
Hazelwood Coal Mine Fire Inquiry

Second Submission from the Victorian Government

June 2014



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Accessibility

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1. Glossary

Common terms used throughout this submission include:

Board of Inquiry	The Board of Inquiry into the Hazelwood Coal Mine Fire, comprising the Honourable Bernard Teague AO (Chair), Professor John Catford and Ms Sonia Petering
Hazelwood Coal Mine	The open cut coal mine at Hazelwood
Hazelwood Coal Mine Fire	The fire at the Hazelwood Coal Mine in February and March 2014
Hazelwood Power Station	The power station adjoining the Hazelwood Coal Mine
The Government's first submission	The Victorian Government's initial submission to the Board of Inquiry entitled <i>Hazelwood Coal Mine Fire Inquiry: Submission from the Victorian Government</i> (May 2014)
This submission	This submission, entitled <i>Hazelwood Coal Mine Fire Inquiry: Second submission from the Victorian Government</i> (June 2014)
Victorian Critical Infrastructure Register	The <i>Victorian Critical Infrastructure Register</i> will list all critical infrastructure in Victoria and comprise a three tier model of the State's 'Vital', 'Major' and 'Significant' critical infrastructure
Victorian Critical Infrastructure Resilience Interim Strategy	The <i>Victorian Critical Infrastructure Resilience Interim Strategy</i> (2013) implements new management arrangements for critical infrastructure resilience with a model for assessing criticality, and interventions prioritised, implemented and communicated, as well as legislation governing resilience arrangements for the most critical infrastructure (Vital)
Victorian Criticality Assessment Tool	The <i>Victorian Criticality Assessment Tool</i> will be a custom made assessment methodology with metric and narrative inputs for owners and operators of critical infrastructure to measure the consequences associated with the loss or degradation of the infrastructure or service it provides
White Paper	<i>Victorian Emergency Management Reform White Paper</i> (December 2012)

The following acronyms are used throughout this Submission:

AV	Ambulance Victoria
CALD	Culturally and linguistically diverse
CCP	Chief Commissioner of Police
CFA	Country Fire Authority
CHO	Chief Health Officer
CO	Carbon monoxide
DEPI	Department of Environment and Primary Industries
DH	Department of Health
DHS	Department of Human Services
DOJ	Department of Justice
DPC	Department of Premier and Cabinet
DTF	Department of Treasury and Finance
DTPLI	Department of Transport, Planning and Local Infrastructure
EE Act	<i>Environment Effects Act 1978</i> (Vic)

EM Act 1986	<i>Emergency Management Act 1986 (Vic)</i>
EM Act 2013	<i>Emergency Management Act 2013 (Vic)</i>
EMC	Emergency Management Commissioner
EMJPIC	Emergency Management Joint Public Information Committee
EP Act	<i>Environment Protection Act 1970 (Vic)</i>
EPA	Environment Protection Authority
FSC	Fire Services Commissioner
HHSEM	Health and Human Services Emergency Management
IGEM	Inspector General Emergency Management
LGV	Local Government Victoria
MFB	Metropolitan Fire Brigade
MR(SD) Act	<i>Mineral Resources (Sustainable Development) Act 1990 (Vic)</i>
NEPM AAQ	<i>National Environment Protection (Ambient Air Quality) Measure</i>
OHS	occupational health and safety
OHS Act	<i>Occupational Health and Safety Act 2004 (Vic)</i>
OHS Regulations	<i>Occupational Health and Safety Regulations 2007 (Vic)</i>
OMAC	Office of Multicultural Affairs and Citizenship
PE Act	<i>Planning and Environment Act 1987 (Vic)</i>
PM2.5	particulate matter in the atmosphere that is smaller than 2.5 micrometres in size
SCC	State Control Centre
SCRC	State Crisis and Resilience Council
SEMT	State Emergency Management Team
SEPP	State Environment Protection Policy
SEPP AAQ	State Environment Protection Policy for Ambient Air Quality
SERP	State Emergency Response Plan
SES	Victoria State Emergency Service
VWA	Victorian WorkCover Authority
WoVG	Whole of Victorian Government

2. Introduction

Background

- 2.1 In February and March 2014, a fire burned in the Hazelwood Coal Mine. The fire required significant resources to bring it under control, and impacted on local communities, particularly in the town of Morwell.
- 2.2 On 11 March 2014, the Premier of Victoria, The Hon Dr Denis Naphthine MP and the Deputy Premier, The Hon Peter Ryan MP, announced the establishment of an independent inquiry into the circumstances of the Hazelwood Coal Mine Fire.
- 2.3 On 21 March 2014, the Governor in Council appointed a Board of Inquiry into the Hazelwood Coal Mine Fire, comprising the Honourable Bernard Teague AO (Chair), Professor John Catford and Ms Sonia Petering.

Victorian Government submission

- 2.4 The Victorian Government welcomes the opportunity to assist the Board of Inquiry to inquire into, and report on, the Hazelwood Coal Mine Fire.
- 2.5 In May 2014, the Victorian Government made an initial submission to the Board of Inquiry entitled *Hazelwood Coal Mine Fire Inquiry: Submission from the Victorian Government (May 2014)* (**the Government's first submission**). That submission outlined the regulatory framework for the Hazelwood Coal Mine and emergency response, and set out the activities of the Victorian Government in response to the Hazelwood Coal Mine Fire.
- 2.6 This submission supplements the Government's first submission by setting out actions with respect to the Government's regulation of, preparation for, and response to future emergencies. It discusses actions which are already underway and which the Government intends to implement in the near future.
- 2.7 Under the *Victorian Emergency Management Reform White Paper (2012)*, the Government has committed to continuous improvement across the emergency management sector. In addition, the Government intends to act on lessons learned from past events and draw on world's best practice for the safety of the Victorian community. The actions set out in this submission are part of the Government's commitment to continuous improvement.
- 2.8 This submission has been prepared on behalf of all departments and relevant agencies of the Victorian Government, many of which were closely involved in the regulatory and emergency response issues associated with the Hazelwood Coal Mine Fire.
- 2.9 This submission does not respond to evidence raised in the Hazelwood Coal Mine Fire Inquiry hearings. In the course of the hearings, some factual inaccuracies as to the Government's activities have arisen in evidence. The Board of Inquiry heard from a range of community witnesses on a range of topics, some of whom were well informed and others less well informed and with their own agendas for change. The Government has responded to these issues in its closing submissions and in a letter to the Board of Inquiry dealing with communications issues dated 4 June 2014.¹

Structure

- 2.10 This submission is structured as follows:
- Chapter 1: Glossary

¹ The letter discussed matters arising from the reports of Professor Jim Macnamara and Lachlan Drummond.

- Chapter 2: Introduction
- Chapter 3: Emergency management reform
- Chapter 4: Emergency mitigation planning and response
- Chapter 5: Communications
- Chapter 6: Environment
- Chapter 7: Health
- Chapter 8: Relief and recovery
- Chapter 9: Regulatory framework.

Summary of actions

2.11 The Hazelwood Coal Mine Fire was a unique event that had a significant impact on Victorian communities. The Victorian Government intends to take action necessary to mitigate the risk of future emergencies, and continuously improve the Victorian Government’s response to emergencies. This submission sets out a number of actions to achieve those goals.

2.12 The actions set out in this submission can be categorised into three broad themes:

Theme	Description
Mitigation	Mitigating the risk of a similar event in the future. This encompasses regulatory issues and emergency mitigation planning.
Integration	Integration between Government agencies, and between Government and industry, must be strengthened both in preparation for and in response to future emergencies.
Communication	Communication with communities before, during and after emergencies must be improved, including tailoring communication to affected communities.

2.13 Some of the actions discussed in this submission are already underway, as they were identified and commenced prior to the fire. Others are intended to be implemented in the near future as part of the Government’s commitment to continuing improvement. The following table summarises the actions set out in this submission. Note that each action is described briefly. The relevant part of this submission must be read for the full detail of the action.

Summary of actions table

Chapter	Action	Theme	Ref.
(3) Emergency management reform	3(a) Develop a Strategic Action Plan to improve and strengthen Victoria’s emergency management capability	Mitigation, Integration, Communication	3.18 – 3.27
	3(b) Establish EMV as the new overarching body for emergency management in Victoria	Mitigation, Integration, Communication	3.28 – 3.33
	3(c) Establish EMC to ensure that control arrangements are in place, and coordinate the response roles of relevant agencies’ resources	Mitigation, Integration, Communication	3.34 – 3.47
	3(d) Establish IGEM as the assurance authority for Victoria’s emergency management arrangements	Mitigation, Integration, Communication	3.48 – 3.49
	3(e) Establish Volunteer Consultative Forum for the	Integration	3.50 – 3.51

Chapter	Action	Theme	Ref.
	Government to consult with volunteers and ensure their views are heard		
	3(f) Implement actions set out in the White Paper to improve community awareness and education, and make information available during emergencies	Communication	3.52 – 3.54
(4) Emergency mitigation planning and response	4(a) Strengthen industry engagement with the community	Communication	4.7
	4(b) Improve State planning framework for emergencies ²	Integration	4.8 – 4.11
	4(c) Improve Government engagement with the coal mine sector regarding emergency management plans	Integration	4.12 – 4.16
	4(d) Improve integration of industry in the response to an emergency	Integration	4.17 – 4.20
	4(e) Improve training for career and volunteer firefighters to include lessons highlighted by the Hazelwood Coal Mine Fire	Integration	4.21
	4(f) Improve OHS in emergency response to include lessons highlighted by the Hazelwood Coal Mine Fire	Integration	4.22 – 4.24
	4(g) Develop an integrated emergency resource planning framework for the Latrobe Valley	Integration	4.25 – 4.26
(5) Communications	5(a) Review of emergency management communications arrangements across government commissioned by SCRC, including consideration of: <ul style="list-style-type: none"> (i) the roles and functions of emergency communications committees (ii) enhancing specialist crisis communications capability within Government (iii) the use of established local networks as a way to communicate during emergencies (iv) additional emergency communications training for Government employees (v) developing a coordinated approach to the use of social media by Government during emergencies 	Communication	5.5 – 5.16
	5(b) Conduct National Review of Warnings and Information	Communication	5.17 – 5.20
(6) Environment	6(a) Review EPA emergency protocols, incorporating lessons from the Hazelwood Coal Mine Fire	Mitigation, Integration, Communication	6.2 – 6.3
	6(b) Clarify future expectations of incident air monitoring and scenarios, and determine the appropriate inventory of equipment	Integration	6.4 – 6.12
	6(c) EPA to coordinate a meta-analysis, including smoke plume modelling, of air monitoring data and other relevant information collected during the Hazelwood Coal Mine Fire to create a body of knowledge of the impacts of extended brown coal fire events	Integration	6.13 – 6.15

² See also related action 9(d).

Chapter	Action	Theme	Ref.
	6(d) DH and EPA to undertake further development on the CO and PM2.5 protocols and an engagement and education program around environmental and health standards	Integration	6.16 – 6.19
	6(e) EPA review communications response and implement a structured community engagement process with the Morwell and surrounding communities	Communication	6.20 – 6.21
	6(f) Review the State Environment Protection Policy for Ambient Air Quality	Integration	6.22 – 6.25
(7) Health	7(a) Develop a State Smoke Plan covering the management of potential public health impacts from large scale, extended smoke events	Mitigation, Integration	7.4 – 7.6
	7(b) Undertake projects to understand health impacts and predict the movement of smoke from planned burning and bushfires	Integration	7.7 – 7.10
	7(c) Improve local engagement on health issues	Communication	7.11 – 7.15
	7(d) Improve communication around psycho-social support to communities affected by emergencies	Mitigation, Communication	7.16 – 7.20
	7(e) Commission a long-term study into the long-term health effects of the smoke from the Hazelwood Coal Mine Fire	Mitigation, Integration, Communication	7.21 – 7.28
(8) Relief and recovery	8(a) Review the Personal Hardship Assistance Program and Implementation Guidelines for consistency and clarity of purpose	Integration	8.2 – 8.6
	8(b) Implement new technology for recording emergency assistance payments	Integration	8.7 – 8.9
	8(c) LGV will coordinate emergency management officers across local councils	Integration	8.10 – 8.13
	8(d) Improve relief and recovery information available to CALD communities	Communication	8.17 – 8.20
	8(e) Review relief and recovery communications and community engagement initiatives	Communication	8.21 – 8.23
(9) Regulatory framework	9(a) Prepare Regional Growth Plans	Mitigation, Integration	9.33 – 9.35
	9(b) Implement a risk-based approach for work plans	Mitigation, Integration	9.36 – 9.38
	9(c) Implement the Victorian Critical Infrastructure Resilience Strategy	Mitigation, Integration	9.39 – 9.50
	9(d) Enhance emergency risk mitigation planning	Mitigation, Integration	9.51 – 9.56
	9(e) Review of the Latrobe City Municipal Emergency Management Plan	Mitigation, Integration	9.57 – 9.58
	9(f) Initiate a joint program for regulators, emergency service agencies and EMC to assess the prevention and preparedness controls on sites across Victoria	Mitigation, Integration	9.59

Implementation

- 2.14 Government intends to establish an appropriate mechanism to monitor implementation of the actions set out in this submission and the Government's response to the Board of Inquiry's recommendations.

3. Emergency management reform

Background

- 3.1 Victoria has suffered a number of natural disasters and emergencies over recent years, including the 2009 bushfires, the 2010-11 and 2012 floods. In response, the Victorian Government has commenced significant reform to emergency management.
- 3.2 The *Victorian Emergency Management Reform White Paper* (December 2012) outlines the Government's roadmap for emergency management reform. The White Paper notes that the last major reforms to Victoria's emergency management framework were in response to the 1983 Ash Wednesday fires. It states:
- 'Given the changes in the community since then, including demographics and technology, it is timely that we make changes to this [emergency management] framework in order to improve protections for Victorians.'³
- 3.3 The White Paper was prepared in light of the 2009 Victorian Bushfires Royal Commission and the Review of the 2010-11 Flood Warnings and Response. Despite the significant efforts of those involved in responding to these emergencies, the White Paper recognises that Victoria's emergency management framework no longer adequately provides for the needs of Victorians during major emergency events. This includes not only those emergencies that are more common, such as bushfires and floods, but also the less common emergencies such as the Hazelwood Coal Mine Fire where the 'all hazards, all agencies' approach is particularly important.
- 3.4 The White Paper outlines reforms to further improve Victoria's emergency management arrangements, including by:
- embedding an 'all hazards, all agencies' approach to managing emergencies
 - introducing streamlined arrangements for emergency management governance
 - encouraging shared responsibility, cooperation and clarity of roles and responsibilities with a stronger emphasis on emergency risk mitigation
 - recognising that improved planning processes are essential to minimising the likelihood and consequences from emergencies.
- 3.5 The White Paper outlines a broad roadmap for change over a 10 year period, including 25 specific actions for implementation. Some of the reforms require legislative amendment, while others can be implemented through changes to practice or procedure.
- 3.6 The Government has commenced the process of implementing the reforms. The EM Act 2013 is the first legislative reform and focuses on establishing appropriate governance arrangements for emergency management.
- 3.7 In addition to these legislative amendments, the Government also established the SCRC in 2013 (with its subsequent formal establishment by the commencement of the EM Act 2013 on 1 July 2014) and the Volunteer Consultative Forum in late 2013. The Government is also reviewing emergency management planning and emergency response control arrangements. It is likely that some of the outcomes of these reviews may require legislative amendments while others will be able to be implemented administratively.
- 3.8 The emergency management reforms being undertaken by the Government are a significant aspect of continuous improvement to the Government's preparation for, and response to,

³ *Victorian Emergency Management Reform White Paper* (December 2012), page 1.

future emergencies. This Chapter includes the following actions, all of which are underway or complete as part of the emergency management reforms:

Action	Theme	Ref.
3(a) Develop a Strategic Action Plan to improve and strengthen Victoria's emergency management capability	Mitigation, Integration, Communication	3.18 – 3.27
3(b) Establish EMV as the new overarching body for emergency management in Victoria	Mitigation, Integration, Communication	3.28 – 3.33
3(c) Establish EMC to ensure that control arrangements are in place, and coordinate the response roles of relevant agencies' resources	Mitigation, Integration, Communication	3.34 – 3.47
3(d) Establish IGEM as the assurance authority for Victoria's emergency management arrangements	Mitigation, Integration, Communication	3.48 – 3.49
3(e) Establish Volunteer Consultative Forum for the Government to consult with volunteers and ensure their views are heard	Integration	3.50 – 3.51
3(f) Implement actions set out in the White Paper to improve community awareness and education, and make information available during emergencies	Communication	3.52 – 3.54

EM Act 2013

3.9 The EM Act 2013 was enacted on 3 December 2013 and commences on 1 July 2014. The EM Act 2013 establishes a new governance framework for emergency management.

3.10 The new governance framework:

- establishes the SCRC as the Government's peak advisory body for emergency management (noting that SCRC was established administratively in early 2013)
- requires the SCRC to develop of a Strategic Action Plan (SAP) to improve the management of emergencies by Victoria's departments and agencies
- establishes EMV as the new overarching body for emergency management in Victoria. It will work closely with both emergency response agencies and government departments and will help facilitate the ability of agencies and departments to plan, work together and share resources
- creates the role of EMC. The EMC will oversee the State's response to major emergencies ensuring that effective control is established. The EMC will also oversee recovery arrangements and coordinate the management of the broader consequences of a major emergency. The EMC will subsume the current role of the FSC
- creates the role of an Inspector General of Emergency Management (IGEM) who will develop and maintain a monitoring and assurance framework and report on performance across the sector. This role subsumes the role of the current Emergency Services Commissioner.

3.11 Each of these is discussed further below.

State Crisis and Resilience Council

3.12 The SCRC was established administratively in April 2013, pending its establishment under the EM Act 2013 on 1 July 2014.

- 3.13 The SCRC is the peak crisis and emergency management advisory body in Victoria responsible for providing advice to the Minister, and the Security and Emergencies Committee of Cabinet, in relation to:
- WoVG policy and strategy for emergency management
 - the implementation of that policy and strategy.
- 3.14 The SCRC's Interim Terms of Reference state that the 'SCRC will focus on strategy and policy and will not be involved in operational or tactical control of the response to crises or major emergencies'. Its role in a complex or large-scale crisis or emergency is to ensure that the broad social, economic, built and natural environmental consequences are addressed at a whole-of-government level, including identifying the need for, and provide access to, government resources as required and oversee media strategies.
- 3.15 SCRC is comprised of all departmental secretaries together with the FSC (to be replaced with EMC on 1 July 2014), Acting Chief Executive of EMV (ongoing appointment to be made after 1 July 2014), Chief Commissioner of Police, CEO of the Municipal Association of Victoria and Emergency Services Commissioner as an observer (to be replaced with IGEM once appointed after 1 July 2014). The Secretary DPC chairs SCRC with the Secretary DOJ as deputy chair.
- 3.16 The Government's intention, in establishing the SCRC before the EM Act 2013 commences operation and puts the SCRC on a statutory footing, was to facilitate implementation of the White Paper reforms, while ensuring effective whole-of-government oversight and coordination for any major emergencies and their consequences. The SCRC convened routinely in 2013 and 2014 as well as during the Hazelwood Coal Mine Fire.

Ministerial Advisory Committee on Emergency Services

- 3.17 A Ministerial Advisory Committee on Emergency Services has also been established. The Committee is chaired by the Minister for Police and Emergency Services and comprises the Chairs of the Boards of CFA, MFB, SES, Life Saving Victoria and AV together with the Deputy Secretary, Land, Fire and Environment at DEPI. Its purpose is to:
- oversee and monitor the implementation of the relevant parts of the Strategic Action Plan by the emergency services agencies
 - inform the Minister for Police and Emergency Services in relation to implementation progress
 - support the Emergency Services Leadership Group in delivery of its functions
 - embed Strategic Action Plan outcomes within the emergency service agencies represented on the Committee.

Strategic Action Plan

- 3.18 Under the EM Act 2013, SCRC must develop a three year rolling Strategic Action Plan to be endorsed by Government and published on EMV's website.
- 3.19 The purpose of the Strategic Action Plan is to improve and strengthen Victoria's emergency management capability focusing on three key themes:
- Risk and Resilience
 - Response and Capability
 - Recovery and Relief.
- 3.20 The Strategic Action Plan will focus on reforming emergency management across the whole of Government, not only within the fire services. It broadens the focus of reform beyond

response and the traditional ‘first responder’ agencies. The Plan is intended to mitigate against the risk of agencies focusing exclusively or too narrowly on their own priorities and not giving sufficient priority to collaboration in forward planning.

- 3.21 All departments and agencies must implement relevant parts of the Strategic Action Plan. The Strategic Action Plan must also contain work programs for the Emergency Services Telecommunications Authority and the responder agencies: CFA, MFB, SES and DEPI. The EM Act 2013 provides that these agencies and department must implement their work programs.
- 3.22 The IGEM will be responsible for monitoring and reporting on the implementation of the Strategic Action Plan by these agencies and departments.
- 3.23 As part of the broader implementation of the Strategic Action Plan, the new sub-committees created to support SCRC will also take active roles in the strategic direction for these work plans.
- 3.24 In preparing the Strategic Action Plan, the SCRC may include any initiatives in the current Fire Services Reform Action Plan that SCRC considers are necessary or appropriate to be continued under the new emergency management governance arrangements. The Fire Services Reform Action Plan is currently prepared by the FSC under the *Fire Services Commissioner Act 2010*.
- 3.25 To assist in the transition between the conclusion of the Fire Services Reform Action Plan and the implementation of the three year Strategic Action Plan, SCRC is developing an Interim Strategic Action Plan for 2014-2015. This will assist in maintaining the momentum of the Fire Services Reform Action Plan and sustain the benefits of the work carried out under it so far.
- 3.26 The Interim Strategic Action Plan focuses on actions to be delivered in 2014-15. The three year Strategic Action Plan will have a longer-term focus, and will be developed over the coming year through consultation across departments and agencies. It will involve assessing planning, mitigation, preparedness, response and recovery arrangements for major hazards related risks to inform priority areas for action.
- 3.27 The Interim Strategic Action Plan sets out projects for 2014-15 with specific actions and success measures. These include:

Category	Project
Risk and Resilience	Common emergency management risk management policy and practice
	Community emergency management planning framework
	Business continuity planning
Response and Capability	State emergency services training framework
	Volunteer and employee workforce capacity and capability
	State capacity and capability
	Information management
	Operational communication
	Communications to the community
	Communications from the community
Relief and Recovery	Impact assessment
	Relief and recovery model (incorporating social, economic, built and natural environment and outreach model)
	Communicating with communities

Action 3(a)	Theme
3(a) Develop a Strategic Action Plan to improve and strengthen Victoria's emergency management capability	Mitigation, Integration, Communication

Emergency Management Victoria

- 3.28 EMV will be the new overarching body for emergency management in Victoria. It will work closely with both emergency response agencies and departments that have an emergency management role.
- 3.29 EMV will be a statutory entity consisting of the Chief Executive and the EMC and supported primarily by DOJ staff. However, there will be capacity for staff members from other departments and agencies to be seconded to EMV. EMV will also provide secretariat support to SCRC sub-committees.
- 3.30 The key statutory functions of EMV are to:
- act as the agency responsible for the coordination of the development of the whole of government policy for emergency management in Victoria
 - provide policy advice to the Minister for Police and Emergency Services in relation to emergency management
 - implement emergency management reform initiatives given to EMV by the Minister
 - liaise with the Commonwealth Government on emergency management
 - provide support to the EMC to enable the EMC to perform the EMC's statutory functions.
- 3.31 In performing its functions, EMV will be required to:
- have regard to decisions made by SCRC
 - collaborate and consult with the emergency management sector
 - have regard to the fundamental importance of the role that volunteers play in the performance of emergency management functions in Victoria.
- 3.32 The day to day operations of EMV will be managed by the Chief Executive, EMV. The chief executive position will be a statutory appointment with specific statutory functions reporting to the Secretary DOJ.
- 3.33 The Chief Executive of EMV is to take a lead role in coordinating investment planning and large-scale projects on behalf of the responder agencies. The Interim Strategic Action Plan 2014-15 includes a number of such sector projects to increase interoperability, such as the Regional Radio Mobile network. To inform future investment decision making and opportunities, a sector wide asset strategy is under development.

Action 3(b)	Theme
3(b) Establish EMV as the new overarching body for emergency management in Victoria	Mitigation, Integration, Communication

Emergency Management Commissioner

3.34 The EM Act 2013 establishes the role of the EMC, who will be appointed by the Governor in Council. On 1 May 2014, the Government announced the formal appointment of Mr Craig Lapsley, the current FSC, as the EMC. The EMC will begin his term as EMC on 1 July 2014.

Emergency response role

3.35 The role of the EMC will subsume the current role of the FSC. However, the EMC will take on a broader role in relation to all major emergencies. This is consistent with the 'all hazards, all agencies' approach to emergency management. Part of this role includes performing the existing functions of the State Emergency Response Coordinator, but that role itself will cease to exist. The Chief Commissioner of Police currently performs the role of the State Emergency Response Coordinator.

3.36 Broadly speaking, the EMC will be responsible for:

- ensuring that control arrangements are in place for Class 1 and Class 2 emergencies
- coordinating the response roles of relevant agencies resources in relation to Class 1 and Class 2 emergencies.

3.37 A Class 1 emergency is a major fire, or a major emergency for which the CFA, MFB and the SES are responsible (for example, major floods). Class 2 emergencies are all other major emergencies (for example, a flu pandemic) except acts of terrorism, a hi jack, siege and warlike acts or riot for which Victoria Police retains control.

3.38 The EMC's role in a Class 1 emergency will differ from the EMC's role in a Class 2 emergency. The EMC's role in a Class 1 emergency will be similar to the FSC's current role in a major fire but the EMC will play a higher-level/oversight role. The EMC will be required to appoint a State Response Controller for all Class 1 emergencies and be able to direct the State Response Controller to exercise specific response activities or override specified response activities.

3.39 For Class 2 emergencies, the responsibilities of relevant agencies will continue to be determined by the State Emergency Response Plan. In the event of any confusion as to responsibilities in an anticipated or actual Class 2 emergency, the EMC may request the relevant senior officers to determine the priority of responsibilities between their agencies or, if agreement cannot be reached, determine those priorities.

3.40 Although the EM Act 2013 provides that the EMC will perform the functions of the State Emergency Response Coordinator (currently performed by the Chief Commissioner of Police), the roles of the regional and municipal response coordinators will still be performed by Victoria Police members. To address any potential issues arising from Victoria Police's existing command and control structure, the Chief Commissioner of Police must appoint a member of the police force to be the Senior Police Liaison Officer. The Senior Police Liaison Officer's functions will be to provide advice to the EMC and facilitate requests to and from the regional and municipal coordinators in a major emergency.

3.41 It should also be noted that the EM Act 2013 changed the State's emergency response arrangements to the extent necessary to establish the EMC. The Government will carry out a broader review of emergency response arrangements to identify any further opportunities for improvements. The recommendations of the Board of Inquiry would inform this review and as such, the new arrangements established by the EM Act 2013 provide an important context when considering ways to enhance Victoria's response to emergencies in the future.

Consequence management

- 3.42 The EMC will also be responsible for coordinating consequence management for all major emergencies. Effective consequence management aims to minimise the adverse consequences for the community caused by the interruption of major services and infrastructure. This function does not remove the existing obligations of agencies and departments, at the state, regional and incident levels, to manage these services or infrastructure during an emergency. Rather, the EMC will seek to ensure that all relevant departments and agencies work together effectively. This function will be supported through the development of a risk and consequence framework. This framework is currently being developed by the FSC and will be continued by the EMC from 1 July 2014. The interaction between planning reforms and consequence management is also discussed further in Chapter 4.
- 3.43 The inclusion of this function in the EM Act 2013 is the first time that consequence management has been explicitly referred to in legislation. This responsibility seeks to ensure the less direct and immediate consequences of an emergency are given greater attention, noting that the more direct and immediate threats to life and property would be the responsibility of the State Response Controller for Class 1 emergencies or the relevant control agency for Class 2 emergencies. The State Emergency Management Team will be vital in supporting the EMC to discharge this responsibility effectively, with its members responsible for initiating the necessary actions within their own portfolios, organisations or spheres of influence.

Recovery role

- 3.44 Under the EM Act 1986, the Minister for Police and Emergency Services is responsible for arranging for the preparation and review of the State Emergency Recovery Plan. This responsibility continues to reside with the Minister under the EM Act 2013, and the Minister has delegated this function to the EMC effective 1 July 2014. The Minister, or the Minister's delegate, will have to consult with SCRC in the preparing this plan.
- 3.45 Under the EM Act 1986, the Minister has appointed DHS to be the coordinating agency for recovery. DHS then appointed the State Recovery Coordinator.
- 3.46 Under the EM Act 2013, the EMC will perform the current functions of the State Recovery Coordinator but the role of the State Recovery Coordinator will cease to exist. The EMC may delegate the EMC's recovery coordination. It is intended that the EMC will delegate these functions to the Secretary of DHS for the period from 1 July 2014 until 30 June 2015.
- 3.47 The appointment of regional recovery coordinators and the establishment of regional recovery committees will no longer be explicitly provided for in legislation. Instead, the State Emergency Recovery Plan will provide for this to allow greater flexibility. Current municipal relief and recovery arrangements will continue to apply. Current regional recovery arrangements will be maintained for next year through the intended delegation to the Secretary DHS. All these arrangements will be examined.

Action 3(c)	Theme
3(c) Establish EMC to ensure that control arrangements are in place, and coordinate the response roles of relevant agencies' resources	Mitigation, Integration, Communication

Inspector General of Emergency Management

- 3.48 A strong performance-monitoring and review body is essential for sector accountability. To achieve this, the EM Act 2013 establishes the IGEM as the assurance authority for Victoria's

emergency management arrangements. The IGEM will subsume the current role of the Emergency Services Commissioner. The IGEM will be a statutory appointment by the Secretary to DOJ under the *Public Administration Act 2004*. The IGEM's statutory functions will be to:

- develop and maintain a monitoring and assurance framework for emergency management, against which the capacity, capability and performance of the emergency management sector is to be assessed
- undertake system-wide reviews, including reviewing the emergency management functions of responder agencies and departments in relation to the monitoring and assurance framework
- at the request of the Minister, provide advice to, or prepare a report for, the Minister on any matter relating to the functions of the IGEM
- evaluate state-wide training and exercising arrangements to maintain and strengthen emergency management capability
- monitor and report to the Minister on the implementation of the Strategic Action Plan by:
 - responder agencies
 - departments
 - the Emergency Services Telecommunications Authority
 - EMV
- monitor and investigate the (non-financial) performance of the Emergency Services Telecommunications Authority
- make recommendations to the Minister about matters arising from any monitoring or investigation of the Emergency Services Telecommunications Authority.

3.49 The IGEM's initial focus will be on responder agencies, with the capacity to extend the scope to other organisations with emergency management responsibilities in the future.

Action 3(d)	Theme
3(d) Establish IGEM as the assurance authority for Victoria's emergency management arrangements	Mitigation, Integration, Communication

Volunteer Consultative Forum

3.50 In addition to the legislative amendments described, the Government has also established the Volunteer Consultative Forum as part of its implementation of the White Paper reforms. The Forum has been established in recognition of the fundamental importance that volunteers play in Victoria's emergency management arrangements. It provides a mechanism for the government to consult with volunteers and ensure their views are heard. The Forum held its first meeting on 18 November 2013, and has met regularly since then.

3.51 The Volunteer Consultative Forum consists of representatives from Ambulance Victoria, Australian Volunteer Coast Guard, Volunteer Fire Brigades Victoria (representing volunteers from CFA), Life Saving Victoria, Red Cross, Salvation Army, St John Ambulance, Victoria Emergency Service Association (representing volunteers from SES) and the Victorian Council of Churches. It is chaired by the FSC and a representative from the Office of the Minister for Police and Emergency Services also attends.

Action 3(e)	Theme
3(e) Establish Volunteer Consultative Forum for the Government to consult with volunteers and ensure their views are heard	Integration

Communications

3.52 The White Paper sets out a strategy for improving community awareness and education, and making information available during emergencies. To achieve this goal, the White Paper includes the following actions:

- a) 'Develop a single emergency management web portal to provide information and advice to help people prepare for, respond to, and recover from emergencies
- b) Continue to develop the current multi-agency, multi-hazards and multi-channel approach to providing community warnings and information, focusing more on understanding and responding to the various ways communities choose to access information
- c) Expand the reach of official emergency broadcasts to include more commercial television and culturally and linguistically diverse media in partnership with emergency broadcasters, and in line with the Floods Review recommendations
- d) Where possible, memoranda of understanding with broadcasters will include provision for broadcast of community meetings and dissemination of warnings across a range of communication channels (such as internet-based media), and
- e) Develop a single all-hazards telephone hotline for the community to access information during emergencies.⁴

3.53 Examples of the initiatives already commenced include the following:

- The VicEmergency website went live in December 2013 as the first step towards a central portal of web-based emergency information for the Victorian community. It includes information from the three fire agencies, SES, the Bureau of Meteorology, VicRoads and others, and links to the DH/DHS Relief and Recovery webpage. Further work is planned to improve the site's accessibility, usability and functionality
- The FireReady App was rebuilt in 2013 to provide a reliable source of warnings and incident information via mobile devices from Victoria's three fire agencies. Small scale updates are still planned to maintain the App's functionality. The longer-term goal is to transition towards a VicEmergency App
- As part of the Victorian Bushfires Information Line Project, an initiative introduced in response to the recommendations of the Victorian Bushfires Royal Commission, CFA scoped the requirements of a Victorian Emergency Information Line in 2013. This included requirements and discussions with the three fire agencies, SES, Victoria Police and DH/DHS emergency management. The project is still in development, with a focus on agency requirements and funding
- DHS, OMAC and the State Library Victoria are undertaking a project to improve accessibility for vision impaired CALD community members seeking relief and recovery information. More information on this and other DHS projects can be found in Chapter 7.

3.54 Detail on continuous improvements to Government communications is provided in Chapter 4 below.

⁴ *Victorian Emergency Management Reform White Paper* (December 2012), page 8.

Action 3(f)	Theme
3(f) Implement actions set out in the White Paper to improve community awareness and education, and make information available during emergencies	Integration

4. Emergency mitigation planning and response

Introduction

- 4.1 The emergency response to the Hazelwood Coal Mine Fire was conducted under difficult circumstances. The weather conditions were hot, dry and windy, and have been described as the worst since Black Saturday in 2009. During 9 February 2014, there were approximately 950 fires across Victoria. The Hernes Oak fire escaped its containment lines and moved quickly towards Morwell, threatening lives and property. Fires also threatened the Yallourn Open Cut Mine, significant tree plantations and the Australian Paper Mill, which is major hazard facility. The Driffield fire ignited and moved quickly towards the working parts of the Hazelwood Coal Mine, threatening critical infrastructure. The Jack River fire destroyed property and threatened the town of Yarram. Spot fires ignited within the mine. Some of these fires are under investigation by Victoria Police. The confluence of these fires caused smoky conditions and poor visibility.
- 4.2 The emergency response to the Hazelwood Coal Mine Fire and the other fires around Morwell must be considered in this context. No lives were lost. Volunteer and career fire fighters successfully suppressed the Hernes Oak fire prior to it reaching Morwell. Volunteer, career and mine fire fighters suppressed the Driffield fire prior to it reaching the Hazelwood Coal Mine.
- 4.3 Accordingly, aspects of the emergency response to the Hazelwood Coal Mine Fire worked well. Significantly, the Hazelwood Coal Mine Fire represented one of the first substantial trials of some of the State's new emergency management arrangements, discussed in the Government's first submission. Other aspects of the emergency response that worked well are discussed in witness statements prepared by officers of the State for the Board of Inquiry, including the FSC, and will not be repeated in this submission.
- 4.4 Despite these successes, the Hazelwood Coal Mine Fire ignited and burned for over a month. The fire required significant resources to control and it impacted significantly on the town of Morwell and other communities.
- 4.5 Continuing improvements that could be made to emergency preparation and response in general, and in the context of open cut coal mines are outlined below.
- 4.6 This Chapter includes the following actions:

Action	Theme	Ref.
4(a) Strengthen industry engagement with the community	Communication	4.7
4(b) Improve State planning framework for emergencies ⁵	Integration	4.8 – 4.11
4(c) Improve Government engagement with the coal mine sector regarding emergency management plans	Integration	4.12 – 4.16
4(d) Improve integration of industry in the response to an emergency	Integration	4.17 – 4.20
4(e) Improve training for career and volunteer firefighters to include lessons highlighted by the Hazelwood Coal Mine Fire	Integration	4.21
4(f) Improve OHS in emergency response to include lessons highlighted by the Hazelwood Coal Mine Fire	Integration	4.22 – 4.24
4(g) Develop an integrated emergency resource planning framework for the Latrobe Valley	Integration	4.25 – 4.26

⁵ See also related action 9(d).

Preparing for fire and other emergencies

Industry engagement with the community

- 4.7 It is recommended that the operators of critical infrastructure and major hazard facilities such as coal mines, working in conjunction with other emergency management stakeholders and local government, be responsible for engaging surrounding communities about the inherent risks of their facility and the likely consequences of related emergencies. The engagement should reinforce that both the industry and all sectors of the surrounding community share the responsibility to plan, prepare and to take action to minimise the impact of potential emergencies.

Action 4(a)	Theme
4(a) Strengthen industry engagement with the community	Communication

State planning framework

Current practice

- 4.8 Fire management planning in Victoria has evolved over recent years so that the plans of all agencies now integrate into a single fire management plan for each municipality and region, and an overall plan for the State. However, major facilities and major hazards have not always been included in these plans, and they do not include consequence management. The State's previous submission described the Gippsland Regional Strategic Fire Management Strategy and the municipal fire management plan prepared by the Latrobe City Fire Management Planning Committee and their references to coal mine emergency plans as existing controls. These plans will need updating to incorporate new information resulting from the Hazelwood Coal Mine Fire and the findings of the Board of Inquiry.
- 4.9 The State Fire Management Planning Committee, chaired by the FSC, has established an overarching Monitoring, Evaluation, Reporting and Improvement Framework that will guide the performance tracking of municipal, regional and state fire management plans. The Framework will assist the State to ensure the plans are developed using established processes and include all relevant information.

Future initiatives

- 4.10 As described in Chapter 3, the Victorian Government is currently reforming Victoria's emergency management arrangements, including reforming the arrangements for emergency management planning. The State intends to take the opportunity to achieve an approach to emergency management planning that is consistent across both public and privately owned land. This approach would address a broad range of risks and hazards across a particular landscape and extend to include strategies for managing the consequences of emergencies. Such an approach would better cater for complex land use and take account of the diverse hazards of specific industries and facilities such as the Hazelwood mine, ensuring the risks both within a hazardous site and across the adjoining landscape are mitigated in a coordinated way. All stakeholders including industry and the community should be partners in this integrated and collaborative landscape approach to planning.
- 4.11 The Government uses risk modelling to identify vulnerabilities and development mitigation strategies for emergencies. In particular, DEPI has developed sophisticated capability for modelling bushfire risk in the landscape using the 'Phoenix Rapidfire' software, which identifies likely ignition points, spread paths and impact zones. Through such risk modelling, various bushfire scenarios and their consequences can be assessed as a basis for more effective emergency mitigation planning. However, the use of Phoenix Rapidfire for mitigation planning is currently restricted to public land and not privately held land or assets

(although the latter is considered in mitigation planning for fires on public land). Improving the State planning framework for emergencies presents an opportunity to assess the scope of Phoenix modelling.

Action 4(b)	Theme
4(b) Improve State planning framework for emergencies ⁶	Integration

Emergency management plans of mine operators

4.12 All owners and operators of critical infrastructure and major hazard facilities should plan for emergency events. Chapter 9 of this submission outlines the Government’s proposed approach to implementing emergency risk mitigation planning.

4.13 In the Government letter to the Board of Inquiry dated 22 April 2014, the Government described the current FSC initiative to improve and standardise the suite of emergency management plans of the coal mine operators, as follows:

7.8 The Fire Services Commissioner has initiated a working group with representatives of all of the Latrobe Valley coal mines in order to better understand the future requirements for open cut coal mine fire management; determine the extent and efficacy of existing planning documents by considering regulations, practice and guides currently used by the industry and emergency services for preventing fires responding to fires and protection of assets, infrastructure and people; the relevant factors that support or limit fire management; and an appropriate framework for fire management for open cut coal mines.

7.9 This working group has taken a collaborative approach to reviewing current mitigation planning and identifying areas of improvement including the need to develop a good practice guideline for coal fire management that builds on previous practice to incorporate areas of improvement for both internal and external consequence management.

7.10 Increased engagement by the coal mining industry with other key stakeholders including the community, in clarifying roles and responsibilities for activities before, during and after fire events including secondary impacts such as smoke emissions is a critical path forward to improving outcomes for all involved. This approach needs to be transparent and provide a landscape perspective for all stakeholders to understand risks and mitigate impacts from environments both internal and external to the mine incorporating an all hazard approach. Training, induction training and exercising realistic scenarios provide the opportunity to test and refine mitigation, response and recovery activities and improve preparedness for actual events.⁷

4.14 Following the establishment of EMV on 1 July 2014, the EMC will work with the Hazelwood Coal Mine operator, the coal mine sector and the mine regulator to develop of best practice guidelines for mitigating the risk of fire and other hazards in coal mines. The guidelines will include arrangements for managing the community consequences of coal mine fires and to ensure coal mine operators have sufficient resources ready to manage the risk of emergencies. The guidelines will be informed by the findings of the Board of Inquiry and the learning gained from the recent fires. They will recognise the diversity of mine sites and acknowledge that operators may need to vary the guidelines to suit specific site requirements. It is expected that each coal mine operator will subsequently review their fire and emergency management plans in line with the best practice guidelines.

4.15 There are some subject areas where further work is required prior to best practice guidelines being developed. These include a detailed investigation of smoke, its toxicity,

⁶ See also related action 9(d).

⁷ See paragraphs 7.8 – 7.10.

airborne particulates and the impact of these on life and the environment. See discussion in Chapters 6 (Environment) and Chapter 7 (Health) below.

- 4.16 The EMC intends to support the mine regulator in facilitating forums where the emergency services can engage with the coalmine operators regarding the effectiveness of their emergency management plans. These forums may be used to test the operator’s plans against a range of potential scenarios, including scenarios where an external hazard impacts a mine and conversely, where an internal mine hazard impacts the adjacent area. These forums may include joint training and exercises in order for the mine operators, agencies and key stakeholders to test and refine the plans, and improve preparedness for actual events. Practical benefits will include ensuring fire fighting equipment held by coal mines is compatible with that of the fire services.

Action 4(c)	Theme
4(c) Improve Government engagement with the coal mine sector regarding emergency management plans	Integration

Response

Integration of industry in the response to an emergency

- 4.17 As part of the emergency management reforms,⁸ the operational protocols of both the control and support agencies have been integrated within a unified incident management system.
- 4.18 During the Hazelwood Coal Mine Fire, better communication between the emergency services and the mine operator may have improved the coordination of their activities and ensured the knowledge and expertise of the mine operator contributed to the overall development of the incident strategy.
- 4.19 There is now an opportunity to change incident management systems so that relevant industry bodies, such as mine operators, are formally included in the incident management teams operating under the AIIMS incident management structure. This will be particularly beneficial where the incident site is large and complex. Inclusion of industry within an incident management team would assist the emergency services to directly source industry’s technical information, resources and operational knowledge of the site or hazard, which would likely lead to more effective incident management.
- 4.20 The Critical Infrastructure reforms discussed in Chapter 9 are intended to improve communication between the Government and the owners and operators of critical infrastructure, including major hazard facilities. For example, under the reforms, Sector Resilience Networks and Sector Resilience Plans are intended to be established for owners/operators of critical infrastructure. The purpose of each is as follows:
- Sector Resilience Networks to improve the resilience of critical infrastructure assets and operations through joint planning, information sharing and reporting to government
 - Sector Resilience Plans to provide the Victorian Government with the status of, and continuous improvement arrangements for, each critical infrastructure sector’s overall resilience. In doing so, these plans will fulfil engagement, planning, monitoring and assurance functions.

Action 4(d)	Theme
4(d) Improve integration of industry in the response to an emergency	Integration

⁸ Discussed in Chapter 3 of this submission.

Training

- 4.21 Fire agencies focus their training on the type of risk relevant within a particular location. Lessons highlighted by the experience of the Hazelwood Coal Mine Fire, and resulting from the findings of the Board of Inquiry, will be taken into consideration in future training and preparedness of the fire services.

Action 4(e)	Theme
4(e) Improve training for career and volunteer firefighters to include lessons highlighted by the Hazelwood Coal Mine Fire	Integration

Occupational Health and Safety

- 4.22 OHS remains a key consideration of all emergency planning and response arrangements. It is important that all health and safety matters are reported in a consistent way in accordance with incident safety systems so they can be logged and acted on quickly, with reporting up the chain of command where appropriate.
- 4.23 Lessons from the Hazelwood Coal Mine Fire provide opportunities for the emergency response agencies to further enhance their OHS procedures, including integrating the *Health Management and Decontamination Plan* into fire services operating procedures.
- 4.24 CFA's draft *Regional Operating Procedure for Latrobe Valley Open Cut Coal Mines* is also currently going through the approval process.

Action 4(f)	Theme
4(f) Improve OHS in emergency response to include lessons highlighted by the Hazelwood Coal Mine Fire	Integration

Resource planning framework

- 4.25 The EMC intends to lead the development of an integrated emergency resource planning framework, with the support of relevant agencies, to plan for likely emergencies across the State. The framework will align the hazards and likely emergencies within an area, including the hazards presented by critical infrastructure and major facilities, with the resources capability and capacity required to manage these emergencies.
- 4.26 An integrated emergency resource planning framework will be developed initially for the Latrobe Valley and will include the input of the Gippsland Regional Management Forum and Central Gippsland Essential Industries Group to secure municipal involvement. In time, the framework may be applied to other areas across the State.

Action 4(g)	Theme
4(g) Develop an integrated emergency resource planning framework for the Latrobe Valley	Integration

5. Communications

- 5.1 The Government’s communications response to the Hazelwood Coal Mine Fire was conducted during a dynamic event, and in the face of significant community anxiety. This is discussed further in the Government’s first submission.⁹
- 5.2 This Chapter sets out actions to continuously improve emergency management communications.
- 5.3 It is noted that some departments and agencies, such as DHS, have already undertaken actions in relation to communications and community engagement to identify opportunities for improvement. Activities are already underway to implement improvement projects in relation to emergency management reform, environment, health and relief and recovery, which are discussed in Chapters 3, 6, and 7 and 8 respectively.
- 5.4 This Chapter includes the following actions:

Action	Theme	Ref.
5(a) Review of emergency management communications arrangements across government commissioned by SCRC, including consideration of: <ul style="list-style-type: none"> (i) the roles and functions of emergency communications committees (ii) enhancing specialist crisis communications capability within Government (iii) the use of established local networks as a way to communicate during emergencies (iv) additional emergency communications training for Government employees (v) developing a coordinated approach to the use of social media by Government during emergencies 	Communication	5.5 – 5.16
5(b) Conduct National Review of Warnings and Information	Communication	5.17 – 5.20

SCRC review of communications

- 5.5 The SCRC has commissioned a review of emergency management communications arrangements across government. The review will include examination of governance and coordination across agencies and between the state, regional and local tiers of activity. The effectiveness of communications, including inclusiveness, accessibility and use of various channels, will also be reviewed.
- 5.6 In particular, the SCRC review may consider:
- the roles and functions of emergency communications committees
 - enhancing specialist crisis communications capability within Government
 - developing a model that uses established local networks as a medium for communicating during emergencies
 - additional emergency communications training for Government employees
 - developing a coordinated approach to the use of social media by Government during emergencies.
- 5.7 Each of these is discussed further below.

⁹ See the Government’s first submission, paragraphs 8.124 to 8.163.

Roles and functions of emergency communications committees

- 5.8 As part of the SCRC review of emergency management communications arrangements, the roles and functions of emergency communications committees within Government could be reviewed.
- 5.9 This would include the emergency communications committee, EMJPIC, and the work being conducted by EMJPIC as a result of the Hazelwood Coal Mine Fire. In the weeks following the Hazelwood Coal Mine Fire, EMJPIC conducted a review to identify opportunities for improvement in communications. In that review, EMJPIC developed an action plan that includes the following:
- the establishment of a risk and consequence analysis and monitoring function within EMJPIC that would be activated for all major events
 - the development of a framework for a WoVG communications strategy for major events to guide control and support agencies in strategy development
 - clarifying responsibilities for the coordination of community engagement, including EMJPIC's role in supporting and linking in to these activities
 - EMJPIC members review their own agencies' communications across all platforms to provide greater clarity of messaging, including by:
 - placing greater emphasis on the use of plain English
 - improving accessibility
 - enhancement of social media capabilities during an emergency through greater cross-agency collaboration
 - further refinement of EMJPIC's collaboration tools
 - identifying opportunities for better meeting the needs of diverse communities, for example, EMJPIC's ongoing work with OMAC to meet the needs of CALD communities.
- 5.10 EMJPIC is also currently reviewing its terms of reference to ensure that they reflect the emergency management reform process. This process will clarify EMJPIC's role, responsibilities and accountabilities under the new emergency management arrangements.

Enhancing specialist crisis communications capability within Government

- 5.11 The Hazelwood Coal Mine Fire demonstrated an opportunity to enhance Government's specialist crisis communications capability, particularly in the context of a sustained, large scale event with significant community consequences. A relevant issue is the capacity and willingness to effectively engage in collaborative efforts, at each tier, to support and assist the community.
- 5.12 The SCRC review of emergency management communications arrangements could consider the establishment of a specialist crisis communications capability within Government that would provide leadership across the sector in emergency communications preparedness, response and recovery.

Use of established community networks

- 5.13 The Hazelwood Coal Mine Fire highlighted the value of using well-established trusted local networks as a medium for informing and engaging the community. Trusted local networks include business, schools and recreation based organisations that generally have strong, active local leaders who can assist their community to understand Government communications and messaging, and provide feedback to emergency managers.

- 5.14 There is an opportunity to use established local networks as an additional way to communicate with affected communities during emergencies. This requires work to be undertaken before an emergency to identify networks with the right mix of reach and trust, that are managed by people capable of playing a leadership role during times of emergency, and build relationships between those networks and emergency management agencies. While work can be undertaken at the State level to map a community's profile using demographic and geographic information and government data, effective and trusted networks can only be identified locally, as every community is different. This work would require effective partnerships between State and local government and non-government organisations and should, ideally, be owned and driven by the community.

Emergency communications training

- 5.15 The SCRC review of emergency management communications arrangements could consider the need for additional emergency communications training within Government. While communications officers within Government receive training on communications in emergencies, the Hazelwood Coal Mine Fire demonstrated that it may be beneficial to:
- ensure there are adequate numbers of trained and skilled spokespeople
 - ensure that communications personnel have undertaken appropriate emergency management training, such as the Media Liaison Officer training provided by the SCC
 - broaden and improve training to draw from lessons learned during the event
 - provide training more regularly to a broader audience of Government employees, and not just communications officers.

Social media

- 5.16 Government agencies increasingly use social media as a communications medium during emergencies. The Hazelwood Coal Mine Fire demonstrated that the use of social media could be better coordinated. The SCRC review of emergency management communications arrangements presents an opportunity to develop a coordinated approach to the use of social media by Government during emergencies.

Action 5(a)	Theme
5(a) Review of emergency management communications arrangements across government commissioned by SCRC, including consideration of: <ul style="list-style-type: none"> (i) the roles and functions of emergency communications committees (ii) enhancing specialist crisis communications capability within Government (iii) the use of established local networks as a way to communicate during emergencies (iv) additional emergency communications training for Government employees (v) developing a coordinated approach to the use of social media by Government during emergencies 	Communication

Review of emergency warnings

- 5.17 The Hazelwood Coal Mine Fire demonstrated a potential need to revise terminology to allow for simplification of information and community education as part of preparedness for emergencies.
- 5.18 The FSC/EMC is currently leading a National Review of Warnings and Information. The review is benchmarking what is considered best practice by identifying common challenges, emerging trends, innovation and gaps in how the Government provides information to

communities during emergencies. It is working across a multi-hazard environment and looking at emergencies such as bushfire, flood, storm, cyclone and other hazards.

5.19 Informed by a review of international literature and reports written since 2008, and interviews with subject matter experts spanning all jurisdictions, the review will also include research into the use of Emergency Alert, the telephony based warning system.

5.20 The final report of the review will be presented to the Australia New Zealand Emergency Management Committee in November 2014.

Action 5(b)	Theme
5(b) Conduct National Review of Warnings and Information	Communication

6. Environment

6.1 This chapter details actions with respect to environmental issues, as follows:

Action	Theme	Ref.
6(a) Review EPA emergency protocols, incorporating lessons from the Hazelwood Coal Mine Fire	Mitigation, Integration, Communication	6.2 – 6.3
6(b) Clarify future expectations of incident air monitoring and scenarios, and determine the appropriate inventory of equipment	Integration	6.4 – 6.12
6(c) EPA to coordinate a meta-analysis, including smoke plume modelling, of air monitoring data and other relevant information collected during the Hazelwood Coal Mine Fire to create a body of knowledge of the impacts of extended brown coal fire events	Integration	6.13 – 6.15
6(d) DH and EPA to undertake further development on the CO and PM2.5 protocols and an engagement and education program around environmental and health standards	Integration	6.16 – 6.19
6(e) EPA to review its communications response and implement a structured community engagement process with the Morwell and surrounding communities	Communication	6.20 – 6.21
6(f) Review the State Environment Protection Policy for Ambient Air Quality	Integration	6.22 – 6.25

Emergency Management and Crisis Management plans

6.2 EPA emergency protocols are outlined in its Emergency Management and Crisis Management plans. These plans set out the procedures for responding to a range of pollution and emergency situations as both a control and support agency, as well as business continuity for larger-scale incidents with significant resource implications. Both plans, and the supporting training and capability, were under review at the time of the incident.

6.3 With the assistance and input of relevant agencies to ensure integration that supports an all agencies approach, EPA will continue with this review and transformation to an expedited timeline, and incorporate lessons from the Hazelwood Mine Fire response including:

- development of a single scalable model from minor pollution response through to supporting major and long duration emergency response operations
- clarification and articulation of the roles of environmental monitoring and analysis, and communications and engagement activities as support functions during emergency response
- further refinement of business continuity and fatigue management practices when supporting major and long duration emergency response operations.

Action 6(a)	Theme
6(a) Review EPA emergency protocols, incorporating lessons from the Hazelwood Coal Mine Fire	Mitigation, Integration, Communication

Air monitoring in emergencies

6.4 In accordance with its statutory role, EPA maintains an extensive ambient air monitoring network throughout Victoria, and an inventory of relevant equipment to facilitate this. The

EPA air monitoring program is not designed for rapid response air monitoring. In not having this capability, the EPA does not have access to in-house, purpose specific portable instrumentation to enact rapid deployment to measure the ambient air quality. In the Hazelwood Mine Fire incident EPA adapted its capability to respond to this need.

- 6.5 The portable Morwell South air monitoring station was placed in the optimum position to allow determination of the worst-case community exposure.
- 6.6 It was important to have the Morwell South data supplemented by other data to obtain an understanding of the impacts across the community. This was appropriately achieved by deploying a network of portable AreaRAE monitors, hand-held portable monitoring equipment and the Travel Blanket system. The latter was valuable to provide advice to response agencies and the community about spatial variation in exposure to pollutants.
- 6.7 The timing of implementation of the monitoring approaches was reliant on availability of appropriate equipment and personnel to adapt and operate the instruments.
- 6.8 The Morwell East site was generally representative of the pollution levels in main residential areas of Morwell and overall impacts in the local area. This complemented the high impact area monitoring undertaken at Morwell South.
- 6.9 The installation of a 'reference' monitoring station of the quality installed at Morwell East was not necessary to inform the emergency response.¹⁰ However, it was fortunate that the station could be re-commissioned quickly, and the monitoring provided useful additional measurements to assist with the overall community monitoring.
- 6.10 The re-commissioning of Morwell East did not take precedence over implementing the monitoring station at Morwell South and the broader monitoring using AreaRAEs, Travel Blanket and hand-held instruments. The implementation of Morwell South and the portable monitoring efforts were completed in parallel with the re-commissioning of Morwell East.
- 6.11 Furthermore, there appears to be limited instrumentation for portable monitoring of CO that has the capacity for remote downloading via a modem to allow rapid access to the data. Having these systems available during the Hazelwood Coal Mine Fire could have provided the CO data in the required format earlier, assuming that the protocols specifying the data requirements were in place. EPA's experience in working through this incident has provided an opportunity to consider what the future expectations of EPA as a support agency may be, and what the optimum set of equipment may be.
- 6.12 EPA intends to engage with other emergency response and support agencies to clarify future expectations of incident air monitoring and scenarios and to determine, based on the nature and frequency of such requirements, the appropriate inventory of equipment and which agencies are best placed to maintain and control that equipment. This would be formalised through a multi-agency agreement.

Action 6(b)	Theme
6(b) Clarify future expectations of incident air monitoring and scenarios, and determine the appropriate inventory of equipment	Integration

Data and information

- 6.13 During the Hazelwood Coal Mine Fire, a number of agencies collected significant amounts of data and information. Given the lack of experience and knowledge in such scenarios world-wide, a number of agencies explored new ground in the development of methods, standards and protocols. While often collected in isolation, this body of knowledge creates an

¹⁰ Independent advice provided by Claire Richardson in her joint submission with Dr Paul Torre to Board of Inquiry dated 2 June 2014.

unprecedented opportunity to further the understanding of incidents such as the Hazelwood Coal Mine Fire.

- 6.14 In addition to extensive air quality information, a variety of potentially overlapping data such as details of fire fighting methods, meteorological data, and sampling results, all provide potential overlays to create an extensive reconstruction of the event.
- 6.15 A meta-analysis of data and information from all agencies is intended to be undertaken, including collaboration with relevant academic institutions to produce a study of, and draw conclusions from this experience, to further the global body of knowledge on long duration smoke events. This would include smoke plume modelling and analysis of the potential influence of weather patterns and firefighting techniques.

Action 6(c)	Theme
6(c) EPA to coordinate a meta-analysis, including smoke plume modelling, of air monitoring data and other relevant information collected during the Hazelwood Coal Mine Fire to create a body of knowledge of the impacts of extended brown coal fire events	Integration

Bushfire Smoke, Carbon Monoxide and PM2.5 protocols

- 6.16 During the Hazelwood Coal Mine Fire, EPA and DH relied on the existing Bushfire Smoke Protocol to guide messaging. A significant collaboration between EPA, DH and CFA was undertaken to develop specific operational protocols in relation to CO and PM2.5 during the incident. An important opportunity exists to incorporate all three protocols – Bushfire Smoke, Carbon Monoxide and PM2.5 - into a single operational document that can be implemented and improved into the future.
- 6.17 DH and EPA intend to undertake further development on the incorporation of the CO and PM2.5 protocol documents into a single operational document. This should be the subject of extensive community education and engagement to assist in the clarification of respective roles, and a deeper understanding of the health messaging in relation to air quality. DH and EPA also intend to consider a range of other air quality scenarios that may arise, for additional development and incorporation into the document.
- 6.18 The response protocols overall should be reviewed with a focus on both the adopted thresholds, as well as the appropriate operational responses that are triggered as each threshold is exceeded. Upon completion of the reviews, the protocols should be finalised and adopted for future events.
- 6.19 In addition, given the evident misunderstanding of the purpose of the NEPM environmental air quality reporting limits, and their misinterpretation as health standards, EPA and DH should undertake engagement and education with other agencies and the community to increase knowledge and awareness.

Action 6(d)	Theme
6(d) DH and EPA to undertake further development on the CO and PM2.5 protocols and an engagement and education program around environmental and health standards	Integration

Communications

- 6.20 As a support agency, EPA is committed to ensuring its data is fit for purpose, including that is provided in a timely way and in an appropriate form for use by those with responsibility for providing warnings and advice to the community during emergencies. EPA is also committed to transparent reporting of its data and information more broadly, and communicating complex scientific information to a broad based community audience is a challenge that is both recognised and is continuously being improved upon.

- 6.21 EPA will review its communications response to the Hazelwood Coal Mine Fire. As part of this review, EPA intends to implement a structured community engagement with the Morwell and surrounding communities, to assist in improving the baseline of knowledge and understanding of its information and to build a deeper understanding of the communication needs of the audience.

Action 6(e)	Theme
6(e) EPA to review its communications response and implement a structured community engagement process with the Morwell and surrounding communities	Communication

Ambient air quality standards

- 6.22 Ambient air quality standards are set nationally under the NEPM AAQ. The NEPM AAQ establishes population-wide air quality standards for six common pollutants to which most Australians are exposed: CO, ozone, sulfur dioxide, nitrogen dioxide, lead and particles. A review of the NEPM AAQ commenced in 2005 by the former Standing Council on Environment and Water.¹¹
- 6.23 The SEPP AAQ sets air quality objectives and goals for the whole State of Victoria. The SEPP adopts the requirements of the NEPM AAQ and also includes a separate objective for visibility reducing particles.
- 6.24 Neither AAQ NEPM or SEPP AAQ exist to provide a health exposure standards. They are objective base standards that reflect Australia’s and Victoria’s desired air quality to support a prosperous economy and healthy society. It is misunderstanding the intent of these standards to translate them directly into an exposure standard or protocol.
- 6.25 EPA Victoria supports the work occurring at the national level to deliver revised national ambient air quality standards, given the emergence of recent health evidence. EPA will also support the intention in *A National Clean Air Agreement* to vary the NEPM AAQ for particles to establish more stringent reporting standards for particle pollution (PM2.5 and PM10). EPA Victoria will also support regulatory and non-regulatory proposals, backed up by cost-benefit analysis, to reduce emissions. Delivery of revised standards is a key component of the review of Victoria’s air quality standards and the accompanying regulatory impact statement will provide an economic analysis of relevant interventions and a methodology for continuous improvement. EPA will review of SEPP AAQ.

Action 6(f)	Theme
6(f) Review the State Environment Protection Policy for Ambient Air Quality	Integration

¹¹ Federal, state and territory environment ministers announced *A National Clean Air Agreement* on 29 April 2014.

7. Health

7.1 This Chapter details actions with respect to health issues, as follows:

Action	Theme	Ref.
7(a) Develop a State Smoke Plan covering the management of potential public health impacts from large scale, extended smoke events	Mitigation, Integration	7.4 – 7.6
7(b) Undertake projects to understand health impacts and predict the movement of smoke from planned burning and bushfires	Integration	7.7 – 7.10
7(c) Improve local engagement on health issues	Communication	7.11 – 7.15
7(d) Improve communication around psycho-social support to communities affected by emergencies	Mitigation, Communication	7.16 – 7.20
7(e) Commission a long-term study into the long-term health effects of the smoke from the Hazelwood Coal Mine Fire	Mitigation, Integration, Communication	7.21 – 7.28

Air quality assessments and public health risk

7.2 The Hazelwood Coal Mine Fire demonstrated that where a potential public health risk arises from exposure to smoke or other air emissions, validated air monitoring information is required in a timely manner to enable the assessment of health risks.

7.3 Agencies that are involved in air monitoring include EPA, DEPI, MFB and CFA.

State Smoke Plan

7.4 The Government intends to develop a State Smoke Plan covering the management of potential public health impacts from large scale, extended smoke events such as bushfires, planned burns, brown coal mine fires or industrial (such as hazardous material) fires. The preparation of the State Smoke Plan would require integrated multi-agency engagement and collaboration across environment protection, fire management and emergency services portfolios. The development could be led by EMV.

7.5 The purpose of the State Smoke Plan should be to provide a framework for ensuring that the most accurate and relevant information available about air quality assessments and forecasts is provided to DH in the most efficient manner, to allow for DH to undertake proactive and comprehensive assessments of potential public health risks associated with events in or near communities. The development of the Plan should include consideration of issues relating to the capacity (equipment) and the capability (technical expertise) of the agencies and personnel involved in an incident response.

7.6 The development of the Plan should focus initially on large scale, novel or complex events that produce smoke and then consider the following issues:

Source of smoke	Description / example	Action
Smoke from bushfires	For example, the Black Saturday bushfires.	DH and EPA intend to review the existing Bushfire Smoke Protocol by the end of September 2014, in preparation for the 2014-15 summer fire season. This will include: integration of PM2.5 equivalent values into the PM10 approach and recognition of the additional air quality monitoring capacity for Latrobe Valley for this

		summer period.
Smoke from planned burns	These events give rise to smoke and air quality issues, distinct from those arising from bushfires.	DH would participate in reviews and planning with DEPI and EPA, which could build on the ongoing work being undertaken by DEPI in relation to management of these events.
Smoke from fires in brown coal open cut mines	A key example is the open cut coal mine and power station in Anglesea. This brown coal contains a much higher percentage of sulphur as compared to the brown coals found in the Latrobe Valley. Therefore, SO ₂ and other sulphur-containing combustion products need to be planned for in the event of a fire in that coal source.	Government may consolidate its learnings about brown coal fires in Victoria and air monitoring. This planning needs to include all sources of brown coal in Victoria that potentially have a different composition to the Morwell brown coals.
Smoke from outdoor hazardous atmospheres – short term exposure	For example, industrial fires, spills or accidental releases. In these incidents, the community’s exposure to hazardous substances in the air is usually of short-term duration (i.e. smoke emissions are controlled in less than 8 hours).	Protocols and Guidelines exist in relation to incidents of this kind – namely the Protective Action Decision Guide for Emergency Services during outdoor hazardous atmospheres and its related documents (otherwise known as the ‘shelter in place’ policy) – which were the subject of consultation and sign-off by fire services agencies, AV and DH. These documents should be reviewed.
Smoke from outdoor hazardous atmospheres – longer term exposure	For example, industrial fires, spills or accidental releases. In these incidents, the community’s exposure to hazardous substances in the air can be of longer duration. This duration can be longer than what is accounted for in the ‘shelter in place’ policy. After a certain period of time, the concentration of pollutants in outdoor air starts to equilibrate to a similar level in the indoor air environment.	Consideration should be given to whether different guidelines and procedures to those set out above are appropriate in these instances.

Action 7(a)	Theme
7(a) Develop a State Smoke Plan covering the management of potential public health impacts from large scale, extended smoke events	Mitigation, Integration

Modelling and health impacts of smoke

- 7.7 DEPI is working with EPA and DH and other partners to improve its ability to understand and predict the movement and impacts of smoke from planned burning and bushfires through two projects:
- Smoke – Impacts on Community Health & Social Perceptions
 - Smoke emissions and transportation modelling.
- 7.8 The first project involves a consortium of scientists from University of Tasmania, Commonwealth Scientific and Industrial Research Organisation and Monash University. It aims to improve the Government's understanding of the health impacts on communities of smoke from bushfires and planned fire. By better understanding the health impacts of vulnerable communities, and the likely levels of smoke these groups may encounter, the

Government aims to improve its means of providing communities and health responders with appropriate advice, and to improve the management of its planned burn program. This project has formed the basis of an international smoke research program which recently received Commonwealth funding to expand in NSW and Canada.

- 7.9 Managing community health impacts while also achieving the Government's planned burn program also requires improvement in the Government's capacity to predict smoke emissions and transportation. The smoke emissions and transportation modelling project is being undertaken by a consortium involving CSIRO, Centre for Australian Weather and Climate Research, Melbourne University and Monash University. It aims to improve understanding of how much smoke is generated from burns and fires, and the ability to predict its transportation through the atmosphere through the development of a modelling platform. This platform will integrate with Phoenix RapidFire.
- 7.10 Both of these projects are funded by DEPI and are designed to improve the Government's ability to manage fire and community health responses. Implementation of the projects will require the establishment of people and systems capacity within agencies to repeatedly and reliably undertake monitoring and prediction of smoke at state, regional and local levels.

Action 7(b)	Theme
7(b) Undertake projects to understand health impacts and predict the movement of smoke from planned burning and bushfires	Integration

Communications

- 7.11 The aim of public communications by government in an emergency should always be to provide accurate, co-ordinated and consolidated information to the target audiences, particularly for health information. This subchapter discusses health communications. More information about communications in emergencies more broadly is provided in Chapters 3 and 4.

Local engagement

- 7.12 DH is considering how local networks, influencers and stakeholder representatives can be further utilised in emergency situations, to ensure that locally tailored and relevant messages are prepared in a language appropriate to the audience and are delivered by an appropriate means. This could be supported by identification and contact with existing community groups (for example, Community Advisory Committees¹²).
- 7.13 DH is also considering how to further engage with known and trusted local people during an emergency, through local offices and councils.
- 7.14 DH is considering how best to ensure that agencies disseminating information or material that is prepared by DH about health risks arising from an emergency are provided with the best possible briefings from DH, so that they are prepared to engage with community members about the material being distributed.
- 7.15 DH also intends to undertake a general review of its communications activities in relation to the Hazelwood Coal Mine Fire.

Action 7(c)	Theme
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¹² Under the Health Services Act 1988, each public health service is obliged to have a Community Advisory Committee.

7(c) Improve local engagement on health issues	Communication
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Psycho-social support

- 7.16 Community engagement and effective communication of information are an essential part of providing psycho-social support to a community that is affected by an emergency incident. Recovery activities, which commenced from the beginning of the incident, were focused on psycho-social issues.
- 7.17 Clinical psychologists consulted by DH during the incident confirmed the importance of communicating messages of reassurance to community members to address concerns and anxiety.
- 7.18 A difficulty for the Government in relation to health communications is that it is not always understood to be the source of communication and community engagement initiatives for which it is responsible. For example, DH was involved in recovery and community engagement during the Hazelwood Coal Mine Fire, through its service providers including AV, local health services, local council and local aged care service providers. The HHSEM shared service, which is operated by DHS on behalf of DH, was also active in the response.
- 7.19 The Community Health Assessment Centre was established to provide basic health checks, information and reassurance to community members. DH considers that the Centre played an important role in providing psycho-social support, with more than 2,000 community members visiting the Centre while it was in operation. The Centre will provide a useful model for similar initiatives in future incidents.
- 7.20 Improved communication with local communities may also lead to improvements in the psycho-social support to communities affected by emergencies.

Action 7(d)	Theme
7(d) Improve communication around psycho-social support to communities affected by emergencies	Communication

Long-term health impacts of the Hazelwood Coal Mine Fire

- 7.21 The Hazelwood Mine Fire was complex, and there are few Australian or international precedents for an incident where a community was exposed to a large amount of smoke from a brown coal fire for an extended period.
- 7.22 Health protection messages issued during the Hazelwood Coal Mine Fire were based on:
 - air quality assessments and forecasts (particularly relating to particulate matter)
 - information received from fire authorities about the expected severity and duration of the fire
 - information about the make-up of brown coal in the Latrobe Valley
 - established medical authority relating to the short-term health impacts of short-term exposure to particulate matter.
- 7.23 There have been few studies that investigated the long-term health impacts of exposure to particulate matter and brown coal smoke over a period that is extended (beyond weeks) but that is not long-term (one year or more).
- 7.24 The Government considers that it is very important to learn from the Hazelwood Coal Mine Fire, particularly:

- for the benefit of the local community, which has been exposed to this smoke, by monitoring any potential long-term adverse health effects, which will provide reassurance and ensure that any future health service requirements are met
- to assist health authorities, environment protection agencies and emergency services by informing and improving future policy and planning for the response to any future similar events.

7.25 In light of the above, DH is in the process of commissioning a long-term study into the long-term health effects of the smoke from the Hazelwood Coal Mine Fire. Community consultation sessions about the study were conducted by the CHO and staff from her office in Morwell on 6 and 7 May 2014. The tender will be advertised shortly.

7.26 The study will address the following questions:

- 1) 'Is there evidence that people in general, and susceptible sub-populations in particular, who were exposed to emissions from the Hazelwood fire, compared with otherwise similar people who were not exposed to emissions from the fire, currently have clinical or sub-clinical cardiovascular or, respiratory conditions that could be associated with clinically important adverse health consequences in the future?
- 2) Is there evidence that people in general, and susceptible sub-populations in particular, who were exposed to emissions from the Hazelwood fire, compared with otherwise similar people who were not exposed to emissions from the fire, over time develop clinical or sub-clinical cardiovascular or respiratory conditions that could be associated with clinically important adverse health consequences in the future?
- 3) Is there evidence of any difference in birth weight of babies born to mothers exposed to emissions from the Hazelwood fire, compared to babies born to otherwise similar mothers who were not exposed to emissions from the fire?
- 4) Is there evidence that people in general and susceptible sub-populations in particular (including children) who were exposed to emissions from the Hazelwood fire, compared with otherwise similar people who were not exposed to emissions from the fire, have a higher prevalence and persistence of psychological distress?
- 5) What socio-demographic factors and exposure levels are associated with higher levels and persistence of psychological distress?
- 6) Is there evidence that people who were exposed to emissions from the Hazelwood fire, compared with otherwise similar people who were not exposed to emissions from the fire, have a higher incidence of malignant disease over a prolonged period of follow-up?'

7.27 The successful tenderer will design the study, in consultation with DH, and in doing so will be required to consider the following:

- how to describe the composition of brown coal in the Morwell area
- the coal's likely products of combustion from open air burning of this scale and range of air pollutants of potential health concern
- what the key pollutants relevant to the scope of this long-term study are based on the extensive air monitoring dataset available from environment protection and emergency service sources for air samples collected at the mine boundary and in the local community
- how the study will address the study questions above, including how exposure will be assessed
- what comparator populations might be suitable

- whether any other questions are important to consider
- which health states are proposed to be measured and how these measurements are to be conducted
- the challenges and limitations to the validity of the study’s conclusions
- how the proposed study will provide information that is relevant to members of the affected community
- how the proposed study will provide evidence on which to base health advice when dealing with future, similar exposure events
- how those conducting the study will engage with the affected community to ensure accurate risk communication
- what benefits might be delivered to the affected community during the course of the study.

7.28 The study will commence following completion of the tender process. It is anticipated that the tender will be advertised in June 2014. The study will be a long-term health study, with an initial contract period of ten years.

Action 7(e)	Theme
7(e) Commission a long-term study into the long-term health effects of the smoke from the Hazelwood Coal Mine Fire	Mitigation, Integration, Communication

8. Relief and recovery

8.1 This Chapter details actions with respect to relief and recovery issues, as follows:

Action	Theme	Ref.
8(a) Review the Personal Hardship Assistance Program and Implementation Guidelines for consistency and clarity of purpose	Integration	8.2 – 8.6
8(b) Implement new technology for recording emergency assistance payments	Integration	8.7 – 8.9
8(c) LGV will coordinate emergency management officers across local councils	Integration	8.10 – 8.13
8(d) Improve relief and recovery information available to CALD communities	Communication	8.17 – 8.20
8(e) Review relief and recovery communications and community engagement initiatives	Communication	8.21 – 8.23

Personal Hardship Assistance Program

Assistance Program documentation

- 8.2 A key emergency relief program is the Personal Hardship Assistance Program (Assistance Program), which is administered by DHS.
- 8.3 The respite and relocation payments provided to eligible Morwell residents during the Hazelwood Coal Mine Fire were tailored from the usual types of payments made under the Assistance Program, with some additional eligibility criteria to take into account the unique nature of the event. Some of the differentiating elements of this event were the persistent presence of smoke, the ‘at risk’ conditions identified by the CHO, and the fact that homes were not destroyed. This changed the purpose of the payments.
- 8.4 DHS developed criteria to ensure Morwell residents most in need were targeted for respite assistance. The departmental staff who made assessments were given support, for example through DHS’ team structure and escalation process for assessment decisions. Some written guidance on how to balance a compassionate/generous approach with the criteria of demonstrating financial hardship or low income may have been useful. For example, tailored case studies could have been valuable to staff. The current Implementation Guidelines already provide case study examples for the usual types of payments made under the Assistance Program.
- 8.5 DHS staff currently receive training in personal support skills (including empathy) as part of the Assistance Program training modules. DHS is aware that this is an important aspect in delivering emergency financial assistance. The Assistance Program training modules will continue to be updated to ensure personal support skills (including empathy) are adequately incorporated.
- 8.6 As part of its annual review of the Assistance Program, DHS will review the Personal Hardship Assistance Program and Implementation Guidelines for consistency and clarity of purpose.

Action 8(a)	Theme
8(a) Review the Personal Hardship Assistance Program and Implementation Guidelines for consistency and clarity of purpose	Integration

Assistance Program back-office systems

- 8.7 At present, a paper-based system operates in relief centres for recording emergency assistance payments. Records of emergency assistance payments are required to be manually entered into a departmental emergency management database.
- 8.8 For the past year, DHS has been working to develop a robust end-to-end process for the Assistance Program, including inventory management and reconciliation procedures. Steps taken so far include developing process maps and documenting the business requirements in relation to the Assistance Program.
- 8.9 DHS is in the final phase of considering new technology that will provide capability to electronically process assessments, upload payment information and identify those who have previously been provided with emergency financial assistance in a more timely manner. This aims to reduce administrative time and minimise potential fraud due to 'real time' information and improved financial reconciliation .

Action 8(b)	Theme
8(b) Implement new technology for recording emergency assistance payments	Integration

Support for local councils

- 8.10 In February 2014, the Government announced the continuation of funding support to 64 Victorian councils for emergency management for a further two years, at a cost of \$9.12 million. This funding is provided through the Municipal Emergency Resourcing Program. It provides all councils within CFA districts with funds to assist them in implementing their emergency management responsibilities, including for relief and recovery, and extending to all other responsibilities.
- 8.11 Since 2010, when the Municipal Emergency Resourcing Program began, the Municipal Association of Victoria has received up to \$500,000 per year (including in 2013-14) for the coordination of emergency management officers across councils.
- 8.12 This funding concludes at the end of 2013-14 and LGV (within DTPLI) will take on these functions. This work will also include developing formal and informal networks between emergency management officers and developing a resource base that LGV can work closely with during the response and recovery phases of future emergencies.
- 8.13 LGV is currently undertaking a recruitment process to ensure that it has the appropriate capacity and expertise in this regard.

Action 8(c)	Theme
8(c) LGV will coordinate emergency management officers across local councils	Integration

Communications

- 8.14 DHS is contributing to the Government's SCRC-commissioned review of communications to identify practical ways to further improve state level communications and community engagement in response to future emergencies. This is described in Chapter 5 at action 5(a).
- 8.15 DHS has evaluated its own state and regional level communications and community engagement that it put in place to support the relief and recovery phases of the Hazelwood Coal Mine Fire. The 2013–14 summer fire season provided the first 'real' test for the Emergency Relief and Recovery Victoria website (Recovery website) and the Victorian Emergency Recovery Information Line service, which are hosted and managed by DHS. DHS monitoring shows that fire-affected Victorian communities effectively utilised both channels from January to March 2014. During this time, there were 19,771 web visits to the Recovery

website and 861 calls to the Victorian Emergency Recovery Information Line service. The DHS information hotline also received 10,332 calls.

- 8.16 DHS developed both channels during 2013 in response to recommendations from the Review of the 2010-11 Flood Warnings and Response (the Comrie Review),¹³ and the Victorian Auditor-General's Office report on Flood Relief and Recovery (June 2013)¹⁴ that followed. Both channels aim to provide timely, accurate, relevant, appropriate and accessible emergency information to the public, using web and phone technology, with the Recovery website viewable on both desktop and mobile platforms.

Accessibility to CALD and vision impaired

- 8.17 A notable feature of the Recovery website is its dedicated CALD resources, developed as part of a pilot project with OMAC. With OMAC's support and coding developed by the State Library of Victoria, DHS added CALD content to the Recovery website as recently as mid-December 2013. This content is in 14 languages, including Australian Sign Language. This represented one step in an ongoing plan to improve the online accessibility of relief and recovery information for diverse Victorian communities.
- 8.18 CALD content on the Recovery website is also recognised by all screen readers used by the vision impaired or people with other disabilities. The website's information can also be 'read out' in any of 14 languages. These steps are a first for any Victorian Government website.
- 8.19 The Victorian Emergency Recovery Information Line service includes capability to immediately transfer callers from a CALD group through to the National Translating Service, to seek appropriate relief or recovery information.
- 8.20 In order to generate greater awareness of relief and recovery information:
- DHS is doing further work with OMAC to expand the current CALD information on the Recovery website. This includes the production of short video clips in key languages that could be readily shared via social media, and for display at local public information venues (for example, local council offices, relief and recovery centres and community health centres)
 - OMAC is soon to implement a new communications strategy to publicise the Recovery website's CALD capabilities to Victoria's CALD and multicultural communities
 - DHS is developing more pictorially-based relief and recovery information for low-literacy or non-English speaking recipients.

Action 8(d)	Theme
8(d) Improve relief and recovery information available to CALD communities	Communication

Community relevance

- 8.21 The range of communications and community engagement activities undertaken by DHS during the Hazelwood Coal Mine Fire event helped to generate 10,332 calls to the DHS information hotline during the incident. These calls resulted in 6,363 appointments made with residents and the distribution of \$3.36 million in respite and relocation payments.
- 8.22 The significant response of people in calling the call centre and in attending the respite and relocation assistance centres indicates the community engagement undertaken by the Government. Notwithstanding, the Government recognises that there are opportunities to

¹³ Available from <http://www.floodsreview.vic.gov.au/>.

¹⁴ Available from http://www.audit.vic.gov.au/reports_and_publications/latest_reports/2012-13/20132606-flood-relief.aspx.

improve, especially given the particular challenges of supporting a communities through a sustained event.

8.23 DHS has embarked on the following communications and community engagement initiatives to help better prepare for future emergencies:

- the development of better community profiling tools and/or processes, to more clearly and quickly understand the communication needs or challenges of a subject community, then tailor communications and community engagement efforts to better address those needs
- a review of the current DHS *Recovery Communications and Community Engagement* strategy document, to capture all issues, tools and tactics that proved valuable in this latest incident
- a review, rewrite and (if necessary) redesign of all DHS emergency relief and recovery information destined for public access – including the *After the Fires* packs – to ensure this material adheres to Plain English guidelines, and that it is relevant, current and delivered in the best format
- the integration of the Recovery website into DHS’s new emergency information management system. This will facilitate a faster, more reliable display to the public of respite, relief, relocation and information centres established by a local council during an emergency.

Action 8(e)	Theme
8(e) Review relief and recovery communications and community engagement initiatives	Communication

Future relief and recovery under EMV

8.24 With the establishment of EMV, the arrangements for emergency management planning and delivery are changing. After 1 July 2014, when the EM Act 2013 comes into operation, the position of State Emergency Recovery Coordinator will cease to exist in legislation. Instead there will be an EMC who will be accountable for recovery coordination with power to delegate his or her responsibility. This is discussed further in Chapter 3. To assist in a smooth transition of responsibility for coordination of emergency recovery at a state level, the EMC proposes to delegate these function to the Secretary of DHS for the period from 1 July 2014 until 30 June 2015.

8.25 DHS and DOJ are currently developing a memorandum of understanding to ensure roles and responsibilities in recovery coordination are clearly defined and new arrangements are effective.

9. Regulatory framework

Introduction

9.1 The Government's first submission:

- described the regulatory approach adopted by Victorian Government regulators
- provided an overview of the regulatory framework for the Hazelwood Coal Mine
- set out how the regulatory framework had been applied by Victorian Government regulators to the Hazelwood Coal Mine.

9.2 This chapter sets out actions relating to the regulatory framework for the Hazelwood Coal Mine. The actions fall within the third term of reference of the Hazelwood Coal Mine Fire Inquiry:

'3. The adequacy and effectiveness of the application and administration of relevant regulatory regimes in relation to the risk of, and response to, fire at the Hazelwood Coal Mine.'

9.3 This chapter includes the following actions:

Action	Theme	Ref.
9(a) Prepare Regional Growth Plans	Mitigation, Integration	9.33 – 9.35
9(b) Implement a risk-based approach for work plans	Mitigation, Integration	9.36 – 9.38
9(c) Implement the Victorian Critical Infrastructure Resilience Strategy	Mitigation, Integration	9.39 – 9.50
9(d) Enhance emergency risk mitigation planning	Mitigation, Integration	9.51 – 9.56
9(e) Review of the Latrobe City Municipal Emergency Management Plan	Mitigation, Integration	9.57 – 9.58
9(f) Initiate a joint program for regulators, emergency service agencies and EMC to assess the prevention and preparedness controls on sites across Victoria	Mitigation, Integration	9.59

Regulatory principles

9.4 The regulatory framework is based on the principle that the primary obligation to manage risk at a site rests with the duty holder. The duty holder for a coal mine has obligations under a number of Victorian Acts. These obligations provide a framework by which the duty holder can assess and manage its risks. The core obligations on the duty holder include:

- general occupational, health and safety duties under the OHS Act
- duties of mine operators under the OHS Regulations and the MR(SD) Act
- obtaining approvals as required under the MR(SD) Act, PE Act, EE Act and EP Act
- preparing plans and tools as required under the OHS Regulations and MR(SD) Act
- not polluting the atmosphere or causing or permitting an environmental hazard (offences under the EP Act).

- 9.5 Further details on duty holder obligations are set out in the Government's first submission.¹⁵
- 9.6 The actions set out in this chapter are intended to improve the regulatory framework and the way it is applied in the future. The suggestions are not intended to detract from the principle that the primary obligation to manage risk at a site rests with the duty holder. In these circumstances the duty holder is GDF Suez. The proposals are intended to ensure a better integrated approach in the identification and assessment of risks and associated control measures between the duty holders, regulators, local government and emergency service agencies. The potential for impacts upon the community will be given greater emphasis in the identification and control of risks.
- 9.7 The submission does not propose a change of role for government in defining the relationship between risk and regulation, or how acceptable risk is defined. The Government considers that a risk-based approach is best placed to meet these challenges and can accommodate any changes necessary to address the regulatory issues arising from the Hazelwood Coal Mine Fire. The Victorian Government's approach to risk-based regulation was outlined in the Government's first submission.
- 9.8 Risk-based regulation of coal mining is complex and it requires a nuanced approach. Managing risks, their likelihood and impact is a dynamic process. Risk cannot be eliminated. However, the regulatory framework can be continuously improved as a greater understanding of the risks is obtained and the application of the regulatory regime is reviewed accordingly.
- 9.9 There is a potential risk that 'when a crisis occurs, the response can revert too quickly to norms of increased enforcement and traditional prescriptive approaches, because the risk exposure for regulators is perceived to have become unacceptably high and consequently that risk-based regulation has failed'.¹⁶ A reactive approach can be amplified by public pressure 'reflecting disproportionate perceptions of risk beyond what an objective assessment would show'.¹⁷
- 9.10 As stated in the Government's first submission, the Victorian Government committed to a regulatory regime that supports, rather than hinders, business and community activity in its response to the Victorian Competition and Efficiency Commission's Inquiry into Victoria's Regulatory Framework:
- 'A best practice regulatory framework is a key requirement for enabling businesses and the not-for-profit sector to operate efficiently.
- In addition, in order to encourage businesses to locate in Victoria, it is important that our regulatory environment is one that minimises the regulatory burden by not being excessive, by not intruding into areas where market incentives will provide the best outcomes, and by being transparent and consistent.
- Importantly, the regulatory environment must also ensure that community interests are protected'.¹⁸
- 9.11 This is consistent with the principles of best practice regulation agreed by the Council of Australian Governments:
- '1. establishing a case for action before addressing a problem;

¹⁵ DPC, *Hazelwood Coal Mine Fire Inquiry: Submission from the Victorian Government* (May 2014), p13-5.

¹⁶ D Peterson and S Fensling, *Risk-based regulation: good practice and lessons for the Victorian context*, paper presented at the Victorian Competition and Efficiency Commission Regulatory Conference, Melbourne, 1 April 2011.

¹⁷ Better Regulation Commission (2006), *Risk, responsibility and regulation – whose risk is it anyway?*, webarchive.nationalarchives.gov.uk/20100807034701/http://archive.cabinetpffice.gov.uk/brc/upload/assets/www.brc.gov.uk/risk_res_reg.pdf.

¹⁸ DTF, *Victorian Government Response to the Victorian Competition and Efficiency Commission's Final Report* (2012) page1.

2. a range of feasible policy options must be considered, including self-regulatory, co-regulatory and non-regulatory approaches, and their benefits and costs assessed;
3. adopting the option that generates the greatest net benefit for the community;
4. in accordance with the Competition Principles Agreement, legislation should not restrict competition unless it can be demonstrated that:-
 - a. the benefits of the restrictions to the community as a whole outweigh the costs, and
 - b. the objectives of the regulation can only be achieved by restricting competition;
5. providing effective guidance to relevant regulators and regulated parties in order to ensure that the policy intent and expected compliance requirements of the regulation are clear;
6. ensuring that regulation remains relevant and effective over time;
7. consulting effectively with affected key stakeholders at all stages of the regulatory cycle; and
8. government action should be effective and proportional to the issue being addressed.¹⁹

9.12 These regulatory principles have guided the analysis of the regulatory framework issues and the actions included in this chapter.

Regulatory framework issues

9.13 The risk of offsite impacts of the kind experienced by the Morwell community from a large, sustained fire in worked out batters was not foreseeable and accordingly not anticipated and prepared for. Neither the 1944, 2006 nor 2008 reports on the mine fires had identified additional impacts of the fires on the nearby communities as a foreseeable risk. Small fires at coal mines are a known risk. The Stretton Royal Commission into the 1944 Yallourn mine coal fire commented that '[n]o very elaborate internal protection against fire caused by bush fires is necessary if sufficient protection is given against the normal, industrial fire risk'.²⁰ In line with this, regulators accepted that the preventative measures being taken by the mine sufficiently reduced the risk from coal fires in the worked out batters. These measures are included in the Hazelwood Coal Mine Fire Policy and Code of Practice and in related mine instructions and plans.

9.14 After the Hazelwood Coal Mine Fire, the assessment of the foreseeable risk and consequences of a coal fire in worked out batters needs to be reassessed rigorously. Therefore, the risks and the controls that reduce that risk need to be reviewed by the duty holder and such proposals to be considered by relevant regulators.

9.15 Given the complexity of coal mines, a better integrated approach in the identification and assessment of risks and associated control measures will be beneficial. This will provide a broader information and knowledge base to inform the risk assessment and thereby provide an improved ability to collectively identify and assess emerging and cumulative risks. A greater focus should also be placed on potential community impacts (consequence management).

Fire risk reduction considerations

9.16 In assessing measures to mitigate mine fire risks, consideration should be given to measures that can be adopted in areas outside of, as well as within, the mine licence area.

¹⁹ Council of Australian Governments, *Best practice regulation – a guide for Ministerial Councils and national standard setting bodies*, October 2007, page 4.

²⁰ Report of the Royal Commission into Fires at Yallourn (1944), page 8.

- 9.17 This submission includes a number of actions that will strengthen fire mitigation within and outside coal mines. Actions that contribute to fire mitigation include proposals 4(a), 4(c), 4(e) and 9(b) to (e).
- 9.18 The duty holder has the responsibility for managing mine hazards, including fire, within the mine site. Options for the duty holder to consider should include combinations of:
- adequate control measures to commensurately reduce the risk of fire and associated emissions should be applied to exposed coal areas, including by:
 - covering or remediating worked out coal areas, and/or
 - higher capacity and extent of reticulated water points for refilling tankers, and/or
 - higher capacity and extent of reticulated water spray systems, and/or
 - any other practical and effective measures to adequately reduce the risk.
 - improving fire response practices, with specialised training, combined exercises and crisis response protocols
 - better integration with CFA incident management and communications
 - increased fire-fighting response capability and capacity, with CFA compatible equipment, (including tankers, extended booms, CAFS), and additional fire crews
 - measures to improve the resilience of operational infrastructure in the event of fire within the mine licence area, including any resources needed for fire prevention or response
 - improved surveillance and detection equipment to provide early detection of points of ignition and fire spread across a large site
 - measures to reduce fire risk in buffer zones outside of the mine and beyond the mine licence area.

Current mine rehabilitation obligations

- 9.19 Progressive rehabilitation or remediation of the mine is one of the control measures that can be used to mitigate mine fire risks.
- 9.20 The current obligations of the duty holder to rehabilitate the mine are set out in paragraph 3.17 of the Government's first submission. They include:
- ‘The operator of a mine has a duty to comply with any conditions on the mining licence and the approved work plan, and to work in accordance with the approved work plan (sections 8, 40 and 42 of the MR(SD) Act).
- The operator of a mine has a duty to rehabilitate land, in accordance with the approved rehabilitation plan, which is part of the work plan (section 78 of the MR(SD) Act).’
- ‘... enter into a rehabilitation bond for the amount determined by the Minister (section 80 of the MR(SD) Act).’
- 9.21 The licence establishes broad rules governing mining activity at the mine. The work plan and the rehabilitation plan set out the detailed rules for how the mine is required to operate and how the land is to be rehabilitated before and after closure of the mine.
- 9.22 The approved rehabilitation plan must take into account:
- the characteristics of the land and surrounding environment
 - the need to stabilise the land for it to be safe and stable into the future without further management
 - the desirability or otherwise of returning the land to a useful or productive land form

- the potential for long-term degradation or adverse impact to the environment from the rehabilitated land form.

9.23 Paragraphs 4.9 to 4.27 of the Government's first submission set out the how rehabilitation is currently addressed in the rehabilitation plan for the Hazelwood Coal Mine. The operational planning for the mine is consistent with these requirements.

Feasibility and practicability of rehabilitating the Hazelwood Coal Mine to reduce fire risk

9.24 While it is theoretically feasible for the mine operator to rehabilitate or remediate areas of the coal faces by covering with clay or soil in worked out areas of the mine, either in accordance with or in addition to the mine rehabilitation plan, it may not be practical nor necessary. Such works could involve significant alteration, through major earthworks, to the profile of the coal faces and are likely to be costly and challenging to implement, given the need to continue to operate the mine and maintain mine stability. Detailed geotechnical and engineering design work may be required before determining the practical extent of such works.

9.25 Worked out parts of the mine contain extensive infrastructure that remains necessary for the operation of the mine. Rehabilitation of the mine may require the removal and rebuilding of this infrastructure such as groundwater ponds, drainage pipes, water reticulation and conveyer systems.

9.26 The existing rehabilitation plan does not include covering all exposed coal faces or the mine floor, given that it is anticipated that much of the mine would be flooded after the closure of the mine in 2032. The current rehabilitation plan timeframe for progressive rehabilitation of exposed coal faces provides for staged rehabilitation that is expected to be completed by 2031.

9.27 Under the existing regulatory regime, the duty holder would be liable for the cost of the work. Given the potential cost and other issues, it might not be practicable in the interim to cover all exposed faces or significantly accelerate the timeframe to rehabilitate Hazelwood Coal Mine. The duty holder should also consider alternative fire risk reduction measures for the remaining areas of exposed coal (see paragraph 9.18 above).

9.28 If changes to rehabilitation are part of the measures used to mitigate future mine fire risks, it would be the duty holder's responsibility to prepare and then implement a varied rehabilitation plan. The regulator's role would be to assess and then, if appropriate, approve a varied rehabilitation plan and enforce compliance with the varied plan.

9.29 If the mitigation of fire risk ought to be addressed, in part or whole, in a work plan and/or rehabilitation plan then the following matters would, among other things, need to be considered before such reform was implemented:

- a. whether exposed coal batters ought to be covered, or wetted with sprays on high-risk days, or a combination of both methods
- b. the type, quantity, availability and suitability of materials that would be required to cover exposed coal batters
- c. the practicability and availability of water for reticulated water systems at worked out faces of Hazelwood mine
- d. the impact of such work on the safe and productive operations of Hazelwood mine
- e. impacts on mine stability, particularly of the northern batter adjacent to Princes Freeway
- f. the compatibility of such work with the end of mine vision for Hazelwood mine
- g. the cost of such work

h. ramifications for other mines in Victoria.

9.30 It is important to note that this list is not exhaustive. The licensee, in particular, is in a better position to identify matters to consider before deciding whether to and how to prepare a proposal to accelerate or modify rehabilitation of exposed coal faces at Hazelwood mine.

9.31 Any proposal to alter the pace or type of rehabilitation at Hazelwood mine – and perhaps, by extension, other mines – must proceed with care.

9.32 The appropriate applications must be developed and considered before regulatory approvals might be given to vary the work plan and/or rehabilitation plan, and any related variations of plans or specifications, including plans or codes developed by GDF Suez as part of their operations.

Actions – complete and underway

Regional Growth Plans

9.33 The Government has recently released Regional Growth Plans to provide broad direction for land use and development across regional Victoria.

9.34 Eight Regional Growth Plans have been prepared to provide direction for accommodating growth and development across regions, protecting key regional economic and environmental assets, as well as providing high level planning frameworks for key regional centres, such as Latrobe City, one of Victoria's 10 regional cities. The Gippsland Regional Growth Plan includes a Framework Plan for Latrobe City that identifies existing and future areas identified for growth.

9.35 The plans are a mitigation measure against future inappropriate land uses close to population centres and can assist in managing the risks associated with current uses.

Action 9(a)	Theme
9(a) Prepare Regional Growth Plans	Mitigation, Integration

Risk-based approach for work plans

9.36 The *Mineral Resources (Sustainable Development) Amendment Act 2014* provides for changes to the current prescriptive requirements for work plans (which include rehabilitation plans) with a more risk and outcomes based approach. These amendments are expected to take effect in 2016 and were made in response to recommendation 19 of the *Economic Development and Infrastructure Committee Inquiry into Greenfields Mineral Exploration and Project Development in Victoria* (May 2012).

9.37 The amendments will allow a more flexible approach to be adopted so that work plans and rehabilitation plans can appropriately address relevant risks. This could include consideration of whether the plans could be varied to include objectives to mitigate against fire risk throughout the mine licence area and the potential consequences of fire upon the community.

9.38 A more adaptive approach to risk management through work plans can then be applied through a better integrated approach in the identification and assessment of risks and associated control measures by the duty holder and relevant regulators. The potential for impacts upon the community will be given greater emphasis. Actions that will linked to and enhanced by this reform include 4(a) to 4(e) and 9(c) to (e).

Action 9(b)	Theme
9(b) Implement a risk-based approach for work plans	Mitigation,

Critical infrastructure resilience

- 9.39 The Hazelwood Power Station, including the Hazelwood Coal Mine, is a declared essential service under Part 6 of the *Terrorism (Community Protection) Act 2003*. These arrangements only apply to the risk of terrorism.
- 9.40 The Victorian Critical Infrastructure Resilience Strategy sets out the framework to reform Victoria's security and emergency management arrangements for critical infrastructure in line with the White Paper and the Roadmap for Victorian Critical Infrastructure Resilience.
- 9.41 The Victorian Critical Infrastructure Resilience Strategy and associated legislation will implement risk management processes designed to build the resilience of Victoria's infrastructure and ensure continuity of supply of essential services to the community. The key pillars of these new arrangements are the Criticality Assessment Tool and legislation to govern the overall arrangements for infrastructure deemed vital to the supply of essential services.
- 9.42 The proposed legislation will establish the Victorian Critical Infrastructure Register which will list significant, major and all vital critical infrastructure in Victoria. As vital infrastructure will be subject to legislative obligations, it is important that the method for assessing criticality be robust, transparent, holistic and applied consistently across sectors. The Victorian Government has partnered with La Trobe University to develop a Criticality Assessment Tool. The Tool considers risks consistent with *AS/NZS ISO31000 Risk Management – Principles and Guidelines* and *HB 167:2006 Security Risk Management* and includes metric and narrative inputs against criteria aligned with the National Emergency Risk Assessment Guidelines. The Tool will consider both assets and services as well as interdependencies and service obligations.
- 9.43 The assessment process will involve both owners and operators as well as portfolio departments and will be reviewed at a whole-of-government level by the Risk and Resilience Sub-Committee of the SCRC. The final determination of a criticality rating will rest with the relevant Minister, and an Order declaring infrastructure to be vital critical infrastructure will be issued by the Governor in Council on the relevant Minister's recommendation.
- 9.44 The Victorian Critical Infrastructure Register, to be maintained by EMV, will provide the Victorian Government with an overarching record of the State's critical infrastructure. The currency of the Register will be periodically reviewed by EMV to ensure its accuracy and relevance is maintained and that new infrastructure is captured as it is developed.
- 9.45 The proposed legislation will require owners or operators of infrastructure deemed to be vital critical infrastructure to participate in mandatory risk management activities to build their resilience to all hazards. The legislation will be designed to optimise current risk management practices undertaken by owners or operators of vital critical infrastructure by creating a flexible assurance framework, which allows Government to recognise risk management activities that already take place within industry, preventing duplication.
- 9.46 Owners and operators of vital critical infrastructure will be required to complete a Resilience Improvement Cycle, which includes risk management planning in an all hazards environment, exercising the risk management strategies, auditing risk management arrangements and attesting in an annual Statement of Assurance to the completion of all activities by a nominated accountable officer.
- 9.47 The Statement of Assurance must be provided by each owner or operator to the relevant Minister at the end of each annual Resilience Improvement Cycle, creating a process that will lead to iterative improvement in resilience as the regime progresses. Penalty provisions

will be attached to an owner or operators' failure to comply with certain key obligations, or requests from the relevant Minister.

- 9.48 The Victorian Critical Infrastructure Resilience Strategy's evolution to an all hazards approach with a stronger focus on accountability and partnerships and engagement between Government and industry reflects the fact that a large proportion of Victoria's critical infrastructure is owned or operated by private entities. The complex, interconnected and often interdependent nature of these industries means that there is a risk that a disaster may cause systemic failures in the delivery of essential services.
- 9.49 Resilience is a shared responsibility between governments, communities, businesses and individuals. Nevertheless, there is an expectation that Government will take appropriate measures to assure the management of risks to the delivery of essential services and coordinate the consequences and flow-on effects of a disruption. However, the Victorian Critical Infrastructure Resilience Strategy does not transfer the risk of managing critical infrastructure to Government and keeps responsibility for the implementation of risk mitigation activities with the private sector.
- 9.50 As the Hazelwood Coal Mine Fire demonstrated, essential service operators need to prepare for all hazards, not just the risk posed by a terrorist act. An all hazards risk management regime will assist critical infrastructure owners or operators to prepare for, and respond to, the risks most likely to threaten the continuity of supply of their essential service. However, while the Strategy's key focus is on building the resilience of infrastructure so as to maintain continuity of supply of essential services, risk management planning and exercising by critical infrastructure owners or operators will have flow-on effects for the safety and social and economic well-being of communities across Victoria. Actions that will be linked to and enhanced by this reform include 4(a) to 4(d) and 9(b) and 9(d).

Action 9(c)	Theme
9(c) Implement the Victorian Critical Infrastructure Resilience Strategy	Mitigation, Integration

Emergency risk mitigation planning

- 9.51 A collaborative risk assessment approach fits neatly with current reforms to emergency management that introduce an 'all hazards' (both natural and man-made) approach to emergency management.
- 9.52 The White Paper sets out actions to facilitate community-based planning to mitigate hazards, including providing support for the development of Community Resilience Committees that enable local communities to develop comprehensive all hazards plans in line with municipal, regional and state plans.
- 9.53 As part of the reforms, emergency risk mitigation planning arrangements will be examined with a view to making them more holistic and coordinated, and allocate specific accountabilities for risk management and mitigation in relation to particular hazards. The new regional and local emergency mitigation plans provide an appropriate vehicle to embed a coordinated and collaborative approach to emergency risk assessment and mitigation and to ensure that consideration of community impacts helps to drive mitigation planning.
- 9.54 As a result of this process, the EMC will establish regional emergency response committees to undertake emergency risk mitigation planning to ensure a coordinated planning approach involving all relevant parties. The approach is intended to promote greater accountability of departments and agencies for delivery of emergency risk mitigation activities. The White Paper commits to independent review and evaluation of emergency risk mitigation planning by the Inspector-General for Emergency Management.

- 9.55 Legislative reforms will be developed to implement the proposed new emergency risk mitigation planning arrangements.
- 9.56 It is important that the relevant regulators of sites that pose significant risks are part of regional and local emergency risk assessment and planning. This will enable a collaborative and aligned risk assessment process and recognises that the regulatory tools administered by the regulators are likely to be the best mechanism for mitigating certain risks.

Action 9(d)	Theme
9(d) Enhance emergency risk mitigation planning	Mitigation, Integration

Intended actions

Review of the Latrobe City Municipal Emergency Management Plan

- 9.57 Latrobe City Council, in conjunction with emergency service agencies, could review the Latrobe City Municipal Emergency Plan to consider the inclusion of a sub-plan for major smoke or ash hazards. The sub-plan could include actions to build the resilience of the community and assets to a prolonged intense smoke or ash event.
- 9.58 This could be implemented in advance of regional and local emergency risk mitigation planning taking place under the new emergency management arrangements.

Action 9(e)	Theme
9(e) Review of the Latrobe City Municipal Emergency Management Plan	Mitigation, Integration

Joint program for regulators and emergency service agencies

- 9.59 The Government intends to initiate a joint program, involving relevant regulators, emergency services and the EMC, that will enable regulators and emergency services to assess the prevention and preparedness controls on sites across Victoria that fit a low likelihood/high consequence or long duration incident profile. In addition to providing opportunities to intervene directly, this would also produce a clear picture of the state of risk as well as best practice. An important feature of this work would be an assessment of the resilience of potentially affected communities and the development of supportive engagement strategies in preparation for such incidents. Actions that will be linked to and enhanced by this reform include 4(a) to 4(d) and 9(a) and 9(c) to (d).

Action 9(f)	Theme
9(f) Initiate a joint program for regulators, emergency service agencies and EMC to assess the prevention and preparedness controls on sites across Victoria	Mitigation, Integration

