MANSFIELD SHIRE

MUNICIPAL FIRE MANAGEMENT PLAN

MUNICIPAL FIRE MANAGEMENT PLANNING

A SUB-PLAN OF THE MANSFIELD SHIRE
MUNICIPAL EMERGENCY MANAGEMENT PLAN

PREFACE

The Mansfield Shire Municipal Fire Management Committee (MFMPC) is responsible for providing a strategic and integrated approach to fire management within the municipality of Mansfield. This task forms part of a broader State and regional framework established under the Emergency Management Act (1986) and is supported by the State Fire Management Planning Committee (SFMPC) and the Hume Regional Strategic Fire Management Planning Committee (HRSFMPC).

A key responsibility of the Mansfield MFMPC is the development of a draft Municipal Fire Management Plan (MFMP) on behalf of the Mansfield Municipal Emergency Management Planning Committee (MEMPC) for considered endorsement by the Mansfield Shire Council. This plan, which aligns with the Hume Regional Strategic Fire Management Plan 2011-2021, describes how regional authorities, local government, fire agencies and other relevant organizations can work together to effectively anticipate, respond to and recover from bushfire events affecting Mansfield Shire.

While the management of all types of fires is important, this plan has focused primarily on bushfire in the first instance. The life of this plan is for three years and it is envisaged that future updates of this plan will include further planning for other types for fire. Furthermore it is important to note that this plan recognizes, but does not duplicate, the extensive work already being undertaken in fire management across the municipality. This document is essentially a plan for improving integration of this existing work and developing improved methods for working together.

I join with the members of the Mansfield Shire MFMPC in commending this document to you. We see the development and implementation of this plan as an important step in the ongoing journey to securing a safer, more resilient community, healthier environment and a prosperous economy for our municipality.

Tom Ingpen
Inaugural Chairperson
Mansfield Shire Municipal Fire
Management Planning Committee
2012

See Update endorsement 2017

VERSION CONTROL TABLE

Version number	Date of issue	Author(s)	Brief description of change
Version 1.0	4/5/12	C. Hajek and C. Price	Draft MFMP for Comment
Version 2.0	28/5/12	C. Price	Incorporated feedback and edits from Mansfield Shire MFMPC Meeting 4.2 (23/5/12)
Version 3.0	26/6/12	C. Price	New Edits
Version 4.0	05/07/12	C. Price / K Murphy	New Edits
Version 5.0	30/08/12	C. Price /K. Murphy & J. Bright	Post Consultation - Inserted Map (7.3) Inclusion of Strategic Study (Fig: 19) I.D. 13 & Inclusion of WICEN (5.5.2) & minor corrections
Version 6.0 6.1 6.2	21/6/12 30/10/12 3/12/12 6/12/12	C. Price C. Price K Murphy	Minor grammatical edits, inclusion of NEO's & Map edits New Maps from DELWP/IFMP, removal of 'draft' Signatures added & clause on P 4 & above Sec 7.7 re Attachment - Excerpts from MFPP document Finalised signature page – **ready for distribution**
Version 7	21/10/2014	K Murphy	Amendment to Plan authorised by Council Resolution 21 October 2014 incorporating wording and flow diagram "High Risk Roads" and "High Risk Roads Assessment Criteria" as endorsed by the Municipal Fire Management Committee Sec 7 p 48, Update to NSP Sec 7.5, Page 7 26 & 7.7.2
Version 8	6/09/2016, finalised Dec 2016 Adopted Feb 2017	K Murphy	Review March - August 2016 by MFMPC, Update State Department Names, Update Woods Point NSP Designation General review and update incl Risk Tables & Strategies Circulated for comment Additional data added Endorsement by committee Referral to Council & Adoption

AUTHORISATIONS

This MFMP was adopted on 30th August 2012 as the first iteration of the Mansfield Shire MFMP. This Plan was endorsed through the Mansfield Shire MFMPC following a 28 day Public Consultation period. - for which the Chair of the committee signed for and on behalf of all members of the Mansfield MFMPC.

Signed: Date: 9th November 2011

Plan endorsed by: TOM INGPEN
Former Councillor - Mansfield Shire Council
Inaugural Chair – Mansfield Shire Municipal Fire Management Planning Committee

This MFMP was endorsed as a sub plan to the Mansfield Shire Municipal Emergency Management Plan through a formal motion by the Mansfield Shire Municipal Emergency Management Planning Committee (MEMPC) at their meeting on 10th September 2012 for which the Municipal Emergency Resource Officer will sign for and on behalf of the Members of the Mansfield Shire MEMPC.

Signed: Date: 9th November 2011   Redated CMarch 2016 – Feb 2017

Plan endorsed by: KEVIN MURPHY
Municipal Emergency Management Executive Officer &
Municipal Emergency Resource/ Municipal Fire Prevention Officer Mansfield Shire Council

The responsibilities and accountability attributed to the organisations represented at the Mansfield Shire MFMPC are endorsed by:

Plan endorsed by: STEWART KRELTSZHEIM

Operations Manager   Signed:

District 23,   **CFA**   Date: 5 December 2012

Plan endorsed by: ALAN DOBSON

Land and Fire Regional Manager Signed

North East Region, DELWP   Date: 16 November 2012

Plan endorsed by: **ROB HESCOCK**

General Manager - Northern Region Signed:

HVP Plantations   Date: 5 December 2012

Plan presented for review to DARREN HARRIS

Emergency Management Coordinator Victoria Police following the active participation by Victoria Police on the Committee   Signature not available.

This MFMP was adopted through a formal motion by the Mansfield Shire Council as the MFMP for the Mansfield Shire, at its meeting on 20th November 2012, for which the Chief Executive Officer will sign for and on behalf of the Mansfield Shire Council.

Mansfield Shire Council

Signed:

DAVID ROFF
Chief Executive Officer
Date: 20th November 2012

Amended Version of Plan presented to and adopted by Council on **21 February 2017**

Alex Green
Chief Executive Officer
24 July 2017

 Note re Attachment 7.7 – excerpts from the Municipal Fire Prevention Plan.
Due to the historical nature of the source document contained within this attachment - excerpts from the Municipal Fire Prevention Plan - they are included for guidance only. The recommended treatments, actions or priorities have not been based on or necessarily referenced by the later Risk Management review processes and thus should not be considered as being endorsed or attributable as actions for any individual current member organisation of the MFMPC. Added K Murphy 3 December 2012

UPDATE following Review in 2016 & Adoption 21 February 2017

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1. INTRODUCTION

1.1 CONTEXT AND BACKGROUND

Victoria has a long history of community, government and organisations working cooperatively to combat the threat of bushfire. However recent challenges such as the decade of dry conditions, an increase in people living in high risk areas and the occurrence of a number of major fires, prompted the need for increased coordination and cooperation to secure fire safety across the state.

In response to these challenges the Victorian Government established an Integrated Fire Management Project (IFMP) Framework for Victoria in 2008.

IFMP provides a framework for consistent and effective fire management planning (see figure 1) across the fire management continuum, by providing a multi-agency approach, bringing together fire management planners and other stakeholders, including emergency service agencies, government departments, private organisations and the community. Working together they build relationships and share information to plan across public and private land tenures for all types of fire. IFMP is based on analysis and management of risk, uses best practices and builds on existing information.

> IFMP aims to achieve a consistent and effective means for fire management planning within Victoria through a commitment of cooperation, including information sharing and the building of collective knowledge.
> The Integrated Fire Management Planning Framework, State Fire Management Planning Committee

FIGURE 1: FIRE MANAGEMENT PLANNING

FIGURE 2: VICTORIAN MANAGEMENT PLANS & POLICIES
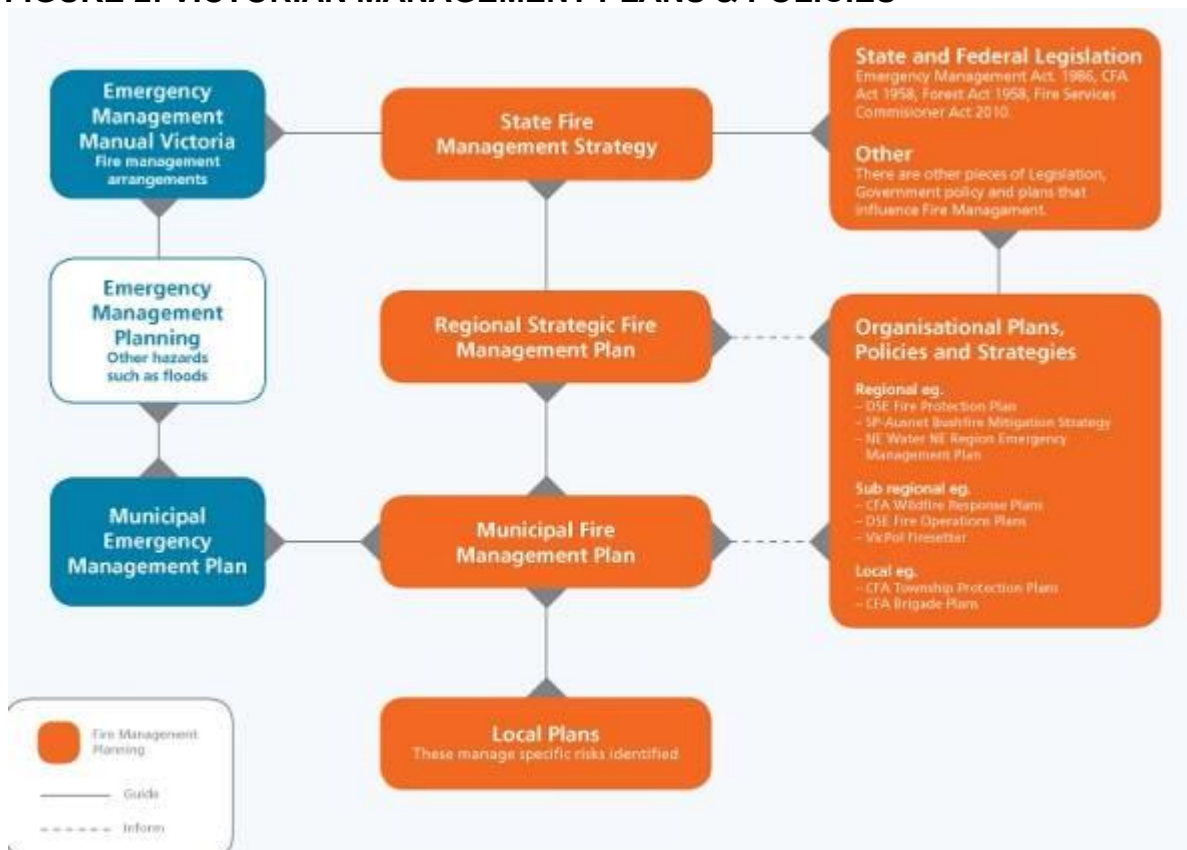
The framework provides structures, policies and procedures to help build on the existing spirit of co-operation and networks that already exist in fire management. It establishes a tiered system of state, regional and municipal plans that provide strategic direction to fire management in Victoria, as illustrated in figure 2.

The purpose of Municipal Fire Management Planning Committees (MFMPC) is to provide a municipal level forum for building and sustaining organisational partnerships with regards to fire management; and to ensure that plans of individual agencies are linked effectively so as to complement each other. This is facilitated by MFMPCs having a membership consisting of representatives from key stakeholder organisations with respect to fire management within the municipality.

> **Mansfield MFMPC membership consists of:**
> - Mansfield Shire Council
> - CFA
> - DELWP
> - HVP Plantations
> - Victoria Police

MFMPCs also act as a sub-committee of their respective Municipal Emergency Management Planning Committee. *Part 6A: Guidelines for Municipal Fire Management Planning*, of the *Emergency Management Manual of Victoria,* outlines the terms of reference for these committees, identifies their minimum core membership and requires the development of a Municipal Fire Management Plan.

The formation of an MFMPC and the development of a MFMP signify an important first step in the transition from Municipal Fire Prevention Plans developed under the guidance and direction of Municipal Fire Prevention Committees, to a MFMP developed under the guidance and leadership of a MFMPC.

1.2 PERIOD AND PURPOSE

Organisation and agencies involved in fire management already have a range of activities, plans, policies and procedures that are directly involved with, or that impact on fire management. This MFMP builds on this existing work, so as to chart and coordinate the implementation of measures in use across the municipality designed to minimise the occurrence and mitigate the effects of bushfires. It also seeks to identify the need for adopting or developing new activities, processes and policies, and communicating this need to the relevant responsible authority.

In doing so it takes into consideration all aspects of fire management;

- **PREVENTION** – Regulatory and physical measures to ensure that emergencies are prevented, or their effects mitigated

- **PREPAREDNESS** – Arrangements to ensure that in the event of an emergency occurring all those resources and services that are needed to cope with the effects can be efficiently mobilised and deployed

- **RESPONSE** –   Actions taken in anticipation of, during and immediately after an emergency, to ensure its effects are minimised and that people affected are given immediate relief and support

- **RECOVERY** –   The coordinated process of supporting emergency affected communities or individuals in reconstruction of the physical infrastructure and restoration of emotional, social, economic and physical wellbeing.

MFMPs have a three year planning cycle and this plan has a three year duration from the date of council endorsement. However it will be subject to annual review and modification as appropriate. The current MFMP concentrates on bushfires, however it is expected that future iterations of the plan will further incorporate management of structural and chemical fires as well as the use of fire for a variety of purposes.
Reviewed May 2016

1.3 PREPARATION PROCESS

This MFMP has been developed in accordance with Part 6A of the Emergency Management Manual of Victoria and using the IFMP planning process as described in the IFMP Guide. This process follows a seven stage planning cycle as illustrated in figure 3.

STAGE 1: ENVIRONMENTAL SCANNING – establish a municipal base line from which fire management planning and decision making can be made and measured, including development of fire management objectives:

STAGE 2: RISK ASSESSMENT – identification, analysis and evaluation of the fire risks that potentially impact on the municipality:

STAGE 3: ANALYSIS – analysis of treatment options for achieving the fire management objectives:

STAGE 4: DECIDE – select the most appropriate risk treatment options to achieve the fire management objectives:

STAGE 5: PUBLISH –once the community and stakeholders have validated the draft MFMP, the relevant authorities endorse, publish and distribute it:

STAGE 6: DELIVER - relevant organisations implement the agreed risk treatments in the MFMP:

STAGE 7: MONITOR AND IMPROVE – track delivery and effectiveness of risk treatments so as to continually improve the MFMP's contribution to realising the fire management objectives:

FIGURE 3: INTEGRATED FIRE MANAGEMENT PLANNING PROCESS
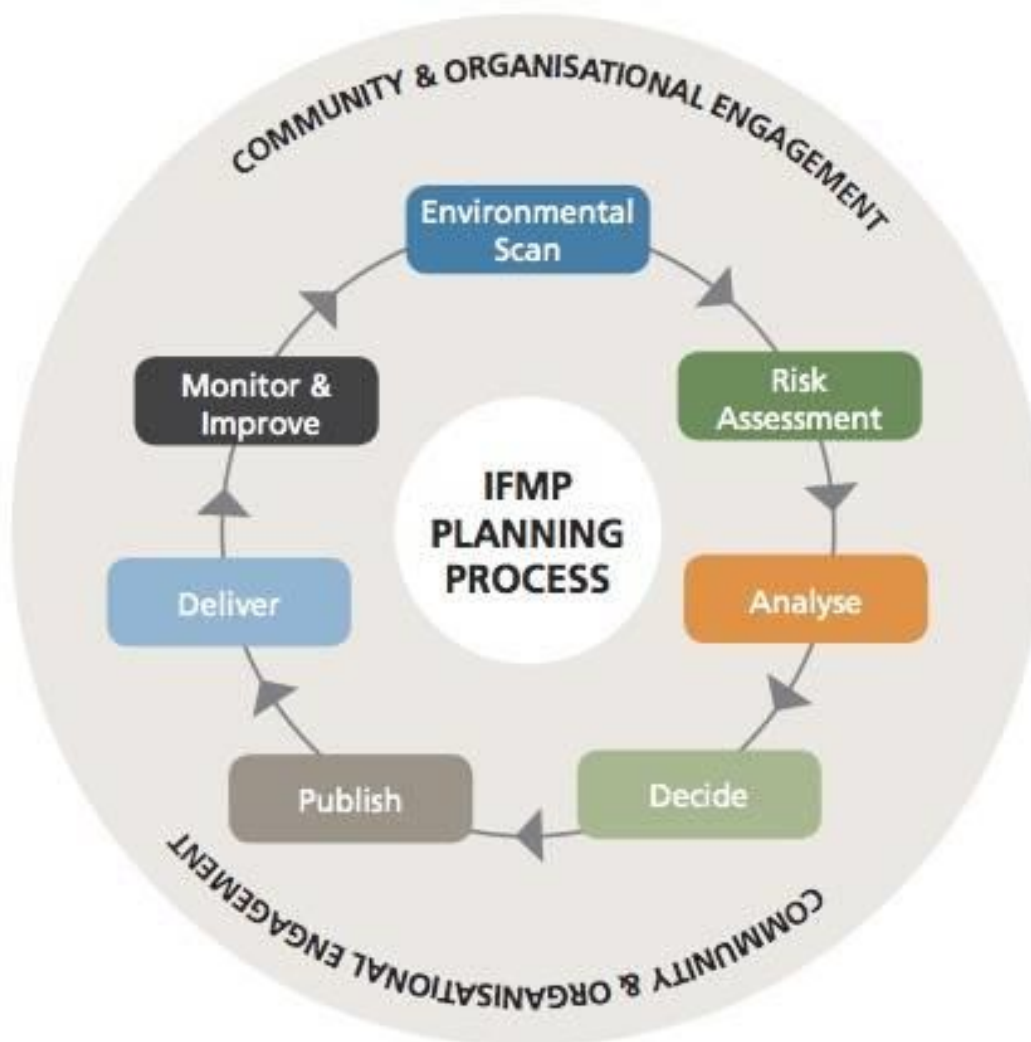
Over a period of 12 months the committee members met on regularly to work through the steps outlined above for the purpose of developing this plan. This started with formally establishing the Mansfield MFMPC as a subcommittee of the Mansfield MEMPC and endorsing the terms of references based on those in Part 6A of the Emergency Management Manual of Victoria.

Subsequent activities include undertaking a stakeholder analysis, developing a communications strategy, identifying and assessing fire risks of concern within the municipality and assigning appropriate treatments to address them.

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This planning process is risk based and aligns with the AS AS/NZS ISO 31000:2009 Risk Management Principles and Guidelines, figure 4 (below) describes how this is achieved.

All concerns identified were considered and defined as risk statements with the cause and impact clearly described. Each of these risk statements were then assessed using the State Bushfire Consequence Table, Likelihood table and Risk Assessment matrix (See Attachment 1) as endorsed by the State Fire Management Planning Committee.

FIGURE 4: 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

1-5

2. ENGAGEMENT AND COMMUNICATIONS

Stakeholder engagement and participation is an essential element of fire management planning. Stakeholders are required to participate for a range of reason, including (but not limited to);

- Legislative responsibilities in relation to fire management.

- Leadership

- Provision of hazard expertise and technical advice

- Subject to hazard impact – directly and/or indirectly

- Land tenure and management arrangements

- Expressed expectation

- Influenced and/or support mitigation.

Stakeholder engagement is required during all seven stages in the IFMP planning cycle, the aim being for them to participate together in the collaborative development, delivery and monitoring of the MFMP.

Engaging with stakeholders in the development and implementation of the MFMP is an essential tool for drawing on existing knowledge and experience and to build support for and involvement in this plan.

These communication and engagement tasks have been built around the model of public engagement developed by the International Association of Public Participation (IAP2). This model is called the Public Participation Spectrum and is detailed in figure 5 below. This spectrum provides a framework for planning effective stakeholder engagement about any issue or plan. It is used as the basis for communication and engagement planning during the development and subsequent implementation phases.

FIGURE 5: IAP2 PUBLIC PARTICIPATION SPECTRUM

Inform	Consult	Involve	Collaborate	Empower
Provide balanced information to stakeholders.	Obtain feedback on analysis and decisions.	Work directory together to ensure issues are understood.	Partner in each aspect of decision making.	Place final decision making in the hands of primary stakeholders.

2.1 COMMUNITY AND ORGANISATIONAL ENGAGEMENT PLAN

In accordance with the IFMP planning guide the Mansfield MFMPC undertook a stakeholder analysis and used this as a basis for the development of a Communication and Engagement Plan concerning the MFMP.

The stakeholder analysis consisted of a two part process; first identifying the key stakeholders who needed to be engaged in the MFMP's development and secondly determining the nature and level of their interest in fire management planning. This second step involved considering each stakeholder in relation to eight different fire management roles which are described in figure 6 and four different stakeholder types as outlined in figure 7.

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FIGURE 6: FIRE MANAGEMENT ROLES

Role	Description
Fire Coordination	Bring together fire management agencies and elements to ensure effective response to an incident or emergency. CFA has legislated responsibility under the *CFA Act 1958* for the prevention and suppression of fires and for the protection of life and property in the Country Area of Victoria. In accordance with provisions in the *CFA Act* and the *Forest Act*, DELWP has fire management and fire suppression responsibilities for state forests, national, state and regional parks.
Land Owner/Manager Responsibilities	Landholder/managers are heavily involved in fire prevention and fire suppression on land under their control. They have legislated responsibilities to extinguish a fire burning on their land and to prevent fires from starting from the use of equipment and vehicles (*CFA Act 1958, Crimes Act 1958*). They are also required to comply with relevant local government laws, relevant planning or building permit conditions and conditions associated with permits to burn.
Response	Actions taken in anticipation of, during and immediately after a fire incident to minimise the impact of the fire.
Recovery	A coordinated process of supporting emergency affected communities or individuals in the reconstruction of physical infrastructure and restoration of emotional, social, economic and physical wellbeing.
Community Education	Community education is learning and social development, working with individuals and groups in their communities using a range of formal and informal methods
Community Care	Community care is about identifying and catering for groups or individuals with specific needs, before during and after fire.
Asset Protection	Asset protection involves protecting key community infrastructure such as communications, power, water supplies, roads, gas pipes and protecting community assets such as community halls, buildings, parks and the environment. Asset protection can also involve the protection of private assets such as housing, plantations, crops and fences and tourism infrastructure.
Regulatory	The issuing of permits for lighting fires. The development of and compliance with planning controls and permits for developments and building that take into account fire risk/management. The regulation and issuing of permits involving vegetation removal or fuel reduction activities for fire management purposes.

FIGURE 7: STAKEHOLDER TYPE AND ENGAGEMENT LEVEL

STAKEHOLDER TYPE	DESCRIPTION	PARTICIPATION LEVEL
Internal	Formal responsibilities for IFMP process and outcomes	Collaborate and empower
Primary	MFMPC membership, responsibility for development of the plan, communication and engagement across and within organisations rest with these organisations	Collaborate and empower
Secondary	RSFMPC membership or fire management role within municipality, may be requested to provide specific inputs, dependent upon outputs, or requested to be involved in specific tasks,	Involve and consult
Tertiary	Strong interest in outcomes and may have valuable information/viewpoints to share	Inform and consult

Once a stakeholder had been categorised, the appropriate level of participation in the process and the different types of engagement activities required were determined. The results of this stakeholder analyses and the resulting Communication and Engagement Plan can be found in Attachment 2.

2.2 COMMUNITY ENGAGEMENT

During the development phase of the MFMP the Mansfield MFMPC's communication and engagement efforts were focused primarily upon the key stakeholders. However community groups were identified as Tertiary stakeholders and engaging them and the broader community is seen as a critical component to the long term success of MFMP.

This community engagement process is very much seen as an ongoing responsibility of the Mansfield MFMPC and it is expected to gain prominence going forward once the plan is endorsed and especially during review periods. Consequently the Communication and Engagement Plan should be viewed as a live and evolving document that will be shaped according to the MFMPC's needs over time. In this manner it will be able to guide the process of broader community engagement with additional activities and details being incorporated as required.

It is also anticipated that in addition to the activities attributed to the MFMPC, individual key stakeholders will be utilising their existing processes and undertaking their own community engagement activities in support of IFMP and the MFMP.

3. ENVIRONMENTAL SCAN

Environmental scanning involves identifying key themes, issues, trends and gaps that can affect or influence fire management. It establishes the base level of knowledge and understanding required for supporting risk identification, risk assessment and risk treatment within a fire management context.

It involves gathering and interpreting data and information relevant to fire management, so as to make predictions, assumptions and conclusions concerning fire risk for the municipality over the period of the plan. It also provides the basis for identifying fire management objectives and decision making with regard to selecting strategies to achieve these objectives.

3.1 MUNICIPAL PROFILE

3.1.1 LOCATION AND TENURE

Mansfield Shire is in North East Victoria, approximately 180kms from Melbourne. Shire boundaries are shared with Benalla Rural City, City of Wangaratta, Baw Baw Shire, Wellington Shire, Shire of Yarra Ranges, Murrindindi Shire and Strathbogie Shire. Mansfield is the only shire in the Hume region to share shire boundaries with Gippsland shires (Baw Baw Shire and Wellington Shire). Mansfield shire also surrounds the Alpine resorts of Mt Stirling and Mt Buller who are distinct entities and are governed by Alpine Resort Management Boards

Mansfield Shire Council was first proclaimed on 31 December 1866, and amalgamated with the City and Shire of Benalla on 18 November 1994 to form the Delatite Shire. After the de-amalgamation of Delatite Shire on 28 October 2002, Mansfield was re-established as its own municipality. The Shire is approximately 3800 square kilometres in size and has large forested areas.

Crown land covers approximately 60% of the shire and the Department of Sustainability and Environment (DELWP), Goulburn Murray Water (GMW) and Parks Victoria (PV) are the major land managers. Other major land managers include the Mansfield Shire Council (3% of land) and HVP Plantations. Approximately 30% of the land in the Mansfield Shire is privately owned.

3.1.2 POPULATION AND DEMOGRAPHICS

The population of Mansfield Shire was 8343 in 2011 an increase from the 2006 total of 7,450. The average annual population increase was 1.5% until 2010-2011, when growth slowed to 0.5%. **Current Population as at July 2016 =** Estimate 9010.
Mansfield is unusual in Victoria in that approximately 50% of the shires ratepayers are non-residents. There are a large percentage of holiday homes as dwellings in the shire and its population increases considerably during weekends and over holiday periods with an influx of visitors. The majority (approximately 60%) of the shire live in rural areas with the remaining 40% of people living in the 'urban' areas of Mansfield. Mansfield also contains a number of smaller settlements including Merton, Bonnie Doon, Maindample, Tolmie, Merrijig, Sawmill Settlement, Gough's Bay, Macs Cove, Howqua Inlet, Jamieson, Kevington and Woods Point.

Like the majority of areas in rural Victoria, Mansfield Shire has an ageing population. Approximately 17% or 1,360 people are aged over 65 and this is forecast to increase. Mansfield is also a popular place to retire. Approx 27% of the population will be over 65yrs by 2021 - stat from Victoria in Future 2016 (added 8/16)

Over the past 10 years, Mansfield Shire has experience a 16% decrease in the number of people attending an educational institution within the shire. Like other areas in the Hume region there is a distinct lack of people in their early 20's as many have left the region and moved to major regional or metropolitan centres to study and work. 11.6% of the population were born overseas and 2.8% of people speak a language other than English at home. 32% of Mansfield Shire residents perform some sort of voluntary unpaid work and 56% of the population have access to the internet at home.

Mansfield has a range of health services available to the community which include a hospital incorporating a nursing home, two medical clinics and an autistic centre with off-site accommodation. There are also numerous pre-schools, childcare centres, primary and three secondary schools and a number of educational camps spread throughout the Shire.

In terms of social disadvantage, Mansfield ranks 50th out of the total of 79 Victorian municipalities. Approximately 9% of residents are classified as living in the most disadvantaged areas within the Shire.

NOTE: Further information to be added to clarify this statement, however this data relates to state-wide assessments based on isolation, location, housing quality, income and support networks etc.

Municipality Map - Mansfield Shire

Date: 23/10/2012

FIGURE 8: MUNICIPAL MAP
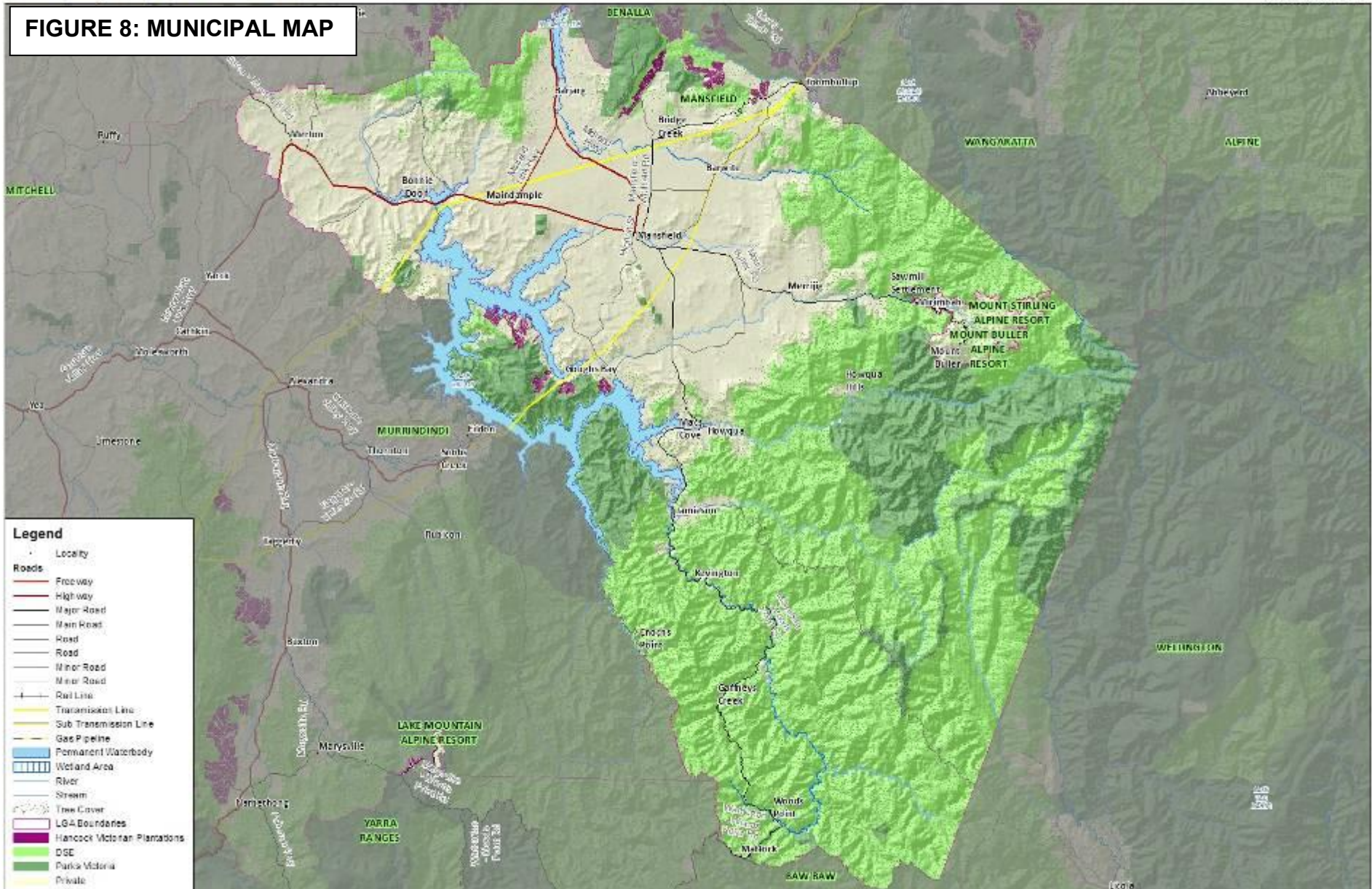
Map Produced by Wodonga GIS team, October 2012
Copyright © The State of Victoria, Department of Sustainability and Environment 2012
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liability for any error, loss or other consequence which may arise from you relying on any information in this publication.

0   3.75   7.5   15
Kilometers

Scale: 1:330,000
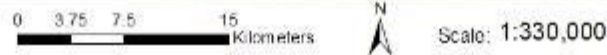
GDA 1994 VICGRID94

3.1.3 NATURAL ENVIRONMENT

Mansfield Shire is characterised by a diverse combination of landscapes that include high alpine areas, steep slopes, high plateaus, river valleys and lower rolling plains. The shire has approximately 85% tree cover and includes sections of the Alpine National Park , Lake Eildon National Park and a number of State Parks and Forests. Other parks and forested areas that either border or have some of their area with the Shire include Mt Samaria (part in Rural City of Benalla) and the Strathbogie Ranges (generally Strathbogie Shire Council). Only 11% of private land is covered with native vegetation in Mansfield Shire. The shire includes sections of the Central Victorian Uplands and Highlands Northern Fall Bioregions which have diverse ecological characteristics.

The central and northern areas of the municipality follow the Broken River valley which encompasses hilly land in the north to more undulating land in the central areas. Land in the south of the Shire can be described as hilly to mountainous. The shire surrounds but does not manage the Alpine resorts of Mt Buller and Mt Stirling. A large number of streams and rivers occur in the municipality as does Lake Eildon.

The shire is located in the south east of the Goulburn-Broken Catchment and has a diverse range of soil types from quality alluvial and colluvial soils on the plains to rocky geologies in the higher areas.

Of the approximately 1300 species of flora recorded in the Mansfield Shire, 6 species are listed under Victoria's *Fauna and Flora Guarantee Act 1999* and 3 species under the *Environment and Biodiversity Protection Act 1999*. Threatened Flora includes species such as Plump Swamp Wallaby-grass *(Amphibromus pithogastrus*), Dookie Daisy (*Brachyscome gracilis*) and Lima Stringybark (*Eucalyptus alligtrix*).

In Mansfield Shire there are 15 threatened fauna species listed on the Commonwealth *Environment Protection and Biodiversity Act 1999* and 30 species listed on the Victorian *Fauna and Flora Guarantee Act 1999*. The list includes a wide range of animals from the critically endangered Golden Sun Moth (*Synemon plana*) to the endangered Leadbeater's Possum (*Gymnobelideus leadbeateri*), Mountain Pygmy-Possum (*Burramys parvus*) and Spotted Tree Frog (*Litoria spenceri*). Vulnerable species include the Striped Legless Lizard (*Delma impar*), the Alpine Tree Frog (*Litoria verreauxii alpine*) and the Murray Cod (*Maccullochella peelii peelii*).

3.1.4 LAND USE, ECONOMY AND EMPLOYMENT

Tourism is the key industry in Mansfield with approximately 1.2 million visitor stays to the Shire every year. Tourism employs 28% of the workforce in the municipality and contributes an estimated $135 million per year or just over 60% of the Shire's annual gross tourism earnings. Approximately 6,500 tourist beds are spread throughout the shire and there are a number of large caravan parks. Tourist activities include camping, skiing, horse riding, four wheel driving and water sports on Lake Eildon. Many skiers stop in Mansfield on their way to Mt Stirling and Mt Buller Alpine resorts. The Australian Bureau of Statistics Survey of Tourism data does not provide data on number of commercial accommodation establishments under fifteen rooms. (added 8/16)

3-4

A number of festivals and events are held in Mansfield on a yearly basis attracting large numbers of tourists including:

- Bush Markets
- Mansfield Country Festival
- Mansfield Harvest Festival
- Merrijig Rodeo
- Mansfield Show and
- Targa High Country

Agriculture is also an important industry in the Mansfield shire with approximately 85,000 hectares of land set aside for farming, grossing $30.5 million annually (ABS 2006). The major agricultural products from Mansfield include sheep, cattle and seed production.

Mansfield Shire is also home to a timber industry with some large plantations held by HVP Plantations. HVP Plantations have a number of pine plantations in the Mansfield Shire and possess their own fire fighting crews.

The municipality is traversed by a number of significant road transport networks as follows:

1. Midland Highway north of Swanpool (vehicles per day: 1780) traverses the Shire from Benalla to Mansfield and with Midland Link to Maindample. (Vehicles per day: 1420)

   These roads essentially provide an east-west link for major traffic flows in addition to offering alternative routes for traffic east and west of Melbourne to link into the Hume Freeway.

2. Mt Buller Road (vehicles per day: 1690) between Mansfield and Mt Buller / Mt Stirling.

   This road links with both the Maroondah Highway and the Midland Highway and provides access to the tourist attractions located in the Mt Buller and Mt Stirling regions (snowfields in winter, bushwalking etc in summer). A link is also created with the Secondary road to Woods Point and Licola via Jamieson.

3. Maroondah Highway (vehicles per day: 3300). This road links to the Mt Buller Road and the Midland Highway at Mansfield and Midland Link Road at Maindample. The Highway is the principal route for travel to Melbourne via Merton at the municipal boundary then via Alexandra, Yea and Seymour. Travel time to Melbourne is 2½ hours. Heaviest traffic conditions occur during the weekends of the winter snow season, Easter and Christmas.

These roads are generally of good quality. In the mountainous sections some of the secondary roads are steep, narrow, have restricted access and are of lower quality. Not all roads are sealed.

3.1.5 TRADITIONAL OWNERS

The Taungurung (or *Daung wurrung*) language group traditionally occupied lands throughout the catchment areas of the Goulburn River and Broken Creek including land in

the Shires of Murrindindi, Mansfield, Mitchell and Strathbogie. There are also many indigenous archaeological sites scattered throughout Mansfield Shire and Indigenous history and prehistory form a major part of the shire's cultural landscape.

There is one Registered Aboriginal Party (RAP) in the area of Mansfield Shire; the Taungurung Clans Aboriginal Corporation (TCAC). RAPs have responsibilities relating to the management of Aboriginal Cultural Heritage under the *Aboriginal Heritage Act* 2006. These responsibilities include evaluating Cultural Heritage Management Plans, provide advice to applications for Cultural Heritage Permits, making decisions on Cultural heritage Agreements and offer advice or applications for Protection Declarations.

- For further information about RAPs and their contact details see:
  http://www.dpcd.vic.gov.au/indigenous/aboriginal-heritage-council/registered-aboriginal-parties

3.1.6 CLIMATE

Mansfield generally enjoys a warm climate, excluding the alpine areas, with average summer temperatures in the high 20's degrees Celsius. Figure 9 below summarises seasonal averages in Mansfield Shire. Average winter highs are around 14 C° and mean rainfall for the shire is approximately 774mm, although this can vary across the shire. In the town of Mansfield, rainfall averages 705.7mm but has varied to as low as 318.4mm (in 2006) and as high as 1093.2mm (in 1956). Lake Eildon, to the west of the town of Mansfield is wetter with an average rainfall of 853.3. The Lake Eildon weather station has also recorded a wide range of rainfall totals with a lowest recording of 404.8mm (in 2007) and a highest recording of 1401.3 (in 1956). Mt Buller weather station is the wettest, which records an average rainfall of 1530.9 and has varied as much as 633mm (in 1995) to 1971.4 (in 1989).

FIGURE 9: WEATHER IN MANSFIELD

Weather Type	Season	Average
Temperature (ºC)	Annual	13.9
	Summer	20.1
	Autumn	14.4
	Winter	7.7
	Spring	13.3
Extreme Temperature	Annual number of hot days (>35ºC)	14
	Annual Number of Frosts	46
Rainfall (mm)	Annual Average	774
	Summer Average	135
	Autumn Average	168
	Winter Average	251
	Spring Average	200
Wind Speed (km/h)	Annual Average	6.1
Relative Humidity (%)	Annual Average	68

*source: Mansfield Shire Council

In the higher alpine areas, summer temperatures vary from 6.6 C° to 15.5 C° and average winter temperatures vary from -2.8 C° to 1.6 C°

The future climate in the greater Goulburn-Broken region is expected to become hotter and drier than it is today (Goulburn Broken Greenhouse Alliance, *Climate Change*

Adaptation Plan, June 2011). It is also expected that there will be a larger proportion of hotter days and a greater incidence of drought. Higher intensity, but lower predictability, of rain events is also likely to occur with less rain available for irrigation. These climactic changes will influence and possibly increase the likelihood of fire in the municipality.

By 2030 it is predicted that the average temperatures in the region will increase by 0.8°C and by 2070, depending on emissions, temperatures will increase on average by 1.4°C to 2.7°C. The climate is likely to become increasingly erratic with higher occurrences of heat waves and storms. These climactic changes will also make fire behaviour harder to predict.

3.1.7 FIRE HISTORY

Although there is a fire season each year, a significant number of bushfire outbreaks have occurred in and around the Municipality. These include:

- The 1939 and 1952 fires that had devastating effects on the district.

- The 1985 Rose River fire

- The 2003 North East Bushfire that burnt large areas of North East Victoria along the borders of the Municipality
.

- The 2006-07 Victorian Alpine Fire Complex. This was the longest running collection of bushfires in the State's history. Initiated by a combination of over 70 lightning strikes in the Victorian Alps, some of which were in the upper King Valley, Rose River and Black Range areas of the Municipality, all of these eventually merged to form a single fire that burned for 69 days across approximately 1 million ha and destroying 51 houses, large numbers of stock, extensive fencing and causing one fatality. The fire season of 2007 had the most dramatic impact on the catchment (see Attachment 3, Burnt Area Past 10 years) in the Mansfield Shire. Not only did the fires directly impact the catchment but they had a detrimental impact on the tourism industry throughout the north-east of Victoria. This had direct consequences for many businesses in Mansfield Shire.

There are 12 Fire Brigades that have all or part of their area within the Mansfield Shire, as follows:

Barjarg	Bonnie Doon	Booroolite
Delatite Plantation	Glenroy–Merrijig	Gough's Bay–Howe's Creek
Jamieson	Maindample	Mansfield
Merton	Tolmie	Woods Point

Mt Buller Brigade is acknowledged as a member of the "Mansfield Fire Brigades Group" and **supports** and is supported by the group. It is, however, located outside the proclaimed municipal district.

All brigades are well equipped, with most of the brigades having modern 4-wheel drive tankers, brigade owned fire fighting vehicles and a Group Command vehicle to support those provided by the CFA. A range of other support equipment is owned or managed by the fire brigades.

DELWP and the Networked Emergency Organisations (NEO) also maintain an active fire fighting role, particularly in relation to bush fire. DELWP have a well-resourced work centre in the Township of Mansfield.

3-7

FIGURE 10: FIRE DANGER RATINGS

3.1.8 FIRE DANGER

Fire Danger Indexes (FDI) are determined from a range of meteorological factors including historical data (days since last rain, drought index) and current data (temperature, humidity, wind speed). Fire Danger Ratings (FDR) describe ranges of FDIs, and can be based on either historical data (actual FDR) or a combination of historical or forecasted weather parameters when predicting future FDRs. Figure 10 summarises the FDR types. FDR is therefore a function of climate, however due to the significant difference between forest fire and grass fire conditions; two different FDI meters have been developed. FDI is also a factor used in the decision making process concerning the declaration of Total Fire Ban (TFB) days.

The following figures provide a historical picture of the fire situation in the Municipality. Figure 11 gives us the average breakdown of the Municipalities fire season across the Moderate to Code Red categories of the FDR range, where 1 = forest and 2 = grassland. Whereas figure 12 describes the annual variation between each FDR category over different fire seasons for the last seven years. Finally figure 13 is a record of the number of TFBs declared within the Municipality (State-wide & Regional) over the last 10 years. What these statistics indicate is that the Municipality has a highly variable fire season, but it can expect to experience some "Moderate" to "High" FDR level days every year, with more severe conditions occurring on a regular if not annual basis.

WHAT DOES IT MEAN?

CODE RED
These are the worst conditions for a bush or grass fire.
Homes are not designed or constructed to withstand fires in these conditions.
The safest place to be is away from high risk bushfire areas.

EXTREME
Expect extremely hot, dry and windy conditions.
If a fire starts and takes hold, it will be uncontrollable, unpredictable and fast moving. Spot fires will start, move quickly and come from many directions.
Homes that are situated and constructed or modified to withstand a bushfire, that are well prepared and actively defended, may provide safety.
You must be physically and mentally prepared to defend in these conditions.

SEVERE
Expect hot, dry and possibly windy conditions.
If a fire starts and takes hold, it may be uncontrollable.
Well prepared homes that are actively defended can provide safety.
You must be physically and mentally prepared to defend in these conditions.

VERY HIGH
HIGH
LOW-MODERATE
If a fire starts, it can most likely be controlled in these conditions and homes can provide safety.
Be aware of how fires can start and minimise the risk.
Controlled burning off may occur in these conditions if it is safe – check to see if permits apply.

FIGURE 11: ANNUAL VARIATION OF FDRS IN FOREST AND GRASS IN MANSFIELD SHIRE (OVER LAST 10 YEARS) (TILL 2012)
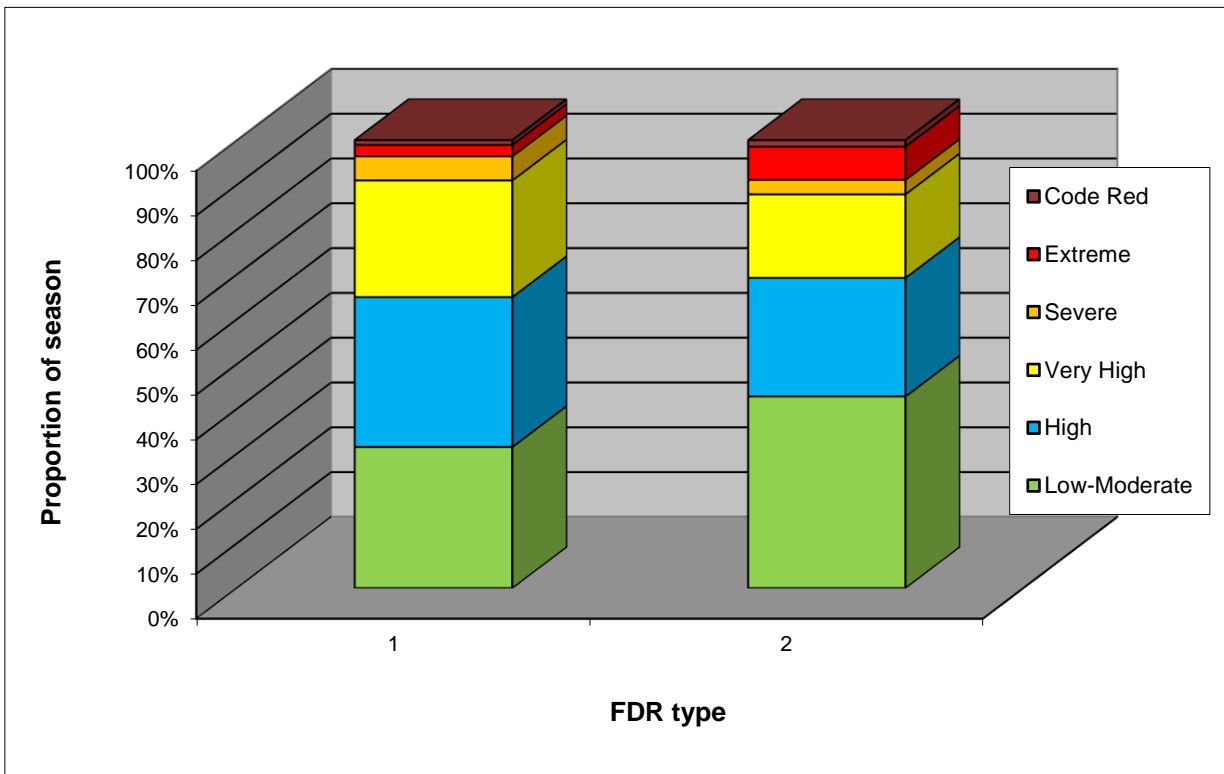
FIGURE 12: ANNUAL VARIATION IN FDR CATEGORIES IN MANSFIELD SHIRE (FROM 2004-2011)
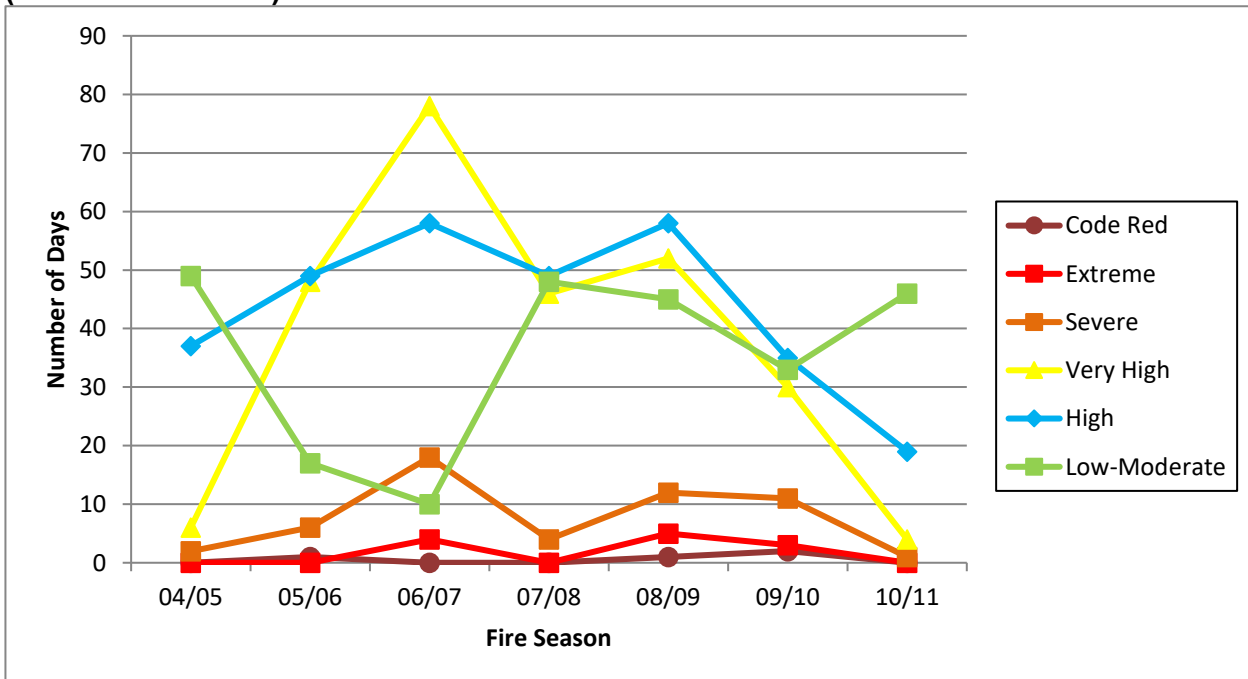
FIGURE 13: HISTORICAL TFB DECLARATIONS FOR MANSFIELD SHIRE (FROM 1994-2011)
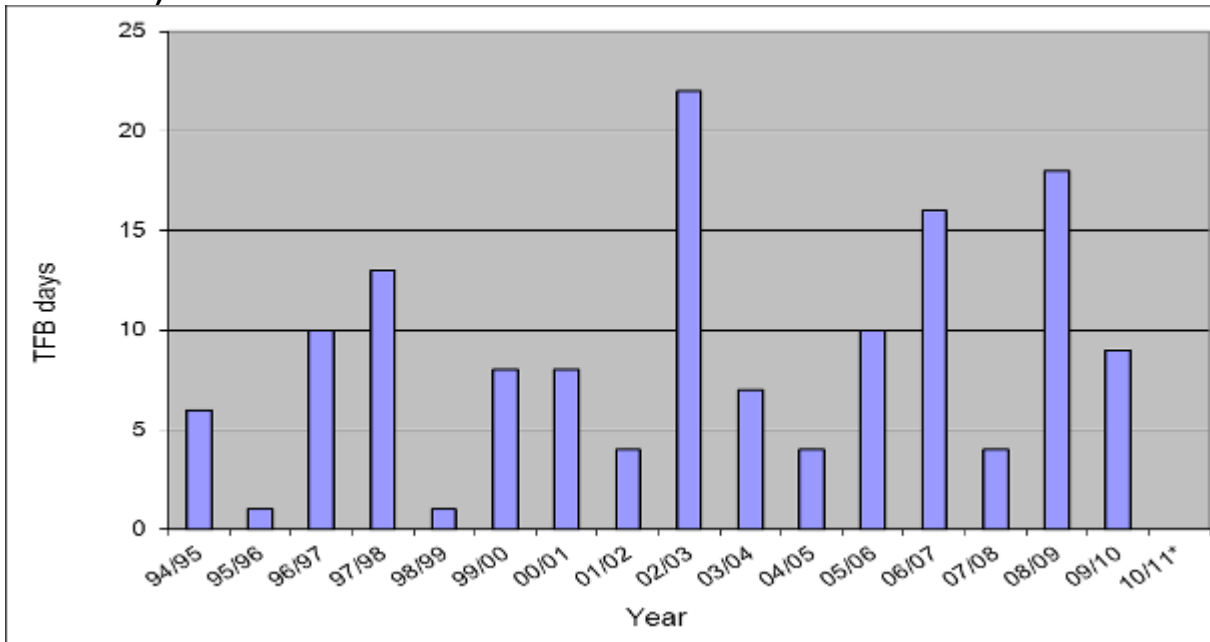
2016 Update re Total Fire Day Declarations for 2011 - 2015/16
(North East TFB District)   2011/12   0 days   2012/13   7 days   2013/14   10 days
2014/15   5 days   2015/16   8 days

3.2 STRATEGIC IMPLICATIONS

Bushfire can occur in any type of vegetation, such as grassland, trees, crops or shrubs. This section describes the Mansfield municipality and factors that increase the likelihood of a fire starting and spreading across this area. Ensuring the municipality is a safe and healthy place to live and work involves protecting the social, environmental and economic fabric of the municipality.

Mansfield Shire has a range of assets and features which make it a vibrant place to work live or visit. These include large townships, small communities, and rural areas, industries such as agriculture, agribusinesses and tourism and important infrastructure for essential services such as transport, power, and communications. In addition to the built environment the municipality boasts a range of natural assets such as good quality water resources and extensive native forests which are valued for their environmental, commercial and visual appeal.

The topography of the shire varies greatly from the Broken River floodplains in the north, to the hilly and mountainous areas to the south and east. This can present challenges for fire fighting in the area and highlights the variety of terrain from the shores of Lake Eildon to the Alpine Resorts of Mt Buller and Mt Stirling.

Much of the freehold land in the shire surrounds areas of native bush and can incorporate large tracts of privately owned remnant vegetation. As a result, a large proportion of the municipality is subject to possible bush fires.

3.2.1 VEGETATION AND TOPOGRAPHY

The vegetation and topography of the municipality create a number of challenges for fire management. The shire is heavily forested, particularly in the mountainous sections of the shire to the south and east and extending to the Woods Point locale. These areas have a number of steep escarpments and highly varying topography, are heavily vegetated and have little access or egress and have a number of water courses flowing through them. All of these factors combine to make fire control and response in these areas difficult as locating and accessing fires with emergency equipment can be difficult.

A number of major rivers and streams flow through the municipality including the Goulburn, Broken, Delatite and Howqua Rivers and associated river valleys. These rivers generally run east to west and bisect the area of the Shire. Although providing a reliable water resource and a natural fire break, access across these major rivers and streams is generally restricted to bridges and crossing points which may delay emergency response times.

Roads generally run east to west through the Shire with a spine to the south. All of the major roads pass through the central node of Mansfield. The majority of the roads in the shire exist in the flatter areas to the north and access into some mountainous areas of the Shire is restricted.

Bushfire threat is not confined to forested environments and the threat of grass fires is a significant one throughout the shire. While grassfires may have lower intensities and flame heights than forest fires, the combination of open ground and fine fuels can produce very fast moving destructive fires.

3.2.2 WEATHER AND CLIMATE

Weather conditions and climate also impact on fire management in Mansfield Shire. For instance the bushfire season from 2000-2009 was increased in length due to the wide-spread impact of severe drought. In more recent years, the summers have been milder and have had more rainfall, a condition which is predicted to change in the foreseeable future. Typically the municipality experiences spring rains and mild conditions that promote growth followed by hot summers which lead to high fuel loads.

The usual pattern during summer months is north westerly winds accompanied by high day time temperatures and low relative humidity building up over several days to a storm event with a change to south westerly winds. This creates a situation whereby fire ignition from lightning becomes a likely possibility, with a propensity for the fire to run quickly in one direction before changing direction quickly, thus transforming the fire's extensive flank into the new fire front.

Changes in adiabatic pressure can also affect fire behaviour in the Shire. As wind is pushed down the lee sides of mountains by adiabatic pressure, funnelling of warm dry air, known as foehn winds, can take place. These foehn winds have the potential to dramatically increase air temperatures and wind speeds which may directly impact fire behaviour.

With current trends and thinking in climate change, research modelling suggests the future climate will be warmer, drier and less predictable. We can therefore expect an increase in the number of extreme weather events as well as longer fire seasons.

3.2.3 PEOPLE

Mansfield has experienced a number of fires in recent years. Its combination of varied topography, climate and vegetation coupled with the increasing number of people living in and visiting high fire risk localities during the fire danger period poses a significant issue for the municipality. Mansfield Shire's population of approximately 8000 people rapidly expands during the summer months with holiday makers drawn to the area by the combination of recreational and camping areas, centred on Lake Eildon. A large number of non-resident rate payers have holiday properties spread throughout the shire that are highly utilised over this summer period.

Mansfield Shire has people with different perspectives and different needs in regard to fire and fire safety. Understanding these needs is central to delivering effective community safety initiatives. This is particularly important for people new to the area or those that recently experienced a severe fire event.

The impact of a bushfire increases if the fire occurs in areas where people live, work and visit, so consequently, settlement patterns are important when understanding bushfire risk. There is significant population expansion around the urban areas of Mansfield, both intensively at the town's edges and less intensively through rural residential development in the surrounding areas, including rural residential blocks, for lifestyle reasons. These patterns of human settlement have increased the amount of urban rural interface that requires intensive fire management.

Tourism including planned events and festivals also has considerable impact on human movement during the fire danger period, interacting with fire management at several points, particularly on the foreshore of Lake Eildon and in the National and State Parks and Forests in the shire. The same landscape features that may lead to increased fire danger can also be underpinning elements of what makes the site attractive for tourism. Furthermore visitor numbers tend to increase as the fire season advances creating a situation of increasing potential impact as the fire risk rises

4. MUNICIPAL FIRE MANAGEMENT OBJECTIVE -

UNCHANGED FOLLOWING MAY 2016 REVIEW

The Municipal Fire Management Objective provides a framework for considering, selecting and evaluating fire management activities. This objective was developed using the information examined during the environmental scanning process, as well as being informed by the Hume Regional Fire Management Plan and relevant issues and priorities from regional stakeholders and adjoining municipalities. The plan recognises the primacy of life and the minimisation of property damage

4.1 MUNICIPAL OBJECTIVE

The fire management objective of Mansfield MFMPC is;
"The community of Mansfield Shire working together to plan and prepare for, respond to and recover from fire - to reduce the risk and consequence of fire to the community, environment and the economy."

4.2 STRATEGIC DIRECTION

In developing strategic directions for the MFMP the MFMPC was mindful of the planning context within which they were undertaking this task. As illustrated in figure 2 the MFMP forms a critical third tier in the State of Victoria's Fire Management Planning hierarchy and therefore must not be developed in isolation from State and Regional level fire management plans. The MFMPC are keen to ensure any actions within the MFMPs support and compliment any relevant State objectives and strategies with regard to fire management. Consequently the MFMPC have adopted the following broad strategic fire management deliverables from the State Fire Management Strategy 2009.

- Active participation of the community, the emergency services and local and state government, working together in fire management planning to reduce the destructive impact of fire on communities and the environment.

- Communities are resilient to fire.

- Greater understanding of fire and its potential impacts within the community.

- Healthy natural, social and built economic environments.

4.3 ALIGNMENT OF REGIONAL & MUNICIPAL OBJECTIVE

The Mansfield municipal fire management objective aligns closely with the Hume RSFMP objectives and vision for fire management. The development and implementation of this plan will therefore contribute to the realisation of the Hume RSFMP's vision.

Furthermore the formation of the Mansfield MFMPC and the development of a MFMP using the designated IFMP Planning Guide have strongly supported several of the RSFMP's key objectives. Evidence of this is described in the following table.

> **Hume Regional Fire Management Vision:**
>
> *The Hume Region working together to effectively anticipate, respond to and recover from major bushfire – to secure a safer region, more resilient community, healthier environment and a prosperous economy.*

4-1

FIGURE 14: ALIGNMENT OF MFMP & RSFMP OBJECTIVES

RSFMP ELEMENT	RSFMP OBJECTIVE	MFMP CONTRIBUTION
Planning together	Develop state, regional, municipal and local fire management plans and planning with a clear purpose and a consistent assessment of risk.	The MFMP provides the third tier in the IFMP process and utilises the same risk base approach as used with State and Regional plans
Collaborative implementation	Develop and implement fire management programs and activities in a collaborative manner.	The MFMPC consists of multiagency representation and has incorporated community engagement strongly into the development of the MFMP.
Building knowledge & capacity:	Build and share knowledge in the fire management sector and across the community. Improve the capability of communities, the fire management sector and the government to deal with fires.	The aspirations of the MFMPC converge with the regions in seeking to build both its members and the communities' knowledge and understanding of fire management.
Implementation support	Support the implementation of the IFMP framework in the Hume region	The development of this MFMP clearly demonstrates support for IFMP at a municipal level.

4-2

5. FIRE MANAGEMENT RISK STRATEGIES

Integrated fire management planning is the risk management process to establish priority setting for fire management activities and is consistent with the international standard for risk Management ISO 31000. Risk is described within the standard as;

Risk Analysis = Consequence x Likelihood

And the standard emphasises the need to establish and manage the risk to the objectives that you have set during the plan development process.

5.1 RISK IDENTIFICATION PROCESS

These objectives and risks were identified through the environmental scanning process and primary to this process is Chrighton's Risk Pyramid (Figure 15). Chrighton's Risk Pyramid provides a framework for sorting, analysing and assessing information with respect to fire risk. It helps identify the amount of risk generated by the hazard x exposure x vulnerability relationship within the context (people, property, infrastructure, social and economic, biodiversity, the economy and heritage values) of a location or situation. Where;

> ➢ Hazard - is a specific event characterised by a certain magnitude and likelihood of occurrence

> ➢ Exposure - refers to the factors, such as people, buildings, networks the environment and economy that are subject to the impact of a specific hazard

> ➢ Vulnerability - refers to the characteristics of an element exposed to a hazard - road, building, person, and economy – that contributes to the capacity of that element to resist, cope with and recover from the impact of a natural hazard.

FIGURE 15 CHRIGHTON'S RISK PYRAMID
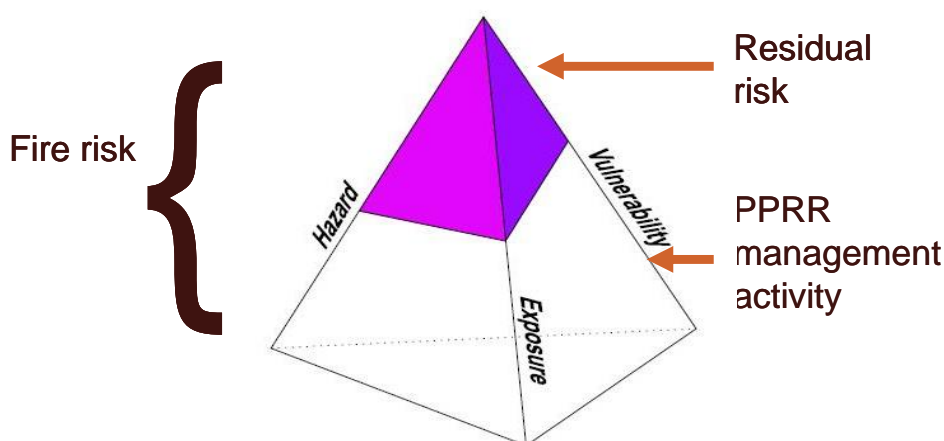
By this process the MFMPC was able to generate a list of bushfire risks for the municipality. As IFMP encompasses planning across all fire hazard environments, hazards need to be considered within a range of categories, so as to better understand the likely consequences and recovery risks involved. A copy of these categories can be found in Attachment 1.

5-1

5.2 RISK ASSESSMENT PROCESS

Risk is assessed by determining consequences and the likelihood of the consequence occurring, and the elements at risk. An event or set of circumstances may have multiple consequences and may affect multiple objectives. Existing risk treatments and their effectiveness should be taken into account when rating the level of risk.

As a first step in the assessment process each of the identified risks were refined into succinct risk statement and entered into the risk register. Risk statements are a description of the risk and simply describe the risk in terms of the source through to the impact. Each risk statement should outline:

- The hazard (source of risk)
- The element at risk
- The consequence of the interaction as a result of an event.

Each of these statements was then qualitatively assessed for their impact using the State Fire Management Planning Committee's State Bushfire Consequence Table (Attachment 1). Each consequence was considered in terms of both damage and disruption (loss of service or function) and in some cases, the consequence of an event was not realised at the local level but was of a significant impact at regional and/or state level. In addition the committee took into account existing treatments and their impact on the risk level. Consequence ratings were then entered into the risk register.

The likelihood of each event being realised was assessed using the data derived from the environmental scan and the *Likelihood Table* (Attachment 1). Where the committee did not believe it held the necessary technical expertise to make an assessment, advice was sought from relevant authorities outside the committee. Once agreement as to *Consequence* and *Likelihood* was reached the *Likelihood x Consequence matrix* (Attachment 1) was used to assign a risk level to each risk statement.

BELOW is a summary of the risk assessment process, detailing the highest priority bushfire risks in the Mansfield Shire. The priority risks were determined by the combined fire experts on the MFMPC which utilised the fire experience of committee members, the VFRR risk register and the former Mansfield Shire Fire Prevention Plan.

Once assessed, risks were also given categories using the following table (figure 16). This was done to group 'like' risks together. Primacy of life is the most essential element of the MFMP and is represented by the Risk Group – Social, and by the Risk Category-People and Social Setting. Other risk groups include economic risks, environmental risks and planning risks. The use of these categories and groups is utilised in both the risk assessment and the Risk Management Strategy

See also Sec 7.1 re risk Assessment and

FIGURE 16: RISK CATEGORIES TABLE

Risk Group	Risk Category	Risk Element	
SOCIAL	People & Social Setting	Life & injury: Social services: Health & wellbeing: Displacement of people:	Public Safety Functional continuity Social networks Employment/income
	Infrastructure	Residential: Public accommodation Public assembly: Health care:	House, flat, caravan, apartments Boarding house, hotel, hostel, correctional facilities Education, hall, theatre, stadium, cafe, restaurant Special accommodation homes,　　　nursing homes and hospitals
	Cultural, Heritage	Heritage sites and buildings Indigenous sites Iconic sites and features: e.g. Craig's Hut	
ECONOMIC	Infrastructure	Commercial: Industrial: Essential Infrastructure: Transport:	Shopping complex, office Factory (heavy, light, special), warehouse, silo, chemical, petrol Pipelines, Power, public transport systems, Water Catchments, Power Water & Sewerage, Gas, Communications Road, rail, bridge, tunnel, port, marine, airport
	Production	Agriculture and Farming: Business/Industrial Capacity Tourism	Plantation, crop, pasture, livestock, poultry, feedlot, hothouse, sawmill Recreational pursuits and desirable destinations
ENVIRONMENT	Biodiversity	Assets that provide biological based ecosystem functions and/or services considered of value.	
	Water	Assets that provide water-based ecosystems functions and/or services considered of value.	
	Air	Assets that provide of atmospheric/climatic ecosystem functions and/or services considered of value	
PLANNING	Governance & Regulation	Corporate Governance Issues, including organisation structures; Boundary issues, Inter-Agency Agreements; Environmental scans; Population projections; urban development projections/planning; Volume projections; Long term/short term solutions; Infrastructure requirements to meet projected community needs	
	Planning & Communication	Internal, external, multi-municipal, communications stratégies	
	Stakeholder Management	Community Expectations; Government expectations; Business and Industry Issues, including risks associated with developing and implementing programs to minimise the impact of fire on business and industry;	
	Operational	Encompasses the planning, daily operational activities, resources (including people) and support required within the 'area of interest', that results in the successful development and delivery of products/ services.	
	Financial	Ability to allocate limited financial resources to maximum effect; Ability to fund adequate resources to meet community needs; Skills & technical expertise; Management skills; Equipment maintenance, upgrades, and replacement funding; Geographical remoteness location needs; Government's ability to fund requirements to meet population growth needs	

5-3

5.3 RISK MANAGEMENT STRATEGY

Having developed a register of risks for Mansfield Shire, the committee was able to allocate the current treatments of responsible agencies against relevant risk areas and thus develop a Risk Management Strategy. This strategy is a matrix of;

Priority risks x treatment x agency x time frames

And thus creates a snapshot of who is doing what where and why, to reduce the risks posed by fire within the municipality.

The treatments itemised in figure 18 are primarily at program level and in many cases apply equally across the municipality, however some of these have the ability to target resources and effort at the specific locations or points of interest to the MFMPC.

In addition a number of specific activities were identified, both current and proposed, in response to the identified risks and these are described in figure 19.

FIGURE 17: RISK REGISTER

ID #	RISK DESCRIPTION (Defined)	RISK GROUP	RISK CATEGORY	CAUSE	IMPACT	Comments	LIKELI-HOOD	RISK RATING	Consequence (column added 2016)
1	Risk of ember attack and/ or fire from Mt Samaria State park north of Mansfield Shire impacting people, assets and infrastructure in Mansfield on very high and above FDR Days	Social (See also Economic)	People & Social Setting	Lightning, bushfire	Loss of life, loss of assets, time and cost of recovery, reduced water quality (drinking water to Benalla Rural City), Loss of biodiversity Loss tourism; Loss agriculture	Mt Samaria is on the fringe/border with Benalla Rural City, altitude old growth forest with associated chimneys/hollows that could burn in an event	Unlikely	Moderate	Major

ID #	RISK DESCRIPTION (Defined)	RISK GROUP	RISK CATEGORY	CAUSE	IMPACT	Comments	LIKELI-HOOD	RISK RATING	Consequence (column added 2016)
2	Risk of ember attack and or fire from the Strathbogie Ranges north of Mansfield Shire impacting people, assets and infrastructure in Mansfield on very high and above	Social (See also Economic)	People & Social Setting	Lightning, bushfire, recreational users	Loss of life, loss of assets, time and cost of recovery, loss of biodiversity Loss tourism; Loss agriculture	Much larger area - most of area belongs to Strathbogie Shire (small part in Mansfield), Tall forests in south and east, 7235ha of pine plantations	Unlikely	Moderate	Serious
3	Risk to lifestyle and small communities (people, residences and infrastructure) surrounded by forest and grassland with limited access and egress from fire on very high and above FDR days	Social (See also Economic)	People & Social Setting	Lightning, bushfire, recreational users, non-residential owners Farming and industrial workers/machinery	Loss of life, loss of assets, time and cost of recovery, loss of biodiversity, loss of public confidence	A large number non-resident owners and tourists with limited fire knowledge	Possible	Moderate	Serious
4	Risk to community in Sawmill Settlement (people, residences and infrastructure) surrounded by forest with limited access and egress from fire on very high and above FDR days	Social	People & Social Setting	Lightning, bushfire, recreational users, non-residential owners	Loss of life, loss of assets, time and cost of recovery, loss of biodiversity, loss of public confidence	One road in and out - very limited access and egress, heavy fuel loads, houses of lower standards, sloping ground and houses situated amongst trees. Recommendation is for people to leave early on high FDR days	Possible	Moderate	Serious

ID #	RISK DESCRIPTION (Defined)	RISK GROUP	RISK CATEGORY	CAUSE	IMPACT	Comments	LIKELI-HOOD	RISK RATING	Consequence (column added 2016)
5	<u>Risk to people</u> camping on public land and recreational users in the Mansfield Shire from fire with uncontrollable spread; high and above FDR days	Social	People & Social Setting	Lightning, bushfire, recreational users, campfires,	Loss of life, loss of assets, time and cost of recovery, loss of biodiversity, loss of public confidence	Includes Lake Eildon and other waterways in MS, includes campfires escaping and recreational users in remote areas and National Park Alpine recognised areas. Major campsites are closed extreme and code red days & increased surveillance of users on total fire ban days.. Some camping areas in HVP areas or on fringe. Smaller campsites not policed as heavily.	Possible	Moderate	Serious
5 a)	<u>Risk from people</u> camping on public land and recreational users in the Mansfield Shire from fire with uncontrollable spread to grasslands and the greater region on high and above FDR days	Social	People & Social Setting	Recreational users, campfires,	Loss of life, loss of assets, time and cost of recovery, loss of biodiversity, loss of public confidence	Includes campfires escaping and recreational users in remote areas and National Park Alpine recognised areas. Increased surveillance of users on total fire ban days. Smaller campsites not policed heavily. NB 5a & 5 b split 2016	Unlikely	Moderate	Serious
6	Risk to and from people, infrastructure and assets at caravan parks in the Mansfield Shire	Social	People & Social Setting	Camping equipment, poor vigilance or camping practices by recreational and/or permanent users	Loss of life, loss of assets	Large numbers of people that are more vulnerable than general community. Limited local knowledge and limited fire fighting capacity or equipment	Rare	Low	Significant
7	Risk of power infrastructure in Mansfield Shire as an ignition source of fire on very high and above FDR days	Social	People & Social Setting Infrastructure	Smoke from fires outside or within Mansfield Shire, lightning, bushfire, heatwave conditions	Potential loss of life (vulnerable people) Communications loss, limited community resilience, limited community & independent generation	Reliable electricity is essential to community welfare - air-conditioning, water, waste water communications, fire fighting capacity, etc	Possible	High	Major

5-6

ID #	RISK DESCRIPTION (Defined)	RISK GROUP	RISK CATEGORY	CAUSE	IMPACT	Comments	LIKELI-HOOD	RISK RATING	Consequence (column added 2016)
8	Risk to people, residences and infrastructure from fires started on agricultural land in Mansfield Shire on very high and above FDR days	Social	People & Social Setting Economic	Machinery fires, accidents, haystack fires, lightning	Loss of life, assets and infrastructure, loss of production, time and cost of recovery, loss of stock	Reliable electricity is essential to community welfare - air-conditioning, water, waste water, communications, firefighting capacity, etc	Likely	High	Serious
9	Risk of accidents and failure of machinery starting fires on road reserves in the Mansfield Shire on very high and above FDR days	Social	People & Social Setting	Mechanical failure, human factors, road accidents	Loss of life, assets and infrastructure, loss of stock	Heavy fuel loads, threatened species, large number of fires, fire may use roadsides as wicks to spread to other areas	Almost Certain	High	Serious
~~10~~	~~Risk from fire starting in 'Warrenbayne Plantation' and spreading to other adjacent areas on high and above FDR days~~	~~Social~~	~~People & Social Setting~~	~~Recreational users, other human factors, lightning~~	~~Loss of life, assets and infrastructure,~~	**Duplicate - see below**	~~Possible~~	~~Low~~	~~Significant~~
11	Risk from fire beginning in large-scale commercial forestry and plantations and spreading to adjacent areas in Mansfield Shire on high and above FDR days	Social (see also Economic)	People & Social Setting Economic	Recreational users, other human factors, lightning	Loss of assets and infrastructure, long term commercial impact	Surrounded by large fuel loads in adjacent southern area (DELWP land). Large numbers of motorcyclists and 4wd users, campers as potential ignition sources	Possible	Low	Significant
12	Risks to large numbers of people at events from fire and smoke in the Mansfield Shire on high and above FDR days	Social	People & Social Setting	Lightning, human factors, campaign fires, planned burns	Loss of life, assets and infrastructure, loss to tourism/economic impact	Including events such as Mountain Cattleman's, Targa etc. Risk of panic from public during event, fire could impact event from outside	Likely	Moderate	Significant

ID #	RISK DESCRIPTION (Defined)	RISK GROUP	RISK CATEGORY	CAUSE	IMPACT	Comments	LIKELI-HOOD	RISK RATING	Consequence (column added 2016)
13	Risks from large numbers of people at events starting fires and spreading into surrounding areas in the Mansfield Shire on high and above FDR days	Social	People & Social Setting	Camp fires, other human factors	Loss of life, assets and infrastructure, loss to tourism/economic impact	Including events such as Mountain Cattleman's, Targa, 4WD and cross country bike rallies, horse racing events, etc. Risk of panic from public during event, risk of fire spreading from event into surrounding areas	Unlikely	Low	Important
14	Risks to school camps throughout Mansfield Shire from fire and smoke on high and above FDR days	Social	People & Social Setting	Lightning, human factors	Loss of life, assets and infrastructure, time and cost of recovery, public perception	Camps plan to evacuate students on extreme days	Rare	Moderate	Major
15	Risks from school camps starting fires and impacting surrounding areas throughout Mansfield Shire on high and above FDR days	Social	People & Social Setting	Camp fires, other human factors	Loss of life, assets and infrastructure, time and cost of recovery, public perception, environmental impact	Camps plan to evacuate students on extreme days, incidences where fire has started on a school camp and spread to adjoining areas are rare. Larger than average media interest	Rare	Low	Significant
16	Risk of distribution lines & sub stations being impacted/damaged by bushfire on an extreme and above FDR day leading to a loss of service	Social	People & Social Setting Infrastructure	Direct fire impact on poles/wires/structures, falling debris or vehicles accidents.	Loss of power to local community (location of effect dependant on location of impact) loss of communications, loss of fire fighting capacity	May take up to a week to restore power to towns, Will affect smaller towns more as Mansfield has a ring power feed	Possible	High	Major
17	Risk to a reduction in water quality due to post fire run off	Social	People & Social Setting	Fire in the catchment	Reduction in water quality, impact on biodiversity	A number of nationally threatened aquatic species occur in the shire, A large percentage of the shire is a "Special Water Supply Catchment" and consequences could be widespread	Possible	Moderate	Serious

ID #	RISK DESCRIPTION (Defined)	RISK GROUP	RISK CATEGORY	CAUSE	IMPACT	Comments	LIKELI-HOOD	RISK RATING	Consequence (column added 2016)
18	Risk of widespread power outage, deliberate power switch off by transmission company due to potential fire on very high and above FDR	Social	People Social Infrastructrure	Nil Power	Nil power	Reliable electricity is essential to community welfare - communications re risk, air-conditioning, water, waste water, fire fighting capacity, etc	Likely	Low	Important
18 a)	Loss of mobile service due to power interruption incl. disconnection by transmission company	Social	People Social Infrastructure	Nil power	Loss of communications	Critical to community for warnings, advice, community networks and public wellbeing, less dependency by agencies	Possible	High	Serious
18 b)	Risk of loss of water supply due to prolonged electrical outage	Social	People social setting economic	Electrical outage – fire or deliberate transmission switch off	Loss of supply for drinking, fire fighting capacity, vulnerable people concerns	Greater impact if extended period greater than 24 hours/days	Possible	Low	Important
18 c)	Risk to town sewage pumping capacity due to prolonged electrical outage	Social	People social setting	Electrical outage – fire or deliberate transmission switch off	Public health issues in Mansfield and other townships	Prolonged outage	Rare	Low	Serious
18 d)	Risk of loss of access to Mansfield from other regions due to fire path	Social	People Social Setting Economic	Fire path	Initially very high with town and affected townships, residents requiring self sustainability and resilience	Unlikely to be longer than 24-48 hours from all access roads	Rare	Low	Serious
18 e)	Risk of partial loss of Mansfield township	Social	All	Fire path	Devastating	Outlying suburban areas	Rare	Moderate	Major

ID #	RISK DESCRIPTION (Defined)	RISK GROUP	RISK CATEGORY	CAUSE	IMPACT	Comments	LIKELI-HOOD	RISK RATING	Consequence (column added 2016)
18 f)	Risk of full/partial loss of other small townships in Mansfield Shire	Social	All	Fire path	Devastating	Aka Marysville	Unlikely	High	Catastrophic
18 g)	Risk to Mansfield Hospital Emergency capacity being overwhelmed by casualties	Social	People social setting	Insufficient surge capacity for casualty requirements?	Casualties impacted could cause loss of life, loss of care, traumatised victims and family members/friends Implementation of MDH *code brown* work instruction provides direction for Hospital response-multiple casualties Added 9/8	Unlikely providing road access open. Possible if Mansfield township is cut off by road. Movement of mass casualties and abilities for health services to manage is covered under SHERP - and managed by the Regional Health Commander (AV) - added 9/8/16	Unlikely	Low	Important
19	Risk to Indigenous and non-Indigenous heritage sites in Mansfield through secondary fire control measures (bulldozers etc) and on severe and above FDR days	Social	Cultural, Heritage	Lightning, human factors	Loss of assets, loss of scar trees, secondary impacts on burial sites and stone scatters	Information regarding Indigenous heritage sites may have limited access, knowledge of location of Indigenous sites may be limited particularly with first responders	Possible	Moderate	Serious
20	Risk to fire influenced vegetation being impacted or changed by fire on an extreme or code red days	Environment	Biodiversity	Lightning, bushfire	Loss of vegetation species diversity and structure leading to a long term change in the vegetation class / structure and / or conservation status	EVC include Damp Forest, Montane Dry Woodland and Montane Herb-rich Woodland the majority would be found on public land.	Possible	Moderate	Serious
20 a)	Risk to fire sensitive vegetation being impacted or changed by fire on an extreme or code red days	Environment	Biodiversity	Lightning, bushfire	the loss of vegetation species diversity and structure leading to a long term change in the vegetation class/structure	EVC include Montane Riparian Thicket, Montane Riparian Woodland, Montane Wet Forest, Sub-alpine Shrubland, Sub-alpine Woodland and Wet Forest, the majority would be found on public land	Possible	Moderate	Serious

ID #	RISK DESCRIPTION (Defined)	RISK GROUP	RISK CATEGORY	CAUSE	IMPACT	Comments	LIKELI-HOOD	RISK RATING	Consequence (column added 2016)
21	Loss of DELWP and Parks Vic infrastructure (bridges, campgrounds etc) in forested areas from fire on very high and above days	Economic	People, social setting Infrastructure	Lightning, human factors	Loss of assets, reduction in ability to control fires through reduced access, time and cost of recover, loss of tourism	Potential impacting fire response efforts, location dependent for degree of impact etc	Unlikely	Low	Significant
22	Risk of mobile service being interrupted due to towers being impacted by bushfire on very high and above FDR days	Economic	Infrastructure	Indirect impacts e.g. Loss of power to tower (most likely cause - direct impact to structure)	Temporary loss of mobile telephone service for a small area	Towers themselves fairly fire resistance, other communications devices still operating, mostly sited in open areas	Unlikely	Moderate	Serious
23	Risk of telephone communications being interrupted due to damage to cables during a bushfire on very high and above FDR days	Economic	People, social setting Infrastructure	Dozer cutting lines during fire response or burning tree route near cable (rare)	Loss of all public communications services for a small area	Unusual but has been known to happen	Unlikely	Low	Important
24	Risk of State net Mobile Radio (SMR) service being interrupted due to towers being impacted by bushfire on very high and above FDR days	Economic	Infrastructure	Indirect impacts eg Loss of power to tower (most likely cause), direct impact to structure (unlikely)	Emergency Services communications systems impaired for a small area - may lead to loss of fire line communications in some remote areas	Reduced quality but not total service, other communications still available (e.g. mobile telephone) See also 18a)	Unlikely	Low	Important
25	Risk of major transmission lines & switch stations being impacted/damaged by dense smoke on any day or bushfire on an extreme and above FDR day leading to a loss of service	Economic	Infrastructure	Direct fire impact on poles/wires/structures, or thick smoke under lines.	Interruption to supply - impact degree & location depends on demand/availability situation at time of failure.	Veg clearance around lines & structures, structures relatively impervious to fire. Power will be restored in under 24hours – location dependent	Unlikely	Moderate	Serious

ID #	RISK DESCRIPTION (Defined)	RISK GROUP	RISK CATEGORY	CAUSE	IMPACT	Comments	LIKELI-HOOD	RISK RATING	Consequence (column added 2016)
26	Risk to large-scale commercial forestry and plantations from fire in Mansfield Shire on high and above FDR days	Economic	Production	Lightning, human factors	Loss of assets and infrastructure	HVP regulate their own activities based on Fire Danger Index and Risk Assessment. Surrounded by large fuel loads in adjacent southern area (DELWP land). Large numbers of motorbikes and 4wd users, campers. Some plantations in Benalla Rural City on border of MSC.	Possible	Low	Significant
27	Risk to wine and viticulture industry from smoke and fire in the Mansfield Shire in spring, summer and autumn	Economic	Production	Smoke taint	Loss of wine vintage/value	Smoke taint can occur throughout spring, summer and autumn. Can be impacted by prescribed burns	Likely	Low	Important
28	Risk to tourism industry of economic loss due to fire or perceived risk of fire in Mansfield Shire -reducing tourist on high FDR days and when bushfires are occurring elsewhere.	Economic	Production Commercial	Lightning, human factors	Reduced tourist numbers, reduce income, economic impact	Large percentage of Mansfield Shire income is tourism based	Likely	Moderate	Significant
29	Risk of loss of Mt Buller resort – economic impact on Mansfield Shire	Economic	People Social Setting Economic	Uncontrollable fire	Loss of tourism for multiple years, recovery may be slow, danger to persons on the mountain, tourists, owners, responders	This scenario came close in the 2005/06 fires. Mansfield tourism dependency or the mountain is becoming year round	Unlikely	Moderate	Major
30	Risk of high stock casualties/losses caused by fire event	Economic	People Economic	Fire, lightning	Loss of production, loss of income, potential requirement for mass euthanasia, burial sites, etc	Losses may be limited to areas or widespread, may impact ongoing viability for some producers	Unlikely	Low	Significant

NB 2016 UPDATES AND ADDITIONS IN RED PRINT

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FIGURE 18: RISK MANAGEMENT STRATEGY

Risk Group	Risk Category	ID #	Treatment Name	Treatment description	Prevention	Preparedness	Response	Recovery	Use	Responsible agency	Application Targeted (or of a Broad approach)
Social	**People and Social Setting**	01	**Advocacy regarding the Maintenance and Restoration of; Infrastructure & services AND Implementation of programme deliverables.**	1. In the event of fire (or fire risk on heightened days), essential infrastructure is necessary to maintain public and community communications, power supply to fire fighting / water pumps, air conditioning, town services such as reticulated water and wastewater, etc 2. Also 'Planned activities' need to be implemented by all - Agencies, Regulators & Service Providers and the Community	☐	☐	☐	☐		Infrastructure Service Agencies (Ausnet Services, Telstra, GVW etc)	(added 7 /16) N
		1	Schools Program	Fire Safe Kids, Mobile Education Bushfire Unit.	☐	☐	☐	☐	☐	CFA	N
		2	Brigade Burn Program	Removal of vegetation through burning to protect life & property, includes Township Protection Burning, Planned Burn Program & Fuel Reduction Burns by CFA Brigades.	☐	☐	☐	☐	☐	CFA	Y
		3	Vulnerable Communities Fire Awareness	Community education & information for vulnerable groups about fire.	☐	☐	☐	☐	☐	CFA	N
		4	Awareness	Fire awareness programs targeted at communities via shows/events/displays	☐	☐	☐	☐	☐	CFA	N
		5	Fire Ready Victoria	Assists in perception & understanding of bushfire risk so as to modify behaviours and make individuals act more safely. Includes bushfire awareness sessions for communities, community groups, businesses & service providers.	☐	☐	☐	☐	☐	CFA	Y

FIGURE 18: RISK MANAGEMENT STRATEGY

Risk Group	Risk Category	ID #	Treatment Name	Treatment description	Prevention	Preparedness	Response	Recovery	Use	Responsible agency	Application Targeted (or of a Broad approach)
		6	Public Information	Fire information through Fire Danger Rating signs, media etc to raise awareness of fire risk. Includes Fire Action Week.	☐	☐	☐	☐	☐	CFA	N
		7	Township Protection Plans	Planned response (for both emergency services & the community) to a bushfire within a close proximity to a township, which has the potential to impact on the local community.	☐	☐	☐	☐	☐	CFA	Y
	People and Social Setting	8	Community Fire Guard	A community development program designed to help reduce the loss of lives & homes in bushfires. It assists neighbouring residents to develop bushfire survival strategies that suit their level of risk, lifestyle, environment & values.	☐	☐	☐	☐	☐	CFA	Y
		9	Home Bushfire Advice Service	Individual 1:1 fire awareness & education for residents with the highest level of bushfire risk. Advice on property management, planning, personal capacity & potential fire hazards.	☐	☐	☐	☐	☐	CFA	Y
		10	Bushfire Planning Workshops	Interactive workshop for residents living in high bushfire risk areas. Participants are guided through the Fire Ready Kit by a trained facilitator to identify their own bushfire risks and the considerations they'll need to make when putting together their bushfire survival plan.	☐	☐	☐	☐	☐	CFA	Y
		11	Community Debriefs	Post fire debriefings for CFA members, community & stakeholders	☐	☐	☐	☐	☐	CFA	N
		12	Communications	Maintenance of a communications network	☐	☐	☐	☐	☐	DELWP	N

FIGURE 18: RISK MANAGEMENT STRATEGY

Risk Group	Risk Category	ID #	Treatment Name	Treatment description	Prevention	Preparedness	Response	Recovery	Use	Responsible agency	Application Targeted (or of a Broad approach)
		13	Information kits	"After the fires: Practical Advice" & "Recovery from emergencies"; information kits containing brochures & fact sheets for people affected by fire/emergency	☐	☐	☐	☐	☐	DHHS	N
		14	Vulnerable persons toolkit	Identifies location, contact details & describes needs of vulnerable persons within a municipality	☐	☐	☐	☐	☐	DHHS	N
		15	Alternative drinking water supply plan	Provision of alternative drinking water supplies to specific towns in the event of loss of normal supply	☐	☐	☐	☐	☐	**GVW**	N
Social	**People and Social Setting**	16	Recovery	Assisting in the return to normal, including the provision of relief services, water replenishment, material aid, information and advice to individuals, families or discrete groups etc	☐	☐	☐	☐	☐	MSC	N
		17	Community recovery	Long term post fire support to affected communities/gaps, including advocacy, facilitating reconstruction, debriefing	☐	☐	☐	☐	☐	MSC	Y
		18	Vulnerable Communities, Fire Awareness & Response	Identify vulnerable communities and individuals within Municipality. Targeted Community education & information for vulnerable groups about fire (and other emergencies). Capacity to inform Emergency response agencies of the existence of vulnerable members within the community.	☐	☐	☐	☐	☐	MSC	Y
		19	Awareness	Fire awareness programs targeted at communities via shows/events/displays. Input and assistance with the development and distribution of Township Protection Plans.	☐	☐	☐	☐	☐	MSC	Y

FIGURE 18: RISK MANAGEMENT STRATEGY

Risk Group	Risk Category	ID #	Name	Treatment description	Prevention	Preparedness	Response	Recovery	Use	Responsible agency	Targeted (or of a Broad approach)
			Treatment	Treatment description			Spectrum			Responsible agency	Application
		20	Tourism Fire Awareness Program	Community education and information for tourists about wildfire. Includes Tourism and Fire Awareness Program, Campfire Information and implementation of requirement for 'Event Management Planning ' to occur. Caravan Park Education and enforcement re Emergency Management Plan endorsement and individual site development reviews against minimum standards.	☐	☐	☐	☐	☐	MSC	Y
Social	**Infrastructure**	21	Detection	Maintenance of a detection network. Includes fire lookout towers and detection flights	☐	☐	☐	☐	☐	DELWP	N
		22	Incident Control Centres	Maintenance of a strategic network of incident control facilities to support response in emergency management incidents. Includes agreed level 3 ICCs to predetermined standards	☐	☐	☐	☐	☐	DELWP	N
		23	Air support facilities	Maintenance of a strategic network of air support facilities. Includes airbases & helipads.	☐	☐	☐	☐	☐	DELWP	Y
		24	Fire risk mgt system	GIS program identifying location & details of community facilities managed by DHHS and allied agencies.	☐	☐	☐	☐	☐	DHHS	N
Economic	**Production**	25	Agricultural Management	Fire management & safety issues for land owners/managers to assist in the preparation of property fire management plans. Includes publication "On the land", "Farm Fire Safety" module (delivered via DPI & TAFE Whole Farm Planning courses on request).	☐	☐	☐	☐	☐	CFA	N
		26	Animal welfare	Management of animal welfare associated with an emergency incident.	☐	☐	☐	☐	☐	DELWP	N

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FIGURE 18: RISK MANAGEMENT STRATEGY

Risk Group	Risk Category	ID #	Treatment Name	Treatment description	Prevention	Preparedness	Response	Recovery	Use	Responsible agency	Application Targeted (or of a Broad approach)
Economic		27	Relief & recovery services to primary producers	Assess damage to and loss of agricultural crops, livestock and infrastructure of commercial primary producers and rural land managers (including aquaculture), identify & refer personal and technical needs to appropriate businesses (within DPI) or agencies	☐	☐	☐	☐	☐	DEDJTR	N
	Production	28	Animal Welfare Needs	Liaise with animal welfare support agencies and organisations to deliver animal welfare services including assessing injured and affected animals (livestock & companion animals) in emergencies with an emphasis on the needs of commercial primary producers and rural land managers	☐	☐	☐	☐	☐	DEDJTR	N
	Infrastructure	29	Access Roads and Tracks	Establishment of constructed and maintained roads bridges and tracks to allow safe passage for fire fighting vehicles. Includes Walking Track Maintenance.	☐	☐	☐	☐	☐	PV	Y
		30	Routine Site Maintenance	Ongoing mowing/slashing/spraying of sites to reduce fuel loads for protection of assets or adjoining properties. Includes Asset Protection Zone work around high value assets and maintenance of places of last resort within parks	☐	☐	☐	☐	☐	PV	Y
		31	Water point Maintenance	Maintenance of a strategic network of water points	☐	☐	☐	☐	☐	DELWP	Y
		32	Fire Access Roads and Tracks	Maintenance of roads bridges and tracks to specified standards.	☐	☐	☐	☐	☐	DELWP	Y

FIGURE 18: RISK MANAGEMENT STRATEGY

Risk Group	Risk Category	ID #	Treatment Name	Treatment description	Prevention	Preparedness	Response	Recovery	Use	Responsible agency	Application Targeted (or of a Broad approach)
		33	Routine Maintenance of facilities	Ongoing mowing/slashing/spraying of sites to reduce fuel loads to ensure protection of assets, minimise ignition potential, includes routine maintenance of structures (eg gutter cleaning)..	☐	☐	☐	☐	☐	DET	N
Economic	Infrastructure	34	Routine Maintenance of facilities	Ongoing mowing/slashing/spraying of sites to reduce fuel loads to ensure protection of assets, minimise ignition potential and ensure adequate access and egress. Includes routine maintenance of structures (e.g. gutter cleaning).	☐	☐	☐	☐	☐	Ausnet Services	N
		35	Routine maintenance of transmission & powerlines	Vegetation management around powerlines and along easement, regular inspections, maintenance of access tracks.	☐	☐	☐	☐	☐	Ausnet Services	N
		36	Routine Maintenance of facilities	Ongoing mowing/slashing/spraying of sites to reduce fuel loads to ensure protection of assets, minimise ignition potential and ensure adequate access and egress. Includes routine maintenance of structures (e.g. gutter cleaning).	☐	☐	☐	☐	☐	Telstra	N
		37	Bushfire Mitigation	Removal of identified fire risks to lines & facilities, e.g. tree lopping	☐	☐	☐	☐	☐	Telstra	N
		38	Routine Maintenance of facilities	Ongoing mowing/slashing/spraying of sites to reduce fuel loads to ensure protection of assets, minimise ignition potential and ensure adequate access and egress. Includes routine maintenance of structures (e.g. gutter cleaning).	☐	☐	☐	☐	☐	GVW	N

FIGURE 18: RISK MANAGEMENT STRATEGY

Risk Group	Risk Category	ID #	Treatment Name	Treatment description	Prevention	Preparedness	Response	Recovery	Use	Responsible agency	Application Targeted (or of a Broad approach)
		39	Resourcing	Provision of specialist equipment (graders, water carriers) facilities and information management (including the operation of Municipal Emergency Coordination Centres), available staff and equipment on stand-by to assist other agencies involved in emergency response.	☐	☐	☐	☐	☐	MSC	N
Economic	**Infrastructure**	40	Fire Plug and Hydrant Installation and Maintenance	Monitoring of hydrants and implementing works to ensure that individual hydrants can be easily identified and the system will operate correctly when required to do so.	☐	☐	☐	☐	☐	MSC	Y
		41	Fire access Roads and Tracks	Establishment of additional constructed and maintained roads, bridges and tracks to allow safe passage for fire fighting vehicles and the provision of additional water points (tanks etc).	☐	☐	☐	☐	☐	MSC	N
		42	Fuel Hazard Management	Reducing fuel loads and or promoting such works to other Authorities to protect assets, fuel hazard mitigation e.g. slashing, burning, within townships, roadsides, reserves including routine maintenance works within Reserves and on roadsides	☐	☐	☐	☐	☐	MSC	N
		43	Power line Clearance	Monitoring on an 'as needed basis' and engaging with 'Responsible persons' for Vegetation management around powerlines.	☐	☐	☐	☐	☐	MSC	N
		44	Roadside Vegetation Management	Development of roadside vegetation management strategies that consider access and egress requirements for community and response agencies and those that support prevention and preparedness activities such as Strategic Fire Fuse Breaks.	☐	☐	☐	☐	☐	MSC	Y

FIGURE 18: RISK MANAGEMENT STRATEGY

Risk Group	Risk Category	ID #	Name	Treatment description	Prevention	Preparedness	Response	Recovery	Use	Responsible agency	Targeted (or of a Broad approach)
			Treatment	**Treatment description**	**Spectrum**					**Responsible agency**	**Application**
Economic	Infrastructure	45	Vegetation Management	Advice to landholders & linkages to CFA to manage vegetation & lower bushfire risk. Includes current advice, promotion and notification processes ~~and provision of green waste disposal site at no cost for user~~s. FUNDING REMOVED FROM BUDGET 2016	☐	☐	☐	☐	☐	MSC	Y
Economic	Infrastructure	46	Roadside Vegetation Management	Removal of fuel and vegetation management along roadsides. Includes Strategic Fire Fuse Breaks and routine Roadside Maintenance.	☐	☐	☐	☐	☐	Vic Roads	N
Environment	Biodiversity	47	Vegetation Management	Advice to landholders & linkages to CFA Brigades to manage vegetation & lower bushfire risk	☐	☐	☐	☐	☐	CFA	Y
		48	Ecological burning	Using fire as a tool for ecosystem management	☐	☐	☐	☐	☐	PV	Y
		49	Fire research	Targeted research into impacts of different fire/fire regimes on ecological communities/species	☐	☐	☐	☐	☐	PV	Y
		50	Rehabilitation activities	Post fire monitoring of ecosystem recovery and implementation of rehabilitation/restoration works to protect waterways, repair/replace damaged assets. Includes post fire archaeological surveys to improve knowledge of historic land use and occupation.	☐	☐	☐	☐	☐	PV	N
		51	Rehabilitation plan	Implement a works program to repair or replace fire affected infrastructure and minimise impacts upon natural values.	☐	☐	☐	☐	☐	DELWP	N
Planning	Governance and Regulation	52	Statutory & Legislative activities	Bushfire Prone Areas & Bushfire Management Overlay, declaration of TFBs, declared danger periods, regulation of burning permits.	☐	☐	☐	☐	☐	CFA	N

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FIGURE 18: RISK MANAGEMENT STRATEGY

Risk Group	Risk Category	ID #	Name	Treatment description	Prevention	Preparedness	Response	Recovery	Use	Responsible agency	Targeted (or of a Broad approach)
					Spectrum					Responsible agency	Application
		53	Park closures	Closure of parks and facilities at times of very high fire danger	☐	☐	☐	☐	☐	PV	N
Planning	**Governance and Regulation**	54	Patrol/Inspection	Inspections of assets to ensure compliance with regulations and safety requirements and to assess for fire hazards. Includes Campfire Patrols and Parks Victoria Ranger Patrol Program.	☐	☐	☐	☐	☐	PV	Y
		55	Enforcement	Programs which support legislative compliance. Includes patrols to enforce campfire regulations, forest closures, fire cause investigations and prosecutions.	☐	☐	☐	☐	☐	DELWP/PV	N
		56	Bushfire Management Overlay	Maintain bushfire management overlays to ensure new developments in bushfire prone areas apply bushfire protection measures through schedules.	☐	☐	☐	☐	☐	DELWP	N
		57	Bushfire Prone Areas	Provide information regarding minimum construction standards for buildings in a bushfire prone area, including tools to identify bushfire prone areas	☐	☐	☐	☐	☐	DELWP	N
		58	Statutory & Legislative activities	Input to identifying Bushfire Prone Areas & Bushfire Management Overlay, declared danger periods, regulation of permits to burn. Municipal Emergency Management and Municipal Fire Management Planning. Engagement with Mansfield Fire Brigades Group and individual Brigades and communities to improve fire safety outcomes. Establishment of Neighbourhood Safer Places and monitoring in accord with the Municipal NSP Plan. Implementation of routine verification steps to ensure compliance with Building Control standards	☐	☐	☐	☐	☐	MSC	N

FIGURE 18: RISK MANAGEMENT STRATEGY

Risk Group	Risk Category	ID #	Treatment Name	Treatment description	Prevention	Preparedness	Response	Recovery	Use	Responsible agency	Application Targeted (or of a Broad approach)
Planning	Governance and Regulation	59	Planning controls including Bushfire Management Overlay	Planning referral for new subdivisions, structures, developments, applies range of enforceable conditions re access, water supply, standards, works and vegetation management, use of 173 agreements, application of building standards, licensing	☐	☐	☐	☐	☐	MSC	N
		60	Patrol/ Inspection	Inspections of allotments and assets to ensure compliance with Fire Management Plan standards, Planning permit conditions and regulations and safety requirements and to asses for fire hazards. Includes Private Property Inspections, Property Inspections, and Fire Hazard Inspection Program.	☐	☐	☐	☐	☐	MSC	N
		61	Operation Fire setter	Increased resources in high risk areas on Severe+ FDI days, increased patrols, increased visibility and covert surveillance so as to reduce the risk of arson and increase capacity in the event of a bushfire occurring.	☐	☐	☐	☐	☐	Vic Pol	Y
		62	Investigations	Investigate suspicious fires to ascertain cause and identify perpetrators	☐	☐	☐	☐	☐	Vic Pol	N
	Planning and Communic-ation	63	(Site) Emergency Management Plans	CFA input into site specific Emergency Management Plans including bushfire component	☐	☐	☐	☐	☐	CFA	N

FIGURE 18: RISK MANAGEMENT STRATEGY

Risk Group	Risk Category	ID #	Name	Treatment description	Prevention	Preparedness	Response	Recovery	Use	Responsible agency	Targeted (or of a Broad approach)
			Treatment	**Treatment description**	**Spectrum**					**Responsible agency**	**Application**
Planning	Planning and Communic-ation	64	Emergency Management Response Plans	Ensure that proper and sufficient works for wildfire prevention and suppression activities on public land in Victoria are conducted in an operationally safe, environmentally sensitive and cost- effective manner. Ensure efficient and appropriate response	☐	☐	☐	☐	☐	PV	Y
		65	Technical advice	Provision of specialist technical advice and support to other agencies involved in fire mgmt. activities	☐	☐	☐	☐	☐	PV	N
		66	Fire Management Planning	DELWP Fire Management Zones. Strategic landscape scale zoning of public land across the state to achieve fuel mgmt. outcomes	☐	☐	☐	☐	☐	DELWP	N
		67	Planned burning	Implementation of planned burning and other works as identified in FOP on public land	☐	☐	☐	☐	☐	DELWP	Y
		68	Crown Land fuel mgmt.	Managing fuel loads on crown land. Includes slashing, mulching and burning.	☐	☐	☐	☐	☐	DELWP	Y
		69	Bushfire readiness	Provision of specified levels of skills and resources to respond to emergencies. Includes people (PFFs), equipment, heavy plant, aircraft, facilities and consumables	☐	☐	☐	☐	☐	DELWP	N
		70	Education	Programs which maintain public awareness of the bushfire threat, promote the importance of self-protection & encourage the responsible use of fire by the community. Includes multimedia messaging, in field patrols and publications.	☐	☐	☐	☐	☐	DELWP/PV	N

FIGURE 18: RISK MANAGEMENT STRATEGY

Risk Group	Risk Category	ID #	Name	Treatment description	Prevention	Preparedness	Response	Recovery	Use	Responsible agency	Targeted (or of a Broad approach)
			Treatment	**Treatment description**			**Spectrum**			**Responsible agency**	**Application**
Planning	**Planning and Communic-ation**	71	Bushfire response	Respond to bushfires on public land to protect life and minimise impacts on property, communities and the environment. Includes timely provision of public information.	☐	☐	☐	☐	☐	DELWP	N
		72	Emergency mgmt. support	Provide support to other organisations for emergency management, including expertise and specialist resources.	☐	☐	☐	☐	☐	DELWP	N
		73	Emergency Relief Handbook	Information & direction for emergency relief arrangements in Vic	☐	☐	☐	☐	☐	DHHS	N
		74	Bushfire plan	Individual Bushfire plans for DHHS run facilities (as necessary)	☐	☐	☐	☐	☐	DHHS	N
		75	Bushfire hazard identification framework	Refer ID #57	☐	☐	☐	☐	☐	DELWP	N
		76	Emergency Management Plan (Site)	Established framework for the effective handling of emergencies, includes an Emergency Management Plan for each Schools, childcare centre, preschool (public & private), mandatory training for staff, nominated bus routes, code red closures.	☐	☐	☐	☐	☐	DET	N
		77	Public Awareness	Fire information through notice boards, brochures, signage etc to raise awareness of fire risk.	☐	☐	☐	☐	☐	Ausnet Services	N
Planning	**Planning and Communic-ation**	78	Technical advice	Provision of specialist technical advice, information & assistance to other agencies involved in emergency response eg temporary power cessation, line inspection in conjunction with field operations.	☐	☐	☐	☐	☐	Ausnet Services	N

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FIGURE 18: RISK MANAGEMENT STRATEGY

Risk Group	Risk Category	ID #	Treatment Name	Treatment description	Prevention	Preparedness	Response	Recovery	Use	Responsible agency	Application Targeted (or of a Broad approach)
		79	Supply continuity	Maintain a response capability (scaled to level of risk) so to minimise length of power disruptions from incidents eg fire/storms	☐	☐	☐	☐	☐	Ausnet Services	N
		80	Restoration	Repair & replace damaged assets post fire so as to restore full services and minimise community impact	☐	☐	☐	☐	☐	Ausnet Services	N
		81	Powerlines Hazard Identification	Preparedness around powerlines including risk ratings, inspections, maintenance and response arrangements. Includes Powerlines Bushfire Mitigation Strategy, Powerlines Faults and Emergency Events.	☐	☐	☐	☐	☐	Ausnet Services	Y
		82	Specialist Support	Provide specialist support to other agencies(e.g. Vic Pol, CFA, DHHS, DELWP) involved in response to an emergency, e.g. doorknocks, transport, staging area mgt.	☐	☐	☐	☐	☐	SES	N
		83	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. Includes Traffic Management Strategies Assistance to other agencies.	☐	☐	☐	☐	☐	Vic Roads	N
		84	Emergency response plan	Respond appropriately to the impacts of fire on water supply and waste management	☐	☐	☐	☐	☐	GVW	N
Planning	Planning and Communication	85	Technical advice	Provision of specialist technical advice, information & skills to other agencies involved in emergency response	☐	☐	☐	☐	☐	MSC	N
		86	MERC	Coordinate municipal emergency response effort in the event of a major bushfire	☐	☐	☐	☐	☐	Vic Pol	N

FIGURE 18: RISK MANAGEMENT STRATEGY

Risk Group	Risk Category	ID #	Treatment Name	Treatment description	Prevention	Preparedness	Response	Recovery	Use	Responsible agency	Targeted (or of a Broad approach)
		87	Evacuations	Coordinate evacuation measures undertaken in response to a bushfire threat	☐	☐	☐	☐	☐	Vic Pol	N
		88	Specialist Support	Provide specialist support to other agencies involved in response to a bushfire e.g. vehicle escorts	☐	☐	☐	☐	☐	Vic Pol	N
		89	Strategic Fire plan	Development and maintenance of strategic fire breaks and fire access tracks, operational restrictions on plantation activities based on forecasted FDI, a range of fire fighting resources on varying levels of preparedness based on forecasted FDI (includes fire fighting appliances, trained and experienced personnel, heavy machinery, and aerial support), strategic water points/ fire tanks placed throughout estate to ensure water availability for suppression activities.	☐	☐	☐	☐	☐	HVP	N
	Operational	90	Standard Operating Procedures	Dictate level of readiness according to the conditions so as to ensure appropriate resourcing & preparedness for optimum response	☐	☐	☐	☐	☐	CFA	N
		91	Resourcing	Strategic network of qualified & equipped staff, volunteers & appliances for mounting timely response to fires on private land.	☐	☐	☐	☐	☐	CFA	Y

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FIGURE 18: RISK MANAGEMENT STRATEGY

Risk Group	Risk Category	ID #	Treatment Name	Treatment description	Prevention	Preparedness	Response	Recovery	Use	Responsible agency	Application Targeted (or of a Broad approach)
Planning	Operational	92	Fire Operations Plan	Planning of proposed fire prevention activities to be carried out on public land (includes all land managed by DELWP and PV) with the objective of reducing impacts of bushfire on life, community, critical infrastructure, industry and the environment. Includes planned burns, slashing and track works, grazing, and additions to the permanent network of strategic fuel breaks.	☐	☐	☐	☐	☐	DELWP	N
		93	Regional Resourcing & activation guidelines	Identifies DHHS resource requirements for different emergencies and describes triggers for activation of different levels	☐	☐	☐	☐	☐	DHHS	N
		94	Response program	Maintain service continuity and minimise disruptions by responding to faults or damage to facilities, includes deployment of mobile communication units and use of generators during power outages	☐	☐	☐	☐	☐	Telstra	N
		95	Risk Management Procedures	Operating procedures varied to reduce risk during high fire danger periods/events (eg reduce methane gas levels at waste treatment sites) and strategic spread of facilities and generators to spread risk and ensure continuity of supply	☐	☐	☐	☐	☐	GVW	N
	Financial	96	Fire Access Roads, Tracks & Water Points	Coordination of Fire Access Roads Subsidy Scheme (FARS) to enable construction & maintenance of roads, bridges & water points.	☐	☐	☐	☐	☐	CFA	N
		97	Emergency grants	Grant to families whose home is impacted by fire, allocated by municipality.	☐	☐	☐	☐	☐	DHHS	N

5.4 SPECIFIC TREATMENTS

In addition to the above Risk Assessment and Risk Management Strategy, the MFMPC came up with a list of specific treatments. This list of treatments (Figure 19 below) highlights the specific activities either currently undertaken or proposed to be undertaken to mitigate fire risk further and give further detail than listed in the Risk Management Strategy. The specific activity treatment is listed as is the type and status of the activity. Activity custodians refer to all agencies involved in the treatment regime. In terms of a timeline, the year column refers to the three year life cycle of the plan and which year the treatment is applicable.

FIGURE 19: SPECIFIC TREATMENTS - PRE AND POST 2016 REVIEW

Treatment ID #	Risk Description	Specific Treatment Activity	Activity Type	Treatment Status	P.P.R.R or Use	Activity Custodian	Year 1	Year 2	Year 3	Comment & Status (red text added 2016)
1	Fires spreading from roadside reserves	Develop a project to investigate roadside management issues - linkages in DELWP strategic fire access roads, current fire prevention plan, strategic access/egress roads, CFA critical access roads	Research	New	Preparedness	MFMPC, DELWP, CFA, MSC, Vic Roads	Yes			Create project to determine fuel load levels on and adjacent to roadsides. Develop a slashing and or spraying standard to apply to roads (where appropriate), Still to be concluded - 6/16
2	Risk of fire impacting upon indigenous cultural heritage sites including scar trees and burial mounds (during control) on high and above FDR days.	Ensure indigenous values are included on the asset databases used by fire responders and custodians	Research	New	Preparedness	MFMPC DELWP,	Yes			Ongoing - added 6/16
3	Tourism	Investigate the education program used for forest area recreation to inform visitors of fire risk (by request of the RSFMPC)	Research	New	Preparedness	MFMPC	Yes			Ongoing - added 6/16

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FIGURE 19: SPECIFIC TREATMENTS - PRE AND POST 2016 REVIEW

Treatment ID #	Risk Description	Specific Treatment Activity	Activity Type	Treatment Status	P.P.R.R or Use	Activity Custodian	Year 1	Year 2	Year 3	Comment & Status (red text added 2016)
4	EMPs	MSC and CFA to work together to promote that major employers, tourist operators, event operators and other agencies develop Emergency Management Plans	Research	New	Preparedness	MSC, CFA				Ongoing - added 6/16
5	Fire resources	Identify infrastructure that supports fire response (Air fields, water points, information from TPPs, Wildfire Response Plans)	Research	New	Response	DELWP, CFA, MSC, MFMPC		Yes	Yes	Completed - see MEMP -added 6/16
6	NSPs and other areas of community gathering in a fire situation	Develop a list of areas (outside of NSPs) that people will gather in a fire situation	Research	New	Preparedness	CFA, MSC, MFMPC		Yes	Yes	It is known that people will gather in certain areas during a fire event. Make a list of these potential gather places. Completed -added 6/16
7	Non-resident rate payers	Look at ways of maintaining and or engaging non-resident rate payers regarding PPRR	Advocacy	New	Preparedness	MSC, CFA				Completed & Ongoing - added 6/16
8	Engagement with Mt Buller/Mt Stirling MFMP	Make sure that Mt Buller and Mt Stirling MFMP and the Mansfield MFMP complement each other.	Advocacy	New	Prevention	Mansfield MFMPC, Mt Buller and Mt Stirling MFMPC		Yes		Ongoing - added 6/16
9	Data layers that are being used for the MFMP	Ensure that each agency is maintaining its data layers that are being utilised in the MFMP. Determine annual date of review (develop specific date)	Action	Current	Preparedness	All relevant agencies (including CFA, MSC, DELWP, Parks Vic, DHHS, OESC etc)	-	-	-	Accuracy of data layers is essential in providing correct information to stakeholders and incident controllers. Ongoing - added 6/16

FIGURE 19: SPECIFIC TREATMENTS - PRE AND POST 2016 REVIEW

Treatment ID #	Risk Description	Specific Treatment Activity	Activity Type	Treatment Status	P.P.R.R or Use	Activity Custodian	Year 1	Year 2	Year 3	Comment & Status (red text added 2016)
10	BMOs	Look at what has come out of BMOs in one year's time	Research	Proposed	Preparedness	MSC	-	-	-	Bushfire Management Overlays may influence MFMPs and the MFMPC needs to be aware to these Under review 8/16
11	Prevention Plan	Ensure MFPP data is incorporated into MFMP (Fire management risk strategies 5, and Fire management treatments 7.5)	Research	Current	Prevention	MFMPC				In the transfer of this data it is essential that the data is approved by the responsible agency, the MEMPC or the MFMPC is included Completed -added 6/16
12	Relevant regional agency input	Ensure relevant information from agencies at a regional level is incorporated into MFMP (e.g. DEECD, DHHS etc). Update agency treatment list annually	Advocacy	Current	Preparedness	MFPC				A treatment list has been created that lists all relevant treatments. The custodian of this list will be Mansfield Shire Council. The list needs to be updated and reviewed annually. Ongoing - added 6/16
13	Planning Scheme provisions applicable to bushfire	Strategic study of land use mitigation methods that can be applied to the highest risk small townships within Mansfield Shire and implementation of mitigation measures available via amendment of the planning scheme. This includes the development of a local planning policy that identifies the long term direction about land use and development in the municipality in regards to bushfire prone land	Research	Current	All	MSC	✓			Identification and implementation of mitigation measures available via land use planning Ongoing - added 6/16 Promote the need for comments to be sought from MFMPC in regard to any changes

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5.5 FIRE MANAGEMENT RESPONSIBILITY

Fire management responsibility within the municipality may be described in three categories.

In addition, there is a general advocacy role applicable to;
(a) Agencies,
b) Regulators and Service Providers and
c) the Community,
- where the MFMP can support and encourage each other to implement (their) risk strategies. Added 6/16

5.5.1 RESPONSE AGENCIES

Country Fire Authority (CFA): is charged under the CFA Act with the responsibility for Fire Safety Planning and Fire Suppression in all areas of Victoria excepting the area covered by the Metropolitan Fire Brigade and Fire Protected Areas. The CFA is a community based fire and emergency service whose mission is to protect lives and property. CFA responds directly to a range of emergency incidents, as well as conducting broader activities with the community such as education, awareness raising, industry brigades and fire investigation.

Text Added August 2016 CFA Staff, Officers and Volunteers work with local communities to raise awareness about fire safety and help them plan for fires and emergencies. CFA is committed to strengthening community resilience and preparedness by building partnerships between all stakeholders, including local governments and a diverse range of community networks and community and industry groups. CFA activities support the shared responsibility approach, which aims to build self-reliant communities that are empowered with the knowledge, skills, and resources needed to manage their own fire safety.
CFA members undertake the following community engagement activities:

> promote fire safety in the local community

> inform at-risk communities about risks and support development of local plans

> support communities to make local decisions about their safety

> maintain an up-to-date website, educative materials and opportunities to enable Victorians to engage with CFA and learn about fire safety

> provide fire education and engagement programs to at-risk communities

> work with the leadership of agencies whose mission is to provide services to vulnerable people to enable them to provide fire safety information to their clients

> provide education opportunities to school communities about fire safety.

PREVENTION AND MITIGATION
CFA work collaboratively with other agencies, local government, land managers and land owners to reduce the likelihood or impact of fire and other emergencies. Authorised CFA members undertake the following prevention activities:
> vegetation management in and around communities to mitigate the impact of bushfire on property and communities

> work with communities, agencies and local government to develop shelter and other mitigation options

> support communities to develop local plans about fire safety and emergency management.

EMERGENCY RESPONSE: SUPPRESSION
Response involves combating emergencies and providing rescue and immediate relief services to those affected. Part 3 of the EMMV (State Emergency Response Plan; SERP) identifies the organisational arrangements for managing the response to emergencies within, or with the potential to affect, the State of Victoria.

STRATEGIC CONTROL PRIORITIES
Emergency response is undertaken to achieve CFA's mission to protect lives and property. The State Controller's Intent provides clear direction about the key strategic control priorities that must be considered and actioned during the management of any significant or complex fire.

The following strategic control priorities shall underpin the planning and operational decisions made by agency command and control staff when managing fire:

> Protection and preservation of life is paramount. This includes

– Safety of emergency services personnel; and

– Safety of community members including vulnerable community members and visitors/tourists located within the incident area.

> Issuing of community warnings and community advice detailing incident information that is timely, relevant and tailored to assist community members make informed decisions about their safety.

> Protection of critical infrastructure and community assets that supports community resilience.

> Protection of residential property as a place of primary residence.

> Protection of assets supporting individual livelihoods and economic production that supports individual and community financial sustainability.

> Protection of environmental and conservation assets that considers the cultural, biodiversity and social values of the environment.

Department of Environment Land Water and Planning (DELWP) (former DSE): is responsible for fire suppression and management on public land with support from Networked Emergency Organisations (NEO) which includes Parks Victoria and DPI (now DEDJTR). Their objective is to protect communities and critical infrastructure from fire and to promote healthy and resilient ecosystems. DELWP also initiate and undertake planned burning for ecological and risk management purposes.

5.5.2 REGULATORY AND SERVICE PROVIDERS

MANSFIELD SHIRE COUNCIL (MSC): are responsible for the management of all council owned property, as well as ensuring that private land holders appropriately manage their land for fire risk. Council officers inspect properties within the municipality to assess the potential risk of a bushfire and where necessary may issue a fire prevention notice. They also undertake annual fire prevention works on roadsides and reserves leading up to and during the fire season and promote fire safety.
LINK TO MSC WEBSITE: www.mansfield.vic.gov.au/

DEPARTMENT OF HEALTH & HUMAN SERVICES (DHHS) (FORMER DHS) is the appointed agency to co-ordinate recovery planning and operations at the regional levels. At a municipal level, the responsibility for recovery is with the Mansfield Shire Council with recovery arrangements and plans outlined in the Municipal Emergency Management Plan (MEMP)& Municipal Recovery Sub-plan.
LINK TO DHHS WEBSITE: www.dhhs.vic.gov.au

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DEPARTMENT OF ECONOMIC DEVELOPMENT, JOBS TRANSPORT AND RESOURCES (FORMER DEPARTMENT OF PRIMARY INDUSTRY (DPI): The Department of Primary Industries) is responsible for agriculture recovery programs and animal welfare.
LINK TO DPI WEBSITE: www.dpi.vic.gov.au/

PARKS VICTORIA: Parks Victoria is responsible for managing the parks and reserves in Victoria and supporting DELWP response efforts.
LINK TO PARKS VICTORIA WEBSITE: http://parkweb.vic.gov.au/

STATE EMERGENCY SERVICES (SES): VICSES is a volunteer based organisation responding to emergencies and working to ensure the safety of communities around Victoria. VICSES is the lead agency when responding to floods, storms and earthquakes and support agency in fire situations. **LINK TO SES WEBSITE:** www.ses.vic.gov.au/

VIC ROADS: Vic Roads manage the Victorian arterial road network and its use as an integral part of the overall transport system.
LINK TO VIC ROADS WEB SITE: www.vicroads.vic.gov.au/

DEPARTMENT OF PLANNING AND COMMUNITY DEVELOPMENT (DPCD): The Department of Planning and Community Development (DPCD) is responsible for managing the state's planning system and building stronger communities.
LINK TO DPCD WEB SITE: www.dpcd.vic.gov.au

VICTORIA POLICE (VICPOL): Victoria Police are responsible for ensuring a safe and secure society. **LINK TO VICTORIA POLICE WEB SITE**: www.police.vic.gov.au/

GOULBURN VALLEY WATER (GVW)
GVW provides water and sewerage services to 38 towns, villages and cities in North East Victoria, serving an estimated population in excess of 113,000 people in an area of approximately 20,000 square kilometres. **LINK TO GVW WEBSITE::**www.gvwater.vic.gov.au/

GOULBURN MURRAY WATER (GMW): GMW
G-MW is responsible for the operation of irrigation distribution channels, dams, lakes, and stock and domestic water diversion from streams. Goulburn Murray Water is responsible for the management of its assets, and the undertaking of fire prevention and fuel reduction works as part of their asset management.
LINK TO GMW WEBSITE: www.g-mwater.com.au/

AUSNET SERVICES: Ausnet Services manages three Victorian energy networks – electricity transmission, electricity distribution and gas distribution.
LINK TO SP AUSNET WEB SITE: www.sp-ausnet.com.au/

TELSTRA: Telstra provide communication services and are responsible for telephone cabling, exchanges, mobile telephone towers, and radio communication towers
LINK TO TELSTRA WEBSITE: www.telstra.com.au/

WICEN: Back up and support for communications and accredited radio operators - Refer MEMP: www.vic.wicen.org.au

5.5.3 COMMUNITY

Land managers, the community and individuals all have a responsibility to maintain their properties and to conduct their activities in a responsible manner with respect to fire management. The effectiveness of the Risk Management Strategy relies heavily upon the community understanding and accepting their responsibilities and acting accordingly.

While specific treatments cannot be attributed to private individuals and organisations within the Risk Management Strategy the MFMPC does have an expectation that members of the community will where appropriate;

- Prepare and plan for fires, both bushfire and structural (Refer 7.7.6)
- Prepare their properties for fire events
- Ensure adequate access and water for fire fighting appliances
- Maintain an awareness of fire danger levels and listen for alerts and warnings.

Advice, training and support to groups, businesses and individuals concerning all of these expectations can be obtained from the CFA (see link below).

- **LINK TO CFA FIRE SAFETY:** www.cfa.vic.gov.au/firesafety

5.6 BALANCING FIRE RISK AGAINST OTHER VALUES

In the course of developing the Risk Register it became apparent to the MFMPC that some of the concerns being raised lay less with the impact of the actual fire and more with that of the treatments being applied. A number of the fire risk treatments adopted in Risk Management Plan pose a potential threat to some of the very values the MFMPC is seeking to safeguard. It is important that these threats are noted and that a balance be struck between protecting the community from fire and maintaining the economic, social, and environmental well being of the municipality.

A number of processes and treatments are already in place to ensure that all values are taken into consideration and protected during the planning and implementation of fire risk treatments. Where conflict does occur the MFMP offers a dispute resolution process for member agencies by establishing a pathway for issues to be escalated and resolved at either a regional or state level by the responsible authorities.

5.7 CROSS BOUNDARY MANAGEMENT AND LINKS TO OTHER PROGRAMS/PROCESSES

In developing this plan the Mansfield MFPC has endeavoured to ensure that concerns which cross municipal, regional or state boundaries are treated in a seamless manner with regard to risk assessment and treatments. This has been achieved through;

- Consistent use of processes and tools across the region.
- Deliberate alignment of municipal and regional objectives.
- Frequent cross membership of MFMPCs by agencies.
- Making draft and final MFMPs available to other MFMPCs.

6. IMPROVEMENT, PLAN REPORTING AND REVIEW PROCESS

Monitoring and improvement forms the final stage in the 'revolving IFMP process. Monitoring and improvement should be viewed as an ongoing activity as it actually entails continuous action, undertaken throughout the plans nominal three year life.

It is important to track the performance of the plan and the degree to which it contributes to achieving the desired outcomes once implementation of the Fire Management Plan has commenced. Monitoring, evaluation and reporting occur throughout the life of the plan, the aim being to identify those treatments working effectively and those that may need to be modified. It also seeks to provide a transparent and accurate means of assessing the MFMP's progress in achieving its objective. The table below summarises the proposed implementation, reporting and review activities, as well who is responsible for undertaking them.

FIGURE 20: MSC MFMP REPORTING AND EVALUATION PROGRAM

Frequency	Task/Action	Responsible Party
Ongoing	Implement treatments, as per agreed Work Plan	All treatment owners
	Further explore identified opportunities for new or enhanced treatments with relevant stakeholders, and agree course of action	MFMPC
Biannually (every 6 months)	Report to MFMPC on the progress of treatment implementation, including an evaluation of treatment appropriateness, impact, effectiveness, efficiency, and legacy	All treatment owners
	Update Risk Register & Work Plan to reflect treatment status, as reported by treatment owner	MFMPC
Annually (every 12 months)	Conduct strategic review of risks and associated treatment program, asking: Are the identified risks still valid? Do their pre-treatment and residual risk ratings still hold true? Are there new risks that need to be added to the register and managed? Do the treatments currently in place adequately address the identified risks? Are there any new or enhanced treatments required?	MFMPC
	Review and update Plan content and mapping to ensure validity	MFMPC
	Provide overarching progress report to Municipal Emergency Management Planning Committee, focusing on the collective effectiveness of treatments in the management of risks and progress towards the achievement of objectives	MFMPC
Triennially (every 3 years)	Conduct end-to-end review of Plan, with particular focus on the environmental scan and objectives	MFMPC

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6.1 ACKNOWLEDGEMENT AND ENCOURAGEMENT

The integrated fire management planning process operates within a complex and challenging environment, with often limited and competing resources to achieve the desired outcome of acceptable levels of residual risk to the community.

Therefore, fundamental to its success is the establishment and preservation of <u>healthy stakeholder partnerships</u> that allow for continued transparent and robust dialogue in the interest of achieving the plan's objectives in the long term.

It is the role of the MFMPC to spearhead relationship management for this purpose.

See additional comments and Treatment added August 2016 re Advocacy Roles in Section 5.5 above.

7.ATTACHMENTS

7.1 RISK ASSESSMENT TABLES

STATE BUSHFIRE CONSEQUENCE TABLE (FROM STATE FIRE MANAGEMENT PLANNING COMMITTEE)

STATE DESCRIPTOR BUSHFIRE	People - Bushfire	Infrastructure - Bushfire	Public Admin - Bushfire	Environment - Bushfire	Economy - Bushfire	Social Setting
Catastrophic	50+ lives lost. Hundreds injured 1000+ houses destroyed. 2000+ people displaced. 30,000 + livestock lost.	Loss of critical infrastructure and/or services for 24-48 hours to the Melbourne metropolitan area. Loss of services to a major regional city/several suburbs for more than a week.	Significant statewide outrage. Royal Commission or other similar inquiry leading to changes in policy and practice.	Permanent total loss of one or more ecosystems or critical habitat elements. Loss of nationally significant cultural assets.	$1B or 30% of State revenue	Severe disruption to community wellbeing over the whole area or a large part of it for a period of many years
Major	10 -50 fatalities as a direct result of the bushfire event. 300 - 1000 houses destroyed. 500 -2000 people displaced. 10,000 - 30,000 livestock lost. Significant loss of breeding stock.	Loss of critical infrastructure and/or services for up to 8-24 hours to the Melbourne metropolitan area. Loss of services to a major regional city/several suburbs for 4 days and up to a week.	Significant regional and local outrage, with some occurring at state level. Parliamentary or other inquiry leading to change in practice.	Permanent partial loss of one or more ecosystems or critical habitat elements. Extinction of a species or significantly increase the likelihood of extinction to almost certain that intervention such as captive breeding programs are required. Loss of state significant cultural assets.	Damage costs including legal actions and/or industry impacts (tourism, forestry, wine and grape etc) to the value of more than $300M.	Severe disruption to community wellbeing over a wide area or for more than 24 months.
Serious	2 - 10 fatalities as a direct result of the bushfire event. Large number of people affected by smoke. 30 - 300 houses lost. 200- 500 people displaced 4000 - 10000 livestock lost.	Loss of critical infrastructure and/or services for up to 2-8 hours to the Melbourne metropolitan area. Loss of services to a major regional city/several suburbs for 2-4 days.	Some outrage at local and regional level.	Long term disturbance to one or more ecosystems or critical habitat elements. National response and/or support for animal welfare. Loss of a regionally significant cultural asset such as Phillip Island penguins, Healesville Sanctuary, Puffing Billy.	Damage costs including legal actions and/or industry impacts (tourism, business etc) to the value of more than $100M.	Major disruption to community wellbeing over a moderate to large area* or for a period of months.
Significant	Single fatality and/or multiple serious injuries requiring hospitalisation as a direct result of the bushfire event. Up to 30 houses lost. 50 - 200 people displaced. 2000 - 4000 livestock lost.	Loss of critical infrastructure and/or services for up to 1 hour to the Melbourne metropolitan area. Loss of services to a major regional city for 1 day. Loss of services to local community for a week.	Local outrage and concern.	Temporary disturbance to one or more ecosystems or critical habitat elements. Local response and/or support for animal welfare.	Damage costs including legal actions and/or industry impacts (tourism, business etc) to the value of more than $30M.	Localised disruption to community wellbeing over a small area or for a period of weeks.
Important	Serious injury and disability, up to 50 people displaced, up to 2000 livestock lost	Loss of services to regional town for a day. Loss of services to local community of up to a week	Local concern	Temporary disturbance to local habitat. Local response and/or support for animal welfare.	Damage costs including legal actions and/or industry impacts (tourism, business etc) to the value of less than $30M.	Localised disruption to community wellbeing over a small area or for a period of up to one week.

LIKELIHOOD TABLE

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Level	Descriptor	Description In any one year, the likelihood of the event occurring is:
A	Almost Certain (Annually)	Close to 100% - Annually.
B	Likely	33% (i.e., once in every three years)
C	Possible	10% (i.e., once every 10 years)
D	Unlikely	3% (once every 30 years)
E	Rare	1% (once every 100 years)

RISK ASSESSMENT MATRIX

	Consequence Level				
Likelihood Level	Important	Significant	Serious	Major	Catastrophic
Almost Certain	Moderate	Moderate	High	Extreme	Extreme
Likely	Low	Moderate	High	High	Extreme
Possible	Low	Low	Moderate	High	High
Unlikely	Low	Low	Moderate	Moderate	High
Rare	Low	Low	Low	Moderate	Moderate

7.2 STAKEHOLDER ANALYSIS & COMMUNITY ENGAGEMENT PLAN

Stakeholder type and engagement level		
Stakeholder Type	**Description**	**Participation Level***
Internal	Formal responsibilities for IFMP process and outcomes	Collaborate and empower
Primary	MFMPC membership, responsibility for development of the plan, communication and engagement across and within organisations rest with these organisations	Collaborate and empower
Secondary	RSFMPC membership or fire management role within municipality, may be requested to provide specific inputs, dependent upon outputs, or requested to be involved in specific tasks,	Involve and consult
Tertiary	Strong interest in outcomes	Inform and consult

*IAP2 Public Participation Spectrum: empower → collaborate → involve → consult → inform

Fire Management Roles	
Role	**Description**
Fire coordination	Bringing together of fire management agencies and elements to ensure effective response to an incident or emergency. CFA has legislated responsibility under the CFA act 1958 for the prevention and suppression of fires and for the protection of life and property in the Country Area of Victoria. In accordance with provisions in the CFA Act and the Forest Act 1958, DELWP (and NEO) has fire management and fire suppression responsibilities for State Forests and National, State and Regional Parks.
Land owner/manager responsibilities	Landholder/managers are heavily involved in fire prevention and fire suppression on land under their control. They have legislated responsibilities to extinguish a fire burning on their land and to prevent fires from starting from the use of equipment and vehicles (CFA Act 1958, Crimes Act 1958). They are also required to comply with relevant State government laws, local government laws, relevant planning and building permit conditions and conditions associated with permits to burn
Response	Actions taken in anticipation of, during and immediately after a fire incident to minimise the impact of the fire.
Recovery	A coordinated process of supporting emergency affected communities in the reconstruction of physical infrastructure and restoration of emotional, social, economic and physical well being.
Community education	Community education is learning and social development, working with individuals and groups in their communities using a range of formal and informal methods
Community care	Community care is about identifying and catering for groups or individuals with specific needs, before during and after fire.
Asset protection	Asset protection involves protecting key community infrastructure such as power, water supplies, roads, gas pipes and protecting community assets such as parks and the environment. Asset protection can also involve the protection of private assets such as housing, plantations, crops and fences.
Regulatory	The issuing of permits for lighting fires. The development of and compliance with planning controls and permits for developments and building that take into account fire risk/management. The regulation and issuing of permits involving vegetation removal or fuel reduction activities for fire management purposes.

Stakeholder	Type				Fire management role within Hume region									
	Internal	Primary	Secondary	Tertiary	Fire coord	Land mgr	Response	Recovery	Comm nfo	Comm care	Asset protect	Regulate	RSFMPC member	Other
Hume RSFMPC	✓						✓	✓	✓				✓	Regional IFMP oversight & strategic fire planning
MEMPC	✓						✓	✓	✓					Municipal integrated & strategic emergency planning
MFMPC	✓						✓	✓	✓					Municipal integrated & strategic fire planning
Mansfield Shire Council		✓				✓	✓	✓	✓	✓	✓	✓		
CFA		✓			✓		✓	✓	✓		✓	✓	✓	Fire safety expertise
DELWP		✓			✓	✓	✓	✓	✓		✓	✓	✓	Forest fire expertise
Vic Pol		✓					✓						✓	
HVP		✓				✓	✓	✓			✓			
Parks Victoria			✓			✓	✓	✓	✓		✓		✓	
Land care Groups			✓			✓								
DHHS			✓				✓	✓		✓			✓	
DPCD			✓					✓				✓	✓	Oversight of rural adjustment & development programs, development of planning controls
SES			✓				✓						✓	
Vic Roads			✓			✓	✓				✓	✓	✓	
SP Ausnet			✓							✓			✓	
Goulburn Valley Water			✓							✓	✓		✓	

Mansfield MFMPC stakeholder analysis

Stakeholder	Type				Fire management role within Hume region									
	Internal	Primary	Secondary	Tertiary	Fire coord	Land mgr	Response	Recovery	Comm nfo	Comm care	Asset protect	Regulate	RSFMPC member	Other
Goulburn Murray Water			✓			✓					✓			
Telstra			✓							✓	✓		✓	
Optus			✓							✓	✓			
DPI				✓				✓					✓	Animal health, agricultural loss & recovery responsibilities
VFF				✓		✓								
GBCMA				✓		✓		✓			✓	✓		
DEECD				✓						✓				
Geelong Grammar				✓						✓				
Lauriston				✓						✓				
School Camps				✓						✓				
Ambulance Vic				✓						✓				
Media				✓			✓	✓	✓		✓			
Local community/ industry groups				✓										
General public				✓		✓	✓	✓			✓			Responsibility for private property, social networks & personal well being.
Tourism Industry				✓		✓			✓	✓				

7-7

Mansfield FMPC Communication & Engagement Plan

Stakeholder	Engagement Level	Meeting minutes, reports & agendas	1:1 consultation	IFMP & Mansfield Shire web site	Email updates	Media articles	Special meetings	Draft consultation	3 year review	Individual org networks
Internal Stakeholders										
Hume RSFMPC										
MEMPC	Collaborate & empower	✓		✓	✓	✓	✓	✓	✓	
MFMPC										
Primary – answerable for activity/decision										
Municipal Council/Alpine Resort Board										
CFA										
DELWP	Collaborate & empower	✓	✓	✓	✓	✓	✓	✓	✓	✓
Vic Pol										
HVP										
Secondary – Contributory responsibility										
Parks Victoria										
Land care Groups										
DHHS										
DEDJTR										
SES										
Vic Roads	Involve & consult		✓	✓		✓	✓	✓	✓	✓
SP Ausnet										
Goulburn Valley Water										
Goulburn Murray Water										
Telstra										
Optus										
Tertiary - Interested										
VFF										
DEDJTR	Inform & consult			✓		✓		✓	✓	
GBCMA										
DEECD										

Mansfield FMPC Communication & Engagement Plan

Stakeholder	Engagement Level	Engagement activity								
		Meeting minutes, reports & agendas	1:1 consultation	IFMP & Mansfield Shire web site	Email updates	Media articles	Special meetings	Draft consultation	3 year review	Individual org networks
Geelong Grammar	Inform & consult			✓		✓		✓	✓	
Lauriston										
School Camps										
Ambulance Vic										
Media										
Local community/industry groups										
General public										
Tourism Industry										

Review Process Engagement 2016

		Meeting minutes, reports & agendas
Internal Stakeholders		
Hume RSFMPC	Collaborate & empower	✓
MEMPC		
MFMPC		
Primary – answerable for activity/decision		
Municipal Council/	**Collaborate & empower**	✓
CFA		
DELWP		
Vic Pol		
HVP		

7.3 Environmental Scan Maps & Data

MAP LIST:

MAP 1: BUSHFIRE (BURNT AREA 1939-2011) – MANSFIELD SHIRE

This map shows the area burnt by bushfire in Mansfield Shire since 1939. Large campaign fires that occurred in the period from 1939-2001 are mapped together to show areas of the Shire that have been burnt in the past. Fires that have occurred in the period from 2002-2011 have been mapped individually.

MAP 2: DELWP PLANNED BURNING (BURNT AREA 2007-2012) - MANSFIELD SHIRE

This map shows the area of DELWP fuel reduction burning or 'treatments; in the last 5 years - as at 2012

MAP 3: VICTORIAN FIRE RISK REGISTER: FEATURE OF INTEREST AND HUMAN SETTLEMENT- MANSFIELD SHIRE

This map is the Victorian Fire Risk Register map produced by the CFA. It details where population centres are and rates locations from low to extreme fire risk (see legend)

The map shows the population centres and details the locations of Hospital/Community Health Centres, Education (camps and schools), Caravan Parks and Aged Care/Retirement Facilities

MAP 4: DELWP FIRE MANAGEMENT ZONES – MANSFIELD SHIRE

This map details DELWP's fire management zones. Different management regimes are used in each zone. For more information, contact DELWP

MAP 5: FUEL LOADS – MANSFIELD SHIRE

The map is a Hazard layer developed and maintained by DELWP, Office of Land and Fire. It is a state-wide coverage of <30 m^2> cell resolution with approximately 27 attributes detailing surface and elevated fuel loads, hazard ratings and vegetation descriptions. This map is a DELWP data layer and based upon computer modelling and limited ground verification. It is updated yearly by DELWP. The fuel load map details where it might be expected to find fuel loadings of low to extreme. This map is simply a guide and should not be relied upon to provide 100% accuracy in the determination of fuel loads. Visual and scientific tests should be applied in the field to properly determine fuel loads.

MAP 6: IFMP MUNICIPAL FIRE MANAGEMENT PLANNING - BIODIVERSITY VALUES

This map details the Biodiversity values of the Mansfield Shire including Ecological Vegetation Classes. It is not an exhaustive list and should only be used as a guide for the location of biodiversity values. It flags values that need to be factored into any discussions regarding possible fire treatments.

MAP 7, 8 & 9: FIRE INTENSITY SEVERE, EXTREME & CODE RED FIRE DANGER DAYS

Map 7, 8 and 9 are computer modelling exercises. They are built upon the DELWP fuel loading data layer (see map 5) and have been fed through an algorithm on a computer. Data for Severe, Extreme and Code Red Fire Danger Rating (FDR) Days have analysed to produce this data layer. This data layer is an indication of what fire conditions (measured in kilowatts per square metre) might be expected on those FDR days. It is a guide only and may contain errors. For further information, contact the DELWP.
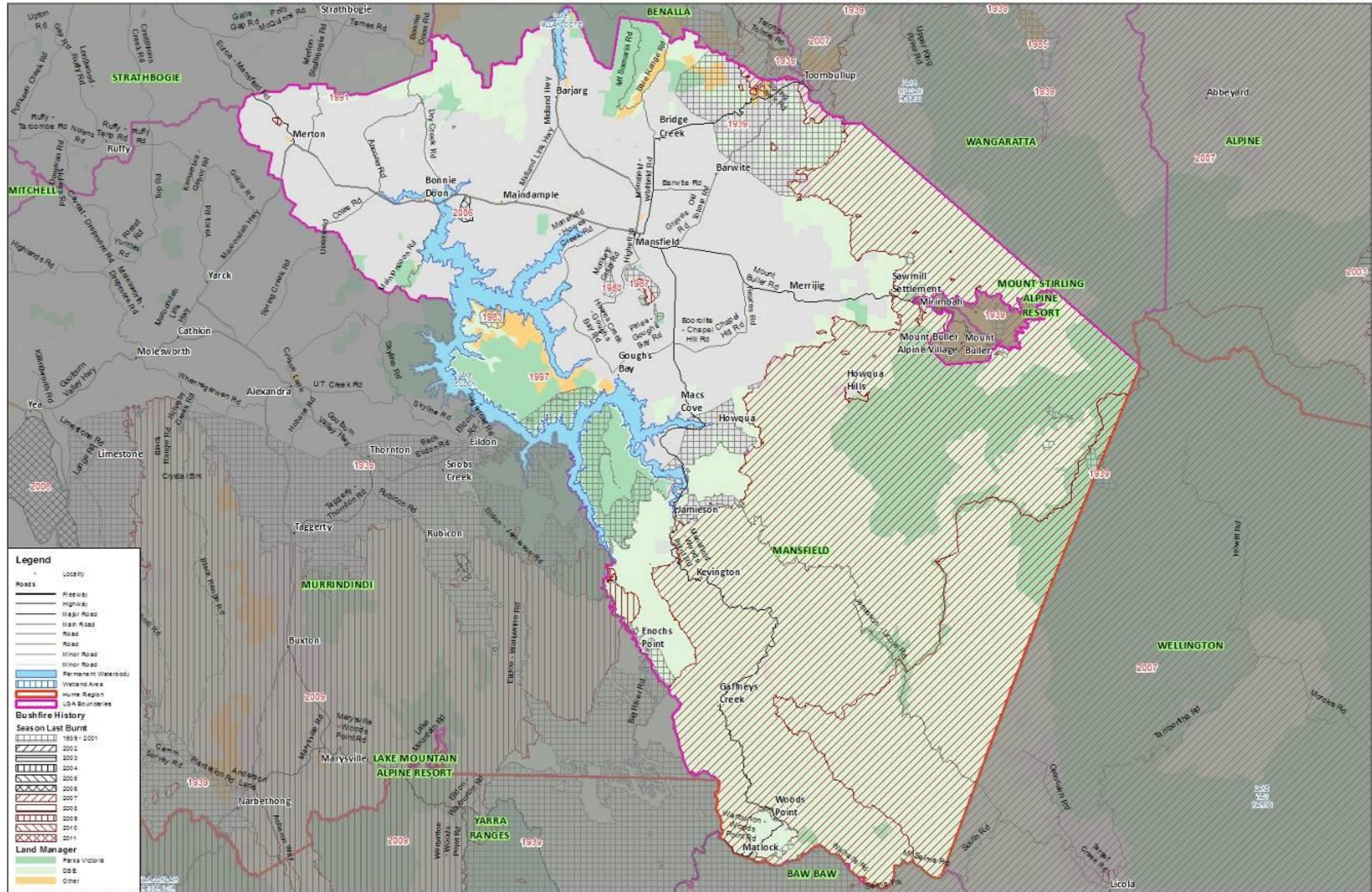
7-10

Map 1

Mansfield Shire Municipal Fire Management Plan

Bushfire (burnt area 1939 - 2011) - Mansfield Shire

Date: 23/10/2012

Legend

Locality

Roads
- Freeway
- Highway
- Major Road
- Main Road
- Road
- Road
- Minor Road
- Minor Road
- Permanent Waterbody
- Wetland Area
- Hume Region
- LGA Boundaries

Bushfire History

Season Last Burnt
- 1939 - 2001
- 2002
- 2003
- 2004
- 2005
- 2006
- 2007
- 2008
- 2009
- 2010
- 2011

Land Manager
- Parks Victoria
- DSE
- Other

Map Produced by Wodonga GIS team. October 2012
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0   5   10   20   Kilometers

N

Scale: 1:330,000   GDA 1994 VICGRID94

State Government **Victoria**

7-11

Map 2

Mansfield Shire Municipal Fire Management Plan
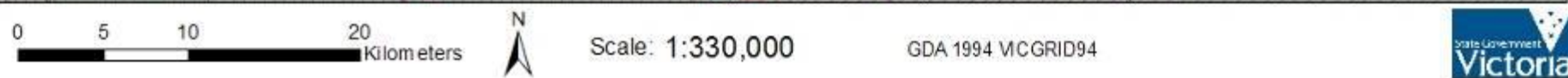
DSE Planned Burning (burnt area last 5 years) - Mansfield Shire
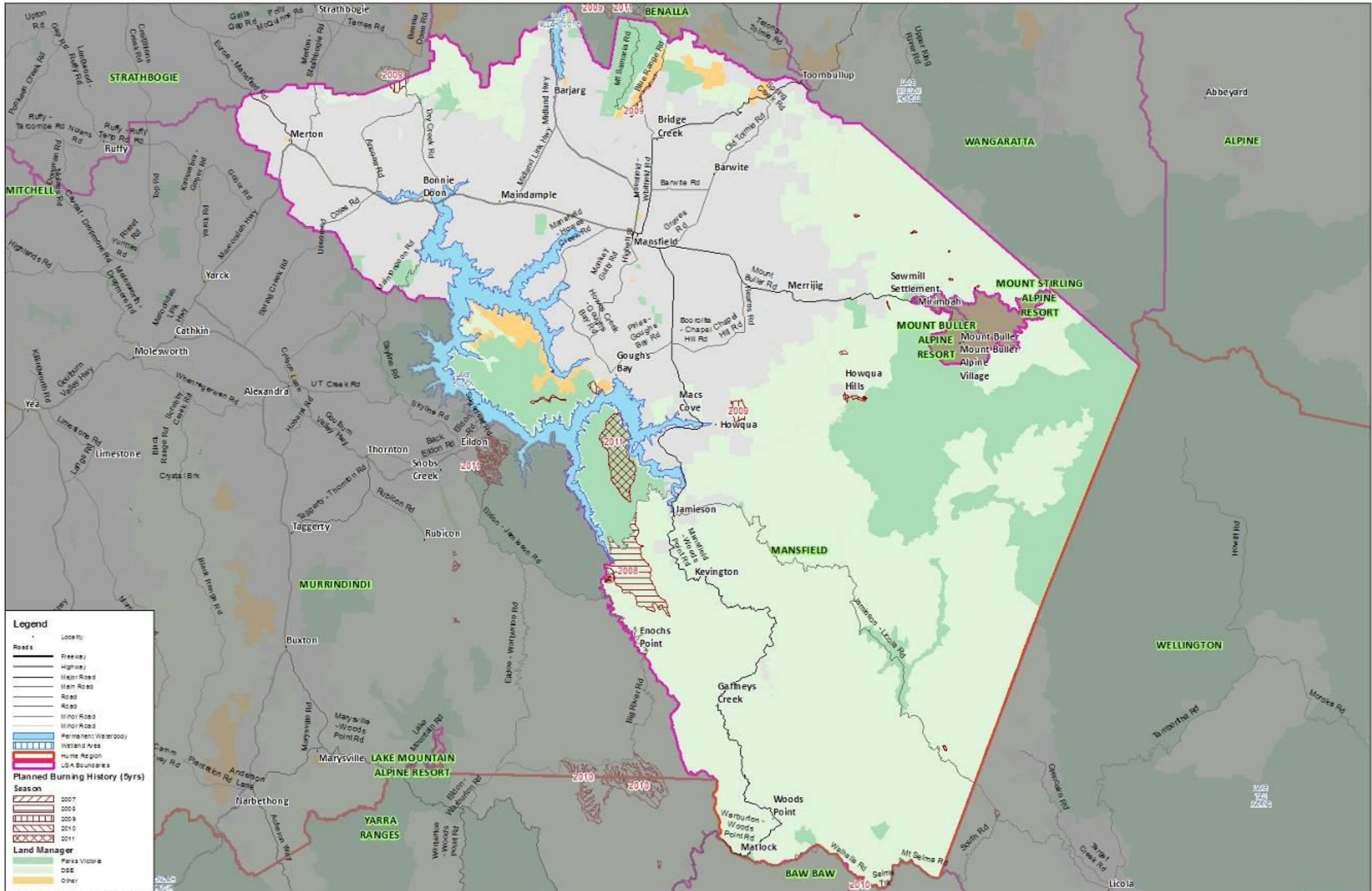
Date: 23/10/2012

Map 3

Mansfield Shire Municipal Fire Management Plan

Victorian Fire Risk Register, Features of Interest & Settlement - Mansfield Shire

Date: 23/10/2012

Map 4

Mansfield Shire Municipal Fire Management Plan

DSE Fire Management Zones - Mansfield Shire

Date: 23/10/2012

Legend

Locality

Roads
- Freeway
- Highway
- Major Road
- Main Road
- Road
- Road
- Minor Road
- Minor Road
- Permanent Waterbody
- Wetland Area
- Hume Region
- LGA Boundaries

Fire Management Zone
- Asset Protection Zone
- Strategic Wildfire Moderation Zone
- Ecological Management Zone
- Prescribed Burning Exclusion Zone

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0   3.75   7.5   15
Kilometers

Scale: 1:330,000

GDA 1994 VICGRID94

Map 5

Mansfield Shire Municipal Fire Management Plan

Fuel Loads - Mansfield Shire

Date: 23/10/2012

Legend

Locality

Roads
Freeway
Highway
Major Road
Main Road
Road
Road
Minor Road
Minor Road
Permanent Waterbody
Wetland Area
River
Steam
Hume Region
LGA Boundaries

Fuel Hazard - 2010
L
M
H
VH
E

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0   4   8   16
Kilometers

N

Scale: 1:330,000 GDA 1994 VICGRID94

FUEL LOAD - this data is representative of 2010 fuel loads so may not reflect current fuel loads.

State Government
Victoria

IFMP Municipal Fire Management Planning - Biodiversity Values
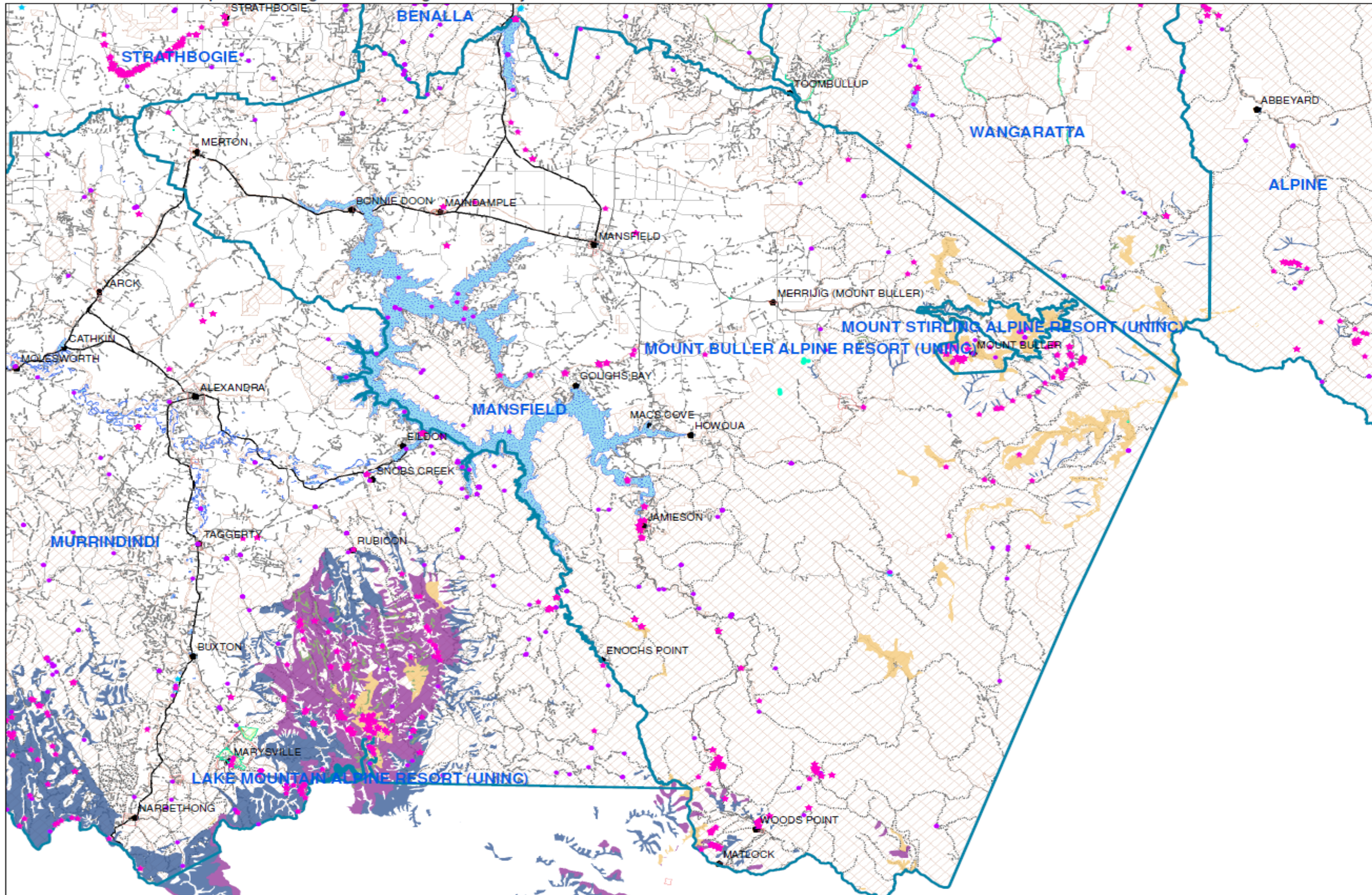
Legend

- ★ EPBC Act listed Fauna
- ● FFG Act listed Fauna
- ★ EPBC Act listed Flora
- ● FFG Act listed Flora

Fire Sensitive vegetation
EVC NAME

- Montane Riparian Thicket
- Montane Riparian Woodland
- Montane Wet Forest
- Sub-alpine Shrubland
- Sub-alpine Woodland
- Wet Forest
- Wetlands
- Local Govt Areas
- Township Polygon
- Locality
- Freeway
- Highway
- Main
- Local
- 2WD
- 4WD
- Public Land

Please note the displayed data comes from DSE GIS Corporate Data Library, gaps will appear where there has been no past survey work, however this means due diligence should be undertaken by the proponent or land manager.

These layers have not been analysed and are shown to flag locations where the presence of environmental values need to be factored into any discussions regarding possible fire management treatments.

Data Source : DSE GIS CSDL 2011
(Refer to documentation for further information)

GDA_1994_VICGRID94

N

Date: 12/06/2012

Scale: 1:325,000

State Government **Victoria**

0   4.5   9   18
Kilometers

7-16

MMFMP 2012 – Update adopted February 2017

Map 7

Mansfield Shire Municipal Fire Management Plan

Fire Intensity (Severe) - Mansfield Shire

Date: 10/08/2012

Legend

Locality

Roads
- Freeway
- Highway
- Major Road
- Main Road
- Road
- Road
- Minor Road
- Minor Road
- +—+— Rail Line
- Transmission Line
- Sub Transmission Line
- Gas Pipeline
- Permanent Waterbody
- Wetland Area
- River
- Stream
- LGA Boundaries
- Hancock Victorian Plantations
- Private

Fire Intensity
- 161 - 4,000
- 4,000 - 10,000
- 10,000 - 30,000
- 30,000 - 750,000

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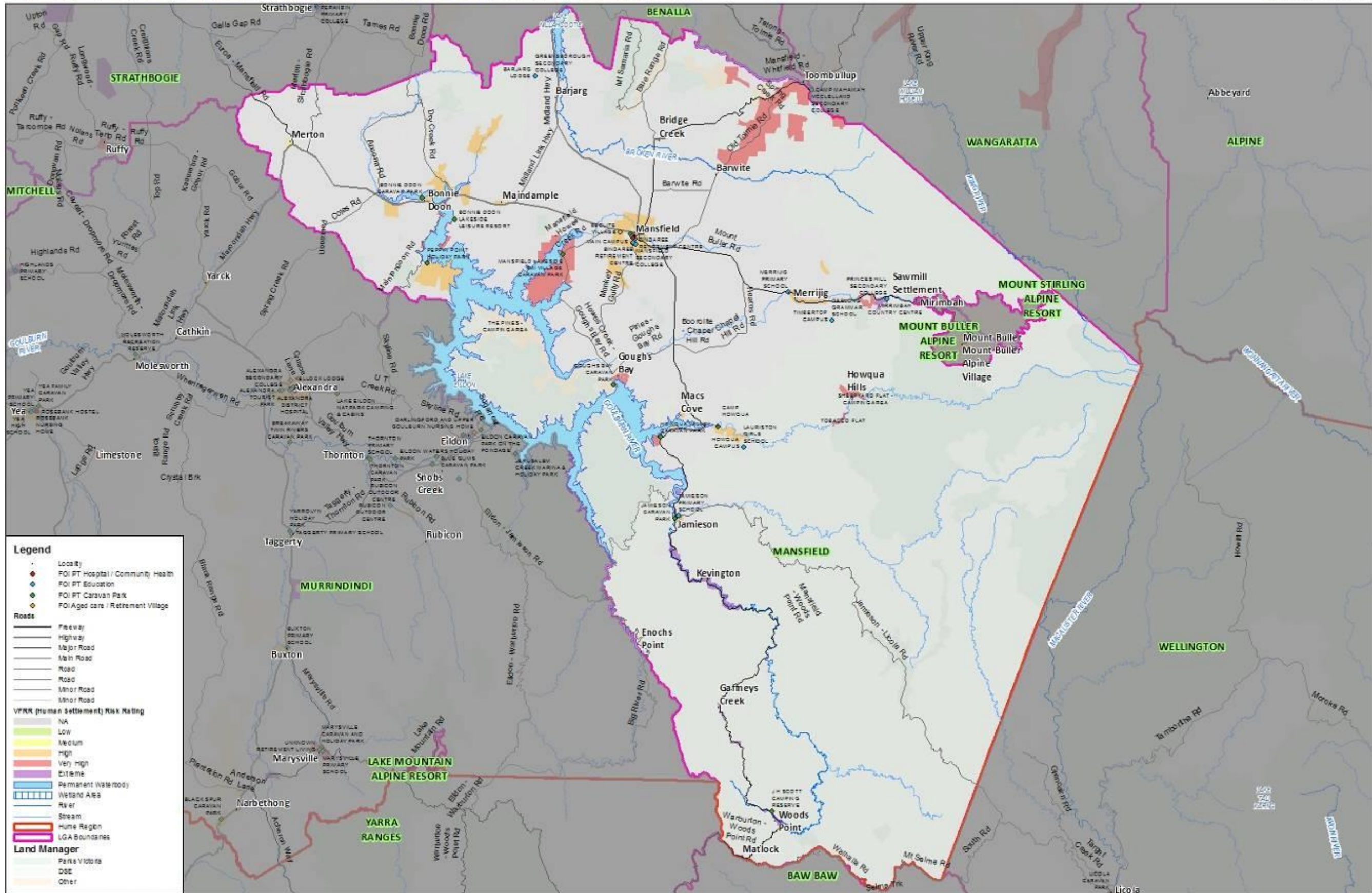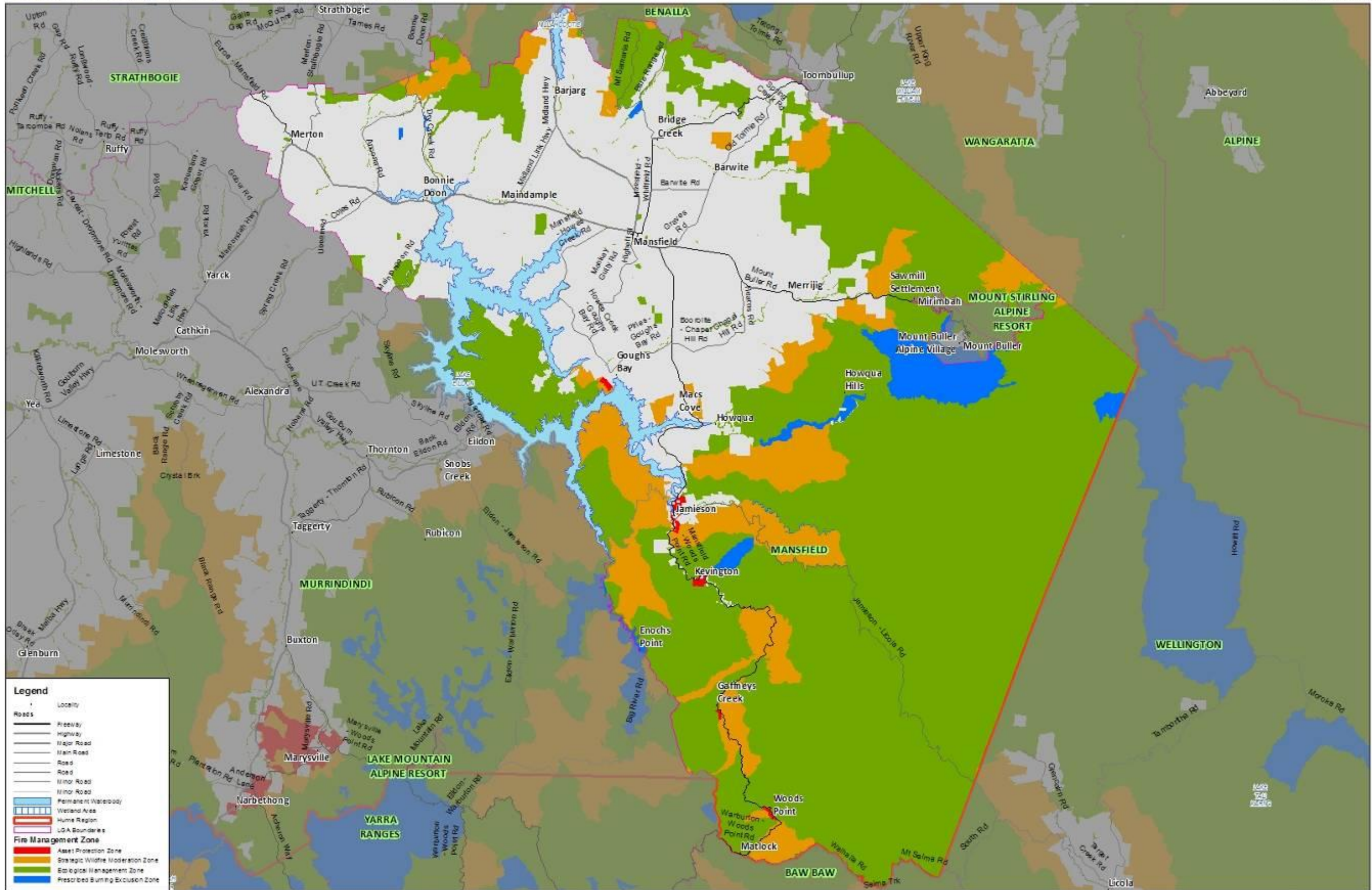
0 3 6   12
|____|____|____| Kilometers

FIRE INTENSITY - this data is produced using 2010 fuel loads so may not reflect current intensity levels.

Scale: 1:330,000   N   GDA 1994 VICGRID94

Victoria State Government

Map 8

Mansfield Shire Municipal Fire Management Plan

Fire Intensity (Extreme) - Mansfield Shire

Date: 10/08/2012

Legend
· Locality
Roads
Freeway
Highway
Major Road
Main Road
Road
Road
Minor Road
Minor Road
Rail Line
Transmission Line
Sub Transmission Line
Gas Pipeline
Permanent Waterbody
Wetland Area
River
Stream
LGA Boundaries
Hancock Victorian Plantations
Private

Fire Intensity
161 - 4,000
4,000 - 10,000
10,000 - 30,000
30,000 - 750,000

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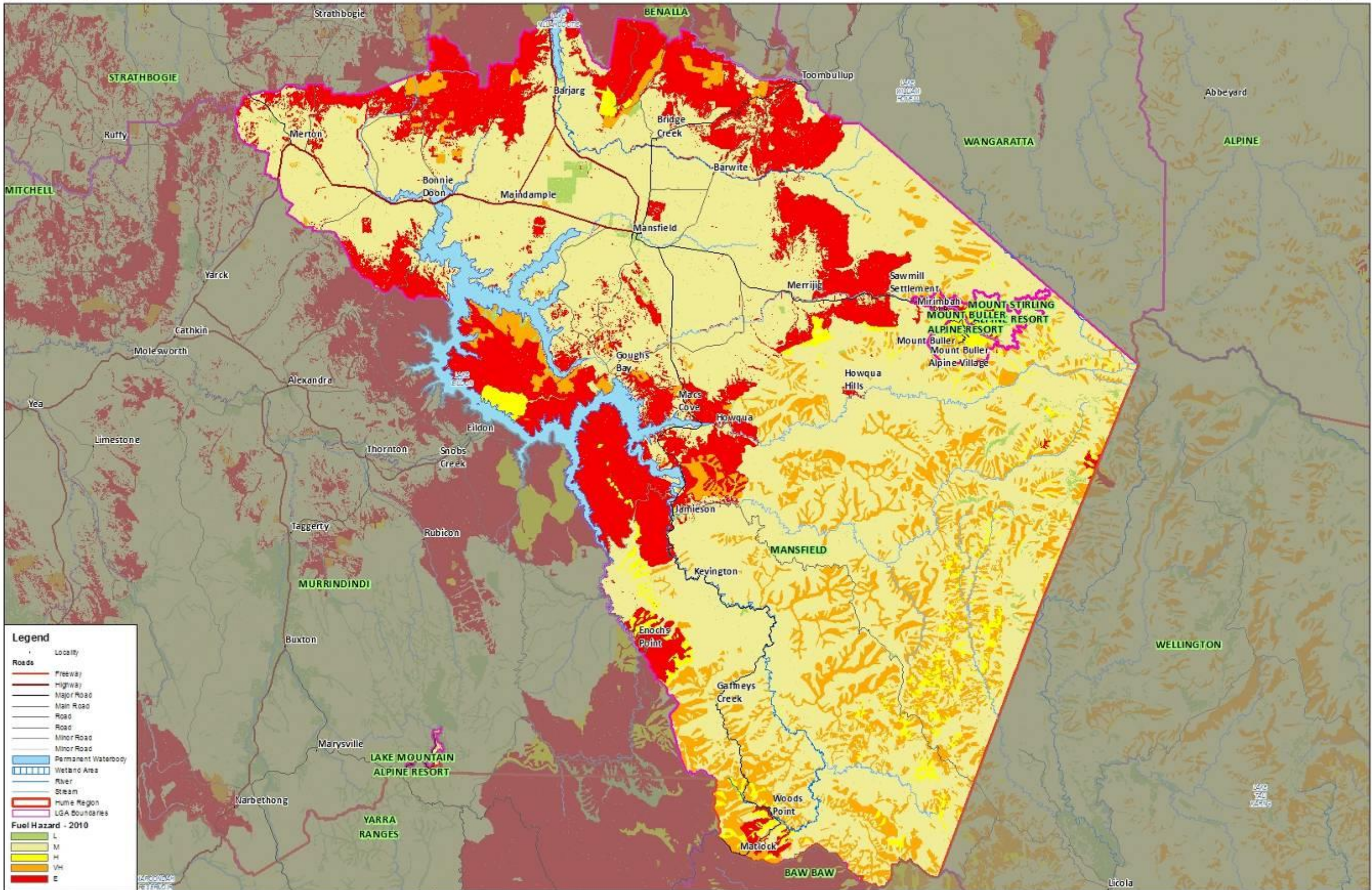FIRE INTENSITY - this data is produced using 2010 fuel loads so may not reflect current intensity levels.

0 3 6 12
Kilometers

Scale: 1:330,000

N

GDA 1994 VICGRID94

State Government
Victoria

Map 9

Mansfield Shire Municipal Fire Management Plan

Fire Intensity (Code Red) - Mansfield Shire

Date: 10/08/2012

Legend

· Locality

Roads
— Freeway
— Highway
— Major Road
— Main Road
— Road
— Road
— Minor Road
— Minor Road
—+— Rail Line
— Transmission Line
— Sub Transmission Line
---- Gas Pipeline
▨ Permanent Waterbody
▨ Wetland Area
— River
— Stream
▢ LGA Boundaries
▧ Hancock Victorian Plantations
▢ Private

Fire Intensity
▮ 161 - 4,000
▮ 4,000 - 10,000
▮ 10,000 - 30,000
▮ 30,000 - 750,000

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0   3   6   12
Kilometers

FIRE INTENSITY - this data is produced using 2010 fuel loads so may not reflect current intensity levels.

Scale: 1:330,000   N   GDA 1994 VICGRID94

State Government
Victoria

7.4 HAZARD TREES
IDENTICATION AND NOTIFICATION PROCEDURES

The Electricity Safety Act 1998 (Vic) (ES 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

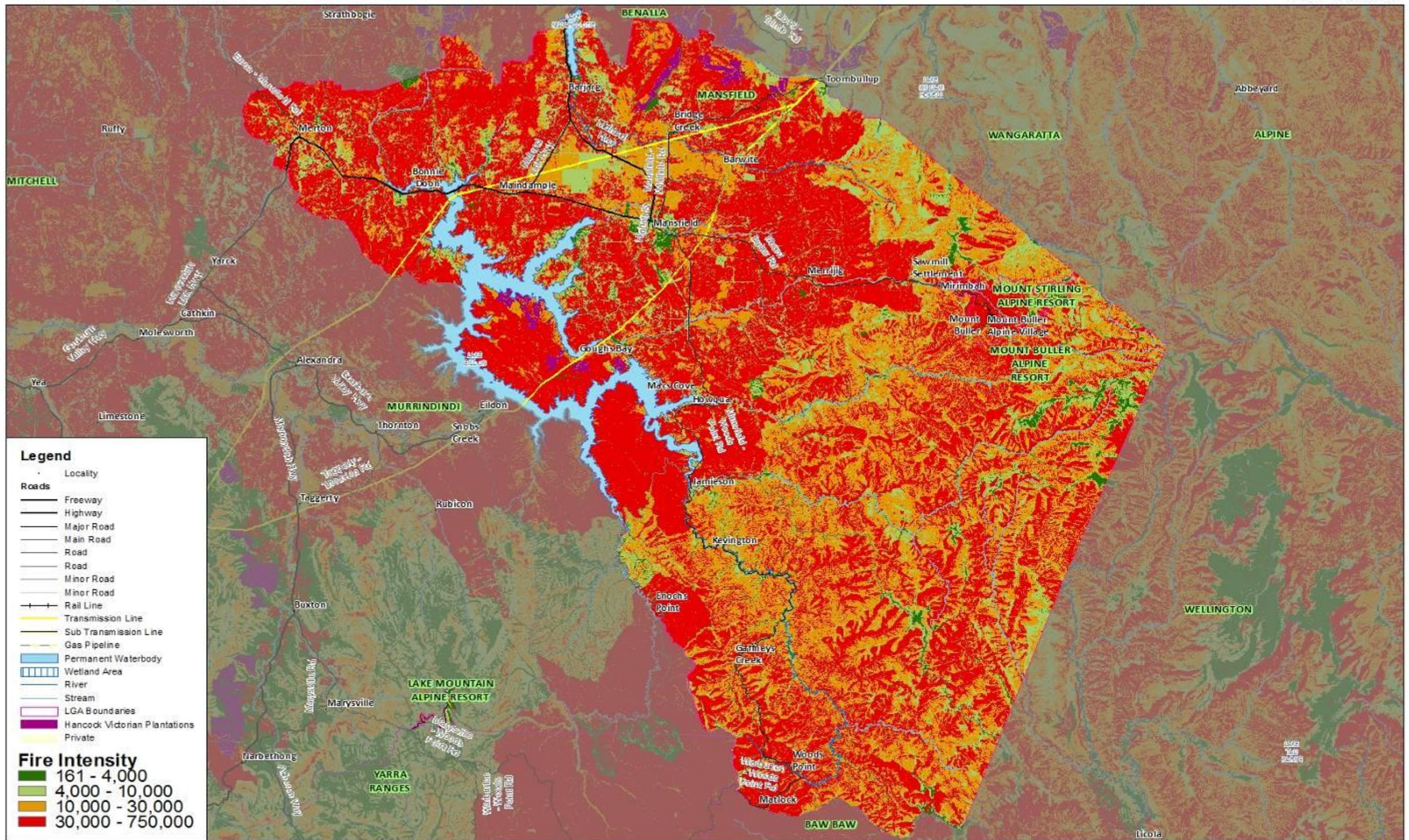   b) Procedures for the notification of responsible persons of trees that are hazard trees in relation to electric lines for which they are responsible.

Under the ES 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 MFMP seek to address the requirement detailed above.

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 ES 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 (the Regulations) 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 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 ES 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 ES Act, responsibility is allocated between distribution businesses and other owners of electricity infrastructure, land owners and occupiers, public land managers such as municipal councils and Vic Roads.

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 ES 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.

NOTE: THERE IS NO 'DECLARED AREA' WITHIN MANSFIELD SHIRE.

AS A RESULT THE ELECTRICITY DISTRIBUTER BECOMES THE 'PRIMARY RESPONSIBLE PERSON'.

Responsible Persons within the Mansfield Shire

There is one organisation that has responsibility for line clearance in Mansfield Shire: SP-Ausnet for distribution lines.

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).

PROCEDURES AND CRTIERIA 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, (the Committee), 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 assesses 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 are 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 outline 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 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**) [or alternative person as nominated and agreed by the Committee] 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 Committee 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 trees (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 reason 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 'SP Ausnet' with responsibility for the highest percentage of lines within the Local Government Area. Contact details for SP Ausnet are as follows:

Agency name	Select Solutions (a division of SP Ausnet
Position title of contact person	Peter Scotto
Telephone Number	03 9237 4419 or 0408 403 749
Email Address	peter.scotto@select-solutions.com.au
After Hours Number	03 9237 4419 or 13 17 99

NOTE ALSO GENERAL EMERGENCY ENQUIRIES SP AUSNET 92293778- (24 HR AVAILABILITY)

- Electrical Faults & emergencies Phone 131799

CORPORATE EMERGENCY PLANNING AND SECURITY EMERGENCY OPERATIONS CENTRE:

- Phone. 9679 4051 - Mobile. (M/AH) 0488 619442 - emergency@sp-ausnet.com.au

PROCEDURES FOR NOTIFICATION OF RESPONSIBLE PERSONS

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

Step1	Report provided to PRPR	
Step2	PRPR to determine who the responsible person is in relation to the reported tree (If necessary, the PRP can seek assistance from ESV for this step.)	
Step3	Is the responsible person the primary responsible person?	**Yes =>**applicable internal procedure for referral and assessment of potentially hazardous tree to be followed
		No=>proceed to Step 4
Step4	Did the report indicate that urgent action is required?	**Yes=>** the responsible person should be notified as soon as possible, and by [*insert period, eg. The close of the next business day*].
		No=> the PRPR must advise the responsible person of the existence and location of a potentially hazardous tree in accordance with the 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 ES 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 indicated 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 [*insert period, e.g. the close of the next business day].*

Each responsible person (other than the primary responsible person) must provide the PRPR with contact details of the person (position title) to who 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.

PRPR CONSULTATION

The Committee notes that the Primary Responsible Person was consulted in relation to the development of these procedures. Contact details provided in response to draft review conducted by:
- Darren Walker(Darren.Walker@select-solutions.com.au)

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7.5 TOWNSHIP PROTECTION PLANS & NEIGHBOURHOOD SAFER PLACES

TOWNSHIP PROTECTION PLANS (TPPs):
TPPs provide a planned response for both emergency services and the community to a bushfire within close proximity to a township, with potential to impact on the local community. This plan addresses the specific needs of the town's people and their safety and pre-planning, property preparation, asset protection, environment and economy, and is typically divided into 3 parts:

a) Community Information.
b) Township planning factors.
c) Fire Prevention

TPPs have been completed and are available for the following towns in Mansfield Shire:

- Tolmie
- Sawmill Settlement
- Goughs Bay
- Jamieson
- Kevington

More information and copies of these TPPs can be found on the CFA website at:

- cfaonline.cfa.vic.gov.au/mycfa/Show?pageId=publicTownshipProtectionPlans

NEIGHBOURHOOD SAFER PLACES:

Neighbourhood Safer Places are a place of last resort. They should only be used if a resident's Bushfire Survival Plan fails and residents have no other place for shelter. Welfare facilities will not be made available and the place may not provide shelter from smoke and embers.

Neighbourhood Safer Places have a number of limitations:

- They have limited capacity and provide no guarantee of safety;
- They do not cater for animals;
- There is no expectation that emergency services will be present;
- They do not provide meals, amenity or cater for special needs (e.g. Infants, the elderly, the ill or the disabled);
- They may not provide shelter from the elements, particularly flying embers;
- There are risks to people during access, shelter during passage of the fire front and egress from the Neighbourhood Safer Place.
- They are NOT a Fire Refuge, Relief Centre, Recovery Centre, Assembly Area, or informal Places of Shelter, each of which has a different and specific purpose.

NSPs have been declared at the following areas in Mansfield Shire (press control key and click mouse button to access maps in electronic versions):

Name	Directions	Address	Maps
Bonnie Doon	Peppin Point Holiday Park Tennis Court/Swimming Pool Area	75 Peppin Drive Bonnie Doon 3720.	
Bonnie Doon	Bonnie Doon Recreation Reserve Car park off Davon Street adjacent to oval	Bounded by Arnot Street, ...nerman Avenue, Davon ...et and Wilson Street Bonnie ...n 720	
Goughs Bay	Goughs Bay - Howes Creek Fire Station	Corner Walshs Road and Howes Creek-Goughs Bay Road Goughs Bay 3723	
Howqua	Camp Howqua Lodge Building	127 Howqua River Road Howqua 3723.	
Jamieson	Jamieson Memorial Hall	Corner Perkins Street and Grey Street Jamieson 3723.	
Maindample	Maindample Fire Station Shed	Main Street, near Railway Street intersection Maindample 3723.	
Mansfield	Recreation Reserve Sporting Complex	Highett Street (between Victoria Street and Curia Street) Mansfield 3722.	
Merrijig	Merrijig Public Hall	Corner Mount Buller Road and Alpha Street (opposite Fire Station) Merrijig (Mount Buller) 3723.	
Merton	Merton Recreation Reserve Racecourse - Grassed area between sports hall and pergola	Merton-Euroa Road near junction of Maroondah Highway Merton 3715	
Tolmie	Tolmie Fire Station	Cnr Old Tolmie Rd (Spring Creek Rd) & Tolmie-Mahaikah Rd Tolmie 3723.	
Woods Point	Woods Point The Adit off Knickers Track former State School Reserve	Rear of 30 Scott Street (police Station Site) area also known as Kenny Lane Woods Point 3723	Designated 2015

The above list of NSPs was updated 31st October 2014. However, new NSPs may have been declared (or undesignated since that time. The most up to date list of NSPs can be found on either the CFA Website at:

- www.saferplaces.cfa.vic.gov.au/cfa/search/default.htm

Or the Mansfield Shire Website:

- https://www.mansfield.vic.gov.au/residents/community/emergency-management/before

7.6 GLOSSARY AND ACRONYMS

Term	Description
ABS	Australian Bureau of Statistics
Acceptable Risk	The level of potential losses that a society or community considers acceptable, given existing social, economic, political, cultural, technical and environmental conditions.
APT	Australian Pipeline Trust
ARMB	Alpine Resort Management Board
AIIMS	Australasian Inter-service Incident Management System A nationally adopted structure to formalise a coordinated approach to emergency incident management.
Assets and Values	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 plus associated 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, and archaeological and landscape values. (Code of Practice for Emergency Management on Public Land)
AWS	Automatic Weather Station The Bureau's standard AWSs use sensors to monitor temperature, humidity, wind speed and direction, pressure and rainfall. Various advanced sensors are available for specialised applications. These sensors can monitor cloud height (ceilometer), visibility, present weather, thunderstorms, soil temperature (at a range of depths) and terrestrial temperature. (Developed from the BOM).
BASO	Brigade Administration Support Officer
BMO	Bushfire Management Overlay
BOM	Bureau of Meteorology
Burning Program	A program of prescribed burns scheduled these for a designated area over a nominated time, normally looking ahead over one fire season (for the coming spring to the following autumn), but can also look ahead five years or more.
Burn Plan	The plan which is approved for the conduct of prescribed burning. It contains a map identifying the area to be burnt and incorporates the specifications and conditions under which the operation is to be conducted.
Bushfire	Unplanned vegetation fire. A generic term which includes grass fires, forest fires and scrub fires both with and without a suppression objective.
Bushfire Danger Period	A period of the year either established by legislation or declared by the relevant agency, when restrictions are placed on the use of fire due to dry vegetation and the existence of conditions conducive to the spread of fire.
Bushfire Management	All those activities directed to prevention, detection, damage

Term	Description
	mitigation, and suppression of bushfires. Includes bushfire legislation, policy, administration, law enforcement, community education, training of fire fighters, planning, communications systems, equipment, research, and the multitude of field operations undertaken by land managers and emergency services personnel relating to bushfire control.
Campaign Fire	A fire normally of a size and/or complexity that requires substantial fire fighting resources, and possibly several days or weeks to suppress.
CERM	Community Emergency Risk Management
CFA	Country Fire Authority
COL	Consequence of Loss - OESC A dataset is owned and maintained by the OESC. The dataset contains records of infrastructure and assets under the categories: Economic Infrastructure, Economic Production, Environmental Biodiversity, Social Cultural, Social Human Life and Social Infrastructure. The dataset contains detailed attributes about the assets type, value and location.
Consequence	Outcome or impact of an event
Control Authority	The agency, service, organization or authority with legislative responsibility for control of the incident. (Also referred to as the responsible authority or agency.)
Coordination	The bringing together of agencies and elements to ensure effective response to an incident or emergency. It is primarily concerned with the systematic acquisition and application of resources in accordance with the requirements imposed by the emergency or emergencies. Coordination relates primarily to resources and operates: • vertically, within an agency, as a function of the authority to command; • Horizontally, across agencies, as a function of the authority to control.
DEDJTR	Department of Economic Development, Jobs, Transport and Resources (Former DPI)
Essential Infrastructure	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 wellbeing of the community E.g. Water supply facilities.
Curing	Drying and browning of herbaceous vegetation due to mortality or senescence.
DEECD	Department of Education and Early Childhood Development
DHHS	Department of Health & Human Services
DOT	Department of Transport
DPCD	Department of Planning and Community Development
DPI	Department of Primary Industries, now DEDJTR
DELWP	Department of Environment, Land, Water **& Planning**
EHO	Environmental Health Officer – Council

Term	Description
Elements at Risk	The population, buildings and civil engineering works, economic activities, public services and infrastructure etc., exposed to sources of risk.
EMA	Emergency Management Act
EMMV	Emergency Management Manual Victoria
EPBC	Environmental Protection Biodiversity Conservation
Essential Service	A service (including the supply of goods) that if rendered unavailable for an extended period would significantly impact on the social or economic wellbeing of the community E.g. Electricity supply. (Adapted from Essential Services Commission Act 2001)
FDI	Fire Danger Index A relative number denoting the potential rates of spread, or suppression difficulty for specific combinations of temperature, relative humidity, drought effects and wind speed.
FDR	Fire Danger Rating A relative class denoting the potential rates of spread, or suppression difficulty for specific combinations of temperature, relative humidity, drought effects and wind speed, indicating the relative evaluation of fire danger.
FFG Act 1988	Flora and Fauna Guarantee Act 1988 – Victorian State Legislation
Fire Management	All activities associated with the management of fire prone land, including the use of fire to meet land management goals and objectives.
FOI	Freedom of Information
Fuel Break System	A series of modified strips or blocks tied together to form continuous strategically located fuel breaks around land units.
Fuel Management	Modification of fuels by prescribed burning, or other means.
Fuel Modification	Manipulation or removal of fuels to reduce the likelihood of ignition and/or to lessen potential damage and resistance to control (e.g., lopping, chipping, crushing, piling and burning).
Fire Season	The period during which bushfires are likely to occur, spread and do sufficient damage to warrant organised fire control.
FRB	Fuel Reduction Burn
Fuel	Any material such as grass, leaf litter and live vegetation which can be ignited and sustains a fire. Fuel is usually measured in tonnes per hectare. Related Terms: Available fuel, Coarse fuel, Dead fuel, Elevated dead fuel, Fine fuel Ladder fuels, Surface fuels, and Total fine fuel.
Fuel Hazard	A fuel complex, defined by volume, type condition, arrangement, and location, that determines the degree of ease of ignition and of resistance to control.
Fuel Management	Modification of fuels by prescribed burning or other means. (AFAC)
GBCMA	Goulburn Broken Catchment Management Authority
GMW	Goulburn Murray Water
GVW	Goulburn Valley Water
Hazard	A source of potential harm or situation with a potential to cause

Term	Description
	loss. A potentially damaging physical event that may cause loss of life or injury, property damage, social and economic disruption or environmental degradation.
Hazard Layer – DELWP	Hazard layer developed and maintained by DELWP, Office of Land and Fire. It is a state-wide coverage of <30 m^2> cell resolution with approx 27 attributes detailing surface and elevated fuel loads, hazard ratings and vegetation descriptions.
HRSFMPC	Hume Region Strategic Fire Management Planning Committee
HRSFMP	Hume Region Strategic Fire Management Plan
IAP	Incident Action Plan
IFMP	Integrated Fire Management Planning
IRSED	Index of Relative Social & Economic Disadvantage ABS scoring method for determining and comparing levels of social and economic disadvantage in given areas at a given point in time, with information displayed according to IRSED values from lowest (most disadvantaged) to highest (least disadvantaged).
ISO	International Standards Organisation
ISO 31000:2009	An international risk management standard that provides principles and general guidelines on how to manage risk
ICC	Incident Control Centre The location where the Incident Controller and various members of the Incident Management Team provide overall direction of response activities.
LGA	Local Government Authority Represents relevant Municipal Council (or ARMB) for area of concern.
Likelihood	Probability or frequency of an event can be either qualitative or quantitative.
Loss	Any negative consequence or adverse effect, financial or otherwise.
MBS	Municipal Building Surveyor - Council
MDA	Map Display Area
MEMP	Municipal Emergency Management Planning
MEMPC	Municipal Emergency Management Planning Committee
MERC	Municipal Emergency Response Coordinator – Victoria Police
MERO	Municipal Emergency Resource Officer – Council
MFB	Metropolitan Fire Brigade
MFMP	Municipal Fire Management Planning
MFMPC	Municipal Fire Management Planning Committee
MFPC	Municipal Fire Prevention Committee *(superseded by MFMPC)*
MFPP	Municipal Fire Prevention Plan *(superseded by MFMP)*
MFPO	Municipal Fire Prevention Officer
Mitigation	Measures taken in advance of a disaster, aimed at decreasing or eliminating its impact on society and environment.
MSC	Mansfield Shire Council
Municipal Area	The geographic footprint of the relevant LGA/ARMB
NECMA	North East Catchment Management Authority

Term	Description
NEO	Networked Emergency Organisations. NEOs consist of Government based emergency organisations including DELWP, Parks Vic, Department of Primary Industries, Department Planning & Community Development, VicForests, Melbourne Water and other associated agencies. In regards to fire, DELWP are the 'responsible' body for fire on Public Lands, but they can draw fire fighting resources (people & equipment etc) from NEOs.
NEW	North East Water
NSP	Neighbourhood Safer Place – Place of Last Resort
OESC	Office of Emergency Service Commission
PPRR	Prevention, Preparedness, Response, Recovery
Practicable	What is realistic to achieve in the context of: The severity of the hazard. The state of knowledge about the hazard or risk and any ways of removing or mitigating it. The availability and suitability of ways to remove or mitigate that hazard or risk. The cost of removing or mitigating that hazard or risk. (Dangerous Goods (Storage and Handling) Regulations 2000)
Preparedness	Arrangements to ensure that in the event of an emergency occurring all those resources and services that area needed to cope with the effects can be efficiently mobilised and deployed.
Prescribed Burning	The controlled application of fire under specified environmental conditions to a predetermined area and at the time, intensity, and rate of spread required to attain planned resource management objectives.
Prevention	Regulatory and physical measures to ensure that emergencies are prevented, or their effects mitigated.
Probability	A measure of the chance of an event occurring, often expressed as a number.
Recovery	The coordinated process of supporting emergency affected communities in the reconstruction of the physical infrastructure and restoration of emotional, social, economic and physical wellbeing.
Residual Risk	Risk remaining after implementation of a risk treatment.
Resilience	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 organising itself to increase its capacity for learning from past disasters for better future protection and to improve risk reduction measures. (UN/ISDR, Geneva 2004)
Response	Actions taken in anticipation of, during and immediately after an emergency, to ensure its effects are minimised and that people affected are given immediate relief and support.

Term	Description
Risk	The exposure to the possibility of such things as economic or financial loss or gain, physical damage, injury or delay, as a consequence of pursuing a particular course of action. The concept of risk has two elements, i.e. the likelihood of something happening and the consequences if it happens.
Risk Analysis	A systematic use of available information to determine how often specific events may occur and the magnitude of their likely consequence.
Risk Assessment	The overall process of risk identification, analysis and evaluation.
Risk Criteria	Terms of reference by which the significance of risk is assessed.
Risk Evaluation	Process of comparing the level of risk against criteria.
Risk Identification	The process of determining what, where, when, why and how something could happen.
Risk Management	The culture, process and structure that are directed towards potential opportunities whilst managing adverse effects.
Risk Management Process	The systematic application of management of policies, procedures and practices to the tasks of communicating, establishing the context, identifying, analysing, evaluating, treating, monitoring and reviewing risk.
Risk Reduction	Actions taken to lessen the likelihood, negative consequences, or both, associated with a risk.
Risk Register	A listing of risk statements describing sources of risk and elements at risk, with assigned consequences, likelihoods and levels of risk.
Risk Treatment	Process of selection and implementation of measures to modify risk.
RSFMPC	Regional Strategic Fire Management Planning Committee
SES	State Emergency Services
SFMPC	State Fire Management Planning Committee
SMR	State Net Mobile Radio
SOP	Standard Operating Procedures
Source of Risk	Source of potential harm
Stakeholders	Those people and organisations who may affect, be affected by or perceive themselves to be affected by a decision, activity or risk.
Susceptibility	The potential to be affected by loss
TAPO	Technical Administrative Project Officer
TFB	Total Fire Ban (A day of Total Fire Ban)
Tolerable Risk	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.
TOR	Terms of Reference
TPP	Township Protection Plan
Treatment	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

Term	Description
	objectives.
Treatment Assessment	Systematic review of processes to ensure that controls are still effective and appropriate.
Urban Rural Interface	The line, area, or zone where structures and other human development adjoin or overlap with undeveloped bushland.
VFRR	Victoria Fire Risk Register CFA process that identifies assets at risk from bushfire, assesses the level of risk and highlights the risk mitigation treatments currently in place along with the responsible agencies for implementing these treatments. The output is a geographic layer and associated attributes that identifies the asset type; name; location and risk factors and priorities of these assets based on a wildfire occurring in its vicinity on a day of 100 FDI.
VICPOL	Victoria Police
Vulnerability	The conditions determined by physical, social, economic and environmental factors or processes, which increase the susceptibility of a community to the impact of hazards. (UN/ISDR, Geneva 2004)
Vulnerable People	Those living in high bushfire risk areas and who are unable to make an independent decision, including due to cognitive impairment; physically dependant and totally reliant on in home personal care and support; and people who live alone and are geographically isolated with no co-resident carer or family. (DHHS)
WTP	Water Treatment Plant
WICEN	Wireless Institute Civil Emergency Network

7.7 EXCERPTS FROM MUNICIPAL FIRE PREVENTION PLAN:

The following excerpts (1-7) are taken directly from the Mansfield Municipal Fire Prevention Plan and are to be reviewed by the MFMPC with a view to integrating them into the next version of the MFMP. In the interim the MFMPC endorses their continued application.

(I)   STRUCTURAL FIRE   DWELLINGS

The population of the municipality (7,191) is spread with widely varying population density throughout its length and breadth. The majority of the population of the municipality resides within the township of Mansfield (3,034) and Bonnie Doon, Jamieson, Woods Point and the rural districts of Gaffney's Creek, Gough's Bay, Kevington, Merrijig/Sawmill Settlement, Merton, Peppin Point and Tolmie.

A large number of the dwellings are in the rural districts and surrounding areas occupied as holiday homes and hobby farms. There is a wide diversity of life styles within the general population and dwelling types vary from small to significant investments.

Dwelling fires need to be given sufficient and specific attention as detailed below.

(II)   RISKS, STRATEGIES, PROGRAMS AND ACTIONS   DWELLINGS

Risk		Objective	Treatment/Program/Action	Responsibility	Others Involved	Time Frame
Details	Rating					
Loss of life.	High	Return to nil level	Community Education including the following: • Brigades in schools • CFA mobile education unit • Articles in the Council newsletter • Provide articles for Community, Fireguard and Land care newsletters	CFA & Municipality	Fire Brigades	Ongoing.
Personal injury.	High	Minimise incidence and severity.	Inspect new and altered dwellings for smoke detector installation. New dwellings to comply with building & fire safety standards including planning permit conditions.	Building Surveyors Other Council Officers	CFA & Brigades	Ongoing
Property loss.	High		Local Laws officers to undertake residents questioning for smoke detector installation when visiting. CONTINUE	Municipality (Local Laws Officers)		Ongoing.

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Risk		Objective	Treatment/Program/Action	Responsibility	Others Involved	Time Frame
Details	Rating					
			Home Carers to check for smoke detector installation when in dwellings.	Municipality	CFA	Ongoing
			Undertake property inspections under Section 41 of the CFA Act. Issue Fire Prevention Notices to owner/occupier whose property contains a fire /potential fire hazard.	Municipality	Brigades Owner / Occupier	November Annually - Ongoing

B: TOWNSHIPS (RESIDENTIAL-GENERAL)
(i)   CONTEXT

The major town within the municipality is Mansfield. Other population centres that may be classed as 'Townships' are Bonnie Doon, Merrijig/Alpine/ Sawmill Settlement, Jamieson, Woods Point, Gough's Bay, Macs Cove and Howqua Inlet.

Some of these towns are located near rivers or streams and/or heavily timbered areas, and can be characterised as having many older timber buildings, an irregular layout, and absentee owners (holiday homes). The random residential development, undeveloped lots and irregular street layout of these towns has created pockets of vegetation and areas of poor access within the residential areas. The moderate rainfall and associated vegetation growth further complicate this.

Council will work with the local brigades / Group and CFA Regional Officers in the development of community fire safety plans.

The towns of Bonnie Doon, Jamieson, Mansfield, Merrijig/Sawmill Settlement and to a lesser extent Woods Point are provided with a reliable reticulated water supply that is available for fire fighting purposes – but not necessarily designed for or capable of wildfire township protection.

(ii) RISK, STRATEGIES, PROGRAMS AND ACTIONS

TOWNSHIP AREAS (RESIDENTIAL GENERAL)

Risk		Objective	Treatment/Program/Action	Responsibility	Others Involved	Time Frame
Details	Rating					
Property loss and loss of personal effects.	Significant	Minimisation of loss of property and personal effects.	Undertake property inspections under Section 41 of the CFA Act. Issue Fire Prevention Notices to owner/occupier whose property contains a fire /potential fire hazard. Initiate or support Community education & fire awareness meetings.	Municipality	Owner / Occupier	November Annually - Ongoing
Loss of life and personal effects.	High	Return to nil loss of life and minimise personal injury	Undertake inspections and maintenance to fire plugs and markers.	Municipality & Water Supply Authority	Brigades	Ongoing (Annually)
Environmental damage	Moderate	Minimise damage	Community Education of all aspects concerning fire safety -including reference to stored chemicals in sheds and the need for extinguishers, The following processes will be included: • Place articles in Council newsletter & local paper. • Provide articles for Community, Community Fireguard and Land care newsletters.	Municipality CFA & DELWP	Fire Brigades	Ongoing

C: HEALTH CARE
(I) CONTEXT

Health Care Centres are located in Mansfield for the ill, frail elderly and disabled. By nature they contain a population that in general are dependent on outside assistance for mobility, day to day living, control and direction. Consequently this group that encompasses; special accommodation, nursing homes, hostels and hospitals are very vulnerable to a wide range of events.

There is a risk inherent in all these facilities of multiple injuries and loss of life should a significant incident occur. Fire controls are high (eg fire protection equipment and structural safety), however any incident involving these premises, taking participant numbers into consideration, can lead to major consequences.

(II)   RISKS, STRATEGIES, PROGRAMS AND ACTIONS

HEALTH CARE

Risk		Objective	Treatment/Program/Action	Responsibility	Others Involved	Time Frame
Details	Rating					
Loss of life from the affects of uncontrolled fire.	High	Maintain current nil level.	Risk management, including the inspection of one of the Centers per year on a random basis and encourage compliance with the BCA where necessary.	Municipal MBS & CFA	Work Cover Authority & Fire Brigades	Commenced 2004 annually ongoing
Loss of property from the affects of uncontrolled fire.	Significant	Reduce incidence and severity	Environmental Health Officers to recognise fire risks when undertaking their inspections.	Municipality		Ongoing
Environmental damage.	Moderate	Maintain current nil level.	Fire Brigades are encouraged to develop response plans for specific premises.	Brigades & CFA	Municipality	Ongoing

D: PUBLIC ACCOMMODATION AND TOURIST FACILITIES
(I) CONTEXT

The nature and range of these types of facilities varies greatly across the municipality. The type, size and age of the premises has a very significant impact on the potential for the loss of both life and/or property. As a general rule these types of premises can contain a high number of people who will be sleeping on the premises and are unfamiliar with their surroundings, are exposed to varying standards of serviceability and different or limited safety procedures. In some cases the occupants have very little control over their surroundings and invariably have little interest in the risks associated with the accommodation.

Although the likelihood of a large fire in these premises or facilities is rare, the consequence in the event of fire is major (loss of life).

(II) RISK **E**NVIRONMENTS, **S**TRATEGIES, **P**ROGRAMS AND **A**CTIONS

PUBLIC ACCOMMODATION AND TOURIST FACILITIES

Risk		Objective	Treatment/Program/Action	Responsibility	Others Involved	Time Frame
Details	Rating					
Loss of life from the affects of uncontrolled fire.	High	Maintain current nil level.	Risk management, including the inspection of a minimum of 10 properties per year on a random basis and application of enforcement under the BCA or other legislation where necessary.	Municipal MBS & CFA	CFA, Building Practitioners & Hospitality Industry	Commenced 2003 annually ongoing.
Loss of property from the affects of uncontrolled fire	Significant	Reduce incidence and severity	Environmental Health Officers to recognise fire risks (particularly Caravan Parks) and check when undertaking their inspections. Three yearly inspections of Caravan parks with CFA of fire safety standards	Municipality & CFA	CFA	Commenced 2000 & ongoing.
Economic loss both Public and Private.	High (Non Urban)	Reduce incidence and severity	Network information from reports/information from other locations. (National and International)	Municipality		Ongoing.
	Low (Urban)	Reduce incidence and severity	Fire Brigades are encouraged to develop response plans for specific premises.	Brigades	Municipality & CFA	Ongoing

E: PUBLIC ASSEMBLY AND ENTERTAINMENT VENUES
(I) C**ONTEXT**

There are a number of these premises within the municipality including public halls, sporting complexes, churches, schools, preschools and childcare centres. Each facility or premises has its own particular risk that will require individual evaluation.

As a general rule these types of premises can contain a high number of people who will be gathering together on the premises and are often unfamiliar with the facility. These premises have varying but generally high standards of maintenance, and varying safety procedures. In some cases the occupants have little control over their surroundings and invariably have little interest in the risks associated with the premises.

There are currently no buildings identified as 'designated Fire Refuges' within the municipality. A disused mine adit at Woods Point does, however, constitute such a facility – see Section 7.02.

(II)   RISKS, STRATEGIES, PROGRAMS AND ACTIONS RISKS, STRATEGIES, PROGRAMS AND ACTIONS

PUBLIC ASSEMBLY

Risk		Objective	Treatment/Program/Action	Responsibility	Others	Time Frame
Details	Rating				Involved	
Loss of life from the effects of uncontrolled fire.	High	Maintain current nil level.	Fire Prevention Planning. Analyse database for risk and rank in priority order and determine inspection needs.	Municipality & CFA	Work Cover Authority & Dept Human Services	Commenced 2004 - annually ongoing
Loss of property from the effects of uncontrolled fire.	High	Reduce incidence and severity	Risk management including event management plan lodgment, assessment & endorsement and including the inspection of properties where necessary.	Municipality & CFA	Work Cover Authority & Dept Human Services	Annually ongoing
Social/ Economic loss both Public and Private.	Signifi cant	Reduce incidence and severity				

F.   INDUSTRIAL AND COMMERCIAL
(I)   CONTEXT

There are a number of industries within the municipality with the timber and forestry industry machinery generally located close to their supply of raw materials.

The major industries at risk are the timber processing plants, light engineering/fabrication, and bulk fuel depots. There are a number of risks associated with these industries that include fire, hazardous materials spills (both storage and transport), and environmental damage from pollution and/or spillage.

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There are a number of other depots and small industries that are located within the Industrial zones of the township of Mansfield where smaller amounts of dangerous goods are stored. Storage volumes are generally very low and therefore their use is not obvious to anyone other than the proprietors.

Generally the controls on Industries are quite stringent and hence the likelihood of any major incident is low. However should a major incident occur, there would be a significant impact on the community both economic and potentially to life.

The major commercial centre within the municipality is located within Mansfield, with isolated establishments located within the other villages and townships. There are a number of risks associated with the occurrence of fire related to these commercial centres that include; the proximity to other similar premises and a higher concentration of flammable materials. The loss of these premises as a result fire, may result in major economic loss, loss of sense of 'community' and the loss of employment.

Due to the nature and operation of the commercial premises, shortfalls in the provision of adequate house-keeping practises and general fire safety can raise the level of risk to the general public and the owners/employees.

(II)   RISKS, STRATEGIES, PROGRAMS AND ACTIONS

INDUSTRIAL & COMMERCIAL

Risk		Objective	Treatment/Program/Action	Responsibility	Others Involved	Time Frame
Details	Rating					
Loss of life from the effects of uncontrolled fire.	Significant	Maintain current nil level.	Encourage the industries to develop and maintain adequate Fire Prevention and Evacuation Relocation Plans.	Industry Municipality & CFA	Work Cover Authority	Commenced 2003 annually ongoing
Loss of property from the effects of uncontrolled fire.	Significant	Minimise incidence and severity.	Risk management, including the inspection of property exterior as part of normal fire inspections & essential service maintenance on a random basis as necessary by MBS. (Check for the storage of Dangerous Goods whilst undertaking the inspection). Provide information to owners/occupiers as required. Follow up with inspections and application of enforcement under the BCA as necessary.	Industry Municipality	CFA & Work Cover Authority	Commenced 2004 then annually ongoing

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Risk		Objective	Treatment/Program/Action	Responsibility	Others Involved	Time Frame
Details	Rating					
Personal injury from the effects of uncontrolled fire.	Moderate	Minimise incidence and severity.	Environmental Health Officers to recognise fire risks when undertaking their inspections.	Municipality	CFA	Ongoing (Annually)
Environmental damage.	Significant	Minimise incidence and severity.	During inspections any anomalies, poor housekeeping practices or concerns are noted and reported to the relevant officer or authority.	Industry Municipality Others	EPA	Ongoing

G: TRANSPORT
(I) CONTEXT

The Maroondah Highway and Midland Highway traverse the Municipality. These roads are critical to the economy of the region including tourism and significant opportunity for future economic development. These like all roads however provide a potential fire ignition source due to vehicle malfunction, accident or inappropriate disposal of burning material by the users, such as cigarettes.

All roads carry traffic to various degrees, depending on their location. The higher the traffic usage - the higher the requirements for the road to be able to provide safe passage for vehicles before & during a fire: There is also a wide variety of dangerous goods transported with the ever present potential for incidents:

The vegetation on the road reserve varies significantly from open grassland to forest, giving a wide range of risk environments and hence the associated treatments must vary accordingly – see Appendix C – E below.

Note: Vic Roads have indicated that they will not approve local landholder fire prevention works on roadsides (burning, ploughing & grass cutting)

See below re Goulburn River High Country Rail Trail

(II) RISK ENVIRONMENTS, STRATEGIES, PROGRAMS AND ACTIONS

TRANSPORT

Risk		Objective	Treatment/Program/Action	Responsibility	Others Involved	Time Frame
Details	Rating					
Loss of life from the effects of fire.	Significant	Maintain current nil level.	Provide information to road users relating to ongoing fire risks, the declared fire danger period and the advantage of carrying fire extinguishers and woolen blankets.	CFA	Municipality	Annually at commencement of Fire Danger Period
Loss of property from the effects of fire.	Significant	Reduce incidence and severity.	Undertake appropriate works to ensure the safety of the travelling public and provide safe access for Emergency Services in the time of fire.	Municipality, Vic Roads, DELWP & CFA	Work Cover Authority	August to November Annually
			Encourage fuel reduction/hazard minimisation works around former railway assets.	Municipality		
Environmental damage.	Significant	Prevention/reduction of environmental damage as a result of uncontrolled fire.	Owner/Operator informed of their responsibilities for the transport of dangerous goods.	Vic Roads, EPA & CFA	Owner /Operators	Ongoing
			Alleviate the risk through strategic identification of control lines. Brigades are encouraged to undertake fuel reduction burning and/or spraying in accordance with this document and the Roadside Management Strategy.	MFPC & Brigades	Municipality & CFA	Ongoing

Brigades (and others) wishing to undertake fire prevention work along roads must obtain prior approval from the Road Authority.

H: GOULBURN RIVER HIGH COUNTRY RAIL TRAIL

Fire poses a potential risk to life, property and the environment along the GRHCRT due to a number of factors including inappropriate disposal of cigarettes and the potential misuse of portable cooking appliances by users. Other sources of ignition relate to the proximity of the Rail Trail to roads, adjoining landuse and the parking of cars in inappropriate locations particularly on days of heightened risk (TFB, Code Red days etc).
The State Government has taken a number of steps to address and reduce the risk to the Victorian population from bushfire following the events of Black Saturday on 7 February 2009. One of these steps is the capacity of the Government to declare certain days as 'Code Red' or 'Catastrophic' Days. Use of the trail is and will be publicly promoted as strongly discouraged on code red days.

Much of the trail has a load limit of 5 tonnes, is relatively narrow and is therefore not accessible to CFA Tankers. It is accessible to emergency vehicles such as CFA slip-on and command vehicles less than 5 tonnes.

A series of supplementary fire fighting static water storages are being installed at strategic locations to boost the capacity of local fire brigades to maintain water supplies in the event of fires near or along sections of the Trail.

Adjacent landholders are being encouraged, where appropriate, to assume increased responsibility for managing fire risks (to themselves or other users) along the Trail by undertaking slashing, mowing or grazing of unused portions of the former rail reserve under Permits from Council.

The table below provides a basic level of fire management measures and has been developed in consultation with and supported by the Officers representing the Rail Trail Project Team, adjoining Municipalities & Divisional / Regional CFA Officers. The Table covers Risk environments, strategies, programs and actions to be integrated into Management Plans.

(I)   GOULBURN RIVER HIGH COUNTRY RAIL TRAIL

RISK		Program / Action	Responsibility	Others involved	Time frame
Loss of life from the effects of fire *Objective*: nil level		Display information to trail users on the restrictions on fire during the declared fire period and risks associated with outdoor recreational activities Ensure the code of conduct is posted for trail users awareness	Municipality		Annually, at the commencement of the Fire Danger Period
		Discourage use of the Rail Trail on highest risk days			
Loss of property from the effects of fire *Objective*: Reduce incidence and severity on and in the vicinity of the rail trail		Maintain strategic water points along length of the trail Undertake strategic fuel reduction by burning and/or slashing/and/or grazing and/or spraying along the Rail Trail and car park areas to limit the chance of fire occurring and minimise the spread of fire.	Municipality	CFA	October to November and ongoing annually
		Encourage fuel reduction/hazard minimisation work in areas around & adjoining dwellings and similar nearby assets			
Environmental damage *Objective*: Prevention/reduction of environmental damage as a result of uncontrolled fire		Alleviate risk through identification and treatment of strategic fuel breaks	Municipality	CFA / DELWP	Ongoing
		Provide and maintain access points for emergency services responding to fire Provide and maintain signage that will accurately enable callers to identify their location so as to enable timely response in the case of an incident		CFA	

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7.7.1 COMMUNITY SAFETY

Refuge from Fire

If the home has been properly prepared, the chances of the home surviving the passage of a fire front are greatly increased by the occupants remaining and being able to extinguish any ember ignitions. **The staying to defend option should only be made PROVIDED individuals are 'capable' and the premises together with the surrounding area have been properly assessed, prepared and protected.** This potentially life threatening decision should only be made after careful consideration and should be based on the predicted fire hazard rating noting that houses designed even to current standards are not designed to withstand conditions likely to be experienced on 'Code Red' days.

There is a clear onus and expectation on residents and owners to make every endeavour to reduce fire hazards around their homes and assets. Every encouragement should be provided to assist each householder and landowner in making the property as safe as possible, **both from approaching fire and from one occurring within the property.**

However recent experience has shown that, even with adequate attention to detail including high preparedness activity, the home may become involved in the fire – if any component of the 'Plan' should fail.

Planned and timely self-relocation (with appropriate notice) is required where the decision to leave has been made. It is critical that if relocation is planned, that it be undertaken well in advance of the approach of the fire front to a predetermined location. Late relocations must be avoided, as they can prove fatal.

Further detail regarding this complex issue (when to leave, who should leave and where to go) and the required community education has been developed by Government following the adoption of recommendations from the Royal Commission. The Royal Commission as expected made recommendations regarding the role of 'safe areas'. Council has adopted a Neighbourhood Safer Places Plan and has previously identified a community relief centres as a 'drop-in-centre' for those that need to evacuate an area **before the passage of fire to a location beyond the expected fire impact area**. An example that would generally be considered 'safe' would be within Mansfield Township where the community centre was made available during 2009. Other Council community and private facilities may also be safe and suitable. As at October 2014 there are twelve (12) locations formally designated by Council as a 'Neighbourhood Safer Place – Place of Last Resort'. Such locations are advised to the public prior to the fire season as part of general fire awareness messages and will also be identified from Council & CFA web sites - see above Sec 7.5 for complete list.

Community Fire Refuges

Council participated in a 2003 research project as a case study involving community representatives and fire authorities which lead to the Victorian Government accepting a policy relating to fire refuges in 2005. This policy has been revisited following the Royal Commission - 2009 and has now lead to revised Policy regarding Fire Refuges (Building).

Council has **undesignated** the former Woods Point Fire Refuge on the advice of the Fire Services Commissioner (2013) and Council with the cooperation of others is seeking te

designate the site as a NSP with the process planned for completion in advance of the 2014 /15 fire season. Updated 31 October 2014
Site Designated as a NSP for 2015/16 season.

Buffer Zones and Construction Standards

Buffer zones are tool used in the treatment of a variety of situations, eg community assets, individual dwellings, golf courses or parks located in a strategic position and high density population areas.

The information contained in Section 7.7.6 in relation to Fire Direction Notices will be the principles applied to allotments. This standard will be varied where specific requirements are identified relating to Wildfire Management Overlays & Building Construction Standards in bushfire prone areas.

Note: Council has completed the process of developing Wildfire Protection overlays. Bushfire Protection zones apply to most of the Municipality requiring Bushfire Attack Level assessment for accommodation buildings.

7.7.2 FUEL REDUCED CORRIDORS, PRIORITY ACCESS ROADS AND FIRE ACCESS ROADS

It is acknowledged that Fire Brigades may identify and undertake treatments on local roads as Fuel Reduced Corridors within their own brigade boundaries, which may not necessarily be identified in the Municipality MFPP. These Fire Prevention works are not always undertaken annually; however all such works are strategic & undertaken specifically to minimise the threat to life and property from uncontrolled wildfire by reducing fuel loads. The works that have been undertaken in the past can be built upon. Fuel reduced corridors form an integral part of the Fire Prevention Planning for the Municipality and their maintenance is supported by this document.

Fire Brigades are encouraged to submit annually prior to the Fire Season, details of Fuel Reduction Works they propose to undertake on roads and/or reserves.

Where referred to, all works are to be undertaken in accordance with the details following.

Fuel Reduced Corridors see 'definitions' section above - must be sufficiently *fuel-reduced* to provide a safe corridor for the travelling public, can provide a means of establishing a control line, will reduce the time of travel and are able to slow the spread of fire on the road reserve particularly in areas of low-fuel levels.

Fuel Reduced Corridors should where applicable have the fine fuel reduced for a distance of 3 m behind the guideposts on either side of the road where practical. All overhanging obstructions less than 5 m above the road pavement must be removed, and dangerous trees/limbs need to be removed to allow the safe passage of fire fighting appliances. They must be inspected annually by the controlling road authority and maintained prior to the fire danger period.

One or all of the following methods can be used to meet the requirements:

(a)   Mowing or slashing a strip at least 3 metres wide on one or both sides of the road reserve, either adjacent to the shoulders of the pavement, or next to or inside the adjoining property, at the appropriate time to prevent regrowth and accumulation of dry slashed material.

(b)   The grading of a strip to bare earth not less than 3 metres wide on both sides of the road reserve adjacent to the shoulders of the pavement. The over burden from the graded break should be spread out or removed to prevent the accumulation of earth and dry vegetation next to the break – not the preferred option.

(c)   The ploughing of an earth strip not less than 2 metres wide on both sides of the road reserve adjacent to the fence-line, - where there has been a past history of ploughing.

(d)   Fuel reduction low intensity burning by fire brigades on a coordinated basis. Fuel reduction burning shall only be required when the fuel load exceeds 4 tonne per hectare. Fuel loadings on the roadsides identified for burning are to be reviewed annually by the Municipality in the spring of each year.

(e)   The spraying of herbicide where other treatments are not practical or cost effective, to create a strip a minimum of 3m wide with little or no vegetation present on both sides of the road reserve adjacent to the shoulders of the pavement. Burning may then follow as required. Spraying of native grasses should be avoided.

(f)   Thinning out of vegetation within the reserve or easement, and removing potentially dangerous trees.

NB Appendix D contains a diagram for typical works on Fuel Reduced Corridors.

Fuel Reduced Corridors are normally identified in Brigade Fire Prevention Plans. Both Council and brigades may undertake works as agreed on these roads as resources permit.

The following Fuel Reduced Corridors have been identified:

- Barjarg Glen Creek Road
- Booroolite Chapel Hill Road
- Buttercup Road - to Greenways Lane
- Cummins Road
- Davies Road Merrijig
- Dry Creek Road
- Eildon Jamieson Road – to Old Eildon Road
- Euroa Merton Road
- Graves Road
- Grammar School Road Merrijig to School gate.
- Hearn's Road
- Howqua Road to Wild Dog Road
- Howqua River Road – to Lauriston's
- Hutchinson Road
- Jenkins Road Macs Cove
- Lake Nillahcootee Road
- Maintongoon Road
- Mansfield Howes Creek Road to Gough's Bay
- Merton Strathbogie Road (For 3.5 km from the Maroondah Highway)
- Monkey Gully Road to Howes Creek Road
- Mountain Bay Drive
- North Creek Road
- Ogilvie Road
- O'Hanlon's Road & onto Banumum Road to Country Club
- Paps Lane to Ford Drive
- Peppin Drive – to Homepoint
- Sonneberg Road
- Warrambat Road

Priority Access Roads see 'definitions' section above are somewhat similar to the fuel reduced corridor in relation to traffic movement but are generally a higher status road that must be sufficiently fuel-reduced to provide a safe corridor, and minimise travel time for the travelling public and emergency service vehicles.

Priority Access Roads must be cleared of all low overhanging obstructions less than 5m above the road pavement and dangerous trees/limbs need to be removed. A 3.0m minimum width fine-fuel reduced area on both sides of the road must abut a clear travelled path that has a 6.0m minimum width.

These roads must be inspected annually by the controlling road authority and maintained prior to the fire danger period.

The following Priority Access Roads have been identified:

- Barwite Road
- Euroa Merton Road Merton
- Mansfield Whitfield Road
- Mansfield Woods Point Road (Mt Buller Road to Jamieson)
- Maroondah Highway
- Midland Highway

- Midland Link
- Mount Buller Road (to Mirimbah)
- Old Tolmie Road (Barwite Road to Mansfield Whitfield Road)
- Old Tolmie Road – add lower section
- Piries Gough's Road To Gough's Bay)

Fire Access Roads

These roads are required to be trafficable during the summer period and often constitute roads with little through traffic and are also likely to be closed during periods of wet weather. They routinely service the farming community and non-residential sites – however are required to provide strategic summer access for fire fighting vehicles. Roads in this category will be maintained by the Council accordingly, prior to the summer period.

The following Fire Access Roads have been identified:

- Long Lane from Old Tolmie Road to Mansfield Whitfield Road– Mansfield
- Little Scullys Lane from Scullys Lane to Mt Buller Road
- Lakins Road from Depot entry to Withers Lane
- Withers Lane North - past Lakins Road
- Paxtons Lane south to Graves Road & Mt Buller Road Mansfield
- Pollards – Delatite winery entry east to Hearns Lane (added 5-04)
- Rifle Butt Road Mansfield– entire length and
- Fire Access Roads Alternate access to / from Sawmill Settlement – providing an alternate entry into or exit from the residential allotments;
  1. Sawmill Settlement emergency access road (3 farm style gates limit day to day access) to/from Overflow Street (Mann Court area) & the link to Christiansen Street (near Mill Court) with Mt Buller Road – (added 5-04)
  This 'route' is to be maintained and fuel reduced to the extent possible to ensure trafficable access and to increase vegetation separation to the carriageway – refer to the Sawmill Settlement Fire Safety Plan – currently under development June 2009.

  2. Sawmill Settlement alternate emergency access Mt Buller Road to/from Pinnacle Road – 'chain' installed to limit routine use.

As always, Brigades are encouraged to review these categories and their listings and recommend additions or alterations.

INCLUSION FOR MFMP - Endorsed by MFMPC, MEMPC and Authorised by Council Resolution on 24 October 2014
Background Statement

DEPI Agreement to access exemptions for native vegetation removal for bushfire purposes, requires a risk assessment to be undertaken to identify priority roads for bushfire treatment.

The Agreement requires that: "A risk assessment is conducted by the road authority under the Interim VicRoads Road Bushfire Risk Assessment Guidelines (Terramatrix 2011) **or an equivalent bushfire risk assessment**……"

The process of identifying Fuel Reduced Corridors and Priority Access Roads in the Municipal Fire Management Plan is as follows and should satisfy DEPIs risk assessment requirement.

High Risk Roads

Fuel Reduced Corridors & Priority Access Roads

High Risk Roads are identified in the Municipal Fire Management Plan as Fuel Reduced Corridors & Priority Access Roads, and have been determined over time with multi –agency input through the Municipal Fire Management Planning Committee (formerly Municipal Fire Prevention Committee) using a risk assessment process.

The combination of the ability of the road manager to prevent and maintain fires on roadsides and manage the safety of road users are critical elements in assessing and identifying high bushfire risk roads.

Roads provide vital access for both emergency services and the public during a fire. While the public are strongly advised not to travel on roads during a bushfire, research shows that many do and people have died because of this. Regardless, there is a general belief that roads will allow people to get somewhere safe during an emergency.

Users of roads during a bushfire whether responding as emergency services or attempting to escape a bushfire or access a Neighbourhood Safer Place, face the possibility of being trapped on the road by a fallen tree or branch, disoriented due to smoke and subject to engulfment of fire with no shelter option available.

With the conservation of native vegetation on road reserves, on many roads within the Shire, the build up of fire fuel often contributes to high to extreme fire hazard rating. Fuel loads of this level have potential to generate fatal levels of radiant heat. The recognized maximum allowable radiant heat flux for occupied vehicles to withstand is 10kW/m2.
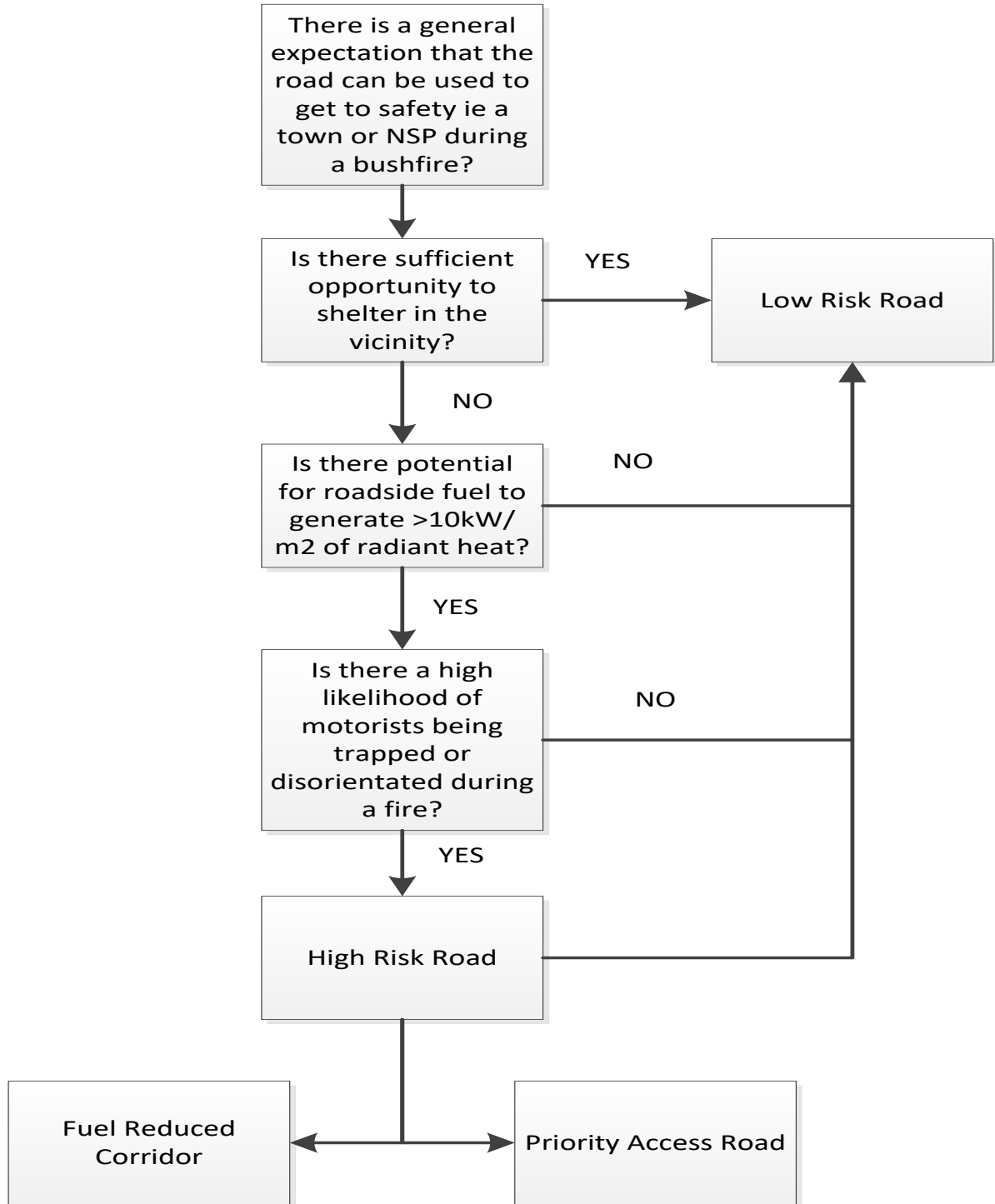
Examples of radiant heat flux:

- **7KW/M2 IS** *"RADIATIVE HEAT FLUX WHICH WILL CAUSE SECOND DEGREE BURNS TO FIREFIGHTERS WEARING PROTECTIVE CLOTHING AFTER 90 SECONDS EXPOSURE"* **(BRAUN ET AL. 1980).**

- **10KW/M2 CAN BE ACHIEVED WITHIN 35M OF GRASS 1M HIGH.**

- **60KW/M2 IS** *"PREDICTED MAXIMUM HEAT FLUX EXPERIENCED BY A FIREFIGHTER STANDING 6M FROM A 21M TALL FLAME"* **(TASSIOS AND PACKHAM 1964)**

- **120,000KW/M2** *"MAXIMUM FIRE INTENSITY OBSERVED IN THE ASH WEDNESDAY FIRES OF 1983"*

Significant work is often required on roadsides to achieve suitable fuel loadings capable of maintaining human life during a fire.

Where high fuel loads, specifically surface and near surface fuels are present the likelihood of ignition by road users is increased. Accidental and deliberate ignitions can occur during the fire season. A spark from a faulty exhaust or a cigarette butt relies on fine fuel to create ignition. Equally the likelihood of fire spread beyond the road reserve is increased as the fire danger rating conditions increase. Much of the municipality has the ability for fire to spread across the landscape regardless of fire prevention planning and actions.

High roadside vegetation fuel loads comprise surface, near surface, elevated and bark fuels. These factors are considered when calculating fire hazard ratings. Adding to the risk are trees or limbs that are dead diseased or defective that have the potential to fall onto the road before or during a bushfire.

There is a general expectation that the road can be used to get to safety ie a town or NSP during a bushfire?

Is there sufficient opportunity to shelter in the vicinity? — **YES** → Low Risk Road

NO

Is there potential for roadside fuel to generate >10kW/m2 of radiant heat? — **NO**

YES

Is there a high likelihood of motorists being trapped or disorientated during a fire? — **NO**

YES

High Risk Road

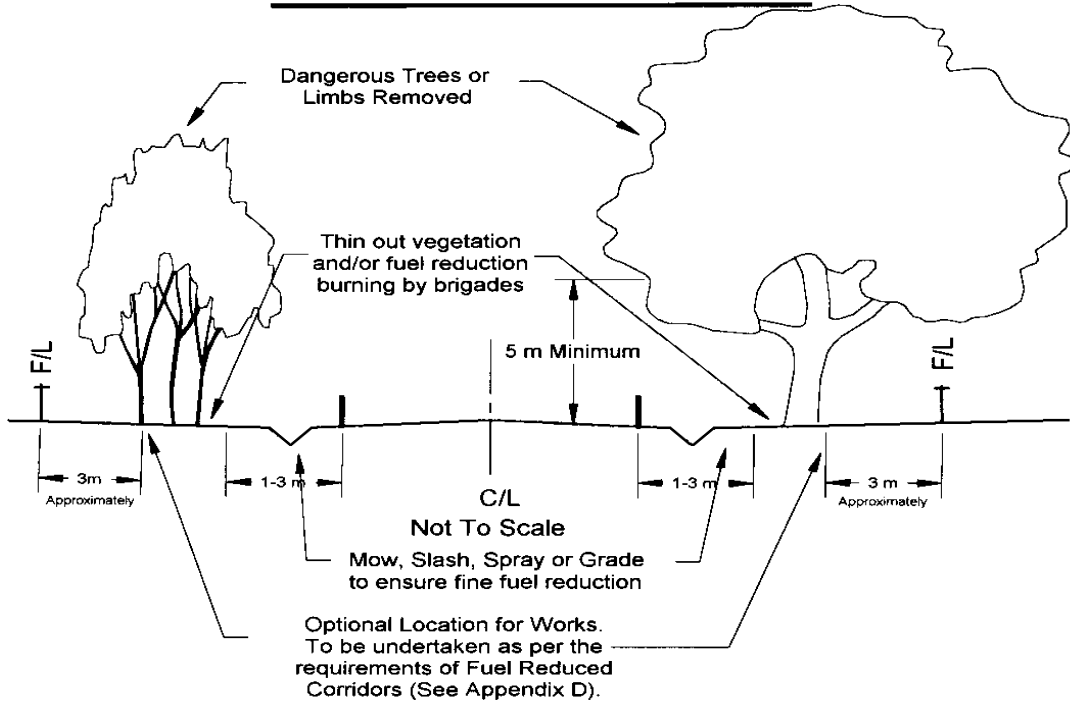Fuel Reduced Corridor ↔ Priority Access Road
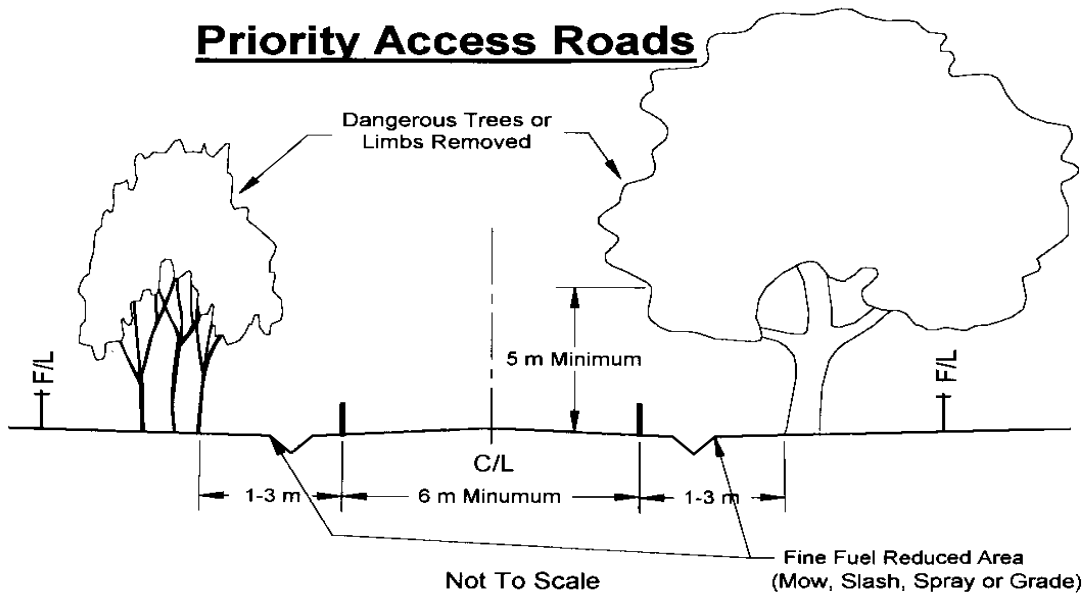
HIGH RISK ROADS
RISK ASSESSMENT

7-51

7.7.3 DIAGRAMS OF TYPICAL WORKS ON ROADS

NOTE: The following diagrams show the optimum desirable situation. It must be noted that this may not be achievable or practical in all situations.

Fuel Reduced Corridors

Priority Access Roads

7.7.4 IDENTIFIED LIMITED ACCESS RURAL AREAS

A1 Settlement	Kevington & Tunnel Bend (south of Kevington) Knockwood Matlock

Bonnie Doon - Ancona Dry Creek Road
      Woolshed Lane
      Sonnberg Rd
      North Creek Road area at
      Ancona
	Merton - Harris Road
	      Shorts Road Upper section of,
	      Penny Lane & Ridge Road
	      O'Briens Road

Enoch Point
 	
Gaffney's Creek
	Tolmie - Cambatong Road
	      Bunstons Road
	      Spring Creek Road

Gough's Bay - the Pines area	Woods Point
Howqua River Road (Past Lauriston Girls School) Jamieson - Paradise Point and most areas south of Jamieson	

7.7.5 FIRE HAZARD REMOVAL / FUEL REDUCTION AND HAZARD ISOLATION

On-going liaison shall be maintained between the MFPO and the local fire brigades to ensure that fire hazards are minimised throughout the year. Council officers shall be instructed to note any occurrence during their normal inspections, which may be thought to constitute a fire hazard. When such a hazard is identified the MFPO will instigate appropriate measures to have the hazard removed.

Fire hazards/risks associated with commercial and industrial properties are also controlled by legislation, such as the Building Code of Australia and the Planning and Environment Act. Where hazards are identified at these locations this specialist legislation should be used, in addition to the powers provided under the CFA Act.

The property owners or occupiers are expected to complete fire hazard removal, reduction and isolation, including the clearing of blocks pursuant to Section 41 of the CFA Act, prior to or as soon as is possible after the introduction of the Declared Fire Danger Period. This must include ongoing maintenance ie.blocks that have been cleared and have regrown.

A public notice shall be placed in any Council bulletin and ongoing communication strategies such as a mail-out to landholders, advising the public as to their responsibilities for the removal of Fire Hazards from private land and the consequences of non compliance and of Council commencing the inspection process. This strategy corresponds with CFA fire awareness activities.

The public notice shall be followed by inspections of the townships and their surrounds involving Shire personnel and may include the Brigade Captains or Brigade Representative where appropriate.

Other allotments will be inspected on an 'as needed' basis and as resources allow.

Depending on seasonal conditions it is expected that the MFPO (and local Fire Brigade Representative if desired) will commence formal inspections of the townships in the late spring, generally in early November, to determine which blocks require clearance. Owners who have not undertaken the works will be issued with a Fire Prevention Notice. Following the expiration of the allowed time for the work to be undertaken (generally 14 days), the MFPO will undertake a further inspection. Property owners who have failed to have the work performed will have the work undertaken by others at the owners expense, at the direction of the MFPO, and will be issued an infringement notice.

Urban Residential Allotments
Urban Residential Allotments should have all the grass, weeds and undergrowth cut to a height of less than 75 mm including all grass up to and against fences, buildings and around trees. However it is recognised that special circumstances may require a variance to this standard. Vegetation may be required to be removed, together with any dead wood or other flammable refuse. The above will apply for the allotments and the adjacent half width of the street

Rural Residential Allotments - Up to 25 Ha

Larger (grassland) allotments, exceeding 1 hectare and less than 25 hectares, should have the fuel reduced by cutting, removing, effective grazing and/or ploughing for a minimum distance of 20 m around dwellings and other assets, and consideration be given to creating a fuel reduced strip around the boundary - particularly if close to other buildings or assets (incl. neighbours) as deemed suitable by MFPO. Spraying, if undertaken at the appropriate time can be used to make these breaks. (Refer below for non-grassland allotments)

Larger Allotments – Greater Than 25 Ha

Where larger allotments adjoin townships the boundary zone adjoining the township shall be maintained in a fuel-reduced condition as deemed suitable by MFPO. The fuel reduced buffer around buildings and other assets on the allotment and adjoining sites as described above must also be implemented.

Rural Dwellings

Rural dwellings should be located and constructed in accordance with the '*Design and Siting Guidelines-Bushfire Protection for Rural Houses. Refer also to Section 7.03*
In Addition;

Forest Areas

In forest areas it is recommended that:

- All flammable vegetation and undergrowth be removed for a safe distance around buildings and other assets (more than the above 20 m standard). Refer to the CFA Wildfire Overlay Applicant Kit for more specific advice & recommendations.
- Trees should be thinned, and cut trees and limbs removed.
- Clumps of dense vegetation should be isolated.
- A 6m minimum width firebreak should be constructed around the perimeter of the property by ploughing or spraying, where practical.

The above may be varied as deemed necessary by the MFPO and Council Planning Provisions must be observed when removing vegetation.

Grassland

In grassland areas, fuel reduction should be undertaken by cutting, grazing or ploughing for a distance of 20 m around buildings and assets and other installations requiring protection. A 3m to 6 m minimum width break around the perimeter of the property should also be undertaken where practical. If necessary the MFPO may issue further directions.

Undeveloped Municipal Reserves and Municipal Public Land

Undeveloped Municipal Reserves and Municipal Public Land in proximity to dwellings should have a fire break or as a minimum, a fuel reduction strip 3 m to 6 m wide, as deemed suitable by MFPO, constructed around the perimeter of the Reserve where practical. This may be varied as deemed necessary by the Municipal Fire Prevention Officer. Access for fire fighting vehicles should be provided. A minimum distance of 20 m fuel reduced area around dwellings and other assets should be provided.

7.7.6 PERMITS TO BURN

The Council will undertake annually a publicity program via the local press to highlight the responsibilities of permit holders and the consequences of non-compliance.

Permits to Burn shall be issued in accordance with the following guidelines. (Seasonal conditions may lead to the need to vary the requirements as listed.)

- Permits to Burn may be issued to individuals up to two weeks after the introduction of the Declared Fire Danger Period. Permits for community burn projects may be issued to fire brigades up to four weeks after the introduction of the Declared Fire Danger Period.

- No Permits to Burn shall be issued to the public between the 24 December and the second Week in February. Private permits will only be issued (from mid-February), if weather conditions are appropriate and subject to consultation between the appropriate Brigade Captain, CFA Regional Officers and the Municipal Fire Prevention Officer. From New Year onwards, Permits to Burn can be issued to a brigade subject to appropriate consultation.

- Applicants will be cautioned on any permit issued that they must consider the prevailing wind direction on the day when selecting the paddocks to be burnt and also the proximity of adjacent roadways and residents and combustible material on neighbouring properties

The procedure for obtaining permits to burn is as follows:

- Permits to Burn shall only be issued for the burning of stubble, grass or other dry vegetation (not for general burning of rubbish).

- If, as stated above it is considered safe for burn offs to be undertaken, the applicant may apply for a permit from the Municipal Fire Prevention Officer or his delegate. The application must include the signature on the form from the relevant Fire Brigade Captain recommending the granting of the permit. This application can be lodged by fax or in person, but must occur before midday of the day prior to the day of the proposed burn off. A copy of the permit (if issued) must then be supplied to the appropriate Brigade nominee by the applicant. The applicant must then notify designated people (see permit) on the day of the burn off.

- Prior to the commencement of the Declared Fire Danger Period Brigades are to notify the Municipal Fire Prevention Officer as to who is the brigade nominated person that Permits to Burn are to be issued to. Where no notification is received, it will be assumed to be the brigade Captain.

- The issuing of permits is at the discretion of the MFPO who is guided by the brigade Captains. Permits shall generally have a time limit of one week.

- No person is permitted to commence burning off until they have the actual Permit to Burn in their possession.

- The MFPO will issue the Permit, and a copy is to be given/sent to the applicant. The applicant must supply a copy to the relevant brigade nominated person and they are to notify the Fire Brigades Group of the intention to burn. Copies of the permit can be faxed if those facilities exist however verbal confirmation of receipt is to be gained. The applicant must notify the contiguous landholders of the proposed burn off.

Permits conditions are as follows:

- The Permit shall include the CFA Area Map Book page number, grid reference, the road on which the property is located and the property number if applicable.

- The Permit shall specify that appropriate fire control equipment (generally a minimum of two units of minimum capacity of 400 litres and two adults) is on hand during the burn. The MFPO may specify more equipment and personnel than the minimum where appropriate.

- CFA policy requires that the CFA Tanker cannot be included in the minimum required fire control equipment as it may be called away.

- The generally accepted <u>minimum</u> width of the required perimeter breaks being 3 m.

- An appropriate form of communication must be carried.

- All pumps and hoses must be well maintained and reliable, fitted with adjustable fog nozzles and have ability to independently refill attached tanks from dams etc.

The burning procedure shall be as follows:

- All breaks must be continually checked and patrolled during the burn off. Trees etc must be lit around as they are reached during the lighting runs and all burning materials must be extinguished as it reaches the break.

- Constant communication between vehicles during the burn off is required to monitor water volumes of each unit and ensure that units **never** run out of water at the same time.

- At the conclusion of all lighting all perimeter breaks, tree breaks etc must be checked and burning material must be extinguished.

- Burnt paddocks must be checked <u>**first thing**</u> the following day, then again later that day.

Note:
- DELWP is responsible for Permits to Burn within the Fire Protected Area.
- A Prohibited Period applies all year round within State Forests, National Parks and Protected Public Land.
- For the 1.5 km margin around State Forests, National Parks and Protected Public Land (except where excised), the Prohibited Period is declared seasonally and where possible is aligned with the (CFA) Fire Danger Period.
- Many parts of the Municipality are within the 1.5 km marginal area adjacent to the Fire Protected Area.
- During the Prohibited Period a landholder intending to burn off property within the Fire Protected Area (*i.e.* within the 1.5 km margin) must obtain a Permit to Burn issued by DELWP.
- Outside the Prohibited Period a landholder intending to burn off property within the Fire Protected Area must notify the Department of their intentions.

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