

# Colac Otway Fire Management Plan

Version 11

September 2012-2015,  
updated to March 2017



Department of  
Environment, Land,  
Water & Planning

## Foreword

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The Colac Otway Shire Municipal Fire Management Plan outlines how Council, fire agencies and other relevant authorities and organisations will work together to prepare for, respond to and recover from major fires within the Shire.

The Plan is a sub-plan of the Shire's Municipal Emergency Management Plan and reflects the State Government's direction to increase integration on fire management planning between agencies and the community. The Plan was produced collaboratively by members of the Colac Otway Shire Municipal Fire Management Planning Committee. The Committee is made up of representatives from the Colac Otway Shire, the Country Fire Authority, the Department of Environment Land Water and Planning (DELWP), Parks Victoria, Victoria Police and VicRoads.

Integrated fire management planning is risk based and tenure blind. In preparing this Plan, two main tools have been used to identify and assess bushfire risk in the Shire.

- the Victorian Fire Risk Register, a systematic process used to identify assets at risk, assess the level of bushfire risk and record a range of measures to mitigate the risks. These measures may include activities such as fuel reduction, community education programs and the creation of strategic fire breaks; and
- landscape level bushfire modelling undertaken by the Department of Environment Land Water and Planning (DELWP) to assess bushfire risk across the Otway landscape. DELWP's work has evaluated fire regimes across the entire landscape and identified opportunities to manage fuels and fire regimes across both public and private land.

Community engagement associated with the Plan has also helped to identify any additional assets at risk and inform implementation of treatment measures.

Consistent with DELWP's landscape level approach, Colac Otway Shire and Surf Coast Shire have collaborated on development of their Municipal Fire Management Plans. A coordinated strategic approach allows for better agency integration and reflects the broader landscape level bushfire risks impacting both Shires.

This Plan recognises, but doesn't duplicate, the extensive work already being undertaken in fire management and planning activities across the Colac Otway Shire. This document is essentially a plan for improving integration of this existing work and developing new ways of working together with the community.

Since the preparation of the 2011-2014 version of this Fire Management Plan, DELWP has prepared the Strategic Bushfire Management Plan for the Barwon Otway bushfire risk landscape – taking a risk based approach and utilising extensive fire modelling. The next version of the Municipal Fire Plan will be fully informed by, and align with this new approach.

## Context Statement

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This 11<sup>th</sup> version of the plan is an update of version 9 which was originally approved and adopted on 19 September 2012. Under direction from Emergency Management Victoria, and pending state and regional level direction, this update rectifies gross errors which have emerged since the earlier version was approved. In summary these changes incorporate: machinery of government changes, VFRR township priority ratings and Neighbourhood Safer Place - Place of Last Resort changes.

A new fire management plan will be developed under a new planning model during 2015/2016. This new planning process will see strategic coordination between emergency management agencies and Surf Coast, Colac Otway and Corangamite shires.

Once the new Fire Management Plan is approved it will supersede this plan.

All comments on this Plan should be sent to:

Colac Otway Shire  
PO Box 283  
Colac VIC 3250

Comments may also be submitted by email to [inquiry@colacotway.vic.gov.au](mailto:inquiry@colacotway.vic.gov.au)

## Version Control Table

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Version	Release Date	Author	Changes
6	28 Oct 2011	S. Anderson	Based on MFMPC Comments
7	15 November 2011	W. Fox	Part 3, TOC
8	12 June 2012	M. Gunning	Based on Stakeholder Feedback, Regional RSFMPC direction
9	19 September 2012	M. Gunning	Based on Feedback from Public Consultation Period
10	12 August 2014	D. Winckle	Document Review
11	20 August 2015	D. Winckle, P. Ashton, C Nagel	Update and rectify gross errors in accordance with EMV direction, including: <ul style="list-style-type: none"><li>• machinery of government changes,</li><li>• update NSP-PLR update,</li><li>• VFRR township table update</li><li>• context update</li><li>• change to Yeodene Peat Fire Committee</li></ul>

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## Authorisation and Endorsement

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This Integrated Municipal Fire Management Plan was adopted by Colac Otway Shire Council in partnership with the agencies listed below.

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Colac Otway Shire  
Chief Executive Officer

Country Fire Authority

Department of Environment,  
Land, Water and Planning

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Date:     /     /

Date:     /     /

Date:     /     /

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Victoria Police  
Municipal Emergency Response  
Coordinator – Colac Otway

Parks Victoria  
Chief Ranger

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Date:     /     /

Date:     /     /

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Plan endorsed by the **Colac Otway Shire Municipal Fire Management Planning Committee** on

Date: 20 August 2015

Plan endorsed by the **Colac Otway Shire Municipal Emergency Management Planning Committee**  
on

Date: 20 August 2015

Plan reviewed by the **Barwon South West Regional Strategic Fire Management Planning  
Committee** on

Date: 7 September 2015

Plan adopted by the **Colac Otway Shire Council** on

Date:



# 1 Introduction

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## 1.1 Overview

Victoria has a range of characteristics that predispose it to bushfires generally and to the occasional ferocious bushfire in particular. There are few other locations in the world with similar characteristics.<sup>1</sup>

The high bushfire risk in Victoria is the consequence of a number of factors, including vegetation, topography, climate and population patterns, which show population density increasing in bushfire-prone areas<sup>2</sup>, like the Colac Otway Shire.

Bushfires have shaped, and continue to shape, all aspects of our environment – landscape, ecosystems, biological diversity and culture.<sup>3</sup> They occur both naturally and as a result of human actions. While bushfires can be vital to the continued rejuvenation of the natural landscape, the human, social and economic impacts can be enormous. Fire management needs to address both the threats to life and property and the role that fire plays in the environment.

Fifty-two significant bushfires have been recorded in Victoria since 1851, with two-thirds of them in the past 60 years.<sup>4</sup> The last decade has seen a dramatic increase in the number, size and severity of bushfires in Victoria, as evidenced by:

- the 2002/2003 Alpine fires,
- the 2006/2007 Grampians fires,
- the 2006/2007 Great Divide fires ; and
- and the 2009 Black Saturday fires.

The two most significant fires in the Colac Otway Shire region were the 1939 and 1977 fires. In 1939, numerous fires burning separately in various parts of the state joined and peaked in severity on 13 January - “Black Friday”. The fires affected almost every section of Victoria, including the Otways. On 12 February 1977 widespread fires occurred across the Western District of Victoria, mostly in grasslands. This included the Cressy (Wallinduc or Werneth) fire: 42,000ha.in which 3 people lost their lives. In Cressy 10 houses were destroyed along with 2 halls, a garage and fuel depot. The State school and tennis centre at Werneth were destroyed and a large number of outbuildings.

## 1.2 Shared Responsibility for Bushfire Safety

The 2009 Victorian Bushfires Royal Commission was guided by two overarching principles in conducting its work and preparing its Final Report – the protection of human life and shared responsibility. Shared responsibility is an essential part of effective fire management planning in the Colac Otway Shire.

The concept of shared responsibility recognises that individuals, fire authorities and all levels of government are responsible for preparing for fire and improving people’s safety.<sup>5</sup> Educated and engaged communities are critical to successful fire management and planning. The Commission indicated that:

*A long term goal of Victorian bushfire policy and legislative frameworks should be to build strong, proactive communities that understand bushfire risk and make sound decisions*

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<sup>1</sup> 2009 Victorian Bushfires Royal Commission, *Final Report – Volume 1: The Fires and the Fire-Related Deaths*, p. xxiv

<sup>2</sup> Ibid.

<sup>3</sup> Ibid. at p. 2

<sup>4</sup> Ibid. at p. 2.

<sup>5</sup> Ibid. at p. xxviii

*about how they will manage and respond to those risks. This goal brings with it roles for individuals, agencies and government.*<sup>6</sup>

In describing these roles further, the Commission noted that:

**Individuals** should be encouraged, to the extent of their capabilities, to make their own preparations to protect themselves and their communities from bushfire;

**Agencies** should educate, prepare and help protect individuals by ensuring that they have access to the information needed to make sound decisions. It is also vital that agencies provide accurate and prompt warnings that are easy for the public to understand.

**Government's** role is to create the legislative foundation, fund fire services, facilitate community education and support, and provide essential infrastructure and local support to help communities stay safe.

### 1.3 Integrated Fire Management Planning

Integrated Fire Management Planning (IFMP) is a central component of the State Fire Management Planning Strategy 2009. Essentially, IFMP involves bringing communities, fire agencies and state and local government departments together to deliver fire management planning.

The three key documents guiding IFMP are:

- The Integrated Fire Management Planning Framework<sup>7</sup>, which provides an overview of how IFMP works and who is involved;
- The State Fire Management Strategy 2009<sup>8</sup>, which is based on the IFMP Framework and provides a broad, strategic vision and direction for fire management planning in Victoria; and
- The Integrated Fire Management Planning Guide<sup>9</sup>, which outlines the regional and municipal fire management planning process, including the process for developing this Municipal Fire Management Plan.

IFMP builds on existing processes to support the integration, consistency and coordination of fire management planning activities of government, the fire management sector and communities. IFMP is designed to operate under existing state fire and emergency management legislation and therefore does not replace existing statutory roles and responsibilities.

Under IFMP, collaborative agency fire management planning will occur through Municipal Fire Management Planning Committees. Agency plans will be aggregated to form the basis of Municipal Fire Management Plans. Fire management planning will be aligned with each organisation's planning and business processes through:

- the implementation of common planning models and methodologies;
- allocation of resources and accountabilities;
- participation in common decision making through the committee process;
- collaborative delivery of fire management activities; and
- cooperative engagement.

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<sup>6</sup> Ibid.

<sup>7</sup> Available at [www.ifmp.vic.gov.au](http://www.ifmp.vic.gov.au)

<sup>8</sup> Available at [www.ifmp.vic.gov.au](http://www.ifmp.vic.gov.au)

<sup>9</sup> Available at [www.ifmp.vic.gov.au](http://www.ifmp.vic.gov.au)

IFMP also links fire management planning across the State to a standard risk management approach. The alignment of the IFMP planning cycle with the Australian Risk Management Standard AS/NZ ISO 3100 2009 is outlined in Table 3 below.

TABLE 3. IFMP ALIGNMENT WITH AS/NZS ISO 31000:2009	
Stage of the IFMP planning cycle	Relevant aspect of the AS/NZS ISO 31000:2009 Risk Management – Principles and Guidelines
Engagement Plan	Communicate and consult
Environmental Scan	Establish the context
Risk Assessment > Analyse	Identify the risk > Analyse the risk > Evaluate the risk
Decide > Publish	Determine and document treatment options
Deliver	Treat the risk
Monitor and Improve	Monitor and review

#### 1.4 Authority for Plan

This Municipal Fire Management Plan (the Plan) has been produced by and with the authority of the Colac Otway Shire Council pursuant to Section 20 of the Emergency Management Act 1986 and will be deemed to fulfil Section 55A (Municipal Fire Prevention Plans) of the Country Fire Authority Act 1958.

The Plan is a sub-plan of the Colac Otway Shire Council Municipal Emergency Management Plan.

#### 1.5 Period of Plan

Municipal Fire Management Plans have a three year planning cycle. This plan was originally endorsed for a period of three years commencing from the date of Council adoption of the Plan, and this 2015 update will extend the life of the plan until March 2017. Municipal Fire Management Plans are reviewed annually.

#### 1.6 Planning Process

This Plan has been prepared by the Colac Otway Shire Municipal Fire Management Planning Committee in accordance with the IFMP Framework, the IFMP Planning Guide and the Emergency Management Manual Victoria, Part 6A – Guidelines for Municipal Fire Management Planning.

The 2015 update of this plan has occurred in accordance with EMV instructions.

The Plan has been developed consistent with the IFMP process, as described in figure 2 below.



Figure 2. Integrated Fire Management Planning process

Development of the Plan has been undertaken by representatives of the various agencies that comprise the Colac Otway Shire Municipal Fire Management Planning Committee. This Plan is not intended to duplicate existing agency plans but to consolidate and coordinate the significant range of plans that exist, and apply to the Colac Otway Shire regarding fire.

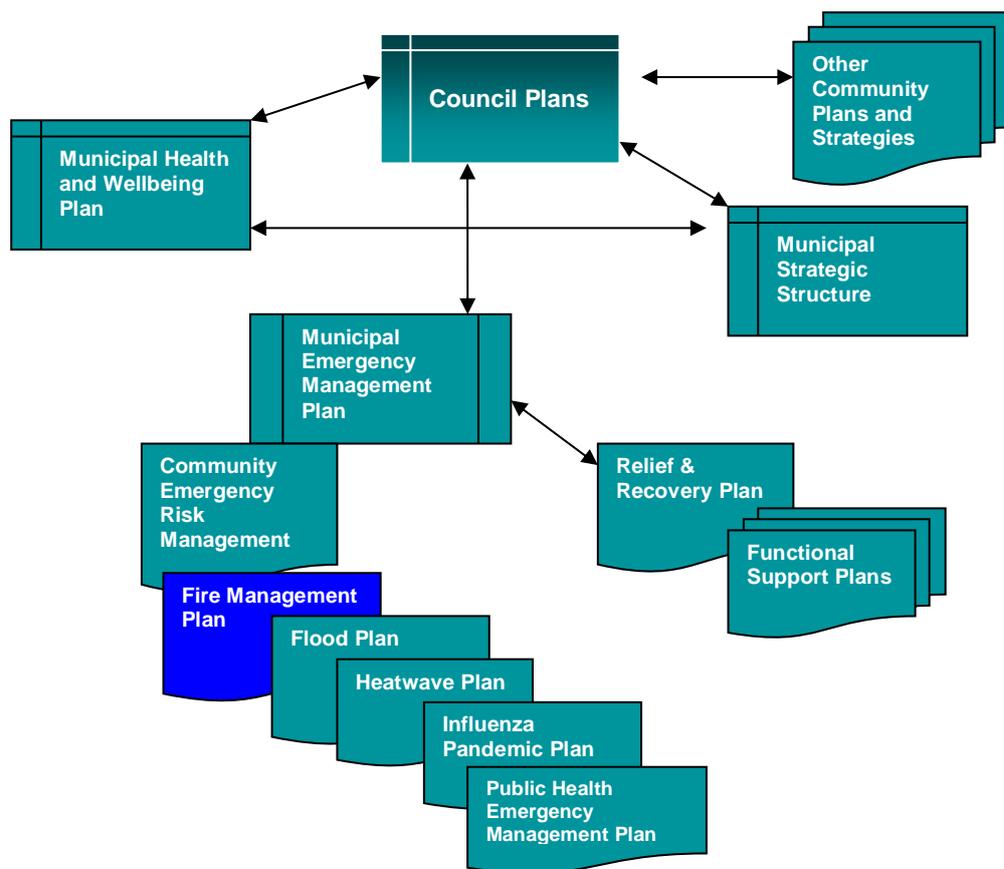
### 1.7 Relationship to Municipal Fire Prevention

This Plan replaces the Shire’s Municipal Fire Prevention Plan.

As part of the transition under Integrated Fire Management Planning from Municipal Fire Prevention Plans to integrated Municipal Fire Management Plans, both plans initially operated in tandem. The initial draft Municipal Fire Management Plan addressed bushfires, grassfires and environmental burns and the Municipal Fire Prevention Plan addressed structural and chemical fires. This Plan now addresses all fire risks.

## 1.8 Municipal Planning Structure

The Colac Otway Shire's planning structure and the relationship of this Plan to other plans endorsed by Council is outlined in the diagram below:



## 1.9 Plan Review and Updates

The Plan will be reviewed and updated annually to ensure it:

- incorporates any new strategies, programs and tools developed by the State Fire Management Planning Committee and the Barwon South West Regional Strategic Fire Management Planning Committee;
- reflects agency updates and annual workplans; and
- meets community needs and expectations.

## 1.10 Community and Organisational Engagement Process

Stakeholder engagement and participation is an essential element of fire management planning.

Section 2 of this Plan outlines the engagement process that has been undertaken by the Municipal Fire Management Planning Committee in developing this Plan.

## 2 Engagement and Communications

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### 2.1 Integrated Fire Management Planning Engagement Process

Community and organisational engagement is required throughout the Integrated Fire Management Planning (IFMP) process. The aim is for communities and organisations to participate together in the collaborative development, delivery and monitoring of Municipal Fire Management Plans.

Consistent with the IFMP Planning Guide, the Colac Otway Shire Municipal Fire Management Planning Committee (MFMP) has developed a Community and Organisational Engagement Plan (the Engagement Plan). The Engagement Plan outlines community and organisational engagement that has been or will be undertaken by the MFMP to develop this Plan. A copy of the Engagement Plan is included in Appendix D.

The Engagement Plan identifies key stakeholders and communities and the level, method and timing of engagement. For the purposes of the Engagement Plan, 'stakeholder' means agencies responsible for fire management planning in the Colac Otway Shire.

The Engagement Plan has been developed using International Association for Public Participation Australasia (IAP2) principles. These principles are as follows:

#### **Inform**

Provide appropriate detailed and accurate information to assist stakeholders develop a shared understanding of the complexity of issues, alternatives and possible solutions.

#### **Consult**

Utilise stakeholder expertise and diversity to obtain input into analysis, alternatives and develop key decisions.

#### **Involve**

Work directly with the suite of key stakeholders throughout the various processes to ensure key issues and intent are understood and considered.

#### **Collaborate**

Partner with key stakeholders in each aspect of decision making. This includes the development of alternatives, and the identification of contributions and priority actions with a clear understanding of the responsibilities of each stakeholder.

#### **Empower**

Foster and promote transparent and accountable processes that allow each stakeholder organisation to empower themselves through key actions and the implementation of responsibilities.

### 2.2 Stakeholder Analysis

Stakeholders for this Plan have been grouped into three categories according to their chosen level of participation in integrated fire management planning and their information requirements. The three engagement categories are:

- Primary (permanent MFMP members);
- Secondary (attend MFMP by request); and
- Tertiary (other agencies, organisations and interested groups that could support the Municipal Fire Management Plan )

This stakeholder analysis helped inform the development of the Engagement Plan, including determining the level and timing of stakeholder participation.

## 2.3 Community Engagement Principles

The Colac Otway Shire recognises the value of local knowledge and the unique contribution the community can make to local fire management planning.

Effective community engagement in fire management planning is required to:

- Promote acceptance, understanding and joint problem solving;
- Raise knowledge and skills of fire management through participation;
- Produce plans that support community and organisational expectations; and
- Incorporate community and organisational needs into the development of fire management plans.

Community interest in fire management planning is usually greatest at the local level. The MFMPC will endeavour to ensure that community feedback on local fire management planning is incorporated into this Plan, where relevant and appropriate.

## 2.4 Agency Engagement and Plan Approval

As previously stated, this Plan was produced collaboratively by members of the Colac Otway Shire MFMPC. The Committee is made up of representatives from the Colac Otway Shire, the Country Fire Authority, the Department of Environment Land Water and Planning (DELWP), Parks Victoria, Victoria Police and Vic Roads.

As a sub-plan of the Colac Otway Shire Municipal Emergency Management Plan, the draft Plan was provided to the Shire's Municipal Emergency Management Planning Committee (MEMPC) for review and comment. The MEMPC has broader representation that includes the Victorian State Emergency Service, VicRoads, Barwon Water and the Australian Red Cross. Agencies represented on the MFMPC are also represented on the MEMPC.

The draft Plan was then submitted to Council for approval prior to consultation with the community in accordance with the Engagement Plan.

The draft Plan has been revised based on community and organisational feedback and submitted for formal endorsement by the MFMPC and the MEMPC. The Plan will then be sent to the Barwon South West Regional Strategic Fire Management Planning Committee for comment, prior to recommendation to Council for consideration and adoption.

## 2.5 Outcomes

The desired outcomes from the community and organisational engagement process are:

- Relevant stakeholders are engaged at the appropriate stage of Plan development and actively participate in shaping and implementing this Plan;
- The roles and responsibilities of individuals, agencies and government in preparing for fire and improving people's safety are well understood;
- Agency fire management activities are better integrated and coordinated in the Shire;
- Community knowledge and understanding of fire risks and fire management in the Shire is significantly increased; and
- The Plan supports, or is revised to support, community and organisational needs.

## 3 Summary of Environmental Scan

### 3.1 Location and land tenure

Colac Otway Shire is located in the South-West of Victoria, approximately 160 kilometres from Melbourne. Colac Otway Shire is bounded by Golden Plains Shire in the North, Surf Coast Shire in the East, the Southern Ocean in the South, and Corangamite Shire in the West.

Colac Otway Shire includes the townships and rural localities of:

Alvie	Coragulac	Irrewillipe	Simpson (part)
Apollo Bay	Cororooke	Irrewillipe East	Skenes Creek
Balintore	Corunnun	Jancourt East	Stonyford (part)
Barongarook	Cressy	Johanna	Sugarloaf
Barongarook West	Cundare	Kawarren	Swan Marsh
Barramunga	Cundare North	Kennett River	Tanybryn
Barwon Downs	Dreeite	Larpen	Warncoort
Barunah Plains	Dreeite South	Lavers Hill	Warrion
Beeac	Elliminyt	Marengo	Weeaprounah
Beech Forest	Eurack	Mount Sabine	Weering
Birregurra	Ferguson	Murroon	Whoorel (part)
Bungador	Forrest	Nalangil	Wingeel (part)
Cape Otway	Gellibrand	Ombersley (part)	Wongarra
Carlisle River	Gellibrand Lower	Ondit	Wool Wool (part)
Carpendeit	Gerangamete	Pennyroyal (part)	Wyelangta
Chapple Vale	Glenaire	Petticoat Creek	Wye River
Colac	Grey River	Pirron Yallock	Yeo
Colac East	Hordern Vale	(part)	Yeodene
Colac West	Irrewarra	Separation Creek	Yuulong

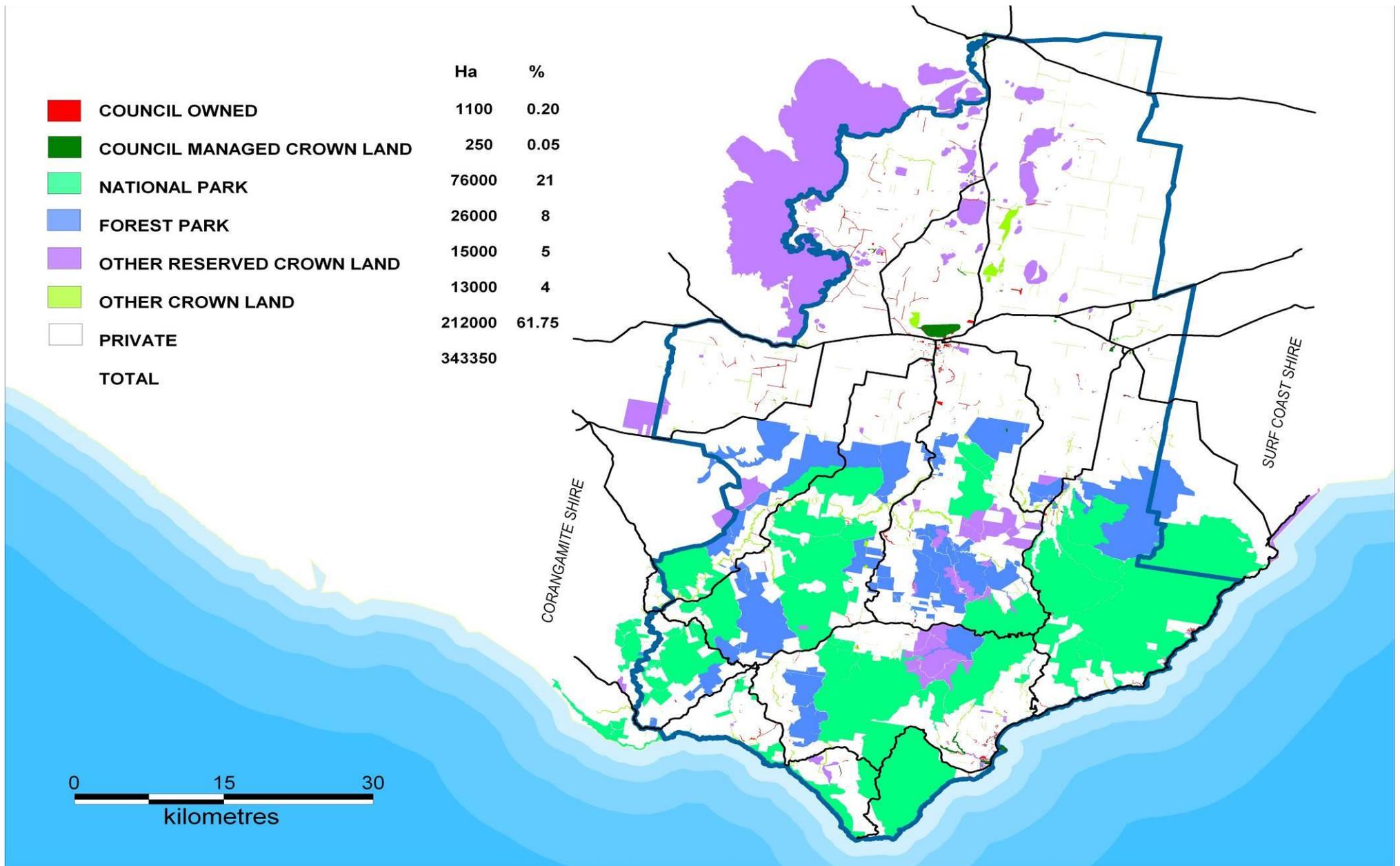
Colac Otway Shire is a predominately a rural, residential and resort area with some industrial operations in the Colac and Apollo Bay built up areas. The Shire encompasses a total land area of 3,250 square kilometres, of which a large proportion is National Park, including beaches, coastline, rainforests, waterfalls, lakes and craters. Much of the rural area is used for forestry and agriculture, with farming, cropping and dairying being the main agricultural pursuits.

Agricultural activity is concentrated in the Northern part of the Shire, although timber and fishing are prevalent in the South. Tourism is an important industry, especially in the Southern section along the Great Ocean Road. The Shire has two main townships, with many small villages and localities. The largest is the city of Colac, which serves as an administrative, retail, industrial and commercial centre. The other major township is Apollo Bay, which serves as the major tourism centre.

In the 1960s some subdivision of coastal areas occurred, with growth continuing in Apollo Bay. Since the 1970s rural residential living has become increasingly popular, with growth in smaller settlements in the Otways and further inland, such as Barongarook, Birregurra, , Forrest, Johanna and Lavers Hill. The population of the Shire declined slightly from 20,400 in 1991 to 19,600 in 1996, and then was relatively stable, increasing marginally to 19,900 in 2006.

Major features of the Shire include Great Otway National Park, Lake Colac, Cape Otway Lighthouse, Otway Fly Treetop Walk, the Great Ocean Road, the Great Ocean Walk and various beaches. The Shire is served by the Hamilton Highway, the Princes Highway, the Great Ocean Road and the Geelong-Warrnambool railway line, with stations at Colac and Birregurra.

The breakdown of land tenure in the Shire is depicted in the attached map. The map highlights that only 0.25% of land in the Shire is Council owned or managed. Approximately 38% of land is State owned and the majority of land in the Shire is privately owned.



## 3.2 Natural environment

The Shire is strongly influenced by physical and topographical features, which impact on urban development and land use management. It is characterised by a diverse range of environments including rugged coastline, dense native forests, rolling rural plains and significant rivers, lakes and wetlands. In the course of time these features have contributed to creating distinctive communities with quite different expectations about how their areas should develop or be maintained.

There are four distinct Bioregions within the Colac Otway Shire, known as the Otway Ranges Bioregion, Otway Plain Bioregion, the Victorian Volcanic Plain Bioregion and the Warrnambool Plains Bioregion. (Bioregions are the broad scale mapping units used for biodiversity planning in Victoria and capture the patterns and ecological characteristics in the landscape.) These are four of the 28 Bioregions found in the state of Victoria.

1. **The Otway Plain Bioregion** includes the coastal plains and dunes, the foothills with river valleys and swamps in the lowlands. The ridges seen today mark the positions of the difference to successive shorelines as the ocean has retreated from these areas over time to where it is today.
2. **The Otway Ranges Bioregion** consists of moderate to steep slopes that are deeply dissected blocks of alternating beds of sandstone, siltstone and shale's and swampy alluvium in the lowlands.
3. **The Victorian Volcanic Plain Bioregion** contains highly significant remnant vegetation communities that are supported by volcanic deposits that form an extensive flat to undulating basaltic landscape.
4. **The Warrnambool Plains Bioregion's** identifying features are nutrient deficient soils over low calcareous dune formations and the distinctive cliff coastline. Much of the limestone has been overlain by more recent sediments, and between the limestone dunes, areas of swamplands are characterised by highly fertile peats and seasonal inundation.

The Shire acknowledges its unique geographical location and the strengths and challenges of its regional position.

## 3.3 Climate and bushfire season

### 3.3.1 Climate

The Colac Otway Shire is in a mild temperate climate with defined seasonal change through summer, autumn, winter and spring.

The bushfire season generally runs from November to April annually. Prevailing weather conditions associated with the bushfire season in the Shire are high daily temperatures with north to north-westerly winds, followed by a vigorous west to south-westerly change. The wind changes in the Shire vary between an afternoon sea breeze to thunderstorms with lightning and damaging winds.

The typical/average climate in the Colac Otway Shire MFMPC area is:

Climate					
Daily mean maximum temperatures			Daily mean minimum temperatures		
	Jan	July		Jan	July
Colac	25.6	11.5	Colac	13.4	5.4
Cape Otway	21.2	12.5	Cape Otway	14.4	8.7
Rainfall (mm) Mean			Rain days Mean Nos.		
	Jan	July		Jan	July
Colac	36.8	76.3	Colac	5.1	13.1
Cape Otway	47.7	105.1	Cape Otway	6.1	15.2

Source: Bureau of Meteorology [www.bom.gov.au/climate/averages/tables/](http://www.bom.gov.au/climate/averages/tables/) As at June 2007

### 3.3.2 Climate Change

In the Colac Otway Shire, climate change is expected to result in increased bushfire risk, more extreme weather events (e.g. drought, flood, wind storms, storm surges), coastal erosion and inundation due to the effects of sea level rise.

The State Government's regional climate change projections<sup>10</sup> indicate that the Shire can expect:

- More hot days;
- More intense droughts as a result of warmer temperatures and higher evaporation rates;
- Fewer rainy days, but increased rainfall intensity when it does rain;
- More droughts and higher evaporation rates; and
- Hotter drier conditions with significant reductions in run off for water catchments.

### 3.3.3 Bushfire considerations

Due to its landscape, the Colac Otway Shire is recognised by fire agencies as being one of the most fire prone areas in the State of Victoria.

There are a number of concerns regarding bushfires, which are unique to this particular region:

- A bushfire during the holiday period, where the population can increase significantly with up to 100,000 summer visitors, is particularly alarming. Public awareness and information programs therefore have to cater not only for residents, but also visitors.
- The main escape route from a major bush-fire sweeping down from a northerly direction towards the coast is the narrow, winding Great Ocean Road. This route is extremely vulnerable to blockages (accidents, rock falls etc.) which could result in significant numbers of people being stranded in coastal towns, or, more alarmingly, along the roadside.
- The northern part of the Shire is grassy plain, which is also highly prone to bushfires. In the Cressy fire in 1977 (one of the 'Black Saturday' fires), three people lost their lives, over 39,000 hectares were burnt and 10 houses were destroyed, along with several other buildings.

## 3.4 Population and demographic information

### 3.4.1 Overview

Development in the Shire dates from the 1850s when pastoralists and timber-getters established themselves in the areas around Colac. Colac experienced significant growth in the first half of the 20th Century as it became the major service centre to the agricultural areas to the north and the timber getting areas to the south. Apollo Bay was established in the 1860s as a port for the timber being harvested in the Otway Ranges. In later years it has become a holiday destination, particularly since the construction of the Great Ocean Road in the 1930s. In recent years, the Shire has catered for distinct housing markets; a relatively stable rural and regional population in the inland areas and a growing population in the coastal areas. The coastal areas, in particular Apollo Bay and Wye River, also cater for large influxes of persons during the summer holiday season. Some inland areas have also experienced growth in recent years through rural residential subdivision.

Demand for housing in the Colac area is expected to predominantly come from new households forming within the Shire. By contrast, it is expected that demand for housing in the coastal areas will predominantly come from further afield, such as Geelong and Melbourne.

With the variety of residential and rural locations, different areas within Colac Otway Shire have developed different roles within the housing market. Areas on the outskirts of Colac such as Elliminyt are attractive to both young and mature families as well as older adults. The established

<sup>10</sup> Department of Sustainability and Environment, *Climate Change in the Corangamite Region*, available at [www.climatechange.vic.gov.au](http://www.climatechange.vic.gov.au)

areas of Colac as well as the rural areas lose significant numbers of young adults as they seek employment and educational opportunities in larger centres, this trend is common to most rural and regional areas in Australia. The Great Ocean Road – Otways area attracts large numbers of young adults and retirees from outside the Shire. The variety of function and role of the small areas in Colac Otway Shire means that population outcomes differ significantly across the Shire.

There are also significant differences in the supply of residential property within the Shire which will also have a major influence in structuring different population and household futures within the Shire over the next five to ten years. New development opportunities have been identified in Elliminyt and Great Ocean Road - Otways while the established areas of Colac and the Rural Areas have relatively low amounts of new dwellings expected over the forecast period.

### 3.4.2 Population

Brief statistics	Colac Otway Shire
Forecast population 2011:	22,264
Change between 2011 and 2031:	4,534
Average annual percentage change between 2011 and 2031 (20 years):	0.93% per annum
Total percentage change between 2011 and 2031 (20 years):	20.36%

Population distribution throughout Colac Otway Shire	
Town	Population
<b>Apollo Bay/Marengo</b>	<b>1375</b>
Birregurra	466
Beeac	200
Beech Forest	80
<b>Colac/Elliminyt</b>	<b>12,000</b>
Cressy	123
Carlisle River	100
Cororooke	<b>136</b>
Forrest	167
Gellibrand River	160
Lavers Hill	90
Skenes Creek	<b>160</b>
Wye River/Kennett River	260
Other Regional Areas	5136

The 'Key statistics' table presented on the next page contains summary statistics for Colac Otway Shire. By default the table displays 2001 and 2006 data as both absolute numbers and percentages (where application), along with the change in number between these years.

### 3.5 Vulnerable People

Resilience is the capacity of a group or organisation to withstand loss or damage or to recover from the impact of an emergency or disaster. *Vulnerability* is a broad measure of susceptibility to suffer loss or damage. The higher the resilience, the less likely damage may be, and the faster and more effective recovery is likely to be. Conversely, the higher the vulnerability, the more exposure there is to loss and damage (*Department of Human Services, 2000*).

The following groups are generalisations which may be considered as vulnerable:

- **The aged**  
Particularly the frail – in terms of mobility and physical capacity.
- **The very young**  
Infants, babies and young children (especially 0-1 year olds , but vulnerability exists until at least four years of age in terms of managing their own recovery and in getting access to information and resources.
- **The disabled**  
Intellectual, psychiatric, and physical – in terms of managing their own recovery and in getting access to information and recourses.
- **The poor , or people with limited resources to meet essential needs**  
In terms of having the financial and physical resources to achieve recovery or to protect themselves against loss.
- **Non-English speaking**  
In terms of understanding the potential risks and in gaining access to information.
- **Low socioeconomic**  
Is based on family income, parental education level, parental occupation, and social status in the community (such as contacts within the community, group associations (and the communities perception of the family).
- **The socially isolated**  
In terms of having family and friends that can provide personal and physical support.
- **The physically isolated**  
In terms of having ease of access to resources, or in terms of being able to call on assistance from other members of the community or agencies.
- **The seriously ill**  
In terms of already being in need and having a very low capacity to carry our protective or recovery activity. Particularly cardiovascular, respiratory or renal disease.
- **People dependant on technology –based life support systems**  
In terms of already being in need and having a very low capacity to carry our protective or recovery activity or being dependant on systems over which they have no control.
- **Single parent families**  
Having to manage a range of demands with limited support.
- **People with inadequate accommodation**  
In terms of being already in strained circumstances and with existing high levels of need and support.
- **Those of holiday and travelling**  
Particularly those in tent and caravan resorts – in terms of being absent from their own communities and resources.
- **Tourists from overseas**  
Being in an unfamiliar environment with little knowledge of how to access resources and support.

### 3.5.1 Vulnerable Community/Facility Listing – (Bushfire Risk Areas)

Colac Otway Shire has identified vulnerable individuals for which the shire directly provides

Health and Community Care (HACC) services. A database of individuals is regularly updated and available to response agencies in the event or possible event of a major incident. To access this database contact the rostered on-call Older Persons and Ability Support Services Officer.

The Shire also has identified external health and community agencies that provide direct services to vulnerable individuals within the municipality. Each of these agencies maintains their own lists of clients receiving various services. A register of these agencies and their contact details can be found in the Municipal Emergency Management Plan.

A register of facilities, where vulnerable people are likely to be situated – for example, aged care facilities, hospitals, schools and childcare centres can be found in the Municipal Emergency Management Plan.

Key statistics (summary statistics) Colac Otway Shire							
Enumerated data	2006			2001			Change 2001 to 2006
	Number	%	G21 Region %	Number	%	G21 Region %	
Enumerated population, including overseas visitors							
Total populations (a)	19,982	100.0	100.0	20,089	100.0	100.0	-107
Males (a)	9,909	49.6	48.8	10,005	49.8	49.0	-96
Females (a)	10,073	50.4	51.2	10,084	50.2	51.0	-11
Overseas visitors	116	0.6	0.4	92	0.5	0.5	24
Age Structure							
Infants 0 to 4 years	1,219	6.1	6.2	1,296	6.5	6.5	-77
Children 5 to 17 years	3,806	19.2	18.3	4,104	20.5	19.1	-298
Adults 18 to 64 years	11,632	58.6	60.3	11,477	57.4	59.9	155
Mature adults 65 to 84 years	2,790	14.0	13.2	2,756	13.8	12.8	34

Key statistics (summary statistics) Colac Otway Shire							
Enumerated data	2006			2001			Change 2001 to 2006
	Number	%	G21 Region %	Number	%	G21 Region %	
Senior citizens 85 years and over	420	2.1	2.0	364	1.8	1.7	56
Households and dwellings							
Owned	3,422	31.9	31.4	3,961	39.4	37.8	-539
Purchasing	2,385	22.2	27.5	1,858	18.5	23.5	527
Renting	1,699	15.8	18.1	1,361	13.5	16.9	338
Households (occupied private dwellings)	7,977	-	-	7,767	-	-	210
Persons counted in households	19,304	-	-	19,486	-	-	-182
Average household size (persons)	2.42	-	-	2.51	-	-	-0.09
Total Dwellings	10,744	100.0	100.0	10,054	100.0	100.0	690
Non-English speaking backgrounds	532	2.7	7.8	554	2.8	8.0	-22
Main English speaking countries	830	4.2	6.4	814	4.1	6.6	16

### 3.6 Fire History within the Colac Otway Shire

The Colac Otway area has on average 44 bushfires per year. The two main sources of ignition in the Shire are natural causes and suspicious events.

### 3.7 Colac-Otway Shire Major Fires

- 1851** February 6 – Black Thursday. The “Fires covered a quarter of what is now Victoria” including “The Pyrenees, the Loddon country, the Wimmera, Colac, the “far west”, the Portland country, Mount Gambier, the country between Geelong and Ballarat. Not one house in ten survived in the Barrabool Hills”
- 1886** January 4-5: Otway & Heytesbury regions, including Colac.
- 1914** Otway Ranges’.  
Beech Forest and ‘forest south of Colac’
- 1919** 1/2/1919-1/3/1919 “Three people died when bushfires consumed Otway forests. Bushfires were widespread for six weeks and many homes were destroyed.”  
24 Nov 120,000 ha Otway Ranges and Grampians
- 1932** January-February: widespread fires. Reports of fires include: Beech Forest and Cape Otway near Lorne & Benwerrin
- 1939** Towards the end of a long drought, numerous fires burning separately in various parts of the state joined and peaked in severity on 13 January - “Black Friday”. The fires affected almost every section of Victoria, including the Otways. “The findings of the Royal Commission that was held following the fires were highly significant in increasing fire awareness and prevention throughout Australia.”
- 1944** Friday 14 January – 14 February: Major fires across Western District with 15-20 fatalities.
- 1962** 16 January: Otways (2,024 ha)
- 1965** 21 February: Otways (12,000 ha).
- 1966** 23 November: Otways - Modewarre, Wurdale, Anglesea (15,000 ha).
- 1968** Colac Gellibrand road, 10 miles south of Colac, Barangarook threatened (810 ha) (11 Jan) also a fire on north side of Lorne (1215 ha) (6 Feb).
- 1977** 12 February: “Widespread fires occurred across the Western District of Victoria, mostly in grasslands This included the Cressy (Wallinduc or Werneth) fire: 42,000 ha.in which 3 people lost their lives. In Cressy 10 houses were destroyed along with 2 halls, a garage and fuel depot. The State school and tennis centre at Werneth were destroyed and a large number of outbuildings.  
There was another fire at Beeac (1500 ha).
- 1983** 16 February - “Ash Wednesday”. Over 100 fires in Victoria, with the Otway ranges severely affected. The Otway fire originated at Deans Marsh (in what is now Surf Coast Shire) and resulted in 3 deaths and around 41000 ha burnt (mainly forested country) and 729 houses lost
- 2001** February 2 “Wingeel Plains Fires” (2000 ha).
- 2002** 15 September: Chapple Vale (786 ha).

## 4 Municipal Fire Management Objectives

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### 4.1 Alignment to Regional Objectives

The Barwon South West Regional Strategic Fire Management Planning Committee has resolved that the regional priorities to be addressed first are:

- High Risk Townships
- Critical Essential Service Assets
- Tourism/Major Events
- Key Rural Industries, and
- Major Transport Corridors

### 4.2 Objectives and Outcomes

#### 4.2.1 Objectives and Legal Requirements

The primary objectives of this Plan are to:

- Protect and preserve human life;
- Protect critical infrastructure;
- Manage and reduce the risk of fire, with due regard to the natural environment;
- Align and integrate fire management planning and practices across agencies and the community; and
- Educate, inform and empower communities to become more self-reliant and resilient.

Under the Country Fire Authority Act 1958 (section 55A), this Plan must contain provisions for:

- Identifying areas, buildings and land use in the Colac Otway Shire that are at particular risk in case of fire;
- Specifying how each identified risk is to be treated and who is responsible for treating those risks; and
- Identifying all designated Neighbourhood Safer Places in the Shire.

The Colac Otway Shire is required under section 43 of the Country Fire Authority Act to take all practicable steps (including burning) to prevent the occurrence of fires on, and minimize the spread of fires on and from:

- Any land vested in the Shire or under its control and management; and
- Any road under its care and management.

Other agencies and organisations, such as the Department of Environment Land Water and Planning (DELWP), the Country Fire Authority and electricity providers such as Powercor also have various obligations, including legal obligations, in relation to fire management. Further discussion of the Department of Environment Land Water and Planning (DELWP) obligations in relation to planned burning on public land is included in Section 5.1.2.

To meet these objectives and requirements, this Plan has been developed as an operational and strategic document. The Plan identifies communities and assets at risk through an Environmental Risk Scan and the Victorian Fire Risk Register (VFRR). The VFRR is a tool to identify assets at risk, assess the level of bushfire risk to assets and identify a range of treatments to mitigate the risks. Treatments may include activities such as fuel reduction, community education, property planning and preparedness programs.

The Plan also references treatments for the five regional risk priorities (listed above) identified by the Barwon South West Regional Strategic Fire Management Planning Committee. A copy of the VFRR Municipal Risk Register for the Colac Otway Shire, with risks presented by regional risk priorities, is included in appendix A.

#### 4.2.2 Outcomes

The desired outcomes of this Plan are:

- Human life and critical infrastructure are better protected in the Shire;
- Plans are in place and activities undertaken to minimise the risk of fire and to suppress any fire that may occur within the Shire;
- Members of the Municipal Fire Management Planning Committee actively seek opportunities for agency collaboration to improve outcomes for communities and to reduce duplication;
- All agencies contribute to and are accountable for implementing agreed treatments; and
- Communities within the Colac Otway Shire have an improved understanding of fire in their environment and the shared responsibility for action to reduce the risk of fire within their community.

#### 4.3 Strategic Directions

The strategic direction of this Plan aligns directly with the State Fire Management Strategy 2009 vision for future fire management in Victoria. The vision is for fire management in Victoria that delivers:

- Active participation of community, the fire management sector and government, working together in fire management planning to reduce the destructive impact of fire on communities and the environment;
- Communities that are resilient to the effects of fire;
- Greater understanding of the fire sector within the community; and
- Healthy natural, social and built economic environments.

In addition, the ongoing development of this Plan will also consider the following broad strategic documents:

- *Fire Services Reform Program and Action Plan*, (June 2011), Fire Services Commissioner;
- *Implementing the Government's Response to the 2009 Victorian Bushfires Royal Commission*, (May 2011), State Government of Victoria;
- *Bushfire Safety Policy Framework*, (September 2011), Fire Services Commissioner;
- *Living with Fire – Victoria's Bushfire Strategy*, (June 2008), State Government of Victoria

#### 4.4 Links to Other Business and Programs

Important linkages include:

- Barwon South Western Regional Strategic Fire Management Plan;
- Colac Otway Shire Municipal Emergency Management Plan;
- Municipal Fire Management Plans for our neighbouring municipalities, Surf Coast Shire, Corangamite Shire and Golden Plains Shire;
- Department of Environment Land Water and Planning (DELWP) :
  - Fire Operations Plan 2014/15 – 2015/16 : Otways District/Region;

- Barwon Otway Bushfire Management Plan; and
- Great Otway National Park and Otway Forest Park Management Plan.
- Country Fire Authority:
  - website [www.cfa.vic.gov.au](http://www.cfa.vic.gov.au) (for general fire information and warnings, community information and engagement programs, Township Protection Plans and Neighbourhood Safer Places – Places of Last Resort and other CFA initiatives);
  - Operation plans and Brigade plans; and
  - Barwon South West Community Safety Program and Resource Catalogue.
- Powercor Bushfire Mitigation Strategy (<http://www.powercor.com.au/>) and
- SP Ausnet Bushfire Mitigation Strategy.

## 5 Fire Management Risk Strategies

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### 5.1 Risk Assessment Methodologies

To determine the bushfire risk within the Colac Otway Shire, two main risk assessment processes were used:

- The Victorian Fire Risk Register; and
- The Department of Environment Land Water and Planning (DELWP) landscape level bushfire management planning process – the ‘Otways Bushfire Management Project’.

Each of these processes is described in greater detail below.

To determine the structural and chemical fire risk within the Shire, incident data and major assets were used to inform identification of key risks.

#### 5.1.1 Victorian Fire Risk Register

The Victorian Fire Risk Register (VFRR) application is a systematic process that identifies assets at risk of bushfire on a consistent state wide basis using the Australian/New Zealand Risk Management Standard ISO:31000 2009.

The aim of the VFRR is to identify the risk of bushfires on assets and values in human settlement, cultural heritage, economic and environmental contexts.

The objective of the VFRR is to:

- identify and rate bushfire risks to assets;
- identify current mitigation treatments to manage the risk;
- identify the agencies responsible for implementing mitigation treatments and strategies;
- produce an integrated document and risk register across responsible agencies; and
- support and inform planning at a local level.

The primary outputs of the VFRR process are a series of satellite maps displaying assets at risk, plus a municipal bushfire risk register, listing the risk rating for each asset and current risk mitigation treatments.

A copy of the Colac Otway Shire Risk Register, with risks presented by regional risk priorities, is included in Appendix A .1. A list of the VFRR risk mitigation treatments is included in Appendix A.2

#### 5.1.2 Landscape Level Bushfire Management Planning

The 2009 Victorian Bushfires Royal Commission (VBRC) recommended a substantial increase in planned burning on public land.<sup>11</sup> The State Government, in accepting this recommendation, committed to increasing the amount of planned burning across the public land of Victoria to 390,000 hectare per annum by 2015.

The VBRC stated that the approach must be based on an explicit risk analysis model that also takes into account effects on biodiversity .The challenge is to reduce bushfire risk to life and property while also maintaining a healthy environment.

DELWP developed the “Future Fire Management Project” to deliver these outcomes. This project assists fire managers to work with communities to choose the best mix of treatments to both protect communities and sustain natural biodiversity and ecosystem resources, such as carbon and water. It is based on our best understanding of bushfire risk, provides our best estimate of potential

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<sup>11</sup> Recommendation 56, 2009 Victorian Bushfires Royal Commission, *Final Report – Volume II: Fire Preparation, Response and Recovery*, p. 295. See also related recommendations 57 and 58.

impacts of fire (possible outcomes), focuses on how well we are achieving these goals, and will be continuously reviewed and improved through research and monitoring.

Since 2006, an active partnership between the Department of Environment Land Water and Planning (DELWP), Parks Victoria, the Country Fire Authority and local government, particularly Surf Coast Shire and Colac Otway Shire, has developed a coordinated strategic approach to protecting the vulnerable coastal communities in the Otways. Many of these communities were devastated during the 1983 Ash Wednesday fires. A Bushfire Management planning process, Future Fire in the Otways Pilot Study, (the Pilot) commenced in the Otways in 2010. It is supported by a stakeholder reference group and aims to plan across both public and private land.

Community consultation helped to identify locally important social, economic and environmental values. The planning then set objectives considering these values. Using Phoenix RapidFire, a computer-based tool that simulates the growth of bushfire under set conditions it is possible to show partners and the community what is likely happen in a bushfire under given conditions but most importantly, what beneficial effects arise from treatments like burning on the spread of a bushfire. When linked with knowledge of how our natural forests respond to fire, it also enables us to assess the cost-benefits of many fires spread over a long period of time (fire regimes). This allows more informed and transparent decisions. This tool, and ways of using it to support planning, have been developed by the University of Melbourne, the Bushfire CRC, DELWP and Parks Victoria.

As a part of this process, the following long term fire management options were assessed for the Otways Bushfire Management Pilot:

- Fire regimes that focus mostly on protecting built assets;
- Fire regimes that work tightly within ecological needs; and
- Several combinations of the above.

These fire regimes were then evaluated for their impact on:

- Spread, intensity and damage potential on communities of severe bushfires spreading under extreme fire conditions,
- Forest health (biodiversity and resilience); and
- Water quality and supply.

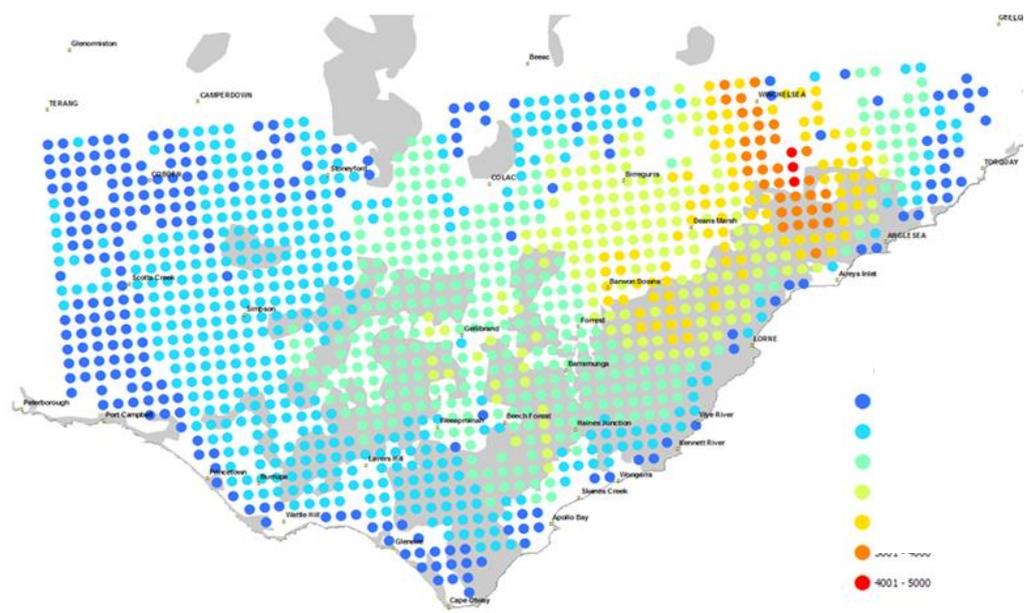
Importantly, the Pilot developed and evaluated fire regimes as they apply across the entire landscape, both public land (parks and forests) and private land. This is absolutely critical to the effectiveness of bushfire management, as bushfires do not respect land boundaries. An integrated approach to managing fuels and fire regimes across both public and private land is essential to better managing bushfire.

The Pilot has produced information that is of great value to Otways' bushfire managers. Numerous fires were run by simulation over the Otways landscape. The protection and ecological and water impacts provided by various combinations of burns were estimated for many fire scenarios. These simulations enable comparative assessment of how planned fire can reduce the chance of fire starting, slow the rate and ferocity of their spread, and reduce their impact on communities and the resources (such as water) and value (such as healthy forests). Fire managers can now measure the level of risk reduction achieved by planned burning and establishment of fuel breaks, including the importance of the relationship between fuel management on both public and private land.

**Figure 1. – Modelled impact of fire ignitions:**

This image shows how the landscape can be assessed in terms of the most important areas to manage the risk of fire starting, spreading and causing damage – the example here focuses on ignitions.

The orange red areas represent those where fires that start have the highest potential to damage the most residential properties in the Otways under certain fire danger conditions.



Regardless of how extensively planned burning and building fuel breaks are conducted, bushfire risk can never be totally eliminated from the Victorian landscape.

Modelling and planning using future fire management techniques in the Pilot indicates that, even with burning the maximum area possible, it is not feasible to reduce risk to communities below moderate risk levels. It shows that communities must then apply other mechanisms such as clearing around homes, getting to know neighbours, establishing network groups such as Community Fire Guard and fire strategic conversations,<sup>12</sup> and developing individual and community bushfire plans to further reduce risk. This then becomes a true expression of working together to reduce bushfire risk - an example of the “shared responsibility” discussed in Section 1.2 of this Plan.

Simulations have revealed the parts of the Otways where the most damaging bushfires may start, spread and have significant impacts on communities and water catchments. Although this information is still being refined and evaluated, it already provides critical information for Otway fire managers. Burns and other prevention works can be located with confidence and be shown to substantially reduce risk of bushfire to communities. Review, evaluation, adaptation through the incorporation of new information from research, monitoring and working with communities is fundamental to the ultimate success of fire management planning state wide.

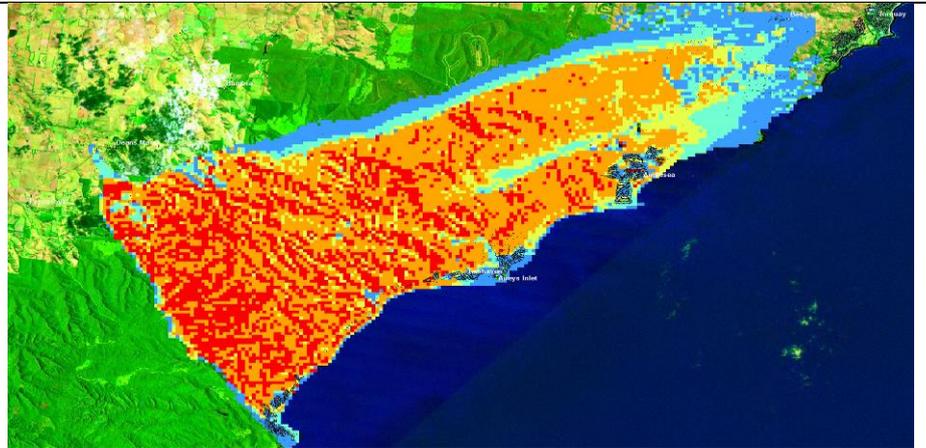
The Pilot has not just focussed on planning future fire regimes. It has practically informed the delivery of the current burn program with approximately 25,000 hectares effectively fuel reduced over the past three years. Modelled risk reduction in the Otways has provided evidence of the need for the escalation of the DELWP and Parks Victoria planned burn program, and has demonstrated how fire managers can work more transparently and cooperatively with communities to improve bushfire management outcomes for reducing bushfire risk to local communities.

<sup>12</sup> These two initiatives, and other community engagement initiatives, are described in further detail in Appendix B – Multi-Agency Work Plan: Surf Coast Shire Municipal Fire Management Plan.

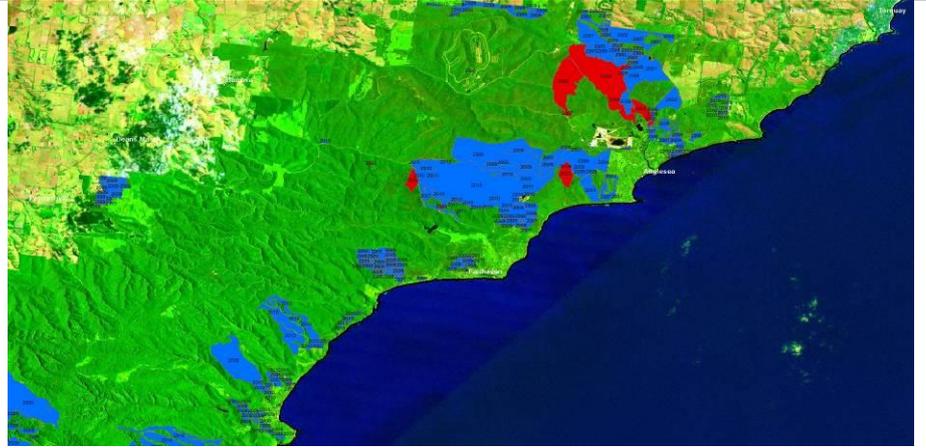
Figure 2. – These three images are simulations of:

- (i) fire spread under near worst case conditions; and
- (ii) impacts of planned burning on reduction of fire extent, severity and community impacts.

This image shows the projected spread of the a fire spreading under near worst case conditions without any prior planned burning and fuel management.

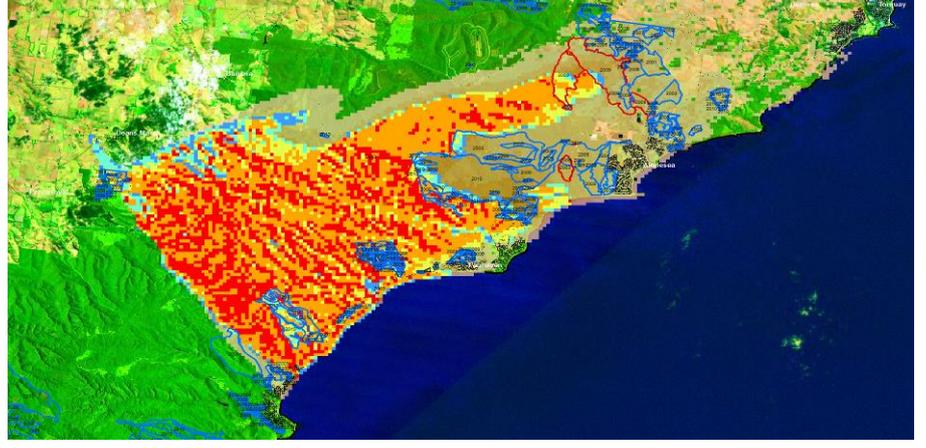


This image shows planned burn areas scheduled by the end of 2011



This image shows how the proposed burning is expected to break up and reduce the severity of this fire run.

As of 2011, DELWP and Parks Victoria implemented and improved on strategies evaluated using this approach.



The process of better understanding bushfire risk, the role of fire in our environment, and then working together to find the best ways to manage fire in the environment we live in and value is ongoing. This critical work will be further refined over the next few years and has the potential to support more explicit and transparent risk based decision making and improve integrated bushfire management planning. This approach gives emphasis to protecting human life by reflecting our shared responsibility for bushfire safety.<sup>13</sup> DELWP has since finalised the Strategic Bushfire Management Plan – Barwon Otway Bushfire Risk Landscape, and while this current Municipal Fire Plan does not draw information from DELWP’s new plan, the next Municipal Fire Plan will.

<sup>13</sup> “Approaches to Future Fire Management – risk based planning and action from the Otway-Surf Coast”, Case Study, Bushfires Royal Commission Implementation Monitor, *Progress Report*, (July 2011) at pp. 136 – 139.

### 5.1.3 Hazardous Roadside Vegetation

Risk Assessments have been undertaken of roads within the Colac Otway Shire by VicRoads and Council with respect to vegetation that may pose high risks in the event of bushfire based on a state threat assessment model designed by Terramatrix. Selected roads in high risk environments, or of high strategic value have been surveyed by a mixture of Council, VicRoads, DELWP and CFA. Risk Assessments of VicRoads managed roads are held and managed by that agency. From the Risk Assessments suitable treatments have been prioritised and works plans prepared.

The risk assessments looked at the road reserve, traffic lane/s and adjacent lands to measure risk values and threats and then scored to provide a risk priority order. Work done at the time of risk assessments to determine appropriate treatments for individual roadsides was also undertaken. Risk worksheets were completed using the following template.

Road name: \_\_\_\_\_ Date: \_\_\_\_\_ Total Score: \_\_\_\_\_ Risk worksheet  
 Segment (from – to): \_\_\_\_\_ Assessors: \_\_\_\_\_ Sheet No. \_\_\_\_\_  
 Length of segment: \_\_\_\_\_

N  
W + E  
S  
Facing (circle)

Adjacent	Road reserve	Shoulder	Traffic lane	Shoulder	Road reserve	Adjacent
Aerial bundled cable 5 Y / N Bare conductors 9 Y / N Width ___ m Fire place present 5Y / N Predominant land use 1 <input type="checkbox"/> Transport 4 <input type="checkbox"/> Cropping 1 <input type="checkbox"/> Grazing 9 <input type="checkbox"/> Forest 9 <input type="checkbox"/> Plantation 9 <input type="checkbox"/> Residential 7 <input type="checkbox"/> Industrial/commercial Predominant Topography 5 <input type="checkbox"/> Rugged 2 <input type="checkbox"/> Gentle Potential for fire spread 9H 5M 3L Assets within 30m High value 9 Y / N Moderate value 7 Y / N Low value 5 Y / N Fuel break 3 Y / 5N History of ignitions >20% above median <input type="checkbox"/> 9 Within 20% of median <input type="checkbox"/> 3 >20% below median <input type="checkbox"/> 1 Score Total: _____	Width ___ m Fire place present 5Y / N Predominant Vegetation Grass Forest Wood Heath Non-vegetated 5 <input type="checkbox"/> 9 <input type="checkbox"/> 7 <input type="checkbox"/> 7 <input type="checkbox"/> 0 <input type="checkbox"/> Dries out Every year <input type="checkbox"/> 6 / Most <input type="checkbox"/> 3 / Rarely <input type="checkbox"/> 1 Fuel hazard M H VH Ext Surface/nr surface 1 <input type="checkbox"/> 3 <input type="checkbox"/> 5 <input type="checkbox"/> 9 <input type="checkbox"/> Elevated 2 <input type="checkbox"/> 4 <input type="checkbox"/> 7 <input type="checkbox"/> 9 <input type="checkbox"/> Bark 3 <input type="checkbox"/> 6 <input type="checkbox"/> 9 <input type="checkbox"/> 9 <input type="checkbox"/> Conservation status H / M / L Assets present Road furniture Y / N Rest area Y / N Power 4 Y / N Water Y / N Telecoms 2 Y / N Score Total: _____	Width ___ m Road formation Road on steep gradient Y / N Bridge Y / N Cutting Y / N Embankment Y / N Dries out Every year <input type="checkbox"/> 6 / Most <input type="checkbox"/> 3 / Rarely <input type="checkbox"/> 1 Fuel hazard M H VH Ext Surface/nr surface 1 <input type="checkbox"/> 3 <input type="checkbox"/> 5 <input type="checkbox"/> 9 <input type="checkbox"/> Elevated 2 <input type="checkbox"/> 4 <input type="checkbox"/> 7 <input type="checkbox"/> 9 <input type="checkbox"/> Bark 3 <input type="checkbox"/> 6 <input type="checkbox"/> 9 <input type="checkbox"/> 9 <input type="checkbox"/> Conservation status H / M / L Assets present Road furniture Y / N Rest area Y / N Power 4 Y / N Water Y / N Telecoms 2 Y / N Score Total: _____	Width ___ m Fire place present 5Y / N Predominant land use 1 <input type="checkbox"/> Transport 4 <input type="checkbox"/> Cropping 1 <input type="checkbox"/> Grazing 9 <input type="checkbox"/> Forest 9 <input type="checkbox"/> Plantation 9 <input type="checkbox"/> Residential 7 <input type="checkbox"/> Industrial/commercial Predominant Topography 5 <input type="checkbox"/> Rugged 2 <input type="checkbox"/> Gentle Potential for fire spread 9H 5M 3L Assets within 30m High value 9 Y / N Moderate value 7 Y / N Low value 5 Y / N Fuel break 3 Y / 5N History of ignitions >20% above median <input type="checkbox"/> 9 Within 20% of median <input type="checkbox"/> 3 >20% below median <input type="checkbox"/> 1 Score Total: _____			

Scores

Total Score for adjacent land (both sides) = x 7 = \_\_\_\_\_

Total Score for road reserve (both sides) = x 3 = \_\_\_\_\_

= \_\_\_\_\_

Treatment worksheet

If the total score is over 400 continue to treat the road as it is considered HIGH risk

Adjacent	Road reserve	Shoulder	Traffic lane	Shoulder	Road reserve	Adjacent
Physical works Planned burn <input type="checkbox"/> _____ Fire Prevention Notice <input type="checkbox"/> _____ Bare earth fuel break <input type="checkbox"/> _____ m	Physical works Planned burn <input type="checkbox"/> _____ Slash (10cm height) <input type="checkbox"/> _____ m Spray <input type="checkbox"/> _____ m Power line clearance <input type="checkbox"/> _____ m Bare earth fuel break - linear <input type="checkbox"/> _____ m Bare earth around ignition sources <input type="checkbox"/> _____ m "Fuse" break <input type="checkbox"/> _____ m Tree - pruning Minor <input type="checkbox"/> _____ Moderate <input type="checkbox"/> _____ Major <input type="checkbox"/> _____ Tree - removal (approx) <input type="checkbox"/> _____ How many? Woody Weed Removal <input type="checkbox"/> _____ Complementary approaches Fire investigation <input type="checkbox"/> _____ Public awareness <input type="checkbox"/> _____ Patrol & enforcement <input type="checkbox"/> _____ Traffic management plan <input type="checkbox"/> _____	Potential works Spray shoulder <input type="checkbox"/> _____ m Grade shoulder <input type="checkbox"/> _____ m Other <input type="checkbox"/> _____ specify _____	Physical works Planned burn <input type="checkbox"/> _____ Slash (10cm height) <input type="checkbox"/> _____ m Spray <input type="checkbox"/> _____ m Power line clearance <input type="checkbox"/> _____ m Bare earth fuel break - linear <input type="checkbox"/> _____ m Bare earth around ignition sources <input type="checkbox"/> _____ m "Fuse" break <input type="checkbox"/> _____ m Tree - pruning Minor <input type="checkbox"/> _____ Moderate <input type="checkbox"/> _____ Major <input type="checkbox"/> _____ Tree - removal (approx) <input type="checkbox"/> _____ How many? (approx) Woody Weed Removal <input type="checkbox"/> _____ Other <input type="checkbox"/> _____ specify _____	Physical works Planned burn <input type="checkbox"/> _____ Fire Prevention Notice <input type="checkbox"/> _____ Bare earth fuel break <input type="checkbox"/> _____ m		

Time to carry out Physical Works: \_\_\_\_\_ Estimate

Risk assessments will be presented to Council's MFMP for consideration in determining annual works plan reviews.

Council Roads have also been assessed using the same Risk Assessment criteria and maps of high risk roads are included in Appendix E2.

It should be noted that treatments will not always include reduction, or removal of vegetation on high risk roads and such treatments will only be applied when it is reasonable in all the circumstances, including the interests of soil stability and significant conservation value.

Fire Management Objectives for Bushfire Management on Roads (as cited by DSE<sup>14</sup>) include:

- Objective 1 – Prevent Fires on Roadsides
- Objective 2 – Contain Roadside Fuels
- Objective 3 – Manage Safety of Road Users
- Objective 4: Provide Control Lines

#### **5.1.4 Structural and Chemical Fire Risk Assessment**

This Plan recognises that an Urban Risk Assessment Tool is being developed at State level and, once completed, will be implemented by the MFMP to complete and incorporate a full Risk Register in respect of structural and chemical fires at Appendix A of this Plan. In the interim, Barwon South West IFMP and CFA staff are developing a risk assessment process for chemical and structural fires using incident statistics, key asset identification, and other available site and incident statistical information.

Risk assessment will give consideration to likelihood factors, such as structural and chemical fire history (number and type) across the municipality and across the relevant industry, and the consequences, or potential consequences of those occurrences (death, injury, economic and property loss statistics). Consideration will also be given to high risk premises and assets. Examples of high risk premises may include (for life risk) nursing homes, aged care facilities and institutional care facilities, (and for property loss risk) commercial and industrial premises. In terms of chemical fires, consideration will be given to high risk premises such as chemical manufacturers, or high chemical use industries, chemical transport industries, fuel suppliers and any other industry identified following a comprehensive risk assessment process.

Maps showing chemical and structural fire incidents for the Shire since 1999 are included in Appendix E of this Plan. These maps currently capture actual incident numbers and geographic locations of recorded incidents. Consequence data has still to be incorporated and criteria finalised for asset classification and development of a risk register. As the risk data does not meet the requirements of ISO 31000 to undertake a full risk analysis, the maps are provided in the plan for information only at this time.

The MFMP will continue to work with VFRR and Barwon South West region on the development of risk assessment criteria and tools for structure and chemical fires. The Plan will be updated to include additional information as the criteria and tools are finalised.

## **5.2 Alignment to Regional Objectives**

Assets in the Colac Otway Shire's VFRR Risk Register are grouped according to the five regional risk priorities identified by the Barwon South West Regional Strategic Fire Management Planning Committee. These priorities are: high risk townships, critical essential services, tourism and major

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<sup>14</sup> Department of Sustainability & Environment, *Roadside Vegetation Management for bushfire mitigation purposes*, 2012

events, key rural industries and major transport corridors. The table below aligns the regional risk priorities to the asset classes and sub-classes within the VFRR.

Barwon South West Regional Risk Priority	Asset Class	Asset Subclass
High Risk Townships	Human Settlement	Residential Other
Critical Essential Services	Economic	Drinking Water Catchment Infrastructure
Tourism and Major Events	Economic	Tourist and Recreational Special Fire Protection
Key Rural Industries	Economic	Agriculture Commercial Commercial Forests
Major Transport Corridors	Economic	Infrastructure
Other assets not included in regional risk priorities	Human Settlement	Special Fire Protection

### 5.3 Treatment of Municipal Fire Risk

The state fire management priorities are underpinned by the primacy of life, the protection of property, the economy and the environment. These priorities inform and are integrated into the primary fire risk management strategies used in this Plan (refer to Appendix B of this Plan for details), which are:

- Community education and engagement;
- Hazard reduction;
- Preparedness; and
- Regulatory controls.

The Landscape level bushfire management planning process for Otway-Surf Coast has identified the following five key focus areas to develop municipal level strategies to address bushfire risk:

- Prevention strategies aimed at reducing risk of ignition associated with road, rail and electrical infrastructure to the north of the public land.
- Review roadside management strategies to the north of the public land to ensure that works support objectives for either:
  - 1) Managing for safety of road users, or
  - 2) Provide control lines.
- Private land interface areas for planned burning integrated with public land.
- With partner agencies, implement engagement strategies and an integrated approach around community resilience, understanding and awareness of risk.

In addition to these recommended municipal strategies, there are a number of State wide and municipal treatments that have been identified for each fire risk management strategy, which can be used by agencies to reduce the risk and effect of fire on the community. The generic State wide and municipal wide treatments include:

- Community education programs;
- Community education and engagement activities;
- Public awareness – multimedia communications;
- Powerline hazard tree identification, management and reporting;
- Fire hazard inspection program and issue of notice;
- Compliance and enforcement of legislation;
- Road Bushfire Risk Assessment Work Plans
- Wildfire management overlays;
- Building code of Australia;
- Permits to Burn; and
- Local laws.

To effectively reduce community vulnerability to fire will require more than inter-agency effort alone. It will require more self-reliant and self-aware communities that have the knowledge, motivation and capacity to manage risks to reduce the threat of fire and that work as active partners with fire management agencies.

### 5.3.1 Hazard Trees

The Electrical Safety Act 1998 provides that a municipal council must specify, within its Municipal Fire Prevention Plan:

- (a) procedures and criteria for the identification of hazard trees; and
- (b) procedures for the notification of responsible persons of trees that are hazard trees in relation to electric lines for which they are responsible.

The Colac Otway Shire's identification and notification procedures for Hazard Trees are included in Appendix C.1.

### 5.3.2 Community Information Guides

A key recommendation from the Victorian Bushfires Royal Commission Interim Report was the development of Township Protection Plans (TPPs) now known as Community Information Guides (CIG) for high risk communities across Victoria. The priority given for these plans is the protection of life.

The 2009 Victorian Bushfire Royal Commission identified 52 townships throughout Victoria as highest risk. 8 of these townships are located within the Colac Otway Shire.

The VFRR risk assessment process was also used to inform decisions relating to identified high risks towns and Township Protection Planning, including the initial identification of potential Neighbourhood Safer Places – Places of Last Resort

CIGs are established for high risk communities and are regularly reviewed. Should the risk in a particular area be modified by land clearing or development, CIGs may be updated, the area covered changed or the CIG withdrawn. In addition, other CIGs may be developed in the future for communities at risk of bushfire.

CIGs for specific locations in the Colac Otway Shire can be found in Appendix C.2 – Community Information Guides.

### 5.3.3 Bushfire Safety and Shelter Options

#### 5.3.3.1 Overview - Bushfire Safety Options

The State Government's Bushfire Safety Policy Framework recognises that there are a range of ways that people will respond to the threat of bushfires and a range of locations, both personal and communal, where people may find shelter.<sup>15</sup> The Framework includes the following bushfire safety options:

- Leaving options
  - Leaving early
  - Evacuation
- Relocation destinations
  - Leave early destinations
- Shelter options
  - Defending a well prepared home
- Contingency shelter options
  - Private bushfire shelters (bunkers)
  - Community fire refuges
  - Neighbourhood Safer Places – Places of Last Resort
  - Private places of shelter

#### 5.3.3.2 Contingency Shelter Options

The State Bushfire Safety Policy Framework recognises that not all people living or present in high bushfire risk areas will have a well-developed bushfire survival plan. Four contingency shelter options are listed in the Framework – two public options (community fire refuges and Neighbourhood Safer Places – Places of Last Resort) and two private options (bunkers and other private places of shelter).

Neighbourhood Safer Places – Places of Last Resort (NSPs) are not community fire refuges or emergency relief centres. NSPs are places of last resort during the passage of a bushfire, and are intended to be used by persons whose primary bushfire plans have failed. NSPs are places of relative safety only. They do not guarantee the survival of those who assemble there. Furthermore, there may be serious risks to safety encountered in travelling and seeking access to NSP's during bushfire events. Depending on the direction of a particular fire, it may not be 'a safer place' to assemble than other places within the municipal district. At that point in time it almost certainly will be a matter for individual judgement and decision, as to which if any NSP a person or persons should travel in the presence of fire.

NSPs are places or buildings designated and signposted by the Municipal Council and meet guidelines issued by the Country Fire Authority.

A Neighbourhood Safer Place – Place of Last Resort has been designated at the following locations;

Apollo Bay, Birregurra, Beeac and Gellibrand

Further assessment work has commenced on identification of other suitable (NSP's) for townships of Beech Forest and Barwon Downs.

The township of Lavers Hill where previous attempts to locate an NSP were unsuccessful is now in the process of having a Community Fire Refuge established.

For further information refer to the fact sheet on Council's website at: [www.colacotway.vic.gov.au](http://www.colacotway.vic.gov.au)

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<sup>15</sup> [Fire Services Commissioner – Victoria, Bushfire Safety Policy Framework, December 2010](http://www.firecommissioner.vic.gov.au) at p. 17, available at [www.firecommissioner.vic.gov.au](http://www.firecommissioner.vic.gov.au)

## 5.3.4 Individual Bushfire Risk Treatments

### 5.3.4.1 Vegetation Management Rights

Native vegetation is important to many Victorians and its removal is carefully regulated by the planning system.

Under the Victoria Planning Provisions, there are permit exemptions for vegetation removal around existing buildings used for accommodation and adjacent to fences on property boundaries.

The two main exemptions are the '10/30 rule' and the '10/50 rule' which allow clearance of native vegetation around buildings used for accommodation without obtaining a planning permit. Under the 10/30 rule, landowners can clear without a planning permit:

- Any vegetation, including trees, within 10 metres of a building used for accommodation;
- Any vegetation (except for trees) within 30 metres of a building used for accommodation; and
- Any vegetation to a combined maximum width of 4 metres either side of a fence or boundary, subject to agreement with neighbouring property owners

The 10/50 rule mirrors the 10/30 rule but applies to properties within the Bushfire Management Overlay and allows clearance of vegetation (except for trees) up to 50 metres of a building used for accommodation. The exemptions only apply to existing buildings and fences constructed or approved before 10 September 2009. In the case of the 10/50 exemption, the buildings and fences must be constructed or approved before 10 September 2009 and lawfully erected before 18 November 2011.<sup>16</sup>

### 5.3.4.2 Local Laws and Permit to Burn

During the Declared Fire Danger Period a fire may not be lit or remain alight in the open air without a permit, and the requirements of Total Fire Bans must be complied with.

During the declared Fire Danger Period, limited permits may be obtained by individuals to conduct a fuel reduction or stubble burn within the municipality. These permits are issued by Council under authority of the CFA Act. These permits contain stringent conditions that must be complied with.

Under the Colac Otway Shire's Local Laws, for amenity and health reasons, the burning of any type of material is regulated. Further information about local laws and permits may be obtained from the Colac Otway Shire's website [www.colacotway.vic.gov.au](http://www.colacotway.vic.gov.au).

### 5.3.4.3 Inspection of Private Properties and Issue of Notices

The Colac Otway Shire will conduct fire hazard inspections within the municipality, concentrating on high risk areas. Fire prevention notices will be issued on land considered to be a fire risk as soon as practicable upon declaration of Fire Danger Period. Notices will address works required to further reinforce treatments required for the protection of life and property, especially in, and around areas of human settlement.

### 5.3.4.4 Planning Permits

When applications are lodged with the Colac Otway Shire for permits under the Planning and Environment Act for the subdivision of land or the construction of buildings in areas of high fire risk, the Shire will give consideration to the following documents in determining any such application, and also refer the application to the relevant fire agencies for comment.

- Planning Guidelines for Subdivisions in bushfire-prone areas;
- Building in a Wildfire Management Overlay – Applicant's Workbook 2010;
- Australian Standard 3959, 2009 - Construction of Buildings in Bushfire Prone Areas; and

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<sup>16</sup> Clause 52.48, *Victoria Planning Provisions*

- Bushfire Management Overlay – Colac Otway Shire Planning Scheme.

## **5.4 Treatment of Structural Fires and Chemical Fires and Incidents**

### **5.4.1 Structural Fire Risk**

Incident statistics show a likelihood for structural fires across the municipality, but with the strongest concentration in the major townships. Structural fires may involve a range of structures from a single residential structure through to a large industrial building. The impacts of structural fires can include death or injury, loss of property, or consequential economic loss associated with the aforementioned impacts.

It is recognised that the majority of structural fires occur within townships, however isolated single structures can also be affected by structural fire.

### **5.4.2 Structural Fire Risk Treatments**

Structural Fire Risk is treated in a number of ways to minimize their occurrence and severity. Treatment actions may include:

- building control and regulation
- public awareness and education
- household fire planning
- occupational health and safety regulation
- dangerous goods and hazardous material regulation
- response procedures of CFA, including resource and training provision, proportional and specific, to the structural risk environment

### **5.4.3 Structural Risk Action Timelines and Responsibilities**

Determination of treatment implementation will be determined once the State Urban Risk Assessment Tool is developed and subsequently implemented. This plan recognises that many of the treatments identified at 5.4.2 are in place already. It is expected that a fully completed risk assessment process will identify any need for targeted, or alternate, treatments associated with assessed risk.

The MFMPC will work with key agencies including CFA, Council's Municipal Building Surveyor and WorkSafe Victoria to set performance criteria (including timelines) for any identified actions and treatments from the risk assessment process.

### **5.4.4 Chemical Fire and Incident Risk**

Incident statistics show a likelihood for fires and incidents involving chemicals across the municipality. Such incidents may involve a range of matters from a minor leak or spill (example – car leaking petrol) to a major leak and/or fire involving chemicals (examples include Coode Island fire, tar leak at Portland Harbour, Longford Gas Plant fire). The impacts of chemical fires and incidents can include death or injury, loss or damage of property and environment, or consequential economic or environmental losses associated with the aforementioned impacts.

It is recognised that the majority of chemical fires and incidents occur within townships, however isolated incidents have been known to occur, including tanker leaks and fires outside of built up areas.

### **5.4.5 Chemical Fires and Incident Risk Treatments**

Chemical fires and incidents risk is treated in a number of ways to minimize their occurrence and severity. Treatment actions may include:

- dangerous goods and hazardous material regulation

- occupational health and safety regulation
- environmental protection regulation
- industry compliance codes, and codes of practice
- building control and regulation
- transport licensing and regulation
- public and industry awareness and education
- emergency management fire planning within industries
- response procedures of CFA, including resource and training provision specific to the structural, chemical and Hazmat risk environments

#### 5.4.6 Chemical Fires and Incident Risk Action Timelines and Responsibilities

Determination of treatment implementation will be determined once the State Urban Risk Assessment Tool is developed and subsequently implemented. This Plan recognises that many of the treatments identified at 5.4.5 are in place already. It is expected that a fully completed risk assessment process will identify any need for targeted, or alternate, treatments associated with assessed risk.

The MFMPC will work with key agencies including CFA, WorkSafe Victoria, VicRoads and the Environment Protection Authority to set performance criteria (including timelines) for identified actions and treatments.

#### 5.4.7 Major Hazard Facilities

Major Hazard Facilities are industrial sites that store, handle or process specific hazardous materials in quantities above a threshold amount. Examples of such facilities include oil refineries, and gas-processing plants.

Major Hazard Facilities must comply with strict legal requirements. The list of approved Major Hazard Facilities in Victoria is maintained by WorkSafe Victoria and is available at [www.worksafe.vic.gov.au](http://www.worksafe.vic.gov.au).

As at the date of this Plan, there are no Major Hazard Facilities in the Colac Otway Shire.

Major Hazard Facilities treatments are identified and managed at state level. Any Major Hazard Facilities listed in this Plan are noted for information and completeness only.

### 5.5 Treatment of Special Fire Risks

#### 5.5.1 Yeodene Peat Fire

The Colac Otway MFMPC, at the advice of the Chief Officer of CFA, identified that a special fire risk exists with respect to the peat swamp area on Boundary Creek, Yeodene.

A fire burnt into the peat area on 10 October 1997, which resulted in the peat soils burning well below the ground surface, to a much greater degree than is usually burnt in association with bushfires. In March 1998 the fire that had been burning underground reignited surface fuels on a hot windy day resulting in a 680 hectare fire to the South West of the peat area. CFA have reported intermittent smoke sightings at the peat area between late 1998 and 2010. On 2 March 2010 the fire, under relatively mild conditions, again ignited surface fuels and burnt an area of 80 hectares before being brought under control.

A sub-committee of the MFMPC was formed to manage this special risk under governance and audit arrangements endorsed by EMV. The purpose of the Yeodene Peat Fire MFMPC sub-committee was to prepare, review, and present options to the MFMPC for consideration for the management of this special risk. The sub-committee, led by CFA, reported to the MFMPC as a standing agenda item.

In May 2015 the Yeodene Peat Fire MFMPC sub-committee was disbanded due to the low fire threat deemed within the area through regular monitoring of the area by the Country Fire Authority

members that are committee members of the MFMPC. It was decided the risk would be managed by monitoring fire activity and the matter would be a standing agenda item on the MFMPC. If required the sub-committee would be re convened.

## **5.6 Cross Boundary Arrangements**

This Plan seeks to ensure that risk environments that cross municipal and regional boundaries are treated in a seamless manner with regard to risk assessment and treatments. In part, this is achieved through a collaborative approach and the use of consistent processes and tools.

The Colac Otway Shire shares borders with the Corangamite Shire, Golden Plains Shire and Surf Coast Shire. It is the shared responsibility of the Municipal Fire Management Planning Committees for all four municipalities to ensure that risks contiguous across these borders are planned for in a consistent and seamless manner.

Clear linkages to existing organisational cross boundary agreements and Memorandums of Understanding between agencies dealing with Preparedness, Preparation, Response and Recovery activities and resource allocation arrangements are also vital.

The Surf Coast Shire and Colac Otway Shire have agreed to collaborate on development of their Municipal Fire Management Plans. A coordinated strategic approach allows for better agency integration on fire management and planning and reflects the broader landscape level considerations impacting both Shires.

To ensure that shared risk is appropriately addressed, Municipal Fire Management Plans will be considered by the Regional Strategic Fire Management Planning Committees to make certain they address risks shared across municipal and agency boundaries in a consistent and seamless manner.

It is also recognized that agencies and municipalities have existing planning relationships across multiple boundaries and that these planning arrangements need to be considered when developing future plans.

A map of the Colac Otway Shire showing municipal boundaries is provided in Appendix E.

## 6 Plan Reporting, Review and Improvement

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### 6.1 Legislative Responsibilities

The Colac Otway Shire has a legislative responsibility under the Emergency Management Act 1986 to develop a Municipal Emergency Management Plan, and under the Country Fire Authority Act 1958, to develop and implement a Municipal Fire Prevention Plan. The Municipal Fire Prevention Plan is a sub plan of the Municipal Emergency Management Plan and is prepared by the Municipal Fire Management Planning Committee (MFMPCC).

For councils wholly or partly within the country area of Victoria, the Municipal Fire Management Plan as adopted by council will be deemed to meet the requirement for a Municipal Fire Prevention Plan under Section 55A (1) of the Country Fire Authority Act, provided that it contains the provisions as set out in Section 55A (2) of the Country Fire Authority Act.

### 6.2 Plan Audit

For councils wholly or partly within the Country Area of Victoria, the Municipal Fire Management Plan will also be audited under Section 55B of the Country Fire Authority Act 1958.

### 6.3 Plan Amendment and Review

This Plan has a three year lifespan based on current audit requirements contained within Section 55B of the Country Fire Authority Act. The 2105 update extends the life of the plan until March 2017. It is acknowledged that audit process and planning cycles may change as the Integrated Fire Management Planning framework and planning processes evolve in the future.

This Plan will be reviewed and amended:

- Annually in association with the Municipal Emergency Management Plan;
- Following significant incidents if required;
- As directed by the State or Regional Fire Management Planning Committees;
- As required by legislation; and/or
- As further works are completed by the MFMPCC.

A new Municipal Fire Management Plan is being prepared during 2015/2016 and once approved the new plan will supersede this plan.

## 7 Attachments

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<b>Appendix A</b>	<b>Colac Otway Shire Risk Management Register</b> A.1 Colac Otway Shire Risk Management Register by Regional Risk Priorities A.2 List of Victorian Fire Risk Register Treatments
<b>Appendix B</b>	<b>Multi- Agency Work Plan</b>
<b>Appendix C</b>	<b>Statutory Audit Obligations</b> C.1 Hazard Trees – Identification and Notification Procedures C.2 Community Information Guides, formerly Township Protection Plans
<b>Appendix D</b>	<b>Community &amp; Organisational Engagement Plan</b>
<b>Appendix E</b>	<b>Maps</b> E1 <b>Municipal Boundaries Map</b> E2 <b>Hazardous Roadside Risk Map</b> E3 <b>Structural Incidents Map – Colac Otway Shire</b> E4 <b>Chemical Incidents Map – Colac Otway Shire</b> E5 <b>Combined Chemical &amp; Structural Incidents Map – Colac Otway Shire</b>
<b>Appendix F</b>	<b>Terminology</b>
<b>Appendix G</b>	<b>Acronyms</b>
<b>Appendix H</b>	<b>Bibliography</b>

## Appendix A Colac Otway Shire Risk Management Register

### Appendix A.1: Colac Otway Shire - Bushfire Victorian Risk Register

#### Human Settlement

Asset ID	Asset Subclass	Asset Name	Consequence Rating	Likelihood Rating	Risk Rating	Priority Rating	Treatments identified
16069	Other	Scoullers RD/Clifton RD	Catastrophic	Almost certain	Extreme	1A	800
1651473	Special Fire Protection	Meredith Park Visitor Area	Catastrophic	Almost certain	Extreme	1A	800
16002	Residential	Forrest	Catastrophic	Likely	Extreme	1B	100,106,202,219,223,418,420
16003	Residential	Lavers Hill	Catastrophic	Likely	Extreme	1B	100,106,219,223,307,418,420
16004	Residential	Beech Forest	Catastrophic	Likely	Extreme	1B	800
16012	Special Fire Protection	Otway Odyssey	Catastrophic	Likely	Extreme	1B	202,203,224,307
16015	Residential	Skenes Creek	Catastrophic	Likely	Extreme	1B	800
16024	Residential	Wye River	Catastrophic	Likely	Extreme	1B	100,106,111,202,217,219,223,307,418,420,700
16025	Residential	Kennett River	Catastrophic	Likely	Extreme	1B	100,106,202,219,223,418,700
16027	Special Fire Protection	Lavers Hill P12	Catastrophic	Likely	Extreme	1B	438
16039	Special Fire Protection	Lavers Hill District Preschool	Catastrophic	Likely	Extreme	1B	438
16051	Special Fire Protection	Melba Gully Day Visitors Site	Catastrophic	Likely	Extreme	1B	202,224,307,700
16053	Special Fire Protection	Triplet Falls Day Visitors Site	Catastrophic	Likely	Extreme	1B	202,224,307,700
16054	Special Fire Protection	Maits Rest Day Visitors Site	Catastrophic	Likely	Extreme	1B	202,224,307,700
16055	Special Fire Protection	Blanket Bay Camping Ground	Catastrophic	Likely	Extreme	1B	202,203,224,307,700
16056	Special Fire Protection	Hopetoun Falls Day Visitors Site	Catastrophic	Likely	Extreme	1B	202,224,307,700
16057	Special Fire Protection	Aire Valley Reserve Day Visitors Site	Catastrophic	Likely	Extreme	1B	224,307
16058	Special Fire Protection	Shelly Beach Day Visitors Site	Catastrophic	Likely	Extreme	1B	202,224,307,700

16059	Special Fire Protection	Beauchamp Falls Camping Ground	Catastrophic	Likely	Extreme	1B	202,224,307,700
16061	Special Fire Protection	Stevensons Falls Reserve Camping Ground	Catastrophic	Likely	Extreme	1B	202,224,307,700
16063	Special Fire Protection	Grey River Picnic Area Day Visitors Site	Catastrophic	Likely	Extreme	1B	202,203,224,307,700
16064	Special Fire Protection	Lake Elizabeth Camping Ground	Catastrophic	Likely	Extreme	1B	202,203,224,307,700
16065	Special Fire Protection	Goat Track Camping Ground	Catastrophic	Likely	Extreme	1B	202,203,224,307,700
16068	Special Fire Protection	Otway Fly	Catastrophic	Likely	Extreme	1B	800
16070	Other	Alice CRT and Telfords Access and Great Ocean RD	Catastrophic	Likely	Extreme	1B	800
16071	Other	Barongarook South	Catastrophic	Likely	Extreme	1B	100,106,219,223,418,420
16072	Other	Kawarren	Catastrophic	Likely	Extreme	1B	100,106,219,223,418,420
16076	Special Fire Protection	Johanna Beach Second Carpark Camping Ground	Catastrophic	Likely	Extreme	1B	700
16077	Special Fire Protection	Johanna Camping Ground	Catastrophic	Likely	Extreme	1B	700
16079	Special Fire Protection	Great Ocean RD	Catastrophic	Likely	Extreme	1B	800
1650081	Special Fire Protection	Forrest Caravan Park	Catastrophic	Likely	Extreme	1B	800
1650082	Special Fire Protection	Various Forrest Mountail Bike Trails	Catastrophic	Likely	Extreme	1B	800
1650083	Special Fire Protection	Aire Crossing Day Visitor Sites and Camping Grounds	Catastrophic	Likely	Extreme	1B	800
1650084	Special Fire Protection	Dandos Campsite	Catastrophic	Likely	Extreme	1B	800
1651453	Residential	Separation Creek	Catastrophic	Likely	Extreme	1B	100,106,111,202,217,219,223,307,418,420,700
1651458	Special Fire Protection	Forrest PS OSHC	Catastrophic	Likely	Extreme	1B	800
1651460	Special Fire Protection	Belmont HS School Camp	Catastrophic	Likely	Extreme	1B	800
1651462	Special Fire Protection	Parker River Camping Ground	Catastrophic	Likely	Extreme	1B	800
1651463	Special Fire	Bimbi Park	Catastrophic	Likely	Extreme	1B	800

	Protection						
1651465	Special Fire Protection	Big 4 Wye River	Catastrophic	Likely	Extreme	1B	800
1651467	Special Fire Protection	Kennett River Holiday Park	Catastrophic	Likely	Extreme	1B	800
1651470	Special Fire Protection	Apollo Bay Recreation Reserve Caravan and Campsite	Catastrophic	Likely	Extreme	1B	800
1651471	Special Fire Protection	Marengo Holiday Park	Catastrophic	Likely	Extreme	1B	800
1651474	Special Fire Protection	Aire River Campsite- East	Catastrophic	Likely	Extreme	1B	800
1651475	Special Fire Protection	Jamieson River Camp Ground	Catastrophic	Likely	Extreme	1B	800
1651476	Special Fire Protection	Wye River RD Campsite	Catastrophic	Likely	Extreme	1B	800
1651898	Special Fire Protection	Cape Otway Hikers Camp	Catastrophic	Likely	Extreme	1B	800
1651899	Special Fire Protection	Elliot Ridge Hikers Camp	Catastrophic	Likely	Extreme	1B	800
1651900	Special Fire Protection	Great Ocean Walk	Catastrophic	Likely	Extreme	1B	800
1651901	Special Fire Protection	Old Beechy Rail Trail	Catastrophic	Likely	Extreme	1B	800
1651987	Special Fire Protection	Patanga Park Camp Site	Catastrophic	Likely	Extreme	1B	800
1652388	Other	Barongarook North	Catastrophic	Likely	Extreme	1B	800
16078	Other	Yeodene	Major	Almost certain	Extreme	1C	800
16006	Residential	Carlisle River	Major	Likely	Very High	2A	100,106,219,223,307,418,420
16007	Residential	Barwon Downs	Major	Likely	Very High	2A	100,106,203,219,223,418,420
16026	Special Fire Protection	St Brendans PS	Major	Likely	Very High	2A	438
16033	Special Fire Protection	Beeac PS	Major	Likely	Very High	2A	438
16034	Special Fire Protection	Cressy PS	Major	Likely	Very High	2A	438
16052	Special Fire Protection	Cape Otway Lighthouse Day Visitors Site	Major	Likely	Very High	2A	202,224,307,700
16067	Residential	Colac Interface	Major	Likely	Very High	2A	800

1651459	Special Fire Protection	Apex Preschool	Major	Likely	Very High	2A	800
1651461	Special Fire Protection	Biregurra Preschool Centre	Major	Likely	Very High	2A	800
1651464	Special Fire Protection	Otways Tourist Park	Major	Likely	Very High	2A	800
1651466	Special Fire Protection	Wye River Foreshore Caravan Park	Major	Likely	Very High	2A	800
1651468	Special Fire Protection	Skenes Creek Beachfront Park	Major	Likely	Very High	2A	800
1651469	Special Fire Protection	Pisces Holiday Park	Major	Likely	Very High	2A	800
1651472	Special Fire Protection	Colac Caravan and Cabin Park	Major	Likely	Very High	2A	800
1651477	Special Fire Protection	The Cubby House at Colac	Major	Likely	Very High	2A	800
1651478	Special Fire Protection	Alvie and District Kindergarten	Major	Likely	Very High	2A	800
1651984	Special Fire Protection	1st Upper Barwon	Major	Likely	Very High	2A	800
1651985	Special Fire Protection	3rd 4th Colac	Major	Likely	Very High	2A	800
1651986	Special Fire Protection	Otway Plains District HQ	Major	Likely	Very High	2A	800
1652392	Special Fire Protection	Aire River Campsite West	Major	Likely	Very High	2A	800
16010	Residential	Cressy	Moderate	Almost certain	Very High	2C	800
16001	Residential	Marengo	Moderate	Likely	High	3A	100,106,219,223,307,418,420
16011	Residential	Beeac	Moderate	Likely	High	3A	800
16013	Residential	Gellibrand	Moderate	Likely	High	3A	800
16016	Residential	Apollo Bay	Moderate	Likely	High	3A	800
16028	Special Fire Protection	Apollo Bay P12	Moderate	Likely	High	3A	800
16029	Special Fire Protection	Carlisle River PS	Moderate	Likely	High	3A	438
16030	Special Fire Protection	Forrest PS	Moderate	Likely	High	3A	438
16032	Special Fire Protection	Birregurra PS	Moderate	Likely	High	3A	438

16035	Special Fire Protection	Alvie PS	Moderate	Likely	High	3A	438
16040	Special Fire Protection	Forrest Preschool	Moderate	Likely	High	3A	438
16041	Special Fire Protection	Beeac Health Centre	Moderate	Likely	High	3A	800
16042	Special Fire Protection	Birregurra Health Centre	Moderate	Likely	High	3A	800
16043	Special Fire Protection	Colanda Disability Residence	Moderate	Likely	High	3A	800
16073	Other	Pirron Yallock	Moderate	Likely	High	3A	800
16074	Residential	Birregurra Interface	Moderate	Likely	High	3A	800
1651455	Special Fire Protection	Apollo Bay Children's Centre	Moderate	Likely	High	3A	800
1651456	Special Fire Protection	Apollo Bay Kindergarten	Moderate	Likely	High	3A	800
1651893	Residential	Cororooke	Moderate	Likely	High	3A	800
1651894	Residential	Coragulac	Moderate	Likely	High	3A	800
1651895	Residential	Alvie	Moderate	Likely	High	3A	800
1651896	Residential	Warrion	Moderate	Likely	High	3A	800
16038	Special Fire Protection	Elliminyt PS	Moderate	Unlikely	Low	NA	438
1651967	Residential	Colac Town Centre	Minor	Unlikely	Low	NA	800
1652389	Residential	Birregurra Town Centre	Minor	Unlikely	Low	NA	800

## Economic Assets

Asset ID	Asset Subclass	Asset Name	Level of Impact	Recovery	Consequence Rating	Likelihood Rating	Risk Rating	Priority Rating	Treatments identified
16201	Infrastructure	MLTS-TGTS 220KV Transmission Line	National/State	Low	Moderate	Almost certain	Very High	2C	427
16205	Tourist & Recreational	Otway Fly	Local	Low	Minor	Likely	Medium	4	700
16206	Infrastructure	Telecommunications Towers	Regional	Low	Moderate	Almost certain	Very High	2C	202,203,217,224,700
16207	Infrastructure	Warrnambool Rail Line	Regional	Moderate	Major	Almost certain	Extreme	1C	214
16208	Tourist & Recreational	Great Ocean RD	Regional	High	Major	Likely	Very High	2A	214,223,418,700
16211	Infrastructure	Princes HWY	Regional	Low	Moderate	Almost certain	Very High	2C	223,418
16212	Infrastructure	Colac Ballarat RD	Regional	Low	Moderate	Almost certain	Very High	2C	223
16213	Infrastructure	Hamilton HWY	Regional	Low	Moderate	Almost certain	Very High	2C	223,418
16214	Infrastructure	Colac Apollo Bay RD	Local	Low	Minor	Almost certain	High	3D	223
16215	Infrastructure	ARTC	Regional	Low	Moderate	Almost certain	Very High	2C	209
16216	Commercial	Colac West Industrial Precinct	Local	Moderate	Moderate	Likely	High	3A	800
16217	Commercial	CRF Processors	Local	Low	Minor	Likely	Medium	4	800
16222	Infrastructure	Camperdown - Colac 66KV Sub-transmission Line	Regional	Low	Moderate	Almost certain	Very High	2C	108,219,401
16223	Infrastructure	Winchelsea - Colac 66KV Sub-transmission Line	Regional	Low	Moderate	Almost certain	Very High	2C	108,219,401
16225	Infrastructure	Apollo Bay - Barwon Downs 22KV Distribution Feeder Line	Local	Low	Minor	Almost certain	High	3D	108,219,401
16226	Infrastructure	Lorne 22KV Distribution Feeder Line	Local	Low	Minor	Almost certain	High	3D	108,219,401
16238	Infrastructure	Great Ocean RD	Regional	Low	Moderate	Almost certain	Very High	2C	214,223,418,700
16239	Infrastructure	Telstra Barwon Downs Exchange	Local	Low	Minor	Likely	Medium	4	800

							um		
16244	Infrastructure	South Otway WPS	Regional	High	Major	Likely	Very High	2A	203,214,310,406,423,439
16246	Infrastructure	Gerangamete WTP and GW5	Local	Low	Minor	Unlikely	Low	NA	109,214,406,439
16247	Infrastructure	Barwon Downs Wellfield GW3	Local	Low	Minor	Unlikely	Low	NA	109,214,406,439
16248	Infrastructure	Barwon Downs Wellfield GW8	Local	Low	Minor	Unlikely	Low	NA	109,214,406,439
16249	Infrastructure	Forrest WTP	Local	Low	Minor	Likely	Medium	4	109,214,406,439
16250	Infrastructure	West Barwon Reservoir and Forrest WPS	Local	Moderate	Moderate	Unlikely	Low	NA	109,214,406,439
16251	Infrastructure	Gellibrand WPS	Local	Low	Minor	Likely	Medium	4	109,214,406,439
16252	Infrastructure	Gellibrand WTP	Local	Low	Minor	Likely	Medium	4	109,214,406,439
16253	Infrastructure	West Gellibrand Reservoir	Local	Moderate	Moderate	Likely	High	3A	214,406,439
16254	Infrastructure	Olangolah Reservoir	Local	Moderate	Moderate	Likely	High	3A	214,406,439
16255	Infrastructure	Mt Tanybryn Communications Tower	Local	Low	Minor	Almost certain	High	3D	109,214,406,439
16256	Infrastructure	Skenes Creek High Level WT	Local	Low	Minor	Likely	Medium	4	109,214,406,439
16257	Infrastructure	Skenes Creek WT and WPS	Local	Low	Minor	Likely	Medium	4	109,214,406,439
16259	Infrastructure	Apollo Bay WRP	Local	Low	Minor	Unlikely	Low	NA	109,214,406,439
16260	Infrastructure	Barham River WPS	Local	Low	Minor	Unlikely	Low	NA	109,214,406,439
16261	Infrastructure	Apollo Bay WTP, marengo basin, high-level tank	Local	Low	Minor	Likely	Medium	4	109,214,406,439
16265	Infrastructure	Colac Pipeline	Regional	Low	Moderate	Likely	High	3A	214,406,439
16266	Infrastructure	Cressy WT	Local	Low	Minor	Likely	Medium	4	109,214,406,439
16267	Infrastructure	Colac Basins 1, 2 and 3	Local	Low	Minor	Unlikely	Low	NA	109,214,406,439
16268	Infrastructure	Colac WTP and Colac Basin 5	Local	Moderate	Moderate	Unlikely	Low	NA	109,214,406,439
16269	Infrastructure	Colac Basin 4	Local	Low	Minor	Unlikely	Low	NA	109,214,406,439
16270	Infrastructure	Birregurra WTP	Local	Low	Minor	Unlikely	Low	NA	109,214,406,439
16272	Infrastructure	Barwon Downs Wellfield GW2, GW2A, GW4	Local	Low	Minor	Unlikely	Low	NA	109,214,406,439
16273	Infrastructure	Barwon Downs Wellfield GW6	Local	Low	Minor	Unlikely	Low	NA	109,214,406,439
16275	Drinking Water	Gosling, Matthews and Pennyroyal Creek SWSC	Regional	Moderate	Major	Likely	Very High	2A	214,406,439

	Catchment								
16276	Drinking Water Catchment	West Gellibrand River Catchment	Regional	Moderate	Major	Likely	Very High	2A	214,406,439,700
16277	Drinking Water Catchment	Dewings Creek Catchment	Regional	Moderate	Major	Likely	Very High	2A	214,406,439,700
16278	Drinking Water Catchment	Wurdee Buloc Inlet Channel	Regional	Low	Moderate	Unlikely	Low	NA	109,214,406,439
16280	Drinking Water Catchment	Barham River SWSC	Local	Moderate	Moderate	Likely	High	3A	214,406,439,700
16282	Infrastructure	Gellibrand Main Pump Station and River Pump Station	National/State	High	Catastrophic	Likely	Extreme	1B	206,212,214,233,234,308,310,400,406,416,423,439,445,446,502,700
16283	Infrastructure	Colac Zone Substation	Regional	Low	Moderate	Likely	High	3A	108,214,219,401
1651480	Infrastructure	Apollo Bay Airfield	Local	Low	Minor	Likely	Medium	4	
1651481	Infrastructure	Colac Airfield	Local	Low	Minor	Likely	Medium	4	
1651937	Drinking Water Catchment	Olangolah Creek Catchment	Regional	Moderate	Major	Likely	Very High	2A	214,406,439
1651938	Drinking Water Catchment	West Barwon River Catchment	Regional	Moderate	Major	Likely	Very High	2A	
1651939	Drinking Water Catchment	East Barwon River Catchment	Regional	Moderate	Major	Likely	Very High	2A	
1651940	Drinking Water Catchment	Callahans Creek Catchment	Regional	Moderate	Major	Likely	Very High	2A	
1651941	Drinking Water Catchment	Lardners Creek Catchment	Local	Moderate	Moderate	Likely	High	3A	
1651942	Infrastructure	Birregurra WRP	Local	Low	Minor	Almost certain	High	3D	
1651943	Infrastructure	Birregurra WT	Local	Low	Minor	Likely	Medium	4	

1651944	Infrastructure	Apollo Bay Water Storage	Local	Low	Minor	Likely	Medium	4	109,214,406,439
1652399	Commercial	Forrest Timber Products Saw Mill	Local	Moderate	Moderate	Likely	High	3A	
1652400	Commercial	AKD Sawmill	Local	Moderate	Moderate	Likely	High	3A	
1652401	Commercial	Sheltons Timber Treatment	Local	Moderate	Moderate	Likely	High	3A	
1652402	Commercial	AKD Softwoods	Local	Moderate	Moderate	Likely	High	3A	

## Cultural Heritage

Asset ID	Asset Subclass	Asset Name	Location	Threat Rating	Susceptibility	Consequence Rating	Likelihood Rating	Risk Rating	Priority rating	Treatments identified
16601	Aboriginal Significance	Fish Trap	Pirron Yallock	High	Low	Moderate	Likely	High	3A	800
16602	Aboriginal Significance	Grinding Grooves	Gellibrand	High	Low	Moderate	Likely	High	3A	800
16603	Aboriginal Significance	Quarry	Gellibrand	Very High	Low	Moderate	Likely	High	3A	800
16604	Aboriginal Significance	Burial Site	Upper Gellibrand	Very High	Low	Moderate	Likely	High	3A	800
16605	Aboriginal Significance	Aboriginal Place	Birregurra	High	Moderate	Moderate	Likely	High	3A	104,214,223,307,4 14,425,700
16606	Aboriginal Significance	Burial Site	Colac	Medium	Low	Minor	Unlikely	Low	NA	800
16607	Aboriginal Significance	Burial Site	Alvie	High	Low	Moderate	Likely	High	3A	800
16608	Aboriginal Significance	Fish Trap	Beeac	High	Low	Moderate	Likely	High	3A	800
16609	Aboriginal Significance	Fish Trap	Beeac	High	Low	Moderate	Likely	High	3A	800
16610	Aboriginal Significance	Rock Well	Dreeite	High	Low	Moderate	Likely	High	3A	800
16613	Non-Indigenous	Cape Otway Lights	Lighthouse RD, Cape Otway							800
16614	Non-	Knotts No 3 Mill	Great Otway NP							800

	Indigenous									
16615	Non-Indigenous	Henrys No 1 Mill	Great Otway NP							800
16616	Non-Indigenous	Henrys Tramway Tunnel	Great Otway NP							800
16617	Non-Indigenous	Tarndwarncourt	Warncoort HWY, Warncoort							800
16618	Non-Indigenous	Colac Botanic Gardens	Queens AVE, Colac							800
16619	Non-Indigenous	Former Adam Reas Store	Queen ST, Colac							800
16620	Non-Indigenous	Pirron Yallock Station	Station RD, Pirron Yallock							800
16621	Non-Indigenous	Mt Hesse Station	Omrersley							800
16622	Non-Indigenous	Eurack Avenue of Honour	Eurack RD, Eurack							800

## Appendix A.2: List of Victorian Fire Risk Register Treatments

### Treatment Overview

TREATMENT NAME	TREATMENT DEFINITION	RESPONSIBLE AGENCY	TREATMENT NUMBER
<b>COMMUNITY EDUCATION (100 SERIES)</b>			
Community Education/Engagement	Bushfire education, engagement and training programs targeted at numerous community groups including school children, elderly, employees, and businesses.		
		CFA	100
		LGA	101
		DEECD	102
		Utility	103
Agricultural Management	Agriculture bushfire management and safety issues for landowners/managers to assist in the preparation of property fire management plans.		
		CFA	104
		CFA; DPI	105
Community Fire Guard	A CFA key engagement strategy, community development program to help reduce the loss of lives and homes in bushfires.		
		CFA	106
Fire Ready Victoria	Assists in perception and understanding bushfire risk.		
		CFA	107
Public Awareness	Fire information through notice boards, brochures, signage etc to raise awareness of fire risk.		
		POWERCOR	108
		CFA	109
		LGA	110
		PV	118
		Other	120
Tourism Fire Awareness	Community education and information for tourists about Bushfire risk in the area.		
		CFA	111
		DELWP; PV	112
		LGA	113
		PV	114
		Tourism Victoria	117
Multicultural/ Special Needs Engagement	Translations of campaigns to suite all multicultural and special needs persons.		
		LGA	115
		Country Fire Authority	116
<b>HAZARD REDUCTION (200 SERIES)</b>			
Burn Program	Removal of selected vegetation in large patches to protect townships.		
		LGA	201
		CFA; DELWP; PV	202
Crown Land Fuel Reduction	Reducing fuel loads on crown land.		
		DELWP	203
		PV	204
Fuel Hazard Management	Reduction and removal of fuel to decrease the risk of Bushfire in preparation for the Fire Danger Period.		
		Other	205
		Utility	206
		LGA	207
		Country Fire Authority	208
Routine Maintenance of Rail Line	Removal of vegetation on and around rail lines to ensure protection of assets, minimise ignition potential, and ensure adequate access and egress.		
		Utility	209
		DOT	210
		Country Fire Authority	211
Routine Asset Site Maintenance	Ongoing mowing/ slashing/ spraying of sites to reduce fuel loads for protection of assets or adjoining properties.		
		Other	212
		DEECD	213
		Utility	214
		DELWP; PV	215
		LGA	216
Asset Protection Zones	Buffer zone between bushfire hazard and the asset.		
		DELWP	227
Fire Management Zones	To provide areas of sufficient width to reduce the spread of Bushfire.		
		DELWP	217
		Other	228
Powerline Clearance	Vegetation management around powerlines.		
		LGA	218

TREATMENT NAME	TREATMENT DEFINITION	RESPONSIBLE AGENCY	TREATMENT NUMBER
<b>COMMUNITY EDUCATION (100 SERIES)</b>			
		POWERCOR	219
		SPAusnet	220
		TELSTRA	221
Roadside Vegetation Management	Removal of vegetation along roadsides.		
		LGA	222
		VicRoads	223
		DELWP; PV	224
		Other	225
		Private	226
<b>IGNITION MANAGEMENT (300 SERIES)</b>			
Operations Restrictions	On high fire weather days, operations of machinery in plantations is ceased.		
		HVP PLANTATIONS	300
Patrol/ Inspection	Inspections of assets to ensure compliance with regulations and safety requirements and to assess for fire hazards.		
		LGA	303
		Country Fire Authority	304
		DELWP	305
		MFB	306
		PV	307
Pre Summer Inspections	Inspections of land holders according to Bushfire risk over the summer season including exit routes, locks, gates etc.		
		Water Authority	308
<b>PREPAREDNESS (400 SERIES)</b>			
Hazard Identification	Preparedness including risk ratings, inspections, maintenance and response arrangements.		
		Utility	401
		Water Authority	439
Fire Protection Plan	Fire Protection Plans are prepared to ensure that proper and sufficient works for Bushfire prevention and suppression activities are taking place.		
		Other	400
		Country Fire Authority	402
		PV	403
		DHS	426
		SPAusnet	427
		GOULBURN MURRAY WATER	428
		DEPARTMENT OF DEFENCE	429
		MELBOURNE WATER	431
		HVP PLANTATIONS	437
Fire Plug and Hydrant Installation and Maintenance	Works carried out to ensure that the system will operate correctly when required to do so.		
		LGA	404
Emergency Water Supply	Emergency water supply and maintenance for fire fighting purposes, including water catchments and policy.		
		Government Agencies	405
		DELWP	411
		LGA	412
		MELBOURNE WATER	430
		Other	440
Emergency Management Plan (Site)	Established framework for the effective handling of emergencies and/ or disaster.		
		Utility	406
		DEECD	407
		Country Fire Authority	408
		Other	409
		LGA	410
Fire Access Roads and Tracks	Establishment of constructed and maintained roads, bridges and tracks to allow safe passage for fire fighting vehicles.		
		LGA	413
		Country Fire Authority	414
		PV	415
		DELWP	416

TREATMENT NAME	TREATMENT DEFINITION	RESPONSIBLE AGENCY	TREATMENT NUMBER
<b>COMMUNITY EDUCATION (100 SERIES)</b>			
Traffic Diversion Plans	Establishment of an appropriate traffic flow, through traffic management in the community and appropriate access and egress for property and business owners.		
		VIC POL	417
		VIC ROADS	418
		LGA	419
Township Protection Plans	Planned response (for both emergency services and the community) to a bushfire within close proximity to a township, which has the potential to impact on the local community.		
		CFA	420
Fire Operations Plan	Proposed fire prevention activities.		
		DSE	423
Public Land Management Plans	Each year a statewide program of activities is planned, completed and evaluated to continue progress towards achieving natural values objectives.		
		DSE; PV	424
Community Activities/Planning	Local based planning/community groups who repair and manage natural resources for the event of a bushfire		
		DEECD	421
		LGA	422
		Community Groups	425
		CFA	433
Event Management Plan	Emergency management planning of events that occur in the Fire Danger Period (FDP)		
		LGA	432
Fire Refuge	A declared fire refuge for the use as a last resort under direct fire attack		
		Other	435
		LGA	436
Bushfire and Emergency Self Assessment	Develop a more detailed understanding of the bushfire risk to your school.		
		DEECD	438
<b>PROPERTY PLANNING (500 SERIES)</b>			
Wildfire Management Overlay	Planning referral for new subdivisions, buildings and works that increase population. Applies conditions for access, Water Supply, Buildings/ Works and Vegetation Management		
		LGA	500
Agreements	Acts and agreements for Rural Residential Areas		
		LGA	501
<b>OTHER (700 SERIES)</b>			
Asset Specific Treatments	Municipal Specific plan (details can be found in the VFRR Document)		
		All Agencies	700
<b>TO BE IDENTIFIED (800 SERIES)</b>			
To be identified	Treatments to be identified		
			800
This treatment list has been created from the input of mitigation works identified through the 'Implementation Stage'. The list has been modified to capture all works the VFRR Support Team are currently aware of. Due to agency identification the allocation of treatment numbers it set as per agency request and therefore if your agency has not been identified against a current mitigation treatment please contact the VFRR Support Team for input.			

## Appendix B: Multi-Agency Work Plan

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The primary fire risk management strategies used in the Colac Otway Shire Municipal Fire Management Plan are:

- Community education and engagement;
- Hazard reduction;
- Preparedness; and
- Regulatory controls

This work plan outlines the key actions that will be undertaken annually in the Shire for each of these strategies and the agencies responsible for those actions. This list highlights the main actions being undertaken – it is not intended to be an exhaustive list.

The main agencies involved in fire risk management strategies in the Shire are:

- Country Fire Authority (CFA)
- Department of Environment Land Water and Planning (DELWP)
- Parks Victoria (PV)
- Colac Otway Shire (Council)
- VicRoads
- Powercor

Other definitions used in this work plan include:

- Municipal Fire Management Planning Committee (MFMP)

<b>Community Education and Engagement</b>				
<b>Action</b>	<b>Responsible Agency</b>	<b>Location/s</b>	<b>Timing/ Completion Date</b>	<b>Comments</b>
Community education and engagement	CFA, DELWP, PV, Council	Across the Shire	Nov	<b>MFMP engagement on draft Municipal Fire Management Plan</b> – undertaken by Municipal Fire Management Planning Committee agencies.
	DELWP/PV	Across the Shire	May – August	<b>DELWPSE/PV engagement on Fire Operations Plan</b> – involves initial call for burn nominations, followed by meetings with key stakeholders to present draft plan and maps.
	DELWP/Greening Australia	Gellibrand River	29 September 2011 Works completed	<b>Greening Australia DSE Fire Ecology information session</b> covering Fire Behaviour and Fire Ecology, includes a site visit to a DELWP planned burn to compare burnt and unburnt areas and look at regeneration. Open to general public.
	Country Fire Authority	Across the Shire	Year round, but with specific focus during Oct – April	<b>CFA Fire Ready Victoria Meetings-</b> the meetings are designed to provide people with information to raise their understanding and interest in bushfire and inspire them to seek further information. A range of meetings are provided, tailored to specific circumstances, and include community meetings, street meetings, special interest group meetings and meetings delivered during an incident.
		Across the Shire	Year round, but with specific focus during Oct – April	<b>CFA Bushfire Planning Workshops</b> -The workshops are designed to allow residents who have some knowledge of bushfire safety to consider that knowledge in relation to their household circumstances and commence developing a bushfire survival plan.  The Workshops provide more than just information and advice; they involve the audience in the decision-making process. They are designed to help residents assess their local risk factors and make informed plans based on that knowledge.
		Apollo Bay, Barongarook, Barwon Downs, Bugador, Cape Otway, Carlisle River, Cressy, Forrest, Gellibrand, Grey River, Kawarren, Kennett River, Marengo, Skenes Creek, Wongarra, Birregurra, Hordern Vale and Johanna	Year round, but with specific focus during Oct – April	<b>CFA Community Fireguard (CFG)</b> -CFG is a community developed program designed to reduce the loss of lives in bushfires. CFG is based on the principles of adult education, participation and empowerment. CFA does not tell participants what to do, instead it provides facilitators who are equipped with expertise and resources, to help the groups become established and work together in a positive and productive way. With facilitator support, groups can learn and work together to develop simple and effective strategies to increase the safety of the participants. Upon completion of the CFG meeting program, groups may elect to continue meeting and undertaking activities. Groups may also choose to operate independently of the CFA. There are currently 75 CFG groups in the Shire.

<b>Community Education and Engagement</b>				
<b>Action</b>	<b>Responsible Agency</b>	<b>Location/s</b>	<b>Timing/ Completion Date</b>	<b>Comments</b>
Community education and engagement	CFA	Across the Shire	Year round, but with specific focus during Oct – April	<p><b>CFA Home Bushfire Advice Service</b> – under this free program, CFA officers assess the defendability of individual properties and provide specific advice to property owners to help them understand and mitigate their bushfire risk and enable them to develop their bushfire survival plan. The property inspection includes assessment of:</p> <ul style="list-style-type: none"> <li>• Defendable space</li> <li>• Vegetation management</li> <li>• Water supply</li> <li>• Access</li> <li>• Buildings/structures</li> <li>• Maintenance activities/house keeping; and</li> <li>• Personal Preparedness / Bushfire Survival Plan</li> </ul> <p>On completion of the assessment, property owners receive a comprehensive report on their property, together with additional information that will help them to prepare their property and develop their Bushfire Survival plan.</p>
				<p><b>Other CFA programs</b> – CFA also offers a number of other community engagement programs in the Shire which are outlined in CFA’s Barwon South West Community Safety Program and Resource Catalogue. Other programs include Juvenile Fire Awareness Intervention Program, Fire Safe Kids and the Community Safety Display Trailer for CFA Districts 6 &amp; 7.</p>
	Powercor	Across the Shire	Year round, but with specific focus during Oct – April	<p><b>Powercor regional media</b> – the campaigns highlight various bushfire management activities using regional media. Further information is available at <a href="http://www.powercor.com.au">www.powercor.com.au</a></p>
Strategic Conversations initiative	DELWP & CFA	Cressy Gellibrand Forrest	Frequency determined by participating communities	<p><b>‘Strategic conversations’</b> is a new DSE initiative, in partnership with CFA, for developing and sharing knowledge about fire. Strategic conversations occur through community invitation and involve members of the community and staff from DELWP and CFA.</p> <p>A strategic conversation is a facilitated dialogue within a group of people for the purpose of pooling knowledge and experience about a topic or theme – in this case, fire. As people share their different perspectives, a broader and deeper understanding of the land and fire management can be achieved.</p>
Coordinated agency	CFA, DELWP, Council,	Across the Shire	Ongoing	<p><b>Community Engagement Community of Practice</b> – established in connection with the</p>

<b>Community Education and Engagement</b>				
<b>Action</b>	<b>Responsible Agency</b>	<b>Location/s</b>	<b>Timing/ Completion Date</b>	<b>Comments</b>
community engagement activities	PV			Strategic Conversations initiative. Brings together key agencies engaged in community engagement to share information and coordinate engagement activities.
Community Information Guides	CFA, Council	Barongarook, Barwon Downs, Carlise River, Forrest, Kawarran, Kennett River, Wye River and Lavers Hill	Ongoing	<b>Community Information Guides – CIGs</b> have been developed for a number of high bushfire risk communities across the State. CIGs provide important information and direction for communities to assist with planning before, during and after a fire. Information provided includes key locations and facilities, such as Neighbourhood Safer Places, and directions on where to find the latest emergency and bushfire information. Copies of the GIGs for the Shire’s high risk townships are available at <a href="http://www.cfa.vic.gov.au">www.cfa.vic.gov.au</a> .
Tourism fire safety campaigns	Tourism Vic	Material available at Visitor Information Centres,		

<b>Hazard Reduction</b>				
<b>Action</b>	<b>Responsible Agency</b>	<b>Location/s</b>	<b>Timing/ Completion Date</b>	<b>Comments</b>
Fire prevention and preparedness works (planned burns, strategic fuel breaks, mechanical fuel management, fire infrastructure management)	DELWP	Identified in DSE's Fire Operations Plan 2014/15 – 2016/17 Otway District/Region	2014/15 – 2016/17	<a href="#">DELWP's Fire Operations Plan 2011/12 – 2013/14 Otways District/Region</a> contains DSE's proposed fire prevention and preparedness works within the Otway District. Copies of the plan and related maps are available at <a href="http://www.delwp.vic.gov.au">www.delwp.vic.gov.au</a> .
Roadside and railway management	Council, VicRoads, DELWP, PV, Country Fire Authority	Across the Shire	2014/15 – 2016/17	<a href="#">DELWP's Fire Operations Plan 2011/12 – 2013/14 Otways District/Region</a> contains DELWP and PV's proposed road management works.
		Across the Shire	Nov – Jan	<b>Council</b> conducts an annual cut on Council roadsides in rural areas. A second cut may be undertaken if required.
		Across the Shire	By Dec 1 if possible	<b>VicRoads 3 metre maintenance cut</b> – undertaken annually on roadsides for all VicRoads' roads in the Shire.
		Princess Highway	Prior to fire restriction period	<b>VicRoads strategic fuel/fuse breaks</b> – annual fence line to fence line vegetation maintenance work on roadside. Conducted along sections of Princess Highway.
		Great Ocean Road – (focus for 2011 is Bellbrae to Apollo Bay)		<b>VicRoads Great Ocean Road woody weed control</b> – program to remove non-indigenous woody weeds along the Great Ocean Road that have regenerated beyond routine maintenance and created high fuel loads in the road reserve. Vegetation removal is prioritized in accordance with Township Protection Plans, Integrated Fire Management Planning and consideration of the risks and liabilities of fuel loads in various locations. Removal of the vegetation enhances the cover and condition of existing native vegetation and creates positive biodiversity outcomes in addition to fire management benefits.
	CFA, Council	Across the Shire	Ongoing	<b>CFA</b> conducts fire prevention and preparedness works on roadsides and rail reserves  <b>Review of Strategic Fire Roads</b> – strategic fire roads in the Shire have been mapped by Council, based on information provided by CFA brigades and Groups.
	V/Line	Warrnambool Rail line, and & related railway assets in the Shire		<b>Railway asset management – V/Line:</b> V/Line undertakes a variety of annual fire prevention works for its lease areas (where applicable), including slashing, grading, herbicide treatments and track spraying

<b>Hazard Reduction</b>				
<b>Action</b>	<b>Responsible Agency</b>	<b>Location/s</b>	<b>Timing/ Completion Date</b>	<b>Comments</b>
	VicTrack	Non-operational railway land outside of leased areas	Generally October each year, with completion by end of November	<b>Railway asset management – VicTrack:</b> VicTrack is the owner of Victoria’s transport related land, infrastructure and assets, but the majority of these assets are leased to rail network managers, such as V/Line. VicTrack does have responsibility for a limited number of small assets within the Shire. For these assets, fuel reduction treatments include track spraying, slashing of reserves and vacant blocks and brush cutting around road crossings. Following the first round of treatments, assets are monitored and additional works undertaken as regrowth and curing dictates.
	ARTC	Western SG Rail line and & related railway assets in the Shire		<b>Railway asset management</b> [details of ARTC work still to be confirmed. No response from ARTC to date]
Vegetation Control	Council	Across the Shire	Ongoing	<b>Vegetation control</b> is undertaken in various strategic areas throughout the Shire, such as Asset Protection Zones (bush/town interface areas).
		Various nature reserves across the Shire	Annually	<b>Vegetation control in Nature Reserves –</b> Council has developed Fire Management Plans for some high conservation nature reserves and roadsides in the Shire. The Plans outline the annual vegetation management work that will be undertaken by Council for each reserve.
Fire hazard inspections	Council	Across the Shire	Prior to and during Fire Danger Period	Property inspections are conducted by the Municipal Fire Prevention Officer throughout the Shire to identify existing or potential fire hazards, especially in Asset Protection Zone areas (bush/town interface). Officers also respond to fire hazard reports from the community.
Fire prevention notices	Council	Across the Shire	During declared Fire Danger Period	Fire Prevention Notices (FPNs) may be issued by the Municipal Fire Prevention Officer or the CFA under CFA Act to an owner or occupier of land in the municipality for anything on that land (other than a building) that constitutes a danger to life or property from the threat of fire. FPNs are often directed to removing overgrown vegetation.
Powerlines – assets and easements	Powercor	Sub-transmission lines and distribution lines operating at 66,000 volts, 22,000 volts &	Ongoing	<b>Powercor Vegetation Management in Declared Areas –</b> vegetation clearance around powerlines in Declared Areas is undertaken in accordance with the Electricity Safety (Electric Line Clearance) Regulations 2010.

<b>Hazard Reduction</b>				
<b>Action</b>	<b>Responsible Agency</b>	<b>Location/s</b>	<b>Timing/ Completion Date</b>	<b>Comments</b>
		low voltage	Ongoing	<b>Powercor Vegetation Management around Powerlines</b> – vegetation clearance around powerlines is undertaken in accordance with the Electricity Safety (Electric Line Clearance) Regulations 2010.
			Ongoing	<b>Powercor Private Overhead Electric Lines (POELS)</b> – Inspection of POELs and associated defect process management. Annual letter to customers with POELs detailing responsibilities in maintaining POELs, including vegetation clearance.
	SP Ausnet	All transmission lines (on towers) within the Shire, except the 220 KV transmission line.	Every 3 mths	<b>SP Ausnet asset and easement inspections</b> – inspections conducted every 3 months on transmission towers and in powerline easements, with additional inspections as required. Required vegetation management work is identified through the inspection cycle and also through various proactive vegetation management programs. Regular inspections also cover hazard trees identification.
	Council	Colac Township	Annually	<b>Council work in Declared Area</b> – annual audit conducted of roads in the Declared Area (Colac township) for trees encroaching into hazard zone for powerlines.
Fire permits	Council, CFA		During Fire Danger Period	Lighting fires during the Fire Danger Period is restricted. Permits must be obtained from the Municipal Fire Prevention Officer or the CFA.
Private property hazard reduction	Property owners	Across the Shire	Ongoing	Private property owners can do various things to control vegetation on their property, including cleaning out gutters, removing dry undergrowth and leaf litter, and mowing & slashing. Information about how to reduce fire risk on private property is available at <a href="http://www.colacotway.vic.gov.au">www.colacotway.vic.gov.au</a> together with a list of slashing contractors in the Shire.
Fire Access Road Subsidy Scheme	CFA, Council	Across the Shire	Annual program	The Fire Access Road Subsidy Scheme (FARSS) is administered by CFA and is a State Government funded subsidy scheme. Subsidies are available for municipalities for the construction and maintenance of fire access roads or construction of static water supplies. Funding is provided annually. Applications are developed by Council and reviewed by the Municipal Fire Management Planning Committee before being submitted to the CFA

<b>Preparedness</b>				
<b>Action</b>	<b>Responsible Agency</b>	<b>Location/s</b>	<b>Timing/ Completion Date</b>	<b>Comments</b>
Victorian Fire Risk Register Process	CFA	Assets at risk identified across the Shire	Ongoing	The Victorian Fire Risk Register (VFRR) is a systematic process to identify assets at risk, assess the level of bushfire risk for those assets and record a range of treatments/measures to mitigate those risks. Treatments may include activities such as fuel reduction, community education and the creation of strategic fuel breaks. The Shire's VFRR municipal risk register, divided by regional risk priorities, is included in Appendix A.1 of this Plan. A list of VFRR treatments is included in Appendix A.2.
DELWP landscape level planning and fire modelling	DELWP	Work initially undertaken for Otways landscape & Surf Coast		DSE's landscape level bushfire modelling is being undertaken to assess bushfire risk across the Otways landscape and Surf Coast. DELWP's work has evaluated fire regimes across the entire landscape and identified opportunities to manage fuels and fire regimes across both public and private land.
Township planning factors	CFA, Council	Barongarook Barwon Downs Carlise River Forrest Kawarran Kennett River Wye River Lavers Hill		Township Planning Factors enhance the initial operational response to a bushfire impacting high risk townships. The information is prepared for high risk towns which have a Township Protection Plan. The Planning Factors include an overview of the township and a map of the key operational planning factors (such as Traffic Management Points, Neighbourhood Safer Places, essential infrastructure etc).  The planning factors are developed by CFA with other emergency services, the local municipality and other relevant parties. Township planning factors information is for emergency services and is not available to the general public.
Neighbourhood Safer Places – Places of Last Resort	CFA, Council	Apollo Bay Birregurra Gellibrand Beeac	Council to review and CFA to assess each designated NSP by Aug 31 each year  Council to provide updated list of designated NSPs to CFA by 30 Sep each year	<ul style="list-style-type: none"> <li>▪ Neighbourhood Safer Places – Places of Last Resort (NSPs) are an area or premises that may, as a last resort, provide some sanctuary from bushfire,</li> <li>▪ Councils located wholly or partly in the country area of Victoria are required under the CFA Act to identify and designate NSPs in their municipal district.</li> <li>▪ After identifying a potential NSP, Council must ask the CFA to assess the site in accordance with CFA's Assessment Guidelines. Councils can only designate a site as an NSP if it has been certified by the CFA as meeting these Guidelines. Council also reviews potential NSP sites against its Municipal Neighbourhood Safer Places Plan, available at <a href="http://www.colacotway.vic.gov.au">www.colacotway.vic.gov.au</a></li> </ul>
Powerline Bushfire Mitigation Strategy Plan	Powercor	Across the Shire	Ongoing	Powercor's Bushfire Mitigation Strategy Plan is prepared in accordance with the Electrical Safety (Bushfire Mitigation) Regulations 2003. The Strategy/plan details

<b>Preparedness</b>				
<b>Action</b>	<b>Responsible Agency</b>	<b>Location/s</b>	<b>Timing/ Completion Date</b>	<b>Comments</b>
				Powercor's policies, procedures and programs for the inspection, maintenance and operation of the electricity network.
Powerline Vegetation Management Strategy	Powercor	Across the Shire	Ongoing	Powercor's Vegetation Management Plan is prepared in accordance with the Electricity Safety (Electric Line Clearance) Regulations 2010. The Plan details Powercor's policies, procedures and programs to manage vegetation around powerlines.
Powerline Easement Management	Powercor, Council, CFA and/or DELWP	Across the Shire	Ongoing	Review easements, in conjunction with Municipal Fire Prevention Officers, CFA and/or DSE (as appropriate), to determine treatment works for powerline easements that form agreed Strategic Fire Breaks, Breaks for Controlled Burns or are required for Asset Access and Protection.
Fire Hazard Mapping Work (Powerlines)	CFA, Powercor		Four yearly cycle	The Fire Hazard Mapping project reviews low bushfire risk areas to determine if any changes are required to the risk level. The project is managed and undertaken over a four year cycle by CFA in rural Victoria, in consultation with powerline companies and Councils.
Powerline Faults and Emergency Events Response	Powercor		Ongoing	Powercor maintains a 24 hour fault and emergency response including call centre, faults dispatch and system control centres. Powercor invokes escalation to manage and respond to major events, including Powercor's Emergency Management Liaison Officer attending Incident Control Centres, Municipal Emergency Coordination Centres and Community/CFA Brigade meetings when invited.
Municipal Fire Management Plan	MFMP (includes Council, CFA, DELWP, PV)		Draft plan endorsed by MFMP and Council by Oct 31	The Colac Otway Shire Municipal Fire Management Plan has been prepared by the Municipal Fire Management Planning Committee (MFMP). The Plan has been produced by and with the authority of Council pursuant to Section 20 of the Emergency Management Act 1986 and is deemed to fulfil Section 55A (Municipal Fire Prevention Plans) of the CFA Act 1958. The Plan has been prepared in accordance with the Integrated Fire Management Planning Guide and Part 6A of the Emergency Management Manual Victoria. The Plan reflects the State Government's direction to increase integration on fire management planning between agencies and the community.
Evacuation Planning	Victoria Police	State wide		Local Police Station representatives are participating in a State wide multi agency initiative to develop guidelines for evacuation planning.

<b>Preparedness</b>				
<b>Action</b>	<b>Responsible Agency</b>	<b>Location/s</b>	<b>Timing/ Completion Date</b>	<b>Comments</b>
Great Ocean Road Traffic Management Plan	Victoria Police			

<b>Regulatory Controls</b>				
<b>Action</b>	<b>Responsible Agency</b>	<b>Location/s</b>	<b>Timing/ Completion Date</b>	<b>Comments</b>
Fire hazard inspections (CFA Act)	Council			See 'Fire hazard inspections' section under 'Hazard Reduction'
Fire prevention notices (s. 41, CFA Act)	Council & CFA			See 'Fire prevention notices' section under 'Hazard Reduction'
Fire permits (s.39E, s. 40 (4E) & (5) CFA Act)	Council			See ' Fire permits' section under 'Hazard Reduction'
Total fire bans (s. 40, CFA Act)	CFA			A Total Fire Ban is declared by the CFA on days when fires are likely to spread rapidly and could be difficult to control. If a Total Fire Ban has not been declared for a district, fire restrictions may still apply for each municipality in that district.
Fire danger period	CFA			Fire Restrictions can be applied across most areas of Victoria by CFA, when fire danger is high. Typically this is over the summer period of November through to April. Restrictions are applied in small areas at a time.
Planning schemes and building codes	State Government, Council, CFA	Bushfire Prone Areas; areas covered by Wildfire Management Overlay	Ongoing	<p>When applications are lodged with Council for permits under the Planning and Environment Act for the subdivision of land or the construction of buildings in areas of high fire risk, the Shire may give consideration to the following documents in determining such application and also refer the application to the relevant fire agencies for comment :</p> <ul style="list-style-type: none"> <li>▪ Colac Otway Planning Scheme, including the Wildfire Management Overlay</li> <li>▪ Planning Conditions and Guidelines for Subdivisions (Country Fire Authority, 1991) in bushfire prone areas;</li> <li>▪ Requirements for Water Supplies and Access for Subdivisions in Residential 1 and 2 and Township Zones (Country Fire Authority, 2004)</li> <li>▪ Building in a Wildfire Management Overlay – Applicant’s Workbook; and</li> <li>▪ Australian Standard 3959, 2009 – Construction of Buildings in Bushfire Prone Areas.</li> </ul> <p>Several of these documents are being amended or changed as part of State Government improvements to the planning scheme and building framework to address bushfire risk.</p>

## Appendix C. Statutory Audit Obligations

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### Appendix C1 Hazard Trees Identification & Notification Procedure

The Electricity Safety Act 1998 (Vic) (Electrical Safety Act) provides that a municipal council must specify, within its Municipal Fire Prevention Plan:

- (a) procedures and criteria for the identification of trees that are likely to fall onto, or come into contact with, an electric line ('hazard trees'); and
- (b) procedures for the notification of responsible persons of trees that are hazard trees in relation to electric lines for which they are responsible.

Under the Electrical Safety Act, the person responsible for maintaining vegetation and clearance space around power lines is referred to as the 'responsible person'.

The procedures outlined in this section of the Colac Otway Shire Municipal Fire Management Plan seek to address these requirements.

Each responsible person should have its own internal procedure regarding the steps that will be taken when it receives notification of a potentially hazardous tree.

#### What is a hazard tree?

According to the Electrical Safety Act, a hazard tree is a tree which 'is likely to fall onto, or come into contact with, an electric line'.

The Electricity Safety (Electric Line Clearance) Regulations 2010 further provide that a responsible person may cut or remove such a tree 'provided that the tree has been assessed by a suitably qualified arborist; and that assessment confirms the likelihood of contact with an electric line having regard to foreseeable local conditions.'

Due to legal requirements which require a clearance space be maintained around an electric line, hazard trees are usually located outside the regulated clearance space. Despite being outside the clearance space, the tree may still have the potential to contact the line due to its size or because of a structural fault or weakness which renders part, or all, of the tree likely to contact or fall onto the line.

#### Who is responsible for a hazard tree?

Under the Electrical Safety Act, the person responsible for maintaining vegetation and clearance space around power lines is referred to as the 'responsible person'. This includes responsibility for keeping the whole or any part of a tree clear of the line.

Under the Electrical Safety Act, responsibility is allocated between distribution businesses and other owners of electricity infrastructure, land owners and occupiers, public land managers such as municipal councils.

Municipal councils are responsible for trees on public land within their municipalities, for which they are the land manager, where these are also within a Declared Area for the purposes of the Electrical Safety Act. Primary responsibility for vegetation clearance and management within the municipality, for areas which are not within a Declared Area, will usually fall to the relevant electricity distribution company.

#### Responsible Persons within Colac Otway Shire

There are a number of organisations that have responsibility for line clearance in the Colac Otway Shire, including:

- Powercor for trees affecting all sub transmission and distribution powerlines operating at 66,000 volts, 22,000 volts and low voltage with the exception of trees covered by Other Responsible Authorities. This includes key assets listed on the Victorian Fire Risk Register such as;
  - the Winchelsea-Colac 66KV Sub Transmission Line;

- the Camperdown to Colac 66KV Sub Transmission Line;
- the Colac to Apollo Bay 22KV Distribution Feeder Line (via Gellibrand/Beech Forest);
- the Colac to Lorne 22 KV Distribution Feeder Line;
- the Colac to Apollo Bay 22 KV Distribution Feeder Line (via Barwon Downs/Forrest);
- SP Ausnet for all transmission lines (on towers) within the municipality.
- SP Ausnet, for the MLTS-TGTS Transmission Line;
- The Colac Otway Shire, for trees on public lands which are managed by the Shire and where road reserves are located within the Declared Area (for the purposes of the Electrical Safety Act);
- Persons who operate or own private powerlines are also responsible.

### **Other relevant information**

Responsible persons, other than private persons, must have an electric line clearance management plan in place for areas for which they have responsibility (*refer Electricity Safety (Electric Line Clearance) Regulations 2010*)

The Colac Otway Shire has a Line Clearance Vegetation Management Plan 2011-2012 that outlines vegetation management under powerlines.

### **Procedures and criteria for identifying hazard trees**

In the course of everyday duties, potentially hazardous trees may come to the attention of staff or volunteer members of the entities with representation on the Municipal Fire Management Planning Committee (MFMPC), staff of the distribution business(es) or other persons, including members of the public.

There are a range of factors which may indicate that a tree is a hazard tree. That is, a tree which is likely to fall onto, or come into contact with, an electric line. Some of these factors will be obvious when looking at the tree but many may only be apparent when the tree is assessed by a person with specific expertise and training, such as an arborist.

The following criteria may be used to assist in identifying a hazard tree:

- The size of the tree suggests that it is likely to come into contact with the electric line, for example because it appears to be encroaching or growing into the line clearance space.
- There is an excessive lean on the tree, or branches hanging off the tree and the tree is in proximity to an electric (power) line.
- The size or appearance of the tree suggests it could come into contact with the line including under foreseeable local conditions.

If a potentially hazardous tree is identified, the notification procedure outlined below should be followed. Where a responsible person becomes aware of a potentially hazardous tree for which they have responsibility, they must follow their own applicable internal procedure and the notification procedure described below does not apply.

## Procedures and criteria for notifying hazard trees

To ensure that information regarding potentially hazardous trees is captured in an efficient manner and, as appropriate, referred to the responsible person for action, the following procedure for the notification of hazardous trees should be followed:

- The person with responsibility for the highest percentage of lines within the municipality ('the primary responsible person') is the person to whom potentially hazardous trees should be reported.
- The primary responsible person (or their representative) is referred to in these Procedures as the primary responsible person representative (PRPR).
- Where any person becomes aware of, or receives a report of, a potentially hazardous tree within the municipality, this should be referred to the PRPR. Where the MFMPCC becomes aware of, or receives a report of, a potentially hazardous tree within the municipality, this must be referred to the PRPR.
- Reports of potentially hazardous trees must be provided to the PRPR for action as soon as practicable. Reports must include, at a minimum:
  - The name and contact details and any relevant qualifications where known of the person making the report
  - As much detail as possible about the location of the tree (including, where known, GPS coordinates, details of numerical/name plate on nearest pole, name of nearest road or crossroads, closest landmark, whether tree is on private land or road reserve etc.)
  - A description of the tree (including, if known, the genus and species of tree)
  - The primary reasons given for the tree being identified as potentially hazardous (eg. tree is in proximity to an electric line AND there is evidence of structural weakness and/or excessive lean and/or appears to be encroaching into line clearance space etc.)
  - An indication of whether or not urgent action is required.
- The PRPR must take all necessary steps to advise the person responsible for the tree that it may be hazardous.

### Primary Responsible Person Representative (PRPR)

For the purposes of this part of the Plan, the primary responsible person is Powercor.

All reports of hazard trees to Powercor should be made on the 'Municipal Hazard Tree Notification Form' which is located on the Powercor Website [www.powercor.com.au](http://www.powercor.com.au)

Contact details for the PRPR are as follows:

Agency name	Powercor
Position title of contact person	VEMCO Hazard Tree Administrator [VEMCO is Powercor's Vegetation Management Contractor]
Telephone Number	03 5338 3300
Email address	<a href="mailto:haztrees@vemco.com.au">haztrees@vemco.com.au</a>
Facsimile Number	03 8648 5621

## Procedures for Notification of Responsible Persons

Where a potentially hazardous tree has been reported to the PRPR, the PRPR should follow the procedure outlined below.

<b>Step 1</b>	Report provided to PRPR.	
<b>Step 2</b>	PRPR to determine who the responsible person is in relation to the reported tree. (If necessary, the PRPR can seek assistance from Energy Safe Victoria for this step.)	
<b>Step 3</b>	Is the responsible person the primary responsible person?	<b>Yes =&gt;</b> applicable internal procedure for referral and assessment of potentially hazardous tree to be followed.
		<b>No =&gt;</b> proceed to Step 4.
<b>Step 4</b>	Did the report indicate that urgent action is required?	<b>Yes =&gt;</b> the responsible person should be notified as soon as possible, and by no later than the close of the next business day after the notification is assessed.
		<b>No =&gt;</b> the PRPR must advise the responsible person of the existence and location of a potentially hazardous tree in accordance with the timelines below.*

\* The PRPR should put in place mutually agreed arrangements for the manner in which it passes on reports of potentially hazardous trees to responsible persons.

### Reporting Timelines

The PRPR should provide reports to the relevant responsible person as soon as practicable.

In circumstances where:

- the potentially hazardous tree is located within a high bushfire risk area (as per s.80 of the Electrical Safety Act) and the potentially hazardous tree is reported during the fire danger period declared under the Country Fire Authority Act 1958 (Vic); or
- the report indicates that there is an imminent danger that the tree will contact or fall onto lines as a result of minor environmental changes;
- the potentially hazardous tree must be referred to the relevant responsible person for action as soon as possible, and by no later than the close of the next business day after the notification is assessed.

Each responsible person (other than the primary responsible person) must provide the PRPR with contact details of the person (position title) to whom reports should be provided. It is the responsibility of each responsible person to ensure that the PRPR is provided with up-to-date contact details.

## Register

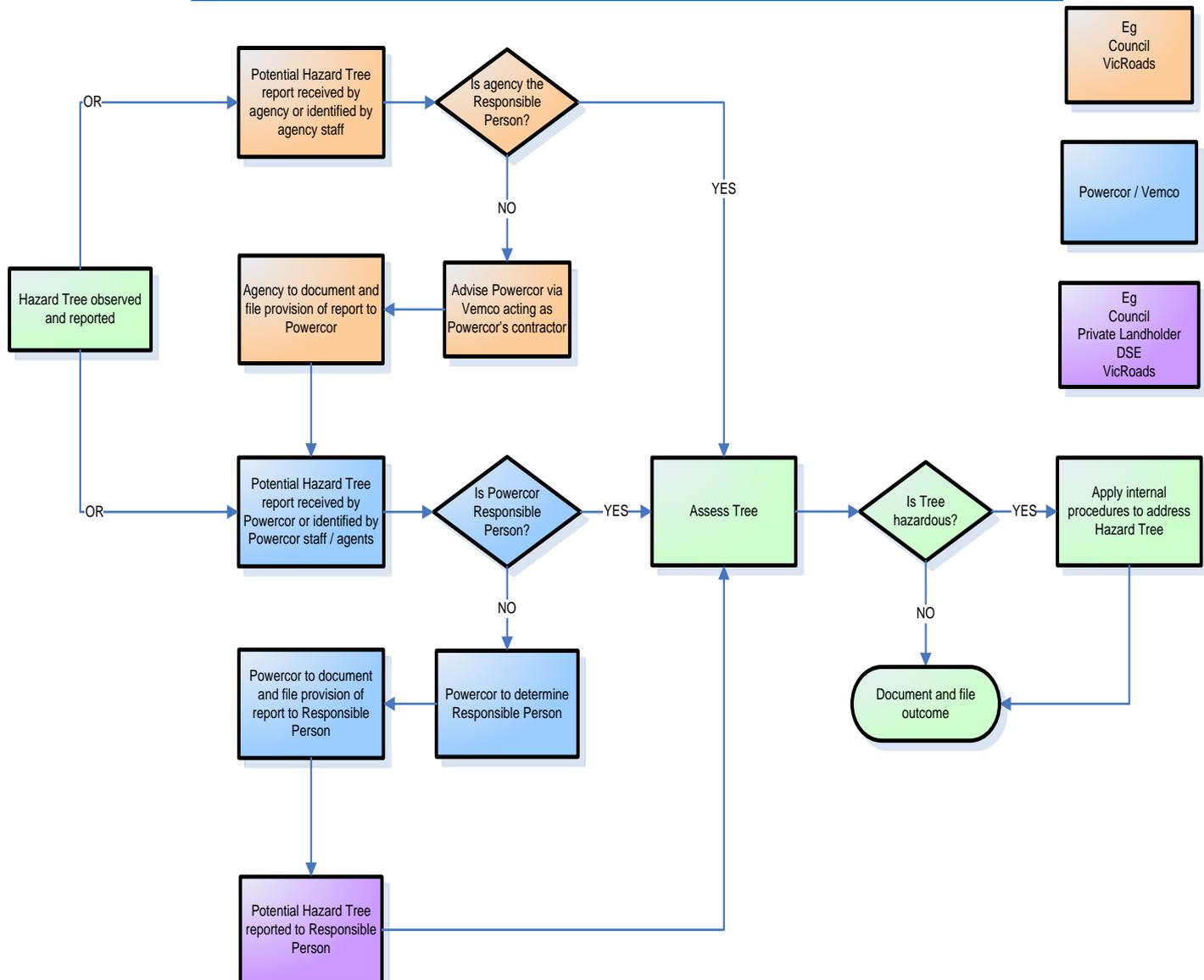
It is recommended that the PRPR maintain a register in which all notifications are recorded together with the date of receipt of the notification and the date the notification was reported to the responsible person.

It is recommended that responsible persons also maintain a register of notifications received of hazardous trees for which they are the responsible person.

## PRP Consultation

The MFMPC notes that the Primary Responsible Person (PRP) was consulted in relation to the development of these procedures.

**Flow chart showing work flow for hazardous trees near powerlines.**



## Appendix C.2 Community Information Guides

The following Community Information Guides have been developed by the Country Fire Authority and the Colac Otway Shire.

- Barongarook
- Barwon Downs
- Carlisle River
- Forrest
- Kwarren
- Kennett River
- Wye River
- Lavers Hill

Copies of each of these Community Information Guides are available for download from the Country Fire Authority's website at [www.cfa.vic.gov.au](http://www.cfa.vic.gov.au)

## APPENDIX D Community and Organisational Engagement Plan

Note that this plan was implemented as part of original fire plan development.

Local Engagement and Participation Plan for the development of Municipal Fire Management Plan - September 2011



# Foreword

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The Colac Otway Shire Municipal Fire Management Plan 201-2014 (MFMP) outlines how Shire Council, fire agencies and other relevant authorities and organisations will work together to prepare for, respond to and recover from major bushfires.

The MFMP is a sub-plan of the Shire’s Municipal Emergency Management Plan and reflects the State Government’s direction to increase integration on fire management planning between agencies and the community. The MFMP was produced collaboratively by members of the Colac Otway Shire Municipal Fire Management Planning Committee. The Committee is made up of representatives from the Colac Otway Shire, the Country Fire Authority, the Department of Environment Land Water and Planning, Parks Victoria, Victoria Police and VicRoads.

The initial MFMP has been produced as an interim plan to enable and inform agency and organisational planning. The strategies and deliverables outlined in the MFMP will develop further over the next 12 months.

The initial MFMP focuses on bushfires (including grassfires) and environmental burns. Future versions of the MFMP will incorporate structural and chemical fires.

This Local Engagement and Participation Plan outlines the processes to be undertaken by fire agencies and other relevant authorities and organisations to seek local knowledge and input into the development of the MFMP.

It is recognised that a suite of broader fire awareness, education and engagement activities are already being undertaken by emergency management agencies with the public, in addition to the processes proposed by this Strategy. The Strategy aims to work in harmony with existing programs, however the engagement outlined in the Plan specifically focuses on gaining input into the MFMP, not on broader capacity building.

Questions and comments about this Plan can be directed to:

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## Version Control Table

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Version	Release Date	Author	Changes

# Introduction

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## Overview

This Local Engagement and Participation Strategy outlines the range of engagement and participation processes that the Colac Otway Shire Municipal Fire Management Planning Committee will implement to develop the Colac Otway Shire Municipal Fire Management Plan 2011-2014 (MFMP).

This Strategy is intended to guide public input into the establishment of the MFMP.

The Strategy is not intended to replace or replicate the ongoing development and delivery of education, awareness, engagement and participation around fire management that is already delivered by management agencies. However the Strategy will work in harmony with these activities.

## Importance of Local Engagement and Participation

A key tenet of the 2009 Victorian Bushfires Royal Commission was the concept of shared responsibility in planning for, responding to and recovering from bushfires.

The Commission noted that:

- **Individuals** should be encouraged, to the extent of their capabilities, to make their own preparations to protect themselves and their communities from bushfire;
- **Agencies** should educate, prepare and help protect individuals by ensuring that they have access to the information needed to make sound decisions; and
- **Governments** should create the legislative foundation, fund fire services, facilitate community education and support, and provide essential infrastructure and local support to help communities stay safe.

Deliberative engagement and participation through shared decision making is fundamental in enabling people to understand the complexities of fire management. This approach is one of the most powerful ways to build human capacity and equip people to act on their shared responsibility or change behaviours.

Agencies therefore need to support the public in understanding the complexities of fire management as well as demonstrating that they are listening by acting on the advice, local knowledge and aspirations provided through community participation.

Seeking local engagement and participation will build a better MFMP through incorporating knowledge and aspirations and fostering local ownership of the plan. The process of engagement also has the added benefit of extending local knowledge and relationships between the community and fire management agencies which supports overall fire preparedness and community resilience.

## About the Municipal Fire Management Plan

The MFMP outlines how Council, fire agencies and other relevant authorities and organisations will work together to prepare for, respond to and recover from major bushfires.

The MFMP is currently in draft form. It has been endorsed by the Colac Otway Shire Municipal Fire Management Planning Committee and the Colac Otway Shire Municipal Emergency Management Planning Committee and adopted by Colac Otway Shire Council as a draft plan. The draft MFMP will undergo a period of public consultation to capture local knowledge, as well as extending local participation in fire prevention and preparedness activities.

Public consultation on the MFMP will be undertaken by the Municipal Fire Management Planning Committee over the 2011/12 summer period.

## Authority for Municipal Fire Management Plan

The MFMP is produced by and with the authority of the Colac Otway Shire Council pursuant to Section 20 of the Emergency Management Act 1986 and will be deemed to fulfil Section 55A (Municipal Fire Prevention Plans) of the Country Fire Authority Act 1958.

The Plan is a sub-plan of the Colac Otway Shire Council Municipal Emergency Management Plan.

### **Integrated Fire Management Planning**

Integrated Fire Management Planning (IFMP) is a central component of Victoria's Fire Management Planning Strategy 2009. IFMP involves bringing communities, fire agencies and State and local government departments together to deliver fire management planning.

Under IFMP, collaborative agency fire management planning will occur through Municipal Fire Management Planning Committees. Agency plans will be aggregated to form the basis of Municipal Fire Management Plans. Fire management planning will be aligned with each organisation's planning and business processes through:

- the implementation of common planning models and methodologies;
- allocation of resources and accountabilities;
- participation in common decision making through the committee process;
- collaborative delivery of fire management activities; and
- cooperative engagement.

# Engagement and Participation Framework

## Defining Engagement and Participation

Engagement refers to the processes involved in public information and education activities, customer service, involvement of the public in decision making, partnerships, consultation programs, behaviour change programs, as well as education and awareness raising activities.

Engagement is not only about sharing views and ideas, we engage with a view to people taking action in their own lives, thereby increasing participation in civic life.

The Integrated Fire Management Planning (IFMP) process has adopted the International Association of Public Participation (IAP2) Framework to guide its engagement activities.

The IAP2 framework defines a range of engagement activity to support public input into shared decisions.



## IAP2 Public Participation Spectrum

Developed by the International Association for Public Participation

INCREASING LEVEL OF PUBLIC IMPACT

INFORM	CONSULT	INVOLVE	COLLABORATE	EMPOWER
Public Participation Goal:	Public Participation Goal:	Public Participation Goal:	Public Participation Goal:	Public Participation Goal:
To provide the public with balanced and objective information to assist them in understanding the problems, alternatives, opportunities and/or solutions.	To obtain public feedback on analysis, alternatives and/or decisions.	To work directly with the public throughout the process to ensure that public concerns and aspirations are consistently understood and considered.	To partner with the public in each aspect of the decision including the development of alternatives and the identification of the preferred solution.	To place final decision-making in the hands of the public.
Promise to the Public:	Promise to the Public:	Promise to the Public:	Promise to the Public:	Promise to the Public:
We will keep You informed.	We will keep you informed, listen to and acknowledge concerns and provide feedback on how public input influenced the decision.	We will work with you to ensure that your concerns and aspirations are directly reflected in the alternatives developed and provide feedback on how public input influenced the decision.	We will look to you for direct advice and innovation in formulating solutions and incorporate your advice and recommendations into the decisions to the maximum extent possible.	We will implement what you decide.
Example Techniques to Consider:	Example Techniques to Consider:	Example Techniques to Consider:	Example Techniques to Consider:	Example Techniques to Consider:
<ul style="list-style-type: none"> <li>• Fact sheets</li> <li>• Web Sites</li> <li>• Open houses</li> </ul>	<ul style="list-style-type: none"> <li>• Public comment</li> <li>• Focus groups</li> <li>• Surveys</li> <li>• Public meetings</li> </ul>	<ul style="list-style-type: none"> <li>• Workshops</li> <li>• Deliberate polling</li> </ul>	<ul style="list-style-type: none"> <li>• Citizen Advisory</li> <li>• Committees</li> <li>• Consensus building</li> <li>• Participatory decision-making</li> </ul>	<ul style="list-style-type: none"> <li>• Citizen juries</li> <li>• Ballots</li> <li>• Delegated decisions</li> </ul>

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## Harmonising with existing engagement

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Across the municipality and beyond a range of awareness raising, behaviour change, engagement and participatory decision making activities are undertaken with communities around fire management.

A challenge for the development of the MFMP is in capturing vital community input whilst not adding to consultation fatigue within the emergency management field. It is also important to recognise that while any engagement with the community around emergency management will ultimately have a capacity building outcome, the primary intention of the engagement around the MFMP is not capacity building, as there are already a suite of programs being delivered for this primary outcome.

It is also recognised that as a new concept, there is much education and awareness raising within emergency management agencies themselves as to the role and purpose of the MFMP.

The major local engagement programs which will be concurrently occurring during the development of the MFMP are listed below. More information about community education and engagement activities relating to bushfire preparedness is available in Appendix B to the MFMP, which contains a multi-agency work plan detailing fire risk management activities being undertaken in the Shire.

### Community Information Guides - CFA

Community Information Guides contain local information for high risk communities to help identify and manage the risk of bushfire. The concept evolved from a recommendation of the 2009 Victorian Bushfires Royal Commission.

The Community Information Guides consider a town's bushfire history, terrain, vegetation and access routes and contain practical information including:

- Community based maps with key landmarks, routes and Neighbourhood Safer Places – Places of Last Resort (where applicable);
- Bushfire survival options including shelter options;
- Identification of local bushfire risks;
- Information regarding warnings, evacuation and Fire Danger Ratings;
- A relocation checklist; and
- Key contacts and information sources.

The following Community Information Guides are currently in place for the Colac Otway Shire:

- Barongarook;
- Barwon Downs;
- Carlisle River
- Forrest
- Kawarran
- Kennett River;
- Wye River; and
- Lavers Hill

Public input into the development of Community Information Guides is coordinated by the Country Fire Authority (CFA), with Colac Otway Shire, the Department of Environment Land Water and Planning (DELWP) and Parks Victoria also participating in the engagement process.

### DELWP Fire Operations Plans (FOPs)

The Department of Environment Land Water and Planning undertakes public input into the development of fire operations planning for the prevention of fire on public land. Fire prevention and preparedness works consulted upon include planned burns, strategic fuel breaks, mechanical fuel management and fire infrastructure management.

## **Country Fire Authority education, awareness and support programs**

The majority of community education and engagement activities related to bushfire preparedness are conducted by the Country Fire Authority and include programs such as Community Fireguard, the Home Bushfire Advice Service, Bushfire Planning Workshops and Fire Ready Victoria meetings. These occur in a range of home and community settings, using a wide variety of engagement processes and extend before and throughout the fire danger season.

### **Strategic Conversations Program – DELWP and CFA**

'Strategic conversations' is a new DELWP initiative, in partnership with CFA, for developing and sharing knowledge about fire. Strategic conversations occur through community invitation and involve members of the community and staff from DELWP and CFA.

A strategic conversation is a facilitated dialogue within a group of people for the purpose of pooling knowledge and experience about a topic or theme – in this case, fire. As people share their different perspectives, a broader and deeper understanding of the land and fire management can be achieved.

# Local Engagement and Participation Plan

## Scope

This Strategy is intended to guide the process for public input into the establishment of the MFMP.

It is not intended to build general community fire preparedness, however it is recognised that any engagement in the field will make a contribution to community capacity building in this area.

For 2011/12, the Colac Otway Shire Municipal Fire Management Planning Committee has recommended that engagement on the draft MFMP be undertaken in conjunction with engagement on Township Protection Plans for high risk townships in the Shire. The Township Protection Plan engagement process is being led and developed by the Country Fire Authority, in conjunction with the Colac Otway Shire and the Department of Sustainability and the Environment.

## Engagement Purpose/Objectives

Local engagement on the draft MFMP is being undertaken to:

- Enrich the quality of the MFMP through local intelligence (ideas, opinions and knowledge of the local community);
- Strengthen relationships and operational effectiveness between fire management agencies through the co-delivery of engagement;
- Improve understanding of the roles and responsibilities of individuals, agencies and government in preparing for fire and improving people's safety; and
- Increase citizen knowledge of fire management planning, thereby increasing citizen capacity to contribute to local fire management and to undertake personal fire prevention and preparedness measures.

## Engagement and Participation Principles

The Colac Otway Shire recognises the value of local knowledge and the unique contribution that the community can make to local fire management planning. Engagement in fire management planning will be delivered in a manner designed to:

- Promote acceptance, understanding and joint problem solving;
- Raise knowledge and skills of fire management through participation;
- Produce plans that support community and organisational expectations; and
- Incorporate community and organisational needs into the development of fire management plans.

## Scope for Community Input

The table below outlines the degree to which public input can be acted upon by the Municipal Fire Management Planning Committee (MFMP) in relation to the draft MFMP:

What aspects are not open to the community to make decisions on (not negotiable with the public)	What aspects the community can make decisions on /influence (negotiable)
<ul style="list-style-type: none"> <li>• Roles of fire management agencies</li> <li>• Timing of the establishment of the MFMP</li> <li>• MFMP's alignment to policy and legislation</li> <li>• Council and agency compliance with legislation</li> <li>• Risk assessment standards &amp; processes</li> </ul>	<ul style="list-style-type: none"> <li>• Process of engagement and who we engage with</li> <li>• Additions to the local a risk register</li> <li>• Confirmation of local information within the MFMP</li> <li>• Fire protection measures/treatments</li> </ul>

## Organisation and Public Stakeholders

There are a range of stakeholders to this plan broadly grouped around three areas:

- a) Permanent MFMP members;
- b) Agencies that attend MFMP by request; and
- c) Other agencies, organisations and interested groups that could support the MFMP.

This Strategy recognises that consultation with the agencies should be separated from the consultation with public stakeholders, particularly since the community engagement undertaken for this strategy will be combined with the consultation process for Township Protection Planning. This approach has created the following two key stakeholder groupings:

### Agency and organisation stakeholders

The Colac Otway Shire MFMP is made up of representatives from the Colac Otway Shire, the Country Fire Authority, the Department of Environment Land Water and Planning, Parks Victoria, the Department of Human Services, Victoria Police and VicRoads.

The MFMP is a sub-committee of the Shire's Municipal Emergency Management Planning Committee (MEMPC). The MEMPC has broader agency representation that includes the Victoria State Emergency Service, the Department of Human Services, the Department of Health, Barwon Water and the Australian Red Cross. Agencies represented on the MFMP are also represented on the MEMPC.

### Public stakeholders

The capacity and motivation to engage around fire management is extremely diverse in local communities. Peter Sandman, a risk communication expert uses four categories of public:

<b>Highly involved</b>	You know their telephone numbers by heart, and they know yours. They want input into everything you decide. Your issue is their main preoccupation in life, second only to job and family (and sometimes not that).
<b>Attentives</b>	They monitor the media coverage of your issue carefully. Sometimes they go to a meeting, answer a survey, check out a web site, subscribe to a newsletter, contribute to a campaign. Your issue isn't distorting their lives the way it is for the fanatics, but it's in their Top 20.
<b>Browsers</b>	They check you out in the media from time to time, but they don't want to be bothered providing input. Your issue is on their "worry list," but nowhere near the top.
<b>Inattentives</b>	They don't know and they don't want to know

*Copyright © 2003 by Peter M. Sandman*

The engagement process for the MFMP is not capable of effecting large scale behaviour change or awareness raising. The time limitations for the consultation, the newness of the concept and the complexity of fire management planning preclude the engagement process from effectively targeting beyond the *Highly involved* and *Attentive* categories.

Community members in this category would include residents of high risk townships and residents who are active in Department of Environment Land Water and Planning, or Country Fire Authority engagement processes.

## Key messages

### About the MFMP

The MFMP outlines how Council, fire agencies and other relevant authorities and organisations will work together to prepare for, respond to and recover from major bushfires in the Colac Otway Shire.

The MFMP has been produced collaboratively by members of the Colac Otway Shire MFMPC. It is a multi-agency plan for the Colac Otway Shire municipal area.

This is the first year we have developed this plan, and we intend to keep improving it each year.

### About the consultation program

A consultation process has been developed to enrich the MFMP with local knowledge about what your community needs for fire protection.

Your involvement is a great way for you to find out more about what fire management agencies are doing, and what you need to do to protect yourself, your family and your property from bushfires.

Even if you do not know a lot about fire, we still value your ideas about how best to help protect your community from bushfires.

Issues about risk assessment standards and processes, government policy, legislation and fire safety initiatives are not within the scope of the consultation.

## Key Stakeholders & Communities

The following table lists the key stakeholders and communities who will be targeted through the engagement process for the MFMP and the type of engagement that will be undertaken. The list is intended to be a general guide, not an exhaustive list. The range of engagement is based on the International Association of Public Participation spectrum (outlined in Section 2.1 above).

	INFORM	CONSULT	INVOLVE	COLLABORATE	EMPOWER
Who	General community in Colac Otway Shire	Residents, property owners, businesses and special interest groups in high risk towns, for which a Township Protection Plan has been prepared: <ul style="list-style-type: none"> <li>▪ Barongarook</li> <li>▪ Barwon Downs</li> <li>▪ Carlisle River</li> <li>▪ Forrest</li> <li>▪ Kawarran</li> <li>▪ Kennett River</li> <li>▪ Wye River</li> </ul>	Stakeholders with a special interest in the MFMP and ability to engage a broader audience <ul style="list-style-type: none"> <li>▪ CFA Brigades &amp; volunteers</li> </ul>	Organisations who have informed development of the MFMP but are not involved through MFMPC* or MEMPC** <ul style="list-style-type: none"> <li>▪ Surf Coast Shire</li> <li>▪ SP Ausnet</li> <li>▪ VicTrack</li> </ul>	Organisations who are responsible for the MFMP: <p><b>MFMPC*</b></p> <ul style="list-style-type: none"> <li>▪ Colac Otway Shire</li> <li>▪ Dept of Sustainability &amp; Environment</li> <li>▪ Country Fire Authority (Group &amp; Brigades)</li> <li>▪ Parks Victoria</li> <li>▪ Victoria Police</li> <li>▪ Vic Roads</li> </ul> <p><b>MEMPC**</b></p> <p>Agencies listed above and:</p> <ul style="list-style-type: none"> <li>▪ Powercor</li> <li>▪ VicRoads</li> <li>▪ Barwon Water</li> <li>▪ Victoria State Emergency Service</li> <li>▪ Dept of Health</li> <li>▪ Australian Red Cross</li> <li>▪ V/Line</li> <li>▪ Ambulance Victoria</li> <li>▪ Dept of Primary Industries</li> <li>▪ Other MEMPC members</li> </ul> <p>Other relevant stakeholders with operations in the municipal district.</p>

\* MFMPC = Municipal Fire Management Planning Committee

\*\* MEMPC = Municipal Emergency Management Planning Committee

## Engagement Program - summary

<b>PLAN</b>	<b>Stage 1 - Align agency engagement and Strategy adoption</b> By end December 2011		
	<b>Who</b>	<b>How</b>	<b>Tools</b>
	CFA DSE Parks Victoria COS	Workshops/meetings to: <ul style="list-style-type: none"> <li>Seek agreement on the engagement and participation strategy</li> <li>Align engagement on other initiatives eg: Township Protection Plans with MFMP</li> <li>Develop engagement schedule</li> </ul>	<ul style="list-style-type: none"> <li>Develop promotional poster, advertising</li> <li>Develop fact sheets and consultation information</li> <li>Develop consultation schedule and process</li> </ul>
<b>ENGAGE</b>	<b>Stage 2 - Agency/organisation engagement</b> By end of February 2011		
	<b>Who</b>	<b>How</b>	<b>Tools</b>
	Agency/organisation stakeholders involved in MFMP and MEMPC	<ul style="list-style-type: none"> <li>Drafts of MFMP circulated for review and comment</li> <li>Detailed input sought on activities for multi-agency work plan</li> <li>Briefing to Committees and Council on draft MFMP</li> </ul>	<ul style="list-style-type: none"> <li>Draft MFMP</li> <li>Draft multi-agency work plan</li> <li>DSE bushfire landscape modelling presentation</li> </ul>
	<b>Stage 3 - Public workshops</b> Summer 2011/2012		
	<b>Who</b>	<b>How</b>	<b>Tools</b>
	Barongarook Barwon Downs Carlisle River Forrest Kawarren Kennett River Wye River Lavers Hill	Combine MFMP engagement processes with CFA Community engagement programs. Feedback sought on: <ul style="list-style-type: none"> <li>Local hazard reduction</li> <li>Regional risk priorities</li> <li>General information</li> </ul>	<ul style="list-style-type: none"> <li>CFA community engagement sessions</li> <li>Draft MFMP &amp; related materials</li> </ul>
Online engagement	<ul style="list-style-type: none"> <li>MFMP posted on Council website</li> </ul>	Draft MFMP	
Media campaign	General awareness campaign	Local media	
<b>SORT</b>	<b>Stage 4 - Compile and incorporate feedback</b> By June 2012		
	<b>Who</b>	<b>How</b>	<b>Tools</b>
	MFMP Committee	<ul style="list-style-type: none"> <li>Presentation to MFMP Committee meeting on community feedback</li> <li>Workshop what feedback can be incorporated</li> <li>Revise MFMP based on feedback from engagement process</li> </ul>	<ul style="list-style-type: none"> <li>Engagement Feedback Summary</li> </ul>

<b>APPROVE</b>	<b>Stage 5 - Approval of final MFMP</b>		
	Date TBC		
	<b>Who</b>	<b>How</b>	<b>Tools</b>
MFMP Committee MEMP Committee Barwon South West Regional Strategic Fire Management Planning Committee Council	<ul style="list-style-type: none"> <li>▪ Formal endorsement</li> <li>▪ Formal endorsement</li> <li>▪ Review and recommendation to Council</li> </ul> Adoption	Final MFMP	
<b>RELEASE</b>	<b>Stage 6 - Release Plan</b>		
	Date TBC		
	<b>Who</b>	<b>How</b>	<b>Tools</b>
MFMP Committee	<ul style="list-style-type: none"> <li>▪ Formal feedback to participating stakeholders</li> <li>▪ Information sessions</li> <li>▪ Council website</li> </ul>	Local media Send to mailing list Post on Council website	

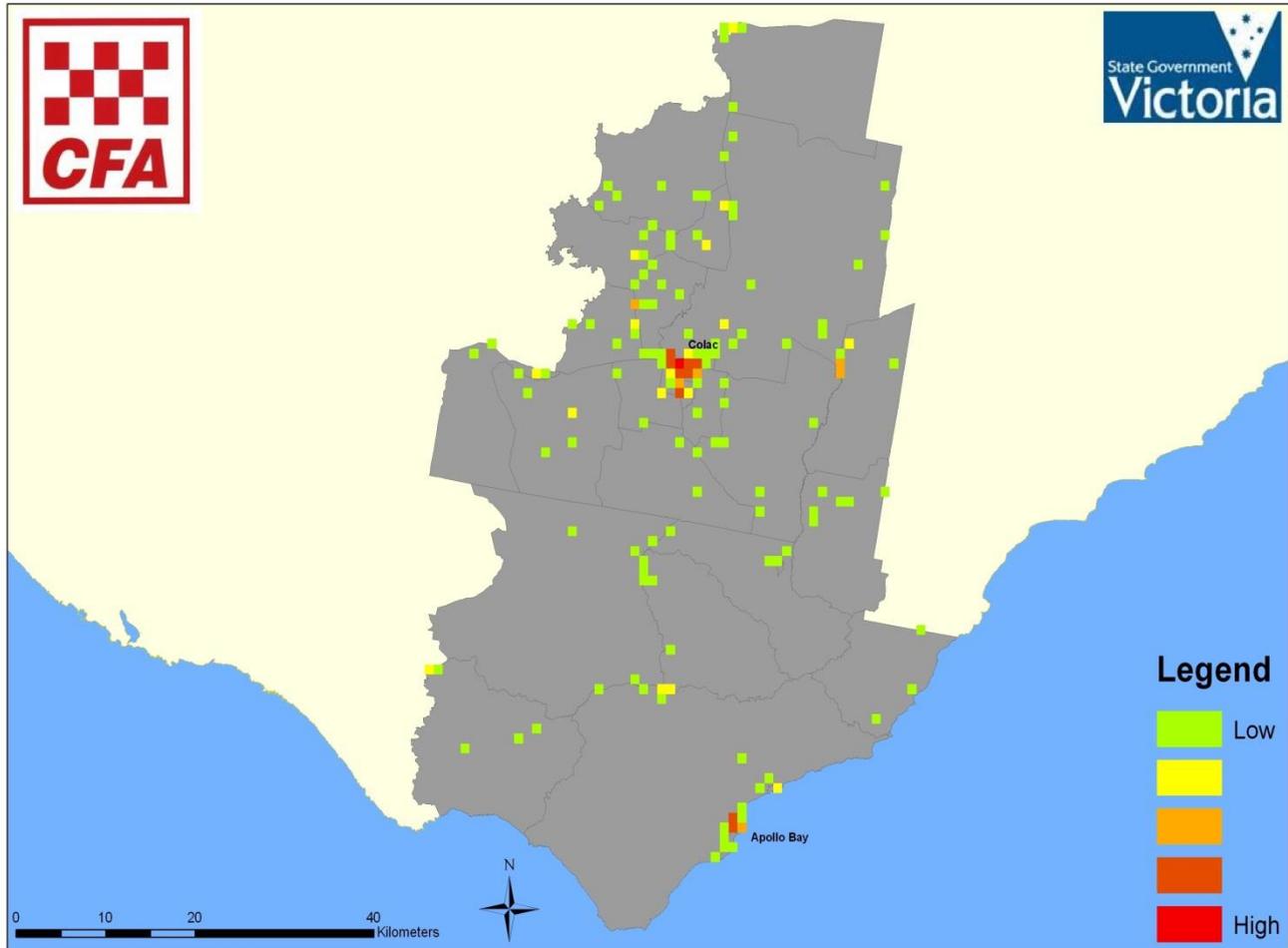


Appendix E2 Roadside Risk Assessment – Colac Otway Shire



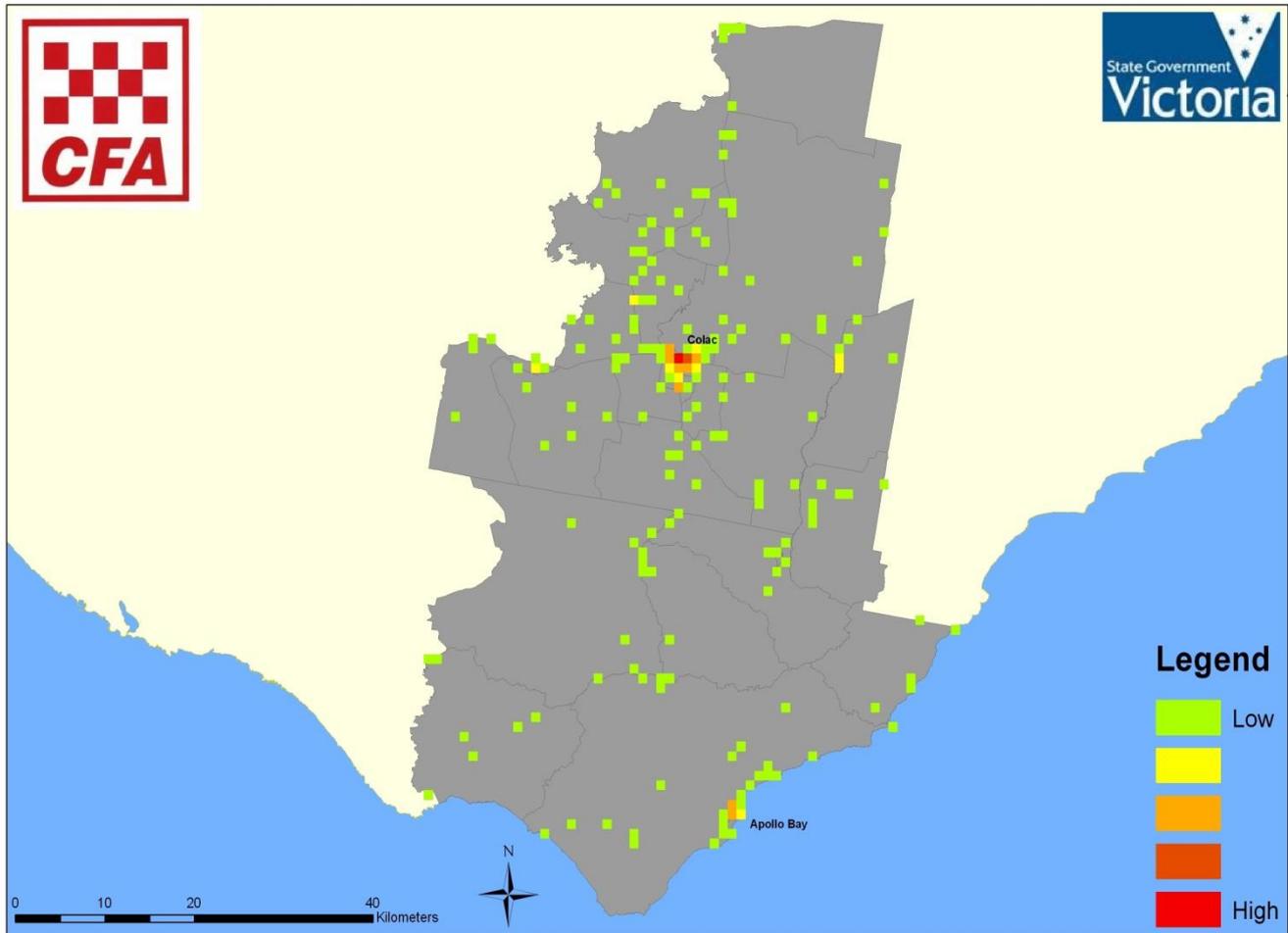
## Appendix E3 Structural Incidents Map – Colac Otway Shire

Total Structural Incidents- 1999 to 2012: Colac Otway Municipal Footprint



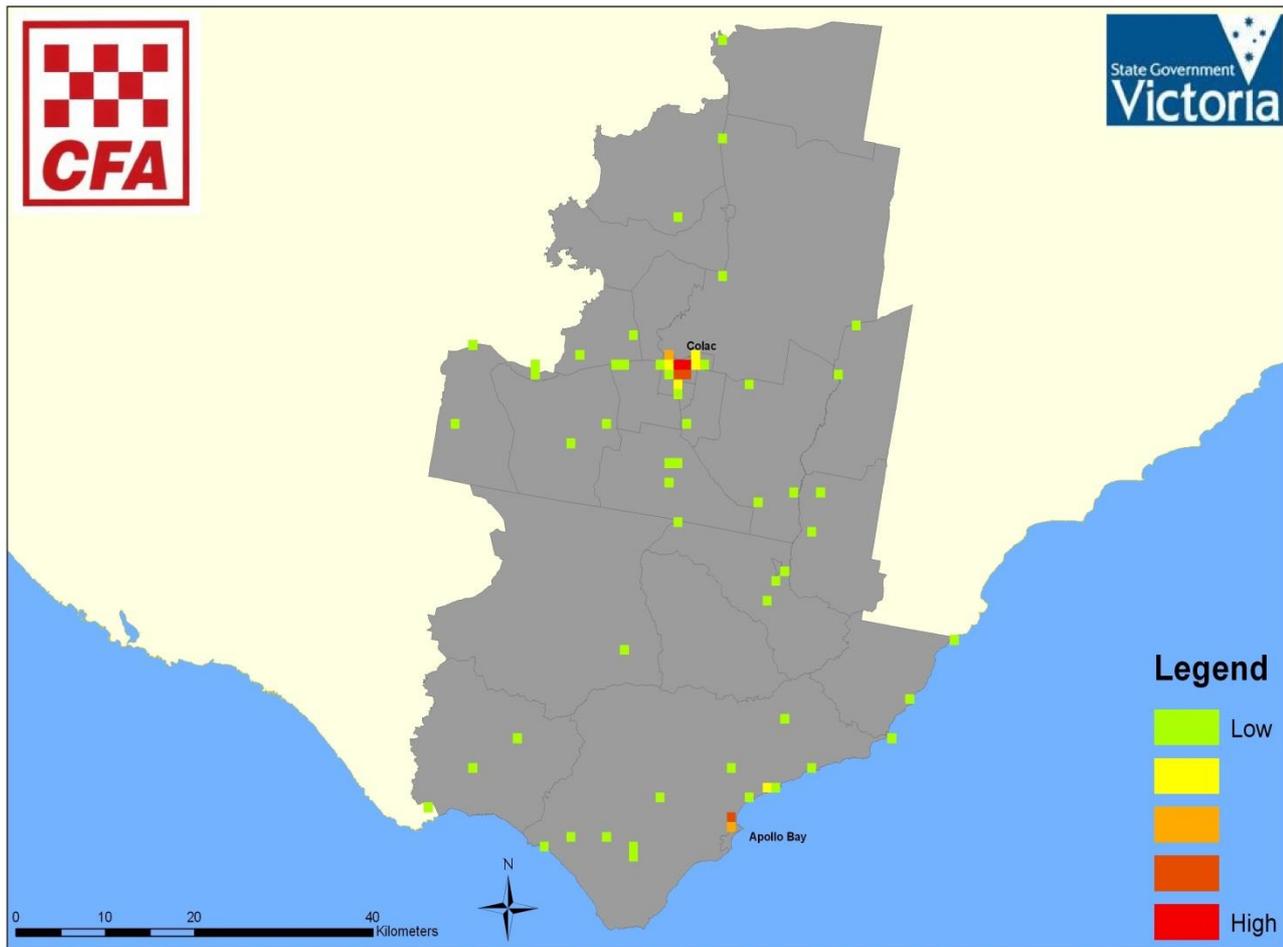
## Appendix E4 Chemical Incidents Map – Colac Otway Shire

Total Structural & Chemical Incidents- 1999 to 2012: Colac Otway Municipal Footprint



## Appendix E5 Combined Chemical and Structural Incidents – Colac Otway Shire

Total Chemical Incidents- 1999 to 2012: Colac Otway Municipal Footprint



## Appendix F Terminology

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<b>Acceptable risk</b>	The level of potential losses that a society or community considers acceptable, given existing social, economic, political, cultural, technical and environmental conditions.
<b>Agencies</b>	Refers to the agencies of the Municipal Fire Management Planning Committee. These include key agencies and organizations such as the Municipality, Department of Sustainability and Environment, Parks Victoria, the Country Fire Authority and Victoria Police.
<b>Agency Treatments</b>	Refer to Appendix A.1 Municipal Risk Management Register and Appendix A.2 List of Victorian Fire Risk Register Treatments.
<b>Assets and values<sup>17</sup></b>	Recognised features of the built, natural and cultural environments. Built assets may include buildings, roads and bridges; structures managed by utility and service providers; or recognised features of private land, such as houses, property, stock and crops and associated buildings and equipment. Natural assets may include forest produce, forest regeneration, conservation values including vegetation types, fauna, air and water catchments*. Cultural values may include recreational, Indigenous, historical, archaeological and landscape values.
<b>Assumption</b>	A conclusion that is reached based on the information available at the time.
<b>Bushfire</b>	A general term used to describe fire in vegetation, including grass fire.
<b>Bushfire Risk</b>	The chance of a bushfire igniting, spreading and causing damage to the community or the assets they value.
<b>Community</b>	A group of people with a commonality of association and generally defined by location, shared experience or function.
<b>Community based disaster risk management</b>	A process that seeks to develop and implement strategies and activities for disaster preparedness (and often risk reduction) that is locally appropriate and locally 'owned'.
<b>Consequence</b>	Outcome or impact of an event.
<b>Critical infrastructure</b>	<p>Critical infrastructure includes those services, physical facilities, supply chains, information technologies and communication networks that, if destroyed, degraded or rendered unavailable for an extended period, would significantly impact on the social or economic well-being of the community.</p> <p>Includes:</p> <ul style="list-style-type: none"> <li>• telecommunications</li> <li>• electrical power systems</li> <li>• gas and oil storage and transportation</li> <li>• banking and finance</li> <li>• transportation</li> <li>• water supply systems (and sewerage).</li> </ul> <p>Adapted from Critical Infrastructure Advisory Council (CIAC).</p>
<b>Elements at risk</b>	The population, buildings and civil engineering works, economic activities, public services, infrastructure and so on, exposed to sources of risk.
<b>Emergency</b>	An event, actual, or imminent that endangers or threatens to endanger life, property or the environment, and that requires a significant and coordinated

<sup>17</sup> Department of Sustainability and Environment (2006), Code of Practice for Fire Management on Public Land – Revision No. 1, DSE, Victoria.

	response.
<b>Essential Service<sup>18</sup></b>	The level of potential losses that a society or community considers acceptable, given existing social, economic, political, cultural, technical and environmental conditions
<b>Event</b>	Occurrence of a particular set of circumstances. An incident or situation that occurs in a particular place during a particular interval of time.
<b>Frequency</b>	A measure of the number of occurrences per unit of time.
<b>Hazard</b>	A source of potential harm or situation with a potential to cause loss. A potentially damaging physical event that may cause loss of life or injury, property damage, social and economic disruption or environmental degradation. <sup>19</sup>
<b>Impact</b>	See consequence.
<b>Integrated Fire Management Planning (IFMP)</b>	Integrated Fire Management Planning is a holistic and integrated risk based planning framework for fire management, across all land tenures and boundaries including Prevention, Preparedness, Response and Recovery activities.
<b>Leadership group</b>	A subgroup for the broader committee comprising the risk category, technical knowledge and experience
<b>Likelihood</b>	Used as a general description of probability or frequency – can be expressed qualitatively or quantitatively
<b>Loss</b>	Any negative consequence or adverse effect – financial or otherwise.
<b>Mitigation</b>	Measures taken in advance of a disaster, aimed at decreasing or eliminating its impact on society and the environment.
<b>Monitor</b>	To check, supervise, critically observe or measure the progress of an activity, action or system on a regular basis in order to identify change from the performance level required or expected.
<b>Organisation</b>	Group of people and facilities with an arrangement of responsibilities, authorities and relationships.
<b>Practicable<sup>20</sup></b>	What is realistic to achieve in the context of: <ul style="list-style-type: none"> <li>▪ the severity of the hazard or risk in question</li> <li>▪ the state of knowledge about that hazard or risk and any ways of removing or mitigating that hazard or risk</li> <li>▪ the availability and suitability of ways to remove or mitigate that hazard or risk</li> <li>▪ the cost of removing or mitigating that hazard or risk.</li> </ul>
<b>Preparedness</b>	Arrangements to ensure that in the event of an emergency, all those resources and services that are needed to cope with the effects can be efficiently mobilised and deployed.
<b>Prevention</b>	Regulatory and physical measures to ensure that emergencies are prevented, or their effects mitigated.

<sup>18</sup> Essential Services Commission Act 2001

<sup>19</sup> United Nations International Strategy for Disaster Reduction (2008), Climate Resilient Cities 2008 primer: reducing your vulnerabilities to climate change impacts and strengthening disaster management in East Asian cities, United Nations and the World Bank, Geneva

<sup>20</sup> Dangerous Goods (Storage and Handling) Regulations 2000 S.R. No. 127/2000.

<b>Probability</b>	A measure of the chance of occurrence expressed as a number between 0 and 1. 'Frequency' or 'likelihood' rather than 'probability' may be used in describing risk. The likelihood of a specific outcome, as measured by the ratio of specific outcomes to the total number of possible outcomes. Probability is expressed as a number between zero and unity – zero indicating an impossible outcome and unity indicating an outcome that is certain. Probabilities are commonly expressed in terms of percentage e.g. the probability of throwing a six on a single roll of a die is 1 in 6, or 0.167, or 16.7 per cent.
<b>Recovery</b>	The coordinated process of supporting emergency affected communities in reconstruction of the physical infrastructure and restoration of emotional, social, economic and physical wellbeing.
<b>Residual risk</b>	Risk remaining after implementation of risk treatment.
<b>Resilience</b>	The capacity of a system, community or society potentially exposed to hazards to adapt, by resisting or changing in order to reach and maintain an acceptable level of functioning and structure. This is determined by the degree to which the social system is capable of organizing itself to increase its capacity for learning from past disasters for better future protection and to improve risk reduction measures <sup>21</sup>
<b>Response</b>	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.
<b>Risk</b>	The chance of something happening that will have an impact on objectives. The probability of harmful consequences resulting from interaction between natural or human-induced hazards and vulnerable conditions <sup>22</sup> .
<b>Risk Analysis</b>	Systematic process to understand the nature of, and deduce, the level of risk.
<b>Risk Assessment</b>	The overall process of risk identification, risk analysis and risk evaluation.
<b>Risk criteria</b>	Terms of reference by which the significance of risk is assessed.
<b>Risk Environments</b>	There are four types of risk environments used in the <b>Victorian Fire Risk Register</b> tool - Human Settlement, Economic, Environmental and Cultural Heritage.
<b>Risk Evaluation</b>	Process of comparing the level of risk against risk criteria.
<b>Risk Identification</b>	The process of determining what, where, when, why and how something could happen.
<b>Risk Management</b>	The culture, process and structures that are directed towards realising potential opportunities while managing adverse effects.
<b>Risk Management Process</b>	The systematic application of management of policies, procedures and practices to the tasks of communicating, establishing context, identifying, analysing, evaluating, treating, monitoring and reviewing risk.
<b>Risk Reduction</b>	Actions taken to lessen the likelihood, negative consequences, or both, associated with a risk.
<b>Risk Register</b>	A listing of risk statements describing sources of risk and elements of risk, with assigned consequences, likelihoods and levels of risk.
<b>Risk Treatment</b>	Process of selection and implementation of measures to modify risk. The term 'risk treatment' is sometimes used for the measures themselves.
<b>Source of Risk</b>	Source of potential harm.
<b>Susceptibility</b>	The potential to be affected by loss.
<b>Tolerable Risk</b>	A risk within a range that society can live with so as to secure certain net benefits. It is the range of risk regarded as non-negligible and needing to be kept under review and reduced further if possible.

<sup>21</sup> United Nations International Strategy for Disaster Reduction (UNISDR) (2009), UNISDR terminology on disaster risk reduction, United Nations, Geneva

<sup>22</sup> Ibid.

<b>Treatment</b>	An existing process, policy, device, practice or other action that acts to minimise negative risk or enhance positive opportunities. The word control may also be applied to a process designed to provide reasonable assurance regarding the achievement of objectives.
<b>Treatment (adequacy) assessment</b>	Systematic review of processes to ensure that controls are still effective and appropriate.
<b>Victorian Fire Risk Register (VFRR)</b>	The Victorian Fire Risk Register is a systematic map based process that identifies assets, assesses assets and provides a range of treatments which contribute to the well being of communities and the environment, which suffer the adverse effects of bushfire.
<b>Vulnerability</b>	The conditions determined by physical, social, economic and environmental factors or processes, which increase the susceptibility of a community to the impacts of hazards <sup>23</sup>

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<sup>23</sup> Ibid

## Appendix G Acronyms

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CFA	Country Fire Authority
DEECD	Department of Education and Early Childhood Development
DELWP	Department of Environment Land Water and Planning
IFMP	Integrated Fire Management Planning
MEMP	Municipal Emergency Management Plan
MEMPC	Municipal Emergency Management Planning Committee
MFMP	Municipal Fire Management Plan
MFMPCC	Municipal Fire Management Planning Committee
MFPP	Municipal Fire Prevention Plan
NSP	Neighbourhood Safer Places – Places of Last Resort
PPRR	Prevention, Preparedness, Response and Recovery
PRPR	Primary Responsible Person Representative
RSFMP	Regional Strategic Fire Management Plan
RSFMPC	Regional Strategic Fire Management Planning Committee
SES	State Emergency Services
TPP	Township Protection Plan
VBRC	Victoria Bushfire Royal Commission
VFRR	Victoria Fire Risk Register
WMO	Wildfire Management Overlay

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