Northern and Western Metropolitan Regional Strategic Fire Management Plan 2015-2025
Northern and Western Metropolitan Regional Strategic Fire Management Planning Committee, 2015
Authorised by the Northern and Western Metropolitan Regional Strategic Fire Management Planning Committee, Victoria.

This document can also be downloaded from the Integrated Fire Management Planning website at www.ifmp.vic.gov.au

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<tr>
<th>Abbreviation</th>
<th>Description</th>
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<tbody>
<tr>
<td>CBD</td>
<td>Central Business District</td>
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<tr>
<td>CFA</td>
<td>Country Fire Authority</td>
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<tr>
<td>DEDJTR</td>
<td>Department of Economic Development, Jobs, Transport and Resources</td>
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<tr>
<td>DELWP</td>
<td>Department of Environment, Land, Water and Planning</td>
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<td>DHHS</td>
<td>Department of Health and Human Services</td>
</tr>
<tr>
<td>EMMV</td>
<td>Emergency Management Manual Victoria</td>
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<tr>
<td>FFDI</td>
<td>Forest Fire Danger Index</td>
</tr>
<tr>
<td>IAP2</td>
<td>International Association for Public Participation</td>
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<td>IFMP</td>
<td>Integrated Fire Management Planning</td>
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<tr>
<td>LGA</td>
<td>Local Government Area</td>
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<td>MEMP</td>
<td>Municipal Emergency Management Plan</td>
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<td>MEMPC</td>
<td>Municipal Emergency Management Planning Committee</td>
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<tr>
<td>MFB</td>
<td>Metropolitan Fire Brigade</td>
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<tr>
<td>MFMPC</td>
<td>Municipal Fire Management Planning Committee</td>
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<tr>
<td>MFMP</td>
<td>Municipal Fire Management Plan</td>
</tr>
<tr>
<td>NWM</td>
<td>Northern and Western Metropolitan</td>
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<tr>
<td>PV</td>
<td>Parks Victoria</td>
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<tr>
<td>RSFMPC</td>
<td>Regional Strategic Fire Management Planning Committee</td>
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<tr>
<td>SFMPC</td>
<td>State Fire Management Planning Committee</td>
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<tr>
<td>VBRC</td>
<td>Victorian Bushfire Royal Commission</td>
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</table>
Foreword by Chair

Welcome to the second edition of the Northern and Western Metropolitan Regional Strategic Fire Management Plan.

The Northern and Western Metropolitan Region is diverse and complex region, characterised by:

- rural/urban interface where forests and grasslands meet residential areas;
- significant industrial precincts with numerous major hazard facilities;
- major transport and freight hubs;
- continued expansion through the northern and western growth corridors

The NWM Region is presently experiencing continued urban growth, with thousands of new homes being constructed across the Region’s four major growth centres—Wyndham, Melton, Whittlesea and Hume.

Since the first edition of this plan was released in 2011 much has changed in how we assess and manage fire risk across the region. Risk assessment tools such as the Victorian Fire Risk Register (VFRR) have evolved and technology to model and analysed fire risk from a landscape down to a local scale is now widely used by many municipalities and agencies to inform their planning and risk treatment activities.

The primary objective of fire planning is the protection of life and property. Integrated Fire Management Planning (IFMP) is a coordinated approach by a range of stakeholders to managing the risk of fire in the Northern and Western Metropolitan Region adhering to a key principles of emergency planning—Prevention, Preparedness, Response and Recovery.

This Regional Strategic Plan has two purposes:

- To facilitate Municipal Fire Management Planning by providing guidance on the NWMR risk environment and potential risk treatments.
- To support fire management planning and its implementation by encouraging and coordinating stakeholder engagement at municipal and regional levels.

Across the emergency services sector there has been a significant shift over recent years to extend the experience of IFMP across the full range of risks and emergencies that the community faces. Going forward it is likely that regional fire planning and the work of the Regional Fire Management Committee will be just one part of a broader emergency management planning framework.

Until these developments take full effect, this regional planning committee will continue work collaboratively to support the Municipal Fire Management Committees and all agencies to better understand and manage the risk of fire across the region.

As always, I would like to acknowledge the assistance and contributions of the Northern and Western Metropolitan Regional Fire Management Planning Committee members.

Dan White, Chair,
Regional Strategic Fire Management Committee - Northern and Western Metropolitan Region
A – Plan development
1 Introduction

Victoria has a long history of community, government and organisations working together in preventing, preparing and responding to the threat of fire and recovery from the impact of fire. Recent challenges such as the decade of dry conditions, population growth in high risk areas and the re-occurrence of major fires have prompted the need for increased coordination and cooperation to secure fire safety across Victoria.

In response to these challenges, the Victorian Government established the Integrated Fire Management Planning Framework (‘IFMP’) for Victoria.

IFMP aims to achieve a consistent and effective means for fire management planning within Victoria through a commitment to cooperation, including information sharing and the building of collective knowledge\(^1\). This framework provides structures, policies and procedures to help build on the existing spirit of cooperation and networks that already exist in fire management.

The IFMP establishes state, regional and municipal committees to govern fire management in Victoria. The Northern and Western Metropolitan Regional Strategic Fire Management Planning Committee (‘NWM RSFMPC’) is one of eight regional committees operating across Victoria.

The intent of the NWM Regional Strategic Fire Management Plan is to provide a strategic focus for fire management in the region. It provides guidance on the implementation of IFMP and identifies clear and measurable objectives and outcomes, where available, for the effective management of fires.

Fire agencies will continue to consult with Local Government Areas (‘LGAs’) to review and identify fire risks and help determine treatment strategies—adhering to arrangements as set out in Part 5 of the Emergency Management Manual Victoria (‘EMMV’).

This Plan does not intend to override or contradict local government or individual agency response and recovery plans. Nor does it pursue the legislative mandate of any government agency. In fact, the North Western Metropolitan Regional Strategic Fire Management Plan should complement and enhance State and Municipal level planning.

Fire Management Planning Committee Structure

Under the emergency management arrangements (refer to EMMV), the Municipal Emergency Management Planning Committee (‘MEMPC’) is responsible for planning for all hazards within its borders. Depending on the nature and degree of risk, and as required by relevant legislation, the MEMPC may appoint a Municipal Fire Management Planning Committee (‘MFMPC’) to deliver and support integrated fire management. Alternatively, the MEMPC may elect to retain that responsibility.

This plan has been developed by the NWM RSFMPC in accordance with the guidance provided by the State Fire Management Planning Committee (‘SF MPC’), as detailed in the State Fire Management Strategy 2009\(^2\) and the State committee’s guidelines for integrated fire management planning\(^3\).

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\(^1\) The Integrated Fire Management Planning Framework

Northern and Western Metropolitan Regional Strategic Fire Management Plan

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The NWM RSFMPC is made up of representatives from the fire management sector across the region. This sector includes fire agencies and other organisations that provide services to people impacted by, or manage assets at risk from, fire. Refer to ‘Appendix 2 – Stakeholder and municipal roles and responsibilities’ of this document for more information on these arrangements.

Planning Process
Through a consultative risk planning process (refer Figure 1.3), a range of risks were identified that could disrupt fire management in the region. This plan is built around addressing these risks. The IFMP planning process analyses risk using the AS/NZS ISO 31000:2009 approach to risk management giving consideration to the following aspects of fire management:

- **Prevention**: Focusing resources on the underlying causes of fires and treating them.
- **Preparedness**: Ensuring that the fire management sector and the community have plans and arrangements in place that are well practised, addressing all fire risks.
- **Response**: Ensuring effective, appropriate firefighting equipment and arrangements are in place and tested.
- **Recovery**: The assisting of persons and communities affected by emergencies to achieve a proper and effective level of functioning.

![Figure 1.2 – PPRR approach to risk management](image)
This plan has also been developed around the concept of resilience. Risk management is a process of anticipating and treating identified risks through a thorough engagement and consultation process. It aims to plan for the unexpected.

Organisations and agencies involved in fire management already have a range of activities, plans, policies and procedures that are directly involved with, or impact on, fire management. This plan builds on this existing work and the recommendations from the Victorian Bushfire Royal Commission (‘VBRC’). The role of the RSFMP is to facilitate collaboration across agencies and organisations.

Individual organisations, such as municipalities, water authorities and power companies, remain responsible for the direction and work of their own programs, but will be influenced by the regional collaboration and cooperation developed through the implementation of this plan.

This plan adheres to current legislation and guidelines, such as the EMMV, *Emergency Management (Amendment) Act* 2000 and Acts associated with emergency service organisations, industry and local government.
Fire Management Planning relationships

State and Federal Legislation
- e.g. Emergency Management Act 1986, CFA Act 1958 and environmental legislation

State policies and plans
- e.g. DHS Bushfire Response Client Service Policy Living With Fire: Victoria’s Bushfire Strategy

Organisations Plans, Policies and Strategies

Regional plans
- DELWP Fire Protection Plan
- Ausnet Services Bushfire Mitigation Strategy
- Water Crisis & Incident Management System
- VicRoads Region Emergency Mgmt Plan

Sub regional plans
- CFA Wildfire Response Plans
- DELWP Fire Operations Plans
- VicPol Operations Cinder

Local plans
- CFA Community Information Guides
- VicPol Operation Firesetter and other localised short term plans

Figure 1.4 – Indicative integrated fire planning relationships (Source: Draft Hume Regional Strategic Fire Management Plan, 2010).
2 Environmental Scan: summary

The Region was formed on 1 March 2004 with the amalgamation of the former Northern and Western Metropolitan regions. Northern and Western Metropolitan Region (NWMR) is now the most populous region in Victoria, encompassing suburbs from Werribee to Ivanhoe.

Geographically, the terrain is grassy plains to the south, north and west of the Region to distinctive bushy and hilly areas in the northeast with features that include Plenty Gorge Park and Sugarloaf and Yan Yean Reservoirs. It features both farming land (dairy, beef, lamb, dry cropping [oats, barley, canola], market gardens) and industry, with nodes across many of the region’s municipalities employing significant numbers of people in a range of manufacturing, heavy and light industrial businesses.

Cutting through the region are some of the State’s busiest highways and freeways—Western Ring Road, Princes, Calder, Western Highway and Hume. These act as major links from Melbourne to regional centres, accompanied by the rail lines to Ballarat, Bendigo, Geelong and Sydney.

The Region is home to four of the state’s five top growth areas—Wyndham, Melton, Hume and Whittlesea—and the region as a whole has a population of 1.73 million people (2011) and is projected to grow to 2.18 million by 2021, an increase of 450,000 people, which is higher than the rate of growth projected for metropolitan Melbourne and Victoria.

NWMR includes 11 of the 15 most disadvantaged LGAs in the Metropolitan area. The suburbs in the region fall into all levels of disadvantage, from most disadvantaged (eg. Braybrook in Maribyrnong) to least disadvantaged (eg. Kangaroo Ground in Nillumbik).

The NWMR population aged 0–14 (18.1%) is similar to that of Victoria (18.5%), the population aged 15–24 (14.2%) is higher than Victoria (13.1%) and the proportion of population aged 65+ (10.8%) is much lower than Victoria (13.1%).

NWMR has the highest levels of cultural diversity in the state. 59.5% of the population was born in Australia and 20% of the population was born in non-English speaking countries.

The high concentration of infrastructure in the inner suburbs, to the rural urban interfaces and industrial areas in the region create a wide range of fire risks, including structural, chemical and wildfire. Fire planning will take into account the enormous rate of growth and cultural diversity in the area.

A detailed environmental scan of the NWM Region was undertaken that enabled the preparation of key assumptions about the future. This scan is available on www.ifmp.vic.gov.au (member login)

Figure 2.1 – Map of Growth Area Precinct Structure Plans showing urban growth area and boundaries in outer northern and western metropolitan Melbourne (Source www.gaa.vic.gov.au).
### Northern and Western Metropolitan LGA Population Statistics

<table>
<thead>
<tr>
<th></th>
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<td>Banyule</td>
<td>Ivanhoe</td>
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<td>134,249</td>
<td>130,021</td>
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<td>Bentbank</td>
<td>Sunshine</td>
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<td>190,960</td>
<td>201,727</td>
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<td>Darebin</td>
<td>Preston</td>
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<td>142,805</td>
<td>158,940</td>
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<td>Holroyd Bay</td>
<td>Williamstown</td>
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<td>93,717</td>
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<tr>
<td>Hume</td>
<td>Broadmeadows</td>
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<td>171,620</td>
<td>204,931</td>
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<tr>
<td>Maribyrnong</td>
<td>Footscray</td>
<td>31.2</td>
<td>73,620</td>
<td>91,704</td>
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<td>Melbourne</td>
<td>Melbourne</td>
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<td>139,519</td>
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<tr>
<td>Melton</td>
<td>Melton</td>
<td>507.3</td>
<td>168,838</td>
<td>183,747</td>
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<td>Monash Valley</td>
<td>Monash Ponds</td>
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<td>110,227</td>
<td>115,130</td>
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<tr>
<td>Moreland</td>
<td>Coburg</td>
<td>50.9</td>
<td>151,739</td>
<td>164,000</td>
<td>7.98</td>
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<tr>
<td>Nillumbik</td>
<td>Greensborough</td>
<td>431.84</td>
<td>63,678</td>
<td>69,147</td>
<td>7.91</td>
<td>CFA/MFB</td>
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<tr>
<td>Whittlesea</td>
<td>South Morang</td>
<td>460</td>
<td>162,666</td>
<td>237,625</td>
<td>31.77</td>
<td>CFA/MFB</td>
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<tr>
<td>Wyndham</td>
<td>Wantirra</td>
<td>542</td>
<td>158,202</td>
<td>245,012</td>
<td>53.43</td>
<td>CFA/MFB</td>
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<tr>
<td>Yarra</td>
<td>Richmond</td>
<td>19.6</td>
<td>78,693</td>
<td>91,035</td>
<td>14.23</td>
<td>MFB</td>
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*Figure 2.2 – NWMR LGA population statistics (as per 2011 Census data) and projected growth through to 2021.*
B - Fire Management Strategies
3 Fire Management Objectives

The protection of human life and property is the prime objective of integrated fire management planning and was further reinforced at the 2009 Victorian Bushfires Royal Commission.

The State Fire Management Strategy 2009 provides a structure for the consideration of actions to mitigate fire risk and the protection human life. The State Strategy's vision is of fire management that delivers:

- active participation of community, the fire management sector and government working together to reduce the destructive impact of fire on communities and the environment
- communities that are resilient to the effects of fire
- healthy natural, social, built and economic environments.

To guide the implementation of integrated planning, five key themes were identified in the State Strategy, which the NWM RSF MPC has used as the basis to guide its Regional Plan. These themes are displayed in Figure 3.1.

| Planning together | Develop regional, municipal and local fire management planning arrangements with a clear purpose and a consistent assessment of risk |
| Collaborative Implementation | Develop and implement fire management programs and activities in a collaborative manner |
| Building Knowledge | Build and share knowledge in the fire management sector and across the community |
| Building capabilities | Improve the capability of communities, the fire management sector and The region to deal with fires |
| Using fire | Using fire to manage fuels and support the health of natural, social and economic environments |

Figure 3.1 – State Strategy key themes


Northern and Western Metropolitan Regional Strategic Fire Management Plan

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## THEME 1: PLANNING TOGETHER

### Objective
Develop regional, municipal and local fire management planning arrangements with a clear purpose and a consistent assessment of risk.

### Strategic direction
Ensure regional, municipal and local fire management plans:
- a) Link with a common purpose;
- b) Apply a consistent method of identifying people, locations, industries and infrastructure that are at risk from fire;
- c) Planning is risk based and identifies desired outcomes; and
- d) support the health of our natural, economic, social and cultural environments.

<table>
<thead>
<tr>
<th>Strategy</th>
<th>Actions</th>
<th>Measure</th>
<th>Outcome</th>
<th>Time Frame</th>
<th>Accountability</th>
<th>Support</th>
<th>Objective Links*</th>
<th>Risk Links**</th>
<th>Completed / Maintained</th>
<th>Progress on Actions</th>
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<td><strong>Risk Assessment</strong></td>
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<td></td>
<td></td>
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</tr>
<tr>
<td>Complete/Review Victorian Fire Risk Register identifying high risk areas</td>
<td>Locations identified and mapped</td>
<td>Identification of high risk areas (VFRR) based on consistent assessment tools</td>
<td>&lt;1</td>
<td>CFA</td>
<td>MFB, DELWP/PV, LGAs</td>
<td>a &amp; c</td>
<td>1, 2, 18</td>
<td>Y</td>
<td>Of the 14 LGAs within the NWM Region, eight LGAs have undertaken VFRR. These are Nillumbik, Whittlesea, Banyule, Hume, Melton, Wyndham, Darebin and Brimbank. Regular reviews are scheduled.</td>
<td></td>
</tr>
<tr>
<td>Ongoing work in high risk (VFRR) areas for police/councils around evacuations. Including traffic management plans, to be included in MEMP and local police command.</td>
<td></td>
<td></td>
<td></td>
<td>VicPol</td>
<td>LGAs</td>
<td></td>
<td></td>
<td>Y</td>
<td>Plans completed for all of the identified relevant high risk areas.</td>
<td></td>
</tr>
<tr>
<td><strong>Vulnerable Groups</strong></td>
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<td></td>
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<td></td>
<td></td>
<td></td>
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<td></td>
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<td></td>
</tr>
<tr>
<td>Maintain systems for identifying vulnerable people.</td>
<td>Systems in place</td>
<td>Identification of the location of vulnerable groups of people in regional fire management planning and municipal fire management plans</td>
<td>&lt;1</td>
<td>DH&amp;HS / LGAs</td>
<td>CFA, MFB</td>
<td>a &amp; c</td>
<td>1, 2, 4, 5, 18</td>
<td>Y</td>
<td>Action Completed. Refer to DH&amp;HS policy document: “Vulnerable People in Bushfire Risk Areas Policy 20111-2012”</td>
<td></td>
</tr>
<tr>
<td>Maintain systems for identifying vulnerable people.</td>
<td>Information available and agreed access procedures documented in Emergency Management Plans</td>
<td></td>
<td></td>
<td>DH&amp;HS / LGAs</td>
<td>CFA, MFB</td>
<td>a,c &amp; d</td>
<td>1, 2, 4, 5, 18</td>
<td>Y</td>
<td>Identification at local government level; DH&amp;HS has developed a web-based database as part of the Vulnerable People in Emergencies Program which is now available for use.</td>
<td></td>
</tr>
<tr>
<td><strong>Assets, Services, Infrastructure</strong></td>
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<td></td>
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<tr>
<td>1.2 Identify regionally significant assets (environmental, economic and social assets) and essential services vulnerable to fire</td>
<td>Reports identifying regionally significant infrastructure, and analysis of consequence of loss (where appropriate)</td>
<td>Identification of significant infrastructure, assets and services that are at risk from fire in regional fire management planning and municipal fire management plans</td>
<td>1-5</td>
<td>LGAs (non critical infrastructure), VicPol (critical infrastructure)</td>
<td>MEMPC, VicPol, Industry</td>
<td>a &amp; c</td>
<td>2, 3, 4, 6, 16</td>
<td>Y</td>
<td>EMV Regional Risk Workshops are currently underway, the outcomes of these workshops are informing the development of a regional risk treatment table.</td>
<td></td>
</tr>
<tr>
<td>Identify regionally significant infrastructure, assets and essential services that are at risk from fire and evaluate the consequence of the loss of these assets</td>
<td>Significant infrastructure and asset layer/s developed for NWMR and identified in the municipal fire management plans</td>
<td></td>
<td></td>
<td>MEMPC, VicPol, Industry</td>
<td>a &amp; d</td>
<td>3, 5, 16</td>
<td></td>
<td>EMV Regional Risk Workshops are currently underway, the outcomes of these workshops are informing the development of a regional risk treatment table.</td>
<td></td>
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</table>

* Refer to Strategic direction above
** Refer to Section 5, Fire Management Implementation risks
**THEME 1: PLANNING TOGETHER**

**Objective**
Develop regional, municipal and local fire management planning arrangements with a clear purpose and a consistent assessment of risk.

**Strategic direction**
Ensure regional, municipal and local fire management plans:
- a) Link with a common purpose;
- b) Apply a consistent method of identifying people, locations, industries and infrastructure that are at risk from fire;
- c) Planning is risk based and identifies desired outcomes; and
- d) support the health of our natural, economic, social and cultural environments.

<table>
<thead>
<tr>
<th>Strategy</th>
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<th>Completed / Maintained</th>
<th>Progress on Actions</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.3 Identify significant industries (unique industries or communities highly dependent on particular industry) vulnerable to fire</td>
<td>Identify what significant industries are at risk from fire and evaluate the consequences of loss (cost, impact of loss and time to reinstate)</td>
<td>Report identifying significant industries with a risk analysis for each industry or relevant community</td>
<td>Identification of significant industries that are at risk from fire in regional fire management planning and municipal fire management plans</td>
<td>1-5 LGAs</td>
<td>MEMPC, VicPol, Industry, Worksafe</td>
<td>a &amp; c</td>
<td>2, 3, 4, 6</td>
<td>Y</td>
<td>Undertaken as part of the VFFR process and encapsulated in each MFMP. This work will be complemented by the EMV Regional Risk Workshops commencing in March 2015.</td>
<td></td>
</tr>
<tr>
<td>1.3 Identify significant industries (unique industries or communities highly dependent on particular industry) vulnerable to fire</td>
<td>Map and share information about the location of significant industries</td>
<td>Significant industries layer developed and identified in the municipal fire management plans.</td>
<td>1-5 LGAs</td>
<td>VicPol, MFB, CFA, DELWP/PV, Industry, Worksafe</td>
<td>a &amp; d</td>
<td>3, 5</td>
<td>Y</td>
<td>Undertaken as part of the VFFR process and encapsulated in each MFMP. This work will be complemented by the EMV Regional Risk Workshops commencing in March 2015.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1.4 Seek stakeholder feedback into fire management planning</td>
<td>Feedback on risk assessment and fire management planning through the municipal fire management planning process</td>
<td>Feedback from community and relevant stakeholders into the municipal fire management planning process</td>
<td>Ongoing stakeholder feedback into municipal fire management plans</td>
<td>Ongoing LGAs</td>
<td>MEMPC</td>
<td>a, b &amp; d</td>
<td>3, 4, 5</td>
<td>Y</td>
<td>Stakeholders actively involved across all fire management committees</td>
<td></td>
</tr>
</tbody>
</table>

---

* Refer to Strategic direction above
** Refer to Section 5, Fire Management Implementation risks
### THEME 2: COLLABORATIVE IMPLEMENTATION

**Objective**
Develop and implement fire management programs and activities in a collaborative manner.

**Strategic direction**
- a) Community engagement is conducted in line with IAP2 key principles and core values to provide input into plan development;
- b) Engagement of the broader Fire Management Sector to ensure planning is collaborative and integrated;
- c) Integrated fire management issues are represented in relevant regional forums;
- d) Consistent policies, procedures and messages to ensure inter-operability;
- e) Improve multi-agency accessibility to regional fire management information;
- f) Joint monitoring and review;
- g) Establishing and maintaining effective dispute resolution processes; and
- h) Communicating the roles and responsibilities of Fire Management Sector and the community.

**Strategy**

| Action                                                                 | Measure                              | Outcome                                                        | Time Frame | Accountability | Support | Objective Links* | Risk Links** | Progress on Actions |
|-----------------------------------------------------------------------|--------------------------------------|                                                               |            |                |         |                |             |                   |
| 2.1 Develop and implement systems of information exchange              | Databases                            | Regional contact list and matrix diagram                       | <1         | Chair RSFMPDC  | RSFMPDC | b                | 5, 12        | Contact lists currently exist and are regularly maintained |
|                                                                        |                                      | Access across the fire management sector to reliable emergency management contact information |            |                |         |                  |             |                   |
|                                                                        |                                      | Regional command database                                     | Ongoing    | Chair RSFMPDC  | RSFMPDC | b                | 5, 12        | Data integration underway as part of EMCOP Program.       |
|                                                                        |                                      | Regional data inserted into the command database (once developed at State level) |            |                |         |                  |             |                   |
| 2.2 Geographic Information Systems                                     |                                      | Fire management GIS data shared                                | 1-5        | Chair RSFMPDC  | DH&HS, DELWP, CFA, LGAs, utilities | b                | 5, 12, 16    | Emap incorporating existing available data and incorporation into EMCOP is in process. |
|                                                                        |                                      | Sharing fire management data across a common GIS platform     |            |                |         |                  |             |                   |
| 2.3 Develop and support opportunities for professional development      |                                      | Engagement with government departments and agencies participating in annual joint exercises | Ongoing    | Fire agencies  | RSFMPDC | b & c             | 5, 7, 8, 12 | Ongoing. A range of joint exercises are developed and conducted each year in preparation for the fire season. |
|                                                                        |                                      | Improve emergency management skills and knowledge of staff    |            |                |         |                  |             |                   |

* Refer to Strategic direction above
** Refer to Section 5, Fire Management Implementation risks

Also refer to Strategy: 3.1 Maintain relevant regional links across borders and across other issues.
**THEME 3: BUILDING KNOWLEDGE**

**Objective**  
Build and share knowledge in the fire management sector and across the community

**Strategic direction**  
- Develop and maintain a good understanding of fire risk in, and adjacent to, the region;  
- Improve systems of communication, information flow and documentation and utilise greater use of web-based technology;  
- Ensure consultation and engagement with the community and stakeholder agencies occurs as part of the plan development process to add value and for integration purposes;  
- Value and maintain corporate memory and past experience;  
- Access to current research and leading examples of practice;  
- Increase community awareness and understanding of the nature of fire;  
- Ensure community programs meet the needs of the community; and  
- Promote best practice and share information

<table>
<thead>
<tr>
<th>Strategy</th>
<th>Measure</th>
<th>Outcome</th>
<th>Time Frame</th>
<th>Accountability</th>
<th>Support</th>
<th>Objective Links</th>
<th>Risk Links</th>
<th>Progress on Actions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regional Forums</td>
<td>Identify links with other regional forums needed to progress fire management across NWM</td>
<td>Scan of relevant regional forums</td>
<td>Fire management linked in relevant regional plans and policies outside the fire management sector</td>
<td>&lt;1</td>
<td>RSFMPC</td>
<td>c</td>
<td>4, 7</td>
<td>Y</td>
</tr>
<tr>
<td></td>
<td>Represent fire management issues on relevant forums</td>
<td>Fire management issues represented in relevant forums</td>
<td>Ongoing</td>
<td>Fire agencies, LGAs, DELWP</td>
<td>b &amp; c</td>
<td>4</td>
<td>Y</td>
<td>Ongoing at RSFMPC and agency level</td>
</tr>
<tr>
<td>Cross Boundary Issues</td>
<td>Identify cross regional border issues for further evaluation and where necessary resolution</td>
<td>Issues raised with authorities as needed</td>
<td>Cross border issues incorporated into fire management planning</td>
<td>Ongoing</td>
<td>Fire agencies</td>
<td>b &amp; c</td>
<td>6, 7</td>
<td>Y</td>
</tr>
<tr>
<td>Access to research / best practice</td>
<td>Scan what research and best practice examples are available</td>
<td>Identification of best practice examples and research</td>
<td>Ready access to current research and best practice examples and information</td>
<td>Ongoing</td>
<td>RSFMPC</td>
<td>c</td>
<td>5, 12</td>
<td>Y</td>
</tr>
<tr>
<td></td>
<td>Communicate available research and best practice examples</td>
<td>Regional access to best practice and research</td>
<td>Ongoing</td>
<td>RSFMPC</td>
<td>c</td>
<td>5, 12</td>
<td>Y</td>
<td>Ongoing at RSFMPC and agency level</td>
</tr>
<tr>
<td></td>
<td>Share ideas for improving business continuity planning</td>
<td>Access to relevant ideas and experience</td>
<td>Ongoing</td>
<td>Fire agencies</td>
<td>c</td>
<td>12</td>
<td>Y</td>
<td>Ongoing at RSFMPC and agency level</td>
</tr>
<tr>
<td></td>
<td>Consolidate current fire response statistics</td>
<td>Integrated, accessible, regionally relevant fire information</td>
<td>Access to reliable regional fire statistics, e.g. Fire Incident Response System</td>
<td>&lt;1</td>
<td>Fire agencies</td>
<td>c</td>
<td>12</td>
<td>Y</td>
</tr>
</tbody>
</table>

* Also refer Strategy: 1.1 Identify locations and persons vulnerable to fire  
  1.2. Identify regionally significant assets (environmental, economic and social assets) and essential services vulnerable to fire  
  2.2 Support emergency management planning through MFMPC or MEMPC as appropriate  
  2.3 Clarify expectations about Fire Management sector roles and responsibilities in regards to recovery  
  2.4 Develop and support opportunities for professional development  
  4.2 Monitor and implement changes to fire management arising from the Royal Commission  

* Refer to Strategic direction above  
** Refer to Section 5, Fire Management Implementation risks
## THEME 4: BUILDING CAPABILITY

**Objective**
Improve the capability of communities, the fire management sector and the region to deal with fires

**Strategic direction**
a) Communicating fire risk and who is vulnerable;
b) Sharing knowledge and information;
c) Building skills within agencies, organisations and the community to facilitate well informed and prepared communities;
d) Being prepared for and able to recover from fires;
e) Identify adequate resources to address fire risk issues; and
f) Implementing continuous improvement.

<table>
<thead>
<tr>
<th>Strategy</th>
<th>Measure</th>
<th>Outcome</th>
<th>Time Frame</th>
<th>Accountability</th>
<th>Objective Links</th>
<th>Risk Links</th>
<th>Progress on Actions</th>
</tr>
</thead>
<tbody>
<tr>
<td>4.2 Monitor and implement changes to fire management arising from the Royal Commission</td>
<td>Monitor changes arising from the State government response to the Black Saturday Royal Commission</td>
<td>Understanding changes from Royal Commission and the impact on Fire Management Planning.</td>
<td>Ongoing</td>
<td>Fire agencies</td>
<td>c</td>
<td>12</td>
<td>Y</td>
</tr>
<tr>
<td>Implement changes from State government response to Royal Commission relevant to IFMP</td>
<td>Implementation of changes from the Royal Commission</td>
<td>Implementation of Royal Commission changes</td>
<td>1-5</td>
<td>Fire agencies</td>
<td>b &amp; d</td>
<td>17</td>
<td>Y</td>
</tr>
</tbody>
</table>

Also refer: Strategy: 1.1 Identify locations and persons vulnerable to fire  
1.2. Identify Regionally significant assets (environmental, economic and social assets) and essential services vulnerable to fire  
1.3. Identify significant industries (unique industries or communities highly dependant on particular industry) vulnerable to fire  
1.4. Seek Stakeholder feedback into fire management planning  
2.3 Clarify expectations about Fire Management Sector roles and responsibilities in regards to recovery  
2.4 Develop and support opportunities for professional development  
3.1 Maintain relevant regional links across borders and across other issues
### THEME 5: USING FIRE

**Objective**
Using fire to manage fuels and support the health of natural, social and economic environments

**Strategic direction**

- a) Adopt a strategic approach to the use and management of fire and other fuel hazard management to promote the health and well being of our natural, social, built, economic and cultural environments;
- b) Review and align the current practices associated with the use of fire and fuel management; and
- c) Improve collaborative management practices on the private-public land interface into the fire management planning process.

<table>
<thead>
<tr>
<th>Strategy</th>
<th>Measure</th>
<th>Outcome</th>
<th>Time Frame</th>
<th>Accountability</th>
<th>Support</th>
<th>Objective Links*</th>
<th>Risk Links**</th>
<th>Progress on Actions</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>5.1 Improve structures for undertaking fire management works on private land to support public fire safety</strong></td>
<td>Advocate for the creation of a code of practice for private land</td>
<td>Issue raised with and addressed at the SFMPC</td>
<td>&lt;1</td>
<td>RSFMP</td>
<td>CFA / DELWP</td>
<td>b &amp; e</td>
<td>14</td>
<td>Awaiting advice from SFMPC. Please note this is a State strategy</td>
</tr>
<tr>
<td></td>
<td>Undertake a scan of the current Regional processes and procedures that exist for the delivery of fire management work on private land</td>
<td>Regional processes and procedures documented</td>
<td>1-5</td>
<td>RSFMP</td>
<td>LGAs / CFA</td>
<td>b &amp; e</td>
<td>14</td>
<td>Awaiting advice from SFMPC. Linked to above as a State strategy</td>
</tr>
<tr>
<td></td>
<td>Advocate for regulatory change for works on private land</td>
<td>Advocate the regional and municipal view during state level policy development</td>
<td>1-5</td>
<td>RSFMP</td>
<td>CFA</td>
<td>b &amp; e</td>
<td>14</td>
<td>See above. Several projects have been implemented at a regional level including the Grassland Interface Project.</td>
</tr>
<tr>
<td></td>
<td>Review fuel reduction needs on private land in the context of the regional risk environment</td>
<td>Priorities for fuel management works mapped</td>
<td>1-5</td>
<td>RSFMP</td>
<td>CFA</td>
<td></td>
<td></td>
<td>Several collaborative projects have been developed around fuel reduction, including Melbourne Water LiDAR and CFA Grassland Interface Project. Data from the DELWP Bushfire Risk Landscape Project to be used to further refine mapping of risk environment.</td>
</tr>
<tr>
<td></td>
<td>Advocate for the use of State based modelling tools (such as Phoenix) to guide decision making on the use of fire</td>
<td>Issue raised with and addressed at the SFMPC</td>
<td>1-5</td>
<td>RSFMP</td>
<td>DELWP / CFA</td>
<td></td>
<td></td>
<td>Ongoing, with development of MFMPCs. Data from the DELWP Bushfire Risk Landscape Project to be used to further refine mapping of risk environment.</td>
</tr>
<tr>
<td></td>
<td>Investigate opportunities for projects/programs where cross tenure fuel management can occur</td>
<td>Pilot projects identified</td>
<td>1-5</td>
<td>CFA</td>
<td>DELWP / LGAs</td>
<td></td>
<td></td>
<td>Cross tenure opportunities identified and projects completed such as the Grassfire Interface Project and Plenty Gorge Strategy. The Grassfire Interface Project has since been adopted by state.</td>
</tr>
</tbody>
</table>
5 Fire Management Implementation risks

As described in the tables, the ‘Risk Link’ column refers to the potential barriers to achieving/implementing a particular strategy or action and is numbered according to identified risks. These risks were identified at a meeting of representatives from the three metropolitan regions (Northern & Western, Southern and Eastern) as part of a knowledge sharing exercise.

The overarching issue identified was the risk of being unable to effectively anticipate, respond and recover from major fires in a coordinated manner. A range of specific risks were identified as issues in the metropolitan regions and are listed below.

The risk of failing to:

1. Assess risks across the region consistently.
2. Communicate and engage within and across organisations effectively.
3. Engage and communicate with the community appropriately and effectively.
4. Implement integrated fire management planning effectively on private property.
5. Identify critical industries or communities that are highly dependant on a particular industry, impacted by treatment activities.
6. Secure appropriate organisational commitment and resources to implement IFMP planning process.
7. Identify all relevant stakeholders.
8. Meet the needs of vulnerable communities to build capacity to access, understand and apply information to prepare for and respond appropriately to fire events.
9. Assess the impact of individual organisational policies developed in isolation.
10. Failing to adequately consider the impacts of other related legislation.
11. Provide adequate resources to deal with competing priorities.
13. Be able to coordinate systems and process across boundaries.
14. Develop common policies, process and practices that are acceptable to all stakeholders.
15. Access critical data or information to develop integrated plans.

There is also the risk of:

16. Possible loss of biodiversity due to the conflict between conservation and fire management.
17. Possible loss of water quality and waterway protection.
18. Plans not being implemented by agencies and accepted by the community.
6 Engagement and Communication

Engaging with stakeholders in the development and implementation of this plan is essential for drawing on existing knowledge and experience, building support for, and involvement in, fire management planning across the Region.

These communication and engagement tasks have been built around the model of public engagement developed by the IAP2 called the Public Participation Spectrum. This spectrum provides a framework for planning effective communication and engagement about any issue or plan. It is used as the basis of communication and engagement tasks through both the development and implementation of this plan.

<table>
<thead>
<tr>
<th>Inform</th>
<th>Consult</th>
<th>Involve</th>
<th>Collaborate</th>
<th>Empower</th>
</tr>
</thead>
<tbody>
<tr>
<td>Provide balanced information to stakeholders</td>
<td>Obtain feedback on analysis and decisions</td>
<td>Work directly together to ensure issues are understood</td>
<td>Partner in each aspect of decision making</td>
<td>Place final decision making in the hands of primary stakeholders</td>
</tr>
</tbody>
</table>

Figure 6.1: IAP2 – Public Participation Spectrum.

The main stakeholders involved are represented on the NWM Regional Strategic Fire Management Planning Committee. These stakeholders are partners in securing the success of IFMP across the region. The State Fire Management Planning Committee is an internal stakeholder because it has a duty to ensure that fire management planning is effective across the state.

Municipal fire management planning committees also have a strong interest in this plan because decisions made at a regional level will help to shape fire management at a municipal level.

The responsibility for communication and engagement across organisations that are represented on the regional committee rests with the organisation itself. Different organisations will develop arrangements for keeping their staff informed of what is occurring in the implementation to IFMP in the NWM Region. There are other key stakeholders that are not currently involved in the regional committee. The IFMP Regional Network Manager will be responsible for keeping these organisations informed and involved with relevant IFMP issues as they arise.
Primary stakeholders

- Municipal Councils
- Country Fire Authority
- Metropolitan Fire Brigade
- Department of Environment, Land, Water and Planning
- Parks Victoria
- Department of Health and Human Services
- Department of Economic Development, Jobs, Transport and Resource
- Victoria Police State Emergency Service
- VicRoads
- Water authorities (e.g. Melbourne Water, Western Water)
- Ausnet Services (electricity transmission)
- Rail Authorities (e.g. V/Line, Metro, VicTrack)
- Port of Melbourne Corporation
- Department of Education and Training
- Telstra
- NBN Co
- Melbourne Airport

Secondary stakeholders

- Other regional fire management committees
- Catchment management authorities
- Industry
- Media
- Victorian Farmers Federation
- Community groups
- Worksafe

See Appendix 2 for more detail on the involvement of these stakeholders in Fire Management.
Stakeholder engagement in plan development

This table outlines how stakeholders will be engaged in the development of both regional and municipal-level fire management plans. The International Association for Public Participation (IAP2) model was used to inform this work, as described in column Two (Level of involvement).

<table>
<thead>
<tr>
<th>Stakeholder</th>
<th>Communication</th>
<th>Engagement</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Level of involvement (IAP2 model)</td>
<td>Report minutes and agenda</td>
<td>Updates</td>
</tr>
<tr>
<td>Internal stakeholders</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>State Fire Management Planning Committee</td>
<td>Empower</td>
<td></td>
<td></td>
</tr>
<tr>
<td>RSFMPC members</td>
<td>Collaboration and empower</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>MFMP's (where established) and MEMP's</td>
<td>Involve</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Primary stakeholders</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Primary stakeholders (committee reps)</td>
<td>Collaboration and empower</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Primary stakeholders (no committee rep)</td>
<td>Involve</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Other stakeholders</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Secondary stakeholders</td>
<td>Inform and consult</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Interested groups including community</td>
<td>Inform</td>
<td>✓</td>
<td>✓</td>
</tr>
</tbody>
</table>

Figure 6.2 – Stakeholder engagement in the development of regional municipal level fire management plans.
Communicating fire management programs and initiatives

The following table outlines how stakeholders and the community will be engaged in communicating fire management programs and initiatives

<table>
<thead>
<tr>
<th>Strategy</th>
<th>Actions</th>
<th>Measure</th>
<th>Outcome</th>
<th>Accountability</th>
<th>Time Frame</th>
</tr>
</thead>
<tbody>
<tr>
<td>Determine community expectations about fire prevention response and recovery</td>
<td>Establish community engagement and reporting for municipal fire management plans</td>
<td>Community engagement process for municipal fire management planning</td>
<td>A process to inform municipal fire management planning of community expectations about their loyalty</td>
<td>LGAs, MEMPC</td>
<td>Ongoing initiative</td>
</tr>
<tr>
<td>Fire agencies communications</td>
<td>Communicate planned fire management works to relevant municipal committees</td>
<td>Documentation of planned works provided to municipal fire management planning committees.</td>
<td>Agreed processes for communication planned fire management works across the fire management sector</td>
<td>Fire agencies</td>
<td>Ongoing</td>
</tr>
<tr>
<td></td>
<td>Network map showing the relationship between various fire management planning systems</td>
<td>Network map produced</td>
<td></td>
<td>Fire agencies</td>
<td>1 (2012)</td>
</tr>
<tr>
<td></td>
<td>Share major fire debrief outcomes across fire agencies</td>
<td>Major fire debrief outcomes shared across the Region</td>
<td></td>
<td>Fire agencies</td>
<td>Ongoing</td>
</tr>
<tr>
<td></td>
<td>Agreed joint works based on risk</td>
<td>Agreed works based on risk</td>
<td></td>
<td>Fire agencies</td>
<td>Ongoing</td>
</tr>
</tbody>
</table>

Figure 6.3 – How stakeholders will be engaged in communicating fire management programs and initiatives.

7 Plan Review

In accordance with the state IFMP Framework, regional plans have a ten year lifespan and a five year review period. Given the rapidly evolving nature of the underpinning risk assessment tools, the development of municipal plans and guidance from the Fire Services Commissioner, the RSFMPC has determined that a review will be conducted after two years (or earlier) should the Regional Committee identify any key areas or risks that require an earlier revision.

The RSFMPC will monitor the performance of this plan on an annual basis and report the outcomes of this monitoring to the organisations represented on the regional committee and the SFMPC.

Monitoring and reporting will be undertaken in accordance with the detailed advice provided for integrated fire management planning by the SFMPC.

5 The Integrated Fire Management Planning Framework,
Northern and Western Metropolitan Regional Strategic Fire Management Plan
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C - Appendices
Appendix 1 – Current and future fire risks in Northern and Western Metropolitan Region
Current and future fire risk in Northern and Western Metropolitan Region: Key assumptions

Fire risk is the chance that lives and assets, such as property and economic, social and environmental assets, are impacted as a result of fire. The concept of risk has two elements—the likelihood of something happening and the consequences if it happens.

Victoria is recognised as one of the most fire prone areas in the world and the NWM Region has experienced a number of significant fires. This fire history, topography, climate and weather conditions—and the large number of people living and visiting high fire risk locations during the Fire Danger Period—makes fire a real risk. This plan will provide direction and support for the fire management in the NWM Region for the next 10 years (with a review after two years, or as required). To enable this to be effective it is important to understand and anticipate the future directions, trend and challenges to be planned for.

This section outlines the elements that increase the likelihood of a fire related emergency occurring and threatening lives and assets across the Region. Recognising and understanding these elements and how they influence fire risk is the cornerstone of fire management plans and planning. Elements at risk can be grouped in the following topics:

- Built Environment
- Economy
- Human
- Environment

A detailed environmental scan of the NWM Region was undertaken that enabled the preparation of key assumptions about the future. This scan is available on www.ifmp.vic.gov.au or upon request to the Fire Planning Network Manager.
Built Environment

The assumptions for the future for the built environment have strong linkages to population change and changes in economic environments.

Our Region contains significant high rise office and apartment buildings with large numbers of occupants. Municipalities should retain their proactive stance on residential housing, building and estate design to ensure that road design is adequate for population movement, and also allows appropriate fire appliance access. The RSFMPC supports ongoing discussion regarding estate and building design.

Assumptions for the Future—Land Use

- Demand for residential land will continue in the growth areas of the Region.
- New land use planning criteria will be developed as a result of the Bushfires Royal Commission.
- Lifestyle changes will affect land use (e.g. planned marina in Werribee South).
- Transition of industrial to urban infill development will continue to increase the population in our region (former Fruit and Vegetable market site development, Footscray, and Amcor development, Alphington).

Assumptions for the future—Housing

- Strategies that consider the fire management needs of rental tenants in high risk areas.
- Additional housing around existing parks such as the Plenty Gorge.
- Providing fire awareness education to new residents in high risk fire localities.

Assumptions for the future—Business and Commercial

- There will be a greater focus toward the development of central activity districts.
- Redevelopment and expansion of existing commercial hubs such as Broadmeadows, Greensborough and Werribee Plazas.

Assumptions for the future—Industrial

- Changes in the management of Single Wire Earth Return lines and private lines will take effect as a result of the VBRC.
- Industrial land use on the residential edge—and the need to plan for multiple hazard events.
Economy

Our Region has several major highways and transport hubs—a fire on any of these routes will cause significant disruption and impact and cause economic loss.

Considerable distances have to be travelled by our residents to gain access to jobs, services and recreation opportunities. This generates a high level of demand for both private vehicle and public transport travel, with substantial risk to local road network and public transport infrastructure.

Our region includes the Bolte and West Gate Bridges; major arterial roads/freeways; Burnley & Domain Tunnels; Melbourne and Essendon Airports; Port of Melbourne; Metropolitan and rural rail services; and interstate and rural rail freight.

Assumptions for the future—Transport

- Changes in the management of roadsides and transport routes will take effect as a result of the VBRC.
- Outer Metropolitan Ring and E6 Transport Corridor: linking residential and employment growth areas in the north and west, this new transport corridor will create road and transport links through the Werribee, Melton, Tuliamarine and Craigieburn/Mickleham areas, and from the Metropolitan Ring Road in Bundoora to Donnybrook.
- Development of the intermodal freight terminal at Truganina.
- Development of the 925-hectare Werribee Agriculture and Food Technology Precinct as a research, technology and industry hub.
- Regional Rail Link: is a major new line running from West Werribee to Sunshine and then through to Southern Cross Station. Up to 50 kilometres of new rail track will be laid, allowing regional services to run express into Melbourne. Construction is underway and scheduled for completion in 2014.
- Following the Port Philip Bay dredging project, the Docklands will be further developed to allow for increase in freight.

Assumptions for the future—Manufacturing and Industry

- Planning for all hazards incident on the urban/industrial interface.

Assumptions for the future—Tourism

- Tourism can impact on population patterns in the Northern and Western Metropolitan Region, particularly the Melbourne CBD, Southbank, Docklands and coastal areas that have significant fire management implications.
**Assumptions for the future—Service Industries**
- Fire management and education programs targeting the education, health and aged care sectors.

**Assumptions for the future—Employment**
- The opportunity to build mutually beneficial partnerships with community development organisations.

**Assumptions for the future—Communication**
- The establishment of the National Broadband network will lead to increased availability and improved services. Initially, services will extend slowly and may be limited in take up by availability, economic or personal capability, or social limitations.
- 3G networks will evolve into 4G or better mobile systems, providing even greater portability and reach to end users.
- Emergency service communications network will be managed as a priority for protection and access.
- New technology developments bring opportunities for fire management in communications systems and infrastructure.
- Increased use of social media in delivering fire awareness messages.
**Human**

Northern and Western Metropolitan is a thriving and diverse region, with close to 100 different ethnic communities and 65 language groups represented. It has numerous festivals, sporting events, business areas and tourist locations that draw large numbers of residents and visitors. A fire has the potential to severely impact these communities and cause substantial disruption. How we understand settlement and demographic patterns is important in mitigating this risk.

At present, much planning is centred on green wedges. These are open landscapes that are set aside to conserve rural activities and significant natural features between the growth areas of metropolitan Melbourne as they spread out along major road and rail links. In NWMR, there are green wedges set aside in the municipalities of Brimbank, Hume, Melton, Nillumbik, Whittlesea and Wyndham. Fire management will need to take account of green wedges and their potential impacts on the urban/rural interface, particularly in open grasslands/parklands and in developments that back onto open public land.

An example of this risk occurred on Black Saturday when several homes backing onto grasslands in Narre Warren North were destroyed in a quick moving grassfire. If not for the efforts of firefighters and a water bombing helicopter, there was potential for hundreds of homes to be lost, along with lives. The fire was caused by sparks from a power grinder, which jumped the fence and ignited dry grass.

**Assumptions for the future—Population Change**

- Melton, Wyndham, Hume and Whittlesea are designated growth areas.
- Increased emphasis on community education and ownership of risk and treatments.
- Ability to sustain volunteer numbers in urban growth areas.

**Assumptions for the future—Age**

- Aging populations will require greater support in preparing, responding and recovering from fires.

**Assumptions for the future—Health and Wellbeing**

- Fire education programs to be implemented for vulnerable people, working closely with community agencies and health providers.

**Assumptions for the future—Culture and Language**

- Fire education programs to be implemented for culturally and linguistically diverse communities.
Environment (Parks and Open Spaces)

Northern and Western Metropolitan Region has many wonderful forested areas, parklands and reserves that are used as gathering places and for recreation.

Prominent parks include Organ Pipes National Park, Woodlands Park, Derrimut Grasslands, Green Gully Reserve, Keilor Park Recreation Reserve, Brimbank Park, Iramoo Wildflower Grassland Reserve and Horseshoe Bend Children’s Farm.

Many other parks and open spaces feature dry and wet sclerophyll forests or grasses such as Plenty Gorge, Merri Creek, Brimbank Park and outer areas in Nillumbik, Whittlesea and Hume.

Dry sclerophyll forests are the most common forest type in Australia; they have hard leaves in the understorey and the overstory. Wet sclerophyll forests, such as Mountain Ash have a taller eucalyptus overstory and a soft-leaved dense understorey such as tree ferns. The wet forests require high rainfall and are usually at higher altitudes or in sheltered places.

While the wet sclerophyll forests are usually less flammable than the dry forests, during drought conditions the wet forests can sustain large uncontrollable fires such as those that occurred in 2002/03 and 2009. The fires that move through these wet forests can produce high flame heights, high radiant heat levels and a significant threat from embers starting spot fires well ahead of the main fire front.
This is shown in the following extract from the 2009 Victorian Bushfires Royal Commission about the fire burning towards Kinglake West.

*The fire reached Mt Disappointment at about 15:00. As the main fire front progressed up the mountain..... spotting was occurring 20 and 40 kilometres ahead of the main fire front.*

The dry sclerophyll forest type, which usually occurs on the local foothills, also presents a fire safety challenge. While the fuel loads may not be as high as in wet forests, fire suppression is still difficult during high fire danger weather conditions. Given that these dry forests are dry during most summers, fire management in and near dry sclerophyll forests is an annual task.

While grass fires may have lower flame heights and intensity than forest fires, the combination of open ground and fine fuels can produce very fast moving destructive fires. This speed can catch people and stock in the open without protection from the fire.

The hilly and mountainous terrain predominately found in the Whittlesea and Nillumbik municipal areas also present a fire fighting challenges. Hills and mountains can cause local winds resulting in erratic fire behaviour.
**Assumptions for the future—Biodiversity**

- Fire ecology planning knowledge and skills will develop across the public and private landscape.

**Assumptions for the future—Climate**

- In recent years, due to the extended period of drought, fire restrictions have usually been in place from November until mid April or May.
- It's acknowledged the region is susceptible to extended periods of hot and dry weather.
- The fire danger period (FDP) will become longer. For example, in CFA NWMR, FDP's in four of the past five summers have started earlier and finished later. The most recent exception has been 2010/11, with the arrival of drought breaking rains and a FDP from 3 January to 7 March 2011.
  - In 2006/07, the FDP began 30 October 2006, ended 16 April 2007
  - In 2007/08, the FDP began 12 November 2007, ended 1 May 2008
  - In 2008/09, the FDP began 17 November 2008, ended 1 May 2009
  - In 2009/10, the FDP began 30 November 2009, ended 22 March 2010.

From 1996 to 2005, nine of the 11 FDP commencement dates were late December/early January. Of those nine, four had termination dates of 1 May (97/98, 02/03, 03/04, 05/06), the remainder terminating in March/early April. The early commencement and late termination dates of recent seasons is indicative of a trend towards extended fire seasons.

- Based on conditions from the recent prolonged period of dry weather:
  - The number of Forest Fire Danger Index (FFDI) days of very high or extreme, when fires are difficult to control, will remain high
  - The number of Grassland Fire Danger Index (GFDI) days of very high or extreme, when fires are difficult to control, will remain high.
Appendix 2 – Stakeholder and municipal roles and responsibilities
Committee roles and responsibilities

The Regional Strategic Fire Management Planning Committee has several broad roles:

- Securing regional stakeholder commitment, collaboration and coordination.
- Identification of broader hazard impact areas and associated vulnerabilities.
- Identifying and securing broader landscape treatments to treat these risks.
- Planning across municipal, regional and state boundaries.
- Determining regional assets that would cause impacts of national, state and or regional consequence if significantly affected by fire.
- Identifying the impact of regional changes in demographic trends and land use on fire management.
- Providing links between municipal and state fire management planning.
- Providing a mechanism for aggregation of municipal issues to State Fire Management Planning Committee.

A Municipal Fire Management Planning Committee (where established, or at MEMPC level) has the following role:

- Identifying and prioritising the risks and vulnerabilities across the municipality.
- Reducing the likelihood and consequence of fire hazards within local communities in the municipality.
- Management of local priorities relating to protection of communities and assets.
- Development and implementation of works programs for the management of fires, including hazard removal and fuel management.
- Community engagement activities.
- Identification of reliable water supplies.
- Encouragement of increased responsibility by the community.
- Consideration of planning across municipal boundaries.
- Elevation of matters to the regional fire management planning committee.
Stakeholder roles and responsibilities

This table describes how different organisations and groups are involved in fire management across Northern and Western Metropolitan Region. The International Association for Public Participation (IAP2) model was used to inform this work (see Section 6 Engagement and Communication).

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Northern and Western Metropolitan Regional Strategic Fire Management Plan
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**Municipal policies and plans**

Councils have a range of activities, policies and plans that impact on fire management in the Region.

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<td><strong>Plan Objectives</strong></td>
<td>● Prevention and reduction of the impacts of emergency threats across the municipality including fire. ● Manage use of Resources in response. ● Manage recovery. ● Manage Vulnerable Person Register Note: CFA councils will have VPR and MFB councils will have their own list or own registers.</td>
<td>● Identify and plan for the prevention of and management of all fire risks across the municipality. ● Prioritise actions.</td>
<td>● Plan fire prevention and response actions needed to protect a township from bushfire. ● Provide information for people to develop their own bushfire survival plans.</td>
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Appendix 3 – Agency Profiles
**Metropolitan Fire Brigade (MFB)**

The Metropolitan Fire Brigade (MFB) is responsible for protecting more than two million Melbourne residents, workers and visitors as well as billions of dollars worth of assets and key infrastructure.

It works in partnership with other agencies to facilitate and deliver a range of emergency services to the Victorian community in the Metropolitan Fire District—an area of more than 1,000 square kilometres covering 25 municipalities.

To achieve its goal of protecting the community, it provides specialist prevention, preparedness, response and recovery services across the fire district. The MFB is also involved in the development of emergency management plans for the State, providing ongoing advice to local, state and federal government departments and agencies, as well as local communities.

The people who live and work in the metropolitan fire district come from diverse backgrounds. Their average age is 35.4 and they speak more than 250 languages. One third of them were born overseas. More than 100,000 have little or no spoken English.

The MFB works closely with community groups, facilitating education campaigns and programs to ensure that people are equipped with the skills, information and tools needed to prevent, prepare, respond and recover from emergencies.

It is estimated that the cost to the community of fire and related incidents within the Metropolitan Fire District is $230 million per annum. This estimate takes into account the direct and indirect costs but does not include costs of suppression or prevention. The cost of incidents has been calculated across nine different environment types to give an appreciation of the relativities of risk, and the types of environments requiring the greatest consideration with respect to strategic location planning, risk reduction and education activities.

The following is a percentage breakdown of risk across these nine environments within the Fire District:

- Residential (Houses, Flats & Apartments), 39%
- Industrial (Manufacture, Wholesale, Storage, Waste), 35%
- Commercial (Office & Retail), 10%
- Infrastructure, 5%
- Education, Community & Public Assembly, 4%
- Residential (Group Accommodation) 3%
- Construction, 2%
- Health Care & Special Accommodation, 2%
- Open Areas / Natural Environment, 1%

![Image of firefighters](image-url)
Residential

Residential fire risk relates to an area’s demographic profile. The most at risk suburbs experience are three times as severe as the Fire District average, and eight times as severe as the least at risk suburbs.

The most at risk suburbs include Braybrook, Altona North, Sunshine West, Meadow Heights and Westmeadows. The least at risk suburbs include Balwyn North, Macleod, Mount Waverley, Malvern and Ashwood.

Residential fire outcomes vary based upon demography, and is a significant consideration when targeting risk reduction strategies. For instance, residential fire frequency is highest in low cost rental properties, particularly student group and share accommodation and government housing. Injury rates from fire are highest in the aged population, particularly those with English speaking difficulties.

Damage to property and containment to room of origin is worst in blue collar, low socio-economic family areas, particularly those with high proportions of single parent families living in rented dwellings. These differences in risk across different socio-economic groups’ areas should be considered when targeting risk reduction and community education programs.

Industrial

Incidents in the industrial environment generate almost as much ‘cost to the community’ from fire as does the residential environment, however this risk is much more concentrated geographically into specifically zoned industrial precincts, creating concentrated ‘hot spots’ of risk.

Hazardous Materials

Hazardous material storage (HAZMAT) is a significant risk consideration in the industrial environment. HAZMAT storage is significantly skewed to the west of the Fire District, with 43% of hazardous material storage being located in Western Zone.

Future Risk Environments

Current risk profiling research and analysis underscores how different the risk landscape is from one maintenance area to another. Risk in central Melbourne continues to migrate to the west of the CBD. The continuing development of the Docklands precinct, the increasing throughput at the docks and associated infrastructure, the earmarked future development of land adjacent to Docklands and the skew of residential and commercial development to the western end of the CBD all contribute to this ‘risk shift’.

The changing risk environment looking forward 10 years will be characterised by increasing residential density, particularly in Central and Southern Zones and increasing industrial risk in Western Zone. In addition, response times will continue to deteriorate particularly in outer northern and western zones. The development of the RAAF Laverton site is another consideration for the coming 10 years.
Parks Victoria

Parks Victoria is a statutory authority established in 1998 that reports to the Minister for Environment and Climate Change. Parks Victoria manages designated parks, reserves, waterways and other public land under the Parks Victoria Act 1998 and under a management agreement with the Department of Sustainability and Environment (DSE) and the Minister.

With about 1000 staff, Parks Victoria is responsible for managing an expanding and diverse estate covering almost 4 million hectares, or about 18% of the state’s land area. This includes urban parks, large wilderness areas and 70% of Victoria’s coastline. Parks Victoria also manages a representative system of marine national parks and marine sanctuaries and is the manager for non-commercial port areas of Port Phillip Bay and Western Port, and the navigable reaches of the Yarra and Maribyrnong Rivers.

Parks Victoria contributes to the protection of Victorian communities, water security, park visitors, biodiversity, indigenous heritage and other park values through its expertise in fire and emergency management. Fire is integral to Victoria’s natural landscape, and bushfire suppression is Parks Victoria’s most frequent emergency response. Parks Victoria is well positioned through the location and skills of its people to help respond to a range of emergencies, whether large scale fire and flood to local whale entanglements and stranding and oil spills and search and rescue incidents.

DSE leads and coordinates fire protection across all public land in Victoria. Parks Victoria, which manages more than half of the public land estate, works in close partnership with DSE on fire and emergency response. Parks Victoria also works closely with the MFB, CFA, SES, Police and other emergency service agencies across Victoria. Parks Victoria’s role extends well beyond fire suppression. To ensure we are prepared for, prevent, suppress and recover from bushfire, Parks Victoria contributes significantly to the development of bushfire policy and strategy, planning and engaging with the community to ensure a holistic approach to fire management. Our active and effective partnership with DSE is critical to ensuring a healthy parks system and the safeguarding of people and property.

Melbourne Region

Parks Victoria spreads its state operations across five regions. Parks Victoria’s Melbourne Region is made up of five Districts, each led by a Chief Ranger. These are Mornington, Dandenongs, Eastern Melbourne, Northern Melbourne and Albert Park/Western Melbourne.

In Northern and Western Metropolitan Fire Management Planning Region, Parks Victoria is responsible for managing over 75 parks and reserves including Warrandyte State Park and associated reserves, the Yarra Valley Parklands (including Westerfolds Park), Yarra Bend Park, Plenty Gorge Park, Maribyrnong Valley Parklands (including Brimbank Park), Organ Pipes National Park, Woodlands Historic Park, Werribee Park and Mansion, Point Cook Coastal Park, Cheatham Wetlands and recreational activity areas in Greenvale, Yan Yean and Sugarloaf Reservoir Parks.

The Yarra River corridor is one of the most visited parts of the region and includes the main Yarra shared use trail with connections from Plenty River, Merri Creek, Mullum Mullum and the soon-to-be-added Darebin Creek paths. Key visitor sites include Westerfolds Park, Yarra Bend Park, Point Cook Coastal Park, Brimbank Park and the reservoir parks that attract large numbers of visitors over the summer months.

Local Parks Victoria staff maintain operational relationships with local MFB brigades with regard to prevention works and assistance with suppression in parks within the MFB fire area.

With partner agency DSE, Parks Victoria staff undertake fire related activities within parks in the CFA fire area to minimise the threat of bushfire on public land and are involved in operational firefighting, incident management and planning and coordination. Local crews supported by regional firefighters deliver the DSE Fire Operations Plan within the fire district and are deployed to fires around the state.

Parks Victoria’s Business Continuity Plan tools and processes secure priority services, such as visitor services, during periods of business interruption and emergency response. The Business Continuity Plan provides backfill for field staff deployed to fire and the deployment of staff to the initial stages of the recovery effort.
Country Fire Authority: Northern and Western Metropolitan Region

CFA is one of the world’s largest volunteer-based emergency management organisations, with 59,000 volunteers, supported by 400 career fire fighters and officers, and more than 700 career support and administrative staff. CFA is divided into eight Areas and 20 Regions and covers a land area of 150,182 square kilometres, which includes rural and regional Victoria and provincial cities and towns (except State forests and National Parks). It has 980,000 homes and 2.5 million people—including one million people in outer metro Melbourne.

CFA Northern and Western Metropolitan Region (NWMR) is one of those urban/rural interface regions. It covers 2,352.68 square kilometres, extending in a crescent shape from Point Cook and Werribee in the southwest to Sunbury and Craigieburn in the north and Panton Hill and Christmas Hills in the northeast. The terrain is grassy plains to the south, north and west of the region to distinctive bushy and hilly areas in the northeast with features that include Plenty Gorge Park and Sugarloaf and Yan Yeaman Reservoirs. It features both farming land (dairy, beef, lamb, dry cropping [oats, barley, canola], market gardens) and industry, with nodes at Melton, Wyndham, Whittlesea and Hume employing significant numbers of people in a range of manufacturing and light industrial businesses.

Cutting through the region are some of the State’s busiest highways and freeways—Princes, Calder, Western and Hume. These act as major links from Melbourne to regional centres, accompanied by the rail lines to Ballarat, Bendigo, Geelong and Sydney.

NWMR has 36 brigades (including Headquarters and Coast Guard brigades) and 51 stations, consisting of 2176 volunteer firefighters and 92 paid firefighters. Administration and Operations staff provide support at remote locations and at regional HQ in Melton and a further 627 volunteers provide non-operational support in administrative, auxiliary and training-type roles at their own brigades or at Group level. There are also 231 juniors (children between the ages 11–16) involved in brigade activities (as at March 2011).

The Region is home to four of the state’s five top growth areas—Wyndham, Melton, Hume and Whittlesea and is a diverse area, with 20 percent of residents born in non-English speaking countries. Underpinning all this is major residential development across the region—at Tarneit, Melton–Caroline Springs, Craigieburn–Mickleham, Epping North, Mernda and Doreen. Such diversity is also reflected in the relationships with local government and statutory agencies. NWMR sits across six municipalities—Wyndham, Melton, Hume, Whittlesea Nillumbik and Banyule—but wholly contain only one (Melton). It spans parts of the three water authorities, parts of the three DSE regions, numerous police districts and is adjacent to a number of Metropolitan Fire and Emergency Board Services (MFESB) stations. The area also adjoins Melbourne International Airport and takes in Point Cook RAAF base.

The growth has strategic implications, particularly in fire service provision and recruitment but also in other important areas, including CFA’s work in community education. These challenges are being met—thanks to extensive planning and relationships with state and local government authorities and contacts with the developer community.
The Department of Environment, Land Water and Planning is Victoria’s lead environmental policy-maker, playing a key role in supporting the Victorian Government’s priorities in environmental sustainability. DELWP’s diverse and interconnected responsibilities include:

- ensuring a safe, reliable and sustainable supply of water
- protecting communities and the environment through fire management
- enhancing the values of Victoria’s parks and forests
- investing in improved land and catchment management
- protecting biodiversity and the associated ecosystem services
- encouraging sustainable practices in homes, businesses and communities
- providing quality property administration services and information.

DELWP employs over 2700 permanent staff and 600–700 seasonal firefighters, working in 90 different locations in Victoria. It has annual funding of around $1 billion. Regional Services are delivered by two different groups—Land and Fire Services and Statewide Services—who report directly to six Executive Directors based at 8 Nicholson St, East Melbourne.

Land and Fire Services are geographically organised, with five areas led by an Area Manager. Within each area there up to four District Managers that are responsible for on-ground delivery of programs. They are supported at the area level by two functional groups: Planning and Capability, and Operations and Business Services.

Statewide Services are organised on a statewide basis into four programs: Catchment and Water Services, Biodiversity Services, Public Land Services and Climate Change and Sustainability Services. Each has a statewide program leader.

Both Land and Fire Services and Statewide Services staff are located in the majority of the regional offices. Each major office has a senior officer responsible for representing DELWP at that location, and who will take the lead on internal and external matters across the DELWP portfolio.

Land and Fire Services—Central Area

Land and Fires Services is responsible for managing state forests for a variety of uses, including conservation of flora and fauna, protection of water catchments and supply, sustainable timber production, protection of landscape, archaeological and historic values, and recreational and educational opportunities. In the Central Area, there is approximately 257,595 hectares of state forest.

Land and Fire Services is also responsible for fire prevention, preparedness, response and recovery on the state forests it manages, as well as the majority of parks and reserves managed by Parks Victoria. In the Central Area, this totals 491,922 hectares across a wide variety of ecosystems and urban/rural interface environments. Through the effective management of fire on public land, our objective is to protect communities and critical infrastructure from fire and promote healthy and resilient ecosystems.

The Central Area stretches from the Hume Highway in the west to the Traralgon in the east, and from the Great Dividing Range to the coast. It incorporates some significant areas of public land including the majority of Melbourne’s water supply catchments, the Dandenong Ranges National Park, the Mornington Peninsula, French Island, the Mt Baw Baw Alpine Resort and Wilsons Promontory National Park.
There are 48 Central Area staff and approximately 100 seasonal firefighters located across the area in 15 locations. They maintain a range of fire services on public land including access, fuel breaks, water points, fire and communication towers, prescribed burning, education and enforcement. They maintain and operate a range of fire-specific plant and equipment including three bulldozers, 11 tankers and 66 slip-on units.

Central Area has access to approximately 700 staff from our Networked Emergency Organisation (Parks Victoria, DPI, DPCD, VicForests, and Melbourne Water) who can be called upon to assist with fire suppression and planned burning.

The Central Area covers part of Northern and Western Metropolitan Region, the majority of the Eastern and Southern Metropolitan Regions and part of the Gippsland Region.

There are four districts with the Central Area: East Metropolitan, Yarra, Baw Baw and South Gippsland. Each District has a District Manager supported by a Fire Management Officer. The Fire Management Officer is the principal point of liaison for all fire planning and operations within the District; however representation at regional and municipal strategic fire management forums and discussions will come from a mix of District and Area (Planning & Capability) staff.
### Glossary

Definitions are taken from the Australasian Fire and Emergency Service Authority Council Wildfire Glossary where they are available.

<table>
<thead>
<tr>
<th>Term</th>
<th>Definition</th>
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<tbody>
<tr>
<td><strong>Fire Danger Period</strong></td>
<td>A period of the year either established by legislation or declared by the relevant agency, when restrictions are placed on the use of fire due to dry vegetation and the existence of conditions conducive to the spread of fire.</td>
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<tr>
<td><strong>Control authority</strong></td>
<td>The agency, service, organization or authority with legislative responsibility for control of the incident.</td>
</tr>
<tr>
<td><strong>Coordination</strong></td>
<td>The bringing together of agencies and elements to ensure effective response to an incident or emergency. It is primarily concerned with the systematic acquisition and application of resources in accordance with the requirements imposed by the emergency or emergencies.</td>
</tr>
<tr>
<td><strong>Fire</strong></td>
<td>The chemical reaction between fuel, oxygen and heat. Heat is necessary to start the reaction and once ignited, fire produces its own heat and becomes self-supporting.</td>
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<tr>
<td><strong>Fire management</strong></td>
<td>All activities associated with the management of fire, including the use of fire to meet land management goals and objectives.</td>
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<tr>
<td><strong>Fire management sector</strong></td>
<td>This sector includes fire agencies (MFB, CFA and the Department of Environment, Land, Water and Planning) and other organisations that provide services to people impacted by, or manage assets at risk from, fire.</td>
</tr>
<tr>
<td><strong>Preparedness</strong></td>
<td>All activities undertaken in advance of the occurrence of an incident to decrease the impact, extent and severity of the incident and to ensure more effective response activities.</td>
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<tr>
<td><strong>Response</strong></td>
<td>Actions taken in anticipation of, during, and immediately after an incident to ensure that its effects are minimised, and that people affected are given immediate relief and support.</td>
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<tr>
<td><strong>Recovery</strong></td>
<td>The coordinated process of supporting emergency affected communities in reconstruction of the physical infrastructure and restoration of emotional, social, economic and physical wellbeing.</td>
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<tr>
<td><strong>Risk</strong></td>
<td>The exposure to the possibility of such things as economic or financial loss or gain, physical damage, injury or delay, as a consequence of pursuing a particular course of action. The concept of risk has two elements, i.e. the likelihood of something happening and the consequences if it happens.</td>
</tr>
<tr>
<td><strong>Risk analysis</strong></td>
<td>A systematic use of available information to determine how often specific events may occur and the magnitude of their likely consequences.</td>
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</tbody>
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Links

Environmental Scan - www.ifmp.vic.gov.au (Member login required)
NWM Risk Register - www.ifmp.vic.gov.au (Member login required)