuit Reclosers
AFAC	Australasian Fire and Emergency Service Authorities Council
AGD	Attorney General's Department (Commonwealth)
AIG	Aerial Intelligence Gathering
AIIMS	Australasian Inter-Service Incident Management System
APZ	Asset Protection Zone
BAL	Bushfire Attack Level
BCA	Building Code of Australia
BHBM	Bushfire Hazard and Biodiversity Mapping
BMF	Building Ministers' Forum
BMO	Bushfire Management Overlay
BPA	Bushfire Prone Area
BRCIM	Bushfires Royal Commission Implementation Monitor
BRCIM Act	*Bushfires Royal Commission Implementation Monitor Act 2011*
BUSHFIRE CRC	Bushfire Cooperative Research Centre
CASA	Civil Aviation Safety Authority
CFA	Country Fire Authority
CFA Act	*Country Fire Authority Act 1958*
CFL Act	*Conservation, Forest and Land Act 1987*
Comdisplan	Commonwealth Disaster Response Plan
DEECD	Department of Education and Early Childhood Development
DH	Department of Health
DHS	Department of Human Services
DOJ	Department of Justice
DPC	Department of Premier and Cabinet
DPCD	Department of Planning and Community Development
DPI	Department of Primary Industries
DSE	Department of Sustainability and Environment
DTF	Department of Treasury and Finance
DTS	deemed-to-satisfy

EA	Emergency Alert
ECS	Emergency Call Service
EM Act	*Emergency Management Act 1986*
EMMV	Emergency Management Manual Victoria
EMZ	Ecological Management Zone
EPBC Act	*Environment Protection and Biodiversity Conservation Act 1999* (Commonwealth)
ESC	Emergency Services Commissioner
ESTA	Emergency Services Telecommunications Authority
ESV	Energy Safe Victoria
FAQ	Frequently Asked Question
FEAB	Fire and Emergency Aviation Board
FDI	Fire Danger Index
FDR	Fire Danger Rating
FFG Act	*Flora and Fauna Guarantee Act 1998*
FLIR	Forward Looking Infrared
FMZ	Fire Management Zone
FOP	Fire Operation Plan
Framework	Bushfire Safety Policy Framework
FRU	Fire Recovery Unit
FSC	Fire Services Commissioner
FSC Act	*Fire Services Commissioner Act 2011*
GAA	Growth Areas Authority
GIS	Geographic Information System
ha	hectares
HBAS	Household Bushfire Advice Service
HBSAT	Household Bushfire Self Assessment Tool
ICC	Incident Control Centre
ICT	Information Communications Technology
IESF	Integrated Emergency Services Framework
IFMP	Integrated Fire Management Planning
IMT	Incident Management Team
KPI	Key Performance Indicator

LBS	Location Based Solution	
LGNV	Local Government Native Vegetation	
LPPF	Local Planning Policy Framework	
MACC	Multi-Agency Capability Committee	
MAV	Municipal Association of Victoria	
MEBU	Mobile Education Bushfire Units	
MEMP	Municipal Emergency Management Plan	
MFB	Metropolitan Fire and Emergency Services Board	
MFB Act	*Metropolitan Fire Brigades Act 1958*	
MFMP	Municipal Fire Management Plan	
MFMPC	Municipal Fire Management Planning Committee	
MFPO	Municipal Fire Prevention Officer	
MFPP	Municipal Fire Protection Plan	
MIF	Manual Incendiary Flare	
MSS	Municipal Strategic Statement	
NCC	National Construction Code	
NEMC	National Emergency Management Committee	
NEO	Networked Emergency Organisations	
NIDR	National Identity Documents Replacement	
NPRS	National Police Reference System	
NRIS	National Registration and Inquiry System	
NSDR	National Strategy for Disaster Resilience	
NSP	Neighbourhood Safer Place	
NVCR	Native Vegetation Credit Register	
OESC	Office of the Emergency Services Commissioner	
OHS	Occupational Health and Safety	
OSOM	One Source One Message	
OTC	over-the-counter	
PBSPOC	Powerline Bushfire Safety Program Oversight Committee	
PBST	Powerline Bushfire Safety Taskforce	
PE Act	*Planning and Environment Act 1987*	
PEOA	Planning Enforcement Officers Association	

RBPA	Regional Bushfire Planning Assessments
RDV	Regional Development Victoria
RIS	Regulatory Impact Statement
RVT	Rapid Verification Taskforce
SAU	State Aircraft Unit
SCC	State Control Centre
SCPEM	Standing Council on Police and Emergency Management
SEMAT	State Emergency Management Assurance Team
SERP	State Emergency Response Plan
SERPC	State Emergency Response Planning Committee
SERRPC	State Emergency Relief and Recovery Planning Committee
SFMPC	State Fire Management Planning Committee
SOP	Standard Operating Procedure
SPIF	Self Propelled Incendiary Flare
SPPF	State Planning Policy Framework
SWER	Single Wire Earth Return
SWMZ	Strategic Wildfire Moderation Zone
TMP	Traffic Management Point
TPP	Township Protection Plan
VBIL	Victorian Bushfire Information Line
VBRC	Victorian Bushfires Royal Commission
VBRRA	Victorian Bushfire Reconstruction and Recovery Authority
VCAA	Victorian Curriculum and Assessment Authority
VCEC	Victorian Competition and Efficiency Commission
VEMC	Victorian Emergency Management Council
VFBV	Volunteer Fire Brigades Victoria
VFR	Victorian Floods Review
VFRR	Victorian Fire Risk Register
VICSES	Victoria State Emergency Service
VPEP	Vulnerable People in Emergencies Program
VPP	Victorian Planning Provisions
WMO	Wildfire Management Overlay

Executive Summary

This *Final Report* is delivered in accordance with section 12 of the *Bushfires Royal Commission Implementation Monitor Act 2011* (the BRCIM Act). The report records the State's progress on approximately 300 implementation actions outlined in *Implementing the Government's Response to the 2009 Victorian Bushfires Royal Commission* (the Implementation Plan) which was tabled in Parliament in May 2011. The Implementation Plan sets out the government's response to the 67 recommendations of the Victorian Bushfires Royal Commission (VBRC).

Chapter 1 of this *Final Report* discusses the changes to fire management in Victoria since February 2009. Significant initiatives include the creation of the State's first Fire Services Commissioner (FSC), the subsequent Fire Services Reform Action Plan, command and control arrangements and a number of legislative amendments. The chapter also summarises the 2010-11 and 2011-12 fire seasons and a range of exercises and reviews that have been conducted. While acknowledging the substantial improvements to fire management, this chapter also reiterates the critical importance of shared responsibility in minimising the likelihood of a tragedy of the scale of Black Saturday ever happening again.

Chapter 2 addresses each of the State's implementation actions individually and in accordance with the BRCIM Act, details are provided where possible of the effectiveness of the method used by the relevant agency in carrying out an implementation action and the efficacy of that action. This *Final Report*, however, does not address in detail the implementation actions that were satisfactorily implemented and reported as complete in the *Progress Report* of July 2011.

In the development of the Bushfire Safety Policy Framework (the Framework) the State has adjusted some previously determined shelter options to align with the 'leave early' approach to bushfire safety (recommendations 1 to 5). The BRCIM supports these adjustments to the original implementation actions as they more appropriately reflect current policy and the transition from the previous 'prepare, stay and defend or leave early' approach to the current 'leave early' policy. These adjustments occur in the change of title of Township Protection Plans (TPPs) and the removal of references to 'safer precincts' or 'leave early destinations' as options for people intending to leave early on days of extreme fire risk.

The process of identification and designation of Neighbourhood Safer Places (NSPs) has proven to be a major challenge for the State and local government and it is clear that in some locations, NSPs are not appropriate on safety and other legitimate grounds. The designation of community fire refuges has also been a very slow process and there are currently no designated community fire refuges in Victoria under the new Community Fire Refuges policy. The FSC has indicated an intention to consider the introduction of community fire refuges through the building of fire stations and other new public buildings or retrofitting existing buildings to the fire refuge standards. The BRCIM supports this approach but emphasises that this matter should be dealt with as soon as possible.

The State has also made a number of significant legislative changes designed to improve electricity safety in Victoria (recommendations 27 to 34). In particular there are important initiatives arising from the Powerline Bushfire Safety Taskforce final report and the establishment by the government of the Powerline Bushfire Safety Program.

There has been a coordinated approach by departments and agencies to implement those recommendations aimed at improving integration between the building and planning regimes (recommendations 37 to 55). Changes include new statewide hazard, vegetation and biodiversity mapping, amendments to State and local planning policies, new regulatory conditions imposed on building in high risk bushfire areas and community and sector wide information. These changes are by no means an absolute guarantee that all life or property will be protected and safe from the impact of a bushfire, but are designed to reduce and minimise this risk.

While the majority of implementation actions in relation to the planning and building recommendations have been implemented in a timely fashion, many will take some years to implement and embed into the existing planning and building regimes. The effectiveness of changes, particularly planning scheme amendments, will not be known for many years to come and in many cases, the effectiveness may not be known until fully impacted by bushfire. A number of recommendations are long term, such as the buy-back scheme (recommendation 46). As applications for the scheme have only recently closed ongoing monitoring and review will be required.

The State's commitment to the VBRC's annual rolling target of burning five per cent of public land has been managed within tight funding and resource allocations (recommendation 56). The State, while not meeting the planned burning targets for 2011-12, has introduced a number of initiatives to improve the performance and delivery of the planned burning program. The Department of Sustainability and Environment (DSE) is embarking on a planned burning reform program which will consider a number of options to ensure the efficiency and effectiveness of planning, capability and delivery to facilitate achieving the annual rolling target of 390,000 hectares per annum (recommendations 56 and 57).

The BRCIM questions the rolling target as the most effective way to increase the level of planned burning across the State as working towards a pre-determined target may diminish the State's ability to focus on risk reduction in high risk areas. The BRCIM advocates that the State reconsider the planned burning rolling target of five per cent as the primary outcome as part of the planned burning reform program. It is considered that the most important objective of the planned burning program must be to address public safety risks in line with the VBRC's intentions.

In general terms, the BRCIM is satisfied that the State has made very good progress in meeting its commitments under the Implementation Plan. The regular meetings of the State Coordination and Management Council (Bushfires Sub-Committee) has been an effective mechanism for coordinating and oversighting policy development relating to the VBRC recommendations. The appointment of the FSC (recommendation 63) has also provided a focal point for a more strategic and cohesive approach to the development of policy and procedures. The FSC has assumed a critical leadership role and has actively pursued initiatives including:

> the expansion of fire initiatives to apply to a wider range of hazards (all hazards approach)

> the further development of systems interoperability

> streamlining the current fire and emergency management processes into one process

> seeking a single point of accountability for fire prevention

> developing an overall State level policy for fire management and a process for prioritising government investment in future fire programs.

There is only one finalised implementation action where the State has not met its obligations. Implementation action 1(m) required the State to undertake a major research project in late 2010 to explore the experiences people have had preparing and defending their property during a threat of bushfire or direct impact of bushfire. This research project was due to be completed by March 2011. The final report on this project was substantially delayed meaning that the findings could not be used to inform the development of the Framework, for which it was intended.

In a small number of instances, the timelines for implementation committed to by the State were optimistic and underestimated the complexity of some tasks. This situation is especially evident in actions that required national agreement or involved technological solutions or enhancements. Nevertheless, the BRCIM is satisfied that these commitments were made in good faith and subsequent delays in implementation are not necessarily evidence of neglect or lack of commitment.

A broad range of initiatives and improvements to operational response arrangements have been introduced across the State. Since Black Saturday, the summers of 2010-11 and 2011-12 have (mercifully) been relatively benign insofar as bushfire threat is concerned. While this is a positive for the community, it has significantly restricted the opportunity for the BRCIM to test the efficacy of many implementation actions. Although trials and exercises provide insight into the effectiveness of some initiatives, conclusive evidence of efficacy will only be available when these initiatives have been stress tested under operational conditions. It follows that some of the efficacy comments in this report rely on the limited evidence available to the BRCIM.

About 60 implementation actions will not be satisfactorily completed or are not due for completion until after the release of this *Final Report*. In recognition of this, the Minister for Bushfire Response introduced legislation to extend the role of the BRCIM until September 2014. This amendment, under the *Police and Emergency Management Legislation Amendment Act 2012,* requires the BRCIM to complete Annual Reports by 31 July 2013 and 31 July 2014.

In addition to monitoring the State's progress against the implementation actions, section 12 of the BRCIM Act requires the BRCIM to monitor and assess ongoing efforts to improve interactions between agencies and councils in relation to bushfire planning and preparation. In 2011, the BRCIM conducted a research project, in consultation with State agencies and a representative sample of councils, to meet this legislative requirement.

Chapter 3 discusses this project. Evidence suggests that interactions between councils and agencies vary throughout the State. In some locations, stakeholders work collaboratively in managing bushfire risk, overcoming challenges together, collectively owning planning processes and genuinely sharing the responsibility for bushfire planning and preparation. In other parts of the State, relationships are more difficult, particularly where people have limited capacity to contribute to collaborative processes.

The Integrated Fire Management Planning (IFMP) and the Emergency Management (Fire) Coordinators Program have made progress in developing a more integrated approach to fire management and alleviating some of the resource pressure on municipal councils. However, there is evidence that the dislocation of emergency management arrangements in some areas has entrenched individual agency based approaches that continue to stifle innovation and best practice.

In order to achieve real shared responsibility, there is a need for a coordinated strategic direction for, and leadership within, the entire emergency management sector. Without this it is impossible for practitioners to understand and articulate their roles and responsibilities in relation to each other and their communities. This strategic direction should encompass all public, private and not-for-profit sector stakeholders including emergency services agencies, community development and engagement professionals, land use planners, health sector professionals, builders, business owners, tourism operators and community members.

Chapter 4 discusses the issues of shared responsibility, community resilience and the changing emergency management landscape. The BRCIM has been mindful of a range of other reviews, inquiries and research regarding major natural disasters that have occurred since Black Saturday. It is the firm view of the BRCIM that the recommendations of the VBRC should be considered in the context of the additional knowledge and experience that has emerged from these more recent reviews and inquiries. Consequently, it is appropriate that in a small number of cases the approach taken by the State to address implementation actions has been adjusted, to accommodate these more recent findings, recommendations and experiences.

While the recommendations of the VBRC are of critical importance in their own right, they will now also inform the ongoing reform of the emergency management sector in Victoria. This reform program commenced in September 2011 with a Green Paper titled *Towards a More Disaster Resilient and Safer Victoria*. This Green Paper was the precursor to the development of a related White Paper, to be released later in 2012. It is anticipated that some of the major themes of the VBRC Final Report will be reflected in the White Paper, such as shared responsibility for bushfire safety and the coordination and interoperability of the fire and other emergency services.

The BRCIM is also very aware of the increased national and international focus on the issue of community resilience as a front line strategy in the protection of lives and property. The development and implementation of this strategy in Victoria will, of necessity, reinforce and support the recommendations of the VBRC and the extensive action taken to date by the State to implement the VBRC's recommendations.

Introduction

2009 Victorian bushfires

In 2009, a series of bushfires in Victoria unleashed a wave of destruction and devastation unparalleled in Australia's history. The February 2009 bushfires are the worst in Australia's history surpassing both the Ash Wednesday fires of 1983 and the Black Friday fires of 1939.

The extreme weather conditions leading up to 7 February 2009 (referred to as Black Saturday) included severe and prolonged drought and heat wave conditions in late January. The 2008-09 bushfire season was one of the longest and most demanding.[1] In the week leading up to 7 February, Victorian authorities gave explicit warnings of the upcoming conditions including that it was likely to be "*the worst day ever in the history of the State.*"[2]

The horrendous conditions on the day resulted in the loss of 173 lives and many seriously injured. The fires devastated 109 towns and 33 communities.

7 February 2009

The fires destroyed or damaged

> around 430,000 hectares (ha) of forests, crops and pasture

> more than 4,600 houses destroyed or damaged

> 70 National Parks and reserves

> more than 200 historic places and more than 200 indigenous heritage sites

> more than 820 kilometres of streams, rivers and creeks

> three primary schools and three children's services, with 47 primary schools partially damaged

> over 8,200 kilometres of boundary fencing

> over 11,000 farm animals killed or injured

> over 3,500 agricultural facilities such as dairies

> the habitats of more than 40 species of endangered animals[3]

The widespread devastation required a massive sustained reconstruction program with support required for personal recovery for those dealing with the trauma, grief and loss. The Australian Red Cross in partnership with the Victorian and Federal Governments established the Victorian Bushfire Appeal Fund[4] on 8 February to support people and communities affected by the bushfires. An Independent Advisory Panel consisting of community leaders was set up to administer the fund's operations and allocate funds.

The Victorian Bushfire Reconstruction and Recovery Authority (VBRRA) was established on 10 February 2009 following agreement between the Premier of Victoria and the Prime Minister. VBRRA's role was to lead the reconstruction and recovery of all areas affected by the bushfires including the planning and coordinating of long term reconstruction and recovery efforts in all affected communities.[5]

VBRRA closed on 30 June 2011 with the Fire Recovery Unit (FRU) in Regional Development Victoria (RDV) now responsible for the ongoing recovery of communities impacted by the fires. Further information is available from the FRU website.

Although it is over three years since the February 2009 bushfires, the impact of the fires is still evident. The fires cost an estimated $4 billion[6] and considerable funds (State, federal and money from the Victorian Bushfire Appeal Fund) have been expended to assist individuals and communities impacted by the fire to rebuild their lives. In many areas throughout the State, recovery activities continue and will do so for some period to come.

The events of 7 February 2009 are a constant reminder that Victoria is one of the most bushfire prone areas in the world.

---

1   2009 Victorian Bushfires Royal Commission *Final Report,* Vol I, p 4.

2   M.Moncrief, 'Worst Day in History, Brumby warns of fire danger' *The Age* 6 February 2009 accessed from www.theage.com.au, 1 May 2012.

3   Victorian Bushfire Reconstruction and Recovery Authority *Legacy Report*, June 2011, p 5. The Legacy Report is available from the FRU website.

4   For more information on the Victorian Bushfire Appeal Fund and the Advisory Panel refer to the Department of Human Services website at www.dhs.vic.gov.au/bushfireappeal.

5   VBRRA *Legacy Report*, June 2011.

6   VBRC *Final Report,* Vol I, p 345.

2009 Victorian Bushfires Royal Commission

Immediately following the bushfires, the government announced the establishment of a Royal Commission to investigate the causes and responses to the bushfires.

The 2009 Victorian Bushfires Royal Commission (VBRC) was chaired by the Hon. Bernard Teague AO and supported by Commissioners Ron McLeod AM and Susan Pascoe AM.

The VBRC was given very broad terms of reference to inquire into and report on the causes and circumstances of the fires, the preparation and planning before the fires, all aspects of the response to the fires, measures taken relating to utilities and any other matters considered appropriate. In addition, the letters patent directed the VBRC to make such recommendations as it deemed appropriate relating to preparation and planning for future fire threats and risks, land use planning and management, fireproofing structures, emergency response, communication, training, infrastructure and overall resourcing.[7]

The terms of reference required the VBRC to provide an interim and a final report. The VBRC considered the interim reports to form part of their final work and all should be regarded as one body of work.[8]

Interim Report 1 (August 2009)

The Interim Report contained 51 recommendations focused on changes to be implemented prior to the 2009-10 bushfire season to enhance the protection of human lives.

The VBRC requested the various authorities and agencies responsible for each recommendation to report back to the VBRC about matters raised in the report. In addition, the VBRC required the State to produce:

> an Implementation Plan by 30 September 2009 – being a brief advice setting out the proposed response, allocated responsibilities and schedule to implement a recommendation

> a Delivery Report by 31 March 2010 – being a more detailed report on the progress made towards implementing each recommendation and, where appropriate, the outcomes and effectiveness of the response.

The Victorian Government supported all 51 recommendations in the VBRC's Interim Report. On 30 September 2009, the State provided the VBRC with a copy of the *Implementation Plan of the State of Victoria* in response to the VBRC's Interim Report recommendations. This document set out the State's response to each recommendation, providing information on the lead agency, associated actions and the allocated responsibilities and processes to implement each recommendation.

The Delivery Report (March 2010)

Mr Neil Comrie AO APM, former Chief Commissioner of Victoria Police, was appointed in October 2009 to complete a Delivery Report on behalf of the State. The *Delivery Report* addressed the progress made by the State and its agencies regarding the implementation of the recommendations in the Interim Report of the VBRC and where appropriate, the outcomes and effectiveness of the government's response to the recommendations.

The *Delivery Report* was submitted to the VBRC on 31 March 2010 and Mr Comrie gave evidence to the VBRC on the matters raised in the *Delivery Report* in April 2010. In summary, the *Delivery Report* found:

> the State's response to the VBRC's recommendations involved a large commitment of resources that resulted in a substantial number of positive outcomes

> there was considerable investment in infrastructure, technological enhancements and wide ranging amendments to policies and procedures

> the timeframe for implementation of some projects was too limited, meaning that projects were not able to be fully implemented within projected timeframes, with unforeseen resource, technological and legal barriers delaying some projects

> major areas of concern were Fire Danger Ratings (FDRs), Neighbourhood Safer Places (NSPs) and the state of preparedness of some Incident Control Centres (ICCs)

> while work remained to be undertaken to complete some of the initiatives emanating from the VBRC's interim recommendations, good progress had been made overall.

Further details on the progress of the State's implementation of the interim report recommendations are contained in the *Delivery Report*, which is available online.[9]

Interim Report 2: Priorities for Building in Bushfire Prone Areas (November 2009)

The VBRC's second interim report contained seven recommendations that were considered to be critical matters requiring urgent attention in respect to building in bushfire prone areas, including the regulation of bushfire bunkers. These recommendations were directed at the Australian Building Codes Board (ABCB), two were for Standards Australia, one was for the Commonwealth and one was for the State of Victoria. All recommendations of Interim Report 2 have been completed and an update was provided in the *Progress Report*.[10]

---

7   VBRC *Final Report*, Vol 1, p xxv.

8   VBRC *Final Report*, Summary, p 22. Further details on the VBRC is available from the VBRC website.

9   The *Delivery Report* is available from the BRCIM website. Further details on the status of interim report recommendations is contained in the *Progress Report* and Chapter 2 of this *Final Report*.

10   The *Progress Report* is available from the BRCIM website.

VBRC Final Report (July 2010)

The VBRC Final Report contained 67 recommendations and was a culmination of the VBRC's work. The report (in four volumes)[11] detailed and analysed the events of the fires over January and February 2009, changes required to reduce bushfire risk, the consequences of similar disasters in the future and described the work of the VBRC.

The VBRC stated that its recommendations were designed to give priority to protecting human life and to reflect the shared responsibility that governments, fire agencies, communities and individuals have for minimising the prospect of a tragedy of this scale ever happening again.[12] While placing the preservation of human life at the heart of its deliberations, the VBRC also sought to ensure that due consideration was given to Victoria's environmental sustainability.[13]

Further information on the VBRC including evidence presented at the hearings and the VBRC's reports are available from the VBRC's website.

Victoria's Response to the VBRC Final Report

The VBRC Final Report was presented to the Governor of Victoria on 31 July 2010. It was tabled in Parliament and released to the public on the same day.

An interim response to the Final Report was released by the former government in August 2010, followed in October 2010 with an Implementation Plan (*Making Victoria Fire Ready – Implementing the Government's Response to the 2009 Victorian Bushfires Royal Commission*).[14] This plan outlined the actions which departments and agencies would take to implement the VBRC's Final Report recommendations.

In October 2010, the Premier appointed Mr Neil Comrie AO APM, to monitor government agencies and departments as they implemented the VBRC's recommendations. This was consistent with recommendation 67 of the VBRC's Final Report.

Bushfires Royal Commission Implementation Monitor Act 2011

The role of the implementation monitor became known as the Bushfires Royal Commission Implementation Monitor (BRCIM) and was subsequently formalised through the *Bushfires Royal Commission Implementation Monitor Act 2011* (the BRCIM Act). The primary legislative functions under the BRCIM Act are to monitor, review and report on the progress of agencies in carrying out the government's response to the VBRC's Final Report recommendations.

In particular, the BRCIM must assess:

> the progress of agencies in completing implementation actions

> the effectiveness of the method used in carrying out an implementation action

> the efficacy of an implementation action.[15]

In addition, the BRCIM is to assess the ongoing efforts to improve the interaction between agencies and councils for the purposes of planning and preparing for bushfires.[16] The BRCIM Act also enables the BRCIM to assess the State's progress in implementing any of the VBRC's Interim Report recommendations which are yet to be completed.

The BRCIM Act required the BRCIM to table two reports in Parliament – a *Progress Report* by 31 July 2011 and a *Final Report* by 31 July 2012.

In early 2012, the BRCIM advised the Minister that a number of implementation actions were not due for completion until after the tabling of the BRCIM's *Final Report* on 31 July 2012. Many of the recommendations include significant long term actions (such as planned burning, electricity safety reform, introduction of a property buy-back scheme and the implementation of a new Fire Services Levy).

In May 2012, legislation was introduced into Parliament to amend the BRCIM Act and the role of the BRCIM.[17] The amendment extends the operation of the BRCIM Act until 30 September 2014 and requires the BRCIM to prepare two additional reports, to be known as Annual Reports. The Annual Reports will require the BRCIM to report on the progress of any implementation action that has not been completed at the date of the tabling of the previous BRCIM report. These Annual Reports are to be tabled in Parliament by 31 July 2013 and 31 July 2014.

---

11 The four volumes are: Vol I – The Fires and Fire Related Deaths, Vol II – Fire Preparation, Response and Recovery (Parts One and Two), Vol III – Establishment of the Commission and Vol IV – The Statements of Lay Witnesses.

12 VBRC *Final Report*, Vol I, p v.

13 VBRC *Final Report*, Summary, p 2.

14 State of Victoria, *Making Victoria Fire Ready – Implementing the Government's Response to the 2009 Victorian Bushfires Royal Commission*, October 2010.

15 Section 12 of the BRCIM Act The definition of implementation action is contained in section 3 of the BRCIM Act.

16 Section 12(1)(b) of the BRCIM Act.

17 The *Police and Emergency Management Legislation Amendment Act 2012* was passed in June 2012.

The BRCIM must also report in the Annual Reports on any other matter requested by the Minister. The Annual Reports will be subject to the same procedural requirements as other BRCIM reports (as outlined in Division 3 of the BRCIM Act).

The use of Annual Reports is in line with the VBRC's intent that annual public reporting be used to transparently monitor progress towards ensuring that Victoria's bushfire mitigation and land management practices are improved.[18]

State's Implementation Plan

The BRCIM Act also required the State to prepare an Implementation Plan, titled *Implementing the Government's Response to the 2009 Victorian Bushfires Royal Commission May 2011*[19] (the Implementation Plan) for tabling in Parliament by 31 May 2011.[20]

The State supported all 67 recommendations and committed to undertake a range of implementation actions (almost 300) in response to the recommendations. The Implementation Plan outlines the actions the government has taken, will take or proposes to take to improve Victoria's ability to prevent, prepare, plan for and respond to future bushfires.

The Implementation Plan provides a foundation for the government's strategy to deliver a State better prepared for catastrophic fires in the future. It commits the State to ensuring efforts will be maintained over the long term to avoid complacency about future bushfire risks faced by Victoria.[21]

Office of the Bushfires Royal Commission Implementation Monitor

Following the appointment of Mr Comrie as the BRCIM, an office was established at 121 Exhibition Street, Melbourne to support and assist Mr Comrie in his role. Staff working in the office were:

> Brian Hine, Director

> Simone Lugg, Manager Policy and Legal

> June Gray, Executive Assistant, Research and Project Support

> Jessica Malin, Policy Officer

> Megan Hughes, Editor.

A website was established in 2011 providing details on the role of the BRCIM, the BRCIM reports and links to the BRCIM legislation and the State's Implementation Plan.

Progress Report

The *Progress Report* was tabled in Parliament on 29 July 2011 and is available from the BRCIM website. This report provided an assessment of the State's progress in carrying out implementation actions as outlined in the State's Implementation Plan for each of the VBRC's Final Report recommendations, together with any responses to the recommendations of the VBRC Interim Reports that had not been fully implemented as at 3 June 2011.

Departments and agencies were required to submit evidence to the BRCIM on the progress of all implementation actions associated with each recommendation. Where possible, the BRCIM provided details of the effectiveness of the method used to carry out the action and the efficacy of each implementation action.

---

18 VBRC *Final Report*, Vol II, Part Two, p 405.

19 State of Victoria *Implementing the Government's Response to the 2009 Victorian Bushfires Royal Commission*, May 2011.

20 Sections 22 and 23 of the BRCIM Act. A copy of the State's Implementation Plan is available from the Department of Justice (DOJ) website.

21 Implementation Plan (May 2011), p 3.

Second anniversary memorial service. Photo: VBRRA

In summary, the *Progress Report* found:

> there has been considerable progress in the delivery of actions with significant resources invested in responding to the recommendations

> no evidence of neglect or lack of commitment in delivery of actions. However, there was evidence that a number of actions were progressing slower than expected including the upgrade of Divisional Command Centres, research into arson and the review of community warning sirens

> there has been limited opportunity to test the efficacy of actions under operational conditions due to the benign nature of the past two fire seasons. Concerns were raised with agencies in relation to the Victorian Bushfire Safety Policy Framework (the Framework), shelter options, Township Protection Plans (TPPs), evacuation and arrangements for vulnerable people

> emerging anecdotal evidence of a worrying level of public apathy with fire safety initiatives being implemented by the fire services and other government agencies

> departments and agencies were commended for their work in implementing actions, sometimes tirelessly within short timeframes.

The BRCIM noted that the State must not be complacent and lose momentum in implementing the required actions within agreed timelines. The BRCIM stated that the timely, efficient and effective implementation of the commitments contained in the State's Implementation Plan is fundamental to achieving the intent of the VBRC's recommendations.

In the conclusion to the *Progress Report*, the BRCIM identified a number of areas that required further development and monitoring and noted that these would be revisited in the BRCIM's *Final Report* including:

> the Framework (recommendation 1)

> shelter options (recommendations 1, 3 and 4)

> TPPs (recommendation 3)

> arrangements for vulnerable people (recommendations 3 and 5)

> reducing bushfire risk in relation to powerlines (recommendations 27 to 34)

> changes to the planning and building regime in Victoria (recommendations 37 to 55)

> non-compulsory buy-back of properties in high risk bushfire areas (recommendation 46)

> Fire Services Levy (recommendation 64)

> efforts to improve the interaction between agencies and councils for the purposes of planning and preparing for bushfires.

Most of the above issues are addressed in Chapter 2 of this *Final Report* under the respective recommendation. In addition, the BRCIM undertook a specific project on assessing the interactions between councils and agencies for the purposes of planning and preparing for bushfires in accordance with section 12(1)(b) of the BRCIM Act. The findings of this project are contained in Chapter 3 of this *Final Report*.

The *Progress Report* also highlighted the important role of governments, fire agencies, communities and individuals and their shared responsibility in fire safety awareness, planning and preparation. This is addressed further in Chapter 4 of this *Final Report*.

Photo: Department of Sustainability and Environment

Final Report

This *Final Report* has been prepared in a style consistent with the *Progress Report.* The BRCIM was active throughout 2011 and over the 2011-12 fire season. This included consulting with departments, agencies and other stakeholders involved in implementing the VBRC's Final Report recommendations, visiting control centres, attending and monitoring exercises, viewing demonstrations of systems, visiting fire affected regions, addressing conferences and forums and analysing evidence received.

This *Final Report* builds upon matters raised in the *Progress Report*. Evidence was received from department and agencies from 3 June 2011 to 1 June 2012. This *Final Report* provides details of the status of each implementation action associated with each VBRC recommendation up to 1 June 2012.[22]

Acknowledgements

The preparation of this *Final Report* has involved extensive engagement with State and Commonwealth departments and agencies as well as non-government organisations such as Crime Stoppers and the Municipal Association of Victoria (MAV).

The BRCIM acknowledges the high level of cooperation received from all of these departments, agencies and non-government organisations in the provision of evidence relating to progress on implementation actions.

---

22   In some cases, evidence based on financial year information was obtained after 1 June 2012. Where this information is used it is identified in the relevant section.

Report structure

This *Final Report* should be read in the context of the VBRC Final Report and the BRCIM's *Progress Report*.

Throughout this *Final Report*:

> the terms 'VBRC' and 'Commission' are used interchangeably

> a reference to the 'Implementation Plan' means the State's Implementation Plan – *Implementing the Government's Response to the 2009 Victorian Bushfires Royal Commission May 2011* – which was tabled in Parliament on 31 May 2011

> the terms 'agency' and 'implementation action' have the same meanings as section 3 of the BRCIM Act

> references to recommendations or implementation actions refer to the BRCIM's examination of implementation actions and recommendations in Chapter 2 of this *Final Report.*

Chapter 1 outlines the changes to fire management arrangements in Victoria since February 2009.

Chapter 2 is the BRCIM's final assessment on the progress and status of each implementation action and recommendation of the VBRC's Interim and Final Reports.

Chapter 3 outlines the findings of the BRCIM's project into the assessment of the interactions between councils and agencies in planning and preparing for bushfires.

Chapter 4 details the BRCIM's assessment of shared responsibility and community resilience within the context of the changing emergency management landscape.

1 CHAPTER 1
FIRE MANAGEMENT IN VICTORIA –
CHANGES SINCE FEBRUARY 2009

Victorians live entirely within what the international fire historian Stephen Pyne calls 'the fire flume'. It is the most distinctive fire region of Australia and the most dangerous in the world. When a high pressure system stalls in the Tasman Sea, hot northerly winds flow relentlessly down from central Australia across the densely vegetated south east of the continent. This fiery 'flume' brews a deadly chemistry of air and fuel.

The mountain topography of steep slopes, ridges and valleys channels the hot air, temperatures climb to searing extremes and humidity evaporates such that the air crackles. Lightning attacks the land ahead of the delayed cold front and a dramatic southerly change turns the raging fires suddenly upon victims. There are communities nestled throughout the usually cool wet mountain forests of Victoria. These forests only burn on rare days at the end of long droughts, after prolonged heatwaves, and when the flume is in full gear. And when they burn, they do so with atomic power.

Extract from *We have still not lived long enough*, by Tom Griffiths.[23]

Bushfire has always been part of the Victorian landscape and firefighters will face enormous challenges in the future under increasingly difficult circumstances. In the State's Implementation Plan, the Minister for Bushfire Response noted the VBRC view that fires may be even more frequent and intense in future, due to probable climate change and pose even greater risk to people and communities through population growth and change on the urban-rural interface.[24]

The February 2009 bushfires marked a pivotal point for Victoria in bushfire management. The VBRC Commissioners were praised for their thorough, consultative and exhaustive approach, including their "very impressive commitment to securing the memories of the fires".[25] The VBRC was particularly thorough in its examination of fire management making 19 specific recommendations in relation to emergency and incident management and fireground response in its Final Report. The VBRC considered substantial evidence on the causes and circumstances of the fires and conducted a detailed assessment of the State's policies, procedures, systems, structures and practices in over 75 pages in the Final Report. Consequently, fire management came under immense public scrutiny and understandably, community expectations rose appreciably.

The VBRC found the response to the fires was characterised by many people trying their best under extraordinarily difficult circumstances. They found, however, that some poor decisions were made by people in positions of responsibility as well as by some individuals seeking to protect themselves and their families.[26] Many shortcomings were identified and the VBRC stressed that many important lessons must be learnt to avoid future problems. The VBRC made a total of 125 recommendations in its Interim and Final Reports, as well as expressing a range of views and conclusions throughout the text.

The State accepted all of the VBRC's recommendations and used them as a foundation for making fundamental changes to the way the State manages bushfires. This shift saw the State reevaluate many of its long term policies and move towards greater fire service integration. Victoria is embarking on a significant reform program in fire management and continues to invest in, and learn from, operational reviews and research since February 2009.

This chapter provides an overview of a number of the key changes to fire management in Victoria. Detailed information on specific actions from the State's Implementation Plan is provided in Chapter 2 of this *Final Report*.

---

23   T Griffiths, 'We have still not lived long enough' in *Inside Story*, 16 February 2009, http://inside.org.au/we-have-still-not-lived-long-enough/. Inside Story is an online publication by the Swinburne Institute in the Faculty of Life and Social Sciences at Swinburne University of Technology.

24   Implementation Plan (May 2011), p 4.

25   T. Griffiths, op.cit.

26   VBRC *Final Report*, Summary, p 4.

Fire Services Commissioner

The VBRC recommended that the State create and appoint a Fire Services Commission (FSC) as an independent statutory officer and also make the Chief Fire Officer of the Department of Sustainability and Environment (DSE) a statutory appointment.[27] The *Fire Services Commissioner Act 2010* (the FSC Act) came into operation on 1 December 2010 with the Governor in Council appointing Mr Craig Lapsley as Victoria's first FSC.

The functions and powers of the FSC are set out in section 10 of the FSC Act. The role of the FSC includes working with the fire services to enhance preparedness for response to days of high fire risk and to exercise overall control of major fires, including managing the State Control Centre (SCC). The FSC is also required to promote and lead a program of reform to facilitate joint initiatives and improve the operational capability of fire services, including the development and maintenance of incident management operating procedures and the establishment of performance standards.

The first Annual Report of the FSC was delivered in October 2011.[28] The report outlines some of the achievements and challenges of 2010-11, including establishing operational leadership, building capacity and interoperability, implementing actions associated with VBRC recommendations, initiating stakeholder engagement and reforming fire policy and planning.

The FSC Annual Report outlines the key directions for 2011-12:

> consolidation and implementation of key bushfire safety policies, the reform agenda and fire management planning

> continual delivery of key VBRC recommendations

> pursuing continuous improvement in incident management, capacity building, information and warnings

> establishing an ongoing program of operational reviews

> ongoing improvement to interoperability

> establishing performance standards.[29]

The BRCIM considers the establishment of the FSC is the single most important initiative by the State in addressing the systemic problems identified by the VBRC that occurred on Black Saturday as a result of the disjointed nature of Victoria's fire and emergency service arrangements. The BRCIM looks forward to the delivery of the Fire Services Reform Action Plan, a critical component of the FSC responsibilities, which is discussed further below. Further details on the FSC are available from the FSC website.

Fire Services Reform Action Plan

The FSC Act requires the FSC to develop a Fire Services Reform Action Plan,[30] for the purpose of:

> enhancing the operational capacity and capability of fire services agencies

> improving the capacity of fire services agencies to operate together in planning and preparing for the response to, and in responding to, major fires.

The plan must include a work program for each fire agency that documents things to be done, projects to be undertaken or measures to be met to improve agency capacity and fire services interoperability. This represents a dramatic change in approach to fire and emergency management in Victoria. It is aimed at increasing interoperability, resilience, capability and capacity of the fire agencies in planning, preparing and responding to major fires and delivering services to the community.

The Minister for Police and Emergency Services approved the Fire Services Reform Action Plan on 30 June 2011, following consultation with the fire services, Victoria Police, the Office of the Emergency Services Commissioner (OESC) and the Victoria State Emergency Service (VICSES). The goal of the Fire Services Reform Action Plan is to continue building on the VBRC's findings and recommendations and deliver sustainable long term community safety outcomes by:

> building capacity and capability within the fire services and the community

> achieving genuine interoperability between the fire services

> increasing organisational and community resilience.

The FSC in conjunction with the fire services, has developed a number of work programs centred on six key themes:

> community fire safety – delivery of a single integrated fire safety education and engagement program

> planning – a common planning methodology across all hazards

> State capacity and capability – a plan that governs the development and deployment of State capability and capacity

> operational interoperability – building and implementing an interoperable fire service model

---

27 Recommendation 63.

28 The FSC Annual Report is available from the FSC website.

29 Refer to page 10 of the FSC 2011 Annual Report.

30 Section 12 of the FSC Act.

> organisational improvement – a single integrated approach to people and alignment of business and investment programs across the fire services

> governance and accountability – establishing a 2021 vision and planning framework to set the strategic direction of the fire services supported by the appropriate legislative framework.[31]

The BRCIM notes the considerable progress made in the first year of this ambitious reform program. The BRCIM also supports the view of the FSC that the events of February 2009, tragic as they were, represent the greatest opportunity for the State in the past 60 years to implement real, necessary, meaningful and lasting emergency management reform. Sustained commitment and active participation by all fire services will be fundamental, however, if the aspirations of the VBRC of minimising the prospect of a tragedy of the scale of Black Saturday ever happening again, are to be realised.[32] To be effective, therefore, relevant actions from the work program for each fire agency must be incorporated into individual agency corporate and business plans.

State command and control arrangements

One of the key concerns of the VBRC was the command and control arrangements for bushfire. At the highest level, command and control arrangements for managing the response to emergencies in Victoria are described in the State Emergency Response Plan (SERP). The SERP was reviewed following Black Saturday to reflect new command and control arrangements. The revisions provide more scaleable command and control arrangements for the management of incidents ranging from localised emergencies, through to an emergency or group of emergencies of statewide significance. They also formally recognise the three levels of emergency incident management (municipal, regional and State). The revisions include a requirement for agencies to adopt a functions based incident management system, with a scalable chain of command management structure with key decision making points guided by objectives within the structure.

In December 2010, the Country Fire Authority (CFA), DSE and the Metropolitan Fire and Emergency Services Board (MFB) together with the FSC, approved the new command and control arrangements for bushfire. These arrangements, titled *State Command and Control Arrangements for Bushfire in Victoria,*[33] focus on the primacy of life, issuing of community information and warnings, the protection of properties, economies and the environment. The new arrangements ensure clear and unambiguous command and control of, preparedness for, and response to bushfires in Victoria. The arrangements, which should be read in conjunction with the emergency management arrangements and the fire services legislation[34] were revised in 2011 and superseded in August 2011 with copies available from the FSC website.

Legislative Reform

Since February 2009, a number of legislative amendments have occurred to enable the State to implement some of the VBRC's recommendations. In addition to legislation previously mentioned,[35] this includes changes introduced under the following Acts:

Emergency Management Legislation Amendment Act 2011

> amending the *Emergency Management Act 1986* (the EM Act) to remove the title of Coordinator in Chief of Emergency Management from the Minister for Police and Emergency Services and clarifying the role of the Minister in emergencies (recommendation 11 of the VBRC Final Report)

> amending the *Country Fire Authority Act 1958* (the CFA Act) to enable the Chief Officer of the CFA to delegate the power to issue fire prevention notices (recommendation 54 of the VBRC Final Report).

Police and Emergency Management Legislation Amendment Act 2012

> amending the *Sale of Land Act 1962* to require a vendor's statement to disclose when land is in a bushfire prone area (BPA) (recommendation 53 of the VBRC Final Report)

> amending the *BRCIM Act* to extend its operation and reporting requirements for a further two years (recommendation 66 of the VBRC Final Report).

---

31 Fire Services Reform Action Plan, pp 2-3. The plan is available from the FSC website. Refer also to implementation action 3(k).

32 VBRC *Final Report*, Summary, p vii.

33 The arrangements are available from the FSC website.

34 *Emergency Management Act 1986*, *Country Fire Authority Act 1958*, *Metropolitan Fire Brigades Act 1958*, *Forests Act 1958* and the State Emergency Response Plan [Part 3 of the Emergency Management Manual Victoria].

35 The BRCIM Act and the FSC Act.

These amendments have also been introduced to allow for greater interoperability between agencies, to clarify the role of government in emergencies and guide the State towards an 'all hazards, all agencies' approach to emergency management. It is anticipated that further legislation will be introduced later in 2012 to implement VBRC recommendations 12 and 13 (to redefine the notion of a state of disaster and graded scale of emergencies), recommendation 64 (Fire Services Levy) and recommendation 67 (a Public Inquiries Bill).

In September 2011, the Deputy Premier and Minister for Police and Emergency Services released a Green Paper *Towards a More Disaster Resilient and Safer Victoria*[36] for consultation. The Green Paper sets out proposed major reforms for Victoria's emergency management arrangements, across the spectrum of planning, preparation, response, relief and recovery. Responses to the Green Paper are currently being used in the development of a White Paper which it is anticipated will propose a number of additional legislative changes across the whole emergency management sector. Further information on the reforms, the Green Paper and the White Paper process is outlined in Chapter 4 in this *Final Report*.

Implementing the new arrangements

Victoria's fire seasons have been relatively mild since 2009-10 with opportunities for the State to practise many of the new arrangements under operational conditions being very limited. While mild summers are welcome from a human life, property and fire management perspective, they limit the ability of the State to comprehensively test new arrangements and systems under real conditions.

Fire seasons

2010-11

As reported in the *Progress Report,* the only major fire of the 2010-11 fire season was the fire at Tostaree (the Tostaree Fire). Starting on 1 February 2011, the fire burnt an area of 11,365 ha, closed major roads, led to significant power outages and resulted in the loss of two houses, a number of sheds and livestock. It was declared under control on 11 February 2011. The Tostaree Fire was subject to a major review by the OESC on behalf of the FSC.

Review of the Tostaree Fire Report – 25 July 2011

The FSC requested the OESC to conduct a review of the Tostaree Fire in February 2011 (the Tostaree Review). The terms of reference were to review:

> the control strategies implemented by the Incident Controller for this multi-agency level 3 fire

> the effective issuing of community information and warnings to assist the community to make informed decisions regarding their safety

> the 'line of control' that was established at the incident, regional and State levels and the multi-jurisdictional mechanisms implemented to consider and deal with the broader consequences of this major fire

> the fire safety preparedness levels of communities affected by this event.

Tostaree was the first major fire to provide the opportunity for the State's new arrangements and systems developed in response to the VBRC recommendations to be tested and examined. This included the new *State Command and Control Arrangements for Bushfires in Victoria* and new improved warning and information systems.

The FSC released the Tostaree Review in August 2011.[37] The review concluded that the incident control structure in response to the fire was effective given the extreme weather conditions and the resources available. The review also found that the personnel performed within the requirements of the new command and control arrangements and relevant joint standard operating procedures (SOPs). The level of community preparedness in the Tostaree area was considered to be commensurate with a self reliant, experienced rural population living in a fire prone area.

The Tostaree Review did find, however, a number of areas where agencies could have worked in a more integrated manner. These included:

> the need for greater integration of joint functions within the Incident Management Team (IMT). Concerns were also raised regarding the resourcing and sustainability of IMTs particularly in the information section

---

37 The report of the Tostaree Review is available from the FSC website.

---

36 State of Victoria *Towards a More Disaster Resilient and Safer Victoria,* Green Paper: Options and Issues, 2011. The Green Paper is available from the Department of Premier and Cabinet (DPC) website.

> confusion about the interrelationship between key positions under the command and control arrangements and positions within agencies and the flow of information. At the time of the Tostaree Fire, the arrangements had only recently been introduced and there was some evidence that the arrangements were not understood in a consistent way

> while the CFA and DSE personnel worked in accordance with relevant SOPs, there was a lack of integration between agencies operating on the fireground. Interoperability was hampered by confusion in command and control arrangements, the nature of the fire and confusion with radio communication. There is scope for a higher degree of planning for 'joint' fireground operations and local command and control

> the Princes Highway (a main thoroughfare for eastern Victoria) was closed in accordance with relevant guidelines. The review found, however, that there was scope for improved information management and measures to address the welfare of persons and livestock affected by road closures

> there was a clear commitment by the fire services to warn the community during this event, however, there were some issues related to consistency, timeliness, relevance and clarity of messages across all warning systems. This was evident in the information provided to websites, social media and emergency broadcasters

> vegetation management on roadsides, public land and service easements is a considerable issue for many communities and fire brigades. Roadside vegetation along the Princes Highway and around powerlines is a high risk that is not being managed appropriately – there is an absence of a rigorous, risk based approach.[38]

Although the Tostaree Review found that overall, the fire was managed in accordance with the new arrangements, a total of 29 recommendations were made across a number of themes relating to command and control, community information and warnings, community preparedness and vegetation management. The recommendations were aimed at strengthening the fire response, facilitating enhanced joint operations, and coordinating and improving communications within agencies and with the community.

The FSC developed an action plan in conjunction with the CFA, DSE and the MFB to identify work required to implement the 29 recommendations of the Tostaree Review. The Tostaree action plan is available from the FSC's website. The majority of actions were delivered prior to the commencement of the 2011-12 fire season and progress updates were provided in December 2011 and February 2012.

The recommendations from the Tostaree Review are being implemented through a range of mechanisms including:

> notification of relevant changes to procedures as part of the 2011-12 regional fire briefings (refer to recommendation 14)

> a series of multi-agency exercises across the State including Project Belenus to ensure greater understanding of operational procedures by emergency management personnel (refer to recommendation 9)

> review of joint operating procedures (refer to recommendations 14, 15, 16 and 18)

> level 3 Incident Controller forums (command and control issues) held in Shepparton, Warragul and Ballarat which were hosted by the FSC and fire agency chiefs

> revision of the command and control arrangements for bushfire[39]

> the introduction of a Fire Behavioural Analyst Mentoring Program commencing in December 2011

> amendments to traffic management and evacuation procedures. These arrangements were subsequently tested during community fire drills that tested evacuation plans at Noojee and Lavers Hill (refer to recommendation 9)[40]

> an independent review of community bushfire warnings, delivered in July 2011 (refer to recommendation 1)

> the development of an Information Interoperability Blueprint[41]

> ongoing behavioural change program which is part of the FSC's Fire Services Reform Action Plan.

---

38 Vegetation management was consistently raised at many of the community meetings by agency personnel and through public submissions. While not part of the terms of reference, due to its relevance to community preparedness and fire mitigation, this matter was reported in the Tostaree Review.

39 The command and control arrangements for bushfire is available from the FSC website.

40 The evaluation of the community fire drills is available from the FSC website.

41 The Information Interoperability Blueprint is the development of a single structured platform for storing and sharing all relevant information about an emergency and making this information available to stakeholders and the community. The Blueprint is currently under development by the FSC. Refer to recommendations 16 and 22.

Multi-agency exercise – community fire drill at Noojee, 15 November 2011. Photo: BRCIM

2011-12

The 2011-12 fire season was also mild with only a small number of (mainly) grassfires, as predicted due to climatic conditions. The majority of these fires were contained within a few hours of being reported following deployment of appliances and aircraft. The most significant fires occurred in central Victoria at Blampied, Ararat, Glenaroua and south of Kyneton.

Exercises

Given recent mild fire seasons, it is essential that the State's new arrangements are tested to ensure their effectiveness. Outside of actual fire conditions, arrangements can be tested through planned exercises based on a range of possible scenarios. During 2011-12, the State tested arrangements through a number of planned community exercises. These included Project Belenus, which comprised a series of regional multi-agency operational exercises[42] and two township community fire drills held in late 2011 that tested the evacuation preparedness at Noojee and Lavers Hill.

In addition to the Project Belenus regional exercises, CFA districts conduct local exercises with fire brigades across the State. In most cases, these local exercises involve interaction with local DSE work districts and where appropriate other agencies. They include practical exercises utilising firefighting equipment and fireground practices and are normally held prior to the fire season.

Independent evaluations were conducted on Project Belenus and the township community fire drill exercises.

On 27 November 2011, the CFA in partnership with the FSC and a broad range of fire and emergency services agencies conducted an exercise at Warrandyte. Exercise Fudo was a large scale simulated bushfire training exercise conducted at selected locations across Warrandyte and North Warrandyte. This was a comprehensive exercise and participating agencies included the CFA, FSC, MFB, DSE, VICSES, Parks Victoria, Emergency Services Telecommunications Authority (ESTA), State Aircraft Unit (SAU), the Salvation Army and St John Ambulance.

Importantly, in addition to testing operational arrangements between agencies, the exercise enabled local residents to test their fire plans and provided a very public reminder of the potential perils of the approaching fire season in an extremely high risk bushfire area. The exercise was preceded by months of detailed planning by all participating agencies and a very high degree of public information including media and resident information sheets. Residents also received a letter from the FSC and the CFA District 14 Operations Manager directly challenging their levels of preparedness.

> *Are you ready to act if a bushfire threatened the Warrandyte community? Your safety is your responsibility during a bushfire and it is important to be prepared so that you can act immediately if a fire front descends upon the bushfire prone Warrandyte area.*

The BRCIM acknowledges all those involved for conducting this timely exercise and in particular for the community focus and clear bushfire safety messages provided to residents.

---

42   Refer to recommendation 9.

Reviews

Review of Inquiry into the effect of arrangements made by the CFA on its volunteers

In April 2011, the Deputy Premier of Victoria and Minister for Police and Emergency Services engaged retired County Court Judge, the Honourable David Jones, to conduct an inquiry (the Jones Inquiry) into the effect of arrangements made by the CFA on the recruitment, training, deployment, utilisation and support of CFA volunteers.

The report of the Jones Inquiry was released in September 2011 and is available from the Department of Justice (DOJ) website. The report contained 41 recommendations aimed at implementing initiatives around six key themes. The themes are: culture and leadership, recruitment, retention and recognition, strengthening volunteerism, improved community and brigade support and increased volunteer involvement in development, delivery and assessment of training.

The VBRC received evidence in relation to the skills and training requirements for CFA personnel as well as the effectiveness of IMTs.[43] A number of the Jones Inquiry recommendations have similar themes to those of the VBRC Final Report. For example:

> Jones Inquiry recommendation 3A
The CFA to continue to explore and develop initiatives with modern information and communication technologies to maximise the benefits that they may bring to volunteer involvement in the CFA (VBRC recommendations 22 and 23)

> Jones Inquiry recommendation 29
The CFA to continue the development of key principles in relation to training, in consultation with volunteers and paid personnel (VBRC recommendation 15)

> Jones Inquiry recommendation 36
The CFA, in consultation with the Volunteer Fire Brigades Victoria (VFBV) explore and develop initiatives whereby more volunteers are qualified to participate in IMTs (VBRC recommendations 9 and15)

> Jones Inquiry recommendation 37
The CFA, in consultation with the VFBV and volunteers, explore and develop initiatives whereby qualified volunteers may be more utilised in IMTs (VBRC recommendations 9 and 15).

On 24 February 2012, the government announced that its response to the Jones Inquiry will be part of the broader modernisation of Victoria's emergency management arrangements[44] including recommendations from the VBRC, the Review of the 2010-11 Flood Warnings and Response[45] (VFR), the FSC Fire Services Reform Action Plan and the government's White Paper into emergency management.

The CFA, in consultation with the VFBV, is developing an action plan for the agreed priorities based upon the six key themes and will provide regular progress reports to government on measurable outcomes.

Operational reviews

Operational reviews provide an important objective insight into the management of bushfires. They can identify and address particular issues that have previously been identified as problematic, enable performance evaluation and facilitate continuous improvement. The State has been increasingly active in reviewing a broad range of emergency events, especially since 2011. The key purpose of reviews is not to apportion blame but rather to identify both good and bad emergency management practices and to suggest improvements for the management of similar future events.

The FSC requested the Emergency Services Commissioner (ESC) to review several emergency events throughout 2011-12. These included the:

> Tostaree Fire

> TriTech Lubricants factory fire in Dandenong South on 19 May 2011[46]

> Nuplex Resins hazardous materials incident in Wangaratta on 19 December 2011.

---

43   VBRC *Final Report*, Vol II, Part Two, Chapter 3.

44   Premier of Victoria, 'Better recruitment, training and support for CFA volunteers', Media Release, 24 February 2012, accessed from www.premier.vic.gov.au/media-centre/media-releases, 1 May 2012.

45   Comrie, N., *Review of the 2010-11 Flood Warnings & Response – Final Report*, 1 December 2011. The review is available from the VFR website. Further information on the VFR is provided in Chapter 4 of this *Final Report*.

46   The report of the Review of the TriTech Lubricants factory fire is available from the FSC website.

Photo: Keith Pakenham – CFA Communities & Communications

Other commissioned reviews into emergency events included the:

> landfill fires at Brooklyn and Werribee and the transfer station fire at Wantirna South between 23 and 27 January 2012

> grassfire at Westmeadows on 24 January 2012

> Yarra Valley Grammar Primary School fire at Ringwood on 30 January 2012.

The FSC also commissioned a review of community bushfire warnings, which was finalised in July 2011.[47] In 2012, the FSC facilitated a review of the Port of Portland emergency, which occurred between 18 and 24 February 2012 involving tar (containing a potential carcinogen) leaking from a 4,000 tonne tank at the rate of five tonnes per hour in the centre of Portland.

The reports of some of these reviews are still under consideration, however, a range of themes emerge that are consistent with many of the VBRC findings. There are many positive findings including observed improvements in incident control performance, preparedness levels, awareness of and compliance with SOPs and information and warning systems.

It is important to remain vigilant, however, as a large number of initiatives and changes have been implemented since 2009, many of which continue to evolve. For example, there has been significant developments in relation to warning systems with many new elements introduced such as Emergency Alert (EA), sirens and an increasing use of social media. There has also been several revisions to command and control arrangements.

Many reviews have identified command and control as requiring ongoing monitoring, development and improvement, especially between agencies at the incident level on the fireground. Warnings and command and control systems are both significantly dependent upon information communication technology (ICT). The importance of the State pursuing full emergency management systems interoperability is reiterated throughout the review findings.

The BRCIM acknowledges the State has placed increased emphasis on reviewing emergency events to ensure that the lessons learnt are captured and incorporated into the management of all future events. Vigilance will be essential, however, to ensure that all of the important learnings from review processes are not simply included in policy and procedures, but are encapsulated into field practice by all agency personnel.

---

47   The report of the Review of Community Bushfires Warnings is available from the FSC website.

Summary

Substantial changes have been made to fire and emergency management in Victoria since Black Saturday, especially in relation to incident management and fireground response. Thankfully, the dreadful conditions that prevailed in February 2009 have not (yet) returned to Victoria. The State, however, cannot afford to be complacent. Regrettably,

there is a dangerous mismatch between the cyclic nature of fire and the short term memory of communities …and… nature can overwhelm culture.[48]

The extensive reforms that have been implemented in responding to fire can only have an impact when they operate as part of a holistic approach. Problems in emergency management are not generally caused by inadequate response or lack of interagency cooperation,

they are the product of earlier policy decisions: where and how we live, how we balance competing objectives in areas like land use planning and how we take responsibility for our own welfare.[49]

Fire safety starts with sensible planning, requires concerted prevention and mitigation activities and depends substantially on individuals and communities making decisions and taking action based on the best possible information available. The best equipped fire service in the world cannot, on its own, guarantee that the impacts of an event like the bushfires of February 2009 will never happen again in Victoria.

---

48   T. Griffiths, op.cit.

49   Michael Eburn and Anthony Bergin *Recriminations follow natural disaster*, 30 March 2012, The Australian, Legal Affairs Section, p 30.

2 **CHAPTER 2**
REPORTING ON THE IMPLEMENTATION OF VBRC
INTERIM AND FINAL REPORT RECOMMENDATIONS

This chapter builds on the BRCIM's findings in Chapter 7 of the *Progress Report* and includes the monitoring and review of implementation actions from 3 June 2011 to 1 June 2012.[50] An update on the status of the outstanding recommendations from the VBRC's Interim Reports, which were included in Chapter 6 of the *Progress Report*, is also included in this chapter.

The BRCIM followed the same methodology for collecting and analysing evidence and undertook the same consultation processes, as outlined in Chapter 5 of the *Progress Report*. The Commonwealth was also given an opportunity to provide the BRCIM with an update on the implementation of its recommendations. This information has been included, where relevant.

Readers are encouraged to read this chapter in conjunction with Chapters 6 and 7 of the *Progress Report*.[52]

VBRC Recommendations

The VBRC made a series of recommendations in both its Interim Reports and the Final Report designed to avoid constraining the State with undue prescription or to narrow the vision of policy makers. The VBRC's recommendations were generally aimed at the State,[51] however, some relate wholly or partially to the Commonwealth and its responsibilities and capabilities.

The VBRC's recommendations were grouped according to a number of themes:

Interim Report

Warnings	recommendations 4.1 – 4.8	(chapter 4)
Information	recommendations 5.1 – 5.5	(chapter 5)
Relocation	recommendations 6.1 – 6.4	(chapter 6)
Stay or Go	recommendations 7.1 – 7.5	(chapter 7)
Risk and Refuge	recommendations 8.1 – 8.13	(chapter 8)
Incident Management: A Case Study	recommendations 9.1 – 9.5	(chapter 9)
Emergency Management	recommendations 10.1 – 10.6	(chapter 10)
Commonwealth Response	recommendations 11.1 – 11.2	(chapter 11)
Emergency Calls	recommendations 12.1 – 12.3	(chapter 12)

Interim Report 2: Priorities for Building in Bushfire Prone Areas

Standard for bunkers	recommendation 1
Regulatory Amendments	recommendations 2 – 5
Ember protection at lower Bushfire Attack Levels (BAL)	recommendation 6
Building in bushfire prone areas	recommendation 7

Final Report

Victoria's Bushfire Safety Policy	recommendations 1 – 7	(chapter 1)
Emergency and Incident Management	recommendations 8 – 19	(chapter 2)
Fireground Response	recommendations 20 – 26	(chapter 3)
Electricity Caused Fire	recommendations 27 – 34	(chapter 4)
Deliberately Lit Fires	recommendations 35 – 36	(chapter 5)
Planning and Building	recommendations 37 – 55	(chapter 6)
Land and Fuel Management	recommendations 56 – 62	(chapter 7)
Organisational Structure	recommendations 63 – 64	(chapter 10)
Research and Evaluation	recommendation 65	(chapter 11)
Monitoring Implementation	recommendation 66	(chapter 12)
Reflections	recommendation 67	

---

50   Due to publication and tabling deadlines, the last date for receipt of evidence to be included by the BRCIM in the *Final Report* was 1 June 2012. Where evidence has been submitted after this date and has been used this is referenced accordingly.

51   VBRC *Final Report*, Summary, p 23.

52   The VBRC used the term 'State' to apply not just to the elected government and organisations that form part of the Victorian public service, but the broader public service such as the CFA and 'special bodies' defined in the *Public Administration Act 2004*, such as Victoria Police (VBRC *Final Report,* Summary, p 23).

Status of VBRC Interim Report Recommendations

Interim Report (August 2009)

The *Progress Report* noted that the following Interim Report recommendations were in progress. An update is provided below.

Interim Report – 6.4

> 6.4 Municipal councils review their municipal emergency management plans to ensure there is appropriate provision for relocation during bushfires, in particular, to indicate the location and arrangements associated with designated emergency relief centres.

MAV provided evidence that 76 of 79 councils have reviewed their municipal emergency management plans (MEMPs) to include activation arrangements and locations of relief centres. The three remaining councils are in the process of including this material in their MEMPs.[53]

Status: Complete

Interim Report – 8.1 & 8.2

> 8.1 The CFA report to the Commission on the outcome of the trials of the Victorian fire risk registers and progress with its implementation.

> 8.2 The MAV report to the Commission on the progress of amendments to MEMPs by those municipal councils trialling the Victorian fire risk registers.

The Victorian Fire Risk Register (VFRR)[54] has identified risk and mitigation treatments in 65 of the State's 79 councils. The 14 Melbourne metropolitan councils that have minimal or no bushfire risk are not required to undertake the process. Kingston City Council has, however, chosen to participate. The VFRR now forms part of Integrated Fire Management Planning (IFMP)[55] across Victoria. All six alpine resort areas have also completed the process, as has French Island.

The CFA has been reviewing existing registers throughout 2012. Sixty-three of the 65 council reviews had been completed as at 31 May 2012.

Status: Complete

Interim Report – 9.1 & 9.2

> 9.1 The State ensure that State Duty Officers of the CFA and the DSE be given direct responsibility for ensuring pre-designated level 3 Incident Control Centres within their respective control are properly staffed and equipped to enable immediate operation in the case of a fire on high fire risk days.

> 9.2 The CFA and DSE agree procedures to ensure the most experienced, qualified and competent person is appointed as Incident Controller for each fire, irrespective of the point of ignition of the fire.

These Interim Report recommendations have been addressed via a broad range of actions implemented by the State in response to recommendations 8, 14 and 17 of the VBRC Final Report. Refer to these recommendations later in this chapter for more detail.

Status: Complete

Interim Report – 12.3

> 12.3 The State further promote, through the Council of Australian Governments more effective emergency call service arrangements throughout Australia.

Under the direction of the Standing Council on Police and Emergency Management (SCPEM), the Commonwealth Attorney-General's Department (AGD) has been working with the States and Territories on measures to improve the effectiveness of the Triple Zero Emergency Call Service (ECS) arrangements throughout Australia, particularly during large scale emergencies and disasters.

The Commonwealth has established a Triple Zero Working Group to improve interoperability and demand and capacity management throughout Australia. Victoria is an active member of this group. Victoria Police is also developing a dedicated police line for non-emergency calls that will reduce the overall load on triple zero.

---

53   Information on MEMPs is provided in Part 6 of the Emergency Management Manual Victoria (EMMV) available from the OESC website.

54   The VFRR is an organised program that identifies areas that are at risk from bushfires. It is aimed at improving bushfire management planning, and provides evidence based data to assess the level of risk to properties and provide a range of treatments to reduce those risks.

55   IFMP is used in Victoria to improve fire management planning and outlines a comprehensive and consistent approach at the State, regional and municipal level. Further information of IFMP is available from the IFMP website.

ESTA's State Emergency Communications Centre in Ballarat where Triple Zero (000) calls are managed around the clock.
Photo: Emergency Services Telecommunications Authority

A National Protocol for Tailored Recorded Voice Announcements was ratified by all jurisdictions and Telstra in 2010. Tailored recorded voice announcements were introduced for use in large scale emergencies and disasters and are designed to redirect triple zero callers not requiring emergency assistance to appropriate information sources, such as a bushfire information line. Use of these announcements assists to reduce the number of non-emergency calls to triple zero and therefore contributes to a faster and more effective response to those with a genuine emergency need. In Victoria, the ESTA already uses recorded voice announcements during periods of extreme demand.

The Commonwealth, through the AGD, prepared high level principles as part of a framework to guide State and Territory triple zero and information lines to improve crisis coordination preparedness and response. The principles were endorsed by the Ministerial Council in November 2009. In 2010, the AGD prepared a report on issues for the Triple Zero ECS that would benefit from national collaboration to improve the surge capacity of State and Territory emergency services organisations.

The report yielded two major conclusions. The first was the need to reduce non-genuine demand on the Triple Zero ECS. The second was the need to adopt best practice in emergency call handling. Following the report on national collaboration, in 2011 the AGD commissioned a more detailed study to identify best practice and possible interoperability and compatibility of State and Territory systems over the long term. This report was considered by SCPEM in July and November 2011.

The Ministers agreed to a work plan that includes:

> developing a national enterprise model for the Triple Zero ESOs. This work is being led by the Queensland Department of Community Safety. The model will assist the jurisdictions with future triple zero related procurements by establishing a set of underpinning standards and principles to apply within their own business models

> implementation of national numbers for State Emergency Services (132 500) and the Police Assistance line (131 444) and related national promotion

> preparation of a feasibility report for consideration by SCPEM on either a national fire information number or an all hazards national emergency information number. Such a number could improve access to disaster information and help reduce call volumes to triple zero during disasters.

Progress reports on these projects are to be provided to SCPEM on an ongoing basis.

Status: Complete

Interim Report 2 (November 2009)

All VBRC Interim Report 2 recommendations are complete and details were provided in Chapter 6 of the *Progress Report*.

Status of VBRC Final Report Recommendations

The BRCIM *Final Report* follows a similar format to that provided in the *Progress Report.* Readers are advised to read the following key as it explains the terminology used in the chapter.

Key

Recommendation	VBRC Final Report recommendation
Implementation Action	Implementation actions are defined in section 3 of the BRCIM Act.
Action required	The implementation actions are set out in the State's Implementation Plan.[56] The BRCIM assigned each implementation action a unique reference number to assist in the collection of evidence. All departments and agencies were advised of the BRCIM's referencing system. The referencing is the same as in the *Progress Report*. Since the *Progress Report* a number of additional actions have been included in the *Final Report* following discussions with departments and agencies. Additional actions have been included where initial commitments in the State's Implementation Plan are no longer relevant or in some cases, no specific actions were outlined by the State but a number of new actions have been identified.
Due Date	The State committed to implement actions within specified dates or timeframes as outlined in the Implementation Plan. Where relevant, the BRCIM refers to these dates in this chapter. For a number of actions, however, there were no dates provided in the Implementation Plan. Where there are no dates, the BRCIM assigned the following default dates to assist with the collection and analysis of evidence from departments and agencies: ***'fire season'*** – between 1 December and 31 March ***'before the fire season'*** – 1 December ***'after the fire season'*** – 1 December (to be completed prior to the start of the next fire season) ***'in 2012'*** – 31 December 2012 (to be completed by the end of the year) ***'ongoing'*** – 30 June (where no date was provided in the Implementation Plan, the BRCIM assigned a default date of 30 June as a trigger for the BRCIM to request evidence of progress from the responsible department or agency; this is identified where applicable for each action) In some cases, the due date was changed and where applicable, reasons are provided under the status section of the relevant action.
Progress Report Status	***'Complete'*** – the action was complete at 3 June 2011 ***'Ongoing'*** – the action was not complete at 3 June 2011 and there was no completion date provided in the State's Implementation Plan.[57]

---

56   The State's Implementation Plan is available from the DOJ website.

57   The term 'ongoing' has been replaced in the *Final Report* with the term 'in progress'.

Key continued

Recommendation	VBRC Final Report recommendation
Final Report Status	**'Complete'** – the action was complete at 1 June 2012 **'In progress'** – the State has made progress but this action is long term and the completion date is outside the scope of the Final Report **'Not applicable'**– some actions are no longer applicable, having been superseded or addressed under other recommendations.
Status	The BRCIM's analysis of the evidence provided in relation to each implementation action.
Finding	The BRCIM's finding on each implementation action.
Overall Finding	The BRCIM's assessment of the extent to which the implementation of actions fulfils the intent of the specific VBRC recommendation.

Following the release of the *Progress Report*, it was incorrectly reported in the media that if an implementation action had a due date of 30 June 2011, this meant that it was to be completed by 30 June 2011. The majority of all implementation actions with a date of 30 June 2011 were actions that were ongoing, as advised above, and 30 June 2011 was a date assigned by the BRCIM for progress reporting purposes. Where possible, the State has provided a progress update and advice on the completion dates for implementation actions that did not have a completion date in the Implementation Plan.

The BRCIM has provided references to department and agency websites for further information where applicable throughout the *Final Report*. Unless otherwise referenced, a full list of department and agency websites is provided in the references section of this *Final Report*. Copies of all acts and legislation referenced in the *Final Report* are available from the Victorian Legislation and Parliamentary Documents website unless otherwise referenced.

VICTORIA'S BUSHFIRE SAFETY POLICY

Recommendations 1 – 7

The VBRC dedicated Chapter 1 of its Final Report to Victoria's Bushfire Safety Policy. The VBRC noted that while the basic tenets of policy in place at the time of the February 2009 fires (known as 'stay or go') were sound, modifications were required to address shortcomings highlighted by the experience of the fires.

The VBRC identified a number of areas of primary concern including community information and warnings, community engagement, support to municipal councils, arrangements for vulnerable people, bushfire preparedness and local planning, leaving early, defending a property in a bushfire, shelter options, evacuation and bushfire education in schools.

Seven recommendations were made by the VBRC in Chapter 1, noting that while some changes would reap immediate benefits, some policy and infrastructure changes will take longer to achieve and long term education and cultural change is required to ensure Victorians can adapt to living with fire. The State committed to over 70 specific actions in the Implementation Plan in response to these recommendations.

RECOMMENDATION 1

The State revise its Bushfire Safety Policy. While adopting the national Prepare. Act. Survive. framework in Victoria, the policy should do the following:

1.1   enhance the role of warnings – including providing for timely and informative advice about the predicted passage of a fire and the actions to be taken by people in areas potentially in its path

1.2   emphasise that all fires are different in ways that require an awareness of fire conditions, local circumstances and personal capacity

1.3   recognise that the heightened risk on the worst days demands a different response

1.4   retain those elements of the existing bushfire policy that have proved effective

1.5   strengthen the range of options available in the face of fire, including community refuges, bushfire shelters and evacuation

1.6   ensure that local solutions are tailored and known to communities through local bushfire planning

1.7   improve advice on the nature of fire and house defendability, taking account of broader landscape risks.

Implementation Actions

Action Required	Due Date	Progress Report Status (July 2011)	Final Report Status (July 2012)
1(a) Refine and broaden Bushfire Safety Policy	01/12/2010	Ongoing	Complete
1(b) Review of Bushfire Safety Policy	01/12/2011	Ongoing	Complete
1(c) Emergency Alert Phase 2	30/06/2012*	Ongoing	In progress
1(d) One Source One Message – extending capability	30/06/2012*	Ongoing	In progress
1(e) Bushfire Alerts National Framework	30/11/2010	Complete	Complete
1(f) Sirens – Office of the Emergency Services Commissioner Review	01/12/2011	Ongoing	Complete
1(g) 10 year evaluation of the Ferny Creek Community Siren	28/02/2011	Complete	Complete
1(h) Total Fire Ban District – alignment with Bureau of Meteorology weather districts	14/10/2010	Complete	Complete
1(i) Fire Danger Ratings (FDR) – national review of FDRs	14/10/2010	Complete	Complete
1(j) Memorandum of Understanding with Bureau of Meteorology – Fire Danger Index	01/12/2010	Complete	Complete
1(k) National Research Program – forecasting fire risk	31/07/2013	Ongoing	In progress
1(l) House defendability – extending safety officer program	31/12/2011	Complete	Complete
1(m) OESC Research project 'People's experiences in bushfires'	01/12/2011	Ongoing	Complete
1(n) Ensure integration of OSOM and Emergency Alert (NEWS)	30/06/2012*	Ongoing	In progress
1(o) Review of Community Warnings	01/12/2011	Ongoing	In progress

BRCIM reporting date. No due date provided in the Implementation Plan.

Status

The *Progress Report* noted that actions 1(e), (g), (h), (i), (j), and (l) were satisfactorily implemented. No further comment is made in relation to these actions.

1(a) Refine and broaden Bushfire Safety Policy

1(b) Review of Bushfire Safety Policy

The FSC is responsible for the implementation and annual review of the Framework. The Framework was reviewed in 2011 and addressed issues raised in the *Progress Report*. This review provided clarification of the document's target audience and incorporated new initiatives and key learnings from the Tostaree Review.[58]

The revised Framework is a much clearer and more user friendly document than the first version, following the removal of repetitive and confusing appendices.[59] The Framework now provides better direction and guidance to government and agencies on the improvement of community bushfire safety for all Victorians.

The first aim of the Framework provides direction and guidance in relation to the development of shared responsibility for bushfire safety between the State and local government, agencies, the private sector and non-government organisations, communities and individuals.

The revised Framework is based on 11 key principles, the first of which enshrines the protection of life as the paramount consideration. The Framework also outlines five priority areas for action and the objectives, strategies and initiatives under each of these priorities. The five priorities are:

1. education and engagement
2. bushfire preparation and planning
3. local community fire planning
4. fire danger information and warnings
5. bushfire safety options.

The Framework includes a diagram (shown on next page) that demonstrates the relationship between the priority areas and how they are intended to contribute to safety outcomes.

The BRCIM expressed concern in the *Progress Report* about the State's success in communicating the Framework to the Victorian community. The BRCIM acknowledges that communicating this Framework is an ongoing process that will require a long term, cohesive effort from the State. This requirement is discussed in more detail under recommendation 2.

In the *Progress Report*, the BRCIM was also concerned that the Framework did not communicate adequate advice to the community about leaving, shelter or survival options. This issue is further discussed under recommendation 4.

The BRCIM notes that in accordance with the VBRC's Final Report, the following principles of the Framework have been retained:

> the principle of shared responsibility

> leaving early is the safest option

> advice to stay and defend in the case of less severe fires, provided those who do stay are physically and mentally able, understand the risks involved and take specific precautions

> providing a mix of specific and general advice to individuals, including media campaigns, community education, community engagement and Community Fireguard groups.

Further, the BRCIM notes that the State has extended the policy to include:

> coverage of the full range of fire types, with particular recognition of the heightened risk that accompanies the most ferocious fires on the worst days

> giving added weight to the role of warnings and to improve their timeliness, content and methods of dissemination

> providing more practical and realistic options that are tailored to local needs; for example, community refuges, bushfire shelters, emergency evacuation and assisted evacuation of vulnerable people

> improving the quality and availability of advice on fire behaviour and house defendability.

The steps people take in preparing for bushfires the decisions they make on high fire danger days will be a determining factor in how many lives and properties are lost. As a result, ensuring that the messages in the Framework are not only communicated to, but also clearly understood by the community, is essential to the efficacy of the Framework. Consequently, the State will need to invest in a long term coordinated behavioural change strategy that encompasses advertising, community engagement and education in schools as well as the broader range of behaviour change interventions. This requirement is discussed further under recommendation 2.

---

58 Refer to Chapter 1 of this *Final Report* for information on the Tostaree Review.

59 A copy of the Framework is available from the FSC website.

In March 2012, the FSC commenced the next annual review of the Framework and has advised that this review involves the following components:

> investment logic mapping

> review of its implementation

> case studies of public understanding and adoption of bushfire safety options

> review of recent research.

Collectively, the various components of the review should provide a detailed and rigorous assessment of the Framework and inform further work with agencies and departments to implement the Framework. This process is expected to result in the next iteration of the Framework to be delivered prior to the 2012-13 fire season.

Finding: The BRCIM considers actions (1)(a) and (b) have been satisfactorily implemented.
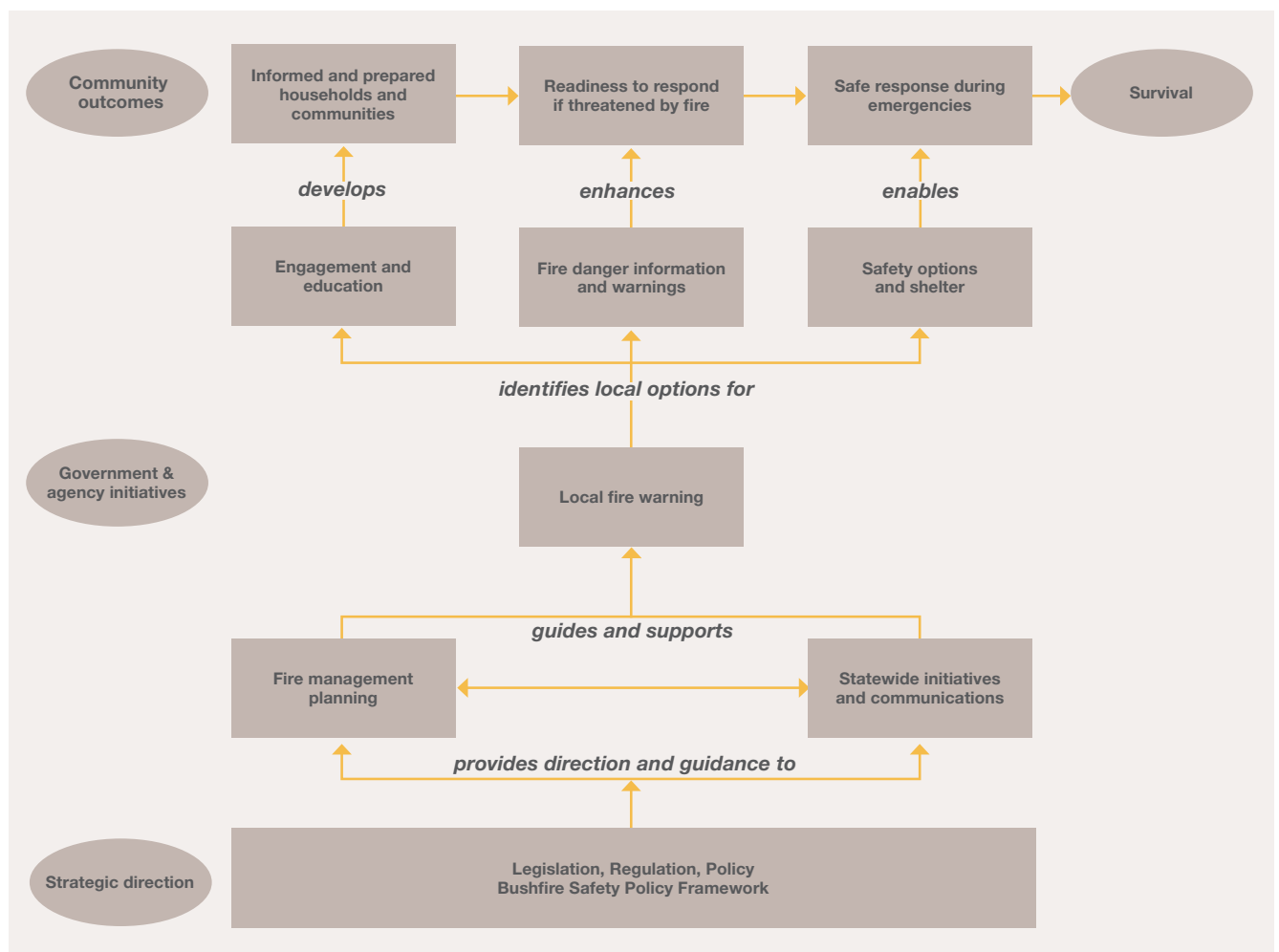

Diagram of framework priority areas and community outcomes from the Bushfire Safety Policy Framework (September 2011).

1(c) Emergency Alert Phase 2

The State noted in the Implementation Plan that the Commonwealth had requested Victoria lead a project to deliver Phase 2 of EA, to enable warnings to be sent to mobile phones based on their physical location at the time of the emergency. The State provided no due date for completion of this project in the Implementation Plan.

On 10 June 2011, the OESC advised the BRCIM that while significant work had been undertaken to progress this location based solution (LBS) technology, further progress is entirely dependent on the commercial telecommunications carriers reaching agreement with government.

In the *Progress Report*, the BRCIM urged stakeholders at both Commonwealth and State levels, including commercial telecommunications carriers, to investigate all available options to ensure the delivery of this critical national capability.

On 30 October 2011, the Commonwealth Attorney General's website encouraged all Australians to update their mobile phone service address to ensure they receive text message warnings in the forthcoming fire season.

The OESC advised that on 23 December 2011, a contract was executed with Telstra to develop and provide a location based capability on its network and to deliver the necessary changes to the EA platform to support location based capabilities from all carriers (Telstra, Optus and Vodafone Hutchison Australia).

Telstra has completed its solution design phase and the building of its LBS and is now entering the testing phase. The BRCIM has been advised that Telstra remains on track to deliver a location based capability to its customers by 30 November 2012.

Negotiations are continuing with the remaining carriers and contract execution remains contingent on the negotiations reaching acceptable technical, commercial and legal requirements.

The Final Report of the VFR[60] raised some issues with the use and community understanding of EA.[61] The VFR commented on the inappropriate use of EA in non-emergency situations, which can diminish its effectiveness and heighten community expectations on receiving information, placing an unachievable expectation on the system.

The BRCIM notes that there is a need to inform the community of the intended purpose of the EA warning system and to stress that people should not wait for a warning before enacting their individual bushfire plans. The BRCIM also notes that the FSC conducted a review of community bushfire warnings that reviewed EA.[62] The findings of this review should be implemented in order to improve the accuracy and timeliness of community warnings.

Finding: The BRCIM acknowledges the complexities involved in the provision of this technology. Victoria is leading the project nationally, however, its success relies on numerous stakeholders from other jurisdictions and the private sector. The BRCIM considers that Victoria has taken appropriate steps to progress the development of the LBS technology. The BRCIM will continue to monitor this matter and report further in the 2013 Annual Report.

1(d) One Source One Message – extending capability

In the Implementation Plan, the State committed to extend the One Source One Message (OSOM) platform to cover all emergency hazards and all emergency services organisations including the MFB and VICSES by 30 June 2012.[63]

In July 2011, OSOM was extended to VICSES for use in providing warnings and advice about flood events. VICSES has advised the BRCIM that access to OSOM has been of significant benefit by increasing the speed and accuracy of message content and delivery. OSOM has delivered 1,409 VICSES messages in less than 12 months.

VICSES is in the final stages of testing to include simultaneous publishing of the warnings to both Facebook and Twitter feeds to improve the potential for exponential growth in message distribution.

The CFA has advised that OSOM will be implemented at MFB by 30 June 2012. The BRCIM has examined a detailed project management plan relating to this project. The project is designed to deliver:

> standardised incident related language (including multilingual support) and processes for CFA and MFB based on an enhanced OSOM platform

> enhanced CFA and MFB websites to display warning and advice information.

The BRCIM understands that the OSOM platform will also be extended to DSE in the near future.

Finding: The BRCIM considers action 1(d) is progressing satisfactorily and will comment further on this matter in the 2013 Annual Report.

---

60   Further information on the VFR is provided in Chapter 4 of this *Final Report.*

61   Comrie, N., pp 88-90.

62   Refer to implementation action 1(o).

63   Implementation Plan, (May 2011), p 17.

Bushfire survival options. Poster available from the website, 'Your Bushfire Survival'
(www.firecommissioner.vic.gov.au/yourbushfiresurvival/)

1(f) Sirens – Office of the Emergency Services Commissioner Review

The State's initial response to the VBRC Final Report[64] included a commitment to review the implementation, use, community understanding and effectiveness of sirens for bushfire alerting by March 2011.

In April 2011, the OESC advised the BRCIM that the review of the guidelines and policy had been incorporated into a broader project that would trial and evaluate community warning sirens in Steels Creek and Olinda and that this combined project would be completed before the start of the 2011-12 fire season. The OESC advised that the strengths and weaknesses of the guidelines and application process were being tested against the outcomes flowing from the installation of community warning sirens in the above two locations.

The OESC also advised that the initial community alert siren trial was completed on 19 December 2011, but that the trial had been extended to explore further technical and infrastructure options through the 2011-12 fire season. An evaluation report on this trial was completed by the OESC in June 2012. The trial had four significant outcomes:

> the development of a new technology that enables the traditional alert siren to integrate into and complement existing warning systems. Sirens can now be automatically activated from a number of sources

> the evaluation provided a standardised approach to emergency warnings via an alert siren, in line with current CFA and FSC policy

> the State developed a better understanding of the social implications of an alert siren including: community response in an emergency, community education and issues associated with the installation and implementation within the community

---

64 As outlined in the Implementation Plan (October 2010). Refer to the *Progress Report* for further details.

> the trial promoted dialogue at every level of government and demonstrated the importance of effective partnerships between local government, State Government, emergency agencies and community.

> the FSC assumed responsibility for the 'sirens review' and the development of new policy for the use of sirens with the support of the OESC and the CFA. This action was taken in response to a directive from the Minister for Police and Emergency Services and in recognition of the statutory duty of the FSC to issue warnings.

On 11 May 2012, the Minister released a new policy and associated guidelines, *Use of Sirens for Brigade and Community Alerting*. This policy will be progressively implemented prior to the 2012-13 fire season.

The new policy provides for an 'all hazards', 'all emergencies approach' to the use of the existing network of 600 community and CFA sirens and also provides guidelines for the establishment of additional community sirens. Under the policy, if a siren is activated, the sound will indicate one of two scenarios:

> a short 90 second signal will indicate a CFA brigade has responded to an emergency incident nearby (alerting fire brigade members to attend emergency callouts)

> a prolonged, five minute signal will indicate a current emergency has been identified in the local area and people should seek further information.

Finding: Although the completion of this action has been delayed, the BRCIM is satisfied that the new policy and guidelines are appropriate and should significantly enhance the capability of emergency services to warn communities of emergencies. The BRCIM considers that action 1(f) has been satisfactorily implemented.

1(k) National Research Program – forecasting fire risk

This action is not due for completion until 31 July 2013. It is being managed by the AGD. No evidence of progress is available at this time. The BRCIM also notes that work in relation to 1(k) is contingent on work being carried out by the Commonwealth in relation to implementation action 7(a) on a review of the FDRs. The timeframe for that review is five years.

Finding: The BRCIM will continue to monitor action 1(k) and report any progress in future Annual Reports.

1(m) OESC Research project 'People's experiences in bushfires'

The State originally committed to the delivery of a major research project to explore people's experiences in preparing and defending their property during a threat of bushfire or direct impact of bushfire by March 2011.[65]

In a letter to the BRCIM in April 2011, the OESC advised that the March 2011 due date appeared as a result of a miscommunication during the drafting of the project plan and that the project would be completed prior to the 2011-12 fire season. In a letter to the BRCIM of January 2012, the OESC advised that this project was not completed by the due date of 1 December 2011, due to the resignation of a senior researcher and that it was expected to be completed by mid-February 2012. The paper on this research project was not presented to the BRCIM until 9 March 2012, a substantial delay from the timelines initially committed to by the OESC.

An examination of this research paper has revealed:

> although described in the Implementation Plan as a "major research project", this test has not been met

> the bulk of the research paper is a collection of anecdotal evidence that does not, in the view of the BRCIM "provide valuable evidence for further Bushfire Safety Policy development and improvement" as indicated in the Implementation Plan. The BRCIM recognises that the use of social research is a valid technique for collecting evidence of people's real life experiences. The report highlights the challenges faced by individuals who, for varied reasons, faced the dilemmas of staying and defending their properties. However, the relatively small number of people involved in the research sample does limit the benefits of the research paper. It does not meet the full rigour expected and therefore, does not satisfy all the requirements of meaningful evidence to guide further Bushfire Safety Policy development and improvement

> given the lateness of the research paper, the opportunity to provide valuable evidence for Bushfire Safety Policy development has diminished significantly.

Finding: The commitments made by the State regarding this action item have not been met to a satisfactory standard. Although now completed, the report is of limited value in providing meaningful evidence for further Bushfire Safety Policy development and improvement.

---

65   Implementation Plan (October 2010), p 10.

1(n) Ensure integration of OSOM and EA

The first phase of integration between OSOM and EA was completed in November 2011 with the delivery of the export/import of geo-fence information. A geo-fence, also known as polygon, is a defined geographical area within which telephone subscribers can be targeted for an EA message. As part of its alert and warning process, an OSOM user selects a geographic area (geo-fence or polygon) for the alert or warning. This geo-fence can then be imported into EA and be used as the basis for issuing an emergency alert. This functionality allows for greater consistency in the designation of locations for alert and warning messages. It also reduces the time taken to select an area or location where an EA alert is required.

Further integration between OSOM and EA environments is not possible until after November 2012, which is the date for the expected delivery by Telstra of its integrated location based enhancement.[66]

The integration of EA and OSOM is complex as both are independent systems and must be integrated in a robust and secure design. EA is a national system and any change made to the EA environment must have no adverse impact on other jurisdictions. The BRCIM is advised that while further integration is being examined, there may prove to be some technical limitations. Full technical integration that is cost effective may not be possible.

Finding: The integration of OSOM and EA is under active consideration but its progress is limited by technical constraints and the implications of integrating a State system with a national system. The BRCIM will continue to monitor action 1(n) and report progress in future Annual Reports.

1(o) Review of Community Warnings

The FSC engaged consultants in July 2011 to conduct a review of community bushfire warnings systems and procedures to determine how to move toward single systems, processes and technologies and deliver timely, tailored, relevant, accurate and meaningful information and warnings to communities. The four objectives of the review were:

1. assessing the timeliness and relevance of warnings the community receives during the bushfire and ensure they lead to appropriate action

2. analysing the policies, procedures, practice and systems used by the IMTs in triggering, developing, distributing and ensuring action by communities during a bushfire

3. comparing and considering other jurisdictional experience and practice in the delivery of community warning for bushfires and other emergencies to identify areas of improvement

4. considering what the community needs are in regards to warnings and delivering this expectation.

The review revealed that much progress has been made in improving the timeliness and accuracy of warnings since the February 2009 fires. The BRCIM notes that the review stressed the benign nature of the 2010-11 fire season that prevented the review from assessing community warnings systems under a high level of fire activity.

The review also revealed that there was further work to be undertaken. Issues identified for further action include the accuracy of warnings, inconsistency of the goal for community warnings across relevant policies and procedures, staffing of the information section in ICCs, training of staff in ICCs, reported 'clunkiness' of the OSOM system, terminology used in EA, unrealistic community expectations of warnings and evaluation and performance issues.

Some of these issues have been rectified at the time of writing and the FSC advises work will continue with the fire agencies to implement the findings of this review. The FSC has provided evidence in the form of a spreadsheet that summarises ongoing projects and significant other activity in relation to the outputs of the review. The report of the review is available from the FSC website.

Finding: The BRCIM is satisfied that appropriate action is being taken to address implementation action 1(o) and that the commitment by the State to undertake a review has been met. However, as the findings and recommendations of this review are still being implemented, the BRCIM will continue to monitor this matter and report on progress in future Annual Reports.

---

66   Refer to implementation action 1(c) for further information.

RECOMMENDATION 2

The State revise the approach to community bushfire safety education in order to:

2.1   ensure that its publications and educational materials reflect the revised Bushfire Safety Policy

2.2   equip all fire agency personnel with the information needed to effectively communicate the policy to the public as required

2.3   ensure that in content and delivery the program is flexible enough to engage individuals, households and communities and to accommodate their needs and circumstances

2.4   regularly evaluate the effectiveness of community education programs and amend them as necessary.

Implementation Actions

Action Required	Due Date	Progress Report Status (July 2011)	Final Report Status (July 2012)
2(a) Review key publications	01/12/2010	Complete	Complete
2(b) Enhanced Household Bushfire Self Assessment Tool	31/10/2010	Ongoing	Complete
2(c) Bushfire Safety pocket guide provided to all CFA staff and volunteers	31/10/2010	Ongoing	Complete
2(d) Ongoing evaluation of community education products and services	30/06/2012	Ongoing	Complete
2(e) Integrated whole-of-government information campaign	30/06/2012	Ongoing	Complete
2(f Summer Fire campaign – Phase 1 Readiness and Planned Burning	31/10/2010	Complete	Complete
2(g) Summer Fire Campaign – Phase 2 Fire Operational	31/10/2010	Complete	Complete
2(h) Summer Fire Campaign – Phase 3 Fire Recovery (only if required)	31/10/2010	Complete	Complete
2(i) Summer Fire Campaign – Phase 4 Planned Burning	31/10/2010	Complete	Complete

Status

The *Progress Report* noted that actions 2(a), (b), (c), (f), (g), (h) and (i) were satisfactorily implemented. As actions (f), (g), (h) and (i) are annual commitments, an update to these actions is provided below. No further comment is made in relation to actions 2(a), (b) and (c).

2(d) Ongoing evaluation of community education products and services

The CFA conducted an extensive evaluation to assess the effectiveness of its community education and engagement programs in 2010-11. The evaluation report, dated 1 June 2011, reviewed the outcomes of the overall approach to education at a community level.

The BRCIM has sighted the evaluation report and noted the findings in relation to key bushfire education and engagement programs. The findings of the evaluation report have been considered by the CFA and incorporated into current community programs.

In addition to the 2010-11 campaign evaluation, the CFA commissioned two qualitative research studies that focused on people living in high risk areas and the actions that they would take in the event of a bushfire.

The findings of the two studies were incorporated into a research report and finalised in August 2011. The research report explored the following issues:

> the extent to which people believe the advice they received about what to do in a bushfire, and the options available to them, has changed since the February 2009 fires

> which aspects of the advice they support

> which aspects of the advice they have concerns about

> the extent to which they understand the advice if there is a bushfire.

While the samples for the studies are small, the findings provide a useful insight into levels of preparedness and comprehension of messaging around Bushfire Safety Policy. The studies indicate further work is required on the levels of comprehension and preparedness in Victoria. For example:

> significant numbers of people remain confused about when to leave and where to go

> there is significant but reducing confusion about the new FDR ratings scale

> there is an increased expectation that people will receive a telephone or SMS warning and expectations of a warning seem to be highest in people without a plan

> not all participants were familiar with the term NSP

> some people were confused about what services NSPs would provide and there was an uncertainty as to how to find NSPs

> many are confused about the difference between Total Fire Ban days and FDRs

> there is uncertainty as to the different actions people should take in relation to different FDRs

> many plan to defend by themselves, contrary to advice

> the CFA's approach to community safety programs is focused on areas of high bushfire risk and aims to challenge complacency about people's intended actions

> the CFA's Home Bushfire Advice Service (HBAS)[67] is targeted at high risk homes in high risk areas and has been successful in challenging people's intentions.

The CFA has also undertaken pre and post-season surveys regarding the 2011-12 community education programs. Relevant reports on community attitudes and behaviour in relation to bushfire safety, planning and preparedness will not be finalised until 30 June 2012.

Further, the CFA engaged independent consultants to analyse and report on the effectiveness of the messages contained in the *Fire Ready Kit*.[68] This research was based on a program of 10 small focus groups and 15 one-on-one in depth interviews, conducted in five relevant areas of Victoria. This March 2012 consultancy report provides a number of recommendations for consideration in the next iteration of the *Fire Ready Kit*. The research also highlights a number of matters of concern relating to community perceptions, attitudes and preparedness.

---

67   Information on the HBAS is available from the CFA website.

68   The Fire Ready Kit is available from the CFA website.

Clearly, the State must continue to devote substantial resources on an ongoing basis to address worrying evidence of significant levels of complacency and inadequate preparedness relating to bushfire risk.

A publication titled *CFA in the Community* has been produced to highlight a number of community experiences and initiatives over the past two fire seasons. This is a positive initiative to focus on a diverse range of community based programs that enhance community education and participation in fire safety activities. The celebration of successful initiatives provides an important incentive for other communities to adopt a more proactive approach in addressing their bushfire risk.

The BRCIM considers that the ongoing evaluation of the effectiveness of the CFA community engagement activities is robust and frank and the findings of this evaluation and related research projects provide invaluable information regarding fire preparedness in Victoria. The CFA has already utilised these findings and made some changes to their community safety initiatives. This should continue as an annual program of continuous improvement to inform future strategies for community education.

Finding: The BRCIM considers this action has progressed satisfactorily to date. However, community education regarding bushfire safety, planning and preparedness must be an ongoing commitment. It is critical that the robust evaluation of relevant products and services continues.

2(e) Integrated whole-of-government information campaign

2(f) Summer Fire campaign – Phase 1 Readiness and Planned Burning

2(g) Summer Fire Campaign – Phase 2 Fire Operational

2(h) Summer Fire Campaign – Phase 3 Fire Recovery (if required)

2(i) Summer Fire Campaign – Phase 4 Planned Burning

In 2011, the Victorian Government Fire and Emergency Communication Committee (the Committee) superseded the Fire Communications Taskforce. The Committee coordinates the whole of government fire communications, is chaired by the Director, Strategic Communications Branch, Department of Premier and Cabinet (DPC) and reports to the FSC. The membership of the Committee includes senior communications managers and staff from:

> CFA
> MAV
> MFB
> VICSES
> Victoria Police
> DSE
> Department of Human Services (DHS)
> DOJ
> FSC.

The Strategic Communications Branch (DOJ) in consultation with the Committee developed the 2011-12 Summer Fire Information and Education Campaign (the 2012 Campaign).

The 2012 Campaign was informed by the review of the 2010-11 Campaign, CFA research projects into community engagement, research conducted by DOJ with Tourism Victoria and market research commissioned by Strategic Communications Branch (DOJ).

The primary objective of the 2012 Campaign was to encourage Victorians to take personal responsibility and be properly prepared for bushfires by having a fire plan if they live in a high risk bushfire area, or to listen to warnings if they are travelling or on holidays over summer.

Key messages were distributed through press, outdoor, radio, television and online advertisements. The campaign targeted residents and people travelling or holidaying in high bushfire risk areas and messages were made available to culturally and linguistically diverse communities and the vision and hearing impaired.

Specific messages were delivered in relation to:

> vulnerable people in emergencies (encouraging Victorians to support those who may not be able to activate their fire plan without assistance)
> arson
> planned burning
> floods
> powerlines and changes to the way electricity is delivered on Code Red or Extreme fire danger days.

In addition, the Strategic Communications Branch (DOJ) partnered with VFBV to supplement the campaign with the 'Think Like a CFA Volunteer' project which aims to persuade Victorians living in high risk bushfire areas to think like a volunteer and be prepared for bushfires.

The 2012 Campaign also utilised online, social media and smartphone platforms to broaden the reach and accessibility of the messaging. Tools included a Facebook page, Fire Ready smartphone application (app), online Fire Ready quiz and challenge.

The Strategic Communications Branch (DOJ) has since reviewed the 2012 Campaign. This review has revealed that overall, the campaign broadened awareness of risk and responsibility for bushfire preparedness across the Victorian community.

Campaign benchmark and tracking research found that 'get out early' has overtaken 'be prepared' as the most common intended action upon seeing the campaign compared with the previous year (60–72 per cent[69] of respondents for the 'Fire Ready' advertisement and 69–95 per cent for the 'Triggers to leave' advertisement). These findings, however, must be considered in the context of other research. Although the leave early message may be getting through, the CFA research reported in action 2(d), is showing that many people remain uncertain about specifically when to leave and where to go. In addition, a high percentage of people across Victoria (73–82 per cent) stated that they would seek information on fire warnings before travelling in high risk bushfire areas, indicating the key message in the 'Travellers' advertisement was successful.

Highlights of the 2012 Campaign included a strong advertising call to action which helped deliver 2.1 million visits to CFA's website, an increase of 885,359 visits compared to the previous year. Notably, online grassfire advertising delivered nearly 40,000 visits to CFA's 'grassfires' webpage. There were 225 plans of the CFA's TPP mailed to more than 400,000 households, an increase from 57 plans the previous year. Nearly 8,500 people directly engaged with the CFA through a shopping centre 'roadshow'. A new Fire Action Week event, 'CFA Sunday' saw an estimated 12,000–15,000 people attend 400 CFA brigade open days across regional Victoria. The Fire Ready smartphone app, which provides users with information on FDRs, Total Fire Ban days and planned burns, was downloaded over 52,000 times during the campaign period.

Strategic Communications Branch (DOJ) advised the BRCIM that the 2012 Campaign was designed to be hard hitting and would communicate a call to action to prompt people to take action around fire preparation. This approach was based on research conducted by the CFA indicating that a high proportion of people living in high risk areas do not have a fire plan.

The BRCIM notes that the 2012 Campaign advertisements had a strong emotional impact and caused distress for some members of the community, particularly those who lost loved ones in the February 2009 bushfires.

Strategic Communications Branch (DOJ) further advised the BRCIM that a number of steps were taken to alleviate the possible distress including:

> briefing and information for the Victorian Bushfire Information Line (VBIL) and departments and agencies

> briefing of the Bushfire Bereavement Services Group and information distributed through its website

> two letters from the Premier featured in newspapers

> introductions on the CFA and VFBV websites

> warnings preceding television advertisements from 18 December 2011

> the establishment of a microsite for the FSC website featuring video messages from the FSC and psychologist, Dr Rob Gordon, explaining the rationale behind the campaign and the possible emotional impact of the advertisements and recommending counselling services

> a decision not to air the advertisements on Christmas Eve, Christmas Day or around the anniversary of the February 2009 fires.

It is noteworthy that despite the fact that the messages from this campaign reached a large percentage of the Victorian population, only 40 complaints were received about the content of the campaign.

In the *Progress Report,* the BRCIM noted that a long term social marketing campaign is required to support behavioural change in people who are preparing and responding to bushfires.

As noted in recommendation 1, ensuring that the messages in the Framework are not only communicated to the community but clearly understood by the community, is essential to the efficacy of the Framework. In addition, how effectively the messages are communicated and understood will have a direct impact on how people behave before and during a bushfire.

It is important that bushfire communications and community education programs and materials are strategically aligned within a broad behavioural change framework. This framework should encompass the broad range of behaviour change interventions around bushfire safety, including advertising, education in schools and community engagement activities conducted by all government departments, agencies and councils. It should also reflect the available research and literature and take into consideration the reviews conducted by the agencies, such as the CFA research mentioned earlier, about the effectiveness of the messaging and programming.

---

69   Percentage ranges represent the range of responses received across all areas surveyed; metropolitan, urban fringe, regional high risk and all regional areas.

The BRCIM notes that the FSC is preparing a best practice model of approaches for behavioural change. The aim of this model is to provide greater definition on what shared responsibility means in relation to specific aspects of community bushfire response, as well as identifying a range of interventions and strategies that can be used to influence behaviour consistent with the goals of the Framework. The model will examine international research and case studies of good practice from Australia and overseas and will identify:

> factors that influence people's decision making in relation to safety

> a broad range of interventions and strategies that extend beyond current approaches of information and advertising campaigns

> a process model for developing best practice interventions and programs.

Phase 1 of this project, which will deliver the three outcomes above, is due for completion by July 2012. This model will be used to inform agency approaches and in the development of future bushfire strategies that provide direction to all agencies and departments with a role in supporting community bushfire safety through education, engagement and media campaigns. The model and associated strategy will underpin the long term behavioural change program recommended by the VBRC.

In its Final Report, the VBRC noted research[70] which suggested that during the February 2009 fires, the 'leave early' message was not well understood and many people were likely to 'wait and see' before leaving. Triggers for leaving were often advice from authorities or the presence of smoke or flames in the immediate area, by which time it is possibly too late to leave. Based on research conducted by the CFA, the BRCIM is concerned that these observations are still accurate.

Further, the BRCIM received feedback from municipal emergency management staff indicating that their communities are confused about the 'leave early' advice. Specifically, some community members reported that leaving early was an impractical option for them due to financial considerations, personal commitments, transport and distance between their township and the nearest safer place such as a regional centre. It was noted that the message of 'leave early' conflicts with the expectations developing in the community about the level of safety provided by NSPs or the likelihood that people will definitely receive a telephone or SMS warning with enough time to make a decision to leave.

It is critical that the behavioural change program, which is to be developed following the work being conducted by the FSC, should consider the CFA research and relevant domestic and international literature that examines how people behave when considering the threat of bushfire. Practical advice should then be tailored accordingly.

Finding: The BRCIM considers that actions 2(f), (g), (h) and (i) have been satisfactorily implemented for the 2011-12 fire season, noting that this is an ongoing process and that the learnings from this fire season should inform subsequent summer fire campaigns.

RECOMMENDATION 3

The State establish mechanisms for helping municipal councils to undertake local planning that tailors bushfire safety options to the needs of individual communities. In doing this planning, councils should:

3.1   urgently develop for communities at risk of bushfire local plans that contain contingency options such as evacuation and shelter

3.2   document in municipal emergency management plans and other relevant plans facilities where vulnerable people are likely to be situated, for example, aged care facilities, hospitals, schools and child care centres

3.3   compile and maintain a list of vulnerable residents who need tailored advice of a recommendation to evacuate

3.4   provide this list to local police and anyone else with pre-arranged responsibility for helping vulnerable residents evacuate.

70   VBRC *Final Report* Vol II, Part One, p 9.

Implementation Actions

Action Required	Due Date	Progress Report Status (July 2011)	Final Report Status (July 2012)
3(a) Establish steering committee to determine funding allocation for local councils	31/12/2010	Complete	Complete
3(b) Delivery model and administrative arrangements for local government resourcing and support	31/12/2010	Complete	Complete
3(c) Review current guidance to councils (including clear relationships between TPPs, MEMPs and Municipal Fire Prevention Plans (MFPPs))	30/03/2012	Ongoing	In progress
3(d) Support councils to respond to local conditions (incorporation of new programs and processes)	31/08/2012	Ongoing	In progress
3(e) Role of Municipal Fire Prevention Officers (MFPOs) in planning/prevention	30/06/2012	Ongoing	In progress
3(f) Review of CFA Chief Officer's delegation re fire prevention	30/06/2012	Ongoing	Complete Refer to Rec 54
3(g) Draft Integrated Fire Management Planning (IFMP) for all 'at risk' municipalities in place	31/12/2012	Ongoing	In progress
3(h) Refer to recommendation 4			N/A
3(i) Refer to recommendation 4			N/A
3(j) Review MEMP Guidelines	31/12/2010	Complete	Complete
3(k) Review emergency and fire management planning regimes	01/12/2012	Ongoing	In progress
3(l) MEMPs reviewed and updated to include community organisations working with vulnerable people and facilities where vulnerable people may be present and make available to Victoria Police	01/05/2011	Complete	Complete
3(m) Investigate the use of registers, review registers and contact lists, develop a proposed model and implementation plan for this recommendation	01/12/2012	Ongoing	In progress
3(n) Increase the level of support CFA provide to local government for fire prevention planning	30/11/2011	Ongoing	N/A
3(o) CFA rolling review of municipal risk registers (interim recommendations 8.1 and 8.2)	30/06/2012	Ongoing	N/A
3(p) Second stage of MEMP Guideline review	31/12/2011	N/A	Complete
3(q) Fire Ready Communities	2015	N/A	In progress

Action Required	Due Date	Progress Report Status (July 2011)	Final Report Status (July 2012)
3(r) Development of enhanced action oriented Community Preparedness Guide	30/09/2011	N/A	Complete
3(s) Development of 29 new TPPs using new template	31/10/2011	N/A	Complete
3(t) Including Community Preparedness Guides links to relevant website for MFPPs or MFMPs	31/10/2011	N/A	Complete
3(u) TPPs to be aligned with the IFMP structures	01/12/2012	N/A	In progress
3(v) Community risk analysis field advisor to provide program governance across Victoria	30/09/2011	N/A	Complete
3(w) Content management system to be developed for the capturing of local action based planning	01/12/2012	N/A	In progress
3(x) Enhancement of facilitation capability for 'community consultation staff'	30/09/2012	N/A	Complete
3(y) State and regional community engagement plan to be developed to increase community and brigade involvement in TPP development	30/09/2012	N/A	In progress

Status

The *Progress Report* noted that actions 3(a), (b), (j) and (l) were satisfactorily implemented. No further comment is made in relation to these actions. Implementation actions 3(h) and (i) are discussed under recommendation 4, 3(n) has been addressed through a number of other actions and 3(o) is addressed under Interim Report recommendations 8.1 and 8.2.

3(c) Review current guidance to councils (including clear relationships between TPPs, MEMPs and MFPPs)

In 2010, an IFMP Planning Guide was developed by the State Fire Management Planning Committee (SFMPC) and disseminated to councils and IFMP partner agencies. The SFMPC is a sub-committee of Victorian Emergency Management Council (VEMC) that is chaired by the FSC and was formed to oversee the development and implementation of the IFMP framework. Further information on IFMP is available from the IFMP website. The Emergency Management Manual Victoria (EMMV) was also amended in August 2010 to include a new section, Part 6A, to provide specific fire management planning guidance to municipal fire management planning committees (MFMPCs). It was agreed that both of these documents would be reviewed in the following year.

The SFMPC has commenced a review of current guidance to councils and other IFMP partner agencies. The products from this review will inform refinement and improvements to the IFMP Planning Guide and relevant sections of the EMMV.

Finding: Although this action has progressed, the BRCIM remains concerned at the absence of a truly integrated local community based approach to emergency management planning in the State. It is anticipated that the White Paper on emergency management will be vital in addressing these fundamental reforms. [71] Until the White Paper has been released, the BRCIM is unable to comment further on this action. The BRCIM will revisit action 3(c) in future Annual Reports.

3(d) Support councils to respond to local conditions (incorporation of new programs and processes)

The Municipal Fire and Emergency Management Resourcing Program provided additional resources to support councils to implement actions associated with the VBRC recommendations. The funding provided 25 positions to 34 councils. This funding is critical in assisting local government to fulfil its fire management planning responsibilities.

In 2011, the steering committee comprising the FSC, Department of Planning and Community Development (DPCD) and MAV reviewed the program and agreed that four additional positions would be funded from July 2012. These 29 positions will be distributed across 60 municipalities. The first round of funding under the Municipal Fire and Emergency Management Resourcing Program expired on 30 June 2012. The BRCIM is advised that this program will form part of the new Municipal Emergency Resourcing Program which has initially been funded for two years to 30 June 2014.

This expanded capacity and capability is facilitating individual support to councils through all stages of bushfire management planning. The SFMPC also provided significant additional resources to support MFMPCs in developing fire management plans.

The SFMPC has undertaken a process of continuous improvement in the development of fire management plans, which has included the development of interim reviews at suitable stages of the planning process. In some circumstances, MFMP processes have supported planning for local community risks. For example, in Blackwood (Grampians Region), the State Fire Management Planning Support Team worked closely with Victoria Police to sponsor the development of the Blackwood Evacuation Plan.

In addition, in early 2012 the CFA issued a number of MFMP Guidelines to their officers involved in and supporting municipal fire management planning. These guidelines address a range of issues such as risk management, legislation, role statements, alignment with corporate planning processes and auditing.

Finding: It is anticipated that the White Paper will be critical in reforming the State's local emergency management planning arrangements. The BRCIM is unable to comment further on this matter until the White Paper has been released. The BRCIM will revisit action 3(d) in future Annual Reports.

3(e) Role of MFPOs in planning/prevention

Under the auspices of the SFMPC, lawyers have been engaged to commence a legal review of the needs and implications for fire and emergency management planning. This review will include advice regarding the role of Municipal Fire Prevention Officers (MFPOs) from both planning and regulatory perspectives. The advice is due to be completed in July 2012 and will be considered by the SFMPC as an input to the development of the White Paper.

Finding: Until the White Paper has been released, the BRCIM is unable to comment further on this action. The BRCIM will revisit action 3(e) in future Annual Reports.

3(f) Review of CFA Chief Officer's delegation re fire prevention

Finding: This action has been addressed under recommendation 54, which requires the State to amend the CFA Act to enable the Chief Officer to delegate the power to issue fire prevention notices.

3(g) Draft Integrated Fire Management Planning (IFMP) for all 'at risk' municipalities in place

IFMP has been established in all 'at risk' municipalities (both rural and interface) and alpine resorts. Draft fire management plans are progressing, although only 23 of the scheduled 33 first phase priority plans were completed by 31 October 2011 as proposed. At the time of writing this report, however, 60 fire management plans had been completed. Regional Strategic Fire Management Plans have also been developed statewide to guide municipal planning. The BRCIM is advised that plans for the other municipalities within the CFA fire district are on track for completion by the agreed deadline of 31 October 2012.

Finding: The BRCIM notes the progress regarding fire management plans and will revisit action 3(g) in the 2013 Annual Report.

---

71   Refer to Chapter 4 of this *Final Report* for more information on the White Paper process.

3(k) Review emergency and fire management planning regimes

DOJ and the FSC share lead responsibility for this action. The FSC has advised that the IFMP framework has been reviewed with a focus on governance issues and identifying barriers and enablers to improve planning.

Issues arising from the review of the IFMP have led to meetings and workshops facilitated by the SFMPC to determine an approach to fire management planning regime reform. Actions to provide immediate interim support and guidance have been agreed.

The State Fire Management Strategy 2009 is also being reviewed and a new strategy is under development. A final draft of the State Bushfire Plan under Part 3 of the EMMV has been presented to the SFMPC for noting and to the State Emergency Response Planning Committee (SERPC) for endorsement.

The SFMPC is also project managing the planning component of the Fire Services Reform Program.[72] This includes enhancing the integration of bushfire planning arrangements in partnership with key stakeholders, to create a common methodology for planning across all hazards and at all levels.

The SFMPC also intends to contribute to the White Paper process on emergency management reform in relation to governance arrangements, a common planning model and providing more clarity on roles, accountabilities, endorsement of plans, audit and performance management.

Finding: Until the White Paper has been released, the BRCIM is unable to comment further on this action. The BRCIM will revisit action 3(k) in the 2013 Annual Report.

3(l) MEMPs reviewed and updated to include community organisations working with vulnerable people and facilities where vulnerable people may be present and make available to Victoria Police

The *Progress Report* noted that although action 3(l) had been implemented, there was a need for further clarification around the definition of vulnerable people to provide councils with greater guidance as to which groups need to be identified. The BRCIM notes that substantial work has been undertaken by the Department of Health (DH) and DHS in relation to this action since the *Progress Report*.

Throughout 2011, DH and DHS, in consultation with key stakeholders, developed the Vulnerable People in Bushfire Risk Areas Policy 2011-12. The development of this policy took into account the concerns expressed in the *Progress Report*, findings and recommendations from the research conducted in relation to best practice models and registration systems for vulnerable people at risk during bushfire, learnings from the 2010-11 fire season and exercises in relation to the use of registers and contact lists. The policy now provides consistency of definitions and improved guidance and support. It was distributed to councils and funded agencies[73] prior to the 2011-12 fire season with the assistance of DH and DHS regional offices.

On 24 November 2011, in line with this policy, DH and DHS wrote to:

> community based health and human services agencies in high risk bushfire areas requesting the agencies identify and maintain a list of vulnerable clients at risk in a bushfire and provide 24 hour contact details to the relevant local council

> local councils advising them of this request to funded agencies and also providing information on local DH and DHS facilities and all Commonwealth funded residential aged care facilities accommodating vulnerable people for inclusion in MEMPs.

The policy was implemented with a substantial package of support, including letters, a policy overview, frequently asked question (FAQ) sheets, standard templates and key messages as part of an overall coordinated communications strategy. Councils are now maintaining a list of funded agency contacts and funded agencies are maintaining lists of vulnerable people. These have been used during emergencies such as the Portland chemical leak and the north east Victoria floods, both of which occurred in February 2012, as well as in community fire drills at Noojee and Lavers Hill in November 2011.[74]

Advice for vulnerable people from the policy was incorporated into the 2011-12 whole of government Fire Ready communication campaign. This emphasised that leaving early is the safest option and that community members need to consider other people in their communities who may need assistance as part of their plan to leave early.

---

72 For more information on the Fire Services Reform Program, refer to Chapter 1 of this *Final Report* and also the FSC website.

73 Funded agencies are agencies funded by DH and DHS to deliver a range of community based services.

74 Refer to recommendation 9 for more information on the community fire drills.

The State's Implementation Plan provided that the CFA and Red Cross develop a Bushfire Leaving Early Plan targeted at potentially vulnerable community members. This plan advises vulnerable community members to identify a relative, friend or neighbour who can provide assistance when relocation or evacuation is required. DH and DHS requested that funded agencies encourage vulnerable clients to develop a Bushfire Leaving Early Plan and to assist clients who are unable to complete a plan to do so. DH and DHS also provided information for funded agencies about training opportunities to equip agency staff to assist clients to complete a plan and provided funding for home and community care assessment agencies to assist vulnerable service users to complete their plans. The Bushfire Leaving Early Plan is available from the CFA website.

The 2012-13 State Budget provided funding over four years for the Vulnerable People in Emergencies Program (VPEP). The VPEP builds upon the Vulnerable People in Bushfire Risk Areas Policy 2011-12 which was implemented in late 2011.

The VPEP brings together key agencies and stakeholders and includes ongoing policy development with supporting protocols and documentation, including definitions and tools to assist with screening. To ensure local implementation, municipal councils and relevant funded agencies are actively engaged in the program. Implementation is supported by the inclusion of the requirement in 2012-15 service agreements for funded agencies to undertake activities in line with policies relating to vulnerable people.

The development of a common database platform to house vulnerable person registers has also been funded to streamline the current processes for storing and accessing information about identified vulnerable people. A module is currently under development for inclusion within councils' emergency management administration systems. This will enable councils to establish and maintain locally developed and administered web based registers of vulnerable people. Data security will be a feature of the module enabling authorised multi-user input (funded agencies and municipal councils) and allowing immediate access to the database by Victoria Police and authorised emergency services organisations for planning or response.

DPCD's Municipal Fire and Emergency Management Resourcing Program has also been expanded from 1 July 2012 to encompass all 64 councils in the country area of Victoria to support ongoing local implementation of VPEP.[75] The BRCIM understands that the Municipal Fire and Emergency Management Resourcing Program will form part of the new Municipal Emergency Resourcing Program which has initially been funded for two years to 30 June 2014. Victoria Police has updated the EMMV to include evacuation guidelines, which encompass vulnerable people.[76]

Finding: The BRCIM notes the substantial efforts taken by the State to increase awareness of the needs of vulnerable people during emergencies and to ensure the delivery of a more consistent and comprehensive approach. There have, however, been minimal opportunities to test arrangements for vulnerable people during emergencies under severe fire conditions requiring evacuation.[77] The BRCIM considers action 3(l) has been satisfactorily implemented, however, is unable to comment on efficacy of the arrangements at this time.

3(m) Investigate the use of registers, review registers and contact lists, develop a proposed model and implementation plan for this recommendation

In 2010-11, DH and DHS engaged consultants to conduct a review of national and international best practice approaches to registration systems for vulnerable people at risk during bushfires. This process also incorporated a review of the DH and DHS Vulnerable People in Bushfire Risk Areas Policy, which was developed as an interim measure for the 2010-11 bushfire season.[78] The findings and recommendations from this process reiterate the significant challenges and complexities for the State in ensuring that vulnerable individuals are as safe as possible during bushfires. Clearly there is no single solution for all people in all circumstances.

DH and DHS convened a reference group comprising key stakeholders to consider the findings and recommendations of the consultants' report. This group developed an implementation plan, which delivered a range of improvements and initiatives for the 2011-12 fire season. These are described in detail under action 3(l) above. The implementation plan also outlines a range of further improvements and initiatives for consideration over the 2012-13 and 2013-14 bushfire seasons.

Finding: The BRCIM considers action 3(m) has been satisfactorily implemented, however, given the minimal opportunities to assess efficacy of the arrangements for vulnerable people during emergencies under severe fire conditions requiring evacuation, the BRCIM will revisit action 3(m) in future Annual Reports.

3(n) Increase the level of support CFA provide to local government for fire prevention planning

Finding: This implementation action has been addressed through a number of related actions. Refer to actions 3(c), 3(d), 3(f) and 52(a).

---

75   Refer to implementation actions 3(b) and 3(d).

76   Further information on the evacuation guidelines is included under recommendation 5.

77   Refer to implementation action 5(e).

78   Refer to implementation action 3(l).

3(o) CFA rolling review of municipal risk registers

Finding: This implementation action has been addressed under Interim Report recommendations 8.1 and 8.2.

3(p) Second stage of MEMP Guideline review

MEMP Guidelines were reviewed in 2010. The revised guidelines were approved by the Minister for Police and Emergency Services and published on the OESC website in February 2011. The OESC, in consultation with councils, MAV and VICSES conducted a second stage of the guidelines review in 2011. This review identified a number of examples of good practice of municipal emergency management planning. Links to these plans were provided on the OESC website in January 2012.

Finding: The BRCIM considers action 3(p) has been satisfactorily implemented. The effectiveness of implementing this action will depend on the extent to which municipalities consider and apply aspects of these examples in their own emergency planning processes. It is too early, however, for the BRCIM to determine the efficacy of this action.

3(q) Fire Ready Communities

DPCD's Fire Ready Communities is a four year grants program designed to fund local solutions that help high risk bushfire prone communities to be safer and better prepared. The program provides flexible funding to support innovative locally identified and locally managed projects.

Funding provides an opportunity for communities to:

> think about the local environment and understand the risks

> understand their own capacity to respond and recover from bushfire

> understand the risks and plan to strengthen their response and recovery

> find local solutions.

The aim of the program is to build community resilience through engaging and cooperating with local communities in a way that acknowledges their expertise, strengths, networks and capabilities. The program commenced in July 2011. A steering committee comprising representatives from OESC, FSC, DSE, DHS, CFA and MAV has been established to provide advice on applications.

At the time of writing this report, 34 applications had been received and 20 projects to a value of almost $655,000 had been approved with several still under consideration. The program remains open to receive applications for funding until 2015.

Finding: The BRCIM considers action 3(q) is being satisfactorily implemented. Given the program is ongoing however, the BRCIM will revisit action 3(q) in future Annual Reports.

3(r) Development of enhanced action oriented Community Preparedness Guide

Township protection planning is another component of the State's current emergency management planning arrangements. In response to concerns raised by the BRCIM, the CFA revised the Community Preparedness Guide part of the TPP template in 2011. The updated template has greater capacity for input of locally relevant information and focuses more on providing guidance on how people should act when preparing for, or facing the threat of, a bushfire. New features include:

> nearby townships people may locate to

> improved bushfire threat map of the township

> FDR image, description of what each rating means and advice as to what people should do

> planned actions that emergency services and local government will take in an emergency

> information about evacuation

> information about and location of NSPs

> information and a checklist for a relocation kit

> web links to MFMPs and municipal fire prevention plans (MFPPs), Household Bushfire Self Assessment Tool (HBSAT), Fire Ready Kit, Red Cross Preparing to Leave Early Guide, CFA website and Victoria Police website.

Finding: As outlined earlier in this report and discussed in detail in Chapter 4, it is important to consider all actions associated with township protection planning in the broader context of the major reform of emergency management. The White Paper will be pivotal in reforming emergency management planning in Victoria and township protection planning must be a critical consideration in that process.

The BRCIM considers action 3(r) has been satisfactorily implemented, nothing that the new template is more action oriented.

3(s) Development of 29 new TPPs using new template

The CFA has advised that as at 31 May 2012, 225 TPPs had been updated and republished using the new template.

Finding: The BRCIM considers action 3(s) has been satisfactorily implemented.

3(t) Including Community Preparedness Guides links to relevant website for MFPPs or MFMPs

The BRCIM has sighted links to MFPPs and MFMPs on page one of the Community Preparedness Guides which are on the TPP page of the CFA website.

Finding: The BRCIM considers action 3(t) has been satisfactorily implemented.

3(u) TPPs to be aligned with the IFMP structures

3(w) Content management system to be developed for the capturing of local action based planning

Finding: These actions are inextricably connected to the White Paper process. The BRCIM will revisit actions 3(u) and 3(w) in future Annual Reports.

3(v) Community risk analysis field advisor to provide program governance across Victoria

In the *Progress Report*, the BRCIM noted that the TPP program did not effectively engage the community or local government in planning for emergencies. In response, the CFA appointed a Community Safety Field Advisor to support and facilitate the delivery and implementation of TPPs and Local Fire Management Plans. The CFA advises that the Community Safety Field Advisor has worked collaboratively with regional delivery officers to identify and mitigate emerging risks or issues.

Finding: The BRCIM considers action 3(v) has been satisfactorily implemented.

3(x) Enhancement of facilitation capability for 'community consultation staff'

The CFA conducted 25 Community Engagement Awareness Sessions for more than 280 CFA staff and volunteers across metropolitan Melbourne and Victoria's regional and rural areas during September and October 2011. Sessions were held across mornings, afternoons and evenings to allow a cross section of stakeholders to attend. Participants comprised a mixture of volunteers and professional staff from operations, administration and firefighters.

A number of ideas emerged from these sessions including the need for further training for senior staff, establishing a community engagement 'community of practice,' providing content for internal publications, ensuring the Chief Executive Officer/Chief Officer of the CFA proactively promote the importance of community engagement and exploring how community engagement can support the mission command philosophy.

Finding: The BRCIM considers action 3(x) has been satisfactorily implemented.

3(y) State and regional community engagement plan to be developed to increase community and brigade involvement in TPP development

The CFA has produced an initial State TPP Engagement Action Plan to support and guide regions and districts in their engagement activities. The plan also aims to ensure that there is a shared understanding of and commitment to the TPP engagement goals and objectives. The plan includes a template, which identifies key stakeholders, processes, responsibilities and timelines.

Finding: The BRCIM considers action 3(y) is in progress, noting the due date is 30 September 2012. The BRCIM will revisit this action in the 2013 Annual Report.

Recommendation 3 Overall Finding

The BRCIM recognises the significant impact of the 2009 bushfires on local government, both in terms of fire impact, but also in terms of increased responsibilities arising from the State's Implementation Plan. The VBRC clearly recognised the challenge confronting local government in framing this recommendation, which requires the State to establish mechanisms to assist councils to undertake local planning that tailors bushfire safety options to the needs of individual communities.

The BRCIM notes the substantial efforts taken by the State to increase awareness of the needs of vulnerable people during emergencies and to ensure the delivery of a more consistent and comprehensive approach regarding the vulnerable. Much remains to be done, however, to ensure that individuals and communities feel engagement, empowerment and ownership, in local emergency management planning.

The BRCIM encourages the State to continue to support local government, particularly in its demanding emergency management planning role and to progress local emergency management planning reform as a matter of priority via the White Paper process.

RECOMMENDATION 4

The State introduce a comprehensive approach to shelter options that includes the following:

4.1 developing standards for community refuges as a matter of priority and replacing the 2005 Fire Refuges in Victoria: Policy and Practice

4.2 designating community refuges – particularly in areas of very high risk – where other bushfire safety options are limited

4.3 working with municipal councils to ensure that appropriate criteria are used for bushfire shelters, so that people are not discouraged from using a bushfire shelter if there is no better option available

4.4 acknowledging personal shelters around their homes as a fallback option for individuals.

Implementation Actions

Action Required	Due Date	Progress Report Status (July 2011)	Final Report Status (July 2012)
4(a) Development of shelter options as part of revised Bushfire Safety Policy Framework	01/12/2010	Ongoing	In progress
4(b) Allocation of grants to establish further NSPs and standards to progress the development of other shelter options	30/06/2012	Ongoing	In progress
4(c) Community testing of TPPs *(This action is from the October 2010 Plan)*	31/10/2010	N/A	N/A
4(d) Scenario testing of TPPS as part of programmed Level 3 IMT training and exercising *(This action is from the October 2010 Plan)*	30/11/2010	N/A	N/A
4(e) Yearly exercise of TPPs (annual ongoing) *(This action is from the October 2010 Plan)*	30/06/2011	N/A	N/A
4(f) Completed TPPs on CFA website *(This action is from the October 2010 Plan)*	01/12/2010	N/A	N/A
4(g) TPP plans are progressively added to the CFA website *(This action is from the October 2010 Plan)*	30/06/2011	N/A	N/A
4(h) Safer precincts – finalisation of methodology *(This action is from the October 2010 Plan)*	31/10/2010	Complete	Complete
4(i) Safer precincts – communication strategy for safer precincts completed *(This action is from the October 2010 Plan)*	31/12/2010	Ongoing	Complete
4(j) Fire Refuges – 2005 policy replaced with revised policy	31/07/2011	Ongoing	In progress

Action Required	Due Date	Progress Report Status (July 2011)	Final Report Status (July 2012)
4(k) Fire Refuges – performance standards developed and incorporated into regulations for building fire refuges	31/07/2011	Ongoing	Complete
4(l) Fire Refuges – development of national standards and further amendment of building regulations	30/05/2012	Ongoing	In progress
4(m) Pilot community fire drills in high risk areas	N/A	Refer to Rec 5	Complete Refer to Rec 5

Status

The *Progress Report* noted that actions 4(c), (d), (e), (f) and (g) were 'not applicable' as they were implementation actions from the Implementation Plan (October 2010) and that 4(m) is now part of 5(g). Although reference is made to TPPs in the following implementation actions, readers of this *Final Report* are advised that in future BRCIM reports, TPPs will be referred to by a title similar to 'community information guides' (in accordance with the discussion detailed at recommendation 3).[79]

4(a) Development of shelter options as part of revised Bushfire Safety Policy Framework

In the *Progress Report*, the BRCIM noted that the Framework did not clearly communicate advice about shelter options and that the BRCIM would revisit this action in the *Final Report*.

The section on shelter options in the revised Framework has been reorganised to clarify advice and provide a more coherent description of shelter options. Priority area five of the Framework, entitled Bushfire Safety Options, discusses leaving early shelter options for people in areas threatened by bushfire, last resort shelter options and evacuation.

The BRCIM notes that in addition to clarifying the target audience and the content of the advice on shelter options in the Framework, the State has made progress toward providing Victorians with a greater variety of shelter options. Progress includes developing standards and policy around community fire refuges, community fire drills in two high risk locations and the designation of NSPs in high risk locations following works programs.

At the time of writing, Victorians who did not, or could not, leave early in a bushfire may have access to the following shelter options:

> defending a well prepared home (provided they have the skills and capacity to do so)

> private bushfire shelter (provided that they had the means to construct one, they successfully applied for a building permit and the shelter complies with the performance standards)

> private places of shelter (such as a neighbour's well prepared home)

> last resort places of shelter (such as a ploughed paddock or body of water) and NSPs (provided that there is one in their township).

Further, in certain circumstances, the Incident Controller responsible may recommend evacuation.

There is only one formally designated community fire refuge in Victoria at Woods Point. This issue is further discussed at implementation actions 4(j), (k) and (l) below.

While the State has made significant progress in the development of shelter options and included these options in the Framework, the BRCIM is concerned about the levels of understanding of these options in the community. Anecdotal evidence received by the BRCIM, in addition to the findings of CFA research into community understanding of bushfire safety advice, indicates that some people are confused as to:

> when to leave early (trigger points)

> where to go when leaving early

> the level of safety and services provided at a NSP

> the risks associated with a 'wait and see' approach

> the level of danger associated with last minute shelter options.

79   The CEO of the CFA advised the BRCIM on 23 May 2012 of this policy change.

As discussed in recommendations 1 and 2, the FSC is developing a model for behavioural change that will inform a long term strategy around bushfire safety. Consideration should be given to how best to influence people to make sound decisions about shelter options, including appropriate interventions that increase the likelihood that people will behave in a manner that will minimise loss of life in a bushfire.

Finding: The BRCIM is satisfied that the range of shelter options is now clearly set out in the Framework. However, as there is still a considerable amount of work to be done in practical terms to make some of these options available to the community, particularly community fire refuges, the BRCIM will continue to monitor this matter and report on further progress in future Annual Reports.

4(b) Allocation of grants to establish further NSPs and standards to progress the development of other shelter options

The development of standards for community refuges is addressed in implementation action 4(k).

From the outset of the NSP process, it was clear that for various reasons, not every community would have a NSP. While they offer minimal protection from radiant heat in a bushfire, they do not guarantee safety. As at 31 May 2012, 237 NSPs have been designated across Victoria.

In the Implementation Plan, the State committed significant funding to assist councils to establish further NSPs, with a focus on the 52 high risk areas such as the Dandenong, Macedon and Otway Ranges. MAV has expressed concern on behalf of councils that it costs councils between $5,000 and $30,000 to establish a NSP and a minimum of $2,000 a year in maintenance costs.

The CFA and MAV established two taskforces to identify and assess potential NSP sites in high risk areas. The FSC is responsible for implementing the outcomes of these taskforces' assessments and chairs a steering committee comprising CFA, DSE and DPCD, which determines the allocation of grants.

The taskforces assessed 65 sites spread across 15 municipalities. The 65 sites comprised:

> 35 sites including

  – 27 sites that, pending further work would be suitable for designation as NSPs

  – two sites (in the Otway Ranges) requiring further analysis

  – six sites where no potential NSPs could be identified.

30 other sites that were rejected as unsuitable as NSPs.

Of the 35 sites actively considered:

> four sites have been designated

> seven sites have been identified and funded for further works by councils and are pending designation

> 13 sites in the Yarra Ranges and Cardinia Shires were placed on hold pending the development of the FSC Dandenong Ranges Landscape Bushfire Strategy Project

> six sites where no potential NSPs could be identified

> three sites were rejected by councils

> two sites were rejected by the FSC.

Evacuation plans have been developed by Victoria Police for each of the locations where no NSP site can be identified. Community fire drills have been conducted in three of these sites; Breamlea (December 2010) and Noojee and Lavers Hill (November 2011).[80]

The FSC Dandenong Ranges Landscape Bushfire Strategy Project aims to link all aspects of emergency management planning including prevention, community and agency preparedness, operational tactical planning and recovery. This project seeks to address existing gaps by:

> applying an evidence based approach to community bushfire risk, identifying short and long term priorities, consequences and vulnerabilities

> adopting a broad focused approach to bushfire planning

> developing and applying bushfire risk mitigation strategies across the broader landscape, identifying treatments that will improve community and agency preparedness and enable informed decision making before, during and after a fire

> informing State, regional and municipal fire management planning, along with operational response plans and other local plans (such as shelter and evacuation plans).[81]

Part of this project will be the consideration of shelter options, including NSPs. For this reason, further consideration of the potential 13 NSP sites in the Yarra Ranges and Cardinia Shires is included within broader strategy considerations. This project commenced in November 2011 and is ongoing.

Finding: The identification and designation of NSPs has been a slow and complex process. The BRCIM accepts that in many locations it is not possible to identify a suitable location for a NSP. In these instances, it is important for relevant communities to be aware of, and understand their bushfire shelter options, and for these options to be factored into bushfire safety plans. The development of shelter options is an ongoing process and will continue to be monitored by the BRCIM in future Annual Reports.

---

80   Refer to implementation actions 5(g) and 9(b) for more information on the community fire drills at Noojee and Lavers Hill.

81   Refer to the FSC website for further information.

4(i) Safer precincts – communication strategy for safer precincts completed

In the *Progress Report,* the BRCIM noted that the CFA in consultation with the MFB and DSE had finalised a methodology for identifying bushfire safer precincts and that the FSC was undertaking market research into the concept and terminology.

A number of issues in relation to the terminology and concept were identified in a cross agency working group and referred to the FSC for consideration. The FSC determined that formal designation of bushfire safer precincts was not an effective way of providing guidance to people intending to leave early.

The revised approach to providing guidance about where people should go if they leave early on high fire danger days provides more general advice, rather than identifying specific locations. The advice directs people to go to public places such as suburban areas, regional areas or larger towns where access to amenities is available or to go to privately arranged places such as staying with families or friends. This advice is included in the revised Framework.

The revised approach places responsibility on individuals and households to identify shelter options appropriate to their circumstances and is consistent with the 'shared responsibility' philosophy.

The BRCIM notes that the revised TPP template includes a section entitled *Where will you go?* which provides the following advice:

> Is it a safe choice? You may choose somewhere that suits your personal needs and circumstances, e.g. a family member's house in an urban area with a backyard for your pet, or shopping centre complex, or central business district of a large regional centre.

> If you don't have any other options you may wish to consider the following townships: *[insert large suburban or regional area].*

There is also a graphic included in the TPP which indicates the distance between the township and the nearest large suburban or regional area.

The CFA website provides advice on leaving early and advises that people planning to leave early on high fire danger days should organise where to go. This advice includes that people should consider travelling to family or friends in a low fire risk area, a place of relative safety, such as a shopping complex or central business district of a large regional or urban centre or other community buildings, such as libraries in low risk areas.

Finding: The BRCIM notes that the State has changed its policy on this implementation action and that there will be no designated bushfire safer precincts in Victoria. The State's revised policy on where people should shelter if they leave early on a high fire danger day is that they should determine the destination themselves as part of their bushfire safety plan. General advice is provided about the types of locations that would be appropriate to shelter in under these circumstances. Further, if people do not have any options, townships they can consider are included in their TPP. The BRCIM considers that the State's advice to individuals and communities on where to go when they leave early is appropriate and satisfactory. The BRCIM considers action 4(i) has been satisfactorily implemented.

4(j) Fire Refuges – 2005 policy replaced with revised policy

The FSC released the *Community Fire Refuges Policy* on 13 October 2011, which replaced the 2005 Fire Refuges Policy.

The objective of the policy is to "provide the framework for identifying, establishing, managing, operating, maintaining, recording, auditing and decommissioning community fire refuges in areas of very high risk where other bushfire survival options are limited".[82]

The policy defines a community fire refuge as "a building, or part of a building, to be used by the public for short term shelter from a fire front during a bushfire event".[83] A community fire refuge must meet the performance requirements of the Victorian Building Regulations 2006 and the Building Code of Australia (BCA)[84] and must be designated in accordance with Part IIIA of the CFA Act.

Importantly, the first line of the policy statement stresses that protecting the life and safety of individuals during a bushfire is paramount and this responsibility is shared between individuals, communities, State and local governments and the emergency services.

The policy provides that community fire refuges are one option in a suite of bushfire safety options and should be considered in the context of all the survival options available to communities in very high risk bushfire areas.

The FSC's *Community Fire Refuges Practices and Procedures* (2011) provides detailed guidance on the identification, designation, management and other matters related to the operation of refuges.

---

82 FSC *Community Fire Refuges* (October 2011), p 2. Copies of the policy are available from the FSC website.

83 Regulation 115A of the Building Regulations 2006 and section 50A of the CFA Act.

84 The BCA is now Volumes 1 and 2 of the National Construction Code (NCC). The BRCIM *Progress Report* provides further details on the NCC (p 23). Refer to the ABCB website for further details.

Community fire refuges are included in the Framework as one of the shelter options available during a bushfire. However, refuges do not guarantee safety from a bushfire due to a number of limitations identified in the *Community Fire Refuges Policy* and as a result, going to a refuge should not be the primary plan of residents.

MAV has expressed concern on behalf of councils about the risks and costs associated with the establishment, maintenance and operation of community fire refuges. Further, the owners of many of the facilities and sites most suitable for use as community refuges are reluctant to permit such use unless there is a sufficient protection from liability for loss of life or injury. In the case of local government, the liability issue, as it was with the provision of NSPs, remains a major impediment to councils cooperating in the establishment of community fire refuges. Drafting instructions for the provision of a statutory public policy defence against liability similar to that applied to NSPs is currently being prepared. In the interim, the State has agreed to provide a Treasurer's Indemnity to any municipal council that establishes a community fire refuge. This approach has been emphasised in media releases by the Minister for Bushfire Response.

The issue of liability and general reluctance on the part of local government to embrace the community refuges policy without a blanket exemption from liability has compelled the State to look for options other than sites owned by local government. The FSC has initiated communication with the CFA and the Department of Education and Early Childhood Development (DEECD) suggesting that State infrastructure such as fire stations and schools in high risk areas be considered as potential sites for community fire refuges. The BRCIM understands that in principle agreement has been reached to this proposition and that further work is underway to progress this initiative.

The FSC reached agreement in December 2011 with two municipalities, the Shire of Yarra Ranges and Moorabool Shire to conduct community fire refuge pilots. The pilots comprise (where practicable) the identification, construction or adaption of suitable buildings and the development of operational guidelines to supplement the existing standards, practices and procedures.

Finding a site in the township of Blackwood in Moorabool Shire has proven problematic. The one obvious site is the CFA fire station, which would need to be redeveloped. A replacement station is within the CFA building strategy. This is a longer term prospect and in the short term a refuge pilot in this location would most likely be restricted to a table-top exercise. In the interim, a community fire drill exercise is planned for Blackwood in October 2012.

The Shire of Yarra Ranges identified three potential sites owned by DEECD in March. The full assessment and use of these sites is currently being negotiated.

Progress on the pilots has been slow, largely due to difficulties in identifying suitable sites within the shires and obtaining the consent of the property holders to conduct the necessary site assessments. Preliminary surveys were conducted, following consultations with the municipalities in January and February 2012 in an effort to identify suitable pilot sites. Site visits were conducted by representatives of the FSC, Shires, CFA, the Building Commission and the DEECD.

Given the costs and other difficulties associated with the retrospective modification of existing buildings to meet the stringent community fire refuge standards, the BRCIM strongly supports the view that all new community infrastructure in fire prone areas should be assessed for this purpose at the planning stage of development.

Finding: The BRCIM notes that the 2005 fire refuges policy has been replaced and that legislation to support the indemnity provisions of the new policy is expected to be introduced in 2012. While acknowledging that the procedure for developing and designating community fire refuges presents significant challenges for the State, this is a matter that should be progressed with some urgency. The BRCIM will continue to closely monitor this implementation action and report on further progress in future Annual Reports.

4(k) Fire Refuges – performance standards developed and incorporated into regulations for building fire refuges

The Building Amendment (Community Fire Refuge Construction) Interim Regulations 2011 came into force on 29 July 2011. The objective of the regulations is to amend the Victorian Building Regulations 2006 in relation to the construction of community fire refuges that may be used by the public for short term shelter from a fire front during a bushfire event.

Under the regulations, a community fire refuge must be a building or part of a building designed and constructed to reduce the risk of ignition from a bushfire event and provide a tenable environment for occupants during periods of untenable conditions arising from a bushfire event appropriate to the:

> location of the refuge, including vegetation, adjacent buildings and other combustible materials

> number of occupants to be accommodated

> bushfire intensity and intensity of potential consequential fires

> safe access and egress

> tenability of the environment

> generation of smoke, heat and toxic cases used to construct the refuge

> structural and fire loads the refuge might be subject to

> necessary degree of occupant awareness of external environmental conditions

> signage identifying the capacity and maximum period of occupancy of the refuge

> necessary degree of internal communications

> necessary degree of sanitary and other facilities required

> necessary degree of essential maintenance.

The performance standards are an interim measure to be used pending the development of a national standard.[85]

Finding: The BRCIM considers action 4(k) has been satisfactorily implemented.

4(l) Fire Refuges – development of national standards and further amendment of building regulations

The ABCB met on 23 February 2012 with the issue of community bushfire refuges and the development of a national standard discussed.

As at 30 June 2012, the ABCB is in the process of determining the feasibility of developing standards for fire refuges. The ABCB has committed to developing a non-mandatory handbook that can be used to inform the design and construction of community fire refuges. The Building Commission (on behalf of the ABCB) has received $80,000 from DPCD for developing the non-mandatory handbook.

In the meantime, construction standards for community fire refuges are provided for in the Building Amendment (Community Fire Refuge Construction) Interim Regulations 2006. These are due to expire on 28 July 2012. Once these regulations have expired, it is proposed that construction requirements will continue to apply through a Ministerial Direction that is subject to Ministerial approval and would apply until the ABCB standards are completed.

Finding: The BRCIM notes the ongoing work regarding the implementation of action 4(l) and acknowledges the complexities in developing agreed national standards for fire refuges. The interim arrangements in Victoria are also noted. Nevertheless, given that almost two years have passed since the VBRC Final Report, the BRCIM urges all parties involved to resolve this matter as soon as possible. The BRCIM will continue to monitor this implementation action and report on progress in future Annual Reports.

RECOMMENDATION 5

The State introduce a comprehensive approach to evacuation, so that this option is planned, considered and implemented when it is likely to offer a higher level of protection than other contingency options. The approach should:

5.1 encourage individuals – especially vulnerable people – to relocate early

5.2 include consideration of plans for assisted evacuation of vulnerable people

5.3 recommend 'emergency evacuation'.

---

85   Refer to implementation action 4(l) for further information on the development of national standards.

Implementation Actions

Action Required	Due Date	Progress Report Status (July 2011)	Final Report Status (July 2012)
5(a) Guidelines for evacuation included in the State Emergency Response Plan	31/10/2010	Complete	Complete
5(b) Guidelines to be included in a joint Standard Operating Procedure (SOP) with fire agencies	31/12/2010	Complete	Complete
5(c) Provide evacuation manager training to Victoria Police members	30/06/2012	Ongoing	Complete
5(d) Review the Interim Evacuation Guidelines, ensuring they are compatible with arrangements for the identification of vulnerable people in high risk areas	30/06/2012	Ongoing	Complete
5(e) Develop guidelines on the preparation of vulnerable people for evacuation	TBC	Ongoing	Complete
5(f) Revise joint SOP 3.12 and community warnings to reflect the new Guidelines	01/12/2011	Ongoing	Complete
5(g) Plan community fire drills in two high risk areas	31/12/2011	Ongoing	Complete

Status

The *Progress Report* noted that implementation actions 5(a) and (b) were satisfactorily implemented. No further comment is made in relation to action 5(b). An update to action 5(a) is provided below.

5(a) Guidelines for evacuation included in the State Emergency Response Plan

The interim evacuation guidelines were reviewed in 2011. Following this review, the Minister for Police and Emergency Services approved the evacuation guidelines that had been recommended to him by the SERPC. These updated guidelines were incorporated in August 2011 into the SERP at Appendix 9. The SERP is Part 3 of the EMMV.[86]

The BRCIM has considered the revised evacuation guidelines and finds them to be both adequate and appropriate.

Finding: The BRCIM considers action 5(a) has been satisfactorily implemented.

5(c) Provide evacuation manager training to Victoria Police members

Victoria Police advised that as at 24 May 2012, 298 police officers have attended the evacuation training course along with representatives of other agencies and local government. It is proposed that a further five metropolitan and nine rural evacuation training courses will be held between prior to the 2012-23 fire season.

To date, evacuation training has been delivered to ranks from Senior Constable to Superintendent. The subsequent training will target Senior Sergeant to Inspector ranks. Evacuation training has also been incorporated as a component of the Inspector Qualification Program, which is mandatory for all newly promoted Inspectors as part of their qualification to hold that rank.

The evacuation training course is undergoing further development with involvement from Ambulance Victoria and the MFB to incorporate hospital evacuations in the event of toxic plumes. This will ensure there is a focus on the role of the Health Commander in evacuations.

Finding: The BRCIM considers action 5(c) has been satisfactorily implemented.

---

86   The EMMV is available from the OESC website.

Emergency assembly point at Noojee as part of the community fire drill, 15 November 2011. Photo: BRCIM

5(d) Review the Interim Evacuation Guidelines, ensuring they are compatible with arrangements for the identification of vulnerable people in high risk areas

5(e) Develop guidelines on the preparation of vulnerable people for evacuation

The State has undertaken a broad range of activities to address the special needs of vulnerable people, including their evacuation. The issue of vulnerable people has been addressed by the BRCIM in relation to recommendation 3. Detailed discussion on these activities can be found at implementation actions 3(l) and (m).

Finding: The BRCIM considers actions 5(d) and 5(e) have been satisfactorily implemented.

5(f) Revise joint SOP 3.12 and community warnings to reflect the new guidelines

The joint SOP (J3.12*) Evacuation During Bushfires* was reviewed and signed by FSC, CFA, MFB and DSE on 29 December 2011. Significant changes to the SOP include:

> the interim SOP was signed by the FSC, Chief Fire Officer of DSE and Chief Officer of the CFA. The revised SOP is signed by these parties together with the Chief Fire Officer of the MFB

> the revised SOP provides that the Incident Controller should give consideration to the duration of the evacuation and the process to safely return the community to the affected area

> a clearer checklist is provided for the consideration of evacuation during a bushfire.

In addition, the warning templates for *Bushfire Recommendation to Evacuate* have been amended to reflect the revised evacuation guidelines.

Finding: The BRCIM is satisfied that the joint SOP 3.12 and related warning templates have been updated. As there have been no fire events where residents have been evacuated, the BRCIM is unable to comment on the efficacy of the SOP or the warning templates. Nevertheless, the BRCIM considers action 5(f) has been satisfactorily implemented.

5(g) Plan community fire drills in two high risk areas

In November 2011, the FSC directed two full scale community fire drill exercises at Noojee and Lavers Hill. Emergency command and control arrangements, emergency preparedness information and warnings, arrangements for evacuations, and relief and recovery operations were all tested as part of the exercise.

Staff from the BRCIM office attended both exercises as observers. The exercises were well organised and executed, with strong participation and attendance from agencies and community members. The evacuation exercises provided a good opportunity to test the evacuation arrangements, apply learnings and raise awareness about bushfire safety options and preparedness.

As outlined in Chapter 1, an evaluation of the community fire drills at Noojee and Lavers Hill was undertaken and both are available from the FSC website.

Finding: The BRCIM considers action 5(g) has been satisfactorily implemented.

RECOMMENDATION 6

Victoria lead an initiative of the Ministerial Council for Education, Early Childhood Development and Youth Affairs to ensure that the national curriculum incorporates the history of bushfire in Australia and that existing curriculum areas such as geography, science and environmental studies include elements of bushfire education.

Implementation Actions

Action Required	Due Date	Progress Report Status (July 2011)	Final Report Status (July 2012)
6(a) Amendments to national curriculum to include history of bushfire in Australia and bushfire education	31/12/2010	Complete	In progress
6(b) Development of Victorian teaching and curriculum resources linking bushfire education	30/06/2012	Ongoing	Complete
6(c) Updated Fire Safe Kids Bushfire Education program to be developed and delivered	31/10/2010	Complete	Complete
6(d) CFA mobile education units in service	31/12/2011	Complete	In progress

Status

The *Progress Report* noted that implementation actions 6(a) and (c) were satisfactorily implemented. No further comment is made in relation to action 6(c). An update to action 6(a) is provided below.

6(a) Amendments to national curriculum to include history of bushfire in Australia and bushfire education

In the *Progress Report*, the BRCIM noted that the Victorian Minister for Education wrote to the Chair of the Australian Curriculum Assessment and Reporting Authority (ACARA) requesting consideration be given to the inclusion of the study of natural disasters in the Australian curriculum, within the history, geography and science curricula. The BRCIM, in noting that Victoria had taken appropriate steps to progress the implementation of action 6(a), committed to revisit this action in the *Final Report*.

Since the publication of the *Progress Report*, DEECD has advised that the current draft of the *Australian Curriculum: Geography* now includes bushfire education in two places. The first is in Year 6, where students learn that bushfires and other hazards are a recurring feature of seasonal changes to environments and are involved in:

> mapping the location, frequency and severity of bushfires in Australia

> investigating the causes and effects of bushfires

> identifying people's responsibilities for the prevention of and recovery after a bushfire.

The second is in the senior secondary curriculum and the *Environmental Risk Management* unit. In this unit, students study a range of risks at a basic level and one in depth study from the categories of an environment placed at risk because of the use of a natural resource and an environmental hazard.

ACARA plans to submit the final F-10 (foundation to year 10) curriculum to the October 2012 meeting of the Standing Council on School Education and Early Childhood. If approved by the Ministers, the curriculum will be published before the end of 2012 and fully implemented in Victorian schools in 2014.

Finding: Although this curriculum will not be implemented in Victorian schools until 2014, the BRCIM recognises the complexity of gaining the necessary support for amendments to the national curriculum. In these circumstances, the BRCIM considers action 6(a) has progressed satisfactorily but will continue to monitor this matter and report further on implementation in the 2013 Annual Report.

6(b) Development of Victorian teaching and curriculum resources linking bushfire education

In the *Progress Report,* the BRCIM noted that DEECD had commissioned the development of teaching and learning materials to ensure Victorian students acquire the knowledge and skills to prepare, respond to and recover from bushfires.

These teaching and learning resources have now been completed and can be accessed on the bushfires education website which has been developed by the Victorian Curriculum and Assessment Authority (VCAA) in response to recommendation 6. The BRCIM has examined the teaching and learning resources and concluded that they are both appropriate and comprehensive in nature.

A professional development program for teachers has been developed by the VCAA in partnership with the CFA for delivery in high risk fire areas. Participants will be provided with training in the effective use of the bushfire education resources. Feedback will be sought from participants during the training sessions on the quality and useability of the materials. The first program will be held in June 2012 and further programs will be organised, based on demand, later in 2012.

Finding: The BRCIM considers action 6(b) has been satisfactorily implemented.

6(d) CFA mobile education units in service

The CFA expected delivery of the Mobile Education Bushfire Units (MEBU) in December 2011. However, technical problems in the manufacturing process significantly delayed their delivery. The manufacturer has accepted full responsibility for the delay.

Consequently, necessary modifications and repairs to the first vehicle and slide-out pod system were not undertaken until late March 2012. This vehicle has now passed acceptance and the CFA will take delivery in the week ending 13 June 2012. The second MEBU is now under construction and will be delivered in July 2012.

Finding: The BRCIM notes with concern the significant delay in the implementation of action 6(d) but acknowledges that this delay is beyond the control of the CFA. The BRCIM will continue to monitor this matter and report further on implementation in the 2013 Annual Report.

Recommendation 6 Overall Finding

In its Final Report, the VBRC noted that:

Educating children about the history of fire in Australia and about safety in the event of a bushfire will probably influence not only the children but also their parents, siblings and extended family and community.[87]

The State has advocated for bushfire education to be included in the national curriculum and worked collaboratively with the CFA, MFB and Australian Emergency Management to develop materials designed to equip Victorian children with knowledge about preparing for, responding to and recovering from bushfires. In addition, the CFA developed the Fire Safe Kids Bushfire Education[88] program (formerly Brigades in Schools) to teach pre-primary to Grade 6 children about fire awareness.

The BRCIM considers that the State's response to recommendation 6 addresses the intent of the VBRC and provides material to increase children's knowledge and skills about bushfire in the Australian landscape.

---

87   VBRC *Final Report*, Vol II, Part One, p 55.

88   Refer to the CFA website for further details.

RECOMMENDATION 7

The Commonwealth lead an initiative through the Ministerial Council for Police and Emergency Management, facilitated by Emergency Management Australia, to develop a national bushfire awareness campaign.

Implementation Actions

Action Required	Due Date	Progress Report Status (July 2011)	Final Report Status (July 2012)
7(a) Development of national bushfire awareness campaign	31/11/2011	Ongoing	In progress

Status

7(a) Development of national bushfire awareness campaign

The VBRC stated that bushfire understanding and awareness is critical in enabling people to make informed decisions about their safety. Changing demographics mean that many people now living in areas of high bushfire risk do not share the traditional generational knowledge of local fire history. The VBRC considered this important for the entire nation and recommended the development of a national bushfire awareness campaign.[89]

The Commonwealth is responsible for the implementation of this recommendation through the National Emergency Management Committee (NEMC), which comprises representatives from the Commonwealth, States and Territories. The Commonwealth has advised that a national approach to community education and messaging was agreed by NEMC prior to the 2010-11 fire season.

A NEMC working group has also been established to manage the review of the national FDR system which will inform the national bushfire awareness campaign. An initial review of the FDR system by the working group was made prior to the 2010-11 fire season and some changes to the public messaging about fire danger were recommended to make the messages clearer and more action oriented. The working group also recommended changes to the fire danger index (FDI) for grasslands. Victoria's response to these changes is outlined in the *Progress Report*.

The Commonwealth has advised the BRCIM that the development of the national bushfire awareness campaign has been deferred until a review of the FDR system has been completed. The Commonwealth estimates the FDR review will take approximately five years to complete. This timeframe is subject to funding.[90]

On 31 October 2011, DPC advised that the State, through DPC and DOJ, is working with the NEMC to progress this recommendation in an 'all hazards' context. NEMC has developed a national communications framework for the National Strategy for Disaster Resilience[91] (NSDR) that includes promotion of disaster resilient messages as well as a range of other products. Ministers endorsed this framework at the SCPEM meeting on 11 November 2011.

Finding: The BRCIM is concerned at the potential substantial delay in developing a national bushfire awareness campaign and urges all parties involved to progress this recommendation as a priority. The BRCIM will continue to monitor this important recommendation and report on further progress in the 2013 Annual Report.

---

89   VBRC *Final Report,* Vol II, Part One, p 17.

90   Refer to implementation action 1(k).

91   Council of Australian Governments, *National Strategy for Disaster Resilience: Building our nation's resilience to disasters* (2011). Information on the NSDR is contained in Chapter 4 of this *Final Report.*

EMERGENCY AND INCIDENT MANAGEMENT

Recommendations 8 – 19

The VBRC found that State level emergency management arrangements faltered as a result of confusion about responsibility and accountability on Black Saturday. The VBRC stated that management of some fires exposed a series of systemic shortcomings that impeded both incident and State level emergency management arrangements, which contributed to the catastrophic consequences of 7 February 2009.

The VBRC identified a number of areas of primary concern including command and control, declaration of a state of disaster, poor leadership, inadequate information and community warnings, insufficient coordination and integration, inconsistent training, exercising and preparedness of Incident Controllers.

The VBRC made 12 recommendations across preparation and planning, leadership and command, Ministerial responsibility, state of disaster declarations, Australasian Inter-service Incident Management System (AIIMS), information sharing, agency integration, facilities for incident management and coordination and traffic management points.[92]

RECOMMENDATION 8

The Country Fire Authority and the Department of Sustainability and Environment amend their procedures to require the following

8.1 that at locations that attract preparedness levels A or B there be a full incident management team under the leadership of an accredited level 3 Incident Controller in position by 10.00am on days of Code Red fire danger and a core incident management team (eight personnel) under the leadership of an accredited level 3 Incident Controller in position by 10.00am on days of Extreme fire danger

8.2 that a full level 3 IMT be led by a level 3 Incident Controller unless the State Controller determines otherwise.

---

92   VBRC *Final Report*, Vol II, Part One, Chapter 2.

Implementation Actions

Action Required	Due Date	Progress Report Status (July 2011)	Final Report Status (July 2012)
8(a) 43 Incident Control Centres upgraded	14/10/2010	Complete	Complete
8(b) 155 Divisional Command Centres upgraded	31/03/2011	Ongoing	Complete
8(c) Joint SOP of revised IMT Preparedness Arrangements	30/11/2010	Complete	Complete
8(d) Review of joint SOP – IMT Preparedness Arrangements	01/12/2011	Ongoing	Complete
8(e) Code Red and Extreme day IMT/ICC response arrangements/procedures in place	31/03/2011	Complete	Complete
8(f) MFB joint training exercises to ensure there is an "all hazards" approach to improving major response to fires *(This action is from the October 2010 Plan)*	30/11/2010	Complete	Complete

Status

The *Progress Report* noted that actions 8(a), (c), (e) and (f) were satisfactorily implemented. No further comment is made in relation to actions 8(c) and (f). An update to actions 8(a) and (e) is provided below.

8(a) 43 Incident Control Centres upgraded

The VBRC noted the importance of monitoring and auditing compliance with ICC mandated preparedness levels. The *Progress Report* noted that three of the State's Level 3 ICCs were made redundant following a review prior to the 2010-11 fire season. DSE and CFA conducted audits of all 40 level 3 ICCs and confirmed their readiness in writing to the FSC, prior to the 2011-12 fire season. The FSC also agreed to work with DSE and CFA to develop ongoing level 3 ICC readiness audits that will enable the functionality of level 3 ICCs to be confirmed prior to each fire season.

The FSC will include the monitoring of CFA Divisional Command Centres as part of this process, which the FSC aims to have in place prior to the 2012-13 fire season.[93] This will be critical in addressing the series of systemic shortcomings that the VBRC noted impeded both incident and State level emergency management arrangements on Black Saturday.

Finding: The BRCIM considers action 8(a) has been satisfactorily implemented.

8(b) 155 Divisional Command Centres upgraded

The *Progress Report* expressed concern at the slow progress of the upgrade of Divisional Command Centres and stated that it was critical for the project to be completed prior to the 2011-12 fire season. An internal CFA audit revealed that at 30 June 2011, although the Divisional Command Centres were functional, a number did not strictly comply with minimum standards. Matters for rectification included air-conditioning, key systems, communication racks, power generators and physical layout.

The upgrades of the 155 CFA Divisional Command Centres to the minimum standards prescribed by the CFA Chief Officer were completed on 31 December 2011. The CFA now acknowledges that the original target date of March 2011 was optimistic, due to the level and complexity of works required to bring some of these locations up to minimum standards.

The BRCIM agrees with the CFA that these centres require continuous monitoring to ensure that they remain compliant with minimum standards. It seems appropriate that this process is part of the annual level 3 ICC readiness audits [see 8(a) above] proposed for implementation by the FSC, prior to the 2012-13 fire season.

Finding: The BRCIM considers action 8(b) has been satisfactorily implemented.

---

93 Refer to implementation action 8(b).

8(d) Review of joint SOP – IMT Preparedness Arrangements

The FSC reviewed the joint SOP (J2.03) *Incident Management Teams – Readiness Arrangements* in 2011. It was approved with minor changes by DSE, CFA and the FSC on 14 September 2011. The FSC and the fire agencies agreed the term readiness is more appropriate than preparedness, which is a term generally used to describe the capability of the entire emergency management system. Readiness is a more dynamic state, which is determined by the analysis of temporal risk factors such as fuel and weather.

Finding: The BRCIM considers action 8(d) has been satisfactorily implemented.

8(e) Code Red and Extreme day IMT/ICC response arrangements/procedures in place

The *Progress Report* noted that action 8(e) was satisfactorily implemented, however, as there was only one day of Extreme fire danger and no Code Red days during the 2010-11 fire season, it was decided to revisit this action in the *Final Report.*

Victoria experienced an even milder summer in 2011-12 with no days of Code Red or Extreme fire danger rating. There were, however, several days of Severe fire danger and six days of Total Fire Ban in some districts. There were no days of Total Fire Ban across all of the State. Thirteen of the State's 40 level 3 ICCs and the SCC were activated at some time during the summer, in accordance with joint SOP (J2.03) *Incident Management Team – Readiness Arrangements*. All centres either met or exceeded minimum prescribed readiness levels. In some cases, this involved in excess of 30 staff in attendance throughout the day plus aircraft personnel.

The BRCIM staff visited the ICCs and SCC and observed operations during the 2011-12 fire season.[94] While the readiness requirements were clearly met on the respective days, no fires actually occurred that required a level 3 response during the fire season. The BRCIM is unable, therefore, to comment on the efficacy of these arrangements.

Finding: The BRCIM considers action 8(e) has been satisfactorily implemented.

Recommendation 8 Overall Finding

The BRCIM considers that the State's response to recommendation 8 exceeds the VBRC requirements. The State has adopted a comprehensive approach to improving preparedness for bushfire response. This includes significant investment in capital works, training, exercising, organisational structures, policies and procedures. There is clear evidence that Victoria is now substantially better prepared on a regular basis to respond to bushfire risk than at the time of Black Saturday.

The BRCIM notes the significant human resourcing requirements associated with the readiness of ICCs, particularly under Extreme and Code Red conditions. The BRCIM has reservations about the capacity of the State to maintain these prescribed levels for extended periods.

The real test will be when readiness levels must be maintained for several days over several districts of the State and how effectively preparedness translates into response, when major bushfires do inevitably return to the Victorian landscape.

RECOMMENDATION 9

The Country Fire Authority and Department of Sustainability and Environment prescribe and audit the minimum number and nature of level 3 joint training exercises in which incident management team staff (including volunteers) are required to participate.

---

94   Further information on the SCC is available from the SCC website.

Implementation Actions

Action Required	Due Date	Progress Report Status (July 2011)	Final Report Status (July 2012)
9(a) 8 Joint IMT exercises conducted – 2010	30/11/2010	Complete	Complete

Status

The VBRC noted the vital importance of joint training and exercising of IMT members. The VBRC recommended that the CFA and DSE prescribe the minimum number and the nature of joint training exercises in which personnel (including volunteers) participate in order to maintain their accreditation to fulfil roles in a level 3 IMT. The VBRC further recommended that compliance with the prescribed minimum should be monitored through annual audits of attendance.

The BRCIM noted in the *Progress Report* that although implementation action 9(a) was satisfactorily implemented, the action itself falls short of the recommendation in prescribing minimum training requirements for personnel performing level 3 IMT roles in order to maintain accreditation. The BRCIM suggested the State further consider the intent of this VBRC recommendation.

DSE and CFA have developed a State Capability Strategy to address a range of issues relating to IMT exercising. Specifically, it was identified there was a need to treat exercising, training, and pre-season updates as capability building activities to improve the consistency of approach between them and recognise their role in delivering learning outcomes. The agencies have developed the concept of a rolling three year Capability Strategy which identifies the objectives and themes which underpin exercising, training and updates programs across the agencies and at all levels of the agencies. The Capability Strategy has been presented to and endorsed by the State Fire and Flood Strategic Forum.

9(a) 8 Joint IMT exercises conducted – 2011

The joint IMT exercises conducted prior to the 2010-11 fire season were conducted again prior to the 2011-12 fire season. The State Multi-Agency Emergency Management Training and Exercising Strategy Committee sponsored nine joint IMT exercises (Project Belenus) across the State between September and November 2011. The Capability Enhancement Unit at the OESC coordinated and managed the project in association with the fire services. These exercises were attended by 1,062 representatives from across the emergency management sector including volunteers, members of the community and emergency broadcasters.

At these exercises, the application of the command and control arrangements for bushfires[95] and other matters were discussed. Specifically, the exercises included aspects of:

> control measures to be initiated for fast moving fires
> transfer of control for the management of fires
> consequence management of fires
> information sharing and communications
> importance of timely, relevant and tailored warnings and advice.

The final report of the exercises was produced for the FSC in May 2012 containing key learnings and recommendations from the project.

The BRCIM supports ongoing multi-agency exercising of IMTs that include media and community participation. It is important that learnings from such exercises are captured and provided to the relevant decision makers to ensure continuous improvement in incident management.

Finding: The BRCIM considers action 9(a) has been satisfactorily implemented. The BRCIM will, however, revisit this recommendation in future Annual Reports to monitor progress in relation to the establishment of prescribed joint minimum training requirements for personnel performing level 3 IMT roles in order to maintain accreditation.

---

95   Refer to Chapter 1 in this *Final Report* for more information.

The State clarify whether, during major fires, Victoria Police should discharge its coordination functions from the State Emergency Response Coordination Centre or from the State Control Centre.

Implementation Actions

Action Required	Due Date	Progress Report Status (July 2011)	Final Report Status (July 2012)
10(a) Emergency management coordination function discharged from State Control Centre (SCC)	31/03/2011	Complete	Complete
10(b) Central coordination support function from State Emergency Support Centre	31/03/2011	Complete	Complete

Status

The *Progress Report* noted that actions 10(a) and (b) were satisfactorily implemented. No further comment is made in relation to these actions.

Recommendation 10 Overall Finding

Management of the SCC is in the process of transitioning to the FSC in accordance with section 10(1)(h) of the FSC Act. The centre is now staffed by a full time management team and individual agency based procedures have been replaced with a comprehensive set of SOPs issued by the FSC.[96] Consolidation of IT systems is currently underway to enable full interoperability between agencies. The SCC is now the State's primary control centre during major fires and the location from which Victoria Police discharges its State level emergency management coordination function.

Although major challenges still exist in achieving true interoperability in emergency management systems across Victoria, the SCC has evolved significantly from the original Integrated Emergency Coordination Centre. This development represents a substantial step towards addressing the VBRC's findings that State level emergency management arrangements faltered, contributing to the catastrophic consequences of Black Saturday.

---

96   Further details are available from the SCC website.

Implementation Actions

Action Required	Due Date	Progress Report Status (July 2011)	Final Report Status (July 2012)
11(a) Amendments to the EM Act (replacing of terms 'coordinator in chief', clarification powers of Minister and designates Chief Commissioner of Police as State Emergency Response Coordinator)	31/12/2011	Ongoing	Complete
11(b) Amendments to SERP to reflect changes to the EM Act	31/12/2011	Ongoing	In progress
11(c) Amend EMMV to include updated SERP	31/12/2011	Ongoing	In progress

Status

11(a) Amendments to the EM Act (replacing of terms 'coordinator in chief', clarification powers of Minister and designates Chief Commissioner of Police as State Emergency Response Coordinator)

The VBRC expressed concern that the use of the term Coordinator in Chief of Emergency Management in the EM Act to describe the Minister for Police and Emergency Services led to confusion about the Minister's role. The VBRC suggested that the title be removed. The VBRC also expressed concern that the Minister was reliant upon a non-operational official (the ESC) for information in relation to the emergency. The VBRC stated that this responsibility best resides with Victoria Police in its role as Coordinator of Emergency Response.

Legislation was introduced into Parliament in September 2011 making a number of amendments to emergency services legislation. The Emergency Management Amendment Legislation Act made changes to the EM Act to:

> remove the title of Coordinator in Chief of Emergency Management from the Minister for Police and Emergency Services, clarify the role of the Minister to ensure satisfactory emergency management arrangements are in place and remove the Minister's responsibility for any operational matters (new section 5 of the EM Act)

> broaden the functions of the Chief Commissioner in his or her role as State Emergency Response Coordinator and to ensure the Minister is kept informed during any emergency (new section 6 of the EM Act)

> clarify that the Minister may delegate to the Chief Commissioner of Police, in his or her role as State Emergency Response Coordinator, or any other person, powers or functions under the EM Act or emergency management regulations (new section 7 of the EM Act).

The BRCIM notes that the amendments remove any confusion in relation to the use of the title 'Coordinator in Chief'.

Finding: The BRCIM considers action 11(a) has been satisfactorily implemented.

11(b) Amendments to SERP to reflect changes to the EM Act

11(c) Amend EMMV to include updated SERP

As indicated above, the legislative amendments to the EM Act were not passed until late October 2011. This left very limited time to amend the SERP by the due date of 31 December 2011. Victoria Police commenced reviewing the SERP immediately following the changes to the EM Act, however, it was decided not to make any amendments until after the 2011-12 bushfire season. The review of the SERP is also addressing a number of related changes to the State's emergency management arrangements which directly affect the SERP, such as warnings and evacuation. At the time of writing this report, the amended SERP had not been presented to the SERPC for final endorsement.

Finding: Victoria Police advised the BRCIM that amendments to the SERP are expected to be finalised by August 2012. Amendments to the EMMV as required under action 11(c) cannot proceed until the SERP has been amended. These important processes should be completed as soon as possible. The BRCIM will revisit actions 11(b) and 11(c) in the 2013 Annual Report.

Registration point following evacuation exercise. Photo: BRCIM

Recommendation 11 Overall Finding

The VBRC expressed concern at the confused roles, responsibilities and accountabilities, particularly in leadership and command on Black Saturday. The State has now legislated to clarify the roles of the Minister for Police and Emergency Services and the Chief Commissioner of Police in emergency management as recommended by the VBRC. To be fully effective, however, these legislative changes must be encapsulated into policy via amendments to the SERP for inclusion in the EMMV.

RECOMMENDATIONS 12 & 13

12.   The State consider either amending the *Emergency Management Act 1986* or adopting a standing practice to require the Minister for Police and Emergency Services or the Chief Commissioner of Police to consult the Premier about the possibility of declaring a state of disaster for all of or any part of Victoria whenever the Minister or the Chief Commissioner of Police becomes aware of circumstances that make it a reasonable possibility that the criteria for making such a declaration will be satisfied.

13.   The State consider amending the *Emergency Management Act 1986* to introduce a graded scale of emergency declarations short of a state of disaster.

Implementation Actions

Action Required		Due Date	Progress Report Status (July 2011)	Final Report Status (July 2012)
12 and 13(a)	Review State of Disaster provisions in the EM Act to introduce a graded scale of emergency declarations	31/12/2012	Ongoing	In progress
12 and 13(b)	Amend SERP based on amendments to the EM Act re: State of Disaster	31/12/2012	Ongoing	In progress

Status

12 and 13(a) Review State of Disaster provisions in the EM Act to introduce a graded scale of emergency declarations

12 and 13(b) Amend SERP based on amendments to the EM Act re: State of Disaster

The Implementation Plan commits the State to introducing amending legislation to Parliament in 2012. The BRCIM has been advised that the review of the state of disaster provisions in the EM Act is occurring as part of the White Paper process[97] being led by DOJ. It is anticipated that the White Paper will be released later in 2012.

Finding: As the White Paper has not been released at the time of writing this report, the BRCIM cannot comment on progress in relation to these two actions, which are due for delivery by 31 December 2012. The BRCIM will revisit actions 12 and 13(a) and (b) in the 2013 Annual Report.

RECOMMENDATION 14

The Victorian fire agencies amend the AIIMS framework before the 2010-11 fire season in order to do the following:

14.1   designate the Information Unit as a separate section reporting directly to the Incident Controller and require that the Information Unit contain a dedicated Public Information Officer whenever a full incident management team is required

14.2   specify a set of functions in relation to which the Deputy Incident Controller for a level 3 incident will have oversight, which may be adjustable for a particular incident by agreement between the Incident Controller and the Deputy Incident Controller

14.3   ensure that an individual with local knowledge is incorporated in an incident management team.

---

97   Refer to Chapter 4 in this *Final Report* for more information on the White Paper process.

Implementation Actions

Action Required	Due Date	Progress Report Status (July 2011)	Final Report Status (July 2012)
14(a) Revision of DSE fire suppression manual	30/10/2010	Complete	Complete
14(b) Joint SOP on the 'Appointment of Incident Controller' and 'Incident Information and Warnings' to be updated	01/12/2010	Complete	Complete
14(c) IMT Preparedness SOP to include local knowledge	31/12/2010	Complete	Complete
14(d) Review SOPs – see 14(b) and 14(c)	01/12/2011	Ongoing	Complete
14(e) Information Unit changes included in information officer training	01/12/2010	Complete	Complete
14(f) Joint pre-season briefings to incorporate these changes	01/12/2010	Complete	Complete

Status

The *Progress Report* noted that actions 14(a), (b), (c), (e) and (f) were satisfactorily implemented. No further comment is made in relation to actions 14(a), (b), (c) and (e). An update to action 14(f) is provided below.

14(d) Review SOPs

The VBRC recognised that much is expected of Incident Controllers and demands were likely to increase as a result of its recommendations, especially in relation to warnings and evacuation. The VBRC proposed that a set of specific functions should be agreed upon, which in the absence of alternative arrangements between an Incident Controller and their deputy, could comprise the primary responsibility of the Deputy Incident Controller. The VBRC suggested such responsibilities could include predictions of fire spread, warnings and public information, liaison with police in relation to evacuation and preparation of the incident action plan.[98]

The joint SOP, *Appointment of Incident Controllers* (J3.08) specifically describes the role and functions of Deputy Incident Controllers as suggested by the VBRC. Two further joint SOPs, *Incident Warnings and Advice* (J4.01)[99] and *Local Knowledge* (J2.04) provide for the role of Public Information Officer and ensures the presence of an individual with local knowledge as part of the IMT. This local knowledge requirement was also recommended by the VBRC.

The FSC comprehensively reviewed all SOPs (including J2.04 and J3.08) prior to the 2011-12 fire season. The DSE Chief Fire Officer, CFA Chief Officer and the FSC approved the revised SOPs on 14 September 2011. The MFB Chief Fire Officer is also a signatory to the *Incident Warnings and Advice* SOP (J4.01), which was revised on 29 November 2011. Several amendments were made to these SOPs, primarily to ensure consistency with AIIMS terminology and to reinforce responsibilities for issuing public warnings and advice.

Finding: The BRCIM considers action 14(d) has been satisfactorily implemented.

14(f) Joint pre-season briefings to incorporate these changes – update

The CFA and DSE conducted joint pre-season briefings for all staff and volunteers at 15 locations across Victoria throughout September, October and November 2011. The briefings were attended by 1,136 participants, a substantial increase from the 800 who attended the 2010-11 briefings. All participants received a copy of the comprehensive 2011-12 regional briefing notes. In addition, more than 46,000 copies of the CFA/DSE publication *Pre-Season Update October 2011* and approximately 1,500 copies of a pre-season DVD were distributed throughout the fire services. These materials are available on the CFA intranet and Brigades Online.

Finding: The BRCIM considers action 14(f) has been satisfactorily implemented.

---

98   VBRC *Final Report,* Vol II, Part One, p 90.

99   J4.01 was previously called *Incident Information and Warnings*.

Recommendation 14 Overall Finding

The importance of issuing timely, tailored, relevant advice is well established in all policy and training practices, particularly in relation to the role of Public Information Officer within IMTs. The issuing of advice to the community is recognised as equally, if not more important under certain conditions, than fire suppression activities. The FSC has indicated that the role of Public Information Officer will be subject to ongoing review of practice and performance, as will the technology used to issue warnings. The BRCIM has been advised that a three day, Public Information Officer pilot training course for CFA, DSE and VICSES officers is scheduled for early July 2012.

The BRCIM is pleased to note the priority that has been ascribed to this critical community safety function, which directly addresses the VBRC concerns regarding the inadequate information sharing and community warnings that occurred on Black Saturday.

RECOMMENDATION 15

The Country Fire Authority and the Department of Sustainability and Environment:

15.1 amend their procedures to require that an incident action plan summary be completed within the first four hours of an incident being reported and be provided to the State Control Centre and, where established, to the relevant Area of Operations Control Centre

15.2 adopt DSE's incident action plan summary as the template to be used by all incident management teams and ensure that the template is included in the online IMT Tool Box

15.3 provide regular training to IMT staff, highlighting the importance of information and reinforcing the support available from specialists within the State Control Centre.

Implementation Actions

Action Required	Due Date	Progress Report Status (July 2011)	Final Report Status (July 2012)
15(a) Update joint incident action plan summaries SOP	31/12/2010	Complete	Complete
15(b) Review joint SOP – incident action plan summary	01/12/2011	Ongoing	Complete
15(c) IMT toolbox highlighted and tested in pre-season updates and exercises	01/12/2010	Complete	Complete
15(d) FSC to issue a procedure requiring Regional Controllers to develop a regional strategic plan and provide to the State Controller within 4 hours	30/09/2011	N/A (new commitment)	Complete

Status

The *Progress Report* noted that actions 15(a) and (c) were satisfactorily implemented. No further comment is made in relation to these actions. Action 15(d) is a new commitment from the May 2011 Implementation Plan.

15(b) Review joint SOP – incident action plan summary

The FSC reviewed the joint SOP *Incident Action Planning* (J3.03) in 2011. The DSE, and MFB Chief Fire Officers, CFA Chief Officer and the FSC approved the revised SOP on 29 November 2011. Changes include updated definitions, procedures and contents of incident actions plans to ensure clarity and consistency.

Finding: The BRCIM considers action 15(b) has been satisfactorily implemented.

15(d) FSC to issue a procedure requiring Regional Controllers to develop a regional strategic plan and provide to the State Controller within 4 hours

In the Implementation Plan, the State committed to require Regional Controllers to develop a regional strategic plan and to provide this plan to the State Controller within four hours of a major fire commencing. On 2 June 2011, the FSC issued and distributed to operational heads of agencies, SOP *Regional Strategic Plan*, (FSC SOP 04/2011). This SOP includes both a guide and template for completing the regional strategic plan. The joint SOP *Incident Action Planning* (J3.03) remains unchanged as a result of FSC SOP 04/2011.

Following the experience of the 2010-11 Victorian floods, the FSC decided that the four hour timeframe was not operationally feasible at the regional level on all occasions. The FSC SOP 04/2011, therefore, requires reporting daily by 12 noon.

Finding: The BRCIM considers action 15(d) has been satisfactorily implemented.

Recommendation 15 Overall Finding

In its Final Report, the VBRC drew a parallel between effective information gathering, analysis and distribution and successful incident management. The VBRC stated that effective information flow is crucial to the ability of IMTs to develop a strategy for ensuring community protection, fire response and firefighter safety. The VBRC also emphasised the link between effective information flow and safety, noting that those fires where the IMTs were unsuccessful in managing information were also the fires that resulted in fatalities and exposed firefighters to greater danger.

The BRCIM considers that the actions of the State in this area including the implementation of formal procedures, training, exercise and review, strengthen both incident action planning and the flow of information between ICCs and the SCC. These were both matters of major concerns to the VBRC.

RECOMMENDATION 16

The Country Fire Authority and the Department of Sustainability and Environment improve mapping support in the following ways:

16.1   DSE providing mapping data free of charge to emergency response agencies

16.2   greatly increasing the CFA's 'write' access to FireMap for incident management team staff

16.3   establishing a joint DSE-CFA training program to ensure that mapping officers in level 2 and 3 incident management teams are fully trained in using FireMap, including in producing fire prediction maps

16.4   requiring before the 2010-11 fire season that FireMap be used for joint incidents.

Implementation Actions

Action Required	Due Date	Progress Report Status (July 2011)	Final Report Status (July 2012)
16(a) FireMap server upgrade	31/12/2010	Complete	Complete
16(b) Enhanced Phoenix FireMap Simulation Tool – to be used during fire season	31/03/2011	Complete	Complete
16(c) Mapping team joint SOP developed	21/12/2010	Complete	Complete
16(d) Joint training sessions for level 2 and 3 IMT mapping officers to be conducted	31/12/2010	Complete	Complete
16(e) Joint accreditation program to be developed	31/12/2012	Ongoing	In progress
16(f) Review joint SOP – see 16(c)	01/12/2011	Ongoing	Complete
16(g) Provision of mapping data free of charge to fire agencies	30/09/2011	Complete	Complete

Status

The *Progress Report* noted that actions 16(a), (b), (c), (d) and (g) were satisfactorily implemented. No further comment is made in relation to actions 16(a), (b) and (c). An update to action 16(d) is provided below.

16(d) Joint training sessions for level 2 and 3 IMT mapping officers to be conducted

The BRCIM is pleased to note the ongoing commitment of the State to improving the training for level 2 and 3 IMT mapping officers. Further to the inaugural course conducted in October 2010, approximately 50 mapping officers from CFA, DSE and the Networked Emergency Organisations (NEOs) attended a comprehensive one day training course during September 2011. This course was based upon an updated manual for the operation of the mapping unit within an IMT. In addition, the CFA provided introductory level 'ArcView 10' training, which is the CFA's geographic information system (GIS). This was provided to approximately 25 new mapping officers throughout August, September and October 2011. Joint mapping officer training is ongoing and will be delivered again in October 2012.

Finding: The BRCIM considers action 16(d) has been satisfactorily implemented.

16(e) Joint accreditation program to be developed

This accreditation program is being led by the National Emergency Management Spatial Information Network Australia and is expected to be completed by December 2012. The CFA and DSE are actively engaged in representing Victoria in the development of this program.

Finding: The BRCIM will revisit action 16(e) in the 2013 Annual Report.

16(f) Review joint SOP

The FSC reviewed the joint SOP *Mapping Team* (J3.13) in 2011. The revised SOP was approved by the Chief Fire Officer of DSE and Chief Officer of the CFA, together with the FSC on 14 September 2011. There were no significant changes.

Finding: The BRCIM considers action 16(f) has been satisfactorily implemented.

Recommendation 16 Overall Finding

The lack of integrated systems on 7 February 2009 was of significant concern to the VBRC. The VBRC identified a number of systems that effectively reinforced single-agency approaches, including mapping. Maps are integral to all aspects of emergency management. Good mapping systems and the effective sharing of available spatial information is critical to effective fire response and incident management.

The VBRC observed that mapping personnel need to be familiar with the mapping systems of other agencies. The VBRC recommended a joint training program for mapping unit personnel to ensure familiarity of all personnel with each agencies' mapping system. FireMap is the mapping system now used for joint incidents since 2011 as recommended by the VBRC. Ongoing development and improvements to the State's fire mapping capability will occur over the next few years as a result of the Bushfire ICT project which is discussed in more detail under recommendation 22.

RECOMMENDATION 17

The Country Fire Authority and the Department of Sustainability and Environment establish before the 2010-11 fire season:

17.1 a uniform, objective and transparent process based on the current DSE approach for the accreditation of level 3 Incident Controllers

17.2 a performance review system for level 3 Incident Controllers

17.3 a traineeship program for progression from level 2 to level 3 incident management team positions.

Implementation Actions

Action Required	Due Date	Progress Report Status (July 2011)	Final Report Status (July 2012)
17(a) Complete endorsement of Level 3 IMT members – identify 98 Level 3 Controllers	14/10/2010	Complete	Complete
17(b) CFA/DSE joint agreement – uniform process for accreditation of level 3 Incident Controllers	30/06/2012*	Ongoing	Complete
17(c) Interim joint performance review system developed and tested	30/06/2012*	Ongoing	Complete
17(d) DSE Level 2 to 3 program ongoing accreditation	30/06/2012*	Ongoing	Complete
17(e) CFA Level 3 Controllers – development and assessment process	30/06/2012*	Ongoing	Complete
17(f) Process of development, selection and endorsement of Level 3 Incident Controllers will be evaluated	01/12/2011	Ongoing	Complete

BRCIM reporting date. No due date provided in the Implementation Plan.

Status

The *Progress Report* noted that action 17(a) was satisfactorily implemented. No further comment is made in relation to this action.

17(b) CFA/DSE joint agreement – uniform process for accreditation of level 3 Incident Controllers

17(e) CFA Level 3 Controllers – development and assessment process

In December 2010, the CFA agreed in principle to implement a uniform process for accreditation of level 3 Incident Controllers based upon the DSE approach, as recommended by the VBRC. Throughout 2011-12, the CFA's IMT Training Project has focused on the development, selection and accreditation process for level 3 Incident Controllers.

As at 31 March 2012, 62 officers have been engaged in the process. Seven have been accredited, nine have been recommended for accreditation, seven are undergoing further professional development and 39 are awaiting final panel interviews prior to being recommended for accreditation. DSE also continues to use this process for accrediting its level 3 Incident Controllers. As at 1 June 2012, the CFA advised the BRCIM that it anticipates having approximately 25 level 3 Incident Controllers accredited and endorsed under the joint accreditation approach for the 2012-13 fire season. DSE currently has a total of 32 accredited level 3 Incident Controllers.

Finding: The BRCIM considers actions 17(b) and (e) have been satisfactorily implemented and notes the good progress made by the CFA in implementing this important initiative.

17(c) Interim joint performance review system developed and tested

On 19 April 2011, the CFA Chief Officer and DSE Chief Fire Officer signed an in principle agreement for a joint DSE/CFA performance review system for level 3 Incident Controllers, as recommended by the VBRC. The performance reviews are to be undertaken by level 3 Incident Controllers, designated by the Chief Fire Officer. This is not part of the formal accreditation or reaccreditation process, it is part of a learning and continuous improvement process.

Opportunities to trial the system have been extremely limited due to recent mild fire seasons. Victoria Police activated the State Emergency Management Assurance Team (SEMAT) to review the performance of the Incident Controllers at the Port of Portland emergency, which involved a potentially carcinogenic material leaking from a storage tank at a rate of five tonnes per hour over several days and the Shepparton floods during 2011-12. SEMAT is a process by which Victoria Police, as State Emergency Response Coordinator, can ensure that appropriate emergency management arrangements have been put in place and that effective control has been established. The FSC advised that positive findings were reported about the performance of Incident Controllers in both events. The FSC has suggested that planned burns could also be used to test the performance review system. The BRCIM supports this approach.

Finding: The BRCIM considers action 17(c) has been satisfactorily implemented.

17(d) DSE Level 2 to 3 program ongoing accreditation

In April 2011, DSE endorsed a project to deliver a joint DSE/CFA level 2 to level 3 transition program for IMT members including Incident Controllers, Operations Officers, Planning Officers and Logistics Officers. The role of Public Information Officer was added to the program in 2011 consistent with the VBRC recommendations in relation to AIIMS. The planning phase of the program concluded in June 2011.

The program includes psychometric assessment, leadership development courses, evidence of practical incident management experience and a panel interview and assessment prior to consideration for accreditation by the Chief Fire Officer. Nineteen candidates have been accredited via this process since 2009. There were 37 DSE officers enrolled in the program as at 31 May 2012.

Finding: The BRCIM notes the comprehensive, high quality approach applied by DSE in delivering this important action. The BRCIM considers action 17(d) has been satisfactorily implemented.

17(f) Process of development, selection and endorsement of Level 3 Incident Controllers will be evaluated

During 2010 and 2011, the CFA established a forum of level 3 Incident Controllers to trial and provide feedback on the endorsement and accreditation process. This process identified a number of improvements including: defining required skills and attributes, establishing clear pathways, expanding training scenarios, recognition of prior learning, monitoring ongoing professional development, enhanced mentoring and ensuring consistency across agencies.

The CFA also sought regular feedback from participants as they undertook the level 2 to level 3 endorsement accreditation process. This process highlights the importance of ongoing professional development to ensure that Incident Controllers practice their role and remain up to date with changes in emergency management arrangements such as command and control responsibilities for warnings and evacuation.

These learnings have resulted in a number of amendments to the level 3 endorsement and accreditation process. A Multi-Agency Capability Committee (MACC) incorporating CFA, DSE and MFB was established as a result of recommendations arising from the process. All findings and recommendations from the evaluation have been referred to the Incident Controller Work Group of the MACC for ongoing incorporation into the joint accreditation and endorsement process.

Finding: The BRCIM considers action 17(f) has been satisfactorily implemented, noting the importance of the need for ongoing professional development, exercising and auditing of level 3 Incident Controller competency.

Recommendation 17 Overall Finding

The VBRC expressed concern at the selection, training and accreditation processes for level 3 Incident Controllers. In particular, the VBRC noted the different approaches between DSE and CFA regarding accreditation. The VBRC stated that uniformity in selection is highly desirable and that a standardised and rigorous approach to accreditation on the part of both agencies would deliver considerable benefits.

The BRCIM notes the significant effort by the State to ensure uniformity and consistency to accreditation, development and performance review of DSE and CFA level 3 Incident Controllers and notes the potential opportunity to extend this approach to level 3 controllers in other agencies.

The VBRC also stated that the DSE/CFA commitment to develop a formal and comprehensive mentoring program should be implemented as a matter of urgency. The BRCIM understands that DSE/CFA remain committed to develop a comprehensive approach to mentoring.

RECOMMENDATION 18

The Country Fire Authority and the Department of Sustainability and Environment amend their procedures to require that a suitably experienced, qualified and competent person be appointed as Incident Controller, regardless of the control agency for the fire.

Implementation Actions

Action Required	Due Date	Progress Report Status (July 2011)	Final Report Status (July 2012)
18(a) Appointment of one Incident Controller – Joint SOP	14/10/2010	Complete	Complete
18(b) Review Joint SOPs	01/12/2011	Ongoing	Complete

Status

The *Progress Report* noted that action 18(a) was satisfactorily implemented. No further comment is made in relation to this action.

18(b) Review Joint SOPs

SOPs relevant to this recommendation were reviewed as part of the FSC's review of all SOPs prior to the 2011-12 fire season. The joint SOP *Determining the Control Agency* (J3.01) remained unchanged, while minor amendments were made to the joint SOP *Appointment of Incident Controllers* (J3.08) to clarify the delegated responsibilities of Deputy Incident Controllers.

Finding: The BRCIM considers action 18(b) has been satisfactorily implemented.

Recommendation 18 Overall Finding

The development and review of joint SOPs *Determining the Control Agency* (J3.01) and *Appointment of Incident Controllers* (J3.08) ensure that the VBRC requirement that a suitably qualified, experienced and competent person is appointed as Incident Controller, regardless of the control agency for the incident.

Mild summers since 2009 have meant that there has been limited opportunity to assess the efficacy of this recommendation. Significant work has been initiated, however, to improve incident control capability broadly across both DSE and CFA including training, accreditation, performance review and preparedness (see recommendations 14, 15,16 and 17). Regular reviews of major events, as discussed in Chapter 1 of this *Final Report*, are also focusing on Incident Controller performance and learnings are being incorporated into practice.

RECOMMENDATION 19

The Country Fire Authority provide to all CFA volunteers an identification card or similar to facilitate their passage through roadblocks established in accordance with the 2009 Guidelines for the Operation of Traffic Management Points during Wildfires.

Implementation Actions

Action Required	Due Date	Progress Report Status (July 2011)	Final Report Status (July 2012)
19(a) Volunteer identification system developed by CFA	31/10/2011	Ongoing	Complete
19(b) Volunteer vehicle identification stickers produced and distributed for Traffic Management Points	01/12/2010	Complete	Complete
19(c) DSE contractors and volunteer included in CFA identification and vehicle stickers project	30/10/2011	Complete	Complete

Status

The *Progress Report* noted that actions 19(b) and (c) were satisfactorily implemented. No further comment is made in relation to these actions.

19(a) Volunteer identification system developed by CFA

In the Implementation Plan, the State committed to developing a new CFA volunteer member identification card system for completion by November 2011. The new system was designed, developed and tested by early October 2011. The rollout of the new cards commenced in mid October and continued throughout the 2011-12 fire season.

In addition, an Interagency Traffic Management Point (TMP) and Vehicle Sticker Reference Group developed a new TMP and vehicle stickers system which included TMP information cards, TMP identification sheets and TMP guidelines for the 2011-12 fire season. These documents were endorsed by the Emergency Management Reference Group on 24 August 2011 and subsequently approved by the State Fire and Floods Strategic Forum on 6 September 2011. This system replaced the interim guidelines for TMPs developed prior to the 2010-11 fire season.

Finding: The BRCIM considers action 19(a) has been satisfactorily implemented. The combination of the revision of the TMP guidelines and the production and distribution of CFA member identification cards fulfils this VBRC recommendation. There has been insufficient opportunity to comment conclusively on the efficacy of these new arrangements.

TRAFFIC MANAGEMENT POINTS – GREAT OCEAN ROAD

The Great Ocean Road is a unique, 243 kilometre stretch of road along the south western coast of Victoria. The road starts in Torquay and travels via the towns of Anglesea, Lorne, Apollo Bay and Port Campbell. The road traverses varying terrain including rainforests, beaches and cliffs. It is an important tourist destination providing access to prominent landmarks such as the Twelve Apostles.

It is recognised, however, that the Great Ocean Road has a limited number of safe access routes from coastal towns in cases of emergency. A large proportion of the road resides in high bushfire risk areas.

Victoria Police in partnership with the Surf Coast and Colac Otway Shires, VicRoads, CFA and DSE developed emergency traffic plans along this stretch of road in 2007. The emergency traffic plans were initially developed for use during bushfire emergencies but have since been used for other emergencies such as traffic accidents and landslips (the cliffs along the coast are highly susceptible to erosion due to their limestone/sandstone composition).

If an emergency is declared along the road, traffic may be stopped or diverted along alternate routes at designated TMPs. There is also provision for turn around points along the Great Ocean Road which are required for larger vehicles such as trucks and buses. At selected TMPs in the region there are boxes, known as diversion route boxes, which contain equipment such as signage, traffic cones, detour plans and other supplies, to enable road closures at designated points and to direct traffic to alternate routes. Funding has been provided by VicRoads and partner agencies for 18 boxes. VicRoads and partner agencies may be required to assist in road closures or diversions as necessary. Agencies are responsible for keeping the contents of the boxes adequately stocked and these are regularly checked.

Procedures have been developed to ensure there are standardised practices between Victoria Police and VicRoads in relation to road closures/openings during emergency situations. These procedures:

> standardise the reporting of road closures/opening

> are operable across all emergency service organisations responsible for road closures/openings

> relate to communicating road closures/openings to the public and across other emergency services organisations.

The procedures only apply to emergency situations and are not intended to be used for planned road works. The diversion route boxes have been used for other events on the Great Ocean Road such as the Great Ocean Road marathon and cycling events to redirect traffic. Interagency guidelines were also developed for the 2011-12 bushfire season.

The BRCIM was invited by Victoria Police to meet with partner agencies involved in establishing the diversion route boxes in the region and to view the location of the boxes and did so in late 2011. The BRCIM notes the importance of the emergency traffic plans and the diversion route boxes. The use of the plans and the boxes is not confined to use during bushfires and their continual use during emergency events will enable the relevant agencies to assess their adequacy and effectiveness during such events. Communication of the emergency procedures and the use of TMPs is vital, as the area is frequently populated with non-English speaking tourists while many locals are seasonal visitors and absent for a large percentage of the year.

A TMP Interagency Reference Group was established and developed a vehicle sticker identification system, information card, identification sheet and guidelines for the 2011-12 fire season to allow for the facilitation of CFA volunteers through roadblocks. The TMP Interagency Reference Group includes representatives from CFA, Victoria Police, DSE and VicRoads.

The vehicle sticker system enables CFA volunteers using private vehicles and persons providing private firefighting equipment to pass through TMPs. In addition, temporary TMP access stickers have been developed to allow short term (up to 14 day) access for people authorised at the time by an Incident Controller or delegate to pass through a TMP. DSE/NEO vehicles are also required to display relevant DSE-Fire and Emergency Management stickers.

Photo: Microflite / Misheye Photography & Art

FIREGROUND RESPONSE

Recommendations 20 – 26

The VBRC stated that the preparedness of many brigades in the lead up to 7 February 2009 was exemplary and that when a response was required to a fire, the response was rapid and apt. The VBRC commended firefighters for their responsive and resourceful approach.[100]

The VBRC noted that a successful response to a fire requires a blend of personnel, resources and processes. This includes systems for rapid detection and deployment, accurate and timely intelligence and good communication. The VBRC observed that many systems worked well under the demanding conditions of Black Saturday but that systemic problems did emerge in some areas. These areas included timely fireground warnings to firefighters and the appointment of safety officers to IMTs.[101]

Seven recommendations were made by the VBRC regarding fireground response across aerial firefighting, interoperability, communications and fire fighters' safety.

RECOMMENDATION 20

The Country Fire Authority and the Department of Sustainability and Environment amend their policies on aerial preparedness and standby arrangements, their dispatch protocols and the management of aircraft in order to do the following:

20.1   require that at locations that attract the risk assessment or preparedness level A on Code Red days all personnel needed for air operations must be on standby by 10.00 am

20.2   establish a system that enables the dispatch of aircraft to fires in high risk areas without requiring a request from an Incident Controller or the State Duty Officer.

---

100 VBRC *Final Report*, Vol II Part One, p 112.

101 Ibid.

Implementation Actions

Action Required		Due Date	Progress Report Status (July 2011)	Final Report Status (July 2012)
20(a)	Review of operating procedure and standing orders by State Aircraft Units (Stage 1)	31/12/2010	Complete	Complete
20(b)	Review of Readiness and Preparedness plans (Stage 2)	31/12/2011	Ongoing	Complete
20(c)	Project scoping exercise to improve information flow during aircraft request and dispatch	30/06/2012*	Ongoing	Complete
20(d)	Develop a system that will enhance dispatch arrangements	30/06/2014	Ongoing	In progress
20(e)	Trial of two medium sized bomber planes	30/06/2012	Ongoing	Complete
20(f)	Aerial firefighting arsenal to be 48 with a further 170 on standby if required	31/03/2011	Complete	Complete
20(g)	Commence trialling options for a high tech intelligence platform, 'eye in the sky'	30/06/2011	Ongoing	Complete
20(h)	Two new forward looking infrared cameras capable of attachment to any available helicopters	30/06/2012*	Ongoing	Complete
20(i)	Continue the trial development of night vision goggles	30/06/2011	Ongoing	Complete
20(j)	Review Joint SOP – see 20(a)	01/12/2011	Ongoing	Complete

BRCIM reporting date. No due date provided in the Implementation Plan.

Forward looking infrared camera testing. Photo: Microflite / Misheye Photography & Art

Status

The *Progress Report* noted that actions 20(a) and (f) were satisfactorily implemented. No further comment is made in relation to these actions.

20(b) Review of Readiness and Preparedness plans (Stage 2)

The SAU has a number of written procedures which describe requirements to ensure that adequate aerial support is available on forecast days of extreme fire weather. The Stage 2 review[102] of SAU procedures focused on these readiness and preparedness procedures. The review was completed in consultation with the CFA, DSE and the NEO partners by 31 December 2011 in accordance with the timeline in the Implementation Plan. Minor changes were made to the SAU procedure SAUP AM 1.06 (Obtaining Aircraft) primarily in relation to aircraft hire. An appendix was also added, specifically addressing request and dispatch arrangements for fire suppression operations. A new procedure, SAUP AM 1.08 (Aviation Resources – Readiness Arrangements) was written which details the default readiness arrangements for personnel with an aviation role. This procedure is supported by a readiness arrangement report for use by the SCC, which provides confirmation that arrangements are actually in place as required under SAUP AM 1.08.

The procedures SAUP AM 1.06 and 1.08 have been endorsed by DSE, CFA and the FSC.

Finding: The BRCIM considers action 20(b) has been satisfactorily implemented.

20(c) Project scoping exercise to improve information flow during aircraft request and dispatch

The SAU managed a project scoping exercise, working with DSE's Bushfire ICT Project, which is discussed as part of recommendation 22. The scoping exercise culminated in the Enhanced Aircraft Request and Dispatch System project, which was endorsed and authorised by the DSE and CFA Chief Fire Officers on 30 June 2011.

This project supports the State Airdesk Business Process Definition and Requirements Document project which will be conducted over the next two years to deliver a new integrated computerised aircraft dispatch system, as required under action 20(d) below.

Finding: The BRCIM considers action 20(c) has been satisfactorily implemented.

20(d) Develop a system that will enhance dispatch arrangements

Finding: The date for implementation of action 20(d) is 30 June 2014. The BRCIM will revisit this action as part of the 2014 Annual Report.

20(e) Trial of two medium sized bomber planes

Two medium sized bomber planes, firefighting air tanker aircraft known as Convair CV-580, were evaluated for their effectiveness under Victorian conditions between January and April 2011. The evaluation was conducted by the Bushfire Cooperative Research Centre (Bushfire CRC) for the SAU. The evaluation covered regulatory compliance, suitability for use in urban and rural interface areas, load capacity, speed, environmental suitability, operating height, impact on fires and logistics.

An independent report on the economic analysis of the cost effectiveness of the aircraft was conducted by an external consultant and finalised in July 2011. The evaluation report was provided to the SAU on 22 September 2011. The Minister for Environment and Climate Change was provided a summary of the key findings and a copy of the report in November 2011. The Minister for Bushfire Response was provided with a summary of the key findings and a copy of the report in January 2012.

Finding: The BRCIM considers action 20(e) has been satisfactorily implemented.

20(g) Commence trialling options for a high tech intelligence platform, 'eye in the sky'

Timely intelligence is essential in enabling fire managers to develop the situational awareness that is critical to effective bushfire suppression. Increasingly in Australia, aircraft are being used for aerial intelligence gathering (AIG) which involves the collection and transfer of information for consideration in incident decision making. More recently, the emphasis has shifted to the collection of information in an electronic format. Fire agencies are now exploring the ability to use computer based airborne mapping systems, infrared equipment and cameras to provide IMTs with near real time information.

In 2011, the SAU conducted a project designed to evaluate commercially available, off the shelf, AIG technologies. The project built on the work already completed by the unit in 2009 and 2010. The objectives of the project were to identify available AIG technologies, observe and assess their operational performance and to test the applications and limitations of the various technologies. The goal was to enhance the State's knowledge base of the technologies to inform potential future implementation of AIG systems into fire and emergency management operations in Victoria.

---

102 For details on the stage 1 review, refer to the *Progress Report*.

The tendering process associated with the project demonstrated that there is currently a very limited pool of readily available AIG systems within Australia. Four systems incorporating three camera systems, two mapping systems, three data transmission systems, four aircraft types and three mobile ground receiver configurations were evaluated in the trial.

In summary, the trial did not identify one suitable solution that could be easily integrated into existing agency systems. Most infrared camera equipment in Australia is not suitable for use during high intensity bushfire activity. Spatial accuracy and reliability of data generated by the AIG systems tested was also of concern, as was the effectiveness of data transmission. Given the complexities involved within each agency to integrate and disseminate data across their systems and networks, no single provider could deliver an entire end to end solution. Further work will need to be undertaken to integrate AIG systems into agency command and control structures to ensure the systems produce high value outcomes.

The trial also highlighted the limited industry expertise in the provision of a fully integrated AIG solution. Potential operators would need to invest significantly in equipment and associated computer software to provide a service to meet agency requirements.

The report makes a number of recommendations about the need to analyse existing agency technologies, structures, reporting arrangements and requirements prior to developing specifications for any future AIG requirements, which are truly interoperable. The report was endorsed by the Fire and Emergency Aviation Board (FEAB) meeting, which is chaired by the FSC, on 17 February 2012.

Finding: The BRCIM considers action 20(g) has been satisfactorily implemented.

20(h) Two new forward looking infrared cameras capable of attachment to any available helicopters

DSE received funding to replace the ageing forward looking infrared (FLIR) cameras with new state of the art systems (Wescam MX10) to enhance the State's FLIR. On 9 September 2011, following a public tender process, a purchase order was placed for two Wescam MX10 camera systems. The first system was delivered in November 2011 and the second in January 2012. The two systems were commissioned for operation on 19 December 2011 and 16 February 2012 respectively.

The existing FLIR cameras were retained for use during the 2011-12 fire season to ensure capability during the changeover period.

Finding: The BRCIM considers action 20(h) has been satisfactorily implemented.

20(i) Continue the trial development of night vision goggles

In March 2010, the SAU conducted the first phase of a trial of the use of night vision goggles for reconnaissance and planned burning operations. Phase 2 of the trial was conducted during March and April 2011. This comprised a total flying time of 24.6 hours, 18.1 hours of which involved the use of goggles. The trial included aerial incendiary machine operations (planned burning) with active participation by Civil Aviation Safety Authority (CASA) personnel. This is consistent with the dual purposes of the trial, which are to enable firefighters to use aerial ignition strategies in the context of expanded night time planned burning, as well as ensure CASA has the evidence necessary to ultimately inform and support regulatory approval. The trial findings are likely to support approaches by accredited agencies to obtain an amended Air Operations Certificate from CASA that will enable the use of night vision goggles for aerial reconnaissance during future fire seasons as well as planned burning purposes.

Finding: The BRCIM considers action 20(i) has been satisfactorily implemented.

20(j) Review Joint SOP

As outlined under action 20(b) above, existing SAU procedures have been reviewed and a new procedure has been drafted which includes a reporting process for use by the SCC. This reporting process provides confirmation for the State Controller that arrangements are in place as required under these procedures. These procedures are now endorsed by DSE, CFA and the FSC.

Finding: The BRCIM considers action 20(j) has been satisfactorily implemented.

Recommendation 20 Overall Finding

The State has responded comprehensively to this VBRC recommendation. In addition to amending aircraft management policies to improve preparedness and dispatch as required by the VBRC, the State has taken a number of important broader initiatives. These include prescribing the number of aircraft required to comprise the minimum aerial firefighting arsenal for the fire season, trialling firefighting air tanker aircraft, night vision goggles and high tech eye in the sky intelligence platforms, purchasing new FLIR camera systems and evaluating an enhanced integrated computerised aircraft dispatch system.

A new model of governance to manage the SAU has also been introduced with the creation of the FEAB. Membership of the FEAB, which is chaired by the FSC, includes the DSE and CFA Chief Fire Officers and VICSES Chief Officer Operations. The FEAB is supported by the SAU and is responsible for setting the strategic direction and monitoring the performance of aerial firefighting in Victoria, ensuring that it complies with the highest possible standards of safety and delivers on the capability and capacity requirements of the fire agencies. As part of this approach, the FSC is leading a review of the SAU to ensure that its operations categorically align with the State's command and control arrangements with unambiguous accountability residing with one designated statutory officer. The BRCIM welcomes this important initiative.

RECOMMENDATION 21

The State, in conjunction with Emergency Management Australia and the Department of Defence, develop an agreement that allows Commonwealth aerial resources that are suitable for firefighting and support activities to be incorporated in preparedness plans and used on days of high fire risk.

Implementation Actions

Action Required	Due Date	Progress Report Status (July 2011)	Final Report Status (July 2012)
21(a) Commonwealth to conduct operational briefing	01/12/2011	Complete	Complete
21(b) Commonwealth to review Commonwealth Disaster Response Plan	01/12/2011	Ongoing	In progress
21(c) DPC to discuss improved access to Commonwealth resources with the Commonwealth	2010	Complete	Complete

Status

The VBRC noted that on 7 February 2009, certain Commonwealth aircraft resources were not deployed in a timely manner. In its Interim Report, the VBRC recommended that the Commonwealth facilitate discussions to identify ways in which their resources might be used more effectively.[103] The VBRC also stated that it considers there is scope for pre-positioning Commonwealth resources in the event of major emergencies.[104] These considerations form part of the review of the Commonwealth's Disaster Response Plan (the Comdisplan).

The *Progress Report* noted that actions 21(a) and (c) were satisfactorily implemented. In relation to action 21(a), the BRCIM notes that on 5 October 2011, the Commonwealth again conducted its annual pre-fire season briefing in Melbourne for Victorian agencies. This briefing included an outline of the arrangements for Defence Assistance to the Civil Community. No further comment is made in relation to action 21(c).

21(b) Commonwealth to review Commonwealth Disaster Response Plan

The review of the Comdisplan is scheduled for completion by October 2012. As part of this process, the Commonwealth is conducting planning workshops with State and Territory Government agencies. While the review of the Comdisplan will not be finalised until October 2012, the BRCIM notes the active engagement occurring between the Commonwealth and key stakeholders in this process.

Finding: The BRCIM will continue to monitor action 21(b) and report on further progress in the 2013 Annual Report.

Recommendation 21 Overall Finding

The BRCIM notes that the Commonwealth has delivered pre-fire season briefings to Victorian agencies each summer since Black Saturday. A number of initiatives have also been implemented which strengthen linkages between fire agencies and the Commonwealth. The collaborative review of the Comdisplan that is currently underway is an example of this. The BRCIM believes there is evidence that ongoing collaboration and improved processes for sharing resources between State and Commonwealth agencies is occurring as encouraged by the VBRC.

---

103   VBRC *Interim Report*, p 283.
104   VBRC *Final Report*, Vol II, Part One, p 117.

RECOMMENDATION 22

The Country Fire Authority and the Department of Sustainability and Environment standardise their operating systems and information and communications technologies with the aim of achieving greater efficiency and interoperability between agencies.

Implementation Actions

Action Required		Due Date	Progress Report Status (July 2011)	Final Report Status (July 2012)
22(a)	Multi-agency project group to develop agreed standards for the operation of GPS in emergency vehicles	30/06/2011	Ongoing	Complete
22(b)	GPS in DSE and CFA vehicles	31/07/2012	Ongoing	Complete
22(c)	IMTs able to access upgraded fire information systems technology	30/06/2012*	Ongoing	Complete
22(d)	Victoria Police members provided with network compatible radio handsets	30/03/2011	Complete	Complete
22(e)	Trial of dual band portable radios	30/03/2011	Complete	Complete
22(f)	Evaluation of trial – see 22(e)	30/04/2011	Complete	Complete
22(g)	Review of existing training – radio operations	01/12/2011	Complete	Complete
22(h)	Evaluation of requirement for CFA radios and mobile phones	01/12/2011	Complete	Complete
22(i)	Standardise interconnections of radio networks between CFA and DSE	30/06/2012*	Ongoing	In progress
22(j)	New remote radio sites under development – Lake Mountain, Currajong and Mt Ingoldsby	30/06/2011	Ongoing	Complete
22(k)	Fire agencies to develop and enhance fire information systems and upgrade existing tools such as FireWeb	14/10/2014	Ongoing	In progress

BRCIM reporting date. No due date provided in the Implementation Plan.

Status

The VBRC noted in its Final Report that the CFA and DSE used different operating and ICT systems to do similar tasks.[105] On 7 February 2009, access to systems was not possible for all staff. This made the transfer of critical incident management information difficult, including tracking resources such as vehicles, personnel, plant and aircraft. The CFA told the VBRC that a common IT system between the two agencies would be ideal.[106] The VBRC concluded that inconsistencies between CFA and DSE systems must be addressed, leading to this recommendation.

The *Progress Report* noted that actions 22(d), (e), (f), (g) and (h) were satisfactorily implemented. No further comment is made in relation to these actions.

22(a) Multi-agency project group to develop agreed standards for the operation of GPS in emergency vehicles

The *Progress Report* noted that on 3 June 2011, DOJ issued a Code of Practice, *Resource Location Data Exchange*, incorporating agreed standards to ensure that GPS data in emergency vehicles is harmonised between agencies. The *Progress Report* also commented that strict compliance by agencies with this code would be critical in achieving true interoperability. The BRCIM notes that a multi-agency Resource Location Data Exchange Working Group has been established to ensure ongoing multi-agency compliance with the *Resource Location Data Exchange* Code of Practice.

Finding: The BRCIM considers action 22(a) has been satisfactorily implemented.

22(b) GPS in DSE and CFA vehicles

All State fleet aircraft and the majority of DSE fire tankers and bulldozers are equipped with GPS automated vehicle location units. DSE has established a radio replacement program which will result in new GPS equipped radios being fitted to all fire vehicles in the DSE fleet. DSE released a tender for the provision of these radios on 7 March 2012 and anticipates that the majority of vehicles will be upgraded prior to the 2012–13 fire season.

The CFA resource tracking system will use the GPS and data transmission capabilities of CFA's new digital radios. GPS units will be located in every operational appliance as part of the radio replacement program which is currently underway. The resource tracking system is under development and has recently been trialled. The delivery of the resource tracking system will be dependent upon the outcome of a future funding bid.

---

105 VBRC *Final Report* Vol II, p 121.

106 Ibid.

Finding: The BRCIM considers action 22(b) has been satisfactorily implemented.

22(c) IMTs able to access upgraded fire information systems technology

DSE's upgraded fire information systems including FireWeb and FireMap are now internet based and are accessible from any computer via a secure login. This initiative was part of an upgrade delivering improved agency and internet access for level 3 ICCs. This is a significant improvement since Black Saturday providing increased capacity of the links to both DSE and CFA fire systems and enhanced bandwidth (speed). All ICCs also now have multiple redundant network access to both DSE and CFA fire systems.

Finding: The BRCIM considers action 22(c) has been satisfactorily implemented.

22(i) Standardise interconnections of radio networks between CFA and DSE

The VBRC noted the need for CFA and DSE to interoperate at both an operational and technical level and systemically improve the communication systems. The CFA, in cooperation with DSE, is leading a radio communications interoperability project to deliver a technical solution to enable standardisation of interconnections between CFA and DSE radio networks. This will seek to achieve greater efficiency and interoperability between agencies as recommended by the VBRC.

Requirements were identified via a process of engagement with key sector technical experts. This informed the development of detailed design requirements. The detailed design was completed on 30 June 2011. It was identified during this phase of the project that there was a need to upgrade CFA base sites to enable interconnectedness once the appropriate technology had been identified and procured. This led to the procurement via a public tender process of microwave link radios.

A market study was conducted following completion of the design phase, leading to a public tender procurement process early in 2012. At the time of writing this report, negotiations were still underway with shortlisted vendors. Procurement will include a proof of concept stage where DSE and CFA radio transmitters will be connected together to ensure that the systems can interoperate, prior to rolling out full deployment across the State. The CFA advises that this phase of the project is likely to be conducted within three months of the award of the contract. It is expected that it will be another 12 months before full standardisation of CFA and DSE radio interconnectedness is achieved across the State.

Finding: The BRCIM notes the progress to date of this important ongoing initiative and will revisit action 22(i) in the 2013 Annual Report.

22(j) New remote radio sites under development – Lake Mountain, Currajong and Mt Ingoldsby.

This action has a due date of 30 June 2011 and the *Progress Report* noted that it would be revisited in this *Final Report*. In October 2011, DSE provided evidence that three new remote radio sites at Lake Mountain, Currajong and Mt Ingoldby were in fact completed ahead of schedule in June, July and December 2010 respectively. The project, which was established to oversee the development of the new remote radio sites, was formally closed on 1 April 2011.

Finding: The BRCIM considers action 22(j) has been satisfactorily implemented.

22(k) Fire agencies to develop and enhance fire information systems and upgrade existing tools such as FireWeb

In 2010, the government funded DSE over four years to conduct a project to develop and enhance fire information systems. The Bushfire ICT project is due for completion in 2014. The Bushfire ICT project comprises a broad program of works including infrastructure upgrades and enhanced functionality, accessibility and capacity of key tools such as Incident Resource Information System, FireWeb and FireMap. The program of works is being implemented through a number of discrete, but related projects including, infrastructure, mapping, resource management, incident management, fire training and fuel management.

The project is being undertaken in an extremely complex and evolving emergency management ICT stakeholder environment. It is being managed within a cross-agency governance structure, to ensure that the project delivers sector wide benefits and is closely aligned with the Fire Services Reform Action Plan.

Given the complexities involved in the project, DSE commissioned an independent review of the project in September 2011, with a particular emphasis upon stakeholder engagement. This review process culminated in a cross agency workshop attended by senior critical stakeholder representatives. This led to a number of changes to the project governance arrangements and scope, to take account of changes since project inception. In general, these changes will ensure maximum value for the State in an 'all hazards' context as a result of the investment in agency information systems. The Bushfire ICT project comprises a number of complex technical solutions to ICT systems that are critical to effective and efficient emergency management in Victoria, which the BRCIM is advised, are progressing broadly in line with government expectations.

Finding: The BRCIM notes DSE's recent initiative to revise the scope and governance of the Bushfire ICT project to ensure as far as possible, that the deliverables meet the State's future operating and ICT system requirements as expressed by the VBRC in framing this recommendation. As this is an ongoing project over several years, the BRCIM will revisit action 22(k) in future Annual Reports.

Recommendation 22 Overall Finding

The concept of interoperability is central to the State's response to the VBRC Final Report. The State's Implementation Plan includes a significant number of actions directly linked to this recommendation and recommendation16. It is evident that substantial progress has been made in ensuring that all fire agencies have access to more up to date and consistent information. There is clearly improved efficiency and interoperability, both between agencies and within level 3 ICCs.

The BRCIM is also aware of a range of initiatives in the general interoperability space. These include:

> the iPad based common emergency information platform, whereby Chief Fire Officers, Regional Controllers and key agency personnel can access real time information from the SCC

> the trial development of a single community emergency (all hazards) information website portal[107]

> a whole of government reporting system demonstrator that will enable agencies to report operational and strategic issues during an emergency via a single hub, which will enable information to be collated at the SCC from all agencies and departments in a timely manner for the purposes of improved whole of government reporting.

The BRCIM also understands that a multi-agency shared drive is now also available within DSE, NEOs, CFA, MFB and VICSES agency data networks. This shared drive is also available to other operational agencies via the internet using a web based tool called EM Web Drive. This technology, including an email application, enables the sharing of one authoritative source of electronic data between agencies.

The BRCIM remains concerned, nonetheless, that to date these initiatives still fall short of the VBRC's overall intent of full interoperability between agencies. The BRCIM strongly supports the development and delivery of this critical operational platform as a matter of priority.

---

107 The website portal is www.emergencyvic.info.

Implementation Actions

Action Required	Due Date	Progress Report Status (July 2011)	Final Report Status (July 2012)
23(a) Design and implement a cohesive process for resolving radio black spots (part of CFA Communications strategy)	31/12/2010	Ongoing	Complete
23(b) Treatment program delivered to remediate black spots	31/12/2012	Ongoing	Complete
23(c) Radio discipline procedures in pre-bushfire season briefings and training	31/12/2010	Complete	Complete

Status

The VBRC noted the critical importance of effective communications for safe firefighting. The VBRC was particularly concerned at the CFA's restricted radio coverage, which included areas of the State that may have unreliable, or no coverage due to atmospheric or topographical factors. The VBRC recommended that the CFA review its communications strategy as a priority.

The *Progress Report* noted that action 23(c) was satisfactorily implemented. No further comment is made in relation to this action.

23(a) Design and implement a cohesive process for resolving radio black spots (part of CFA Communications strategy)

The *Progress Report* noted the slow progress of the development of a cohesive process for resolving radio black spots. The process is part of the CFA communications strategy, which was due for completion by 31 December 2010. The final strategy was not provided to BRCIM by 3 June 2011, in time for inclusion in the *Progress Report*.

The CFA Operational Communications Strategy was provided to the BRCIM on 28 October 2011. Part 2 of the strategy, Mobile Voice Communications, provides a comprehensive response to this action including a process categorising causes of radio blackspots, specifying rectification strategies for each cause and prioritising strategic goals including timelines for rectification.

The strategy has been used to inform the development and delivery of CFA's treatment program to remediate blackspots [see 23(b) below].

Finding: Although the implementation of action 23(a) has taken longer than anticipated, the BRCIM considers it has now been satisfactorily implemented.

23(b) Treatment program delivered to remediate black spots

The *Progress Report* noted that the CFA, in collaboration with DSE, commenced a project in 2010 to identify and remediate radio black spots throughout Victoria. The first year of the Black Spot Remediation Project led to the identification of eight sites for remediation, three of which had been remedied by June 2011.

The BRCIM indicated in the *Progress Report* that substantial progress was expected of this project by December 2011. The BRCIM notes that in total, 16 radio black spot solutions had been delivered at the time of writing this report with another three expected to be delivered by 30 June 2012.

Planning for radio blackspot remediation is significantly dependent upon the implementation of the regional radio dispatch system.

Finding: The BRCIM considers action 23(b) has been satisfactorily implemented, noting the process for identifying and remediating radio blackspots represents ongoing core business for the CFA.

Recommendation 23 Overall Finding

The VBRC noted that a successful response to a fire requires a blend of personnel, resources and processes. Central to this, is the need for a good communications system. The VBRC noted that there had been attempts by the CFA to improve radio coverage, but that a program to identify radio blackspots systematically and implement technical solutions was absent. The VBRC encouraged the CFA to continue to systematically improve its existing communications systems, including by making an effort to resolve coverage deficiencies.

The BRCIM believes the CFA Operational Communications Strategy fulfils this expectation. The BRCIM is also pleased to note that although this process was slow to begin, important gains are now being made with 16 radio blackspots remediated since 2010-11 with 42 more planned by June 2013.

RECOMMENDATION 24

The Country Fire Authority and the Department of Sustainability and Environment amend their procedures for investigating safety incidents and 'near-misses' to ensure that all dangerous incidents, including back-burns, are fully investigated and that all relevant people are consulted and informed of the results.

Implementation Actions

Action Required	Due Date	Progress Report Status (July 2011)	Final Report Status (July 2012)
24(a) Updating of procedures and processes for the 2010-11 fire season to ensure improved investigation and analysis of safety incidents	01/12/2010	Complete	Complete
24(b) CFA member assistance program to be examined in relation to their involvement in significant and dangerous events	30/06/2012	Ongoing	Complete
24(c) DSE – Implement a new OHS Incident IT system	30/06/2012*	Ongoing	Complete
24(d) DSE – Enhanced employee assistance program	14/10/2010	Complete	Complete
24(e) DSE – Introduction of regular onsite counsellor visits	14/10/2010	Complete	Complete
24(f) DSE – Increasing the number of staff trained in peer support	14/10/2010	Complete	Complete

BRCIM reporting date. No due date provided in the Implementation Plan.

Status

The VBRC heard evidence of numerous occasions where firefighters were in extreme danger in February 2009. The VBRC commended both DSE and CFA for the wide range of safety initiatives they had introduced and maintained, especially since the Linton Inquiry into the deaths of five firefighters in 1998.[108] Nonetheless, there were 369 injuries to CFA personnel between Black Saturday and 20 March 2009 and 64 to DSE firefighters on 7 February alone, many of which were serious. As the VBRC observed, "there appears to be scope for further improvement."[109]

The *Progress Report* noted that actions 24(a), (d), (e) and (f) were satisfactorily implemented. No further comment is made in relation to these actions.

24(b) CFA member assistance program to be examined in relation to their involvement in significant and dangerous events

In August 2010, the CFA engaged consultants to review the 2009–11 Welfare Support and Recovery Plan. The process involved visits to all CFA regions to gather feedback and views in relation to the initiatives in the plan via focus groups comprising key stakeholders, including members directly affected by the 2009 fires, community members, brigade leaders and VFBV representatives. Peer support was consistently identified as a vital link between CFA and its members. Further to the consultants' review, the CFA also conducted an internal review of service delivery, which included evaluation of the Welfare Support and Recovery Plan.

As a result of these processes, the CFA has decided to conduct regular member satisfaction surveys in relation to the Welfare Support and Recovery Plan. Findings from these surveys will be combined with service usage data to help inform improvements in the service. The first organisation wide member survey will be conducted in 2012–13.

Finding: The BRCIM considers action 24(b) has been satisfactorily implemented.

Photo: CFA Strategic Communications

24(c) DSE – Implement a new OHS Incident IT system

DSE continues to implement improvements to the new occupational health and safety (OHS) incident IT system which was developed in 2010 to enhance reporting and management of health and safety incidents. Upgrades to the online system have been developed and were being tested at the time of writing this report for implementation in June 2012. DSE has increased efforts to ensure continuous improvement in the management of OHS performance There has been a significant investment in training with almost 1,300 staff attending training sessions between January and September 2011. In addition, DSE conducted a staff perception survey across a range of OHS matters in 2011. The OHS policy was reviewed in the context of these findings, endorsed and issued, together with safety and wellbeing role statements, by the Secretary of DSE. OHS performance reporting is now part of regular DSE senior management reporting.

Finding: The BRCIM considers action 24(c) has been satisfactorily implemented.

---

108 State Coroner of Victoria, *The Linton Report, (the Report of the Investigation and Inquests into a Wildfire and the Deaths of Five Firefighters on 2 December 1998)*, 11 January 2002.

109 VBRC *Final Report*, Vol II, Part One, p 133.

RECOMMENDATION 25

The Country Fire Authority and the Department of Sustainability and Environment require without exception that all relevant staff be trained in the need for Incident Controller approval to be obtained before a backburn is lit.

Implementation Actions

Action Required	Due date	Progress Report Status (July 2011)	Final Report Status (July 2012)
25(a) Revisions to DSE fire suppression manual	30/10/2010	Complete	Complete
25(b) Pre-season update and briefings include SOP re lighting backburns	30/11/2010	Complete	Complete
25(c) DSE Chief Fire Officer to issue direction on backburn SOP	01/12/2010	Complete	Complete

Status

The *Progress Report* noted that actions 25(a), (b) and (c) were satisfactorily implemented. No further comment is made in relation to these actions.

Recommendation 25 Overall Finding

The requirement for all backburns to be approved by the Incident Controller is now well entrenched in policy, procedures, directions, training and ongoing joint pre-season briefings, as recommended by the VBRC. The BRCIM cannot comment on the efficacy of these initiatives, however, due to the mild fire seasons since 2009.

RECOMMENDATION 26

The Country Fire Authority and the Department of Sustainability and Environment adopt the title 'safety officer' (as opposed to 'safety adviser') and require without exception that a safety officer be appointed to every level 3 incident management team.

Implementation Actions

Action required	Due date	Progress report Status (July 2011)	Final report Status (July 2012)
26(a) Appointment of safety officers to every level 3 IMT	30/09/2010	Complete	Complete
26(b) Change title of 'safety advisor' to 'safety officer'	30/09/2010	Complete	Complete
26(c) Briefing of relevant personnel on safety officer role	01/12/2010	Complete	Complete
26(d) Joint safety officer training course	31/10/2010	Complete	Complete
26(e) Crew protection program (fitout of 850 trucks)	30/06/2013	Ongoing	In progress
26(f) Issuing of additional protection suits	30/06/2011	Ongoing	Complete

Status

The *Progress Report* noted that actions 25(a), (b), (c) and (d) were satisfactorily implemented. No further comment is made in relation to these actions.

26(e) Crew protection program (fitout of 850 trucks)

At the time of writing this *Final Report*, the CFA had completed 386 of the 850 appliance crew protection fitouts. This is approximately 30 appliances behind schedule. The CFA has engaged an external provider to assist with the fitouts and expects the project to be back on track by 31 July 2012 with all appliances fitted out by 30 June 2013.

Finding: The BRCIM will revisit action 26(e) in the 2013 Annual Report.

26(f) Issuing of additional protection suits

The State committed in the Implementation Plan to issue 15,000 new structural personal protective clothing garments for firefighters at over 500 CFA locations across Victoria. These personal protective clothing garments enable appropriately qualified firefighters to enter a structure to fight the fire internally. This project was completed on time at the end of 30 June 2011.

Finding: The BRCIM considers action 26(f) has been satisfactorily implemented.

ELECTRICITY–CAUSED FIRE

Recommendations 27 – 34

The VBRC Final Report noted the long history of electricity assets causing bushfires in Victoria. Failed electricity assets caused five of the 11 major fires on 7 February 2009. The VBRC stated that the protection of human life demands a critical analysis of the State's electricity industry leading to a material reduction in the risk of bushfires caused by the failure of electricity assets. The VBRC noted that this would require major changes to the operation and management of Victoria's electricity distribution infrastructure. The VBRC acknowledged that although changes on this scale require consultation and planning, swift action is essential.[110]

The VBRC identified two broad areas for major change:

(i) extending the mandate and resources of Energy Safe Victoria (ESV) to enable ESV to play a more active role through strengthening its regulatory capacity and in overseeing the replacement of ageing electricity distribution infrastructure with improved technology

(ii) implementing interim short term measures including improved inspection regimes and modifying the operation of existing infrastructure such as circuit breakers, vibration dampers and line spreaders.

Contact between powerlines and vegetation comprises a considerable risk of fire ignition. The VBRC heard evidence that on average such contact causes about 19 per cent of fires in the SP AusNet distribution network. This percentage increases significantly on days of bad fire weather. Electricity distribution businesses are required to prepare annual management plans for the clearance of electricity lines. Certain trees that stand outside the regulated clearance space can pose a risk to powerlines should they lose limbs or fall. The electric line clearance regulations describe these as hazard trees.

The VBRC made two specific recommendations, one for distribution businesses and one for councils regarding the management of hazard trees and a further six recommendations including the replacement of powerlines, inspection standards, automatic circuit reclosers (ACRs), spreaders, vibration dampers and the regulatory framework, to reduce fire risk.

The State subsequently established the Powerline Bushfire Safety Taskforce (PBST) to investigate and advise the government on the full range of options to reduce the risk of bushfires from electricity infrastructure and to quantify the costs and benefits.

On 29 December 2011, the government accepted all recommendations of the final report of the PBST. The *Powerline Bushfire Safety: Victorian Government Response to the Victorian Bushfires Royal Commission Recommendations 27 and 32, December 2011*[111] outlines a program of works for State agencies and distribution businesses aimed at reducing the risk of electricity assets starting bushfires by up to 64 per cent over 10 years. The government has established a high level Powerline Bushfire Safety Program Oversight Committee (PBSPOC), chaired by the Secretary of DPC, to scrutinise and oversee the significant range of initiatives that comprise the program.

---

110 VBRC *Final Report*, Vol II, Part One, p 149.

111 Copies of the PBST final report and the government's response is available from the ESV website.

The State amend the Regulations under *Victoria's Electricity Safety Act 1998* and otherwise take such steps as may be required to give effect to the following:

27.1   the progressive replacement of all SWER (single-wire earth return) powerlines in Victoria with aerial bundled cable, underground cabling or other technology that delivers greatly reduced bushfire risk. The replacement program should be completed in the areas of highest bushfire risk within 10 years and should continue in areas of lower bushfire risk as the lines reach the end of their engineering lives

27.2   the progressive replacement of all 22-kilovolt distribution feeders with aerial bundled cable, underground cabling or other technology that delivers greatly reduced bushfire risk as the feeders reach the end of their engineering lives. Priority should be given to distribution feeders in the areas of highest bushfire risk.

Implementation Actions

Action Required	Due Date	Progress Report Status (July 2011)	Final Report Status (July 2012)
27(a) Powerline Bushfire Safety Taskforce (PBST) established	14/10/2010	Complete	Complete
27(b) PBST to provide interim report	N/A	N/A	N/A
27(c) PBST to provide final report	30/09/2011	Ongoing	Complete
27(d) Targeted work program for distribution businesses to reduce bushfire risk	30/06/2012*	Ongoing	In progress

BRCIM reporting date. No due date provided in the Implementation Plan.

Status

The *Progress Report* noted that action 27(a) was satisfactorily implemented and action 27(b) was no longer applicable. No further comment is made in relation to these actions.

27(c) PBST to provide final report

The PBST presented its final report to the Director of ESV on 30 September 2011. The recommendations of the taskforce prioritise actions to reduce the likelihood of bushfires from powerlines to those parts of the State with the highest fire loss consequences. On 29 December 2011, the Minster for Energy and Resources announced that the government accepted all six recommendations in the PBST final report. The government will implement a 10 year work program to reduce the risk of electricity assets starting bushfires by up to 64 per cent, consistent with the PBST recommendations.

Finding: The BRCIM considers action 27(c) has been satisfactorily implemented.

27(d) Targeted work program for distribution businesses to reduce bushfire risk

The government provided significant funding to support the Powerline Bushfire Safety Program, which includes a range of initiatives addressing mapping, research and development, network operations, and powerline replacement. The Secretary of the Department of Primary Industries (DPI) chairs a Program Control Board, which is responsible for the day to day project management in consultation with relevant agencies.

The key objectives of the PBSPOC are to ensure that the program is efficient, delivers value for money, facilitates the use of new technologies arising from research and has sound governance arrangements. The PBSPOC has developed a risk management strategy for the program with the assistance of an independent risk management advisor and has appointed independent probity advisers. The PBSPOC is currently developing a detailed, forward works program, which will describe specific deliverables and due dates.

The BRCIM has accepted the offer from DPC to attend the PBSPOC as an observer.

Finding: The BRCIM will monitor and report on the State's progress in implementing the recommendations contained in the PBST final report, particularly as they relate to powerline replacement and upgrading distribution assets. The BRCIM will revisit action 27(d) in the 2013 Annual Report.

Recommendation 27 Overall Finding

The BRCIM considers implementation of the Powerline Bushfire Safety Program will provide a comprehensive and effective response to the delivery of recommendation 27. The work of the PBSPOC in delivering the recommendations of the PBST final report, however, is long term and ongoing.

ENERGY SAFE VICTORIA (ESV)

ESV is the independent technical regulator responsible for electricity, gas and pipeline safety in Victoria.[112] ESV oversees a statutory regime, which requires Victorian electricity distribution businesses to take steps to reduce the risk that electricity assets will start fires. The distribution businesses are required to comply with Electricity Safety Management Scheme and to submit bushfire mitigation plans and electric line clearance management plans to ESV annually for approval.

ESV also requires reporting of key statistical data to enable ESV to audit the distribution businesses' safety plans and performance each year and to analyse safety trends. In September 2011, ESV released its first report into the safety performance of Victoria's electricity companies (the 2011 report). This performance report, which will be published annually, provides transparency and allows the community and industry to assess how well the distribution businesses are meeting their safety objectives.

The 2011 report clearly demonstrates that ESV is using its enhanced powers to implement recommendations from the VBRC Final Report to analyse safety trends and properly engage with the industry to improve its safety performance.

The 2011 report details the results of nine separate audits of the distribution businesses and one audit of the transmission business and assesses how well the five companies (CitiPower, Powercor, Jemena, United Energy and SP AusNet) inspected and maintained powerlines during 2010 to minimise the risk of failure and fire. The 2011 report also focuses on key safety indicators and the operation of the Electricity Safety Management Scheme. It shows that fire starts caused by the assets of the distribution businesses were down in 2010 and failure rates were very small relative to the size of the distribution networks, which includes more than one million poles and over 150,000 kilometres of electric lines. Ground fire starts reported by the distribution businesses for the 2011 calendar year were approximately eight per cent less than 2010.

ESV has worked closely with the distribution businesses to establish a standardised set of statistical indicators that will enable a clearer picture of industry performance trends to emerge over time. Future performance reports will expand the indicators and include key safety events that arise during the reporting period.

RECOMMENDATIONS 28 AND 29

The State (through Energy Safe Victoria) require distribution businesses to change their asset inspection standards and procedures to require that all single wire earth return lines and all 22-kilovolt feeders in areas of high bushfire risk are inspected at least every three years.

112 Refer to the ESV website for further details.

Implementation Actions

Action Required		Due date	Progress Report Status (July 2011)	Final Report Status (July 2012)
28 and 29(a)	Electricity Safety (Bushfire Mitigation) Regulations 2003 amended	31/10/2010	Complete	Complete
28 and 29(b)	Regulatory Impact Statement to support amendment regulations	30/09/2011	Ongoing	Complete
28 and 29(c)	ESV to assess and audit distributors bushfire mitigation plans	01/12/2011	Ongoing	Complete

Status

The *Progress Report* noted that actions 28 and 29(a) were satisfactorily implemented. No further comment is made in relation to these actions.

28 and 29(b) Regulatory Impact Statement to support amendment regulations

Following the release of the VBRC's Final Report, interim amendments were made to the Electricity Safety (Bushfire Mitigation) Regulations 2003 to insert new requirements relating to asset inspection standards and procedures. The interim regulations, the Electricity Safety (Bushfire Mitigation) Amendment Interim Regulations 2010, required that at risk supply networks are inspected at regular intervals of no longer than 37 months and processes and procedures must be in place to ensure only appropriately trained persons may undertake inspections. These regulations are outlined in detail in the *Progress Report*.

ESV developed a Regulatory Impact Statement (RIS) for the Electricity Safety Amendment (Bushfire Mitigation) Regulations 2011 in early 2011.The Victorian Competition and Efficiency Commission (VCEC) confirmed that the RIS met the requirements of section 10 of the *Subordinate Legislation Act 1994* and consultation on the RIS concluded on 4 August 2011. The regulations were made on 4 October 2011.

Finding: The BRCIM considers actions 28 and 29(b) have been satisfactorily implemented.

28 and 29(c) ESV to assess and audit distributor's bushfire mitigation plans

All distribution businesses provided their 2011–12 bushfire mitigation plans to ESV for acceptance as required under the *Electricity Safety Act 1998*. ESV accepted, or provisionally accepted, all plans during October 2011. Those businesses whose plans were provisionally accepted were required to address specific conditions and to amend their plans accordingly. ESV subsequently had the plans audited and copies of the auditors' reports were provided to distribution businesses in the first week of December 2011. ESV invited businesses to provide comments on the audit reports and recommendations and met with them to discuss the audit recommendations.

Finding: The BRCIM considers actions 28 and 29(c) have been satisfactorily implemented.

Powerline under threat from grassfire.
Photo: CFA Strategic Communications

Recommendations 28 and 29 Overall Finding

A combination of legislative amendments and new policy initiatives subject distribution businesses to much higher regulatory requirements in relation to powerlines in areas of high bushfire risk.

ESV applies a rigorous approach to assessing and auditing the bushfire mitigation plans of electricity distribution businesses. This approach includes both desktop and field audits. Where necessary, this may include a formal process of provisional acceptance whereby the plan is accepted on the condition that the distribution business makes certain specified amendments to the plan.

The BRCIM considers this is a comprehensive and effective response to the VBRC's intent in relation to electricity caused bushfires.

RECOMMENDATION 30

The State amend the regulatory framework for electricity safety to require that distribution businesses adopt, as part of their management plans, measures to reduce the risks posed by hazard trees – that is, trees that are outside the clearance zone but that could come into contact with an electric powerline having regard to foreseeable local conditions.

Implementation Actions

Action Required	Due Date	Progress Report Status (July 2011)	Final Report Status (July 2012)
30(a) Distribution businesses to submit amended plans to comply with new hazard tree requirements	31/03/2011	Complete	Complete

Status

The *Progress Report* noted that action 30(a) was satisfactorily implemented. No further comment is made in relation to this action.

Recommendation 30 Overall Finding

Hazard trees are now incorporated into distribution businesses' annual electric line clearance management plans. These must be submitted to ESV by 31 March each year, as required under regulation 9(4) of the Electricity Safety (Electric Line Clearance) Regulations 2010. The BRCIM considers the amended regulatory framework and the approach adopted by ESV for evaluating and approving these plans comprises an effective response to this VBRC recommendation.

Municipal councils include in their municipal fire prevention plans for areas of high bushfire risk provision for the identification of hazard trees and for notifying the responsible entities with a view to having the situation redressed.

Implementation Actions

Action Required	Due Date	Progress Report Status (July 2011)	Final Report Status (July 2012)
31(a) MFPPs to include identification of hazard trees	01/12/2011	Ongoing	Complete

Status

31(a) MFPPs to include identification of hazard trees

MAV, in association with ESV, DPI, CFA and the Electricity Line Clearance Consultative Committee,[113] has developed a template to assist councils to meet their obligation to make provision for the identification and management of hazard trees within their MFPPs. The template was provided to councils on 24 May 2011. MAV also provided the template to the CFA and the FSC.

Councils incorporated hazard tree procedures into their MFPPs in high bushfire risk areas across Victoria throughout 2011. Of the 64 councils that are subject to the CFA Act, 57 had incorporated hazard tree procedures into their MFPPs by 31 December 2011. All councils in Victoria have now done so.

Finding: The BRCIM considers action 31(a) has been satisfactorily implemented. MFPPs now include formal processes to ensure the identification and notification to appropriate authorities of hazard trees, as required by the VBRC. MAV assisted councils in this process by providing a standard template to ensure consistency statewide.

---

113 The Electricity Line Clearance Consultative Committee is established under section 87 of the Electricity Safety Act and its functions are set out in section 88 of this Act. These functions include advising on any matters relating to clearance of electric lines when asked to do so by ESV or the Minister.

The State (through Energy Safe Victoria) require distribution businesses to do the following:

32.1 disable the reclose function on the automatic circuit reclosers on all SWER lines for the six weeks of greatest risk in every fire season

32.2 adjust the reclose function on the automatic circuit reclosers on all 22-kilovolt feeders on all Total Fire Ban days to permit only one reclose attempt before lockout.

Implementation Actions

Action Required	Due Date	Progress Report Status (July 2011)	Final Report Status (July 2012)
32(a) PBST to trial automatic circuit closers	31/03/2011	Complete	Complete

Status

32(a) PBST to trial automatic circuit closers

The *Progress Report* noted that although action 32(a) had been satisfactorily implemented, the BRCIM would revisit this action in the *Final Report* to provide an update on research being conducted by the PBST in relation to new technologies that may reduce the likelihood of powerlines starting bushfires.

The findings of this research were incorporated into the PBST final report of 30 September 2011, including identifying research gaps. The PBST final report made six recommendations, all of which were accepted by the government. These are discussed in more detail under recommendation 27. Recommendation 2 of the PBST final report specifically requires distribution businesses to implement VBRC recommendation 32.

In response to the PBST finding that there was a need for further ignition research, ESV developed a proposal for further research in relation to ignition testing, which is designed to determine the optimum electrical network operational protection settings. This proposal will be considered as part of the research and development program of the Powerline Bushfire Safety Program, which is also discussed in more detail under recommendation 27.

On 23 December 2011, the Director of ESV issued directions to all distribution businesses under section 141(2)(d) of the Electricity Safety Act regarding the operation of ACRs on single wire earth return (SWER) powerlines for the summer period. In addition, ESV required all distribution businesses to update their bushfire mitigation plans regarding circuit breakers and ACRs associated with other non-SWER powerlines that feed the highest fire loss consequence areas. This included identifying the CFA fire area, the zone substation, feeder name, device name, the normal setting and the proposed setting changes on Total Fire Ban and Code Red days.

During the week commencing 16 January 2012, the Director of ESV wrote to approximately 6,000 individual households whose SWER supply was to be suppressed for six weeks from late January. He advised them of the reasons for the changes and provided advice in preparation for being without power during high fire danger conditions. The Secretary of DPI also wrote to distribution businesses thanking them for their support in relation to the changed settings over summer and encouraging them to continue to work closely with the relevant agencies to clarify and improve protocols for managing customers with special needs.

Finding: The BRCIM considers action 32(a) has been satisfactorily implemented. The BRCIM acknowledges the comprehensive legislative, regulatory and timely policy response by the State in addressing this complex but critical recommendation. The extent to which these initiatives will actually reduce bushfires started from electricity infrastructure is difficult to quantify at this time.

RECOMMENDATION 33

The State (through ESV) require distribution businesses to do the following:

33.1 fit spreaders to any lines with a history of clashing or the potential to do so

33.2 fit or retrofit all spans that are more than 300 metres long with vibration dampers as soon as is reasonably practicable.

Implementation Actions

Action Required	Due Date	Progress Report Status (July 2011)	Final Report Status (July 2012)
33(a) ESV to issue formal direction to distribution businesses to require them to implement a program to identify and address clashing lines	31/12/2010	Complete	Complete
33(b) ESV to monitor the implementation progress reported by distribution businesses and include in annual pre-summer mitigation audits	01/12/2011	Ongoing	Complete

Status

The *Progress Report* noted that action 33(a) was satisfactorily implemented. No further comment is made in relation to this action.

33(b) ESV to monitor the implementation progress reported by distribution businesses and include in annual pre-summer mitigation audits

The Electricity Safety Act requires distribution businesses to submit their electricity safety management schemes for their supply networks to ESV for acceptance.[114] All distribution businesses have now updated their schemes to incorporate the programs to address clashing lines as required under implementation action 33(a). ESV has established a quarterly reporting regime to ensure compliance with the directions in relation to clashing lines. This forms part of the wider performance accountability requirements of distribution businesses to ESV.

Finding: The BRCIM considers action 33(b) has been satisfactorily implemented. ESV has issued the required directions and implemented an accountability regime to ensure distribution businesses have updated their electricity safety management schemes for their supply networks. The BRCIM considers that ESV's approach makes a substantial contribution to achieving the VBRC requirement that a critical review of the State's electricity industry be undertaken.

The BRCIM also notes the welcome initiative of ESV, supported by the FSC, to place distribution business liaison officers in the SCC on days of high fire danger. This enables distribution businesses to provide network information to the SCC and to receive live fire and weather modelling information.

---

114 Division 2 of the Electricity Safety Act.

RECOMMENDATION 34

The State amend the regulatory framework for electricity safety to strengthen Energy Safe Victoria's mandate in relation to the prevention and mitigation of electricity caused bushfires and to require it to fulfil that mandate.

Implementation Actions

Action Required	Due Date	Progress Report Status (July 2011)	Final Report Status (July 2012)
34(a) ESV staffing to increase from 90 to 110	31/12/2011	Ongoing	Complete
34(b) Amendment to Electricity Safety Act in relation to prevention and mitigation of electricity caused bushfires.	14/10/2010	Complete	Complete
34(c) Amendment to *Energy Safe Victoria Act 2005* to improve ESV's corporate governance arrangements	14/10/2010	Complete	Complete

Status

The *Progress Report* noted that actions 34(b) and (c) were satisfactorily implemented. No further comment is made in relation to these actions.

34(a) ESV staffing to increase from 90 to 110

The State committed in the Implementation Plan to increase ESV staff from 90 to 110 by 31 December 2011. This was achieved by 4 January 2012.

Finding: The BRCIM considers action 34(a) has been satisfactorily implemented.

Recommendation 34 Overall Finding

The State adopted a three-pronged approach to fulfilling this recommendation. This included amending legislation to incorporate bushfire mitigation requirements for distribution businesses, strengthening ESV's corporate governance arrangements and increasing the regulator's base staffing levels.

The combination of strengthened regulatory and corporate governance frameworks and increased resourcing enhances the State's capability to prevent and mitigate electricity caused bushfires. In addition, ESV's new annual safety performance report on Victorian electricity distribution businesses provides convincing evidence of the efficacy of these initiatives.

DELIBERATELY LIT FIRES

Recommendations 35 – 36

The VBRC noted that although deliberate firesetters constitute only a very small proportion of the population, their actions can cause enormous damage to individuals, communities and the environment.[115] In March 2012, Brendan Sokaluk was convicted of 10 counts of arson causing death on Black Saturday. He received a prison sentence of 17 years and nine months with a minimum term of 14 years. The BRCIM notes that the Director of Public Prosecutions has appealed this sentence.

The VBRC found that the extent of arson and its underlying behaviours are generally not well understood. There is no uniform national approach to data collection and there has been little research, especially in the Australian context. The VBRC noted that while there is a great deal of preventative action underway at the local, State and national level, there remains considerable scope for improving the evidence base to facilitate policy and program development. The VBRC urged jurisdictions and interested parties to promptly work together to develop a nationally consistent approach to assist future research and the development of evidence based prevention measures.

The VBRC was very supportive of the November 2009 National Work Plan to Reduce Bushfire Arson in Australia and encouraged a focus on evaluating current and proposed programs for development and sharing of best practice approaches and to giving priority to producing a nationally agreed framework for data collection.

RECOMMENDATION 35

Victoria Police continue to pursue a coordinated statewide approach to arson prevention and regularly review its approach to ensure that it contains the following elements:

35.1   **high level commitment from senior police**

35.2   **a research program aimed at refining arson prevention and detection strategies**

35.3   **centralised coordination that includes comprehensive training, periodic evaluation of arson prevention strategies and programs, and promotion of best practice prevention approaches**

35.4   **a requirement that all fire prone police service areas have arson prevention plans and programs, according to their level of risk.**

---

115 VBRC *Final Report* Vol III, Part One, p 188.

Implementation Actions

Action Required	Due Date	Progress Report Status (July 2011)	Final Report Status (July 2012)
35(a) Analysis of police arson intelligence products used in the 2009–10 bushfire season	31/12/2011	Complete	Complete
35(b) Analysis of bushfire victim behaviour during the fires of early 2009	31/07/2011	Ongoing	Complete
35(c) Conduct 'Operation Firesetter' – statewide anti-bushfire arson police patrols 2010–11	31/03/2011	Complete	Complete
35(d) Support joint community awareness arson campaign	28/02/2011	Complete	Complete
35(e) Evaluate joint community awareness arson campaign	30/06/2011	Ongoing	Complete
35(f) Revised inter-agency agreement on preventing bushfire arson	30/06/2011	Ongoing	Complete
35(g) Anti-arson strategy workshops conducted in high risk areas	31/03/2011	Complete	Complete
35(h) Development of a research program aimed at refining arson prevention and detection strategies	30/06/2012*	Ongoing	Complete
35(i) Conduct 'Operation Firesetter' – statewide anti-bushfire arson police patrols 2011–12	31/03/2012	N/A – new action	Complete

BRCIM reporting date. No due date provided in the Implementation Plan.

Status

The *Progress Report* noted that actions 35(a), (c), (d) and (g) were satisfactorily implemented. No further comment is made in relation to these actions.

35(b) Analysis of bushfire victim behaviour during the fires of early 2009

The Victoria Police Phoenix Taskforce was established after Black Saturday. Among its responsibilities was the collection and coordination of evidence of bushfire victim behaviour during the fires of early 2009. The evidence collected was presented to assist the VBRC and the State Coroner and was also presented by the Director of Public Prosecutions to the Supreme Court, where criminal charges were laid.

A Final Report of the Phoenix Taskforce was completed in September 2011, two months after the due date provided in the State's Implementation Plan. The delay was caused by the volume of material to be considered. This subsequently delayed the review of the analysis by the Crime Strategy Group of Victoria Police which supports operational policing through forecasting future trends and the development and implementation of evidence based strategies relating to serious and organised crime. The Crime Strategy Group also coordinates crime related research projects, develops and coordinates crime prevention policy options, models global trends and reviews crime investigative guidelines.

In December 2011, the Crime Strategy Group produced a summary of the Phoenix Taskforce Final Report entitled *Report on Various Factors Impacting on Survivors and Victims of the Victorian Bushfires of the 7th February 2009 Summary Paper*. Minor amendments were made to this paper in February 2012.

The Phoenix Taskforce Final Report and the Summary Paper form part of the Victoria Police brief of evidence which was submitted to the Victorian Coroner on 25 May 2012. Victoria Police intends to provide the Summary Paper to key fire and emergency services agencies as soon as possible, pending the Coroner's approval.

Finding: The BRCIM considers action 35(b) has been satisfactorily implemented.

35(e) Evaluate joint community awareness arson campaign

Crime Stoppers Victoria is a not-for-profit, community organisation that conducts community education campaigns to encourage the public to report possible criminal activity. Crime Stoppers Victoria also works with Victoria Police Crime Stoppers Unit to pass confidential telephone and online reports from the public about possible criminal activity onto those responsible for investigating such matters. Crime Stoppers also develops and manages programs and initiatives, which inform the community about general crime prevention and safety.[116]

In August 2010, Crime Stoppers was funded to run a campaign to encourage the public to report information relating to bushfire arson over the summer period. The campaign was developed in collaboration between Victoria Police and fire agencies. The Monash University Sustainability Institute evaluated the campaign and in November 2010 produced a report entitled: *Improving an Information Campaign for Prevention of Bushfire Arson.* Three further reports were published in June and September 2011 and March 2012 on subsequent arson campaigns, conducted over the 2010–11 and 2011–12 bushfire seasons respectively.

The purpose of the research is to inform, improve and evaluate statewide arson prevention campaigns. The reports capture psychosocial approaches to reporting arson in order to maximise public awareness via Crime Stoppers, statewide print, cinema, radio and television media campaigns. Report findings have been used to inform subsequent fire season campaigns since 2010. The data generated is also improving the ability of the State to identify communities at risk of illegal firesetting.

The BRCIM also notes the significant work done by Crime Stoppers with support from Victoria Police and in cooperation with a broad range of stakeholders, in again conducting a very successful community awareness arson campaign across the 2011–12 bushfire season.

The campaign included television, radio, online and cinema media. Crime Stoppers conducted media conferences in mid-January in Pakenham, Wonthaggi, Geelong, Bacchus Marsh, Bendigo and Healesville. These media conferences included representatives of local police, CFA, councils and Members of Parliament. The campaign gained excellent media support with over 80 outlets publishing more than 200 reports independently estimated by Media Monitors to have reached an audience of almost six million people. The campaign also attracted more than 10,500 followers on Victoria Police's Facebook and Twitter pages. In addition to the media, the campaign also included direct mail, large format highway trailer signs, posters, brochures, banners, show bags and local government information packages.

Approximately 20 per cent of calls to Crime Stoppers contain sufficient intelligence to enable an investigation to be conducted. These calls are formally created as Information Reports. The campaign resulted in a 38 per cent increase in Information Reports to Crime Stoppers during November and December 2011, including intelligence that led to the arrest of five alleged bushfire arsonists. The Western Australia Police have since adopted the campaign approach.

Finding: The BRCIM considers action 35(e) has been satisfactorily implemented.

35(f) Revised inter-agency agreement on preventing bushfire arson

Historically, fire investigation in Victoria has been conducted by various agencies operating in relative isolation. In the Implementation Plan, the State committed to review the existing cooperative arrangements and develop a formal inter-agency agreement. The Victorian Fire Investigation Inter-Agency Agreement was completed in early 2012. The agreement, which has been signed by all agency representatives, documents agreed roles, principles of investigation, evidence collection, information sharing, trend analysis and media management. Signatories to the agreement include the State Coroner, the Chief Commissioner of Police, the FSC, Chief Fire Officer of DSE, the Chief Officer of CFA, the Chief Executive Officers of MFB and the Victorian Workcover Authority and the Director of ESV.

The potential benefits of an all agency integrated approach to fire scene examination and investigation are substantial. They include greater productivity and efficiency, better cooperation, increased detection and apprehension, reduced incidence, increased data holding, improved intelligence sharing, earlier trend and causation identification, enhanced training opportunities and improved reporting rates.

Finding: This is an important achievement in improving Victoria's fire investigation capability. The BRCIM considers action 35(f) has been satisfactorily implemented.

---

116 Refer to the Crime Stoppers website.

35(h) Development of a research program aimed at refining arson prevention and detection strategies

Victoria Police has developed a comprehensive approach to arson research which is outlined in the *Bushfire Arson Prevention and Detection Strategy, Arson Research Program 2011–12*. A working group has been established which meets bi-monthly to oversee the four key projects which comprise the program. These include:

1. understanding the psychology of firesetting: this three year project is being led by Monash University and includes DH, DHS and the Sentencing Advisory Council and is expected to be completed by June 2013

2. profiling of convicted arsonists: this is in collaboration with Queensland Police and Queensland Department of Corrections. It is proposed to be a six month project which will link to similar research currently underway in Western Australia

3. evaluation of the Bushfire Arson Target Screening Tool: this project will be conducted in collaboration with Monash University and the Centre for Forensic Behavioural Science. The research will examine the validity and reliability of the Bushfire Arson Target Screening Tool, which is a tool to assess the level of risk of arsonists or potential arsonists. Data extraction and analysis has commenced

4. evaluation of Operation Firesetter (which is a significant part of the Victoria Police arson prevention and detection strategy developed for the 2010–11 fire season). This evaluation reviewed the effectiveness of the operation during the fire season and was completed in November 2011. The key findings were incorporated into the 2011–12 Firesetter Operation order.

Finding: The BRCIM considers action 35(h) has been satisfactorily implemented and notes the commitment of Victoria Police to deliver a comprehensive arson prevention and detection research program.

35(i) Conduct 'Operation Firesetter' – statewide anti-bushfire arson police patrols

The relatively benign 2010–11 fire season lead to Operation Firesetter being conducted on two days only. The *Progress Report* suggested, therefore, that Victoria Police consider conducting Operation Firesetter during the 2011–12 bushfire season. Victoria Police launched Operation Firesetter 2011–12 in November 2011. Operations were conducted on nine days of either Severe, Extreme or Code Red fire danger between November 2011 and February 2012 across 39 identified bushfire arson prone areas. A range of broad crime prevention activities were incorporated into operations during 2011–12 including visits to CFA and DSE fire stations and depots and schools to build relationships, share information and increase community awareness. Operation Firesetter, which is led by Victoria Police, is now an established part of the State's annual integrated anti-bushfire arson effort.

Finding: The BRCIM considers action 35(i) has been satisfactorily implemented.

Recommendation 35 Overall Finding

The VBRC found that overall evidence suggested prevention and reduction of arson is most likely to be effective when a multi-faceted approach is adopted. The BRCIM is pleased to report such an approach has been implemented by the State. Data clearly indicates that this comprehensive, intensive, integrated, localised approach is effectively achieving the VBRC's intent.

In addition to the substantial progress noted above in relation to the specific implementation actions, the BRCIM is aware of a broad range of initiatives designed to reduce the devastating consequences of bushfire arson. These include a revised, more localised Victoria Police person of interest intelligence collection and management process, improved predictive accuracy of bushfire arson risk maps, enhanced inter-agency cooperation via the placement of a CFA liaison officer in the Victoria Police Arson and Explosives squad. There was sponsorship of an international arson investigator as a guest speaker who addressed 90 fire and emergency personnel in Melbourne during May 2012 and joint CFA/Victoria Police bushfire arson prevention interactive shopping centre displays in bushfire prone areas throughout the 2011–12 bushfire season.

The BRCIM acknowledges Crime Stoppers, Victoria Police, fire services, departments, agencies and academia for making such a concerted effort to improve the knowledge and understanding of the evidence base associated with arson, to facilitate improved policy and program development.

RECOMMENDATION 36

The Commonwealth, States and Territories continue to pursue the National Action Plan to Reduce Bushfire Arson in Australia, giving priority to producing a nationally consistent framework for data collection and evaluating current and proposed programs in order to identify and share best practice approaches.

Implementation Actions

Action Required	Due Date	Progress Report Status (July 2011)	Final Report Status (July 2012)
36(a) Progress Report on National Action Plan to Reduce Bushfire Arson in Australia	30/06/2012*	Ongoing	Complete

BRCIM reporting date. No due date provided in the Implementation Plan.

Status

Since the *Progress Report,* there have been a number of initiatives led by the Commonwealth to advance this recommendation. These include:

> the launch of the National Strategy to Address Bushfire Arson on 29 July 2011[117]

> the announcement on 31 October 2011 of the national arson notification capability, which is a national police database of known and suspected arsonists. The notification capability allows arson flags to be added to criminal record information held on the National Police Reference System (NPRS). This system is available to all operational police officers across Australia, delivered to their desktops, cars and via hand held devices, depending on the agency. The NPRS enables Australian police and law enforcement agencies to exchange information about persons of interest, assisting police to identify arsonists and alert their State and Territory counterparts whenever they become aware of a convicted or suspected arsonist. This means that different record systems between States and Territories will not be an issue in keeping track of arsonists

> the launch of a website in December 2011 which contains community awareness information on how to identify and report suspicious behaviour[118]

> ongoing support for a specialist arson investigation course, which will be delivered in August 2012

> publication of a best practice bushfire arson prevention handbook[119]

> the establishment of a national working group, set up under the auspices of the NEMC, to provide leadership and coordination on bushfire arson matters. The working group comprises representatives from the Commonwealth and all State and Territory police and emergency management agencies. A priority task of the working group is to identify gaps and priorities for improving current knowledge and responses and develop plans to address them. This includes the priority consideration of a nationally consistent framework for data collection and evaluating current and proposed programs in order to identify and share best practice approaches

> research to better understand bushfire arson including the motivations and psychological processes that underlie the behaviour

> the development of an offender treatment program aimed at reducing recidivism

> the delivery of the fourth National Forum for the Prevention of Bushfire Arson in May 2012.

The Commonwealth continues to progress this recommendation in collaboration with States and Territories.

---

117 A copy of the strategy is available from the Bushfire Arson Prevention website.

118 Refer to the Bushfire Arson Prevention website.

119 The handbook is available from the Australian Institute of Criminology website.

Example of bushfire arson advertising campaign over 2011-12 fire season. Image: Victoria Police

36(a) Progress Report on National Action Plan to Reduce Bushfire Arson in Australia

The Implementation Plan commits the State to providing a progress report on Victoria's initiatives on bushfire arson to the SCPEM. Victoria Police provided a progress report on Victoria's initiatives on Bushfire Arson to the State Coordination and Management Council (Bushfires Sub-Committee) in February 2012. This report has been updated since in preparation for submission to the next meeting of the SCPEM, which was scheduled for 29 June 2012.

Finding: The BRCIM considers action 36(a) has been satisfactorily implemented.

Recommendation 36 Overall Finding

Victoria Police and associated agencies and departments have implemented a broad range of arson prevention initiatives as reported under recommendation 35.

Significant progress has also been made since the release of the VBRC Final Report in addressing the absence of a uniform national approach to reduce bushfire arson. The Commonwealth, in collaboration with all States and Territories, has responded comprehensively to the call from the VBRC to work together to develop a nationally consistent approach to assist future research and the development of evidence based prevention measures.

PLANNING AND BUILDING

Recommendations 37 – 55

The protection of human life, the safety of communities and mitigating the destruction caused by future bushfires received the greatest attention by the VBRC.[120] In their deliberations, the VBRC recognised that this obligation to protect human life would have implications in the areas of planning and building regulation.[121]

The VBRC Final Report recommendations 37 to 55 pose fundamental changes to the planning and building regimes in Victoria. The VBRC carefully examined the evidence presented, including that provided by expert panels on planning and building. Prior to 7 February 2009, bushfire risk management was not well integrated in the Victorian planning and building systems with the panel of experts concluding that "responsibility for the development and implementation of planning policy is fragmented … which raises the question of who should ultimately be responsible for the integration of bushfire risk management into planning processes".[122]

The Victorian planning system is extremely complex and the State has demonstrated a strong commitment to improve the relationship between the planning and building regimes. This was outlined in the State's Implementation Plan with the State developing an Integrated Planning and Building Framework.[123] The Planning and Building Framework was developed to address bushfire hazard and bushfire risks and to address many of the VBRC's planning and building recommendations.

The Planning and Building Framework is divided into two components:

> component 1: Bushfire Hazard and Biodiversity Mapping

Recommendations 37 (part 37.1) and 43

> component 2: Planning and Building System Improvements

Recommendations 37 (parts 37.2 and 37.3), 38, 39 (parts 39.1 and 39.2), 40, 41, 45 and 52

Many of the proposed changes were part of a package of planning and building changes approved by the Minister for Planning and rolled out across the State in November 2011. Some of the changes include:

> mapping and designation of bushfire prone areas (BPA) – recommendation 37

> a new bushfire management overlay (BMO) – recommendation 39

> a revised State Planning Policy Framework (SPPF) – recommendation 39

> changes to the Local Planning Policy Frameworks (LPPF) – recommendation 41

> the introduction of a buy-back scheme for properties in areas of unacceptable high bushfire risk – recommendation 46

> amending the Building Regulations 2006 to apply a construction minimum of BAL 12.5 in BPA – recommendation 49

> developing a new bushfire sprinkler standard – recommendation 50.

The BRCIM advises that this section of the Final Report should be read in its entirety as many of the implementation actions are interrelated. Readers should also consider the responses to recommendations 37 to 55 in the BRCIM's *Progress Report*.

---

120 VBRC *Final Report*, Vol I, p xxv.

121 Ibid.

122 Ibid.

123 Information on the Integrated Planning and Building Framework was addressed in the State's Implementation Plan, pp 69-70 and in the introductory paragraph prior to recommendations 37-55 of the *Progress Report*.

RECOMMENDATION 37

The State identify a central point of responsibility for and expertise in mapping bushfire risk to:

37.1   review urgently the mapping criteria at present used by the Country Fire Authority to map the Wildfire Management Overlay, to ensure that the mapping used to determine building and planning controls is based on the best available science and takes account of all relevant aspects of bushfire risk

37.2   map and designate Bushfire-prone Areas for the purposes of planning and building controls, in consultation with municipal councils and fire agencies

37.3   finalise the alignment of site-assessment methods for planning and building purposes, taking into account bushfire risk to human safety as well as to property.

Implementation Actions

Action Required	Due Date	Progress Report Status (July 2011)	Final Report Status (July 2012)
37(a) New statewide bushfire hazard map in place	30/09/2011	Ongoing	Complete
37(b) Detailed bushfire risk mapping for targeted high risk, high priority areas to assist with local land use and bushfire management risk response plans	31/07/2012	Ongoing	In progress
37(c) Detailed vegetation and biodiversity mapping for targeted high risk, high priority areas to assist with balancing of conservation of native vegetation with the management of bushfire risk in these locations	31/07/2012	Ongoing	In progress Refer to Rec 43
37(d) Establish a dedicated bushfire planning capacity team in DPCD (This action is from Making Victoria Fire Ready)	31/12/2010	Complete	Complete
37(e) Review of bushfire hazard mapping criteria currently used by CFA in Wildfire Management Overlay (This action is from Making Victoria Fire Ready)	31/03/2011	Complete	Complete
37(f) Draft single site assessment methodology	31/03/2011	Complete	Complete
37(g) Final single site assessment methodology	30/06/2011	Ongoing	Complete
37(h) Implement single site assessment methodology	30/09/2011	Ongoing	Complete
37(i) Amendment to planning scheme – Victorian Planning Provisions	30/09/2011	Ongoing	Complete

Status

The *Progress Report* noted that actions 37(d), (e) and (f) were satisfactorily implemented. No further comment is made in relation to these actions.

37(a) New statewide bushfire hazard map in place

Prior to the bushfires of February 2009, bushfire planning and control measures applied in areas in Victoria identified as high risk through bushfire hazard mapping. Significant differences and inconsistencies existed between applicable building controls under the Building Regulations 2006 in a BPA and planning provisions applying under local planning schemes through the former wildfire management overlay (WMO).[124]

The deficiencies in the mapping of bushfire risk throughout Victoria were noted in the VBRC's Final Report.[125] In addition, the VBRC acknowledged that a strategic and more holistic approach to mapping was required with mapping to be assigned a higher priority, applied consistently across the State, be justifiable on the basis of the best available science and a tiered approach adopted to better identify risks to effectively target responses.[126]

As part of the Integrated Planning and Building Framework, the Bushfire Hazard and Biodiversity Mapping (BHBM) Project was established to deliver the State's implementation actions in response to recommendations 37 and 43. As outlined in the *Progress Report*, DSE had commenced the development of a statewide hazard map.

Bushfire Hazard and Biodiversity Mapping (BHBM) Project

The BHBM Project was established in late 2010 to deliver implementation actions under recommendations 37 and 43. The aim of this project is to deliver a statewide bushfire hazard map plus detailed maps of bushfire hazard and biodiversity values in targeted areas.[127]

The bushfire hazard maps are to be used by DPCD and other agencies to identify hazardous bushfire areas and reduce the vulnerability of the community through improved planning and building controls. These maps are aimed at informing locations where planning and building controls will apply to assist with managing bushfire risks. A key part of the BHBM Project has been the collection of data relating to

> vegetation type and condition

> vegetation typology

> vegetation extent

> threatened species distribution

> bushfire hazard.

The BHBM Project will provide up to date mapping and vegetation information that will underpin a new approach to designating bushfire hazard and assist in balancing the needs of native vegetation conservation and the management of bushfire risk. Expert advice from a range of sources was sought including the CFA, South Australian Country Fire Service, Commonwealth Scientific and Industrial Research Organisation, DSE's research institute (Arthur Rylah Institute), DPCD and other external consultants.

DSE, working in conjunction with the CFA and DPCD, will develop and integrate the final bushfire hazard, vegetation and biodiversity mapping products delivered under the BHBM Project into tools for use within the building and planning systems.

An evaluation of the BHBM Project was undertaken by an independent consultant in January 2012 which determined that all deliverables (mapping products) would be completed by the scheduled due dates. Details on the BHBM Project are available from the DSE website.

---

124 The WMO has now been replaced by the BMO – refer to recommendation 39 for further details.

125 VBRC *Final Report,* Vol II, Part Two, Chapter 6.

126 Ibid., p 222.

127 Refer to implementation actions 37(b), 37(c) and 43(a).

The statewide hazard map was delivered in two stages based on the best available science and input data. Stage one was the development of new hazard mapping methodology utilising existing vegetation information. Stage two incorporates updated native vegetation information into the new methodology. The methodology for the hazard map was determined by using the Australian Standard AS 3959–2009 *Construction of buildings in bushfire prone areas* (AS 3959–2009) [128] framework and the underlying principles of vegetation mapping producing radiant heat, fire intensity models and ember attack allowance. The stage one map was delivered to DPCD and DSE in June 2011 to assist in the development of key planning controls which were delivered as part of a package of planning control in November 2011.[129]

Based on the current vegetation data available, the overall existing fuel layer was found to be accurate at describing vegetation present at 72 per cent of the time. The vegetation components within the detailed hazard map include statewide vegetation extent, type and condition. Additional information in the maps takes into account transport corridors (roads and rail), planning zones, housing density, tree density, plantations, land use, topography and fuel type behaviour models.

Stage two of the development of the statewide hazard map will allow for a significant improvement in data available on the fuel layer based on newly created vegetation mapping[130] and ongoing validation of this data. The statewide hazard map has initiated new research in bushfire behaviour as research gaps were identified in relation to ember production and distribution and convective influences on landscape fire spread during extreme fire behaviour.

The final methodology was designed using researchers from Monash University with DSE advising that the new methodologies underpinning the development of the statewide hazard map are the most comprehensive method of mapping bushfire hazard in Australia to date. Bushfire hazard in the past has been limited to simple mapping of grass fuels and trees.

The statewide hazard map has informed the development of BPA and the BMO[131] while providing relevant information for incorporation into the development of the detailed hazard mapping under implementation action 37(b).

The statewide hazard map assesses bushfire hazard according to bushfire hazard levels (low, level 1 or level 2) (see Table 1). The role of the statewide hazard map is to trigger planning and building responses in the relevant areas. The requirement to designate an area by hazard identifies those areas where bushfire mitigation measures are required and building construction standards for buildings in BPA will apply.

The BRCIM has met with DSE to discuss the development of the statewide hazard map and has been provided with detailed evidence of the BHBM Project including the data mapping components utilised to develop the map. The BRCIM considers the statewide hazard map a critical component to assist in the management of bushfire risk and notes that the map is intended to be a dynamic document that as bushfire science develops and vegetation mapping improves, this information can be integrated into the hazard map.

Finding: The BRCIM considers action 37(a) has been satisfactory implemented.

Hazard Level	Description	Planning and Building Responses
Bushfire Hazard Level 2	Areas of extreme fuel loads where there is potential for extreme bushfire behaviour such as a crowning[132] fire and extreme ember attack	Planning Response BMO

Building Response BPA and Building Regulations |
| Bushfire Hazard Level 1 | Areas of high to extreme fuel loads where there is potential for high bushfire behaviour such as a crown fire and ember attack | Building Response BPA and Building Regulations |
| Bushfire Hazard Low | Areas where the extent, configuration and/or management of vegetation means that there is low potential for bushfire spread | No planning or building response |

Table 1: Hazard Levels

128 Information on AS3959-2009 was provided in recommendation 37 of the *Progress Report* and is also referred in the *Final Report* in recommendations 39, 40, 47, 48, 49 and 55.

129 Refer to implementation 37(i).

130 Vegetation data in the State was previously mapped in 2005.

131 Refer to recommendation 39.

132 A crown fire occurs during fires of extreme intensity. A crown fire is when fire burns and spreads through the crown or canopy of trees. The influence of wind is greater in the tree canopy and where this canopy is interconnected or continuous, fires can spread incredibly quickly.

BUSHFIRE PRONE AREA (BPA)

A BPA is an area that is subject to or likely to be subject to bushfires. Specific areas in Victoria have been designated as BPAs for the purposes of the building control system and specific bushfire construction requirements will apply. The BPA is a separate regulatory tool to those found in planning schemes and cover:

> all areas of a planning scheme within the BMO[133]

> areas of moderate fuel loads, such as unmanaged grasslands and smaller isolated patches of bushland

> areas with a moderate exposure to direct flame, radiant heat and ember attack.

As an interim measure, following the February 2009 bushfires, all of Victoria was designated a BPA with this arrangement ending in September 2011.[134] The Minister for Planning determined that specific areas were designated a BPA for the purposes of the building control system and the new statewide hazard map was gazetted on 8 September 2011. Areas identified as bushfire prone were identified across Victoria, rather than the whole State.

The majority of the State is now designated as a BPA. Highly populated metropolitan areas are excluded as they have relatively low bushfire risk including the municipal areas of Melbourne, Yarra, Maribyrnong, Moonee Valley, Darebin, Boroondara, Stonnington, Glen Eira, Moreland, Port Phillip and Bayside.

Bushfire prone areas
LGA Boundary

Figure 1: Map of BPA. Image: Department of Planning and Community Development

Designated BPA maps have been prepared and are available free of charge to the public online,[135] or are available through local councils. Home owners or prospective buyers can view the location of designated BPA through the interactive map service or download free property reports showing the status of land parcels in Victoria relative to the areas designated as being bushfire prone.

The BPA map designates which areas in the State requires a site assessment under AS 3959–2009 to determine the BAL[136] and construction requirements. Amendments to the Building Amendment (Bushfire Construction) Regulations 2011 (these replace the interim regulations put in place following the February 2009 fires) require:

> in a designated BPA, a minimum construction standard of BAL 12.5 for ember protection applies[137]

> a building surveyor must accept a BAL specified by a planning scheme or a planning permit for the construction requirements of a building.

Using a multi-agency approach, the BPA was developed by DPCD, DSE, CFA and the Building Commission using existing data. Following the release of the BPA map, DPCD along with the CFA, DSE and the Growth Areas Authority (GAA)[138] commenced targeted consultations with growth area councils including Hume, Whittlesea, Wyndham, Casey, Cardinia, Melton and Mitchell. Detailed map review meetings were held in December 2011 and January 2012.

This review process for the BPA was guided by an agreed criteria to enable areas in the relevant municipality to be recommended to the Minister for Planning for inclusion or exclusion from the BPA. Changes to the BPA may be proposed through a specific recommendation to the Minister for Planning and a recommendation for a new determination of designated BPA under Building Regulation 810.

DPCD has advised that following an extensive review of the BPA, suggested inclusions and exclusions have been received from the councils of Casey, Cardinia, Melton, Hume and Whittlesea. Further meetings are scheduled with the CFA to consider this information, assign appropriate buffers and where applicable, create new maps. In addition, review meetings are scheduled with Frankston, Kingston and Greater Geelong city councils in the second quarter of 2012. Further consultation with the regional growth area councils will commence once this is complete.

DPCD has also advised that as of April 2012 they had received 23 enquiries regarding the BPA map. The principal issue of concern related to the edges of urban growth areas where rapid urban development has, or is likely to fundamentally affect, hazard levels. There were also some communities excluded from the maps and DPCD is working to address these concerns. DPCD continues to work with metropolitan growth area councils and relevant government authorities to review the BPA.

DPCD has advised that amendment of the BPA for the six metropolitan growth area municipalities is expected to be presented to the Minister in June 2012 for approval.

133 Refer to recommendation 39.

134 The gazettal notice is published in the Victoria Government Gazette.

135 Information on the BPA are available from the DPCD and Land Victoria websites.

136 Refer to recommendation 49.

137 This includes sealing roofs, sealing around doors and windows and screening windows. For further details on BAL, BAL 12.5 and the affect of the new hazard maps on construction refer to recommendation 49.

138 The GAA is an independent statutory body with a broad, facilitative role to help create greater certainty, faster decisions and better coordination for all parties involved in planning and development of Melbourne's growth areas. Reporting directly to the Minister for Planning, further information is available from the GAA website.

37(b) Detailed bushfire risk mapping for targeted high risk, high priority areas to assist with local land use and bushfire management risk response plans

Aside from the statewide hazard map, the State also agreed to undertake detailed bushfire risk mapping in targeted high risk areas. DSE is currently developing a targeted hazard map that utilises more detailed data captured in high risk, high priority areas. A consultant was engaged to assist in developing a model for high risk, high priority areas with workshops held with DSE, CFA and DPCD to develop the model.

Components informing the detailed hazard map include:

> the statewide hazard map[139]

> models developed to inform the statewide hazard map including fuel dataset, bushfire weather inputs, 20 metre digital elevation models and five fuel type specific fire behaviour models

> detail provided as part of LiDar[140] remote sensing data that will supplement on-ground data collection to provide a greater level of detail of fuel structure and bark hazard

> a substantial revision and construction of bushfire fuel datasets.

DSE has advised that an updated version of hazard maps will be provide when vegetation mapping is complete. This is expected to be in the first quarter of 2012–13.

Finding: The BRCIM notes that work on action 37(b) is ongoing. The BRCIM will revisit this action in the 2013 Annual Report.

37(c) Detailed vegetation and biodiversity mapping for targeted high risk, high priority areas to assist with balancing of conservation of native vegetation with the management of bushfire risk in these locations

The BRCIM notes that this implementation action is a duplication of action 43(a) in which the State committed to undertake detailed vegetation and biodiversity mapping. Work on vegetation and biodiversity mapping is in progress and information on the status of action 37(c) will be provided in the BRCIM's response to recommendation 43.

Finding: The BRCIM notes that this action is ongoing and an update on the status will be provided as part of recommendation 43.

37(g) Final single site assessment methodology

37(h) Implement single site assessment methodology

The State agreed to develop a single site assessment for determining a building's potential exposure to bushfire and the radiant heat impacts on a building based on the requirements of AS 3959–2009. The VBRC was advised of work being undertaken by the State (DPCD, the CFA and the Building Commission) on the alignment of the site assessment methods for planning and building purposes and welcomed the State's commitment to increasing consistency and strengthening links between planning and building controls.[141]

The development of the draft single site assessment (implementation action 37(f)) was outlined in the BRCIM's *Progress Report*. Since the *Progress Report* was released, the Minister for Planning has endorsed the single site assessment methodology. It was then introduced into the Victorian Planning Provisions (VPP) and planning schemes through Amendment VC83 on 18 November 2011 and is now in place for new buildings at the building or planning stage.[142] The different site assessment methodology under the previous WMO has been removed from the planning system.

The methodology for undertaking a bushfire site assessment in Victoria is set out in AS 3959–2009, irrespective of whether the assessment is undertaken at the planning or building phase. A bushfire site assessment is required to be prepared to determine the requirements for defendable space and building construction associated with new development.[143] The construction requirements are those specified in AS 3959–2009 unless an alternative solution is required under a BMO application. In a BPA, a minimum construction level of BAL 12.5 also now applies.

A bushfire site assessment is required as part of the planning permit application process in areas where the BMO applies and is included as part of a bushfire management statement. A bushfire management statement needs to be prepared to determine if the requirements of the BMO have been met and whether a planning permit should be granted.

---

139 Refer to recommendation 37(a).

140 Light detection and ranging (LiDar) is a technology that uses laser pulses to generate large amounts of data about the physical layout of terrain and landscape features. There are two types of sensors, ground based and airborne (such as those attached to aircraft). LiDar provides valuable information about vegetation in native and plantation forests.

141 VBRC *Final Report,* Vol II, Part Two, p 224.

142 Refer to implementation action 37(i) for further details.

143 Defendable space is an area of land around a building where vegetation is modified and managed to reduce the effects of flame contact and radiant heat associated with bushfire. It comprises an inner zone and an outer zone. The definition of defendable space is now included in Clause 72 of the VPP. The VPP is available from the following website http://planningschemes.dpcd.vic.gov.au/VPPs/.

A bushfire site assessment is also required under the *Building Act 1993* at the building stage. If a BAL assessment has been noted on a planning permit or in the planning scheme, the building surveyor must accept the assessment for the purposes of the building permit. The requirements for new development in the BMO are set out in clause 52.47 of the VPP (Bushfire Protection: planning requirements). Higher construction levels may be required as determined by the site BAL assessment. Defendable space requirements for each BAL are contained within tables under the planning scheme.

The BRCIM notes the CFA's intention to update its training materials to provide consistent and relevant information, particularly in relation to advice provided on site assessment and defendable space. The CFA has advised it intends to adopt the single site assessment principles into the HBAS and the HBSAT later in 2012.[144] Currently the HBSAT uses a more conservative model of determining a sites' BAL as it is reliant on user information and does not set out to assess properties in the same way HBAS does. The HBAS was designed to be a supporting tool to encourage users to consider what is needed to better prepare for bushfire risk and promote a site visit where homes are located within high bushfire risk areas, so that more comprehensive advice and site assessment can be provided.

The BRCIM is of the view that the introduction of the single site assessment is a positive step in minimising confusion and assisting in harmonising the planning and building regimes. The use of an Australian Standard adds a layer of legitimacy and mandates the one process for undertaking bushfire site assessments allowing for a consistent statewide approach.

Finding: The BRCIM considers actions 37(g) and (h) have been satisfactorily implemented.

37(i) Amendment to planning scheme – Victorian Planning Provisions

On 18 November 2011, the Minister for Planning made a number of amendments to the VPP and planning schemes through Amendment VC83. Amendment VC83 aimed to increase the preparedness and protection of Victorian communities from the impact of bushfires.[145]

This amendment was part of a package of amendments the government agreed to introduce to improve planning and building requirements as set out in the Implementation Plan and as part of the Integrated Planning and Building Framework. Amendment VC83 included:

> amending clause 13.05 of the SPPF to introduce an objective, strategies and policy guideline relating to bushfires (refer to recommendation 39)

> replacing the WMO with a new BMO (VPP clause 44.06 Bushfire Management Overlay) (refer to recommendation 39)

> introducing a new planning provision applying to the construction or subdivision of land in the BMO (VPP clause 52.47 Bushfire Protection: Planning Requirements) (refer to recommendation 39)

> introducing a new planning provision to consolidate and update planning permit exemptions for bushfire protection purposes (VPP clause 52.48 Bushfire Protection: Exemptions) (refer to recommendation 40)

> amending specific provisions related to native vegetation (VPP clauses 52.16 Native Vegetation Precinct Plan and 52.17 Native Vegetation) and overlays which seek to manage vegetation (refer to recommendation 41)

> consequential changes that include defining defendable space, changes from WMO to BMO and updating references of 'wildfire' to 'bushfire' in the VPP (VPP clause 72).

DPCD has developed a series of fact sheets and advisory/ practice notes which are available from the DPCD website on the new amendment. These include:

> Planning and building for bushfire protection (fact sheet)

> AN33: Amendment VC83 – Bushfire protection: Community fire refuge and private bushfire shelter exemptions, November 2011

> AN39: Amendment VC83 – Bushfire protection: Vegetation exemptions, November 2011

> AN40: Amendment VC83 – Bushfire protection: Bushfire planning provisions, November 2011

> AN44: Defendable space in the Bushfire Management Overlay, February 2012 including technical report

> PN 65: Bushfire Management Overlay and bushfire protection: planning requirements, November 2011.

---

144 Details on the HBAS and HBSAT are available from the CFA website.

145 Details on Amendment VC83 are available from the DPCD website or http://planningschemes.dpcd.vic.gov.au.

In conjunction with the introduction of Amendment VC83, a significant training program was undertaken to ensure that the new planning provisions and building regulations were effectively communicated to relevant stakeholders in the planning and building sectors. Further details on this training are contained in response to recommendations 41 and 55.

As planning is a long term activity, it is difficult to determine the effectiveness of Amendment VC83 and its affect on the Victorian planning scheme. Stakeholders have not identified any major concerns with the amendment.

Finding: The BRCIM considers implementation action 37(i) has been satisfactorily implemented.

Recommendation 37 Overall Finding

The BRCIM is satisfied that the State has clearly met the intention of the VBRC in relation to recommendation 37. Significant mapping of hazard and bushfire risk has been undertaken with the State embracing a holistic mapping program. Development of the statewide hazard map and BPA are based on more relevant and accurate bushfire hazard and vegetation data. The development of a detailed hazard map and biodiversity mapping is well advanced. The BRCIM notes the mapping components will continue to adapt and change according to the relevant circumstances at the local level.

Following amendments to the VPP, there is now better alignment and integration between the planning and building regimes ultimately maximising bushfire protection for homes and thereby lowering the risk to life, property and infrastructure. The amendments to the VPP complement other changes to the planning and building regimes to reduce risk in high bushfire risk areas. The amendments seek to broaden support for individual planning decisions and increase community resilience measures for bushfires.

The BRCIM notes that while some of the actions in relation to recommendation 37 are complete, implementation has been challenging. Changes to the planning and building regimes take time to introduce so the effectiveness of the new bushfire provisions in the VPP will not be known for some time. Without testing the changes in a bushfire scenario, the only way to assess the changes is through planning permit applications and appeals processes.

RECOMMENDATION 38

The State implement a regional settlement policy that:

38.1   **takes account of the management of bushfire risk, including that associated with small, undeveloped rural lots**

38.2   **includes a process for responding to bushfire risk at the planning stage for new urban developments in regional cities, the process being similar to that used for new developments in Melbourne's Urban Growth Zone.**

Implementation Actions

Action Required	Due Date	Progress Report Status (July 2011)	Final Report Status (July 2012)
38(a) Conduct eight regional bushfire land use risk assessment studies and produce regional policy responses	30/09/2011	Ongoing	Complete

Status

38(a) Conduct eight regional bushfire land use risk assessment studies and produce regional policy responses

In the VBRC's Final Report, the VBRC expressed the view that there is scope to restrict development in areas that are known to pose an unacceptably high bushfire risk.[146] In particular, the VBRC considered that the planning framework and subsequent planning decisions should give more explicit consideration to, and attach greater importance to, the risk of bushfire and potential risk to people's safety in BPA.

At the time of writing the *Progress Report,* DPCD had undertaken a tender process for the selection of a regional project consultant to develop the regional land use risk assessment studies. A consultancy team was selected and the Regional Bushfire Planning Assessments (RBPA)[147] were subsequently prepared for the areas of Melbourne, Hume, Loddon Mallee, Barwon South West, Grampians and Gippsland. To assist in the development of the RBPA, DPCD established a project reference group consisting of representatives from MAV, a council from each region, the CFA, MFB and the GAA.

Each RBPA provides information to assist with land use planning and comprises a report and a mapping component which sets out identified areas within the region that are close to bushfire hazards including roads and small lots, but does not identify specific bushfire hazards. Specific bushfire hazards are identified in the statewide planning and building hazard map.[148]

The RBPA can be used to assist planning authorities with local strategic planning and support community resilience to bushfire. While not part of planning scheme controls, the RBPA complements the development of new provisions in the VPP including schedules to the BMO[149] and other information that informs planning decisions such as the VFRR and the IFMP. The RBPA will also be used in the development of regional growth plans currently being prepared by DPCD, which assess the growth potential, land supply, employment precincts and housing needs in identified regional growth areas.[150]

Information contained in the RBPA includes:

> areas where smaller and medium sized lots, which may be used for residential purposes, are in or close to a bushfire hazard

> areas where there is a settlement or urban interface with the bushfire hazard

> locations where there is limited access and egress to and from a settlement in areas with a bushfire hazard

> areas where the broader landscape is particularly affected by a bushfire hazard.

The final RBPA were submitted to DPCD in September 2011 and copies provided to the BRCIM in line with commitments outlined in the State's Implementation Plan. Following assessment of the RBPA for the Melbourne region, DPCD considered the need to consult further because of the unique landscape and settlement context on the fringes of metropolitan Melbourne. The RBPA for the Melbourne region was subsequently resubmitted to DPCD in late October 2011.

All councils, the FSC, CFA and MFB were advised of the eight RBPA in April 2012 and these have subsequently been published on the DPCD website.

---

146 VBRC *Final Report,* Vol II, Part Two, p 226.

147 These are referred to as the Regional Bushfire Land Use Assessments in the State's Implementation Plan.

148 Refer to recommendation 37.

149 For further details on the BMO refer to recommendation 39.

150 Details on regional growth plans are available from DPCD's website.

Finding: The BRCIM considers action 38(a) has been satisfactorily implemented noting that the RBPA are an additional tool for use in the planning process. The BRCIM notes that the work on the RBPA complements the consideration of bushfire matters in other stages of the planning process such as the SPPF and LPPF.[151]

While the RBPA are designed to assist planning authorities, the availability of the RBPA from the DPCD website makes them more accessible to a range of individuals who may have varied interests in planning or development in Victoria. This will further enhance the wider understanding of bushfire hazards throughout the State and the impact of future development in high risk areas.

The effectiveness of the RBPA is unknown at this stage as new planning initiatives take time to become embedded into the planning processes and the system overall. The BRCIM as such is unable to provide any additional comments on the use of the RBPA or effectiveness, but notes that substantial work was undertaken in a short period of time to ensure that the recommendation was met. The RBPA further enshrine the VBRC's intent that the protection of life and property are paramount.

RECOMMENDATION 39

The State amend the Victoria Planning Provisions relating to bushfire to ensure that the provisions give priority to the protection of human life, adopt a clear objective of substantially restricting development in the areas of highest bushfire risk – giving due consideration to biodiversity conservation – and provide clear guidance for decision makers. The amendments should take account of the conclusions reached by the Commission and do the following:

39.1   outline the State's objectives for managing bushfire risk through land-use planning in an amended State planning policy for bushfire, as set out in clause 15.07 of the Victoria Planning Provisions

32.2   allow municipal councils to include a minimum lot size for use of land for a dwelling, both with and without a permit, in a schedule to each of the Rural Living Zone, Green Wedge Zone, Green Wedge A Zone, Rural Conservation Zone, Farming Zone and Rural Activity Zone

32.2   amend clause 44.06 of the Victoria Planning Provisions to provide a comprehensive Bushfire-prone Overlay provision.

Implementation Actions

Action Required		Due Date	Progress Report Status (July 2011)	Final Report Status (July 2012)
39(a)	Implement revised State Planning Policy	30/09/2011	Ongoing	Complete
39(b)	Review statutory tools for regulating development on small blocks in high risk bushfire areas	30/09/2011	Ongoing	Complete
39(c)	Develop new bushfire overlay to align with the statewide bushfire hazard mapping	30/09/2011	Ongoing	Complete

---

151 Information on these planning frameworks is contained in recommendation 39.

Status

39(a) Implement revised State Planning Policy

The VBRC examined in detail the VPP planning provisions and management of bushfire risk. Based on evidence before the VBRC, it agreed that the State planning policy for bushfire risk management did not give clear guidance to decision makers and did not include all the elements that would promote the protection of human life as the highest priority.[152] The VBRC set out a list of perceived shortcomings and possible solutions to be considered as part of an amendment to the VPP.[153]

The SPPF provides general principles for land use and development in Victoria and outlines the State's policies for key land use and development activities on themes including settlement, environment and landscape values, environmental risk, natural resource management, built environment, housing, economic development, transport and infrastructure. The SPPF seeks to ensure that objectives of planning in Victoria, as set out in the *Planning and Environment Act 1997* (the PE Act) are fostered through appropriate land use and development planning policies and practices which integrate relevant environmental, social and economic factors in the interests of net community benefit and sustainable development.[154] The SPPF applies to all land in Victoria and all planning and responsible authorities must take into consideration and give effect to, the principles and policies contained in the SPPF.

Amendment VC83 changed the VPP and all Victorian planning schemes by replacing the existing Clause 13 of the SPPF.[155] The amendment now includes a specific reference to bushfire (Clause 13.5) with the objective of the clause to assist in strengthening community resilience to bushfires. The SPPF now provides the broad framework for integrating bushfire policy and provisions into planning schemes and provides specific guidance on how bushfire considerations are to be treated in planning schemes and decisions through:

> providing a framework for hazard identification and risk assessment in the planning system – consideration needs to be given to location, design and construction of new development and the implementation of bushfire protection measures with development not to proceed unless the risk to life and property from bushfire can be reduced to an acceptable level

> ensuring that strategic and settlement planning assists with strengthening resilience to bushfire – consultation with relevant fire authorities is encouraged early in the planning process to ensure appropriate bushfire protection measures are implemented and that planning addresses risk, reduces this risk and ensures that the risk to existing residents, property and community infrastructure from bushfire will not increase as a result of future land use and development

> providing direction to planning authorities for implementing bushfire matters in a planning scheme – specifying the requirements and standards for assessing whether the risk to a proposed development from bushfire is acceptable and the conditions under which new development may be permitted

> providing development control strategies for areas affected by the bushfire hazard such as the BMO – site-based assessment to be undertaken to identify appropriate bushfire protection measures for development that has the potential to put people, property or community infrastructure at risk from bushfire.[156]

The BRCIM considers the inclusion of a bushfire clause in the SPPF as a strong reflection of the VBRC's intentions. The clause strengthens community resilience to bushfire, prioritises the protection of human life in decision making and applies precautionary principles to planning and decision making when assessing the risk to life, property and community infrastructure from bushfire.

Finding: The BRCIM considers action 39(a) has been satisfactorily implemented.

39(b) Review statutory tools for regulating development on small blocks in high risk bushfire areas

The VBRC recommended that in amending the VPP, municipal councils should include a minimum lot size for use of land for a dwelling, both with and without a permit. DPCD agreed in the Implementation Plan to review the statutory tools for regulating development on small lots in high risk bushfire areas with other planning provisions for bushfire. A minimum lot size would be included in amendments to the VPP, if this were considered by the State to be an effective tool.

---

152 VBRC *Final Report,* Vol II, Part Two, p 229.

153 Ibid.

154 VPP Clause 10 Operation of the State Planning Policy Framework.

155 Amendment VC83 is available from the following website http://planningschemes.dpcd.vic.gov.au/VPPs/index.html. Refer to implementation action 37(i) for further details.

156 Refer to Clause 13.05-1 VPP for further details.

DPCD has advised that during consultation on Amendment VC83 the issue of minimum lot size was extensively canvassed with MAV and a number of council officers in relation to the development of the new bushfire planning provisions. During this consultation, however, no clear preference on the determination of lot sizes in the VPP was expressed.

DPCD considers that further work on other initiatives needs to be progressed before a final decision in relation to minimum lot sizes can be taken. This includes work on regional growth plans and the metropolitan planning strategy whereby once this broader framework is implemented, it will become more apparent as to whether a minimum lot size will be instituted.[157]

The regional growth plans are aimed at delivering comprehensive land use and urban planning to manage expected growth in key regional centres including Geelong, Ballarat, Bendigo and the Latrobe Valley. In the early phases of development, the regional growth plans will be developed in a partnership between local government and State agencies and authorities.

In addition, the government is preparing a new metropolitan planning strategy to manage Melbourne's growth and change as Melbourne expands beyond a city of four million people. The strategy will contribute to the overall vision of the State including links with regional Victoria and consider where new housing and business activities should be concentrated as well as transport connections, health services, schools, sports grounds and parks.

Both the regional growth plans and the metropolitan strategy are in the early phases of development and DPCD advises that any conclusive outcomes from this work will not be known until, at the earliest, 2013.

The BRCIM is satisfied with DPCD's response to this action noting that further work aligned with this action is occurring through the development of the regional growth plans and the metropolitan strategy, both of which are long term projects. This work may require the State to reassess the need for a minimum lot size but not until these projects are concluded.

Finding: The BRCIM considers action 39(b) has been satisfactorily implemented.

39(c) Develop new bushfire overlay to align with the statewide bushfire hazard mapping

Overlays apply to a site or area in addition to the requirements of zones used in planning schemes.[158] The VBRC expressed concerns regarding the previous WMO and deemed that more comprehensive mapping of bushfire risk would enable the direction and application of risk treatments.[159] The WMO existed in Victorian planning schemes to identify areas where the potential intensity of a wildfire was significant and likely to pose a threat to life and property.

The WMO[160] was replaced by the BMO on 18 November 2011 as part of Amendment VC83. The BMO is a tool to guide the development of land in areas significantly affected by a bushfire hazard and is used to:

> identify areas where the bushfire hazard requires minimum bushfire protection measures for subdivision and buildings and works to be specified

> ensure that the location, design and construction of development and implementation of bushfire protection measures are considered

> ensure that development does not proceed unless the risk to life and property from bushfire is managed to an acceptable level.

The BMO is based on the bushfire hazard and is applied to areas of extreme fuel loads where there is potential for extreme bushfire behaviour such as a crown fire and extreme ember attack and radiant heat. The BMO takes into account vegetation, weather characteristics and slope. The BMO boundaries are based on the bushfire hazard and do not always follow identifiable ground features (such as rivers or roads) or property boundaries.

The planning provisions for the BMO are contained in VPP clause 44.06 (Bushfire Management Overlay) with specifics for new development in the BMO set out in clause 52.47 (Bushfire protection: planning requirements). Clause 52.47 includes detailed objectives, standards (including mandatory standards) and decision guidelines that permit applications must comply with. A range of bushfire issues such as building siting, providing defendable space, onsite water availability and emergency vehicle access will also need to be considered in any permit application.

---

157 Information on the regional growth plans and the strategy is available from DPCD's website.

158 Zones establish the types of land uses that are either prohibited or permitted in the area covered by the zone and, if permitted, whether they require a planning permit or not.

159 VBRC *Final Report,* Vol II, Part Two, p 236.

160 The WMO applied to forests greater than five ha in size with a vegetation density of greater than 80 per cent. A forest of this size and density can generate fuel loads capable of supporting extreme and unpredictable bushfire behaviour. Areas shown on planning scheme maps as WMO were introduced into planning schemes prior to this date.

Bushfire site assessments under the BMO are aligned to the process for conducting a site assessment in the building system in accordance with AS 3959–2009. To reflect the specific nature of the bushfire hazard in the BMO, defendable space tables have been included in clause 52.47 of the VPP. These tables replace the distance tables under AS 3959–2009 (in relation to the BMO only). When a site assessment is completed as part of the BMO process then a further assessment will not be required at the building stage as a building surveyor must accept the BAL contained in the building permit.

As part of the bushfire site assessment, vegetation must be classified into one of seven categories as defined by AS 3959–2009. The CFA has developed a fire service guideline, *Assessing Vegetation in a Bushfire Management Overlay*, which assists in classifying Victorian vegetation into the categories of AS 3959–2009.[161] This guideline is intended to be used in conjunction with other material used to assist with bushfire site assessment.

Applications to subdivide land, construct a building or construct or carry out works must meet the requirements of VPP clause 52.47 unless a schedule to the BMO specifies otherwise. Schedules may be used to tailor the BMO to specific local circumstances (generally discrete areas such as neighbourhoods or townships within a municipality rather than as a whole).

Schedules to the BMO must contain a statement of bushfire protection objectives (such as vegetation, weather characteristics and topography) to be achieved and are prepared by planning authorities in compliance with the Ministerial Direction on the Form and Content of Planning Schemes.[162] If there is no schedule in place, statewide provisions of the BMO remain in place.

DPCD has prepared a bushfire management statement template to assist applicants applying for planning permits in the BMO. Copies of the template and an example statement are available from DPCD's website with DPCD also preparing additional information on the BMO (Practice Note 65).[163]

When first introduced, the BMO applied to all areas applicable to the WMO with a transitional arrangement in Amendment VC83 providing for the verification of updated mapping for the BMO to be undertaken prior to it being used in planning schemes. Since November 2011, DPCD has been working with councils, the CFA and DSE to finalise the mapping of the BMO across the State and introduce the new BMO mapping into all applicable planning schemes. This includes approximately 65 planning schemes out of 81 across the State.[164] Updating the BMO in planning schemes will involve:

> the CFA and DPCD preparing a draft BMO for each planning scheme based on the best available information, including the most recent bushfire hazard mapping prepared by DSE

> DPCD liaising with councils, CFA and DSE on reviewing the draft BMO mapping and verify that the map is 'fit for purpose'

> DPCD seeking written input of selected key stakeholders who will be provided with the draft BMO mapping. Stakeholders will include DEECD, MAV, the Housing Industry Association, the Property Council of Australia, the Urban Development Institute of Australia and the Master Builders Association of Victoria

> DPCD establishing a Rapid Verification Taskforce (RVT)[165] to review the final BMO mapping and will comprise key stakeholders including representatives from the CFA, MFB, MAV, DSE and DPCD

> DPCD preparing planning amendments based on RVT advice to give effect to the final BMO mapping. This will require approval from the Minister for Planning or appropriate delegate.

The implementation of updated BMO mapping commenced in the first quarter of 2012 with the Bass Coast and Murrindindi councils the first to engage in the process.

---

161 The guideline and further information on the BMO is available from the CFA website.

162 The Ministerial Direction is available from the DPCD website.

163 The Practice Note is available from the DPCD website. The planning provisions can be viewed online on at http://planningschemes.dpcd.vic.gov.au and to view the application of BMO to individual properties, free planning property reports are available from the Land Victoria website.

164 For comparison, there were approximately 53 planning schemes with the WMO at 18 November 2011.

165 The RVT will also consider areas where there is no agreement on boundary location, changes are suggested but not supported or further areas that have been identified that would benefit from further review.

DPCD has also commenced an audit of the BMO to identify any areas where changes may be necessary. A small reference group has been established comprising the CFA and MAV and the outcome of this audit will not be known until the end of June 2012. This audit will focus on the operational effectiveness of the BMO.

All areas within the BMO are currently designated as BPA with the BRCIM noting that concurrent to updating the BMO mapping in planning schemes, the BPA is also being refined by DPCD.[166]

The BRCIM is cognisant that the BMO is undergoing constant review and welcomes this process to ensure that it meets the needs of all communities throughout the State, regardless of whether they are in a high risk area or not. The alignment of the BMO and the statewide planning map with other new bushfire building and planning initiatives is very positive and encouraging. The BRCIM does note, however, that the application of the BMO and BPA maps in local planning schemes will require sufficient resources and reasonable timeframes for further integration. MAV has expressed some concerns that support for councils to introduce the BMO and BPA is currently insufficient and will reduce after June 2012.

As the BMO has only been in place for a short period of time, the BRCIM cannot make any further comments as to efficacy.

Finding: The BRCIM considers action 39(c) has been satisfactorily implemented.

Recommendation 39 Overall Finding

The State has implemented a number of changes to the VPP to improve the current planning regimes and ensure they account for the protection of human life and property as recommended by the VBRC. The changes are aimed at reducing risk and where possible eliminating bushfire hazards.

The planning changes endeavour to restrict planning for developments already considered as high risk bushfire areas. Recommendations 39.1 and 39.3 have clearly been implemented through actions 39(a) and (c). The BRCIM notes DPCD's intention to deliver on recommendation 39.2 but this is dependent upon additional projects related to planning such as the development of regional growth plans and metropolitan planning strategies. It is recognised that new planning initiatives cannot be developed in isolation and need to consider broader Victoria wide planning policies. DPCD's decision not to create a minimum lot size until there is clear evidence for the need for such a change is prudent.

The BRCIM also notes the work of DPCD and other stakeholders in further refining the BMO to ensure that it is truly aligned and integrated with other planning provisions including the BPA.

The new changes to the SPPF and the introduction of the BMO have only been in place for a relatively short period. It may take years before there is a true understanding of these fundamental changes and their wider implication for planning across the State. The effectiveness of the introduction of these new planning initiatives in high risk areas may not be truly known until tested by a bushfire.

---

166 Refer to recommendation 37.

RECOMMENDATION 40

The Country Fire Authority amend its guidelines for assessing permit applications for dwellings, non-dwellings and subdivisions in the Bushfire-prone Overlay in order to accommodate the amendments to the Wildfire Management Overlay that are implemented as a result of recommendation 39 and make the guidelines available to municipal councils and the public. The revised guidelines should do the following:

40.1   substantially restrict new developments and subdivisions in those areas of highest risk in the Bushfire-prone Overlay

40.2   set out the CFA's guidelines for assessing permit applications for dwellings, non-dwellings and subdivisions – including the minimum defendable space requirements for different risk levels

40.3   clarify that the CFA will approve new developments and subdivisions only if the recommended bushfire protection measures – including the minimum defendable space – can be created and maintained on a continuing basis

40.4   emphasise the need for enduring permit conditions – in particular, conditions for the creation and maintenance of minimum defendable space to be maintained for the life of the development.

Implementation Actions

Action Required	Due Date	Progress Report Status (July 2011)	Final Report Status (July 2012)
40(a) Amend guidelines for municipal councils and the community to align permit applications with the new planning provisions	30/09/2012	Ongoing	In progress

Status

40(a) Amend guidelines for municipal councils and the community to align permit applications with the new planning provisions

The VBRC considered in recommendation 40 (and also in recommendation 39) that the State provide strategic leadership by amending a number of key clauses in the VPP to clarify how bushfire risk management and biodiversity conservation should be balanced.[167] The VBRC recommended that the CFA amend its guidelines subsequent to amendments made in relation to recommendation 39 with the CFA committing in the State's Implementation Plan to introduce guidance material on development in locations of high bushfire risk within 12 months of amendments being made to the VPP. [168]

Recommendation 39 required the State to develop a new bushfire overlay to align with the statewide bushfire hazard mapping. The BMO was introduced as part of Amendment VC83 and specific details on the BMO are contained in clauses 44.06 (Bushfire Management Overlay) and clause 52.47 (Bushfire protection: planning requirements of the planning scheme) of the VPP.

The CFA website maintains a section on planning and permits with specific details on the BMO, its application and how to apply for a planning permit if land is situated in the BMO. The CFA has developed two fire service guidelines which are available from the CFA website:

> Requirements for Water Supply and Access in a Bushfire Management Overlay (FSG LUP 0002)

> Assessing Vegetation in a Bushfire Management Overlay (FSG LUP 0003).

The first guideline outlines the CFA's minimum requirements for water supplies and access for development subject to the BMO and associated clause 52.47 of the VPP. The second guideline provides a vegetative key to assist with classifying Victorian vegetation into the categories outlined in AS 3959–2009 for the purposes of undertaking a bushfire site assessment within the BMO. Both guidelines are intended to be used in conjunction with other materials available in relation to undertaking a bushfire site assessment. The CFA website also provides information on the requirements for water supplies and access in areas outside of the BMO.

It should be noted that the BMO and associated documentation only applies to planning applications submitted to councils on or after 18 November 2011. Applications submitted to councils prior to this date will continue to be processed under the WMO.

In addition to the guidelines described above, the CFA is in the process of developing a document which will support the implementation of the BMO. This document will provide a comprehensive guide to the bushfire planning provisions and describe how to apply these provisions when completing or assessing a permit application in the BMO. The document incorporates information from DPCD and the CFA for all planning permit applications involving the BMO. It also provides further clarification of the fire service requirements and information about alternative methods and alternative solutions.

A number of multi-agency meetings were held in early May 2012 to discuss the draft document. The draft is currently undergoing peer review with comments to be incorporated into a final version for release in November 2012. A draft version of the document has been provided to the BRCIM.

Finding: The BRCIM notes the CFA's development of appropriate guidelines on the BMO with the further development of an additional resource to ensure applicants and referral authorities understand the approaches undertaken during the assessment of a planning application.

As this action is in progress, the BRCIM cannot make any comments as to efficacy. Further evidence on the implementation of recommendation 40 will be requested from the CFA and an update provided in the 2013 Annual Report.

---

167 VBRC *Final Report,* Vol II, Part Two, p 244.

168 Refer to recommendations 37 and 39 for further details on Amendment VC83 to the VPP.

Implementation Actions

Action Required	Due Date	Progress Report Status (July 2011)	Final Report Status (July 2012)
41(a) Design and consult on changes to policy frameworks and the VPPs	31/07/2011	Ongoing	Complete
41(b) Design and consult on changes to policy framework and VPPs – establish local government native vegetation reference group	31/01/2011	Complete	Complete
41(c) Train DSE, local government and roads management staff on changes to the policy framework	31/12/2011	Ongoing	Complete
41(d) Conduct awareness raising and community education on changes to the policy framework (VPP)	31/12/2011	Ongoing	Complete

Status

The *Progress Report* noted that action 41(b) was satisfactorily implemented. The BRCIM subsequently sought further information from a number of stakeholders regarding the effectiveness of the DSE Local Government Native Vegetation (DSE/LGNV) Reference Group established by implementation action 41(b). The DSE/LGNV Reference Group's terms of reference were to inform and assist with the implementation of the VBRC's recommendations 41, 60, 61 with consideration for recommendation 62. Supplementary information on the role of the DSE/LGNV Reference Group is provided in the BRCIM's response to recommendation 60.

41(a) Design and consult on changes to policy frameworks and the VPPs

Vegetation conservation is subject to planning controls in the VPP as well as additional controls available in overlays in local planning schemes. Many of the witnesses before the VBRC raised the question of balancing measures designed to mitigate bushfire risk with the conservation of native vegetation. Striking a balance between the two was found to be significantly challenging, for both councils and individuals.

Recommendation 41 required the State to consider amending the VPP in relation to the requirement to remove vegetation and develop associated guidelines. Temporary measures were introduced after February 2009 in the form of the '10/30' rule to enable residents to clear native vegetation around their property without a planning permit for bushfire protection, thus creating 'defendable space' around a building.[169]

The '10/30' rule allows residents to clear:

> any vegetation on their property, including trees, within 10 metres of a house

> any vegetation except for trees within 30 metres for bushfire protection.

The rule applies statewide for dwellings constructed before September 2009 except in the 21 metropolitan municipalities, however, if a bushfire risk applies in any one of these municipalities the local council can specify this in their planning scheme where the '10/30' rule and fence line clearing applies.

The '10/30' rule remains in place but a new '10/50' rule was introduced in November 2011, as part of Amendment VC83, in areas where the bushfire hazard is greatest, as identified by the new BMO.[170] This accords with the VBRC's view that the ability to remove vegetation for fire protection should be more closely aligned with risk.

As part of Amendment VC83, a new clause 52.48 (Bushfire Protection) was introduced to provide a condition requiring ongoing maintenance of defendable space. Clause 52.48 specifically provides for the removal, destruction or lopping of vegetation to reduce fuel load around existing buildings used for accommodation and adjacent to fences on property boundaries without requiring a planning permit. The exemptions for vegetation removal only apply to buildings and fences existing or approved before 10 September 2009. This new clause replaces previous interim controls contained in VPP clause 52.43.

The '10/50' rule enables existing homeowners in areas covered by the BMO to clear without a planning permit:

> any vegetation on their property, including trees, within 10 metres of a house

> any vegetation except for trees within 50 metres for bushfire protection.

The exemptions apply to both native and non-native vegetation and an advisory note on the application of the exemptions and information on the removal of vegetation for bushfire protection is available from the DPCD website. Specific information on the '10/30' and '10/50' rule, including FAQs and information on fence line clearing is available from the DSE website.

The VBRC was of the view that the changes it proposed under recommendation 41 would make it easier for people to create and maintain defendable space around homes in the BMO but a permit would still be required for removing native vegetation.[171] In addition, where a section 173 agreement exists between a council and landowner to protect vegetation on a property, if vegetation is to be removed under the '10/30' rule, an amendment to this agreement will need to be sought from the relevant council.[172]

For new buildings, clearing for bushfire protection is now considered through the planning permit process as planning schemes and the building regulations include requirements for building new dwellings in BPA and in BMOs. When siting new buildings, they must be away from bushfire hazards and where possible, native vegetation removal must be avoided and minimised.

The BRCIM requested information on the rate of vegetation clearance following the introduction of both the '10/30' and '10/50' rules, however, rates and levels of clearance are unable to be measured. MAV advised that it has received reports from a number of councils including Yarra Ranges, Nillumbik and in more urban municipalities such as Frankston, of increased levels of clearing. The level of clearing appears to have settled over time with an initial spike following the introduction of the exemption for vegetation clearance.

It is unclear whether the level or rate of vegetation clearance is related specifically to the mitigation of bushfire risk as the new rules enable vegetation clearing on property without a planning permit. The new rules also apply in many locations that have a relatively low bushfire risk. MAV is aware of some concerns by property owners about requirements to establish and maintain defendable space and the level of tree removal required.

Finding: The BRCIM considers action 41(a) has been satisfactorily implemented.

---

169 The 10/30 rule was introduced in September 2009.

170 Specific information on land affected by the BMO can be viewed from the Land Victoria website or the DPCD website at http://planningschemes.dpcd.vic.gov.au. Further details on the BMO is also provided in response to recommendation 39.

171 VBRC *Final Report,* Vol II, Part Two, p 245.

172 A Section 173 agreement is an agreement under section 173 of the PE Act and will be a condition placed on a planning permit.

41(c) Train DSE, local government and roads management staff on changes to the policy framework

Since changes to the VPP were introduced in November 2011, DSE has undertaken to provide training to DSE officers, local government and roads management staff on changes to vegetation management. DSE facilitated a number of Native Vegetation Forums in October and November 2011. These one day forums were attended by representatives from DSE, CFA and DPCD. Matters discussed at the forums included updates on the planning and building framework, bushfire site assessments, roadside exemptions and hazard mapping. The BRCIM was provided with the agendas and material distributed to participants at the forums.

As part of the forums, sessions were held on assessing applications to remove native vegetation for bushfire protection. Assessment is based on a step-by-step process which will vary according to the different types of applications, such as existing buildings used for accommodation, new buildings affected by the BMO, new buildings outside the BMO, subdivisions, strategic plans and planning scheme amendments.

DSE has developed an internal guide for DSE officers, a *Guide for Assessing Applications Involving the Removal of Native Vegetation for Bushfire Protection Purposes*, to assist in the assessment of applications to remove native vegetation and other development proposals in BPA and the BMO. This guide contains an overview of bushfire planning provisions and risk assessment processes and provides a step-by-step assessment process. It complements two other DSE publications, which are available on the DSE website, the *Native Vegetation Guide for assessment of referred planning permit applications* and *Native Vegetation DSE Guide for assessment of non-referred planning permit applications.*

A number of seminars were held in November and December 2011 on the new bushfire planning provisions. These seminars are part of the PLANET (PLAnning NETwork) professional development and training program designed for planning professionals and other users of Victoria's planning system.[173] The seminars were designed to inform planners, practitioners and council workers on the new planning provisions for bushfire (Amendment VC83), the interaction of the planning system with the building system and the key statutory stages of the planning and building process. In addition, these seminars also provided information on the new vegetation exemptions.[174]

The BRCIM went to one of these seminars in November 2011 and noted they were well attended. The course content was tailored for those attending and there was a sufficient mix of factual information and practical examples. Additional information on this training is contained in the responses to recommendations 55 and 60, particularly as it relates to roadside vegetation clearance.

Finding: The BRCIM considers action 41(c) has been satisfactorily implemented.

41(d) Conduct awareness raising and community education on changes to the policy framework (VPP)

As a result of changes to the VPP in November 2011, the BRCIM considers there was a concerted effort by a number of departments and agencies to provide relevant information through a range of media, including:

> media releases
  – Minister for Planning – *New Planning Controls to protect Victorians from Bushfires*[175]
  – MAV – *New Bushfire Planning Provisions Welcomed*[176]

> website updates
  – DSE and DPCD – websites updated to include links to relevant information on the new exemption

> new publications tailored to provide information on the vegetation exemptions
  – advisory notes – *AN39: Vegetation exemptions*[177]
  – fact sheet and FAQ – *Making Victoria Fire Ready: 10/30 Rule, 10/50 Rule and fence line clearing factsheet and FAQs*[178]
  – Fire Ready Guide – section on the vegetation rules included in this widely distributed publication as part of an insert to the *Herald Sun* and *The Weekly Times*

> interactive online communications

> animated graphic produced in consultation with DSE housed on the DPCD and DSE websites to explain the new vegetation exemption.

---

173 Refer to the DPCD website for more information on PLANET training.
174 Refer to implementation action 41(a).

175 Media Release available from the Premier's website.
176 Media Release available from the MAV website.
177 The Advisory Note is available from the DPCD website.
178 The fact sheet and FAQs are available from the DSE website.

The BRCIM notes that the announcement of the vegetation clearance rules did not, however, meet the timeframe to be included as part of Fire Action Week which was held from 13 to 20 November 2011.

The BRCIM considers there is adequate information readily available from both the DPCD and DSE websites. There are some noticeable differences, however, in the ease of navigation and the ability to find material on these websites. The BRCIM considers that agencies and departments must be cognisant of the needs of individuals to understand the new changes, particularly to the VPP and relevant materials should be publicly available as soon as practical when the changes are made.

Finding: The BRCIM considers action 41(d) has been satisfactorily implemented.

Recommendation 41 Overall Finding

The BRCIM notes the significant work undertaken by DSE and DPCD to ensure that the VPP was amended to incorporate vegetation clearance requirements. The new provisions enable greater understanding of the vegetation clearance requirements while minimising the need for permit applications and other complicated requirements.

Education and training on the new VPP provisions has been significant and the BRCIM recognises the contribution of many departments and agencies to these processes. This action demonstrates how departments and agencies have been working together cooperatively and in doing so enhancing established relationships.

The BRCIM observes, however, that departments and agencies should be cognisant of the need to update their websites as soon as possible and remove, where appropriate, outdated material that may cause confusion or is irrelevant.

RECOMMENDATION 42

The Department of Sustainability and Environment develop and administer a collective offset solution for individual landholders who are permitted to remove native vegetation for the purpose of fire protection.

Implementation Actions

Action required	Due date	Progress report status (July 2011)	Final report status (July 2012)
42(a) Develop a native vegetation offset scheme in consultation with councils	14/10/2012	Ongoing	In progress

Status

42(a) Develop a native vegetation offset scheme in consultation with councils

As provided in evidence to the VBRC, an offset scheme already existed in Victoria in the form of BushBroker. The VBRC considered that DSE should develop a separate collective offset scheme, one in which it would pool funds contributed by individual landholders seeking to offset small removals in order to create a larger scale offset with greater biodiversity value.[179]

‘Over-the-counter’ (OTC) schemes have been identified as the most suitable mechanism to provide collective offsets. While the BushBroker program has an OTC facility for private landowners in the Victorian volcanic plains, goldfields and Victorian riverina bioregions, DSE intends to assist councils establish their own OTC schemes.

Councils in developing their own OTC scheme, can use the BushBroker program as a template. Councils that choose to establish an OTC scheme will be required to enter into a memorandum of understanding with the native vegetation credit register (NVCR).

---

179 VBRC *Final Report,* Vol II, Part Two, p 246.

Offsets

A native vegetation offset is any works, or other actions, to make reparation for the loss of native vegetation arising from the removal or destruction of native vegetation. Most native vegetation clearance works approved under a planning permit must have an appropriate offset. Any gains must be permanent and ongoing and will be linked to a specific clearing site. Offsets can often be generated on the permit holder's own property.

Native vegetation credit

A native vegetation credit is a gain in the extent and/or quality of native vegetation that has a secure and ongoing agreement that is registered on the land title and on the NVCR. Established by the Victorian Government, the NVCR oversees the registration, listing, extinguishing and quality control of native vegetation credits. The buying and selling of native vegetation credits, including matching credits to specific requirements such as offsetting, is undertaken by the owners and buyers of credits or their agents.

BushBroker Program

BushBroker is a program to assist landowners generating native vegetation credits to be matched with permit holders who require credits to meet their offset requirements. Further information on BushBroker is available on the DSE website.

In 2011, a working group comprising representatives from DSE, MAV and a number of local councils began working on a guide, the *Guide to assist councils develop over the counter programs* which sets out a number of guiding principles for the operation of an OTC scheme. The principles relate to accountability, transparency, administration and competition. DSE is finalising the guide and it is now available to councils. MAV has advised that once it is finalised, the guide will be published on the MAV Environment Portal.[180]

MAV in cooperation with DSE held two local government native vegetation forums in September 2011 to discuss OTC schemes including providing information on introducing an OTC scheme and the key benefits and challenges. Three councils, Yarra Ranges Shire, Baw Baw Shire and Casey City shared their experiences in seeking to set up native vegetation offset schemes. In addition to these three councils, DSE is also working with Manningham, Nillumbik, Greater Dandenong and Macedon Ranges to establish OTC schemes.

DSE, in conjunction with MAV, has set up an OTC scheme network to enable information sharing between councils currently considering establishing an OTC part of this network. The network currently has 10 councils with an interest in OTC schemes.

Councils are at different stages of developing their OTC schemes with Baw Baw and Yarra Ranges finalising their registration of credit sites and the Yarra Ranges on track to begin credit training at the start of the 2012–13 financial year. The East Gippsland Shire Council recently received funding from DPCD to create a website database linking private landholders with permit applicants seeking native vegetation offsets.

The BRCIM notes the ongoing development of OTC schemes but as of 1 June 2012, none were in place.

Finding: The BRCIM notes DSE's progress in facilitating the development of OTC schemes with councils across Victoria. A guide to assist councils in the development of an OTC scheme is to be finalised shortly. Ten councils are considering developing an OTC scheme.

The BRCIM considers progress on the implementation of this recommendation is well under way with the date for implementation October 2012. The BRCIM will revisit this recommendation in the 2013 Annual Report.

---

180 The Environment Portal is available from the MAV website at www.mav.asn.au/ policy-services/environment.

RECOMMENDATION 43

The Department of Sustainability and Environment conduct biodiversity mapping identifying flora, fauna and any threatened species throughout Victoria and make the results publicly available. The format used should be compatible with that used for Bushfire-prone Area mapping.

Implementation Actions

Action Required	Due Date	Progress Report Status (July 2011)	Final Report Status (July 2012)
43(a) Undertake detailed vegetation and biodiversity mapping	14/10/2012	Ongoing	In progress

Status

43(a) Undertake detailed vegetation and biodiversity mapping

A recurrent theme in evidence before the VBRC was the need for thorough biodiversity mapping that identified flora and fauna, particularly any protected, vulnerable or threatened species. [181] The VBRC considered that such mapping would be more useful if conducted on a statewide basis and would be applicable to more areas than just planning, such as fuel reduction burning on public land[182] and roadside management.[183]

Biodiversity mapping enables flora and fauna, particularly threatened species to be identified so that relevant departments, agencies and councils can account for biodiversity considerations when managing bushfire risk. One component of the BHBM Project[184] undertaken by DSE is biodiversity mapping across the State. Biodiversity mapping has two components – vegetation mapping and species distribution maps.

Vegetation data gathered as part of the development of the statewide hazard map[185] has been used to inform the vegetation and biodiversity mapping project. Details of the Targeted Vegetation Condition Assessment Mapping Project were provided in the *Progress Report.*[186] This project has involved the collecting of on-ground data[187] and remote sensed vegetation data[188] to generate statewide and localised detailed models of vegetation type, extent and fuel hazard. Data was collected during 2011 and enabled DSE to trial run developed models and refine the remaining data collection processes in 2012. While Victoria has a large database of on-ground information collected for various projects, additional sampling has been undertaken with external consultants engaged between 2010 and 2012 to collect this data.[189]

181 VBRC *Final Report,* Vol II, Part Two, p 246.

182 Refer to recommendations 56 and 57.

183 Refer to recommendation 62.

184 Refer to recommendation 37 – implementation actions 37(a) and (b).

185 Refer to implementation action 37(a).

186 At the time of writing the *Progress Report*, evidence on the vegetation and biodiversity mapping project was provided in response to a request for evidence for recommendation 37. Implementation action 37(c) refers to the State's commitment to develop detailed vegetation and biodiversity mapping in high risk priority areas. This, as previously advised, is a duplication of action 43(a) and action 37(c) will now be addressed as part of the response to recommendation 43.

187 On-ground sampling is used to assess vegetation type and condition.

188 Remote sensing is used to collect data on vegetation extent but can assist in assessing type and condition. A combination of the most recent and fine resolution remote sensed data is used: Rapideye (5m resolution), ALOS (50m resolution), Landsat images (25m resolution) and Modis Imagery (250m resolution).

189 Refer to recommendation 37 in the *Progress Report* for more information. The BRCIM was provided with evidentiary material including requests for tender and contractual agreements relating to the collection of data for this project.

Over 4,000 quadrat data samples[190] and 5,000 vegetation condition data samples have been collected across Victoria to inform vegetation type and condition. Final field observations are currently being entered into a database and these will inform the vegetation and biodiversity map. Detailed vegetation mapping is required as vegetation characteristics can change quickly over time and maps become outdated.

Through the BHBM Project a significant improvement has been made in relation to the collection of data as clearer descriptions of vegetation types are assisting in the creation of a more accurate map of vegetation types across the State. DSE has improved techniques and methodologies for integrating various vegetation data collected and modelling of both vegetation characteristics and bushfire hazard.

Species distribution maps of rare and threatened species habitat across Victoria will be developed and updated through the BHBM Project. Species distribution is based upon data capturing habitat information and current locations of the species. DSE is interrogating current databases to determine the extent of current knowledge of rare and threatened species although additional on-ground collection has been required.

Biodiversity mapping will enable assessments of biodiversity to be considered as part of the planning process and will also inform key bushfire management functions such as targeted planned burning and suppression activities. DSE has advised that the improved native vegetation mapping and biodiversity information will assist with:

> strategic and statutory planning decision making. Information will be able to be used by councils to make better decisions as to rezoning and the application of overlays

> improving the modelled bushfire fuel dataset that underpins the various fire behaviour models in use. Fire models are used for strategic fire management planning, operational fire management planning and short term bushfire preparedness and response planning.

The BRCIM has been provided with substantial details of the biodiversity mapping project and notes that the mapping is on schedule to be completed by 30 June 2012.

Finding: The vegetation and biodiversity mapping project is an outcome of the BHBM Project as discussed in recommendation 37. The BRCIM notes that recommendation 43 is still in progress with completion scheduled for the end of June 2012. This timeframe is outside the scope of this *Final Report* and final evidence on the mapping project was not available for consideration.

The BRCIM will examine the outcomes of the biodiversity mapping project within the context of the broader BHBM Project on the development of a detailed hazard map. Further evidence will be requested and the BRCIM will revisit this action in the 2013 Annual Report.

---

190 A quadrat is a tool used in ecology for sampling purposes. The quadrat will be placed on the ground at random to count the vegetation within the sample and determine the percentage of vegetation occurring within the marked area.

RECOMMENDATION 44

The Country Fire Authority produce for community guidance material on fire-resistant landscape and garden design, including a list of fire-resistant species.

Implementation Actions

Action Required	Due Date	Progress Report Status (July 2011)	Final Report Status (July 2012)
44(a) Produce community guidance material on fire resistant landscape design	31/12/2011	Ongoing	Complete

Status

44(a) Produce community guidance material on fire resistant landscape design

No plant can be classified as 'fireproof' as all plants may burn in extreme fire weather conditions. The VBRC considered the use of fire resistant vegetation as a risk mitigation measure in the Final Report. While evidence before the VBRC showed that the CFA had previously provided the community with advice on the use of fire resistant vegetation in landscaping and a list of species that were less flammable, this was deemed to be so general as to be quite unhelpful.[191]

In response to the VBRC's recommendation, the CFA committed in the State's Implementation Plan to produce community guidance material on fire resistant landscape and garden design by December 2011.[192]

The CFA engaged a number of technical advisors including the Melbourne School of Land and Environment (University of Melbourne, Burnley Campus) to assist in the development of the *Landscaping for Bushfire: Garden Design and Plant Selection Guide* (the Landscape Guide). The Landscape Guide is a comprehensive document designed for new and established homes to create or modify existing gardens in high risk bushfire areas.

The Landscape Guide provides information on landscaping options that minimise the effects of direct flame contact and radiant heat on houses during bushfires. Vegetation that is well placed and lower in flammability may protect a house by reducing the amount of radiant heat, reducing the chance of direct flame contact with the home, reducing wind speed and deflecting and filtering embers. Landscaping around a home requires adequate planning, design and maintenance of areas to maximise the home's chance of survival during a bushfire.

For landscaping to be effective in a bushfire environment, the Landscape Guide states that the following factors should be taken into consideration:

> how bushfire behaves

> inclusion of defendable space

> location of plants within the garden

> individual flammability of plants

> need for ongoing maintenance.

The Landscape Guide also provides details on the planning and design process including four example gardens with landscape plans, design notes and suitable plant options for gardens in coastal, hilly, suburban and rural environments. Specific information has also been provided in four separate short pamphlets on each garden type.

---

191 VBRC *Final Report,* Vol II, Part Two, p 246.

192 Implementation Plan (May 2011), p 78.

Also included as part of the Landscape Guide is a Plant Selection Key. This key allows users to select suitable plants based on the plant's characteristics and the circumstances of the user. Upon working through the key, information on the plants selected will be provided with their overall flammability rating, firewise rating, maintenance requirement and location within a garden explained.

While the Landscape Guide is designed for residential homes, the four major design principles used in the guide may be applicable to larger developments and subdivisions. It is designed to be used by home gardeners, landscape architects, nursery staff as well as CFA Fire Safety Officers, Vegetation Management Officers[193] and home CFA HBAS consultants. The Landscape Guide and the Plant Selection Key are available from the CFA's website. The Plant Selection Key is an online interactive tool.

The Landscape Guide and example gardens with landscape plans are available from the CFA website.
Images: Country Fire Authority

---

193 Vegetation Management Officers provide support to CFA regions and brigades regarding their roles and responsibilities in road and rail reserve fire management and private land management.

The CFA provided a copy of the Landscape Guide to the BRCIM by December 2011. The Landscape Guide was officially launched at the Melbourne International Flower and Garden Show on 30 March 2012, with the BRCIM attending the launch.

The CFA maintained a display stand at the Melbourne International Flower and Garden Show from 28 March to 1 April 2012. The CFA advised that during the show there was a strong interest in the Landscape Guide, particularly in relation to the plants on display which included both native and exotic varieties with low flammability. The CFA received a number of requests from tertiary institutions and TAFEs to talk to students about the publication and nursery owners and landscapers regarding copies of the publication. In addition, a number of interstate visitors expressed interest in the Landscape Guide and its relevance to areas outside of Victoria.[194] The Plant Selection Key is designed to allow users to select plants relevant to their local conditions.

The BRCIM notes that the Landscape Guide is an additional measure in preparing a home from the threat of bushfire attack and should be considered in conjunction with other measures and an individual's bushfire survival plan.[195] The Landscape Guide is an effective tool to further educate the Victorian community on reducing bushfire risks around the home.

The BRCIM considers the CFA's development of the Landscape Guide exceeds the intent of the VBRC's recommendation, which originally only called for a list of fire resistant plants to be provided to the public. The publication goes further to provide example garden designs for properties with varied risk profiles and includes a plant selection key which helps to determine how 'firewise' a plant may be.

Finding: The BRCIM notes the significant work undertaken by the CFA to produce the Landscape Guide. This guide is a vast improvement from previous information provided by the CFA on fire resistant vegetation and clearly meets the objective and intent of recommendation 44. The BRCIM considers action 44(a) has been satisfactorily implemented.

CFA display at the Melbourne International Flower and Garden Show, 28 March – 1 April 2012. Photo: BRCIM

194 Fire authorities in other jurisdictions have recently revised information on their websites in relation to fire resisting garden plants including the South Australian Country Fire Service and the Tasmania Fire Service.

195 Information on bushfire survival plans is contained in the *Fire Ready Kit* available from the CFA's website.

The State press municipal councils – in particular, Murrindindi Shire Council – to urgently adopt a bushfire policy in their Local Planning Policy Framework and incorporate bushfire risk management in their planning policies and strategies for rebuilding communities such as Marysville, Kinglake and others affected by the January-February 2009 fires.

Implementation Actions

Action Required	Due Date	Progress Report Status (July 2011)	Final Report Status (July 2012)
45(a) Produce one or more model local planning policies	30/09/2011	Ongoing	Complete
45(b) Pilot model in five planning schemes	31/12/2011	Ongoing	Complete
45(c) Remaining councils to implement model	30/06/2012*	Ongoing	In progress
45(d) Murrindindi Shire local policy planning framework to include a bushfire local planning policy	30/09/2011[196]	Ongoing	In progress

BRCIM reporting date. No due date provided in the Implementation Plan.

Status

There was reference made in the VBRC Final Report and the State's Implementation Plan to the development of 'model' local planning policies, with the 'model' to be piloted across the State. On examination of the evidence provided to the BRCIM, it is evident that there is no 'model' per se but rather information available to guide councils on the new initiatives developed through the Integrated Planning and Building Framework and implemented as part of Amendment VC83 to the VPP.[197] The State, through DPCD, has provided relevant advice and guidance to councils on how the new planning provisions can be integrated into local planning policies if required.

45(a) Produce one or more model local planning policies

45(b) Pilot model in five planning schemes

The VBRC considered that the inclusion of bushfire policy within the LPPF will mean substantial work for many councils. The view of the VBRC was that the State should provide material assistance to councils by developing a model local bushfire policy that can be adopted or adapted by councils to suit their own circumstances.[198]

---

196 No date was provided in the State's Implementation Plan for completing this action, however, reference was made to the development of Murrindindi's bushfire local planning policy to be adopted once the Integrated Planning and Building Framework was in place. The BRCIM incorrectly assigned a date of 30 September 2011 to coincide with the completion of some aspects of the Planning and Building Framework (most were not delivered until November 2011) but this action is in progress. The BRCIM assigned a date of 30 June 2012 to assist with reporting.

197 Refer to recommendation 37.

198 VBRC *Final Report* Vol II, Part Two, p 231.

The VBRC assessed a number of local planning schemes, in particular, how the planning schemes of Nillumbik, Murrindindi and Latrobe councils dealt with bushfire risk management and vegetation conservation.[199] From the municipal case studies presented in the VBRC's Final Report, the VBRC concluded that the way councils deal with bushfire protection and biodiversity varies considerably at the local level with planning policies not universally adopted in planning schemes despite commensurable risk.[200]

In November 2011, DPCD released a Practice Note to provide advice and assistance to councils in relation to developing local planning policies for bushfire protection.[201] Developed by DPCD in conjunction with councils and MAV, the tools outlined in Practice Note 64 are designed to enable councils to tailor their LPPF accordingly.

Practice Note 64 was released following Amendment VC83 to the VPP and recognises the many differences between municipalities, including the nature and extent of the bushfire hazard. Planning authorities are advised to use a range of information to support local planning for bushfire protection including:

> RBPA – this provides high level analysis of where bushfire hazards may impact on planning objectives[202]

> BMO – consideration of the application of the BMO and the relationship to other zones, overlays and policy objectives such as those relating to settlement and urban growth[203]

> outcomes of strategic work that has considered bushfire matters such as settlement planning and structure planning for specific settlements including growth of settlements

> MFPP and any existing or planned State, regional or local bushfire management and prevention actions that may affect development outcomes

> an analysis of the landscapes that exist in the municipality and key physical features such as national parks and rivers.

Local Planning Policy Framework (LPPF)

The LPPF sets a local and regional strategic policy context for a municipality and operates to such an extent that it is consistent with the SPPF. The LPPF is used to demonstrate how broader State planning policies can be achieved or implemented within a local context.

The LPPF comprises:

> Municipal Strategic Statement (MSS) – a concise statement of key planning, land use and development objectives for the municipality, setting out the local strategic direction of a planning scheme. The MSS is developed by a responsible authority and is linked to the council corporate plan and supports objectives of the SPPF. The MSS also provides a strategic basis for the application of zones, overlays and provisions in the planning scheme reviewed periodically

> local planning policies – provides guidelines on how the responsible authority will exercise discretion under the planning scheme controls. These cannot override other VPP controls, but can provide guidance on how to exercise discretion when reaching a decision.

---

199 VBRC *Final Report* Vol II, Part Two, p 247.

200 Ibid., p 248.

201 *Practice Note 64 Local planning for bushfire protection* is available from the DPCD website.

202 Refer to recommendation 38.

203 Refer to recommendation 39.

Planning authorities regularly review their planning schemes to ensure they make effective use of State provisions and give effect to State planning policy objectives. In high risk areas, the planning scheme must fully consider the SPPF and consider:

> the way in which the planning scheme assists to strengthen community resilience to bushfire and supports bushfire management and prevention

> application of zones in the context of the BMO

> application of overlays and consistency with changes to the VPP

> development pressure that may conflict with the bushfire hazard and needs to be considered further

> the view of fire authorities and public land managers.

DPCD advised that the execution of action 45(a) was slightly delayed, pending the release of the new planning provisions under recommendation 41 that were not implemented until November 2011. The BRCIM considers the information provided by DPCD is comprehensive and sufficient for councils to incorporate the new bushfire provisions into local planning policies if required.

While the State's Implementation Plan outlined in recommendation 45 that the content of the 'model' planning policies would be piloted in five planning schemes, this did not occur as councils began to consider implementing the new bushfire provisions into local planning policies following their release in November 2011 without the need for a pilot programme. The implementation by councils of this action is addressed in response to implementation action 45(c).

Finding: The BRCIM considers actions 45(a) and (b) have been satisfactorily implemented.

45(c) Remaining councils to implement model

The VBRC considered that the content and complexity of local bushfire planning policies will vary according to the level of bushfire risk in a municipality and the location of bushfire hazards, but any such model will need to be flexible enough to accommodate a range of circumstances.[204] Local planning is important to ensure that councils can specifically tailor bushfire protection measures to their local conditions, as no two councils are the same.

Most councils held off on developing their local planning policies to include the new bushfire provisions contained in Amendment VC83 until they were finalised and gazetted on 18 November 2011. Councils can tailor their LPPF based on the advice provided in Practice Note 64[205] as there is now greater clarification of the SPPF and matters such as the BMO and local policy can be tailored to local conditions.[206]

DPCD has provided funding of $1.2 million to support the implementation of the new bushfire planning provisions in Amendment VC83. Councils funded include Alpine, Baw Baw, Colac Otway, East Gippsland, Glenelg, Hepburn, Mansfield, Mornington Peninsula, Murrindindi, Nillumbik, Wellington and Yarra Ranges. This funding will assist councils to further develop their LPPF and to ensure that sufficient emphasis is placed on bushfire risk and mitigation of this risk.

In March 2012, MAV conducted a workshop to assist councils in identifying projects such as developing schedules to modify the BMO, enforcement and compliance issues, protection options for dispersed settlements and vegetation management agreements that can progress councils' integration of planning provisions into local planning policies.

DPCD has also provided additional funding of $800,000 following the identification of suitable council projects to support councils not previously funded in implementing Amendment VC83. Both DPCD and MAV have provided the BRCIM with a list of funded council bushfire planning projects. Examples include:

> Mitchell Shire Council has undertaken a planning scheme review audit, which has identified a need to revise the MSS and update it with new policies and strategies adopted by council, along with aligning the LPPF with new State policy. A revision of the bushfire planning policy will be considered

> Hepburn Shire Council has written its local policy in consultation with the CFA as part of the Hepburn Planning Scheme review

> Knox City Council is currently awaiting the review of the BPA and BMO to enable a more accurate assessment of the fire risk within Knox. Council officers have recently provided DPCD with comments on the draft BMO map revisions proposed.

---

204 VBRC *Final Report,* Vol II, Part Two, p 231.

205 Refer to implementation action 45(a).

206 For example, DPCD is currently working with the CFA and selected councils on the development of schedules to the BMO (refer to recommendation 39).

Other projects include reviews of planning schemes to align with bushfire planning provisions, development of mitigation treatments for bushfire risk and assessment of potential impacts of the bushfire planning provisions on future development.

In the Implementation Plan, the State advised that councils will adapt and implement new policies throughout 2012. While new policies have been introduced, there is no requirement that councils must change their local planning policies to incorporate the relevant changes. Each council is required to consider the new bushfire planning provisions in the development of any local planning policies, not necessarily fully integrate these into their policies.

The BRCIM views the work of councils in developing and implementing bushfire projects specific to their local planning environment as effective mechanisms to ensure the new bushfire provisions are embedded into the LPPF. Councils are continuing to develop a scope of works to support the implementation of new bushfire planning provisions in their municipalities. This work is ongoing and will continue in 2012 and thereafter.

MAV advises that it is expected to take a number of years to determine the effectiveness of the new planning policy framework and their incorporation into local planning policies. The BRCIM concurs with this view.

Finding: The BRCIM notes that action 45(c) is dependent on individual councils developing their own local planning policies to incorporate the new bushfire planning provisions. The BRCIM will revisit this action in the 2013 Annual Report.

45(d) Murrindindi Shire local policy planning framework to include a bushfire local planning policy

As advised in the *Progress Report*, DPCD continues to assist Murrindindi Shire in the development of its LPPF. This includes:

> progressing a number of amendments to the Murrindindi Planning Scheme (amendments 29, 35 and 38)

> ongoing liaison with Murrindindi council officers including members of the planning team

> ongoing discussions and support to progress the review of Murrindindi's MSS.

An allocation of $120,000 has been provided by DPCD to the council to support this work. DPCD continues to work with Murrindindi Shire in developing a framework for a sustainable future for the communities of Kinglake Ranges, Flowerdale and Toolangi. A draft Kinglake Ranges, Flowerdale and Toolangi Plan and Design Framework (the draft Plan) was developed and released for community consultation in 2011. The draft Plan is intended to guide population growth, land use and development, infrastructure and service provision, community safety and the character and identity of local communities into the future.

A summary of the submissions received from the public consultation process on the draft Plan was released as part of an interim consultation report in August 2011. Following the government's release of the new bushfire provisions related to mapping and planning policies and controls in November 2011, the draft Plan was updated. The BRCIM is aware that as at 1 June 2012, the draft Plan is yet to be considered by the Murrindindi Shire.

Murrindindi Shire commissioned and completed a draft updated MSS and bushfire local planning policy which is currently with DPCD for review and consideration. MAV has advised that Murrindindi anticipates implementing changes in the second half of 2012 through incorporation into the LPPF of the Murrindindi Planning Scheme.

Finding: The BRCIM will revisit action 45(d) in the 2013 Annual Report.

Recommendation 45 Overall Finding

The State has actively encouraged municipal councils to incorporate the new bushfire planning provisions into their LPPF and has provided relevant guidance material. It is up to individual councils to consider these provisions and incorporate as they see fit.

The BRCIM notes that councils are continuing to look at ways to integrate bushfire risk management planning into local planning policy framework. This process is ongoing and will continue throughout 2012.

RECOMMENDATION 46

The State develop and implement a retreat and resettlement strategy for existing developments in areas of unacceptably high bushfire risk, including a scheme for non-compulsory acquisition by the State of land in these areas.

Implementation Actions

Action Required	Due Date	Progress Report Status (July 2011)	Final Report Status (July 2012)
46(a) Development of buy-back scheme – final procedures and criteria	31/12/2011	N/A	Complete
46(b) Bushfire Land Acquisition Panel established	31/12/2011	N/A	Complete
46(c) Community consultation on draft Buy-back Scheme	31/12/2011	N/A	Complete
46(d) Scheme commences – applications invited	01/03/2012	N/A	Complete
46(e) Closing date for receipt of applications	30/05/2012	N/A	Complete
46(f) Assessment of applications	31/12/2012	N/A	In progress
46(g) Scheme concludes	30/06/2014	N/A	In progress
46(h) Evaluation of scheme	31/08/2014	N/A	In progress

Status

The VBRC expressed the view that the limited capacity of planning to treat existing risk highlights the need for a rethinking and redesign of settlements and towns destroyed by fire in February 2009.[207] While there is an imperative to rebuild, the future management of bushfire risk needs to be strongly considered. The VBRC stated that in considering a retreat and resettlement strategy, the State should take into account a number of factors including:

> focusing on land near or adjoining public land

> giving priority to acquiring land in an area of unacceptably high bushfire risk and on which dwellings were damaged or destroyed by the 2009 bushfires

> determining criteria for 'unacceptably high risk' with particular reference to the availability of other risk mitigation measures such as shelters and refuges

> using non-compulsory land acquisition as a last resort only, when other options are not feasible

> allowing an application for acquisition to be initiated by a landowner or recommended by the State

> the duration of the strategy and the available funds.[208]

At the time of writing the *Progress Report,* the government was still developing its program for the non-compulsory buy-back of properties exposed to unacceptably high bushfire risk and there were no implementation actions the BRCIM could monitor the State's progress against. The program was to be finalised following comprehensive consultation with the community in high risk areas. As such, the Implementation Plan did not provide any details of the proposed implementation actions.

---

207 VBRC *Final Report*, Vol II, Part Two, p 249.

208 Ibid., p 252.

DOJ has responsibility for implementing recommendation 46 and what is now referred to as the Bushfire Buy-back Scheme (the Scheme). In November 2011, DOJ advised the BRCIM of the proposed implementation actions for recommendation 46 which are outlined above and based on publicised commitments made by the Minister for Bushfire Response.

46(a) Development of buy-back scheme – final procedures and criteria

The Scheme operates to assist people who wish to relocate from an unacceptably high bushfire risk area and to ensure that this land cannot be redeveloped thus mitigating future bushfire risk. It is being implemented using the Crown's common law powers to buy and to own land.

The eligibility criteria for the Scheme are:

> owner-occupier whose principal place of residence was destroyed by the Victorian bushfires in early 2009

> have not commenced rebuilding on the property

> a site is not available on the property that will enable a replacement dwelling to be located at a distance greater than 100 metres from forest vegetation and that vegetation adjoins a large area of forest such as a national park, State park, State forest or private plantation.

Properties will be assessed against current bushfire data and maps and be ranked according to a number of bushfire risk factors including (but not limited to):

> whether anyone is currently living on the land

> the distance of the property from an established township

> the type, density and extent of vegetation on, or adjoining the property environmental and landscape significance of the area

> the topography of the area and the prevailing weather conditions and climate.

The BRCIM was provided with a copy of the overview of the Scheme, including an outline of the proposed criteria and operational requirements.

Finding: The BRCIM considers action 46(a) has been satisfactorily implemented.

46(b) Bushfire Land Acquisition Panel established

On 24 October 2011, the Deputy Premier and Minister for Bushfire Response announced details of the Scheme, including the Bushfire Land Acquisition Panel. The panel is to oversee the operation of the Scheme and the management of acquired properties and will confirm the eligibility of applicants and make recommendations on the best possible future use for land that is acquired, ensuring that the bushfire risk for neighbouring landowners does not increase.

The former Victorian Bushfire Appeal Fund Chairman, the Honourable Pat McNamara is the chair of the panel and is supported by a panel secretariat. The panel initially used existing data to determine landowners whose properties meet the above criteria and are assessed to be at the greatest bushfire risk.

The BRCIM was provided with evidence as to the panel's membership, charter and timeframes for the application of the Scheme. The panel meets on a fortnightly basis to discuss the approval or rejection of applications based on eligibility and can recommend land acquisition to the Minister (based on valuations) as to the future best use of land. As at the end of May 2012, the panel has met eight times.

Finding: The BRCIM considers action 46(b) has been satisfactorily implemented.

46(c) Community consultation on draft Buy-back Scheme

Following the Ministerial announcement of the Scheme, letters were sent to over 1,600 landowners (principal place of residence based on data collected by VBRRA) advising them of the details of the Scheme and how to participate in the consultation process. Additional letters were sent to persons who had individually approached the Minister about the operation of the Scheme.

During November and December 2011, information and community consultation sessions were scheduled around the State. These sessions were advised by public notice in major and metropolitan newspapers and through newsletters (FRU and CFA Connect) and the DOJ website.

The intention of the consultation was to alert identified landowners about the Scheme and seek feedback on the government's approach. In addition, the consultation sought to advise local government of the application of the Scheme and to inform regional communities across the State of the Scheme and if appropriate invite them to participate.

Information and consultation sessions were held in Bendigo, Chum Creek, Churchill, Flowerdale, Kinglake, Marysville, Melbourne, Myrtleford, St Andrews, Strathewen, Wandong, Whittlesea and Yarra Glen. Over 200 people attended the relatively informal sessions held in small groups or with individual landowners. Issues raised at the consultations included:

> timing and process of the Scheme

> future use and maintenance of the land

> valuation of land and prices

> rebuilding – including costs and regulations.

The BRCIM considers the consultation process was adequate and enabled those who may be eligible sufficient information to consider the implications of making an application under the Scheme.

Finding: The BRCIM considers action 46(c) has been satisfactorily implemented.

46(d) Scheme commences – applications invited

On 1 March 2012, a public call was made for applications for the Scheme.[209] Application forms were made available to download from the DOJ website. Landowners who had already expressed an interest in the Scheme were automatically sent an application form.

Finding: The BRCIM considers action 46(d) has been satisfactorily implemented.

46(e) Closing date for receipt of applications

The Scheme officially closed on 31 May 2012. The BRCIM is aware, however, that while the panel continued to meet to assess eligibility of applicants, late applications were considered provided they were presented to the panel in a timely manner. As of 31 May 2012, 187 applications were received from the public.[210]

Finding: The BRCIM considers action 46(e) has been satisfactorily implemented.

46(f) Assessment of applications
46(g) Scheme concludes
46(h) Evaluation of scheme

The BRCIM notes that the panel is currently reviewing applications and once approved, properties will be valued with applicants advised of the outcome. This process will continue over the next six months.

Finding: The BRCIM notes that actions 46(f), (g) and (h) are long term actions and will revisit all these actions in future Annual Reports.

Recommendation 46 Overall Finding

The BRCIM considers recommendation 46 to be a long term action and notes that it will not be fully implemented until 2014 when an evaluation of the Scheme is undertaken. Progress has commenced with the Scheme developed, advisory panel established and applications requested and received. Applications for the Scheme officially closed on 31 May 2012. The next stage of the process requires assessments of applications for eligibility, followed by valuations and final acceptance by applicants.

The BRCIM notes the strong divergence of views on the Scheme and that there has been much debate in the media on the merits and application of the Scheme. The BRCIM is conscious that the Scheme presents individuals with a difficult situation that requires complex decisions to be made at a time when they may still be experiencing grief and will have strong emotional connections with the land. Making a financial decision will be complex and challenging for many.

---

209 Premier of Victoria, Applications open for bushfire buy-back scheme, Media Release, 1 March 2012, accessed from the Victorian Premier's website, 1 May 2012.

210 This figure does not include applications sent but not received due to postal delays.

Standards Australia do the following:

47.1   amend the Victoria Planning Provisions to require that, when assessing a permit to remove native vegetation around an existing dwelling, the responsible authority and the Department of Sustainability and Environment, as referral authority, take into account fire hazard and give weight to fire protection purposes

47.2   review, and amend as appropriate, the testing methods prescribed in its standards for Tests on Elements of Construction for Buildings Exposed to Simulated Bushfire Attack (AS 1530.8.1 and AS 1530.8.2) to ensure that, so far as is possible, the methods provide a reliable predictor of the performance of construction elements under bushfire conditions.

Implementation Actions

Action Required	Due Date	Progress Report Status (July 2011)	Final Report Status (July 2012)
47(a) Building Commission to meet with Standards Australia to confirm support for changes to AS 3959–2009. Outcomes to be confirmed in writing.	30/11/2010	Complete	Complete

Status

Recommendation 47 was directed at Standards Australia and as such there were no direct actions for the State to implement. However, the State agreed in the Implementation Plan to continue to support the role of Standards Australia's progress in the development of changes to AS 3959–2009.[211] The *Progress Report* noted that action 47(a) was satisfactorily implemented as Standards Australia was progressing with amendments to AS 3959–2009 in line with the VBRC's recommendations but noted action 47(a) would be revisited as part of the BRCIM *Final Report*.

47(a) Building Commission to meet with Standards Australia to confirm support for changes to AS 3959–2009. Outcomes to be confirmed in writing.

UPDATE

Since the BRCIM published the *Progress Report* in July 2011, AS 3959–2009 has been further amended by Amendment 3, which was approved for publication on 11 November 2011. This amendment included:

> changing the objective of AS 3959–2009 to be as follows – *The objective of this Standard is to prescribe particular construction details for buildings to reduce the risk of ignition from a bushfire, appropriate to the –*

>> *(a) potential for ignition caused by burning embers, radiant heat or flame generated by a bushfire; and*

>> *(b) intensity of the bushfire attack on the building.*

> providing normative 'deemed-to-satisfy' (DTS) specifications for generic skillion,[212] hipped and gabled roofing systems for use in BAL-FZ[213]

> additional improvements by way of clarification, and improvement to the standards style and form.

---

211 The *Progress Report* provided details on AS 3959-2009, p 102 and Standards Australia, p 24.

212 A part of a building having a lower, especially sloping, roof (may service as a room or a shed).

213 Information on BAL levels, including BAL-FZ is provided in recommendation 49.

The standard, AS 3959–2009, continues to remain a primary reference document in the National Construction Code (NCC)[214] and since the 2009 edition was released, Amendments 1, 2 and 3 have been published and adopted as Volumes One and Two of the NCC.[215]

Standards Australia Technical Committee FP020 (Construction of Bushfire Prone Areas Committee) has a continuous work programme in relation to AS 3959–2009 including ongoing maintenance to ensure its currency and a second stream of work relating to the development of a new edition of the standard.

Recommendation 47 also required Standards Australia to review and amend, as appropriate, the testing methods prescribed in its standards for Tests on Elements of Construction for Buildings Exposed to Simulated Bushfire Attack (AS 1530.8.1 and AS 1530.8.2)[216] to ensure that, so far as possible, the methods provide a reliable predictor of the performance of construction elements under bushfire conditions. AS 1530.8 test method standards, provide test methodologies for the capacity of construction assemblies to limit the entry of windborne embers to act as a source of ignition through aggregation or in isolation.

The Building Commission has provided an update on the review and amendment of AS 15380.1 and 1530.8 based on information provided from Standards Australia. A joint meeting of the FP018 Fire Safety Committee (which is responsible for the development of AS 1530.8 test method standards) and FP020 was held in early May 2012. The objective of the meeting was to agree on a future work program regarding potential research activities which could inform further standards development work, particularly in relation to ember attack issues across bushfire attack levels and to ensure alignment with the objective and proposed outcomes of both committees.

In addressing the new edition of AS 3959–2009, Standards Australia is of the view that any changes to the document need to be supported by evidence. Standards Australia anticipates that a research program will be developed out of the joint meeting of FP018 and FP020 to inform the future direction of both committees in relation to these issues. Separate meetings of the respective committees are due to occur, although as of 1 June 2012, advice on this matter was unavailable.

Finding: The BRCIM is satisfied that recommendation 47 has been implemented, albeit the recommendation was not directed at the State. Recommendation 47.2 continues to be implemented by Standards Australia with an ongoing review of standards AS 1530.8.1–2007 and AS 1530.8.2–2007.

The recent amendments to AS 3959–2009 have taken into consideration recommendation 47 as well as the VBRC's recommendations 48.1 and 48.2. The BRCIM considers that no further reporting is required on recommendation 47.

---

214 Formally the BCA. The *Progress Report* provided details on the NCC at p 23.

215 Refer to the ABCB website.

216 AS 1530.8.1-2007 and AS 1530.8.2-2007 are available from the SAI Global website.

RECOMMENDATION 48

Australian Building Codes Board do the following:

48.1   amend the performance requirements in the Building Code of Australia to ensure that they incorporate reducing the risk of ignition from ember attack

48.2   work with Standards Australia to effect expeditious continuing review and development of AS 3959–2009, Construction of Buildings in Bushfire-prone Areas, and other bushfire-related standards referred to in the Building Code of Australia

48.3   negotiate with Standards Australia and SAI Global Ltd an arrangement for free online access to AS3959–2009, Construction of Buildings in Bushfire Prone Areas, other Australian Standards referred to in AS3959–2009, and any other bushfire-related Australian Standards referred to in the Building Code of Australia.

48.4   amend the Building Code of Australia to remove deemed-to-satisfy provisions for the construction of buildings in BAL-FZ (the Flame Zone)

48.5   include in the Building Code of Australia bushfire construction provisions for non-residential buildings that will be occupied by people who are particularly vulnerable to bushfire attack, such as schools, child care centres, hospitals and aged care facilities.

Implementation Actions

Action Required	Due Date	Progress Report Status (July 2011)	Final Report Status (July 2012)
48(a) Building Commission to liaise with the Australian Building Codes Board to confirm Victoria's support for the VBRC recommendations 48.1, 48.2 and 48.3	30/6/2011	Complete	Complete
48(b) Write to the Commonwealth and all jurisdictions seeking free access to building codes and standards 30/06/2011	30/06/2011	Complete	Complete
48(c) Place the issue of free access to building codes and standards at the next Australian Building Ministers' Forum	30/06/2011	Complete	Complete

Status

The VBRC directed recommendation 48 to the ABCB and as such, the State did not have a direct role in the completion of this recommendation. The BRCIM noted in the *Progress Report* that implementation actions 48(a), (b) and (c) (which relate directly to recommendations 48.2 and 48.3) were all satisfactorily implemented but noted that an update on matters in recommendation 48 and in particular, 48.4 and 48.5, would be provided as part of this *Final Report*.

UPDATE

48.1 Changes to the performance requirements have been included in the 2012 edition of the NCC, which takes effect from 1 May 2012.

48.2 AS 3959–2009 has been amended and continues to be reviewed with details of recent amendments provided in response to recommendation 47.

Building of Flowerdale Community House. Photo: VBRRA

48.3 The VBRC considered that bushfire related standards mandated by legislation should be freely available and that any cost associated with this should be borne by the Commonwealth and State and Territory government members of the ABCB. As advised in the *Progress Report*, while the issue of free access to building codes and standards was placed on the agenda for the Building Minister's Forum (BMF) in April 2011, this meeting was deferred. As at 1 June 2012, the BMF has not met and there is no date set for the next meeting.

The ABCB has recently considered this matter and resolved that free access to the NCC be considered by the BMF in 2013-14. In the short term, the Commonwealth has advised that negotiations between the ABCB and Standards Australia regarding the provision of free online access to bushfire standards (AS 3959–3059) and the handbook (HB330 Living in Bushfire Prone Areas) is continuing. The ABCB has pre-purchased a quantity of the AS 3959-2009 standard and the handbook for free public use, however, these will not be released until issues such as copyright are resolved as the products are commercially controlled by a private company, SAI Global. As at 1 June 2012, Standards Australia is still in negotiations with SAI Global. Standards Australia has provided details to the ABCB and these are currently under consideration.

48.4 Reference to the DTS provision is contained in response to recommendation 49 – implementation action 49(k).

48.5 Reference to the construction provisions for non-residential buildings (Class 9) is contained in response to recommendation 49 – implementation actions 49(e), (i) and (j).

Recommendation 48 Overall Finding

While this recommendation was directed to the ABCB and Victoria had no direct role in the implementation, the BRCIM notes that the amendment of AS 3959–2009 and its continuing development and amendment is occurring through the normal standard development processes. This process involves all States and Territories in Australia.

The BRCIM recognises the significance of AS 3959–2009 as a building standard and its relevance to building regimes on a national scale. Initiatives to amend the standards are to be considered in the context of bushfires in all environments across Australia and cannot be confined to the State of Victoria.

RECOMMENDATION 49

The State modify its adoption of the Building Code of Australia for the following purposes:

49.1   to remove deemed-to-satisfy provisions for the construction of buildings in BAL-FZ (the Flame Zone)

49.2   to apply bushfire construction provisions to non-residential buildings that will be occupied by people who are particularly vulnerable to bushfire attack, such as schools, child care centres, hospitals and aged care facilities

49.3   other than in exceptional circumstances, to apply a minimum AS 3959-2009 construction level of BAL-12.5 to all new buildings and extensions in bushfire-prone areas.

Implementation Actions

Action Required	Due Date	Progress Report Status (July 2011)	Final Report Status (July 2012)
49(a) ABCB to develop options for Australian Building Ministers' Forum	30/06/2012*	Ongoing	N/A
49(b) Building Commission researching case studies of house survival from 2009	30/06/2012*	Ongoing	In progress
49(c) Building Commission continuing to collect data for ABCB and Standards Australia	30/06/2012*	Ongoing	In progress
49(d) Amend Building Regulations 2006 to apply minimum BAL 12.5	30/09/2011	Ongoing	Complete
49(e) Complete a project on improving bushfire safety for vulnerable people (eg. schools, hospitals, childcare)	30/06/2011	Ongoing	Complete
49(f) Fund Victoria's contribution to ABCB development of National Standards *(This action is from the October 2010 Plan)*	30/06/2012	Ongoing	Complete
49(g) Convene expert panel on performance requirements for non-residential buildings *(This action is from the October 2010 Plan)*	30/09/2011	Ongoing	Complete
49(h) Amend Building Regulations 2006 to adopt performance requirements	31/03/2012	Ongoing	In progress
49(i) Develop guidelines for retrofitting class 9 buildings	30/06/2012*	Ongoing	In progress
49(j) Liaise with ABCB to confirm timelines for inclusion in 2013 Building Code of Australia	01/05/2013*	Ongoing	In progress
49(k) Removal of the 'deemed-to-satisfy' provision for the construction of buildings in the BAL-FZ category	TBD[217]	TBD	In progress

BRCIM reporting date. No due date provided in the Implementation Plan

217 No reference was made in the State's Implementation Plan to the State's position on DTS or its application as part of implementing recommendations 48.4 and 49.1. The BRCIM included this action to ensure that the State considered this requirement in implementation of recommendations 48 and 49.

Status

The *Progress Report* noted that action 49(g) was satisfactorily implemented although the table included in the report incorrectly reflected the status of the action as ongoing.

In relation to the specific elements of recommendation 49:

49.1 The removal of the DTS provision is discussed in implementation action 49(k).

49.2 The construction provisions related to non-residential buildings is discussed in implementation actions 48(e), (i) and (j).

49.3 The application of a minimum BAL of 12.5 is discussed in implementation action 49(d).

49(a) ABCB to develop options for Australian Building Ministers' Forum

In the *Progress Report,* it was reported that a BMF was scheduled for 7 April 2011 although this date was deferred and no new date was set. The Building Commission has since advised that no new date has been set for a BMF in 2012.

The BRCIM notes that this action is not directed at the State, as the ABCB was to develop options for consideration by the BMF as referenced in the State's Implementation Plan. The Building Commission, where relevant, has provided input into the BMF on this issue through the Minister for Planning, who is the Victorian representative on the BMF.

The BRCIM has reviewed the evidence provided and concluded that further review and monitoring of this action is unproductive as it is contingent on external variables at a national level. The BRCIM is satisfied through examination of other implementation actions (set out below) that the State is well positioned to implement recommendation 49 in full. Implementation 49(a) is deemed to be no longer relevant or applicable.

Finding: The BRCIM considers action 49(a) is no longer applicable and no further review or monitoring of this action is required.

49(b) Building Commission researching case studies of house survival from 2009

49(c) Building Commission continuing to collect data for ABCB and Standards Australia

The Building Commission has advised throughout 2011-12 that this work is exceedingly difficult. This is due to the difficulty in identifying sites constructed to BAL-FZ[218] which are suitable for the case studies and the difficulty in accessing relevant data. When there are a larger volume of dwellings constructed to BAL-FZ there may be more opportunity for data to be gathered.

As a result of this lack of available data, the Building Commission has advised that both these actions are not proceeding at this time. When the data is available, the Building Commission will proceed with these actions. The BRCIM acknowledges the difficulty of implementing these actions and will continue to monitor the Building Commission's progress in relation to both of these actions. It should be noted, that no due date was provided for actions 49(b) and (c) but a date of 30 June applied by the BRCIM to ensure the State submitted evidence and the ongoing monitoring and review of this action occurs.

Finding: The BRCIM considers actions 49(b) and (c) to be long term projects and notes that progress is ongoing. The BRCIM will revisit these actions in future Annual Reports.

49(d) Amend Building Regulations 2006 to apply minimum BAL 12.5

Following the events of February 2009, the whole of Victoria was declared a BPA.[219] New building regulations, the Building Amendment (Bushfire Construction) Regulations 2011 came into effect on 8 September 2011 to replace the Interim Regulations[220] made in March 2010. Permanent bushfire construction requirements are now in force across Victoria.

The new regulations provide that:

> the Minister for Planning has authority to designate BPA.[221] Only landowners or developers seeking to build new homes in designated BPA will need to undertake a BAL assessment to determine the specific construction requirements for their homes

> a relevant Building Surveyor must accept a BAL specified by a planning scheme or a planning permit for the construction requirements for a building[222]

> in a designated BPA, a minimum construction standard of BAL 12.5 for ember protection applies as set out in section 5 of AS 3959-2009.[223]

---

218 Refer to implementation action 49(d) for an explanation of BAL-FZ.

219 Refer to recommendation 37.

220 The Interim Regulations were the Building Amendment (Bushfire Construction – Short-term Requirements) Regulations 2010.

221 Regulation 810.

222 Regulation 811.

223 Regulation 811.

Bushfire Attack Level (BAL)	Radiant Heat Exposure (AS 3959-2009) and levels of exposure	Description of predicted bushfire attack and levels of exposure
BAL-LOW	Insignificant	Risk is low, radiant heat on the building is insignificant to warrant specific construction requirements, however, ember attack may still occur. If you are in a designated BPA, you must construct to a minimum BAL 12.5.
BAL-12.5	0 to 12.5 kW/m^2	Primarily risk of ember attack, risk of radiant heat is considered low.
BAL-19	12.5 to 19 kW/m^2	Risk is considered moderate with increasing levels of ember attack and burning debris ignited by wind borne embers; increasing likelihood of exposure to radiant heat.
BAL-29	19 to 29 kW/m^2	Risk is considered to be high with increasing levels of ember attack and burning debris ignited by wind borne embers; increasing likelihood of exposure to radiant heat.
BAL-40	29 to 40 kW/m^2	Risk is considered to be very high with increasing levels of ember attack and burning debris ignited by wind borne embers; increasing likelihood of exposure to radiant heat and some direct exposure to flames possible.
BAL-FZ	40 kW/m^2 (Flame Contact)	Risk is considered to be extreme. Direct exposure to flames from fire front is likely in addition to high levels of radiant heat exposure and ember attack.

Table 2: Bushfire Attack Levels (BAL)

The new regulations mean that homes must be built according to a property's BAL. New homes in BPA must be built to a minimum BAL of 12.5 to help withstand ember attack. This includes sealing roofs, sealing around doors and windows and screening windows. Depending on the BAL site assessment, higher construction levels may be required. The Building Commission encourages people to engage a registered building practitioner or other trained professional to assist in determining the BAL for a site.

As outlined in the *Progress Report,* the Building Commission developed and published a *Guide to Retrofit Your Home for Better Protection from a Bushfire* that is available from the Building Commission's website.[224] This guide provides practical advice to people wishing to retrofit their homes for various BAL based upon AS 3959-2009.

To assist with the introduction of the regulations, the Building Commission and DPCD during October and November 2011 conducted a number of free seminars throughout Victoria on the new building regulations. The seminars were aimed at building and planning practitioners and provided a brief overview of the new building regulations within the context of the VBRC's recommendations, an update on council functions, bushfire prone maps, single site assessments and DTS provision in the flame zone.[225] The BRCIM attended one of these seminars in Melbourne.

In addition, the Building Commission provides information on costings for home owners to meet the minimum BAL of 12.5 on its website. The Building Commission engaged an independent quantity surveyor to calculate the costs based on a number of parameters.

The BRCIM considers the amendment to the building regulations satisfies the requirements of recommendation 49.3. Sufficient information is publicly available to ensure that the community and building and planning practitioners are now aware of the minimum building requirements to BAL 12.5.

Finding: The BRCIM considers action 49(d) has been satisfactorily implemented.

---

224 Refer to recommendation 51.

225 Information on the BPA and single site assessments is provided in recommendation 37, details on training and the new building regulations and planning provisions is provided in recommendation 55 and information on DTS is referred to in implementation action 49(k).

49(f) Fund Victoria's contribution to ABCB development of National Standards *(This action is from the October 2010 Implementation Plan)*

DPCD has advised that no additional funding for the development of a national standard for non-residential buildings is required. In 2010-11, $700,000 (over two years) was provided to support the development of a national standard. This money was used to enable the development of the State based performance requirement which in turn will inform the national process (refer to recommendations 49(h)).

Finding: The BRCIM considers action 49(f) has been satisfactorily implemented.

49(e) Complete a project on improving bushfire safety for vulnerable people (eg. schools, hospitals, childcare)

49(h) Amend Building Regulations 2006 to adopt performance requirements

The expert panel established in relation to implementation action 49(g) assisted in the development of the performance requirements for non-residential buildings (Class 9 buildings). As part of this work, an amendment to the Building Regulations 2006 to adopt the performance requirement was drafted.

Section 7 of the Subordinate Legislation Act requires that a RIS be prepared for any new statutory rules. A RIS was prepared and was formally assessed by VCEC as meeting the requirements of the Subordinate Legislation Act. The Office of the Chief Parliamentary Counsel drafted an exposure draft of the new regulations in April with the exposure draft regulations and RIS expected to be released for public consultation mid 2012. It is expected that the regulations will be made by September 2012 subject to the release of the RIS and exposure draft for public consultation.

DPCD has advised that there were a number of delays in the process for amending the regulations due to complexities related to the implementation options in the RIS and the difficulties in obtaining data to support the proposal as part of the RIS process. While data issues were resolved in March 2012, additional work was required to ensure that the RIS would meet the requirements of a certificate of adequacy as given by VCEC on 14 May 2012.

Regulations must be made according to legislative provisions and comply with relevant practices and procedures. This is often time consuming particularly the RIS process, as new regulations must minimise the regulatory burden. While this action was not implemented by the due date of March 2012, the BRCIM considers the State has made every possible effort to expeditiously proceed with the amendment.

Finding: The BRCIM notes the State's progress in amending the Building Regulations and will revisit action 49(h) in the 2013 Annual Report.

49(i) Develop guidelines for retrofitting class 9 buildings

While the VPP already requires additional bushfire safety measures for 'vulnerable' use developments (such as schools, child care centres, hospitals and places of assembly) the VBRC was of the view that extending the application of such bushfire safety construction provisions to non-residential buildings, particularly those for vulnerable use warranted further consideration by the ABCB and the State.[226]

The State has committed to producing a guideline for retrofitting non-residential buildings (Class 9) once a national standard is finalised. The Building Commission has advised that it is continuing to advocate for the development of a standard at the national level. The ABCB, however, has yet to confirm a commitment to develop the national standard hence the action to develop guidelines cannot occur until the national standard is complete.

The Building Commission has advised that in the interim, the State has addressed this issue through implementation of action 49(h). As part of a state based approach, work is in progress to amend the Building Regulations 2006 to ensure that performance requirements for class 9 buildings are introduced. Following the amendment of the Building Regulations, it is likely that guidelines and other materials will be developed.

Finding: The BRCIM notes that progress in relation to implementation action 49(i) is ongoing. The BRCIM will revisit this action in future Annual Reports.

49(j) Liaise with ABCB to confirm timelines for inclusion in 2013 Building Code of Australia

Victoria is continuing to liaise with the ABCB in regard to the development of a national standard. An ABCB study, in consultation with State and Territory planning officials, was undertaken to determine the current situation and respective roles of planning and building controls in each State and Territory in order to inform a decision on the appropriateness of addressing safety risks associated with specified Class 9 buildings.

Finding: The BRCIM notes that progress in relation to implementation action 49(j) is ongoing. This is a long term action with a delivery date of May 2013. The BRCIM will revisit this action in future Annual Reports.

---

226 VBRC *Final Report,* Vol II, Part Two, p 259.

49(k) Removal of the 'deemed-to-satisfy' provision for the construction of buildings in the BAL-FZ category

Building controls such as performance requirements must be met in order to comply with the NCC.[227] To meet performance requirements a building solution must either comply with a DTS provision in the NCC or by formulating an alternative solution.

The VBRC considered the competing perspective of building regulators, industry bodies and fire agencies and considered that policy imperatives of certainty, consistency, reduced costs of compliance and construction and benchmarking alternative solutions are important and consistent with the national approach under the BCA.[228] They did not feel, however, these considerations outweighed the compelling safety arguments against prescribing DTS building solutions in the flame zone.

The Commonwealth advised in April 2012 that the ABCB has considered the appropriateness of removing the DTS provision for BAL-FZ. In consultation with the government building regulatory agencies, the Australasian Fire and Emergency Service Authorities Council, building industry and research organisations, the ABCB has determined that the DTS provision should be retained.

In making this decision, however, the ABCB acknowledged that State and Territory Governments have the capacity to implement development control processes that augment bushfire requirements in the NCC, covering such areas as asset protection zones, access for emergency service vehicles, water supply and other services, vegetation control and emergency management arrangements as appropriate for specific situations.

As part of Victoria's response to implementing the VBRC's recommendations, the State developed the Integrated Planning and Building Framework[229] which has resulted in many changes to Victoria's building and planning regime. As part of work on the Planning and Building Framework, the State considered the removal of the DTS provision for the construction of buildings in the flame zone but concluded that no single treatments can entirely mitigate a bushfire risk. The State has examined non-regulatory mechanisms for achieving performance based solutions in line with the VBRC's intent.

The State has adapted an integrated risk based solution to flame zone construction, consistent with the requirements of the VBRC such that the nature of the risk and the appropriate ways of mitigation are considered on a site by site basis. The State has enabled this through considerations in the planning system rather than requiring the development of a regulatory amendment. A more stringent approach to development is taken than that considered by the VBRC as there is no assumption that a planning permit will be obtained for development to proceed.

The BPA or BMO map will determine the appropriate building or planning (respectively) responses in relevant areas.[230] Sites of flame zone will be in the BPA and in the BMO, but most sites will be in the BMO. In the BPA, a building response only is required, that is construction based on the requirements of AS 3959-2009. If the site is outside the scope of the standard, then an alternative solution will be required.

In the BMO, planning schemes set out the relevant approach for an appropriate response to the BAL. In the planning system, the appropriateness of a site for development is tested. This includes the testing of a range of bushfire mitigation treatments and consideration of the type of construction that is required if development were to be approved. An integrated risk based solution to flame zone construction will apply. In relation to certain circumstances, DTS construction provisions may be appropriate.

The new planning provisions in the VPP (clause 52.47)[231] set out decision guidelines in relation to planning requirements and allow for the consideration of a range of measures including:

> the characteristics of any likely future occupants including their expected age, mobility and capacity to evacuate during a bushfire emergency

> the intended frequency and nature of occupation

> the need for a bushfire emergency plan to be prepared to the satisfaction of the relevant fire authority

> any relevant guidance published by the relevant fire authority

> the likelihood of fire service or other emergency service attendance in the event of a bushfire

> the need for bushfire emergency and evacuation procedures.[232]

---

227 Formerly known as the BCA.

228 VBRC *Final Report,* Vol II, Part Two, p 259.

229 Details on the Integrated Planning and Building Framework are outlined in the State's Implementation Plan, p 69, and in the introductory section to the planning and building recommendations (37 to 55) in this *Final Report.*

230 Refer to Table 1 Hazard Levels in recommendation 37.

231 Refer to recommendation 39.

232 Refer to clause 52.47 Bushfire Protection: Planning Requirements of the VPP for further details on http://planningschemes.dpcd.vic.gov.au/VPB/index.html.

Under the new planning provisions there is a concerted effort to avoid flame zone construction by siting proposed buildings away from hazards. Permits for flame zone construction will only be issued if the appropriate amount of defendable space can be achieved following consideration of appropriate guidelines together with the likely requirement for a dedicated water supply for firefighting purposes, access for emergency vehicles and vegetation management guidelines. Defendable space requirements are outlined in Table 1 to Clause 52.47 and provide clarity and transparency to landowners about the likelihood of the outcomes of planning permit applications and building permit applications in a BMO.

Under these circumstances and combined with other mitigation treatments, the discretion for DTS construction requirements to be inappropriately applied is removed thus enabling the provisions to only be used on sites where it is assessed as appropriate.

The BRCIM observes that both the Commonwealth and State are in agreement to not remove the DTS provision. The State has proceeded to address this issue and has sought an outcome that restricts building in the flame zone but also allows the DTS provision to be considered in certain circumstances. This outcome ensures the State is not imposing any additional regulatory burdens on landowners, developers or local government.

While evidence has been provided in relation to this action, the BRCIM is yet to make any assessment as to efficacy as further analysis of the application of this requirement is required.

Finding: The BRCIM notes that progress in relation to implementation action 49(k) is ongoing. The BRCIM will revisit this action in future Annual Reports.

Recommendation 49 Overall Finding

The State is continuing to work on implementing recommendation 49. A number of actions the State has committed to in the State's Implementation Plan are still in progress as the availability of data is hampering the ongoing work on some projects.

Recommendation 49.1 has not been implemented in the manner proposed by the VBRC as the State has decided to embark on a non-regulatory process for constructing buildings in BAL-FZ. While evidence has been provided to the BRCIM, further analysis of this material is required to fully understand the implications of this action.

Recommendation 49.2 is in progress with performance requirements for Class 9 buildings expected to be enshrined in regulations to be made by September 2012. While the State has introduced performance requirements for Class 9 buildings, there is yet to be any formal decision on the development of a national standard. Victoria can only push for future development.

Recommendation 49.3 has been implemented as the Building Regulations 2006 have been amended to apply the minimum AS 3959-2009 construction level of BAL 12.5 to all new buildings and extensions in BPA. This will afford better protection to buildings in BPA.

RECOMMENDATION 50

Standards Australia move expeditiously to develop a standard for bushfire sprinklers and sprayers.

Implementation Actions

Action Required	Due Date	Progress Report Status (July 2011)	Final Report Status (July 2012)
50(a) Liaise with Standards Australia on bushfire sprinklers standards	30/06/2012*	Ongoing	Complete

A date of 'mid 2012' was provided in the State's Implementation Plan. The BRCIM assigned this date to assist with reporting.

Status

50(a) Liaise with Standards Australia on bushfire sprinklers standards

One of the important findings from the research of the Bushfire CRC after Black Saturday was the strong influence of the presence of sprinkler systems on house survival. While evidence given at the VBRC showed that in some circumstances it aided in protecting a house, it does not guarantee that a house or its occupants will survive a fire. The VBRC envisaged that a new bushfire sprinkler standard would not be mandatory in BPA but would add to existing options available for persons in high risk bushfire areas.[233]

While this recommendation is not directed at the State, the Plumbing Industry Commission and DPCD have continued to liaise with Standards Australia on the development of this standard. As noted in the *Progress Report,* the Bushfire Water Spray standard was developed by Standards Australia's technical committee FP-024. The objective of the standard is to provide general requirements for the design, installation and maintenance of water spray systems intended to provide a degree of building protection against bushfire ember attack, together with limited protection against radiant heat exposure up to BAL 19.

While not guaranteeing a building will survive a bushfire, the Bushfire Water Spray standard aims to mitigate some of the risk and is designed to complement the requirements of AS 3959-2009.

The draft Bushfire Water Spray standard was released for public comment during the period mid-December 2011 until 8 February 2012. The BRCIM was provided with a copy of the draft standard.

The BRCIM has been advised that a number of submissions were received during the public comment period which are currently being reviewed by the technical committee FP-024. The next steps are a final edit and then the Committee will vote on the final draft. In order for the standard to be published, there must be consensus among the Committee that the content of the standard is ready to be published.

The Building Commission has advised that the full Committee will meet to discuss the comments from the ballot on 26 June 2012.

Finding: While the VBRC recommended that the standard be developed and ready for publication within 12 months, this was not achievable in the context of current timeframes for standards development in Australia as the development of standards is not a government process and is dependent upon external factors. The BRCIM does, however, consider action 50(a) has been satisfactorily implemented as the State committed to liaise with Standards Australia on the development of the new Bushfire Water Spray.

The Commonwealth has advised that the ABCB is monitoring the progress of this standard. Once published, the Bushfire Water Spray standard will be available for purchase from the SAI Global website.

---

233 VBRC *Final Report,* Vol II, Part Two, p 263.

RECOMMENDATION 51

The Victorian Building Commission, in conjunction with the Country Fire Authority, develop, publish and provide to the community and industry information about ways in which existing buildings in bushfire-prone areas can be modified to incorporate bushfire safety measures.

Implementation Actions

Action Required	Due Date	Progress Report Status (July 2011)	Final Report Status (July 2012)
51(a) Develop guide to retrofitting homes for a bushfire	01/12/2010	Complete	Complete
51(b) Distribute guide to retrofitting homes across Victoria	30/11/2010	Complete	Complete
51(c) Conduct targeted education program of retrofitting commencing with 52 high risk bushfire areas	31/12/2010	Complete	Complete
51(d) Conduct consumer seminars on bushfire safety building issues	31/12/2010	Complete	Complete

Status

The *Progress Report* noted that actions 51(a), (b), (c) and (d) were satisfactorily implemented. No further comment is made in relation to these actions.

Recommendation 51 Overall Finding

The BRCIM notes that both the Building Commission and the CFA continue to provide relevant information on building issues and preparing homes in bushfire risk areas on their websites. This includes information on building a home in bushfire risk areas, planning schemes (including building subdivisions and building in a BMO or WMO) and building inspections.[234]

The Building Commission continues to conduct seminars on a range of bushfire safety issues. During October and November 2011, the Building Commission in conjunction with DPCD, ran a number of free planning and building seminars in relation to changes to the planning and building regimes.[235] The Building Commission has advised that it will continue to conduct seminars on an as needs basis.

There is adequate promotion of building information and upcoming seminars on the Building Commission's website and through links and cross promotion on other government websites such as DPCD and the CFA. In addition, the BRCIM notes that during 2011 and 2012 a number of industry publications contained articles on the new building regulations. These publications are another conduit for the dissemination of information to councils, planners, residents and other stakeholders on the new building regulations and bushfire planning provisions.

---

234 Information is also available from the DPCD website.

235 These seminars are also referenced in recommendation 55.

RECOMMENDATION 52

The State develop and implement, in consultation with local government, a mechanism for sign-off by municipal councils of any permit conditions imposed under the Bushfire-prone Overlay and the regular assessment of landowners' compliance with conditions.

Implementation Actions

Action Required	Due Date	Progress Report Status (July 2011)	Final Report Status (July 2012)
52(a) Develop a mechanism for municipal sign off by councils of bushfire permit conditions (ongoing enforcement of future landowner compliance)	30/09/2011	Ongoing	Complete

Status

52(a) Develop a mechanism for municipal sign off by councils of bushfire permit conditions (ongoing enforcement of future landowner compliance)

The VBRC stated that conditions which exist at the time of a planning or building approval (such as defendable space or BAL of the site) need to be maintained to provide for continued bushfire risk management.[236] The VBRC was of the view that:

councils should do more to enforce the bushfire protection measures in their planning schemes, including permits issued by them and that the obligation of a permit holder to comply with permit conditions is not the same as, and does not discharge, a council's responsibility to enforce permit conditions imposed by it in the administration of its planning scheme.[237]

Amendment VC83 to the VPP required that planning permits for buildings and works issued under the new BMO must include a condition that requires bushfire protection measures to be complied with in perpetuity.[238] If conditions of a permit are breached, then either a council or any other party can take enforcement action. This allows councils to regularly check and enforce relevant permit conditions, with enforcement a decision for councils to make under the PE Act.

Councils will be able to check and enforce relevant permit conditions and will be able to decide how they approach their enforcement responsibilities under the PE Act.

The VBRC acknowledged that councils were constrained by a lack of available resources and may focus attention on resource efficient means of achieving compliance, but were of the view that councils should do more to enforce the bushfire protection measures in their planning schemes, including permits issued by them.[239]

---

236 VBRC *Final Report,* Vol II, Part Two, p 264.

237 Ibid.

238 Refer to recommendations 37 and 39 for information on Amendment VC83 and the BMO.

239 VBRC *Final Report,* Vol II, Part Two, p 264.

DPCD, working in conjunction with councils, MAV and the Planning Enforcement Officers Association (PEOA),[240] has developed guidance material for councils, land owners and permit holders about their obligations. The DPCD website has a section on compliance of bushfire planning conditions which outlines:

> roles and responsibilities of landowners, responsible authority and referral authorities

> advice about planning permit conditions required by the BMO

> information on how to promote compliance with planning permit conditions.

Links are also provided on the DPCD website to other information related to bushfire planning. While the information is publicly available, MAV has advised that the material provided on DPCD's website is primarily intended for public audiences and few councils to date have accessed the information. Councils have subsequently advised MAV that there is a relatively low level of community awareness of compliance requirements.

MAV is undertaking a project in conjunction with DPCD, councils and the PEOA to develop a risk based model and investigate council approaches to enforcement of permit conditions. A steering committee has been established to oversee this project with councils surveyed to determine their current approach to enforcement, resources available and how planning enforcement may best respond to ensuring ongoing compliance with permit conditions. Expressions of interest to develop the model have been requested and a consultant appointed. The project will provide tools for councils to support improved enforcement and compliance.

In addition, funding has also been provided to councils from DPCD to support bushfire planning projects including:

> East Gippsland Shire Council: funding to undertake a planning permit compliance monitoring and compliance improvement project for permits issued under certain conditions

> Mansfield Shire Council: funding to purchase a compliance and enforcement system.

Finding: Permits issued under the new BMO will require a condition that bushfire protection measures are complied with in perpetuity. This will ensure that when a property is sold, compliance will continue. In light of the evidence provided above, the BRCIM considers action 52(a) has been satisfactory implemented.

Enforcement will remain an issue for municipal councils but is dependent on public compliance municipal resourcing to ensure ongoing compliance. Monitoring compliance levels will ultimately lead to improvements in the system. The BRCIM is encouraged by efforts presently being considered by MAV and municipal councils to draw on this recommendation and address ways to enforce compliance proactively into the future.

---

240 The PEOA is made up of members in municipalities throughout Victoria who are actively involved in all areas of planning enforcement. Further information is available from the PEOA website.

RECOMMENDATION 53

The State amend section 32 of the *Sale of Land Act 1962* to require that a vendor's statement include whether the land is in a designated Bushfire-prone Area, a statement about the standard (if any) to which the dwelling was constructed, the bushfire attack level assessment at the time of construction (where relevant) and a current bushfire attack level assessment of the site of the dwelling.

Implementation Actions

Action Required	Due Date	Progress Report Status (July 2011)	Final Report Status (July 2012)
53(a) Amend section 32 of the Sale of Land Act	30/06/2012*	Ongoing	In progress
53(b) Building inspectors to be encouraged to consider bushfire construction requirements in inspections and reports	30/06/2011*	Ongoing	Complete[241]
53(c) Consumers to be encouraged to use retrofitting guide	N/A	N/A	N/A Refer to actions 51(a) and (b)
53(d) Conduct seminars for consumers on bushfire safety building issues	N/A	N/A	N/A Refer to action 51(d)

BRCIM reporting date. No due date provided in the Implementation Plan.

Status

53(a) Amend section 32 of the Sale of Land Act

Before a property is sold in Victoria, the seller is required to provide the buyer with a vendor's statement. The vendor's statement, referred to as a 'section 32', includes information outlined in section 32 of the Sale of Land Act about the property's title, including:

> mortgages

> covenants

> easements

> zoning

> outgoings (for example, rates).

The section 32 does not include any information on such things as the condition of buildings, whether they comply with building regulations or the accuracy of measurements on the title. The VBRC looked at the issue of ongoing maintenance of buildings and noted that there are considerable difficulties associated with regulating the ongoing maintenance of a house and its surrounds.[242]

The State canvassed a number of options in relation to how it would proceed with proposed amendments to the Sale of Land Act. In May 2012, legislation was introduced into Parliament to amend section 32 of the Sale of Land Act. The amendment requires that if land is in a BPA within the meaning of the regulations made under the Building Act, the vendor's statement must include a statement that the land is in such an area.[243] There is no requirement that such a statement be included where land is not in a BPA.

---

241 In the *Progress Report,* the status of implementation action 53(b) was reported as ongoing when in fact, it had been satisfactory implemented.

242 VBRC *Final Report,* Vol II, Part Two, p 266.

243 Section 32(2)(dc) of the Sale of Land Act.

The amendment is designed to encourage prospective purchasers of land to undertake their own due diligence and ensure that any pre-purchase inspection of properties in a BPA assesses the bushfire safety of the property. The BRCIM notes that the Police and Emergency Management Legislation Amendment Act was passed with a default commencement date of 31 July 2013 for the section 32 amendment to the Sale of Land Act unless proclaimed earlier. DOJ has advised that this is to allow time for the conveyancing industry and vendors in BPA to be adequately informed of the new disclosure requirements.

The BRCIM anticipates that significant information will need to be provided to ensure consumers, conveyancers and vendors are adequately informed of the new disclosure requirements. The BRCIM considers an appropriate communications plan will need to be developed to address this issue.

The amendment to the Sale of Land Act does not, however, implement all of the VBRC's recommendation, as the VBRC recommended that the vendor's statement also include a statement about the standard (if any) to which the dwelling was constructed, the BAL at the time of construction (if relevant) and the current BAL of the dwelling.

DOJ has advised that there were concerns that the inclusion of a statement about the standard to which a dwelling was constructed and BAL at time of construction may potentially be misleading in a section 32. Historical information can be difficult to find and a requirement to obtain and disclose historical information may create compliance difficulties for vendors with limited or no benefit for purchasers.

In relation to the disclosure of a current BAL assessment in a section 32, DOJ has advised that concerns were raised as prospective purchasers may rely solely on this instead of undertaking their own due diligence. The current BAL assessment may give prospective purchasers a false sense of security. DOJ has advised that there is no evidence that disclosing the current BAL assessment of the site will provide an incentive for owners to maintain their land on an ongoing basis. Requiring a current BAL assessment places an additional burden on vendors and may discourage purchasers from fully assessing the bushfire safety of a property.

Finding: An amendment to section 32 of the Sale of Land Act to require that a vendor's statement include whether the land is in a BPA was passed by the Parliament in June 2012 but is subject to a future commencement date. The BRCIM notes the State's progress in relation to recommendation 53 but cannot make any comments as to the effectiveness or efficacy. The BRCIM will revisit action 53(a) in future Annual Reports.

RECOMMENDATION 54

The State amend the *Country Fire Authority Act 1958* to enable the Chief Officer to delegate the power to issue fire prevention notices.

Implementation Actions

Action Required	Due Date	Progress Report Status (July 2011)	Final Report Status (July 2012)
54(a) Introduce legislation to amend the CFA Act re: Chief Officer delegation to issue fire prevention notices	31/12/2011	Ongoing	Complete

Status

54(a) Introduce legislation to amend the CFA Act re: Chief Officer delegation to issue fire prevention notices

Municipal councils have legislative responsibilities for fire prevention activities under the CFA Act. This includes appointing MFPOs under section 96A of the CFA Act. MFPOs have responsibility, among other duties, to issue fire prevention notices.

Fire prevention notices require an owner or occupier of land to take steps specified in the notice to remove or minimise the threat of fire. A MFPO may serve a notice, if in their opinion, it is necessary or may become necessary to do so to protect life or property from the threat of fire. The VBRC heard evidence that considerable work is undertaken by MFPOs to issue and follow up on fire prevention notices each summer. Numerous notices are issued and there is a relatively high rate of compliance.

The Chief Officer of the CFA under the CFA Act has the power to issue and enforce a fire prevention notice if the relevant MFPO refuses or fails to issue one. The VBRC recommended that the CFA Act be amended to allow the Chief Officer to delegate this power. The State agreed and an amendment was made to the CFA Act in late 2011.[244]

All sections of the Emergency Management Legislation Amendment Act came into effect on 3 November 2011, with the exception of section 3, which was to come into effect on a date to be proclaimed. The BRCIM was advised that the CFA required extra time to review internal procedures and processes to establish an appropriate framework to introduce this new power of delegation.

The section was proclaimed on 1 May 2012 following amendment to the *Metropolitan Fire Brigades Act 1958* (the MFB Act) to allow the Chief Officer of the MFB to delegate the powers regarding fire prevention notices.[245] The amendment to the MFB Act now mirrors the CFA Act amendment.

The BRCIM considers the power to delegate will allow greater flexibility in relation to the issuing of fire prevention notices. Despite this new power to delegate, enforcement responsibility for fire prevention notices still rests with MFPOs in municipal councils.

Finding: The BRCIM considers action 54(a) has been satisfactorily implemented as amendments have been made to the CFA Act in line with those recommended by the VBRC. The BRCIM notes that the legislation was introduced by the due date although the section on the new power of delegation was not proclaimed until a later stage.

As this new power has only been in place for a relatively short period, the BRCIM is unable to make any comments on the practicalities of delegating this power or its effectiveness. Such an assessment will not be possible until after the 2012-13 fire season.

---

244 Section 3 of the Emergency Management Legislation Amendment Act amended the CFA Act.

245 The MFB Act was amended by the Emergency Services Legislation Amendment Act.

RECOMMENDATION 55

The State initiate the development of education and training options to improve understanding of bushfire risk management in the building and planning regimes by:

55.1   providing regular training and guidance material to planning and building practitioners

55.2   helping a suitable tertiary institution design and implement a course on bushfire planning and design in Victoria.

Implementation Actions

Action Required	Due Date	Progress Report Status (July 2011)	Final Report Status (July 2012)
55(a) Provide industry and consumer education on interim bushfire shelter regulations	14/10/2010	Complete	Complete
55(b) Establish an Architects Bushfire Home Service	14/10/2010	Complete	Complete
55(c) Update practice notes and guidelines on AS 3959-2009	01/12/2010	Complete	Complete
55(d) Prepare media material on AS3959-2009	01/12/2010	Complete	Complete
55(e) Implement information and training program on new bushfire planning provisions	30/06/2012	Ongoing	Complete
55(f) University of Technology Sydney to conduct short course on Development and Building in Bushfire Prone Areas	25/10/2010	Complete	Complete
55(g) Further three short courses planned for 2010-11 – see 55(f)	30/06/2011	Complete	Complete
55(h) Subsidise up to 90 places on short courses – see 55(f)	30/06/2011	Complete	Complete
55(i) Ongoing funding of $50K per annum for subsidised places – see 55(f)	30/06/2012	Ongoing	Complete
55(j) Continue to run industry and community education seminars at regular intervals	30/06/2011	Ongoing	Complete
55(k) Commence discussions with tertiary institutions to develop a bushfire planning and design course	30/06/2012	Ongoing	Complete

Status

The *Progress Report* noted that actions 55(a), (b), (c), (d), (f), (g) and (h) were satisfactorily implemented. No further comment is made in relation to these actions.

55(e) Implement information and training program on new bushfire planning provisions

The VBRC heard evidence that the education and training of planning and building professionals could be improved to provide better practical training and materials and more formal education in bushfire planning and design.[246]

---

246 VBRC *Final Report,* Vol II, Part Two, p 267.

In the Implementation Plan, the State agreed to a number of actions in relation to the implementation of recommendation 55. A comprehensive communications plan and training program was developed to support the Building Amendment (Bushfire Construction) Regulations in September 2011 and bushfire planning provisions released in November 2011.

A joint agency communications working group was established to ensure there was an informed and collaborative approach to delivering information to support the implementation of the new planning and building controls. The working group was made up of representatives of DPCD, DSE, CFA, Building Commission, MAV and the FSC. A range of tools and information were developed to communicate the key messages and explain the introduction of the new bushfire planning provisions, building regulations and other controls to councils, the building industry, landowners and other stakeholders. Information was conveyed via media, website updates, stakeholder briefings, information sessions, publications and training to maximise the audience reach.[247]

DPCD and the Building Commission ran a number of free seminars across the State on the changes to Victoria's planning provisions and the building regulations for bushfire construction during October 2011. Aimed at building practitioners and industry stakeholders, over 1,000 people attended the seminars. At the time of these seminars, the planning provisions were yet to be finalised and released publicly so only limited information was provided.

During November and December 2011, a series of training sessions were held for local government and referral authorities to inform planners and other practitioners on the new bushfire planning provisions and interaction of the planning and building systems. The PLANET training sessions covered:

> the introduction of the new Bushfire Building Regulations 2011 (refer to recommendation 49)

> the BPA (refer to recommendation 39)

> the VPP and planning scheme amendments (refer to recommendation 37)

> bushfire behaviour and management and the planning system

> preparing a bushfire site assessment under AS 3959-2009 (refer to recommendation 37).

These free seminars were held around the State (including in Wangaratta, Traralgon, Geelong, Melbourne, Ballarat, Bendigo and Yarra Ranges) for local government and referral authorities. In addition, paid seminars were offered for planning and other consultants in Geelong and Melbourne. Over 500 people attended the training sessions, of which over 350 were from councils.

The BRCIM attended one of the training seminars in Melbourne. The sessions were run over a five hour period and had a mix of theory on fire science and behaviour and the new planning provisions combined with a practical exercise (carrying out a site assessment). The sessions were designed to ensure the new planning provisions could be correctly implemented and where relevant, appropriate advice given on the new planning provisions. DPCD advised that feedback on the delivery of the training revealed that 94 per cent of participants were satisfied with the overall training, with 99 per cent of participants increasing their knowledge and understanding of the new building regulations and bushfire planning provisions.

DPCD has advised that some councils from the north west of Victoria were unable to attend a training session, although Mildura Rural City Council did participate in one of the Melbourne sessions via video link. As such, additional training courses were held in March 2012 in Melbourne, Ballarat and Mildura. DPCD also conducted a seminar in May 2012 on preparing and assessing an application under the BMO.[248]

Additional training seminars are scheduled for November 2012 as part of an ongoing professional training and development program. These seminars will cover preparing and assessing a bushfire management statement and strategic planning for bushfires.[249]

In the Implementation Plan, the State committed to undertake training in relation to the new bushfire provisions, however, no date was provided. The BRCIM assigned a date of 30 June as a trigger for requesting evidence from DPCD as the department with lead responsibility for implementing action 55(e). The training mentioned above was held in conjunction with the release of the new bushfire planning provisions in November 2011.

The BRCIM deems training an essential component for ensuring that the new planning and building provisions are understood and widely accepted in the community. Seminars and training modules continue to be developed based on requirements and need.

Finding: The BRCIM considers action 55(e) has been satisfactorily implemented.

---

247 A list of some of the publications and information made available was provided in response to implementation action 41(d).

248 Refer to recommendation 39.

249 Further details on bushfire training is available from the DPCD website.

Evaluation of the Bushfire Integrated Planning and Burning Framework Communications Program

In December 2011, DPCD undertook an internal evaluation of the communications program for the introduction of the new building regulations and planning provisions.

The communications program was found to be successful due to:

> the establishment of a joint agency communications working group that ensured there was an informed and collaborative approach to information delivery

> the early engagement of key stakeholders to ensure key information could be prepared for each agency

> key support and early engagement with industry bodies

> the wide range of mediums such as media, information sessions and agency and industry publications used to deliver the key messages.

55(i) Ongoing funding of $50K per annum for subsidised places

The State previously provided $50,000 to subsidise places available on the short course 'Development of Building in Bushfire Prone Areas'. Subject to demand and satisfactory completion of assessment, subsidies for 90 places in the short course were made in 2011. DPCD has advised that the number of subsidised places in future will be determined on available funding, demand for the course and additional demand for subsidised places for the tertiary level course (refer to implementation action 55(k)).

The short course will run on an as needs basis, dependent on the number of registrants wishing to undertake the course.

Finding: The BRCIM considers action 55(i) has been satisfactorily implemented.

55(k) Commence discussions with tertiary institutions to develop a bushfire planning and design course

The VBRC noted there was obvious potential to develop a course in bushfire planning and design specific to Victorian conditions, legislation and practice at a Victorian university or TAFE institute.[250]

The State agreed to a target date of July 2012 for the commencement of the proposed tertiary course in building and design. A steering committee comprised of key agencies was set up to assist in the development of the course. Expressions of interest were invited and the University of Melbourne was the successful applicant to deliver the course in Victoria.

The BRCIM has sighted a copy of the appointment letter of December 2011 and draft funding agreement. From early 2012, the steering committee has been working with representatives of the University of Melbourne to develop the course content to ensure that it meets the requirements of government and the relevant agencies and this work is continuing. The committee is currently negotiating with the University of Melbourne for certificate and diploma level courses. The latter will require additional funding and the University of Melbourne is to provide further advice on this.

In order to properly equip graduates of the course to prepare alternative solutions for difficult sites and situations where the DTS provision of both the planning and building frameworks cannot be met, a higher level of learning for the course will be required.[251] A schedule for development of the higher level course has been provided to the BRCIM, however, this will be subject to change because of the introduction of the diploma course. It is anticipated that the higher level course will commence in 2013 with the steering committee continuing to meet to develop the course subjects.

Finding: The BRCIM considers action 55(k) has been satisfactorily implemented.

---

250 VBRC *Final Report,* Vol II, Part Two, p 268.

251 Refer to implementation action 49(k).

Recommendation 55 Overall Finding

The BRCIM regards training as an important and valuable mechanism for ensuring that new initiatives, practices and legislative provisions are clearly communicated to a wide ranging audience.

The BRCIM recognises the value in ongoing training and is confident that the State will continue to offer training and provide educational material subject to demand and any further changes to the building and planning regimes related to bushfires.

LAND AND FUEL MANAGEMENT

Recommendations 56 – 59

Planned burning is the considered use of fire to reduce the risk to life, property and the environment from the threat of bushfire and to maintain the health of plants and animals that have come to depend on bushfires to survive. DSE and Parks Victoria carry out planned burns in areas that have a high risk of bushfire to reduce the build up of fuel for the protection of life and property. Planned burns occur on public and private land across the Victorian landscape to manage risk to towns, settlements, homes and properties, plantations and powerlines.

Planned burning has been a part of Victoria's approach to land and fuel management for decades and is an effective mitigation tool in bushfire hazard reduction. It is challenging, risky, resource intensive and costly with weather, topography and fuel condition affecting the outcome and ultimately the amount burnt.

Planned burning has been the subject of numerous inquiries and investigations throughout the 1900s and 2000s, with the amount, characteristics of particular planned burning practices and public reporting all coming under scrutiny.

The VBRC in its Final Report considered a target of five per cent of planned burning (referred to as prescribed burning) of public land necessary for community safety and this amount would not pose unacceptable environmental risks.[252] A statewide target for planned burning was considered useful as it would provide a guide to the overall scale of planned burning that should be done.[253]

In line with the VBRC's recommendations, the government committed to significantly increase the planned burning program from 1.3 to five per cent of public land to 390,000 ha over three years (2010 to 2013). This has required a delicate balance to reduce risks to life and property while minimising environmental impacts.

The increase in the amount of planned burning undertaken has necessitated a number of organisational and system changes for DSE to improve the delivery and coordination of the expanded planned burning program and to maximise burning opportunities when conditions are optimal.

The benefits of planned burns as a bushfire risk reduction tool are greater in the first few years but have ongoing effects generally lasting from 10 to 15 years.

---

252 VBRC *Final Report,* Vol II, Part Two, p 295.
253 Ibid., p 294.

RECOMMENDATION 56

The State fund and commit to implementing a long-term program of prescribed burning based on an annual rolling target of 5 per cent minimum of public land.

Implementation Actions

Action Required	Due Date	Progress Report Status (July 2011)	Final Report Status (July 2012)
56(a) Employ 700 seasonal firefighters	01/12/2010	Complete	Complete
56(b) Draft Fire Operations Plans and release for public consultation. Review annually	14/10/2010	Complete	Complete
56(c) Employ additional 170 permanent firefighters	30/06/2011	Complete	Complete
56(d) Increased planned burning to 390,000 ha	30/06/2012*	Ongoing	In progress
56(e) Increased planned burning to 385,000 ha *(This action is from the October 2010 Plan and is no longer applicable – superseded by action 56(d))*	N/A	N/A	N/A
56(f) Identify changes required to effectively and efficiently achieve the target planned burn	30/06/2012*	Ongoing	In progress
56(g) Establish monitoring and risk management process that include increased community engagement and planned burn notification systems	30/06/2012*	Ongoing	In progress
56(h) Maintain existing strategic fuel breaks	30/06/2011	Complete	Complete

*BRCIM reporting date. No due date provided in the Implementation Plan.

Status

The *Progress Report* noted that implementation actions 56(a), (b), (c) and (h) were satisfactorily implemented. Implementation action 56(e) was found to be no longer applicable as it was superseded by action 56(d).

56(d) Increased planned burning to 390,000 ha

This implementation action stems from the State's commitment in the Implementation Plan to achieve a rolling annual target of 390,000 ha. A target of 225,488 ha was set for 2011-12 with the total area treated[254] by planned burning as at 31 May 2012 being approximately 195,831 ha. This figure is 87 per cent of the program's target for 2011-12.

The level of burning across the State varies according to the location of the burn in a fire management zone (FMZ) within a region. The total number of planned burns and treated area by region and fire management zone for 2011-12 is shown in Table 3. For the 2011-12 financial year, approximately 2.7 per cent of public land has been treated, however, this figure is not uniform across the State.

In 2011-12, higher percentages of public land in the Asset Protection Zone (APZ) (7.2 per cent) were treated than the Strategic Wildfire Moderation Zone (SWMZ) (6.3 per cent) and Ecological Management Zone (EMZ) (1.8 per cent) as shown in Table 3. The APZ and EMZ provide the greatest protection to communities and critical infrastructure but are the most costly to treat.

---

254 The area treated is the total area of a planned burn site in which the set burn objective has been achieved. The area physically burnt within the treated area will vary depending on the objective of the burn. Some burns may achieve a high (for example, 90-100 per cent) burn coverage, while others require a patchwork effect (for example, approximately 50 per cent or less) if for instance biodiversity management is the main objective.

Region		Fire Management Zone				Total
		Asset Protection	**Strategic Wildfire Moderation**	**Ecological Management**	**Other**	
Gippsland	Number of burns	13	40	51	11	115
	Area treated (ha)	2,337	16,589	26,991	323	46,240
North East	Number of burns	9	55	49	2	115
	Area treated (ha)	1,869	46,682	17,146	62	65,759
North West	Number of burns	25	45	53	0	123
	Area treated (ha)	832	8,160	32,187	0	41,179
Port Phillip	Number of burns	10	14	36	3	63
	Area treated (ha)	185	2,112	3,006	9	5,312
South West	Number of burns	6	59	68	2	135
	Area treated (ha)	43	13,367	20,429	20	33,859
Regeneration burns[255]	Number of burns					274
	Area treated (ha)					3,484
Statewide	Number of burns	63	213	257	18	825
	Area treated (ha)	5,266	86,910	99,759	414	195,833
	Area treated (ha) as a proportion of the total area of the Fire Management Zone	7.2%	6.3%	1.8%	–	–

Table 3: Planned Burning – Number of Burns and Treated Area by Region and Fire Management Zone for the period 1 July 2011 to 30 May 2012[256]

---

255 Regeneration burns are undertaken jointly by DSE and VicForests post-timber harvesting to promote forest regeneration (primarily in Gippsland).

256 It should be noted that some burns will have more than one zone included within it. The current recording system attributes the whole burn to one zone only.

Fire Management Zone (FMZ)

FMZs are used to classify areas of public land and to plan which areas of public land should undergo planned burning. They are used to develop strategies which aim to:

> reduce the risk of fire to life, property and assets

> maintain and promote long term biodiversity

> protect fire sensitive species from fire.[257]

Asset Protection Zone (APZ)

The APZ provides the highest level of localised protection to human life, property and highly valued assets. Protection of assets occurs through reducing radiant heat, flame front and ember attack to a reasonable level using intensive fuel management. Fuel management will be carried out in the APZ through a combination of planned burning and other methods such as mowing or slashing.

Strategic Wildfire Moderation Zone (SWMZ)

The SWMZ reduces the speed and intensity of future bushfires. This zone complements the APZ and also provides strategic areas to mitigate risk through the landscape. The use of planned burning in the SWMZ is designed to protect nearby assets from ember spotting during a bushfire.

Ecological Management Zone (EMZ)

The EMZ aims to promote biodiversity and ecological renewal. Planned burning will be used to manage native species and ecological communities which require fire to regenerate. Fire protection outcomes are achieved through the reduction of the overall fuel hazard in the landscape. The Code of Practice for Bushfire Management on Public Land has been amended to strengthen the aim of reducing overall fuel levels for protection outcomes in this zone now renamed 'Landscape Management Zone'.

Planned burns on all public land, parks, forests and reserves are carried out in accordance with Fire Operations Plans (FOPs).[258] A focus of planned burning for 2011-12 has been on planning and preparing areas prior to burning to maximise burning when and if the opportunity arises. During March and April 2012, DSE brought forward burns that were part of year two and three FOPs in the regions of the south west and Port Phillip due to flooding events in Gippsland.

DSE has embarked on a more streamlined planning and approvals process for the development of the FOPs for 2012-13 to 2014-15 to allow for an expanded planned burning program. This has required a number of changes to FOPs for 2012 including:

> revising the FOP year one target to 250,000 ha. Funding was provided as part of the 2012-13 State Budget to enable an increase in the program target[259]

> developing five regional FOPs with relevant district sub-plans

> streamlining the assessment process before final approval by the DSE Regional Director.

DSE continues to consult widely with stakeholders on the preparation, drafting and approval of FOPs as part of its core business activities. Regions are encouraged to update their stakeholder databases and DSE has developed guidance material on stakeholder engagement which was distributed in late May 2012 to all regions.

Planned burning continues to be at the mercy of external elements such as the weather and during 2011-12 the target of 225,000 ha was unachievable due to varying weather conditions across the State including significant rainfall received prior to and during the peak burning period. Rainfall in March 2012 in the northern, central and eastern parts of the State was in some places double or at least four times the monthly average. Large sections of the State were therefore unable to be included in the program as they were not sufficiently dry to proceed with a burn. In the west, however, some areas were too dry for safe and effective burning to proceed.

---

257 Further information on fire management zones is available from the DSE website. Information on FMZs is also included in the revised Code of Practice for Fire Management on Public Land (refer to recommendation 59).

258 FOPs are rolling three year plans that detail all burns and works such as slashing, mowing and clearing activities to maintain existing firebreaks conducted in land and fire districts during the stated period. Copies of all FOPs are publicly available to download from the DSE website. Further information on FOPs was provided in implementation action 56(b) in the *Progress Report*.

259 The 2012-13 Budget is available from the State Budget website.

While the weather was a determining factor in the ability for planned burns to proceed and deliver on target, DSE has prepared burn plans and prepared sites for an additional 179,417 ha.[260] This means that should suitable conditions arise these sites are available for ignition.[261]

Besides the weather, another key issue for planned burning during 2011-12 was fires breaching containment lines. Two separate fires breached containment lines in 2011-12 in September 2011 at Patchewollock and in February 2012 in Mortlake Common. The Patchewollock fire burnt 34.5 ha of land scheduled for burning as part of this years FOP with the Mortlake Common fire burning 57 ha of private land and 100 ha of public land scheduled for burning in 2012-13. DSE has advised that both fires were subject to internal investigation and reports finalised and released in June 2012.

Planned burning for 2012-13

As part of the budget process, the government agreed to expand the planned burning program.[262] The planned burning targets for the next three year FOPs have been revised with the targets approved for 2012-15 as follows:

2012-13 – 250,137 ha

2013-14 – 390,496 ha

2014-15 – 390,496 ha

DSE has advised that it is undertaking a planned burning reform program. The reforms aim to further improve the efficiency and effectiveness of planning, capability and delivery to facilitate achieving the target of 390,000ha. The reforms will consider a range of options to ensure the target is achievable including the use of external involvement from the CFA.

The key areas of reform to be considered include:

Reform Area	Purpose
Capability	To improve and reform workforce capability, equipment and infrastructure to achieve government requirements
Policy	To develop a planned burning policy environment that supports the delivery of government requirements and removes policy barriers
Planning	To provide a streamlined planning process which outlines three levels of planning at the strategic landscape, fire operations plan and local burn plan to achieve government requirements
Business model	To develop and implement a business model based on quality principles that supports the efficient and effective delivery of DSE's land and fire outcomes

DSE has established a steering committee to oversee this reform program and project plans are currently in development. Further details on the reform program will be provided to the BRCIM once available. The BRCIM is cognisant of other reform programs being considered by the FSC[263] and considers that where applicable synergies between the two should be recognised.

Finding: The BRCIM considers the planned burning reform program to be favourable and a positive step in ensuring that the program is being conducted in the most efficient and effective way. Further evidence on the progress of the planned burning reform program including outcomes will be requested from DSE and this action revisited in future Annual Reports.

56(f) Identify changes required to effectively and efficiently achieve the target planned burn

As part of the Implementation Plan, the State agreed to develop a business model to enhance the planned burning program into the future.[264] DSE's objectives for increasing the planned burning program are to:

> expand the annual treated area of public land in Victoria from 200,000 ha in 2010-11 to a rolling average of 390,000 ha by 2013-14

> ensure the strategic management of planned burning creates sustained public value to Victorians.

---

260 Figure as at 31 May 2012.

261 Ignition refers to the planned burn being ignited (in whole or part depending on burn size and/or situation) and there is active fire within the area of the planned burn.

262 Refer to *Budget Paper 3, Chapter 1 Output, asset investment, savings and revenue priorities* pp 60-61, available from the State Budget website.

263 Refer to Chapter 1 of this *Final Report*.

264 Implementation Plan (May 2011), p 90.

DSE has been working on identifying and implementing changes over the last 18 months to effectively and efficiently achieve the government's target for planned burning. To successfully meet the planned burning objectives, DSE has identified six key elements:

> planning
> policy
> stakeholder engagement and responsiveness
> capability and capacity – people and equipment
> delivery – operational excellence
> performance management and improvement.

DSE has created draft measures for each element and developed a number of key projects to ensure that the planned burning program is expanded. These have informed the development of the planned burning reform program. Many of the changes allow burning to occur at any time when conditions are suitable provided burn plans and site preparation works are completed ahead of time.

Following a restructure of DSE in 2011, DSE's Regional Services are now responsible for the coordination and delivery of planned burning, with Burn Coordination Teams established at district and regional levels.[265] Indicative seasonal schedules are prepared to assist with the prioritisation of burns, providing an overview of the program for key stakeholder and community engagement and assisting in identifying burns for seven day scheduling purposes.

While the peak planned burning time is autumn, it can be broadened into spring and early summer when conditions are optimal and safe. Burn planning and site preparation targets now include burns in years two and three in all FOPs to ensure an early commencement of the planning processes. Burns that may nominally be in years two or three of the FOP are available to be bought forward to the current year as seasonal conditions and resources permit. Burning and works requirements are populated electronically through FireWeb, maps prepared and burn risk assessments undertaken. Operational milestones continue to be monitored on a weekly basis and reported to senior management.

Other changes implemented in 2011-12 include:

> updating key planned burning manuals and guidelines. This includes:

– revising the FM10.1 *Planned Burning Manual* that was released in February 2012[266]

– developing and implementing additional procedures for the use of public safety zones for inclusion in future FOP approval processes[267]

> a new burn scheduling tool, Planned Burn Scheduling and Resource Estimation system was added to FireWeb in October 2011. This new system replaces manual spreadsheets and allows for a consistent approach to burn coordination at district, regional and State levels

> districts are now required to establish and maintain electronic fuel moisture monitoring systems that enable quantitative tracking of fuel availability through spring, summer and in autumn. This information is then easily available to the burning teams at the district level and can be provided readily to coordination teams at the regional level

> a stakeholder engagement register is now required at district level to capture and manage issues associated with planned burning

> the development of a burn severity mapping project. Burn mapping currently records the perimeter of the area burned and not the effectiveness of the burn in achieving burn objectives to treat the fuel hazard. A trial of severity mapping techniques was conducted with a GIS based and semi-automated software tool developed for rapidly analysing planned burn severity using RapidEye imagery or remotely sensing imagery. The tool will be used in the 2012 burning season to enable the quick assessment of individual burns and inform the mapping of fire history in particular regions

> the trialling of a number of incendiary devices including a vehicle mounted flame thrower and Manual Incendiary Flares (MIFs) and Self Propelled Incendiary Flares (SPIFs). A new design for a vehicle mounted flame thrower has been finalised and two prototypes are to be built for trialling in the field. A successful trial of SPIFs was undertaken in December 2011 with SPIFs to be used for the spring burn program in 2012. Further work is continuing on the use of MIFs in the field

> updating the DSE website to provide further details on the planned burning program.[268]

A need for further reform has been identified to ensure the planned burning program can meet the burn targets.

Finding: The BRCIM notes that DSE is continuing to identify changes and where applicable implement these changes to assist in the expansion of the planned burning program. DSE's reform program is still under development although work has recently continued on implementing reforms and the BRCIM will continue to monitor progress of this action. The BRCIM will revisit this action in future Annual Reports.

---

265 The Land and Fire Group in DSE has also been restructured to create the Office of the Chief Fire Officer. This office supports the work of the Chief Fire Officer in meeting his/her statutory responsibilities.

266 A further review of the *Planned Burning Manual* is scheduled following the outcome of the reform program referred to in implementation action 56(d).

267 A public safety zone means an area of State forest to which a public safety zone declaration by the Secretary of DSE under section 4 of the *Safety on Public Land Act 2004* applies. Public safety zones are declared for a range of purposes including for planned burning and fire operations to restrict persons from entering or being present or undertaking activities such as walking, riding, driving or camping.

268 Refer to implementation actions 56(g) and 57(a).

<div style="border:1px solid orange; padding:10px;">

Efficacy of the Planned Burning Program – actions 56(d) and (e)

The evidence provided to the BRCIM demonstrates the State's progress in its commitment to achieve the VBRC's target. However, even with strategic planning (through FOPs) and preparation of sites, the target for the 2011-12 financial year was not met. The achievement of planned burning targets is reliant on specific climatic conditions and appropriate resource and funding allocations, both of which will vary from year to year. The effectiveness of the planned burning target and the long term ability of the State to continue burning and the impact on the environment has been the subject of much debate over 2011-12.

The VBRC's target of five per cent of public land has been challenged by some stakeholders, including some of the VBRC's expert witnesses who are now publicly questioning the relevance of the target and the program's long term effectiveness in maintaining this target. Planned burning is a long term action and while the implementation of this recommendation is still in progress, the BRCIM also considers there is an element of uncertainty in relation to the long term effectiveness of this program.

The BRCIM regards measures of risk and risk reduction as primary considerations to test the efficacy of this recommendation and notes the work of DSE in developing performance measures including those related to risk, which will assist in the reporting of planned burn outcomes and the long term effectiveness of the program.[269]

A true test of the effectiveness of the planned burning program is the extent to which the severity of bushfire is reduced in high risk areas and bushfires are more manageable in these areas. The State has been fortunate that in the years post the February 2009 bushfires, there have been no significant fires, other than the Tostaree Fire. The State, however, cannot afford to wait for a bushfire to test the effectiveness of the program in these areas.

The BRCIM notes DSE's planned burning reform program. The BRCIM advocates that the State reconsider the planned burning rolling target of five per cent as the primary outcome and considers that the most important objective of the planned burning program must be to address public safety risks in line with the VBRC's intentions.

</div>

56(g) Establish monitoring and risk management process that include increased community engagement and planned burn notification systems

DSE is continuing to address this implementation action through:

Risk Management Processes

DSE is establishing monitoring and risk management processes to increase the level of community engagement and planned burning notification systems. This has included the development of strategic risk plans for assessing risk landscapes with risk management principles and guidelines used in the development of strategic bushfire management planning approaches and methods. This has been most evident in the revision of the Code of Practice.[270]

DSE is using strategic risk management to develop bushfire management plans across the State and once complete will operate across seven risk landscapes. A draft bushfire management plan has been developed for the Barwon Otway region. This plan was distributed to stakeholders and partner agencies and comments were received in early May 2012. DSE will amend the plan in consideration of the comments and intends to release the plan as part of a broader public comment period. Once finalised, the Barwon Otway plan and the process leading to its development will inform bushfire management planning across the State.

Communications Program

During 2010-11, DSE implemented the largest ever public information campaign for planned burning on public land. Following a review and analysis of this information campaign it was determined that radio was the more effective medium through which to deliver the key messages of the planned burning program. As such, it was proposed that the 2011-12 campaign would have a greater emphasis on radio.

The campaign continued over the 2011-12 fire season with the Planned Burning Spring campaign commencing in September 2011. Running from 11 September until 23 October 2011 this targeted campaign was directed at metropolitan and regional Victoria using press, outdoor (billboards and trailers strategically placed in country areas), radio and online. A further campaign was run during the peak burning period in March 2012 (autumn).

---

269 Refer to recommendation 57.

270 Refer to recommendation 59.

Making Victoria FireReady:

Preparing for fire with planned burns

The Department of Sustainability and Environment and Parks Victoria are conducting planned burns as part of an integrated plan to reduce the bushfire risk to people, property and communities.

• We are increasing the amount of planned burning we do.
• We'll be burning whenever the weather is right.
• The burns will reduce fuel loads near communities and in remote areas.
• This can reduce the threat of damaging bushfires to communities and the environment.
• The threat from a major bushfire is much worse than the risks of planned burning.

You may be affected by these planned burns and see or smell smoke.

You can find out where and when planned burns are happening by visiting **www.dse.vic.gov.au/burns**, calling us or listening to your local radio station.

Victorian Bushfire Information Line:
1800 240 667
www.dse.vic.gov.au/burns

PREPARE. ACT. SURVIVE.
FireReady Victoria

Example of DSE's press advertising over the 2011-12 fire season. Image: Department of Sustainability and Environment

Community Engagement

DSE continues to build on existing relationships with key industry and other planned burning stakeholders (including grape and wine industry, regional tourism bodies, apiary industry, the CFA and environmental groups) at the local, district, regional and statewide level.

Community engagement is targeted and based on externally commissioned social research into community and stakeholder attitudes to planned burning (2008–2011). DSE's statewide community engagement plans in five DSE regions have been revised and will be externally evaluated in May 2013. Engagement activities for 2011-12 have included:

> two regional and one statewide roundtable series of quarterly meetings. These forums allow stakeholders an opportunity to build an understanding of the complexity of public land management, the range of perspectives held, the impacts on stakeholders and an insight into the DSE/Parks Victoria land management practices. Additional roundtable forums are being established across the State

> DSE has met with Tourism Victoria to improve the way planned burning notifications are disseminated from Tourist Information Centres across the State, particularly those in high tourist areas such as the Great Ocean Road

> meetings of the statewide DSE/DPI/wine industry leadership group were held on 23 September 2011 and 3 February 2012. This group meets biannually to discuss and identify communication improvements for planned burning. The group will next meet on 23 August 2012.

DSE website

DSE has continued to upgrade the information currently available on planned burning on its website. This has included providing the 'Fires Today' link in a more prominent location on the DSE homepage and creating separate links to warning and incidents and the planned burning pages and providing links to the burning outlook for a seven to 10 day period.

DSE intends to make further changes to the DSE website including:

> providing an additional incident summary map for planned burns and incidents (to include DSE and CFA data)

> simplifying planned burning terminology used on the website

> introducing a word search and sorting function for each planned burning map. A filter will be implemented to enable the burn status function on a map to be turned on or off.

DSE has advised that an extensive upgrade of the planned burning pages on the DSE website is planned as part of an overall upgrade of DSE's website, however, the upgrade is only in the early stages of planning and development. DSE will provide further details on the upgrade in due course.

Notification Program

DSE is currently working on a planned burns notifications system to improve current communication methods regarding planned burning to stakeholders and the community, particularly to those who are vulnerable.[271] Current options for notifying the community about planned burns include via the VBIL, the media and DSE website. DSE is canvassing the option of using SMS and email as a means to inform people of planned burns.

---

271 Refer to recommendations 3 and 5.

The email/SMS system would be 'opt-in' and require users to register prior to receiving notification of individual planned burns or burns relative to specific geographic catchments. DSE expects to introduce the system for the autumn 2013 planned burning program.

Efficacy of action 56(g)

DSE has significantly improved the way it communicates and notifies the community of planned burns across the State. Media campaigns as well as additional information on the DSE website provide up to date details of scheduled and proposed burns. The expansion of the planned burning program has necessitated DSE to have a much broader and strategic focus on communication and engagement activities. In addition, risk management processes are forming a central component of the communication and engagement activities.

The BRCIM acknowledges the actions taken by DSE to communicate and notify stakeholders and the community of planned burned activities across the State. These actions will, however, need to keep pace with any proposed changes to the planned burning program.[273] The BRCIM notes that DSE continues to review and evaluate the way it communicates with stakeholders and the community including assessing its annual public information campaigns following spring and autumn burns.

Finding: DSE has commenced work on establishing monitoring and risk management processes, significantly increased its community engagement activities and introduced changes to the planned burn notification system. The BRCIM notes that this work is well advanced and progressing. The BRCIM will revisit this action in future Annual Reports.

Recommendation 56 Overall Finding

Planned burning is a long term program to prepare and protect the Victorian community from bushfires. The State's commitment to the VBRC's rolling target of burning five per cent of public land required the planned burning program to expand rapidly, albeit within the constraints of applicable funding and resource allocations.

The State, although not meeting the planned burning target, has embarked on a range of initiatives to improve performance and delivery of the planned burning program. In line with new reporting and performance measures addressed in recommendation 57, over time the transparency of the outcomes of the planned burning program will become more apparent with the program restricted by the weather conditions and subject to available resources.

There has been much focus in the media on whether the target of 390,000 ha for planned burning is a long term achievable objective, including commentary attributed to some of the VBRC's own expert witnesses challenging this current approach to planned burning.

As previously noted, DSE is undertaking a planned burning reform program to ensure that it can effectively and efficiently achieve the target. This may result in further changes to the current burning regime and the BRCIM advocates that the State reassess the five per cent rolling target as the primary measure of risk reduction. Reconsideration of the target should include appropriate consultation with relevant stakeholders where possible. The target should also be reviewed in the context of other bushfire management reforms currently underway and those proposed.[272]

It is imperative that the objectives of the planned burning program address the VBRC's primary focus that the protection of human life and the safety of communities is paramount. The BRCIM concurs with the VBRC in this matter and advocates that the planned burning program be strategically focused on addressing high bushfire risk areas rather than on meeting the broader hectare burning target.

272 Refer to Chapter 1 of this *Final Report*.

273 Refer to the reform program as referenced in implementation action 56(d).

PLANNED BURNING – ANGLESEA

During the school holidays in September 2011, DSE and Parks Victoria undertook a small township protection burn of eight ha at Anglesea. The burn was undertaken to reduce fuel hazard in an area of public land immediately adjoining the Great Ocean Road, a YMCA camp and surrounding houses and businesses.

Planning the burn took 18 months and involved a number of discussions with community and government stakeholders. The burn area was very close to buildings and vegetation in this area had not been burnt for a long period of time. There were concerns that fire could potentially spot into private property due to the bark hazard.

Burning alongside the Great Ocean Road, September 2011. Photo: Department of Sustainability and Environment

Departmental staff worked closely with the YMCA to identify a time that would suit their camp bookings as well as weather and fuel conditions right for the burn. A small three day window arose where conditions were suitable and campers could vacate the camp on the day of the burn.

DSE also held discussions with adjacent business owners, as a partial road closure was required along the southern boundary of the burn, and with local government and VicRoads for traffic control and assessment of any fire affected trees along the Great Ocean Road.

The burn forms part of the Anglesea TPP and aims to complement other fuel reduction work identified up to three kilometres from the town on both private property and public land.

RECOMMENDATION 57

The DSE report annually on prescribed burning outcomes in a manner that meets public accountability objectives, including publishing details of targets, area burnt, funds expended on the program, and impacts on biodiversity.

Implementation Actions

Action Required	Due Date	Progress Report Status (July 2011)	Final Report Status (July 2012)
57(a) Reporting outcomes of planned burning	30/10/2012	Ongoing	In progress
57(b) Develop additional measures to ensure planned burn outcomes are captured and reported	30/06/2012*	Ongoing	In progress

BRCIM reporting date. No due date provided in the Implementation Plan.

Status

57(a) Reporting outcomes of planned burning

While the focus of planned burning is on reducing risk (primarily to life and property), the State is required to meet a rolling target of five per cent of public land across the State as agreed as part of recommendation 56. As outlined in the *Progress Report*, DSE as part of its planned burning program, has developed a draft reporting framework to measure the outcomes of the program and this is summarised in Figure 2.
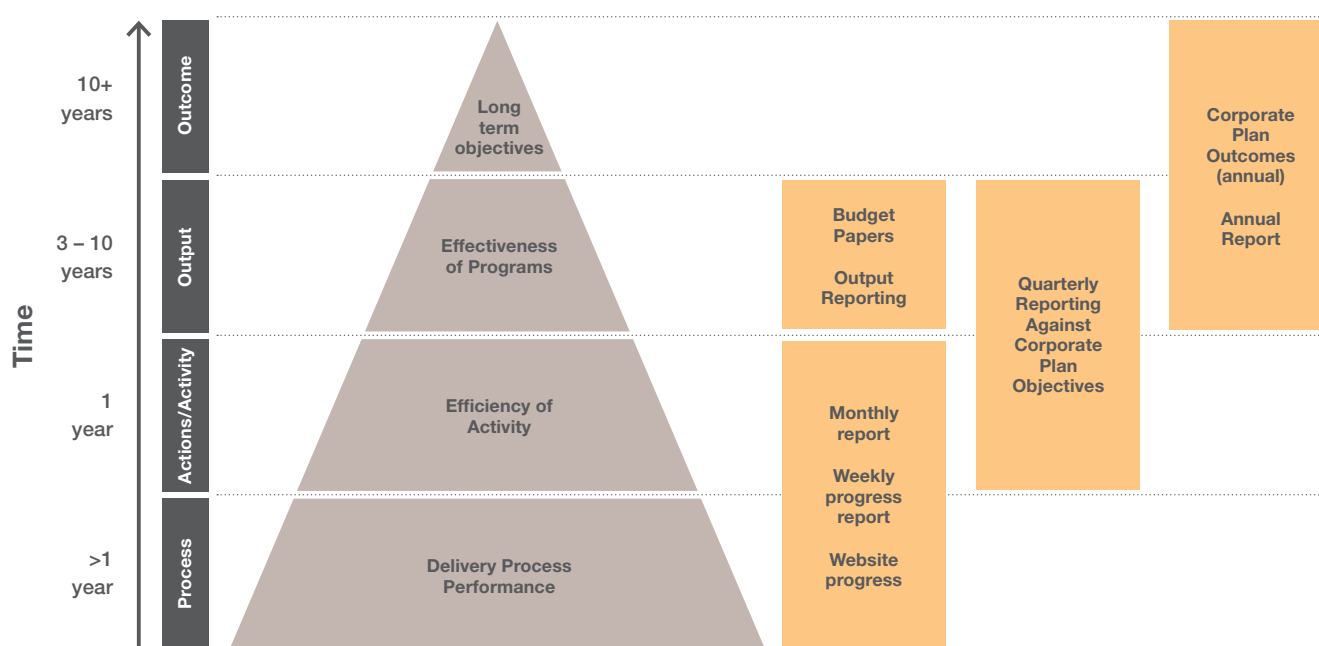
Figure 2: DSE performance reporting framework

The performance reporting framework is based on a tiered approach where measures are reported against categories such as process (works carried out in accordance with relevant procedures and specifications), actions (delivery of actions as planned), outputs (effectiveness) and outcome (achievement of long term goals). DSE provides its stakeholders (both internal and external) with different types of reporting based upon their varying requirements and needs. Examples of DSE's reporting include:

Process Reporting – website reporting

DSE provides updated daily information sourced from DSE's FireWeb[274] system on its website on the progress of the planned burning program including details on the number of burns to date, area treated and map of completed burns to date.

In addition, the website also provides background information on planned burning including details on the development of FOPs,[275] a summary and map of current planned burns (those burns occurring within the next seven-10 days) and an interactive map of burns planned throughout Victoria over the coming three years.[276]

Action Reporting – weekly and monthly reporting

In 2012, DSE introduced a number of new reporting mechanisms including weekly and monthly reports.

The weekly reporting format was introduced in March 2012 and provides information on bushfire activity (the conditions expected in the week ahead and the burning outlook), details on project firefighters, proposed burning opportunities and media and stakeholder engagement. The weekly reports are aimed at DSE internal stakeholders and distributed to a number of government stakeholders. The BRCIM has sighted a number of examples of these weekly reports.

DSE has also developed a monthly report which is primarily for distribution to the Minister for Environment and Climate Change and other key government stakeholders. The report provides a summary of the fire management activities for the previous month, the State planned burning approaches, planned burning readiness, stakeholder engagement and communications activities, the outlook for the month ahead (including readiness, climatic conditions and fuel conditions) and expected burning opportunities in the coming month. An example of information provided in the monthly report is included in Table 4.

Region	Target Area 2011-12 (ha)	Area Treated as at 31 May 2012 (ha)	Proportion of Target Area Treated %
Gippsland	87,082	48,691	56
North East	65,086	66,565	102
North West	36,607	41,210	113
Port Phillip	5,933	5,499	93
South West	30,780	33,866	110
TOTAL	225,488	195,831	87

Table 4: Planned burning activity as at 31 May 2012

Output and Outcome reporting – annual reporting

Internal Reports

DSE prepares an internal annual report for DSE staff on the planned burning program for each financial year. These reports outline the key activities undertaken during the year and information compiled for this report is used to prepare the DSE Annual Report. The BRCIM was provided with a copy of the internal Planned Burning Report 2010-11.

Annual Reports

DSE reports annually on the planned burning program in its Annual Report. The DSE Annual Report is required to be tabled in Parliament each year and is available from the DSE website. As part of the 2010-11 Annual Report, DSE reported on how it reduces the impact of major bushfires and reported on performance measures related to quantity (for example fuel reduction burning completed to protect key assets), quality (for example fire controlled at less than five ha), timeliness (for example fires controlled at first attack) and output costs.

DSE is currently considering material for inclusion in the 2011-12 Annual Report and has advised it will focus on meeting the principles of public accountability, as recommended by the VBRC.

The public reporting of the planned burning program is to be complemented by the development of new reporting measures.[277] The BRCIM considers performance reporting to be a long term action and believes reporting of the planned burning outcomes should not be viewed in isolation but rather as only one component of the program. The BRCIM considers DSE has an obligation to provide information to the community on the outcomes of the planned burning program and to ensure that there is a wider understanding of what can realistically be achieved through planned burning.

---

274 Refer to recommendation 16.

275 Refer to implementation action 56(a) in the *Progress Report* and 56(a) in this *Final Report*.

276 Reference is made in implementation action 56(d) to planned burning information on the DSE website.

277 Refer to implementation action 57(b).

Planned burning can only be carried out when conditions are favourable and in some cases there may only be narrow windows of opportunity available for such burns to proceed. There are risks associated with conducting planned burns and the community needs to understand these risks. The BRCIM observes that through open and transparent reporting and regular communications and community engagement processes, DSE is meeting the public accountability objectives as considered by the VBRC.

The BRCIM notes that figures on planned burning are now available from FireWeb and can provide a snapshot of the progress of the planned burning program at any point of time. The information is generated live from the FireWeb system and will reflect information stored in the system but it does not consider burns that may be rescheduled or reconfirmed information in the system that may impact on actual figures.

The BRCIM considers that such daily reporting of planned burning figures may not be helpful as these figures may not necessarily be a true reflection of what is actually happening on the ground and there will be discrepancies between figures for the target area, treated area and actual area burnt. It may be more relevant for DSE to provide quarterly figures rather than daily or monthly, as this will provide a more accurate picture of planned burning activities across each region in Victoria.

DSE has significantly expanded and improved the way it reports on the planned burning program. The BRCIM considers DSE's decision to provide more detailed information on the program as part of DSE's Annual Report process an important step in improving accountability. This will allow for the long term monitoring of the planned burning program, beyond the life of the statutory role of the BRCIM. The delivery date for this action is October 2012 and the BRCIM will continue to report on DSE's reporting of planned burning outcomes.

Finding: The BRCIM notes the reporting of planned burning outcomes is in progress. The BRCIM will revisit action 57(a) in future Annual Reports.

57(b) Develop additional measures to ensure planned burn outcomes are captured and reported

As reported in implementation action 57(a), DSE is developing a performance framework for planned burning. This performance framework underpins DSE's performance measures (refer to Figure 2). DSE is currently in the process of developing key performance indicators (KPIs) to support the planned burning measures and to enable DSE to define and measure the success of its progress in achieving the planned burning objectives.

Process

As part of DSE's monthly reporting regime, KPIs are being developed to assist in the assessment and monitoring of the delivery and achievement of organisational outcomes. These KPIs will assess how work is being undertaken in accordance with DSE's service delivery and will address key areas of planning, preparedness, delivery, capacity and community and stakeholder engagement and responsiveness. It should be noted these KPIs will not address the impacts and outcomes of the planned burning program as such measures are to be developed as part of the Corporate Plan and Annual Report process.

The KPIs as at 1 June 2012, were under review by DSE's regional directors and DSE anticipates that reporting against these KPIs will commence at the start of the 2012-13 financial year.

Output

DSE develops reports on output measures as part of the State's budget process. Performance measures for planned burning are provided under the Land and Fire Management section in Budget Paper 3.[278] These measures relate to fuel reduction burning to protect key assets, strategic engagement forums and district FOPs completed.

---

278 Refer to page 272 of the 2012-13 Budget, Budget Paper 3, available from the State Budget website.

Outcome

DSE is also developing KPIs for the five outcomes of the DSE Corporate Plan including outcome four – *Reduced impact of major bushfires and other extreme events on people, infrastructure and the environment.* These KPIs will complement the current output measures as part of the budget process and will be included as part of DSE's budget reporting in 2013-14. In addition, DSE is also currently considering developing reporting measures for areas such as:

> risk reduction

> biodiversity impacts

> community/stakeholder engagement and responsiveness

> efficiency of the program.

These measures may give a greater indication of how planned burning is reducing risk in the immediate landscape.

The BRCIM notes that this action had no due date in the Implementation Plan. The BRCIM, therefore, assigned a date of 30 June 2012 as a flag to request evidence from DSE on the progress of this action. The reporting of performance measures is in progress and development of specific measures and KPIs is continuing. It is anticipated that DSE will provide further updates on the progress of this action throughout 2012.

Finding: The BRCIM notes that the development of performance measures to address the impact and outcomes of the planned burning program is ongoing. The BRCIM will revisit action 57(b) in future Annual Reports.

Recommendation 57 Overall Finding

The reporting of performance measures and the outcomes of the planned burning program is an important mechanism to increase public accountability and transparency. The development of performance measures is occurring at a time when DSE is reforming the current planned burning program as outlined in recommendation 56. Reporting and performance measures will therefore need to reflect potential reforms and the future strategic direction of the planned burning program. The BRCIM considers the development of additional reporting measures for elements such as risk, community engagement and biodiversity is important. These measures will also assist in providing further information on the effectiveness of the planned burning program on a statewide basis.

The BRCIM welcomes DSE's expansion of public reporting on the planned burning program. In reporting outcomes of the planned burning program more publicly this will assist in increasing community understanding of the program and the risks associated with carrying out burns. Information on planned burning as well as other key bushfire messages[279] may assist individuals to make informed decisions and be better prepared for bushfires.

---

279 Refer to recommendation 1.

RECOMMENDATION 58

The DSE significantly upgrade its program of long term data collection to monitor and model the effects of its prescribed burning programs and of bushfires on biodiversity in Victoria.

Implementation Actions

Action Required	Due Date	Progress Report Status (July 2011)	Final Report Status (July 2012)
58(a) Commence a program of enhanced biodiversity monitoring	30/06/2011	Ongoing	Complete

Status

58(a) Commence a program of enhanced biodiversity monitoring

The management of planned burning and its long term viability is reliant on accurate mapping and data of ecological values. The VBRC agreed with the expert panel that the recommended increase in prescribed burning must be accompanied by a corresponding long term commitment to monitor, map and model its ecological consequences.[280]

DSE has always invested in understanding the ecological impacts of fire and established HawkEye, a long term biodiversity monitoring project in 2010. HawkEye currently includes monitoring, research, modelling and evaluation of the effects of planned burning on biodiversity on public land and to assist in understanding the short term and long term impacts of planned burns and how to apply ecologically appropriate fire regimes. The project addresses a number of key questions about the impacts of planned burning on biodiversity.

Three major project areas have been established in areas identified as priorities due to high biodiversity values and the potential impacts of planned burning with 148 monitoring sites established. The monitoring at these sites is currently being conducted through major partnerships with research institutions:

> the Mallee – a partnership with La Trobe and Deakin Universities (the Mallee Fire and Biodiversity project)

> the Otways – in collaboration with DSE and University of Melbourne (the Fire, Landscape Pattern and Biodiversity research project)

> the foothill forests of Gippsland – in partnership with the Gippsland Retrospective Fire Project established by DSE's Arthur Rylah Institute.

In addition, HawkEye is currently supporting a number of other fire and biodiversity projects including a study in Box-Ironbark (Bendigo), fox predation (East Gippsland), weeds (Gippsland) and invertebrates (Murrindindi).

---

280 VBRC *Final Report,* Vol II, Part Two, p 297.

HawkEye is just one element of DSE's current biodiversity monitoring program and has a strong relationship with another current DSE monitoring program, the Landscape Fire and Environmental Monitoring Program. This program was established at the end of 2009 to help DSE better understand the relationship between flora, fauna, fuels and habitat and the patterns and extent of fire (both planned fire and bushfire) in the landscape. Since this program began, 274 monitoring sites have been established over 15 monitoring areas with the data collected currently assisting DSE in evaluating the outcomes of the planned burning program and informing fire management decisions. The Landscape Fire and Environmental Monitoring Program was developed and implemented prior to the VBRC's Final Report being released.

Current monitoring projects such as HawkEye are providing data and models to strengthen DSE's fire ecology framework, building on existing knowledge of fire ecology and incorporating this into fire management processes.

As part of the HawkEye project DSE has invested in the development of monitoring and fire ecology tools, such as spatial datasets, a models database and an image archive. Initial analysis of data and results from the HawkEye project are being integrated into fire ecology tools and information systems which support adaptive fire management.

DSE provided the BRCIM with a comprehensive range of evidence regarding HawkEye including proposals, briefs, contractual and divisional agreements, deliverables and milestones, funding and budget expenditure details, planning and implementation arrangements, development and implementation of systems and project reports (including monthly, activity and half yearly reports). HawkEye was originally funded as a four year project from 2010-11 to 2013-14. DSE is planning to review its approach to monitoring the planned burning program, including the biodiversity impacts to ensure that it is efficient and effective at monitoring the outcomes and the effectiveness of a scaled up planned burning program.

The HawkEye project clearly accords with recommendations 56 and 57 as the outcomes of this project are integral to informing the planned burning process and assist in supporting decisions that balance the risks to life and property with risks to biodiversity.

The HawkEye Annual Report is currently being developed and will be published early in the 2012-13 financial year. Additional information on HawkEye is also available in industry publications, through DSE YouTube videos and papers presented at fire and biodiversity symposiums. DSE, Parks Victoria and CFA staff are also able to access the projects, tools and information products through the Fire Ecology pages on FireWeb. [281]

DSE has developed a detailed engagement and communications plan which will increase community and stakeholder awareness of the project to ensure there is a clear understanding of the link between planned burning and biodiversity monitoring. A confidential copy of the plan has been provided to the BRCIM. Engagement with the community on HawkEye has also occurred through community field and monitoring days. In addition, in February and March 2012, DSE sought expressions of interest from volunteers to work on two week field survey activities in the Mallee.

HawkEye is a form of long term monitoring that can inform planned burning. As DSE moves towards a risk based approach to bushfire management planning, the development of risk plans will seek to minimise the impact of major bushfires and maintain and improve the resilience of natural ecosystems and their ability to deliver services including biodiversity. Monitoring of biodiversity impacts in Victoria will support risk based management planning activities.

The BRCIM believes the scientific outcomes of HawkEye will contribute significantly in the development of best management practices for the planned burning program and its capability to expand as required under recommendation 56. Continuing monitoring will improve current levels of knowledge and data. The partnerships that DSE has developed with key academic institutions can further enhance the ongoing refinement of the planned burning program.

The BRCIM notes that while this is a long term action, the State only committed as an implementation action to commence a program of enhanced biodiversity monitoring. DSE has clearly met this requirement by the required due date. Although this action is now complete, the BRCIM will seek further information on the biodiversity monitoring in future Annual Reports particularly in light of how the outcomes of this monitoring feeds into the planned burning program. [282]

Finding: The BRCIM considers action 58(a) has been satisfactorily implemented although notes that this action is part of a much broader long term monitoring project. The BRCIM will revisit this action in future Annual Reports.

The objective of DSE's fire monitoring program is to promote continual learning and improvement through an increased understanding of the landscape scale effects of fire (both bushfire and planned fire). Currently HawkEye clearly meets this objective. Ongoing monitoring and analysis of data will enable DSE to have a greater understanding of the biodiversity impacts of planned burning. Further evidence of these impacts will greatly inform the decision making process and contribute to enhancing the planned burning program.

HawkEye is an effective project that is building on Victoria's existing biodiversity data and knowledge. The strategic partnerships being formed and considerable long term investments will provide substantial benefits to the State as the ongoing monitoring of biodiversity is crucial to improving fire management outcomes.

---

281 Information on HawkEye is available from the DSE website.

282 Refer to recommendations 56 and 57.

The Department of Sustainability and Environment amend the Code of Practice for Fire Management on Public Land in order to achieve the following:

59.1   provide a clear statement of objectives, expressed as measurable outcomes

59.2   include an explicit risk-analysis model for more objective and transparent resolution of competing objectives, where human life is the highest priority

59.3   specify the characteristics of fire management zones – including burn size, percentage area burnt within the prescribed burn, and residual fuel loading

59.4   adopt the use of the term 'bushfire' rather than 'wildfire'.

Implementation Actions

Action Required	Due Date	Progress Report Status (July 2011)	Final Report Status (July 2012)
59(a) Amend the Code of Practice for Fire Management on Public Land	30/06/2012	Ongoing	Complete
59(b) Amend operational manuals and guides and advise all staff	01/12/2012	Ongoing	In progress

Status

59(a) Amend the Code of Practice for Fire Management on Public Land

The Code of Practice for Fire Management on Public Land (the Code) establishes the framework for fire management (including planned burning and bushfire response) on Victoria's public land. Since the previous review in 2006, Victoria has experienced some of the worst bushfires in the country's history and there have been significant changes made to fire management.

The Code establishes strategies and actions to help DSE and its partner agencies work together better and manage fire to a consistently high standard across Victoria. The key features of the revised Code are:

> clear objectives for bushfire management on public land and actions and strategies and actions to achieve these objectives

> a risk analysis framework to support fire management planning outlining a process for objective and transparent resolution of competing objectives, with human life as the highest priority

> amended FMZs[283]

> new legislative responsibilities on Incident Controllers including warnings and other new policies such as evacuation

> an improved monitoring, reporting and evaluation section based on science and continuous learning.

The Code was reviewed in late 2011 with stakeholder consultation undertaken as outlined in the *Progress Report*. Final briefings on the Code were conducted in July and August with the consultation draft released for public comment in October 2011. A mandatory public consultation period of 60 days is required under section 33 of the *Conservation, Forests and Land Act 1987* (the CFL Act) with an online submission form for public consultation available from the DSE website.

---

283 Refer to recommendation 56.

Submissions on the Code were reviewed and incorporated into the final version which was tabled in Parliament on 17 April 2012 in accordance with requirements under Part 5 of the CFL Act. A copy of the amended Code and copies of the tabling notices were provided to the BRCIM. The Code must be tabled in each House of Parliament for 14 sitting days and once made, will go through a gazettal process. It is anticipated that the Code will be made by the end of June 2012 and gazetted in July 2012. Once the tabling process has been completed, the Code will be available to download from the DSE website.

Finding: The BRCIM notes that the Code has been amended in line with the VBRC's recommendation and acknowledges that subject to tabling requirements, this action has been satisfactorily implemented.

59(b) Amend operational manuals and guides and advise all staff

DSE is embarking on a two year program to update its directions to operational staff to reflect the new Code. This process is part of a wider review of all DSE documents.

DSE has provided the BRCIM with a copy of its communications and engagement strategy for releasing the revised Code. The Code will be available on the DSE website with additional information provided on the process for the development of the document and its key elements and hard copies will be distributed throughout the State. The public will also be able to request copies of the Code through Information Victoria and regional offices.

In addition, DSE will conduct five regional sessions across the State for staff once the Code is released. Two other sessions will be held in Melbourne, one for fire staff and another for the members of the statewide stakeholder roundtable group which will be held in September 2012. Further communications information will be provided to regional staff for use in regional stakeholder engagement.

Finding: The BRCIM notes that progress in relation to implementation action 59(b) is ongoing. The BRCIM will revisit this action in future Annual Reports.

LAND AND FUEL MANAGEMENT – ROADSIDE CLEARING

Recommendations 60, 61 and 62

A key part of fire prevention is ensuring that fire risk is reduced. While there is a strong emphasis on reducing this risk on public and private land, fire mitigation works on roadsides are equally important, as roads can be a potential ignition source due to their high level of use and the presence of powerlines. Bushfires can start on or near road reserves and can spread quickly through the landscape depending on fuel loads and the siting of assets on the road reserve and beyond.

One of the key bushfire safety options in the Framework[284] is to leave early. 'Leaving early' means leaving a BPA before a fire has started, based upon triggers such as the weather forecast, Total Fire Ban declaration or forecast of a Code Red day. In many cases, leaving early will require travel by road. Driving during a bushfire should be a last resort as travelling on roads may become hazardous with dangerous road conditions caused by smoke, fallen trees and embers.

The management of fuel loads and vegetation on roadsides and road reserves is essential, particularly for roads identified as high risk, where access and egress is critical for evacuation purposes. In addition, in areas of high risk, the safe passage by road to NSPs or community fire refuges will be an integral part of ensuring that these shelter options comply with relevant standards for their continual operation and maintenance.

---

284 Refer to recommendation 1.

The VBRC acknowledged that roadside fuels had a minimal impact on the spread of fire on 7 February 2009, however, a number of concerns were raised in relation to roadside vegetation and clearing including:

> the need to strike a balance between the complex and competing objectives of reducing bushfire risk and maintaining important environmental values

> the complexity of the current regulatory framework governing road management and roadside clearing, which involves various Victorian and Commonwealth Acts

> roadside clearing processes being resource intensive and the regulatory process being time consuming

> roadside vegetation, particularly fallen trees, presenting a risk for firefighters and other emergency workers who need access to perform suppression activities, as well as residents seeking safety.[285]

Photo: CFA Strategic Communications

The VBRC also acknowledged that an individual's capacity to escape from a fire or fire affected area and firefighters' capacity to render assistance and engage in suppression are compromised if roads are impassable, poorly maintained or blocked by fallen trees.[286]

Recommendations 60, 61 and 62 are aimed at decreasing the regulatory complexity and reducing the administrative burden for road managers. Under the *Road Management Act 2004*, VicRoads is the responsible road manager for freeways and arterial roads, while councils are responsible for local roads within their municipality. As the implementation actions under recommendations 60, 61 and 62 are closely related, this section should be read as one.

---

285 VBRC, *Final Report,* Vol II, Part Two, p 305.

286 Ibid., p 311.

RECOMMENDATION 60

The State amend the exemptions in clause 52.17-6 of the Victoria Planning Provisions to ensure that the provisions allow for a broad range of roadside works capable of reducing fire risk and provide specifically for a new exemption where the purpose of the works is to reduce bushfire risk.

Implementation Actions

Action Required	Due Date	Progress Report Status (July 2011)	Final Report Status (July 2012)
60(a) Identify roadside vegetation management requirements	30/06/2012*	Ongoing	Complete
60(b) Facilitate roadside vegetation management without a planning permit (exemption) – amend VPP as appropriate	30/09/2011	Ongoing	Complete
60(c) Consult widely with councils, Vic Roads and MAV through the Local Government Native Vegetation Reference Group (DSE/LGNV Reference Group) – see 41(b)	30/06/2011*	Complete	Complete
60(d) Ongoing awareness and training for staff in roadside vegetation management	30/06/2012*	Ongoing	Complete

BRCIM reporting date. No due date provided in the Implementation Plan.

Status

The *Progress Report* noted that action 60(c) was satisfactorily implemented, however, additional material was requested by the BRCIM in relation to the efficacy of the DSE/LGNV Reference Group. Supplementary information on the DSE/LGNV Reference Group was provided and an update is included under action 60(c) below.

60(a) Identify roadside vegetation management requirements

The State made a commitment under recommendation 60 to identify roadside vegetation management requirements to assist with amending the VPP and developing a new roadside exemption. This was facilitated through the establishment of the DSE/LGNV Reference Group[287] which was instrumental in identifying roadside vegetation requirements, developing the new bushfire road exemption and developing practical guidance for road managers.

As a collaborative group, the DSE/LGNV Reference Group, made up of representatives from MAV, CFA, DSE, DPCD, VicRoads and 13 local councils, discussed many issues including:

> roadside management activities required to address risk, potential challenges and current and expected costs

> approaches to roadside clearing for bushfire risk and the VPP exemption[288]

> the development of the Road Fire Risk Assessment Guideline and associated risk mapping tool[289]

> requirements of and compliance with the *Environment Protection and Biodiversity Conservation Act 1999* (Cth) (the EPBC Act)[290] and the *Flora and Fauna Guarantee Act 1998* (the FFG Act).[291]

---

287 The DSE/LGNV Reference Group was established in January 2011 as part of action 41(b) and required to implement recommendations 41, 60, 61 and 62. Further information is available in response to recommendation 41 in the BRCIM's *Progress Report*.

288 Refer to implementation action 60(b).

289 Refer to recommendation 62.

290 Refer to recommendation 61.

291 Refer to implementation action 60(b).

Previously, agencies responsible for, or having a vested interest in, roadside vegetation management did not have a specific mechanism for the facilitation of dialogue on roadside vegetation requirements. Roadside issues were managed between regional DSE staff, councils and other stakeholders with many agencies operating independently with attempts made to resolve issues at the local level, although some inconsistencies arose due to geographical boundaries. Councils could enter into agreements with DSE to clear vegetation from roadsides but this was not specifically in relation to bushfire management.

The BRCIM considers that the establishment of the DSE/LGNV Reference Group was vital in properly identifying issues and subsequently developing initiatives to improve the management of roadside vegetation. Further information on the Reference Group is provided in implementation action 60(c).

Finding: The BRCIM considers action 60(a) has been satisfactorily implemented.

60(b) Facilitate roadside vegetation management without a planning permit (exemption) – amend VPP as appropriate

The VBRC considered the previous exemptions to remove roadside vegetation under the VPP to be problematic as the exemptions were overly complex, lacked clarity and did not allow road managers to meet their bushfire risk reduction obligations. The VBRC recommended that the exemptions be changed to:

> reflect the bushfire risk reduction obligations that section 43 of the CFA Act[292] imposes on road managers

> meet community bushfire risk reduction expectations

> simplify the task for road managers seeking to rely on the exemptions.[293]

As stated above at action 60(a), the DSE/LGNV Reference Group guided the development of the new exemption. The new exemption (VPP clause 52.17-6) was introduced through Amendment VC83 to the VPP as part of a number of planning reforms delivered in November 2011.[294]

Clause 52.17-6 exempts road authorities from the need to obtain a planning permit to remove, destroy or lop native vegetation for bushfire risk mitigation works on roadsides. The exemption requires an agreement between the responsible road authority and the Secretary of DSE. The agreement requires road managers to:

> undertake a roadside bushfire risk assessment using an agreed process focusing on priority roads (Road Fire Risk Assessment Guidelines – refer to recommendation 62)

> identify appropriate vegetation treatments for priority roads to determine appropriate fire mitigation treatments

> record vegetation treatments in a plan, such as the Regional Strategic Fire Management Plan or MFMPs

> provide a works plan to describe the location, type of work and objective of work proposed.

The exemption process will allow DSE to approve the works plan for the removal or treatment of native vegetation. A template for information to be included in the works plan is available on the DSE website. DSE has also developed a guideline on the exemption, the *Roadside Vegetation Management for Bushfire Risk Mitigation Purposes: A guideline for road managers* that is available to download from the DSE website. All road managers have been provided with a copy of the guidelines on the exemption and associated agreement.

Vegetation treatments under the exemption may include:

> removal of fallen trees and branches within the road reserve

> removal of fine fuels such as grasses, understorey shrubs and leaf litter within the road reserve

> removal of hazardous trees and tree limbs that are dead, diseased, defective and have the potential to fall onto and block the road

> removal of vegetation associated with routine maintenance of existing bushfire mitigation works such as established fire breaks, control lines and access tracks.

Treatment options will be considered by a multi-agency group comprising representatives of the relevant road authority, a MFPO, a council environmental officer, a DSE biodiversity officer, a DSE fire prevention planner and/or operational officer from the relevant fire authority. The treatment option process will also need to consider any other requirements for native vegetation under the FFG Act. Penalties for non-compliance with the exemption may include actions under the PE Act. In addition, a road authority may be liable for breaches of the FFG Act or the EPBC Act.[295]

---

292 Section 43 of the CFA Act is discussed in recommendation 62.

293 VBRC *Final Report,* Vol II, Part Two, p 307.

294 For further details on Amendment VC83 refer to recommendation 37 or the DPCD website.

295 Refer to recommendation 61.

The exemption allows native vegetation to be removed in areas that pose the greatest bushfire risk to the community. It applies across all areas of Victoria including those covered by an environmental overlay and allows for statewide consistency for all road managers. Under the exemption, there is no limit or threshold for removal of native vegetation, however, activities or works that are likely to have a significant environmental impact on road reserves will still require a planning permit.

The exemption was introduced just prior to the 2011-12 bushfire season with agencies such as VicRoads commencing risk assessment processes in line with the Road Fire Risk Assessment Guideline. Seasonal fire risk reduction works were conducted in line with previous years activities, with additional works identified in high risk areas or at the request of the CFA in addition to areas identified as part of the new bushfire road risk assessment mapping.[296]

DSE has advised that the new exemption has been well received by local councils. VicRoads advised that they have submitted one application under the exemption process for the Hume Freeway and this was approved by DSE on 9 March 2012.

As the exemption has only been in place a short time, the BRCIM is unable to comment on its efficacy. The BRCIM considers the revised *Roadside Vegetation Management for Bushfire Risk Mitigation Purposes: A guideline for road managers* as a useful tool that will allow road managers to carefully consider options for removing vegetation if and when required.

Finding: The BRCIM considers action 60(b) has been satisfactorily implemented.

60(c) Consult widely with councils, Vic Roads and MAV through the Local Government Native Vegetation Reference Group

This action has been satisfactorily implemented, however, supplementary information on the DSE/LGNV Reference Group is provided in the following update.

Update:

The DSE/LGNV Reference Group was established as part of the State's commitment to implement recommendation 41.[297] The BRCIM concluded in the *Progress Report* that action 41(b) had been satisfactorily implemented, however, no comment was made in relation to the effectiveness of the group. In early 2012, the BRCIM requested information from stakeholders in relation to the effectiveness of the DSE/LGNV Reference.

The BRCIM was provided with copies of the minutes from each of the meetings held by the DSE/LGNV Reference Group. In addition to roadside vegetation management, the Reference Group was briefed on many other matters including the 10/30 and 10/50 rules,[298] the broader VPP policy development work (VC83 Amendment),[299] the development of collective offset solutions for native vegetation removal for landholders[300] and updates on biodiversity mapping.

MAV, as Secretariat of the group, advised that the group was disbanded in August 2011, as it had fulfilled its objectives in implementing actions pursuant to recommendations 60 and 62.

---

297 The DSE/LGNV Reference Group was to focus on recommendations 39, 41, 60, 61 with consideration for recommendation 62.

298 As referenced in recommendation 41.

299 As referenced in recommendation 37.

300 Refer to recommendation 42.

---

296 Refer to recommendation 62.

The consensus from stakeholders was that the DSE/LGNV Reference Group was well attended, well resourced and comprised representatives from a range of stakeholders and disciplines across various municipalities and State authorities. The Reference Group was effective in bringing together critical players with relevant expertise to discuss complex issues, devise solutions and provide guidance on many of the roadside vegetation issues through a collaborative statewide approach. When required, the DSE/LGNV Reference Group also invited independent experts to attend its meetings.

While the purpose of the DSE/LGNV Reference Group was to address the above recommendations, one benefit of the group was breaking down silos within government. Some stakeholders, however, did advise that in relation to many of the larger departments, such as DPCD and DSE, representatives needed to come from a cross section of the department to ensure all views of the department were being considered.[301]

There was additional support from many stakeholders on reconvening the DSE/LGNV Reference Group should other roadside vegetation management issues arise. MAV has advised that the group could be reinstated should the need arise. The involvement of councils was deemed instrumental in ensuring other agencies and departments understood the limitations and practicalities of implementing roadside vegetation management policies and resource implications.

The BRCIM considers the use of a multi-agency group to discuss issues and develop solutions encourages a consistent whole of government approach that ultimately reduces confusion and disparate views and would advocate for the use of such a group to operate in the future if required.

60(d) Ongoing awareness and training for staff in roadside vegetation management

The PLANET training sessions held in November and December 2011[302] included information on the new roadside vegetation management requirements and the roadside exemption. As part of the training sessions, DSE provided a briefing session on the exemption. In addition to these workshops, DSE arranged briefings on the new exemption for individual councils. DSE has advised that it will schedule further briefings on the exemption if requested by councils.

DSE has also prepared guidance material on roadside vegetation removal and the exemption under clause 52.17-6 of the VPP including the *Roadside Vegetation Management for Bushfire Risk Mitigation Purposes: A guideline for road managers*,[303] *New Fire Exemptions for Roadsides Fact Sheet* and *FAQs* which are available from the DSE website.

A number of workshops are being conducted across the VicRoads regions for Road Authorities, including DSE, VicRoads and council employees to explain the risk assessment process and develop work plans as required to access the roadside fire exemption. The workshops have been supported by MAV, DSE and VicRoads.

DSE and VicRoads are also funding the roll out of training of local roads managers (councils) and VicRoads staff in the relation to the Road Fire Risk Assessment Guidelines.[304]

Finding: The BRCIM considers action 60(d) has been satisfactorily implemented.

Recommendation 60 Overall Finding

The VPP has been amended to ensure that broad scale roadside vegetation works capable of reducing bushfire risk can be effectively carried out on Victoria's roadsides. As there has been limited use of the exemption since its introduction in late 2011, there is little evidence to show how effective it may be. Over time, however, with the continued use of the exemption there may be a greater understanding of its role in reducing bushfire risk.

The BRCIM considers that the DSE/LGNV Reference Group was an effective model for building strong working relationships between agencies and local councils in the context of roadside vegetation clearance. While the DSE/LGNV Reference Group no longer meets, the BRCIM is confident that should further work be required in this area, the group could quickly reform to address subsequent issues.

The BRCIM further notes that both VicRoads and DSE have ongoing awareness campaigns and training for relevant road managers in relation to changes to roadside vegetation management. These activities are viewed by the BRCIM as core business functions and training continues to be offered on an as needs basis.

The BRCIM considers recommendation 60 has been satisfactorily implemented.

---

301 DPCD in particular has a number of interests in relation to the implementation of the VBRC's recommendation covering both planning and building.

302 As discussed in recommendations 41 and 55. The BRCIM attended one of the training sessions in December 2011.

303 Refer to implementation action 60(b).

304 Refer to recommendation 62.

RECOMMENDATION 61

The State and Commonwealth provide for municipal councils adequate guidance on resolving the competing tensions arising from the legislation affecting roadside clearing and, where necessary, amend environment protection legislation to facilitate annual bushfire-prevention activities by the appropriate agencies.[305]

Implementation Actions

Action Required	Due Date	Progress Report Status (July 2011)	Final Report Status (July 2012)
61(a) Identify specific guidance needs and regulatory barriers to undertake roadside vegetation management for bushfire consultation (via LGNV Reference Group and road managers)	01/07/2011	Ongoing	Complete
61(b) Prepare guidance and work toward resolution of regulator impediments on roadside vegetation management	30/09/2011	Ongoing	Complete
61(c) Where regulatory impediments are identified that cannot be resolved through the delivery of recommendation 60 or guidance as noted above legislative amendments will be considered	TBD	TBD	N/A

Status

Evidence before the VBRC stated that there was little legislative prescription or policy guidance for councils to assist them with resolving competing tensions between fire protection and conservation of native vegetation.[306] The VBRC considered previous processes were cumbersome and activities undertaken did not sufficiently account for any reduction in bushfire risk.

The VBRC directed recommendation 61 at both the State and Commonwealth.

61(a) Identify specific guidance needs and regulatory barriers to undertake roadside vegetation management for bushfire consultation (via LGNV Reference Group and road managers)

The VBRC strongly advocated for the State, working with DSE, CFA and MAV, to adopt a more collaborative approach and effective way to cover bushfire risk measures such as prescribed burns, construction of fuel breaks and roadside vegetation works while meeting environmental obligations.

As outlined in response to recommendation 60, a number of roadside vegetation management requirements were identified through the establishment of the DSE/LGNV Reference Group. The work of the DSE/LGNV Reference Group has been essential to enable road managers to discharge their road management responsibilities in a more effective and efficient manner, particularly in relation to reducing bushfire risk on roadsides. As outlined in implementation actions 60(a) and (c), the DSE/LGNV Reference Group was instrumental in identifying specific requirements to undertake roadside vegetation management.

Finding: The BRCIM considers action 61(a) has been satisfactorily implemented.

---

305 In the *Progress Report*, the text for recommendation 60 was erroneously provided for recommendation 61.

306 VBRC *Final Report,* Vol II, Part Two, p 308.

61(b) Prepare guidance and work toward resolution of regulator impediments on roadside vegetation management

The VBRC was adamant that councils be adequately supported through training and technical assistance to ensure they can discharge their bushfire risk management functions in relation to roads, roadsides and the safe use of roads during bushfires.[307]

DSE has developed the *Roadside Vegetation Management for Bushfire Risk Mitigation Purposes: A Guide for Road Managers* which provides guidance for responsible road managers on the exemption under the VPP,[308] the legislative responsibilities under the FFG Act and the EPBC Act.

As advised in the *Progress Report*, the Commonwealth provides guidelines on the EPBC Act which are available from the website of the Department of Sustainability, Environment, Water, Population and Communities. The Commonwealth also continues to hold presentations and information sessions throughout regional Victoria and in other states. Presentations have been provided to VicRoads (6 June 2011) and the attendees of the Municipal Works Association Conference (22 September 2011) and the Werribee Grasslands Conference (10 November 2011). Information provided at these sessions included details on bushfire management and national environment law.

The Commonwealth continues to provide information and advice on requests relating to bushfire mitigation and management. Since October 2011 it has provided advice to various local councils, community and CFA brigades.

Finding: The BRCIM considers action 61(b) has been satisfactorily implemented.

Environment Protection and Biodiversity Conservation Act 1999[309] (the EPBC Act)

The EPBC Act provides a legal framework to protect and manage nationally and internationally important flora, fauna, ecological communities and heritage places. Actions that will have, or are likely to have a significant impact on a matter of national environmental significance will require approval from the Commonwealth Minister for Sustainability, Environment, Water, Population and Communities. The Minister will decide whether assessment and approval is required under the EPBC Act.

While protecting life and property is a primary objective in the case of emergency bushfire suppression and containment activities, there may be some matters that are of national environmental significance and have due cause to be impacted upon by roadside bushfire risk mitigation activities. These include:

> nationally threatened species and ecological communities

> national heritage places

> wetlands of international importance

> migratory species protected under international agreements.

Some activities will be exempt including those activities approved or authorised under Commonwealth or Victorian laws before July 2000. Also exempt are lawful land uses that were occurring before July 2000 such as maintaining access tracks and fire breaks, maintaining existing fire infrastructure, roadside weed control and routine controlled burns (of the type that have occurred in the past).

Bushfire mitigation activities that are unlikely to require approval under the EPBC Act include:

> fuel reduction burns

> routine maintenance of fence lines, access roads or tracks

> routine maintenance of existing fire breaks, fire infrastructure, services and utilities

> localised weed control by hand or small machinery.

These are all activities that may not have a significant impact.

---

307 VBRC *Final Report,* Vol II, Part Two, p 309.

308 Refer to implementation action 60(b).

309 The EBPC Act is available from the ComLaw website.

Photo: CFA Strategic Communications

61(c) Where regulatory impediments are identified that cannot be resolved through the delivery of recommendation 60 or guidance as noted above legislative amendments will be considered

As of 1 June 2012, agencies and departments in Victoria have identified no regulatory impediments and the roadside exemption delivered under recommendation 60 (as part of amendment VC83[310]) is the only amendment to date. The BRCIM sees no need to proceed with legislative amendments if they are not warranted. This, however, does not preclude the State from developing further legislative changes in the future if required.

Finding: The BRCIM considers that action 61(c) is no longer applicable and will no longer report on this action.

> **Recommendation 61 Overall Finding**
>
> The BRCIM notes the work of the Commonwealth and the State in providing guidance materials that outline relevant Commonwealth and State laws and their impacts on roadside vegetation clearance. The guidance materials go further than the VBRC's original intent as they extend to all road managers, not just municipal councils.
>
> Along with initiatives in recommendations 60 and 62, vegetation conservation can routinely be considered in the context of roadside vegetation removal and the BRCIM is satisfied that the State is effectively managing vegetation removal on roadsides.

---

310 Refer to recommendation 41.

RECOMMENDATION 62

VicRoads implement a systematic statewide program of bushfire risk assessment for all roads for which it is responsible, to ensure conformity with the obligations in s. 43 of the *Country Fire Authority Act 1958* and with the objectives expressed in the VicRoads 1985 Code of Practice.

Implementation Actions

Action Required	Due Date	Progress Report Status (July 2011)	Final Report Status (July 2012)
62(a) Complete review of roadside management strategy	31/07/2011	Ongoing	Complete
62(b) Establish a working group to develop roadside fire risk assessment guidelines	31/12/2010	Complete	Complete
62(c) Develop a preliminary program of priority roadside fire management activities	31/12/2010	Complete	Complete
62(d) Revise roadside management of 1985 Code of Practice to ensure compliance with section 43 of the CFA Act	31/12/2010	Complete	Complete
62(e) Review contracts for roadside slashing and mowing	30/06/2011*	Complete	Complete
62(f) Produce interim road bushfire risk assessment guidelines for 2010 season	31/10/2010	Complete	Complete
62(g) Evaluate road bushfire risk assessment guidelines	31/05/2011	Ongoing	In progress
62(h) Commence road bushfire risk assessment management program	30/06/2012*	Ongoing	Complete
62(i) Undertake roadside management treatments identified through the Integrated Fire Management Plan (ongoing annual)	N/A	See 62(c)	N/A
62(j) Review all road management plans and roadside conservation management plans	30/06/2013	Ongoing	In progress
62(k) Support CFA as requested with traffic management during fuel reduction burns on arterial roads (ongoing annual)	30/06/2012*	Ongoing	Complete

BRCIM reporting date. No due date provided in the Implementation Plan.

Status

Recommendation 62 was directed at VicRoads. Since 2010, VicRoads has undertaken a comprehensive review of many of its roadside management activities to ensure conformity with section 43 of the CFA Act[311] and the objectives of the VicRoads Code of Practice.[312]

The *Progress Report* noted that implementation actions 62(b), (c), (d), (e), (f) and (i) were satisfactorily implemented. No further comment is made in relation to these actions.

Readers are advised to read recommendation 62 in conjunction with responses to recommendations 60 and 61 due to the close relationship between actions.

62(a) Complete review of roadside management strategy

The BRCIM was provided with a copy of the revised VicRoads' Roadside Management Strategy 2011 *Roadside Management – A Balanced Approach* (the Strategy). The revised Strategy adopts a more holistic approach to roadside management through better assessment and clearer decision making to balance the four main objectives for roadside management:

> enhance transport safety, efficiency and access

> protect environmental and cultural heritage values

> management of fire risk

> preserve and enhance roadside amenity.

The Strategy was released in September 2011 and is available from the VicRoads website. VicRoads has committed to regularly review the Strategy to ensure it continues to meet the community's needs and manage roadside assets into the future.

Finding: The BRCIM considers action 62(a) has been satisfactorily implemented.

62(g) Evaluate road bushfire risk assessment guidelines

Implementation action 62(f) was a commitment by the State to produce interim bushfire risk assessment guidelines. Since publication of the *Progress Report*, VicRoads approved a final version of the guidelines, which are now called the Road Fire Risk Assessment Guideline.[313] The Road Fire Risk Assessment Guidelines were developed to assist VicRoads in implementing a consistent statewide bushfire risk assessment program and integrate road bushfire safety into the broader fire management planning environment.

Developed with the support of a multi-agency project team, the Road Fire Risk Assessment Guidelines confirm the roadside fire management objectives (building upon existing CFA roadside fire management guidelines), outline processes for assessing risk in regards to each objective, determine the priority for bushfire mitigation works and provide guidance on selecting appropriate risk treatments.

The Road Fire Risk Assessment Guidelines consist of a tool (the Road Bushfire Treatment Selection Tool) that assesses risks relating to objectives 1 and 2 and provides a methodology to include information regarding key access and egress roads (objective 3) and information about the function of a road as a control line or strategic fuel break. Objectives 1 and 2 are relevant to VicRoads' obligations under section 43 of the CFA Act.

Under the Road Fire Risk Assessment Guidelines, priority roads are classified into three groups according to bushfire risk:

> low risk roads – level of bushfire risk does not warrant specific bushfire mitigation works

> moderate risk roads – will receive the standard suite of treatments from the routine maintenance program

> high risk roads – require additional assessment and may warrant additional fire risk mitigation treatments.

Separate risk assessments are required for the different objectives, as different factors determine the level of risk. Once mitigation works are determined, these works will be entered into the maintenance works priority and budgeting process. High risk roads will be identified and clearly marked in existing fire management processes such as IFMP or MFMPs and also in council and VicRoads work plans.

---

311 Section 43 of the CFA Act establishes a duty for every council and public authority in country areas of Victoria to take all steps to prevent the occurrence of fires on and minimise the danger of fire spread on and from land and roads under their management and/or ownership.

312 The VicRoads Code of Practice is available from the VicRoads website.

313 The interim guidelines referenced in the BRCIM's *Progress Report* were referred to as the Roadside Bushfire Risk Assessment (RBRA) Guidelines.

As part of the Road Fire Risk Assessment Guidelines, a risk mapping program was also developed. The VicRoads bushfire risk map assists in quantifying factors that influence the likelihood and consequence of a bushfire starting on the road reserve and spreading from the road network and maps the respective road network. The treatment selection tool is designed for use on roads identified as high risk by the VicRoads bushfire risk map or nominated as high priority as control lines or for managing the safety of road users. VicRoads provided the BRCIM with a copy of the methodology underlining the risk mapping.

The methodology for the Road Fire Risk Assessment Guidelines was developed using VFRR data, which VicRoads receives from the CFA. The bushfire risk map is designed to help road managers prioritise sections of road for more detailed analysis and treatment planning to remove any bushfire risk. A copy of VicRoads risk maps for each region in Victoria was provided to the BRCIM.

The Road Fire Risk Assessment Guidelines were originally intended to cover only the VicRoads network of roads but they have since been expanded to include municipal roads. The DSE/LGNV Reference Group agreed that the guidelines, as exists currently, be modified for use by municipal councils.[314]

The SFMPC endorsed the risk assessment process in August 2011 and requested that VicRoads undertake a full evaluation of the guidelines to determine their effectiveness, efficiency and integration.

The Road Fire Risk Assessment Guidelines were initially trialled in two municipalities – the Shire of Yarra Ranges in June 2011and the East Gippsland Shire in August 2011. Both shires reported that the tools were useful and effective in assisting them in fire planning as well as being integrated across agencies in the shires.

VicRoads advised that the East Gippsland trial was successful with the outcomes of the trial used to provide greater clarity and assist with making changes to the risk matrix. Council officers have since worked with VicRoads in the East Gippsland Shire to finalise the inspection of all high risk roads within the municipality. Work plans are continuing to be developed which will identify proposed treatments to address high risk roads.

During August and October 2011, VicRoads provided briefing sessions in each of the VicRoads regions. The purpose of the briefings was to provide details on the:

> VicRoads Roadside Management Strategy[315]

> roadside fire management objectives

> VicRoads bushfire risk map

> Road Fire Risk Assessment Guidelines

> development of work plans for roads for insertion into fire management plans.

The briefing sessions targeted VicRoads and CFA operational staff, MFPOs, DSE operational staff, municipal environment officers, township protection planning officers and vegetation management officers. Over 97 representatives from 46 councils attended the sessions.

As part of the evaluation process, four municipalities, Colac Otway Shire, Nillumbik, Golden Plains Shire and East Gippsland Shire offered to trial the guidelines over the 2011-12 fire season on municipal roads. The Colac-Otway and Golden Plains Shires held a multi-agency assessment workshop to rate the risk of all roads within these municipalities. Colac-Otway has since completed its inspection process and developed a works plan for the 2012-13 bushfire season. Golden Plains has yet to complete the inspections of its roads but VicRoads has advised that this is a low risk area and that relevant stakeholders are satisfied with the progress to date. VicRoads advised that both the Colac-Otway and Golden Plains Shires are satisfied with the Road Fire Risk Assessment Guidelines and associated mapping products.

Nillumbik Shire undertook a risk based planning process and the Road Fire Risk Assessment Guidelines and mapping were well received with a works plan subsequently developed. This work was done prior to the introduction of the roadside vegetation exemptions,[316] however, a further evaluation will be undertaken prior to the 2012-13 fire season.

VicRoads has advised that it has completed joint assessments of high risk roads with the CFA, DSE and councils in the Colac Otway, Corangamite, Surf Coast and Golden Plains Shires. Treatments are now being programmed with remaining councils to be assessed in the new year and treatments on high risk roads to be completed prior to the 2012-13 fire season.

While the Road Fire Risk Assessment Guidelines were developed as a direct response to recommendation 62, they have subsequently been integrated into solutions for the implementation of recommendations 60 and 61.[317]

314 For further details on the work of the DSE/LGNV Reference Group refer to recommendations 41, 60 and 61.

315 Refer to implementation action 62(a).

316 Refer to implementation action 60(b).

317 This includes the development of the roadside vegetation removal exemption and guidance material developed for roadside vegetation management.

VicRoads has appointed an independent audit agency to evaluate the Road Fire Risk Assessment Guidelines and mapping methodology in accordance with the SFMPC's decision. This evaluation commenced in April 2012 with tender documentation prepared during May 2012. It is anticipated that a Final Report will be completed by September 2012.

VicRoads has commenced a risk assessment on all of its roads across the State in accordance with the new Road Bushfire Risk Assessment Guidelines. A copy of a list of assessed roads has been provided to the BRCIM. Activities have been ongoing in all of the VicRoads' regions with VicRoads advising the following:

Western Region – the assessment, treatment identification and works have been completed for roads identified as high risk. This process was conducted in consultation with municipalities, the CFA and DSE.

South Western Region – joint assessments have been completed with municipal councils, the CFA, DSE in the Colac Otway, Corangamite, Surf Coast and Golden Plains Shires. Treatments in high risk areas are now being programmed. Remaining councils in this region are yet to be assessed but all treatments for high risk roads will be completed prior to the 2012-13 fire season.

Eastern Region – assessment and treatment identification has been completed for 90 per cent of sites identified as high risk as part of the regional assessment. Work plans are currently being developed in accordance with DSE's Roadside Vegetation Management Guidelines.[318]

Metro North West Region – Works have been identified in those areas as high risk and are being monitored. Identification has occurred in conjunction with the CFA and municipal councils. Further review of high risk sites will be undertaken prior to the 2012-13 fire season.

The State met its obligations in developing the draft Road Fire Risk Assessment Guidelines by the due date and while there was a commitment to evaluate the guidelines by autumn 2011, the BRCIM notes that further work has continued to extend the guidelines into a statewide product.

The BRCIM regards the extension of the Road Fire Risk Assessment Guidelines and treatment selection tool statewide as a valuable mechanism that will offer statewide standardised solutions and treatments and will assist in addressing the concerns of the VBRC that there were too many regulatory complexities and lengthy processes involved in roadside vegetation management.

DSE and VicRoads are currently funding the roll out of training of local roads managers (councils) and VicRoads staff in the Road Fire Risk Assessment Guidelines. This training is intended to assist road managers prioritise roads for bushfire treatments and submit works plans to DSE under the roadside fire exemption.

Finding: The BRCIM notes that implementation action 62(g) is in progress as the evaluation of the Road Fire Risk Assessment Guidelines continues. The statewide utilisation of the guidelines to evaluate arterial and local roads will provide a uniform practice by all authorities for the assessment of high risk roads and roadside bushfire risk. It is also recognised that statewide acceptance of the guidelines may take time and that this action goes further than the VBRC's initial recommendation for only VicRoads' roads to be considered. The BRCIM will revisit action 62(g) in future Annual Reports.

62(h) Commence road bushfire risk assessment management program

With the finalisation of the Road Fire Risk Assessment Guidelines and VicRoads' bushfire risk maps, road managers can use the associated risk assessment tool to identify risk factors, affecting either the likelihood or consequence of fire start and spread, present on a segment of road and select treatments that address the factors present.

The four principles for selecting roadside treatments are:

> protect life and safety

> preserve high value environmental and heritage assets

> select solutions which are cost effective, sustainable and balanced with the achievement of other roadside objectives

> test the outcomes of the proposed solution against local and regional priorities expressed in the roadside asset management plan and/or by review with community and stakeholders.

As mentioned in implementation action 62(g), once treatment works are determined these works are entered into the maintenance works priority and budgeting process. High risk roads will be identified and clearly marked in existing fire management processes such as IFMP or MFPPs and also in council and VicRoads work plans. Treatments can include regulations, education, management of trees near powerlines, fuel reduction burning, fuel management around assets adjacent to the road and in the path of potential fire spread, operational planning and preparedness.

---

318 Refer to recommendation 60. The guidelines are available from the DSE website.

The BRCIM recognises that VicRoads already has a roadside bushfire risk assessment management program, which is part of VicRoads' core business function. VicRoads' Roadside Asset Management Guidelines guide internal processes and decisions related to funding for both works associated with fire management and electrical line clearance. The Roadside Asset Management Guidelines also set minimum requirements for routine maintenance in high fire risk areas, as well as provide direction on how funding decisions will be made for fire related activities.

Roadside treatments are also included in roadside asset management plans. VicRoads has provided the BRCIM with copies of roadside asset management plans. In the future, all information related to roadside management, including fire management will be documented in these plans. The plans will guide decisions that affect roadsides and will need to be updated as strategic priorities change.

VicRoads is currently undertaking a series of workshops across the State in relation to roadside risk assessment programs. The South Western Region of VicRoads in conjunction with the CFA and DSE has met with 10 municipalities. VicRoads has advised that further information on the program can be provided once the workshops are complete.

The BRCIM notes the work of VicRoads in relation to its road bushfire risk assessment management program and considers this action as part of VicRoads' core business function incorporating many of the actions developed in relation to implementation action 62(g). The BRCIM does not consider that further monitoring of this action is warranted.

Finding: The BRCIM considers action 62(h) to be satisfactorily implemented.

62(j) Review all road management plans and roadside conservation management plans

The State advised in the Implementation Plan that VicRoads was developing a strategic, coordinated roadside management framework to prioritise a program of works to reduce the bushfire risk imposed by roadside vegetation on Victoria's arterial road network. Part of this program included the review of roadside management plans including roadside conservation plans by 2013 with attention given to assessing and treating roads in high risk areas.[319]

The BRCIM recognises that this is not a specific VBRC action but rather part of VicRoads' core business function. Road management plans are reviewed in line with provisions of Part 4 of the Road Management Act. VicRoads has advised that it is reviewing roadside management plans where available and has determined that the existing plans do not adequately address roadside fire management responsibility. A new tool is to be developed to capture all of VicRoads' roadside management responsibilities.

A workshop was held in late May 2012 to review the future model for roadside management. It is anticipated that the new direction taken will incorporate VicRoads' Roadside Management Strategy. Until the tool is developed VicRoads regions are encouraged to undertake risk assessments and interagency consultation to develop a program of works and commitments to be included in future roadside management plans.

Finding: The BRCIM notes the work in relation to reviewing roadside management plans is ongoing and will revisit action 62(j) in future Annual Reports.

62(k) Support CFA as requested with traffic management during fuel reduction burns on arterial roads (ongoing annual)

As noted in the *Progress Report*, the BRCIM considered implementation action 62(k) to have been satisfactorily implemented. Supporting the CFA with fuel reduction burns is an annual ongoing activity, according to need. The BRCIM considers this is a core business function and there is no requirement to monitor this action further.

Finding: The BRCIM considers action 62(k) has been satisfactorily implemented.

---

319 Implementation Plan (May 2011), p 96. The review was to ensure compliance with section 43 of the CFA Act and changes to VicRoads' Fire Management Code of Practice.

Recommendation 62 Overall Finding

Recommendation 62 was directed at VicRoads and required the implementation of a statewide program of bushfire risk assessment for all roads. VicRoads undertook a number of projects to implement this recommendation including updating the roadside management strategy to include clear objectives, one of which is managing fire risk with roadside treatments to be selected based on protection of life and safety.

VicRoads also developed the Road Fire Risk Assessment Guidelines to ensure uniform assessment of bushfire risk across all VicRoads roads. While the guidelines were developed and trialled in late 2011 and early 2012 they are still being independently evaluated. The guidelines are to be extended to all roads in Victoria and the outcomes of the independent evaluation will assist in the application of the guidelines across all road networks.

The BRCIM considers the development of these guidelines and their application to all roads throughout Victoria as a valuable means of ensuring uniform assessment of risk and treatments. VicRoads has commenced undertaking a risk assessment of all roads across the State based on the guidelines.

ORGANISATIONAL STRUCTURE

Recommendations 63 and 64

The VBRC acknowledged in its Final Report that the structure of Victoria's fire agencies is long standing. The VBRC felt, however, that organisational arrangements did inhibit the role of the fire authorities on 7 February 2009 including deficiencies in the top level leadership as a result of divided responsibilities. They felt that the full potential of the operational capability that was available was not exploited on the day.[320] Specific areas of failure or impediment occurred in the area of policy, practice and protocol, systems, structures and capability.[321]

Evidence before the VBRC set out the current arrangements (including legislative arrangements), interoperability and coordination. A number of proposals for change were put before the VBRC from interested parties and experts. Based on this evidence, the VBRC addressed the operational need for improvement and reform within the fire services and proposed a new role of Fire Commissioner be established in Victoria to improve integration and interoperability between the different fire agencies.

The State introduced legislation in 2010 and the position of FSC was created. As set out in Chapter 1 of this *Final Report*, the FSC has played a pivotal role in reforming the fire services in Victoria and setting the strategic agenda.

As part of addressing organisational structures, the VBRC also looked at the way the fire services were funded and recommended the State abolish the Fire Services Levy.[322]

The current funding model for each of the fire services is not the same with a mix of contributions received from insurance companies, the State and local government in accordance with provisions under the CFA and MFB Acts. The VBRC was of the strong opinion that a lack of equity and transparency necessitates the State replacing the levy with a property based levy.

---

320 VBRC *Final Report*, Vol II, Part Two, p 360.

321 Ibid., p 373.

322 Ibid., p 360.

RECOMMENDATION 63

The State enact legislation designed to achieve two specific ends:

63.1   appoint a Fire Commissioner as an independent statutory officer responsible to the Minister for Police and Emergency Services and as the senior operational firefighter in Victoria

63.2   make the Chief Fire Officer of the Department of Sustainability and Environment a statutory appointment.

63.3   The Fire Commissioner should have responsibility for the following:

- **promoting and directing reform aimed at increasing the operational capability, interoperability and resilience of Victoria's fire services**

- **developing and building operational capacity to prepare for the days of highest bushfire risk and exercising control over level 3 fires as the permanent State Controller**

- **providing to Government periodic advice on the metropolitan fire district boundary on the basis of triggers, frequency and criteria approved by Government;**

- **representing Victorian interests on operational matters in national committees.**

Implementation Actions

Action Required	Due Date	Progress Report Status (July 2011)	Final Report Status (July 2012)
63(a) Enact legislation to appoint a Fire Services Commissioner	14/10/2010	Complete	Complete
63(b) Enact legislation to make Chief Fire Officer of DSE a statutory appointee	14/10/2010	Complete	Complete

Status

The *Progress Report* noted that implementation actions 63(a) and (b) were satisfactorily implemented. No further comment is made in relation to these actions.

Recommendation 63 Overall Finding

Since the *Progress Report*, an amendment was made to the FSC Act in September 2011. The Emergency Management Legislation Amendment Act clarified that one of the functions of the FSC is to manage the SCC for the response to all emergencies on behalf of, and in collaboration with, all agencies that may use the SCC in response to emergencies and not just for fire related emergencies.

With the addition of making the role of Chief Fire Officer of DSE a statutory appointment, this has ensured that there is uniformity amongst the fire services with a Chief Officer of equal legislative standing in DSE.

There are considerable challenges ahead for the fire services but with the introduction of the FSC and the Fire Services Action Reform Program outlined in Chapter 1 of this *Final Report*, the BRCIM notes the positive progress that has been made to date and the appropriateness of the plans for the future.

RECOMMENDATION 64

The State replace the Fire Services Levy with a property-based levy and introduce concessions for low-income earners.

Implementation Actions

Action Required	Due Date	Progress Report Status (July 2011)	Final Report Status (July 2012)
64(a) The State replace the Fire Services Levy with a property-based levy – Options Paper released	30/06/2011	N/A	Complete
64(b) Public consultation period for Options Paper closes	30/09/2011	N/A	Complete
64(c) Introduce legislation for new Fire Services Levy	30/06/2012	N/A	Complete
64(d) Transition period commences	01/07/2012	N/A	In progress
64(e) Full implementation of Fire Services Levy	01/07/2013	N/A	Complete

Status

The MFB and the CFA are primarily funded by insurance companies. The MFB receives 75 per cent of its funding from this source and the CFA receives 77.5 per cent.[323] Insurance companies recoup the cost of their statutory contributions by imposing a Fire Services Levy on building and contents insurance premiums. The VBRC stated that this model is fundamentally inequitable and found that a disproportionate share of the cost of providing fire services for the entire community falls on insurance policy holders. The VBRC also expressed concern about the lack of transparency and accountability in relation to the existing approach.[324]

These concerns, supported by evidence from several other jurisdictions where property based levies have been introduced, led the VBRC to conclude in recommendation 64 that Victoria's Fire Services Levy should be replaced by a property based levy. The Department of Treasury and Finance (DTF) has responsibility for implementing the Fire Services Property Levy. The government announced the implementation dates in June 2011 and DTF confirmed these with the BRCIM in October 2011.

64(a) The State replace the Fire Services Levy with a property based levy – Options Paper released

64(b) Public consultation period for Options Paper closes

DTF released the Victorian Fire Services Property Levy Options Paper[325] on 30 June 2011. The options paper canvassed a range of levy design and implementation issues, including the most appropriate tax base, who should collect the tax and transitional arrangements. Approximately 140 written submissions were received in response to the Options Paper.

A public consultation period followed during October and November 2011 at 16 locations across the State. Evidence gathered from the consultation process and the written submissions informed the drafting of advice to government on a new fire services property levy model. The BRCIM is aware that local government has expressed a range of concerns regarding the implementation of a levy. Councils are particularly concerned about the potential costs, transitional arrangements and collection responsibilities.

Finding: The BRCIM considers actions 64(a) and (b) have been satisfactorily implemented.

---

323 Refer to section 37 of the MFB Act and section 76 of the CFA Act.

324 VBRC *Final Report*, Vol II, Part Two, p 382.

325 The options paper is available from the DTF website.

64(c) Introduce legislation for new Fire Services Levy

64(d) Transition period commences

64(e) Full implementation of Fire Services Levy

The Fire Services Property Levy Bill had not been introduced into Parliament by 30 June 2012. The transition period therefore cannot commence as of 1 July 2012. The BRCIM has been advised that work is progressing and that the government still intends to introduce the Bill.

Finding: The BRCIM has received no evidence of progress in relation to this legislation. The BRCIM has been advised that work is progressing and that the government still intends to introduce the Bill. The BRCIM understands the government remains committed to commence full implementation from 1 July 2013.

The BRCIM cannot comment further in relation to 64(d) and (e) as these actions are inextricably linked to 64(c). These actions will be revisited in the 2013 Annual Report.

RESEARCH AND EVALUATION

Recommendation 65

The VBRC stated that agencies need to become true evidence based learning organisations if they are to lift their capability and performance and lead an improvement in the response capacity of individuals and communities. The VBRC encouraged agencies to adopt and fund a culture of reflective practice that routinely pursues current research, searches for best practice and habitually evaluates policies, programs and procedures with a view to improving internal practice and that of the communities they serve. Research into fire is fundamental to the advancement of bushfire management. The VBRC considered it an opportune time for Australia to regain its capacity in both pure and applied research in the fire sciences and allied disciplines such as land management.

Evidence provided to the VBRC demonstrated the need for further research across a broad range of bushfire related areas. These included the effects of smoke on radio communications, the effects of prescribed burning on biodiversity, the extent of deliberately lit fires, the long term effect of trauma especially on children, the potential range of shelter options and the complex relationship between people's expressed intentions and their ultimate actions.

The VBRC stated that public policy requires continual evaluation and review to ensure that the expected outcomes are achieved and cited previous Victorian bushfires where this has not been the case. High quality research is critical to policy evaluation and review. The VBRC proposed a strengthening of the internal capacity of fire agencies and continuous improvement in policy development and evaluation.

RECOMMENDATION 65

The Commonwealth establish a national centre for bushfire research in collaboration with other Australian jurisdictions to support pure, applied and long-term research in the physical, biological and social sciences relevant to bushfires and to promote continuing research and scholarship in related disciplines.

Implementation Actions

Action Required	Due Date	Progress Report Status (July 2011)	Final Report Status (July 2012)
65(a) Victoria in collaboration with other jurisdictions to assist in providing national leadership on bushfire research	31/12/2011	Ongoing	In progress

Bushfire Cooperative Research Centre (Bushfire CRC)

If we could first know where we are, and whither we are tending, we could then better judge what to do and how to do it.

(Abraham Lincoln, House Divided Speech at Springfield, Illinois, 16 June 1858)

Good public policy requires evidence based decision making. To decide what to do, we must firstly understand how we got to where we are. Research is critical to this. The Bushfire CRC combines the efforts of almost 50 fire, land and emergency management partners in researching the complex social, economic and environmental aspects of bushfires. Funded by the Commonwealth's Cooperative Research Centre since 2003, the early research focused on fire behaviour and suppression, fire as a part of the natural environment, fire weather, firefighter safety and building protection.

Since Black Saturday and the subsequent release of both the Interim and Final Reports of the VBRC, the Bushfire CRC has been conducting critical national research, particularly into the social aspects of bushfire safety. This work includes detailed examination of the concept of shared responsibility: what does it really mean; at which point is responsibility shared; what is the balance between personal and public ownership of risk; what roles do planning and the law have in the preparedness of communities. These concepts have been rigorously explored in joint workshops with academics, policy makers, practitioners, local government and most importantly, community representatives.

The Bushfire CRC is also researching the psychological aspects of communication of risk, particularly when residents are placed in extreme threat of imminent danger to life and property. The Bushfire CRC has used the extensive data collected in the months following the Black Saturday fires to better understand how individuals and communities received messages, understood the meaning and importantly, behaved. This has been augmented by leading theoretical research helping to understand the construction of communities, the level of worry communities exhibit and the links to improved levels of preparedness. This has helped inform national approaches to community safety, such as the development, review and ongoing evaluation of Victoria's Bushfire Safety Policy.

The Bushfire CRC has made a significant contribution toward the VBRC vision of an emergency management culture of reflective practice that routinely pursues quality research, searches for best practice, and habitually evaluates policies, programs and procedures with a view to improving internal practice and that of the communities they serve.[326]

---

326 Refer to the Bushfire CRC website for further details.

Status

65(a) Victoria in collaboration with other jurisdictions to assist in providing national leadership on bushfire research

The Commonwealth provided a three year funding extension to the Bushfire CRC following the Black Saturday fires. This extension covers the period from July 2010 to June 2013. Currently there is no funding allocated to the Bushfire CRC or a nationally coordinated fire research approach beyond this date.

Victoria and other jurisdictions agree that there is a clearly identified need for a continued nationally coordinated research effort covering fire and other natural hazards. In January 2012, the Deputy Premier wrote to the Federal Minister for Tertiary Education, Skills, Science and Research expressing concern about the progress of proposals for disaster research. The Deputy Premier's letter included a proposal, developed by the Bushfire CRC, for transitioning the current Bushfire CRC into a world leading Fire and Emergency Management Research Institute. The Commonwealth responded in early February 2012, broadly indicating support for natural hazards research. The Deputy Premier again wrote to the Commonwealth in April 2012 expressing support for the Bushfire CRC proposal. He also wrote to all States and Territories at around the same time seeking their support for the Bushfire CRC proposal. Written support has since been received from New South Wales, Tasmania and the Australian Capital Territory.

The 25 May 2012 NEMC meeting considered a Commonwealth paper and a Victorian paper in relation to this matter. While neither paper was endorsed, there is general support amongst jurisdictions for an 'all hazards' research capacity. There is a range of views in terms of funding and governance arrangements. NEMC agreed to combine both papers for consideration at the 29 June 2012 meeting of the SCPEM.

At this meeting, Ministers acknowledged the importance of adopting a strategic, national approach to natural hazards research and training as a key to strengthening Australia's resilience to disasters. Ministers endorsed the concept of a national platform to oversee natural hazards research, knowledge management and training. Such a platform will adopt a collaborative, integrated approach that capitalises on existing facilities and networks and builds on the work of the Bushfire CRC and other research bodies to advance natural hazards research. Ministers also agreed that the Australian Emergency Management Institute should continue to work with jurisdictions to develop national models and structures for training methodologies, skills development and knowledge and information sharing.

The BRCIM notes the efforts of Victoria in providing leadership to encourage the Commonwealth to establish a national centre for bushfire research. The BRCIM also acknowledges the significant research contribution made by the Bushfire CRC outlined above to improving national bushfire safety policy and practice development and evaluation, which demonstrates the value of a national centre based research approach. The Bushfire CRC was tasked with addressing the issues arising from the events of Black Saturday. Much of the research conducted since 2009 has contributed to addressing the recommendations of the VBRC.

Almost two years have now passed since the VBRC Final Report. The BRCIM urges all parties involved to progress this recommendation as a priority. Currently there is no funding allocated to a nationally coordinated fire and emergency management research approach beyond 30 June 2013.

Finding: The BRCIM considers action 65(a) an important matter that remains in progress. The BRCIM will revisit this action in the 2013 Annual Report.

MONITORING AND IMPLEMENTATION

Recommendation 66

The VBRC recognised in its Final Report that following the completion of its work there would be no State sponsored process for reviewing the implementation of accepted recommendations. As part of its final chapter on monitoring implementation, the VBRC considered a process is needed whereby the government and the community have access to transparent and independently verified information on the government's response to the VBRC's recommendations.[327]

Independent monitoring was viewed as critical to ensure that recommendations are implemented, unlike previous government inquiries where this has not occurred.

---

327 VBRC *Final Report*, Vol II, Part Two, p 404.

RECOMMENDATION 66

The State appoint an independent monitor or the Victorian Auditor-General to assess progress with implementing the Commission's recommendations and report to the Parliament and the people of Victoria by 31 July 2012.

Implementation Actions

Action Required	Due Date	Progress Report Status (July 2011)	Final Report Status (July 2012)
66(a) Appoint Independent Monitor	14/10/2010	Complete	Complete
66(b) Provide Implementation Monitor's Report to Parliament	July 2011 July 2012	Ongoing	Complete
66(c) Provide Implementation Monitor's Report to Parliament	July 2013 July 2014	N/A	In progress

Status

Details on the appointment of the BRCIM were outlined in Chapter 3 of the *Progress Report* and the Introduction of this *Final Report*. The *Progress Report* noted that action 66(a) was satisfactorily implemented.

The role of the BRCIM has been extended with an amendment made to the BRCIM Act in June 2012 and a new provision requiring the BRCIM to provide two additional Annual Reports to Parliament. Refer to the Introduction of this *Final Report* for further information.

66(b) Provide Implementation Monitor's Report to Parliament – 2011 and 2012

The *Progress Report* was tabled in Parliament on 29 July 2011. Further details on the *Progress Report* are available from the BRCIM's website. This *Final Report* will be tabled in Parliament by 31 July 2012.

Finding: The BRCIM considers action 66(b) has been satisfactorily implemented.

66(c) Provide Implementation Monitor's Report to Parliament – 2013 and 2014

As a result of the amendment to the BRCIM Act (see above), the BRCIM is now required to produce two Annual Reports, one by 31 July 2013 and another by 31 July 2014.

Finding: The BRCIM will revisit this action in the 2013 Annual Report.

Recommendation 67

Unlike most other Australian jurisdictions, Victoria has no Royal Commission legislation. This enabled the VBRC to develop its own modified legal approach that included a number of innovations. The VBRC stated, however, that individual Royal Commissions should not be left to grapple with such matters and that more enduring arrangements should be in place.

The VBRC noted that the 2001 *Royal Commission into the Victorian Ambulance Service* recommended such legislation but the recommendations were never adopted.[328]

RECOMMENDATION 67

The State consider the development of legislation for the conduct of inquiries in Victoria – in particular, the conduct of royal commissions.

Implementation Actions

Action Required	Due Date	Progress Report Status (July 2011)	Final Report Status (July 2012)
67(a) Develop a policy proposal for a Public Inquiries Bill	30/06/2012*	Ongoing	In progress

BRCIM reporting date. No due date provided in the Implementation Plan.

67(a) Develop a policy proposal for a Public Inquiries Bill

Status

The Implementation Plan indicated that the Premier of Victoria had directed his department to develop a policy proposal for a Public Inquiries Bill. In developing the proposal, DPC is to take into account the development of legislation to deliver on the government's commitment to establish an independent broad-based anti-corruption commission in Victoria.

The *Independent Broad-based Anti-corruption Commission Act 2011* was passed in Parliament on 29 November 2011 with subsequent amending Acts passed on 20 March and 29 May 2012. The BRCIM has been advised that since progress has been made in the development of the Independent Broad-based Anti-corruption legislation, DPC is now developing the policy proposal for the Public Inquiries Bill for consideration by the government.

The BRCIM has not been provided with any further evidence of progress in relation to this action and therefore is unable to make any additional comment at this time.

Finding: The BRCIM considers action 67(a) an important matter that remains in progress. The BRCIM will revisit this action in the 2013 Annual Report.

---

328 VBRC *Final Report*, Vol III, p 54.

RELIEF AND RECOVERY – CHAPTER 8 VOLUME II OF THE VBRC FINAL REPORT

It is now over three years since those fateful days of February 2009. Since then, the State's agencies have been working hard to deliver the wide ranging reforms recommended by the VBRC.

The process of recovery for those most severely impacted by these fires remains a very long, slow and difficult road. Individuals are still likely to be experiencing intensive loss and exhaustion and it may be some time yet before they begin to recover. They deserve and require the ongoing understanding and support of the State.

RECOVERY PROCESSES[329]

Disaster recovery is complex and protracted. Every aspect of life is damaged or disrupted, including those not directly affected. Immediate problems compete with normal life and rebuilding. People need time to think of rebuilding; usually under half start by the third year.

Recovery involves four processes:

1. Survival Mode: Under threat, adrenalin narrows attention onto immediate problems. People are active, neglect their needs, ignore fatigue, use energy reserves to do what is needed. This occurs for all threats: disaster, finances or difficult decisions.

2. Endurance Mode: Over the next months threat is replaced by continuing stress of recovery work. All priorities and demands of recovery must be maintained while rebuilding lives and routines. Constant work causes neglect of self, relationships, family, health, recreation, social life, career. Reserves are drained; recreation, social life are ignored. People neglect their needs, become tired, impatient, irritable and unrewarding; social problems develop.

3. Identity Crisis: Between the second and fourth years, tasks are achieved, life settles, people can think about what happened, feel tired and remember pre-disaster goals. Pre-disaster priorities are changed, new purposes must replace old goals. But depleted reserves make people exhausted, despondent and pessimistic. Grief often becomes intense with opportunities to feel losses. The present situation is contrasted with where they should be without the disaster. Supporters expect them to feel better.

4. Recovery from Recovery: A year or so later, with a new identity and direction, re-established family and social life, they can relax only to feel physical, emotional and spiritual exhaustion that only subsides slowly by recuperating reserves.

These are processes not phases so people move from Endurance back to Survival Mode with rebuilding, financial or family problems. Identity Crises arise when thinking about rebuilding or the future; high energy activity alternates with exhaustion throughout.

Recovery problems are as important as impact. Survival and Endurance Modes can swamp social life. Houses, properties and businesses can be rebuilt but damage to relationships, family, recreation, career, health may be irreparable. A new identity is the basis for a creative future, and replenishing reserves is the basis of future health.

---

329 This was written by Dr Rob Gordon PhD, Consultant Psychologist to Health and Human Services Emergency Management.

The VBRC did not make any specific recommendations in Chapter 8 of its Final Report in relation to relief and recovery. It did, however, make some observations on these issues based on the evidence it received.

The State responded by committing to 10 actions relating to each of the VBRC's observations. The *Progress Report* noted that action items 8.1, 8.5, 8.6 and 8.8 had been completed. An update on the remaining actions is provided below. DHS is the lead agency for actions 8.2, 8.3, 8.4 and 8.7, VBRRA the lead agency for action 8.9 and DPI the lead agency for action 8.10.

Status

8.2 Update Part 4 of the Emergency Management Manual Victoria

Part 4 of the EMMV was significantly revised in late 2010 to clarify roles of providers of recovery services as well as addressing a number of other issues raised by the VBRC. Further minor changes were presented to the State Emergency Relief and Recovery Planning Committee (SERRPC) on 22 December 2011.

The required changes included a reference to the NSDR, a section on clean up, a section on relief that includes animal welfare to reflect the work of the SERP Sub-Committee and a new section on fencing to reflect government policy. All updates were submitted and accepted by the SERRPC with the exception of the clean up section, which was subsequently agreed out of session.

The revised Part 4 of the EMMV was then presented to the VEMC for comment on 24 April 2012. Based on the feedback received, changes are being incorporated into a final version to be sent to the Minister for Police and Emergency Services for endorsement. It is anticipated that the revised Part 4 of the EMMV will take effect on 1 July 2012.[330]

BRCIM Comment: Although completion of this action has been delayed, the BRCIM is satisfied that appropriate action is being taken to address the issues raised by the VBRC. As the advised date of completion of this action is now after the reporting timeframe for this *Final Report*, the BRCIM will provide further details on progress in the 2013 Annual Report.

8.3 Develop a single registration form

DHS supports the development and use of a single registration form to be integrated with existing systems and national protocols to address the needs of affected people following an emergency. However, progress in developing this form is affected by the complex data sharing environment and work occurring at a national level.

DHS will continue to pursue the development of this form through a number of mechanisms, including:

National Identity Documents Replacement (NIDR) Form Project

This project has two distinct proposed outcomes:

The NIDR form project

Victoria is represented on the NIDR Form Project Working Group and this group is currently working to resolve a number of issues relating to the development and use of the NIDR form. It is expected that this project will be finalised in late 2012. Victorian issues for the NIDR form will be considered, including privacy requirements and work will be undertaken to integrate the outcome into a single registration form for Victoria.

Scoping of National Protocols on Data Sharing

A project is proposed (but not commenced) to determine if national protocols to share data with key recovery agencies are needed and how this might be achieved to support initiatives such as the use of databases, the National Registration and Inquiry System (NRIS) and national forms.

The NRIS 6 project

The NRIS working group of the NEMC Capability Development Sub-Committee is in the process of selecting a software product to replace the current NRIS system for registering and connecting people affected by emergencies. The scope of work for NRIS 6, including the incorporation of new stakeholder requirements where possible, will be decided once the software is selected.

---

330 The EMMV is available from the OESC website.

DHS will continue to engage with both State and Commonwealth stakeholders to progress the potential integration of registration systems and information sharing. Given the lengthy timelines associated with these national projects, there is a need to advance the development of a single registration form for Victoria. DHS has initiated an internal project, commencing in July 2012, to further progress the development of this form.

BRCIM Comment: As discussed elsewhere in this report, the progression of actions that involve changes to national arrangements is a complex and time consuming process. Victoria does not have control over these timelines. In these circumstances, the BRCIM will continue to monitor implementation action 8.3 and report further on progress in future Annual Reports.

8.4 Develop a systematic approach to post-fire welfare checks

DHS has provided evidence that a more systematic and coordinated approach to personal support outreach has been established, for use in both the relief and recovery phases. This approach has been implemented in a number of events since the VBRC Final Report, including severe flooding emergencies in north eastern Victoria in 2012.

The EMMV, Part 4, has been amended to more clearly outline the outreach processes and associated roles, including:

> municipal councils are responsible for the local management and delivery of recovery services

> – to organise outreach support to assist in their impact assessment and to provide information to residents about recovery, including the identification of vulnerable groups that will require more assertive outreach

> outreach teams may be multi-agency and are to be coordinated by municipal councils

> outreach should generally commence as soon as access is made available to affected areas.

DHS has developed arrangements at the State level with outreach organisations to promote capacity development, enabling proactive provision of emotional support, practical assistance information and referrals required to address the needs of those affected by emergencies. The key organisations delivering services in Victoria are the Red Cross, Victorian Council of Churches, Victorian Farmers Federation and the Salvation Army. These organisations are engaged by municipal councils on an as needs basis. At the regional and State level, DHS supports councils during the relief and recovery phases, including for issues relating to outreach if required.

DPI undertakes post-emergency checks on people and property based on their records of landholders with animals. These checks are primarily telephone based and where broader welfare needs are identified, these cases are referred to municipal councils or responders, where appropriate.

BRCIM Comment: The BRCIM notes that a more systematic and coordinated approach to personal support outreach has been established.

8.7 Independent evaluation of Victorian Bushfire Case Management Service

Following the fires of 7 February 2009, DHS established a case management system aiming to provide each fire affected household support through their recovery. As at June 2010, 5,506 households had been provided with assistance.

In 2011, DHS engaged consultants to conduct an independent evaluation of the case management service. The evaluation was conducted in two phases.

Stage one identified information, policy and further steps required to strengthen performance monitoring and improve the program's future development and operations. It also included a review of relevant domestic and international literature. Stage two of the evaluation reviewed the impact of people utilising the case management service and the implications for future responses to disasters.

The overall finding of the evaluation was that the case management system met its objectives for the vast majority of clients. Over 90 per cent of clients indicated that they would definitely or probably recommend the service in future emergencies. Seventy-eight per cent of clients were satisfied or very satisfied with the case management service and 93 per cent of clients were very satisfied or fairly satisfied with the level of support from their case manager.

Important aspects of the service delivery model that contributed to the case management's success include:

> assertive outreach model, whereby case workers worked in the location of a client's preference, actively followed up details on a client's behalf and made regular contact

> availability of case workers for a long period of time (two years)

> individually focused support

> rapid deployment of case workers

> frequency of communication between case workers and clients

> case managers reducing the administrative burden concerning grants

> ease of access to counselling services.

The evaluation found that the service could be improved by making sure that recovery services work more closely together, improving client feedback processes and making sure that case closure is planned carefully with each client. DHS advised that the findings of this report were used in training case managers to close cases and to inform future service delivery.

The evaluation report is available from the DHS website.

BRCIM Comment: The BRCIM notes the completion of the evaluation report into the Victorian Bushfire Case Management Service.

8.9 VBRRA undertake a Legacy Project following the 2009 fires

VBRRA published its *Legacy Report* in June 2011. This report documents the establishment, operation and closure of the body created to coordinate recovery following the 2009 Victorian bushfires. The *Legacy Report* records the achievements of VBRRA, documents projects that demonstrate best practice and identifies lessons learned during its period of operation from February 2009 and June 2011.

The *Legacy Report* draws on program evaluation, stakeholder forums, external research and case studies, commissioned reports and interview testimony. It is intended to provide guidance to emergency management practitioners for future emergencies.

The FRU replaced VBRRA in June 2011 to assist with the ongoing recovery of bushfire affected communities. In February 2012, the FRU released the *Victorian Bushfire Recovery Three Year Report*. This report looks at the progress and achievements made over the previous 12 months including the delivery of programs, funding and support to communities and individuals affected by the 2009 bushfires. Both reports are available from the FRU website.

BRCIM Comment: The BRCIM notes the completion of the *Legacy Report* and the FRU's *Victorian Bushfire Recovery Three Year Report*.

Photo: CFA Strategic Communications

8.10 Review the Victorian Animal Welfare Emergency Management Plan

The VBRC noted in its Final Report that the lack of a specific plan for the coordination of the significant efforts of animal welfare agencies, organisations, volunteers and individuals, coupled with the scale of the event, led to confusion, duplication of resources and lack of targeted activity in some areas.

The Victorian Emergency Animal Welfare Plan (the Animal Welfare Plan) was reviewed by DPI and jointly issued by DPI and DSE in November 2011. The Animal Welfare Plan sets out coordination arrangements for emergency animal welfare management in Victoria including the scope of activities, responsibilities and interactions.

The Animal Welfare Plan was developed through widespread consultation between the DPI, DSE, and a range of stakeholders including:

> Australian Veterinary Association, Victorian Division

> City of Whittlesea

> Mitchell Shire Council

> Municipal Association of Victoria

> Nillumbik Shire Council

> Royal Society for the Prevention of Cruelty to Animals, Victorian Branch

> Yarra Ranges Shire Council.

All municipal councils were invited to participate in the review of the plan. The Animal Welfare Plan now incorporates lessons from Black Saturday based on the experiences of participants. The Animal Welfare Plan is intended to be used as a reference for all other agencies, organisations, groups and individuals with responsibility for animal welfare during emergencies and for use in the development of MEMPs and Domestic Animal Management Plans. A copy of the plan is available from the DPI website.

A draft revised Part 4 of the EMMV was tabled at VEMC on 24 April 2012. It includes amendments relating to animal welfare and refers to the Animal Welfare Plan. Based on feedback received from the VEMC, changes are being incorporated into a final version that will be sent to the Minister for Police and Emergency services for endorsement. The BRCIM has been advised that the revised Part 4 of the EMMV will take effect from 1 July 2012.

BRCIM Comment: The BRCIM notes the development of the Animal Welfare Plan.

3

CHAPTER 3
ASSESSING INTERACTIONS BETWEEN COUNCILS AND AGENCIES FOR THE PURPOSES OF PLANNING AND PREPARING FOR BUSHFIRES

The VBRC dedicated a section of its Final Report to shared responsibility, emphasising that shared responsibility does not mean equal responsibility. The VBRC expressed the view that in particular, the State and local governments should provide stronger leadership and guidance to individuals and communities in this important area. They stated that support should be relevant, appealing, accessible and available in a variety of forms to meet a variety of needs.[331]

How well departments and agencies interact with councils has a significant impact on the advice, information and support received by communities and individuals in bushfires and other emergencies. Strong working relationships between councils and agencies in emergency management are essential in promoting shared responsibility and in achieving the best community safety outcomes.

Section 12 of the BRCIM Act outlines the functions, powers and duties of the BRCIM. In addition to reporting on the progress of agencies in carrying out the specific actions contained in the State's Implementation Plan, the legislation also requires monitoring and assessment of ongoing efforts to improve interactions between agencies and councils in relation to bushfire planning and preparation.

In 2011, the BRCIM conducted a research project, in consultation with State agencies and a representative sample of councils, to meet this legislative requirement. The project identified and explored interactions between agencies and councils around bushfire preparation and planning. The findings of this project, with reference to a number of examples of good practice, are set out in this chapter.

Scope and approach

The project commenced on 4 August 2011 with the project scope including:

> all interaction between Victorian councils and the agencies for the purposes of planning and preparing for bushfires, including relief and recovery activities

> all efforts made to improve interactions of this nature.

The scope excluded the interaction between Victorian councils or agencies and the Commonwealth.

The BRCIM relied on the following definitions in the project:

'agency' and 'council' were given the same meanings as in the BRCIM Act[332]

'bushfire preparation and planning' means all actions taken to prepare for a bushfire event, including risk assessment and treatment, planning, response, relief and recovery activities

'interviewee' means a person employed by an agency or council and interviewed by the BRCIM as part of this project.

The BRCIM engaged an external consultant with expertise in local government emergency management to assist with this project.

In August 2011, the BRCIM wrote to all 79 councils and 21 agencies describing the project and requesting information about initiatives that may improve interactions between councils and agencies in relation to bushfire preparation and planning. This preliminary information helped shape the project. Written responses received by the project team were discussed in subsequent meetings with council and agency staff.

The BRCIM also conducted a scan of international and Australian literature relating to improving interactions between local and State Government. The scan revealed that, unsurprisingly, there was little research that examined the way councils and agencies interacted with each other in preparing and planning for bushfires and other emergencies.

---

331 VBRC *Final Report,* Vol II, Part Two, p 352.

332 Section 3 of the BRCIM Act.

Photo: Department of Sustainability and Environment

In September and October 2011, meetings were conducted with the following agencies that have dealings with councils:

> CFA

> DSE

> Parks Victoria

> FSC

> OESC

> DPCD

> Victoria Police

> Building Commission

> DHS

> VicRoads

> MAV.

These meetings were attended by senior staff from central and regional areas. The BRCIM also met with a representative sample of councils. The sample was based on:

> location within the country area of Victoria

> representation in each State Government region

> a range of bushfire risks – grassland, forest, coastal

> a range of council capacities and levels of resources.

In all, 32 councils in the country area of Victoria were visited.

Councils visited were:

Alpine	**Mornington Peninsula**
Bass Coast	**Mount Alexander**
Baw Baw	**Moyne**
Cardinia	**Murrindindi**
Colac Otway	**Nillumbik**
Corangamite	**Northern Grampians**
East Gippsland	**South Gippsland**
Golden Plains	**Southern Grampians**
Hepburn	**Surf Coast**
Hindmarsh	**Wangaratta**
Horsham	**Wellington**
Latrobe	**West Wimmera**
Macedon Ranges	**Whittlesea**
Manningham	**Wodonga**
Mansfield	**Yarra Ranges**
Moorabool	**Yarriambiack**

The BRCIM usually met with council officers with responsibility for fire and emergency management. Occasionally, managers, directors, councillors or staff from other areas of council (such as land use planning or community development) also attended.

The BRCIM developed a list of questions to guide interviews with agency and council staff and to standardise interviews with councils. Participants were asked to:

> identify the areas in which they interact

> discuss any specific programs designed to improve interactions between councils and agencies around bushfire and broader emergency management

> identify from their experience, factors that lead to successful interactions with councils

> identify from their experience, factors that limit success in working together effectively

> share specific examples of positive interactions.

Attendance and participation by agency and council personnel was very high and interviewees were cooperative, supportive and helpful. In total, the project team met with over 110 practitioners from across the sector.

The collated results were used to inform this report based on current perspectives from practitioners about how well agencies and councils are working together. The views of interviewees are reported below in the section on research findings.

Research findings

1 Areas where councils and agencies interact around bushfire preparation and planning

Written responses and face-to-face discussions revealed the primary areas in which councils and agencies interact with each other around bushfire preparedness and planning include:

> implementing actions committed to by the government in response to the VBRC recommendations including TPPs, NSPs, community refuges, vulnerable people lists and community warning sirens

> emergency management and fire planning including IFMP, MEMPs and the VFRR

> risk management (from risk assessment to risk treatment)

> land use planning

> community engagement

> coordination and provision of municipal resources

> operating and resourcing the Municipal Emergency Coordination Centre

> facilitation of information to the community during emergencies

> planning and provision of relief and recovery efforts.

2 Efforts to improve interactions between councils and agencies around bushfire preparation and planning

The project team noted several specific initiatives that demonstrate efforts to improve interactions between State agencies and municipal councils.

Integrated Fire Management Planning (IFMP)

IFMP represents a significant commitment to improving relationships between stakeholders around bushfire preparation and planning. IFMP is a program which aims to bring together a range of agencies and organisations to discuss, plan and manage fire in the community. It seeks to develop a more strategic and integrated approach to fire management planning and to ultimately reduce the impact of fire in Victoria.

Interviewees had mixed responses about the efficacy and success of the IFMP program, reflecting the general finding that interactions between council and agencies around the State vary greatly, working well in some areas and less well in others.

In areas where IFMP was reported to be working well, participants described:

> high levels of goodwill

> capacity of participants to invest time and expertise

> collective ownership of the fire management plan

> innovative methods of working cooperatively to develop solutions or overcome challenges.

Conversely, where participants experienced less success in IFMP, this was attributed to:

> poor participation

> lack of accountability

> a view that the plan was a council plan (rather than a plan for the municipal district)

> inadequate avenues for dispute resolution

> lack of resources.

In 2011, the SFMPC engaged external consultants to review the IFMP program and report on:

> the ongoing relevance of the program's underlying theory and logic

> how well the program is meeting its objectives, including whether outputs are effective and an assessment of outcomes to date (intended and unintended)

> issues impacting on implementation, including any relating to structure, resources and legislation

> what improvements could be made.

Photo: CFA Strategic Communications

Emergency Management (Fire) Coordinators

The Emergency Management (Fire) Coordinators Program also represents an effort by the State to improve interactions by supporting councils in their emergency management role. In recommendation 3, the VBRC recommended that the State establish mechanisms for helping municipal councils undertake local planning that tailors bushfire safety options to the needs of individual communities. In response to this recommendation, the State provided funding for 25 Emergency Management (Fire) Coordinator positions across 34 high risk municipalities. In 2011, a steering committee, comprising the FSC, DPCD and MAV, reviewed the program. Four additional positions are to be funded from July 2012. The 29 positions will now be distributed across 60 municipalities.

All councils that received funding for an Emergency Management (Fire) Coordinator indicated that the additional resource has proven extremely beneficial in relieving the increased pressure on municipal emergency management staff. The additional resource has also been significant in enabling productive interactions and positive relationships between councils and State Government agencies.

Fire Ready Communities Grants Program[333]

In 2011, DPCD launched the Fire Ready Communities Grants Program, designed to support innovative locally identified, locally managed projects in high bushfire risk communities. The program encourages community groups and councils to think about local risks, understand their capacity to respond to bushfires and emergencies, strengthen their response and recovery efforts and develop local solutions.

The program encourages a collaborative approach to bushfire preparedness and fosters interactions between communities, councils and agencies by encouraging them to utilise each other's expertise.

3 Factors that contribute to successful working relationships between councils and agencies

The project team asked interviewees to identify factors that contribute to successful interactions between councils and agencies. Responses were consistent across the State. Factors contributing to success fall broadly into two categories: relationships and resourcing. They are discussed below in no particular order of priority. It is clear, however, that without sound collaborative processes based upon agreed need and shared purposes, no amount of resourcing will deliver positive outcomes.

Clear understanding of roles and responsibilities

Interviewees noted that understanding each other's roles, responsibilities and limitations facilitated good interactions between councils and agencies. The project team notes that in 2011, MAV began a project to improve the performance of local government in emergency management.[334] One of the objectives of this project is to develop a clear and accepted definition of the appropriate role of local government in emergency management. A clear and current definition of this role will contribute towards creating a better understanding between councils and agencies in their emergency management roles.

In addition, it is likely that the roles and responsibilities of emergency management practitioners across local and State Government will be clarified as a result of the government's emergency management White Paper.[335]

Personality

When council and agency staff were asked about the factors that lead to good working relationships, the most common response stressed the significance of the personalities of those involved. Personal characteristics such as goodwill, enthusiasm, commitment, leadership, empathy and creativity were put forward as strong drivers in good working relationships.

Collaboration over consultation

Council staff reported better outcomes in their interaction with agencies when they are involved in the developmental stages of policy and programs and when the practical challenges and realities of the implementation of initiatives are considered at an early stage of the process. In contrast, where development occurs at a State level and consultation occurs too late for council input to have any impact, council staff feel that their views have not been taken into consideration and can result in limitations and local challenges faced by councils not being reflected in planning. This puts pressure on their relationships with agency colleagues during implementation.

Common need/shared purpose

A strong theme that emerged in discussions with both agency and council staff centred around mutual recognition of the need for, and value of, the work that council and agency staff do together. Where there was a shared understanding of a need (either based on risk, or responding to concerns from the community), feedback indicated that there was a greater level of 'buy-in' or commitment from all involved. This fostered strong and productive working relationships.

In contrast, it was noted that relationships become strained when council and regional agency staff work together implementing policies or programs that they feel do not respond to a clearly agreed need, or where work is completed because they feel compelled to comply with a specific direction, rather than because they truly believe in the value of the work.

Community focused

A strong focus on making local communities safer and delivering programs that will better prepare communities for emergencies and adverse events was consistently noted by interviewees as an essential element for successful working relationships between councils and agencies. Utilising the connections that councils have developed with their local communities, sharing expertise and experience and involving community leaders were noted as positive steps toward good working relationships, sound community engagement and successful program delivery outcomes.

---

333 Refer to implementation action 3(q).

334 More information on the Improving Emergency Management in Local Government Program can be found on the MAV website.

335 Refer to Chapter 4 in this *Final Report* for more information on the White Paper.

This reflects the reality at the local level that emergencies are part of a broader picture of community wellbeing and that meaningful emergency management practice requires an integrated and community focused partnership approach.

Process versus product

Many interviewees commented that the process of working together is often more important than the product itself, particularly in ensuring local ownership of emergency planning.

Networking

Interviewees indicated that opportunities to network with their colleagues were essential in the development of good working relationships. An informal chat after meetings or exercises gave people an opportunity to build relationships and an understanding of their colleagues' role, position, resources and limitations. There was a strong call from council staff, in particular, for more opportunities to network with emergency management practitioners from agencies and from other councils across the State.

Resources

To work well together, both council and agency staff noted that adequate time and resources were necessary in enabling them to bring commitment and innovation to their interactions. Interviewees reported that they were mostly under resourced in time and personnel. Many reported that they were overburdened in completing mandatory tasks, particularly in councils with limited emergency management capacity. This subsequently prevented them from devoting time to building relationships. Similarly, many councils do not have any full time emergency management staff, rather, emergency management duties are additional to some people's primary responsibilities and are sometimes not even included in performance plans.

Support material

Council staff reported that the provision of support and guidance material is a key factor for successful relationships with agency personnel. Fact sheets, practice notes and advice that provides guidance in policy and program implementation at a local government level prevents duplication of effort and facilitates the sharing of knowledge and experience.

4 Factors that inhibit successful working relationships between councils and agencies

Both council and agency staff were asked to describe factors that inhibit good working relationships around bushfire and emergency management. Discussion of these findings is set out below.

Timeframes

Most interviewees reported having worked at '110 per cent' since the fires of February 2009. Feedback suggests that in attempting to respond to the VBRC recommendations, the State had committed to some implementation timelines that were too restrictive, compromising the quality of the work and putting pressure on relationships between council and agency staff.

One size fits all approach

Interviewees reported less success in working with their external colleagues where policies or programs were too prescriptive and did not have enough flexibility to adapt to local needs, risks and conditions. Similarly, some interviewees noted that the State Government's approach to implementing the VBRC recommendations has been too 'top down'. This has resulted in over prescription from the government, leaving little room or time for the engagement of stakeholders or input of local communities in the implementation of locally appropriate solutions.

Lack of internal coordination

Council staff indicated that their interactions with agency staff were challenging when there was a lack of coordination between different levels or regions of the specific agency involved, or with other related agencies.

Similarly, council staff noted that good internal coordination between areas of council involved in bushfire and emergency planning, including fire prevention, land use planning, community development and health and community services supported good relationships with agencies. Emergency management has historically been seen as the exclusive preserve of operational experts. A more holistic, integrated approach, which genuinely engages with communities is required across council and agencies.

Support and recognition of the importance of the work from management and councillor level was also noted as an important factor in council/agency relationships.

Photo: Department of Sustainability and Environment

Lack of a cohesive strategic framework

Many interviewees noted that bushfire preparation and planning in Victoria currently lacks strategic cohesive direction. Feedback indicates that there is confusion as to how fire management planning, landscape planning, bushfire safety policy and hazard mapping relate to each other. Several interviewees noted that there is a lack of coordination or direction in relation to community engagement around emergency management and that as a result, communities are receiving confusing and conflicting messages from multiple sources.

A further barrier to successful interaction between councils and regional agency staff noted by interviewees, was the lack of comprehensive and strategic all hazards risk assessment at local, municipal, regional and State levels, which has a subsequent impact on risk engagement within communities at the local level.

Examples of good practice

Interviewees often discussed their interactions with reference to examples of positive experiences working with their emergency management colleagues. Selected examples are included in this chapter to showcase good practice and share information about different ways in which councils and agencies interact around the State. It is important that these examples are considered in their local context. The BRCIM, in highlighting these projects, does not necessarily advocate they be replicated in other parts of the State.

Community Resilience Committee (Alpine Shire Council)

In 2006, the Alpine Shire Council set up a Community Recovery Committee in response to a number of disastrous events. These included a major bushfire and the loss of tobacco growing as an industry in the valleys of Alpine Shire. Over the next few years, the Alpine Shire community experienced a number of other emergencies and crises including a prolonged drought, the Black Saturday bushfires, an outbreak of Chestnut Blight (a disease which has the capacity to wipe out the entire chestnut industry) and floods in 2010. Throughout this time, the committee managed the recovery of these events and transitioned into what is now called the Community Resilience Committee.

This committee aims to build resilience to disasters and adverse events in the Alpine Shire. Their vision statement is: *The people of Alpine Shire feel fully empowered to choose, influence and be responsive to change.*

The committee members include representatives from the Alpine Shire community, Alpine Shire Council, CFA, DPCD, DSE, DPI, Centrelink, Lions Club and Chamber of Commerce, community health organisations, RDV, Rural Skills Connect, DHS, Anglicare and others. The membership is fluid and is determined by the events being dealt with at the time.

The structure of the committee provides community members with support from and access to the expertise of agencies involved in emergency management and it empowers the community to drive the committee's agenda.

The committee provides a good example of councils and agencies engaging the community in fire and emergencies within a broader resilience concept.

Community Emergency Readiness Evenings (Horsham Rural City Council)

In response to calls from the Horsham community following the 2010-11 floods, Horsham Rural City Council in partnership with the Red Cross, VICSES, CFA, DSE, the Wimmera Catchment Management Authority, Victoria Police, Ambulance Victoria and Wimmera Uniting Care, conducted five Community Emergency Readiness Evenings around the municipality. The evenings aimed to create an informal atmosphere for community members to talk to emergency services personnel about how they could become more prepared for emergencies.

The evenings were designed to cover all hazards and as a result, a wide range of agencies were involved and attended. Importantly, the events were designed to feel as though agencies were 'talking with communities', rather than 'speaking at them'.

In addition, the evenings provided a great opportunity for agency and council staff to network and build relationships.

Hot Spots Tour and 'Don't Wait and See' DVD (Manningham City Council and Nillumbik Shire Council)[336]

Manningham City Council coordinates an annual event designed to bring agency and council staff together to discuss issues and share knowledge and experience. The Hot Spots Tour, undertaken prior to the fire season, enables staff from MFB, CFA, Victoria Police, Parks Victoria and council to travel by bus to high bushfire risk areas. At key locations, a subject matter expert will address the group on issues affecting the location and the group will discuss risk and treatment options. The tour concludes with a barbecue lunch.

In 2012, Manningham City Council and Nillumbik Shire Council conducted a joint Hot Spots Tour with CFA members from four brigades to look at the greater Warrandyte landscape in 2012.

The Hot Spots Tour provided attendees with information about each other's roles and capacities and promoted cooperation, group problem solving, networking and relationship building outside the formal committee environment.

Manningham Council also worked with Nillumbik Shire Council, local CFA brigade members, local police, community members from community fireguard groups and CFA HBAS and community safety staff to develop a short multimedia production focusing on the bushfire risk in Warrandyte and surrounding areas.

The group met a number of times to collaboratively develop the script, content and distribution. The 'Don't Wait and See' DVD was mailed directly to approximately 2,400 residents in the Greater Warrandyte area. The product demonstrates a joint council and agency approach to tailored bushfire safety education that delivers a powerful and relevant message to residents in the area.

Grampians National Park Roundtable (DSE)

The Grampians National Park Roundtable is an initiative being hosted by DSE, run by an independent facilitator and led and driven by the attendees of the forum. Attendees include agency, council, community and tourism representatives and representatives from interest groups such as wine growers, farmers and apiarists.

The Grampians National Park Roundtable provides a forum to improve communication amongst stakeholders, develop a shared understanding of the complexity of land management issues and exchange information in an open and honest environment.

It also provides information to contribute to DSE and Parks Victoria's decision making, procedures and practices in relation to land management and its impacts in the Grampians National Park and surrounds. A second roundtable has been established, with strong local government support, to facilitate dialogue about land management on public land around the Ovens catchment in north east Victoria.

Local community planning

In several locations around the State, community members, council staff or local agency personnel have begun the process of developing local community plans to increase emergency preparedness.

The plans vary greatly in purpose, process, format and content but all aim to work with communities in planning for emergencies. Some examples include local incident management plans for communities in East Gippsland, the local emergency plan for the Emerald community, local emergency action plans for communities in Latrobe and local planning processes underway for communities in Macedon Ranges and Wellington.

Interviewees from a number of municipalities and agencies discussed examples of working together with their local communities to form these plans and generally reported high levels of enthusiasm and commitment from those involved in the process.

---

336 This DVD is available for viewing from the FSC website.

Mornington Peninsula Freeway Extension Reservation Corridor Bushfire Management Plan (Mornington Peninsula Shire Council)[337]

In response to community concerns, Mornington Peninsula Shire Council, VicRoads and CFA worked with a fire consultant to develop a joint agency Bushfire Management Plan for the Mornington Peninsula Freeway Reservation Corridor. The reservation is heavily vegetated with a variety of coastal scrub and woodland and comprises approximately 250 private properties that run from Truemans Road, Rye to Melbourne Road, Blairgowrie.

The project included a public workshop with representation from CFA, Mornington Peninsula Shire Council, VicRoads, Parks Victoria and a fire consultant. Approximately 200 community members attended. The workshop was interactive with maps of the reserve provided. It focused on the exchange, rather than presentation of information, delivering a message of shared responsibility for the management of fuel on this reservation.

The project encouraged positive interaction between council, agencies and the community by focusing on a mutually beneficial outcome for all involved in response to a clearly recognised and agreed need.

Vegetation Management Officer Program (CFA)

The CFA Vegetation Management Officer Program provides support for brigades, land managers and other stakeholders involved in the planning of vegetation management works on roadsides, railway corridors and privately owned land related to bushfire. This program involves working with multiple stakeholders to achieve land management objectives, including both fire and the environment. There are 13 Vegetation Management Officers spread across regional Victoria.

Feedback from council interviewees indicates that this program provides expertise and assistance to municipal fire management staff. It also relieved some of the pressure on the increased workloads of these staff.

DSE/Local Government Native Vegetation (LGNV) Reference Group

The DSE/LGNV Reference Group was established in January 2011 to address matters arising out of the VBRC in relation to roadside vegetation (in particular the implementation of VBRC recommendations 41, 60 and 61). The DSE/LGNV reference group included representatives from MAV, CFA, DSE, VicRoads, DPCD and 13 councils.[338]

The reference group provides a good example of agencies collaborating with councils in the development of policy in the emergency management sector.

Otways Community of Practice (CFA/DSE)

The Otways Community of Practice is a recent initiative that aims to engage practitioners with a common interest. It seeks to build relationships and networks across agencies and to promote learning and sharing for staff involved in community engagement work in the fire and emergency services context. The Community of Practice workshops provide the opportunity for all participants to network, debrief, learn facilitation methods, develop collaborative approaches and share their planned community engagement activities. Members include councils, CFA and DSE staff.

Participants are encouraged to take ownership of the workshops and assist in organising and facilitating each session. Workshop activities include icebreakers, case studies, evaluation, reflection and learning. The Community of Practice allows for partnership and collaboration which is not constrained by the delivery of a particular project and which allows members to work across project areas.

Hepburn Regenerate Program (Hepburn Shire Council)

The Office for Youth, within DH, funded the Hepburn Regenerate Program with support from the Victorian Bushfire Appeal Fund. This 18 month program supported and encouraged the Hepburn Shire Council to work with the CFA, VICSES, the Red Cross and Daylesford Secondary College students to develop an emergency resource aimed at young people.

The program connected young people with emergency organisations, providing an opportunity for them to learn, engage in problem solving for emergency exercises, express themselves via music, film and photography and support young people's capacity to make positive impacts on their community.

The Hepburn Regenerate Program is a good example of a council working with agencies and the community to achieve positive and meaningful outcomes in preparation and planning for bushfires for a specific group.

---

337 The Freeway Reserve Fire Management Plan is available to download from the Mornington Peninsula Shire Council website.

338 Refer to recommendations 41 and 60.

Discussion

This project provided the BRCIM with an important opportunity to examine how practitioners from councils and agencies work together and what can, or might be done, to improve these interactions. Clearly, when practitioners work well together, they are able to pool, share and develop knowledge, experience, resources, networks and skills.

Relationships between councils, agencies and departments are variable across Victoria. Personal relationships between council and regional agency staff are generally described as strong, based on shared experience, commitment and good faith. Personality, leadership, commitment, meaningful collaboration, mutual respect and support are factors common to good working relationships. Opportunities to network with external colleagues, share experiences, brainstorm and understand one another's roles contribute to positive interactions and meaningful bushfire and emergency management outcomes.

There is a great deal of innovation evident at a local level across the State. The BRCIM observed high levels of energy and commitment in practitioners from across the sector, particularly in relation to delivering real community safety outcomes for people living in high risk communities.

Some interviewees reported an improvement in their interactions with their external stakeholders since the 2009 bushfires. In some cases, this was attributed to specific initiatives such as IFMP, in others it appeared to have evolved naturally following the volume of collaborative work involved in responding to the VBRC recommendations.

The dislocation of emergency management arrangements has a strong legacy in Victoria. In some areas, entrenched individual agency based approaches continue to stifle innovation and best practice. Reports of exclusion from participation in planning processes and inadequate coordination are not uncommon and are concerning.

The project identified a number of issues with the current resourcing model. There are substantial public resources invested in the emergency management sector, however, interviewees indicated consistently that there is a significant need for more cohesive and strategic resource allocation, especially at the regional level. Agencies, particularly departments, are generally well resourced at the regional level relative to many councils. The BRCIM believes there is scope for the State to better utilise its regional capability in supporting councils and local communities in emergency management planning.

Similarly, while the Emergency Management (Fire) Coordinators have provided significant relief for some councils, appropriate and sustainable resourcing arrangements need to be explored to address the increasing responsibilities on municipal staff involved in emergency management.

St Andrews property working bee. Photo: VBRRA

Importantly, testimony from interviewees indicates a need for a coordinated strategic direction for, and leadership within, the entire emergency management sector, without which it is impossible for practitioners to understand and articulate their roles and responsibilities in relation to each other and their communities. The direction needs to prescribe an unambiguous single focus and vision for the sector both now and into the future.

In order to achieve real shared responsibility, this strategic direction needs to encompass all stakeholders in emergency management. This includes public, private and not-for-profit sector stakeholders such as emergency services agencies, community development and engagement professionals, land use planners, health sector professionals, builders, business owners, tourism operators and community members.

Similarly, to inform this strategic direction, difficult questions about the measure of success in emergency management will need to be addressed, in order to guide progress and investment in this sector. Mr M.J. Keelty, AO APM raised these questions in the forward to the Perth Hills Bushfire Inquiry:

What is the measure of success of the outcome of a bushfire? Is the loss of no lives the only performance measure? If so, how many houses is an acceptable number to lose? Does one performance indicator have the potential to cloud the 'Shared Responsibility' of all to build resilience of our community?[339]

---

339 Keelty, M.J., *A Shared Responsibility: The Report of the Perth Hills Bushfire February 2011 Review*, 2011, p 3, accessed from the WA Department of Premier and Cabinet website.

In mid 2007, OESC commenced work on an Integrated Emergency Services Framework (the IESF). The IESF aimed to provide a clear strategic intent and guide action and investment for the emergency services sector over the following five to 10 years. Although the IESF was not publicly released, the BRCIM believes that it contained many critical elements that are fundamental to establishing a single cohesive and authoritative direction for emergency management in Victoria.

The findings of the BRCIM also indicate a need for high level guidance for community engagement around emergencies to facilitate a more coordinated approach. There is a strong case to suggest that local government is the most appropriate level of government to facilitate and coordinate community engagement, particularly around preparation and planning. A recent Office for the Community Sector study on community engagement concluded that:

> *Given that all communities have their own characteristics, local government is ideally situated to identify and provide for local needs. But municipalities can only do this effectively in partnership with all levels of government and particularly with the community sector.*[340]

The BRCIM's findings strongly indicate that organic, locally developed approaches to emergency management planning and preparedness are more likely to enjoy success than standardised coercive 'one size fits all' approaches.

The State's emergency management Green Paper acknowledged a shift toward building disaster resilience in communities. This is also reflected in the NSDR[341] and in the findings of recent reviews such as the VFR,[342] *Queensland Floods Commission of Inquiry Final Report*,[343] the *Report of the Perth Hills Bushfire February* 2011 Review[344] and the UK Pitt Review, *Learning Lessons from the 2007 Floods.*[345] The issue of community resilience, the Government's Green Paper/White Paper process and recent reviews are addressed in Chapter 4 of this *Final Report*.

This trend is also evident in much of the work currently being conducted by interviewees, namely the Alpine Community Resilience Committee and the Horsham Community Readiness Evenings and in some of the emerging local community emergency planning initiatives.

The Green Paper suggested that it may be desirable for Victoria to embrace this trend in Victorian legislation, leadership and governance arrangements. In light of the work that is being conducted at a local level, any legislation, policy or strategy should consider the difference between the concepts of emergency management and resilience and the implications for the models, content and funding of community safety programs. Resilience is a long term outcome and requires a long term commitment.[346]

In the BRCIM project, practitioners indicated that the planning, preparation, response and recovery phases are neither linear, nor should they be viewed in isolation from each other. Some indicated it was time to move away from the planning, preparation, response and recovery model if the State is to improve levels of community resilience.

In the three years since the 2009 bushfires, important practices have evolved and many lessons have been learnt. Ongoing work in response to the VBRC's recommendations and any reform initiatives should take into consideration developing evidence and key learnings from other reviews in addition to locally derived solutions that continue to emerge.

It should be noted that there are perspectives outside the scope of this project, which form an important part of the wider emergency management landscape. Councils and agencies do not interact in a vacuum. Community members, not-for-profit organisations, private business owners, tourism operators and Commonwealth agencies play an important role in bushfire preparation and planning. Recent emergency events have demonstrated that emergency management is a responsibility that must be shared. In preparing and planning for emergencies, both State and local government should engage further with these groups and should develop a collaborative strategy in order to build community resilience.

340 The Office for the Community Sector, *Community collaboration: The changing context of local government and community sector partnerships,* 2011, p 24, accessed from DPCD's website. The Office for the Community Sector was established in DPCD to support the Victorian not-for-profit sector.

341 The NSDR is available from the Council of Australian Governments website.

342 The VFR Report is available from the VFR website.

343 The Queensland Floods Commission of Inquiry *Final Report*, 2012 is available from the Queensland Floods Commission of Inquiry website.

344 The Perth Hills Inquiry report is available from the Department of Premier and Cabinet (WA) website.

345 Sir M Pitt., *Learning Lessons from the 2007 Floods*, 2008, accessed from http://webarchive.nationalarchives.gov.uk.

346 NSDR, p 4.

Conclusion

The NSDR states:

Traditional government portfolio areas and service providers, with different and unconnected policy agendas and competing priority interests may be attempting to achieve the outcome of a disaster resilient community individually. This has resulted in gaps and overlaps, which may hamper effective action and coordination at all levels and across all sectors.[347]

This BRCIM project has clearly demonstrated the benefits of councils and agencies working together. Drawing on and sharing experience and capacity across sectors will achieve better results for the community than if single agencies or councils continue working on their own.

The findings of this BRCIM project reflect the perspectives of over 110 practitioners involved in bushfire preparation, planning and emergency management from across the State. It is hoped that these findings, read in conjunction with Victoria's emergency management Green Paper/White Paper process, MAV's work on the role of local government in emergency management and emerging research, will assist the State in developing and implementing much needed meaningful reform. If these learnings are utilised, Victorians will be better able to protect and support each other before, during and in the aftermath of emergencies.

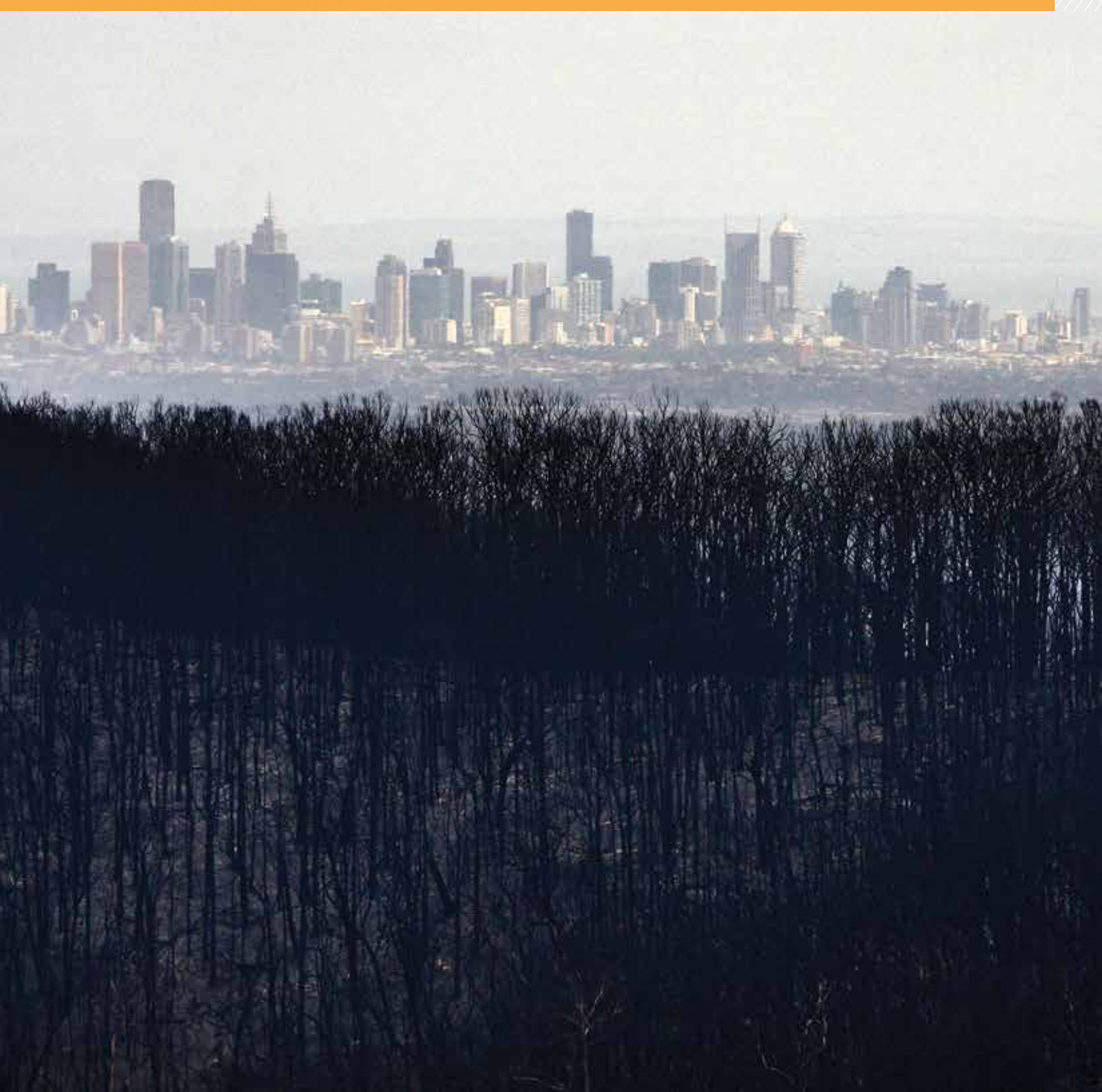A full copy of the BRCIM's report on this project is available from the BRCIM's website.

Photo: Department of Justice

---

347 NSDR, p 3.

4

CHAPTER 4
SHARED RESPONSIBILITY, COMMUNITY
RESILIENCE AND THE CHANGING EMERGENCY
MANAGEMENT LANDSCAPE

There is a long history of natural disasters and other emergency events that have resulted in devastating consequences for the Victorian community.[348] Each of these events has presented unique and significant challenges for the State and its emergency services, especially in circumstances where the event is widespread and protracted in nature. The bushfires in 2009 and the floods of 2010-11 and 2012 have been the subject of high level inquiries and reviews that have examined the State's response to and management of these disasters.

The VBRC and the VFR identified significant shortcomings in the State's emergency management arrangements at each phase; planning, preparation, response and recovery. There was a particular focus in both the VBRC and VFR findings and recommendations on the issues of shared responsibility and community resilience. Consequently, these and a number of other major themes are the subject of consideration in an ongoing review of Victoria's emergency management arrangements through the Green Paper/White Paper process.

Photo: CFA Strategic Communications

Reviews and inquiries

Following large scale disasters independent reviews or inquiries have been established to review the causes, investigate the operational response, make key findings and recommend ways in which the State can minimise such widespread destruction and death in future. This is not a new phenomenon with a Royal Commission established after the bushfires in January 1939[349] (the Stretton Royal Commission) and a committee set up to review the circumstances of the 1983 'Ash Wednesday' bushfires.[350]

These reviews and inquiries have made a number of recommendations in relation to the State's emergency management arrangements and in many cases have led to significant changes aimed at strengthening the State's emergency capability and response. For example, the Stretton Royal Commission recommended a single firefighting organisation for country Victoria and following further devastating fires in 1943-44, the CFA was established.

Reviews and inquiries are generally not primarily designed to attribute blame for apparent system failures or inadequacies of operational responses. Rather, they are to ensure that lessons are learnt and where possible improvements made to minimise the risk of, and enhance the State's capacity to respond effectively to such events or disasters in the future.

Not all reviews and inquiries will be of the same scale as the Stretton Royal Commission or the VBRC. The State also conducts smaller, usually operational reviews of less significant events, with equally important recommendations based on improving the State's response or preparation for such events. The importance of acting on such findings and recommendations cannot be understated.

Community expectations

With the increase in technology and the advent of social media, the community has a greater exposure to disasters and other emergency events, often in 'almost' real time. The CFA, like many emergency service agencies, in addition to having a website, uses social networking tools such as Twitter and Facebook and smartphone applications ('apps') such as the CFA mobile app and CFA Fire Ready app to disseminate information and warnings as quickly as possible.

---

348 A timeline of Victorian disasters is contained in the government's Green Paper, p 1.

349 A Royal Commission led by Judge Leonard E. B. Stretton was set up to inquire into the causes of the January 1939 fires in which millions of ha were burnt and there were 71 deaths. The report is available to view online from the State Library of Victoria website.

350 The 'Ash Wednesday' fires killed 75 people across Victoria and South Australia and destroyed more than 2,000 homes in Victoria. The report is available to view online from the State Library of Victoria website.

Photo: Aerial picture of fire devastation taken from Kinglake West looking toward Melbourne. Photo: David Geraghty Published: Herald Sun – February 13, 2009 © Newspix

ROAD CLOSURES AND TRAFFIC ALERTS

In December 2011, VicRoads launched a new web application called 'Road Closures and Traffic Alerts' on the VicRoads website. The application is map based and shows where all current road closures are located throughout the State. It is updated 24 hours a day and is accessible on web enabled mobile phones. Alerts are also available on Twitter.

The VicRoads website is now Victoria's official source for all road closure information during emergencies, including floods, fires, major crashes or road damage. VicRoads is responsible for not only providing information about freeways, highways and major roads impacted but also local or council roads. During non-emergencies, the site provides real time information about incidents such as collisions and breakdowns.

Detailed information is collected from VicRoads' own staff and agencies such as Victoria Police, the CFA and local government. While road closure information during an emergency is available from the VicRoads website, other emergency information will need to be obtained from the CFA or DSE websites (in case of fire) or the VICSES website for floods. By the end of February 2012 (prior to the floods) the web application had approximately 100,000 visits. Since the floods the number of visits increased to 410,000 (as of April 2012).

During the 2011-12 fire season the application tool was used to warn motorists of road closures, with fires near Blampied that forced the closure of the Midland Highway.

The BRCIM considers this initiative to be a valuable information resource and educative tool. Information can be compiled from a range of agencies and then saved in the one location. The use of social media means it is readily available.

The public conduct of the VBRC and inquiries such as the Queensland Floods Inquiry show that the community is interested in what is going on and has an expectation that if problems or failures in response to a disaster or emergency event are identified, then these will be swiftly rectified to ensure the ongoing protection of the community.

While reviews and inquiries are often lengthy, resource intensive and costly, it is imperative that recommendations (where supported or supported in principle by the State) are acted upon expeditiously. In some cases, the government may not have responded or acted upon a review or inquiries' recommendations prior to the next emergency occurring. For example, the VFR released its Final Report in December 2011 with further widespread flooding occurring across the State in February and March 2012.

Victorian Floods Review (the VFR)

From September 2010 to February 2011 one third of Victoria (including 70 local government areas) was flooded. In February 2011, the Premier of Victoria announced a comprehensive Review of the 2010-11 Flood Warnings and Response to examine all aspects of flood response and recovery, emergency warnings and evacuations in accordance with its terms of reference. This Review was led by Mr Neil Comrie AO APM, concurrent with his role as the BRCIM.

The VFR undertook an extensive consultation process with communities, local government and other government departments and agencies. An interim report was submitted to the Premier on 30 June 2011 and a final report, *the Review of the 2010-2011 Flood Warnings and Review – Final Report* (the VFR Final Report) on 1 December 2011.[351]

The VFR Final Report did not focus on the performance of individuals or agencies but took a strategic approach in examining relevant legislation, policy, structures, systems and processes that drive emergency management arrangements and considered all issues against the primary imperatives of community safety and security.[352]

---

351 The interim and final reports are available from the VFR website.

352 Comrie, N., p 4.

The VFR Final Report was focused on issues related to a major flood event and identified serious shortcomings in the State's emergency management framework. These shortcomings were similarly identified by the VBRC. In summary, the VFR's findings were:

> that the 'all hazards, all agencies' philosophy remains appropriate for Victoria, however, this philosophy is not being effectively operationalised because of barriers in organisational culture, communication, coordination, interoperability and information collation and sharing. This is not sustainable and requires major reform

> the absence of any overarching policy framework or centralised operational control (except for fire) results in siloed, uncoordinated structures that invariably break down in the face of a large scale or protracted emergency

> shortcomings can only be overcome by the establishment of a central body that has authority, capacity and capability to drive a program of major reform. This reform should be based on an overarching policy framework that requires all levels of government and emergency services agencies to work effectively to achieve an 'all hazards, all agencies', approach to their responsibilities

> operational response to all emergencies should be under the direct control of an accountable officer, with the authority for control to be scalable to ensure that all emergencies are managed in an effective manner

> one of the major problems to be addressed is the lack of a logical, hierarchical approach to all phases of emergency management

> accurate and timely emergency warnings to communities are critical in saving lives and in mitigating property damage

> there is a strong desire for community involvement in all phases of emergency management: planning, preparation, response and recovery. Communities have not been actively engaged in this process. There was a prevailing sense that local communities had been disempowered by the State within the emergency management framework

> a great deal of work needs to be done at the local level to equip communities and individuals to meet these obligations for shared responsibility

> the most effective means of making communities safer is to build their resilience to natural disasters.[353]

Communities need to understand the risks they face from potential hazards and prepare themselves to deal with these risks. The VFR's preference is to approach this task from an all hazards perspective.[354] Responses to particular types of emergency events will be different, but both planning and preparing can address the same fundamental issues.

The VFR made 93 recommendations on a range of issues (many specific to flood mitigation), but also identified a number of serious shortcomings in the State's emergency management arrangements, as did the VBRC. The findings were aimed at guiding the government's response and planning to ensure Victoria is better equipped to deal with similarly severe flooding events in the future and effecting changes to strengthen Victoria's emergency management framework.

Shared responsibility

Pervading the Commission's report is the idea that responsibility for community safety during bushfires is shared by the State, municipal councils, individuals, household members and the broad community. A fundamental aspect of the Commission's recommendations is the notion that each of these groups must accept increased responsibility for bushfire safety in the future and that many of these responsibilities must be shared.[355]

The VBRC discussed the issue of shared responsibility in Chapter 9 of its Final Report but made no specific recommendations. They did, however, express many strong views on shared responsibility within the chapter.

The VBRC advocated that shared responsibility allows the State, councils, individuals and the broader community to contribute to mitigating bushfire risk with the VBRC viewing responsibility as not equal. In many cases, bushfire risk measures will overlap between individuals and the State.[356] The provision of leadership, guidance and support, including key educational materials on risk and advice, will always be an obligation of the State, however, individuals and the community need to be open to such advice.

---

353 Ibid., pp 4-5.

354 Ibid., p 219.

355 VBRC *Final Report*, Vol II, Part Two, p 352.

356 Ibid.

As a central theme, the VBRC made a number of key recommendations regarding the sharing of responsibilities for bushfire safety.[357] In particular, it was the VBRC's view that shared responsibility will ensure lasting compliance with Victoria's Bushfire Safety Policy.[358] Victoria endorsed the VBRC's approach to shared responsibility in the State's Implementation Plan.[359]

As part of its consideration of shared responsibility, the VBRC also addressed one of the themes arising from evidence; that of decision making. The VBRC noted that individuals need to have contingency plans and to make decisions as the situation evolves. Depending on the severity of a fire, the weather conditions and the topography, some individuals and groups of people would need assistance in protecting themselves when a bushfire threatens.[360]

In 2011, a special inquiry[361] led by former Police Commissioner Mr Mick Keelty, AO APM investigated aspects of bushfire risk and mitigation in relation to fires in the Roleystone-Kelmscott area of the Perth Hills and found that shared responsibility between government agencies both at the State and local levels needs to be matched by a shared responsibility embraced by the community.[362] The Perth Hills Inquiry recognised that a spirit of responsibility existed but it "*simply needs further development and harmonisation through improved relationships and better coordination*".[363]

The Perth Hills Inquiry noted that shared responsibility should be underpinned by contemporary and relevant policies and legislation with effective coordination mechanisms at the State and local level and active engagement with local communities.[364]

The BRCIM briefly addressed shared responsibility in Chapter 7.3 of the *Progress Report* and outlined two initiatives, the Weeds to Mulch program in the Surf Coast Shire and the Local Incident Management Planning at Cann River. Both of these initiatives demonstrated how communities can engage in positive bushfire mitigation activities. Many councils across Victoria are currently developing successful partnerships with the community. The BRCIM is aware of many of these initiatives, some of which are outlined in Chapter 3 of this *Final Report.*

In implementing the VBRC's recommendations, the State has created new policies and enhanced existing products and tools. These are designed to equip those living in bushfire prone areas with relevant information to ensure informed decisions, assist in preparing homes and properties and to manage potential bushfire threats. These actions are based on the premise of shared responsibility and include:

> enhancing the HBSAT – to enable individuals to assess a home's bushfire risk[365]

> developing Victorian teaching and curriculum resources linking bushfire education[366]

> developing a guide on retrofitting homes in BPA – building and renovation ideas to better prepare homes in a bushfire situation.[367]

The VBRC was strongly of the view that sound preparation and effective responses on the part of the State, councils, the community and individuals will collectively help to minimise harm.[368]

Building community resilience

As illustrated by the 2009 bushfires and most recently the 2010-11 and 2012 floods in Victoria, natural disasters are increasingly affecting communities. Communities must build resilience to ensure they are able to be better prepared, withstand and recover from all disasters.

357 Refer to recommendations 1 to 7.

358 VBRC *Final Report,* p 354. The VBRC envisaged that Chapter 9 Shared Responsibility should be read in conjunction with Chapter 1 Victoria's Bushfire Safety Policy. Refer also to recommendation 1.

359 Implementation Plan (May 2011), p 3.

360 VBRC *Final Report*, Vol II, Part Two, p 353.

361 The Perth inquiry looked at the fires on 6 February 2011 where 71 homes were destroyed and 31 homes damaged.

362 Keelty., MJ, p 12.

363 Ibid., p 14.

364 Ibid., p 159.

365 Refer to recommendation 2.

366 Refer to recommendation 7.

367 Refer to recommendation 51.

368 VBRC *Final Report,* p 356.

As mentioned in Chapter 3 of this *Final Report,* the premise of community resilience is now enshrined in a national, resilience based approach to disaster management and mitigation. In February 2011, the NSDR[369] was formally adopted by the Council of Australian Governments and is a high level strategy aimed at providing guidance on disaster management and mitigation to all sectors of society. The NSDR sets out a number of key statements as to the roles of government, individuals, non-government organisations and volunteers and focuses primarily on building disaster resilient communities across Australia, recognising that disaster resilience is a shared responsibility in delivering sustained behavioural change and enduring partnerships.[370]

The core characteristics of disaster resilient communities as outlined in the NSDR are:

> functioning well while under stress

> successful adaptation

> self reliance

> social capacity.

Communities need to be empowered to accept shared responsibility for coping with disasters.[371]

A disaster resilient community is one where:

> people understand risks and prepare and respond appropriately to emergencies

> people anticipate disasters and take action to prepare themselves

> people use local knowledge and resources to work together in anticipation of disasters

> local communities must partner with emergency services, authorities and organisations

> emergency planning must be resilience based

> volunteerism is strong

> business continuity planning is a high priority

> land use planning and building controls address risks

> non-government agencies have an active presence

> people understand and act on their local risks

> functioning is restored quickly especially for the most vulnerable.[372]

The NSDR advocates a new focus on shared responsibility; one where political leaders, governments, business and community leaders and the not-for-profit sector all adopt increased or improved emergency management and advisory roles and contribute to achieving integrated and coordinated disaster resilience.[373]

While State and Territory governments have primary responsibility for the management of bushfires and other natural disasters, the Commonwealth works to enhance and promote community resilience, develop emergency management capabilities and support the States and Territories when disasters occur.[374] Managing risk and reducing loss is a shared responsibility, however, communities need to be assisted in building their resilience to be able to better cope with bushfires.[375]

Chapter 8 of the VFR Final Report addressed the issue of community resilience. While key concerns raised during the consultation phase of the VFR included the inadequate use of local knowledge and approaches taken to communicate with local communities during a flood emergency, the VFR was aware of certain communities working with councils and agencies to develop resilience to adverse events, including emergencies.[376]

The VFR strongly advocated for the State to adopt the NSDR and develop community resilience committees to be tasked with the responsibility of developing locally based emergency management plans including the building of community resilience to natural hazards.[377] However, for such committees to be effective, there needs to be an ongoing commitment by government departments and agencies.

369 The NSDR is available from the Council of Australian Governments website.

370 NSDR, p ii.

371 Ibid., p 2.

372 Based on summary provided on p 5, NSDR.

373 Ibid., p 3.

374 Commonwealth Response to the Senate Select Committee on Agricultural and Related Industries Report, *The Incidence and severity of bushfires across Australia,* (2010) p 1, available from the Parliament of Australia website.

375 Australian Fire and Emergency Services Council (AFAC) submission to Senate Committee, p 89. The Senate Committee was asked in May 2009 to address the incidence and severity of bushfires across Australia and focused on bushfire mitigation and preparedness measures that may help to reduce the incidence and effects of catastrophic bushfires in Australia and the report is available from the Parliament of Australia website. The report contained 15 recommendations, with the Commonwealth supporting or supporting in principle 9 of these recommendations.

376 Comrie, N., p 220.

377 Recommendation 93. Refer to VFR, p 20.

CENTRAL GOLDFIELDS SHIRE COMMUNITY DISASTER MENTORSHIP PROGRAM

Carisbrook is a farming and mining community of 300 homes, located two hours north of Melbourne. In January 2011, 70 per cent of the town was flooded. While the water eventually dried up, the difficulties confronting the community remained and 18 months later, many residents are still living in temporary housing and businesses and families are struggling.

Amidst these difficult circumstances, however, has emerged a positive example of community resilience, with the Central Goldfields Shire Community Disaster Mentorship Program. This program sees Kinglake and Newstead residents mentoring and guiding residents in Carisbrook about the best ways to rebuild their lives and the community they love.

Supported by local government, the Red Cross and Monash University, the program is facilitating connections and relationships between recovering communities, now and in the future, fostering support, learning and shared experiences. It is also ensuring that the experience generated by a natural disaster and the lessons learned from the subsequent community recovery and rebuilding phases, are not lost, but captured and shared between communities.

The BRCIM has been advised that Carisbrook residents have been inspired and challenged by the journey of recovery shared by people who survived the 2009 fires at Kinglake. Locals have reported being motivated and prompted to action by the quality of the community projects and the level of community engagement demonstrated by residents from their neighbouring towns. As a consequence, they are getting organised.

An important window of opportunity exists in the aftermath of disaster in which to build more resilient communities, better able to prepare for future emergencies and better engaged with their own future. The experience of the Carisbrook community has given rise to a project that seeks to support connection, mentoring and learning between individuals from disaster affected communities.

The Carisbrook community disaster mentoring program is an excellent demonstration of community resilience in action. It stands as testament to the impressive generosity of spirit that exists in many communities. The BRCIM commends the Shire of Central Goldfields and the communities of Carisbrook, Newstead and Kinglake for developing this unique mentoring approach.

Emergency Management Reform

An event of the scale of the 2009 bushfires or the 2010-11 and 2012 Victorian floods will often be the catalyst for change with the findings or recommendations driving this change and whole of sector reform. Recommendations are also a catalyst for change in other jurisdictions. For example, after the release of the VBRC Final Report, Queensland,[378] Tasmania[379] and New South Wales[380] all drafted their own responses to the VBRC's recommendations and have since made significant changes to implement new processes or initiatives to improve their own response to bushfire.

Emergency Management Green Paper

In response to the release of the VFR's Interim Report in June 2011, the government announced it would release a Green Paper to consult with stakeholders with a view to modernising Victoria's emergency management governance and arrangements. The Green Paper was released in September 2011 and proposed that Victoria's capability to deal with all types of hazards would be strengthened by improving the State's emergency management arrangements by focusing on:

> service delivery to Victorians across government and communities

> building community resilience

> achieving a genuine 'all hazards, all agencies' approach

> enduring and sustainable change.[381]

The Green Paper did not provide a definitive list of issues and concepts (it was not intended to do so) but was designed to elicit feedback on how Victoria can better prevent, mitigate, respond to and recover from emergencies. Thirty-two options for consideration were provided in four areas requiring reform: oversight and coordination, capability, service delivery and resilience.

---

378 Queensland's response to the VBRC Final Report recommendation is available from the Rural Fire Service website.

379 Tasmania's response to the VBRC's Final Report recommendations is available from the DPC website.

380 NSW's response to the VBRC's Final Report is available from the NSW Rural Fire Service website.

381 Green Paper, p 2.

The Green Paper states that:

understanding, managing and reducing risks increases a community's ability to withstand and recover from emergencies, thereby strengthening its disaster resilience.[382]

Individuals, communities, the private sector, emergency management agencies and all levels of government contribute to the management of risk and the promotion of community safety.[383] Emergency management is not the sole responsibility of any one level of government. This idea of a shared approach to emergency management creates a community of resilience and fosters an underlying culture of accepting responsibility for risks associated with emergencies and consequent roles in relief and recovery.

The Green Paper acknowledged that emergency management around the world involves shared responsibility to identify and manage risks, minimise the consequences of hazards and to enable communities to be more resilient.[384]

Emergency Management White Paper

The BRCIM was advised that the State received a number of submissions on the Green Paper from a range of individuals, municipals councils, agency and industry stakeholders and the private sector. The State is currently working on new emergency management proposals with responses to the Green Paper being incorporated into an emergency management White Paper. It is anticipated that the White Paper will include the development of significant major reforms in emergency management that will require substantial legislative amendment.

One of the key recommendations of the VFR Final Report[385] was for the State to commit to a major reform of the emergency management arrangements to bring about an effective 'all hazards, all agencies' approach to emergency management. The State has accepted this recommendation and the approach has been articulated through the media[386] and in formal government processes such as the Victorian State Budget Papers[387] and the emergency management Green Paper and White Paper processes.

The State supported, or supported in principle 90 of the 93 VFR's recommendations and the State has advised that the majority of these recommendations will be implemented through the White Paper process.[388] As at 1 June 2012, the State has yet to release the White Paper. As shown in some of the responses to recommendations in Chapter 2 of this *Final Report,* the implementation of a number of recommendations is dependent on the White Paper process and are subject to delay as a result. The BRCIM understands that the White Paper will be released in the latter part of 2012.

Reforms will seek to build a greater capacity within the State but until the White Paper is released, the direction of change and specific reforms for the emergency management sector are unknown.

The BRCIM's view on shared responsibility and community resilience

In Chapter 7.3 of the *Progress Report,* the BRCIM touched briefly on the issue of shared responsibility and noted that it would address this in further detail in the Final Report. As discussed in Chapter 3 of this *Final Report* as part of the BRCIM's project on assessing the interactions between councils and agencies for the purposes of planning and preparing for bushfires, the issues of community resilience and shared responsibility are integral to the emergency management landscape. Consistent with the views of the VFR, the BRCIM encourages the State to pursue the objectives of the NSDR as a priority while noting that this will require a substantial long term commitment by the State.[389]

---

382 Ibid., p 10.

383 Ibid., p 8.

384 Ibid., p 10.

385 Recommendation 66.

386 Premier of Victoria, *First steps towards 'all hazards, all agencies' emergency management,* Media Release, 2 March 2012, accessed from the Premier of Victoria's website, 1 May 2012.

387 2011-12 Budget Overview, pp 6-7. The budget is available from the Budget website.

388 Other recommendations related to flood predictions and modelling will be implemented by the Minister for Water.

389 NSDR, p 4.

Shared responsibility and the constitution of a resilient community have different meanings for the State, councils, individuals, households and the broader community. Community resilience involves:

a philosophical shift in relations between the State and civil society that changes the parameters of how local communities organise and act. It involves communities and individuals, harnessing local resources and expertise to help themselves in an emergency, in a way that complements the response of the emergency services.[390]

The BRCIM is of the view that community resilience can be built in Victoria through:

> utilising current community capacity

> empowering local people

> utilising volunteers including extensive existing volunteer networks such as service clubs, environment groups, business associations, sporting bodies and committees of management

> engaging in collaborative partnerships.

As noted by the Queensland Floods Commission of Inquiry resourcefulness in natural disasters is not just the province of government but rather the collective responsibility of all sections of society and, more fundamentally, of each individual within the community.

The State can engage in genuine collaborative partnerships with local communities via existing networks to capture local knowledge and nurture local ownership. Utilising existing networks can build substantial capacity at the local level and harness strong leadership. In partnership with government and emergency services agency personnel, these existing networks provide powerful capability to lead the development of local community resilience to natural disasters. Examples of collaborative partnerships were evident in the BRCIM's council and agencies project as outlined in Chapter 3 of this *Final Report.*

Resilience is of global interest[391] with community resilience models being established in countries such as New Zealand, Canada and the United States to enable communities to understand and manage their hazards. Victoria can learn from previous responses to emergency events and outcomes of other inquiries and reviews and consider whether resilience models from other jurisdictions can be modified to suit the needs of the community.

Shared responsibility and community resilience are not new concepts but should be given greater credence in the development of the State's emergency management policy. The State needs to be confident that it can respond effectively to any protracted and large scale emergency event. A more resilient community will assist in the prevention, preparation, response and ultimately the management of such an event. A resilient community is:

one whose members are connected to one another and work together in ways that enable it to function in the face of stress and trauma. A resilient community has the ability to adapt to changes in the physical, social or economic environment and the potential to learn from experience and improve over time. A resilient community can also be self sufficient, at least for a time, if external assistance is limited or delayed.[392]

Encouraging communities to be more resilient and share responsibility will ensure there is greater understanding of the risks associated with bushfires and other emergency events. Sharing responsibility will also reduce levels of community complacency, which has been increasingly evident over the last two relatively benign fire seasons.

390 R Bach, R Doran, L Gibb, D Kaufman, K Settle Policy Challenges in Supporting Community Resilience (Working Paper) 2010, p 3 p 7 (accessed from the US Department of Homeland Security website at www.fema.gov/library/viewRecord.do?id=4563), 1 May 2012.

391 Bach et al, ibid., p 3.

392 R Price-Robertson and K Knight *Natural disasters and community resilience: A framework for support* Child Family Community Australia CFCA Paper No.3 (2012) accessed from the Australia Institute for Family Studies website at www.aifs.gov.au/cfca/pubs/papers/03/index.html.

Photo: CFA Strategic Communications

The BRCIM supports the VFR recommendations, in particular recommendation 93 in relation to the building of more resilient communities through the development of local committees. This will be a major challenge for government and emergency management agencies, requiring them to relinquish long established practices of absolute control of many aspects of emergency management and in devolving some of this control to local communities.

The BRCIM encourages the State to consider the concept of shared responsibility and community resilience more vigorously in the determination and development of future State emergency management policies. The State has openly supported the concepts of shared responsibility and community resilience.[393] Victoria's emergency services framework should allow for an 'all hazards, all agencies' approach to emergency management that incorporates clear shared responsibility and the facilitation of community resilience.

The BRCIM's view on the changing emergency management landscape

The likelihood of disasters and emergencies occurring in the future is high and Victoria must be better prepared for such risks to ensure there is minimal loss of life and property and minimal impact on the State's economy, resources and environment. As the VBRC noted, probable climate change factors may also result in fires being more frequent and intense in future.[394]

The State is in a unique position in addressing the recommendations of both the VBRC and VFR to consider major reforms to Victoria's emergency management arrangements. The current arrangements are unlikely to be able to respond to the changing hazard and risk environment.

Emergency management agencies are no longer restricted to responding to one type of hazard. This was apparent during the Victorian floods in 2010-11 and 2012 where the CFA provided substantial expertise and assistance to VICSES. Such events are occurring more frequently and it is not always possible for the State to be fully prepared for any one event. For example, the 2010-11 and 2012 floods occurred at a time when the State is normally on bushfire alert. It is timely that the State considers more cohesive and integrated strategies for emergency management.

---

393 As outlined in the State's Implementation Plan and in its response to the VFR.

394 VBRC *Final Report*, Vol II, Part One, p xv11. This was also referenced by the Minister for Bushfire Response in the Implementation Plan (May 2011), p 4.

The BRCIM is strongly of the view that a significant opportunity exists now for the State to reform the emergency management sector. There is now *"a palpable appetite and momentum for reform in Victoria's emergency management sector"*.[395] The BRCIM considers fundamental tenets of reform include:

> ensuring there is an appropriate, authoritative State policy framework to drive the required reforms. Agencies will continue to operate in a siloed structure focusing on their own legislated obligations to address specific hazards unless there is an overarching emergency management policy with a single point of accountability

> expanding the work undertaken in response to the VBRC and other fire initiatives to other hazards. While this has already occurred in relation to the development of some leadership programs and exercises, there is much scope for improvement and to streamline processes regardless of the hazard

> there must be an unambiguous commitment to the reform agenda by all levels of government and by all agencies in the emergency management sector

> the need to further develop agency interoperability. It would be advantageous for the State to develop SOPs for many emergency management functions that are non-hazard specific and also to ensure that there is greater interoperability in relation to communications and technology requirements across all agencies

> the State needs to be more resilient and while this will require legislative, structural and policy reforms, communities also need to be actively engaged to ensure that they fully understand emergencies and can effectively build community resilience

> reform cannot just address big theoretical issues such as governance, planning and control – there is also a requirement to address practical issues such as the management of long term risks, insurance, changes in land use and ongoing capability.

As previously discussed in this *Final Report*, the recommendations of the VBRC must now be seen in the context of other developments since Black Saturday. Nevertheless, these recommendations will be pivotal in driving badly needed reform of emergency management arrangements in Victoria.

---

395 Comrie, N., op cit, Letter to the Premier.

Conclusion

Long term implementation actions

In preparation of this report, the BRCIM identified several implementation actions that were ongoing and not due for completion, or had not been satisfactorily completed by the due date and could not therefore be fully addressed in this *Final Report.*

The BRCIM raised this issue with the Minister for Bushfire Response who commenced the process to extend the role of the BRCIM until 30 September 2014. Appropriate amendments to the BRCIM Act were passed on 13 June 2012 by the passage of the Police and Emergency Management Legislation Amendment Act.

Consequently, the BRCIM will produce Annual Reports in July 2013 and 2014 that must include a report:

> on the progress of any implementation action that has not been completed as at the date of the previous BRCIM report

> on any other matter requested by the Minister.

Assessment of efficacy

Section 12 of the BRCIM Act requires the BRCIM to:

(a) monitor and review the progress of an agency in carrying out an implementation action including by assessing –

  (ii) the progress of the agency in the completion of an implementation action

  (iii) the effectiveness of the method used by the agency in carrying out an implementation action

  (iv) the efficacy of an implementation action implemented or effected.

The requirement to report on the progress of implementation actions and the effectiveness of the method used by departments and agencies to achieve this progress are met in this *Final Report* and relevant details are recorded against each implementation action under the relevant recommendation.

However, the requirement to assess the efficacy of implementation actions has presented some considerable challenges for the BRCIM. These challenges arise from the fact that the past two fire seasons have (mercifully) been benign. Consequently, many of the actions taken to address the recommendations of the VBRC have not been able to be tested or monitored in a stressful operational environment. Nevertheless, the BRCIM has closely examined relevant implementation actions and where possible, has expressed an experienced, operational judgement with regard to the efficacy of the action taken.

Should the opportunity arise over the next two years, the BRCIM will attempt to identify evidence on which to base a more detailed assessment of the efficacy of relevant implementation actions.

The reform agenda

The legacy of the VBRC cannot be overstated as it has been the catalyst for major reform of Victoria's emergency management arrangements. However, it is important that this reform program is dynamic and must take into account other experiences and learnings that have occurred since the Final Report of the VBRC. The February 2009 fires preceded a number of other major emergencies in Australia and New Zealand that included cyclones (Queensland), earthquakes (New Zealand), fires (Western Australia) and floods (Queensland and Victoria). Each of these emergencies have been the subject of inquiry or review and the State now has the advantage of being able to consider the many findings and recommendations in relevant reports. Further, the release of the NSDR in 2011 has provided a broader context for examination of Victoria's emergency management arrangements.

The BRCIM has been responsible for monitoring about 300 actions that flow from the State's response to the recommendations of the VBRC. Each of these implementation actions was put forward by the State to address individual VBRC recommendations, either wholly or in part. By way of illustration, the State committed to undertake 25 implementation actions to meet the requirements of recommendation 3 of the VBRC's Final Report.

While each of the 300 implementation actions is individually important, it is of much greater importance that all of these actions form part of a cohesive, integrated strategy to deliver effective reform of the emergency management arrangements in Victoria. It is also of great importance that commitments that were made in the immediate aftermath of the VBRC Final Report are revisited in the context of the additional evidence and learnings that have emanated from subsequent inquiries and reviews.

In the two years since the VBRC's report, the State has had the opportunity to reconsider some of the commitments made in Implementation Plans. With the appointment of the FSC, there is now one central point of accountability, authority and coordination regarding the fire services that did not exist prior to the VBRC. The FSC and fire agencies have subsequently commissioned a variety of research to inform policy development.

Photo: CFA Strategic Communications

This research has resulted in some variation to the original commitments made by the State regarding some actions. Given the statutory responsibility of the BRCIM to report on the efficacy of implementations actions, the BRCIM has generally encouraged the State to revisit commitments made on implementation actions that were no longer apparently the most efficacious means of delivering on some of the VBRC recommendations. In accordance with this approach, the State has proposed to change the title of TPPs to a title similar to Community Information Guides and made safer precincts part of a broader range of bushfire safety options in the Framework. The BRCIM supports these sensible changes.

The FSC has embraced the recommendation of the VFR that the approach to emergency management in Victoria must be on an 'all hazards, all agencies' basis. Consequently, much of the work currently being undertaken by the FSC and emergency management agencies is focused on the interoperability of these agencies. Issues relating to joint emergency and incident management, such as; planning, response capability and capacity, operating procedures, technology, training and exercising, community education and engagement, prevention and mitigation are all under ongoing consideration and redevelopment under the auspices of the FSC.

However, this substantial reform program must be supported by appropriate legislation and policy to drive the 'all hazards, all agencies' approach to emergency management. The State's commitment to reform the emergency management arrangements in Victoria is currently being actioned through the Green Paper/White Paper process that will be finalised later this year. The recommendations of the VBRC and the State's implementation actions should therefore be considered in the broader context of this critical and comprehensive program of reform.

References

2009 Victorian Bushfires Royal Commission *Final Report, Volume 1, The Fires and the Fire-Related Deaths*

2009 Victorian Bushfires Royal Commission *Final Report, Volume 2, Fire Preparation, Response and Recovery*

2009 Victorian Bushfires Royal Commission *Final Report, Summary*

2009 Victorian Bushfires Royal Commission *Final Report, Volume 3, Establishment and Operation of the Commission*

Bach, B, Doran, R Gibb, L, Kaufman, D, Settle, K *Policy Challenges in Supporting Community Resilience* (Working Paper) (2010) accessed online at *www.fema.gov/library/viewRecord.do?id=4563)*

Bushfires Royal Commission Implementation Monitor *Progress Report* (July 2011)

Commonwealth Government *Response to the Senate Select Committee on Agricultural and Related Industries Report The Incidence and severity of bushfires across Australia* (2010)

Comrie, Neil *Review of the 2010-11 Flood Warnings & Response* – Final Report (2011)

Council of Australian Governments *National Strategy for Disaster Resilience: Building our nation's resilience to disasters* (2009) accessed at www.coag.gov.au

Department of Premier and Cabinet *Towards a more Disaster Resilient and Safer Victoria, Green Paper: Options and Issues* (2011)

Deputy Premier *Applications open for bushfire buy-back scheme* (1 March 2012) Media Release accessed at www.premier.vic.gov.au

Eburn, M & Bergin, A *Recriminations follow natural disaster,* The Australian, Legal Affairs Section (30 March 2012)

Fire Services Commissioner *Community Fire Refuges* (October 2011)

Griffiths, T 'We have still not lived long enough' *Inside Story* (16 February 2009) http://inside.org.au/we-have-still-not-lived-long-enough/

Jones, D AM *Report of Inquiry into the Effect of Arrangements Made by the Country Fire Authority on its Volunteers* (July 2011)

Keelty, M.J., *A Shared Responsibility: The Report of the Perth Hills Bushfire February 2011* Review, 2011

Minister for Planning *New Planning Controls to protect Victorians from Bushfires* (17 Nov 2011) Media Release accessed from www.premier.vic.gov.au

Moncrief, M 'Worst Day in History': Brumby warns of fire danger" *The Age* February 6, 2009, access at www.theage.com.au

Municipal Association of Victoria *New Bushfire Planning Provisions Welcome* (18 Nov 2011) Media Release accessed from www.mav.asn.au

Office for the Community Sector *Community collaboration: The changing context of local government and community sector partnerships* (2011) accessed at www.dpcd.vic.gov.au

Office of the Emergency Services Commissioner *Review of the Tostaree Fire Report* 011)

Pitt, Sir Michael *Learning Lessons from the 2007 Floods,* 2008, accessed at http:// webarchive.nationalarchives.gov.uk

Premier of Victoria *First steps towards 'all hazards, all agencies' emergency management,* (Friday, 2 March 2012) Media Release accessed from www.premier.vic.gov.au

Premier of Victoria *'Better recruitment, training and support for CFA volunteers',* (24 February 2012) Media Release accessed from www.premier.vic.gov.au

Premier of Victoria *Applications open for bushfire buy-back scheme* (1 March 2012) Media Release accessed from www.premier.vic.gov.au

Price-Robertson, R, Knight, K *Natural disasters and community resilience: A framework for support* Child Family Community Australia CFCA Paper No.3 (2012) accessed at www.aifs.gov.au/cfca/pubs/papers/03/index.html

Queensland Floods Commission of Inquiry *Final Report* (2012)

State Coroner of Victoria, *The Linton Report, (the Report of the Investigation and Inquests into a Wildfire and the Deaths of Five Firefighters on 2 December 1998),* 11 January 2002

State Government of Victoria 2012-13 Budget Paper No. 3, *Service Delivery* (May 2012)

Victorian Bushfire Reconstruction and Recovery Authority *Legacy Report,* June 2011

Victorian Bushfires Royal Commission Implementation Monitor *Delivery Report* March 2010

Victorian State Government *Implementing the Government's Response to the 2009 Victorian Bushfires Royal Commission* (May 2011)

Victorian State Government *Making Victoria Fire Ready: Implementing the Government's Response to the 2009 Victorian Bushfires Royal Commission* (October 2010)

Victorian Government Websites

2009 Victorian Bushfires Royal Commission	www.royalcommission.vic.gov.au
Building Commission	www.buildingcommission.com.au
Bushfires Royal Commission Implementation Monitor	www.bushfiresmonitor.vic.gov.au
Bushfire Education	www.bushfireeducation.vic.edu.au
Country Fire Authority	www.cfa.vic.gov.au
Department of Health	www.health.vic.gov.au
Department of Human Services	www.dhs.vic.gov.au
Department of Justice	www.justice.vic.gov.au
Department of Planning and Community Development	www.dpcd.vic.gov.au
Department of Premier and Cabinet	www.dpc.vic.gov.au
Department of Primary Industry	www.dpi.vic.gov.au
Department of Sustainability and Environment	www.dse.vic.gov.au
Department of Transport	www.transport.vic.gov.au
Department of Treasury and Finance	www.dtf.vic.gov.au
Energy Safe Victoria	www.esv.vic.gov.au
Fires Services Commissioner	www.firecommissioner.vic.gov.au
Fire Recovery Unit	www.rdv.vic.gov.au/fire-recovery-unit
Growth Areas Authority	www.gaa.vic.gov.au
Integrated Fire Management Planning	www.ifmp.vic.gov.au
Land Channel	www.land.vic.gov.au
Metropolitan Fire Brigade	www.mfb.vic.gov.au
Office of the Emergency Services Commissioner	www.oesc.vic.gov.au
Parks Victoria	www.parkweb.vic.gov.au
Plumbing Industry Commission	www.pic.vic.gov.au
Premier of Victoria	www.premier.vic.gov.au
Regional Development Victoria	www.rdv.vic.gov.au
State Budget	www.budget.vic.gov.au
State Control Centre	www.scc.vic.gov.au
VicRoads	www.vicroads.vic.gov.au
Victorian Floods Review	www.floodsreview.vic.gov.au
Victoria Government Gazette	www.gazette.vic.gov.au
Victorian Legislation and Parliamentary Documents	www.legislation.vic.gov.au

Other websites

Attorney General's Department (Cth)	www.ag.gov.au
Australian Building Codes Board	www.abcb.gov.au
Australian Institute of Criminology	www.aic.gov.au
Australian Emergency Management	www.em.gov.au
Australian Government Department of Sustainability, Environment, Water, Population and Communities	www.environment.gov.au
Australasian Fire and Emergency Service Authorities Council	www.afac.com.au
Bushfire Arson Prevention	www.bushfirearson.gov.au
Bushfire Cooperative Research Centre	www.bushfirecrc.com
Crime Stoppers	www.crimestoppers.com.au
Council of Australian Government	www.coag.gov.au
ComLaw	www.comlaw.gov.au
Department of Premier and Cabinet (WA)	www.dpc.wa.gov.au
Department of Premier and Cabinet (TAS)	www.dpac.tas.gov.au
La Trobe University	www.latrobe.edu.au
Mornington Peninsula Shire Councils	www.mornpen.vic.gov.au
Municipal Association of Victoria	www.mav.asn.au
NSW Rural Fire Service	www.rfs.nsw.gov.au
Parliament of Australia	www.aph.gov.au
Planning Enforcement Officers Association	www.planning-enforcement.com
Queensland Floods Commission of Inquiry	www.floodcommission.qld.gov.au
Rural Fire Service (Qld)	www.ruralfire.qld.gov.au
Tasmania Fire Service	www.fire.tas.gov.au
SAI Global	www.saiglobal.com
South Australian Country Fire Service	www.cfs.sa.gov.au
Standards Australia	www.standards.org.au
State Library of Victoria	www.slv.vic.gov.au
University of Melbourne (Dept of Forest and Ecosystem Science)	www.forestscience.unimelb.edu.au
Volunteer Fire Brigades Victoria	www.vfbv.com.au

D0T6878/12